GPSB5G / Sharkee™





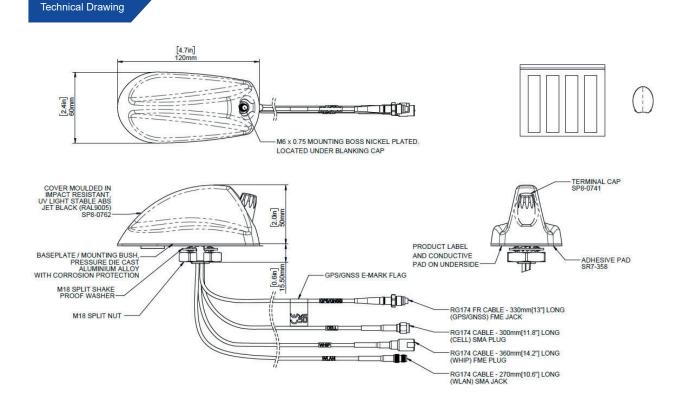
- OEM Sharkfin styling
- GPS/GNSS, 4G/5G and dual band WiFi in one housing
- Active GPS/GNSS antenna 26dB LNA
- Optional VHF or UHF Whip

The GPSB5G Sharkee<sup>™</sup> provides antenna coverage for multiple technologies within one antenna housing. The GPSB range is trusted by public safety, utilities and transportation companies all over the world and the GPSB5G upgrades the range with an improved GPS/GNSS module with advanced filtering and 4G/5G coverage.

The GPSB5G offers three internal antenna systems, GPS/GNSS, 4G/5G cellular (698-960/1710-3800MHz), dual band WiFi (2.4/5.0GHz) and an optional whip mounting for VHF or UHF whips.

Requiring only a single hole fixing, the GPSB5G reduces vehicle damage, cost of installation and visual impact whilst protecting vehicle resale value.

The GPSB5G is suitable for the public safety (covert and discreet), industrial and transportation sectors, where a cost effective, efficient and robust antenna is essential to the application. Fitted with flame retardant pigtail cables compliant to UNECE R118 the GPSB5G is suitable for fitment to M3 category vehicles.



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#### GPSB5G / Sharkee™

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Product Data

GPS/GNSS FME Socket (f)	Part No.							
Frequency Rurge     46/56 Elements     699-980 / 1710-3800       WF Elements     2400-2495/6150-6000       Age     2405-2495/6150-6000       Age     2405-2495/6150-6000       WF Elements     690-960 / 1427-3800       WF Elements     2405 OGHz       Status     5 Internal Elements / 80 (dependent on whip)       Odd for hard     2405 OGHZ       Status     2405 OGHZ       Frequency Rurge     1562-1612       Gain: Lip     2405 OGHZ       Status     3 - 5V DC       Status     3 - 5V DC       Status     3 - 6V DC       Status     3 - 6V DC       Status     3					GPSB5G			
	Electrical Data	1						
(Miz)WiF Elements2400-2495/5150-0000Typical VSW F4d/5G Elements698-960 / 1427-3900<2.5.1		nge 4G/5G Elements			698-960 / 1710-3800			
<table-container>      Typical VSWF     44/96 Elements     1427-3800     &lt;2.51</table-container>					2400-2495/5150-6000			
			AC/EC Elemente	698-960 /	20 5:4			
Nominal imped were500Max Input Power (N) Solitemand Elements / 60 (dependent on whip)GPSCINSSGPSCINSSFrequency Rarge1562-1612Gain LNA26d8Out of band rigetom>40040 (@ > +/ 100MHz f)Typical Noise2730Vitor Solitematication (STMHz)23408mOperating Voltage3 - 5 VD C0Typical Currer3 - 5 VD C0Typical Currer3 - 5 VD C0Typical Currer50 (2°)Operating Voltage50 (2°)ImmensionMedighImmension50 (2°)(Minolitage)- 400/1480° (-400° +176° F)ColourBackImmension100 (2°)Immension100 (2°)Immension100 (2°)Operating Terrer1060 (2°)Immension100 (2°)Immension200 (2°)Immension200 (2°)Immension200 (2°)Immension200 (2°)Immension200 (2°)Immension200 (2°)Immension200 (2°)Immension200 (2°)	Typical VSWR	*	46/56 Elements 1427-380		\$2.0.1			
Ana Input Power (w)5 Internal Elements / 60 (dependent on whip)GPS/GNSS LatFrequency Range (MHz)1562-1612Gain: LNA26dBOut of band reject on @787MHz26dBOut of band reject on @787MHz23dBmOperating Voltage2.7dBNotch Filter rejection @787MHz23dBmOperating Voltage3.5V DCTypical Current (mA)15Mechanical DateDimensiongHeight50 (2')Not dot (A0', 176'F)ColourBlackIngresone-40'/ 480°C (40', 176'F)ColourBlackIngresone-40'/ 480°C (40', 176'F)ColourBlackIngresone-40'/ 480°C (40', 176'F)ColourBlackIngresoneNoutling blackNoutling blackIngresonePanel mountMounting blackIngresoneIngresoneAll Colspan="2">Colspan="2">Standard BlackIngresoneIngresoneIngresoneAll Colspan="2">Standard BlackIngresoneIngresoneIngresone <td <="" colspan="2" td=""><td></td><td></td><td>WiFi Elements</td><td>2.4/5.0GHz</td><td>&lt;2:1</td></td>	<td></td> <td></td> <td>WiFi Elements</td> <td>2.4/5.0GHz</td> <td>&lt;2:1</td>				WiFi Elements	2.4/5.0GHz	<2:1	
GPS/GNSS Data     Frequency Range (MHz)   1562-1612     Gain: LNA   26dB     Out of bride rejection   27dB (02 × H/ 100MHz f)     Typical Noise Figure   -2.7dB     Notho Filter rejection @787MHz   23dBm     Operating Voltage   3 -5V DC     Typical Current (mA)   15     Mechanical Data	Nominal Impedance				50Ω			
Frequency Rury   1562-1612     Gain: LNA   26dB     Out of band rue   >40dB (@ > r/+ 100MHz f)     Typical Noise Figure   2.7dB     Note Figure Watter rue   2.3dBm     Operating Voltage   3.6 SV DC     Typical Currer   15     Metchanical   50 (27)     Mode Figure Watter   50 (27)     Mode Mark   60 (2.4')     Operating Voltage   400'r (80° (40° / +176° F))     Colour   Gainet     Monting Due   Black     Ingress Prote Ture Structure   1866     Mounting Nue   Figure Structure     Auger Structure   19 (34')     Cable Data   2.8 (0.1')     Auger Mark   2.8 (0.1')     Auger Mark   2.8 (0.1')     Auger Mark   SMA Plug (m)     Keriss   SMA Plug (m)     Watrice Structure   SMA Plug (m)     Keriss   SMA Plug (m)	Max Input Pov	ver (w)			5 Internal Elements / 60 (dependent on whip)			
Gain: LNA     26dB       Out of band rejection     >400dB (@ > +/- 100MHz f)       Typical Noise Figure     -2.7dB       Notch Filter rejection @787MHz     23dBm       Operating Voltage     3 - 5V DC       Typical Noise Figure (mA)     15       Mechanical Date	GPS/GNSS D	)ata						
Out of bank rejection>400B (@ > +/- 100MHz f)Typical Noise Figure-2.7dBNoteh Filter rejection @787MHz23dBmOperating Voltage3 - 5V DCTypical Current (Marcing Control (Marci	Frequency Ra	nge (MHz	)		1562-1612			
Typical Noise Fure     -2.7dB       Noto Filter rejection @787MHz     23dBm       Operating Voltage     3 - 5V DC       Typical Current (mA)     15       Mechanical Date	Gain: LNA				26dB			
Notch Filter reiton @787MHz23dBmOperating Voltz	Out of band re	jection			>40dB (@ > +/- 100MHz f)			
Operating Volzer     3.5 V DC       Typical Currert (mA)     15       Mechanical Date     50 (2°)       Dimensions (mm)     Height     50 (2°)       Vidth     60 (2.4°)     60 (2.4°)       Operating Temp     -40°/ +80°C (-40° / +176° F)     60 (2.4°)       Colour     Black     100 (2.4°)       Ingress Protector     Black     100 (2.4°)       Mounting Date     1966     100 (2.4°)       Mounting type     Panel mount     100 (2.4°)       All Cables     Type     FR RG174 (UN ECE R118.03 Compliant)       All Cables     Diameter (mm)     2.8 (0.1°)       Length (m)     ~0.3 (1)     ~0.3 (1)       ViFi     SMA Plug (M)       GPS/GNSS     <	Typical Noise	Figure			-2.7dB			
Typical Curret (mA)   15     Mechanical Detection   50 (2°)     Immensions (mm)   Height   50 (2°)     Length   120 (4.7°)     Width   60 (2.4°)     Operating Terry   -40°/+80°C (-40°/+176°F)     Colour   Black     Ingress Protection   Black     Ingress Protection   IP66     Mounting Date   Panel mount     Mounting type   Panel mount     Max panel thickress (mm)   7 (0.27°)     Mounting hole   Trype     All Cables   Ingress (mm)     All Cables   Ingress (mm)     All Cables   Diameter (mm)     All Cables   Ingress (mm)     All Cables   SMA Plug (m)     Kifficities   SMA Plug (m)     WiFl   SMA Socket (f)     GPS/GNSS   FME Socket (f)	Notch Filter re	jection @	787MHz		23dBm			
Height50 (2)(mm)[Hight50 (2)(mm)[Length120 (4.7')(With60 (2.4')Operating Terry-440' + 80° (-(40° / + 176° F.)ColourBlackIngress ProtectionBlackIngress ProtectionBlackIngress ProtectionPanel mountMounting DatePanel mountMounting typePanel mountMounting type19 (3/4')Mounting hole19 (3/4')Cable DateProtect Inst.03 Compliant)All Cables2.8 (0.1')Ingrets (mm)2.8 (0.1')Length (m)2.8 (0.1')Cable Date					3 - 5V DC			
Height     50 (2°)       Length     120 (4.7°)       With     60 (2.4°)       Operating Terry     -40°/ +80°C (-40° / +176°F )       Colour     Flack       Ingress Protector     Black       Ingress Protector     IP66       Mounting Date     Panel mount       Mounting type     Panel mount       May panel thickers (mm)     7 (0.27°)       Mounting hole     19 (34°)       Cable Data     19 (34°)       All Cables     Internet (mm)       All Cables     2.8 (0.1°)       Length (m)     -0.3 (1)       KafeG     SMA Plug (m)       WiFi     SMA Socket (f)       GPS/GNSS     FME Socket (f)	Typical Curren	nt (mA)			15			
(nm)     Length     120 (4.7')       Width     60 (2.4'')       Operating Temp     -40° / 480°C (-40° / +176°F )       Colour     Black       Ingress Protection     Black       Ingress Protection     IP66       Mounting Data     Panel mount       Mounting type     Panel mount       Max panel thickress (nm)     7 (0.27')       Mounting hole     19 (3/4'')       Cable Data     19 (3/4'')       All Cables     Inameter (mm)       Icaget (Minickress)     SR RG174 (UN ECE R118.03 Compliant)       Icaget (Minickress)     SR RG174 (UN ECE R118.03 Compliant)       Icaget (Minickress)     SR S0.1'')       Icaget (Minickress)     SR S0.1'')       Icaget (Minickress)     SMA Plug (MINickress)       Viri (Siget (Sig	Mechanical Da	ata						
Long     Long     Long       Width     60 (2.4°)       Operating Temp     -40°/+80°C (-40°/+176°F )       Colour     Black       Ingress Protection     IP66       Mounting Data     Panel mount       Mounting type     Panel mount       Max panel thicks (mi)     7 (0.27°)       Mounting tople     19 (3/4°)       Cable Data     19 (3/4°)       Cable Data     19 (3/4°)       Cable Data     19 (3/4°)       Cable Data     2.8 (0.1°)       Longth (min)     -0.3 (1')       Longth (min)     -0.3 (1')       Longth (min)     -0.3 (1')       ViFi     SMA Plug (m)       WiFi     SMA Socket (f)       GPS/GNSS     FME Socket (f)		Height			50 (2")			
Operating Temp     -40°/ +80°C (-40° / +176°F )       Colour     Black       Ingress Protect     IP66       Mounting Data     Panel mount       Mounting type     Panel mount       Max panel thicks (mm)     7 (0.27°)       Mounting hole     19 (3/4°)       Cable Data     19 (3/4°)       All Cables     Jameter (mm)     2.8 (0.1°)       Ingenter (mm)     2.8 (0.1°)     -0.3 (1)       Terminations     SMA Plug (m)       WiFi     SMA Socket (f)       GPS/GNSS     FME Socket (f)	(mm)	Length			120 (4.7")			
Colour     Black       Ingress Protect     IP66       Mounting Data     Panel mount       Mounting type     Panel mount       Max panel thicks (mm)     7 (0.27")       Mounting hole     7 (0.27")       Mounting hole     19 (3/4")       Cable Data     19 (3/4")       All Cables     FR RG174 (UN ECE R118.03 Compliant)       All Cables     Diameter (mm)       Length (m)     2.8 (0.1")       Length (m)     ~ 0.3 (1')       Ferminations     SMA Plug (m)       WiFi     SMA Socket (f)       GPS/GNSS     FME Socket (f)		Width			60 (2.4")			
Ingress Prote:   IP66     Mounting Data   Panel mount     Mounting type   Panel mount     Max panel this:   7 (0.27")     Mounting hole:   19 (3/4")     Cable Data   19 (3/4")     All Cables   Image: The Compute of	Operating Terr	р			-40°/ +80°C (-40° / +176°F )			
Mounting Data   Panel mount     Mounting type   Panel mount     Max panel thickess (mm)   7 (0.27")     Mounting hole   7 (0.27")     Mounting hole   19 (3/4")     Cable Data     All Cables   Type     Diameter (mm)   2.8 (0.1")     Length (m)   ~0.3 (1')     Terminations     4G/5G   SMA Plug (m)     WiFi   SMA Socket (f)     GPS/GNSS   FME Socket (f)	Colour				Black			
Mounting type Panel mount   Max panel thicress (mm) 7 (0.27")   Mounting hole 19 (3/4")   Mounting hole 19 (3/4")   Cable Data   All Cablesa FR RG174 (UN ECE R118.03 Compliant)   All Cablesa 2.8 (0.1")   Diameter (mm) 2.8 (0.1")   Legth (m) ~ 0.3 (1')   SMA Plug (m)   SMA Plug (m)   ViFi SMA Socket (f)   SMA Socket (f)   SMA Socket (f)	Ingress Protect	tion			IP66			
Max panel thires (mm)   7 (0.27")     Mounting hole   19 (3/4")     Object of the second of the s	Mounting Data	1						
Mounting hole /rm   19 (3/4")     Odd /rm     Cable Data     FR RG174 (UN ECE R118.03 Compliant)     All Cables   Diameter (mm)   2.8 (0.1")     Length (m)   ~0.3 (1')   ~0.3 (1')     Terminations     4G/5G   SMA Plug (m)     ViFi   SMA Socket (f)     GPS/GNSS   FME Socket (f)	Mounting type				Panel mount			
Cable Data     Type   FR RG174 (UN ECE R118.03 Compliant)     All Cables   Diameter (mm)   2.8 (0.1")     Length (m)   ~ 0.3 (1')     Terminations     4G/5G   SMA Plug (m)     WiFi   SMA Socket (f)     GPS/GNSS   FME Socket (f)	Max panel thic	kness (m	m)		7 (0.27")			
TypeFR RG174 (UN ECE R118.03 Compliant)All CablesDiameter (mm)2.8 (0.1")Length (m)~ 0.3 (1')Terminations4G/5GSMA Plug (m)WiFiSMA Socket (f)GPS/GNSSFME Socket (f)	Mounting hole	(mm)			19 (3/4")			
All Cables Diameter (mm) 2.8 (0.1")   Length (m) ~0.3 (1')   Terminations    4G/5G SMA Plug (m)   WiFi SMA Socket (f)   GPS/GNSS FME Socket (f)	Cable Data							
Length (m) ~ 0.3 (1')   Terminations 4G/5G   4G/5G SMA Plug (m)   WiFi SMA Socket (f)   GPS/GNSS FME Socket (f)		Туре			FR RG174 (UN ECE R118.03 Compliant)			
Terminations   4G/5G SMA Plug (m)   WiFi SMA Socket (f)   GPS/GNSS FME Socket (f)	All Cables	Diameter (mm)			2.8 (0.1")			
4G/5GSMA Plug (m)WiFiSMA Socket (f)GPS/GNSSFME Socket (f)		Length (m)			~ 0.3 (1')			
WiFi SMA Socket (f)   GPS/GNSS FME Socket (f)	Terminations							
GPS/GNSS FME Socket (f)	4G/5G				SMA Plug (m)			
	WiFi				SMA Socket (f)			
Whip FME Plug (m)	GPS/GNSS				FME Socket (f)			
	Whip				FME Plug (m)			

\*VSWR measured with 5m (16.4') of cable on a 400x400mm (15.75 x 15.75") ground plane

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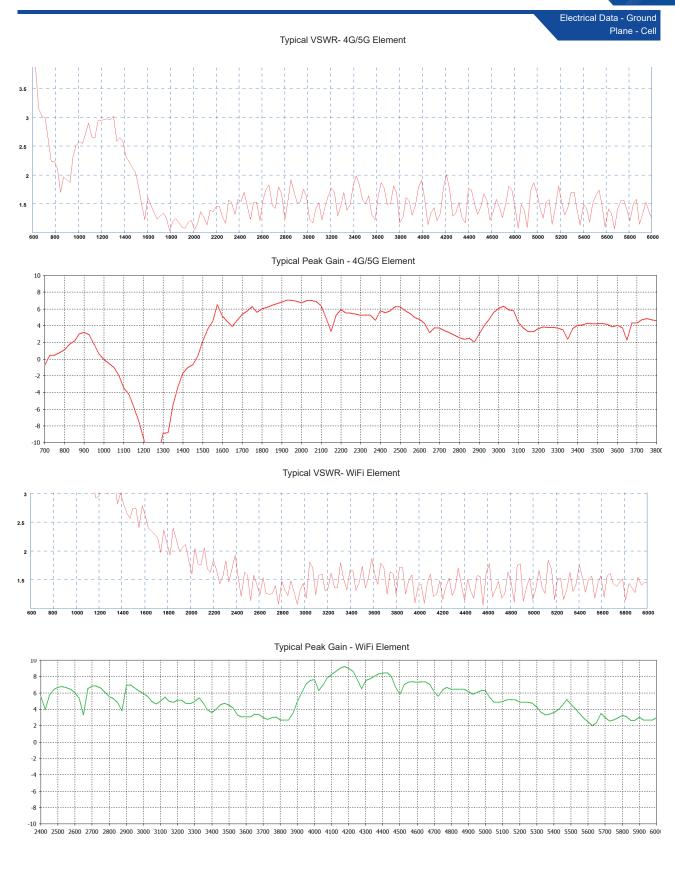
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Electrical Data Ground

Measurement Conditions	4G/5G Antenna				
	Frequency Range (MHz)	LTE Bands	Antenna Element	Peak Gain (dBi)	
400x400mm (15.75 x 15.75") ground plane 0.3m (1') FR	699-798	12,13, 14 17,28	Cell	1.1	
RG174 Pigtails	807-862	5,19,20,26,27	Cell	3.0	
	880-960	8	Cell	3.1	
+ + +	1710-1920	2,3,4,9,25,35,39,66	Cell	6.8	
	1920-2170	1,23	Cell	7.0	
	2300-2400	30,40	Cell	5.7	
	2496-2690	7,38,41	Cell	6.2	
	3300-3800	22,42,43,48,78,	Cell	4.8	
+	WiFi Antenna				
	Frequency Range (MHz)	WiFi Bands	Antenna Element	Peak Gain (dBi)	
+ - / MARCON	2396-2485	2.5GHz	WiFi	6.4	
	5150-5250	UNII-1	WiFi	5.2	
	5250-5350	UNII-2A	WiFi	4.8	
	5470-5725	UNII-2B	WiFi	5.2	
	5725-5900	UNII-3	WiFi	3.1	

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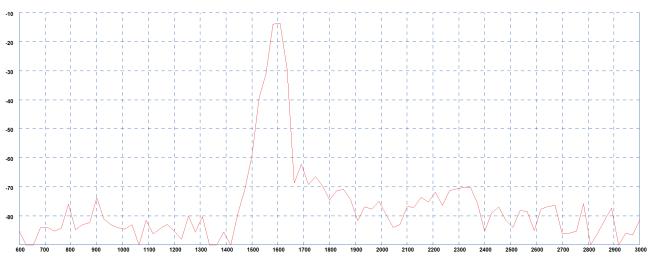


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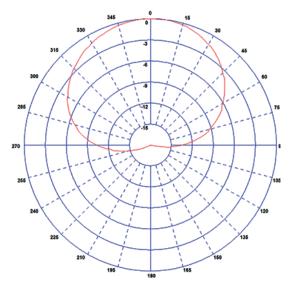
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Electrical Data Ground Plane GPS/GNSS

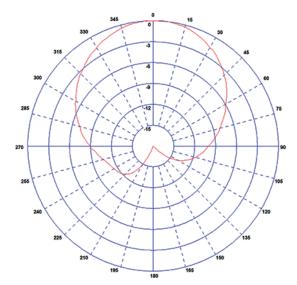




Typical E Plane Pattern - GPS/GNSS 1575 MHz



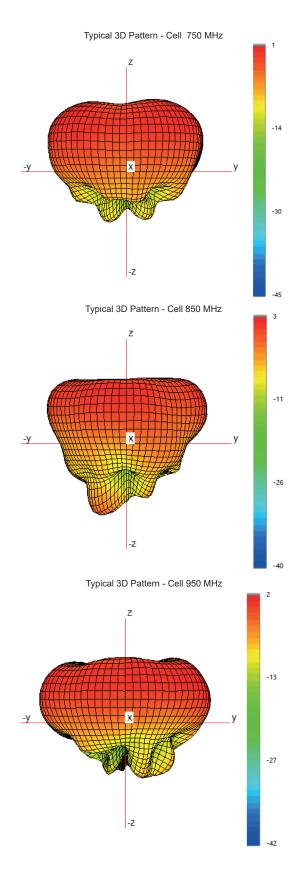
Typical E Plane Pattern - GPS/GNSS 1602 MHz

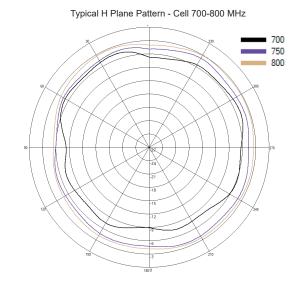


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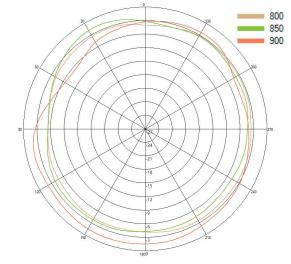
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Pattern Data - Ground Plane Cell

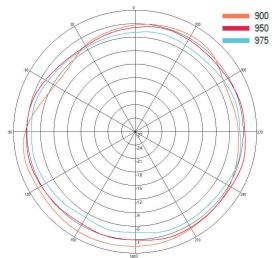




Typical H Plane Pattern - Cell 800-900 MHz



Typical H Plane Pattern - Cell 900-975 MHz



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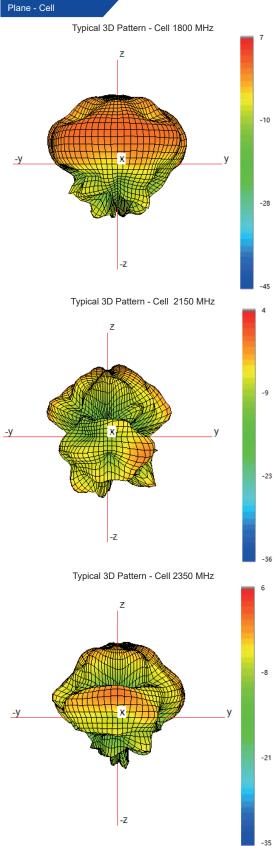
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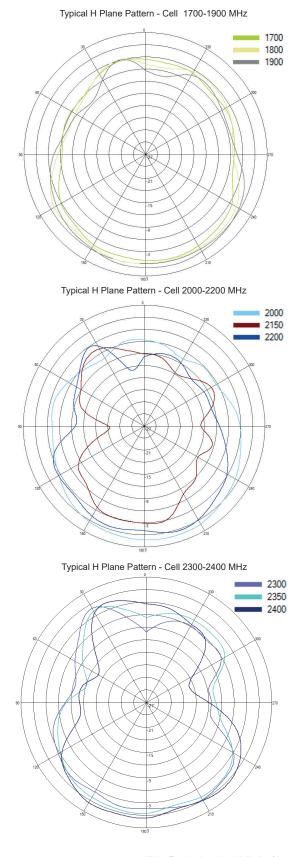
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Pattern Data Ground





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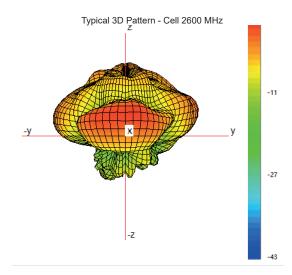
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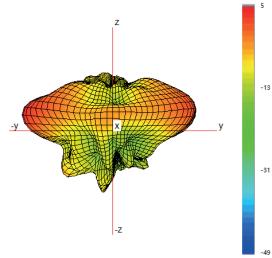
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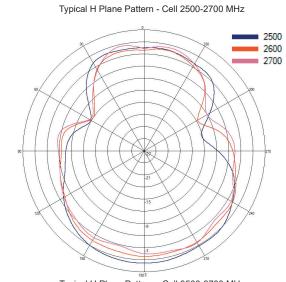
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Pattern Data Ground -Plane Cell

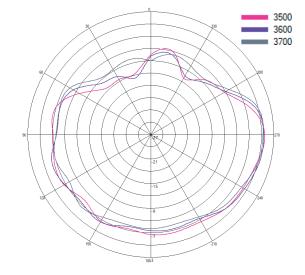


Typical 3D Pattern - Cell 3600 MHz





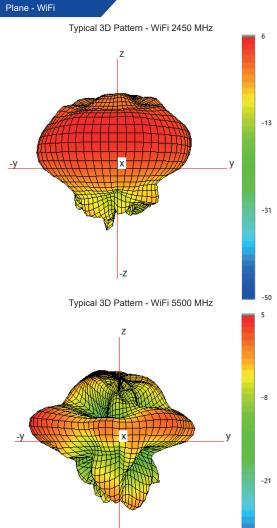
Typical H Plane Pattern - Cell 3500-3700 MHz



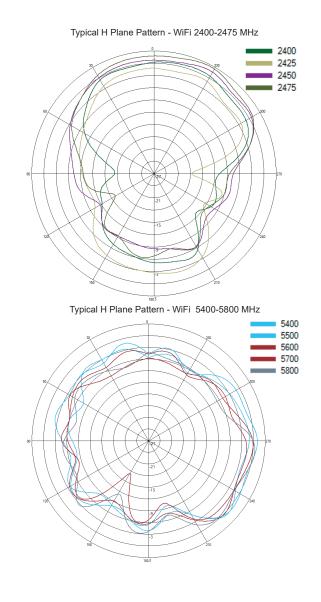
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Pattern Data Ground



-Z



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