

AllDisc Combi Antenna

4 in 1: LTE / 5G, MIMO WiFi 6E, GNSS



AllDisc Combi MIMO antenna platform can be configured to support several antenna systems; Cellular LTE / 5G, GPS/Glonass/Galileo and MIMO Wifi-6E in a low profile casing with durable design IP6K9K. It is ground plane independent and enables flexible and easy installation, making it perfect for fleet management, track and trace, navigation, cargo handling and V2X. The superior RF performance enables high connectivity and throughput. The Alldisc has been successfully tested for durability according to Volkswagen automotive test standards.

Features

- 5G ready
- Cellular Main: 617-960 / 1710-2690MHz and 3300-3800MHz
- WiFi-6E/BT: 2400-2485MHz and 4900-7200MHz
- GNSS: 1575-1610MHz
- GPS: L1, Galileo: E1, Glonass: L1
- LNA gain 30dB
- IP6K9K class
- Approved according to ECE-R118
- Designed in Sweden with design registration

Applications

- Public safety
- Agriculture, forest machines
- Cargo/load handling
- Fleet management, track and trace
- Navigation / Positioning
- V2X

Specifications

Electrical

Cellular Main LTE/5G

Frequency band [MHz]	617 – 698	698 – 960	1710 – 2690	3300 - 3800
VSWR* (typical)	$\leq 3 :1$	$\leq 2.7 :1$	$< 2.1 :1$	$< 1.9 :1$
Peak gain* [dBi]	1dBi	5.5dBi	4.5dBi	6.5dBi
Antenna efficiency*	~40%	~65%	~77%	~66%
Isolation Port 1 to 2	12 dB	16 dB	25 dB	30 dB
Correlation factor	<0.02			
Impedance	50 Ω			
Polarization	Linear			
Radiation characteristics	Omnidirectional			
Max power (ambient temp. of 25°C)	10W			
DC short	Yes			
Impedance	50 Ω			
Polarization	Vertical			

2x Wifi 6E

Frequency band [MHz]	2400-2485	4900-6000	6000-7200	
VSWR* [typical]	1.5:1	2:1	2,5:1	
Peak gain' [dBi]	8.5	10.5	10	
Antenna efficiency*	85%	75%	60%	
Correlation factor	<0.02			
Impedance	50 Ω			
Polarization	Linear			
Radiation characteristics	Omnidirectional			
Max power (ambient temp. of 25°C)	10W			
Impedance	50 Ω			
Polarization	Vertical			

GNSS

Frequencies	1575-1610MHz (GPS L1, Galileo E1, Glonass L1)
Impedance	50Ω
Polarization	RHCP
VSWR	≤ 2.0:1
Gain Passive (peak gain)	-3.5dBic @ fc
Gain Active	30±2dB
Supply Voltage	2.8-5.5V
Current Consumption	15-25mA

Mechanical

Dimensions (D x H)	138 x 55mm	
Installation	Hole mount with center screw Hole dimension Ø19mm Installation thickness ≤ 8.5mm	
Cable Other cable length upon request	RG316	0,2m
Weight	~200g	
IP class	IP6K9K	
Temperature	Storage	-40°C to +85°C
	Operating	-40°C to +85°C

Part number	Radio System	Cable length (m)	Connector	Code
710260	LTE Main GNSS	0.20	FAKRA-m	D
		0.25		C
710261	LTE Main GNSS WIFI 6E	0.20	FAKRA-m	D
		0.25		C
		0.30		I
710501	LTE Main WIFI 6E #1 WIFI 6E #2	0.20	FAKRA-m	D
		0.25		C
		0.30		I
		0.35		I

Other antenna combinations and connector/cable lengths are available please contact Smarteq Sales for information

Accessories

Part number

710452	Alldisc Bracket White
710598	Slitted nut
710206	Extension nut

Extension cables

Part number	Cable LL58	Connector	Gender	Code
710606	2.5m	FAKRA/SMA	Female/Male	Z/
710608	2.5m	FAKRA	Female/Female	D
710609	2.5m	FAKRA	Female/Female	C
710610	2.5m	FAKRA	Female/Female	I
710607	5.0m	FAKRA/SMA	Female/Male	Z/
710611	5.0m	FAKRA	Female/Female	D
710612	5.0m	FAKRA	Female/Female	C
710613	5.0m	FAKRA	Female/Female	I

Other

RoHS compliant

REACH compliant

Certified according to 2014/53/EU Radio Equipment Directive (RED)

Type approval: E5 (ECE R10.5)

Smarteq reserves the right to change specifications without prior notice.

