

SiSo 4G/5G Omni Antenna

BS[G]S-6-60-[X]



- SiSo 4G/5G antenna solution
- Wall, rail or mast mount
- Optional GPS/GNSS - 26dB LNA
- Integrated coaxial cables

The BS[G]S-6-60-[X] antenna is a SiSo omni-directional broad band antenna range for 4G/5G devices. It covers 617-960/1427-6000MHz and is suitable for external or internal installation.

The mounting bracket enables simple wall mounting using the supplied screws and wall plugs and mast/rail mounting using the supplied clamps.

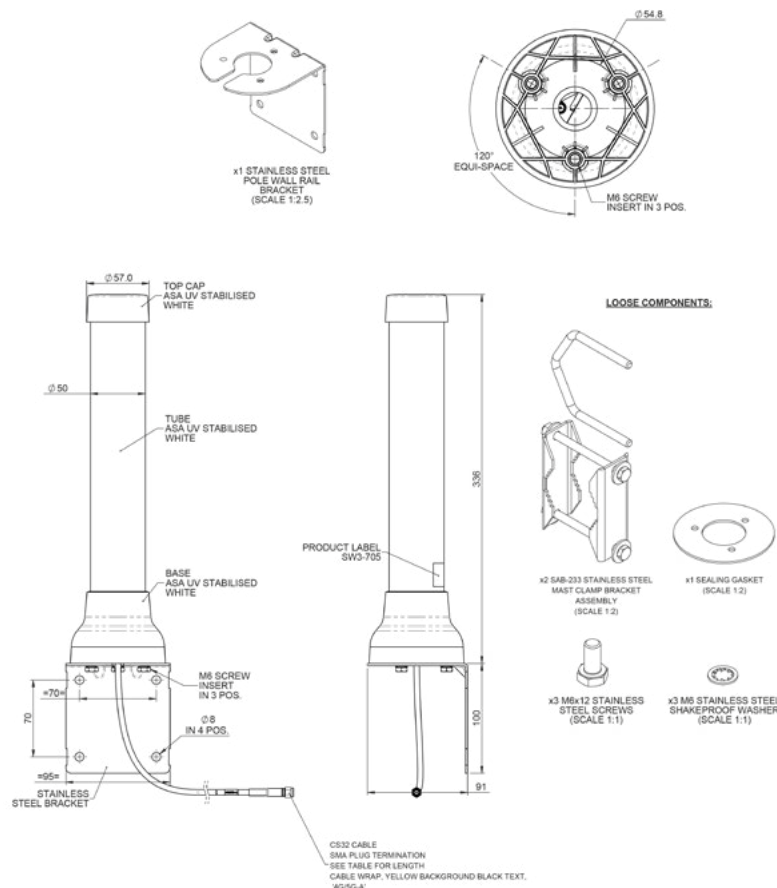
The omni-directional radiation pattern allows easy placement of the antenna in an elevated position, without requiring directional alignment.

The BSGS-6-60-[X] is supplied with an integrated GPS/GNSS module with 26dB LNA gain and advanced filtering to combat noise.

This antenna is an ideal solution for IoT use in industrial and domestic environments for cellular modems/routers and Machine to Machine (M2M) wireless connectivity applications. The weather and corrosion resistant design also makes the antenna suitable for certain marine and coastal applications.

Technical Drawing

BSS-6-60-VARSP Shown



Part No.		BSGS-6-60-5SP	BSGS-6-60-05NJ	BSS-6-60-5SP	BSS-6-60-05NJ
Electrical Data					
Frequency Range (MHz)	Element 1	617-960 / 1427-6000			
	Element 2	1559-1612	-		
Operational Band	Element 1	2G/3G/4G/5G			
	Element 2	GPS-GNSS	-		
Peak Realised Gain: Isotropic* Element 1	617-960MHz	3dBi			
	1427-2700 MHz	5dBi			
	3400-4200MHz	6dBi			
	4.9-6000Mhz	7dBi			
Typical VSWR**		<2.5:1			
Nominal Radiated Efficiency*		> 60%			
Polarisation		Vertical			
Pattern		Omn-directional			
Impedance		50Ω			
Max Input Power (W)		10			
GPS/GNSS Data					
Frequency Range (MHz)		1559-1612	-		
Typical VSWR		<2.5:1			
LNA Gain		26dB (+/-3)	-		
Polarisation		RHCP			
Operating Voltage / current		3-5 VDC <20ma	-		
Mechanical Data					
Dimensions (mm)	Height Excl Brkt	336 (13.23")			
	Diameter	86 (3.38")			
Operating Temp (°C)		-40° / +85°C (-40° / 185°F)			
Material		ASA, Stainless Steel			
Material Approvals		Radome ASA Material - UL 746C F1, UL 94-HB			
Colour		White & Natural			
Ingress Protection		IP67			
Mounting Data					
Fixing		Wall, Mast, Rail or Panel Mount			
Max Mast / Rail Diameter (mm)		50 (1.96")			
Cable Data					
4G/5G Cables	Type	CS32 (EN45545-2 & UN ECE R118 Compliant)			
	Diameter (mm)	5 (0.19")			
	Length (m)	5 (17')	0.5 (1' 6")	5 (17')	0.5 (1' 6")
	Termination	SMA (m)	N(f)	SMA (m)	N(f)
GPS/GNSS Cables	Type	CS29 FR (EN45545-2 & UN ECE R118 Compliant)			
	Diameter (mm)	5 (0.19")			
	Length (m)	5 (17')	0.5 (1' 6")	-	
	Termination	SMA (m)	N(f)	-	

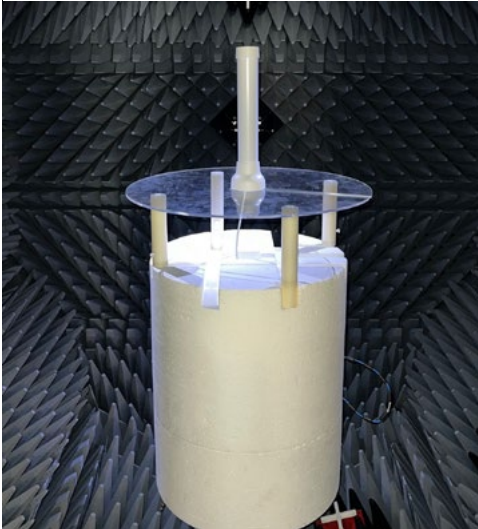
* Peak gain and efficiency measured with 0.5m of cable in free space. ** Typical VSWR measured with 0.5m of cable in free space.

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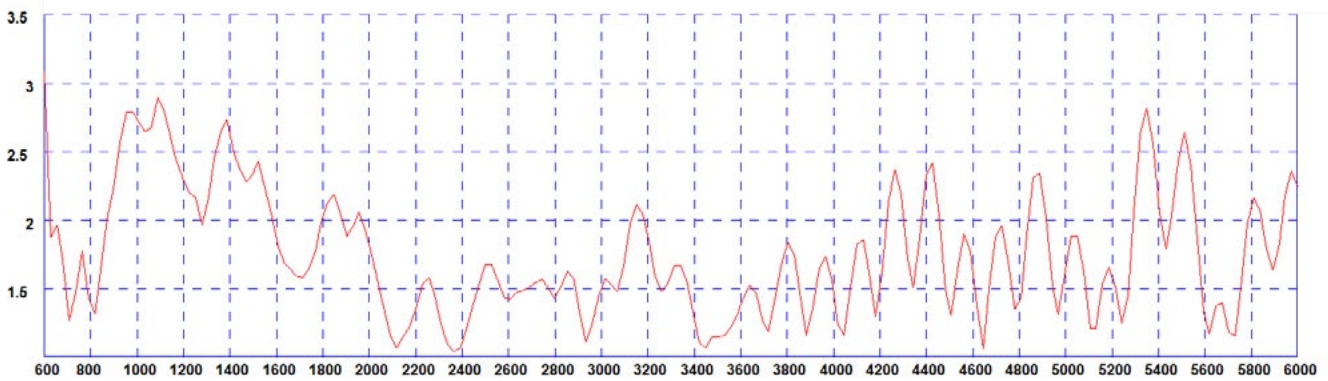
Electrical Data Cell - Free Space

Measurement Conditions	4G/5G Antennas			
	Frequency Range (MHz)	LTE Bands	Peak Gain (dBi)	Efficiency (%)
Measured in free space with 0.5m (19.6') of CS32 cable.	617-698	71, 105	3.3	56
	699-798	12,13, 14 17,28	3.5	65
	807- 862	5,19,20,26,27	3.4	71
	880-960	8	2.3	63
	1427-1518	11, 21, 74,75,76	1.0	68
	1710-1920	2,3,4,9,25,35,39,66	2.6	64
	1920-2170	1,23	4.4	68
	2300-2400	30,40	5.2	79
	2496-2690	7,38,41	5.4	78
	3300-4200	22,42,43,48,77,78	6.4	69
	4400-5000	79	6.7	59



Electrical Data Cell - Free Space

Typical VSWR*



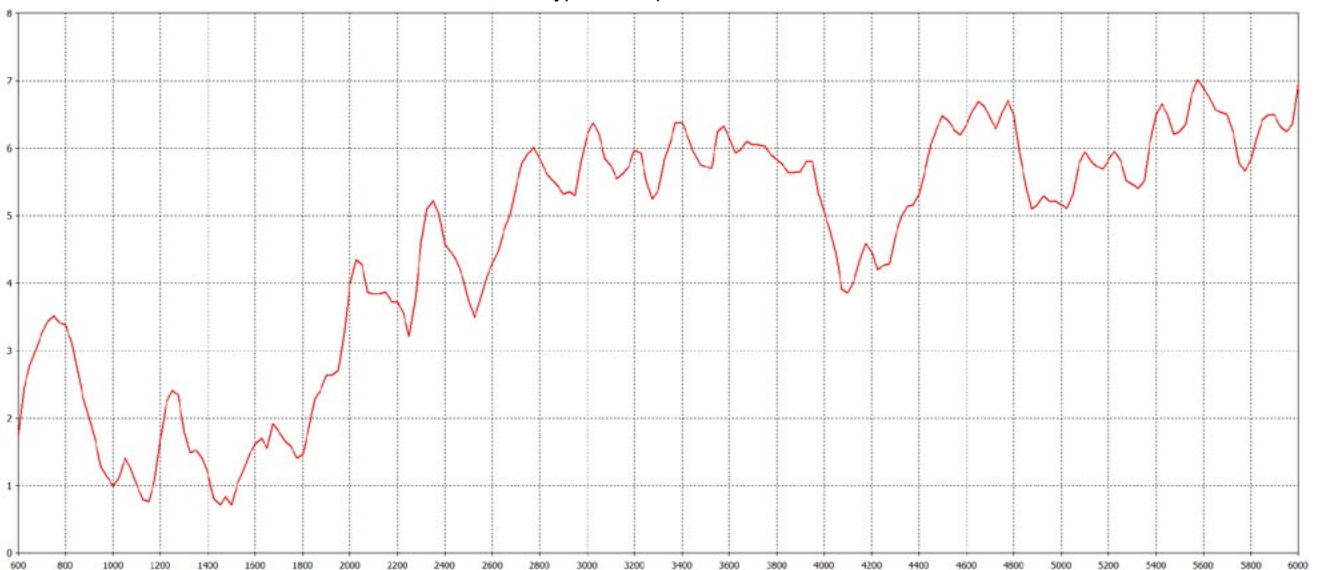
*VSWR measured in free space with 0.5m (19.6') of CS32 cable.

Typical Efficiency*



*Efficiency measured in free space with 0.5m (19.6') of CS32 cable.

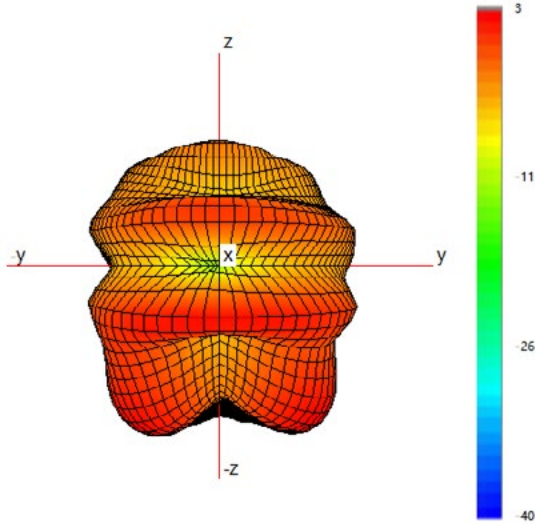
Typical Swept Peak Gain*



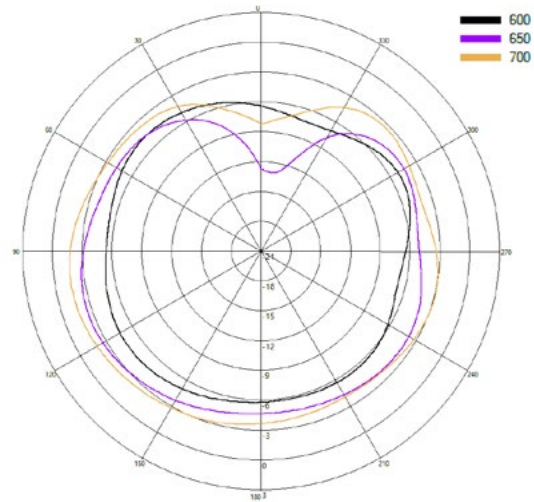
*Peak Gain measured in free space with 0.5m (19.6') of CS32 cable.

3D Pattern Data in Free Space Cell

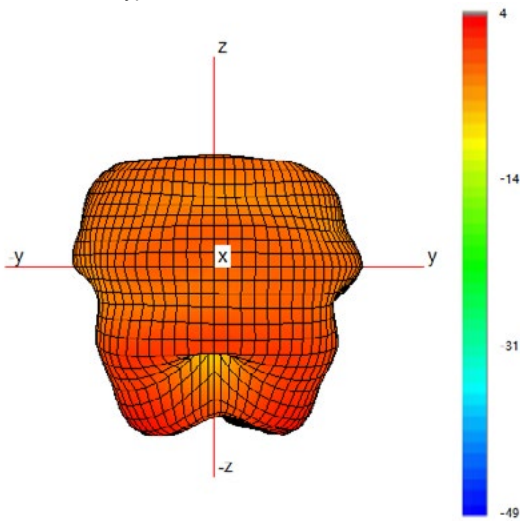
Typical 3D Pattern- Cell - 650 MHz



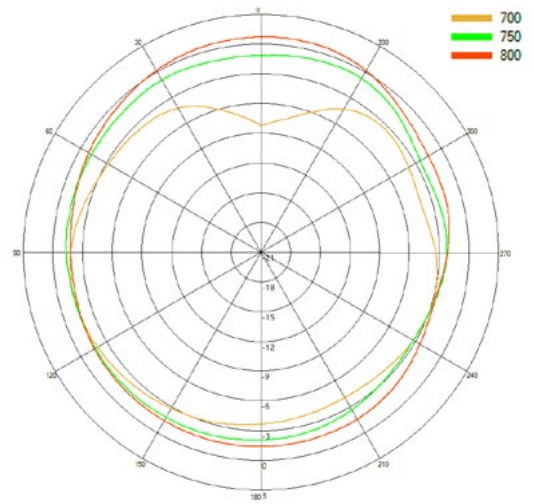
Typical H Plane- Cell - Patterns- 600-700MHz



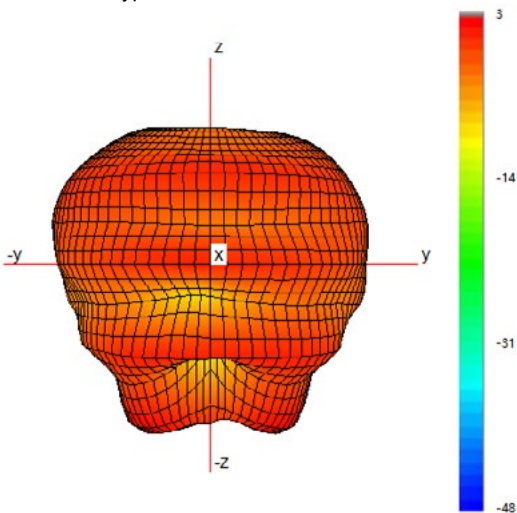
Typical 3D Pattern- Cell - 750 MHz



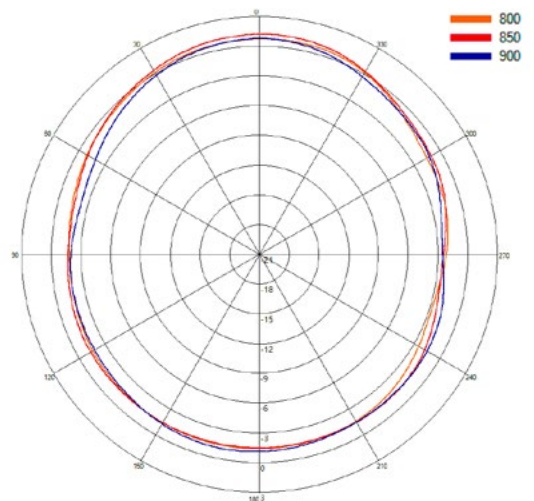
Typical H Plane- Cell - Patterns- 700-800MHz



Typical 3D Pattern- Cell - 850 MHz

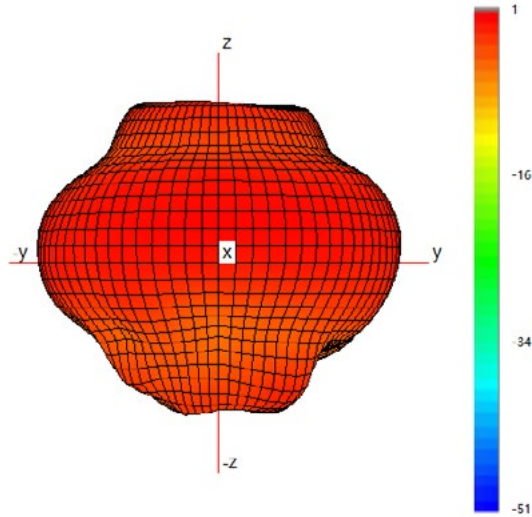


Typical H Plane- Cell - Patterns- 800-900MHz

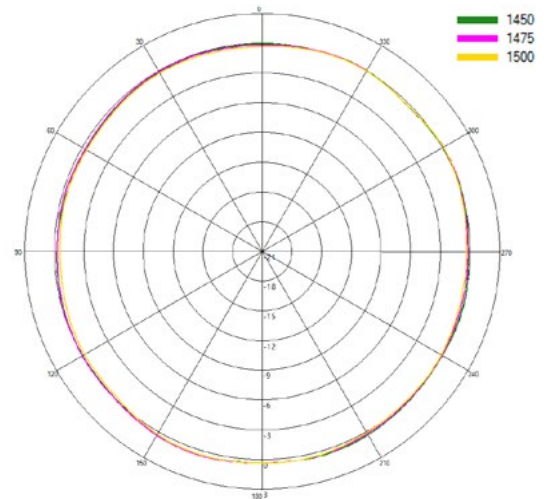


3D Pattern Data in Free Space Cell

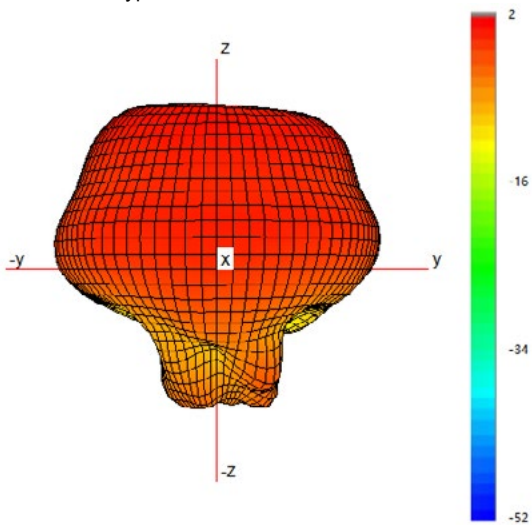
Typical 3D Pattern- Cell - 1475 MHz



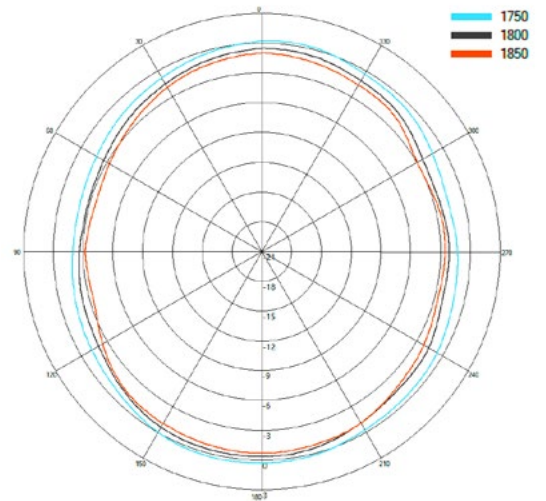
Typical H Plane- Cell - Patterns- 1450-1500 MHz



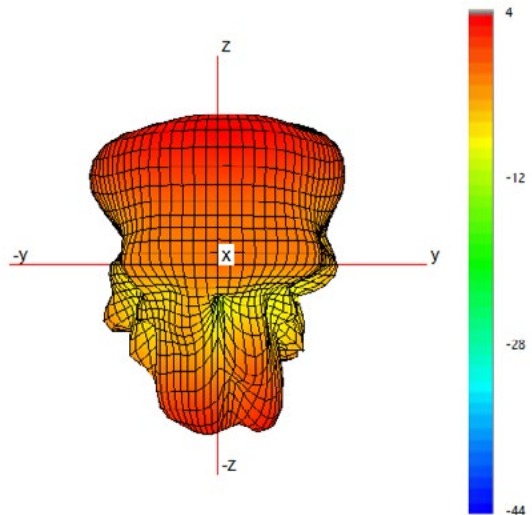
Typical 3D Pattern- Cell - 1800 MHz



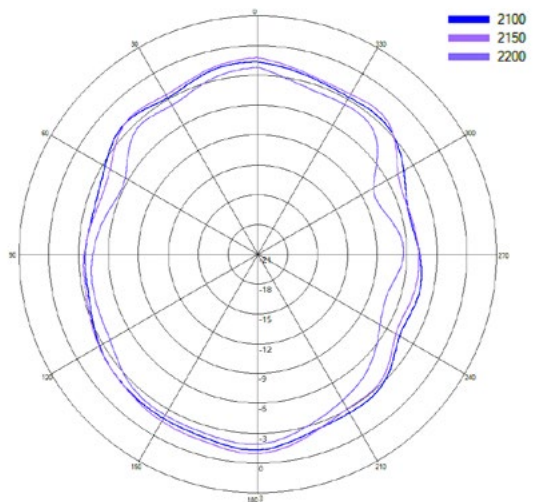
Typical H Plane- Cell - Patterns- 1750-1850 MHz



Typical 3D Pattern- Cell - 2150 MHz

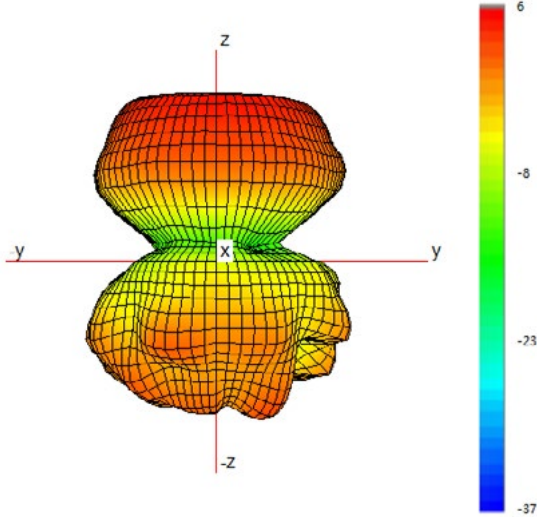


Typical H Plane- Cell - Patterns- 2100-2200 MHz

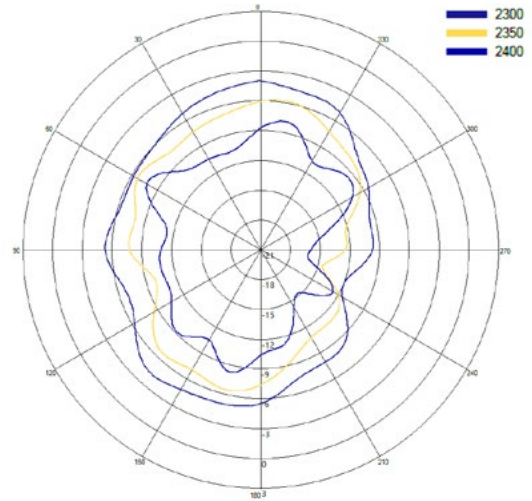


3D Pattern Data in Free Space Cell

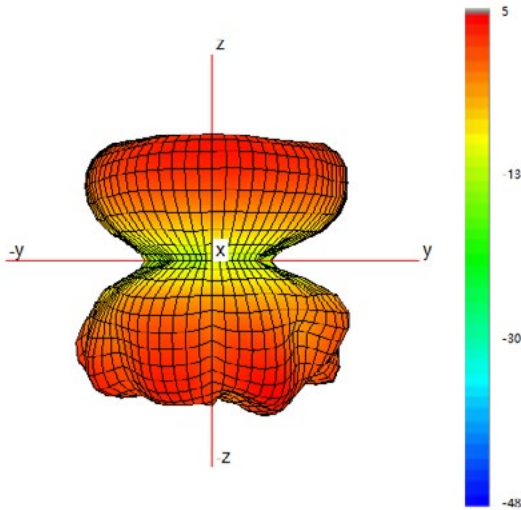
Typical 3D Pattern- Cell - 2350 MHz



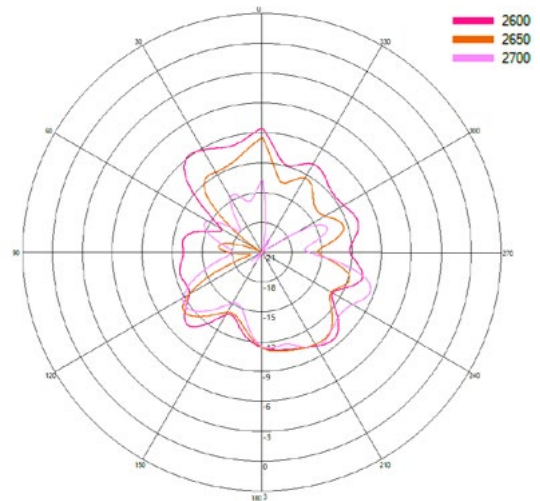
Typical H Plane- Cell - Patterns- 2300-2400 MHz



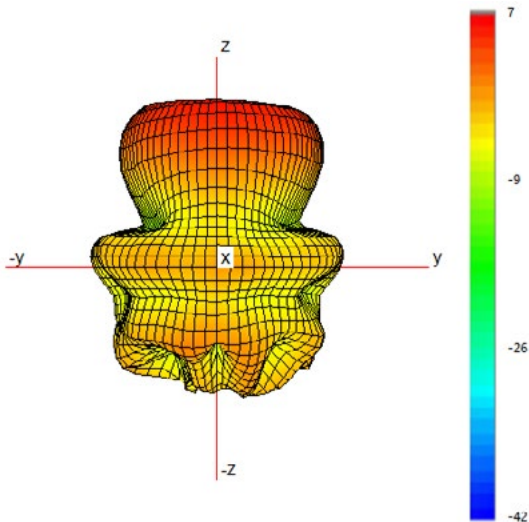
Typical 3D Pattern- Cell - 2650 MHz



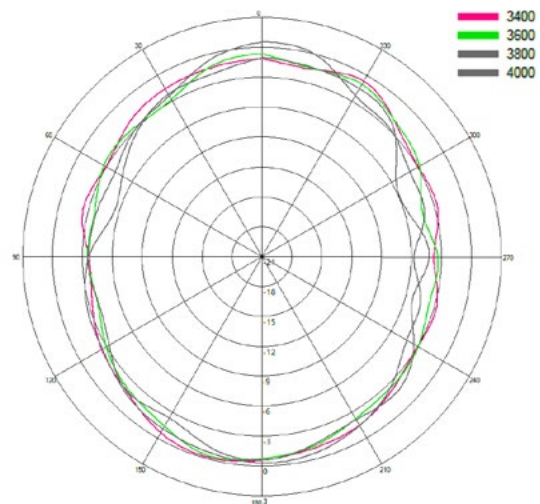
Typical H Plane- Cell - Patterns- 2600-2700 MHz



Typical 3D Pattern- Cell - 3600 MHz

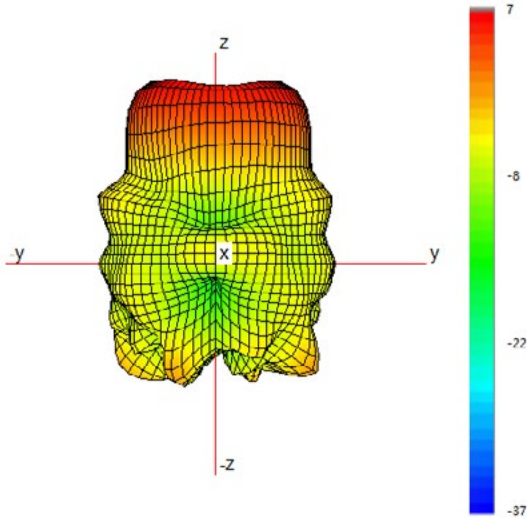


Typical H Plane- Cell - Patterns- 3400-4000 MHz

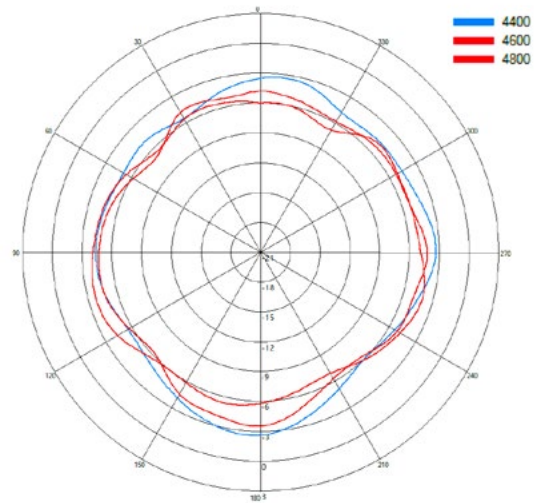


3D Pattern Data in Free Space Cell

Typical 3D Pattern- Cell - 4700 MHz

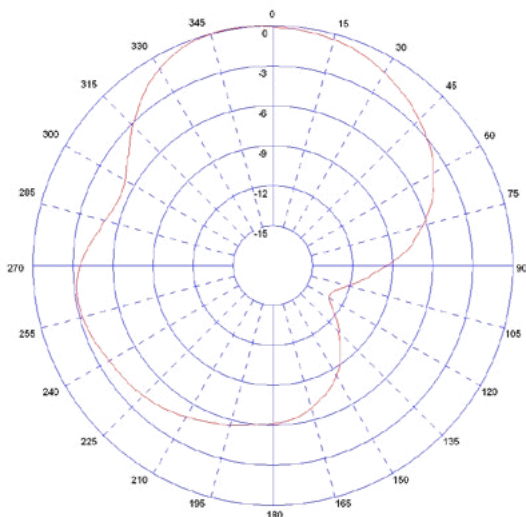


Typical H Plane- Cell - Patterns- 4400-4800 MHz



Electrical Data- L1 GPS/GNSS

Typical E Plane Pattern - GPS/GNSS 1575 MHz



Typical E Plane Pattern - GPS/GNSS 1602 MHz

