



Catalogue



Perfect technology
for highest demands

Space for your notes!

Notes





The WISI group

**Committed to
innovation.**



For more than nine decades, WISI has been one of the leading worldwide pioneers in reception and distribution technology.

As a system provider in the product areas of CATV technology, reception and distribution technology, mobile communication and high-frequency plug connections, we have learned during this time not only to stay at the forefront of technological development, but also to turn visions into new quality products at all times.

Converging media, new multimedia offerings and broadband services require intelligent transport routes for their distribution. This is our business. As a developer and technology supplier in the key areas of communications, we are committed to innovation now and in the future.

Industry diversity

- Electrician and specialized reseller
- wholesale
- cable network operators
- broadcasters
- platform operator
- telecommunications providers
- Energy supplier/public utility
- hospitality
- Planners and architects
- integrators
- housing sector

Table of Contents



Terrestrial antennas

VHF-UHF combination antennas

EA 34 15

UHF antennas

EB 22 0297 17
EB 45 LTE 17
EB 67 LTE 17
EE 06 0297 16
EZ 45 LTE 16

FM antennas

UA 05 18
UE 01 18



Mechanical accessories

Roof penetration

NB 10 20
NC 03 21
NC 10 20
NC 11 20
NC 85 B 20
NC 91 A 20
NC 95 A 21
NG 60 21

Wall bracket

MN 03 22
MN 08 22
MN 09 22
MN 10 22
MN 11 22

Rafter fastener

MN 90 A 23

Mast tube

MN 17 B 24
MN 60 A 0300 24



Electrical accessories

Taps/Splitters		
Input splitter		
DC 28 0S4T	26	Splitter CATV 1,3 GHz
DC 28 3S1T	26	DM 02 D.....37
DC 28 4S0T	26	DM 03 D.....37
		DM 04 D.....38
		DM 06 D.....38
		DM 08 D.....38
Output collector		
DC 28 0S4T	27	Splitter SAT
		DM 12 A.....39
Tap CATV 1,3 GHz		DM 13 A.....39
DM 61 A 0006.....	28	DM 14 A.....39
DM 61 A 0008.....	28	DM 16 B.....39
DM 61 A 0010.....	28	
DM 61 A 0012.....	29	Splitter SAT RF
DM 61 A 0016.....	29	DM 50.....39
DM 61 A 0020.....	29	DM 90.....39
DM 62 A 0008.....	30	
DM 62 A 0010.....	30	Grounding accessories
DM 62 A 0012.....	30	NB 0240
DM 62 A 0016.....	31	NB 02 F.....40
DM 62 A 0020.....	31	NB 04 F.....40
DM 63 A 0016.....	31	NB 0540
DM 64 A 0012.....	32	NB 0940
DM 64 A 0016.....	32	
DM 64 A 0020.....	32	Tools
DM 64 A 0024.....	32	DZ 0141
DM 64 A 1316.....	33	DZ 1442
DM 66 A 1318.....	33	DZ 15 2130
DM 68 A 1320.....	33	DZ 8542
		MZ 01.....42
Tap SAT		
DM 51 1010.....	34	Connector
DM 51 1015.....	34	75 Ohm Termination resistor
DM 51 1020.....	34	DV 2443
DM 52 2010.....	34	DV 2543
DM 52 2015.....	34	
DM 52 2020.....	34	F-plug connector
DM 54 A 4010.....	35	DV 5043
DM 54 A 4015.....	35	DV 5443
DM 54 A 4020.....	35	DV 5543
DM 54 A 4025.....	35	
Splitter CATV 1 GHz		F-Crimp connector
DM 02 B	36	DV 8544
DM 03 B	36	DV 9044
DM 04 B	36	DV 9544
DM 06 B	36	DV 9744
DM 08 B	36	
		F-Compression connector
		DV 1045
		Wall-outlet sockets SAT
		DV 1545
		DV 10 N.....45
		DV 14 N.....45
		DV 15 N.....45
		IEC-plug / terminating resistor
		DV 07 0397
		DV 7546
		Adapter
		DV 49 A.....47
		DV 5247
		DV 5347
		Connector
		DV 4547
		DV 4647
		DV 46 HQ
		Wall outlet sockets
		Universal Antenna Sockets
		DB 0748
		DB 0548
		DB 03 A.....48
		DC blocker
		DL 05.....62
		DL 20 A.....62
		Connection Cable
		CATV-Patch cable
		BK 76 0035
		BK 76 0045
		BK 96 0070
		BK 96 0030
		Multimedia wall outlet sockets, individual
		DD 04 M 0650.....50
		Multimedia wall outlet sockets, loop-through
		DD 11 M 0650.....51
		DD 15 M 0650.....51
		DD 19 M 0650.....51
		DD 23 M 0650.....51
		DD 15 HP.....52
		DD 15 TD 650.....53
		DD 15 TD 65A.....54
		DD 17 TD 65A.....54
		Multimedia wall outlet sockets, terminal socket
		DD 09 M 0650.....55

Table of Contents



Coaxial cables



Satellite receiving systems

Installation cable

MK 76 A 0100.....	70
MK 76 A 0101.....	70
MK 76 A 0500.....	70
MK 86 A 0101.....	71
MK 86 A 0250.....	71
MK 91 0250.....	72
MK 91 0500.....	72
MK 91 0252.....	72
MK 91 0100.....	72
MK 96 A 0015.....	73
MK 96 A 0025.....	73
MK 96 A 0100.....	73
MK 96 A 0101.....	74
MK 96 A 0250.....	74
MK 96 A 0500.....	74
MK 96 A 0252.....	74

Wet room cable

MK 15 0500	75
------------------	----

Halogen-free cable

MK 96 AL 100	76
MK 96 AL 500	76
MK 96 AL 252	76

Satellite receiving systems

Parabol offset antennas

OA 13 A	78
OA 10 A	78
OA 85 G	79
OA 85 H	79
OA 85 I	79
OA 100 G	79
OA 100 H	79
OA 100 I	79
OA 36 G	80
OA 36 H	80
OA 36 I	80
OA 38 G	80
OA 38 H	80
OA 38 I	80

Feed systems

OC 01 D	81
OC 02 D	81
OC 04 D	81
OC 06 D	81

Accessories parabol offset antennas

OF 85 0002	82
OF 85 0004	82

Surge protector

DL 400.....	83
-------------	----

Multischalter PROSWITCH

Multiswitch 5 inputs, cascade	
DY 0508	85
DY 0516	86

Multiswitch 9 inputs, cascade

DY 0908	87
DY 0916	88

Multiswitch 17 inputs, cascade

DY 1708	89
DY 1716	90

Amplifiers

DY 40	91
-------------	----



Satellite receiving systems

Splitter SAT RF

DM 50	92
DM 90	92

Accessories

DY 70	93
-------------	----

Multiswitch Flexswitch

Multiswitch 5 inputs, stand alone

DRS 0508	95
DRS 0512	96
DRS 0516	97
DRS 0524	98
DRS 0532	99

Multiswitch 5 inputs, receiver powered

DRR 0508	100
DRR 0516	101

Multiswitch 9 inputs, receiver powered

DRR 0908	102
----------------	-----

Multiswitch 5 inputs, cascade

DRC 0508.....	103
DRC 0512.....	104
DRC 0516.....	105
DRC 0524.....	106
DRC 0532.....	107

Multiswitch 9 inputs, cascade

DRC 0908.....	108
DRC 0912.....	109
DRC 0916.....	110
DRC 0924.....	111
DRC 0932.....	112

Multiswitch 13 inputs, cascade

DRC 1308.....	113
DRC 1312.....	114
DRC 1316.....	115
DRC 1324.....	116
DRC 1332.....	117

Multiswitch 17 inputs, cascade

DRC 1708.....	118
DRC 1712.....	119
DRC 1716.....	120
DRC 1724.....	121
DRC 1732.....	122

Amplifiers

DRA 0505.....	123
DRA 0909.....	124
DRA 1313.....	125
DRA 1717.....	126

Taps / Splitter

DRX 5002	127
DRX 9002	128

Accessories

DRI 0210	129
DRP 1533	129

Optical SAT distribution

Optical feed systems

OL 11 0000	131
OL 13 0000	131

Optical taps

OL 92 0010	132
OL 92 0020	132
OL 92 0030	132
OL 92 0040	132

Optical splitter

OL 91 0002	133
OL 91 0003	133
OL 91 0004	133
OL 91 0008	133
OL 91 0016	133
OL 91 0032	133

Optical converter

OL 21 0003	134
OL 22 0003	134

Optical cables

OL 95 1001	135
OL 95 1003	135
OL 95 1005	135
OL 95 1010	136
OL 95 1015	136
OL 95 1020	136
OL 95 1030	137
OL 95 1040	137
OL 95 1050	137
OL 95 1075	138

Table of Contents



Satellite receiving systems



Channel Processing

Optical cables

OL 95 1100	138
OL 95 1150	138
OL 95 1200	138
OL 95 2030	139
OL 95 2040	139
OL 95 2050	140
OL 95 2075	140
OL 95 2100	140
OL 95 2150	141
OL 95 2200	141
OL 95 4300	141
OL 95 0001	151

Optical multiswitch

OL 41 0008	142
OL 41 0016	143
OL 42 0008	144
OL 42 0016	145

Optical mounting accessories

OL 72 0004	147
OL 82 0002	149
OL 82 0003	149
OL 82 0005	149
OL 82 0010	149
OL 93 0001	150
OL 93 0002	150
OL 57 0001	148
OL 94 0005	150
OL 94 0010	150
OL 94 0015	150
OLPS 0230	151
OL 51 0000	146
OL 55 0000	146
OL 57 0003	148
OL 57 0002	148

Micro Headend

DVB-T/DVB-C Channel Processing

OM 11 0648	155
OM 10 0648	154
OM 10 0646	153
OM 20 0645	156

Compact Headend

Base units

OH 50 R	160
OH 50 A	159
OH 40 A	158

Channel converter

OH 45	162
-------------	-----

Digital modules

OH 89 2	167
OH 88 H	166
OH 86 2	165
OH 85 H	164
OH 84	163
OH 79 2	168

Modulators

OH 38	161
-------------	-----

WISI BOX

OH 16 SC	169
----------------	-----



Amplifiers

Mini Line In-house distribution amplifier

VX 86	173
VX 87	174
VX 81 0S	172
VX 82 0S	172
VX 83 0S	172

Mini Line In-house distribution amplifier 4 outputs

VX 67 B	175
---------------	-----

Midi Line In-house distribution amplifier

VX 88 0P	176
----------------	-----

Home Line In-house distribution amplifier

VX 2015 065	177
VX 45 D 3830	179
VX 45 E	180
VX 45 R 3830	178

Value Line In-house distribution amplifier

VX 16 C 0650	181
VX 19 C 0650	182
VX 24	188
VX 25	189
VX 26 H	190
VX 29 H	191
VX 2022 065	183
VX 2030 065	184
VX 2030 204	185
VX 2035 065	186
VX 2035 204	187
VX 26 M1	192

Value Line accessories

XP 0000	194
XP BOX 01	194
XPU 020	194
VX 27 A	195
VX 27 A 1200	195
XE 29	195
XM 25 0082	194
XM 25 0131	194
VX 201 065	193
VX 201 204	193

Compact Line HFC amplifier

VX 29 BH 80A	196
VX 29 BL 80A	197
VX 56 B	205
VX 57 B	207
VX 53 B	201
VX 52 B	199
VX 52 A	198
VX 53 A	200
VX 54 A	202
VX 55 A	203
VX 56 A	204
VX 57 A	206

Compact Line accessories

VT 21 x xxxx	215
VX 58 0407	208
VX 58 0607	208
XE 20 B 0850	213
XE 20 B 0650	213
XE 50 B 0850	213
XE 50 B 0650	213
XE 50 B 2040	213
XE 51 A	210
XE 52 A	210
XE 52 B	210
XE 51 B	210
XE 57	211
XM 53	212
XM 55	212
XM 56	212
XM 51 A	211
XM 56 B	212
XM 55 B	212
XM 53 B	212
XM 51 B	212
XE 50 A 0650	211
XE 54 A	213

Multiband amplifier

VS 50 PRO	216
VS 30 PRO	216

Table of Contents

Block diagramms

VX 81 05	217
VX 82 05	217
VX 83 05	217
VX 86	217
VX 87	217
VX 88 0P	218
VX 67 B	218
VX 2015	219
VX 45 R 3830	219
VX 45 D 3830	220
VX 45 E	220
VX 16 C 0650	221
VX 19 C 0650	221
VX 2022	222
VX 2030	222
VX 2035	223
VX 24	223
VX 25	223
VX 26 H	224
VX 29 H	224
VX 26 M1	224
VX 29 BH 80A	225
VX 29 BL 80A	225
VX 52 A	225
VX 53 A	225
VX 52 B	226
VX 53 B	226
VX 54 A	226
VX 55 A	226
VX 56 A	227
VX 57 A	227
VX 56 B	227
VX 57 B	227



Contents in alphabetical order

B

BK 76 0035	63	DM 61 A 0020.....	29	DS 39 U 0500	67	MK 76 A 0101	70
BK 76 0045	63	DM 62 A 0008.....	30	DS 50 U 0150	68	MK 76 A 0500	70
BK 96 0070	63	DM 62 A 0010.....	30	DS 50 U 0300	68	MK 86 A 0101	71
BK 96 0030	63	DM 62 A 0012.....	30	DS 50 U 0500	68	MK 86 A 0250	71
		DM 62 A 0016.....	31	DV 24	43	MK 91 0100	72
		DM 62 A 0020.....	31	DV 25	43	MK 91 0250	72
		DM 63 A 0016.....	31	DV 50	43	MK 91 0500	72
		DM 64 A 0012.....	32	DV 54	43	MK 91 0252	72
		DM 64 A 0016.....	32	DV 55	43	MK 96 A 0015	73
		DM 64 A 0020.....	32	DV 85	44	MK 96 A 0025	73
		DM 64 A 0024.....	32	DV 90	44	MK 96 A 0100	73

D

DB 03 A.....	48	DM 64 A 1316.....	33	DV 95	44	MK 96 A 0101	74
DB 05	48	DM 66 A 1318.....	33	DV 97	44	MK 96 A 0250	74
DB 07	48	DM 68 A 1320.....	33	DV 10	45	MK 96 A 0500	74
DB 10 1006	49	DM 90	39	DV 10 N	45	MK 96 A 0252	74
DB 33	56	DRA 0505	123	DV 14 N	45	MK 96 AL 100	76
DB 53	56	DRA 0909	124	DV 15	45	MK 96 AL 500	76
DB 54	57	DRA 1313	125	DV 15 N	45	MK 96 AL 252	76
DB 64	58	DRA 1717	126	DV 07 0397	46	MN 03	22
DD 04 M 0650	50	DRC 0508	103	DV 75	46	MN 08	22
DD 09 M 0650	55	DRC 0512	104	DV 49 A	47	MN 09	22
DD 11 M 0650	51	DRC 0516	105	DV 52	47	MN 10	22
DD 15 M 0650	51	DRC 0524	106	DV 53	47	MN 11	22
DD 15 HP	52	DRC 0532	107	DV 45	47	MN 90 A	23
DD 15 TD 650	53	DRC 0908	108	DV 46	47	MN 17 B	24
DD 15 TD 65A	54	DRC 0912	109	DV 46 HQ	47	MN 60 A 0300	24
DD 17 TD 65A	54	DRC 0916	110	DV 23	59	MZ 01	42
DD 19 M 0650	51	DRC 0924	111	DV 27	59		
DD 23 M 0650	51	DRC 0932	112	DW 41	61		
DD 99	61	DRC 1308	113	DW 42	60		
DL 05	62	DRC 1312	114	DW 44	60		
DL 20 A	62	DRC 1316	115	DW 45	60	NB 10	20
DL 400	83	DRC 1324	116	DW 45 T	60	NB 02	40
DM 02 B	36	DRC 1332	117	DW 49 M	60	NB 02 F	40
DM 03 B	36	DRC 1708	118	DW 49 T	60	NB 04 F	40
DM 04 B	36	DRC 1712	119	DY 0508	85	NB 05	40
DM 06 B	36	DRC 1716	120	DY 0516	86	NB 09	40
DM 08 B	36	DRC 1724	121	DY 0908	87	NC 10	20
DM 02 D	37	DRC 1732	122	DY 0916	88	NC 11	20
DM 03 D	37	DRI 0210	129	DY 1708	89	NC 85 B	20
DM 04 D	38	DRP 1533	129	DY 1716	90	NC 91 A	20
DM 06 D	38	DRR 0508	100	DY 40	91	NC 03	21
DM 08 D	38	DRR 0516	101	DY 70	93	NC 95 A	21
DM 12 A	39	DRR 0908	102	DZ 41	61	NG 60	21
DM 13 A	39	DRS 0508	95	DZ 01	41		
DM 14 A	39	DRS 0512	96	DZ 14	42		
DM 16 B	39	DRS 0516	97	DZ 15 2130	42		
DM 17 A	27	DRS 0524	98	DZ 85	42		
DM 50	39	DRS 0532	99				
DM 51 1010	34	DRX 5002	127				
DM 51 1015	34	DRX 9002	128				
DM 51 1020	34	DS 35 0035	64				
DM 52 2010	34	DS 35 0050	64				
DM 52 2015	34	DS 37 U 0150	65	EA 34	15		
DM 52 2020	34	DS 37 U 0250	65	EB 22 0297	17		
DM 54 A 4010	35	DS 37 U 0300	65	EB 45 LTE	17		
DM 54 A 4015	35	DS 37 U 0500	65	EB 67 LTE	17		
DM 54 A 4020	35	DS 38 U 0150	66	EE 06 0297	16		
DM 54 A 4025	35	DS 38 U 0250	66	EZ 45 LTE	16		
DM 61 A 0006	28	DS 38 U 0300	66				
DM 61 A 0008	28	DS 38 U 0500	66				
DM 61 A 0010	28	DS 39 U 0150	67				
DM 61 A 0012	29	DS 39 U 0250	67				
DM 61 A 0016	29	DS 39 U 0300	67				

N

NB 10	20
NB 02	40
NB 02 F	40
NB 04 F	40
NB 05	40
NB 09	40
NC 10	20
NC 11	20
NC 85 B	20
NC 91 A	20
NC 03	21
NC 95 A	21
NG 60	21

O

OA 13 A	78
OA 10 A	78
OA 85 G	79
OA 85 H	79
OA 85 I	79
OA 100 G	79
OA 100 H	79
OA 100 I	79
OA 36 G	80
OA 36 H	80
OA 36 I	80
OA 38 G	80
OA 38 H	80
OA 38 I	80
OC 01 D	81
OC 02 D	81
OC 04 D	81

E

EA 34	15
EB 22 0297	17
EB 45 LTE	17
EB 67 LTE	17
EE 06 0297	16
EZ 45 LTE	16

M

MK 15 0500	75
MK 76 A 0100	70

OC 06 D	81
OF 85 0002	82
OF 85 0004	82
OH 40 A	158
OH 50 A	159
OH 50 R.....	160
OH 38.....	161
OH 45.....	162
OH 84.....	163
OH 85 H	164
OH 86 2.....	165
OH 88 H	166
OH 89 2.....	167
OH 79 2.....	168
OH 16 SC	169
OL 11 0000	131
OL 13 0000	131
OL 21 0003	134
OL 22 0003	134
OL 41 0008	142
OL 41 0016	143
OL 42 0008	144
OL 42 0016	145
OL 51 0000	146
OL 55 0000	146
OL 57 0003	148
OL 57 0002	148
OL 57 0001	148
OL 72 0004	147
OL 82 0002	149
OL 82 0003	149
OL 82 0005	149
OL 82 0010	149
OL 91 0002	133
OL 91 0003	133
OL 91 0004	133
OL 91 0008	133
OL 91 0016	133
OL 91 0032	133
OL 92 0010	132
OL 92 0020	132
OL 92 0030	132
OL 92 0040	132
OL 93 0001	150
OL 93 0002	150
OL 94 0005	150
OL 94 0010	150
OL 94 0015	150
OL 95 0001	151
OL 95 1001	135
OL 95 1003	135
OL 95 1005	135
OL 95 1010	136
OL 95 1015	136
OL 95 1020	136
OL 95 1030	137
OL 95 1040	137
OL 95 1050	137
OL 95 1075	138
OL 95 1100	138
OL 95 1150	138
OL 95 1200	138
OL 95 2030	139
OL 95 2040	139

OL 95 2050	140
OL 95 2075	140
OL 95 2100	140
OL 95 2150	141
OL 95 2200	141
OL 95 4300	141
OLPS 0230.....	151
OM 10 0646.....	153
OM 10 0648.....	154
OM 11 0648.....	155
OM 20 064S.....	156

U

UA 05.....	18
UE 01	18

V

VS 50 PRO	216
VS 30 PRO	216
VT 21 x xxxx.....	215
VX 81 OS	172
VX 16 C 0650.....	181
VX 19 C 0650.....	182
VX 24	188
VX 25	189
VX 26 H.....	190
VX 27 A.....	195
VX 27 A 1200.....	195
VX 29 H.....	191
VX 26 M1	192
VX 29 BH 80A	196
VX 29 BL 80A	197
VX 45 R 3830	178
VX 45 D 3830.....	179
VX 45 E	180
VX 52 A.....	198
VX 52 B	199
VX 53 A.....	200
VX 53 B	201
VX 54 A.....	202
VX 55 A.....	203
VX 56 A.....	204
VX 56 B	205
VX 57 A	206
VX 57 B	207
VX 58 0407	208
VX 58 0607	208
VX 67 B	175
VX 82 OS	172
VX 83 OS	172
VX 86	173
VX 87	174
VX 88 OP	176
VX 201 204	193
VX 201 065	193
VX 2015 065	177
VX 2022 065	183
VX 2030 065	184
VX 2030 204	185
VX 2035 065	186
VX 2035 204	187

X

XE 29.....	195
XE 20 B 0850.....	213
XE 20 B 0650.....	213
XE 50 A 0650	211
XE 50 B 0850.....	213
XE 50 B 0650.....	213
XE 50 B 2040	213
XE 51 A	210
XE 51 B	210
XE 52 A	210
XE 52 B	210
XE 54 A	213
XE 57	211
XM 25 0082	194
XM 25 0131	194
XM 51 A	211
XM 51 B	212
XM 53	212
XM 53 B	212
XM 55	212
XM 55 B	212
XM 56	212
XM 56 B	212
XP 0000...XP0020.....	194
XP BOX 01	194
XPU 020	194

More product platforms from WISI



Channel processing TANGRAM

TANGRAM

Maximum performance with minimum footprint



TANGRAM DVB-IP Gateway and Edge Solutions

The **TANGRAM platform** is a professional and especially flexible DVB compliant signal processing and distribution platform in a compact 1 height unit design. The headend is used for the playout of analogue and digital TV/radio content and feed into various access networks such as HFC, IP or FTTx.

At a glance:

- Excellent price-performance ratio due to highest density and low power consumption
- Very high reliability due to fully redundant Concept and operationally interchangeable fans & power supplies
- Great versatility for building up your promising TV network: IP, DVB-C, ASI, DVB-T/T2/S/S2, DVB-T2-MI, PAL, NTSC, SECAM, FM, ISDB-T, ATSC



Channel processing Chameleon

CHAMELEON

A Single Hardware Multi Software Headend

Low power consumption
reduces operating costs

Pro:Idiom Encryption
for the protection of
premium content

Reduction of system
complexity through **highly**
dense function blocks

Advanced
PSI/SI Preparation



Software-based headend solution

WISI Chameleon is an extremely flexible headend that requires only one type of module. The integrated modules can change their function as required. They are suitable for all current and future applications and are ideally suited for the transition from the analog to the digital world as well as for feeding into HFC and IP distribution platforms.

At a glance:

- One hardware for all applications
- Flexibility through software applications
- Scalability in function and installation size
- Stability in operation
- Easy installation, commissioning and operation
- Excellent performance, also suitable for large network operators
- Redundant power supply units guarantee the overall availability of the system

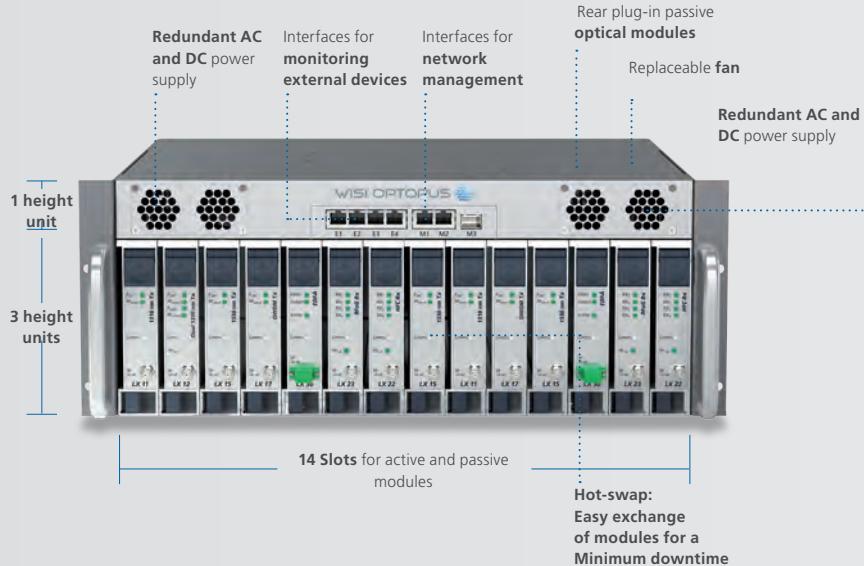




Optical transmission platform Optopus

OPTOPUS

Optical platform for HFC and FTTx



The Optopus transmission system from WISI is a flexible platform with a very high port density for all optical transmission applications in broadband networks. The system can be used in all network types such as HFC, RF over Glass (RFoG), RF Overlay and FTTx.

Optopus was developed to meet the high demands of today's transmission networks. Features such as redundant power supplies, hot-swappable ventilation units and advanced network management meet all the requirements of a professional network operator.

The **Optopus platform** offers a maximum of flexibility for the realization of the desired application with a wide range of plug-in modules.

14 slots in 3+1 height units (HE) are possible, for example, with up to 28 optical transmitters, 56 return path receivers and in mix.

At a glance:

- Fully modular concept
- Reduced maintenance effort due to module replacement during operation
- „Backplates“ reduce interruption times
- Extended module service life due to dust-free Cooling without fan in the module
- Easy installation and operation
- Integrated WDM filters in the modules
- Redundant power supply units guarantee high overall Availability of the system



The multiscreen video revolution INCA

Intelligent video transcoding platform

INCA Adaptive Bitrate Transcoder 3840 ABR

Inca's adaptive bitrate transcoder delivers high-quality transcoding of HD and SD services for over-the-top delivery to multiscreen devices. The hardware transcoding of the 3840 provides a pre-installed density that enables operators to plan their projects safely.

The 3840 adaptive bit rate transcoder enables seamless integration with the Inca Multiscreen Package & Origin Server and other third parties. Streams up to 100 ABR profiles to set-top boxes, televisions, smartphones and tablets with HLS and supports up to 1800 concurrent clients or Scaling via a CDN or proxy server.

At a glance:

- Adaptive bit rate transcoding
- Unique hardware and license model
- Intelligent redundancy options
- Future-proof technology
- Advanced visual monitoring - All Seeing Eye Integration



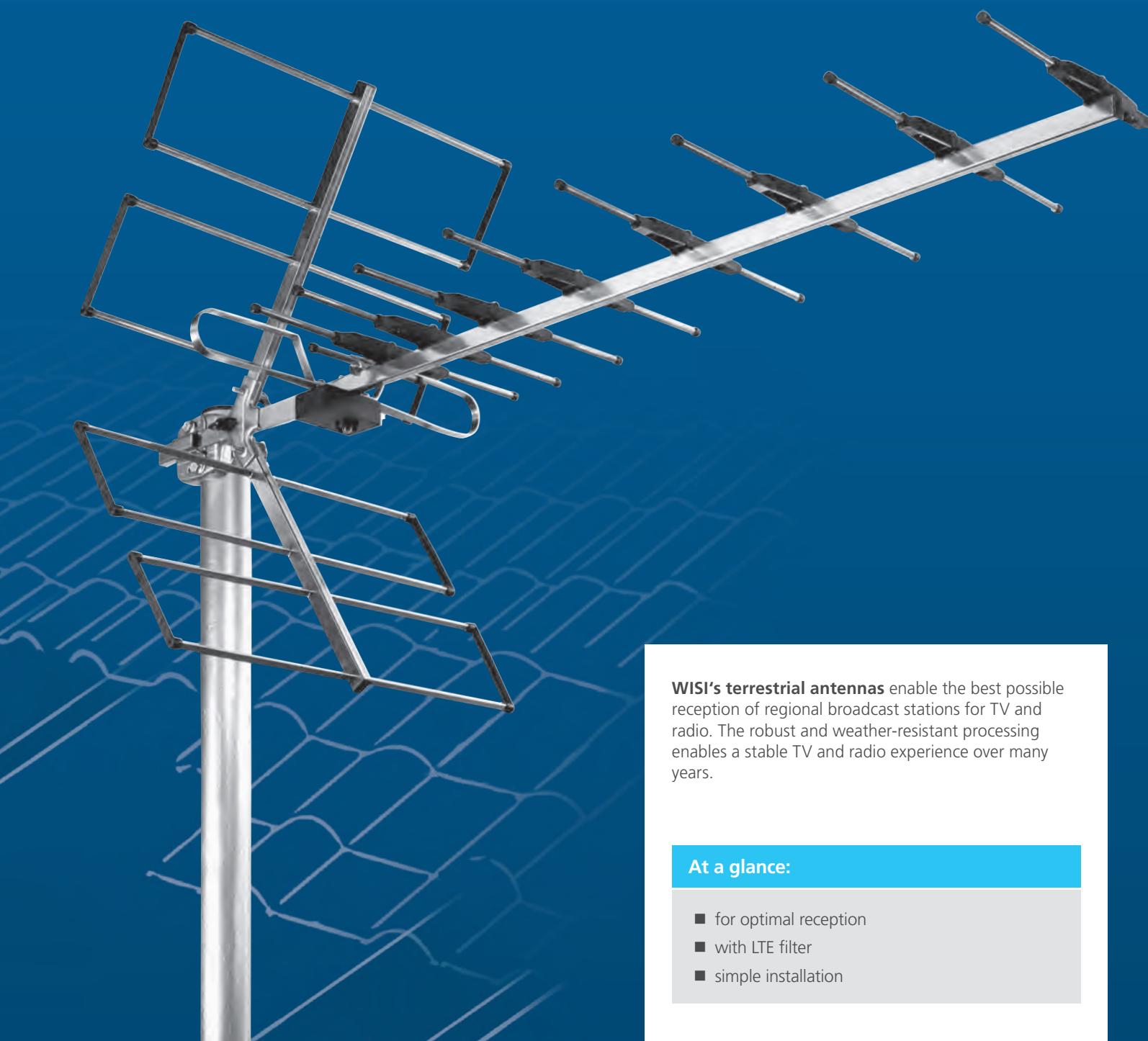
You will find these and other interesting products for implementing your individual reception and distribution solution in the **WISI online catalogue** and the **WISI product brochures**.



Terrestrial antennas

WISI terrestrial antennas:

Reliable regional reception.



WISI's terrestrial antennas enable the best possible reception of regional broadcast stations for TV and radio. The robust and weather-resistant processing enables a stable TV and radio experience over many years.

At a glance:

- for optimal reception
- with LTE filter
- simple installation

VHF-UHF combination antennas

EA 34

VHF-UHF combination antenna



characteristics

- VHF-UHF combination antenna
- DVB-T and DVB-T2 reception
- Suitable for DAB+

Technical Data

Channels	E 5...12, L 05...10/21...69 (VHF III/UHF)
Frequency range VHF	174...230 MHz
Frequency range UHF	470...862 MHz
Polarization	horizontal/vertikal
Elements	6/36 pcs. (VHF III/UHF)
Gain	6,5/12,5 dB (VHF III/UHF)
Forward/backward ratio	>20 dB
Aperture angle horizontal	65/35 ° (VHF III/UHF)
Aperture angle vertikal	92/40 ° (VHF III/UHF)
Wind load horizontal	111.5 N
Wind load vertical	77 N

Connectors

F-socket	1 pcs.
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General data

Length	1285 mm
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The antenna EA34 is a combination antenna. The reception areas are VHF III and UHF. The polarization is horizontal and the inclination adjustable.



UHF antennas

EE 06 0297

UHF aerial channels 21...69



EZ 45 LTE

UHF antenna, channels 21...60, with LTE filter, 41 elements



Technical Data

Channels	21...69 (UHF)
Frequency range UHF	470...862 MHz
Polarization	horizontal/vertikal
Gain	14.5 dB (max.)
Forward/backward ratio	>25 dB
Aperture angle horizontal	46 °
Aperture angle vertikal	27 °
Wind load horizontal	107 N
Wind load vertical	107 N
Connectors	
F-socket	1 pcs.
General data	
Dimensions (width x height x depth)	645 x 830 x 260 mm

Technical Data

Channels	21...60 (UHF, with LTE filter)
Frequency range UHF	470...790 MHz
Polarization	horizontal/vertikal
Elements	38 pcs.
Gain	15 dB (max.)
Forward/backward ratio	>28 dB
Aperture angle horizontal	35 °
Aperture angle vertikal	42 °
Wind load horizontal	76 N
Wind load vertical	114 N
Connectors	
F-socket	1 pcs.
General data	
Length	1140 mm

characteristics

- DVB-T and DVB-T2 reception
- Broadband UHF Antenna
- Horizontal or vertical polarization

characteristics

- DVB-T and DVB-T2 reception
- LTE protected
- Horizontal and vertical polarization
- Adjustable angle

UHF antennas

EB 22 0297

UHF antenna channels
21...69



EB 45 LTE

UHF antenna, channels
21...60, with LTE filter, 28
elements



EB 67 LTE

UHF antenna, channels
21...60, with LTE filter, 41
elements



Technical Data

Channels	21...69 (UHF)	21...60 (UHF, with LTE filter)	21...60 (UHF, with LTE filter)
Frequency range UHF	470...862 MHz	470...790 MHz	470...790 MHz
Polarization	horizontal/vertikal	Horizontal	Horizontal
Elements	16 pcs.	28 pcs.	41 pcs.
Gain	11 dB (max.)	13 dB (max.)	15.5 dB (max.)
Forward/backward ratio	>20 dB	>20 dB	>26 dB
Aperture angle horizontal	49 °	40 °	29 °
Aperture angle vertikal	59 °	48 °	34 °
Wind load horizontal	46 N	32 N	34 N
Wind load vertical	61 N	43 N	62 N
Connectors			
F-socket	1 pcs.	1 pcs.	1 pcs.
General data			
Length	443 mm	1040 mm	1960 mm

FM antennas

UA 05

UKW directional antenna

UE 01

UKW cross dipole antenna

characteristics

- For mast diameters from 34...60 mm



Technical Data

Channels	UKW (directional antenna)	UKW (crossed dipole antenna)
Frequency range UKW	87,5...108 MHz	87,5...108 MHz
Elements	3 pcs.	2 pcs.
Gain	5 dB (max.)	-3 dB (max.)
Forward/backward ratio	12 dB	0 dB
Aperture angle horizontal	70 °	360 °
Wind load horizontal	63.8 N	22.1 N
Connectors		
F-socket	1 pcs.	1 pcs.
General data		
Length	860 mm	- mm
Mast clamp diameter	34...60 mm	34...60 mm



Mechanical accessories

WISI mechanical accessories:
**Perfect reception
in all weather conditions.**

..... **3 mm** wall thickness

..... **60 mm** diameter

..... **easy** adjustment

..... Square telescopic tube
made of steel

..... Mounting with
construction approval



WISI offers the complete range of solutions for the installation of Satellite and Terrestrial antenna systems. This ranges from simple sealing tape to highly stable and weather-resistant rafter rafters.

At a glance:

- supports larger antenna diameters
- suitable for all tiled roofs
- easiest handling
- particularly suitable for roofs with thermal insulation

Roof penetration

NB 10

Mast foot



NC 85 B

Roof hood



NC 91 A

Sealing strip



Technical Data

Material	Galvanized steel
Wall thickness	3 mm
Hole distance	76 mm
Hole diameter	9 mm
Dimensions (width x height x depth)	96 x 60 x 66 mm
For mast with Ø	60 mm (until)

Technical Data

Material	Die cast threading
Wall thickness	0.3 mm
Dimensions (width x height x depth)	385 x 150 x 420 mm
For mast with Ø	60 mm

Technical Data

Material	Tightening tape. Not to be used when temperature below 5°C.
For mast with Ø	80 mm (until)

NC 10

Mast clamp till 45 mm



NC 11

Mast clamp till 50 mm



Technical Data

Material	Steel
Hole diameter	9 mm
For mast with Ø	42...45 mm

Technical Data

Material	Steel
Hole diameter	9 mm
For mast with Ø	46...50 mm

Roof penetration

NC 95 A

Pole casing



NC 03

Mast cap



NG 60

Mast fitting kit



Technical Data

Material	plastic
For mast with Ø	44...48 mm

Technical Data

Material	weather-proof plastic
For mast with Ø	37...48 mm

Technical Data

Included in the set	Mast cap, Pole casing, Mast foot, Roof hood, Mast clamp
For mast with Ø	60 mm



Wall bracket

MN 08

Wall bracket



MN 09

Wall bracket



MN 10

Wall bracket



MN 11

Wall bracket



characteristics

- Angle wall bracket for parabolic antennas
- Mast diameter 50 mm

Technical Data

Material	Aluminium	Aluminium	Aluminium	Aluminium
Mast diameter	50 mm	50 mm	50 mm	50 mm
Mast length	345 mm	345 mm	345 mm	345 mm
Wall thickness	2.5 mm	2.5 mm	2.5 mm	2.5 mm
Wall distance	200 mm	500 mm	400 mm	300 mm
Hole distance	125 mm	125 mm	125 mm	125 mm
Hole diameter	10 mm	10 mm	10 mm	10 mm
Base plate	175 x 175 mm			

MN 03

Wall bracket



Technical Data

Material	Steel hot galvanized, Top or bottom installation
Wall distance	220 mm
Hole distance	355 mm
Hole diameter	11 mm
For mast with Ø bracket distance	80 mm (until) 300...400 mm

Rafter fastener

MN 90 A

Rafter fastener



characteristics

- Bending moment of min 1100Nm in all directions. Currently the strongest holder on the market. A 100 cm antenna is possible.
- mast tube with Ø 60 mm
- wall thickness 3 mm and a height from 90 cm
- 8x fastening element with construction approval
- for rafter spacing to 800 mm
- for roof pitch from 25-56°
- Precise and strong positioning for bi-directional and powerful Internet reception via satellite (e.g. for the systems Filiago, skyDSL, sat_speed).
- no wobbling with bigger rafter distances
- Rafter and between rafter solution.

Technical Data

Material	Tubes: galvanized steel; clamp: diecast aluminum
Mast diameter	60 mm
Mast length	900 mm
Wall thickness	3 mm
Roof bar spacing	800 mm (max.)
Roof pitch	24...56 °
Bending force	1100 Nm

The MN 90 A is a rafter fastener. With its high bending moment from min 1100 Nm in all directions, it is the most stable holder on the market. A 100 cm antenna is possible. The mast tube's diameter is 60 mm and is suitable for a roof pitch of 25° to 56°. Thanks to 8 fixing elements with a certification for construction industry, there is no wobble at larger distances between the rafters (up to 800 mm). Thanks to a precise and stable orientation, powerful bidirectional Internet is guaranteed via satellite. The wall thickness is 3 mm and the height 90 mm.

Scope of delivery

- mast 90 cm
- mast clamping
- telescopic tube
- 4 screws 10 x 100 mm, SW 17
- 8 TORX- flat head screw 8x 120 mm
- installation instructions



Mast tube

MN 17 B

Telescopic mast



MN 60 A 0300

Mast tube



Technical Data

Material	Steel hot galvanized, guide groove	Steel hot galvanized, EN ISO 1461
Mast diameter	48 mm	60 mm
Mast length	2000 mm	3000 mm
Wall thickness	2 mm	2 mm
Bending force	1650 Nm (max.)	1100 Nm
Weight	4,8 kg	8,55 kg



Electrical accessories

WISI electrical accessories:
Always the perfect connection.



WISI cables, plugs and sockets are perfectly matched to each other so that they achieve consistently high shielding. They are quick and easy to install, have excellent performance characteristics.

The WISI connectors are characterised by a very high manufacturing quality, which not only has a positive effect on the signal quality and low power losses, but also on the simple assembly. WISI also offers the necessary tools for this. Thanks to the adapters in our range, there is hardly a coaxial connector that cannot be realized with WISI connectors. The WISI system gives you maximum flexibility.

At a glance:

- suitable for all cable types
- high-grade workmanship
- easy handling

Input splitter

DC 28 0S4T

Input splitter

characteristics

- 4x 7 terrestrial outputs
- DC-bypass for the LNB-supply (SAT)
- 19" input distributor for channel processing systems



DC 28 3S1T

Input splitter



DC 28 4S0T

Input splitter



Technical Data

Input

Numer SAT	- pcs.	21 pcs.	28 pcs.
Number TERR	28 pcs.	7 pcs.	- pcs.
Frequency range SAT	- MHz	920...2150 MHz	920...2150 MHz
Frequency range TERR	45...862 MHz	45...862 MHz	- MHz
Output			
Output return loss	>15 dB	>12/>15 dB (SAT/TERR)	>12 dB
Through loss	<13 dB (± 1 dB)	<14/<13 dB (SAT: $\pm 2,5$ dB/TERR: ± 1 dB)	<14 dB ($\pm 2,5$ dB)
Isolation	>25 dB	>23/>25 dB (SAT/TERR)	>23 dB

Connectors

F-socket	32 pcs.	32 pcs.	32 pcs.
General data			
Power passing	- V DC	<21 V DC (only SAT)	<21 V DC
Power passing	- A	<1,5 A (only SAT)	<1,5 A
Dimensions (width x height x depth)	483 x 44 x 51 mm	483 x 44 x 51 mm	483 x 44 x 51 mm
Operating temperature range	-20...+55 °C	-20...+55 °C	-20...+55 °C

Output collector

DM 17 A

Passive headend combiner



Technical Data	
Frequency range	5...1000 MHz
Input impedance	75 Ω
Input return loss	>18 dB typ., min. 14 dB
Number of taps	12
Output impedance	75 Ω
Output return loss	>18 dB typ., min 13 dB
Tap loss IN-Out	1...12 < 18 dB ($\pm 1,5$ dB)
Amplitude response (O-E)	<1,5 dB
Isolation Out-Out	>40 dB typ., min. 36 dB
Test Port	-20 dB
RF-screening	>110 dB
Power passing	none
General data	
Dimensions (width x height x depth)	483 x 44 x 124 mm
Temperature range	-20...+55 °C
Connectors	
Output	1x F-connector
Input	12x F-connector
Test	1x F-connector

characteristics

- Compact design, rack mounted
- High isolation
- Low insertion loss
- full bandwidth from 5...1000 MHz
- Front panel test port for easy monitoring

A DM 17 A is a passive headend combiner. Because of its compact construction it is possible to install it in a cabinet. The frequency range is 5...1000 MHz and it has a low insertion loss. The input and output impedance amounts to 75 Ohm. A test connection in F-technology is available on the front for easy monitoring.

Tap CATV 1,3 GHz

DM 61 A 0006

TAP symmetrical 1,3 GHz,
1-way, 6 dB



characteristics

- Frequency range from 5...1300 MHz (DOCSIS 3.1 capable)
- Screening factor according to Class A (+10 dB)
- High intermodulation suppression
- Very high port isolation and return loss
- Approved by Vodafone Kabel Deutschland



DM 61 A 0008

TAP symmetrical 1,3 GHz,
1-way, 8 dB



DM 61 A 0010

TAP symmetrical 1,3 GHz,
1-way, 10 dB



Technical Data

	Frequency range	5...1300 MHz	5...1300 MHz	5...1300 MHz
Through loss				
5...65 MHz	2,2 dB ($\pm 0,5$ dB)	1,5 dB ($\pm 0,3$ dB)	1,2 dB ($\pm 0,3$ dB)	
65...470 MHz	2,2 dB ($\pm 0,5$ dB)	1,5 dB ($\pm 0,3$ dB)	1,2 dB ($\pm 0,3$ dB)	
470...862 MHz	2,4 dB ($\pm 0,5$ dB)	1,8 dB ($\pm 0,3$ dB)	1,4 dB ($\pm 0,5$ dB)	
862...1006 MHz	2,5 dB ($\pm 0,5$ dB)	2,0 dB ($\pm 0,5$ dB)	1,6 dB ($\pm 0,5$ dB)	
1006...1300 MHz	3,0 dB ($\pm 0,8$ dB)	2,2 dB ($\pm 0,5$ dB)	1,8 dB ($\pm 0,5$ dB)	
TAP loss				
5...65 MHz	6 dB ($\pm 1,5$ dB)	8 dB ($\pm 1,5$ dB)	10 dB ($\pm 1,0$ dB)	
65...470 MHz	6 dB ($\pm 1,0$ dB)	8 dB ($\pm 1,0$ dB)	10 dB ($\pm 1,0$ dB)	
470...862 MHz	6 dB ($\pm 1,0$ dB)	8 dB ($\pm 1,0$ dB)	10 dB ($\pm 1,0$ dB)	
862...1006 MHz	6 dB ($\pm 1,0$ dB)	8 dB ($\pm 1,0$ dB)	10 dB ($\pm 1,0$ dB)	
1006...1300 MHz	6 dB ($\pm 1,5$ dB)	8 dB ($\pm 1,5$ dB)	10 dB ($\pm 1,0$ dB)	
Isolation				
5...65 MHz	>24,0 dB	>24,0 dB	>25,0 dB	
65...470 MHz	>25,0 dB	>30,0 dB	>30,0 dB	
470...862 MHz	>22,0 dB	>26,0 dB	>22,0 dB	
862...1006 MHz	>22,0 dB	>22,0 dB	>22,0 dB	
1006...1300 MHz	>20,0 dB	>20,0 dB	>20,0 dB	
Return loss				
5...65 MHz	>22,0 dB	>22,0 dB	>22,0 dB	
65...470 MHz	>20,0 dB	>20,0 dB	>20,0 dB	
470...862 MHz	>18,0 dB	>18,0 dB	>18,0 dB	
862...1006 MHz	>18,0 dB	>18,0 dB	>18,0 dB	
1006...1300 MHz	>16,0 dB	>16,0 dB	>16,0 dB	
Connectors				
F-socket	3 pcs. (1x Input, 1x Loop through output, 1x TAP output)	3 pcs. (1x Input, 1x Loop through output, 1x TAP output)	3 pcs. (1x Input, 1x Loop through output, 1x TAP output)	
General data				
Screening factor	Class A (+10 dB), according to EN 50083-2	Class A (+10 dB), according to EN 50083-2	Class A (+10 dB), according to EN 50083-2	
Intermodulation ratio	120 dB μ V according to EN 60728-4	120 dB μ V according to EN 60728-4	120 dB μ V according to EN 60728-4	
DC Bypass IN/OUT	No	No	No	
Dimensions (width x height x depth)	47,5 x 25,5 x 49,5 mm	47,5 x 25,5 x 49,5 mm	47,5 x 25,5 x 49,5 mm	

Tap CATV 1,3 GHz

DM 61 A 0012

TAP symmetrical 1,3 GHz,
1-way, 12 dB



characteristics

- Frequency range from 5...1300 MHz (DOCSIS 3.1 capable)
- Screening factor according to Class A (+10 dB)
- High intermodulation suppression
- Very high port isolation and return loss
- Approved by Vodafone Kabel Deutschland



DM 61 A 0016

TAP symmetrical 1,3 GHz,
1-way, 16 dB



DM 61 A 0020

TAP symmetrical 1,3 GHz,
1-way, 20 dB



Technical Data

	Frequency range	5...1300 MHz	5...1300 MHz	5...1300 MHz
Through loss				
5...65 MHz	0,8 dB ($\pm 0,2$ dB)	0,4 dB ($\pm 0,2$ dB)	0,4 dB ($\pm 0,2$ dB)	0,4 dB ($\pm 0,2$ dB)
65...470 MHz	0,8 dB ($\pm 0,3$ dB)	0,4 dB ($\pm 0,2$ dB)	0,4 dB ($\pm 0,2$ dB)	0,6 dB ($\pm 0,3$ dB)
470...862 MHz	0,8 dB ($\pm 0,3$ dB)	0,6 dB ($\pm 0,3$ dB)	0,6 dB ($\pm 0,3$ dB)	0,8 dB ($\pm 0,3$ dB)
862...1006 MHz	1,0 dB ($\pm 0,5$ dB)	0,8 dB ($\pm 0,5$ dB)	0,8 dB ($\pm 0,3$ dB)	0,8 dB ($\pm 0,3$ dB)
1006...1300 MHz	1,5 dB ($\pm 0,8$ dB)	1,0 dB ($\pm 0,8$ dB)	0,8 dB ($\pm 0,5$ dB)	0,8 dB ($\pm 0,5$ dB)
TAP loss				
5...65 MHz	12 dB ($\pm 1,0$ dB)	16 dB ($\pm 1,0$ dB)	20 dB ($\pm 1,0$ dB)	20 dB ($\pm 1,0$ dB)
65...470 MHz	12 dB ($\pm 1,0$ dB)	16 dB ($\pm 1,0$ dB)	20 dB ($\pm 1,0$ dB)	20 dB ($\pm 1,0$ dB)
470...862 MHz	12 dB ($\pm 1,0$ dB)	16 dB ($\pm 1,0$ dB)	20 dB ($\pm 1,0$ dB)	20 dB ($\pm 1,0$ dB)
862...1006 MHz	12 dB ($\pm 1,0$ dB)	16 dB ($\pm 1,0$ dB)	20 dB ($\pm 1,0$ dB)	20 dB ($\pm 1,0$ dB)
1006...1300 MHz	12 dB ($\pm 1,0$ dB)	16 dB ($\pm 1,0$ dB)	20 dB ($\pm 1,0$ dB)	20 dB ($\pm 1,0$ dB)
Isolation				
5...65 MHz	>25,0 dB	>32,0 dB	>35,0 dB	>35,0 dB
65...470 MHz	>30,0 dB	>32,0 dB	>35,0 dB	>35,0 dB
470...862 MHz	>25,0 dB	>30,0 dB	>32,0 dB	>32,0 dB
862...1006 MHz	>24,0 dB	>28,0 dB	>30,0 dB	>30,0 dB
1006...1300 MHz	>22,0 dB	>25,0 dB	>26,0 dB	>26,0 dB
Return loss				
5...65 MHz	>22,0 dB	>22,0 dB	>22,0 dB	>22,0 dB
65...470 MHz	>20,0 dB	>20,0 dB	>20,0 dB	>20,0 dB
470...862 MHz	>18,0 dB	>18,0 dB	>18,0 dB	>18,0 dB
862...1006 MHz	>18,0 dB	>18,0 dB	>18,0 dB	>18,0 dB
1006...1300 MHz	>16,0 dB	>16,0 dB	>16,0 dB	>16,0 dB
Connectors				
F-socket	3 pcs. (1x Input, 1x Loop through output, 1x TAP output)	3 pcs. (1x Input, 1x Loop through output, 1x TAP output)	3 pcs. (1x Input, 1x Loop through output, 1x TAP output)	3 pcs. (1x Input, 1x Loop through output, 1x TAP output)
General data				
Screening factor	Class A (+10 dB), according to EN 50083-2	Class A (+10 dB), according to EN 50083-2	Class A (+10 dB), according to EN 50083-2	Class A (+10 dB), according to EN 50083-2
Intermodulation ratio	120 dB μ V according to EN 60728-4	120 dB μ V according to EN 60728-4	120 dB μ V according to EN 60728-4	120 dB μ V according to EN 60728-4
DC Bypass IN/OUT	No	No	No	No
Dimensions (width x height x depth)	47,5 x 25,5 x 49,5 mm			

Tap CATV 1,3 GHz

DM 62 A 0008

TAP symmetrical 1,3 GHz,
2-way, 8 dB

characteristics

- Frequency range from 5...1300 MHz (DOCSIS 3.1 capable)
- Screening factor according to Class A (+10 dB)
- High intermodulation suppression
- Very high port isolation and return loss
- Approved by Vodafone Kabel Deutschland



A
CLASS

DM 62 A 0010

TAP symmetrical 1,3 GHz,
2-way, 10 dB



A
CLASS

DM 62 A 0012

TAP symmetrical 1,3 GHz,
2-way, 12 dB



A
CLASS

Technical Data

	Frequency range	5...1300 MHz	5...1300 MHz	5...1300 MHz
Through loss				
5...65 MHz	3,8 dB ($\pm 0,5$ dB)	2,2 dB ($\pm 0,5$ dB)	1,2 dB ($\pm 0,5$ dB)	
65...470 MHz	3,8 dB ($\pm 0,5$ dB)	2,2 dB ($\pm 0,5$ dB)	1,2 dB ($\pm 0,5$ dB)	
470...862 MHz	3,8 dB ($\pm 0,5$ dB)	2,7 dB ($\pm 0,5$ dB)	1,4 dB ($\pm 0,5$ dB)	
862...1006 MHz	3,8 dB ($\pm 0,5$ dB)	2,8 dB ($\pm 0,5$ dB)	1,8 dB ($\pm 0,5$ dB)	
1006...1300 MHz	4,0 dB ($\pm 0,8$ dB)	3,5 dB ($\pm 0,8$ dB)	2,2 dB ($\pm 0,8$ dB)	
TAP loss				
5...65 MHz	8,5 dB ($\pm 1,0$ dB)	10,5 dB ($\pm 1,0$ dB)	12,5 dB ($\pm 1,0$ dB)	
65...470 MHz	8,5 dB ($\pm 1,0$ dB)	10,5 dB ($\pm 1,0$ dB)	12,5 dB ($\pm 1,0$ dB)	
470...862 MHz	8,5 dB ($\pm 1,0$ dB)	10,5 dB ($\pm 1,0$ dB)	12,5 dB ($\pm 1,0$ dB)	
862...1006 MHz	8,5 dB ($\pm 1,0$ dB)	10,5 dB ($\pm 1,0$ dB)	12,5 dB ($\pm 1,0$ dB)	
1006...1300 MHz	8,5 dB ($\pm 1,0$ dB)	10,5 dB ($\pm 1,0$ dB)	12,5 dB ($\pm 1,0$ dB)	
Decoupling OUT-TAP				
5...65 MHz	>25,0 dB	>28,0 dB	>30,0 dB	
65...470 MHz	>24,0 dB	>26,0 dB	>28,0 dB	
470...862 MHz	>22,0 dB	>24,0 dB	>26,0 dB	
862...1006 MHz	>20,0 dB	>22,0 dB	>24,0 dB	
1006...1300 MHz	>20,0 dB	>20,0 dB	>22,0 dB	
Decoupling TAP-TAP				
5...65 MHz	>36 dB	>36 dB	>36 dB	
65...470 MHz	>34 dB	>36 dB	>36 dB	
470...862 MHz	>32 dB	>32 dB	>32 dB	
862...1006 MHz	>30 dB	>30 dB	>30 dB	
1006...1300 MHz	>28 dB	>30 dB	>30 dB	
Return loss				
5...65 MHz	>20,0 dB	>20,0 dB	>20,0 dB	
65...470 MHz	>20,0 dB	>20,0 dB	>20,0 dB	
470...862 MHz	>18,0 dB	>18,0 dB	>18,0 dB	
862...1006 MHz	>18,0 dB	>18,0 dB	>18,0 dB	
1006...1300 MHz	>16,0 dB	>16,0 dB	>16,0 dB	
Connectors				
F-socket	4 pcs. (1x Input, 1x Loop through output, 2x TAP output)	4 pcs. (1x Input, 1x Loop through output, 2x TAP output)	4 pcs. (1x Input, 1x Loop through output, 2x TAP output)	
General data				
Screening factor	Class A (+10 dB), according to EN 50083-2	Class A (+10 dB), according to EN 50083-2	Class A (+10 dB), according to EN 50083-2	
Intermodulation ratio	120 dB μ V according to EN 60728-4	120 dB μ V according to EN 60728-4	120 dB μ V according to EN 60728-4	
DC Bypass IN/OUT	No	No	No	
Dimensions (width x height x depth)	71,8 x 25,5 x 49,5 mm	71,8 x 25,5 x 49,5 mm	71,8 x 25,5 x 49,5 mm	

Tap CATV 1,3 GHz

DM 62 A 0016

TAP symmetrical 1,3 GHz,
2-way, 16 dB

characteristics

- Frequency range from 5...1300 MHz (DOCSIS 3.1 capable)
- Screening factor according to Class A (+10 dB)
- High intermodulation suppression
- Very high port isolation and return loss
- Approved by Vodafone Kabel Deutschland



A
CLASS

DM 62 A 0020

TAP symmetrical 1,3 GHz,
2-way, 20 dB



A
CLASS

DM 63 A 0016

TAP symmetrical 1,3 GHz,
3-way, 16 dB



A
CLASS

Technical Data

	Frequency range	5...1300 MHz	5...1300 MHz	5...1300 MHz
Through loss				
5...65 MHz	1,0 dB ($\pm 0,5$ dB)	0,8 dB ($\pm 0,3$ dB)	1,6 dB ($\pm 0,5$ dB)	
65...470 MHz	1,0 dB ($\pm 0,5$ dB)	0,8 dB ($\pm 0,3$ dB)	1,6 dB ($\pm 0,3$ dB)	
470...862 MHz	1,2 dB ($\pm 0,5$ dB)	1,0 dB ($\pm 0,3$ dB)	1,6 dB ($\pm 0,3$ dB)	
862...1006 MHz	1,4 dB ($\pm 0,5$ dB)	1,2 dB ($\pm 0,5$ dB)	1,8 dB ($\pm 0,3$ dB)	
1006...1300 MHz	1,7 dB ($\pm 0,5$ dB)	1,7 dB ($\pm 0,5$ dB)	2,5 dB ($\pm 0,5$ dB)	
TAP loss				
5...65 MHz	16,5 dB ($\pm 1,0$ dB)	20 dB ($\pm 1,0$ dB)	16,5 dB ($\pm 1,0$ dB)	
65...470 MHz	16,5 dB ($\pm 1,0$ dB)	20 dB ($\pm 1,0$ dB)	16,5 dB ($\pm 1,0$ dB)	
470...862 MHz	16,5 dB ($\pm 1,0$ dB)	20 dB ($\pm 1,0$ dB)	16,5 dB ($\pm 1,0$ dB)	
862...1006 MHz	16,5 dB ($\pm 1,0$ dB)	20 dB ($\pm 1,0$ dB)	16,5 dB ($\pm 1,0$ dB)	
1006...1300 MHz	16,5 dB ($\pm 1,0$ dB)	20 dB ($\pm 1,0$ dB)	16,5 dB ($\pm 1,0$ dB)	
Decoupling OUT-TAP				
5...65 MHz	>32,0 dB	>35,0 dB	>30,0 dB	
65...470 MHz	>32,0 dB	>36,0 dB	>28,0 dB	
470...862 MHz	>30,0 dB	>34,0 dB	>26,0 dB	
862...1006 MHz	>28,0 dB	>32,0 dB	>24,0 dB	
1006...1300 MHz	>26,0 dB	>28,0 dB	>22,0 dB	
Decoupling TAP-TAP				
5...65 MHz	>36 dB	>36 dB	>36 dB	
65...470 MHz	>36 dB	>36 dB	>36 dB	
470...862 MHz	>32 dB	>32 dB	>32 dB	
862...1006 MHz	>30 dB	>30 dB	>30 dB	
1006...1300 MHz	>30 dB	>30 dB	>30 dB	
Return loss				
5...65 MHz	>22,0 dB	>22,0 dB	>22,0 dB	
65...470 MHz	>20,0 dB	>20,0 dB	>20,0 dB	
470...862 MHz	>18,0 dB	>18,0 dB	>18,0 dB	
862...1006 MHz	>18,0 dB	>18,0 dB	>18,0 dB	
1006...1300 MHz	>16,0 dB	>16,0 dB	>16,0 dB	
Connectors				
F-socket	4 pcs. (1x Input, 1x Loop through output, 2x TAP output)	4 pcs. (1x Input, 1x Loop through output, 2x TAP output)	5 pcs. (1x Input, 1x Loop through output, 3x TAP output)	
General data				
Screening factor	Class A (+10 dB), according to EN 50083-2	Class A (+10 dB), according to EN 50083-2	Class A (+10 dB), according to EN 50083-2	
Intermodulation ratio	120 dB μ V according to EN 60728-4	120 dB μ V according to EN 60728-4	120 dB μ V according to EN 60728-4	
DC Bypass IN/OUT	No	No	No	
Dimensions (width x height x depth)	71,8 x 25,5 x 49,5 mm	71,8 x 25,5 x 49,5 mm	71,8 x 25,5 x 49,5 mm	



Tap CATV 1,3 GHz

DM 64 A 0012

TAP symmetrical 1,3 GHz, 4-way, 12 dB



A
CLASS

DM 64 A 0016

TAP symmetrical 1,3 GHz, 4-way, 16 dB



A
CLASS

DM 64 A 0020

TAP symmetrical 1,3 GHz, 4-way, 20 dB



A
CLASS

DM 64 A 0024

TAP symmetrical 1,3 GHz, 4-way, 24 dB



A
CLASS

characteristics

- Frequency range from 5...1300 MHz (DOCSIS 3.1 capable)
- Screening factor according to Class A (+10 dB)
- High intermodulation suppression
- Very high port isolation and return loss

Technical Data

	Frequency range	5...1300 MHz	5...1300 MHz	5...1300 MHz	5...1300 MHz
Through loss					
5...65 MHz	3,2 dB ($\pm 0,5$ dB)	1,2 dB ($\pm 0,5$ dB)	0,5 dB ($\pm 0,3$ dB)	0,3 dB ($\pm 0,3$ dB)	
65...470 MHz	3,5 dB ($\pm 0,3$ dB)	1,3 dB ($\pm 0,3$ dB)	0,7 dB ($\pm 0,3$ dB)	0,5 dB ($\pm 0,3$ dB)	
470...862 MHz	3,8 dB ($\pm 0,3$ dB)	1,6 dB ($\pm 0,3$ dB)	0,9 dB ($\pm 0,3$ dB)	0,7 dB ($\pm 0,3$ dB)	
862...1006 MHz	4,0 dB ($\pm 0,3$ dB)	1,8 dB ($\pm 0,3$ dB)	1 dB ($\pm 0,3$ dB)	0,8 dB ($\pm 0,3$ dB)	
1006...1300 MHz	4,5 dB ($\pm 0,5$ dB)	2,2 dB ($\pm 0,5$ dB)	1,2 dB ($\pm 0,5$ dB)	1 dB ($\pm 0,5$ dB)	
TAP loss					
5...65 MHz	12 dB ($\pm 1,0$ dB)	16 dB ($\pm 1,0$ dB)	20 dB ($\pm 1,0$ dB)	24 dB ($\pm 1,0$ dB)	
65...470 MHz	12 dB ($\pm 1,0$ dB)	16 dB ($\pm 1,0$ dB)	20 dB ($\pm 1,0$ dB)	24 dB ($\pm 1,0$ dB)	
470...862 MHz	12 dB ($\pm 1,0$ dB)	16 dB ($\pm 1,0$ dB)	20 dB ($\pm 1,0$ dB)	24 dB ($\pm 1,0$ dB)	
862...1006 MHz	12 dB ($\pm 1,0$ dB)	16 dB ($\pm 1,0$ dB)	20 dB ($\pm 1,0$ dB)	24 dB ($\pm 1,0$ dB)	
1006...1300 MHz	12 dB ($\pm 1,0$ dB)	16 dB ($\pm 1,0$ dB)	20 dB ($\pm 1,0$ dB)	24 dB ($\pm 1,0$ dB)	
Decoupling OUT-TAP					
5...65 MHz	>32 dB	>32 dB	>36 dB	>32 dB	
65...470 MHz	>28 dB	>32 dB	>32 dB	>32 dB	
470...862 MHz	>25 dB	>30 dB	>30 dB	>30 dB	
862...1006 MHz	>24 dB	>30 dB	>30 dB	>30 dB	
1006...1300 MHz	>22 dB	>28 dB	>28 dB	>28 dB	
Decoupling TAP-TAP					
5...65 MHz	>30 dB	>30 dB	>30 dB	>30 dB	
65...470 MHz	>28 dB	>28 dB	>28 dB	>28 dB	
470...862 MHz	>25 dB	>25 dB	>25 dB	>25 dB	
862...1006 MHz	>24 dB	>24 dB	>24 dB	>24 dB	
1006...1300 MHz	>22 dB	>22 dB	>22 dB	>22 dB	
Return loss					
5...65 MHz	>22 dB	>22 dB	>22 dB	>22 dB	
65...470 MHz	>20 dB	>20 dB	>20 dB	>20 dB	
470...862 MHz	>18 dB	>18 dB	>18 dB	>18 dB	
862...1006 MHz	>18 dB	>18 dB	>18 dB	>18 dB	
1006...1300 MHz	>16 dB	>16 dB	>16 dB	>16 dB	
Connectors					
F-socket	6 pcs. (1x Input, 1x Loop through output, 4x TAP output)	6 pcs. (1x Input, 1x Loop through output, 4x TAP output)	6 pcs. (1x Input, 1x Loop through output, 4x TAP output)	6 pcs. (1x Input, 1x Loop through output, 4x TAP output)	6 pcs. (1x Input, 1x Loop through output, 4x TAP output)
General data					
Screening factor	Class A (+10 dB), according to EN 50083-2	Class A (+10 dB), according to EN 50083-2	Class A (+10 dB), according to EN 50083-2	Class A (+10 dB), according to EN 50083-2	Class A (+10 dB), according to EN 50083-2
Intermodulation ratio	120 dB μ V according to EN 60728-4	120 dB μ V according to EN 60728-4	120 dB μ V according to EN 60728-4	120 dB μ V according to EN 60728-4	120 dB μ V according to EN 60728-4
DC Bypass IN/OUT	No	No	No	No	No
Dimensions (width x height x depth)	71,8 x 25,5 x 49,5 mm				

Tap CATV 1,3 GHz

DM 64 A 1316

TAP asymmetrical 1,3 GHz, 4-way
13...16 dB



A
KLASSE
CLASS

DM 66 A 1318

TAP asymmetrical 1,3 GHz, 6-way
13...18 dB



A
KLASSE
CLASS

DM 68 A 1320

TAP asymmetrical 1,3 GHz, 8-way
13...20 dB



A
KLASSE
CLASS

Technical Data

Frequency range	5...1300 MHz
Through loss	
5...65 MHz	3,8 dB ($\pm 0,8$ dB)
65...470 MHz	3,8 dB ($\pm 0,8$ dB)
470...862 MHz	3,8 dB ($\pm 0,8$ dB)
862...1006 MHz	4,0 dB ($\pm 1,0$ dB)
1006...1300 MHz	5,0 dB ($\pm 1,0$ dB)
TAP loss	
TAP 1	12.5 dB ($\pm 1,5$ dB)
TAP 2	13.5 dB ($\pm 1,5$ dB)

characteristics

- Frequency range from 5...1300 MHz (DOCSIS 3.1 capable)
- Screening factor according to Class A (+10 dB)
- High intermodulation suppression
- Very high port isolation and return loss
- High durability and perfect electrical values thanks to the white bronze plating
- Graded TAP loss
- Approved by Vodafone Kabel Deutschland

Technical Data

Frequency range	5...1300 MHz
Through loss	
5...65 MHz	5,0 dB ($\pm 1,0$ dB)
65...470 MHz	5,0 dB ($\pm 1,0$ dB)
470...862 MHz	5,5 dB ($\pm 1,0$ dB)
862...1006 MHz	6,5 dB ($\pm 1,0$ dB)
1006...1300 MHz	7,5 dB ($\pm 1,5$ dB)
TAP loss	
TAP 1	12.5 dB ($\pm 1,5$ dB)
TAP 2	13.5 dB ($\pm 1,5$ dB)

characteristics

- Frequency range from 5...1300 MHz (DOCSIS 3.1 capable)
- Screening factor according to Class A (+10 dB)
- High intermodulation suppression
- Very high port isolation and return loss
- High durability and perfect electrical values thanks to the white bronze plating
- Graded TAP loss
- Approved by Vodafone Kabel Deutschland

Technical Data

Frequency range	5...1300 MHz
Through loss	
5...65 MHz	7,5 dB ($\pm 1,0$ dB)
65...470 MHz	7,5 dB ($\pm 1,0$ dB)
470...862 MHz	7,5 dB ($\pm 1,0$ dB)
862...1006 MHz	8,0 dB ($\pm 1,5$ dB)
1006...1300 MHz	9,5 dB ($\pm 1,5$ dB)
TAP loss	
TAP 1	12.5 dB ($\pm 1,5$ dB)
TAP 2	13.5 dB ($\pm 1,5$ dB)

characteristics

- Frequency range from 5...1300 MHz (DOCSIS 3.1 capable)
- Screening factor according to Class A (+10 dB)
- High intermodulation suppression
- Very high port isolation and return loss
- High durability and perfect electrical values thanks to the white bronze plating
- Graded TAP loss
- Approved by Vodafone Kabel Deutschland

Tap SAT

DM 51 1010

One-way tap, 11 dB



characteristics

- Frequency range from 5...2400 MHz
- Screening factor according to Class A
- DC-Bypass in the trunk line
- High port isolation and return loss

DM 51 1015

One-way tap, 15 dB



DM 51 1020

One-way tap, 20 dB



Technical Data

Frequency range	5...2400 MHz	5...2400 MHz	5...2400 MHz
Through loss	1,5...2,5 dB	1,0...2,0 dB	0,7...1,8 dB
TAP loss	11 dB	15 dB	20 dB
Directional attenuation	32/25/22 dB (5...40/40...100/100...2400 MHz)	35/30/25 dB (5...40/40...100/100...2400 MHz)	40/32/28 dB (5...40/40...100/100...2400 MHz)
Return loss	18...22 dB	18...22 dB	18...22 dB
Connectors			
F-socket	3 pcs. (1x input, 1x run through, 1x branch)	3 pcs. (1x input, 1x run through, 1x branch)	3 pcs. (1x input, 1x run through, 1x branch)
General data			
Screening factor	>85 dB (class A)	>85 dB (class A)	>85 dB (class A)
DC Bypass IN/OUT 1A/30V	Yes	Yes	Yes
Dimensions (width x height x depth)	52 x 50 x 18 mm	52 x 50 x 18 mm	52 x 50 x 18 mm

DM 52 2010

Two-way tap, 11 dB



DM 52 2015

Two-way tap, 15 dB



DM 52 2020

Two-way tap, 20 dB



Technical Data

Frequency range	5...2400 MHz	5...2400 MHz	5...2400 MHz
Through loss	3,0...4,0 dB	2,0...4,0 dB	1,5...3,5 dB
TAP loss	11 dB	15 dB	20 dB
Directional attenuation	23/20 dB (5...40/40...2400 MHz)	22 / 20 dB (5...40/40...2400 MHz)	25/20 dB (5...40/40...2400 MHz)
Isolation	≥28 dB	≥30 dB	≥32 dB
Return loss	18...22 dB	18...22 dB	18...22 dB
Connectors			
F-socket	4 pcs. (1x input, 1x run through, 2x branch)	4 pcs. (1x input, 1x run through, 2x branch)	4 pcs. (1x input, 1x run through, 2x branch)
General data			
Screening factor	>85 dB (class A)	>85 dB (class A)	>85 dB (class A)
DC Bypass IN/OUT 1A/30V	Yes	Yes	Yes
Dimensions (width x height x depth)	74 x 48 x 18 mm	74 x 48 x 18 mm	74 x 48 x 18 mm

Tap SAT

DM 54 A 4010 DM 54 A 4015 DM 54 A 4020 DM 54 A 4025

Four-way tap,
11/12,5...14 dB

Four-way tap,
15/15 dB

Four-way tap,
20/20 dB

Four-way tap,
25 dB

characteristics

- Frequency range from 5....2400 MHz
- Screening factor according to Class A
- DC-Bypass in the trunk line
- High port isolation and return loss



A
KLASSE
CLASS

A
KLASSE
CLASS

A
KLASSE
CLASS

A
KLASSE
CLASS

Technical Data

Frequency range	5...2400 MHz	5...2400 MHz	5...2400 MHz	5...2400 MHz
Through loss	3,5/4,5...5 dB (5...862/862...2400 MHz)	2,5/4,5 dB (5...862/862...2400 MHz)	1,0/2...2,5 dB (5...862/862...2400 MHz)	0,6/1,8...2,5 dB (5...862/862...2400 MHz)
TAP loss	11/12,5...14 dB (5...862/862...2400 MHz)	15/15 dB (5...862/862...2400 MHz)	20/20 dB (5...862/862...2400 MHz)	25/25 dB (5...862/862...2400 MHz)
Directional attenuation	≥25 dB	≥25 dB	≥25 dB	≥25 dB
Isolation	≥21 dB	≥21 dB	≥21 dB	≥21 dB
Return loss	18...22 dB	18...22 dB	18...22 dB	18...22 dB

Connectors

F-socket	6 pcs. (1x input, 1x run through, 4x branch)	6 pcs. (1x input, 1x run through, 4x branch)	6 pcs. (1x input, 1x run through, 4x branch)	6 pcs. (1x input, 1x run through, 4x branch)00,
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General data

Screening factor	>85 dB (class A)			
DC Bypass IN/OUT 1A/30V	Yes	Yes	Yes	Yes
Dimensions (width x height x depth)	74 x 58 x 18 mm			



Splitter CATV 1 GHz

DM 02 B

Splitter, 2-way



characteristics

- Frequency range 5...1000 MHz
- Screening factor according to Class A
- High port isolation and return loss

DM 03 B

Splitter, 3-way



DM 04 B

Splitter, 4-way



Technical Data

Frequency range	5...1006 MHz	5...1006 MHz	5...1006 MHz
Distribution loss	3.7 dB	5.9 dB	7.5 dB
Isolation	30 dB	30 dB	30 dB
Return loss	18 dB	18 dB	18 dB
Connectors			
F-socket	3 pcs. (1x input, 2x output)	4 pcs. (1x input, 3x output)	5 pcs. (1x input, 4x output)
General data			
Screening factor	>85 dB (class A)	>85 dB (class A)	>85 dB (class A)
DC Bypass IN/OUT 1A/30V	No	No	No
Dimensions (width x height x depth)	55x50x28 mm	78x50x28 mm	78x50x28 mm

DM 06 B

Splitter, 6-way



DM 08 B

Splitter, 8-way



characteristics

- Frequency range 5...1000 MHz
- Screening factor according to Class A
- High port isolation and return loss



Technical Data

Frequency range	5...1006 MHz	5...1006 MHz
Distribution loss	10 dB	11 dB
Isolation	≥25 dB	>25 dB
Return loss	18 dB	18 dB
Connectors		
F-socket	7 pcs. (1x input, 6x output)	9 pcs. (1x input, 8x output)
General data		
Screening factor	>85 dB (class A)	>85 dB (class A)
DC Bypass IN/OUT 1A/30V	No	No
Dimensions (width x height x depth)	115x54x42 mm	115x54x42 mm

Splitter CATV 1,3 GHz

DM 02 D

Splitter 1,3 GHz, 2-way

DM 03 D

Splitter 1,3 GHz, 3-way

characteristics

- Frequency range from 5...1300 MHz (DOCSIS 3.1 capable)
- Screening factor according to Class A (+10 dB)
- High intermodulation suppression
- Very high port isolation and return loss
- High durability and perfect electrical values thanks to the white bronze plating
- Approved by Vodafone Kabel Deutschland



KLASSE
A
CLASS



KLASSE
A
CLASS

Technical Data

Frequency range	5...1300 MHz	5...1300 MHz
Distribution loss		
5...65 MHz	3,3 dB ($\pm 0,5$ dB)	5,2 dB ($\pm 0,5$ dB)
65...470 MHz	3,3 dB ($\pm 0,5$ dB)	5,2 dB ($\pm 0,5$ dB)
470...862 MHz	3,5 dB ($\pm 0,5$ dB)	5,6 dB ($\pm 0,5$ dB)
862...1006 MHz	3,7 dB ($\pm 0,5$ dB)	5,8 dB ($\pm 0,5$ dB)
1006...1300 MHz	4,0 dB ($\pm 0,8$ dB)	6,2 dB ($\pm 0,5$ dB)
Isolation		
5...65 MHz	>30,0 dB	>28,0 dB
65...470 MHz	>28,0 dB	>28,0 dB
470...862 MHz	>26,0 dB	>26,0 dB
862...1006 MHz	>25,0 dB	>25,0 dB
1006...1300 MHz	>22,0 dB	>22,0 dB
Return loss		
5...65 MHz	>22,0 dB	>22,0 dB
65...470 MHz	>20,0 dB	>20,0 dB
470...862 MHz	>18,0 dB	>18,0 dB
862...1006 MHz	>18,0 dB	>18,0 dB
1006...1300 MHz	>16,0 dB	>16,0 dB
Connectors		
F-socket	3 pcs. (1x input, 2x output)	4 pcs. (1x input, 3x output)
General data		
Screening factor	Class A (+10 dB), according to EN 50083-2	Class A (+10 dB), according to EN 50083-2
Intermodulation ratio	120 dB μ V according to EN 60728-4	120 dB μ V according to EN 60728-4
DC Bypass IN/OUT	No	No
Dimensions (width x height x depth)	47,5 x 25,5 x 49,5 mm	71,8 x 25,5 x 49,5 mm

Splitter CATV 1,3 GHz

DM 04 D

Splitter 1,3 GHz, 4-way



DM 06 D

Splitter 1,3 GHz, 6-way



DM 08 D

Splitter 1,3 GHz, 8-way



characteristics

- Frequency range from 5...1300 MHz (DOCSIS 3.1 capable)
- Screening factor according to Class A (+10 dB)
- High intermodulation suppression
- Very high port isolation and return loss
- Approved by Vodafone Kabel Deutschland

Technical Data

Distribution loss

Frequency range	5...1300 MHz	5...1300 MHz	5...1300 MHz
5...65 MHz	6,6 dB ($\pm 0,5$ dB)	<8,5 dB ($\pm 0,5$ dB)	<10,0 dB ($\pm 0,5$ dB)
65...470 MHz	6,6 dB ($\pm 0,5$ dB)	<8,8 dB ($\pm 0,5$ dB)	<10,0 dB ($\pm 0,5$ dB)
470...862 MHz	7,1 dB ($\pm 0,5$ dB)	<9,4 dB ($\pm 0,5$ dB)	<10,5 dB ($\pm 0,5$ dB)
862...1006 MHz	7,5 dB ($\pm 0,5$ dB)	<9,6 dB ($\pm 0,5$ dB)	<11,0 dB ($\pm 0,5$ dB)
1006...1300 MHz	7,9 dB ($\pm 0,5$ dB)	<10,5 dB ($\pm 0,5$ dB)	<11,5 dB ($\pm 0,8$ dB)

Isolation

5...65 MHz	>30,0 dB	>25,0 dB	>25,0 dB
65...470 MHz	>30,0 dB	>25,0 dB	>25,0 dB
470...862 MHz	>26,0 dB	>24,0 dB	>25,0 dB
862...1006 MHz	>25,0 dB	>24,0 dB	>24,0 dB
1006...1300 MHz	>22,0 dB	>22,0 dB	>22,0 dB

Return loss

5...65 MHz	>22,0 dB	>18,0 dB	>18,0 dB
65...470 MHz	>20,0 dB	>18,0 dB	>18,0 dB
470...862 MHz	>18,0 dB	>18,0 dB	>18,0 dB
862...1006 MHz	>18,0 dB	>18,0 dB	>18,0 dB
1006...1300 MHz	>16,0 dB	>14,0 dB	>14,0 dB

Connectors

F-socket	5 pcs. (1x input, 4x output)	7 pcs. (1x input, 6x output)	9 pcs. (1x input, 8x output)
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General data

Screening factor	Class A (+10 dB), according to EN 50083-2	Class A (+10 dB), according to EN 50083-2	Class A (+10 dB), according to EN 50083-2
Intermodulation ratio	120 dB μ V according to EN 60728-4	120 dB μ V according to EN 60728-4	120 dB μ V according to EN 60728-4
DC Bypass IN/OUT	No	No	No

Dimensions (width x height x depth)	71,8 x 25,5 x 49,5 mm	87,5 x 41,8 x 53,5 mm	111,5 x 41,8 x 53,5 mm
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Splitter SAT

DM 12 A

SAT splitter, 2-way



characteristics

- Frequency range from 5....2400 MHz
- Screening factor according to Class A
- DC-Bypass over every output
- High port isolation and return loss

A
KLASSE
CLASS

DM 13 A

SAT splitter, 3-way



A
KLASSE
CLASS

DM 14 A

SAT splitter, 4-way



A
KLASSE
CLASS

DM 16 B

SAT splitter, 6-way



A
KLASSE
CLASS

Technical Data

Frequency range	5...2400 MHz	5...2400 MHz	5...2400 MHz	5...2400 MHz
Distribution loss	4...6 dB	7...10,5 dB	8...11,5 dB	11...17 dB
Isolation	>20 dB	>20 dB	>20 dB	>20 dB
Return loss	18 dB	18 dB	18 dB	18 dB
Connectors				
F-socket	3 pcs. (1x input, 2x output)	4 pcs. (1x input, 3x output)	5 pcs. (1x input, 4x output)	7 pcs. (1x input, 6x output)
General data				
Screening factor	>85 dB (class A)			
DC Bypass IN/OUT 1A/30V	Yes	Yes	Yes	Yes
Dimensions (width x height x depth)	55x55x28 mm	74x55x18 mm	74x55x18 mm	92x35x28 mm

Splitter SAT RF

DM 50

SAT splitter



A
KLASSE
CLASS

DM 90

SAT splitter



A
KLASSE
CLASS

Technical Data

Frequency range	5...862/950...2400 MHz (TERR/SAT)	5...862/950...2400 MHz (TERR/SAT)
Through loss	1,0...1,8/1,1...2,7 dB (TERR/SAT)	1,5...3,0/2...3,5 dB (TERR/SAT)
TAP loss	13...13,5/12,2...13,7 dB (TERR/SAT)	13...14/14...12 dB (TERR/SAT)
Isolation	35/35 dB (trunk, TERR/SAT)	35/38 dB (trunk, TERR/SAT)
Return loss	10 dB (min., SAT)	10 dB (min., SAT)
Connectors		
F-socket	20 pcs.	36 pcs.
General data		
Screening factor	Class A, EN 50083-2	Class A, EN 50083-2
DC Bypass IN/OUT 1A/30V	Yes	Yes
Dimensions (width x height x depth)	140x140x27 mm	210 x 210 x 27 mm

Grounding accessories

NB 02

Equipotential bonding bar



NB 02 F

Equipotential bonding block, duplex



NB 04 F

Equipotential bonding block, quadruple



Technical Data

Material	Galvanized steel	nickel plated brass	nickel plated brass
Hole distance	170 mm	74 mm	137 mm
Hole diameter	5 mm	4 mm	4 mm
Dimensions (width x height x depth)	181x17x20 mm	84x24,5x27 mm	148x25x27 mm

NB 05

Grounding plate, 5-times



NB 09

Grounding angle, 9-times



Technical Data

Material	Steel	Steel
Hole distance	59.5 mm	125.9 mm
Hole diameter	6 mm	6 mm
Dimensions (width x height x depth)	79,50x60x53 mm	150,3x60x53 mm

Tools

DZ 01

Tightening aid



Technical Data

Material	Aluminium, plastic
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characteristics

- For all F connectors with 11 mm (hexagonal)

DZ 01 is a mounting aid to correctly screw on F-plugs during the installation. Because of its small outer diameter, the slot for the cable passage works best when a ring or open-ended wrench are not suitable.

Tools

DZ 14

Compression tool for F-connector
DV 14



DZ 15 2130

Compression tool for F-connector DV
10, DV 10 N, DV 15 and DV 15 N



Technical Data

Type of mounting	compress
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Technical Data

Type of mounting	compress
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DZ 85

Crimping tool for DV 85, DV 95



MZ 01

COAX stripper



Technical Data

Type of mounting	Crimp
Dimensions (width x height x depth)	70x122,5x23 mm

Technical Data

suitable cable type	MK 91, 96 (adjustable for other cable dimensions)
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75 Ohm Termination resistor

DV 24

F-termination resistor



DV 25

F-terminating resistor with DC-separation



Technical Data

Type	F-plug, load resistance 75 Ω	F-plug, load resistance 75 Ω
Type of mounting	Screwed	Screwed
construction style	straight	straight
Material	nickel plated brass	nickel plated brass
Dimensions (width x height x depth)	SW 11 x 17 mm	SW 11 x 28 mm
DC separation	No	Yes

F-plug connector

DV 50

F-plug



DV 54

F-plug



DV 55

F-plug



Technical Data

Type	F-plug	F-plug	F-plug
Type of mounting	Screwed	Screwed	Screwed
construction style	straight	straight	straight
Material	nickel plated brass	nickel plated brass	nickel plated brass
suitable cable type	MK 76	MK 15	MK 91, MK 96
Dimensions (width x height x depth)	SW 11 x 22 mm	SW 12 x 30 mm	SW 11 x 21 mm
DC separation	No	No	No

F-Crimp connector

DV 85

F-plug, crimpable



DV 90

F-Quick-plug,
crimpable



DV 95

F-Quick-plug,
crimpable



DV 97

F-Quick-ellbow
connector, crimp



Technical Data

Type	F-plug	F-plug	F-plug	F-plug
Type of mounting	Crimp	Crimp	Crimp	Crimp
construction style	straight	straight	straight	angled
Material	nickel plated brass	nickel plated brass	nickel plated brass	nickel plated brass
suitable cable type	MK 91, MK 96	MK 76	MK 91, MK 96	MK 91, MK 96
Dimensions (width x height x depth)	SW 11 x 20 mm	Ø 11,80 x 25 mm	Ø 11,80 x 25 mm	34,5 x 12 x 22,9 mm
DC separation	No	No	No	No

F-Compression connector

DV 10 N

F-Compression-plug with NiTin-coating

characteristics

- NiTin-coating



DV 14 N

F-Compression-plug with NiTin-coating



DV 15 N

F-Compression-plug with NiTin-coating



Technical Data

Type	F-plug	F-plug	F-plug
Type of mounting	compress	compress	compress
construction style	straight	straight	straight
Material	brass with NiTin-coating	brass with NiTin-coating	brass with NiTin-coating
suitable cable type	MK 76	MK 15	MK 91, MK 96
Dimensions (width x height x depth)	SW 11 x 21,30 mm	- mm	SW11x21,30 mm
DC seperation	No	No	No

DV 10

F-Compress-plug



DV 15

F-Compress-plug



Technical Data

Type	F-plug	F-plug
Type of mounting	compress	compress
construction style	straight	straight
Material	nickel plated brass	nickel plated brass
suitable cable type	MK 76	MK 91, MK 96
Dimensions (width x height x depth)	SW 11 x 21,30 mm	SW11x21,30 mm
DC seperation	No	No

IEC-plug / terminating resistor

DV 07 0397

Coaxial socket



DV 75

Terminating resistor 75 Ω



Technical Data

Type	IEC socket
Type of mounting	Plugged
construction style	straight
Material	nickel plated brass
suitable cable type	MK 76, MK 91, MK 96
Dimensions (width x height x depth)	Ø 14 x 38 mm
DC separation	No

Technical Data

Type	IEC-plug, terminating resistor 75 Ω
Type of mounting	Plugged
construction style	straight
Material	nickel plated brass
Dimensions (width x height x depth)	Ø11 x 25 mm
DC separation	No

characteristics

- IEC-plug

Adapter

DV 49 A

Adapter plug



DV 52

F-adapter



DV 53

F-ellbow adapter



Technical Data

Type	F-adapter, F-Fix on F-Quick	Transition connector IEC Male to F-socket	F-angular adapter F-plug on F-connector
Type of mounting	Screwed/plugged	Screwed/plugged	Screwed
construction style	straight	straight	angled
Material	nickel plated brass	nickel plated brass	nickel plated brass
Dimensions (width x height x depth)	SW11x22,30 mm	11x25 mm	23,8x11x19,2 mm
DC separation	No	No	No

Connector

DV 45

F-splice



DV 46

F-splice



DV 46 HQ

High quality plug adapter



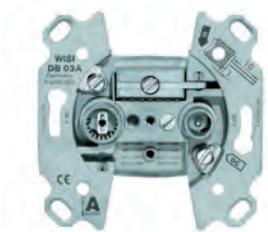
Technical Data

Type	F-splice	F-splice	F-splice
Type of mounting	Screwed	Screwed	Screwed
construction style	angled 180°	straight	straight
Material	nickel plated brass	nickel plated brass	nickel plated brass
Dimensions (width x height x depth)	24,5x21x9,6 mm	11x20,8 mm	11x26 mm
DC separation	No	No	No

Universal Antenna Sockets

DB 03 A

Universal antenna sockets,
2-hole stub sockets 4 dB



KLASSE
A
CLASS

DB 05

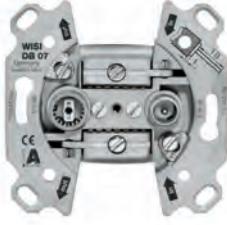
Universal antenna sockets,
2-hole loop-through sockets 10 dB



KLASSE
A
CLASS

DB 07

Universal antenna sockets,
2-hole loop-through sockets 14 dB



KLASSE
A
CLASS

Technical Data

Inputs	
Frequency range	5...2400 MHz
Outputs	
Frequency range TV	5...862 MHz
Frequency range FM	87,5...108 MHz
Frequency range SAT	950...2150 MHz
Insertion loss TV	4,5 dB
Insertion loss FM	4,5 dB
Insertion loss SAT	5 dB
Decoupling 5...40 MHz	>20 dB (from 15 MHz)

Technical Data

Inputs	
Frequency range	5...2400 MHz
Outputs	
Frequency range IEC female	5...2400 MHz
Frequency range IEC male	5...2400 MHz
Insertion loss IEC female	10 dB (± 1 dB)
Insertion loss IEC male	10 dB (± 1 dB)
Through loss	2,5...3,5 dB
Decoupling OUT 1 - OUT 2	≥ 30 dB (5...2400 MHz)
Return loss subscriber	≥ 14 dB

Technical Data

Inputs	
Frequency range	5...2400 MHz
Outputs	
Frequency range TV	5...862 MHz
Frequency range FM	87,5...108 MHz
Frequency range SAT	950...2150 MHz
Insertion loss TV	14 dB
Insertion loss FM	14 dB
Insertion loss SAT	15 dB
Through loss	1 dB

Wall outlet sockets TERR/CATV

DB 10 1006

TERR/BK antenna socket, 2-hole stub socket 5...1006 MHz

characteristics

- 1x IEC-male, 1x IEC-female



KLASSE
A
CLASS

Technical Data	
Inputs	
Frequency range	5...1006 MHz
Outputs	
Frequency range TV	5...68/32...1006 MHz
Frequency range FM	87,5...108 MHz
Insertion loss TV	0.5 dB
Insertion loss FM	1.5 dB
Decoupling TV-FM	≥20 dB
Return loss TV	Cat C
Return loss Input	Cat B
Return loss FM	Cat C
Connectors	
Outer conductor clamp	7,5 mm
Inner conductor clamp	0,8...1,3 mm
IEC socket	1 pcs.
IEC-plug	1 pcs.
General data	
Screening factor	>85 dB (class A)
Dimensions (width x height x depth)	70 x 70 x 22 mm
Installation depth	35 mm

The DB 10 1006 is a TER terminating outlet with filter. It has a small connection loss at TV as FM 0.5 / 1.5 dB. The housing has a very high stability and ensures high shielding (class A). Thanks to a flat design its space-saving architecture and IEC socket / plug, a secure connection is ensured.



Multimedia wall outlet sockets, individual

DD 04 M 0650

Broadband modem sockets, stub sockets, F

characteristics

- Approved by Vodafone Kabel Deutschland



A
■ CLASS

Technical Data	
Inputs	
Frequency range	5...1006 MHz
Outputs	
Frequency range TV	85...1006 MHz
Frequency range FM	87...1006 MHz
Frequency range DATA	5...1006 MHz
Rejection loss TV	≥40 dB (5...65 MHz)
Rejection loss FM	≥40 dB (5...65 MHz)
Insertion loss TV	4 dB
Insertion loss FM	8 dB
Insertion loss DATA	8 dB
Isolation DATA - TV	≥70 dB (5...65 MHz)
Isolation DATA - TV	≥35 dB (85...1006 MHz)
Isolation DATA - FM	≥70 dB (5...65 MHz)
Isolation DATA - FM	≥40 dB (85...1006 MHz)
Return loss IN, OUT	≥18 dB (-1.5 dB/oct.)
Return loss TV	≥14 dB (-1.5 dB/oct.)
Return loss FM	≥14 dB (-1.5 dB/oct.)
Return loss DATA	≥18 dB (-1.5 dB/oct.)
Intermodulation ratio	> 120 dBµV (EN60728-4)
Connectors	
Outer conductor clamp	7.5 mm
Inner conductor clamp	0,6...1,3 mm
F-socket	1 pcs. EN60169-24
IEC socket	1 pcs. EN60169-2
IEC-plug	1 pcs. EN60169-2
General data	
Screening factor	>85 dB Class A, EN 50083-2
Dimensions (width x height x depth)	70 x 70 x 22 mm
Installation depth	35 mm

TV connection with IEC technology. Multimedia with F-connector or WICLIC for cable modem. HF output high-pass filtered. Cover plate and connector cable see accessories

Multimedia wall outlet sockets, loop-through

DD 11 M 0650

Broadband modem
sockets, loop-through
sockets



DD 15 M 0650

Broadband modem
sockets, loop-through
sockets



DD 19 M 0650

Multimedia wall outlet
sockets, loop-through
socket



DD 23 M 0650

Multimedia wall outlet
sockets, loop-through
socket



characteristics

- Approved by Vodafone Kabel Deutschland



Technical Data

Inputs

Frequency range	5...1006 MHz	5...1006 MHz	5...1006 MHz	5...1006 MHz
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Outputs

Frequency range TV	85...1006 MHz	85...1006 MHz	85...1006 MHz	85...1006 MHz
Frequency range FM	87...1006 MHz	87...1006 MHz	87...1006 MHz	87...1006 MHz
Frequency range DATA	5...1006 MHz	5...1006 MHz	5...1006 MHz	5...1006 MHz
Through loss	3...4 dB	1,2...1,75 dB	1,2...1,4 dB	1,2...1,4 dB
Rejection loss TV	≥40 dB (5...65 MHz)			
Rejection loss FM	≥40 dB (5...65 MHz)			
Insertion loss TV	10 dB	14 dB	19 dB	23 dB
Insertion loss FM	11 dB	15 dB	19 dB	24 dB
Insertion loss DATA	10 dB	14 dB	19 dB	23 dB
Isolation DATA - TV	≥70 dB (5...65 MHz)			
Isolation DATA - TV	≥45 dB (85...1006 MHz)	≥50 dB (85...1006 MHz)	≥50 dB (85...1006 MHz)	≥50 dB (85...1006 MHz)
Isolation DATA - FM	≥70 dB (5...65 MHz)			
Isolation DATA - FM	≥45 dB (85...1006 MHz)	≥50 dB (85...1006 MHz)	≥50 dB (85...1006 MHz)	≥50 dB (85...1006 MHz)
Isolation DATA - OUT	≥30 dB (5...1006 MHz)	≥30 dB (5...65 MHz)	≥30 dB (5...65 MHz)	≥30 dB (5...65 MHz)
Isolation FM, TV - OUT	≥30 dB (5...1006 MHz)	≥30 dB (5...65 MHz)	≥30 dB (5...65 MHz)	≥30 dB (5...65 MHz)
Return loss IN, OUT	≥18 dB (-1.5 dB/oct.)			
Return loss TV	≥14 dB (-1.5 dB/oct.)			
Return loss FM	≥14 dB (-1.5 dB/oct.)			
Return loss DATA	≥18 dB (-1.5 dB/oct.)			
Intermodulation ratio	> 120 dB μ V (EN60728-4)			

Connectors

Outer conductor clamp	7,5 mm	7,5 mm	7,5 mm	7,5 mm
Inner conductor clamp	0,6...1,3 mm	0,6...1,3 mm	0,6...1,3 mm	0,6...1,3 mm

Multimedia wall outlet sockets, loop-through

DD 15 HP

Broadband modem sockets, Data loop through socket with highpass filter

characteristics

- Approved by Vodafone Kabel Deutschland



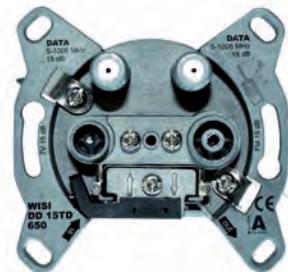
Technical Data	
Inputs	
Frequency range	5...862 MHz
Outputs	
Frequency range TV	85...862 MHz
Frequency range FM	87...862 MHz
Frequency range DATA	5...862 MHz
Frequency range loop through	85...862 MHz
Insertion loss TV	14 dB
Insertion loss FM	14 dB
Insertion loss DATA	14 dB
Through loss	1,5...2,5 dB
Isolation DATA - TV	≥40 dB
Isolation DATA - FM	≥40 dB
Isolation DATA-DATA	74 dB (typ.)
Decoupling TV-FM	≥22 dB
Return loss IN	Cat B
Return loss OUT	Cat B
Return loss ALL	Cat C
Connectors	
Outer conductor clamp	7.5 mm
Inner conductor clamp	0,8...1,3 mm
F-socket	1 pcs.
IEC socket	1 pcs.
IEC-plug	1 pcs.
General data	
Screening factor	>85 dB (class A)
Dimensions (width x height x depth)	70 x 70 x 22 mm
Installation depth	35 mm

TV connection with IEC technology. Multimedia with F-connector or WICLIC for cable modem. HF output high-pass filtered. Cover plate and connector cable see accessories

Multimedia wall outlet sockets, loop-through

DD 15 TD 650

TWIN broadband modem socket, loop-through socket



**KLASSE
A**
■ CLASS

characteristics

- Same tap loss for TV out, radio out and both DATA connections
- Capacitive separation of the inner connector at all interfaces
- Screening class A (≥ 85 dB)



Technical Data	
Inputs	
Frequency range	5...1006 MHz
Outputs	
Frequency range TV	109...1006 MHz
Frequency range FM	87,5...108 MHz
Frequency range DATA	5...1006 MHz
Frequency range loop through	5...1006 MHz
Insertion loss TV	$\geq 52/\leq 15$ dB (5...65 MHz/109...1006 MHz)
Insertion loss FM	$\geq 52/\leq 15$ dB (5...65 MHz/87,5...108 MHz)
Insertion loss DATA	≤ 15 dB (5...1006 MHz)
Through loss	$\leq 2,5/\leq 2,8$ dB (5...862 MHz/862...1006 MHz)
Isolation DATA - TV	$\geq 60/\geq 30$ dB (5...65 MHz/65...1006 MHz)
Isolation DATA - FM	$\geq 60/\geq 30$ dB (5...65 MHz/65...1006 MHz)
Isolation DATA-DATA	≥ 35 dB (5...1006 MHz, $\leq 1,5$ dB/Okt. ab 40 MHz)
Connectors	
Outer conductor clamp	2,3...5,4 mm (input and output)
Inner conductor clamp	0,4...1,15 mm (input and output)
F-socket	2 pcs. (DATA 1/2)
IEC socket	1 pcs. (radio)
IEC-plug	1 pcs. (TV)
General data	
Screening factor	≥ 85 dB (class A)

Loop-through connection socket with TV out, radio out and 2 modem connections for multimedia applications. Same tap loss for TV out, radio out and both DATA connections. Capacitive separation of the inner connector at all connections. Shielding class A (≥ 85 dB).

Multimedia wall outlet sockets, loop-through

DD 15 TD 65A

TWIN broadband modem socket,
loop-through socket



DD 17 TD 65A

TWIN broadband modem socket,
loop-through socket



characteristics

- Same tap loss for TV out, radio out and both DATA connections
- Frequency range of 5...1006 MHz
- Capacitive separation of the inner connector at all interfaces
- Screening class A (≥ 85 dB)
- Unitymedia certified according UM TS 405



Technical Data

Inputs

Frequency range	5...1006 MHz	5...1006 MHz
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Outputs

Frequency range TV	109...1006 MHz	109...1006 MHz
Frequency range FM	87,5...108 MHz	87,5...108 MHz
Frequency range DATA	5...1006 MHz	5...1006 MHz
Frequency range loop through	5...1006 MHz	5...1006 MHz
Insertion loss TV	$\geq 52/\leq 15$ dB (5...65 MHz/109...1006 MHz)	$\geq 52/\leq 17$ dB (5...65 MHz/109...1006 MHz)
Insertion loss FM	$\geq 52/\leq 15$ dB (5...65 MHz/87,5...108 MHz)	$\geq 52/\leq 17$ dB (5...65 MHz/87,5...108 MHz)
Insertion loss DATA	≤ 15 dB (5...1006 MHz)	≤ 17 dB (5...1006 MHz)
Through loss	$\leq 2,5/\leq 2,8$ dB (5...862 MHz/862...1006 MHz)	$\leq 1,8$ dB
Isolation DATA - TV	$\geq 60/\geq 30$ dB (5...65 MHz/65...1006 MHz)	$\geq 60/\geq 30$ dB (5...65 MHz/65...1006 MHz)
Isolation DATA - FM	$\geq 60/\geq 30$ dB (5...65 MHz/65...1006 MHz)	$\geq 60/\geq 30$ dB (5...65 MHz/65...1006 MHz)
Isolation DATA-DATA	≥ 35 dB (5...1006 MHz, $\leq 1,5$ dB/Okt. ab 40 MHz)	≥ 35 dB (5...1006 MHz, $\leq 1,5$ dB/Okt. ab 40 MHz)

Connectors

Outer conductor clamp	2,3...5,4 mm (input and output)	2,3...5,4 mm (input and output)
Inner conductor clamp	0,4...1,15 mm (input and output)	0,4...1,15 mm (input and output)
F-socket	2 pcs. (DATA 1/2)	2 pcs. (DATA 1/2)
IEC socket	1 pcs. (radio)	1 pcs. (radio)
IEC-plug	1 pcs. (TV)	1 pcs. (TV)

General data

Screening factor	≥ 85 dB (class A)	≥ 85 dB (class A)
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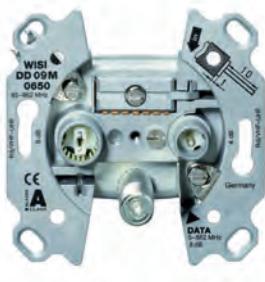
Multimedia wall outlet sockets, terminal socket

DD 09 M 0650

Multimedia wall outlet sockets, terminal socket

characteristics

- Approved by Vodafone Kabel Deutschland



A
■ CLASS

Technical Data

Inputs

Frequency range 5...1006 MHz

Outputs

Frequency range TV 85...1006 MHz

Frequency range FM 87...1006 MHz

Frequency range DATA 5...1006 MHz

Rejection loss TV ≥40 dB 5...65 MHz

Rejection loss FM ≥40 dB 5...65 MHz

Insertion loss TV 9 dB

Insertion loss FM 10 dB

Insertion loss DATA 9 dB

Isolation DATA - TV ≥60 dB (5...65 MHz)

Isolation DATA - TV ≥35 dB (85...1006 MHz)

Isolation DATA - FM ≥70 dB (5...65 MHz)

Isolation DATA - FM ≥45 dB (85...1006 MHz)

Return loss IN, OUT ≥18 dB (-1.5 dB/oct.)

Return loss TV ≥14 dB (-1.5 dB/oct.)

Return loss FM ≥14 dB (-1.5 dB/oct.)

Return loss DATA ≥18 dB (-1.5 dB/oct.)

Intermodulation ratio > 120 dB μ V (EN60728-4)

Connectors

Outer conductor clamp 7.5 mm

Inner conductor clamp 0,6...1,3 mm

F-socket 1 pcs. EN60169-24

IEC socket 1 pcs. EN60169-2

IEC-plug 1 pcs. EN60169-2

General data

Screening factor >85 dB (class A)

Dimensions
(width x height x depth) 70 x 70 x 22 mm

Installation depth 35 mm

TV connection with IEC technology. Multimedia with F-connector or WICLIC for cable modem. HF output high-pass filtered. Cover plate and connector cable see accessories



Wall-outlet sockets SAT

DB 33

Antenna sockets, 2-hole stub sockets



A
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CLASS

Technische Daten	
Inputs	
Frequency range	47...2150 MHz
Outputs	
Frequency range TV	47...862 MHz
Frequency range SAT	950...2150 MHz
Insertion loss TV	≤1,5/≤4,0 dB
Insertion loss FM	2,5 dB
Insertion loss SAT	<2,5/≤1,5 dB
Decoupling IN-SAT 47-862 MHz	≥20 dB
Decoupling IN-TV 950-2150 MHz	≥20 dB
Decoupling TV-SAT	≥20 dB
Return loss TV	Cat C
Return loss Input	Cat B
Return loss SAT	Cat C
Power passing	24 V DC (remote power 500 mA)
Connectors	
Outer conductor clamp	7,5 mm
Inner conductor clamp	0,8...1,3 mm
IEC socket	1 pcs.
IEC-plug	1 pcs.
General data	
Screening factor	>85 dB (class A)
Dimensions (width x height x depth)	70 x 70 x 22 mm
Installation depth	35 mm

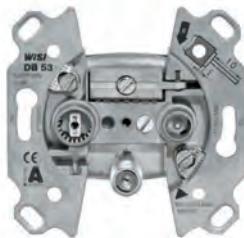
characteristics

- 1x IEC-male, 1x IEC-female

The DB 33 is a 2-hole wall outlet for TV and SAT. In SAT connecting a DC bypass is integrated which allows the passage of the required switching voltages. The housing has a very high stability and ensures high shielding properties (Class A). Thanks to a flat and space saving construction and through the IEC socket / plug, a secure connection is ensured.

DB 53

SAT antenna sockets, 3-hole stub sockets



A
KLASSE
CLASS

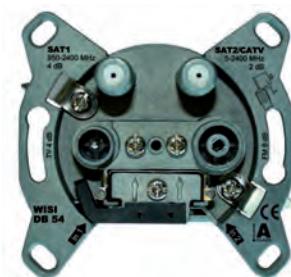
Technical Data	
Inputs	
Frequency range	47...2150 MHz
Outputs	
Frequency range TV	47...68/174...862 MHz
Frequency range FM	87,5...108 MHz
Frequency range SAT	950...2150 MHz
Insertion loss TV	<2 dB
Insertion loss FM	1.5 dB
Insertion loss SAT	<2 dB
Decoupling TV-SAT	≥15 dB (typ. 25 dB)
Return loss TV	≥14 dB (≤ -1,5 dB per octave starting 40 MHz, ≥10 dB)
Return loss Input	≥4 dB
Return loss FM	≥10 dB
Return loss SAT	≥10 dB
Power passing	24 V DC (remote power 500 mA)
Connectors	
Outer conductor clamp	7.5 mm
Inner conductor clamp	0,8...1,3 mm
F-socket	1 pcs.
IEC socket	1 pcs.
IEC-plug	1 pcs.
General data	
Screening factor	>85 dB (class A)
Dimensions	70 x 70 x 22 mm (width x height x depth)
Installation depth	35 mm

The DB 53 is a 3 hole trick box for separate connections for radio, TV receivers, and additional SAT receivers. At the SAT connection, a DC bypass is integrated, which allows for the transmission of all needed switching voltage. The housing offers high stability and ensures high shielding properties (class A). Thanks to the flat design it is space-saving, and with the IEC-socket/plug, a safe connection is guaranteed.

Wall-outlet sockets SAT

DB 54

SAT antenna socket, twin SAT 4-hole terminal socket



A
■ CLASS

Technical Data

Inputs	
Frequency range	5...2400 MHz
Outputs	
Frequency range TV	5...862 MHz
Frequency range FM	87,5...108 MHz
Frequency range SAT 1	950...2400 MHz
Frequency range SAT 2	5...2400 MHz
Insertion loss TV	4.5 dB (± 1)
Insertion loss FM	5.5 dB (± 1)
Insertion loss SAT 1	3...4 dB
Insertion loss SAT 2	1...2 dB
Decoupling TV-FM	$\geq 50/\geq 20/\geq 40$ dB (5...65 MHz/ 87,5...108 MHz/150...862 MHz)
Decoupling SAT 1 - TV	$\geq 50/\geq 30/\geq 20$ dB (5...65 MHz/ 80...862 MHz/950...2400 MHz)
Decoupling SAT 1 - FM	$\geq 50/\geq 40/\geq 30$ dB (5...65 MHz/ 85...2150 MHz/2150...2400 MHz)
Decoupling SAT 1 - SAT 2	$\geq 30/\geq 25$ dB (5...2150 MHz/2150...2400 MHz)
Return loss TV	≥ 14 dB ($\leq -1,5$ dB per octave starting 40 MHz, ≥ 10 dB)
Return loss Input	≥ 4 dB ($\leq -1,5$ dB per octave starting 40 MHz, ≥ 10 dB)
Return loss FM	≥ 10 dB
Return loss SAT	≥ 10 dB
Return loss SAT 2	≥ 14 dB ($\leq -1,5$ dB per octave, starting 40 MHz, ≥ 10 dB)
Power passing	24 V DC (remote power 800 mA)
Connectors	
Outer conductor clamp	7.5 mm
Inner conductor clamp	0,8...1,3 mm
F-socket	2 pcs.
IEC socket	1 pcs.
IEC-plug	1 pcs.
General data	
Screening factor	85 dB (class A, EN 50083-2)
Dimensions (width x height x depth)	70 x 70 x 22 mm
Installation depth	35 mm

characteristics

- 2 SAT outputs for optimal signal feed of a twin receiver
- SAT output 2, also suitable for CATV
- High decoupling via directional coupler
- DC-bypass via both SAT outputs

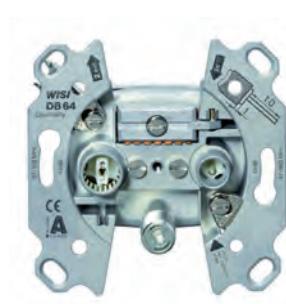


The DB 54 is a special 4 hole trick box for TWIN receivers, which enables 2 lines to operate independently. The SAT 2 input is suitable for CATV as well. In both SAT connections, a DC bypass is integrated to enable the transmission of the required switching voltage. The housing offers high stability and ensures high shielding properties (class A). Thanks to the flat design it is space-saving, and with the IEC-socket/plug, 2x F-socket, a safe connection is guaranteed.

Wall-outlet sockets SAT

DB 64

3-hole Unicable antenna box



A
■ CLASS

characteristics

- Special socket for Unicable solutions
- High decoupling via directional coupler
- DC bypass on F-connector and the trunk

Technical Data

Inputs	
Frequency range	47...2150 MHz
Outputs	
Frequency range TV	47...68/120 ...862 MHz
Frequency range FM	87...108 MHz
Frequency range SAT	950...2150 MHz
Insertion loss TV	12 dB
Insertion loss FM	12 dB
Insertion loss SAT	12.5 dB
Through loss	1...2 dB
Stopband attenuation	≥40 dB
Decoupling SAT-TV	≥18 dB (typ. 30 dB)
Decoupling SAT-FM	≥40 dB
Subscriber isolation VHF-UHF	≥42 dB
Subscriber decoupling SAT	≥32 dB
Return loss TV	Cat D
Return loss Input	Cat B
Return loss FM	Cat D
Return loss SAT	Cat D
Power passing	24 V DC
Connectors	
Outer conductor clamp	7.5 mm
Inner conductor clamp	0,8...1,3 mm
F-socket	1 pcs.
IEC socket	1 pcs.
IEC-plug	1 pcs.
General data	
Screening factor	85 dB (class A, EN 50083-2)
Dimensions (width x height x depth)	70 x 70 x 22 mm
Installation depth	35 mm

The DB 64 is a 3-hole Unicable loop-through sockets for satellite receiving equipment to separately connect radio, TV receivers and additional SAT receivers. Inside the SAT connection a DC bypass is integrated which allows the passage of the required switching voltages. The housing has a very high stability despite a very flat construction. By F and IEC sockets and IEC connector, a faster and more reliable connection is ensured. If the DB 64 used as

Accessories Wall-outlet sockets

DV 23

Terminating resistor 75 Ω



Technical Data

Type	75 Ω termination for loop sockets
Type of mounting	clamped
construction style	straight
Material	nickel plated brass
Dimensions (width x height x depth)	Ø 5 x 21 mm
DC separation	No

The DV 23 is an attachable terminating resistor of 75 Ohm for the installation of antenna doses.

DV 27

Terminating resistor 75 Ω, with DC-separation



Technical Data

Type	75 Ω termination for loop sockets
Type of mounting	clamped
construction style	straight
Material	nickel plated brass
Dimensions (width x height x depth)	Ø 5 x 22 mm
DC separation	Yes

The DV 27 is a clamp on 75 Ohm terminating resistor for mounting on antenna doses (DB 64 UNICABLE).



Accessories Wall-outlet sockets

DW 42

Central cover plate, 2-hole,
75 x 75 mm



DW 44

Central cover plate, 2-hole,
85 x 85 mm



DW 45

Central cover plate, 3-hole,
75 x 75 mm



Technical Data

General data

Quantity of holes	2 pcs.
Dimensions (width x height x depth)	75 x 75 mm

Technical Data

General data

Quantity of holes	2 pcs.
Dimensions (width x height x depth)	85 x 85 mm

Technical Data

General data

Quantity of holes	3 pcs.
Dimensions (width x height x depth)	75 x 75 mm

DW 45 T

Central cover plate, 4-hole,
75 x 75 mm



DW 49 T

Central cover plate, 4-hole,
85 x 85 mm



DW 49 M

Central cover plate, 3-hole,
85 x 85 mm



Technical Data

General data

Quantity of holes	4 pcs.
Dimensions (width x height x depth)	75 x 75 mm

Technical Data

General data

Quantity of holes	4 pcs.
Dimensions (width x height x depth)	85 x 85 mm

Technical Data

General data

Quantity of holes	3 pcs.
Dimensions (width x height x depth)	85 x 85 mm

characteristics

- Approved by Vodafone Kabel Deutschland

Accessories Wall-outlet sockets

DZ 41

Screwdriver for DW 41



The DZ 41 is suitable as a screwdriver for the patented DW 41.

DW 41

Blocking socket for multimedia boxes



Technical Data

General data

Quantity of holes	2 pcs.
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TV and radio plug of the antenna socket is blocked, multimedia funktionen (telephony and internet) still usable; bolting unlockable only with special equipment DZ 41; no manipulation possible; easy and quick mounting; Scope of delivery: blocking socket, screw and cover

DD 99

Mounting frame



Technical Data

General data

Dimensions (width x height x depth)	75 x 75 x 35 mm
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characteristics

- Mounting frame for the exposed fitting of wall outlets
- Approved by Vodafone Kabel Deutschland
- Approved by Unitymedia

The DD 99 is a surface mounting frame. This is certified for KDG and Unitymedia.



DC blocker

DL 05

DC blocker



A
■ CLASS

Technical Data

Frequency range 4...2500 MHz

Through loss <0,8 dB

Connectors

F-socket 2 pcs.

F-plug 0 pcs.

General data

Test voltage 2120 V DC

Dimensions SW11x33 mm
(width x height x depth)

DL 20 A

Galvanic separating element



Technical Data

Frequency range 5...1000 MHz

Through loss <0,5 dB

Connectors

F-socket 2 pcs.

General data

Test voltage 2120 V DC

Dimensions 60 x 20 x 48 mm
(width x height x depth)

characteristics

- Galvanic separation of the inner and outer conductor of coaxial cables
- Screening Class A
- Compact dimensions
- Low insertion loss

DL 20 A galvanic isolation. For galvanic isolation of 2 transmission systems in BK-systems.

DC05 is a component for separating the circuit in satellite reception systems.

CATV-Patch cable

BK 76 0035

Patch cable, 35 cm,
75 Ohm



characteristics

- Exceeds Class A (EN 50117-2-4)
- Screening efficiency >110 dB
- RoHS compliant

BK 76 0045

Patch cable, 45 cm,
75 Ohm



BK 96 0070

Patch cable, 70 cm,
75 Ohm



BK 96 0030

Patch cable, 30 cm,
75 Ohm



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Technical Data

Connectors

F-Quick-plug	2 pcs. (straight, compress)			
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General data

Length	0.35 m	0.45 m	0.7 m	0.3 m
Outer jacket material	PVC (RoHS compliant)	PVC (RoHS compliant)	PVC (RoHS compliant)	PVC (RoHS compliant)

Connection cable

DS 35 0035

DATA-connection cable F-Quick
+ F-Quick, 0,35 m

characteristics

- 0,35 m length



DS 35 0050

DATA-connection cable F-Quick
+ F-Quick, 0,5 m



Technical Data

Mechanical Data

Length	0,35 m	0,5 m
Outer jacket material	PVC RoHS compliant white	PVC RoHS compliant white
Outer jacket diameter	Ø5,0 mm	Ø5,00 mm

Cable construction

Inner conductor material	Cu	Cu
Inner conductor diameter	Ø0,8 mm	Ø0,8 mm
Dielectric	Zell-PE, physics. foamed	Zell-PE, physics. foamed
Dielectricum diameter	Ø3,55 mm	Ø3,55 mm
Outer conductor 1	AL/Pet bonded	AL/Pet bonded
Outer conductor 2	CuSn	CuSn
Outer conductor 3	AL/Pet	AL/Pet
F-quick-male outer conductor	nickel plated brass	nickel plated brass
F-quick-male inner conductor		

Electrical data

Frequency range	5...1000 MHz	5...1000 MHz
Through loss	<1 dB	<1 dB
Return loss	<20 dB	<20 dB
Coupling resistance 5...30 MHz	5 mΩ/m	5 mΩ/m
Screen class 30...1000 MHz	85 dB	85 dB
Screening factor	Class A, according to EN 50083-2	Class A, according to EN 50083-2

Connection cable

DS 37 U 0150

connecting cable
IEC-female / IEC-male,
1,5 m



characteristics

- Class A++ > 105 dB (30...1006 MHz)
- Frequency range 5...2400 MHz
- Pre-assembled with 1 IEC female and 1 IEC male
- Bending radius: 30 mm
- Tensile strength > 130 N
- Unitymedia certified



DS 37 U 0250

connecting cable
IEC-female / IEC-male,
2,5 m



DS 37 U 0300

connecting cable
IEC-female / IEC-male,
3 m



DS 37 U 0500

connecting cable
IEC-female / IEC-male,
5 m



Technical Data

Mechanical Data

Length	1,5 m	2,5 m	3,0 m	5,0 m
Bend protection	Shrink tube	Shrink tube	Shrink tube	Shrink tube
Breaking stress	>130 N Cable / connector			
Bending radius	30 mm	30 mm	30 mm	30 mm
Outer jacket material	PVC black	PVC black	PVC black	PVC black
Outer jacket diameter	Ø 5,00 mm (±0,1 mm)			

Cable construction

Inner conductor material	Cu-core	Cu-core	Cu-core	Cu-core
Inner conductor diameter	Ø 0,8 mm (±0,02 mm)			
Dielectric	PE	PE	PE	PE
Dielectricum diameter	Ø 3,55 mm (±0,05 mm)			
Outer conductor 1	AL/Pet bonded	AL/Pet bonded	AL/Pet bonded	AL/Pet bonded
Outer conductor 2	Braid TCCA 24 x 4 x 0,12 (75% coverage)	Braid TCCA 24 x 4 x 0,12 (75% coverage)	Braid TCCA 24 x 4 x 0,12 (75% coverage)	Braid TCCA 24 x 4 x 0,12 (75% coverage)
Outer conductor 3	AL/Pet	AL/Pet	AL/Pet	AL/Pet

Labeling

Character height	3 mm White	3 mm White	3 mm White	3 mm White
Text	(DS37U 0150 105dB WISI YYY,WW)	(DS37U 0250 105dB WISI YYY,WW)	(DS37U 0300 105dB WISI YYY,WW)	(DS37U 0500 105dB WISI YYY,WW)

IEC connector

IEC-male outer conductor	(IEC 61169-2)	(IEC 61169-2)	(IEC 61169-2)	(IEC 61169-2)
IEC-male inner conductor	Brass, plating white bronze. Color code: blue ring			
IEC-male pull off / push on force	≥40 N	≥40 N	≥40 N	≥40 N
IEC-female outer conductor	Brass, plating white bronze. Color code: green ring			
IEC-female inner conductor	Brass, (plating white bronze)			

Electrical data

Frequency range	5...2400 MHz	5...2400 MHz	5...2400 MHz	5...2400 MHz
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Connection cable

DS 38 U 0150

Fly lead F-Quick / IEC-female, 1,5 m

characteristics

- Class A++ > 105 dB (30...1006 MHz)
- Frequency range 5...2400 MHz
- Pre-assembled with 1 F-Quick male and 1 IEC female
- Bending radius: 30 mm
- Tensile strength > 130 N
- Unitymedia certified



DS 38 U 0250

Fly lead F-Quick / IEC-female, 2,5 m



DS 38 U 0300

Fly lead F-Quick / IEC-female, 3 m



DS 38 U 0500

Fly lead F-Quick / IEC-female, 5 m



Technical Data

Mechanical Data

Length	1,5 m	2,5 m	3,0 m	5,0 m
Bend protection	Shrink tube	Shrink tube	Shrink tube	Shrink tube
Breaking stress	>130 N Cable / connector			
Bending radius	30 mm	30 mm	30 mm	30 mm
Outer jacket material	PVC black	PVC black	PVC black	PVC black
Outer jacket diameter	Ø 5,00 mm (±0,1 mm)			

Cable construction

Inner conductor material	Cu-core	Cu-core	Cu-core	Cu-core
Inner conductor diameter	Ø 0,8 mm (±0,02 mm)			
Dielectric	PE	PE	PE	PE
Dielectricum diameter	Ø 3,55 mm (±0,05 mm)			
Outer conductor 1	AL/Pet bonded	AL/Pet bonded	AL/Pet bonded	AL/Pet bonded
Outer conductor 2	Braid TCCA 24 x 4 x 0,12 (75% coverage)	Braid TCCA 24 x 4 x 0,12 (75% coverage)	Braid TCCA 24 x 4 x 0,12 (75% coverage)	Braid TCCA 24 x 4 x 0,12 (75% coverage)
Outer conductor 3	AL/Pet	AL/Pet	AL/Pet	AL/Pet

Labeling

Character height	3 mm White	3 mm White	3 mm White	3 mm White
Text	(DS38U 0150 105dB WISI YYYY,WW)	(DS38U 0250 105dB WISI YYYY,WW)	(DS38U 0300 105dB WISI YYYY,WW)	(DS38U 0500 105dB WISI YYYY,WW)

F-quick connector

(IEC 61169-47)	(IEC 61169-47)	(IEC 61169-47)	(IEC 61169-47)	(IEC 61169-47)
F-quick-male outer conductor	Brass, Plating white bronze. Color code: red ring	Brass, Plating white bronze. Color code: red ring	Brass, Plating white bronze. Color code: red ring	Brass, Plating white bronze. Color code: red ring
F-quick-male inner conductor	Brass, (Plating gold)	Brass, (Plating gold)	Brass, (Plating gold)	Brass, (Plating gold)

Pull off / push on force F-quick

≥40 N				
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IEC connector

(IEC 61169-2)	(IEC 61169-2)	(IEC 61169-2)	(IEC 61169-2)	(IEC 61169-2)
IEC-female outer conductor	Brass, plating white bronze. Color code: green ring	Brass, plating white bronze. Color code: green ring	Brass, plating white bronze. Color code: green ring	Brass, plating white bronze. Color code: green ring
IEC-female inner conductor	Brass, (plating white bronze)			
Pull off / push on force IEC	≥40 N	≥40 N	≥40 N	≥40 N

Connection cable

DS 39 U 0150

Fly lead F-Quick / IEC-male, 1,5 m



characteristics

- Class A++ > 105 dB (30...1006 MHz)
- Frequency range 5...2400 MHz
- Pre-assembled with 1 F-Quick male and 1 IEC male
- Bending radius: 30 mm
- Tensile strength > 130 N
- Unitymedia certified



DS 39 U 0250

connecting cable F-Quick / IEC-male, 2,5 m



DS 39 U 0300

connecting cable F-Quick / IEC-male, 3 m



DS 39 U 0500

connecting cable F-Quick / IEC-male, 5 m



Technical Data

Mechanical Data

Length	1,5 m	2,5 m	3,0 m	5,0 m
Bend protection	Shrink tube	Shrink tube	Shrink tube	Shrink tube
Breaking stress	>130 N Cable / connector			
Bending radius	30 mm	30 mm	30 mm	30 mm
Outer jacket material	PVC black	PVC black	PVC black	PVC black
Outer jacket diameter	Ø 5,00 mm (±0,1 mm)			

Cable construction

Inner conductor material	Cu-core	Cu-core	Cu-core	Cu-core
Inner conductor diameter	Ø 0,8 mm (±0,02 mm)			
Dielectric	PE	PE	PE	PE
Dielectricum diameter	Ø 3,55 mm (±0,05 mm)			
Outer conductor 1	AL/Pet bonded	AL/Pet bonded	AL/Pet bonded	AL/Pet bonded
Outer conductor 2	Braid TCCA 24 x 4 x 0,12 (75% coverage)	Braid TCCA 24 x 4 x 0,12 (75% coverage)	Braid TCCA 24 x 4 x 0,12 (75% coverage)	Braid TCCA 24 x 4 x 0,12 (75% coverage)
Outer conductor 3	AL/Pet	AL/Pet	AL/Pet	AL/Pet

Labeling

Character height	3 mm White	3 mm White	3 mm White	3 mm White
Text	(DS39U 0150 105dB WISI YYYY,WW)	(DS39U 0250 105dB WISI YYYY,WW)	(DS39U 0300 105dB WISI YYYY,WW)	(DS39U 0500 105dB WISI YYYY,WW)

F-quick connector

F-quick-male outer conductor	Brass, Plating white bronze. Color code: red ring	Brass, Plating white bronze. Color code: red ring	Brass, Plating white bronze. Color code: red ring	Brass, Plating white bronze. Color code: red ring
F-quick-male inner conductor	Brass, (Plating gold)	Brass, (Plating gold)	Brass, (Plating gold)	Brass, (Plating gold)

Pull off / push on force F-quick

Pull off / push on force F-quick	≥40 N	≥40 N	≥40 N	≥40 N
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IEC connector

IEC connector	(IEC 61169-2)	(IEC 61169-2)	(IEC 61169-2)	(IEC 61169-2)
IEC-male outer conductor	Brass, plating white bronze. Color code: green ring	Brass, plating white bronze. Color code: green ring	Brass, plating white bronze. Color code: green ring	Brass, plating white bronze. Color code: green ring

IEC-male inner conductor

IEC-male inner conductor	Brass, (plating white bronze)			
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Pull off / push on force IEC

Pull off / push on force IEC	≥40 N	≥40 N	≥40 N	≥40 N
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Connection cable

DS 50 U 0150

Fly lead F-Quick / F-Quick,
1,5 m

characteristics

- Class A++ > 105 dB (30...1006 MHz)
- Frequency range 5...2400 MHz
- Pre-assembled with 2 F-Quick male
- Bending radius: 30 mm
- Tensile strength > 130 N
- Unitymedia certified



DS 50 U 0300

connecting cable F-Quick/
F-Quick, 3 m



DS 50 U 0500

Fly lead F-Quick / F-Quick,
5 m



Technical Data

Mechanical Data

Length	1,5 m	3,0 m	5,0 m
Bend protection	Shrink tube	Shrink tube	Shrink tube
Breaking stress	>130 N Cable / connector	>130 N Cable / connector	>130 N Cable / connector
Bending radius	30 mm	30 mm	30 mm
Outer jacket material	PVC black	PVC black	PVC black
Outer jacket diameter	Ø 5,00 mm (±0,1 mm)	Ø 5,00 mm (±0,1 mm)	Ø 5,00 mm (±0,1 mm)

Cable construction

Inner conductor material	Cu-core	Cu-core	Cu-core
Inner conductor diameter	Ø 0,8 mm (±0,02 mm)	Ø 0,8 mm (±0,02 mm)	Ø 0,8 mm (±0,02 mm)
Dielectric	PE	PE	PE
Dielectricum diameter	Ø 3,55 mm (±0,05 mm)	Ø 3,55 mm (±0,05 mm)	Ø 3,55 mm (±0,05 mm)
Outer conductor 1	AL/Pet bonded	AL/Pet bonded	AL/Pet bonded
Outer conductor 2	Braid TCCA 24 x 4 x 0,12 (75% coverage)	Braid TCCA 24 x 4 x 0,12 (75% coverage)	Braid TCCA 24 x 4 x 0,12 (75% coverage)
Outer conductor 3	AL/Pet	AL/Pet	AL/Pet

Labeling

Character height	3 mm White	3 mm White	3 mm White
Text	(DS50U 0150 105dB WISI YYY,WW) (IEC 61169-47)	(DS50U 0300 105dB WISI YYY,WW) (IEC 61169-47)	(DS50U 0500 105dB WISI YYY,WW) (IEC 61169-47)

F-quick connector

F-quick-male outer conductor	Brass, Plating white bronze. Color code: red ring	Brass, Plating white bronze. Color code: red ring	Brass, Plating white bronze. Color code: red ring
F-quick-male inner conductor	Brass, (Plating gold)	Brass, (Plating gold)	Brass, (Plating gold)
Pull off / push on force F-quick	≥40 N	≥40 N	≥40 N

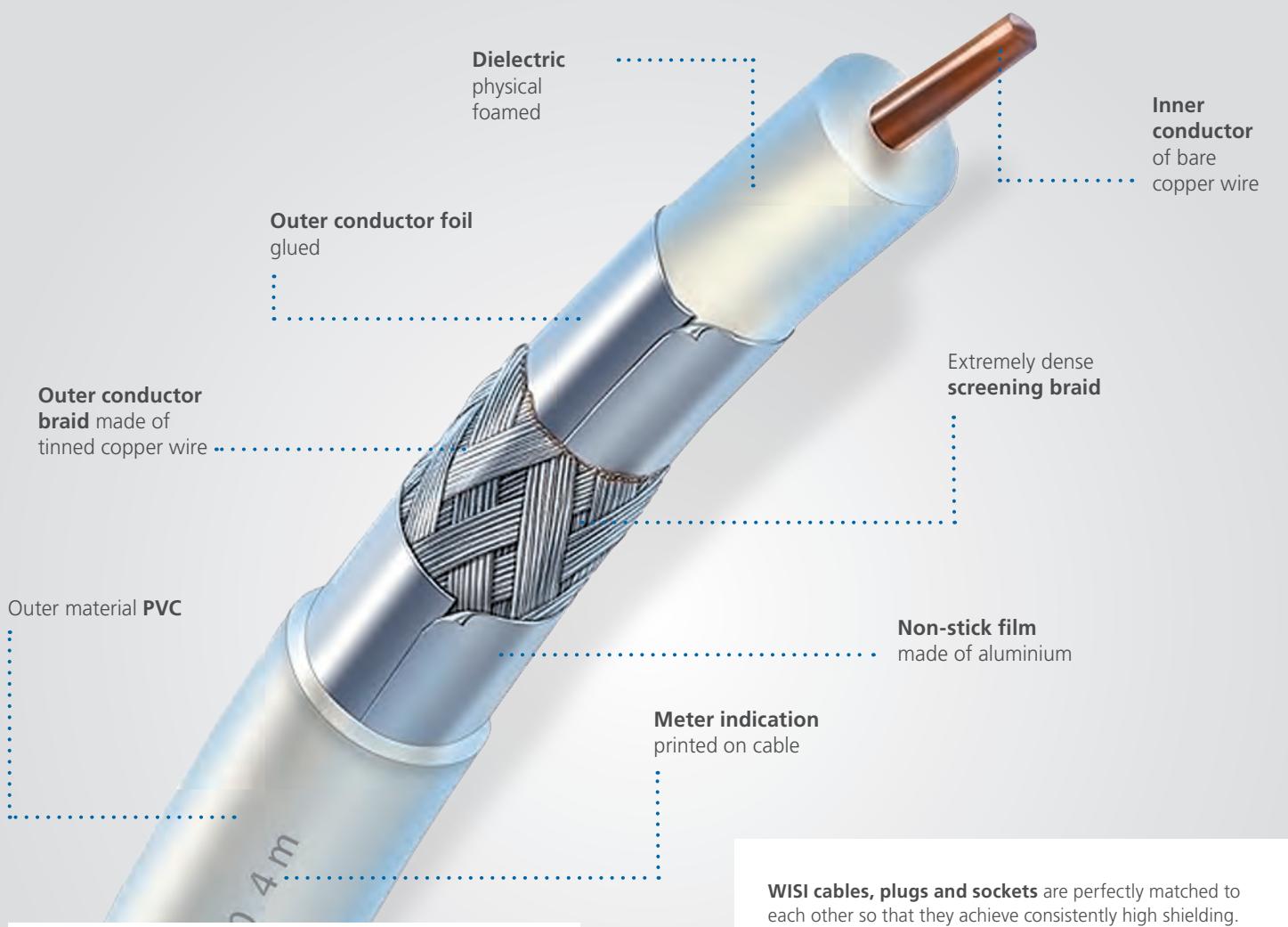
Electrical data

Frequency range	5...2400 MHz	5...2400 MHz	5...2400 MHz
Insertion loss at 1006 MHz	<0,9 dB	<1,8 dB	<3,0 dB
Insertion loss at 2400 MHz	<1,3 dB	<2,7 dB	<4,5 dB



Coaxial cable

WISI Coaxial cable:
**The perfect fit for every
Installation.**



Also available in the practical **KoaxBox**.



WISI cables, plugs and sockets are perfectly matched to each other so that they achieve consistently high shielding. They are quick and easy to install, have excellent performance characteristics and are manufactured in the proven and well-known WISI quality.

At a glance:

- better DC resistance due to copper inner conductor
- non-ageing foamed dielectric
- Bonded outer conductor foil prevents slipping while mounting the connector
- uniform covering of the cable by dense outer conductor braiding

Installation cable

MK 76 A 0100

Coaxial cable 115 dB, Ø 5 mm, Length 100 m, PVC white, Cable ring in plastic foil

characteristics

- Screening class A+ (EN 50117-2-4)
- Screening efficiency > 115 dB
- Triple shielded, bonded outer foil enables easy connector assembly
- Fulfils fire protection class Eca (EN 50575)
- Length indication at the outer sheath
- Easy installation with WISI connector system (DV 10, DV 10N, DV 50, DV 90)



KLASSE
A
■ CLASS

MK 76 A 0101

Coaxial cable 115 dB, Ø 5 mm, Length 100 m, PVC white, on plastic drum



KLASSE
A
■ CLASS

MK 76 A 0500

Coaxial cable 115 dB, Ø 5 mm, Length 500 m, PVC white, on plastic drum



KLASSE
A
■ CLASS

Technical Data

General data

Installation	Indoor installation	Indoor installation	Indoor installation
Screening factor	Class A+, according to EN 50117-2-4	Class A+, according to EN 50117-2-4	Class A+, according to EN 50117-2-4
Color	White	White	White
Length	100 m	100 m	500 m
Reaction to fire	Eca, according to CPR (EN 50575)	Eca, according to CPR (EN 50575)	Eca, according to CPR (EN 50575)

Construction

Screening construction	3-way	3-way	3-way
Inner conductor	Ø 0,80 mm	Ø 0,80 mm	Ø 0,80 mm
Insulation	Ø 3,55 mm (Foam PE, gas injected)	Ø 3,55 mm (Foam PE, gas injected)	Ø 3,55 mm (Foam PE, gas injected)
Outer conductor 1. Foil	Ø 3,65 mm (Cu)	Ø 3,65 mm (Cu)	Ø 3,65 mm (Cu)
Outer conductor 2. Braid	58 % (optical coating, tinned copper)	58 % (optical coating, tinned copper)	58 % (optical coating, tinned copper)
Outer conductor 3. Foil	Aluminium	Aluminium	Aluminium
Sheath	Ø 5,0 mm (PVC, white)	Ø 5,0 mm (PVC, white)	Ø 5,0 mm (PVC, white)

Electrical data

Impedance	75 Ω	75 Ω	75 Ω
Velocity ratio	0.85	0.85	0.85
DC resistance inner conductor	35.5 Ω/km	35.5 Ω/km	35.5 Ω/km
DC resistance outer conductor	16 Ω/km	16 Ω/km	16 Ω/km
Rated current	5 A	5 A	5 A
Attenuation 5 MHz	1.9 dB (100 m)	1.9 dB (100 m)	1.9 dB (100 m)
Attenuation 50 MHz	5.7 dB (100 m)	5.7 dB (100 m)	5.7 dB (100 m)
Attenuation 100 MHz	8.1 dB (100 m)	8.1 dB (100 m)	8.1 dB (100 m)
Attenuation 400 MHz	16.5 dB (100 m)	16.5 dB (100 m)	16.5 dB (100 m)
Attenuation 860 MHz	24.7 dB (100 m)	24.7 dB (100 m)	24.7 dB (100 m)
Attenuation 1000 MHz	26.7 dB (100 m)	26.7 dB (100 m)	26.7 dB (100 m)

Installation cable

MK 86 A 0101

Coaxial cable 110 dB, Ø 6,9 mm,
Length 100 m, PVC white,
on plastic drum

MK 86 A 0250

Coaxial cable 110 dB, Ø 6,9 mm,
Length 250 m, PVC white,
on plastic drum

characteristics

- Screening class A (EN 50117-2-4)
- Screening efficiency >110 dB
- Triple shielded, bonded outer foil enables easy connector assembly
- Fulfils fire protection class Eca (EN 50575)
- Length indication at the outer sheath
- RoHS compliant
- Ageing resistance, gas foamed dielectric
- Easy mounting with WISI connector system
(recommended DV 55 screw plug)



Technical Data

General data

Installation	Indoor installation	Indoor installation
Screening factor	Class A, according to EN 50117-2-4	Class A, according to EN 50117-2-4
Color	White	White
Length	100 m	250 m
Reaction to fire	Eca, according to CPR (EN 50575)	Eca, according to CPR (EN 50575)

Construction

Screening construction	3-way	3-way
Inner conductor	Ø 1,02 mm (CCS)	Ø 1,02 mm (CCS)
Insulation	Ø 4,7 mm (Foam PE, gas injected)	Ø 4,7 mm (Foam PE, gas injected)
Outer conductor 1. Foil	Ø 4,85 mm (AL/PET/AL bonded)	Ø 4,85 mm (AL/PET/AL bonded)
Outer conductor 2. Braid	80 %	80 %
Outer conductor 3. Foil	AL/PET/AL	AL/PET/AL
Sheath	Ø 6,9 mm (PVC, white)	Ø 6,9 mm (PVC, white)

Electrical data

Impedance	75 Ω	75 Ω
Velocity ratio	0,83	0,83
DC resistance inner conductor	<100 Ω/km	<100 Ω/km
DC resistance outer conductor	<24 Ω/km	<24 Ω/km
Rated current	8 A	8 A
Attenuation 5 MHz	2,3 dB (100 m)	2,3 dB (100 m)
Attenuation 50 MHz	4,8 dB (100 m)	4,8 dB (100 m)
Attenuation 100 MHz	6,6 dB (100 m)	6,6 dB (100 m)
Attenuation 400 MHz	13,7 dB (100 m)	13,7 dB (100 m)
Attenuation 860 MHz	18,9 dB (100 m)	18,9 dB (100 m)
Attenuation 1000 MHz	21,2 dB (100 m)	21,2 dB (100 m)



Installation cable

MK 91 0100

Coaxial cable 110 dB, Ø 6,4 mm, Length 100 m, PVC white, Cable ring in plastic foil



A
KLASSE
CLASS

MK 91 0250

Coaxial cable 110 dB, Ø 6,4 mm, Length 250 m, PVC white, Cable ring in plastic foil



A
KLASSE
CLASS

MK 91 0500

Coaxial cable 110 dB, Ø 6,4 mm, Length 500 m, PVC white, on plastic drum



A
KLASSE
CLASS

MK 91 0252

Coaxial cable 110 dB, Ø 6,4 mm, Length 250 m, PVC white, in COAXBox dispenser carton



A
KLASSE
CLASS

characteristics

- Exceeds Class A (EN 50117-2-4)
- Screening efficiency > 110 dB
- Triple shielded, bonded outer foil enables easy connector assembly
- Fulfils fire protection class Eca (EN 50575)

Technical Data

General data

Installation	Indoor installation	Indoor installation	Indoor installation	Indoor installation
Screening factor	Class A, according to EN 50117-2-4	Class A, according to EN 50117-2-4	Class A, according to EN 50117-2-4	Class A, according to EN 50083-2
Color	White	White	White	White
Length	100 m	250 m	500 m	250 m
Reaction to fire	Eca, according to CPR (EN 50575)	Eca, according to CPR (EN 50575)	Eca, according to CPR (EN 50575)	Eca, according to CPR (EN 50575)

Construction

Screening construction	3-way	3-way	3-way	3-way
Inner conductor	Ø 1,02 mm (Cu)			
Insulation	Ø 4,7 mm (Foam PE, gas injected)			
Outer conductor 1. Foil	Ø 4,85 mm (Al-Pet bonded)			
Outer conductor 2. Braid	≥38 % (optical coating, tinned copper)			
Outer conductor 3. Foil	Aluminium	Aluminium	Aluminium	Aluminium
Sheath	Ø 6,5 mm (PVC, white)	Ø 6,5 mm (PVC, white)	Ø 6,5 mm (PVC, white)	Ø 6,4 mm (PVC, white)

Electrical data

Impedance	75 Ω	75 Ω	75 Ω	75 Ω
Velocity ratio	0.85	0.85	0.85	0.85
DC resistance inner conductor	22.5 Ω/km	22.5 Ω/km	22.5 Ω/km	22.5 Ω/km
DC resistance outer conductor	18 Ω/km	18 Ω/km	18 Ω/km	18 Ω/km
Rated current	8 A	8 A	8 A	8 A
Attenuation 5 MHz	1.42 dB (100 m)			
Attenuation 50 MHz	4.15 dB (100 m)			
Attenuation 100 MHz	5.98 dB (100 m)			
Attenuation 400 MHz	12.2 dB (100 m)			
Attenuation 860 MHz	18.22 dB (100 m)			
Attenuation 1000 MHz	19.8 dB (100 m)			

Installation cable

MK 96 A 0015

Coaxial cable 120 dB,
 Ø 6,8 mm, Length 15 m,
 PVC white, Blister pack incl.
 2x F-Connector



characteristics

- Screening class A+ (EN 50117-2-4)
- Screening efficiency >120 dB
- Triple shielded, bonded outer foil enables easy connector assembly
- Fulfils fire protection class Dca, s3, d2, a3 (EN 50575)
- Length indication at the outer sheath
- Approved by Vodafone Kabel Deutschland

A
■ CLASS

MK 96 A 0025

Coaxial cable 120 dB,
 Ø 6,8 mm, Length 25 m,
 PVC white, Blister pack incl.
 2x F-Connector



A
■ CLASS

MK 96 A 0100

Coaxial cable 120 dB,
 Ø 6,8 mm, Length 100 m,
 PVC white, Cable ring in
 plastic foil



A
■ CLASS

Technical Data

General data

Installation	Indoor installation	Indoor installation	Indoor installation
Screening factor	Class A+, according to EN 50117-2-4	Class A+, according to EN 50117-2-4	Class A+, according to EN 50117-2-4
Color	White	White	White
Length	15 m	25 m	100 m
Reaction to fire	Dca, s3, d2, a3, according to BauPVO (EN 50117)	Dca, s3, d2, a3, according to BauPVO (EN 50117)	Dca, s3, d2, a3, according to BauPVO (EN 50117)

Construction

Screening construction	3-way	3-way	3-way
Inner conductor	Ø 1,02 mm (Cu)	Ø 1,02 mm (Cu)	Ø 1,02 mm (Cu)
Insulation	Ø 4,7 mm (Foam PE, gas injected)	Ø 4,7 mm (Foam PE, gas injected)	Ø 4,7 mm (Foam PE, gas injected)
Outer conductor 1. Foil	Ø 4,85 mm (Al-Pet bonded)	Ø 4,85 mm (Al-Pet bonded)	Ø 4,85 mm (Al-Pet bonded)
Outer conductor 2. Braid	63 % (optical coating, tinned copper)	63 % (optical coating, tinned copper)	63 % (optical coating, tinned copper)
Outer conductor 3. Foil	Aluminium	Aluminium	Aluminium
Sheath	Ø 6,8 mm (PVC, white)	Ø 6,8 mm (PVC, white)	Ø 6,8 mm (PVC, white)

Electrical data

Impedance	75 Ω	75 Ω	75 Ω
Velocity ratio	0.84	0.84	0.84
DC resistance inner conductor	21.2 Ω/km	21.2 Ω/km	21.2 Ω/km
DC resistance outer conductor	11.7 Ω/km	11.7 Ω/km	11.7 Ω/km
Rated current	8 A	8 A	8 A
Attenuation 5 MHz	1.3 dB (100 m)	1.3 dB (100 m)	1.3 dB (100 m)
Attenuation 50 MHz	4.1 dB (100 m)	4.1 dB (100 m)	4.1 dB (100 m)
Attentuation 100 MHz	5.9 dB (100 m)	5.9 dB (100 m)	5.9 dB (100 m)
Attentuation 400 MHz	12 dB (100 m)	12 dB (100 m)	12 dB (100 m)
Attentuation 860 MHz	17.9 dB (100 m)	17.9 dB (100 m)	17.9 dB (100 m)
Attentuation 1000 MHz	19.4 dB (100 m)	19.4 dB (100 m)	19.4 dB (100 m)



Installation cable

MK 96 A 0101

Coaxial cable 120 dB, Ø 6,8 mm, Length 100 m, PVC white, on plastic drum



characteristics

- Screening class A+ (EN 50117-2-4)
- Screening efficiency >120 dB
- Fulfils fire protection class Dca, s3, d2, a3 (EN 50575)
- Approved by Vodafone Kabel Deutschland

MK 96 A 0250

Coaxial cable 120 dB, Ø 6,8 mm, Length 250 m, PVC white, Cable ring in plastic foil



MK 96 A 0500

Coaxial cable 120 dB, Ø 6,8 mm, Length 500 m, PVC white, on plastic drum



MK 96 A 0252

Coaxial cable 120 dB, Ø 6,8 mm, Length 250 m, PVC white, in COAXBox dispenser carton



Technical Data

General data

Installation	Indoor installation	Indoor installation	Indoor installation	Indoor installation
Screening factor	Class A+, according to EN 50117-2-4			
Color	White	White	White	White
Length	100 m	250 m	500 m	250 m
Reaction to fire	Dca, s3, d2, a3, according to BauPVO (EN 50117)	Dca, s3, d2, a3, according to BauPVO (EN 50117)	Dca, s3, d2, a3, according to BauPVO (EN 50117)	Dca, s3, d2, a3, according to BauPVO (EN 50117)

Construction

Screening construction	3-way	3-way	3-way	3-way
Inner conductor	Ø 1,02 mm (Cu)			
Insulation	Ø 4,7 mm (Foam PE, gas injected)			
Outer conductor 1. Foil	Ø 4,85 mm (Al-Pet bonded)			
Outer conductor 2. Braid	63 % (optical coating, tinned copper)			
Outer conductor 3. Foil	Aluminium	Aluminium	Aluminium	Aluminium
Sheath	Ø 6,8 mm (PVC, white)			

Electrical data

Impedance	75 Ω	75 Ω	75 Ω	75 Ω
Velocity ratio	0.84	0.84	0.84	0.84
DC resistance inner conductor	21.2 Ω/km	21.2 Ω/km	21.2 Ω/km	21.2 Ω/km
DC resistance outer conductor	11.7 Ω/km	11.7 Ω/km	11.7 Ω/km	11.7 Ω/km
Rated current	8 A	8 A	8 A	8 A
Attenuation 5 MHz	1.3 dB (100 m)			
Attenuation 50 MHz	4.1 dB (100 m)			
Attenuation 100 MHz	5.9 dB (100 m)			
Attenuation 400 MHz	12 dB (100 m)			
Attenuation 860 MHz	17.9 dB (100 m)			
Attenuation 1000 MHz	19.4 dB (100 m)			

Wet room cable

MK 15 0500

Coaxial cable for wet rooms, Ø 10,3 mm, Length 500 m, PE black, on wood drum



Technical Data	
General data	
Installation	wet room
Screening factor	Class A++, according to EN 50117-2-3
Color	black
Length	500 m
Reaction to fire	Fca, according to BauPVO (EN 50117)
Construction	
Screening construction	3-way
Inner conductor	Ø 1,63 mm (Cu)
Insulation	Ø 7,2 mm (Foam PE, gas injected)
Outer conductor 1. Foil	Ø 7,3 mm (Al-Pet bonded)
Outer conductor 2. Braid	65 % (optical coating, tinned copper)
Outer conductor 3. Foil	Aluminium
Sheath	Ø 10,3 mm (PE black)
Electrical data	
Impedance	75 Ω
Velocity ratio	0.84
DC resistance inner conductor	8.5 Ω/km
DC resistance outer conductor	7.5 Ω/km
Rated current	16 A
Attenuation 5 MHz	0.9 dB (100 m)
Attenuation 50 MHz	2.8 dB (100 m)
Attenuation 100 MHz	3.9 dB (100 m)
Attenuation 400 MHz	8.2 dB (100 m)
Attenuation 860 MHz	12.3 dB (100 m)
Attenuation 1000 MHz	13.1 dB (100 m)
Attenuation 1400 MHz	15.7 dB (100 m)
Attenuation 2000 MHz	19.5 dB (100 m)
Attenuation 2400 MHz	21.6 dB (100 m)
Attenuation 3000 MHz	23.8 dB (100 m)
Return loss 5...470 MHz	> 30 dB
Return loss 470...1000 MHz	> 28 dB
Return loss 1000...2000 MHz	> 25 dB
Return loss 2000...3000 MHz	> 23 dB
Coupling resistance 5...30 MHz	≤ 1,4 mΩ/m
Screening efficiency 30...1000 MHz	≥ 125 dB

characteristics

- Class A++ (EN 50117-2-4)
- Screening efficiency > 125 dB
- Black PE outer sheath for wet rooms
- Triple shielded, bonded outer foil enables easy connector assembly
- Fulfils fire protection class Fca (EN 50575)
- Length indication at the outer sheath
- RoHS compliant
- Ageing resistance, gas foamed dielectric
- Easy mounting with WISI connector systems (DV 14 N, DV 54)
- Approved by Vodafone Kabel Deutschland



Technical Data	
Screening efficiency 1000...2000 MHz	≥ 125 dB
Screeening efficiency 2000...3000 MHz	≥ 110 dB
Mechanical Data	
Max. permissible force	250 N
Bending radius single/multiple	100/200 mm
Operating temperature	-30...+60 °C
Application temperature range	-5...+50 °C
Copper weight	ca. 35,5 kg/km
Total weight	ca. 76 kg/km

The MK 15 0500 is a 75 Ohm coaxial cable for the in-house installation in wet rooms or outside installation. The high-quality materials and the triple shielding with a screening efficiency of >125 dB guarantee an interference free transmission in distribution systems for cable TV, terrestrial and satellite signals. The MK 15 is approved by Vodafone Kabel Deutschland and perfect for the installation in return path capable multimedia networks. The inner conductor consists of pure copper enabling perfect electrical values and a high reliability. With the fire protection class Fca, the MK 15 complies with the Construction Products Regulation (CPR) EU No. 305/2011. The specific PE outer sheath protects the cable against humidity. The cable is compatible with the WISI connector system as well as commercially available connection accessories.

Halogen-free cable

MK 96 AL 100

Coaxial cable halogenfree
120 dB, Ø 6,8 mm, Length
100 m, PE-LSZH white,
Cable ring in plastic foil



characteristics

- Exceeds Class A+ (EN 50117-2-4), Screening efficiency > 120 dB
- Halogen free PE outer sheath (LSZH)
- Triple shielded, bonded outer foil enables easy connector assembly
- Fulfils fire protection class Dca, s1, d2, a1 (EN 50575)
- Approved by Vodafone Kabel Deutschland



MK 96 AL 500

Coaxial cable halogenfree
120 dB, Ø 6,8 mm, Length
500 m, PE-LSZH white,
on plastic drum



MK 96 AL 252

Coaxial cable halogenfree
120 dB, Ø 6,8 mm, Length
250 m, PE-LSZH white,
COAXBox dispenser carton



Technical Data

General data

Installation	Indoor installation	Indoor installation	Indoor installation
Screening factor	Class A+, according to EN 50117-2-4	Class A+, according to EN 50117-2-4	Class A+, according to EN 50117-2-4
Color	White	White	White
Length	100 m	500 m	250 m
Reaction to fire	Dca, s1, d2, a1, according to BauPVO (EN 50575)	Dca, s1, d2, a1, according to BauPVO (EN 50575)	Dca, s1, d2, a1, according to BauPVO (EN 50575)

Construction

Screening construction	3-way	3-way	3-way
Inner conductor	Ø 1,02 mm (Cu)	Ø 1,02 mm (Cu)	Ø 1,02 mm (Cu)
Insulation	Ø 4,7 mm (Foam PE, gas injected)	Ø 4,7 mm (Foam PE, gas injected)	Ø 4,7 mm (Foam PE, gas injected)
Outer conductor 1. Foil	Ø 4,85 mm (Al-Pet bonded)	Ø 4,85 mm (Al-Pet bonded)	Ø 4,85 mm (Al-Pet bonded)
Outer conductor 2. Braid	63 % (optical coating, tinned copper)	63 % (optical coating, tinned copper)	63 % (optical coating, tinned copper)
Outer conductor 3. Foil	Aluminium	Aluminium	Aluminium
Sheath	Ø 6,8 mm (PE-LSZH, white)	Ø 6,8 mm (PE-LSZH, white)	Ø 6,8 mm (PE-LSZH, white)

Electrical data

Impedance	75 Ω	75 Ω	75 Ω
Velocity ratio	0.84	0.84	0.84
DC resistance inner conductor	21.2 Ω/km	21.2 Ω/km	21.2 Ω/km
DC resistance outer conductor	11.7 Ω/km	11.7 Ω/km	11.7 Ω/km
Rated current	8 A	8 A	8 A
Attenuation 5 MHz	1.3 dB (100 m)	1.3 dB (100 m)	1.3 dB (100 m)
Attenuation 50 MHz	4.1 dB (100 m)	4.1 dB (100 m)	4.1 dB (100 m)
Attenuation 100 MHz	5.9 dB (100 m)	5.9 dB (100 m)	5.9 dB (100 m)
Attenuation 400 MHz	12 dB (100 m)	12 dB (100 m)	12 dB (100 m)
Attenuation 860 MHz	17.9 dB (100 m)	17.9 dB (100 m)	17.9 dB (100 m)
Attenuation 1000 MHz	19.4 dB (100 m)	19.4 dB (100 m)	19.4 dB (100 m)



Satellite receiving systems

WISI SAT antennas:
**Perfect reception
in all weather conditions.**



Parabol offset antennas

OA 10 A

Orbit Line parabol offset antenna, 100 cm, light grey



Technical Data

Gain	39,8...40,9 dB
Aperture angle	<1,8 ° (3 dB)
Wind load at 72 km/h	30 kg
Wind load at 144 km/h	119 kg
Wind load at 216 km/h	268 kg
General data	
Reflector material	Aluminium
Reflector colour	Light grey (RAL 7035)
Diameter	100 cm
Mounting clip	32...76 mm
Setting range elevation	5...90 °
Weight	8.8 kg

characteristics

- Ø 100 cm
- Light grey (RAL 7035)
- Pluggable aluminum feed arm
- Feedholder 40 mm
- Easy and quick installation thanks to the pre-mounted back part
- Corrosion resistant aluminum reflector powder-coated

The OA 10 A offset antenna convinces by its easy installation and low weight. The reflector and feed arm consists of light aluminum. The stable back part is pre-mounted to the reflector and enables an installation in a few steps. For the Installation is an antenna pipe MN 60A or wall holder MN xx available.

OA 13 A

Orbit Line parabol offset antenna, 125 cm, light grey



Technical Data

Gain	43 dB (12 GHz)
Aperture angle	<1,37 ° (3 dB)
Wind load up to 20m mounting height	1450 N
Offset angle	21,3°
General data	
Reflector material	Aluminium, powder-coated
Reflector colour	Light grey (RAL 7035)
Diameter	125 cm
Mounting clip	55...100 mm
Setting range elevation	20...50 °
Weight	12.8 kg

characteristics

- Ø 125 cm
- Light grey (RAL 7035)
- Feedholder 40 mm
- easy installation of the reflector
- Corrosion resistant aluminum reflector powder-coated

Aluminium offset antennas , light-grey. Hot zinc dipped fastening in reflector colour, powder-coated.

Parabol offset antennas

OA 100 G

Orbit Topline Parabol offset antenna, 100 cm, light grey

characteristics

- Ø 100 cm
- Feedholder 40 mm
- easy installation of the reflector
- Corrosion resistant aluminum reflector powder-coated



OA 100 H

Orbit Topline Parabol offset antenna, 100 cm, basalt grey



OA 100 I

Orbit Topline Parabol offset antenna, 100 cm, red brown



Technical Data

Gain	39,8...40,9 dB (12 GHz)	39,8...40,9 dB (12 GHz)	39,8...40,9 dB (12 GHz)
Aperture angle	<1,8 ° (3 dB)	<1,8 ° (3 dB)	<1,8 ° (3 dB)
General data			
Reflector material	Aluminium, powder-coated	Aluminium, powder-coated	Aluminium, powder-coated
Reflector colour	Light grey (RAL 7035)	Basalt grey (RAL 7012)	red brown (RAL 8012)
Diameter	100 cm	100 cm	100 cm
Mounting clip	32...76 mm	32...76 mm	32...76 mm
Setting range elevation	5...70 °	5...70 °	5...70 °

OA 85 G

Orbit Topline parabol offset antenna, 85 cm, light grey

characteristics

- Ø 85 cm
- Feedholder 40 mm
- easy installation of the reflector
- Corrosion resistant aluminum reflector powder-coated



OA 85 H

Orbit Topline Parabol offset antenna, 85 cm, basalt grey



OA 85 I

Orbit Topline Parabol offset antenna, 85 cm, red brown



Technical Data

Gain	37 dB (12 GHz)	37 dB (12 GHz)	37 dB (12 GHz)
Aperture angle	<2,2 ° (3 dB)	<2,2 ° (3 dB)	<2,2 ° (3 dB)
Wind load up to 20m mounting height	478 N	478 N	478 N
General data			
Reflector material	Aluminium, powder-coated	Aluminium, powder-coated	Aluminium, powder-coated
Reflector colour	Light grey (RAL 7035)	Basalt grey (RAL 7012)	red brown (RAL 8012)
Diameter	85 cm	85 cm	85 cm
Mounting clip	32...76 mm	32...76 mm	32...76 mm
Setting range elevation	0...90 °	0...90 °	0...90 °
Weight	5.8 kg	5.8 kg	5.8 kg

Parabol offset antennas

OA 36 G

Orbit Line parabol offset antenna, 60 cm, light grey

characteristics

- Ø 60 cm
- Feedholder 40 mm
- easy installation of the reflector
- Corrosion resistant aluminum reflector powder-coated



OA 36 H

Orbit Line Parabol offset antenna, 60 cm, basalt grey



OA 36 I

Orbit Line Parabol offset antenna, 60 cm, red brown



Technical Data

Gain	35 dB	35 dB	35 dB
Aperture angle	<3,0 ° (3 dB)	<3,0 ° (3 dB)	<3,0 ° (3 dB)
Wind load up to 20m mounting height	280 N	280 N	280 N
General data			
Reflector material	Aluminium, powder-coated	Aluminium, powder-coated	Aluminium, powder-coated
Reflector colour	Light grey (RAL 7035)	Basalt grey (RAL 7012)	red brown (RAL 8012)
Diameter	60 cm	60 cm	60 cm
Mounting clip	32...60 mm	32...60 mm	32...60 mm
Setting range elevation	16...50 °	16...50 °	16...50 °
Weight	1.6 kg	1.6 kg	1.6 kg

OA 38 G

Orbit Line parabol offset antenna, 80 cm, light grey

characteristics

- Ø 80 cm
- Feedholder 40 mm
- easy installation of the reflector
- Corrosion resistant aluminum reflector powder-coated



OA 38 H

Orbit Line Parabol offset antenna, 80 cm, basalt grey



OA 38 I

Orbit Line Parabol offset antenna, 80 cm, red brown



Technical Data

Gain	37 dB	37 dB	37 dB
Aperture angle	<2,5 ° (3 dB)	<2,5 ° (3 dB)	<2,5 ° (3 dB)
Wind load up to 20m mounting height	525 N	525 N	525 N
General data			
Reflector material	Aluminium, powder-coated	Aluminium, powder-coated	Aluminium, powder-coated
Reflector colour	Light grey (RAL 7035)	Basalt grey (RAL 7012)	red brown (RAL 8012)
Diameter	80 cm	80 cm	80 cm
Mounting clip	32...60 mm	32...60 mm	32...60 mm
Setting range elevation	16...50 °	16...50 °	16...50 °
Weight	3.8 kg	3.8 kg	3.8 kg

Feed systems

OC 01 D

Universal feed system, Single, light grey, feed diameter 40 mm



characteristics

- Light grey (RAL 7035)
- UV-resistance weather proofed housing
- Gold-plated contacts for a long-term reliable connection
- Extendible cover for the F-connectors
- 40 mm feed diameter
- Reception of HDTV, 3D, 4K (UHD)

OC 02 D

Universal feed system, Twin, light grey, feed diameter 40 mm



OC 04 D

Universal feed system, Quattro, light grey, feed diameter 40 mm



OC 06 D

Universal feed system, Quad-Switch, light grey, feed diameter 40 mm



Technical Data

Subscriber	1 pcs.	2 pcs.	pcs. Depending on the multiswitch	4 pcs.
Type	SINGLE	TWIN	QUATTRO	QUAD-SWITCH
Input frequency	10,70...11,70/ 11,70...12,75 GHz (Low-Band/High-Band)	10,70...11,70/ 11,70...12,75 GHz (Low-Band/High-Band)	10,70...11,70/ 11,70...12,75 GHz (Low-Band/High-Band)	10,70...11,70/ 11,70...12,75 GHz (Low-Band/High-Band)
Oscillator frequency	9,75/10,6 GHz (Low-Band/High-Band)	9,75/10,6 GHz (Low-Band/High-Band)	9,75/10,6 GHz (Low-Band/High-Band)	9,75/10,6 GHz (Low-Band/High-Band)
Output frequency range	950...2150 MHz	950...2150 MHz	950...2150 MHz	950...2150 MHz
Connectors				
F-socket	1 pcs.	2 pcs.	4 pcs.	4 pcs.
General data				
LNB supply voltage	11...14,2/15,5...21 V (Vertical/Horizontal, 22 kHz)	11...14,2/15,5...21 V (Vertical/Horizontal, 22 kHz)	11...21 V	11...14,2/15,5...21 V (Vertical/Horizontal, 22 kHz)
Power consumption max.	120 mA	180 mA	200 mA	200 mA
Color	Light grey (RAL 7035)			
Feed diameter	40 mm	40 mm	40 mm	40 mm
Operating temperature range	-30...+60 °C	-30...+60 °C	-30...+60 °C	-30...+60 °C



Accessories parabol offset antennas

OF 85 0002

multifeed bar for 2 feed systems

OF 85 0004

multifeed bar for 4 feed systems

characteristics

- for offset antenna OA 85 G/H/I and OA 38 G/H/I, Ø 40 mm, and OA 100



Technical Data

Number feedsystems	2 pcs.	4 pcs.
Type of offset antenna	OA 38, OA 85, OA 100	OA 38, OA 85, OA 100
Diameter	40 mm	40 mm
General data		
Color	silver	silver

Surge protector

DL 400

Surge protector



Technical Data

Connectors	
F socket (SAT / power supply)	8 / 1 pcs.
Frequency range	950...2200 MHz
input level max	115 dB μ V
Through loss	1...2 dB
return loss EN60728-3	Class A
Isolation trunk	35 dB (min. typ > 40 dB)
DiSEqC / 22 kHz passage	No
surge protection	EN 61643-21
Rated leakage current (8/20 μ s)	5 kA
Protective level at 10 kA (8/20 μ s) Cat. C2	<30 V
Protective level at 1 kV/ μ s Cat. C3	<30 V
Protective level at 2.5 kV (10/350 μ s) Cat. D1	<30 V
Protective level at 6 kV (10/700 μ s) Cat. B2	<30 V
Alternating current stability	5 A
Overload error state	1
DC resistance input > output	1 Ω
Highest perm. Voltage Uc	20 V DC
Rated current trunk	1000 mA
General data	
Current rates DC infeed	2500 mA max.
Power consumption	<0,2 W
Operating voltage DC	0...18 V DC
Protection class	IP20
Operating temperature range	0...55 °C
Screen class	A
Dimensions (width x height x depth)	85x38,5x140 mm
Weight	0.24 kg

Overvoltage protection for SAT distribution facilities as well as protection of SAT inputs at signal processing. With the DL400, all following components are protected from undesirable voltage peaks.

characteristics

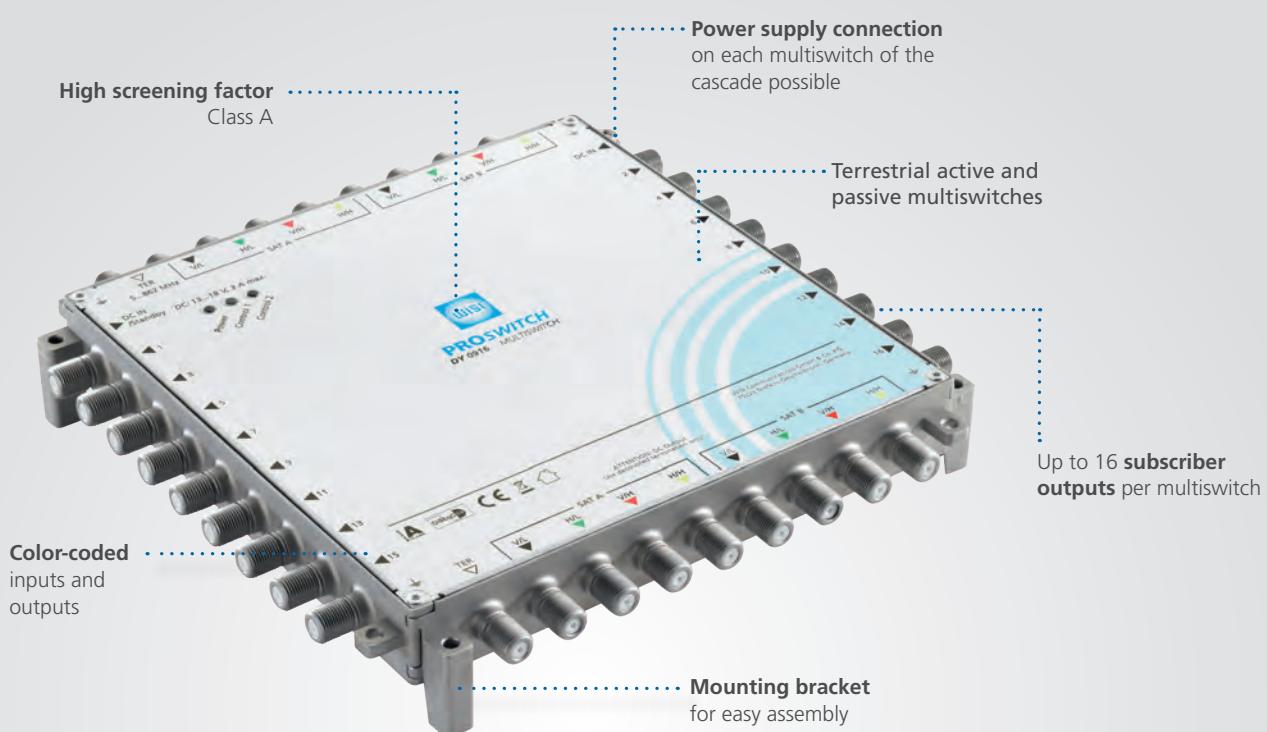
- 4 x SAT protection in one unit, module case sideways stackable for expansion to additional levels
- Over voltage protection for satellite distribution systems
- Typical operation site between (Quattro) LNB and cascaded multiswitches / headend or for protection of potential differences between dedicated building structures.
- remote power that SAT- trunk line via the lateral F-connector, powering to the output can be switched off
- overvoltage detection with LED- status indicator (only with active power supply)





Multiswitch systems PROSWITCH

WISI Multiswitches:
**Reliable technology for
flexible use.**



At a glance:

- Stand alone multiswitch for the distribution of four SAT polarizations and terrestrial signals
- Quad LNB support for easy expansion of existing equipment
- Active terrestrial branch to distribute DVB-T/T2, DAB and FM without additional amplifier
- Integrated SAT amplifier for low attenuation at the subscriber port
- Pre-correction for compensation of cable slope
- Color coded inputs

Multiswitch 5 inputs, cascade

DY 0508

PROSWITCH multiswitch 5 in 8, cascade & stand alone, TERR. passive



A
■ CLASS

Technical Data

SAT-IF trunk

Inputs SAT	4 pcs.
Outputs SAT	4 pcs.
Frequency range SAT	950... 2150 MHz
Through loss SAT	1,1...3 dB
Decoupling SAT -SAT	40 dB typ.
Return loss SAT	>10 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Outputs TERR	1 pcs.
Frequency range TERR	5... 862 MHz
Through loss TERR	3,5...4,2 dB (± 1 dB)
Isolation TERR - SAT	40 dB typ.
Return loss TERR	>15 dB

Subscriber outputs

Outputs	8 pcs.
Frequency range	5...2150 MHz
TERR type	Passive
Insertion loss SAT	3...-2,2 dB
Insertion TERR	24 dB (± 3 dB)
Max. output level subscriber SAT	90 dB μ V
Max. output level subscriber TERR	81 dB μ V
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>14 dB
Control signal	14/18 V, 0/22 kHz
Current consumption from receiver	70 mA

Connectors

F-socket	20 pcs.
DC supply voltage	F-socket
Colour-coding	VL = black; HL = green; VH = red; HH = yellow

General data

Power indicator	LED
Operating voltage	10...19 V DC
Power consumption max.	<0,2 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...+50 °C

characteristics

- Cascadable multiswitch for the distribution of 4 satellite polarisations and terrestrial signals
- Useable as a stand alone device (DY 70 power supply required)
- Stand-by function with connected power supply, optional permanent operation
- Passive terrestrial path to feed in multimedia content or signals from a cable TV operator
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- High screening efficiency according to Class A
- Stackable chassis for space-saving installation of various devices
- Colour-coded inputs and outputs
- Compatible with MagentaTV Sat, DIVEO and freenet TV

Technical Data

Cascadable with	DY 0516
Weight	0.38 kg
Dimensions (width x height x depth)	140 x 140 x 32 mm

The DY 0508 is a cascadable multiswitch with five inputs for the distribution of one satellite and terrestrial signals. With the optional power supply DY 70 that powers the LNB, the multiswitch is useable as a stand alone device. The polarisations are available at five cascade outputs for the installation of further multiswitches. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the eight subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The stand-by functionality minimizes power consumption by activating the multiswitch only in case the connected STB is tuned on.

Multiswitch 5 inputs, cascade

DY 0516

PROSWITCH multiswitch 5 in 16, cascade & stand alone, TERR. passive



A
■ CLASS

Technical Data	
SAT-IF trunk	
Inputs SAT	4 pcs.
Outputs SAT	4 pcs.
Frequency range SAT	950... 2150 MHz
Through loss SAT	1,6...4,5 dB
Decoupling SAT -SAT	40 dB typ.
Return loss SAT	>10 dB
Terrestrial trunk	
Inputs TERR	1 pcs.
Outputs TERR	1 pcs.
Frequency range TERR	5...862 MHz
Through loss TERR	3,5...4,2 dB (± 1 dB)
Isolation TERR - SAT	40 dB typ.
Return loss TERR	>15 dB
Subscriber outputs	
Outputs	16 pcs.
Frequency range	5...2150 MHz
TERR type	Passive
Insertion loss SAT	3...-2,2 dB
Insertion TERR	24 dB (± 3 dB)
Max. output level subscriber SAT	90 dB μ V
Max. output level subscriber TERR	81 dB μ V
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>14 dB
Control signal	14/18 V, 0/22 kHz
Current consumption from receiver	100 mA
Connectors	
F-socket	28 pcs.
DC supply voltage	F-socket
Colour-coding	VL = black; HL = green; VH = red; HH = yellow
General data	
Power indicator	LED
Operating voltage	10...19 V DC
Power consumption max.	<0,2 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...+50 °C

characteristics

- Cascadable multiswitch for the distribution of 4 satellite polarisations and terrestrial signals
- Useable as a stand alone device (DY 70 power supply required)
- Stand-by function with connected power supply, optional permanent operation
- Passive terrestrial path to feed in multimedia content or signals from a cable TV operator
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- High screening efficiency according to Class A
- Stackable chassis for space-saving installation of various devices
- Colour-coded inputs and outputs
- Compatible with MagentaTV Sat, DIVEO and freenet TV

Technical Data

Cascadable with	DY 0508
Weight	0.56 kg
Dimensions (width x height x depth)	206 x 140 x 32 mm

The DY 0516 is a cascadable multiswitch with five inputs for the distribution of one satellite and terrestrial signals. With the optional power supply DY 70 that powers the LNB, the multiswitch is useable as a stand alone device. The polarisations are available at five cascade outputs for the installation of further multiswitches. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the 16 subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The stand-by functionality minimizes power consumption by activating the multiswitch only in case the connected STB is tuned on.

Multiswitch 9 inputs, cascade

DY 0908

PROSWITCH multiswitch 9 in 8, cascade & Stand alone, TERR. passive



Technical Data

SAT-IF trunk	
Inputs SAT	8 pcs.
Outputs SAT	8 pcs.
Frequency range SAT	950...2150 MHz
Through loss SAT	1,1...3 dB
Decoupling SAT -SAT	40 dB typ.
Return loss SAT	>10 dB
Terrestrial trunk	
Inputs TERR	1 pcs.
Outputs TERR	1 pcs.
Frequency range TERR	5...862 MHz
Through loss TERR	3,5...4,2 dB (± 1 dB)
Isolation TERR - SAT	40 dB typ.
Return loss TERR	>15 dB
Subscriber outputs	
Outputs	8 pcs.
Frequency range	5...2150 MHz
TERR type	Passive
Insertion loss SAT	3...-2,2 dB
Insertion TERR	24 dB
Max. output level subscriber SAT	90 dB μ V
Max. output level subscriber TERR	81 dB μ V (passive)
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>14 dB
Control signal	14/18 V, 0/22 kHz, DiSEqC 2.0
Current consumption from receiver	70 mA
Connectors	
F-socket	28 pcs.
DC supply voltage	F-socket
Colour-coding	VL = black; HL = green; VH = red; HH = yellow
General data	
Power indicator	LED
Operating voltage	10...19 V DC
Power consumption max.	<0,2 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...+50 °C

characteristics

- Cascadable multiswitch for the distribution of 8 satellite polarisations and terrestrial signals
- Useable as a stand alone device (DY 70 power supply required)
- Stand-by function with connected power supply, optional permanent operation
- Passive terrestrial path to feed in multimedia content or signals from a cable TV operator
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- High screening efficiency according to Class A
- Stackable chassis for space-saving installation of various devices
- Colour-coded inputs and outputs
- Compatible with MagentaTV Sat, DIVEO and freenet TV

Technical Data

Cascadable with	DY 0916
Weight	0.52 kg
Dimensions (width x height x depth)	206 x 140 x 32 mm

The DY 0908 is a cascadable multiswitch with nine inputs for the distribution of two satellites and terrestrial signals. With the optional power supply DY 70 that powers the LNB, the multiswitch is useable as a stand alone device. The polarisations are available at nine cascade outputs for the installation of further multiswitches. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the eight subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The stand-by functionality minimizes power consumption by activating the multiswitch only in case the connected STB is tuned on.

Multiswitch 9 inputs, cascade

DY 0916

PROSWITCH multiswitch 9 in 16, cascade & Stand alone, TERR. passive



Technical Data

SAT-IF trunk

Inputs SAT	8 pcs.
Outputs SAT	8 pcs.
Frequency range SAT	950...2150 MHz
Through loss SAT	1,6...4,5 dB
Decoupling SAT -SAT	40 dB typ.
Return loss SAT	>10 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Outputs TERR	1 pcs.
Frequency range TERR	5...862 MHz
Through loss TERR	3,5...4,2 dB (± 1 dB)
Isolation TERR - SAT	40 dB typ.
Return loss TERR	>15 dB

Subscriber outputs

Outputs	16 pcs.
Frequency range	5...2150 MHz
TERR type	Passive
Insertion loss SAT	3...-2,2 dB
Insertion TERR	24 dB (± 3 dB)
Max. output level subscriber SAT	90 dB μ V
Max. output level subscriber TERR	81 dB μ V (passive)
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>14 dB
Control signal	14/18 V, 0/22 kHz, DiSEqC 2.0
Current consumption from receiver	50 mA

Connectors

F-socket	36 pcs.
DC supply voltage	F-socket
Colour-coding	VL = black; HL = green; VH = red; HH = yellow

General data

Power indicator	LED
Operating voltage	10...19 V DC
Power consumption max.	<0,2 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...+50 °C

characteristics

- Cascadable multiswitch for the distribution of 8 satellite polarisations and terrestrial signals
- Useable as a stand alone device (DY 70 power supply required)
- Stand-by function with connected power supply, optional permanent operation
- Passive terrestrial path to feed in multimedia content or signals from a cable TV operator
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- High screening efficiency according to Class A
- Stackable chassis for space-saving installation of various devices
- Colour-coded inputs and outputs
- Compatible with MagentaTV Sat, DIVEO and freenet TV

Technical Data

Cascadable with DY 0908

Weight 0.7 kg

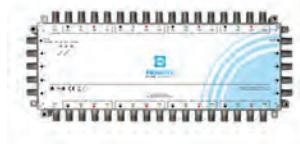
Dimensions 206 x 206 x 32 mm
(width x height x depth)

The DY 0916 is a cascadable multiswitch with nine inputs for the distribution of two satellites and terrestrial signals. With the optional power supply DY 70 that powers the LNB, the multiswitch is useable as a stand alone device. The polarisations are available at nine cascade outputs for the installation of further multiswitches. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the 16 subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The stand-by functionality minimizes power consumption by activating the multiswitch only in case the connected STB is tuned on.

Multiswitch 17 inputs, cascade

DY 1708

PROSWITCH multiswitch 17 in 8, cascade & stand alone, TERR. passive



Technical Data

SAT-IF trunk	
Inputs SAT	16 pcs.
Outputs SAT	16 pcs.
Frequency range SAT	950...2150 MHz
Through loss SAT	1...3 dB
Decoupling SAT -SAT	40 dB typ.
Return loss SAT	>10 dB
Terrestrial trunk	
Inputs TERR	1 pcs.
Outputs TERR	1 pcs.
Frequency range TERR	5...862 MHz
Through loss TERR	3,5...4,2 dB
Isolation TERR - SAT	40 dB typ.
Return loss TERR	>10 dB
Subscriber outputs	
Outputs	8 pcs.
Frequency range	5...2150 MHz
TERR type	Passive
Insertion loss SAT	2...-2 dB
Insertion TERR	24 dB (± 2 dB)
Max. output level subscriber SAT	101 dB μ V
Max. output level subscriber TERR	50...110 dB μ V (passive)
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz, DiSEqC 2.0
Current consumption from receiver	70 mA
Connectors	
F-socket	42 pcs.
DC supply voltage	F-socket
Colour-coding	VL = black; HL = green; VH = red; HH = yellow
General data	
Power indicator	LED
Operating voltage	10...19 V DC
Power consumption max.	<0,2 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...+50 °C

characteristics

- Cascadable multiswitch for the distribution of 16 satellite polarisations and terrestrial signals
- Useable as a stand alone device (DY 70 power supply required)
- Stand-by function with connected power supply, optional permanent operation
- Passive terrestrial path to feed in multimedia content or signals from a cable TV operator
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- High screening efficiency according to Class A
- Stackable chassis for space-saving installation of various devices
- Colour-coded inputs and outputs
- Compatible with MagentaTV Sat, DIVEO and freenet TV

Technical Data

Cascadable with	DY 1716
Weight	0.8 kg
Dimensions (width x height x depth)	335 x 140 x 32 mm

The DY 1708 is a cascadable multiswitch with 17 inputs for the distribution of four satellites and terrestrial signals. With the optional power supply DY 70 that powers the LNB, the multiswitch is useable as a stand alone device. The polarisations are available at 17 cascade outputs for the installation of further multiswitches. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the 8 subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The stand-by functionality minimizes power consumption by activating the multiswitch only in case the connected STB is tuned on.



Multiswitch 17 inputs, cascade

DY 1716

PROSWITCH multiswitch 17 in 16, cascade & stand alone, TERR. passive



Technical Data

SAT-IF trunk	
Inputs SAT	16 pcs.
Outputs SAT	16 pcs.
Frequency range SAT	950...2150 MHz
Through loss SAT	1,5...4,5 dB
Decoupling SAT -SAT	40 dB typ.
Return loss SAT	>10 dB
Terrestrial trunk	
Inputs TERR	1 pcs.
Outputs TERR	1 pcs.
Frequency range TERR	5...862 MHz
Through loss TERR	3,5...4,2 dB
Isolation TERR - SAT	40 dB typ.
Return loss TERR	>10 dB
Subscriber outputs	
Outputs	16 pcs.
Frequency range	5...2150 MHz
TERR type	Passive
Insertion loss SAT	2...-2 dB
Insertion TERR	24 dB (± 3 dB)
Max. output level subscriber SAT	101 dB μ V
Max. output level subscriber TERR	50...110 dB μ V (passive)
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz, DiSEqC 2.0
Current consumption from receiver	50 mA
Connectors	
F-socket	50 pcs.
DC supply voltage	F-socket
Colour-coding	VL = black; HL = green; VH = red; HH = yellow
General data	
Power indicator	LED
Operating voltage	10...19 V DC
Power consumption max.	<0,2 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...+50 °C

characteristics

- Cascadable multiswitch for the distribution of 16 satellite polarisations and terrestrial signals
- Useable as a stand alone device (DY 70 power supply required)
- Stand-by function with connected power supply, optional permanent operation
- Passive terrestrial path to feed in multimedia content or signals from a cable TV operator
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- High screening efficiency according to Class A
- Stackable chassis for space-saving installation of various devices
- Colour-coded inputs and outputs
- Compatible with MagentaTV Sat, DIVEO and freenet TV

Technical Data

Cascadable with	DY 1708
Weight	1.1 kg
Dimensions (width x height x depth)	335 x 206 x 32 mm

The DY 1716 is a cascadable multiswitch with 17 inputs for the distribution of four satellites and terrestrial signals. With the optional power supply DY 70 that powers the LNB, the multiswitch is useable as a stand alone device. The polarisations are available at 17 cascade outputs for the installation of further multiswitches. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the 16 subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The stand-by functionality minimizes power consumption by activating the multiswitch only in case the connected STB is tuned on.

Amplifiers PROSWITCH

DY 40

PROSWITCH SAT amplifier



■ KLASSE
A
■ CLASS

Technical Data

SAT

Frequency range SAT	950...2150 MHz
Gain SAT	10...30 dB
Output level	115 dB μ V (3.order EN50083-3, 35 dB)
Attenuator SAT	0...20 dB
Slope	0,4,8,12 dB
Isolation trunk	40 dB typ.

Connectors

F-socket	9 pcs.
DC supply voltage	F-socket

General data

Operating voltage DC	12...18 V DC
Current consumption	200 mA
DC bypass	Yes
Screening factor	Class A, EN 50083-2
Dimensions (width x height x depth)	129 x 86 x 32 mm
Operating temperature range	-20...+50 °C
Weight	0.29 kg

characteristics

- 4 SAT polarizations in a compact form factor
- Gain from 30 dB
- Indendend attenuation of 0...20 dB per input
- Selectable pre equalization to compensate frequency depending cable loss
- Simple extension up to 16 polarizations
- High screening efficiency according to Class A
- Colour-coded inputs and outputs

Splitter SAT RF

DM 50

SAT splitter



DM 90

SAT splitter



Technical Data

Frequency range	5...862/950...2400 MHz (TERR/SAT)	5...862/950...2400 MHz (TERR/SAT)
Through loss	1,0...1,8/1,1...2,7 dB (TERR/SAT)	1,5...3,0/2...3,5 dB (TERR/SAT)
TAP loss	13...13,5/12,2...13,7 dB (TERR/SAT)	13...14/14...12 dB (TERR/SAT)
Isolation	35/35 dB (trunk, TERR/SAT)	35/38 dB (trunk, TERR/SAT)
Return loss	10 dB (min., SAT)	10 dB (min., SAT)
Connectors		
F-socket	20 pcs.	36 pcs.
General data		
Screening factor	Class A, EN 50083-2	Class A, EN 50083-2
DC Bypass IN/OUT 1A/30V	Yes	Yes
Dimensions (width x height x depth)	140x140x27 mm	210 x 210 x 27 mm

Accessories PROSWITCH

DY 70

Wall wart 230 V AC, 13 V DC



Technical Data

General data

F-plug	1 pcs.
Operating voltage	90...264 V AC
Power consumption	<31 W
Output voltage	13 V DC ($\pm 0,4$ V)
Max. output current	2 A
Max. output power	26 W
Max. humidity, non condensing	90 %
Protection class	II
Protection class system EN 60529 (DIN 40050)	IP 41
Electrical safety standard	EN 60065, EN 60950
EMC	EN 50083-2
Dimensions W x H x D	86 x 49,5 x 32 mm
Operating temperature range	0...+40 °C
Storage temperature	-25...+70 °C

characteristics

- Operating voltage 230 V AC
- Output voltage 13 V DC
- Output current 2 A, short circuit proofed

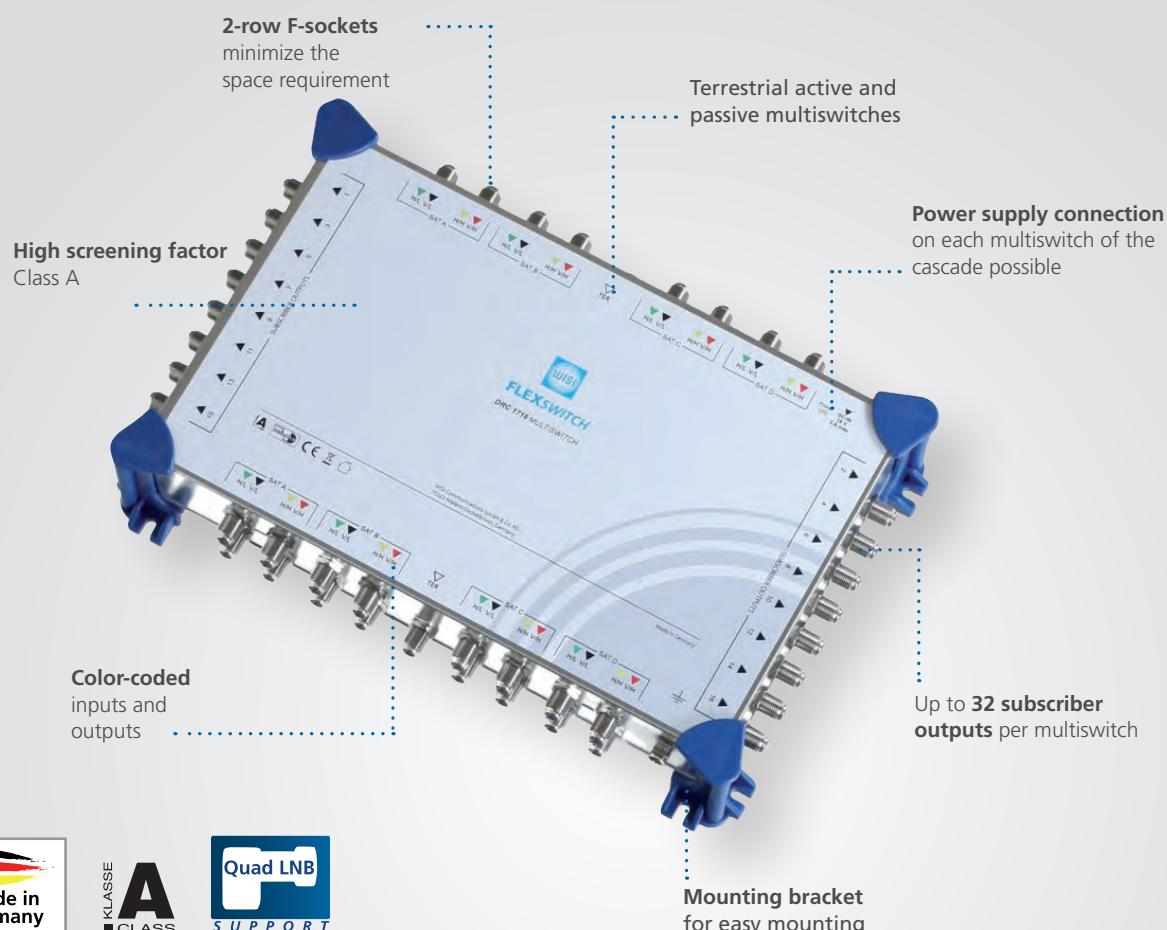
The DY 70 is a short circuit-proofed power supply operating at an input voltage of 230 V AC, 50/60 Hz and provides an output voltage of 13 V DC. It is used in combination with multiswitches of the PROSWITCH series, as well as the amplifier DY 40 and surge protector DL 400.





Multiswitch systems FLEXSWITCH

WISI Multiswitches:
**Reliable technology for
flexible use.**



At a glance:

- Stand alone multiswitch for the distribution of four SAT polarizations and terrestrial signals
- Quad LNB support for easy expansion of existing equipment
- Active terrestrial branch to distribute DVB-T/T2, DAB and FM without additional amplifier
- Integrated SAT amplifier for low attenuation at the subscriber port
- Pre-correction for compensation of cable slope
- Color coded inputs

Multiswitch 5 inputs, stand alone

DRS 0508

FLEXSWITCH multiswitch 5 in 8, stand alone



Technical Data

SAT-IF trunk

Inputs SAT	4 pcs.
Frequency range SAT	950... 2400 MHz
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	>10 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Frequency range TERR	40... 862 MHz
Isolation TERR - SAT	30 dB typ.
Return loss TERR	>10 dB

Subscriber outputs

Outputs	8 pcs.
Frequency range	40...2400 MHz
TERR type	active
Insertion loss SAT	0...-5 dB
Insertion TERR	2 dB (± 2 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	90 dB μ V
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz
Current consumption from receiver	30 mA

Connectors

F-socket	13 pcs.
Colour-coding	VL = black; HL = green; VH = red; HH = yellow

General data

Power indicator	LED
Quad LNB support	Yes
LNB supply voltage	14 V/18 V (22 kHz)
Current consumption LNB	max. 500 mA
Operating voltage	90...264 V AC, 50/60 Hz
Power consumption max.	5.5 W typ.
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	0...+55 °C
Weight	0.46 kg
Dimensions (width x height x depth)	222 x 110 x 57 mm

characteristics

- Stand alone multiswitch for the distribution of 4 satellite polarisations and terrestrial signals
- Quad-LNB support
- Active terrestrial path to distribute DVB-T/T2, DAB and FM without an additional amplifier
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Colour-coded inputs
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV

The DRS 0508 is a stand alone multiswitch with five inputs for the distribution of one satellite and terrestrial signals. The stand alone device is equipped with an integrated power supply which ensures the LNB powering. Additionally integrated is a 22 KHz generator which allows the usage of Quad-LNBs. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the eight subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRS 0508 is realised through an active terrestrial and satellite path.



Multiswitch 5 inputs, stand alone

DRS 0512

FLEXSWITCH multiswitch 5 in 12, stand alone



Technical Data	
SAT-IF trunk	
Inputs SAT	4 pcs.
Frequency range SAT	950... 2400 MHz
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	>10 dB
Terrestrial trunk	
Inputs TERR	1 pcs.
Frequency range TERR	40... 862 MHz
Isolation TERR - SAT	30 dB typ.
Return loss TERR	>10 dB
Subscriber outputs	
Outputs	12 pcs.
Frequency range	40...2400 MHz
TERR type	active
Insertion loss SAT	1...-4 dB
Insertion TERR	2 dB (± 2 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	84 dB μ V
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz
Current consumption from receiver	30 mA
Connectors	
F-socket	17 pcs.
Colour-coding	VL = black; HL = green; VH = red; HH = yellow
General data	
Power indicator	LED
Quad LNB support	Yes
LNB supply voltage	14 V/18 V (22 kHz)
Current consumption LNB	max. 500 mA
Operating voltage	90...264 V AC, 50/60 Hz
Power consumption max.	5.5 W typ.
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	0...+55 °C
Weight	0.62 kg
Dimensions (width x height x depth)	310 x 110 x 57 mm

characteristics

- Stand alone multiswitch for the distribution of 4 satellite polarisations and terrestrial signals
- Quad-LNB support
- Active terrestrial path to distribute DVB-T/T2, DAB and FM without an additional amplifier
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Colour-coded inputs
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV

The DRS 0512 is a stand alone multiswitch with five inputs for the distribution of one satellite and terrestrial signals. The stand alone device is equipped with an integrated power supply which ensures the LNB powering. Additionally integrated is a 22 KHz generator which allows the usage of Quad-LNBs. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the 12 subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRS 0512 is realised through an active terrestrial and satellite path.

Multiswitch 5 inputs, stand alone

DRS 0516

FLEXSWITCH multiswitch 5 in 16, stand alone



Technical Data

SAT-IF trunk

Inputs SAT	4 pcs.
Frequency range SAT	950... 2400 MHz
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	>10 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Frequency range TERR	40... 862 MHz
Isolation TERR - SAT	30 dB typ.
Return loss TERR	>10 dB

Subscriber outputs

Outputs	16 pcs.
Frequency range	40...2400 MHz
TERR type	active
Insertion loss SAT	1...-4 dB
Insertion TERR	2 dB (± 2 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	84 dB μ V
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz
Current consumption from receiver	30 mA

Connectors

F-socket	21 pcs.
Colour-coding	VL = black; HL = green; VH = red; HH = yellow

General data

Power indicator	LED
Quad LNB support	Yes
LNB supply voltage	14 V/18 V (22 kHz)
Current consumption LNB	max. 500 mA
Operating voltage	90...264 V AC, 50/60 Hz
Power consumption max.	5.5 W typ.
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	0...+55 °C
Weight	0.64 kg
Dimensions (width x height x depth)	310 x 110 x 57 mm

characteristics

- Stand alone multiswitch for the distribution of 4 satellite polarisations and terrestrial signals
- Quad-LNB support
- Active terrestrial path to distribute DVB-T/T2, DAB and FM without an additional amplifier
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Colour-coded inputs
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV

The DRS 0516 is a stand alone multiswitch with five inputs for the distribution of one satellite and terrestrial signals. The stand alone device is equipped with an integrated power supply which ensures the LNB powering. Additionally integrated is a 22 kHz generator which allows the usage of Quad-LNBs. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the 16 subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRS 0516 is realised through an active terrestrial and satellite path.



Multiswitch 5 inputs, stand alone

DRS 0524

FLEXSWITCH multiswitch 5 in 24, stand alone



Technical Data

SAT-IF trunk

Inputs SAT	4 pcs.
Frequency range SAT	950... 2400 MHz
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	>10 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Frequency range TERR	40... 862 MHz
Isolation TERR - SAT	30 dB typ.
Return loss TERR	>10 dB

Subscriber outputs

Outputs	24 pcs.
Frequency range	40...2400 MHz
TERR type	active
Insertion loss SAT	5...0 dB
Insertion TERR	2 dB (± 2 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	84 dB μ V
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz
Current consumption from receiver	30 mA

Connectors

F-socket	29 pcs.
Colour-coding	VL = black; HL = green; VH = red; HH = yellow

General data

Power indicator	LED
Quad LNB support	Yes
LNB supply voltage	14 V/18 V (22 kHz)
Current consumption LNB	max. 500 mA
Operating voltage	90...264 V AC, 50/60 Hz
Power consumption max.	7 W typ.
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	0...+55 °C
Weight	0.86 kg
Dimensions (width x height x depth)	324 x 140 x 63 mm

characteristics

- Stand alone multiswitch for the distribution of 4 satellite polarisations and terrestrial signals
- Quad-LNB support
- Active terrestrial path to distribute DVB-T/T2, DAB and FM without an additional amplifier
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Colour-coded inputs
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV

The DRS 0524 is a stand alone multiswitch with five inputs for the distribution of one satellite and terrestrial signals. The stand alone device is equipped with an integrated power supply which ensures the LNB powering. Additionally integrated is a 22 kHz generator which allows the usage of Quad-LNBs. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the 24 subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRS 0524 is realised through an active terrestrial and satellite path.

Multiswitch 5 inputs, stand alone

DRS 0532

FLEXSWITCH multiswitch 5 in 32, stand alone



Technical Data

SAT-IF trunk	
Inputs SAT	4 pcs.
Frequency range SAT	950... 2400 MHz
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	>10 dB
Terrestrial trunk	
Inputs TERR	1 pcs.
Frequency range TERR	40... 862 MHz
Isolation TERR - SAT	30 dB typ.
Return loss TERR	>10 dB
Subscriber outputs	
Outputs	32 pcs.
Frequency range	40...2400 MHz
TERR type	active
Insertion loss SAT	5...0 dB
Insertion TERR	2 dB (± 2 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	84 dB μ V
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz
Current consumption from receiver	30 mA
Connectors	
F-socket	37 pcs.
Colour-coding	VL = black; HL = green; VH = red; HH = yellow
General data	
Power indicator	LED
Quad LNB support	Yes
LNB supply voltage	14 V/18 V (22 kHz)
Current consumption LNB	max. 500 mA
Operating voltage	90...264 V AC, 50/60 Hz
Power consumption max.	7 W typ.
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	0...+55 °C
Weight	0.9 kg
Dimensions (width x height x depth)	324 x 140 x 63 mm

characteristics

- Stand alone multiswitch for the distribution of 4 satellite polarisations and terrestrial signals
- Quad-LNB support
- Active terrestrial path to distribute DVB-T/T2, DAB and FM without an additional amplifier
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Colour-coded inputs
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV

The DRS 0532 is a stand alone multiswitch with five inputs for the distribution of one satellite and terrestrial signals. The stand alone device is equipped with an integrated power supply which ensures the LNB powering. Additionally integrated is a 22 kHz generator which allows the usage of Quad-LNBs. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the 32 subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRS 0532 is realised through an active terrestrial and satellite path.



Multiswitch 5 inputs, receiver powered

DRR 0508

FLEXSWITCH multiswitch, receiver power, 5 in 8



Technical Data

SAT-IF trunk	
Inputs SAT	4 pcs.
Frequency range SAT	950... 2400 MHz
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	>10 dB
Terrestrial trunk	
Inputs TERR	1 pcs.
Frequency range TERR	5... 862 MHz
Isolation TERR - SAT	30 dB typ.
Return loss TERR	>10 dB
Subscriber outputs	
Outputs	8 pcs.
Frequency range	5...2400 MHz
TERR type	Passive
Insertion loss SAT	0...-5 dB
Insertion TERR	18 dB (± 2 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	50...110 dB μ V (passive)
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz
Current consumption from receiver	30 mA
Connectors	
F-socket	13 pcs.
DC supply voltage	Connector type DC 5.5/2.1 mm
Colour-coding	VL = black; HL = green; VH = red; HH = yellow
General data	
Power indicator	LED
Operating voltage	receiver powered
Power consumption max.	<0,5 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...70 °C
Weight	0.24 kg
Dimensions (width x height x depth)	130 x 110 x 45 mm

characteristics

- Receiver powered multiswitch for the distribution of 4 satellite polarisations and terrestrial signals
- Power supply-free usage
- Passive terrestrial path
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- Terrestrial signals available at the receiver without any power supply of the multiswitch
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV

The DRR 0508 is a receiver powered multiswitch with five inputs for the distribution of one satellite and terrestrial signals. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the eight subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRR 0508 is realised through an active satellite path. Through the passive terrestrial path, it is possible to feed in multimedia services like "LAN over Coax" or signals from a headend system. The LNB is powered by the switching voltage of the connected receivers and an additional power supply is not required, which reduces the operating costs.

Multiswitch 5 inputs, receiver powered

DRR 0516

FLEXSWITCH multiswitch, receiver power, 5 in 16



A
■ CLASS

Technical Data	
SAT-IF trunk	
Inputs SAT	4 pcs.
Frequency range SAT	950... 2400 MHz
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	>10 dB
Terrestrial trunk	
Inputs TERR	1 pcs.
Frequency range TERR	5... 862 MHz
Isolation TERR - SAT	30 dB typ.
Return loss TERR	>10 dB
Subscriber outputs	
Outputs	16 pcs.
Frequency range	5...2400 MHz
TERR type	Passive
Insertion loss SAT	1...-4 dB
Insertion TERR	24 dB (± 3 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	50...110 dB μ V (passive)
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz
Current consumption from receiver	30 mA
Connectors	
F-socket	21 pcs.
DC supply voltage	Connector type DC 5.5/2.1 mm
Colour-coding	VL = black; HL = green; VH = red; HH = yellow
General data	
Power indicator	LED
Operating voltage	receiver powered
Power consumption max.	<0,5 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...70 °C
Weight	0.4 kg
Dimensions (width x height x depth)	215 x 110 x 45 mm

characteristics

- Receiver powered multiswitch for the distribution of 4 satellite polarisations and terrestrial signals
- Power supply-free usage
- Passive terrestrial path
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- Terrestrial signals available at the receiver without any power supply of the multiswitch
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV

The DRR 0516 is a receiver powered multiswitch with five inputs for the distribution of one satellite and terrestrial signals. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the 16 subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRR 0516 is realised through an active satellite path. Through the passive terrestrial path, it is possible to feed in multimedia services like "LAN over Coax" or signals from a headend system. The LNB is powered by the switching voltage of the connected receivers and an additional power supply is not required, which reduces the operating costs.

Multiswitch 9 inputs, receiver powered

DRR 0908

FLEXSWITCH multiswitch, receiver power, 9 in 8



Technical Data	
SAT-IF trunk	
Inputs SAT	8 pcs.
Frequency range SAT	950... 2400 MHz
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	>10 dB
Terrestrial trunk	
Inputs TERR	1 pcs.
Frequency range TERR	5... 862 MHz
Isolation TERR - SAT	30 dB typ.
Return loss TERR	>10 dB
Subscriber outputs	
Outputs	8 pcs.
Frequency range	5...2400 MHz
TERR type	Passive
Insertion loss SAT	4...-2 dB
Insertion TERR	15 dB (± 3 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	50...110 dB μ V (passive)
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz, DiSEqC 1.0
Current consumption from receiver	56 mA
Connectors	
F-socket	17 pcs.
DC supply voltage	Connector type DC 5.5/2.1 mm
Colour-coding	VL = black; HL = green; VH = red; HH = yellow
General data	
Power indicator	LED
Operating voltage	receiver powered
Power consumption max.	<1 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...70 °C
Weight	0.48 kg
Dimensions (width x height x depth)	230 x 110 x 63 mm

characteristics

- Receiver powered multiswitch for the distribution of 8 satellite polarisations and terrestrial signals
- Power supply-free usage
- Passive terrestrial path
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- Terrestrial signals available at the receiver without any power supply of the multiswitch
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV

The DRR 0908 is a receiver powered multiswitch with nine inputs for the distribution of two satellite and terrestrial signals. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the eight subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRR 0508 is realised through an active satellite path. Through the passive terrestrial path, it is possible to feed in multimedia services like "LAN over Coax" or signals from a headend system. The LNB is powered by the switching voltage of the connected receivers and an additional power supply is not required, which reduces the operating costs.

Multiswitch 5 inputs, cascade

DRC 0508

FLEXSWITCH multiswitch 5 in 8, cascade, TERR. active



KLASSE
A
■ CLASS

Technical Data

SAT-IF trunk

Inputs SAT	4 pcs.
Outputs SAT	4 pcs.
Frequency range SAT	950... 2400 MHz
Through loss SAT	1...2 dB
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	>10 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Outputs TERR	1 pcs.
Frequency range TERR	40... 862 MHz
Through loss TERR	2 dB (± 1 dB)
Isolation TERR - SAT	30 dB typ.
Return loss TERR	>10 dB

Subscriber outputs

Outputs	8 pcs.
Frequency range	40...2400 MHz
TERR type	active
Insertion loss SAT	3...0 dB
Insertion TERR	0 dB (± 3 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	84 dB μ V
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz
Current consumption from receiver	35 mA

Connectors

F-socket	18 pcs.
DC supply voltage	Connector type DC 5.5/2.1 mm
Colour-coding	VL = black; HL = green; VH = red; HH = yellow

General data

Power indicator	LED
Operating voltage	15 V DC
Power consumption max.	<2 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...70 °C

characteristics

- Cascadable multiswitch for the distribution of 4 satellite polarisations and terrestrial signals
- Active terrestrial path to distribute DVB-T/T2, DAB and FM without an additional amplifier
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Colour-coded inputs and outputs
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV
-

Technical Data

Cascadable with	DRC 0508, DRC 0512, DRC 0516, DRC 0524, DRC 0532
Weight	0.38 kg
Dimensions (width x height x depth)	140 x 140 x 63 mm

The DRC 0508 is a cascadable multiswitch with five inputs for the distribution of one satellite and terrestrial signals. The polarisations are available at five cascade outputs for the installation of further multiswitches. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the eight subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRC 0508 is realised through an active terrestrial and satellite path. The LNB can be powered by previously installed amplifiers, or the available power supply DRP 1533.

Multiswitch 5 inputs, cascade

DRC 0512

FLEXSWITCH multiswitch 5 in 12, cascade, TERR. active



Technical Data

SAT-IF trunk

Inputs SAT	4 pcs.
Outputs SAT	4 pcs.
Frequency range SAT	950... 2400 MHz
Through loss SAT	2...4 dB
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	>10 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Outputs TERR	1 pcs.
Frequency range TERR	40... 862 MHz
Through loss TERR	3 dB (± 2 dB)
Isolation TERR - SAT	30 dB typ.
Return loss TERR	>10 dB

Subscriber outputs

Outputs	12 pcs.
Frequency range	40...2400 MHz
TERR type	active
Insertion loss SAT	4...1 dB
Insertion TERR	0 dB (± 3 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	84 dB μ V
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz
Current consumption from receiver	35 mA

Connectors

F-socket	22 pcs.
DC supply voltage	Connector type DC 5.5/2.1 mm
Colour-coding	VL = black; HL = green; VH = red; HH = yellow

General data

Power indicator	LED
Operating voltage	15 V DC
Power consumption max.	<2 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...70 °C

characteristics

- Cascadable multiswitch for the distribution of 4 satellite polarisations and terrestrial signals
- Active terrestrial path to distribute DVB-T/T2, DAB and FM without an additional amplifier
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Colour-coded inputs and outputs
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV
-

Technical Data

Cascadable with DRC 0508, DRC 0512, DRC 0516, DRC 0524, DRC 0532

Weight 0.54 kg

Dimensions 220 x 140 x 63 mm
(width x height x depth)

The DRC 0512 is a cascadable multiswitch with five inputs for the distribution of one satellite and terrestrial signals. The polarisations are available at five cascade outputs for the installation of further multiswitches. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the 12 subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRC 0512 is realised through an active terrestrial and satellite path. The LNB can be powered by previously installed amplifiers, or the available power supply DRP 1533.

Multiswitch 5 inputs, cascade

DRC 0516

FLEXSWITCH multiswitch 5 in 16, cascade, TERR. active



A
■ CLASS

Technical Data

SAT-IF trunk

Inputs SAT	4 pcs.
Outputs SAT	4 pcs.
Frequency range SAT	950... 2400 MHz
Through loss SAT	2...4 dB
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	>10 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Outputs TERR	1 pcs.
Frequency range TERR	40... 862 MHz
Through loss TERR	3 dB (± 2 dB)
Isolation TERR - SAT	30 dB typ.
Return loss TERR	>10 dB

Subscriber outputs

Outputs	16 pcs.
Frequency range	40...2400 MHz
TERR type	active
Insertion loss SAT	4...1 dB
Insertion TERR	0 dB (± 3 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	84 dB μ V
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz
Current consumption from receiver	35 mA

Connectors

F-socket	26 pcs.
DC supply voltage	Connector type DC 5.5/2.1 mm
Colour-coding	VL = black; HL = green; VH = red; HH = yellow

General data

Power indicator	LED
Operating voltage	15 V DC
Power consumption max.	<2 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...70 °C

characteristics

- Cascadable multiswitch for the distribution of 4 satellite polarisations and terrestrial signals
- Active terrestrial path to distribute DVB-T/T2, DAB and FM without an additional amplifier
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Colour-coded inputs and outputs
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV

Technical Data

Cascadable with	DRC 0508, DRC 0512, DRC 0516, DRC 0524, DRC 0532
Weight	0.56 kg

Dimensions (width x height x depth)
220 x 140 x 63 mm

The DRC 0516 is a cascadable multiswitch with five inputs for the distribution of one satellite and terrestrial signals. The polarisations are available at five cascade outputs for the installation of further multiswitches. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the 16 subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRC 0516 is realised through an active terrestrial and satellite path. The LNB can be powered by previously installed amplifiers, or the available power supply DRP 1533.

Multiswitch 5 inputs, cascade

DRC 0524

FLEXSWITCH multiswitch 5 in 24, cascade, TERR. active



A
■ CLASS

Technical Data

SAT-IF trunk

Inputs SAT	4 pcs.
Outputs SAT	4 pcs.
Frequency range SAT	950... 2400 MHz
Through loss SAT	2...6 dB
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	>10 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Outputs TERR	1 pcs.
Frequency range TERR	40... 862 MHz
Through loss TERR	2 dB (± 2 dB)
Isolation TERR - SAT	30 dB typ.
Return loss TERR	>10 dB

Subscriber outputs

Outputs	24 pcs.
Frequency range	40...2400 MHz
TERR type	active
Insertion loss SAT	6...0 dB
Insertion TERR	2 dB (± 2 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	91 dB μ V
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz
Current consumption from receiver	35 mA

Connectors

F-socket	34 pcs.
DC supply voltage	Connector type DC 5.5/2.1 mm
Colour-coding	VL = black; HL = green; VH = red; HH = yellow

General data

Power indicator	LED
Operating voltage	15 V DC
Power consumption max.	<5 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...70 °C

characteristics

- Cascadable multiswitch for the distribution of 4 satellite polarisations and terrestrial signals
- Active terrestrial path to distribute DVB-T/T2, DAB and FM without an additional amplifier
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Colour-coded inputs and outputs
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV

Technical Data

Cascadable with	DRC 0508, DRC 0512, DRC 0516, DRC 0524, DRC 0532
Weight	0.64 kg
Dimensions (width x height x depth)	240 x 140 x 63 mm

The DRC 0524 is a cascadable multiswitch with five inputs for the distribution of one satellite and terrestrial signals. The polarisations are available at five cascade outputs for the installation of further multiswitches. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the 24 subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRC 0524 is realised through an active terrestrial and satellite path. The LNB can be powered by previously installed amplifiers, or the available power supply DRP 1533.

Multiswitch 5 inputs, cascade

DRC 0532

FLEXSWITCH multiswitch 5 in 32, cascade, TERR. active



A
■ CLASS

Technical Data

SAT-IF trunk

Inputs SAT	4 pcs.
Outputs SAT	4 pcs.
Frequency range SAT	950... 2400 MHz
Through loss SAT	2...6 dB
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	>10 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Outputs TERR	1 pcs.
Frequency range TERR	40... 862 MHz
Through loss TERR	2 dB (± 2 dB)
Isolation TERR - SAT	30 dB typ.
Return loss TERR	>10 dB

Subscriber outputs

Outputs	32 pcs.
Frequency range	40...2400 MHz
TERR type	active
Insertion loss SAT	6...0 dB
Insertion TERR	2 dB (± 2 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	91 dB μ V
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz
Current consumption from receiver	35 mA

Connectors

F-socket	42 pcs.
DC supply voltage	Connector type DC 5.5/2.1 mm
Colour-coding	VL = black; HL = green; VH = red; HH = yellow

General data

Power indicator	LED
Operating voltage	15 V DC
Power consumption max.	<5 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...70 °C

characteristics

- Cascadable multiswitch for the distribution of 4 satellite polarisations and terrestrial signals
- Active terrestrial path to distribute DVB-T/T2, DAB and FM without an additional amplifier
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Colour-coded inputs and outputs
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV

Technical Data

Cascadable with	DRC 0508, DRC 0512, DRC 0516, DRC 0524, DRC 0532
Weight	0.68 kg
Dimensions (width x height x depth)	240 x 140 x 63 mm

The DRC 0532 is a cascadable multiswitch with five inputs for the distribution of one satellite and terrestrial signals. The polarisations are available at five cascade outputs for the installation of further multiswitches. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the 32 subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRC 0532 is realised through an active terrestrial and satellite path. The LNB can be powered by previously installed amplifiers, or the available power supply DRP 1533.

Multiswitch 9 inputs, cascade

DRC 0908

FLEXSWITCH multiswitch 9 in 8, cascade, TERR. passive



A
■ CLASS

Technical Data

SAT-IF trunk	
Inputs SAT	8 pcs.
Outputs SAT	8 pcs.
Frequency range SAT	950...2400 MHz
Through loss SAT	1 dB (± 1 dB)
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	>10 dB
Terrestrial trunk	
Inputs TERR	1 pcs.
Outputs TERR	1 pcs.
Frequency range TERR	5...862 MHz
Through loss TERR	2 dB (± 2 dB)
Isolation TERR - SAT	30 dB typ.
Return loss TERR	>10 dB
Subscriber outputs	
Outputs	8 pcs.
Frequency range	5...2400 MHz
TERR type	Passive
Insertion loss SAT	0...-2 dB
Insertion TERR	24 dB (± 2 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	50...110 dB μ V (passive)
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz, DiSEqC 1.0
Current consumption from receiver	45 mA
Connectors	
F-socket	17 pcs.
DC supply voltage	Connector type DC 5.5/2.1 mm
Colour-coding	VL = black; HL = green; VH = red; HH = yellow
General data	
Power indicator	LED
Operating voltage	15 V DC
Power consumption max.	<0,2 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...70 °C

characteristics

- Cascadable multiswitch for the distribution of 8 satellite polarisations and terrestrial signals
- Passive terrestrial path
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- Terrestrial signals available at the receiver without any power supply of the multiswitch
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Colour-coded inputs and outputs
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV

Technical Data

Cascadable with	DRC 0908, DRC 0912, DRC 0916, DRC 0924, DRC 0932
Weight	0.52 kg

Dimensions (width x height x depth)
136 x 202 x 63 mm

The DRC 0908 is a cascadable multiswitch with nine inputs for the distribution of two satellites and terrestrial signals. The polarisations are available at nine cascade outputs for the installation of further multiswitches. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the eight subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRC 0908 is realised through an active satellite path. Through the passive terrestrial path it is possible to feed in multimedia services like "LAN over Coax", or signals from a central headend system. The LNBs can be powered by previously installed amplifiers, or the available power supply DRP 1533.

Multiswitch 9 inputs, cascade

DRC 0912

FLEXSWITCH multiswitch 9 in 12, cascade, TERR. passive



KLASSE
A
CLASS

Technical Data

SAT-IF trunk

Inputs SAT	8 pcs.
Outputs SAT	8 pcs.
Frequency range SAT	950...2400 MHz
Through loss SAT	1...3 dB (± 2 dB)
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	>10 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Outputs TERR	1 pcs.
Frequency range TERR	5...862 MHz
Through loss TERR	4 dB (± 2 dB)
Isolation TERR - SAT	30 dB typ.
Return loss TERR	>10 dB

Subscriber outputs

Outputs	12 pcs.
Frequency range	5...2400 MHz
TERR type	Passive
Insertion loss SAT	2...0 dB
Insertion TERR	28 dB (± 3 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	50...110 dB μ V (passive)
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz, DiSEqC 1.0
Current consumption from receiver	45 mA

Connectors

F-socket	21 pcs.
DC supply voltage	Connector type DC 5.5/2.1 mm
Colour-coding	VL = black; HL = green; VH = red; HH = yellow

General data

Power indicator	LED
Operating voltage	15 V DC
Power consumption max.	<0,2 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...70 °C

characteristics

- Cascadable multiswitch for the distribution of 8 satellite polarisations and terrestrial signals
- Passive terrestrial path
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- Terrestrial signals available at the receiver without any power supply of the multiswitch
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Colour-coded inputs and outputs
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV

Technical Data

Cascadable with DRC 0908, DRC 0912, DRC 0916,
DRC 0924, DRC 0932

Weight 0.7 kg
Dimensions (width x height x depth) 190 x 203 x 63 mm

The DRC 0912 is a cascadable multiswitch with nine inputs for the distribution of two satellites and terrestrial signals. The polarisations are available at nine cascade outputs for the installation of further multiswitches. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the 12 subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRC 0912 is realised through an active satellite path. Through the passive terrestrial path it is possible to feed in multimedia services like "LAN over Coax", or signals from a central headend system. The LNBs can be powered by previously installed amplifiers, or the available power supply DRP 1533.

Multiswitch 9 inputs, cascade

DRC 0916

FLEXSWITCH multiswitch 9 in 16, cascade, TERR. passive



Technical Data

SAT-IF trunk

Inputs SAT	8 pcs.
Outputs SAT	8 pcs.
Frequency range SAT	950...2400 MHz
Through loss SAT	4 dB (± 2 dB)
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	>10 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Outputs TERR	1 pcs.
Frequency range TERR	5...862 MHz
Through loss TERR	-2 dB (± 2 dB)
Isolation TERR - SAT	30 dB typ.
Return loss TERR	>10 dB

Subscriber outputs

Outputs	16 pcs.
Frequency range	5...2400 MHz
TERR type	Passive
Insertion loss SAT	2...0 dB
Insertion TERR	28 dB (± 3 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	50...110 dB μ V (passive)
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz, DiSEqC 1.0
Current consumption from receiver	45 mA

Connectors

F-socket	25 pcs.
DC supply voltage	Connector type DC 5.5/2.1 mm
Colour-coding	VL = black; HL = green; VH = red; HH = yellow

General data

Power indicator	LED
Operating voltage	15 V DC
Power consumption max.	<0,2 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...70 °C

characteristics

- Cascadable multiswitch for the distribution of 8 satellite polarisations and terrestrial signals
- Passive terrestrial path
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- Terrestrial signals available at the receiver without any power supply of the multiswitch
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Colour-coded inputs and outputs
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV

Technical Data

Cascadable with DRC 0908, DRC 0912, DRC 0916, DRC 0924, DRC 0932

Weight 0.72 kg

Dimensions 190 x 203 x 63 mm
(width x height x depth)

The DRC 0916 is a cascadable multiswitch with nine inputs for the distribution of two satellites and terrestrial signals. The polarisations are available at nine cascade outputs for the installation of further multiswitches. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the 16 subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRC 0916 is realised through an active satellite path. Through the passive terrestrial path it is possible to feed in multimedia services like "LAN over Coax", or signals from a central headend system. The LNBs can be powered by previously installed amplifiers, or the available power supply DRP 1533.

Multiswitch 9 inputs, cascade

DRC 0924

FLEXSWITCH multiswitch 9 in 24, cascade, TERR. passive



A
■ CLASS

Technical Data

SAT-IF trunk

Inputs SAT	8 pcs.
Outputs SAT	8 pcs.
Frequency range SAT	950... 2400 MHz
Through loss SAT	2...4 dB
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	>10 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Outputs TERR	1 pcs.
Frequency range TERR	5... 862 MHz
Through loss TERR	4...6 dB
Isolation TERR - SAT	30 dB typ.
Return loss TERR	>10 dB

Subscriber outputs

Outputs	24 pcs.
Frequency range	5...2400 MHz
TERR type	Passive
Insertion loss SAT	2...0 dB
Insertion TERR	33 dB (± 3 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	50...110 dB μ V (passive)
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz, DiSEqC 1.0
Current consumption from receiver	45 mA

Connectors

F-socket	33 pcs.
DC supply voltage	Connector type DC 5.5/2.1 mm
Colour-coding	VL = black; HL = green; VH = red; HH = yellow

General data

Power indicator	LED
Operating voltage	15 V DC
Power consumption max.	<0,2 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...70 °C

characteristics

- Cascadable multiswitch for the distribution of 8 satellite polarisations and terrestrial signals
- Passive terrestrial path
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- Terrestrial signals available at the receiver without any power supply of the multiswitch
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Colour-coded inputs and outputs
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV

Technical Data

Cascadable with	DRC 0908, DRC 0912, DRC 0916, DRC 0924, DRC 0932
Weight	1.14 kg

Dimensions (width x height x depth)
308 x 205 x 63 mm

The DRC 0924 is a cascadable multiswitch with nine inputs for the distribution of two satellites and terrestrial signals. The polarisations are available at nine cascade outputs for the installation of further multiswitches. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the 24 subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRC 0924 is realised through an active satellite path. Through the passive terrestrial path it is possible to feed in multimedia services like "LAN over Coax", or signals from a central headend system. The LNBs can be powered by previously installed amplifiers, or the available power supply DRP 1533.

Multiswitch 9 inputs, cascade

DRC 0932

FLEXSWITCH multiswitch 9 in 32, cascade, TERR. passive



A
■ CLASS

Technical Data

SAT-IF trunk	
Inputs SAT	8 pcs.
Outputs SAT	8 pcs.
Frequency range SAT	950... 2400 MHz
Through loss SAT	2...4 dB
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	>10 dB
Terrestrial trunk	
Inputs TERR	1 pcs.
Outputs TERR	1 pcs.
Frequency range TERR	5... 862 MHz
Through loss TERR	4...6 dB
Isolation TERR - SAT	30 dB typ.
Return loss TERR	>10 dB
Subscriber outputs	
Outputs	32 pcs.
Frequency range	5...2400 MHz
TERR type	Passive
Insertion loss SAT	2...0 dB
Insertion TERR	32 dB (± 3 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	50...110 dB μ V (passive)
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz, DiSEqC 1.0
Current consumption from receiver	45 mA
Connectors	
F-socket	41 pcs.
DC supply voltage	Connector type DC 5.5/2.1 mm
Colour-coding	VL = black; HL = green; VH = red; HH = yellow
General data	
Power indicator	LED
Operating voltage	15 V DC
Power consumption max.	<0,2 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...70 °C

characteristics

- Cascadable multiswitch for the distribution of 8 satellite polarisations and terrestrial signals
- Passive terrestrial path
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- Terrestrial signals available at the receiver without any power supply of the multiswitch
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Colour-coded inputs and outputs
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV

Technical Data

Cascadable with	DRC 0908, DRC 0912, DRC 0916, DRC 0924, DRC 0932
Weight	1.16 kg

Dimensions (width x height x depth)
308 x 205 x 63 mm

The DRC 0932 is a cascadable multiswitch with nine inputs for the distribution of two satellites and terrestrial signals. The polarisations are available at nine cascade outputs for the installation of further multiswitches. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the 32 subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRC 0932 is realised through an active satellite path. Through the passive terrestrial path it is possible to feed in multimedia services like "LAN over Coax", or signals from a central headend system. The LNBs can be powered by previously installed amplifiers, or the available power supply DRP 1533.

Multiswitch 13 inputs, cascade

DRC 1308

FLEXSWITCH multiswitch 13 in 8, cascade, TERR. passive



Technical Data

SAT-IF trunk

Inputs SAT	12 pcs.
Outputs SAT	12 pcs.
Frequency range SAT	950... 2400 MHz
Through loss SAT	1...2 dB
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	> 10 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Outputs TERR	1 pcs.
Frequency range TERR	5... 862 MHz
Through loss TERR	2...3 dB
Isolation TERR - SAT	30 dB typ.
Return loss TERR	> 10 dB

Subscriber outputs

Outputs	8 pcs.
Frequency range	5...2400 MHz
TERR type	Passive
Insertion loss SAT	4...0 dB
Insertion TERR	24 dB (± 2 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	50...110 dB μ V (passive)
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz, DiSEqC 1.0
Current consumption from receiver	55 mA

Connectors

F-socket	21 pcs.
DC supply voltage	Connector type DC 5.5/2.1 mm
Colour-coding	VL = black; HL = green; VH = red; HH = yellow

General data

Power indicator	LED
Operating voltage	15 V DC
Power consumption max.	< 0,2 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...70 °C

characteristics

- Cascadable multiswitch for the distribution of 12 satellite polarisations and terrestrial signals
- Passive terrestrial path
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- Terrestrial signals available at the receiver without any power supply of the multiswitch
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Colour-coded inputs and outputs
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV

Technical Data

Cascadable with	DRC 1308, DRC 1312, DRC 1316, DRC 1324, DRC 1332
Weight	0.72 kg

Dimensions (width x height x depth)
130x 290 x 63 mm

The DRC 1308 is a cascadable multiswitch with 13 inputs for the distribution of three satellites and terrestrial signals. The polarisations are available at 13 cascade outputs for the installation of further multiswitches. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the eight subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRC 1308 is realised through an active satellite path. Through the passive terrestrial path it is possible to feed in multimedia services like "LAN over Coax", or signals from a central headend system. The LNBs can be powered by previously installed amplifiers, or the available power supply DRP 1533.

Multiswitch 13 inputs, cascade

DRC 1312

FLEXSWITCH multiswitch 13 in 12, cascade, TERR. passive



■ KLASSE
A
■ CLASS

Technical Data

SAT-IF trunk

Inputs SAT	12 pcs.
Outputs SAT	12 pcs.
Frequency range SAT	950... 2400 MHz
Through loss SAT	1...3 dB
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	> 10 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Outputs TERR	1 pcs.
Frequency range TERR	5... 862 MHz
Through loss TERR	2...5 dB
Isolation TERR - SAT	30 dB typ.
Return loss TERR	> 10 dB

Subscriber outputs

Outputs	12 pcs.
Frequency range	5...2400 MHz
TERR type	Passive
Insertion loss SAT	3...0 dB
Insertion TERR	28 dB (± 3 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	50...110 dB μ V (passive)
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz, DiSEqC 1.0
Current consumption from receiver	55 mA

Connectors

F-socket	25 pcs.
DC supply voltage	Connector type DC 5.5/2.1 mm
Colour-coding	VL = black; HL = green; VH = red; HH = yellow

General data

Power indicator	LED
Operating voltage	15 V DC
Power consumption max.	< 0,2 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...70 °C

characteristics

- Cascadable multiswitch for the distribution of 12 satellite polarisations and terrestrial signals
- Passive terrestrial path
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- Terrestrial signals available at the receiver without any power supply of the multiswitch
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Colour-coded inputs and outputs
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV

Technical Data

Cascadable with	DRC 1308, DRC 1312, DRC 1316, DRC 1324, DRC 1332
Weight	0.98 kg

Dimensions (width x height x depth)
189 x 291 x 63 mm

The DRC 1312 is a cascadable multiswitch with 13 inputs for the distribution of three satellites and terrestrial signals. The polarisations are available at 13 cascade outputs for the installation of further multiswitches. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the 12 subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRC 1312 is realised through an active satellite path. Through the passive terrestrial path it is possible to feed in multimedia services like "LAN over Coax", or signals from a central headend system. The LNBs can be powered by previously installed amplifiers, or the available power supply DRP 1533.

Multiswitch 13 inputs, cascade

DRC 1316

FLEXSWITCH multiswitch 13 in 16, cascade, TERR. passive



Technical Data

SAT-IF trunk

Inputs SAT	12 pcs.
Outputs SAT	12 pcs.
Frequency range SAT	950... 2400 MHz
Through loss SAT	1...3 dB
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	> 10 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Outputs TERR	1 pcs.
Frequency range TERR	5... 862 MHz
Through loss TERR	2...5 dB
Isolation TERR - SAT	30 dB typ.
Return loss TERR	> 10 dB

Subscriber outputs

Outputs	16 pcs.
Frequency range	5...2400 MHz
TERR type	Passive
Insertion loss SAT	3...0 dB
Insertion TERR	28 dB (± 3 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	50...110 dB μ V (passive)
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz, DiSEqC 1.0
Current consumption from receiver	55 mA

Connectors

F-socket	29 pcs.
DC supply voltage	Connector type DC 5.5/2.1 mm
Colour-coding	VL = black; HL = green; VH = red; HH = yellow

General data

Power indicator	LED
Operating voltage	15 V DC
Power consumption max.	< 0,2 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...70 °C

characteristics

- Cascadable multiswitch for the distribution of 12 satellite polarisations and terrestrial signals
- Passive terrestrial path
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- Terrestrial signals available at the receiver without any power supply of the multiswitch
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Colour-coded inputs and outputs
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV

Technical Data

Cascadable with	DRC 1308, DRC 1312, DRC 1316, DRC 1324, DRC 1332
Weight	1.04 kg
Dimensions	189 x 291 x 63 mm (width x height x depth)

The DRC 1316 is a cascadable multiswitch with 13 inputs for the distribution of three satellites and terrestrial signals. The polarisations are available at 13 cascade outputs for the installation of further multiswitches. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the 16 subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRC 1316 is realised through an active satellite path. Through the passive terrestrial path it is possible to feed in multimedia services like "LAN over Coax", or signals from a central headend system. The LNBs can be powered by previously installed amplifiers, or the available power supply DRP 1533.

Multiswitch 13 inputs, cascade

DRC 1324

FLEXSWITCH multiswitch 13 in 24, cascade, TERR. passive



KLASSE
A
■ CLASS

Technical Data

SAT-IF trunk

Inputs SAT	12 pcs.
Outputs SAT	12 pcs.
Frequency range SAT	950... 2400 MHz
Through loss SAT	2...5 dB
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	> 10 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Outputs TERR	1 pcs.
Frequency range TERR	5... 862 MHz
Through loss TERR	3...5 dB
Isolation TERR - SAT	30 dB typ.
Return loss TERR	> 10 dB

Subscriber outputs

Outputs	24 pcs.
Frequency range	5...2400 MHz
TERR type	Passive
Insertion loss SAT	2...0 dB
Insertion TERR	33 dB (± 3 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	50...110 dB μ V (passive)
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz, DiSEqC 1.0
Current consumption from receiver	55 mA

Connectors

F-socket	37 pcs.
DC supply voltage	Connector type DC 5.5/2.1 mm
Colour-coding	VL = black; HL = green; VH = red; HH = yellow

General data

Power indicator	LED
Operating voltage	15 V DC
Power consumption max.	< 0,2 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...70 °C

characteristics

- Cascadable multiswitch for the distribution of 12 satellite polarisations and terrestrial signals
- Passive terrestrial path
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- Terrestrial signals available at the receiver without any power supply of the multiswitch
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Colour-coded inputs and outputs
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV

Technical Data

Cascadable with	DRC 1308, DRC 1312, DRC 1316, DRC 1324, DRC 1332
Weight	1.52 kg
Dimensions (width x height x depth)	310 x 293 x 63 mm

The DRC 1324 is a cascadable multiswitch with 13 inputs for the distribution of three satellites and terrestrial signals. The polarisations are available at 13 cascade outputs for the installation of further multiswitches. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the 24 subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRC 1324 is realised through an active satellite path. Through the passive terrestrial path it is possible to feed in multimedia services like "LAN over Coax", or signals from a central headend system. The LNBs can be powered by previously installed amplifiers, or the available power supply DRP 1533.

Multiswitch 13 inputs, cascade

DRC 1332

FLEXSWITCH multiswitch 13 in 32, cascade, TERR. passive



KLASSE A
CLASS A

Technical Data

SAT-IF trunk

Inputs SAT	12 pcs.
Outputs SAT	12 pcs.
Frequency range SAT	950... 2400 MHz
Through loss SAT	2...5 dB
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	> 10 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Outputs TERR	1 pcs.
Frequency range TERR	5... 862 MHz
Through loss TERR	3...5 dB
Isolation TERR - SAT	30 dB typ.
Return loss TERR	> 10 dB

Subscriber outputs

Outputs	32 pcs.
Frequency range	5...2400 MHz
TERR type	Passive
Insertion loss SAT	2...0 dB
Insertion TERR	33 dB (± 3 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	50...110 dB μ V (passive)
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz, DiSEqC 1.0
Current consumption from receiver	55 mA

Connectors

F-socket	45 pcs.
DC supply voltage	Connector type DC 5.5/2.1 mm
Colour-coding	VL = black; HL = green; VH = red; HH = yellow

General data

Power indicator	LED
Operating voltage	15 V DC
Power consumption max.	< 0,2 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...70 °C

characteristics

- Cascadable multiswitch for the distribution of 12 satellite polarisations and terrestrial signals
- Passive terrestrial path
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- Terrestrial signals available at the receiver without any power supply of the multiswitch
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Colour-coded inputs and outputs
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV

Technical Data

Cascadable with	DRC 1308, DRC 1312, DRC 1316, DRC 1324, DRC 1332
Weight	1.52 kg

Dimensions (width x height x depth)
310 x 293 x 63 mm

The DRC 1332 is a cascadable multiswitch with 13 inputs for the distribution of three satellites and terrestrial signals. The polarisations are available at 13 cascade outputs for the installation of further multiswitches. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the 32 subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRC 1332 is realised through an active satellite path. Through the passive terrestrial path it is possible to feed in multimedia services like "LAN over Coax", or signals from a central headend system. The LNBs can be powered by previously installed amplifiers, or the available power supply DRP 1533.

Multiswitch 17 inputs, cascade

DRC 1708

FLEXSWITCH multiswitch 17 in 8, cascade, TERR. passive



Technical Data

SAT-IF trunk

Inputs SAT	16 pcs.
Outputs SAT	16 pcs.
Frequency range SAT	950... 2400 MHz
Through loss SAT	1...2 dB
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	> 10 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Outputs TERR	1 pcs.
Frequency range TERR	5... 862 MHz
Through loss TERR	2...3 dB
Isolation TERR - SAT	30 dB typ.
Return loss TERR	> 10 dB

Subscriber outputs

Outputs	8 pcs.
Frequency range	5...2400 MHz
TERR type	Passive
Insertion loss SAT	2...0 dB
Insertion TERR	24 dB (± 2 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	50...110 dB μ V (passive)
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz, DiSEqC 1.0
Current consumption from receiver	55 mA

Connectors

F-socket	25 pcs.
DC supply voltage	Connector type DC 5.5/2.1 mm
Colour-coding	VL = black; HL = green; VH = red; HH = yellow

General data

Power indicator	LED
Operating voltage	15 V DC
Power consumption max.	< 0,2 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...70 °C

characteristics

- Cascadable multiswitch for the distribution of 16 satellite polarisations and terrestrial signals
- Passive terrestrial path
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- Terrestrial signals available at the receiver without any power supply of the multiswitch
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Colour-coded inputs and outputs
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV

Technical Data

Cascadable with	DRC 1708, DRC 1712, DRC 1716, DRC 1724, DRC 1732
Weight	0.76 kg

Dimensions (width x height x depth)
130 x 290 x 63 mm

The DRC 1708 is a cascadable multiswitch with 17 inputs for the distribution of four satellites and terrestrial signals. The polarisations are available at 17 cascade outputs for the installation of further multiswitches. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the eight subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRC 1708 is realised through an active satellite path. Through the passive terrestrial path it is possible to feed in multimedia services like "LAN over Coax", or signals from a central headend system. The LNBs can be powered by previously installed amplifiers, or the available power supply DRP 1533.

Multiswitch 17 inputs, cascade

DRC 1712

FLEXSWITCH multiswitch 17 in 12, cascade, TERR. passive



Technical Data

SAT-IF trunk

Inputs SAT	16 pcs.
Outputs SAT	16 pcs.
Frequency range SAT	950... 2400 MHz
Through loss SAT	1...3 dB
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	> 10 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Outputs TERR	1 pcs.
Frequency range TERR	5... 862 MHz
Through loss TERR	2...5 dB
Isolation TERR - SAT	30 dB typ.
Return loss TERR	> 10 dB

Subscriber outputs

Outputs	12 pcs.
Frequency range	5...2400 MHz
TERR type	Passive
Insertion loss SAT	3...0 dB
Insertion TERR	28 dB (± 3 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	50...110 dB μ V (passive)
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz, DiSEqC 1.0
Current consumption from receiver	55 mA

Connectors

F-socket	29 pcs.
DC supply voltage	Connector type DC 5.5/2.1 mm
Colour-coding	VL = black; HL = green; VH = red; HH = yellow

General data

Power indicator	LED
Operating voltage	15 V DC
Power consumption max.	< 0,2 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...70 °C

characteristics

- Cascadable multiswitch for the distribution of 16 satellite polarisations and terrestrial signals
- Passive terrestrial path
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- Terrestrial signals available at the receiver without any power supply of the multiswitch
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Colour-coded inputs and outputs
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV

Technical Data

Cascadable with	DRC 1708, DRC 1712, DRC 1716, DRC 1724, DRC 1732
Weight	1 kg

Dimensions (width x height x depth)
189 x 291 x 63 mm

The DRC 1712 is a cascadable multiswitch with 17 inputs for the distribution of four satellites and terrestrial signals. The polarisations are available at 17 cascade outputs for the installation of further multiswitches. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the 12 subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRC 1712 is realised through an active satellite path. Through the passive terrestrial path it is possible to feed in multimedia services like "LAN over Coax", or signals from a central headend system. The LNBs can be powered by previously installed amplifiers, or the available power supply DRP 1533.

Multiswitch 17 inputs, cascade

DRC 1716

FLEXSWITCH multiswitch 17 in 16, cascade, TERR. passive



Technical Data

SAT-IF trunk

Inputs SAT	16 pcs.
Outputs SAT	16 pcs.
Frequency range SAT	950... 2400 MHz
Through loss SAT	1...3 dB
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	> 10 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Outputs TERR	1 pcs.
Frequency range TERR	5... 862 MHz
Through loss TERR	2...5 dB
Isolation TERR - SAT	30 dB typ.
Return loss TERR	> 10 dB

Subscriber outputs

Outputs	16 pcs.
Frequency range	5...2400 MHz
TERR type	Passive
Insertion loss SAT	3...0 dB
Insertion TERR	28 dB (± 3 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	50...110 dB μ V (passive)
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz, DiSEqC 1.0
Current consumption from receiver	55 mA

Connectors

F-socket	33 pcs.
DC supply voltage	Connector type DC 5.5/2.1 mm
Colour-coding	VL = black; HL = green; VH = red; HH = yellow

General data

Power indicator	LED
Operating voltage	15 V DC
Power consumption max.	< 0,2 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...70 °C

characteristics

- Cascadable multiswitch for the distribution of 16 satellite polarisations and terrestrial signals
- Passive terrestrial path
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- Terrestrial signals available at the receiver without any power supply of the multiswitch
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Colour-coded inputs and outputs
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV

Technical Data

Cascadable with	DRC 1708, DRC 1712, DRC 1716, DRC 1724, DRC 1732
Weight	1.02 kg

Dimensions (width x height x depth) 189 x 291 x 63 mm

The DRC 1716 is a cascadable multiswitch with 17 inputs for the distribution of four satellites and terrestrial signals. The polarisations are available at 17 cascade outputs for the installation of further multiswitches. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the 16 subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRC 1716 is realised through an active satellite path. Through the passive terrestrial path it is possible to feed in multimedia services like "LAN over Coax", or signals from a central headend system. The LNBs can be powered by previously installed amplifiers, or the available power supply DRP 1533.

Multiswitch 17 inputs, cascade

DRC 1724

FLEXSWITCH multiswitch 17 in 24, cascade, TERR. passive



KLASSE
A
CLASS

Technical Data

SAT-IF trunk

Inputs SAT	16 pcs.
Outputs SAT	16 pcs.
Frequency range SAT	950... 2400 MHz
Through loss SAT	2...5 dB
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	> 10 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Outputs TERR	1 pcs.
Frequency range TERR	5... 862 MHz
Through loss TERR	3...5 dB
Isolation TERR - SAT	30 dB typ.
Return loss TERR	> 10 dB

Subscriber outputs

Outputs	24 pcs.
Frequency range	5...2400 MHz
TERR type	Passive
Insertion loss SAT	2...0 dB
Insertion TERR	33 dB (± 3 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	50...110 dB μ V (passive)
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz, DiSEqC 1.0
Current consumption from receiver	55 mA

Connectors

F-socket	41 pcs.
DC supply voltage	Connector type DC 5.5/2.1 mm
Colour-coding	VL = black; HL = green; VH = red; HH = yellow

General data

Power indicator	LED
Operating voltage	15 V DC
Power consumption max.	< 0,2 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...70 °C

characteristics

- Cascadable multiswitch for the distribution of 16 satellite polarisations and terrestrial signals
- Passive terrestrial path
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- Terrestrial signals available at the receiver without any power supply of the multiswitch
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Colour-coded inputs and outputs
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV

Technical Data

Cascadable with	DRC 1708, DRC 1712, DRC 1716, DRC 1724, DRC 1732
Weight	1.54 kg

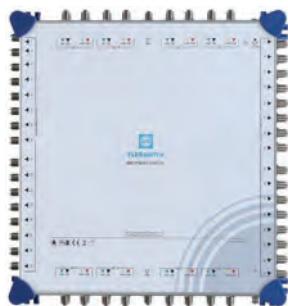
Dimensions (width x height x depth) 310 x 293 x 63 mm

The DRC 1724 is a cascadable multiswitch with 17 inputs for the distribution of four satellites and terrestrial signals. The polarisations are available at 17 cascade outputs for the installation of further multiswitches. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the 24 subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRC 1724 is realised through an active satellite path. Through the passive terrestrial path it is possible to feed in multimedia services like "LAN over Coax", or signals from a central headend system. The LNBs can be powered by previously installed amplifiers, or the available power supply DRP 1533.

Multiswitch 17 inputs, cascade

DRC 1732

FLEXSWITCH multiswitch 17 in 32, cascade, TERR. passive



Technical Data

SAT-IF trunk

Inputs SAT	16 pcs.
Outputs SAT	16 pcs.
Frequency range SAT	950... 2400 MHz
Through loss SAT	2...6 dB
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	> 10 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Outputs TERR	1 pcs.
Frequency range TERR	5... 862 MHz
Through loss TERR	3...5 dB
Isolation TERR - SAT	30 dB typ.
Return loss TERR	> 10 dB

Subscriber outputs

Outputs	32 pcs.
Frequency range	5...2400 MHz
TERR type	Passive
Insertion loss SAT	2...0 dB
Insertion TERR	33 dB (± 3 dB)
Max. output level subscriber SAT	102 dB μ V
Max. output level subscriber TERR	50...110 dB μ V (passive)
Return loss subscriber SAT	>10 dB
Return loss subscriber TERR	>10 dB
Control signal	14/18 V, 0/22 kHz, DiSEqC 1.0
Current consumption from receiver	55 mA

Connectors

F-socket	49 pcs.
DC supply voltage	Connector type DC 5.5/2.1 mm
Colour-coding	VL = black; HL = green; VH = red; HH = yellow

General data

Power indicator	LED
Operating voltage	15 V DC
Power consumption max.	< 0,2 W
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...70 °C

characteristics

- Cascadable multiswitch for the distribution of 16 satellite polarisations and terrestrial signals
- Passive terrestrial path
- Integrated SAT amplifier for low insertion loss
- Pre-emphasis to compensate the cable loss at high frequencies
- Terrestrial signals available at the receiver without any power supply of the multiswitch
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F-connectors
- Colour-coded inputs and outputs
- Made in Germany
- Compatible with MagentaTV Sat, DIVEO and freenet TV

Technical Data

Cascadable with	DRC 1708, DRC 1712, DRC 1716, DRC 1724, DRC 1732
Weight	1.58 kg

Dimensions (width x height x depth) 310 x 293 x 63 mm

The DRC 1732 is a cascadable multiswitch with 17 inputs for the distribution of four satellites and terrestrial signals. The polarisations are available at 17 cascade outputs for the installation of further multiswitches. Commercially available DVB-S/S2 set-top-boxes or TVs with an integrated receiver can be used at the 32 subscriber outputs. Inserted terrestrial signals like DVB-T/T2, DAB or FM are available at each subscriber output as well. The very low insertion loss of the DRC 1732 is realised through an active satellite path. Through the passive terrestrial path it is possible to feed in multimedia services like "LAN over Coax", or signals from a central headend system. The LNBs can be powered by previously installed amplifiers, or the available power supply DRP 1533.

Amplifiers FLEXSWITCH

DRA 0505

FLEXSWITCH line amplifier, for one satellite



Technical Data

SAT-IF trunk

Inputs SAT	4 pcs.
Frequency range SAT	950...2200 MHz
Gain SAT	22...26 dB
Attenuation SAT	0...10 dB
Max. output level SAT	116 dB μ V (IMA3)
Equalization SAT	4 dB
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	12 dB
Noise figure	8 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Frequency range TERR	10...862 MHz
Gain TERR	20 dB
Attenuation TERR	0...10 dB
Max. output level TERR	110 dB μ V (IMA3)
Isolation TERR - SAT	30 dB typ.
Return loss TERR	12 dB
Noise figure	5 dB

Connectors

F-socket	10 pcs.
DC supply voltage	Connector type DC 5.5/2.1 mm

General data

Operating voltage	12...18 V DC
Current consumption	220 mA
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...+50 °C
Weight	0.35 kg

Dimensions (width x height x depth) 160 x 127 x 61 mm

characteristics

- Line amplifier for one satellite and terrestrial signals
- Mechanically compatible with DRC 05xx
- Adjustable gain from 16...26 dB at each input
- Remote-powered via the SAT-IF trunk lines
- Switchable DC bypass
- High screening efficiency according to Class A
- Made in Germany



The DRA 0505 is an amplifier for 4 polarizations of one satellite and terrestrial signals. With a gain of 26 dB the DRA 0505 is optimally suited for use as line amplifier in multi-switch cascades. The gain can be individually reduced by 10 dB at each input, in order to compensate differences in level between the individual polarizations. The supply voltage can be realized either locally, through the optional power supply DRP 1533 or via remote power at the trunk lines.

Amplifiers FLEXSWITCH

DRA 0909

FLEXSWITCH line amplifier, for two satellites



characteristics

- Line amplifier for 2 satellite and terrestrial signals
- Mechanically compatible with DRC 09xx
- Adjustable gain from 16...26 dB at each input
- Remote-powered via the SAT-IF trunk lines
- Switchable DC bypass
- High screening efficiency according to Class A
- Made in Germany

Technical Data

SAT-IF trunk

Inputs SAT	8 pcs.
Frequency range SAT	950...2200 MHz
Gain SAT	22...26 dB
Attenuation SAT	0...10 dB
Max. output level SAT	116 dB μ V (IMA3)
Equalization SAT	4 dB
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	12 dB
Noise figure	8 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Frequency range TERR	10...862 MHz
Gain TERR	20 dB
Attenuation TERR	0...10 dB
Max. output level TERR	110 dB μ V (IMA3)
Isolation TERR - SAT	30 dB typ.
Return loss TERR	12 dB
Noise figure	5 dB

Connectors

F-socket	10 pcs.
DC supply voltage	Connector type DC 5.5/2.1 mm

General data

Operating voltage	12...18 V DC
Current consumption	420 mA
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...+50 °C
Weight	0.41 kg

Dimensions (width x height x depth) 160 x 110 x 61 mm

The DRA 0909 is an amplifier for 8 polarizations of two satellite and terrestrial signals. With a gain of 26 dB the DRA 0909 is optimally suited for use as line amplifier in multi-switch cascades. The gain can be individually reduced by 10 dB at each input, in order to compensate differences in level between the individual polarizations. The supply voltage can be realized either locally, through the optional power supply DRP 1533 or via remote power at the trunk lines.

Amplifiers FLEXSWITCH

DRA 1313

FLEXSWITCH line amplifier, for three satellites



Technical Data

SAT-IF trunk

Inputs SAT	12 pcs.
Frequency range SAT	950...2200 MHz
Gain SAT	22...26 dB
Attenuation SAT	0...10 dB
Max. output level SAT	116 dB μ V (IMA3)
Equalization SAT	4 dB
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	12 dB
Noise figure	8 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Frequency range TERR	10...862 MHz
Gain TERR	20 dB
Attenuation TERR	0...10 dB
Max. output level TERR	110 dB μ V (IMA3)
Isolation TERR - SAT	30 dB typ.
Return loss TERR	12 dB
Noise figure	5 dB

Connectors

F-socket	10 pcs.
DC supply voltage	Connector type DC 5.5/2.1 mm

General data

Operating voltage	12...18 V DC
Current consumption	600 mA
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...+50 °C
Weight	0.6 kg

Dimensions (width x height x depth) 160 x 247 x 61 mm

characteristics

- Line amplifier for 3 satellite and terrestrial signals
- Mechanically compatible with DRC 13xx
- Adjustable gain from 16...26 dB at each input
- Remote-powered via the SAT-IF trunk lines
- Switchable DC bypass
- High screening efficiency according to Class A
- Made in Germany



The DRA 1313 is an amplifier for 12 polarizations of three satellite and terrestrial signals. With a gain of 26 dB the DRA 1313 is optimally suited for use as line amplifier in multi-switch cascades. The gain can be individually reduced by 10 dB at each input, in order to compensate differences in level between the individual polarizations. The supply voltage can be realized either locally, through the optional power supply DRP 1533 or via remote power at the trunk lines.

Amplifiers FLEXSWITCH

DRA 1717

FLEXSWITCH line amplifier, for four satellites



Technical Data

SAT-IF trunk

Inputs SAT	16 pcs.
Frequency range SAT	950...2200 MHz
Gain SAT	22...26 dB
Attenuation SAT	0...10 dB
Max. output level SAT	116 dB μ V (IMA3)
Equalization SAT	4 dB
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	12 dB
Noise figure	8 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Frequency range TERR	10...862 MHz
Gain TERR	20 dB
Attenuation TERR	0...10 dB
Max. output level TERR	110 dB μ V (IMA3)
Isolation TERR - SAT	30 dB typ.
Return loss TERR	12 dB
Noise figure	5 dB

Connectors

F-socket	10 pcs.
DC supply voltage	Connector type DC 5.5/2.1 mm

General data

Operating voltage	12...18 V DC
Current consumption	800 mA
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...+50 °C
Weight	0.65 kg

Dimensions (width x height x depth) 160 x 247 x 61 mm

characteristics

- Line amplifier for 4 satellite and terrestrial signals
- Mechanically compatible with DRC 17xx
- Adjustable gain from 16...26 dB at each input
- Remote-powered via the SAT-IF trunk lines
- Switchable DC bypass
- High screening efficiency according to Class A
- Made in Germany

The DRA 1717 is an amplifier for 16 polarizations of four satellite and terrestrial signals. With a gain of 26 dB the DRA 1717 is optimally suited for use as line amplifier in multi-switch cascades. The gain can be individually reduced by 10 dB at each input, in order to compensate differences in level between the individual polarizations. The supply voltage can be realized either locally, through the optional power supply DRP 1533 or via remote power at the trunk lines.

Taps/Splitter FLEXSWITCH

DRX 5002

FLEXSWITCH distributor, 2-way for one satellite

characteristics

- Passive 2-way splitter for one satellite and terrestrial signals
- Switchable DC bypass for LNB powering
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F connectors
- Made in Germany

Technical Data

SAT-IF trunk

Inputs SAT	4 pcs.
Frequency range SAT	950...2200 MHz
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	10 dB

Terrestrial trunk

Inputs TERR	1 pcs.
Frequency range TERR	5...862 MHz
Isolation TERR - SAT	30 dB typ.
Return loss TERR	10 dB

Distribution outputs

Outputs SAT	8 pcs.
Outputs TERR	2 pcs.
Frequency range	5...2200 MHz
Distribution loss SAT	6 dB (± 1 dB)
Distribution loss TERR	4.5 dB (± 1 dB)
Return loss	10 dB

Connectors

F-socket	15 pcs.
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General data

Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...+50 °C
Weight	0.3 kg
Dimensions (width x height x depth)	140 x 71 x 45 mm



Taps/Splitter FLEXSWITCH

DRX 9002

FLEX SWITCH distributor, 2-fold for two satellites

characteristics

- Passive 2-way splitter for two satellite and terrestrial signals
- Switchable DC bypass for LNB powering
- High screening efficiency according to Class A
- Compact dimensions paired with installation friendly distance between the F connectors
- Made in Germany

Technical Data	
SAT-IF trunk	
Inputs SAT	8 pcs.
Frequency range SAT	950...2200 MHz
Decoupling SAT -SAT	30 dB typ.
Return loss SAT	10 dB
Terrestrial trunk	
Inputs TERR	1 pcs.
Frequency range TERR	5...862 MHz
Isolation TERR - SAT	30 dB typ.
Return loss TERR	10 dB
Distribution outputs	
Outputs SAT	16 pcs.
Outputs TERR	2 pcs.
Frequency range	5...2200 MHz
Distribution loss SAT	6 dB (± 1 dB)
Distribution loss TERR	4.5 dB (± 1 dB)
Return loss	10 dB
Connectors	
F-socket	27 pcs.
General data	
Screening factor	Class A, according to EN 50083-2
Impedance	75 Ω
Operating temperature range	-20...+50 °C
Weight	0.44 kg
Dimensions (width x height x depth)	220 x 71 x 45 mm

Accessories FLEXSWITCH

DRI 0210

Power feed DC



Technical Data

Frequency range	10...2200 MHz
Through loss SAT	2 dB (± 1 dB)
Decoupling the levels, SAT -> SAT	>35 dB
Return loss SAT	>10 dB
General data	
Connectors	F-connectors
Impedance	75 Ω
Max. remote power LNB	1000 mA
Trunk line DC power	switchable
Ambient temperature	-20...+50 °C
Dimensions (width x height x depth)	100 x 60 x 75 mm

DRP 1533

Wall wart 230 V AC, 15 V DC



Technical Data

General data	
Connector	Connector type DC 5.5/2.1 mm
Operating voltage	90...264 V AC
Output voltage	15 V DC
Max. output current	3,3 A
Max. output power	49,5 W
Max. humidity, non condensing	25...75 %
Protection class	II
Electrical safety standard	EN 60950-1
EMC	EN 50083-2
Dimensions W x H x D	116 x 33 x 51 mm
Operating temperature range	-20...+50 °C
Storage temperature	-10...+80 °C

characteristics

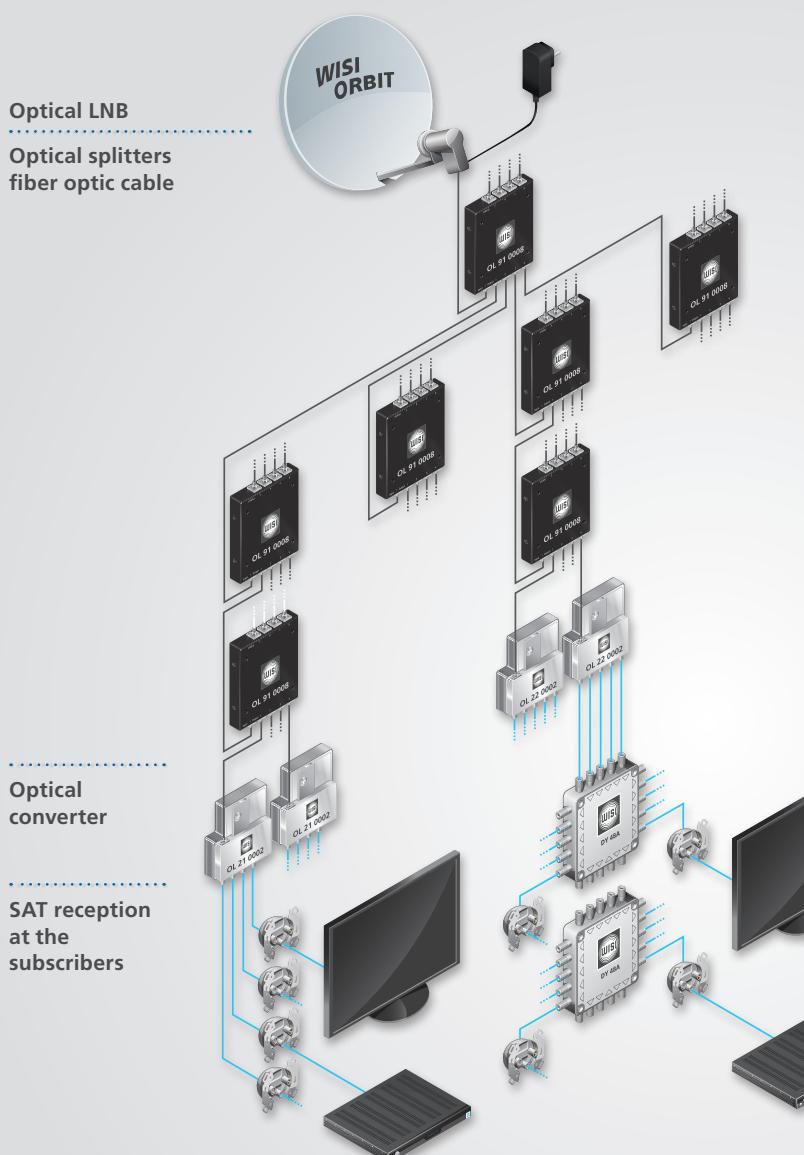
- Operating voltage 230 V AC
- Output power 15 V DC
- Output current 3,3 A

The DRP 1533 is a wall wart with 230 V AC, 50/60 Hz and has a output power from 15 V DC. It is usable for the FLEXSWITCH series.



Optical SAT distribution

WISI Optical SAT distribution:
**Unlimited distribution via
fiber optics.**



The new OL series revolutionizes SAT reception and conventional distribution technology. The optical transmission of satellite signals, terrestrial signals and radio signals is particularly convincing ...

- for projects in which the digital signals are centrally and almost unlimited number of participants is to be made available
- for extensive structures, in which no signal and quality losses may occur.
- through an efficient and cost-oriented installation. Optical cables are faster and more space-saving to install, and cheaper than the comparable version with coaxial cables.

At a glance:

- Galvanic separation of the individual building parts/buildings
- Low susceptibility to faults
- Future-proof
- Virtually loss- and interference-free transmission
- Efficient and clean installation
- Consistently good signal quality
- Highest flexibility
- Low Smoke Zero Halogen Compliant (LSZH)
- Reception of all transponders of a satellite
- A reception system for hundreds of participants
- Aesthetic building views, since only one central reception antenna is required
- One fiber optic cable replaces several coaxial cables
- Considerable cost savings compared to alternative channel processing solutions

Optical feed systems

OL 11 0000

Optical LNB, for up to 32 optical endpoints



Technical Data

Input frequency	10,7...12,75 GHz
Frequency range	vertical: 0,95...3,0 GHz (stacked), horizontal: 3,4...5,45 GHz (stacked)
Optical output	
Wavelength	1310 nm
Output power	+7 dBm
Noise figure	typ. 0,5 dB
Gain	max. 72 dB, min. 62 dB
Image rejection	min. 40 dB
Local oscillator stability	max. ± 2 MHz (Temp. drift -40°C to +60°C)
General data	
Optical connector	FC/PC
DC connector	Female F-Type
Supply voltage	12 V DC
Current consumption	<450 mA
Ambient temperature	-30...+60 °C

characteristics

- Conversion of four SAT polarizations in an optical output signal
- Distribution over single-mode fiber optic cable
- Feed diameter 40 mm
- Powered by delivery included power supply
- FC/PC - connector
- For up to 32 optical back converters

LNB with direct optical output. +7 dBm output power for supply of up to 32 optical endpoints. Power supply included.

OL 13 0000

Optical Distribution Kit



characteristics

- Kit contains the wholeband LNB, interconnection cable and electrical/optical converter.
- For combining with terrestrial signals
- The SAT-signal of the feed system OL 15 0000 will be converted to an optical signal by the electrical/optical converter OL 14 0000
- Parallel distribution of DVB-T/T2, DAB and FM
- Electrical/optical converter OL 14 000 has 2 outputs, each with +7dBm power

Kit for the distribution of one satellite, DVB-T/T2,DAB and FM into an optical output signal. Kit contains: full band LNB with N-connector, electrical/optical converter, N-patch cable(2m), power supply and installation kit for assembling at antenna pipe.

Optical taps

OL 92 0010

Optical 90/10 taps



OL 92 0020

Optical 80/20 taps



OL 92 0030

Optical 70/30 taps



OL 92 0040

Optical 60/40 taps



characteristics

■ FC/PC connectors

■ FBT - Technology
(Fused Biconical Tapered)

■ Wide range splitter
1260...1650 nm

■ Max. input power:
25 dBm

Technical Data

Wavelength	1260...1650 nm	1260...1650 nm	1260...1650 nm	1260...1650 nm
Coupling ratio	90/10	80/20	70/30	60/40
Insertion loss output 1	0,9 dB	1,5 dB	2,1 dB	2,6 dB
Insertion loss output 2	10,6 dB	7,6 dB	5,8 dB	4,4 dB
Operating temperature range	-40...+75 °C	-40...+75 °C	-40...+75 °C	-40...+75 °C
Connector	FC/PC	FC/PC	FC/PC	FC/PC
Dimensions (width x height x depth)	114 x 157 x 20 mm			

Optical splitter

OL 91 0002

Optical 2-way splitter

characteristics

- FC/PC connectors
- FBT - Technology
(Fused Biconical Tapered)



OL 91 0003

Optical 3-way splitter



OL 91 0004

Optical 4-way splitter



Technical Data

Number of outputs	02	03	04
Wavelength	1310/1550 nm	1310/1550 nm	1260...1650 nm
Insertion loss	3,6 dB	5,6 dB	7 dB
Connector	FC/PC	FC/PC	FC/PC
Operating temperature range	-40...+75 °C	-40...+75 °C	-40...+75 °C
Dimensions (width x height x depth)	114 x 157 x 20 mm	114 x 157 x 20 mm	114 x 157 x 20 mm

OL 91 0008

Optical 8-way splitter

characteristics

- FC/PC connectors
- PLC - Technology
(Planar Lightwave Circuit)
- Wide range splitter
1260...1650 nm
- Max. input power: 23 dBm



OL 91 0016

Optical 16-way splitter



OL 91 0032

Optical 32-way splitter



Technical Data

Number of outputs	08	16	32
Wavelength	1260...1650 nm	1260...1650 nm	1260...1650 nm
Insertion loss	10,2 dB	13,6 dB	16,8 dB
Connector	FC/PC	FC/PC	FC/PC
Operating temperature range	-40...+75 °C	-40...+75 °C	-40...+75 °C
Dimensions (width x height x depth)	114 x 157 x 20 mm	175 x 163 x 50 mm	175 x 163 x 50 mm

Optical converter

OL 21 0003

Optical quad converter III



Technical Data

Input frequency SAT	0,95...5,45 GHz (stacked)
Return loss	10 dB
Wavelength	1100...1650 nm
Input power	-15...0 dBm
Output frequency	4 x SAT + TERR.
Output level	70 dB μ V
Control signal	11...14,5 V (vertical)
Control signal	15,5...19 V (horizontal)
Control signal	0/22 kHz (Low / High Band)
Input frequency TERR	88...108/ 174...240/ 470...790 MHz

General data

Connector input	FC/PC
Output	4 participants outputs
Supply voltage	Receiver, ext. power supply 10...20 V DC (optional)
Current consumption	225 mA @ 10V Output 1/2, 225 mA @ 10V Output 3/4
Output impedance	75 Ω
Ambient temperature	-15...+55 °C

characteristics

- Back conversion of the optical signal into original frequency position
- Power supply by the subsequently connected devices or optional 20 V DC power supply (OLPS 0230)
- FC/PC - connector
- Direct connection of 4 stb without an additional multiswitch
- Compact design (optimized for the installation in living rooms)
- Simplified installation
- Satellite- and terrestrial signal to each participant output available

Quad converter for the conversion of the optical input signal into 4 independent subscriber outputs. Converted will be all inserted signals (DVB-S/S2, DVB-T/T2, DAB and FM). Re-design in compact form factor and simplified installation. Power supply by the connected stb or TV sets with integrated satellite receiver or the optional power supply OLPS 0230.

OL 22 0003

Optical quattro converter III



Technical Data

Input frequency SAT	0,95...5,45 GHz (stacked)
Return loss	10 dB
Wavelength	1100...1650 nm
Input power	-15...0 dBm
Output frequency	1xHH, 1xVH, 1xHL, 1xVL, 1xTERR
Output level	80 dB μ V
Control signal	11...14,5 V (vertical)
Control signal	15,5...19 V (horizontal)
Control signal	0/22 kHz (Low / High Band)
Input frequency TERR	88...108/ 174...240/ 470...790 MHz

General data

Connector input	FC/PC
Output	Multiswitch
Supply voltage	Multiswitch, ext. power supply 10...20 V DC
Current consumption	400 mA @ 10V
Output impedance	75 Ω
Ambient temperature	-15...+55 °C

characteristics

- Back conversion of the optical signal into original frequency position
- Output signals: HH, VH, HL, VL and terrestrial
- Power supply by the subsequently connected devices or optional 20 V DC power supply (OLPS 0230)
- FC/PC - connector

Quattro-way back converter for the change of the optical input signal in several HF-areas: SAT (HH,VH,HL,VL) and terrestrial. Application for multiswitch systems or headends. Power supply via multiswitch or via the optional AC adapter OLPS 0230. Redesign in a compact construction for easy mounting.

Optical cables

OL 95 1001

Optical cable term. 1 m

characteristics

- Low-Smoke-Zero-Halogen-compliant (LSZH)
- Galvanic isolation
- No interferences by electromagnetic fields
- Integrated protection against tensile strengths and rodents



OL 95 1003

Optical cable term. 3 m



OL 95 1005

Optical cable term. 5 m



Technical Data

Buffered fiber

Fiber type	G657A	G657A	G657A
Outer diameter	0,9 mm	0,9 mm	0,9 mm
Material	PVC	PVC	PVC
Typical attenuation	<0,25 dB/km @ 1550 nm; <0,4 dB/km @ 1310 nm	<0,25 dB/km @ 1550 nm; <0,4 dB/km @ 1310 nm	<0,25 dB/km @ 1550 nm; <0,4 dB/km @ 1310 nm

SS tube

Material	SUS304	SUS304	SUS304
Outer diameter	1.65 mm ± 0,05 mm	1.65 mm ± 0,05 mm	1.65 mm ± 0,05 mm
Width	0.85 mm ± 0,05 mm	0.85 mm ± 0,05 mm	0.85 mm ± 0,05 mm
Thickness	0.25 mm ± 0,02 mm	0.25 mm ± 0,02 mm	0.25 mm ± 0,02 mm
Clearance	0.25 mm ± 0,02 mm	0.25 mm ± 0,02 mm	0.25 mm ± 0,02 mm

Aramid yarn

Type	1000dtex	1000dtex	1000dtex
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Sheath

Material	LSZH-Compound	LSZH-Compound	LSZH-Compound
Outer diameter	2.9 mm ± 0,05 mm	2.9 mm ± 0,05 mm	2.9 mm ± 0,05 mm

General data

Installation	Indoor	Indoor	Indoor
Length	1 m	3 m	5 m
Bending radius	≥ 30 mm	≥ 30 mm	≥ 30 mm

Connectors

FC/PC	2 pcs.	2 pcs.	2 pcs.
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Optical cables

OL 95 1010

Optical cable term. 10 m

characteristics

- Low-Smoke-Zero-Halogen-compliant (LSZH)
- Galvanic isolation
- No interferences by electromagnetic fields
- Integrated protection against tensile strengths and rodents



OL 95 1015

Optical cable term. 15 m



OL 95 1020

Optical cable term. 20 m



Technical Data

Buffered fiber

Fiber type	G657A	G657A	G657A
Outer diameter	0,9 mm	0,9 mm	0,9 mm
Material	PVC	PVC	PVC
Typical attenuation	<0,25 dB/km @ 1550 nm; <0,4 dB/km @ 1310 nm	<0,25 dB/km @ 1550 nm; <0,4 dB/km @ 1310 nm	<0,25 dB/km @ 1550 nm; <0,4 dB/km @ 1310 nm

SS tube

Material	SUS304	SUS304	SUS304
Outer diameter	1.65 mm ± 0,05 mm	1.65 mm ± 0,05 mm	1.65 mm ± 0,05 mm
Width	0.85 mm ± 0,05 mm	0.85 mm ± 0,05 mm	0.85 mm ± 0,05 mm
Thickness	0.25 mm ± 0,02 mm	0.25 mm ± 0,02 mm	0.25 mm ± 0,02 mm
Clearance	0.25 mm ± 0,02 mm	0.25 mm ± 0,02 mm	0.25 mm ± 0,02 mm

Aramid yarn

Type	1000dtex	1000dtex	1000dtex
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Sheath

Material	LSZH-Compound	LSZH-Compound	LSZH-Compound
Outer diameter	2.9 mm ± 0,05 mm	2.9 mm ± 0,05 mm	2.9 mm ± 0,05 mm

General data

Installation	Indoor	Indoor	Indoor
Length	10 m	15 m	20 m
Bending radius	≥ 30 mm	≥ 30 mm	≥ 30 mm

Connectors

FC/PC	2 pcs.	2 pcs.	2 pcs.
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Optical cables

OL 95 1030

Optical cable term. 30 m

characteristics

- Low-Smoke-Zero-Halogen-compliant (LSZH)
- Galvanic isolation
- No interferences by electromagnetic fields
- Integrated protection against tensile strengths and rodents



OL 95 1040

Optical cable term. 40 m



OL 95 1050

Optical cable term. 50 m



Technical Data

Buffered fiber

Fiber type	G657A	G657A	G657A
Outer diameter	0,9 mm	0,9 mm	0,9 mm
Material	PVC	PVC	PVC
Typical attenuation	<0,25 dB/km @ 1550 nm; <0,4 dB/km @ 1310 nm	<0,25 dB/km @ 1550 nm; <0,4 dB/km @ 1310 nm	<0,25 dB/km @ 1550 nm; <0,4 dB/km @ 1310 nm

SS tube

Material	SUS304	SUS304	SUS304
Outer diameter	1.65 mm ± 0,05 mm	1.65 mm ± 0,05 mm	1.65 mm ± 0,05 mm
Width	0.85 mm ± 0,05 mm	0.85 mm ± 0,05 mm	0.85 mm ± 0,05 mm
Thickness	0.25 mm ± 0,02 mm	0.25 mm ± 0,02 mm	0.25 mm ± 0,02 mm
Clearance	0.25 mm ± 0,02 mm	0.25 mm ± 0,02 mm	0.25 mm ± 0,02 mm

Aramid yarn

Type	1000dtex	1000dtex	1000dtex
------	----------	----------	----------

Sheath

Material	LSZH-Compound	LSZH-Compound	LSZH-Compound
Outer diameter	2.9 mm ± 0,05 mm	2.9 mm ± 0,05 mm	2.9 mm ± 0,05 mm

General data

Installation	Indoor	Indoor	Indoor
Length	30 m	40 m	50 m
Bending radius	≥ 30 mm	≥ 30 mm	≥ 30 mm

Connectors

FC/PC	2 pcs.	2 pcs.	2 pcs.
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Optical cables

OL 95 1075

Optical cable term.
75 m



OL 95 1100

Optical cable term.
100 m



OL 95 1150

Optical cable term.
150 m



OL 95 1200

Optical cable term.
200 m



characteristics

- Low-Smoke-Zero-Halogen-compliant (LSZH)
- Galvanic isolation
- No interferences by electro-magnetic fields
- Integrated protection against tensile strengths and rodents

Technical Data

Buffered fiber

Fiber type	G657A	G657A	G657A	G657A
Outer diameter	0,9 mm	0,9 mm	0,9 mm	0,9 mm
Material	PVC	PVC	PVC	PVC
Typical attenuation	<0,25 dB/km @ 1550 nm; <0,4 dB/km @ 1310 nm	<0,25 dB/km @ 1550 nm; <0,4 dB/km @ 1310 nm	<0,25 dB/km @ 1550 nm; <0,4 dB/km @ 1310 nm	<0,25 dB/km @ 1550 nm; <0,4 dB/km @ 1310 nm

SS tube

Material	SUS304	SUS304	SUS304	SUS304
Outer diameter	1.65 mm ± 0,05 mm			
Width	0.85 mm ± 0,05 mm			
Thickness	0.25 mm ± 0,02 mm			
Clearance	0.25 mm ± 0,02 mm			

Aramid yarn

Type	1000dtex	1000dtex	1000dtex	1000dtex
------	----------	----------	----------	----------

Sheath

Material	LSZH-Compound	LSZH-Compound	LSZH-Compound	LSZH-Compound
Outer diameter	2.9 mm ± 0,05 mm			

General data

Installation	Indoor	Indoor	Indoor	Indoor
Length	75 m	100 m	150 m	200 m
Bending radius	≥ 30 mm	≥ 30 mm	≥ 30 mm	≥ 30 mm

Connectors

FC/PC	2 pcs.	2 pcs.	2 pcs.	2 pcs.
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Optical cables

OL 95 2030

Optical twin cable term. 30 m

OL 95 2040

Optical twin cable term. 40 m

characteristics

- Special resistant PE-jacket
- UV-resistant
- Galvanic isolation
- No interferences by electro-magnetic fields
- Special gel protect the fibers from damaged caused by water



Technical Data

Buffered fiber

Fiber type	G657A	G657A
Outer diameter	0,9 mm	0,9 mm
Material	LSZH-Compound	LSZH-Compound
Typical attenuation	<0,25 dB/km @ 1550 nm; <0,4 dB/km @ 1310 nm	<0,25 dB/km @ 1550 nm; <0,4 dB/km @ 1310 nm

SS tube

Material	SUS304	SUS304
Outer diameter	1.65 mm ± 0,05 mm	1.65 mm ± 0,05 mm
Width	0.85 mm ± 0,05 mm	0.85 mm ± 0,05 mm
Thickness	0.25 mm ± 0,02 mm	0.25 mm ± 0,02 mm
Clearance	0.25 mm ± 0,02 mm	0.25 mm ± 0,02 mm

Aramid yarn

Type	1000dtex	1000dtex
------	----------	----------

Sheath

Material	PE-HD	Outdoor
Outer diameter	5.9 mm (±0,05 mm)	40 m

General data

Installation	Outdoor	≥ 30 mm
Length	30 m	45 kg/km
Bending radius	≥ 30 mm	4 pcs.

Connectors

Cable weight	45 kg/km	
FC/PC	4 pcs.	

Optical cables

OL 95 2050

optical twin cable term.
50 m



characteristics

- Special resistant PE-jacket
- UV-resistant
- Galvanic isolation
- No interferences by electro-magnetic fields
- Special gel protect the fibers from damaged caused by water

OL 95 2075

Optical twin cable term.
75 m



OL 95 2100

Optical twin cable term.
100 m



Technical Data

Buffered fiber

	G657A	G657A	G657A
Fiber type			
Outer diameter	0,9 mm	0,9 mm	0,9 mm
Material	LSZH-Compound	LSZH-Compound	LSZH-Compound
Typical attenuation	<0,25 dB/km @ 1550 nm; <0,4 dB/km @ 1310 nm	<0,25 dB/km @ 1550 nm; <0,4 dB/km @ 1310 nm	<0,25 dB/km @ 1550 nm; <0,4 dB/km @ 1310 nm
SS tube			
Material	SUS304	SUS304	SUS304
Outer diameter	1.65 mm ± 0,05 mm	1.65 mm ± 0,05 mm	1.65 mm ± 0,05 mm
Width	0.85 mm ± 0,05 mm	0.85 mm ± 0,05 mm	0.85 mm ± 0,05 mm
Thickness	0.25 mm ± 0,02 mm	0.25 mm ± 0,02 mm	0.25 mm ± 0,02 mm
Clearance	0.25 mm ± 0,02 mm	0.25 mm ± 0,02 mm	0.25 mm ± 0,02 mm
Aramid yarn			
Type	1000dtex	1000dtex	1000dtex
General data			
Installation	Outdoor	Outdoor	Outdoor
Length	50 m	75 m	100 m
Bending radius	≥ 30 mm	≥ 30 mm	≥ 30 mm
Cable weight	45 kg/km	45 kg/km	45 kg/km
Connectors			
FC/PC	4 pcs.	4 pcs.	4 pcs.

Optical cables

OL 95 2150

Optical twin cable term.
150 m

characteristics

- Special resistant PE-jacket
- UV-resistant
- Galvanic isolation
- No interferences by electro-magnetic fields
- Special gel protect the fibers from damaged caused by water



OL 95 2200

Optical twin cable term.
200 m



OL 95 4300

Optical quad cable term.
300 m



Technical Data

Buffered fiber

Fiber type	G657A	G657A	G657A
Outer diameter	0,9 mm	0,9 mm	0,9 mm
Material	LSZH-Compound	LSZH-Compound	LSZH-Compound
Typical attenuation	<0,25 dB/km @ 1550 nm; <0,4 dB/km @ 1310 nm	<0,25 dB/km @ 1550 nm; <0,4 dB/km @ 1310 nm	<0,25 dB/km @ 1550 nm; <0,4 dB/km @ 1310 nm
SS tube			
Material	SUS304	SUS304	SUS304
Outer diameter	1.65 mm ± 0,05 mm	1.65 mm ± 0,05 mm	1.65 mm ± 0,05 mm
Width	0.85 mm ± 0,05 mm	0.85 mm ± 0,05 mm	0.85 mm ± 0,05 mm
Thickness	0.25 mm ± 0,02 mm	0.25 mm ± 0,02 mm	0.25 mm ± 0,02 mm
Clearance	0.25 mm ± 0,02 mm	0.25 mm ± 0,02 mm	0.25 mm ± 0,02 mm
Aramid yarn			
Type	1000dtex	1000dtex	1000dtex
General data			
Installation	Outdoor	Outdoor	Outdoor
Length	150 m	200 m	300 m
Bending radius	≥ 30 mm	≥ 30 mm	≥ 30 mm
Cable weight	45 kg/km	45 kg/km	45 kg/km
Connectors			
FC/PC	4 pcs.	4 pcs.	4 pcs.

Optical multiswitch

OL 41 0008

Fiber Switch + PSU, 8 outputs



characteristics

- Multi switch with optical input
- Upgradeable to 2, 3 or 4 satellite + TV / Radio
- All units operate with only one power supply
- Space-saving design
- 8 participants outputs

Technical Data

Technical specifications

Frequency range	950...2150 MHz
Impedance	75 Ω
Return loss	10 dB
Output level	80 dBµV Depending on the signal level of the satellites
Signal to noise ratio @ max. amplification	5 dB
SAT decoupling	35 dB

DVB-T, DAB & FM (electric)

Frequency range DVB-T	470...790 MHz
Frequency range DAB	174...240 MHz
Frequency range FM	88...108 MHz
Impedance	75 Ω
Return loss	10 dB
Output level for DVB-T	70 dBµV For 6 multiplexes
Signal to noise ratio @ max. amplification	5 dB
Terrestrial decoupling	30 dB

DVB-T, DAB, FM & SAT (Optic)

Wavelength	1100...1650 nm
Input level	-14...-3 dBm

DC specifications

Input voltage	11...20 V DC
DiSEqC	1.0

Connectors

Input	FC/PC connector
Outputs	F-socket
Power supply	2,1 mm connector
Operating temperature range	-20...+50 °C

Basic-multiswitch with an optical input, for 8 subscriber. Conversion of one satellite. Power supply in delivery included.

Optical multiswitch

OL 41 0016

Fiber Switch + PSU, 16 outputs



characteristics

- Multi switch with optical input
- Upgradeable to 2, 3 or 4 satellite + TV / Radio
- All units operate with only one power supply
- Space-saving design
- 16 participants outputs

Technical Data

Technical specifications

Frequency range	950...2150 MHz
Impedance	75 Ω
Return loss	10 dB
Output level	80 dBµV Depending on the signal level of the satellites
Signal to noise ratio @ max. amplification	5 dB
SAT decoupling	35 dB

DVB-T, DAB & FM (electric)

Frequency range DVB-T	470...790 MHz
Frequency range DAB	174...240 MHz
Frequency range FM	88...108 MHz
Impedance	75 Ω
Return loss	10 dB
Output level for DVB-T	70 dBµV For 6 multiplexes
Signal to noise ratio @ max. amplification	5 dB
Terrestrial decoupling	30 dB

DVB-T, DAB, FM & SAT (Optic)

Wavelength	1100...1650 nm
Input level	-14...-3 dBm

DC specifications

Input voltage	11...20 V DC
DiSEqC	1.0

Connectors

Input	FC/PC connector
Outputs	F-socket
Power supply	2,1 mm connector
Operating temperature range	-20...+50 °C

Basic-multiswitch with an optical input, for 16 subscriber. Conversion of one satellite. Power supply in delivery included.



Optical multiswitch

OL 42 0008

Fiber Switch + 1 SAT, 8 outputs



characteristics

- Multi switch with optical input
- Upgradeable to 2, 3 or 4 satellite + TV / Radio
- All units operate with only one power supply
- Space-saving design

Technical Data

Technical specifications

Frequency range	950...2150 MHz
Impedance	75 Ω
Return loss	10 dB
Output level	80 dBµV Depending on the signal level of the satellites
Signal to noise ratio @ max. amplification	5 dB
SAT decoupling	35 dB

DVB-T, DAB & FM (electric)

Frequency range DVB-T	470...790 MHz
Frequency range DAB	174...240 MHz
Frequency range FM	88...108 MHz
Impedance	75 Ω
Return loss	10 dB
Output level for DVB-T	70 dBµV For 6 multiplexes
Signal to noise ratio @ max. amplification	5 dB
Terrestrial decoupling	30 dB

DVB-T, DAB, FM & SAT (Optic)

Wavelength	1100...1650 nm
Input level	-14...-3 dBm

DC specifications

Input voltage	11...20 V DC
DiSEqC	1.0

Connectors

Input	FC/PC connector
Outputs	F-socket
Power supply	2,1 mm connector
Operating temperature range	-20...+50 °C

Extension-multiswitch with an optical input, for 8 subscriber. Conversion of one satellite. Power supply by the connected basic switch OL 41 0008.

Optical multiswitch

OL 42 0016

Fiber Switch + 1 SAT, 16 outputs



characteristics

- Multi switch with optical input
- Upgradeable to 2, 3 or 4 satellite + TV / Radio
- All units operate with only one power supply
- Space-saving design

Technical Data

Technical specifications

Frequency range	950...2150 MHz
Impedance	75 Ω
Return loss	10 dB
Output level	80 dBµV Depending on the signal level of the satellites
Signal to noise ratio @ max. amplification	5 dB
SAT decoupling	35 dB

DVB-T, DAB & FM (electric)

Frequency range DVB-T	470...790 MHz
Frequency range DAB	174...240 MHz
Frequency range FM	88...108 MHz
Impedance	75 Ω
Return loss	10 dB
Output level for DVB-T	70 dBµV For 6 multiplexes
Signal to noise ratio @ max. amplification	5 dB
Terrestrial decoupling	30 dB

DVB-T, DAB, FM & SAT (Optic)

Wavelength	1100...1650 nm
Input level	-14...-3 dBm

DC specifications

Input voltage	11...20 V DC
DiSEqC	1.0

Connectors

Input	FC/PC connector
Outputs	F-socket
Power supply	2,1 mm connector
Operating temperature range	-20...+50 °C

Extension-multiswitch with an optical input, for 16 subscriber. Conversion of one satellite. Power supply by the connected basic switch OL 41 0016.



Optical mounting accessories

OL 51 0000

Optical test transmitter



OL 55 0000

Optical measurement device



Technical Data

Output	
Wavelength	1310/1550 nm
Output power	typ. -7 dBm
Modulation	CW / 270 Hz, 1 KHz, 2 KHz
Fibre Type	singlemode, multimode
Connector	FC/PC, SC/PC
Supply voltage	3x 1,5 V AA, 9 V power supply
Battery life time	45 h
Operating temperature range	-10...+60 °C
Dimensions (width x height x depth)	190 x 100 x 50 mm
Weight	0.37 kg

characteristics

- Automatic switch-off functionality
- Illuminated LCD for handling in dark environments
- Easy control by three buttons
- Delivery with power supply and carry bag

Test transmitter for measurements in the optical distribution network.
Perfect for testing the passive components before the installation.

Technical Data

Input	
Wavelength	800...1700 nm
Measurement range	-50...+30 dBm
Fibre Type	singlemode, multimode
Connector	FC/PC, SC/PC
Supply voltage	3x 1,5 V AA, 9 V power supply
Battery life time	140 h
Operating temperature range	-10...+60 °C
Dimensions (width x height x depth)	190 x 100 x 50 mm
Weight	0.37 kg

characteristics

- Automatic switch-off functionality
- Illuminated LCD for handling in dark environments
- Convenient use by the compact design
- For reference measurements zero-calibration possible
- Delivery with power supply and carry bag

Optical measurement device for testing the optical power. Perfect for system documentation or troubleshooting. As signal source will be used the optical test transmitter OL 51 0000 or the optical LNB (OL 11 000 / OL 12 0000).

Optical mounting accessories

OL 72 0004

Active 4-way N-splitter



Technical Data

Frequency range	950...5450 MHz
Insertion loss	0 dB
Impedance	50 Ω
Return loss	9 dB
Noise figure	22 dB
Isolation between any two outputs	20 dB
Supply voltage	6,2 V DC
Current consumption	< 230 mA
Operating temperature range	-30...+65 °C
Connector	N

characteristics

- Note: OL 72 0004 only in combination with OL 15 0000

Active 4-way splitter for the usage after wholeband LNB OL 15 0000.
Subsequently installation of up to 4 electrical/optical converters
OL 14 0000 possible. N-connectors. Power supply by OL 14 0000.



Optical mounting accessoires

OL 57 0002

Cleaning cassette



characteristics

- Cleaning connector surface of optical cables
- Cleaning section relockable
- 500 cleaning cycles
- Cleaning tape exchangeable

OL 57 0003

Replacement tape for OL 57 0002



characteristics

- Cleaning reel - refill pack for OL 57 002
- 500 cleaning cycles

OL 57 0001

Cleaning pen for FC and PC connectors



characteristics

- Cleaning connector surface of optical cables and sockets
- 2,5 mm diameter, suitable for FC and SC connectors
- 800 cleaning cycles

Optical mounting accessories

OL 82 0002

N-interconnection
cable 2 m



OL 82 0003

N-interconnection
cable 3 m



OL 82 0005

N-interconnection
cable 5 m



OL 82 0010

N-interconnection
cable 10 m



Technical Data

Connector	N	N	N	N
Length	2 m	3 m	5 m	10 m
Impedance	50 Ω	50 Ω	50 Ω	50 Ω
Diameter	10 mm	10 mm	10 mm	10 mm

Optical mounting accessoires

OL 93 0001

FC/PC coupling



OL 93 0002

FC to SC adapter



characteristics

- Typical insertion loss: < 0,3 dB

Technical Data

Connector

FC/PC

FC/PC to SC/PC

OL 94 0005

Optical attenuator 5 dB



OL 94 0010

Optical attenuator 10 dB



OL 94 0015

Optical attenuator 15 dB



Technical Data

Loss

5 dB

10 dB

15 dB

Connector

FC/PC

FC/PC

FC/PC

Optical mounting accessories

OLPS 0230

Power supply 20V/1.2A



Technical Data

Operating voltage	230 V AC (50/60 Hz)
Output voltage	20 V DC
Output current	1,2 A (Short circuit proof)

characteristics

- Operating voltage 230 V AC
- Output voltage 20 V DC
- Output current 1,2 A

Optional power supply for optical converter OL 21 xxxx and OL 22 xxxx.

OL 95 0001

Optical connection cable, FC/PC pigtail, 1 m



Technical Data

Buffered fiber	
Fiber type	G657A2
Outer diameter	0,9 mm
Material	LSZH-Compound
Typical attenuation	<0,25 dB/km @ 1550 nm; <0,4 dB/km @ 1310 nm

General data

Installation	Indoor
Length	1 m
Bending radius	≥ 30 mm

Connectors

FC/PC	1 pcs.
-------	--------

characteristics

- Low-Smoke-Zero-Halogen-compliant (LSZH)
- Galvanic isolation
- No interferences by electro-magnetic fields
- One-way FC/PC connector

Fiber optic connection cable for installation on an incoming fiber optic cable without connector. 1 fiber, FC/PC connector on one side, length 1 m.



Channel processing Micro Headend

WISI Micro Headend:
**Big performance in tiny
spaces.**



High functionality in smallest design

The versatile WISI Micro-Headends OM 10 (DVB-S/S2 > DVB-C/T) and OM 11 (DVB-C/T/T2 > DVB-C/T) set new standards for ultra-compact headends. These meet the high demands of hotels, hospitals, retirement homes and other gated communities in terms of user-friendliness, cost-effectiveness and flexibility.

At a glance:

- Transmodulator of 6 DVB-S/S2 or DVB-T/T2/C channels into 8 x DVB-C or DVB-T channels
- Built-in antenna distribution matrix
- 4 CI slots for central decryption
- PID Remapping enables static service ID assignment at the outbound channel
- LCN/NIT Processing
- Multiplex functionality at the input and at the output
- Video content player via USB or LAN
- Programming via web interface
- Bluetooth access for Smartphone and Tablet

DVB-T/DVB-C Channel Processing

OM 10 0646

Transmodulator 6x DVB-S/S2 – 6x COFDM + 4 CI



characteristics

- Transmodulator of 6 DVB-S/S2 transponders to 6 DVB-T packages
- The integrated 4 in 6 switch matrix reduces the installation effort and DiSEqC 1.0 is increasing the flexibility by controlling up to 4 satellites
- 4 CI slots for central decryption
- PID remapping allows setting of static service PIDs at the output. It is no longer necessary for the TVset to make a scan if there is any transponder modification at the input
- LCN / NIT processing
- Multiplex functionality at the input and output
- USB - interface to feed in any video content
- Programming via web interface
- Integrated DHCP server enables an automatic connection to a PC
- Smartphone and tablet access via Bluetooth

Technical Data

Input	
Impedance	75 Ω
Input frequency range	950...2150 MHz
Input frequency steps	1 MHz
Input level range	50...90 dBµV
Modulation DVB-S	QPSK
Symbol rate DVB-S	1...53 MSps
Modulation DVB-S2	QPSK, 8PSK (EN 302 307), 16APSK, 32 APSK
Symbol rate DVB-S2	1...53 MSps (QPSK); 1...45 MSps (8PSK); 1...35 MSps (16APSK); 1...28 MSps (32APSK)

CI Processing

Number of PCMCIA slots	4
------------------------	---

TS Processing

TS stuffing	Yes
SI-Table handling	Yes
NIT handling	Yes
PID remapping	Yes

COFDM Processing

Constellations	QPSK, 16-, 64-QAM
FEC	1/2,2/3,3/4,5/6,7/8
Guard Interval	1/8, 1/16, 1/32
FFT Mode	2k, 8k
MER	>40 dB

Output

Impedance	75 Ω
Output frequency range	110...862 MHz
Output frequency steps	1 MHz
Output level	85...100 dBµV
Number of Channels	6 pcs.
Channel allocation	adjacent (1 x 6)
Return loss	≥14 dB (45 MHz), 1,5 dB/Octave but >10 dB
Output attenuation	0...15 dB (1 dB step)

Connectors

F-socket	5 pcs. (4x Input, 1x Output)
RJ45	1 pcs.
USB	1 pcs.

Technical Data

General data

Supply voltage	110...240 V (50/60 Hz)
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Dimensions (width x height x depth)	272 x 196 x 75 mm
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Power consumption	Typ. <40 W (Max. 50 W with 4 LNBS)
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Operating temperature range	5...45 °C
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The OM 10 0646 is a micro headend which can transmodulate 6 DVB-S/S2 transponders into 6 DVB-T (COFDM) packages. As it comes with 4 CI slots, it is perfectly suited for the central decryption of pay-tv services. There is also the possibility to create a multiplex before the CI slots allowing the user to combine services from different transponders but to decrypt them by only one smartcard, hereby guaranteeing the efficient usage of professional CAMs. Additionally the OM 10 supports the deletion of unwanted services from a transponder and enables the reduction of output channels by using the output multiplex functionality. As a transport stream, external video content can be fed in via USB or the LAN connection.



DVB-T/DVB-C Channel Processing

OM 10 0648

Transmodulator 6x DVB-S/S2 - 8x QAM/COFDM + 4 CI



characteristics

- Transmodulator of 6 DVB-S/S2 transponders to 8 DVB-C or DVB-T channels
- The integrated 4 in 6 switch matrix reduces the installation effort and DiSEqC 1.0 is increasing the flexibility by controlling up to 4 satellites
- 4 CI slots for central decryption
- PID remapping allows setting of static service PIDs at the output. It is no longer necessary for the TV set to make a scan if there is any transponder modification at the input
- LCN / NIT processing
- Multiplex functionality at the input and output
- USB - interface to feed in any video content
- Programming via web interface
- Integrated DHCP server enables an automatic connection to a PC
- Smartphone and tablet access via Bluetooth

Technical Data

Input	
Impedance	75 Ω
Input frequency range	950...2150 MHz
Input frequency steps	1 MHz
Input level range	50...90 dBµV
Modulation DVB-S	QPSK
Symbol rate DVB-S	1...53 MSps
Modulation DVB-S2	QPSK, 8PSK (EN 302 307), 16APSK, 32 APSK
Symbol rate DVB-S2	1...53 MSps (QPSK); 1...45 MSps (8PSK); 1...35 MSps (16APSK); 1...28 MSps (32APSK)

CI Processing

Number of PCMCIA slots	4
------------------------	---

TS Processing

TS stuffing	Yes
SI-Table handling	Yes
NIT handling	Yes
PID remapping	Yes

QAM Processing

Constellations	64-, 256- QAM
Symbol rate	4,45...7,20 MSymb/s
MER	>40 dB

COFDM Processing

Constellations	QPSK, 16-, 64-QAM
FEC	1/2, 2/3, 3/4, 5/6, 7/8
Guard Interval	1/8, 1/16, 1/32
FFT Mode	2k, 8k
MER	>40 dB

Output

Impedance	75 Ω
Output frequency range	110...862 MHz (COFDM); 50...862 MHz (QAM)
Output frequency steps	1 MHz
Output level	90...105 dBµV
Number of Channels	8 pcs.
Channel allocation	adjacent (2 blocks per 4 channels)
Return loss	≥14 dB (45 MHz), 1,5 dB/Octave but >10 dB
Output attenuation	0...15 dB (1 dB step)

Technical Data

Connectors

F-socket	5 pcs. (4x Input, 1x Output)
RJ45	1 pcs.
USB	1 pcs.

General data

Supply voltage	110...240 V (50/60 Hz)
Dimensions (width x height x depth)	272 x 196 x 75 mm
Power consumption	Typ. <40 W (Max. 50 W with 4 LNBS)
Operating temperature range	5...45 °C

The OM 10 0648 is a micro headend which can transmodulate 6 DVB-S/S2 transponders into 8 DVB-C (QAM) or 8 DVB-T (COFDM) channels. As it comes with 4 CI slots, it is perfectly suited for the central decryption of pay-tv services. There is also the possibility to create a multiplex before the CI slots allowing the user to combine services from different transponders but to decrypt them by only one smartcard, hereby guaranteeing the efficient usage of professional CAMs. Additionally the OM 10 supports the deletion of unwanted services from a transponder and enables the reduction of output channels by using the output multiplex functionality. As a transport stream, external video content can be fed in via USB or the LAN connection.

DVB-T/DVB-C Channel Processing

OM 11 0648

Transmodulator 6x DVB-T/T2/C - 8x QAM/COFDM + 4 CI



characteristics

- Transmodulator of 6 DVB-T/T2/C channels to 8 DVB-C or DVB-T channels
- Integrated switch matrix reduces installation effort. Parallel insertion of DVB-T/T2 and DVB-C possible (Input 1 -> Tuner 1...2 / Input 2 -> Tuner 1...6 / Input 3 -> Tuner 3....6)
- 4 CI slots for central decryption
- PID remapping allows setting of static service PIDs at the output. It is no longer necessary for the TV set to make a scan if there is any transponder modification at the input
- LCN / NIT processing
- Multiplex functionality at the input and output
- USB-interface to feed in any video content
- Programming via web interface
- Integrated DHCP server enables an automatic connection to a PC
- Smartphone and tablet access via Bluetooth



Technical Data	
Input	
Impedance	75 Ω
Input frequency range	42...1002 MHz
Input frequency steps	250 kHz
Input level range	55...95 dBµV
Bandwidth	6, 7, 8 MHz
Modulation DVB-T/T2	COFDM / OFDM (EN 300 744)
Symbol rate DVB-T/T2	according modulation standard
Modulation DVB-C	16-, 64-, 256 QAM (EN 300 429)
Symbol rate DVB-C	1...7,2 Mbaud
FEC DVB-T	RS 204, 1885,8 / Convolution
FEC DVB-T2	LDPC / BCH
FEC DVB-C	RS 204-16
CI Processing	
Number of PCMCIA slots	4
TS Processing	
TS stuffing	Yes
SI-Table handling	Yes
NIT handling	Yes
PID remapping	Yes
QAM Processing	
Constellations	64-, 256- QAM
Symbol rate	4,45...7,20 MSymb/s
MER	>40 dB
COFDM Processing	
Constellations	QPSK, 16-, 64-QAM
FEC	1/2, 2/3, 3/4, 5/6, 7/8
Guard Interval	1/8, 1/16, 1/32
FFT Mode	2k, 8k
MER	>40 dB
Output	
Impedance	75 Ω
Output frequency range	110...862 MHz (COFDM); 50...862 MHz (QAM)
Output frequency steps	1 MHz
Output level	90...105 dBµV
Number of Channels	8 pcs.
Channel allocation	adjacent (2 blocks per 4 channels)
Return loss	≥14 dB (45 MHz), 1,5 dB/Octave but >10 dB

Technical Data	
Output attenuation	0...15 dB (1 dB step)
Connectors	
F-socket	5 pcs. (4x Input, 1x Output)
RJ45	1 pcs.
USB	1 pcs.
General data	
Supply voltage	110...240 V (50/60 Hz)
Dimensions (width x height x depth)	272 x 196 x 75 mm
Power consumption	Typ. <40 W (Max. 50 W with 4 LNBS)
Operating temperature range	5...45 °C

The OM 11 0648 is a micro headend which can transmodulate 6 DVB-T/T2/C channels into 8 DVB-C (QAM) or 8 DVB-T (COFDM) channels. As it comes with 4 CI slots, it is perfectly suited for the central decryption of pay-tv services. There is also the possibility to create a multiplex before the CI slots allowing the user to combine services from different channels but to decrypt them by only one smartcard, hereby guaranteeing the efficient usage of professional CAMs. Additionally the OM 11 supports the deletion of unwanted services from a channel and enables the reduction of output channels by using the output multiplex functionality. As a transport stream, external video content can be fed in via USB or the LAN connection.

DVB-T/DVB-C Channel Processing

OM 20 064S

IP-Streamer 6x DVB-S/S2/S2X - 128x SPTS, 4x CI



characteristics

- IP-Streamer of 128 SPTS services from 6 DVB-S/S2/S2X transponders
- The integrated 4 in 6 switch matrix reduces the installation effort and DiSEqC 1.0 is increasing the flexibility by controlling up to 4 satellites
- 4 CI slots for central decryption
- Freely selectable IP addresses at the output
- Automatical generation of M3U tables
- USB - interface to feed in any video content
- Programming via web interface
- Integrated DHCP server enables an automatic connection to a PC
- Smartphone and tablet access via Bluetooth

Technical Data

Input	
Number of tuner	6 pcs.
Modulation type	DVB-S/S2/S2X
Impedance	75 Ω
Input frequency range	950...2150 MHz
Input frequency steps	1 MHz
Input level range	50...90 dBµV
Symbol rate	1...53 MS/s
DiSEqC	DiSEqC 1.0
Compliance	DVB-S (EN 300 421), DVB-S2 (EN 302 307-1), DVB-S2X (EN 302 307-2)
CI Processing	
Number of PCMCIA slots	4
TS Processing	
TS stuffing	Yes
Advanced PSI/SI regeneration	Yes
NIT handling	Yes
PID filtering and remapping	Yes
PCR correction and de-jitter	Yes
Compliance	ETSI EN 300 468
Streaming output	
IP-Outputs	Up to 128x SPTS
IP-Compliance	ISO/IEC 13818
IP-Output protocol	UDP/RTP/Unicast and Multicast
IP-TS-Output format	SPTS VBR1
IP-Packet format	MPEG over UDP/IP and RTP/IP
IP-Packet size	188 Byte
SAP (Session Announcement Protocol)	Yes
Data rate	1Gbps (netto 400 Mbps)
IGMP Querier	No
SNMP	No
IGMP Snooping	No
Connectors	
F-socket	4 pcs. (4x Input)
RJ45	2 pcs. (1x Streaming, 1x NMS)
USB	1 pcs.
General data	
Supply voltage	110...240 V (50/60 Hz)

Technical Data

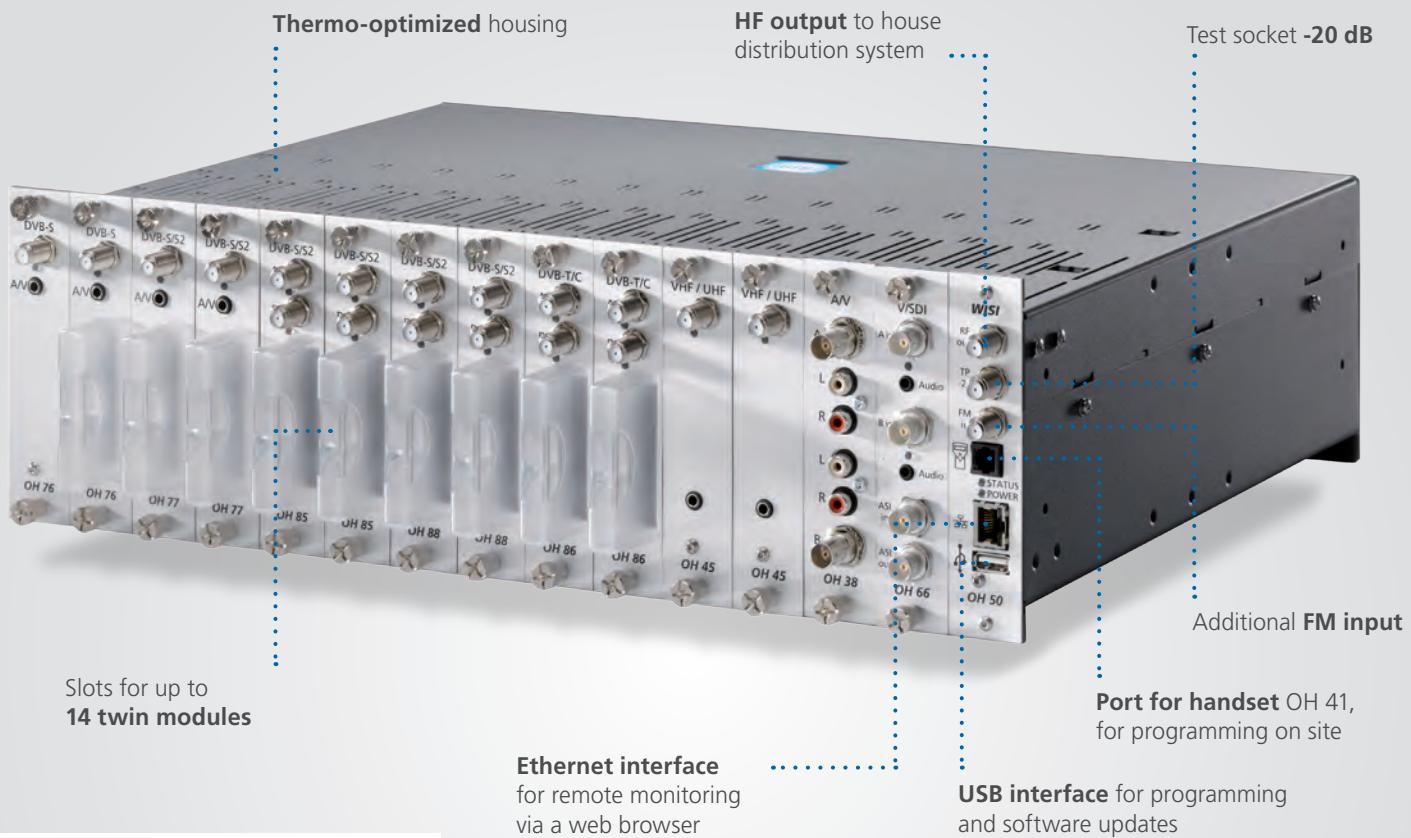
Dimensions (width x height x depth)	272 x 196 x 75 mm
Power consumption	typ.<40 W (Max. 50 W with 4 LNBs)
Operating temperature range	5...45 °C

The OM 20 064S is a micro headend which generates up to 128 SPTS services from 6 DVB-S/S2/S2X transponders. The SPTS services can be fed directly into an IP network and received by IPTV-capable devices. A M3U table allows the easy handling of a service list. The OM 20 064S is perfectly suited for the IPTV provisioning e.g. in hotels or hall of residences and supports by the integrated 4 CI slots the central decryption of pay-tv content. There is also the possibility to create a multiplex before the CI slots allowing the user to combine services from different transponders but to decrypt them by only one smartcard, hereby guaranteeing the efficient usage of professional CAMs. As a transport stream, external video content can be fed in via USB or the LAN connection.



Channel processing Compact Headend

WISI Compact Headend:
**Compact, modular
and extremely flexible.**



Wall mounting of the
WISI Compact Headends OH.



Powerful in technology, compact in footprint, modular and flexibly expandable, the new **WISI Compact Headend System OH** combines all the advantages of a future-proof and economical headend.

WISI Compact Headend OH holds up to 14 modules and thus offers an optimal and space-saving channel processing for up to 28 digital or analogue channels in a 3HE 19" housing.

WISI Compact Headend OH is equipped with a high performance power supply. The modules have a low power consumption to keep operating costs low. The USB connection and the RJ45 socket can be used to update the software of the basic unit and individual modules as well as to save their configuration. All functions can also be set up remotely via a web browser.

Base units

OH 40 A

Compact Headend basic unit, 230 V AC, 3 HE,
for 7 modules



characteristics

- Base unit for analogue and digital channel processing
- Slots for up to 7 modules (7 analog bzw. 28 digital channels)
- Wall mounting
- Integrated FM amplifier
- Programable with OH 41 hand-set
- Update via USB-connection (USB memory stick)
- Integrated remote supervision moduel OH 51 A (license optional)
- High output power

Technical Data	
Frequency range TV	47...862 MHz (output combiner/amplifier)
Frequency range FM	87,5...108 MHz (FM-amplifier)
Input level FM	70...100 dB μ V
Gain FM	25 dB
Attenuator FM	0...30 dB (1 dB-steps)
Output level	110 dB μ V
Output attenuator	0...15 dB
Output test point	-20 dB
Connectors	
Module slots	7 pcs. (OH-module)
F-socket	3 pcs. (FM-input, output, output measurement socket)
USB	1 pcs. (Software-Update, Konfiguration)
RJ11	1 pcs. (OH 41)
RJ45	1 pcs. (remote monitoring and programming)
General data	
Operating voltage AC	180...265 V
Power consumption	<185 W
LNB supply voltage	12.5 V
LNB electrical power supply	1.2 A
Dimensions (width x height x depth)	276 x 159 x 385 mm
Operating temperature range	-20...+50 °C

Powerful technology, compact dimensions, modular and flexibly expandable; the WISI COMPACT HEADEND System OH combines all the advantages of an innovative and affordable headend. WISI Compact Headend OH is easy to configure. With up to 7 module slots it offers channel processing for 7 analogue or 28 digital channels in one chassis. WISI Compact Headend OH operates on a high efficiency power supply, with low consumption modules in order to make a minimum ecological impact and a low operational cost. The USB connection and the RJ45 interface can be used to execute software updates for the basic unit as well as for the modules. Furthermore, all functions can be furnished from a distance per web browser.

Base units

OH 50 A

Compact Headend basic unit, 230 V AC, 19", 3 HE, for 14 modules



characteristics

- Base unit for analogue and digital channel processing
- Slots for up to 14 modules (14 analog or 56 digital channels)
- 19" rack-mounting or wall mounting
- Integrated FM amplifier
- Simple programming with handset OH 41 (OK 41 A)
- Preprogramming via USB-connection (USB-Stick)
- Integrated remote supervision moduel OH 51 A (license optional)
- High output power

Technical Data

Frequency range TV	47...862 MHz (output combiner/amplifier)
Frequency range FM	87,5...108 MHz (FM-amplifier)
Input level FM	70...100 dB μ V
Gain FM	25 dB
Attenuator FM	30 dB (1 dB-steps)
Output level	110 dB μ V
Output attenuator	0...15 dB
Output test point	-20 dB
Connectors	
Module slots	14 pcs. (OH-module)
F-socket	3 pcs. (FM-input, output, output measurement socket)
USB	1 pcs. (Software-Update, Konfiguration)
RJ11	1 pcs. (OH 41)
RJ45	1 pcs. (remote monitoring and programming)
General data	
Operating voltage AC	180...265 V (47...63 Hz)
Power consumption	<185 W
LNB supply voltage	12.5 V
LNB electrical power supply	1.2 A
Dimensions (width x height x depth)	443 x 132 x 351 mm (3 HE)
Operating temperature range	-20...+50 °C

Powerful technology, compact dimensions, modular and flexibly expandable; the WISI COMPACT HEADEND System OH combines all the advantages of an innovative and affordable headend. WISI Compact Headend OH is easy to configure. With up to 14 module slots it offers channel processing for 14 analogue or 28 digital channels in a 3 HU 19" rack chassis. WISI Compact Headend OH operates on a high efficiency power supply, with low consumption modules in order to make a minimum ecological impact and a low operational cost. The USB connection and the RJ45 interface can be used to execute software updates for the basic unit as well as for the modules. Furthermore, all functions can be furnished from a distance per web browser.



Base units

OH 50 R

Compact Headend basic unit, 230 V AC (redundantly), 19", 3 HE, for 14 modules



characteristics

- Base unit OH for analog und digital channel processing headends with redundant power supply
- Slots for up to 14 modules (14 analog or 56 digital channels)
- included Additional power supply 230 VAC for redundancy
- 19" rack-mounting or wall mounting
- Integrated FM amplifier
- Simple programming with handset OH 41 (OK 41 A)
- Preprogramming via USB-connection (USB-Stick)
- Integrated remote supervision moduel OH 51 A (license optional)
- High output power

Technical Data	
Frequency range TV	47...862 MHz (output combiner/amplifier)
Frequency range FM	87,5...108 MHz (FM-amplifier)
Input level FM	70...100 dB μ V
Gain FM	25 dB
Attenuator FM	30 dB (1 dB-steps)
Output level	110 dB μ V
Output attenuator	0...15 dB
Output test point	-20 dB
Connectors	
Module slots	14 pcs. (OH-module)
F-socket	3 pcs. (FM-input, output, output measurement socket)
USB	1 pcs. (Software-Update, Konfiguration)
RJ11	1 pcs. (OH 41)
RJ45	1 pcs. (remote monitoring and programming)
General data	
Operating voltage AC	180...265 V (47...63 Hz)
Redundant power supply	1 pcs.
Power consumption	<185 W
LNB supply voltage	12.5 V
LNB electrical power supply	1.2 A
Dimensions (width x height x depth)	443 x 132 x 351 mm (3 HE)
Operating temperature range	-20...+50 °C

Powerful technology, compact dimensions, modular and flexibly expandable; the WISI COMPACT HEADEND System OH combines all the advantages of an innovative and affordable headend. WISI Compact Headend OH is easy to configure. With up to 14 module slots it offers channel processing for 14 analogue or 28 digital channels in a 3 HU 19" rack chassis. WISI Compact Headend OH operates on a high efficiency power supply, with low consumption modules in order to make a minimum ecological impact and a low operational cost. The USB connection and the RJ45 interface can be used to execute software updates for the basic unit as well as for the modules. Furthermore, all functions can be furnished from a distance per web browser.

Modulators

OH 38

Twin A/V-Modulator



characteristics

- Modulation of 2 A/V signals into 2 analogue TV channels
- Multi-standard
- Stereo capable vestigial sideband modulator, independently adjustable in 250 kHz steps
- Video / audio interfaces in BNC/RCA
- Output frequency range 45...862 MHz

Technical Data

Input

Video input level	1 V (1Vss, ±0,4 V)
Video input bandwidth	20 Hz...5 MHz
Audio input impedance	600/10000 Ω
Audio input level	-4 dBm/1 kHz
Audio input level range	-6...+6 dB
Audio input bandwidth	40...15000 Hz

Output

Output frequency range	45...862 MHz
Output frequency steps	250 kHz
Frequency stability	±0,030 MHz
Ouput channel bandwidth	7/8 MHz
Output level	90...105 dBµV
Spurious suppression	>55 dB
TV standards	B/G, D/K, I, L, M
Audio format	Mono/Stereo/Dual
S/N Video	>57 dB
S/N Audio	>50 dB
Amplitude response (O-E)	±1,5 dB
Group delay time	<80 ns

Connectors

Chinch-socket	4 pcs.
BNC-socket	2 pcs.

General data

Power consumption	<10 W
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Powerful technology, compact dimensions, modular and flexibly expandable; the WISI COMPACT HEADEND System OH combines all the advantages of an innovative and affordable headend. WISI Compact Headend OH is easy to configure. With up to 14 module slots it offers channel processing for 14 analogue or 28 digital channels in a 3 HU 19" rack chassis. WISI Compact Headend OH operates on a high efficiency power supply, with low consumption modules in order to make a minimum ecological impact and a low operational cost. The USB connection and the RJ45 interface can be used to execute software updates for the basic unit as well as for the modules. Furthermore, all functions can be furnished from a distance per web browser.



Channel converter

OH 45

Channel converter



characteristics

- Implementation of an analogue TV channel in the frequency range of 45...862 MHz
- AGC 50...90 dB μ V
- Deactivation of the AGC for manual amplifier setting
- High IF-selection via two cascaded SAW-filters
- Therefore neighbour channel compatible at in/output

Technical Data

Input	
Input frequency range	45...862 MHz
Input frequency steps	250 MHz
Channel bandwidth	7/8 MHz
Input level range	50...90 dB μ V
AGC	>40 dB
Output	
Output frequency range	45...862 MHz
Output frequency steps	250 kHz
Frequency stability	>0,03 MHz
Output level	95...105 dB μ V
Spurious suppression	>55 dB
S/N Video	>58 dB
S/N Audio	>50 dB
Amplitude response (O-E)	>1 dB
Group delay time	<80 ns
Connectors	
F-socket	2 pcs.
General data	
Power consumption	>10 W
Operating temperature range	-20...+55 °C

Implementation of an analog TV channel in the frequency range 45...762 MHz, high IF selection through SAW-filter. Adjacent channel operating on the input and output.

Digital modules

OH 84

Reception of 4 DVB-S/S2 signals and transmodulation into 4 DVB-C channels



Short description

- Reception of 4 DVB-S/S2 signals and transmodulation into 4 DVB-C channels
- Input frequency range 950...2150 MHz
- Output frequency range 47...862 MHz
- Integrated distribution matrix
- DiSEqC 1.0
- PID filtering
- NIT and LCN generation
- MPEG2 and MPEG4 compatible

Technical Data

Input	
Input frequency range	950...2150 MHz
Input frequency steps	1 MHz
Return loss IN	>8 dB
Isolation internal multiswitch	>30 dB
Input level range	47...90 dBµV
AFC	±10 MHz
Modulation	QPSK (EN300421), QPSK 8PSK (EN302307)16APSK, 32APSK
Symbol rate	QPSK: 1...53 MS/s; 8PSK: 1...45 MS/s; 16APSK: 1...35 MS/s; 32APSK: 1...28 MS/s
Spectral inversion	normal or inverted
FEC outer DVB-S	RS 204-16
FEC inner DVB-S	1/2, 2/3, 3/5, 5/6, 7/8
FEC outer DVB-S2	BCH
FEC inner DVB-S2	(1/4, 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 (QPSK) /5, 2/3, 3/4, 5/6, 8/9, 9/10 (8PSK))
Output	
Output frequency range	45...862 MHz
Output frequency steps	250 kHz
Frequency stability	±30 kHz
Output channel bandwidth (coupled)	4 x 8 MHz
Output level	88...103 dBµV
Amplitude response (O-E)	1 dB
Modulation type	32-, 64-, 128-, 256-QAM
Symbol rate	4,48...7,20 MS/s
Spurious suppression	>50 dB (at QAM 256)
SNR	≥45 dB
MER	≥40 dB
Bit stuffing	Yes
SI-Table handling	Yes
PID filtering	Yes
LCN	Yes
NIT generation	Yes
Connectors	
F-socket	5 pcs.

Technical Data

General data	
Power consumption	<10 W
LNB supply voltage	14...18 V (22 kHz), DiSEqC 1.0
LNB electrical power supply	0.5 A
Dimensions (width x height x depth)	29,5 x 105 x 253 mm
Operating temperature range	-20...+55 °C

Powerful technology, compact dimensions, modular and flexibly expandable; the WISI COMPACT HEADEND System OH combines all the advantages of an innovative and affordable headend. WISI Compact Headend OH is easy to configure. With up to 14 module slots it offers channel processing for 14 analogue or 28 digital channels in a 3 HU 19" rack chassis. WISI Compact Headend OH operates on a high efficiency power supply, with low consumption modules in order to make a minimum ecological impact and a low operational cost. The USB connection and the RJ45 interface can be used to execute software updates for the basic unit as well as for the modules. Furthermore, all functions can be furnished from a distance per web browser.

Digital modules

OH 85 H

Twin DVB-S/S2 – QAM transmodulator with CI



characteristics

- Reception of two DVB-S/S2-signals and transmodulation into two DVB-C channels
- 2x CI slots for central decryption
- Input frequency range 950...2150 MHz
- Output frequency range 47...862 MHz
- MPEG 2 and MPEG 4 compatible
- PID filtering
- NIT and LCN generation

Technical Data

Input	
Input frequency range	950...2150 MHz
Input frequency steps	1 MHz
Input level range	47...70 dB μ V
AFC	\pm 10 MHz
Modulation	QPSK, 8PSK
Symbol rate	QPSK: 1...53 MS/s; 8PSK: 1...45 MS/s; 16APSK: 1...35 MS/s; 32APSK: 1...28 MS/s
Spectral inversion	normal or inverted
FEC outer DVB-S	RS 204, 188, 16
FEC inner DVB-S	Conv. 1/2, 2/3, 3/4, 5/6, 7/8
FEC outer DVB-S2	BCH
FEC inner DVB-S2	LDPC 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
Output	
Output frequency range	45...862 MHz
Output frequency steps	500 kHz
Frequency stability	\pm 30 kHz
Output channel bandwidth (coupled)	2 x 8 MHz
Output level	85...103 dB μ V
Amplitude response (O-E)	1 dB
Modulation type	16-, 32-, 64-, 128-, 256- QAM
Symbol rate	3.45...6.9 MS/s
Spurious suppression	>50 dB
SNR	\geq 45 dB
MER	\geq 40 dB
Bit stuffing	Yes
PCR correction	Yes
PID filtering	Yes
LCN	Yes
NIT generation	Yes
Connectors	
F-socket	3 pcs.
Common Interface for Descrambling	2 pcs.
General data	
Power consumption	<10 W
LNB supply voltage	14/18 V (22 kHz), DiSEqC 1.0
LNB electrical power supply	0.5 A (without CAM)

Technical Data

Dimensions (width x height x depth)	29,5 x 105 x 253 mm
Operating temperature range	-20...+55 °C

Powerful technology, compact dimensions, modular and flexibly expandable; the WISI COMPACT HEADEND System OH combines all the advantages of an innovative and affordable headend. WISI Compact Headend OH is easy to configure. With up to 14 module slots it offers channel processing for 14 analogue or 28 digital channels in a 3 HU 19" rack chassis. WISI Compact Headend OH operates on a high efficiency power supply, with low consumption modules in order to make a minimum ecological impact and a low operational cost. The USB connection and the RJ45 interface can be used to execute software updates for the basic unit as well as for the modules. Furthermore, all functions can be furnished from a distance per web browser.

Digital modules

OH 86 2

Twin DVB-C/-T/-T2 - QAM transmodulator with CI



characteristics

- Reception of two DVB-T / T2 / C signals and transmodulation into two QAM-TV channels (coupled)
- 2x CI slots for central decryption
- MPEG 2 and MPEG 4 compatible
- PID filtering
- NIT and LCN generation

Technical Data

Input	
Input frequency range	45...878 MHz
Input frequency steps	1 kHz
Channel bandwidth	6/7/8 MHz
channel bandwidth DVB-T2	1,7 / 5 / 6 / 7 / 8 MHz
Input level range	47...90 dB μ V
FEC DVB-C	Conv., RS 188, 204
QAM-Modulationsart	QPSK, 16QAM, 64QAM, 128QAM, 256QAM
QAM Symbolrate	1...7,2 Mbaud
FEC DVB-T	Conv., K=7, G=1/2, 2/3, 3/4, 4/5, 5/6, 7/8
Modulation schema DVB-T	QPSK, 16-, 64-QAM
Guard Intervall DVB-T	1/4, 1/8, 1/16, 1/32
FFT DVB-T	2k, 8k switchable
FEC DVB-T2	LDPC/BCH-Code 1/2, 2/3, 3/4, 4/5, 5/6, 3/5
Modulation scheme DVB-T2	QPSK, 16QAM, 64QAM, 256QAM
Guard Intervall DVB-T2	1/4, 1/8, 1/16, 1/32, 1/128, 19/128, 19/256
FFT DVB-T2	1k, 2k, 4k, 8k, 16k, 32k
Output	
Output frequency range	45...870 MHz (channel A)
Output frequency steps	1000 kHz
Frequency stability	\pm 30 kHz
Output channel bandwidth (couplelt)	2 x 8 MHz
Output level	85...103 dB μ V (Depending on QAM-symbol rate)
Amplitude response (O-E)	\pm 1 dB
Spurious suppression	\geq 50 dB
S/N	\geq 45 dB
MER	\geq 40 dB
Modulation	16-, 32-, 64-, 128-, 256-QAM
Symbol rate	3,45...6,9 MS/s
Spectral inversion	normal or inverted
FEC outer DVB-S	RS-204,188,16
Bit stuffing	Yes
PCR correction	Yes
PID filtering and remapping	Yes

Technical Data

Connectors	
F-socket	3 pcs.
Common Interface for Descrambling	2 pcs.
General data	
Power consumption	<10 W
Supply voltage DVB-T antenna	12 V DC (830 mA)
Dimensions (width x height x depth)	29,5 x 105 x 253 mm
Operating temperature range	-20...+55 °C

Powerful technology, compact dimensions, modular and flexibly expandable; the WISI COMPACT HEADEND System OH combines all the advantages of an innovative and affordable headend. WISI Compact Headend OH is easy to configure. With up to 14 module slots it offers channel processing for 14 analogue or 28 digital channels in a 3 HU 19" rack chassis. WISI Compact Headend OH operates on a high efficiency power supply, with low consumption modules in order to make a minimum ecological impact and a low operational cost. The USB connection and the RJ45 interface can be used to execute software updates for the basic unit as well as for the modules. Furthermore, all functions can be furnished from a distance per web browser.

Digital modules

OH 88 H

Twin DVB-S/S2 – COFDM transmodulator with CI



characteristics

- Reception of two DVB-S/S2 signals and transmodulation into two COFDM-TV channels
- 2x CI slots for central decryption
- MPEG 2 and MPEG 4 compatible
- PID filtering
- NIT and LCN generation

Technical Data

Input	
Input frequency range	950...2150 MHz
Input frequency steps	1 MHz
Input level range	47...70 dB μ V
AFC	\pm 10 MHz
Modulation type	QPSK, 8PSK
Symbol rate	QPSK: 1...53 MS/s; 8PSK: 1...45 MS/s; 16APSK: 1...35 MS/s; 32APSK: 1...28 MS/s
FEC outer DVB-S	BCH
FEC inner DVB-S	Conv. 1/2, 2/3, 3/4, 5/6, 7/8
FEC outer DVB-S2	BCH
FEC inner DVB-S2	LDPC 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10

Output

Output frequency range	47...862 MHz
Output frequency steps	500 kHz
Frequency stability	\pm 30 kHz
Output channel bandwidth (couplert)	2 x 7/8 MHz
Output level	95...105 dB μ V
Amplitude response (O-E)	\pm 1 dB
Spurious suppression	>50 dB
S/N	>41 dB
MER	>37 dB
Modulation	QPSK, 16-, 64-QAM
FEC	1/2, 2/3, 3/4, 5/6, 7/8
Guard Interval	1/4, 1/8, 1/16, 1/32
FFT modus	2 k/8 k
Bit stuffing	Yes
PCR correction	Yes
PID filtering and remapping	Yes
Connectors	
F-socket	3 pcs.
Common Interface for Descrambling	2 pcs.

General data

Power consumption	<10 W
LNB supply voltage	14/18 V (22 kHz), DiSEqC 1.0
LNB electrical power supply	0.5 A (without CAM)

Technical Data

Dimensions (width x height x depth)	29,5 x 105 x 253 mm
Operating temperature range	-20...+55 °C

Powerful technology, compact dimensions, modular and flexibly expandable; the WISI COMPACT HEADEND System OH combines all the advantages of an innovative and affordable headend. WISI Compact Headend OH is easy to configure. With up to 14 module slots it offers channel processing for 14 analogue or 28 digital channels in a 3 HU 19" rack chassis. WISI Compact Headend OH operates on a high efficiency power supply, with low consumption modules in order to make a minimum ecological impact and a low operational cost. The USB connection and the RJ45 interface can be used to execute software updates for the basic unit as well as for the modules. Furthermore, all functions can be furnished from a distance per web browser.

Digital modules

OH 89 2

Twin DVB-C/T/T2 - COFDM transmodulation with CI



characteristics

- Reception of two DVB-T / T2 / C signals and transmodulation into two COFDM-TV channels (coupled)
- 2x CI slots for central decryption
- MPEG 2 and MPEG 4 compatible
- PID filtering
- NIT and LCN generation

Technical Data

Input	
Input frequency range	45...862 MHz
Input frequency steps	1 kHz
Channel bandwidth	6/7/8 MHz
channel bandwidth DVB-T2	1,7 / 5 / 6 / 7 / 8 MHz
Input level range	47...90 dB μ V
FEC DVB-C	Conv., RS 188, 204
QAM-Modulationsart	QPSK, 16QAM, 64QAM, 128QAM, 256QAM
QAM Symbolrate	1...7,2 Mbaud
FEC DVB-T	Conv., K=7, G=1/2, 2/3, 3/4, 4/5, 5/6, 7/8
Modulation schema DVB-T	QPSK, 16-, 64-QAM
Guard Intervall DVB-T	1/4, 1/8, 1/16, 1/32
FFT DVB-T	2k, 8k switchable
FEC DVB-T2	LDPC/BCH-Code 1/2, 2/3, 3/4, 4/5, 5/6, 3/5
Modulation scheme DVB-T2	QPSK, 16QAM, 64QAM, 256QAM
Guard Intervall DVB-T2	1/4, 1/8, 1/16, 1/32, 1/128, 19/128, 19/256
FFT DVB-T2	1k, 2k, 4k, 8k, 16k, 32k
Output	
Output frequency range	45...862 MHz (channel A)
Output frequency steps	250 kHz
Frequency stability	\pm 30 kHz
Output channel bandwidth (couplert)	2 x 7/8 MHz
Output level	82...97 dB μ V (Depending on QAM-symbol rate)
Amplitude response (O-E)	\pm 1 dB
Spurious suppression	\geq 50 dB
S/N	\geq 41 dB
MER	\geq 37 dB
Modulation	QPSK, 16-, 64-QAM
FEC	1/2, 2/3, 3/4, 5/6, 7/8
Guard Interval	1/4, 1/8, 1/16, 1/32
FFT Mode	2k, 8k switchable
Bit stuffing	Yes
PCR correction	Yes
PID filtering	Yes

Technical Data

Connectors	
F-socket	3 pcs.
Common Interface for Descrambling	2 pcs.
General data	
Power consumption	<10 W
Supply voltage DVB-T antenna	12 V DC (830 mA)
Dimensions (width x height x depth)	29,5 x 105 x 253 mm
Operating temperature range	-20...+55 °C

Powerful technology, compact dimensions, modular and flexibly expandable; the WISI COMPACT HEADEND System OH combines all the advantages of an innovative and affordable headend. WISI Compact Headend OH is easy to configure. With up to 14 module slots it offers channel processing for 14 analogue or 28 digital channels in a 3 HU 19" rack chassis. WISI Compact Headend OH operates on a high efficiency power supply, with low consumption modules in order to make a minimum ecological impact and a low operational cost. The USB connection and the RJ45 interface can be used to execute software updates for the basic unit as well as for the modules. Furthermore, all functions can be furnished from a distance per web browser.

Analogue output modules

OH 79 2

DVB-T / T2 / C analogue channel processing headends with CI (MPEG-4)



characteristics

- Reception of a DVB-T/ T2 / C-signal and modulation in an analogue TV-channel
- MPEG 2 and MPEG 4 compatible
- 1x CI slot for central decryption
- NICAM Encoder
- Input frequency range 110...878 MHz
- Output frequency range 45...862 MHz
- Vestigial sideband modulator

Technical Data

Input	
Input frequency range	47...878 MHz
Input frequency steps	0.001 MHz
Input level range	35...90 dB μ V
Channel bandwidth	6/7/8 MHz
COFDM-Spectrum DVB-T	2 k/8 k/16 k/32 k FFT
COFDM modulation type	QPSK, 16QAM, 64QAM, 128QAM, 256QAM
COFDM Guard Intervall	1/4, 1/8, 1/16, 1/32, 1/128, 19/128, 19/256
FEC	LDPC/BCH-Code 1/2, 2/3, 3/4, 5/6, 3/5
Output	
Output frequency range	45...862 MHz
Output frequency steps	250 kHz
Frequency stability	\pm 30 kHz
Output channel bandwidth (coupled)	7/8 MHz
Output level	90...105 dB μ V (1 dB-steps)
Amplitude response (O-E)	\pm 1,5 dB
Spurious suppression	>55 dB
TV standards	B/G, D/K, I, L, M, N
Video Standard	PAL, SECAM, NTSC
Video formats	4:3/16:9/4:3 Zoom
Video decoder	MPEG 2 MP@ML, MPEG 4 H.264
audio decoding	MPEG 2 (L1/L2)
Connectors	
F-socket	2 pcs.
Common Interface for Descrambling	1 pcs.
General data	
Power consumption	10 W
LNB supply voltage	12 V
LNB electrical power supply	0.83 A
Dimensions (width x height x depth)	29,5 x 105 x 253 mm
Operating temperature range	-20...+55 °C

Powerful technology, compact dimensions, modular and flexibly expandable; the WISI COMPACT HEADEND System OH combines all the advantages of an innovative and affordable headend. WISI Compact Headend OH is easy to configure. With up to 14 module slots it offers channel processing for 14 analogue or 28 digital channels in a 3 HU 19" rack chassis. WISI Compact Headend OH operates on a high efficiency power supply, with low consumption modules in order to make a minimum ecological impact and a low operational cost. The USB connection and the RJ45 interface can be used to execute software updates for the basic unit as well as for the modules. Furthermore, all functions can be furnished from a distance per web browser.

WISI BOX

OH 16 SC

Reception from 16 DVB-S/S2 signals and transmodulation in 16 DVB-C channels



characteristics

- Reception of 16 DVB-S/S2 signals and transmodulation into 16 DVB-C channels
- DiSEqC 1.0
- Input frequency range 950...2150 MHz
- Output frequency range 47...862 MHz
- Integrated distribution matrix
- Programming and remote access via web browser
- PID filtering
- NIT and LCN generation
- Integrated FM amplifier
- 19" rack - or wall installation



Technical Data

Input

Input frequency range	950...2150 MHz
Input frequency steps	1 MHz
Return loss IN	>8 dB
Isolation internal multiswitch	>30 dB
Input level range	47...90 dBµV
AFC	±10 MHz
Modulation	QPSK (EN300421), QPSK 8PSK (EN302307)16APSK, 32APSK
Symbol rate DVB-S	1...53 Mbaud
Symbol rate DVB-S2	1...45 MSps 8PSK, 1...35 MSps 16APSK, 1...28 MSps 32APSK
Spectral inversion	Automatic
FEC outer DVB-S	RS 204-16
FEC inner DVB-S	1/2, 2/3, 3/5, 5/6, 7/8
FEC outer DVB-S2	BCH
FEC inner DVB-S2	(1/4, 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 (QPSK) /5, 2/3, 3/4, 5/6, 8/9, 9/10 (8PSK))

Output

Output frequency range	45...862 MHz
Output frequency steps	250 kHz
Output channel bandwidth (coupled)	4x (4 x 8 MHz)
Output level	100...115 dBµV
Amplitude response (O-E)	1 dB
Modulation type	32-, 64-, 128-, 256-QAM
Symbol rate	4,48...7,00 MS/s
Spurious suppression	>50 dB (at QAM 256)
MER	≥40 dB
Bit stuffing	Yes
SI-Table handling	Yes
PID filtering	Yes
LCN	Yes
NIT generation	Yes
Connectors	
F-socket	20 pcs.
Output test point	-20 dB
USB	1 pcs.
RJ11	1 pcs.
RJ45	1 pcs.

Technical Data

General data

Power consumption	<70 W
LNB supply voltage	14...18 V DiSEqC 1.0 / 22KHz
LNB electrical power supply	0.5 A each slot / max. 1A
Dimensions (width x height x depth)	483 x 44 x 259 mm
Operating temperature range	-20...+45 °C
Operating voltage	180...265 V AC (47...63 Hz)

The compact headend OH 16 SC is easy to install and offers a lot of interesting features. By using a multi switch with 5, 9, 13 or 17 inputs in front of the headend and the DiSEqC functionality, ensures that transponders of up to four different satellite positions can be received, transmodulated and distributed. Network integration is possible via DHCP that supports remote maintenance and programming via the web browser without any additional software. The headend set-up is user-friendly, it generates automatically an IP address for the connected PC and by entering „OH16“ or the programmed IP address the operator has access to the headend. LCN, NIT generating, PID filtering and an integrated FM combiner complete the range of functions.

Mounting accessories

ZG 80

Mounting set for input splitter DC 28 to basic unit OH 50



Technical Data

General data

Dimensions (width x height x depth) 80 x 37 x 20 mm

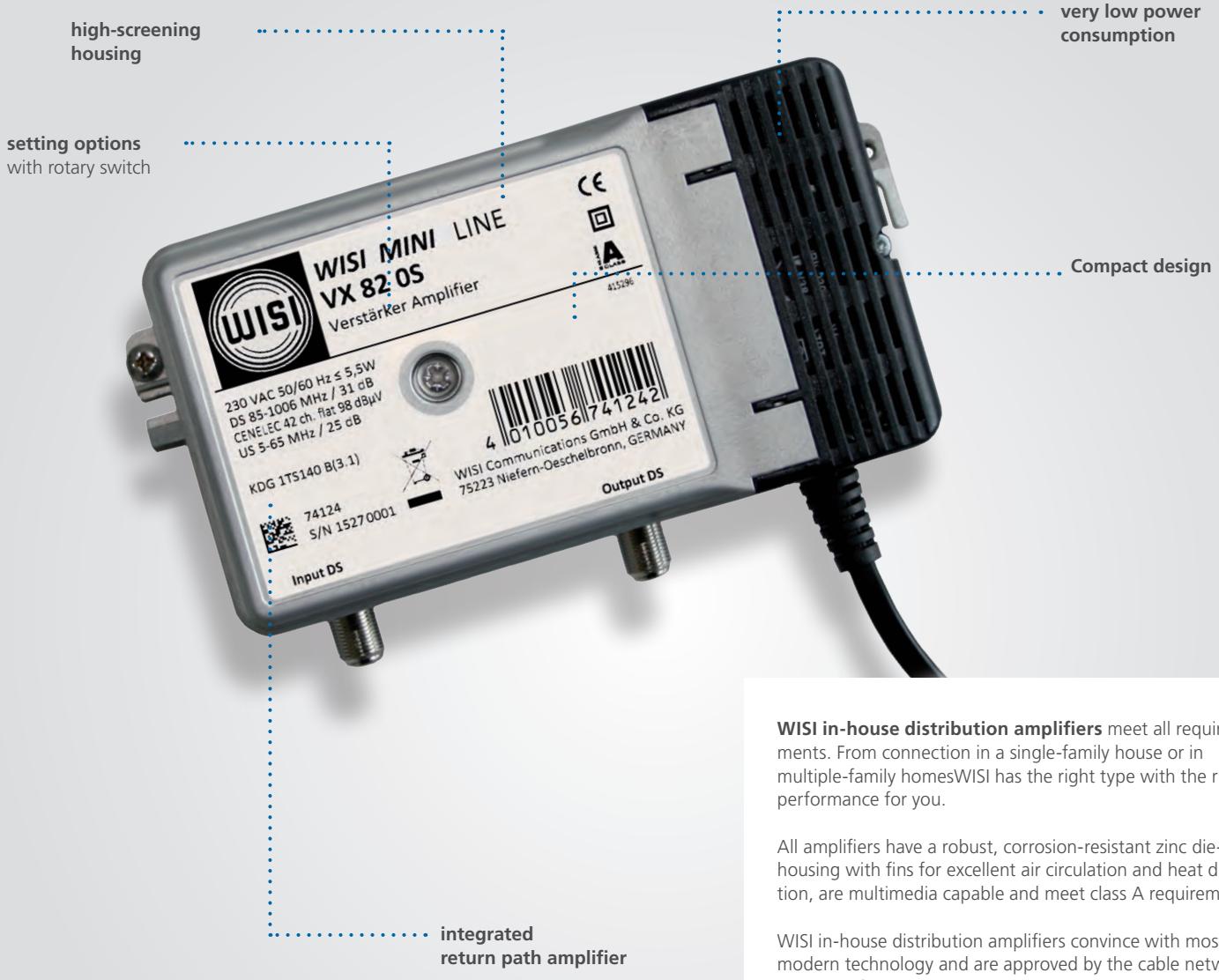
characteristics

The ZG 80 is a mounting kit to attach the input splitter DC 28 on the basic unit OH 50.



Amplifiers

WISI Amplifiers:
**Strong types
for every application.**



WISI in-house distribution amplifiers meet all requirements. From connection in a single-family house or in multiple-family homes WISI has the right type with the right performance for you.

All amplifiers have a robust, corrosion-resistant zinc die-cast housing with fins for excellent air circulation and heat dissipation, are multimedia capable and meet class A requirements.

WISI in-house distribution amplifiers convince with most modern technology and are approved by the cable network operators for installation.

At a glance:

- certified by the network operators
- high efficiency
- compact design
- low power consumption

Mini Line In-house distribution amplifier

VX 81 OS

Homeamplifier, 1 GHz,
KDG 1TS140



A
CLASS

VX 82 OS

Homeamplifier, 1 GHz,
KDG 1TS140



A
CLASS

VX 83 OS

Homeamplifier, 1 GHz,
KDG 1TS140



A
CLASS

characteristics

- Compact housing MiniLine
- All RF connections F-connector
- setting elements with rotary switch
- Flap-lid for easy handling
- Approved by Vodafone Kabel Deutschland

Technical Data

Down-Stream / DS

Frequency range downstream	85...1006 MHz	85...1006 MHz	85...1006 MHz
Gain downstream	21 dB	31 dB	31 dB
Frequency response	$\leq \pm 0,8$ dB	$\leq \pm 0,8$ dB	$\leq \pm 0,8$ dB
Output level	≥ 98 dB μ V (CENELEC 42 Ch, flat, CTB/CSO ≥ 60 dB)	≥ 98 dB μ V (CENELEC 42 Ch, flat, CTB/CSO ≥ 60 dB)	≥ 102 dB μ V (CENELEC 42 Ch, flat, CTB/CSO ≥ 60 dB)
IN-ATT (adjuster)	0...20 dB	0...20 dB	0...20 dB
IN-EQ (adjuster)	0...20 dB	0...20 dB	0...20 dB
Interstage-EQ (fix)	3 dB	3 dB	3 dB
noise figure	≤ 7 dB	$\leq 6,5$ dB	$\leq 6,5$ dB
Upstream (US)			
US frequency range	5...65 MHz	5...65 MHz	5...65 MHz
Gain upstream	16 dB	25 dB	25 dB
Frequency response upstream	$\leq \pm 0,8$ dB	$\leq \pm 0,8$ dB	$\leq \pm 0,8$ dB
Output level	120 dB μ V (KDG TS140 medium load; BER <1e 10-6)	120 dB μ V (KDG TS140 medium load; BER <1e 10-6)	120 dB μ V (KDG TS140 medium load; BER <1e 10-6)
IN-ATT (adjuster)	0...20 dB	0...20 dB	0...20 dB
noise figure	≤ 7 dB	$\leq 4,5$ dB	$\leq 4,5$ dB

General data

HF-connections	F	F	F
Impedance	75 Ω	75 Ω	75 Ω
Return loss	≥ 14 dB (>40 MHz - 1,5 dB Oktave ≥ 10 dB)	≥ 14 dB (>40 MHz - 1,5 dB Oktave ≥ 10 dB)	≥ 14 dB (>40 MHz - 1,5 dB Oktave ≥ 10 dB)
Lightning protection	1 kV (severity 1 / EN60728-3)	1 kV (severity 1 / EN60728-3)	1 kV (severity 1 / EN60728-3)
EMC	EN50083-2	EN50083-2	EN50083-2
Dimensions (width x height x depth)	163 x 90 x 50 mm	163 x 90 x 50 mm	163 x 90 x 50 mm
Supply voltage	230 V ($\pm 10\%$)	230 V ($\pm 10\%$)	230 V ($\pm 10\%$)
Power consumption max.	$\leq 4,5$ W	$\leq 5,5$ W	$\leq 5,5$ W
Ambient temperature	-20...+55 °C	-20...+55 °C	-20...+55 °C

Mini Line In-house distribution amplifier

VX 86

In-house amplifier



characteristics

- With passive return path
- Adjustable level and equalizer
- F-connectors
- Wall mounting
- Metal housing

Technical Data

Downstream

Inputs	1 pcs.
Frequency range downstream	47...862 MHz
Gain downstream	18...21 dB
Noise figure downstream	<8 dB
Attenuator downstream	0...18 dB
Equalizer downstream	3...18 dB
Interstage equalizer downstream	3 dB (constant)
Output level 1	96 dB μ V (DS, CENELEC 42 channels, flat)
Output level 2	98.5 dB μ V (DS, CENELEC 42 channels, 6 dB slope)
Output level 3	114 dB μ V (DS, EN50083-5, 3.Ond.)

Upstream

Frequency range upstream	5...30 MHz (passive)
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Connectors

F-socket	2 pcs.
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General data

Operating voltage AC	230 V (50/60 Hz)
Power consumption	3.5 W
EMC	Class A, EN 50083-2
Dimensions (width x height x depth)	163 x 90 x 47 mm
Operating temperature range	-20...+55 °C
Protection class	IP20
Lightning protection	1 kV (EN61000-4-5, 1,2/50 μ s pulse)

Broadband in-house amplifier for use in coaxial networks recommended for 1-3 households



Mini Line In-house distribution amplifier

VX 87

In-house amplifier



characteristics

- With passive return path
- Adjustable level and equalizer
- F-connectors
- Wall mounting
- Metal housing



Technical Data

Downstream

Inputs	1 pcs.
Frequency range downstream	47...862 MHz
Gain downstream	28...31 dB
Noise figure downstream	<8 dB
Attenuator downstream	0...18 dB
Equalizer downstream	3...18 dB
Interstage equalizer downstream	3 dB (constant)
Output level 1	96 dB μ V (DS, CENELEC 42 channels, flat)
Output level 2	98.5 dB μ V (DS, CENELEC 42 channels, 6 dB slope)
Output level 3	114 dB μ V (DS, EN50083-5, 3.Ond.)

Upstream

Frequency range upstream	5...30 MHz (passive)
--------------------------	----------------------

Connectors

F-socket	2 pcs.
----------	--------

General data

Operating voltage AC	230 V (50/60 Hz)
Power consumption	3.5 W
EMC	Class A, EN 50083-2
Dimensions (width x height x depth)	163 x 90 x 47 mm
Operating temperature range	-20...+55 °C
Protection class	IP20
Lightning protection	1 kV (EN61000-4-5, 1,2/50 μ s pulse)

Broadband in-house amplifier for use in coaxial networks recommended for 1-3 households

Mini Line In-house distribution amplifier 4 outputs

VX 67 B

In-house amplifier



A
■ CLASS

Technical Data	
Downstream	
Inputs	1 pcs.
Frequency range downstream	85...1006 MHz
Gain downstream	6 dB
Output level 1	≥87 dBµV (CENELEC 42 channels, flat, at CSO/CTB >60 dB)
Upstream	
Frequency range upstream	5...65 MHz
Gain upstream	1 dB
Noise figure upstream	≤18 dB
Output level 4	116 dBµV (DIN. IMA2/3 >50 dB)
Connectors	
F-socket	5 pcs.
General data	
Operating voltage AC	230 V (±10 %)
Power consumption	3 W
Screening factor	Class A, EN 50083-2
Dimensions (width x height x depth)	165x105x45 mm
Operating temperature range	-25...+75 °C
Protection class	IP20

Broadband in-house amplifier for use in coaxial networks with direct connection for up to 4 antenna outlets.

characteristics

- Adjustable level and equalizer
- F-connectors
- Wall mounting
- Metal housing



Midi Line In-house distribution amplifier

VX 88 OP

In-house/distribution amplifier, locally powered



A
■ CLASS

Technical Data	
Down-Stream / DS	
Frequency range downstream	85...1006 MHz
Gain downstream	30 dB
Attenuator downstream	0...20 dB
Equalizer downstream	0...20 dB
Interstage equalizer downstream	0/6 dB
Output level 1	100 dB μ V
Noise figure downstream	\leq 7,0 dB
Upstream (US)	
Frequency range upstream	5...65 MHz
Gain upstream	25 dB
Attenuator upstream input	0...20 dB
Equalizer US	0/3/6/9 dB
Noise figure upstream	\leq 5 dB
Output level	120 dB μ V
Input test point (bidirectional)	-20 dB
Output test point (directional coupler)	-20 dB
General data	
Impedance	75 Ω
Operating voltage	230 V AC (\pm 10%, LED green)
Power consumption	\leq 5,5 W
Operating temperature range	-20...+55 °C
Storage temperature	-25...+75 °C
Protection class	IP20
Electro Magnetic Compatibility (EMC)	EN50083-2
Lightning protection	1 kV (EN60728-2-1, 2/50 μ s pulse)
Dimensions (width x height x depth)	163 x 90 x 50 mm

MIDI-LINE distribution amplifier in zinc diecast housing, flap cover for easy handling, attenuators and equaliser configurable via PADs and jumper. Measuring points on the input and output. Return path amplifier on the main board, low power input and high power output. Classification: VX 88 OP: KDG 1TS140 B (3.2)

characteristics

- Zinc die-cast housing
- Flap-lid for easy handling
- Configuration of attenuators and equalizers via PADs and jumpers
- Measuring points at the input and output
- Return path amplifier on the circuit board
- Low power consumption, high output level
- Classification: KDG 1TS140 C (3.2)

Home Line In-house distribution amplifier

VX 2015

Building CATV Amplifier 1,2 GHz



A
■ CLASS

Technical Data	
Downstream	
Frequency range	85...1218 MHz
Gain	15 dB ($\pm 0,7$ dB)
Ripple	$\leq \pm 0,8$ dB
Noise figure	<7,0 dB @ 1 GHz, <8,0 dB @ 1,2 GHz
Output level	101 dB μ V (CENELEC 41 Ch. (CSO/CTB \geq 60 dB), flat)
Output level	100 dB μ V (110 Ch/QAM 256, flat, BER <1 E-9)
Output level	100 dB μ V (all QAM (138 x 256 QAM), EN60728-3-1, flat)
Input cable simulator	0/5/10 dB (Jumper)
Input attenuator	0...15 dB (Rotary switch 15 Steps)
Step size	1 dB
Input equalizer	0...30 dB / 1218 MHz (Rotary switch 15 Steps)
Step size	2 dB
Interstage equalizer (Slope)	0/2/4 dB (Jumper)
Test point	-20 dB
Upstream	
Frequency range	5...65 MHz
High pass filter pluggable (optional)	15 MHz (WISI - XE04/0150)
Gain	21 dB ($\pm 0,7$ dB)
Ripple	$\pm 0,5$ dB
Noise figure	<8,5 dB
Output level	110 dB μ V (6 x 256 QAM)
Interstage attenuator	0...15 dB (Rotary switch 15 Steps)
Step size	1 dB
Interstage equalizer	0/2/4/6/8 dB (Jumper)
Output attenuator	0/10 dB (Jumper)
Output equalizer	0/6 dB (Jumper)
Ingress control switch (optional)	nach ICS EN 60728-14
Test point	-20 dB

characteristics

- High output level up to 1.2 GHz, with low power consumption
- Active single output
- Measuring socket for input and output
- All settings (gain, slope etc.) by rotary switch and Jumper
- Diplex filters, return amplifier pluggable on one module
- Optional - receiver according to EN 60728-14 for ICS-settings
- Optional - pluggable high pass filter at the return path channel
- Low power input <6 W

Technical Data

General data

RF connectors	F
Impedance	75 Ω
In/Output return loss	5...40 MHz >16, >40MHz -1,5dB Oktave, >12
Supply voltage	230 V AC $\pm 10\%$
Power consumption	<6 W
Ambient temperature	-20...+55 °C
Protection class	IP 20
EMC	EN50083-2
Surge protection RF Ports	2 kV (1,2/50 μ s pulse EN61000-4-5)
Dimensions W x H x D	163 x 90 x 50 mm

The VX 2015 is a location feeding in-house amplifier with a frequency range up to 1.2 GHz. It has an active output and a measuring socket on the input and output. Diplex filter and return path amplifier are grouped together on a module (VX201-xxx) and available in the versions 65 MHz, 85 MHz and 204 MHz. All settings are done without interruption with Q-step switch or jumper. In addition, a high pass filter XE-xx can be plugged in the return path to influence the ingress influences.

Home Line In-house distribution amplifier

VX 45 R 3830

In-house amplifier, remote powered



characteristics

- Zinc die-cast housing
- Return path amplifier and diplexer on board
- AC remote supply via the input
- External test points
- Alignment by uninterruptible rotary switch and jumper

Technical Data

Downstream

Frequency range	85...1006 MHz
Return loss	≥14 dB
Gain	38 dB (±0,8 dB)
Frequency response	≤ ± 1 dB
Input attenuator	0...15 dB (1 dB step)
Input equalization controller	0...22,5 dB (1,5 dB-steps)
Interstage equalizer	0/6 dB (Jumper)
Interstage attenuator	0/6 dB (Jumper)
Output level CENELEC 42 Ch (CSO/CTB ≥ 60 dB)	≥107 dBµV
noise figure	≤6,5 dB
Output test point (directional coupler)	-20 dB
Input test point (resistance)	-20 dB

Upstream

Frequency range	5...65 MHz
Return loss	≥14 dB
Passive attenuation	<2,5 dB (Jumper)
Gain	30 dB (± 0,75 dB)
Frequency response	≤ ± 1 dB
Input attenuator	0...15 dB (1 dB step)
Input attenuator	0/10 dB (Jumper)
Interstage equalizer	0/3/6/9 dB (Jumper)
noise figure	≥6,5 dB

Output level with 4 X 64 QAM signals	115 (KBW standard load), (BER 1≤ E-8)
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General data

RF connectors	F
Impedance	75 Ω
Supply voltage	27...65 V AC
Remote feed current in pass- through	< 0,6 A
Power indicator	LED green
Power consumption	max. 6,0 W
Ambient temperature	-20...+55 °C
Storage temperature	-25...+75 °C
Protection class	IP20
EMC	EN50083-2
Lightning protection	4 kV (EN61000-4-5 1,2/50 µs pulse)
Dimensions W x H x D	163 x 90 x 47 mm

Home Line In-house distribution amplifier

VX 45 D 3830

In-house amplifier



characteristics

- Zinc die-cast housing
- Return path amplifier and diplexer on board
- External test points
- Alignment by uninterruptible rotary switch and jumper
- Passive return path (jumper)

■ KLASSE
A
■ CLASS

Technical Data	
Downstream	
Inputs	1 pcs.
Input measurement socket	20 dB (resistance)
Frequency range downstream	85...1006 MHz
Gain downstream	38 dB
Noise figure downstream	<7,5 dB
Attenuator downstream	0...15 dB (1 dB-steps)
Equalizer downstream	0...22,5 dB (1,5 dB-steps)
Interstage attenuator downstream	0/6 dB (Jumper)
Interstage equalizer downstream	0/6 dB (Jumper)
Output level 1	≥107 dBµV (CENELEC 42 channels, flat, at CSO/CTB >60 dB)
Output test point	20 dB (directional coupler)
Upstream	
Frequency range upstream	5...65 MHz
Gain upstream	30 dB
Noise figure upstream	<6 dB
Attenuator upstream input	0...15 dB (1 dB-steps)
Attenuator upstream output	0/10 dB (Jumper)
Equalizer US	0/3/6/9 dB (Jumper)
Output level 4	120 dBµV (3 x 64 QAM-signals)
Connectors	
F-socket	4 pcs.
General data	
Operating voltage AC	230 V
Power consumption	6 W
Screening factor	dB Class A, EN 50083-2
Dimensions (width x height x depth)	163 x 90 x 47 mm
Operating temperature range	-20...+55 °C
Protection class	IP20
Lightning protection	1 kV (EN61000-4-5, 1,2/50 µs pulse)

Broadband in-house amplifier for use in coaxial networks recommended for 7 to 18 households.



Home Line In-house distribution amplifier

VX 45 E

In-house amplifier



■ KLASSE
A
■ CLASS

Technical Data	
Downstream	
Inputs	1 pcs.
Input measurement socket	20 dB (resistance)
Frequency range downstream	47...862 MHz
Gain downstream	36 dB
Noise figure downstream	7.5 dB
Attenuator downstream	0...15 dB (1 dB step)
Equalizer downstream	0...22,5 dB (1,5 dB-steps)
Interstage attenuator downstream	0/6 dB (Jumper)
Interstage equalizer downstream	0/6 dB (Jumper)
Output level 1	107 dB μ V (CENELEC 42 channels, 6 dB slope, at CSO/CTB >60 dB)
Output test point	20 dB (directional coupler)
Connectors	
F-socket	4 pcs.
General data	
Operating voltage AC	230 V
Power consumption	5 W
Screening factor	Class A, EN 50083-2
Dimensions (width x height x depth)	163 x 90 x 47 mm
Operating temperature range	-20...+55 °C
Protection class	IP20
Lightning protection	4 kV (EN61000-4-5, 1,2/50 μ s pulse)

Broadband in-house amplifier for use in coaxial networks recommended
for 7 to 18 households

characteristics

- high quality downstream amplifier with band 1
- Zinc die-cast housing
- External test points
- Alignment by uninterruptible rotary switch

Value Line In-house distribution amplifier

VX 16 C 0650

In-house/distribution amplifier, locally powered



KLASSE
A
■ CLASS

Technical Data	
Downstream	
Inputs	1 pcs.
Input measurement socket	-20 dB
Input return loss	≥18 dB (-1,5 dB/Okt., 14 dB)
Frequency range downstream	85...1006 MHz
Gain downstream	40/32 dB
Noise figure downstream	≤5 dB
Attenuator downstream	0...20 dB (PAD)
Equalizer downstream	0...20 dB (PAD)
Interstage attenuator downstream	0...8 dB (PAD, 6 dB by 32 dB amplifier)
Interstage equalizer downstream	0/7/10 dB (Jumper, 1006 MHz)
cable simulator downstream	0...10 dB (PAD)
Output level 1	111 dB μ V (CENELEC 42 channels, flat, at CSO/CTB >60 dB/>60 dB)
Output test point	-20 dB
Output splitter	optional, by distribution module XM...2. Output can be switched
Upstream	
Frequency range upstream	5...65 MHz
Gain upstream	22/32 dB (return channel full channel load)
Noise figure upstream	≤5 dB
Attenuator upstream input	0...20 dB (PAD)
Attenuator upstream output	0...20 dB (PAD)
Equalizer US	0...15 dB (PAD)
Output level 3	120 dB μ V (1 TS 140 average load QAM64 MER >35, BER <1 x 10 ⁻⁸)
Output level 4	110 dB μ V (US, EN50083-5/2.Ord)
Upstream test point	-20 dB
Connectors	
F-socket	2 pcs.
General data	
Operating voltage AC	230 V
Power consumption	<11,5/<12,5 W (Amplifying 32 dB/40 dB, + 2 W with return channel amplifier)
Screening factor	Class A, EN 50083-2
Dimensions	232x145x86 mm (width x height x depth)

characteristics

- Vodafone KDG certified
- Unitymedia certified



Technical Data

Operating temperature range	-20...+55 °C
Protection class	IP66
Lightning protection	5 kV (EN61000-4-5, 1,2/50 μ s pulse)

Broadband distribution amplifier for use in coaxial networks.

Value Line In-house distribution amplifier

VX 19 C 0650

In-house distribution amplifier, remote powered

characteristics

- Vodafone KDG certified
- Unitymedia certified



A
■ CLASS

Technical Data	
Downstream	
Inputs	1 pcs.
Input measurement socket	-20 dB
Input return loss	≥18 dB (-1,5 dB/Okt., 14 dB)
Frequency range downstream	85...1006 MHz
Gain downstream	40/32 dB
Noise figure downstream	≤5 dB
Attenuator downstream	0...20 dB (PAD)
Equalizer downstream	0...20 dB (PAD)
Interstage attenuator downstream	0...8 dB (PAD, 6 dB by 32 dB amplifier)
Interstage equalizer downstream	0/7/10 dB (Jumper, 1006 MHz)
cable simulator downstream	0...10 dB (PAD)
Output level 1	111 dB μ V (CENELEC 42 channels, flat, at CSO/CTB >60 dB/>60 dB)
Output test point	-20 dB
Output splitter	optional, by distribution module XM...2. Output can be switched
Upstream	
Frequency range upstream	5...65 MHz
Gain upstream	22/32 dB (return channel full channel load)
Noise figure upstream	≤5 dB
Attenuator upstream input	0...20 dB (PAD)
Attenuator upstream output	0...20 dB (PAD)
Equalizer US	0...15 dB (PAD)
Output level 3	120 dB μ V (1 TS 140 average load QAM64 MER >35, BER <1 x 10 ⁻⁸)
Output level 4	110 dB μ V (US, EN50083-5/2.Ord)
Connectors	
PG11	2 pcs.
General data	
Operating voltage AC	27...65 V (50/60 Hz)
Power consumption	<11,5/<12,5 W (Amplifying 32 dB/40 dB, + 2 W with return channel amplifier)
Screening factor	Class A, EN 50083-2
Dimensions (width x height x depth)	232x145x86 mm
Operating temperature range	-20...+55 °C
Protection class	IP66
Lightning protection	5 kV (EN61000-4-5, 1,2/50 μ s pulse)

Broadband distribution amplifier with remote feeding for use in coaxial networks.

Value Line In-house distribution amplifier

VX 2022

Building CATV Amplifier 1,2 GHz



A
■ CLASS

Technical Data

Downstream

Frequency range	85...1218 MHz
Gain	22 dB ($\pm 0,8$ dB)
Ripple	$\leq \pm 0,8$ dB
Noise figure	<7,5 dB @ 1 GHz, <8,0 dB @ 1,2 GHz
Output level	106 dB μ V (CENELEC 41 Ch. (CSO/CTB \geq 60 dB), flat)
Output level	103 dB μ V (110 Ch/QAM 256, flat, BER <1 E-9)
Output level	102 dB μ V (all QAM (138 x 256 QAM), EN60728-3-1, flat)
Input cable simulator	0/5/10 dB (Jumper)
Input attenuator	0...15 dB (Rotary switch 15 Steps)
Step size	1 dB
Input equalizer	0...30 dB/1218 (Rotary switch 15 Steps)
Step size	2 dB
Interstage equalizer (Slope)	0/2/4/6 dB (Jumper)
Test point	-20 dB

Upstream

Frequency range	5...65 MHz
High pass filter pluggable (optional)	15 MHz (WISI - XE 04 0150)
Gain	21 dB ($\pm 0,8$ dB)
Ripple	$\pm 0,5$ dB
Noise figure	<8,5 dB
Output level	110 dB μ V (6 x 256 QAM)
Interstage attenuator	0...15 dB (Rotary switch 15 Steps)
Step size	1 dB
Interstage equalizer	0...8 dB (Jumper 4 Steps)
Output attenuator	0/10 dB (Jumper)
Output equalizer	0/6 dB (Jumper)
Ingress control switch (optional)	nach ICS EN 60728-14
Test point	-20 dB

characteristics

- High output level up to 1.2 GHz, with low power consumption
- Active single output
- Measuring socket for input and output
- All settings (gain, slope etc.) by rotary switch and Jumper
- Diplex filters, return amplifier pluggable on one module
- Optional - receiver according to EN 60728-14 for ICS-settings
- Optional - pluggable high pass filter at the return path channel
- Low power input <13 W

Technical Data

General data

RF connectors	PG 11/F
Impedance	75 Ω
In/Output return loss	5...40 MHz >16, >40MHz -1,5dB Oktave, >12
Supply voltage	230 V AC $\pm 10\%$
Power consumption	<13 W
Ambient temperature	-20...+55 °C
Protection class	IP 67
EMC	EN50083-2
Surge protection RF Ports	2 kV (1,2/50 μ s pulse EN61000-4-5)
Dimensions W x H x D	232 x 158 x 86 mm

The VX 2022 is a location feeding in-house amplifier with a frequency range up to 1.2 GHz. It has an active output and a measuring socket on the input and output. Diplex filter and return path amplifier are grouped together on a module (VX201-xxx) and available in the versions 65 MHz, 85 MHz and 204 MHz. All settings are done without interruption with Q-step switch or jumper. In addition, a high pass filter XE-xx can be plugged in the return path to influence the ingress influences.

Value Line In-house distribution amplifier

VX 2030 065

Building CATV Amplifier 1,2 GHz



Technical Data	
Downstream	
Frequency range	85...1218 MHz
Gain	30 dB (± 1 dB)
Ripple	$\leq \pm 0,8$ dB
Noise figure	<7,5 dB @ 1 GHz, <8,0 dB @ 1,2 GHz
Output level	112 dB μ V (CENELEC 41 Ch. (CSO/CTB ≥ 60 dB), flat)
Output level	107 dB μ V (110 Ch/QAM 256, flat, BER <1 E-9)
Output level	106 dB μ V (all QAM (138 x 256 QAM), EN60728-3-1, flat)
Input cable simulator	0/5/10 dB (Jumper)
Input attenuator	0...15 dB (Rotary switch 15 Steps)
Step size	1 dB
Input equalizer	0...30 dB/ 1218 MHz Drehpunkt (Rotary switch 15 Steps)
Step size	2 dB
Interstage equalizer (Slope)	0/2/4/6/8 dB (Jumper)
Interstage attenuation	0/2/4/6 dB
Test point	-20 dB
Upstream	
Frequency range	5...65 MHz
High pass filter pluggable (optional)	15 MHz (WISI - XE 04 0150)
Gain	29 dB (± 1 dB)
Ripple	$\pm 0,5$ dB
Noise figure	< 6,5 dB
Output level	110 dB μ V (6 x 256 QAM)
Interstage attenuator	0...15 dB (Rotary switch 15 Steps)
Step size	1 dB
Interstage equalizer	0/2/4/6/8 dB (Jumper)
Output attenuator	0/10 dB (Jumper)
Output equalizer	0/6 dB (Jumper)
Ingress control switch (optional)	nach ICS EN 60728-14
Test point	-20 dB

characteristics

- High output level up to 1.2 GHz, with low power consumption
- Active single output
- Measuring socket for input and output
- All settings (gain, slope etc.) by rotary switch and Jumper
- Diplex filters, return amplifier pluggable on one module
- Optional - receiver according to EN 60728-14 for ICS-settings
- Optional - pluggable high pass filter at the return path channel
- Low power input <18 W

Technical Data	
General data	
RF connectors	PG 11/F
Impedance	75 Ω
In/Output return loss	5...40 MHz >16, >40MHz -1,5dB Oktave, >12
Supply voltage	230 V AC ± 10 %
Power consumption	< 18 W
Ambient temperature	-20...+55 °C
Protection class	IP 67
EMC	EN50083-2
Surge protection RF Ports	2 kV (1,2/50 μ s pulse EN61000-4-5)
Dimensions W x H x D	232 x 158 x 86 mm

The VX 2030 is a location feeding in-house amplifier with a frequency range up to 1.2 GHz. It has an active output and a measuring socket on the input and output. Diplex filter and return path amplifier are grouped together on a module (VX201-xxx) and available in the versions 65 MHz, 85 MHz and 204 MHz. All settings are done without interruption with Q-step switch or jumper. In addition, a high pass filter XE-xx can be plugged in the return path to influence the ingress influences.

Value Line In-house distribution amplifier

VX 2030 204

Building CATV Amplifier 1,2 GHz



A
■ CLASS

Technical Data	
Downstream	
Frequency range	258...1218 MHz
Gain	30 dB (± 1 dB)
Ripple	$\leq \pm 0,8$ dB
Noise figure	<7,5 dB @ 1 GHz, <8,0 dB @ 1,2 GHz
Output level	112 dB μ V (CENELEC 41 Ch. (CSO/CTB \geq 60 dB), flat)
Output level	107 dB μ V (110 Ch/QAM 256, flat, BER <1 E-9)
Output level	106 dB μ V (all QAM (138 x 256 QAM), EN60728-3-1, flat)
Input cable simulator	0/5/10 dB (Jumper)
Input attenuator	0...15 dB (Rotary switch 15 Steps)
Step size	1 dB
Input equalizer	0...30 dB/1218 MHz (Rotary switch 15 Steps)
Step size	2 dB
Interstage equalizer (Slope)	0/2/4/6/8 dB (Jumper)
Interstage attenuation	0/2/4/6 dB
Test point	-20 dB
Upstream	
Frequency range	5...204 MHz
High pass filter pluggable (optional)	15 MHz (WISI - XE 04 0150)
Gain	29 dB (± 1 dB)
Ripple	$\pm 0,5$ dB
Noise figure	<6,5 dB
Output level	107 dB μ V (24 x 256 QAM)
Interstage attenuator	0...15 dB (Rotary switch 15 Steps)
Step size	1 dB
Interstage equalizer	0/2/4/6/8 dB (Jumper)
Output attenuator	0/10 dB (Jumper)
Output equalizer	0/6 dB (Jumper)
Ingress control switch (optional)	nach ICS EN 60728-14
Test point	-20 dB

characteristics

- High output level up to 1.2 GHz, with low power consumption
- Active single output
- Measuring socket for input and output
- All settings (gain, slope etc.) by rotary switch and Jumper
- Diplex filters, return amplifier pluggable on one module
- Optional - receiver according to EN 60728-14 for ICS-settings
- Optional - pluggable high pass filter at the return path channel
- Low power input <18 W

Technical Data

General data	
RF connectors	PG 11/F
Impedance	75 Ω
In/Output return loss	5...40 MHz >16, >40MHz -1,5dB Oktave, >12
Supply voltage	230 V AC ± 10 %
Power consumption	< 18 W
Ambient temperature	-20...+55 °C
Protection class	IP 67
EMC	EN50083-2
Surge protection RF Ports	2 kV (1,2/50 μ s pulse EN61000-4-5)
Dimensions W x H x D	232 x 158 x 86 mm

The VX 2030 is a location feeding in-house amplifier with a frequency range up to 1.2 GHz. It has an active output and a measuring socket on the input and output. Diplex filter and return path amplifier are grouped together on a module (VX201-xxx) and available in the versions 65 MHz, 85 MHz and 204 MHz. All settings are done without interruption with Q-step switch or jumper. In addition, a high pass filter XE-xx can be plugged in the return path to influence the ingress influences.



Value Line In-house distribution amplifier

VX 2035 065

Building CATV Amplifier 1,2 GHz



Technical Data	
Downstream	
Frequency range	85...1218 MHz
Gain	35 dB (± 1 dB)
Ripple	$\leq \pm 0,8$ dB
Noise figure	<7,5 dB @ 1 GHz, <8,0 dB @ 1,2 GHz
Output level	115 dB μ V (CENELEC 41 Ch. (CSO/CTB \geq 60 dB), flat)
Output level	111 dB μ V (110 Ch/QAM 256, flat, BER <1 E-9)
Output level	110 dB μ V (all QAM (138 x 256 QAM), EN60728-3-1, flat)
Input cable simulator	0/5/10 dB (Jumper)
Input attenuator	0...15 dB (Rotary switch 15 Steps)
Step size	1 dB
Input equalizer	0...30 dB/1218 MHz (Rotary switch 15 Steps)
Step size	2 dB
Interstage equalizer (Slope)	0/2/4/6/8/10 dB (Jumper)
Interstage attenuation	0/2/4/6 dB
Test point	-20 dB
Upstream	
Frequency range	5...65 MHz
High pass filter pluggable (optional)	15 MHz (WISI - XE04/0150)
Gain	29 dB (± 1 dB)
Ripple	$\pm 0,5$ dB
Noise figure	< 6,5 dB
Output level	110 dB μ V (6 x 256 QAM)
Interstage attenuator	0...15 dB (Rotary switch 15 Steps)
Step size	1 dB
Interstage equalizer	0/2/4/6/8 dB (Jumper)
Output attenuator	0/10 dB (Jumper)
Output equalizer	0/6 dB (Jumper)
Ingress control switch (optional)	nach ICS EN 60728-14
Test point	-20 dB

characteristics

- High output level up to 1.2 GHz, with low power consumption
- Active single output
- Measuring socket for input and output
- All settings (gain, slope etc.) by rotary switch and Jumper
- Diplex filters, return amplifier pluggable on one module
- Optional - receiver according to EN 60728-14 for ICS-settings
- Optional - pluggable high pass filter at the return path channel
- Very low power consumption <22 W.

Technical Data	
General data	
RF connectors	PG 11/F
Impedance	75 Ω
In/Output return loss	5...40 MHz >16, >40MHz -1,5dB Oktave, >12
Supply voltage	230 V AC ± 10 %
Power consumption	< 22 W
Ambient temperature	-20...+55 °C
Protection class	IP 67
EMC	EN50083-2
Surge protection RF Ports	2 kV (1,2/50 μ s pulse EN61000-4-5)
Dimensions W x H x D	232 x 158 x 86 mm

The VX 2035 is a location feeding in-house amplifier with a frequency range up to 1.2 GHz. It has an active output and a measuring socket on the input and output. Diplex filter and return path amplifier are grouped together on a module (VX201-xxx) and available in the versions 65 MHz, 85 MHz and 204 MHz. All settings are done without interruption with Q-step switch or jumper. In addition, a high pass filter XE-xx can be plugged in the return path to influence the ingress influences.

Value Line In-house distribution amplifier

VX 2035 204

Building CATV Amplifier 1,2 GHz



A
■ CLASS

Technical Data	
Downstream	
Frequency range	258...1218 MHz
Gain	35 dB (± 1 dB)
Ripple	$\leq \pm 0,8$ dB
Noise figure	<7,5 dB @ 1 GHz, <8,0 dB @ 1,2 GHz
Output level	115 dB μ V (CENELEC 41 Ch. (CSO/CTB \geq 60 dB), flat)
Output level	111 dB μ V (110 Ch/QAM 256, flat, BER <1 E-9)
Output level	110 dB μ V (all QAM (138 x 256 QAM), EN60728-3-1, flat)
Input cable simulator	0/5/10 dB (Jumper)
Input attenuator	0...15 dB (Rotary switch 15 Steps)
Step size	1 dB
Input equalizer	0...30 dB/1218 MHz (Rotary switch 15 Steps)
Step size	2 dB
Interstage equalizer (Slope)	0/2/4/6/8/10 dB (Jumper)
Interstage attenuation	0/2/4/6 dB
Test point	-20 dB
Upstream	
Frequency range	5...204 MHz
High pass filter pluggable (optional)	15 MHz (WISI - XE04/0150)
Gain	29 dB (± 1 dB)
Ripple	$\pm 0,5$ dB
Noise figure	< 6,5 dB
Output level	107 dB μ V (24 x 256 QAM)
Interstage attenuator	0...15 dB (Rotary switch 15 Steps)
Step size	1 dB
Interstage equalizer	0/2/4/6/8 dB (Jumper)
Output attenuator	0/10 dB (Jumper)
Output equalizer	0/6 dB (Jumper)
Ingress control switch (optional)	nach ICS EN 60728-14
Test point	-20 dB

characteristics

- High output level up to 1.2 GHz, with low power consumption
- Active single output
- Measuring socket for input and output
- All settings (gain, slope etc.) by rotary switch and Jumper
- Diplex filters, return amplifier pluggable on one module
- Optional - receiver according to EN 60728-14 for ICS-settings
- Optional - pluggable high pass filter at the return path channel
- Very low power consumption <22 W.

Technical Data

General data	
RF connectors	PG 11/F
Impedance	75 Ω
In/Output return loss	5...40 MHz >16, >40MHz -1,5dB Oktave, >12
Supply voltage	230 V AC ± 10 %
Power consumption	< 22 W
Ambient temperature	-20...+55 °C
Protection class	IP 67
EMC	EN50083-2
Surge protection RF Ports	2 kV (1,2/50 μ s pulse EN61000-4-5)
Dimensions W x H x D	232 x 158 x 86 mm

The VX 2035 is a location feeding in-house amplifier with a frequency range up to 1.2 GHz. It has an active output and a measuring socket on the input and output. Diplex filter and return path amplifier are grouped together on a module (VX201-xxx) and available in the versions 65 MHz, 85 MHz and 204 MHz. All settings are done without interruption with Q-step switch or jumper. In addition, a high pass filter XE-xx can be plugged in the return path to influence the ingress influences.

Value Line In-house distribution amplifier

VX 24

In-house/distribution amplifier, locally powered



characteristics

- Locally powered
- CATV amplifier with high output level
- Protection class IP 66
- All setting with handset OH 41
- Active and passive return channel module
- Pluggable output splitter

A
■ CLASS

Technical Data	
Downstream	
Inputs	1 pcs.
Input measurement socket	-20 dB
Input return loss	18 dB (-1,5 dB/Oct.)
Frequency range downstream	47(85)...862 MHz (depending on diplexers)
Gain downstream	36 dB (single output)
Noise figure downstream	<7 dB
Attenuator downstream	0...15 dB (0,5 dB steps)
Equalizer downstream	0...15 dB (0,5 dB steps)
Interstage attenuator downstream	0/5 dB (Jumper)
Interstage equalizer downstream	0/7 dB (Jumper)
Output level 1	109 dB μ V (CENELEC 42 channels, flat, at CSO/CTB \geq 64 dB/ \geq 60 dB)
Output level 2	112 dB μ V (CENELEC 42 channels, 9 dB slope, at CSO/CTB \geq 63 dB/ \geq 60 dB)
Upstream	
Frequency range upstream	5...65/18...65 MHz (depending on diplexers)
Gain upstream	30 dB
Attenuator upstream input	0...30/4...30 dB (1 dB-steps, 4...30 dB at Interstage loss/equalizer 0 dB)
Equalizer US	0...10 dB (0,5 dB steps)
Output level 3	114 dB μ V (2. system)
Output level 4	114 dB μ V (3. system)
ICS, US	0/8/>45 dB
Upstream test point	-20 dB
Connectors	
PG11	3 pcs.
General data	
Operating voltage AC	180...265 V (50/60 Hz)
Power consumption	<13 W (with return path amplifier)
Screening factor	Class A, EN 50083-2
Dimensions (width x height x depth)	236,8x145,2x89,2 mm
Operating temperature range	-20...+55 °C
Protection class	IP66
Lightning protection	4/2 kV (HF-connections/ power supply; EN61000-4-5, 1,2/50 μ s pulse)

Programmable broadband distribution amplifier for use in coaxial networks, delivery without return path modules. Settings via handset OH41. Second output configurable by splitter module XM..

Value Line In-house distribution amplifier

VX 25

In-house distribution amplifier, remote powered



KLASSE
A
■ CLASS

Technical Data	
Downstream	
Inputs	1 pcs.
Input measurement socket	-20 dB
Input return loss	18 dB (-1,5 dB/Oct.)
Frequency range downstream	47(85)...862 MHz (depending on diplexers)
Gain downstream	36 dB (single output)
Noise figure downstream	<7 dB
Attenuator downstream	0...15 dB (0,5 dB steps)
Equalizer downstream	0...15 dB (0,5 dB steps)
Interstage attenuator downstream	0/5 dB
Interstage equalizer downstream	0/7 dB
Output level 1	109 dB μ V (CENELEC 42 channels, flat, at CSO/CTB \geq 64 dB/ \geq 60 dB)
Output level 2	112 dB μ V (CENELEC 42 channels, 9 dB slope, at CSO/CTB \geq 63 dB/ \geq 60 dB)
Upstream	
Frequency range upstream	5...65/18...65 MHz (depending on diplexers)
Gain upstream	30 dB
Attenuator upstream input	0...30/4...30 dB (1 dB-steps, 4...30 dB at Interstage loss/equalizer 0 dB)
Equalizer US	0...10 dB (0,5 dB steps)
Output level 3	114 dB μ V (2. system)
Output level 4	114 dB μ V (3. system)
ICS, US	0/8/>45 dB
Upstream test point	-20 dB
Connectors	
PG11	3 pcs.
General data	
Operating voltage AC	27...65 V
Power consumption	<13 W (with return path amplifier)
Remote power	<6/<3 A (input/ output)
Screening factor	dB Class A, EN 50083-2
Dimensions (width x height x depth)	236,8x145,2x89,2 mm
Operating temperature range	-20...+55 °C
Protection class	IP66
Lightning protection	4/2 kV (HF-connections/ power supply; EN61000-4-5, 1,2/50 μ s pulse)

characteristics

- Remote powered
- CATV amplifier with high output level
- Protection class IP 66
- All setting with handset OH 41
- Active and passive return channel module
- Pluggable output splitter



Programmable broadband distribution amplifier for use in coaxial networks, delivery without return path modules. Settings via handset OH41. Second output configurable by splitter module XM..

Value Line In-house distribution amplifier

VX 26 H

In-house/distribution amplifier, locally powered



Technical Data

Downstream

Inputs	1 pcs.
Input measurement socket	20 dB (resistance)
Input return loss	>18 dB (-1 dB/oct.)
Frequency range downstream	85...1006 MHz
Gain downstream	41 dB
Noise figure downstream	<6 dB up to 600 MHz; <9 dB up to 1000 MHz
Attenuator downstream	0...15 dB (1 dB-steps)
Equalizer downstream	0...22,5 dB (1,5 dB-steps)
Interstage attenuator downstream	0/5 dB (Jumper)
Interstage equalizer downstream	0/3/6/9 dB (Jumper)
Output level 1	111 dB μ V (CENELEC 42 channels, flat, CSO/CTB >60 dB/>60 dB)

Output level 2	114 dB μ V (CENELEC 42 channels, 6dB slope, CSO/CTB >60 dB/>60 dB)
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Output test point	-20 dB (directional coupler)
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Upstream

Frequency range upstream	5...65 MHz
Gain active/passiv	24 dB / -4 dB
Noise figure upstream	<6 dB
Attenuator upstream input	0...15 dB (1 dB-steps)
Attenuator upstream output	0...15 dB (1 dB-steps + 5 dB Interstage Jumper)
Equalizer US	0/3/6/9 dB (Jumper)
Output level US	112 dB μ V (2nd, 3rd order)
Output test jack US	-20 dB

Connectors

F-socket	3 pcs.
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General data

Operating voltage AC	180...265 V (50/60 Hz)
Power consumption	18 W
Screening factor	Class A, EN 50083-2
Dimensions (width x height x depth)	231 x 158 x 85 mm
Operating temperature range	-20...+55 °C
Protection class	IP66
Lightning protection	4 kV (EN61000-4-5, 1,2/50 μ s pulse)

characteristics

- Uninterruptible setting
- Screwed, folding housing cover
- Integrated return channel and diplexers
- All settings via exact switching step (Q-step) or jumper
- Output splitter (jumper)
- Lightning protection HF- connections 4 kV

The VX 26 H is a local feeding distribution amplifier with an integrated feedback channel and diplex filter. The settings can be adjusted via jumper or Q-steps and therefore an uninterrupted adjustment option is possible.

Value Line In-house distribution amplifier

VX 29 H

In-house distribution amplifier, remote powered



■ KLASSE
A
■ CLASS

Technical Data

Downstream

Input measurement socket	-20 dB (resistance)
Input return loss	>18 dB (-1 dB/oct.)
Frequency range downstream	85...1006 MHz
Gain downstream	41 dB
Noise figure downstream	<6 dB up to 600 MHz; <9 dB up to 1000 MHz
Attenuator downstream	0...15 dB (1 dB-steps)
Equalizer downstream	0...22,5 dB (1,5 dB-steps)
Interstage attenuator downstream	0/5 dB (Jumper)
Interstage equalizer downstream	0/3/6/9 dB (Jumper)
cable simulator downstream	0/5 dB (Jumper)
Output level 1	111 dB μ V (CENELEC 42 channels, flat, CSO/CTB >60 dB/>60 dB)

Output level 2	114 dB μ V (CENELEC 42 channels, 6dB slope, CSO/CTB >60 dB/>60 dB)
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Output test point	-20 dB (directional coupler)
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Upstream

Frequency range upstream	5...65 MHz
Gain active/passiv	24 dB / -4 dB
Noise figure upstream	<6 dB
Attenuator upstream input	0...15 dB (1 dB-steps)
Attenuator upstream output	0...15 dB (1 dB-steps, + 5 dB Interstage Jumper)
Equalizer US	0/3/6/9 dB (Jumper)
Output level US	112 dB μ V (2nd, 3rd order)
Output test jack US	-20 dB

Connectors

PG11	3 pcs.
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General data

Operating voltage AC	27...65 V
Power consumption	18 W
Remote power	7 A
Screening factor	Class A, EN 50083-2
Dimensions (width x height x depth)	231x158x85 mm
Operating temperature range	-20...+55 °C
Protection class	IP66
Lightning protection	4 kV (EN61000-4-5 1,2/50 μ s pulse)

characteristics

- Uninterruptible setting
- Screwed, folding housing cover
- Integrated return channel and diplexers
- All settings via exact switching step (Q-step) or jumper
- Output splitter (jumper)
- Lightning protection HF- connections 4 kV



Broadband distribution amplifier with remote feeding for use in coaxial networks.

Value Line In-house distribution amplifier

VX 26 M1

VALUE LINE distribution amplifier



characteristics

- Super compact housing
- High output level
- High gain

Technical Data

Downstream

Frequency range	47...1006 MHz
Return loss	≥ 18 dB (-1 dB/oct.)
Noise figure	≤ 6,0 dB (47...862 MHz), ≤ 8,0 dB (862...1006 MHz)
Gain	36 dB
Frequency response	≤ ± 0,5 dB (47...862 MHz), ≤ ± 0,75 dB (47...1006 MHz)
Input attenuator	0...22,5 dB (1,5 dB-steps)
Input equalizer	0...22,5 dB (1,5 dB-steps)
Interstage Slope	0/2/8/10 dB (Jumper)
Interstage attenuator	0/6 dB (Jumper)
Distortion products for CENELEC 42 Ch. @ 111 dB μ V flat	(CSO/CTB = 60 dB)
Distortion products for CENELEC 42 Ch. @ 114 dB μ V 8 dB slope	(CSO/CTB = 60 dB)
RF test point output (Coupler)	-20 dB

General data

Impedance	75 Ω
RF connectors	F
Supply voltage	180...265 V AC
Surge protection power supply	2 kV (EN61000-4-5, 1,2/50 µs pulse)
Power consumption	typ. 16 W
Ambient temperature	-20...+55 °C
Storage temperature	-25...+75 °C
Protection class	IP 66
Electro Magnetic Compatibility (EMC)	EN 50083-2
Lightning protection	4 kV (EN61000-4-5 1,2/50 µs pulse)
Dimensions (width x height x depth)	231 x 145 x 85 mm

Value Line accessories

VX 201 065

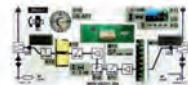
Return amplifier

VX 201 204

Return amplifier

characteristics

- Diplex filters, return amplifier pluggable on one module
- Optional - receiver according to EN 60728-14 for ICS-settings
- Optional - pluggable high pass filter at the return path channel for VX 2015, VX 2022, VX 2030 and VX 2035



Technical Data

Downstream

Frequency range	85...1218 MHz	258...1218 MHz
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Upstream

Frequency range	5...65 MHz	5...204 MHz
High pass filter pluggable	15 MHz (WISI - XE04/0150)	15 MHz (WISI - XE04/0150)
Gain	VX 2015/2022: 21 dB ($\pm 0,8$ dB), VX 2030/2035: 29 dB (± 1 dB)	VX 2015/2022: 21 dB ($\pm 0,8$ dB), VX 2030/2035: 29 dB (± 1 dB)
Ripple	$\pm 0,5$ dB	$\pm 0,5$ dB
Noise figure	VX 2015/2022: <8,5 dB, VX 2030/2035: <6,5 dB	VX 2015/2022: <8,5 dB, VX 2030/2035: <6,5 dB
Output level	110 dB μ V (6 x 256 QAM)	107 dB μ V (24 x 256 QAM)
Interstage attenuator	0...15 dB (Rotary switch 15 Steps)	0...15 dB (Rotary switch 15 Steps)
Step size	1 dB	1 dB
Interstage equalizer	0/2/4/6/8 dB (Jumper)	0/2/4/6/8 dB (Jumper)
Output attenuator	0/10 dB (Jumper)	0/10 dB (Jumper)
Output equalizer	0/6 dB (Jumper)	0/6 dB (Jumper)
Ingress control switch ICS EN 60728	0/-6/-45 dB	0/-6/-45 dB



Value Line accessories

XP 0000...0020

Attenuator pad, 0 to 20 dB



Technical Data

Through loss	0 to 20 dB
Frequency range	5...1006 MHz

characteristics

- Use in amplifiers VX 16 and VX 19

XP BOX 01

attenuator pad set 0...20 dB



Technical Data

Through loss	0...20 dB (single Pads with the measurements 0...20 dB)
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characteristics

- Use in amplifiers VX 16 and VX 19

XPU 020

attenuator pad, 0...20 dB, adjustable



Technical Data

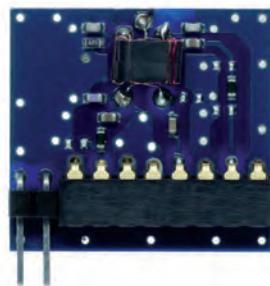
Through loss	0...20 dB (adjustable)
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characteristics

- Use in amplifiers VX 16 and VX 19

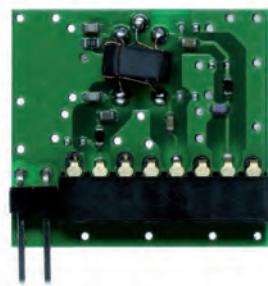
XM 25 0082

Output tap pluggable



XM 25 0131

Output tap pluggable



Technical Data

Through loss	2/8 dB
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characteristics

- Use in amplifiers VX 26 H and VX 29 H

Technical Data

Through loss	1/13 dB
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characteristics

- Use in amplifiers VX 26 H and VX 29 H

Value Line accessories

VX 27 A 1200

Retun path module active



characteristics

- Use in amplifiers VX 24 and VX 25

VX 27 A

Retun path module active



characteristics

- Use in amplifiers VX 24 and VX 25

XE 29

power supply connector for VX 29



Compact Line HFC amplifier

VX 29 BH 80A

Value Line CATV Amplifier, remote powered



characteristics

- High output level up to 1,2 GHz
- All settings (Gain,slope etc.) via WISI bluetooth App
- Auto-alignment for automatic level adjustment
- WISI Flex Access technology, automatic frequency range switch
- Integrated diplex filters (85 MHz und 204 MHz) and Return path amplifier
- Automatic Level and Slope Control (ALSC)
- Optional - Receiver for ICS-Settings (EN60728-14)

Technical Data

Down-Stream / DS

Frequency range	108...1218/ 258...1218 MHz (F1/F2)
Noise figure	≤ 8 dB
Gain	42 dB (±1 dB)
Frequency ripple	≤ ±0,75 dB
Preamp	0/10 dB
Input cable simulator	0/5/10 dB
Input attenuator	0...20 dB (0,5 dB steps)
Input equalizer	0...30 dB (1 dB step)
Interstage attenuator	0/4/8/12 dB
Interstage Slope	0...14 dB (1 dB step)
Output level	118 dBµV (CENELEC 42 Ch. (CSO/CTB ≥ 60 dB), flat)
Output level	111 dBµV (all QAM (138 x 256 QAM), BER <1e-9, flat)
Input test point (bidirectional)	-20 dB (±2,5 dB)
Output test point (directional coupler)	-20 dB (±0,75 dB)

Upstream (US)

Frequency range	5...85/5...204 MHz (F1/F2)
Gain	32 dB
Frequency response	≤ ±0,75 dB
Input attenuator	0...15 dB (0,5 dB steps)
Interstage attenuator	0...15 dB (0,5 dB steps)
Interstage equalizer	0...15 dB (1 dB step)
Noise figure	≤ 7 dB
Output level	108 dBµV (all QAM (24 x 256 QAM), BER <1E-9, US 204 MHz)
Output level	114 dBµV (all QAM (6 x 256 QAM), BER <1E-9, US 65 MHz)
Output level	120 dBµV (TTS140)
Ingress Control Switch (ICS)	0/ -6/ <-45 dB (Opt.with Receiver-mod)

General data

RF connectors	PG11
Impedance	75 Ω
In/Output return loss	5...40 MHz ≥18 dB, >40 MHz -1,5 dB/Oct
Supply voltage	27...65 V AC
Surge protection power supply	6 kV (1,2/50 µs pulse EN61000-4-5)

Technical Data

Power consumption	max. 20 W
Remote power current insertion	< 10 A
Remote power current in and outputs	< 10 A
Hum modulation @ 7A, f > 15 MHz	> 62 dB
Ambient temperature	-20...+65 °C
Protection class	IP66
EMC	EN50083-2
Surge protection RF Ports	6 kV (1,2/50 µs pulse EN61000-4-5)
Dimensions (width x height x depth)	232 x 158 x 86 mm
Bluetooth functionality	
Downstream configuration	input preamp, input cable sim, input attenuator, input equalizer, interstage attenuator, interstage slope, attenuation mode
Upstream configuration	Input attenuator, Interstage attenuator, Interstage equalizer, ICS
Options	splitter / coupler -> XM..., ICS-Receiver -> Receiver according to EN60728-14, UNI - UHF Slope -> XE...

The VX 29 BH 80A is a remote powered in-house amplifier, programmable via Bluetooth with a frequency range up to 1,2 GHz. It features an active output and a measurement socket at the in- and output. Pluggable modules at the input and output enable a perfect adaption to the installation concept. For example is a module for a second output available, optional as splitter or TAP. The whole range of functions (attenuation, slope, equalizer etc.) can be configured via bluetooth. Diplex filters 85 MHz and 204 MHz are already integrated and can be chosen by bluetooth. The WISI Flex access technology identifies forward- and return path and configures the diplex settings automatically. The VX 29 BH 80A enables the switch to DOCSIS 3.1, without any manual change of the settings on the amplifier.

Compact Line HFC amplifier

VX 29 BL 80A

Value Line CATV Amplifier, remote powered



characteristics

- High output level up to 1,2 GHz
- All settings (Gain,slope etc.) via WISI bluetooth App
- Auto-alignment for automatic level adjustment
- WISI Flex Access technology, automatic frequency range switch
- Integrated diplex filters (85 MHz und 204 MHz) and Return path amplifier
- Automatic Level and Slope Control (ALSC)
- Optional - Receiver for ICS-Settings (EN60728-14)

Technical Data

Down-Stream / DS

Frequency range	108...1218/ 258...1218 MHz (F1/F2)
Noise figure	≤ 8 dB
Gain	42 dB (±1 dB)
Frequency ripple	≤ ±0,75 dB
Preamp	0/10 dB
Input cable simulator	0/5/10 dB
Input attenuator	0...20 dB (0,5 dB steps)
Input equalizer	0...30 dB (1 dB step)
Interstage attenuator	0/4/8/12 dB
Interstage Slope	0...14 dB (1 dB step)
Output level	118 dBµV (CENELEC 42 Ch. (CSO/CTB ≥ 60 dB), flat)
Output level	111 dBµV (all QAM (138 x 256 QAM), BER <1e-9, flat)
Input test point (bidirectional)	-20 dB (±2,5 dB)
Output test point (directional coupler)	-20 dB (±0,75 dB)

Upstream (US)

Frequency range	5...85/5...204 MHz (F1/F2)
Gain	32 dB
Frequency response	≤ ±0,75 dB
Input attenuator	0...15 dB (0,5 dB steps)
Interstage attenuator	0...15 dB (0,5 dB steps)
Interstage equalizer	0...15 dB (1 dB step)
Noise figure	≤ 7 dB
Output level	108 dBµV (all QAM (24 x 256 QAM), BER <1E-9, US 204 MHz)
Output level	114 dBµV (all QAM (6 x 256 QAM), BER <1E-9, US 65 MHz)
Output level	120 dBµV (TTTS140)
Ingress Control Switch (ICS)	0/ -6/ <-45 dB (Opt.with Receiver-mod)

General data

RF connectors	PG11
Impedance	75 Ω
In/Output return loss	5...40 MHz ≥18 dB, >40 MHz -1,5 dB/Oct
Supply voltage	27...65 V AC

Technical Data

Surge protection power supply	6 kV (1,2/50 µs pulse EN61000-4-5)
Power consumption	max. 20 W
Remote power current insertion	< 10 A
Remote power current in and outputs	< 10 A
Hum modulation @ 7A, f > 15 MHz	> 62 dB
Ambient temperature	-20...+65 °C
Protection class	IP66
EMC	EN50083-2
Surge protection RF Ports	6 kV (1,2/50 µs pulse EN61000-4-5)
Dimensions (width x height x depth)	232 x 158 x 86 mm

Bluetooth functionality

Downstream configuration	input preamp, input cable sim., input attenuator, input equalizer, interstage attenuator, interstage slope, attenuation mode
Upstream configuration	Input attenuator, Interstage attenuator, Interstage equalizer, ICS
Options	splitter / coupler -> XM..., ICS-Receiver -> Receiver according to EN60728-14, UNI - UHF Slope -> XE...

The VX 29 BH 80A is a remote powered in-house amplifier, programmable via Bluetooth with a frequency range up to 1,2 GHz. It features an active output and a measurement socket at the in- and output. Pluggable modules at the input and output enable a perfect adaption to the installation concept. For example is a module for a second output available, optional as splitter or TAP. The whole range of functions (attenuation, slope, equalizer etc.) can be configured via bluetooth. Diplex filters 85 MHz and 204 MHz are already integrated and can be chosen by bluetooth. The WISI Flex access technology identifies forward- and return path and configures the diplex settings automatically. The VX 29 BH 80A enables the switch to DOCSIS 3.1, without any manual change of the settings on the amplifier.

Compact Line HFC amplifier

VX 52 A

Universal line amplifier, locally powered



Technical Data	
Downstream	
Inputs	1 pcs.
Input measurement socket	20 dB
Input return loss	>20 dB
Frequency range downstream	47/85...1006 MHz (depending on diplexers)
Gain downstream	41(37) dB (with VX 58 for control range ASLC)
Noise figure downstream	≤6,5 dB
Attenuator downstream	0...15 dB (0,1 dB-steps)
Equalizer downstream	0...15 dB (0,1 dB-steps)
Interstage attenuator downstream	0/5/10 dB
Interstage equalizer downstream	0/6/9 dB
Output level 1	111 dB μ V (CENELEC 42 channels, flat, at CSO/CTB >60 dB)
Output level 2	114 dB μ V (CENELEC 42 channels, 6 dB slope, at CSO/CTB >60 dB)
Output test point	20 dB
Output return loss	>20 dB
Output splitter	1 pcs. (Output level -4 dB with output splitter)
Upstream	
Frequency range upstream	5...30/65 MHz (depending on diplexers)
Gain upstream	30 dB
Noise figure upstream	≤7 dB
Attenuator upstream input	0...30 dB (0,1 dB-steps)
Attenuator upstream output	0...30 dB (0,1 dB-steps)
Equalizer US	0...10 dB (0,5 dB steps)
Output level 4	116 dB μ V
ICS, US	0/8/-45 dB
Upstream test point	20 dB
Connectors	
PG11	4 pcs.
General data	
Operating voltage AC	180...265 V (50/60 Hz)
Power consumption	23/21 W (with/without transponder)
Remote power	<8 A
Screening factor	Class A, EN 50083-2
Dimensions (width x height x depth)	261x215x100,4 mm

characteristics

- Active single output
- All settings with OH 41 A handset or LMT (laptop) when using a HMS-transponder
- Interface for NMS-function
- Diplex filters and splitter / tap modules pluggable
- Return channel amplifier pluggable
- ASC module VX 58

Technical Data

Operating temperature range	-20...+55 °C
Protection class	IP66
Lightning protection	6 kV at all inputs and outputs

The VX 52 A is a Universal line local feeding amplifier that has 2 active outputs and slots for feedback channel amplifiers, diplex filter modules and distributor/splitter modules. In addition, it has an incorporated VX 58 ASC module. All settings are adjusted via OH 41 or LMT (laptop).

Compact Line HFC amplifier

VX 52 B

Compact Line CATV Amplifier, locally powered



characteristics

- Compact 1 GHz / 1,2 GHz high level CATV amplifier
- Locally powered
- All settings (gain, slope etc.) by WISI control unit (OH 41 Handset) or Android app via bluetooth
- Includes interface for NMS functionality: HMS or DOCSIS
- Management functionality according to EN 60728-14 available (ICS setting)
- Diplex filters and splitter / tap modules pluggable
- High level upstream amplifier pluggable
- ALSC module pluggable (VX 58B)
- Additional universal plug in modules

Technical Data

Down-Stream / DS

Frequency range downstream	85...1218 MHz (1 GHz/1,2 GHz equalizer switchable)
Gain downstream	46 dB ($\pm 0,75$ dB), (single output)
Frequency response	$\leq \pm 0,5$ dB
Noise figure	$\leq 6,5$ dB @ 1 GHz, $\leq 8,0$ dB @ 1,2 GHz
Output level	115 dB μ V (CENELEC 42 Ch. (CSO/CTB ≥ 60 dB), flat)
Output level	118 dB μ V (CENELEC 42 Ch. (CSO/CTB ≥ 60 dB), 9 dB slope @ 862 MHz)
Output level	109 dB μ V (all QAM (138 x 256 QAM), EN60728-3-1, flat)
Output level	111 dB μ V (all QAM (138 x 256 QAM), EN60728-3-1, 12 dB slope @ 1218 MHz)
Input return loss	≥ 20 dB (-1,5 dB/Oct.)
Attenuator downstream	0...20 dB (0,1 dB step)
Interstage attenuator downstream	0...20 dB (1 dB step)
Equalizer downstream	0...15 dB (0,1 dB step)
Interstage equalizer downstream	0...15 dB (1 dB step)
RF test points	-20 dB
Upstream (US)	
Frequency range upstream	5...204 MHz (65/ 85/ 117 MHz optional)
High pass filter switchable	12 MHz
Gain upstream	30 dB
Frequency response upstream	$\leq \pm 0,5$ dB
Noise figure upstream	$\leq 5,5$ dB
Output level	115 dB μ V (CLC/TS50083-3-3 (BER ≤ 1 E-8, MER ≥ 35 dB), 5...65 MHz (6 x 64 QAM))
Output level	111 dB μ V (CLC/TS50083-3-3 (BER ≤ 1 E-8, MER ≥ 35 dB), 5...204 MHz (22 x 64 QAM))
NPR (>50 dB) EN60728-3	16 dB μ V/Hz (max. input level (60 MHz load), 26 dB dyn. range)
NPR (>50 dB) EN60728-3	12 dB μ V/Hz (max. Input level (200 MHz load), 23 dB dyn. range)

Technical Data

General data

Return loss upstream (in / output)	≥ 20 dB (-1,5 dB/Oct.)
Attenuator upstream input	0...30 dB (1 dB step)
Attenuator upstream output	0...30 dB (1 dB step)
Equalizer US	0...15 dB (0,5 dB steps)
ICS, US	0/-6/-45 dB
Upstream test point	-20 dB
RF injection point	-20 dB
General data	
RF connectors	PG11/F
Impedance	75 Ω
Supply voltage	180...265 V AC
Power consumption	25 W (ASLC module max. 2,5 W, Transponder max. 3,5 W)
Remote power current in and outputs	< 10 A
Surge protection power supply	2 kV (1,2/50 μ s pulse EN61000-4-5)
Hum modulation @ 7A, f > 15 MHz	> 70 dB
Ambient temperature	-20...+65 °C
Protection class	IP67
EMC	EN 50083-2
Surge protection RF ports	6 kV (1,2/50 μ s pulse EN61000-4-5)
Dimensions (width x height x depth)	260 x 215 x 100,4 mm

NMS / Handset / BT App

Functionality

Downstream

Monitoring:	control level deviation, attenuator, equalizer, slope settings, pilot level state, pilot frequency, RF power level, 5V/24V supply voltage
Configuration:	input attenuator, interstage attenuator, input equalizer, interstage slope, attenuator output 1, ASLC adjustment, equalizer frequency 1/1,2 GHz

Alarms:

pilot level too high/low, control level deviation

Upstream

Monitoring:	attenuator/slope setting, ICS switch position
Configuration:	input attenuator, output attenuator, slope, ICS, HP on/off

Compact Line HFC amplifier

VX 53 A

Universal line amplifier, remote powered



Technical Data	
Downstream	
Inputs	1 pcs.
Input measurement socket	20 dB
Input return loss	>20 dB
Frequency range downstream	47/85...1006 MHz
Gain downstream	41(37) dB (with VX 58 for control range ASLC)
Noise figure downstream	≤6,5 dB
Attenuator downstream	0...15 dB (0,1 dB-steps)
Equalizer downstream	0...15 dB (0,1 dB-steps)
Interstage attenuator downstream	0/5/10 dB
Interstage equalizer downstream	0/6/9 dB
Output level 1	1x 111 dBµV (CENELEC 42 channels, flat, at CSO/CTB >60 dB)
Output level 2	1x 114 dBµV (CENELEC 42 channels, 6 dB slope, at CSO/CTB >60 dB)
Output test point	20 dB
Output return loss	>20 dB
Output splitter	1 pcs. (Output level -4 dB with output splitter)
Upstream	
Frequency range upstream	5...30/65 MHz (depending on diplexers)
Gain upstream	30 dB
Noise figure upstream	≤7 dB
Attenuator upstream input	0...30 dB (0,1 dB-steps)
Attenuator upstream output	0...30 dB (0,1 dB-steps)
Equalizer US	0...10 dB (0,5 dB steps)
Output level 4	116 dBµV
ICS, US	0/8-45 dB
Upstream test point	20 dB
Connectors	
PG11	4 pcs.
General data	
Operating voltage AC	27...65 V (50/60 Hz)
Power consumption	23/21 W (with/without transponder)
Remote power	<8 A
Screening factor	Class A, EN 50083-2
Dimensions (width x height x depth)	261x215x100,4 mm

characteristics

- Active single output
- All settings with OH 41 A handset or LMT (laptop) when using a HMS-transponder
- Interface for NMS-function
- Diplex filters and splitter / tap modules pluggable
- Return channel amplifier pluggable
- ASC module VX 58

Technical Data

Operating temperature range	-20...+55 °C
Protection class	IP66
Lightning protection	6 kV at all inputs and outputs

The VX 53 A is a Universal line remote feeding amplifier that has 1 active output and slots for feeding channels. In addition, it has an incorporated VX 58 ASC module. All settings are adjusted via OH 41 or LMT (laptop).

Compact Line HFC amplifier

VX 53 B

Compact Line CATV Amplifier, remote powered



characteristics

- Compact 1 GHz / 1,2 GHz high level CATV amplifier
- Remote powered
- All settings (gain, slope etc.) by WISI control unit (OH 41 Handset) or Android app via bluetooth
- Includes interface for NMS functionality: HMS or DOCSIS
- Management functionality according to EN 60728-14 available (ICS setting)
- Diplex filters and splitter / tap modules pluggable
- High level upstream amplifier pluggable
- ALSC module pluggable (VX 58B)
- Additional universal plug in modules

Technical Data

Down-Stream / DS

Frequency range downstream	85...1218 MHz (1 GHz/1,2 GHz equalizer switchable)
Gain downstream	46 dB ($\pm 0,75$ dB), (single output)
Frequency response	$\leq \pm 0,5$ dB
Noise figure	$\leq 6,5$ dB @ 1 GHz, $\leq 8,0$ dB @ 1,2 GHz
Output level	115 dB μ V (CENELEC 42 Ch. (CSO/CTB ≥ 60 dB), flat)
Output level	118 dB μ V (CENELEC 42 Ch. (CSO/CTB ≥ 60 dB), 9 dB slope @ 862 MHz)
Output level	109 dB μ V (all QAM (138 x 256 QAM), EN60728-3-1, flat)
Output level	111 dB μ V (all QAM (138 x 256 QAM), EN60728-3-1, 12 dB slope @ 1218 MHz)
Input return loss	≥ 20 dB (-1,5 dB/Oct.)
Attenuator downstream	0...20 dB (0,1 dB step)
Interstage attenuator downstream	0...20 dB (1 dB step)
Equalizer downstream	0...15 dB (0,1 dB step)
Interstage equalizer downstream	0...15 dB (1 dB step)
RF test points	-20 dB

Upstream (US)

Frequency range upstream	5...204 MHz (65/ 85/ 117 MHz optional)
High pass filter switchable	12 MHz
Gain upstream	30 dB
Frequency response upstream	$\leq \pm 0,5$ dB
Noise figure upstream	$\leq 5,5$ dB
Output level	115 dB μ V (CLC/TS50083-3-3 (BER ≤ 1 E-8, MER ≥ 35 dB), 5...65 MHz (6 x 64 QAM))
Output level	111 dB μ V (CLC/TS50083-3-3 (BER ≤ 1 E-8, MER ≥ 35 dB), 5...204 MHz (22 x 64 QAM))
NPR (>50 dB) EN60728-3	16 dB μ V/Hz (max. input level (60 MHz load), 26 dB dyn. range)
NPR (>50 dB) EN60728-3	12 dB μ V/Hz (max. Input level (200 MHz load), 23 dB dyn. range)
Return loss upstream (in / output)	≥ 20 dB (-1,5 dB/Oct.)
Attenuator upstream input	0...30 dB (1 dB step)
Attenuator upstream output	0...30 dB (1 dB step)
Equalizer US	0...15 dB (0,5 dB steps)
ICS, US	0/ -6/ < -45 dB

Technical Data

Upstream test point	-20 dB
RF injection point	-20 dB
General data	
RF connectors	PG11/F
Impedance	75 Ω
Supply voltage	27...65 V AC
Power consumption	25 W (ASLC module max. 2,5 W, Transponder max. 3,5 W)
Remote power current in and outputs	< 10 A
Surge protection power supply	2 kV (1,2/50 μ s pulse EN61000-4-5)
Hum modulation @ 7A, f > 15 MHz	> 70 dB
Ambient temperature	-20...+65 °C
Protection class	IP67
EMC	EN 50083-2
Surge protection RF ports	6 kV (1,2/50 μ s pulse EN61000-4-5)
Dimensions (width x height x depth)	260 x 215 x 100,4 mm

NMS / Handset / BT App Functionality

Downstream	
Monitoring:	control level deviation, attenuator, equalizer, slope settings, pilot level state, pilot frequency, RF power level, 5V/24V supply voltage
Configuration:	input attenuator, interstage attenuator, input equalizer, interstage slope, attenuator output 1, ASLC adjustment, equalizer frequency 1/1,2 GHz
Alarms:	pilot level too high/low, control level deviation
Upstream	
Monitoring:	attenuator/slope setting, ICS switch position
Configuration:	input attenuator, output attenuator, slope, ICS, HP on/off

The VX 53 B is a remote feeding universal line and distribution amplifier that has one active output and additional slots for return channel amplifiers, control modules, diplex filter modules and splitter/tap modules. All settings can be accessed via an OH 41 handset or an Android app via Bluetooth.



Compact Line HFC amplifier

VX 54 A

Universal line amplifier, locally powered



Technical Data	
Downstream	
Inputs	1 pcs.
Input measurement socket	20 dB
Input return loss	>20 dB
Frequency range downstream	47/85...1006 MHz
Gain downstream	33(29) dB (with VX 58 for control range ASLC)
Noise figure downstream	≤6,5 dB
Attenuator downstream	0...15 dB (0,1 dB-steps)
Equalizer downstream	0...15 dB (0,1 dB-steps)
Interstage attenuator downstream	0/5/10 dB
Interstage equalizer downstream	0/6/9 dB
Output level 1	111 dB μ V (CENELEC 42 channels, flat, at CSO/CTB >60 dB)
Output level 2	114 dB μ V (CENELEC 42 channels, 6 dB slope, at CSO/CTB >60 dB)
Output test point	20 dB
Output return loss	>20 dB
Output splitter	1 pcs. (Output level -4 dB with output splitter)
Upstream	
Frequency range upstream	5...30/65 MHz (depending on diplexers)
Gain upstream	30 dB
Noise figure upstream	≤7 dB
Attenuator upstream input	0...30 dB (0,1 dB-steps)
Attenuator upstream output	0...30 dB (0,1 dB-steps)
Equalizer US	0...10 dB (0,5 dB steps)
Output level 3	116 dB μ V (EN 50083-5 US)
ICS, US	0/-8/-45 dB
Upstream test point	20 dB
Connectors	
PG11	4 pcs.
General data	
Operating voltage AC	180...265 V (50/60 Hz)
Power consumption	22/20 W (with/without transponder)
Remote power	>8 A
Screening factor	Class A, EN 50083-2
Dimensions (width x height x depth)	261x215x100,4 mm

characteristics

- Active single output
- All settings with OH 41 A handset or LMT (laptop) when using a HMS-transponder
- Interface for NMS-function
- Diplex filters and splitter / tap modules pluggable
- Return channel amplifier pluggable
- ASC module VX 58

Technical Data

Operating temperature range	-20...+55 °C
Protection class	IP66
Lightning protection	6 kV at all inputs and outputs

The VX 54 A is a Universal line location feeding amplifier that has 1 active output and slots for feeding channels. In addition, it has an incorporated VX 58 ASC module. All settings are adjusted via OH 41 or LMT (laptop).

Compact Line HFC amplifier

VX 55 A

Universal line amplifier, remote powered



Technical Data

Downstream	
Inputs	1 pcs.
Input measurement socket	20 dB
Input return loss	>20 dB
Frequency range downstream	47/85...1006 MHz
Gain downstream	33(29) dB (with VX 58 for control range ASC)
Noise figure downstream	≤6,5 dB
Attenuator downstream	0...15 dB (0,1 dB-steps)
Equalizer downstream	0...15 dB (0,1 dB-steps)
Interstage attenuator downstream	0/5/10 dB
Interstage equalizer downstream	0/6/9 dB
Output level 1	111 dB μ V (CENELEC 42 channels, flat, at CSO/CTB >60 dB)
Output level 2	114 dB μ V (CENELEC 42 channels, 6 dB slope, at CSO/CTB >60 dB)
Output test point	20 dB
Output return loss	>20 dB
Output splitter	1 pcs. (Output level -4 dB with output splitter)
Upstream	
Frequency range upstream	5...30/65 MHz (depending on diplexers)
Gain upstream	30 dB
Noise figure upstream	≤7 dB
Attenuator upstream input	0...30 dB (0,1 dB-steps)
Attenuator upstream output	0...30 dB (0,1 dB-steps)
Equalizer US	0...10 dB (0,5 dB steps)
Output level 3	116 dB μ V (EN 50083-5 US)
ICS, US	0/-8/-45 dB
Upstream test point	20 dB
Connectors	
PG11	4 pcs.
General data	
Operating voltage AC	27...65 V (50/60 Hz)
Power consumption	22 / 20 W (with/without transponder)
Remote power	<8 A
Screening factor	Class A, EN 50083-2
Dimensions (width x height x depth)	261x215x100,4 mm

characteristics

- Active single output
- All settings with OH 41 A handset or LMT (laptop) when using a HMS-transponder
- Interface for NMS-function
- Diplex filters and splitter / tap modules pluggable
- Return channel amplifier pluggable
- ASC module VX 58

Technical Data

Operating temperature range	-20...+55 °C
Protection class	IP66
Lightning protection	6 kV at all inputs and outputs

The VX 55 A is a Universal line remote feeding amplifier that has 1 active output and slots for feeding channels. In addition, it has an incorporated VX 58 ASC module. All settings are adjusted via OH 41 or LMT (laptop).

Compact Line HFC amplifier

VX 56 A

Universal line amplifier, locally powered



Technical Data	
Downstream	
Inputs	1 pcs.
Input measurement socket	20 dB
Input return loss	>20 dB
Frequency range downstream	47/85...1006 MHz
Gain downstream	2x 39,5 dB (with XM 51 A (4/4 dB))
Noise figure downstream	≤6,5 dB
Attenuator downstream	0...15 dB (0,1 dB-steps)
Equalizer downstream	0...15 dB (0,1 dB-steps)
Interstage attenuator downstream	0/5/10 dB
Interstage equalizer downstream	0/6/9 dB
Output level 1	2x 111 dB μ V (CENELEC 42 channels, flat, at CSO/CTB >60 dB)
Output level 2	2x 114 dB μ V (CENELEC 42 channels, 6 dB slope, at CSO/CTB >60 dB)
Output test point	20 dB
Output return loss	>20 dB
Output splitter	1 pcs.
Upstream	
Frequency range upstream	5...30/65 MHz (depending on diplexers)
Gain upstream	26 dB
Noise figure upstream	≤10 dB
Attenuator upstream input	0...30 dB
Attenuator upstream output	dB
Equalizer US	0...10 dB
Output level 4	116 dB μ V
ICS, US	0/-8/-45 dB (switchable)
Upstream test point	20 dB
Connectors	
PG11	4 pcs.
General data	
Operating voltage AC	180...265 V (50/60 Hz)
Power consumption	33/31 W (with/without transponder)
Remote power	<8 A
Screening factor	Class A, EN 50083-2
Dimensions (width x height x depth)	261x215x100,4 mm

characteristics

- Two active outputs
- All settings with OH 41 A handset or LMT (laptop) when using a HMS-transponder
- Interface for NMS-function
- Diplex filters and splitter / tap modules pluggable
- Return channel amplifier pluggable
- ASC module VX 58

Technical Data

Operating temperature range	-20...+50 °C
Protection class	IP66
Lightning protection	6 kV (EN61000-4-5, 1,2/50 μ s pulse)

The VX 56 A is a Universal line location feeding amplifier that has 2 active output and slots for feeding channels. In addition, it has an incorporated VX 58 ASC module. All settings are adjusted via OH 41 or LMT (laptop).

Compact Line HFC amplifier

VX 56 B

Compact Line CATV Amplifier, locally powered



characteristics

- Compact 1 GHz/1,2 GHz high level CATV amplifier with two active high level outputs
- Locally powered
- All settings (gain, slope etc.) by WISI control unit (OH 41 Handset) or Android app via bluetooth
- Includes interface for NMS functionality: HMS or DOCSIS
- Management functionality according to EN 60728-14 available (ICS setting)
- Diplex filters and splitter / tap modules pluggable
- High level upstream amplifier pluggable
- ASLC modul pluggable
- Additional universal plug in modules

Technical Data

Down-Stream / DS

Frequency range downstream	85...1218 MHz (1 GHz/1,2 GHz equalizer switchable)
Gain downstream	2 x 44 dB ($\pm 0,75$ dB)
Frequency response	$\leq \pm 0,5$ dB
Noise figure	<6,5 dB @ 1 GHz, <8,0 dB @ 1,2 GHz
Output level	115 dB μ V (CENELEC 42 Ch. (CSO/CTB ≥ 60 dB), flat)
Output level	118 dB μ V (CENELEC 42 Ch. (CSO/CTB ≥ 60 dB), 9 dB slope @ 862 MHz)
Output level	109 dB μ V (all QAM (138 x 256 QAM), EN60728-3-1, flat)
Output level	111 dB μ V (all QAM (138 x 256 QAM), EN60728-3-1, 12 dB slope @ 1218 MHz)
Input return loss	≥ 20 dB (-1,5 dB/Oct.)
Attenuator downstream	0...20 dB (0,1 dB step)
Interstage attenuator downstream	0...20 dB (1 dB step)
Equalizer downstream	0...15 dB (0,1 dB step)
Interstage equalizer downstream	0...15 dB (1 dB step)
RF test points	-20 dB

Upstream (US)

Frequency range upstream	5...204 MHz (65/ 85/ 117 MHz optional)
High pass filter switchable	12 MHz
Gain upstream	26 dB
Frequency response upstream	$\pm 0,5$ dB
Noise figure upstream	$\leq 8,5$ dB
Output level	115 dB μ V (CLC/TS50083-3-3 (BER ≤ 1 E-8, MER ≥ 35 dB), 5...65 MHz (6 x 64 QAM))
Output level	111 dB μ V (CLC/TS50083-3-3 (BER ≤ 1 E-8, MER ≥ 35 dB), 5...204 MHz (22 x 64 QAM))
NPR (>50 dB) EN60728-3	16 dB μ V/Hz (max. Input level (60 MHz load), 22 dB dyn. range)
NPR (>50 dB) EN60728-3	12 dB μ V/Hz (max. input level (200 MHz load), 19 dB dyn. range)
Return loss upstream (in / output)	≥ 20 dB (-1,5 dB/Oct.)
Attenuator upstream input	0...30 dB (1 dB-steps)
Attenuator upstream output	0...30 dB (1 dB-steps)
Equalizer range	0...15 dB (0,5 dB steps)
ICS, US	0/ -6/ < -45 dB

Technical Data

Upstream test point	-20 dB
RF injection point	-20 dB
General data	
RF connectors	PG11/F
Impedance	75 Ω
Supply voltage	180...265 V AC
Power consumption	38 W (ASLC module max. 2,5 W, Transponder max. 3,5 W)
Remote power current in and outputs	< 8 A
Surge protection power supply	2 kV (1,2/50 μ s pulse EN61000-4-5)
Hum modulation @ 8A, f > 15 MHz	> 70 dB
Ambient temperature	-20...+65 °C
Protection class	IP67
EMC	EN 50083-2
Surge protection RF ports	6 kV (1,2/50 μ s pulse EN61000-4-5)
Dimensions (width x height x depth)	260 x 215 x 100,4 mm

NMS / Handset / BT App Functionality

Downstream	
Monitoring:	control level deviation, attenuator, equalizer, slope settings, pilot level state, pilot frequency, RF power level, 5V/24V supply voltage
Configuration:	input attenuator, interstage attenuator, input equalizer, interstage slope, attenuator output 1, ASLC adjustment, equalizer frequency 1/1,2 GHz
Alarms:	pilot level too high/low, control level deviation
Upstream	
Monitoring:	attenuator/slope setting, ICS switch position
Configuration:	input attenuator, output attenuator, slope, ICS, HP on/off

The VX 56 B is a local feeding universal line amplifier that has two active outputs (incl. 50/50 splitter) and additional slots for return channel amplifiers, control modules, diplex filter modules and splitter/tap modules. All settings can be accessed via an OH 41 handset or an Android app via Bluetooth.



Compact Line HFC amplifier

VX 57 A

Universal line amplifier, remote powered



Technical Data	
Downstream	
Inputs	1 pcs.
Input measurement socket	20 dB
Input return loss	>20 dB
Frequency range downstream	47/85...1006 MHz
Gain downstream	2x 39,5 dB (with XM 51 A (4/4 dB))
Noise figure downstream	≤6,5 dB
Attenuator downstream	0...15 dB (0,1 dB-steps)
Equalizer downstream	0...15 dB (0,1 dB-steps)
Interstage attenuator downstream	0/5/10 dB
Interstage equalizer downstream	0/6/9 dB
Output level 1	2x 111 dBµV (CENELEC 42 channels, flat, at CSO/CTB >60 dB)
Output level 2	2x 114 dBµV (CENELEC 42 channels, 6 dB slope, at CSO/CTB >60 dB)
Output test point	20 dB
Output return loss	>20 dB
Output splitter	1 pcs.
Upstream	
Frequency range upstream	5...30/65 MHz (depending on diplexers)
Gain upstream	26 dB
Noise figure upstream	≤10 dB
Attenuator upstream input	0...30 dB
Attenuator upstream output	0...30 dB
Equalizer US	0...10 dB
Output level 4	116 dBµV
ICS, US	0/-8/-45 dB (switchable)
Upstream test point	20 dB
Connectors	
PG11	4 pcs.
General data	
Operating voltage AC	27...65 V (50/60 Hz)
Power consumption	33/31 W (with/without transponder)
Remote power	<8 A
Screening factor	Class A, EN 50083-2
Dimensions (width x height x depth)	261x215x100,4 mm

characteristics

- Two active outputs
- All settings with OH 41 A handset or LMT (laptop) when using a HMS-transponder
- Interface for NMS-function
- Diplex filters and splitter / tap modules pluggable
- Return channel amplifier pluggable
- ASC module VX 58

Technical Data

Operating temperature range	-20...+50 °C
Lightning protection	6 kV (EN61000-4-5, 1,2/50 µs pulse)

The VX 57 A is a Universal line remote feeding amplifier that has 2 active output and slots for feeding channels. In addition, it has an incorporated VX 58 ASC module. All settings are adjusted via OH 41 or LMT (laptop).

Compact Line HFC amplifier

VX 57 B

Compact Line CATV Amplifier, remote powered



characteristics

- Compact 1 GHz/1,2 GHz high level CATV amplifier with two active high level outputs
- Remote powered
- All settings (gain, slope etc.) by WISI control unit (OH 41 Handset) or Android app via bluetooth
- Includes interface for NMS functionality: HMS or DOCSIS
- Management functionality according to EN 60728-14 available (ICS setting)
- Diplex filters and splitter / tap modules pluggable
- High level upstream amplifier pluggable
- ALSC module pluggable (VX 58B)
- Additional universal plug in modules

Technical Data

Down-Stream / DS

Frequency range downstream	85...1218 MHz (1 GHz/1,2 GHz equalizer switchable)
Gain downstream	2 x 44 dB ($\pm 0,75$ dB)
Frequency response	$\leq \pm 0,5$ dB
Noise figure	<6,5 dB @ 1 GHz, <8,0 dB @ 1,2 GHz
Output level	115 dB μ V (CENELEC 42 Ch. (CSO/CTB ≥ 60 dB), flat)
Output level	118 dB μ V (CENELEC 42 Ch. (CSO/CTB ≥ 60 dB), 9 dB slope @ 862 MHz)
Output level	109 dB μ V (all QAM (138 x 256 QAM), EN60728-3-1, flat)
Output level	111 dB μ V (all QAM (138 x 256 QAM), EN60728-3-1, 12 dB slope @ 1218 MHz)
Input return loss	≥ 20 dB (-1,5 dB/Oct.)
Attenuator downstream	0...20 dB (0,1 dB step)
Interstage attenuator downstream	0...20 dB (1 dB step)
Equalizer downstream	0...15 dB (0,1 dB step)
Interstage equalizer downstream	0...15 dB (1 dB step)
RF test points	-20 dB

Upstream (US)

Frequency range upstream	5...204 MHz (65/ 85/ 117 MHz optional)
High pass filter switchable	12 MHz
Gain upstream	26 dB
Frequency response upstream	$\pm 0,5$ dB
Noise figure upstream	$\leq 8,5$ dB
Output level	115 dB μ V (CLC/TS50083-3-3 (BER ≤ 1 E-8, MER ≥ 35 dB), 5...65 MHz (6 x 64 QAM))
Output level	111 dB μ V (CLC/TS50083-3-3 (BER ≤ 1 E-8, MER ≥ 35 dB), 5...204 MHz (22 x 64 QAM))
NPR (>50 dB) EN60728-3	16 dB μ V/Hz (max. Input level (60 MHz load), 22 dB dyn. range)
NPR (>50 dB) EN60728-3	12 dB μ V/Hz (max. input level (200 MHz load), 19 dB dyn. range)
Return loss upstream (in / output)	≥ 20 dB (-1,5 dB/Oct.)
Attenuator upstream input	0...30 dB (1 dB-steps)
Attenuator upstream output	0...30 dB (1 dB-steps)
Equalizer range	0...15 dB (0,5 dB steps)
ICS, US	0/ -6/ < -45 dB

Technical Data

Upstream test point	-20 dB
RF injection point	-20 dB
General data	
RF connectors	PG11/F
Impedance	75 Ω
Supply voltage	27...65 V AC
Power consumption	38 W (ASLC module max. 2,5 W, Transponder max. 3,5 W)
Remote power current in and outputs	< 8 A
Surge protection power supply	2 kV (1,2/50 μ s pulse EN61000-4-5)
Hum modulation @ 8A, f > 15 MHz	> 70 dB
Ambient temperature	-20...+65 °C
Protection class	IP67
EMC	EN 50083-2
Surge protection RF ports	6 kV (1,2/50 μ s pulse EN61000-4-5)
Dimensions (width x height x depth)	260 x 215 x 100,4 mm

NMS / Handset / BT App Functionality

Downstream	
Monitoring:	control level deviation, attenuator, equalizer, slope settings, pilot level state, pilot frequency, RF power level, 5V/24V supply voltage
Configuration:	input attenuator, interstage attenuator, input equalizer, interstage slope, attenuator output 1, ASLC adjustment, equalizer frequency 1/1,2 GHz
Alarms:	pilot level too high/low, control level deviation
Upstream	
Monitoring:	attenuator/slope setting, ICS switch position
Configuration:	input attenuator, output attenuator, slope, ICS, HP on/off

The VX 57 B is a remote feeding universal line amplifier that has two active outputs (incl. 50/50 splitter) and additional slots for return channel amplifiers, control modules, diplex filter modules and splitter/tap modules. All settings can be accessed via an OH 41 handset or an Android app via Bluetooth.



Compact Line accessories

VX 58 0407

Pilot detector

VX 58 0607

Pilot detector

characteristics

- Use in VX 5xA series amplifiers



Technical Data

Upper pilot frequency	287,25...407,25 MHz	415,25...607,25 MHz
Pilot frequency below	110,25...140,25 MHz	110,25...140,25 MHz
Control range	±0,9 dB (47 MHz)	±0,9 dB (47 MHz)
Control range	±2,9 dB (470 MHz)	±2,9 dB (470 MHz)
Control range	±3,4 dB (606 MHz)	±3,4 dB (606 MHz)
Control range	±4 dB (862 MHz)	±4 dB (862 MHz)
Control range	±4 dB (47...862 MHz)	±4 dB (47...862 MHz)

Compact Line accessories

VX 58 B

Pilot detector



Technical Data

Frequency range pilot L (low)	45...1002 MHz (50 kHz steps)
Frequency ranges pilot H (high)	45...1002 MHz (50 kHz steps)
Input level range for pilot frequencies	50...90 dB μ V
Regulation accuracy @ pilot	\leq 0,25 dB
Control range	max. \pm 0,9 dB (47 MHz)
Max. control range for one pilot regulation (ASC)	470 MHz \pm 2,9 dB; 606 MHz \pm 3,4 dB; 862 MHz \pm 4,0 dB; 1002 MHz \pm 4,4 dB; (1218 MHz \pm 4,9 dB)
Max. control range for two pilot regulation (ALSC)	47...1218 MHz \pm 4,9 dB
Regulation deviation modulated/unmodulated TV carrier	\leq 0,1 dB
General data	
Supply voltage	5 V DC
Power consumption max.	<1,3 W
Ambient temperature	-10...+80 °C
Dimensions (width x height x depth)	61 x 64 x 6 mm

characteristics

- Use in VX 5xB series amplifiers and LR4x Nodes

Compact Line accessories

XE 51 A

Equalizer module



XE 52 A

Equalizer module



Technical Data

Frequency range	47...1006 MHz	47...1006 MHz
Equalization	3/9 dB	12/18 dB
Impedance	75 Ω	75 Ω

XE 52 B

Equalizer module 12/18 dB



XE 51 B

Equalizer module 3/9 dB



Technical Data

Frequency range	85...1218 MHz	85...1218 MHz
Equalization	12/18 dB	3/9 dB
Impedance	75 Ω	75 Ω
Return loss	>15 dB (Input/Output)	>15 dB (Input/Output)

Compact Line accessories

XE 57

cable simulator downstream



XM 51 A

Splitter



XE 50 A 0650

Diplexer 65/85 MHz



Technical Data

Frequency range	85...862 MHz
Impedance	75 Ω
Equalization	6/9 dB (Cable imitation)

Technical Data

Frequency range	5...1006 MHz
Impedance	75 Ω
Distribution loss	4 dB
Isolation	≥ 20 dB

Technical Data

Frequency range high-pass	85...10006 MHz
Frequency range low-pass	5...65 MHz
Impedance	75 Ω



Compact Line accessories

XM 53

Splitter



XM 55

Splitter



XM 56

Splitter



Technical Data

Frequency range	5...1006 MHz	5...1006 MHz	5...1006 MHz
TAP loss	8 dB	13 dB	18 dB
Through loss	2 dB	1 dB	1 dB
Isolation	> 25 dB	> 30 dB	> 30 dB

XM 56 B

Tap 18/1 dB



XM 55 B

Tap 13/1 dB



XM 53 B

TAp 8/2 dB



XM 51 B

Splitter 4/4 dB



Technical Data

Frequency range	5...1218 MHz	5...1218 MHz	5...1218 MHz	5...1218 MHz
TAP loss	<19 dB	<13,5 dB	<9 dB	75 Ω
Through loss	<1,4 dB	<1,4 dB	<2 dB	<4,5 dB
Isolation	>28 dB	>28 dB	>25 dB	≥ 20 dB
Return loss 5...1006 MHz	>18 dB	>18 dB	>18 dB	>18 dB
Return loss 1006...1218 MHz	>16 dB	>16 dB	>16 dB	>16 dB

Compact Line accessories

XE 50 B 0650

Diplexer 85/108 MHz



XE 50 B 0850

Diplexer 85/108 MHz



XE 50 B 2040

Diplexfilter 204/258 MHz



Technical Data

Frequency range high-pass	85...1218 MHz
Frequency range low-pass	5...65 MHz
Impedance	75 Ω
Return loss	>20 dB
Rejection	>50 dB

Technical Data

Frequency range high-pass	108...1218 MHz
Frequency range low-pass	5...85 MHz
Impedance	75 Ω
Return loss	>20 dB
Rejection	>50 dB

Technical Data

Upstream	
Frequency range low-pass	5...204 MHz
Through loss	<1 dB
Return loss	>20 dB
Rejection	>40 dB
Group delay time	<3 ns/2 MHz
Downstream	
Frequency range high-pass	258...1218 MHz
Through loss	<1 dB
Return loss	>20 dB

XE 20 B 0650

Diplexer 65/85 MHz



XE 20 B 0850

Diplexer 85/108 MHz



XE 54 A

System equalizer



Technical Data

Frequency range high-pass	85...1218 MHz
Frequency range low-pass	5...65 MHz
Impedance	75 Ω
Return loss	>20 dB
Rejection	>50 dB

Technical Data

Frequency range high-pass	108...1218 MHz
Frequency range low-pass	5...85 MHz
Impedance	75 Ω
Return loss	>20 dB
Rejection	>50 dB

Technical Data

Equalization	2 dB (Increase of the frequency range 47...200/300...600 MHz)
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characteristics

- Downstream (DS) compatible up to 1.2 GHz

characteristics

- Downstream (DS) compatible up to 1.2 GHz

Compact Line accessories

VT 52 B

HMS Transponder



characteristics

- For Compact Line Amplifiers VX 5x(B) and Nodes LR4x
- Hardware compliant with SCTE HMS physical layer ANSI/SCTE 25-1
- Software compliant with SCTE HMS-MAC layer ANSI/SCTE 25-2
- Update capability over HMS RF layer
- Advanced and customizable Automatic Channel Discovery (ACD)

Technical Data	
Downstream	
Frequency range	48...162 MHz fully agile (100 kHz steps)
Impedance	75 Ω
Input level	40...80 dBµV
Return loss	>12 dB
C/N for BER <10-6	20 dB
Modulation type	FSK
Deviation	±67 kHz
Data format	asynchronous, NRZ
Data rate	38,4 kbit/s
Upstream	
Frequency range	5...21 MHz fully agile (100 kHz steps)
Impedance	75 Ω
Output level	77...97 dBµV (2 dB-steps)
Return loss	>12 dB
Level accuracy	±3 dB
Spurious radiation	>55 dBc
Frequency accuracy	±10 kHz
Modulation type	FSK
Deviation	±67 kHz
Data format	asynchronous, NRZ
Data rate	38.4 Kbps
General data	
Backplane Connector to VX board	2 x 5 Pins
Ambient temperature	-40...+85 °C
Supply voltage	5...24 V
Power consumption	2 W
MAC layer protocol	ANSI/SCTE 25-2
Management Protocols	SNMP v1
Supported HMS Management information bases (MIBs)	SCTE ROOT MIB, SCTE HMS ROOT MIB, SCTE HMS COMMON MIB, SCTE HMS PROPERTY MIB, SCTE HMS ALARMS MIB, SCTE HMS DOWNLOAD MIB, SCTE HMS RFAMPLIFIER MIB, SCTE HMS TIB MIB

The VT 52 B HMS Transponder provides control and monitoring capabilities to the WISI node and amplifier portfolio. All devices with a transponder interface can be equipped with a VT 52 B.

Compact Line accessories

VT 21 x xxxx

Microreceiver for LR2x fiber nodes and VX2x amplifiers



Technical Data

Frequency range	862/868,3/tunable MHz
Monitoring-Status LED	Green: 0/6/45 dB, DS on/off, Burst Mode on/off
Bandwidth	200 kHz
Secondary transmission	<10 dBµV
Input level	30...75 dBµV
Data rate	9600 Bps
Interface	RS-232
Supply voltage	6...24 V (<0,4 W @ 24 V / <0,18 W @ 12 V)
Dimensions (width x height x depth)	25 x 24 x 8 mm
Weight	0.02 kg

characteristics

- Monitoring function: DS on/off, Burst Mode on/off, Ingress Detection Switch 0/6/45 dB
- Intelligent integration into the network management system
- FSK based, robust and no return necessary

The VT 21 is a microreceiver for fiber nodes and amplifiers. Manage your network cost efficiently with the VT 21.



Multiband amplifier

VS 30 PRO

Programmable filter amplifier



Technical Data

Downstream

Inputs	4 pcs.
Frequency range input 1	FM: 88...108 MHz
Frequency range input 2	VHF: 174...240 MHz
Frequency range input 3	UHF: 470...862 MHz
Frequency range input 4	UHF: 470...862 MHz
Gain inputs 1...4	FM: 35 dB; VHF: >35 dB; UHF: >45 dB
Output level	113 dB μ V (6 DVB-T Channels); 113 dB μ V IMA3 (FM)
Attenuator	0...20 dB
Interstage equalizer (Slope)	0...9 dB
Selectivity	35 dB / 1 MHz
MER	VHF/UHF: 35 dB
Output test point	-30 dB
Connectors	
F-socket	6 pcs.
General data	
Operating voltage AC	100...240 V
Power consumption	12 W
Dimensions (width x height x depth)	217 x 165 x 59 mm
Weight	0.8 kg

characteristics

- Filters and amplifies 10 terrestrial channels (number can be doubled to 20 by increasing the channel bandwidth)
- Completely free assignment of the filters to the desired input
- Very high selectivity of the filters (>50 dB to adjacent channels)
- Integrated AGC (Automatic Gain Control) to compensate level differences at the input
- Level indication of the received channels

The VS 30 PRO is a programmable terrestrial filter with an integrated amplifier. Four antennas (1x FM, 1x DAB/VHF, 2x UHF) can be connected via four F-connectors. 10 freely selectable channels can be programmed - a number that may be doubled to 20 by extending the channel bandwidth. The high selectivity ensures a high signal quality of the converted channels. All settings are done by the control unit OH 41 (not included in the delivery scope). The LTE 700 / LTE 800 MHz protection is done automatically by the device itself.

VS 50 PRO

Programmable filter amplifier, channel converter



Technical Data

Downstream

Inputs	4 pcs.
Frequency range input 1	FM: 88...108 MHz; VHF: 174...240 MHz; UHF: 470...862 MHz
Frequency range input 2	FM: 88...108 MHz; VHF: 174...240 MHz; UHF: 470...862 MHz
Frequency range input 3	FM: 88...108 MHz; VHF: 174...240 MHz; UHF: 470...862 MHz
Frequency range input 4	FM: 88...108 MHz; VHF: 174...240 MHz; UHF: 470...862 MHz
Gain inputs 1...4	FM: 35 dB; VHF: >45 dB; UHF: >55 dB
Output level	113 dB μ V (6 DVB-T Kanäle); 113 dB μ V IMA3 (FM)
Attenuator	0...20 dB
Interstage equalizer (Slope)	0...9 dB
AGC control range	0...20 dB
Selectivity	35 dB / 1 MHz
MER	VHF/UHF: 35 dB
Output test point	-20 dB
Connectors	
F-socket	7 pcs.
General data	
Operating voltage DC	12 V DC
Power consumption	20 W
Dimensions (width x height x depth)	232 x 166 x 55 mm
Weight	0.8 kg

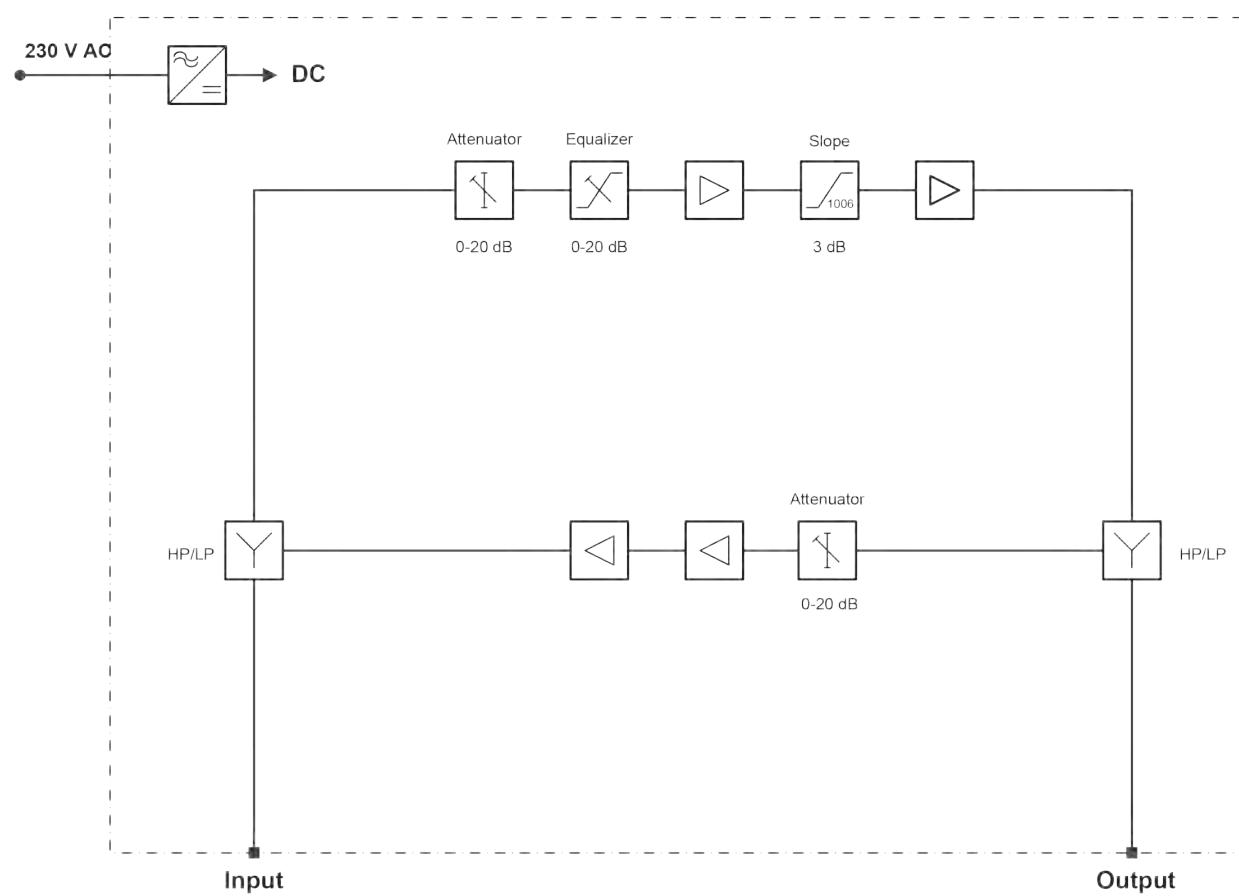
characteristics

- 32 freely selectable channels (max. 64 by increasing the channel bandwidth)
- Very high selectivity of the filters
- Integrated AGC (Automatic Gain Control) to compensate level differences at the input
- Very high output level of 113 dB μ V
- Level indication of the received channels

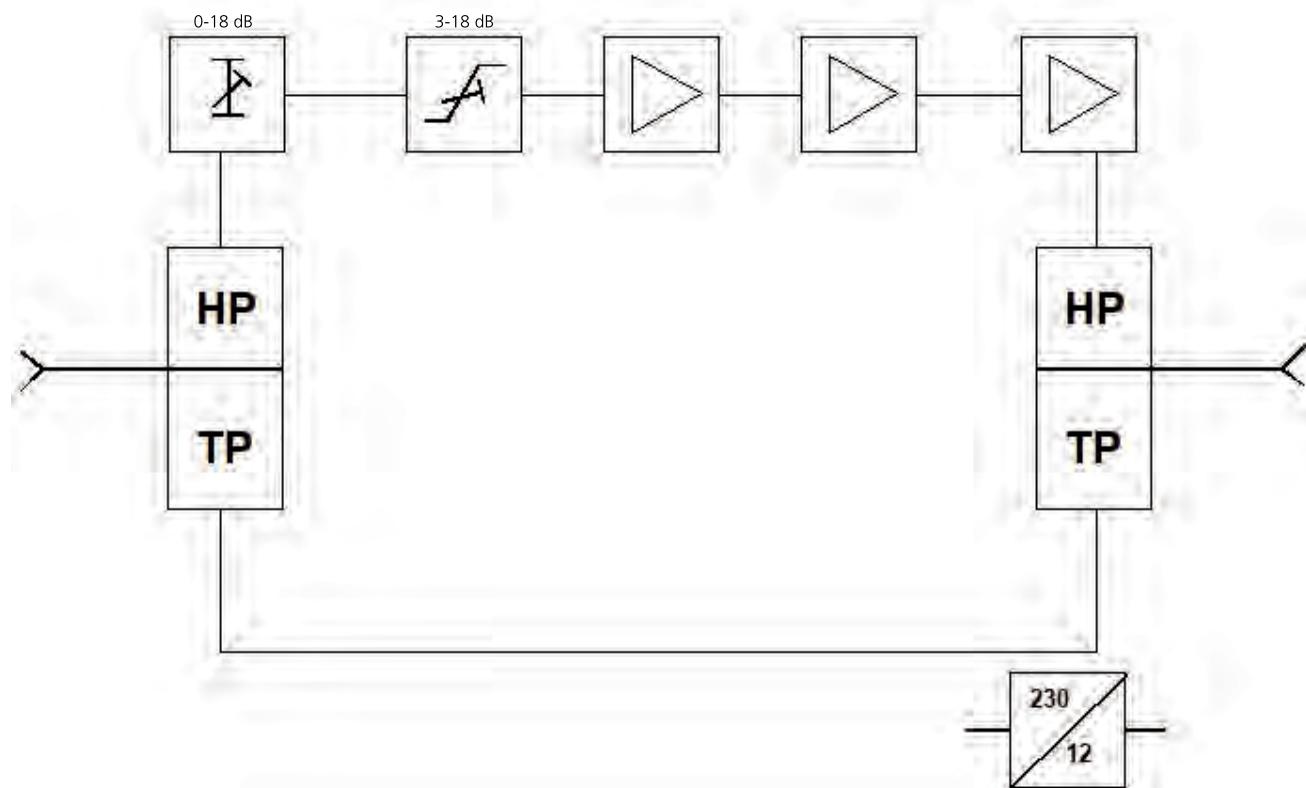
The VS 50 PRO is a programmable terrestrial filter with an integrated amplifier. Four VHF/UHF antennas can be connected via four F connectors, and one additional F connector is available for insertion of FM. Also, 32 freely selectable channels can be programmed - a number that may be doubled to 64 by extending the channel bandwidth. Moreover, the received terrestrial channels can be relocated to any required frequency, hence the VS 50 PRO is usable as a channel converter, to relocate UHF channels to a lower frequency range. The high selectivity ensures a high signal quality of the converted channels. All settings are done by the control unit OH 41 (not included in the delivery scope).

Block diagrams

VX 81 0S, VX 82 0S, VX 83 0S

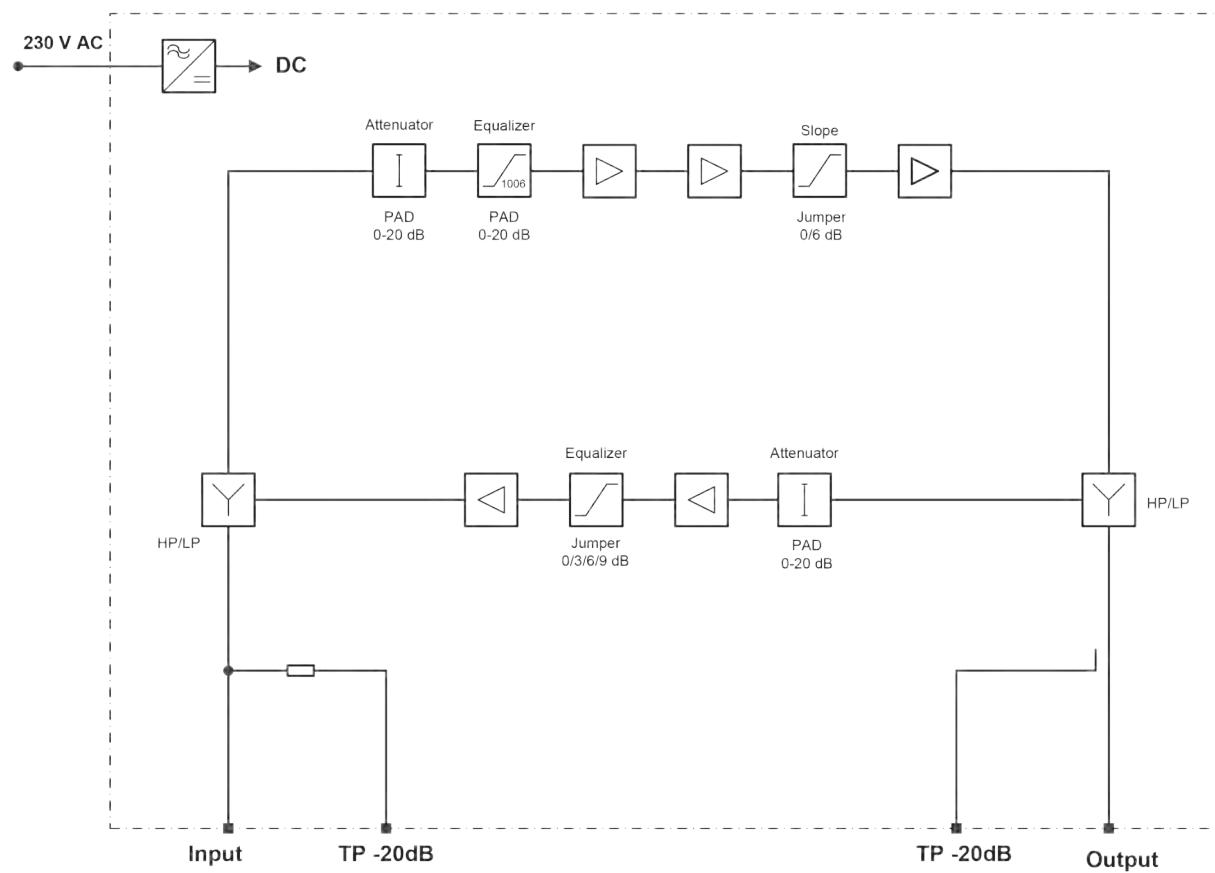


VX 86, VX 87

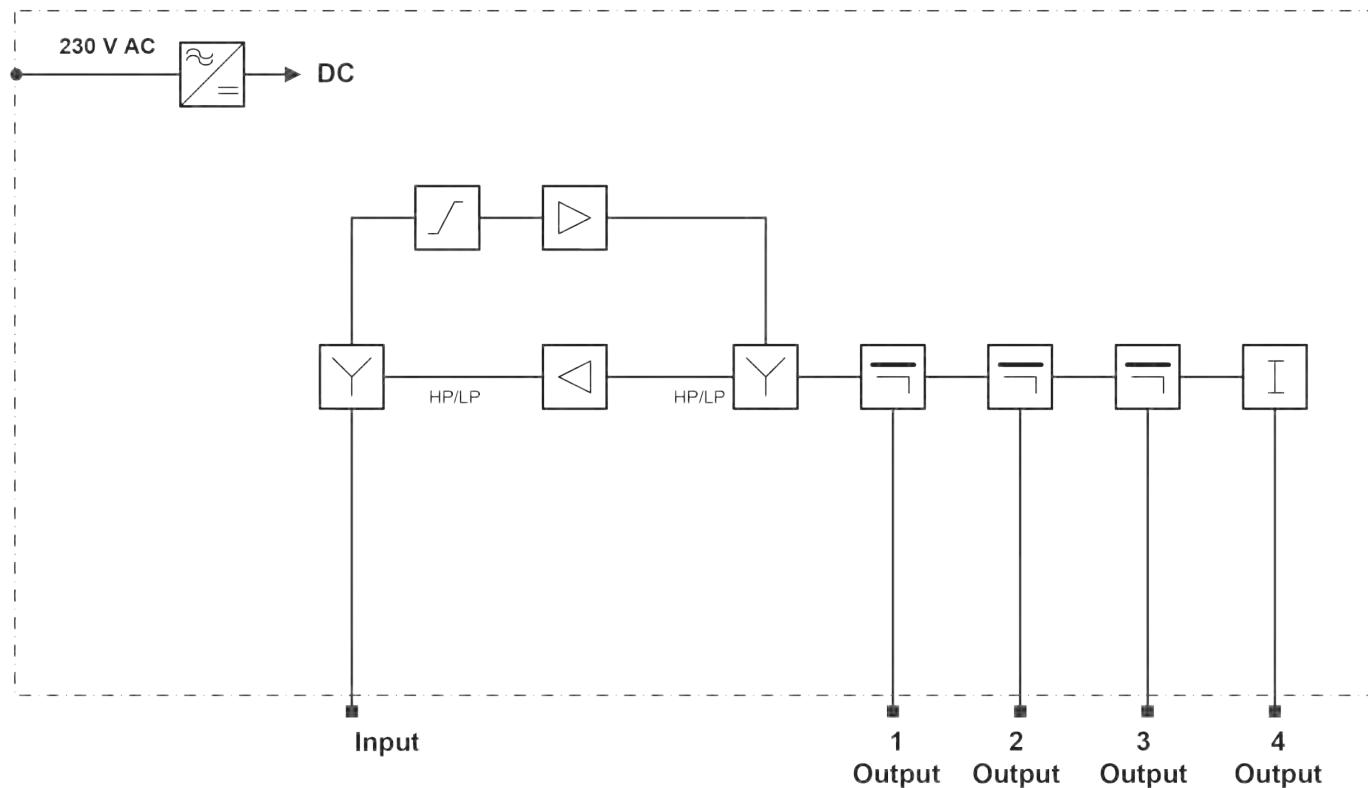


Block diagrams

VX 88 OP

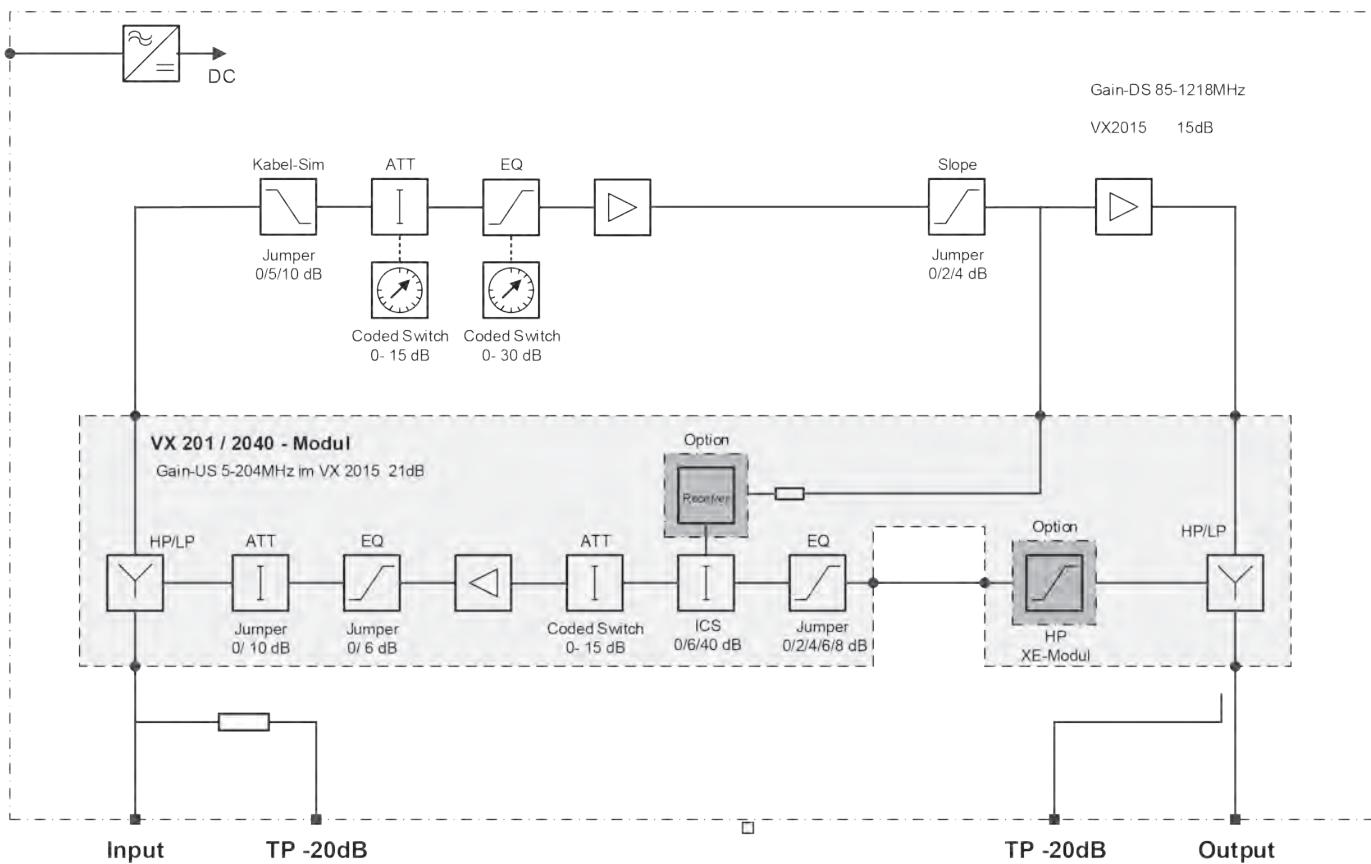


VX 67 B

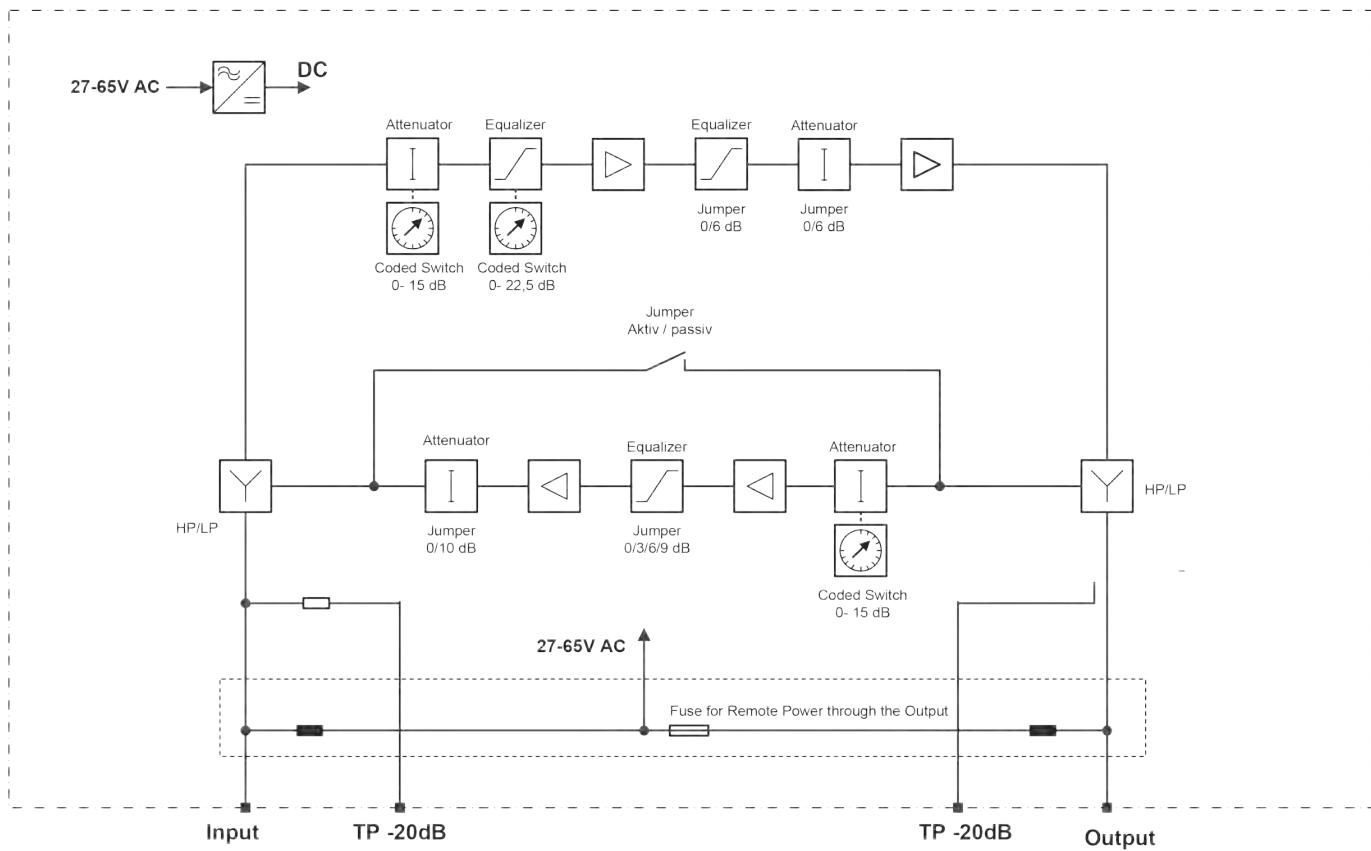


Block diagrams

VX 2015

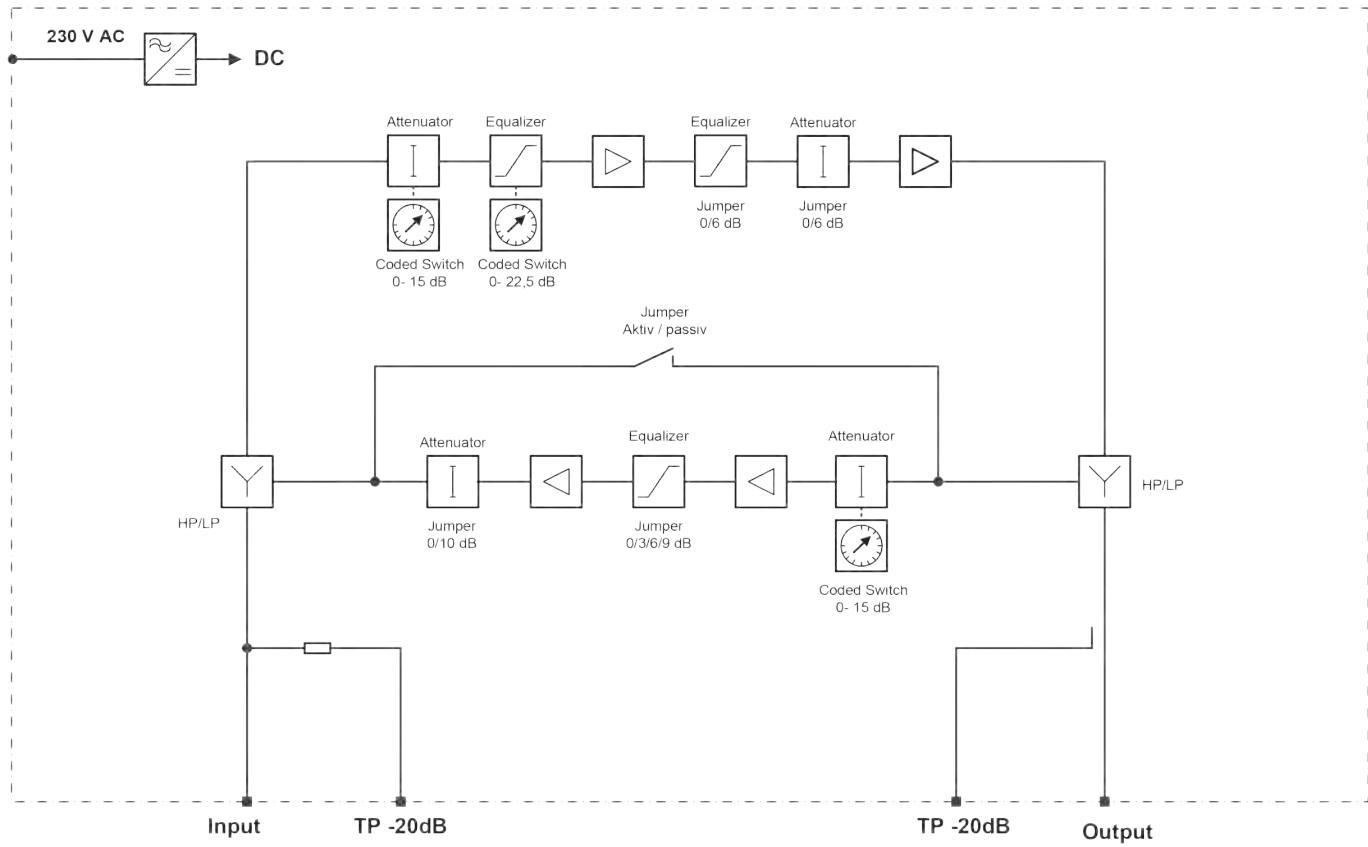


VX 45 R 3830

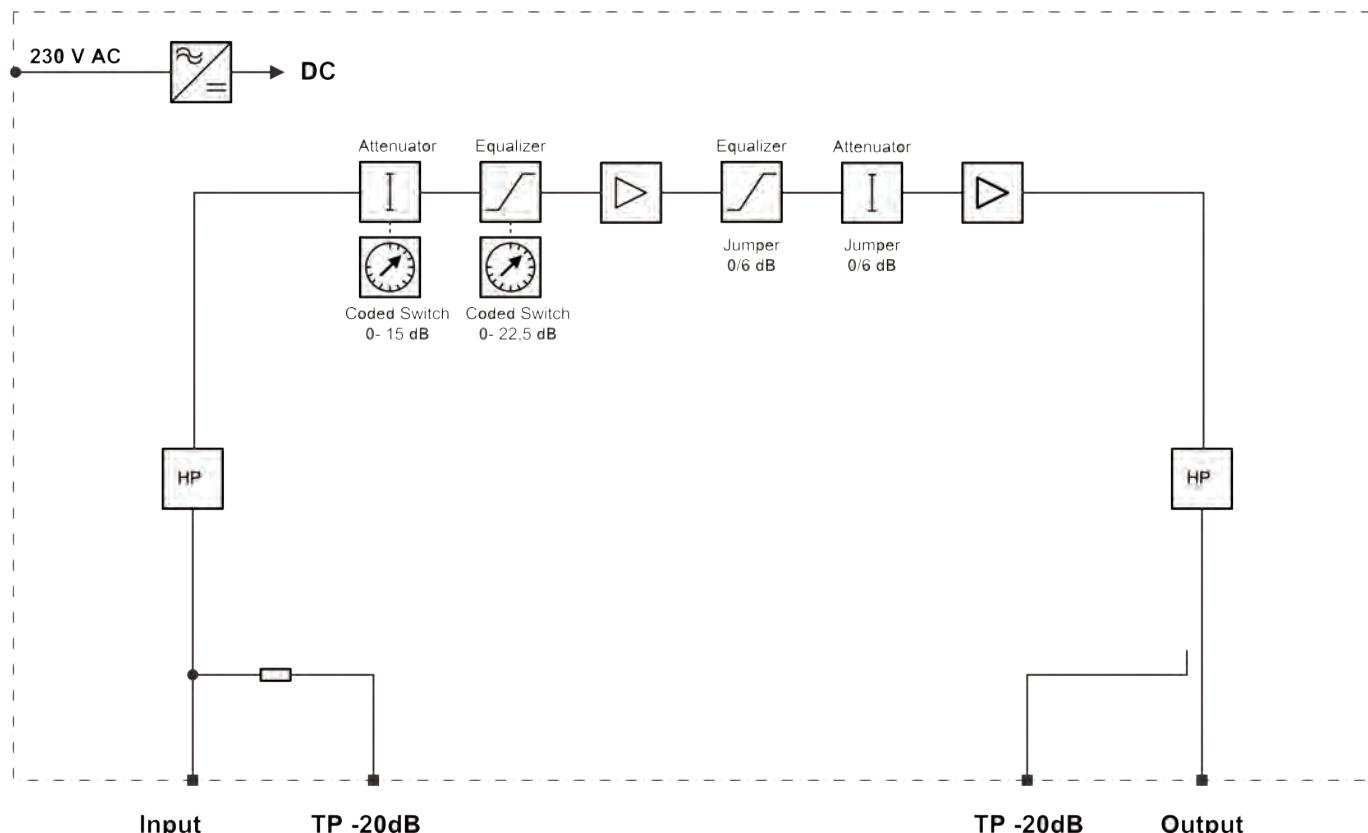


Block diagrams

VX 45 D 3830

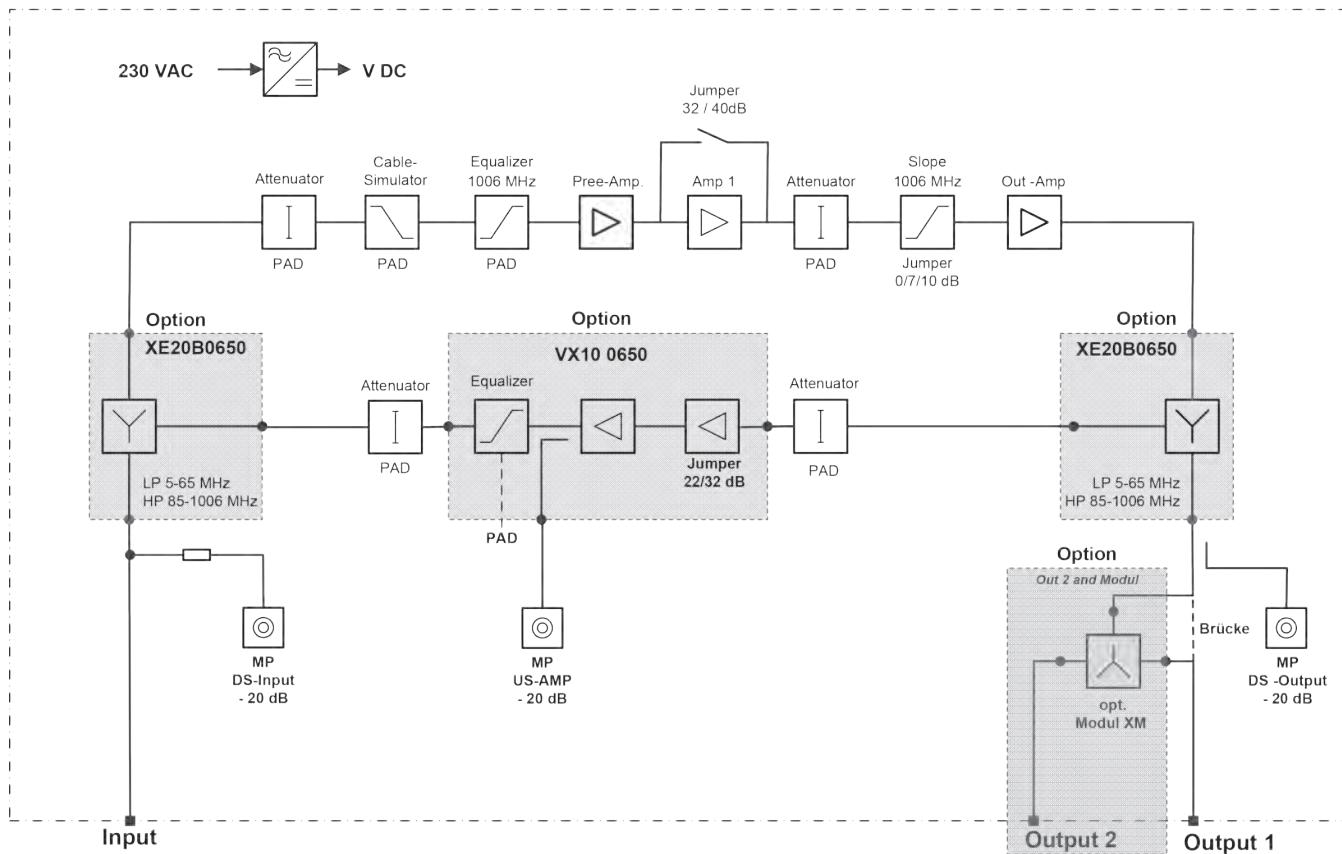


VX 45 E

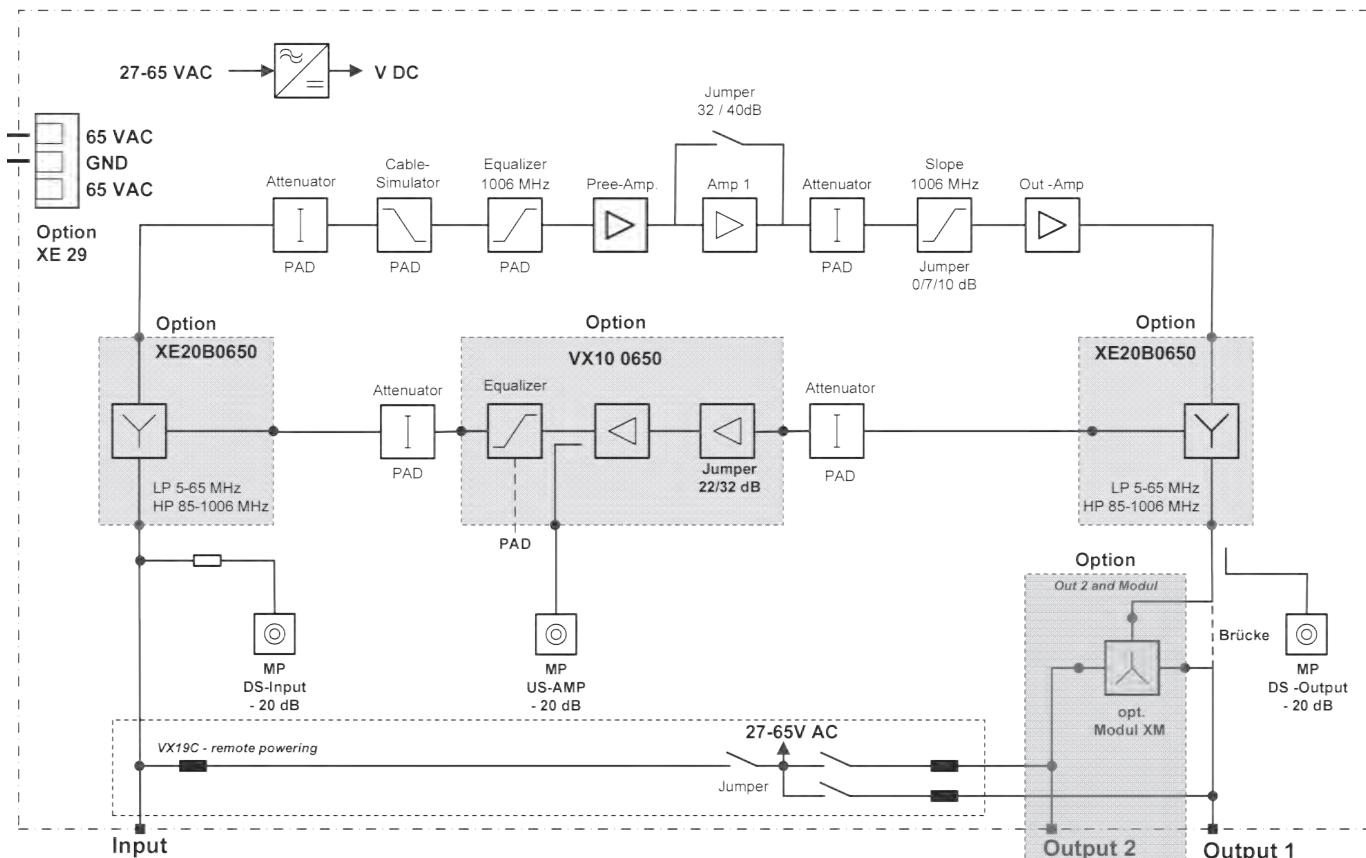


Block diagrams

VX 16 C 0650

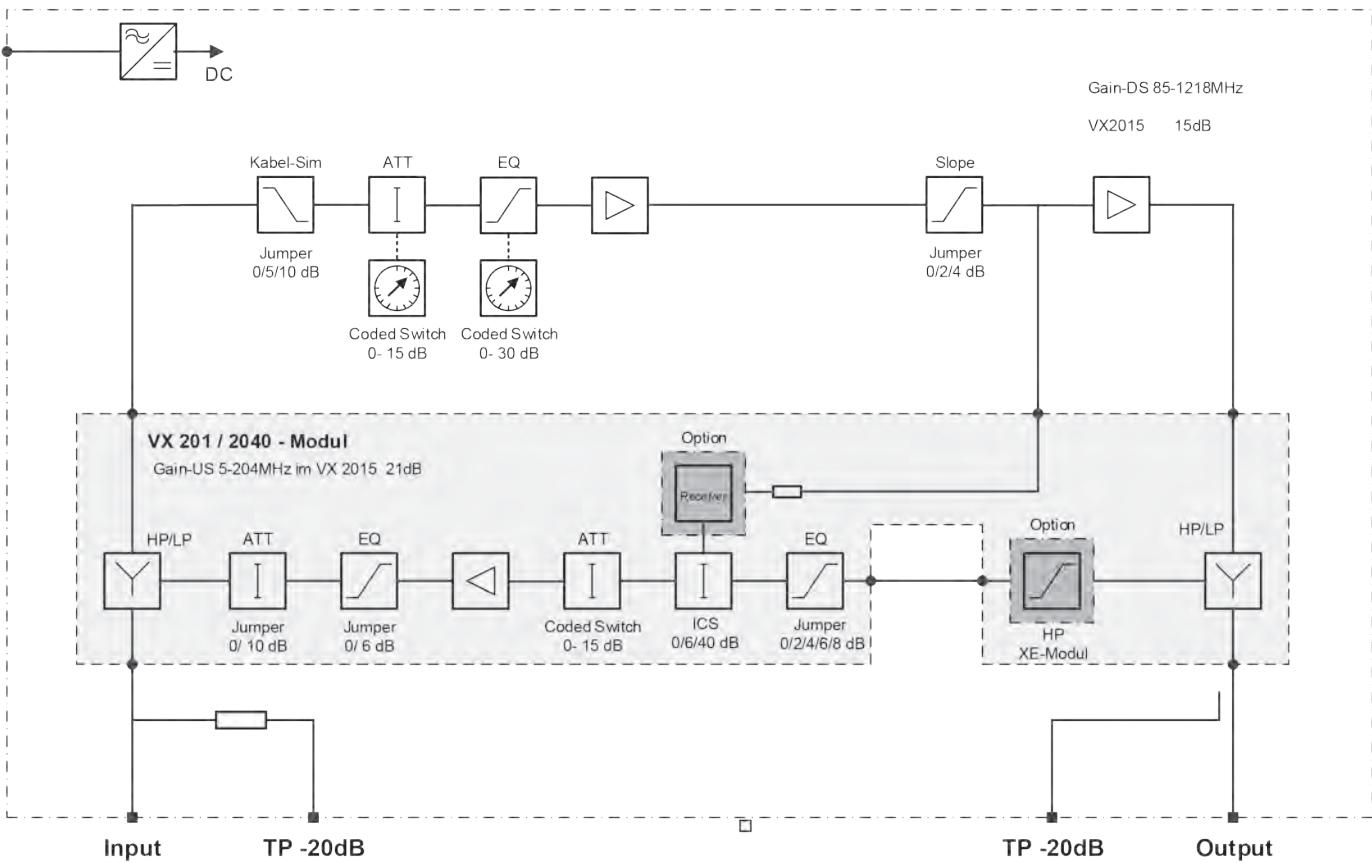


VX 19 C 0650

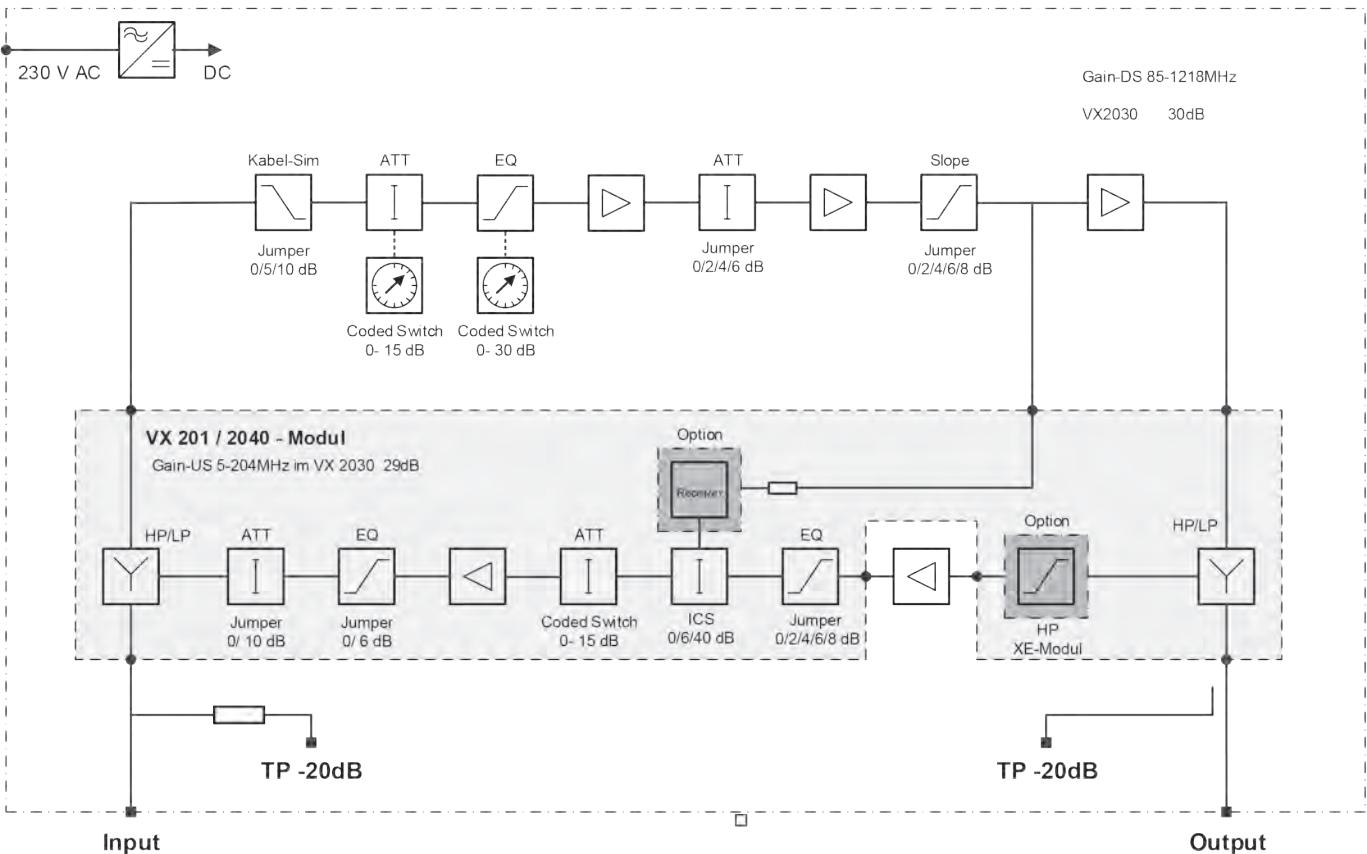


Block diagrams

VX 2022

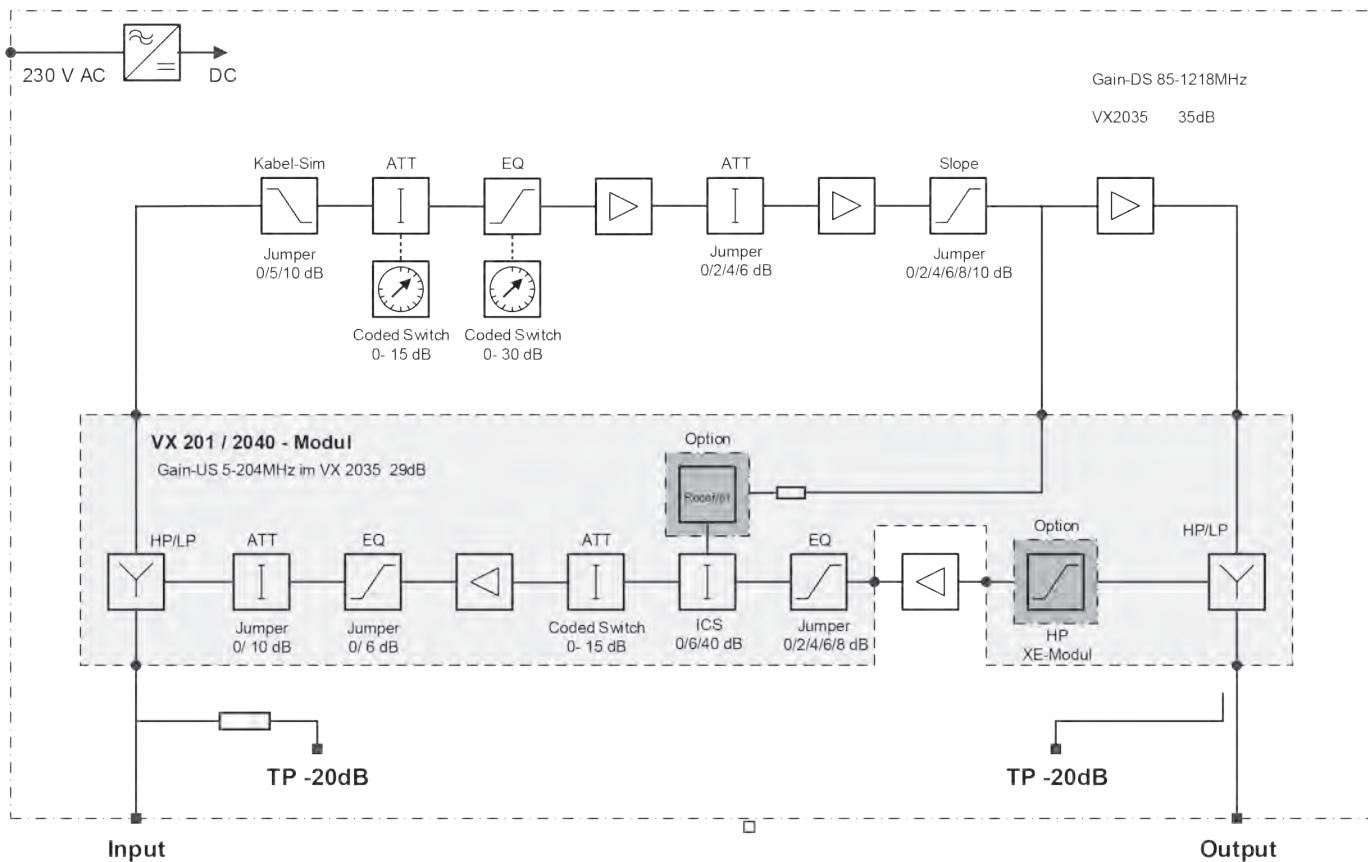


VX 2030

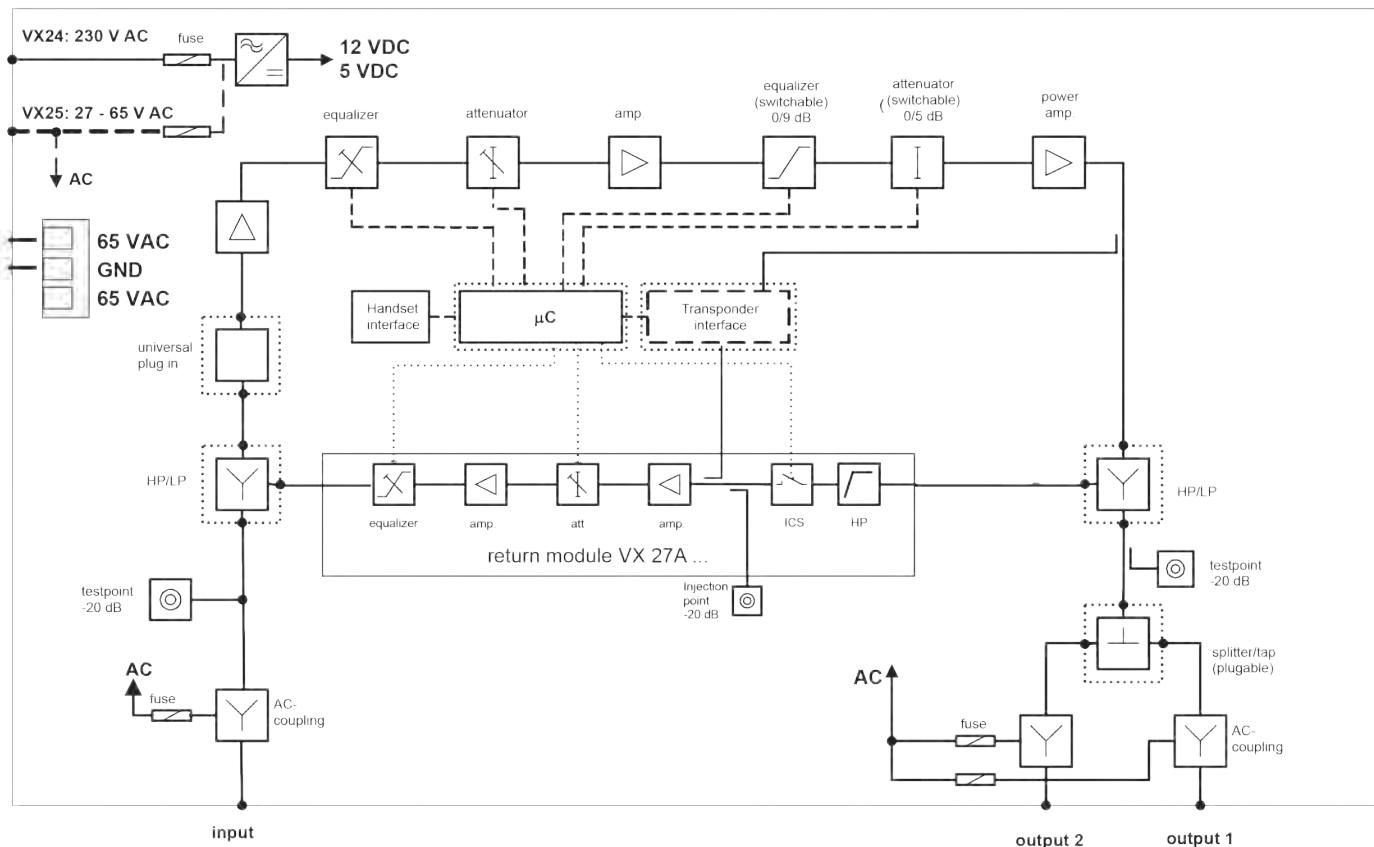


Block diagrams

VX 2035

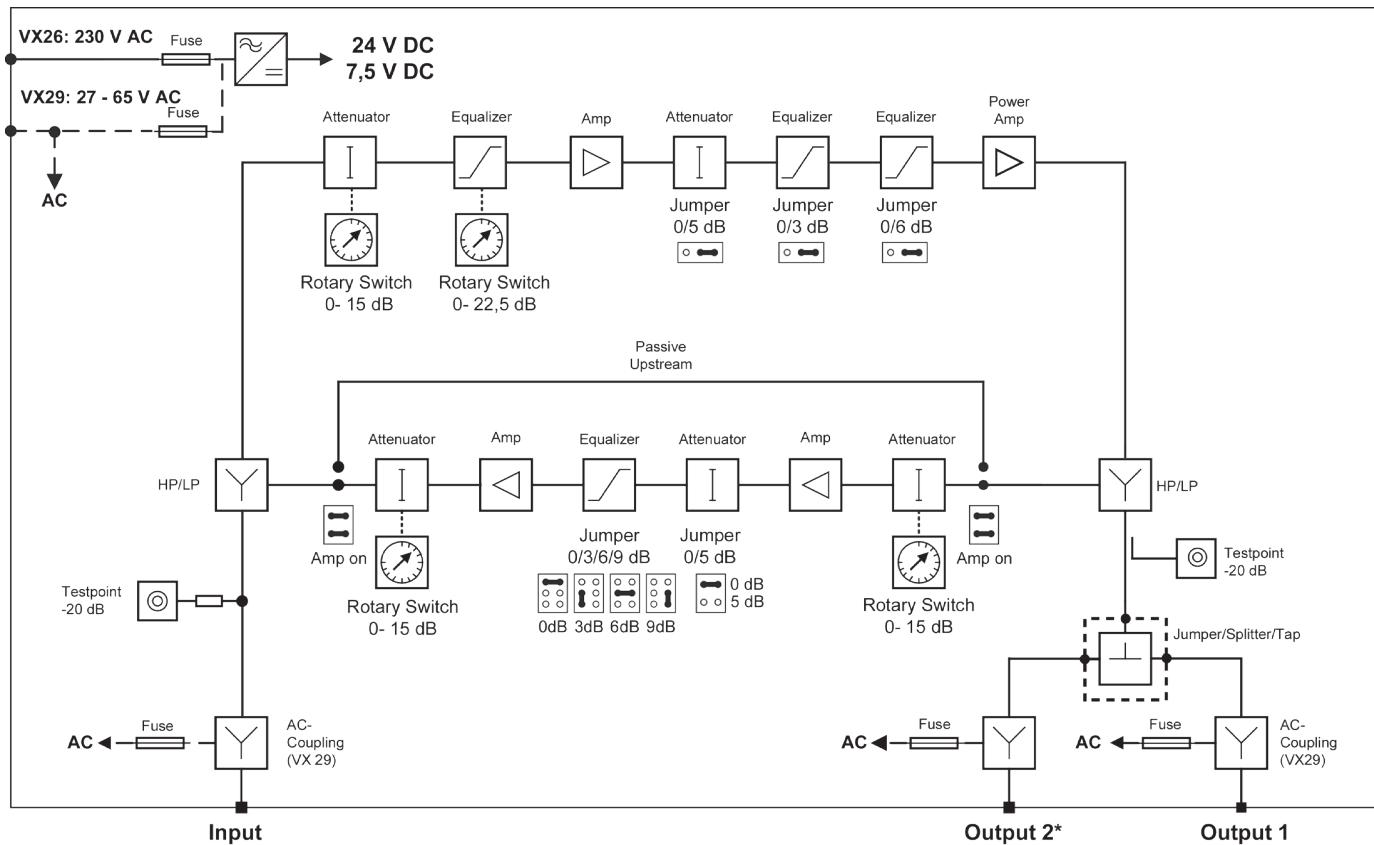


VX 24, VX 25

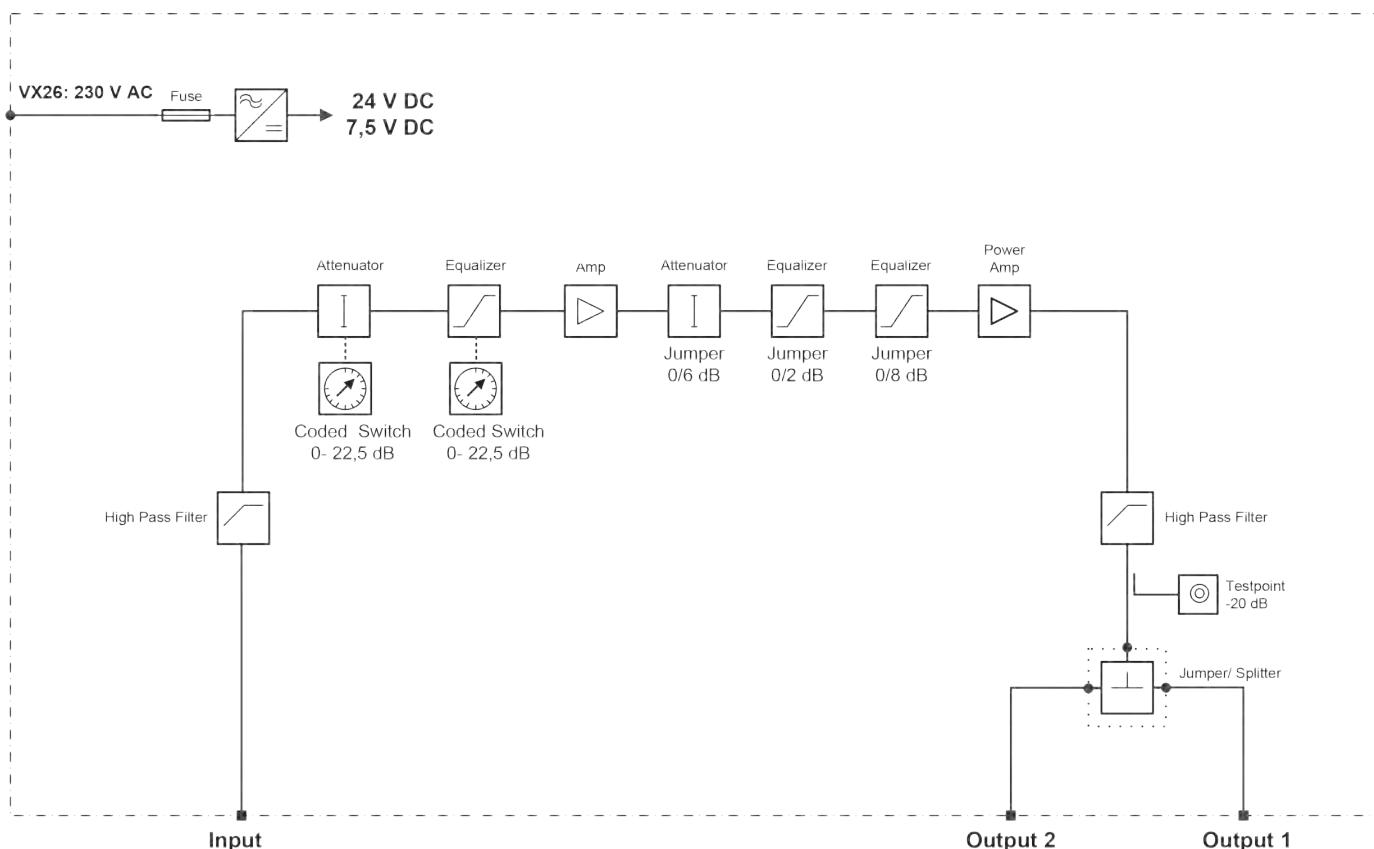


Block diagrams

VX 26 H, VX 29 H

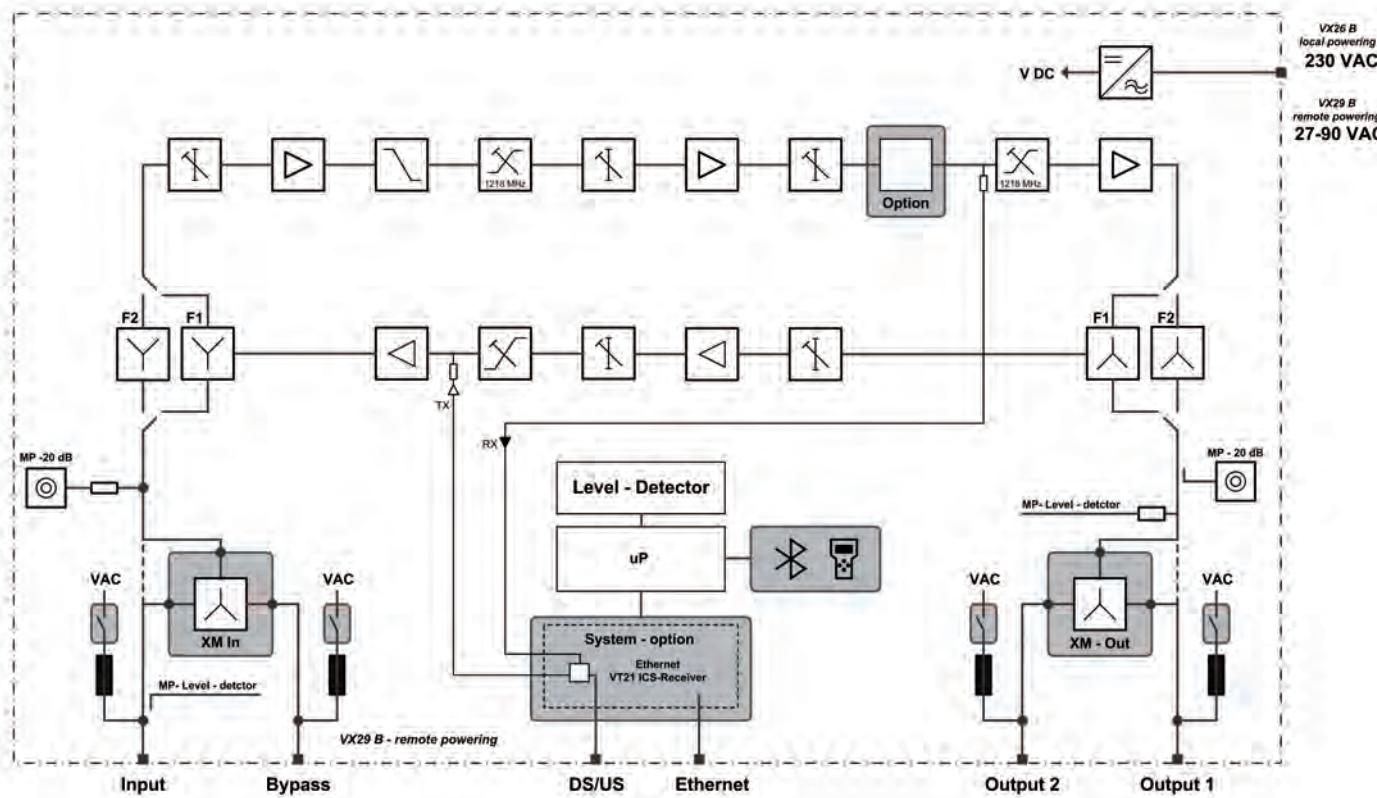


VX 26 M1

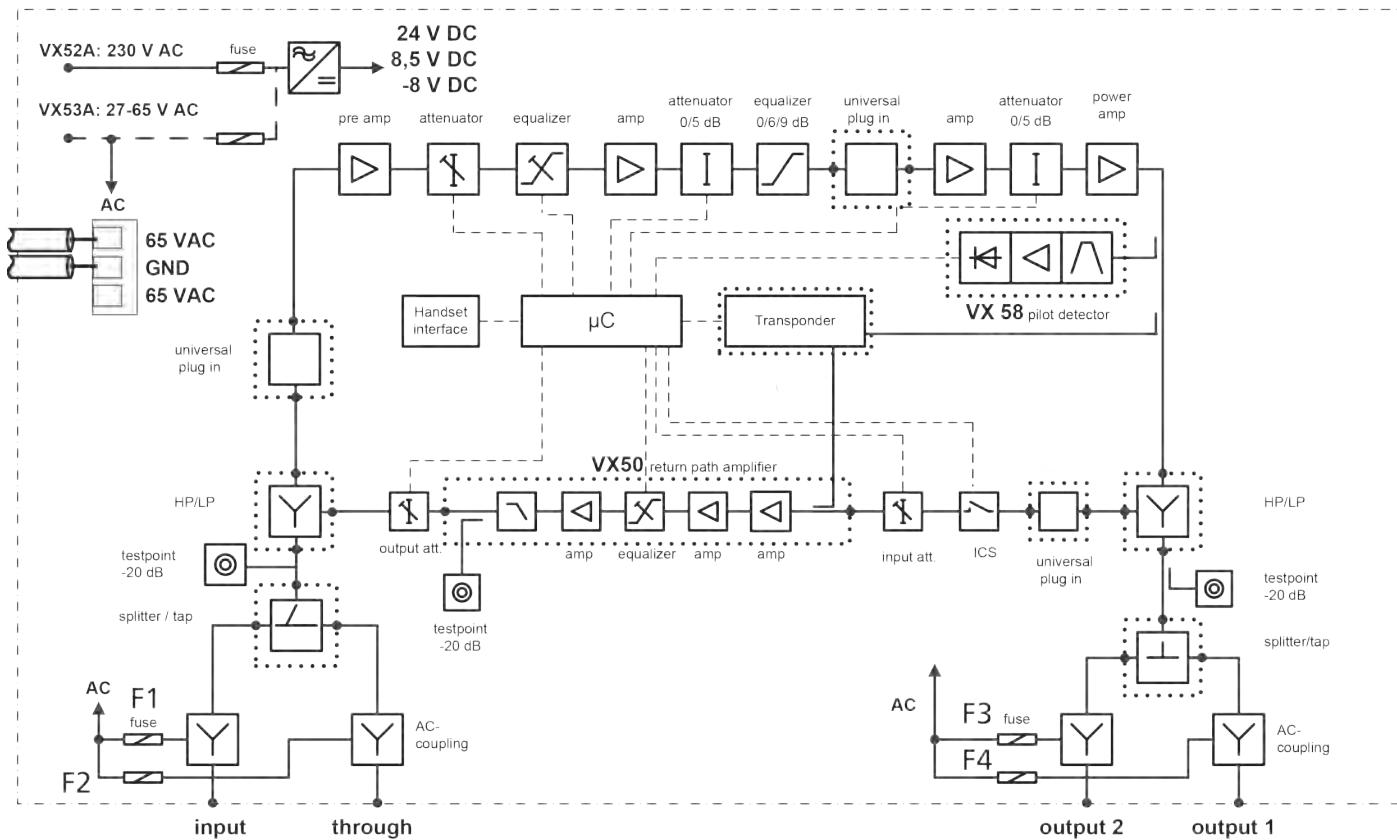


Block diagrams

VX 29 BH 80A/VX 29 BL 80A

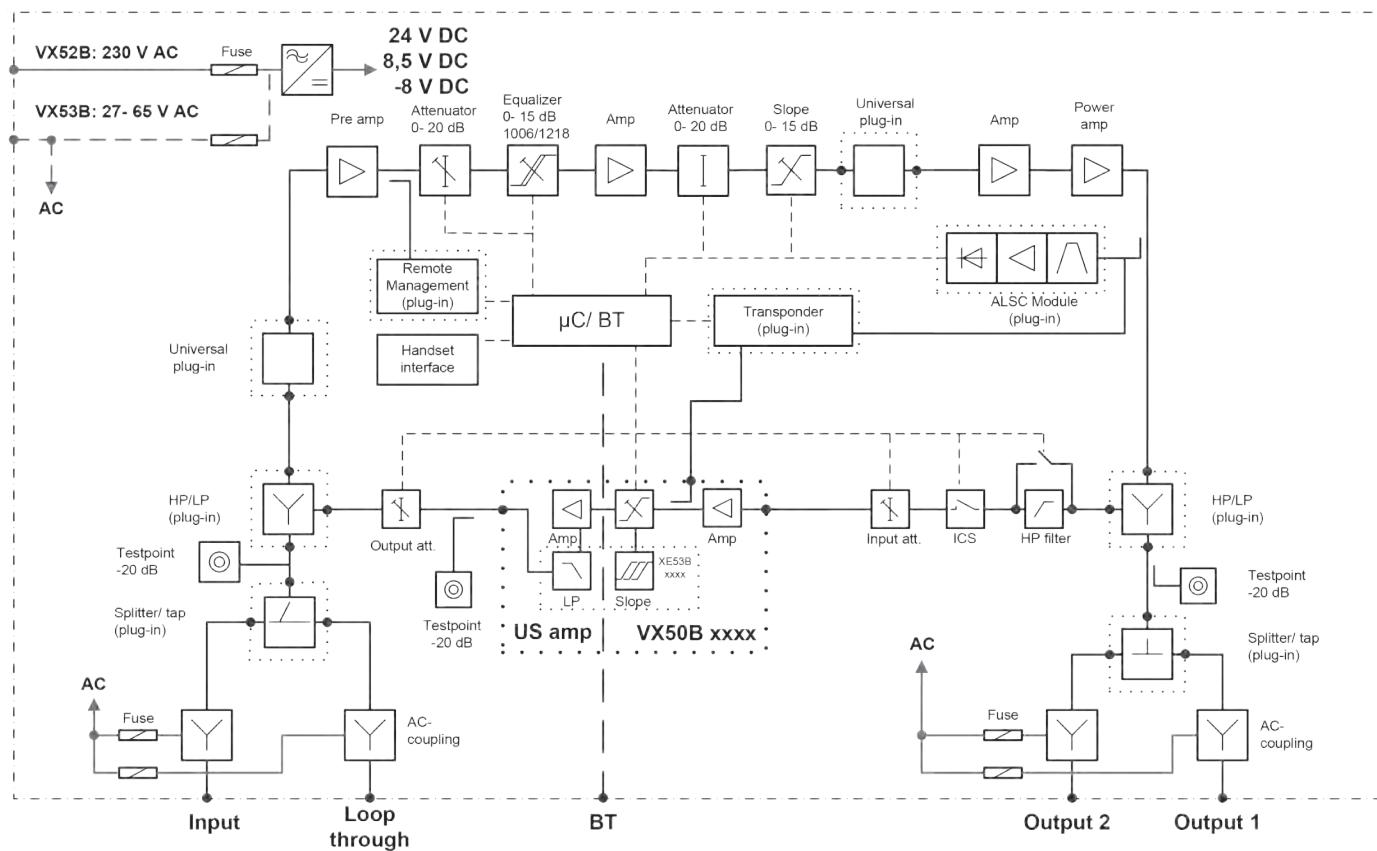


VX 52 A, VX 53 A

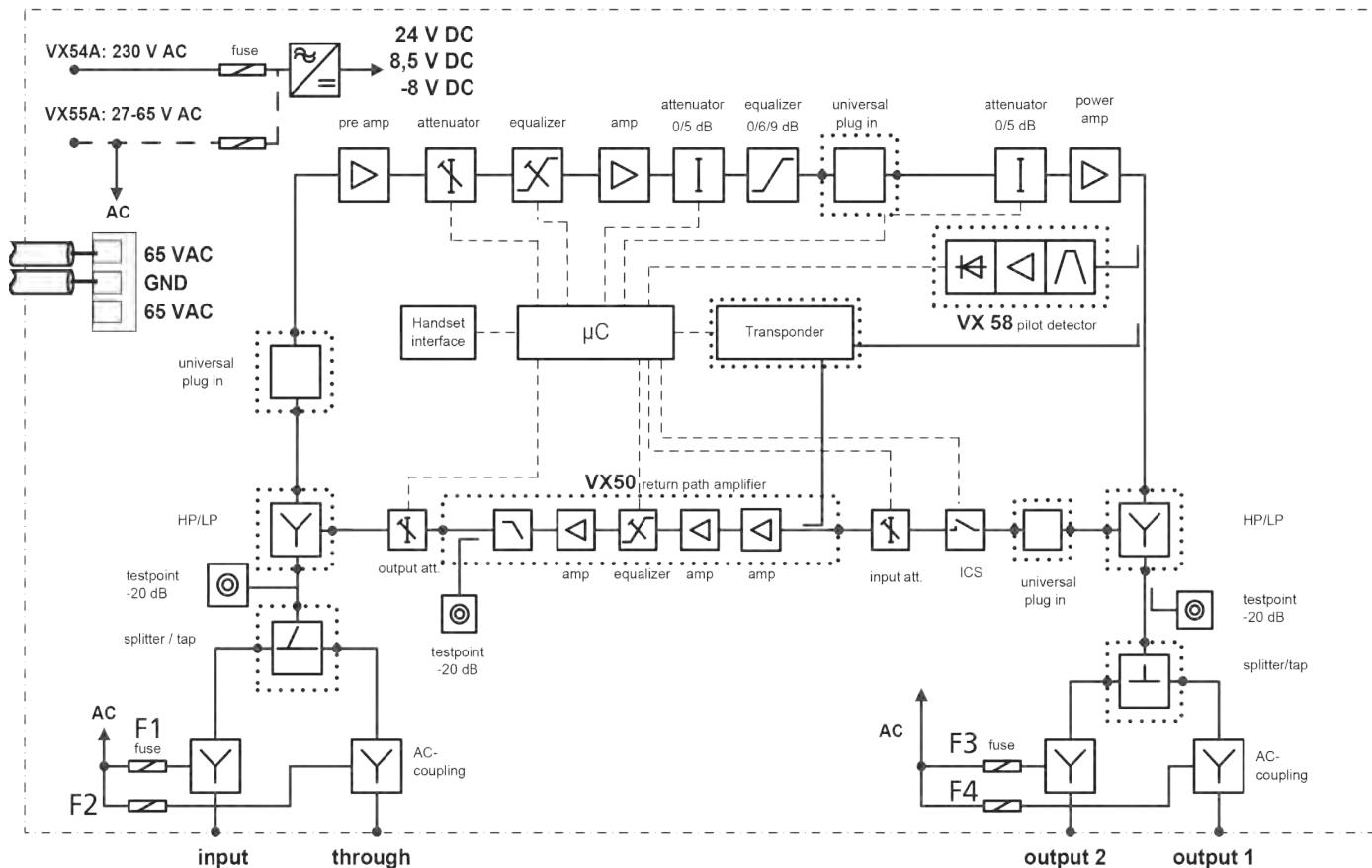


Block diagrams

VX 52 B, VX 53 B

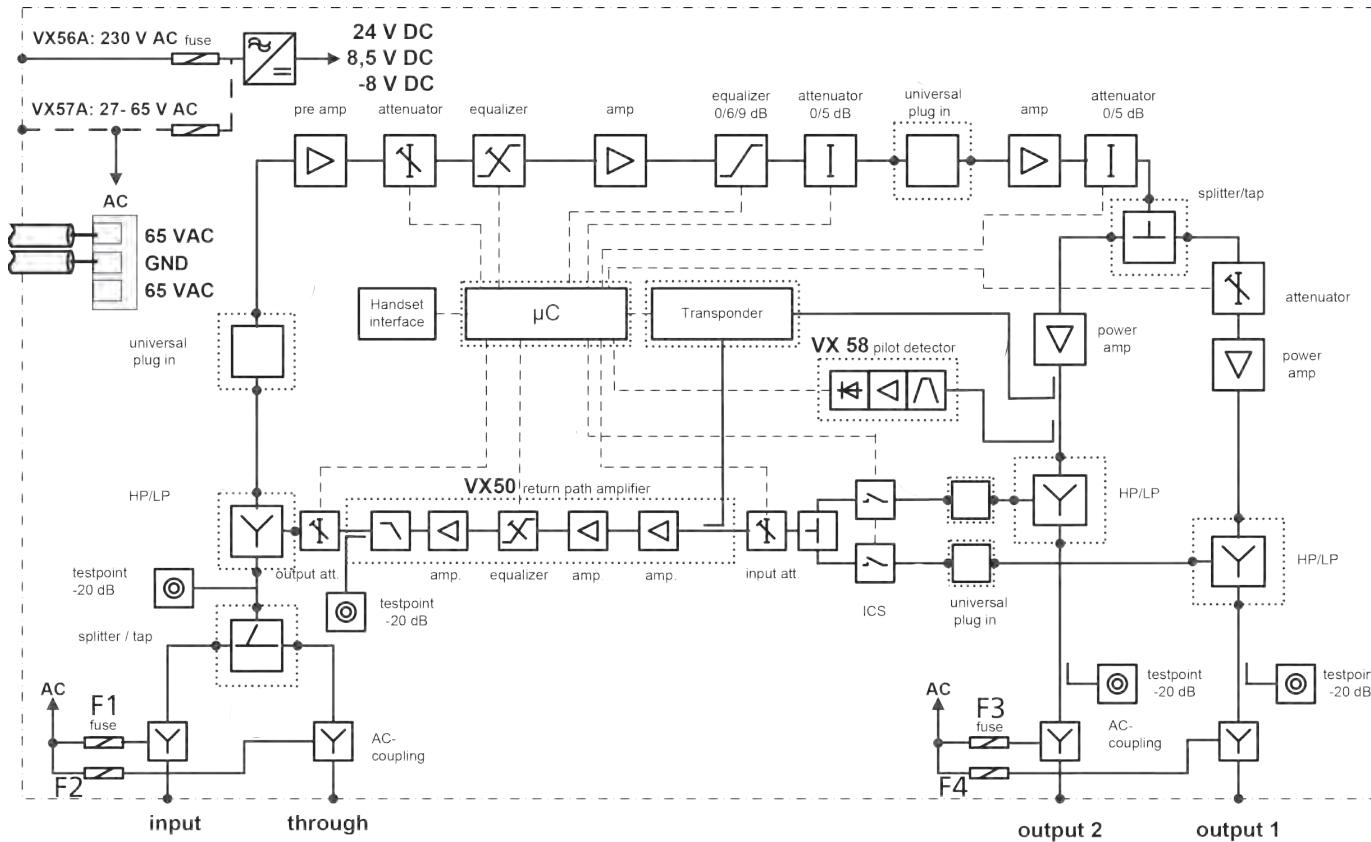


VX 54 A, VX 55 A

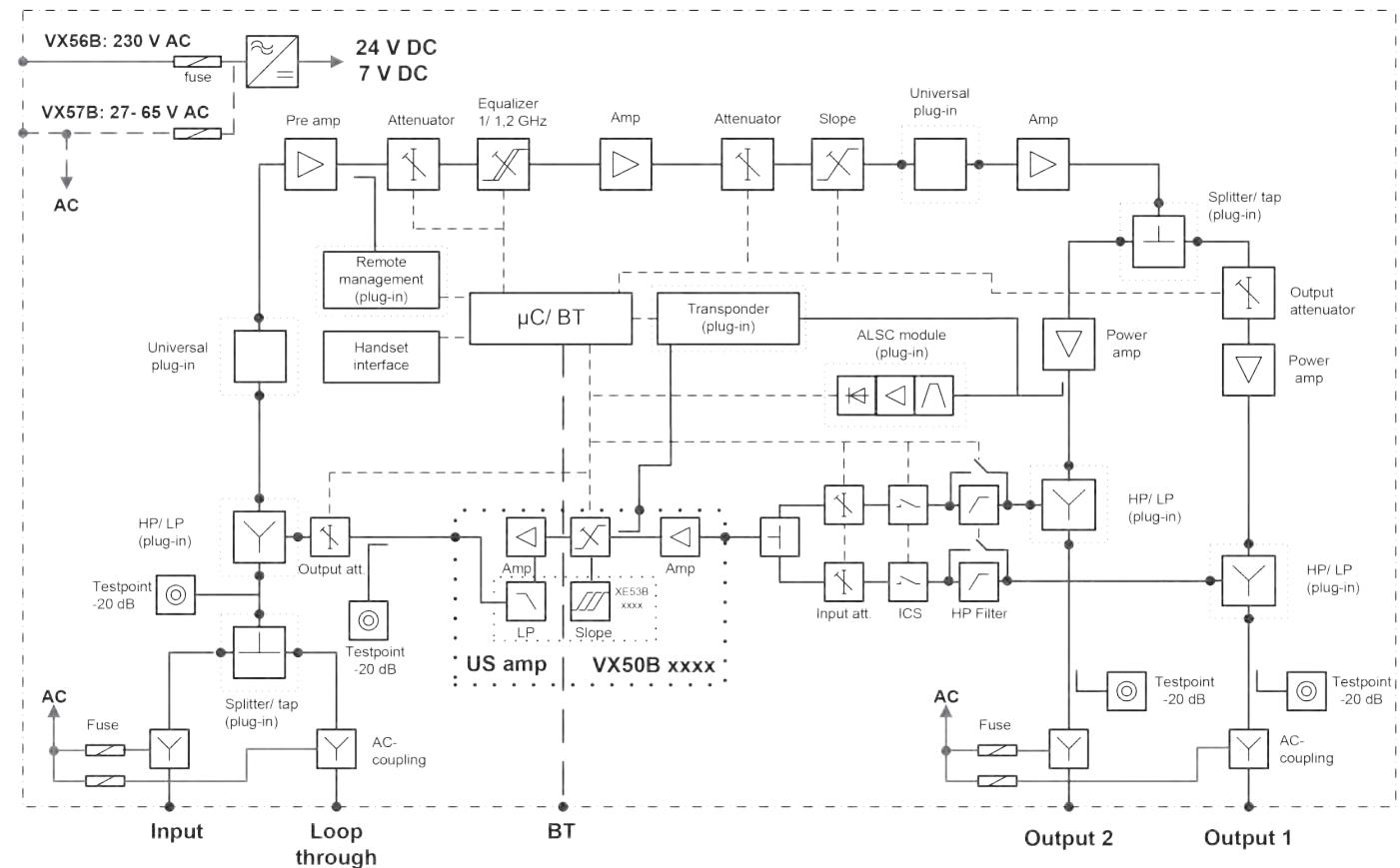


Block diagrams

VX 56 A, VX 57 A



VX 56 B, VX 57 B



Space for your notes!

Notes



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