4G/5G Low Profile Antenna

LPBSC-6-60-[X]SPIP

- 2G/3G/4G/5G antenna solution covering global bands
- Designed for bracket or cabinet/enclosure installation
- Integrated double shielded coaxial cable
- IP68 rated (5m /7days)

LPBSC-6-60-[X]SPIP is an omni-directional broadband antenna range covering 617-960/1427-6000MHz which has been specially adapted for use in hostile, frequently flooded environments for applications like sewer monitoring and water metering.

The antenna is designed to be wall, mast or panel mounted either using a bracket (not supplied) or on a device / enclosure. The exposed metal parts of the antenna body are 316 stainless steel making the antenna very resistant to corrosion.

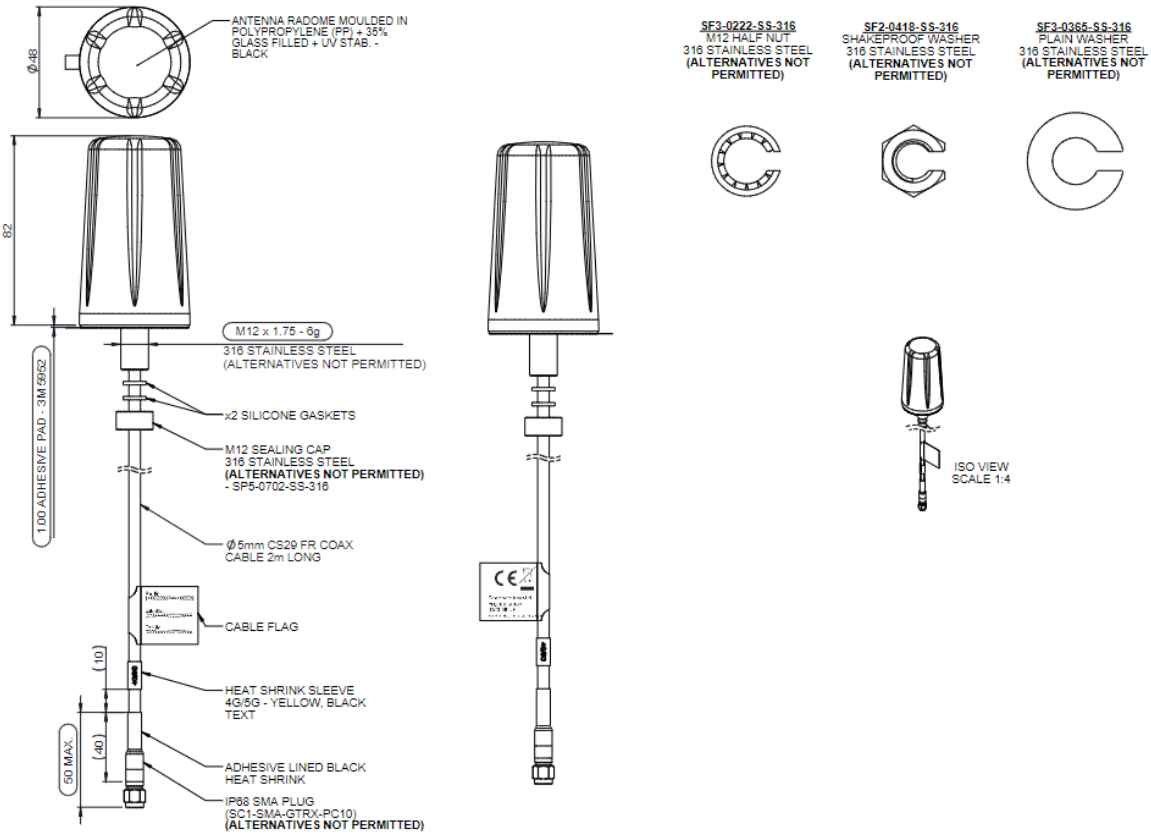
The omni-directional radiation pattern allows easy placement of the antenna in any position, without requiring directional alignment.

TheLPBSC-6-60-[X]SPIP antenna is supplied with an integral ultra-low loss FR CS29 coaxial cable, of various lengths, fitted a special SMA plug which forms a seal preventing water wicking up the cable into the antenna housing during submersion.

This antenna is protected to IP68 (5m / 7 days) when mounted on a bracket provided that the SMA plug is properly connected.

Technical Drawing

LPBSC-6-60-[X]SPIP Shown



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4G/5G Low Profile Antenna

LPBSC-6-60-[X]SPIP

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Product Data

Part No.		
		LPBSC-6-60-2SPIP
Electrical Data		
Frequency Range (MHz)		617-960 / 1427-6000
Operational Band		2G / 3G / 4G / 5G
Typical VSWR*		<3:1
Peak Gain* (dBi)	617-960MHz	2.8
	1427-2700MHz	3.6
	3300-6000MHz	5.5
Polarisation		Vertical
Pattern		Omni-directional
Impedance		50Ω
Max Input Power (W)		30
Mechanical Data		
Dimensions	Height mounted	82mm (3.2”)
	Diameter	48mm (1.89”)
Operating Temp (°C)		-40° / +85°C (-40° / 185°F)
Material		PP 35% GF, 316 Stainless Steel
Colour		Black
Ingress Protection		IP68 (5m / 7 days)
Mounting Data		
Fixing		Panel mount
Mounting Hole Diameter		19 mm (3/4”)
Cable Data		
Type		FR CS29
Diameter		5mm (0.2”)
Length		2m (6.6’)
Termination		IP68 SMA Plug

* Typical VSWR and peak gain measured in free space on bracket with 0.5 m (1.6’) of CS29 cable

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4G/5G Low Profile Antenna

LPBSC-6-60-[X]SPIP

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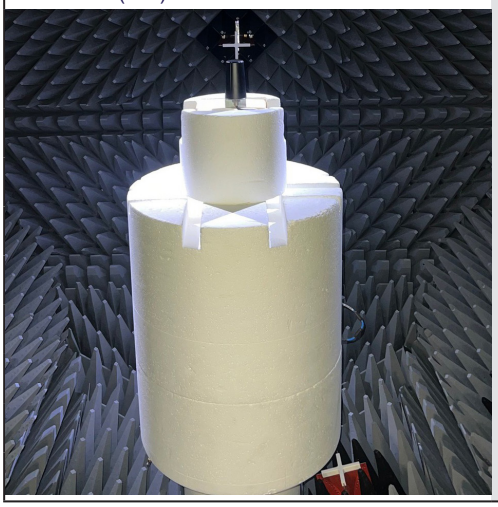
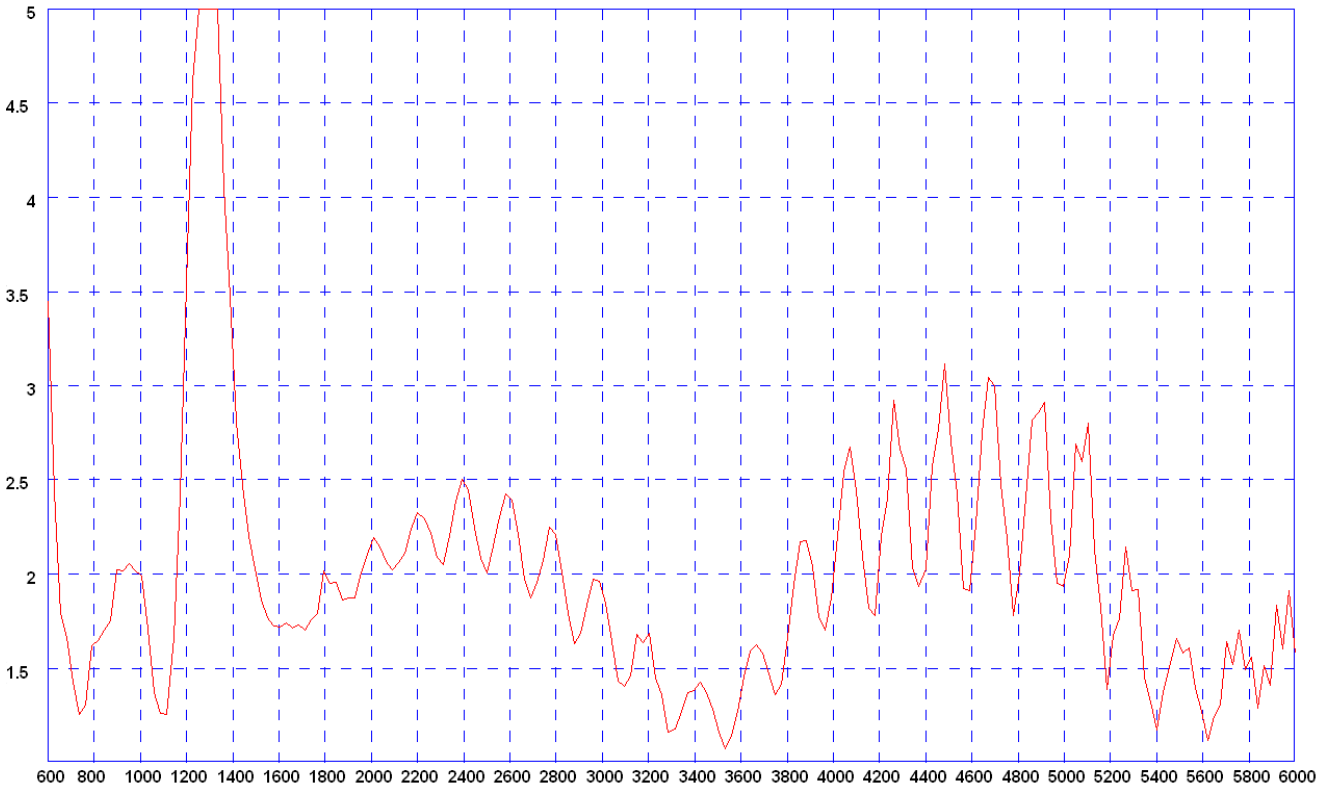
Electrical Data Cell-Free Space on bracket

Measurement Conditions	4G/5G Antenna			
	Frequency Range (MHz)	LTE Bands	Peak Gain (dBi)	Efficiency (%)
LPBSC-6-60 measured in free space on bracket with 0.5m (1.6') of CS29 cable	617-698	71, 105	2.0	75
	699-798	12,13, 14 17,28	2.4	77
	807- 862	5,19,20,26,27	2.4	71
	880-960	8	2.8	64
	1427-1518	11, 21, 74,75,76	3.6	72
	1710-1920	2,3,4,9,25,35,39,66	2.6	71
	1920-2170	1,23	2.6	71
	2300-2400	30,40	3.0	70
	2496-2690	7,38,41	3.4	72
	3300-4200	22,42,43,48,77,78	5.5	78
	4400-5000	79	4.9	62



Typical VSWR*



*VSWR measured in free space on bracket with 0.5m (1.6') of CS29 cable

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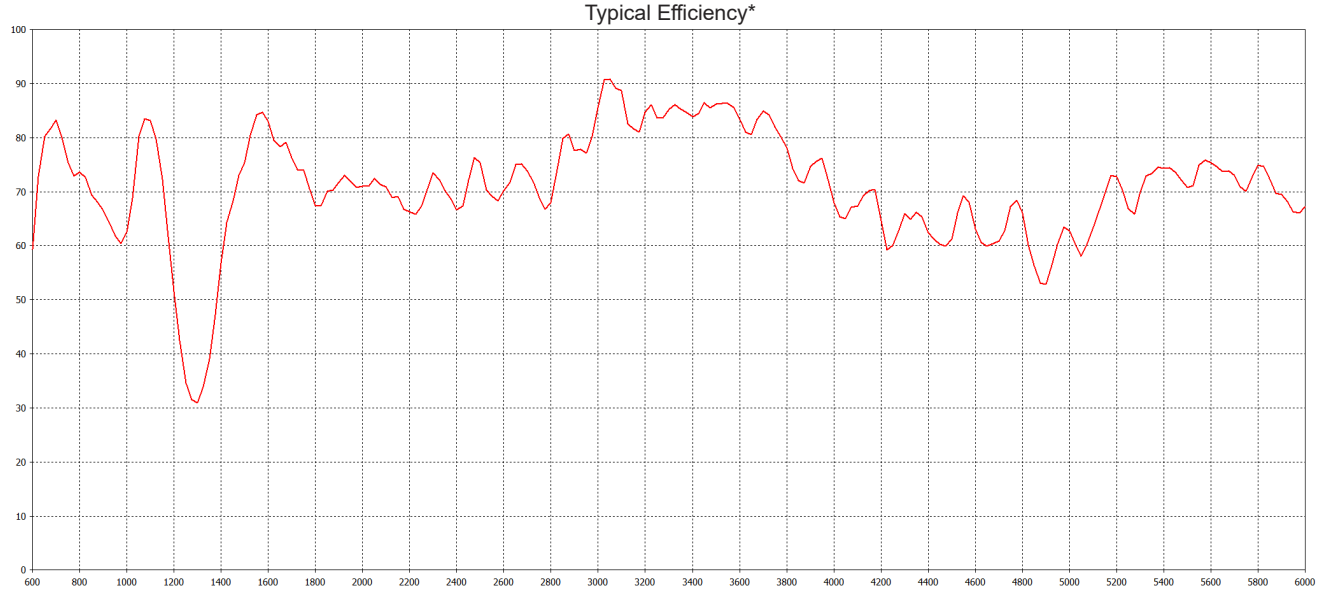
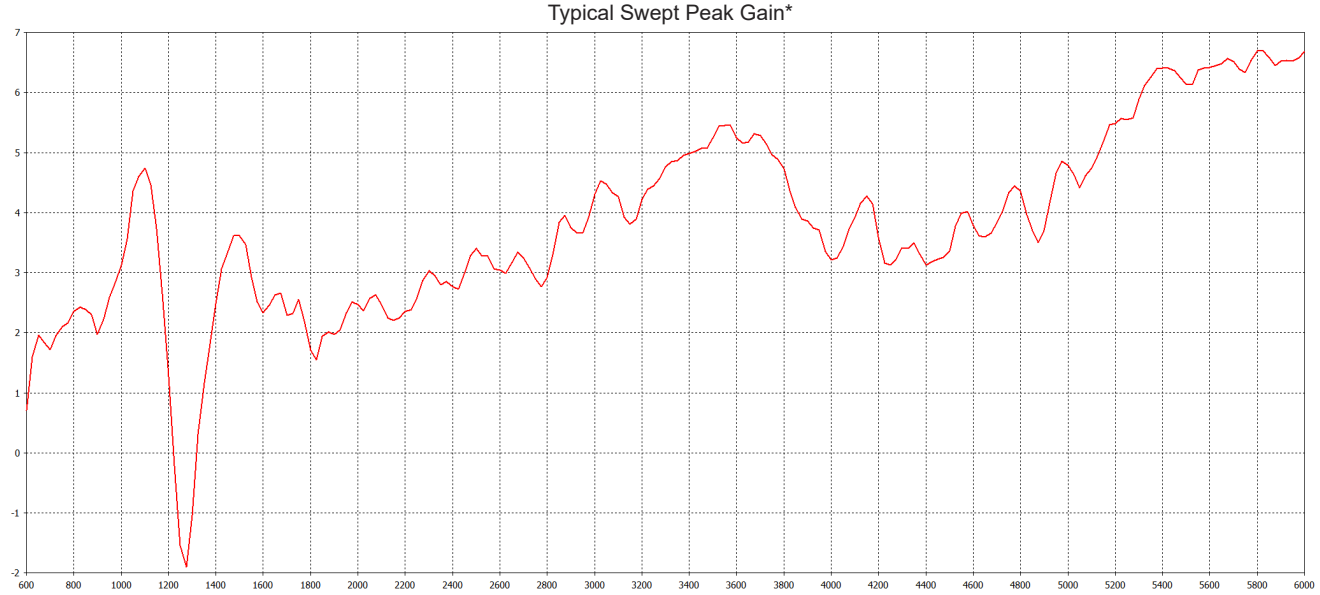
Electrical Data Cell-
Free Space on bracket

Typical Efficiency*



*Efficiency measured in free space on bracket with 0.5m (1.6') of CS29 cable

Typical Swept Peak Gain*



*Peak Gain measured in free space on bracket with 0.5m (1.6') of CS29 cable

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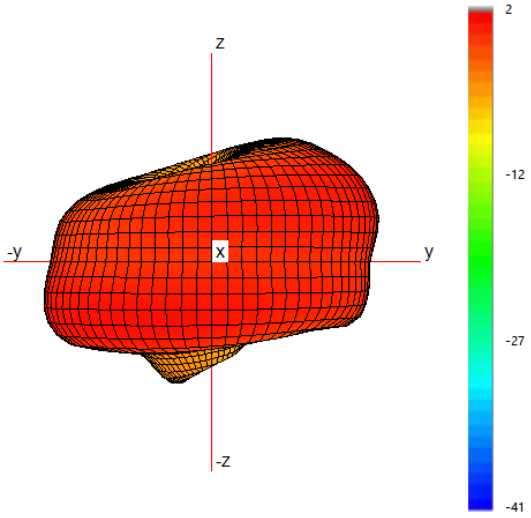
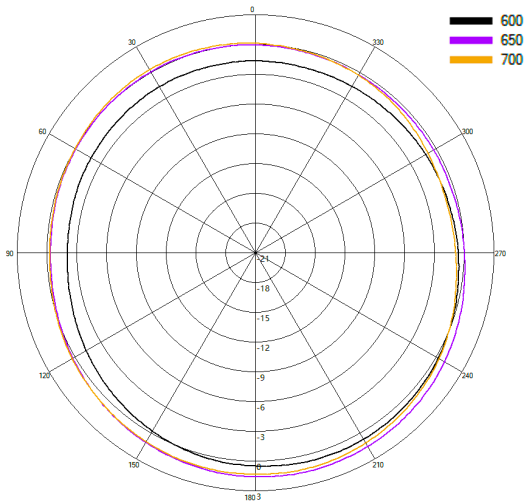
3D Pattern Data in Free Space on bracket Cell

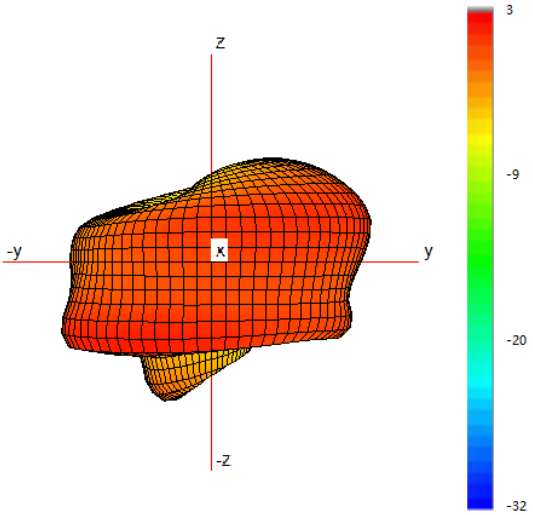
Typical 3D Pattern- Cell - 650 MHz



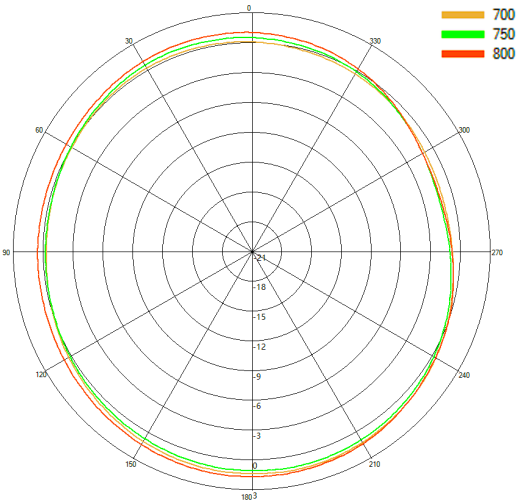
Typical H Plane- Cell - Patterns- 600-700MHz



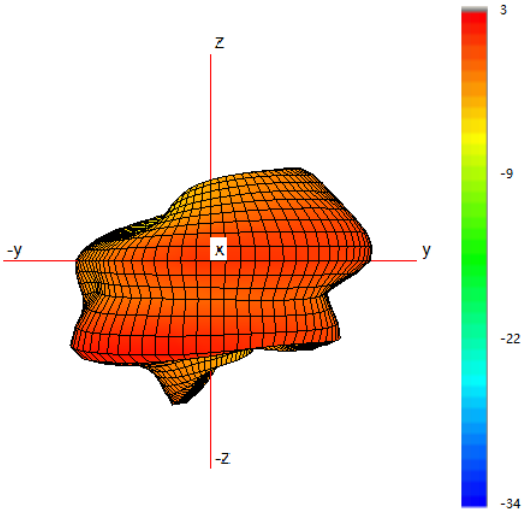
Typical 3D Pattern- Cell - 750 MHz



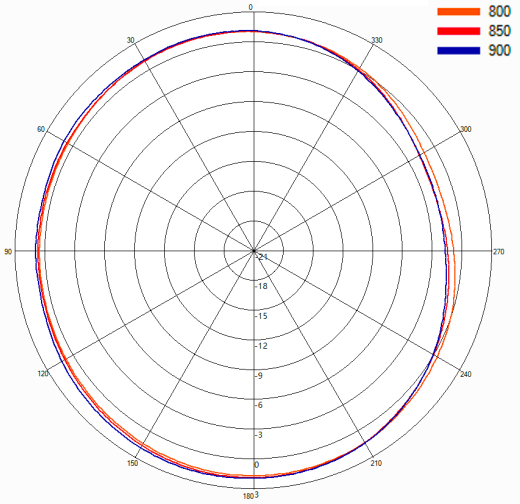
Typical H Plane- Cell - Patterns- 700-800MHz



Typical 3D Pattern- Cell - 850 MHz



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



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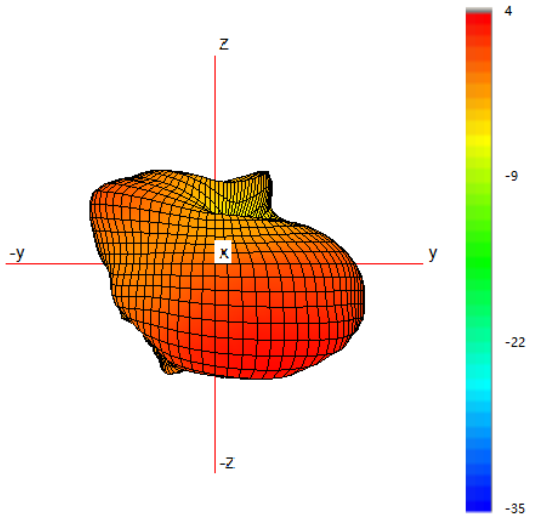
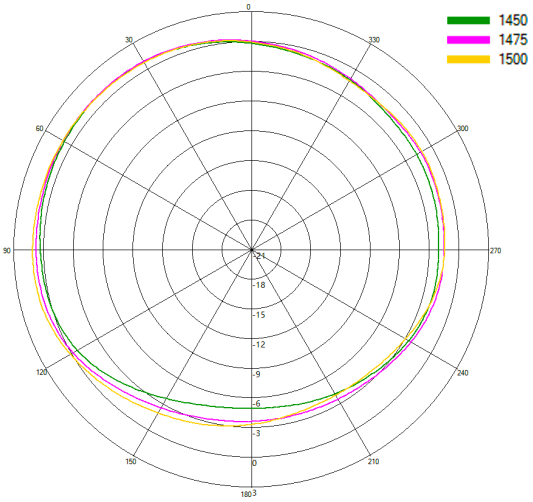
3D Pattern Data in Free Space on bracket Cell

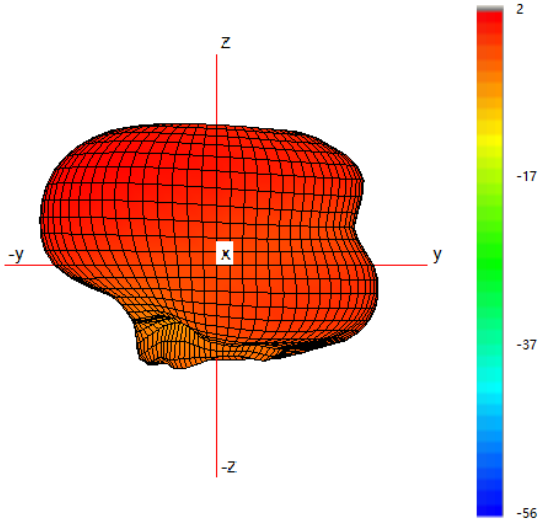
Typical 3D Pattern- Cell - 1475 MHz



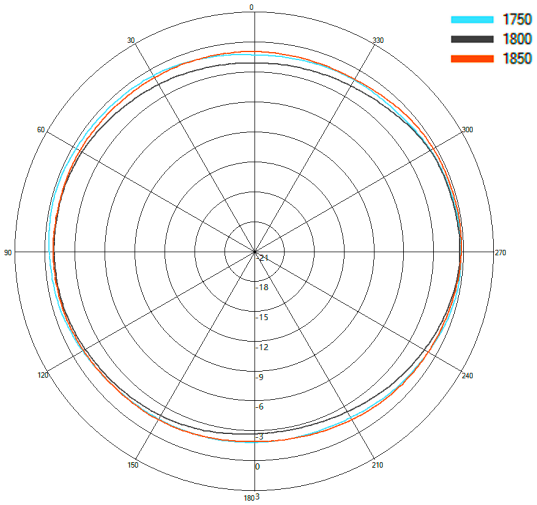
Typical H Plane- Cell- Patterns- 1450-1500 MHz



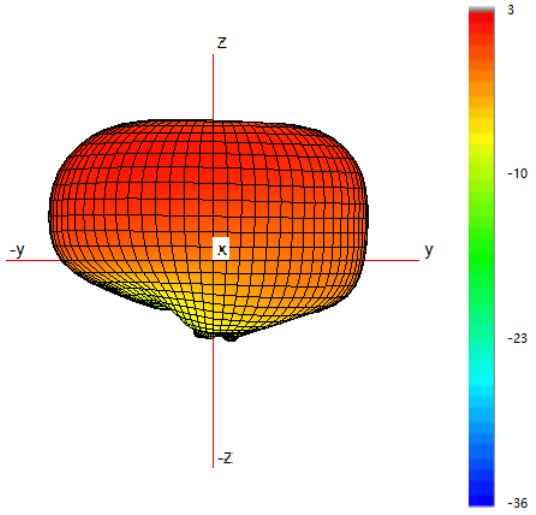
Typical 3D Pattern- Cell - 1800 MHz



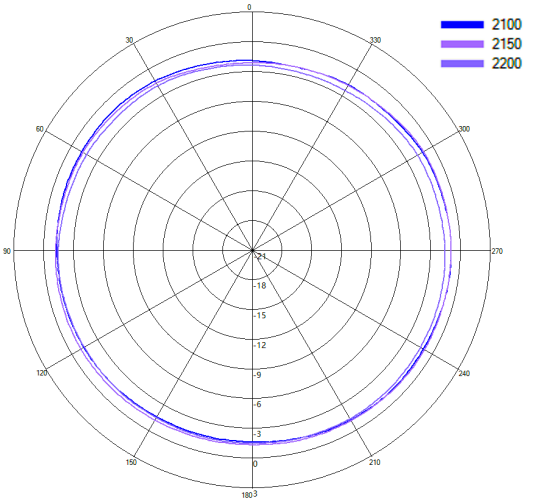
Typical H Plane- Cell- Patterns- 1750-1850 MHz



Typical 3D Pattern- Cell - 2150 MHz



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



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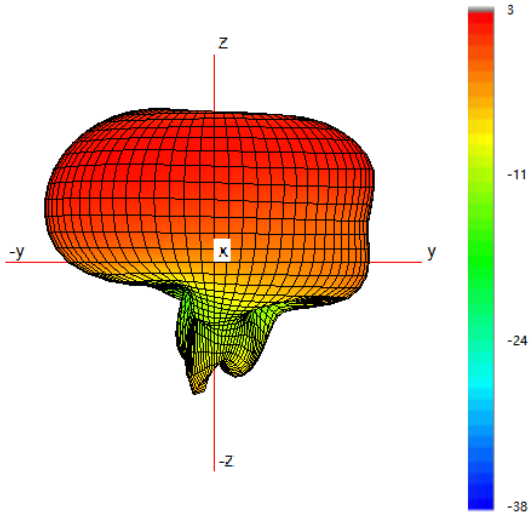
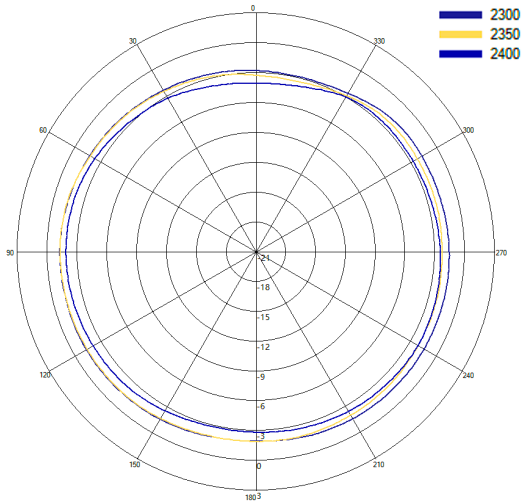
3D Pattern Data in Free Space on bracket Cell

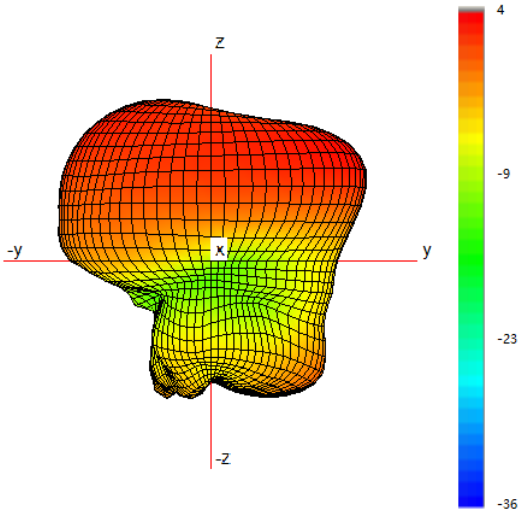
Typical 3D Pattern- Cell - 2350 MHz



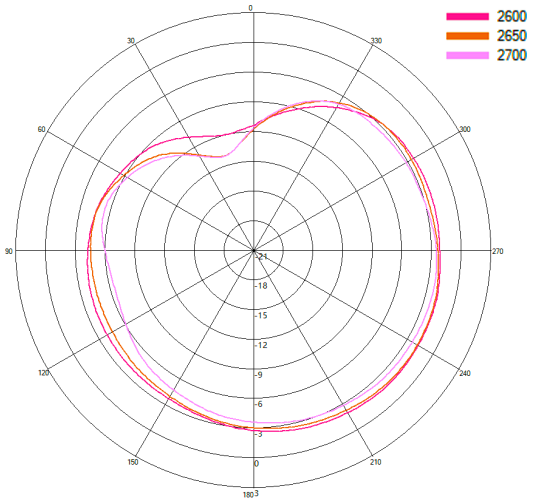
Typical H Plane- Cell - Patterns- 2300-2400 MHz



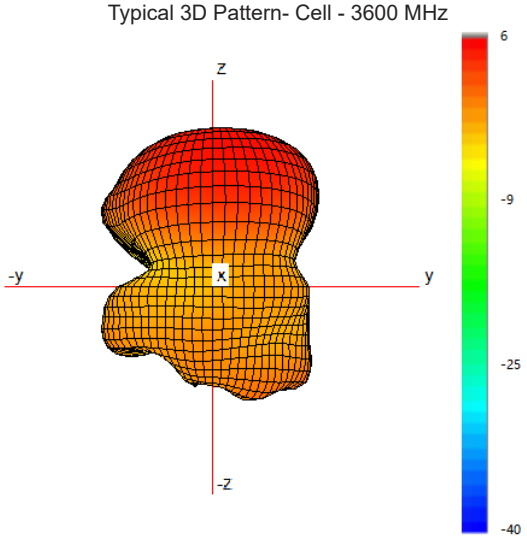
Typical 3D Pattern- Cell - 2650 MHz



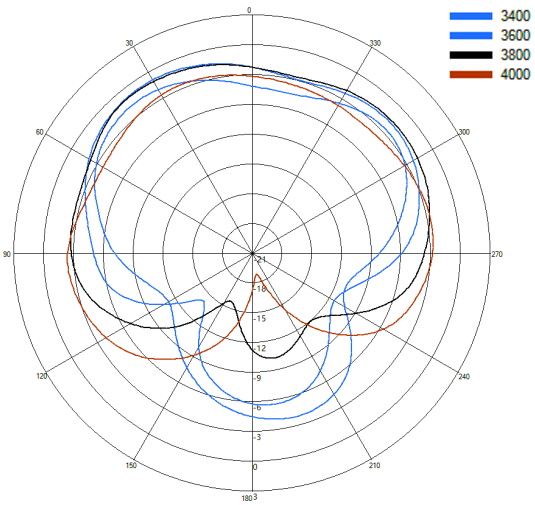
Typical H Plane- Cell - Patterns- 2600-2700 MHz



Typical 3D Pattern- Cell - 3600 MHz



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



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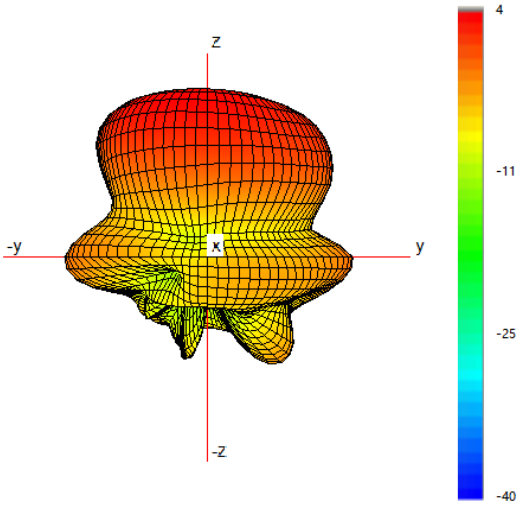
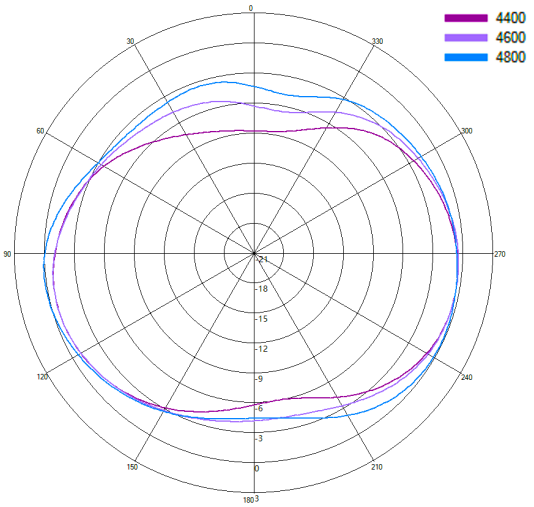
3D Pattern Data in Free Space on bracket Cell

Typical 3D Pattern- Cell - 4700 MHz



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



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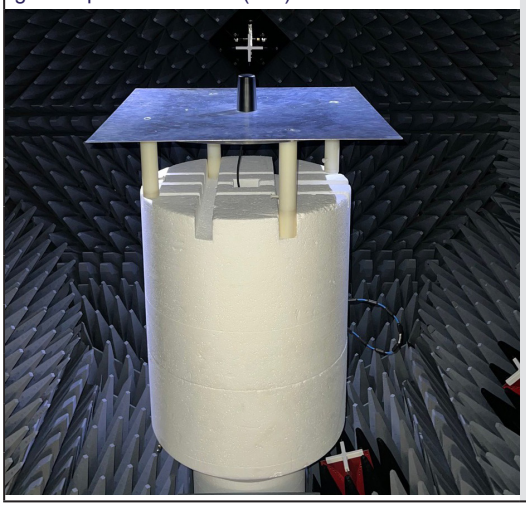
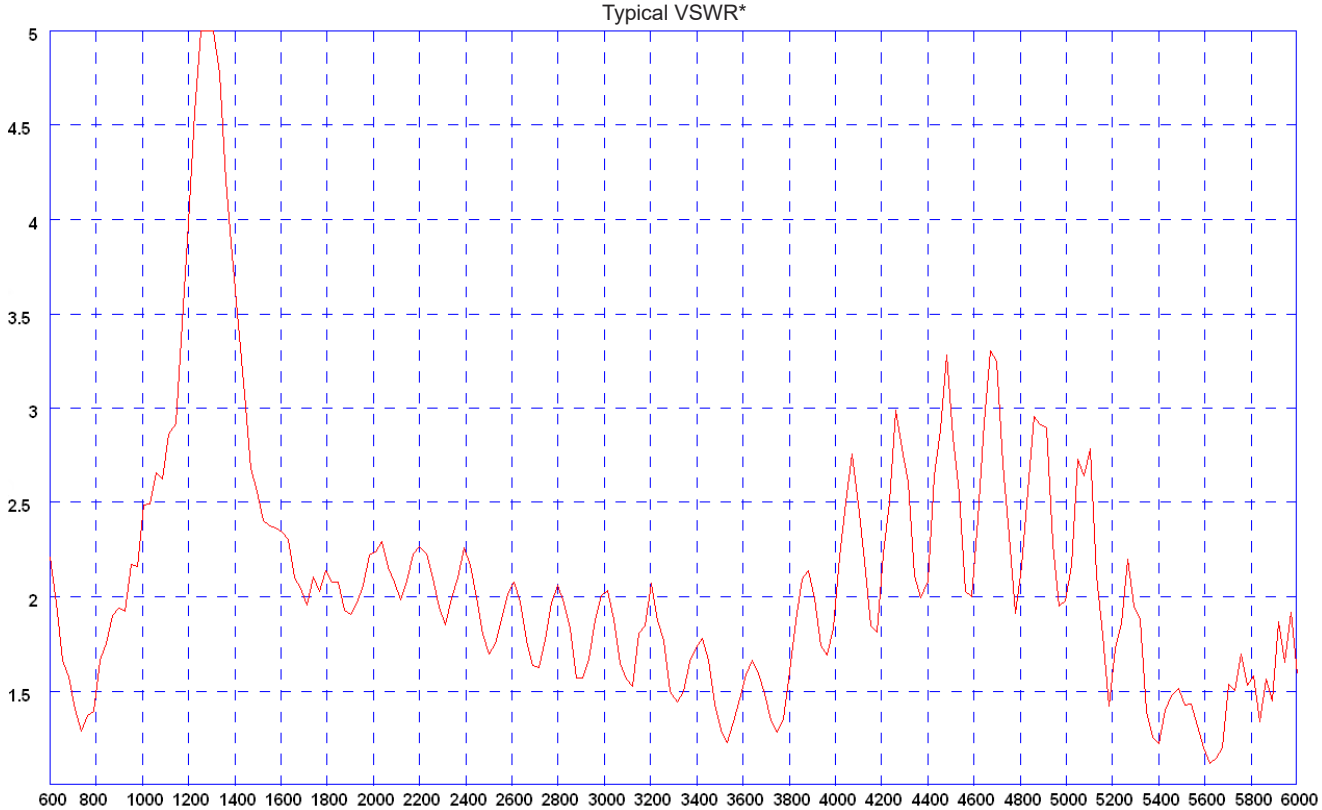
Electrical Data Cell - Ground Plane

Measurement Conditions	4G/5G Antenna			
	Frequency Range (MHz)	LTE Bands	Peak Gain (dBi)	Efficiency (%)
LPBSC-6-60 measured on 600x600mm (2'x2') ground plane with 0.5m (1.6') of CS29 cable	617-698	71, 105	3.8	71
	699-798	12,13, 14 17,28	3.1	59
	807- 862	5,19,20,26,27	3.5	69
	880-960	8	3.9	75
	1427-1518	11, 21, 74,75,76	4.1	54
	1710-1920	2,3,4,9,25,35,39,66	4.7	67
	1920-2170	1,23	4.6	69
	2300-2400	30,40	4.1	73
	2496-2690	7,38,41	4.7	80
	3300-4200	22,42,43,48,77,78	6.7	74
	4400-5000	79	5.6	57



Typical VSWR*



*VSWR measured on 600x600mm (2'x2') ground plane with 0.5m (1.6') of CS29 cable

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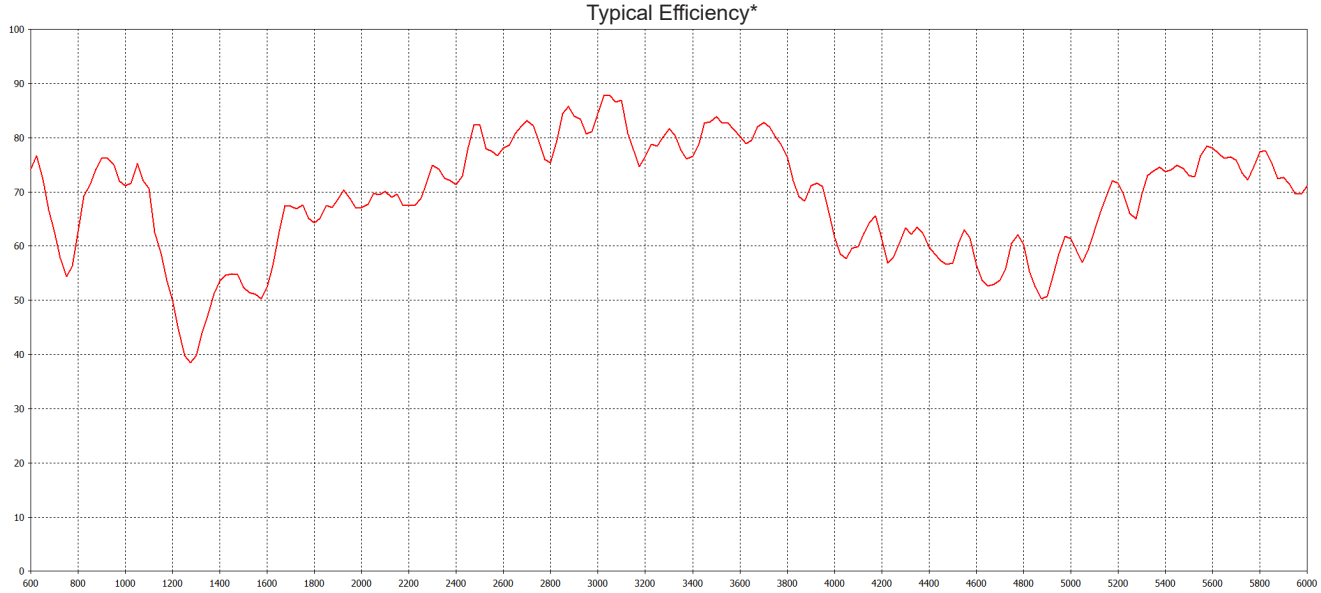
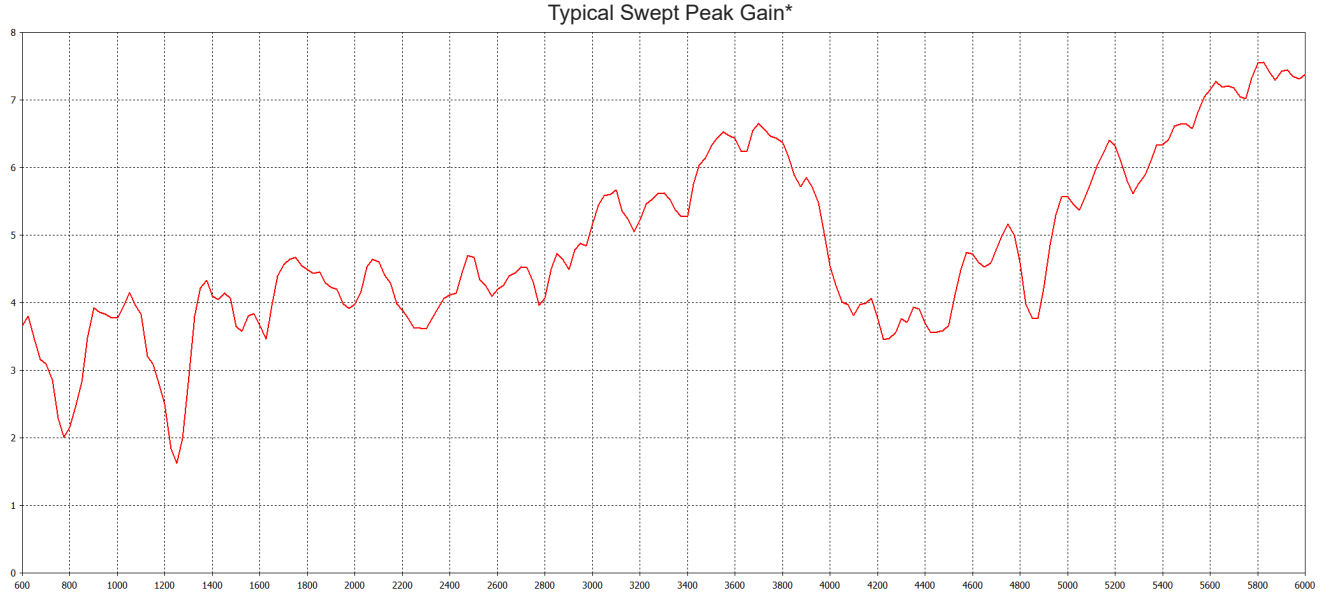
Typical Efficiency*



*Efficiency measured on 600x600mm (2'x2') ground plane with 0.5m (1.6') of CS29 cable

Typical Swept Peak Gain*



*Peak Gain measured on 600x600mm (2'x2') ground plane with 0.5m (1.6') of CS29 cable

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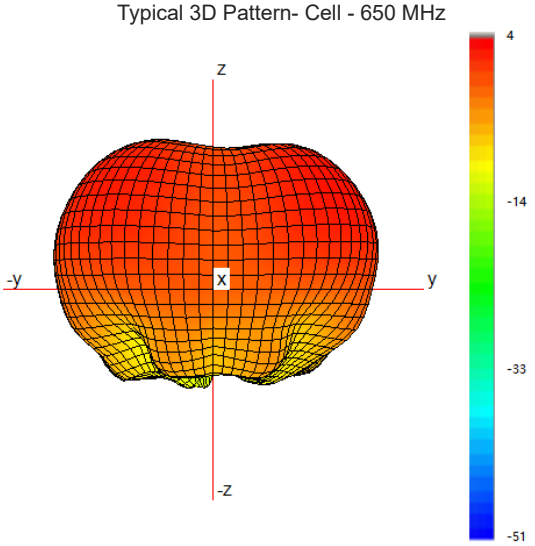
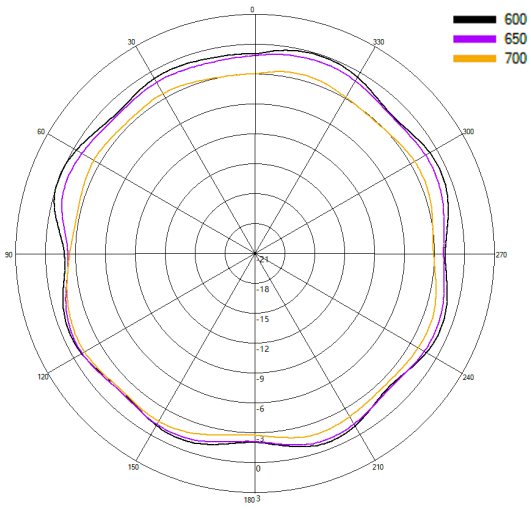
3D Pattern Data on Ground Plane Cell

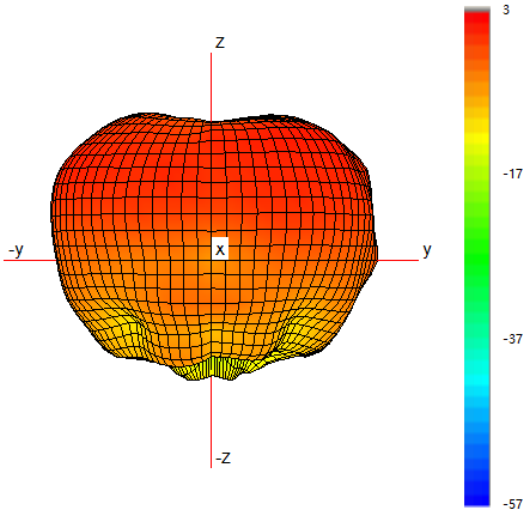
Typical 3D Pattern- Cell - 650 MHz



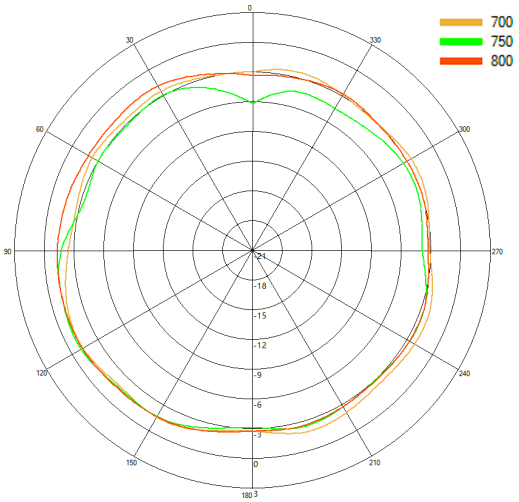
Typical H Plane- Cell - Patterns- 600-700MHz



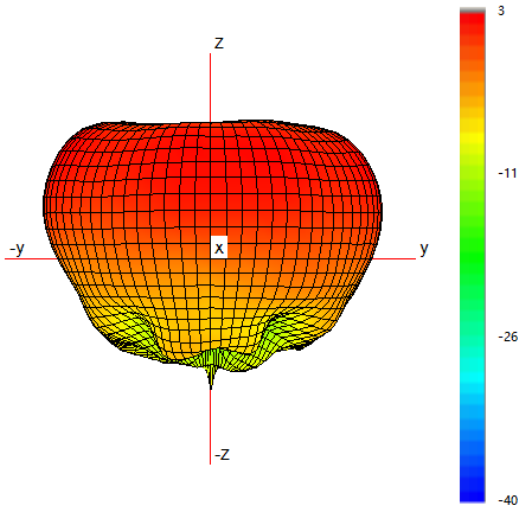
Typical 3D Pattern- Cell - 750 MHz



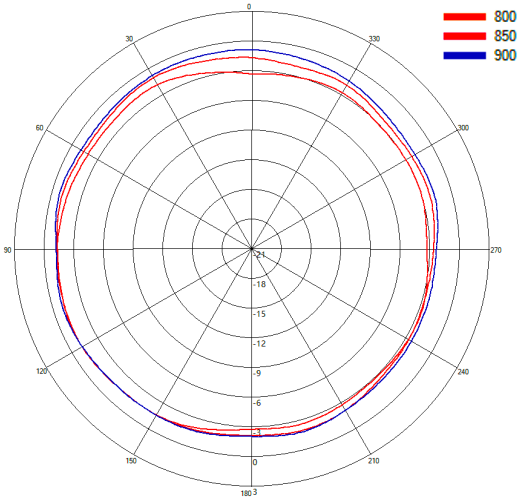
Typical H Plane- Cell - Patterns- 700-800MHz



Typical 3D Pattern- Cell - 850 MHz



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



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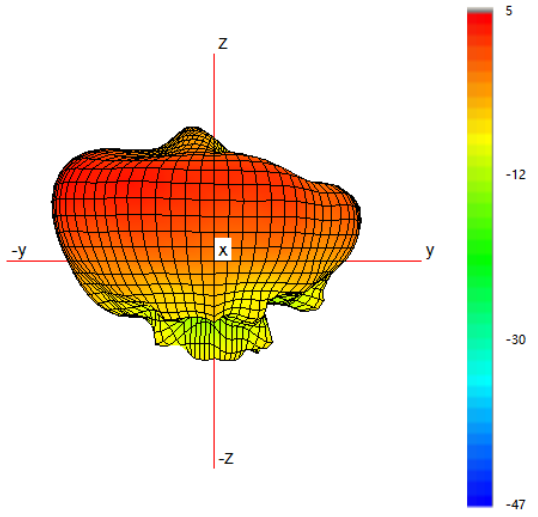
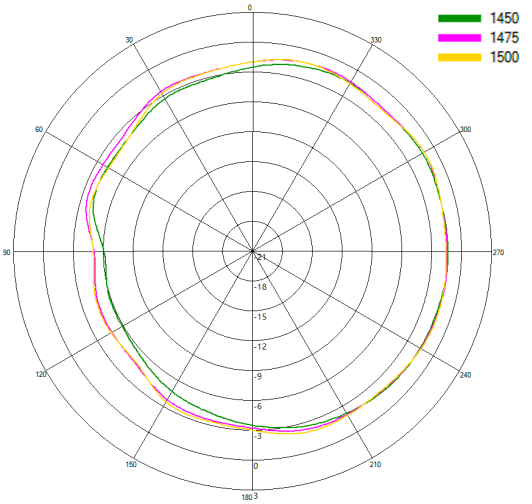
3D Pattern Data on Ground Plane Cell

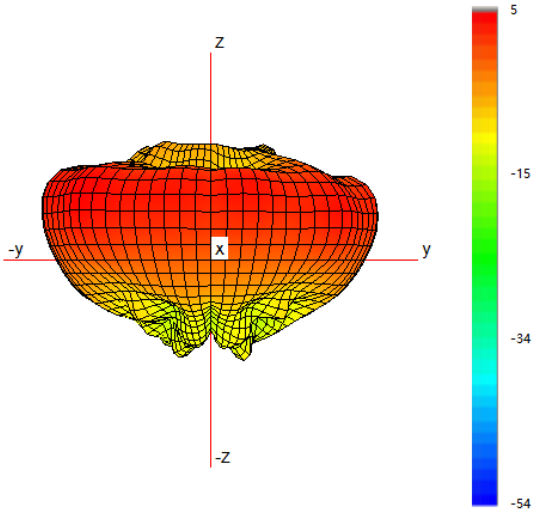
Typical 3D Pattern- Cell - 1475 MHz



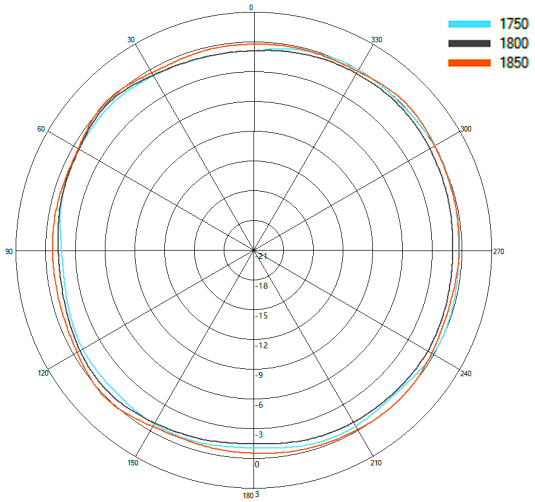
Typical H Plane- Cell- Patterns- 1450-1500 MHz



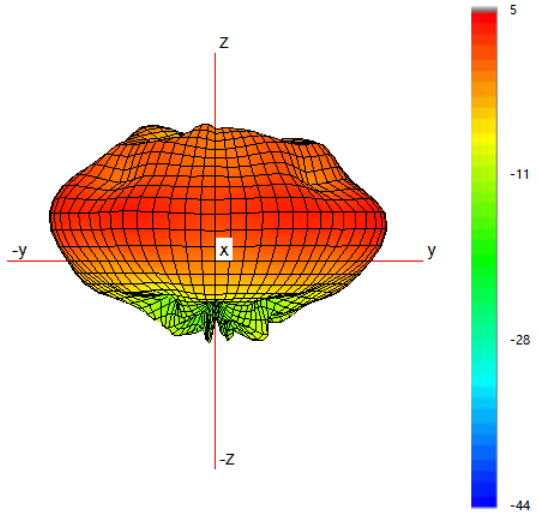
Typical 3D Pattern- Cell - 1800 MHz



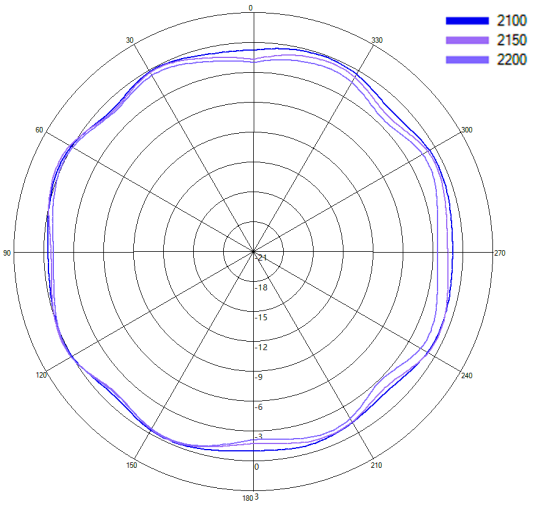
Typical H Plane- Cell- Patterns- 1750-1850 MHz



Typical 3D Pattern- Cell - 2150 MHz



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



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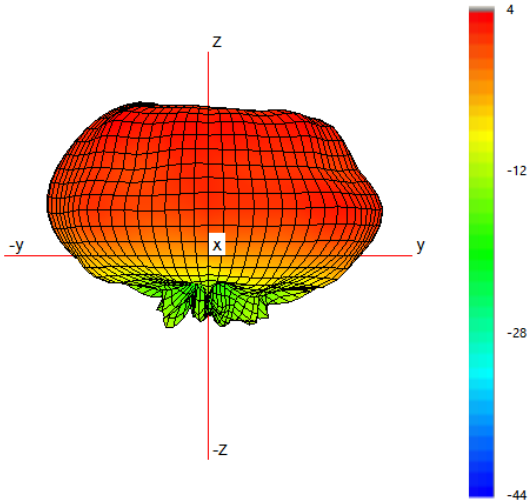
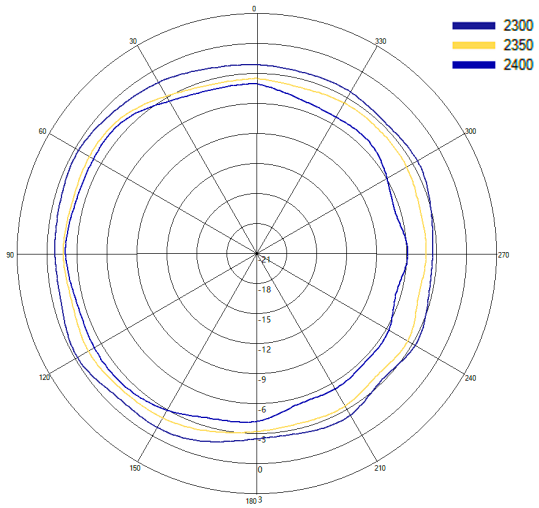
3D Pattern Data on Ground Plane Cell

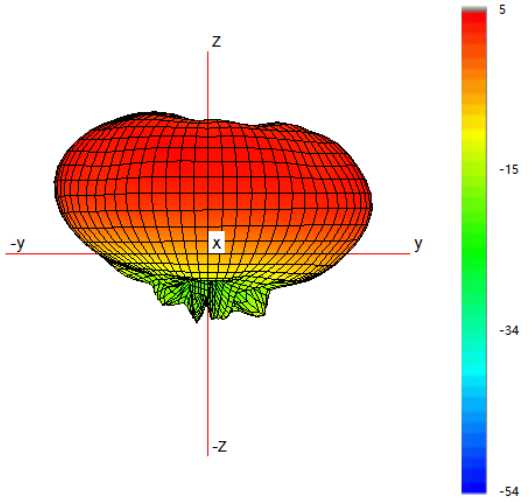
Typical 3D Pattern- Cell - 2350 MHz



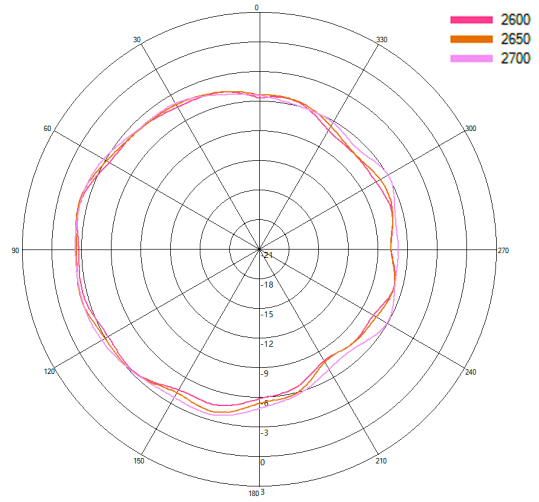
Typical H Plane- Cell - Patterns- 2300-2400 MHz



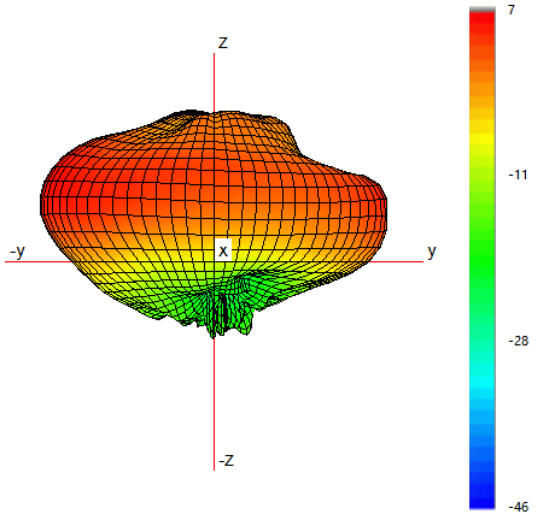
Typical 3D Pattern- Cell - 2650 MHz



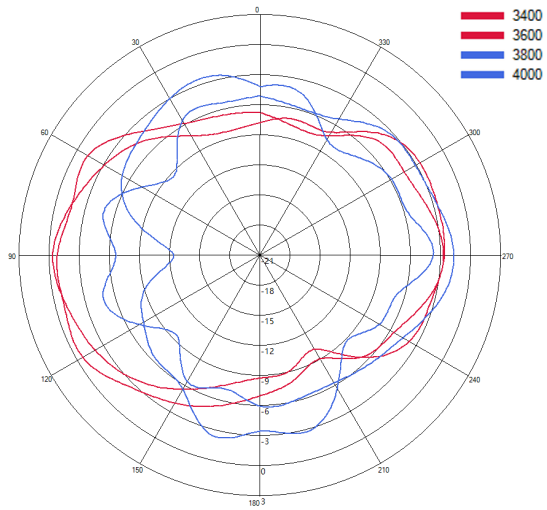
Typical H Plane- Cell - Patterns- 2600-2700 MHz



Typical 3D Pattern- Cell - 3600 MHz



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



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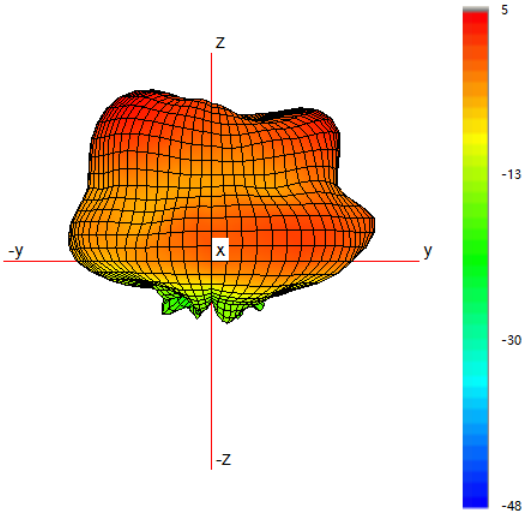
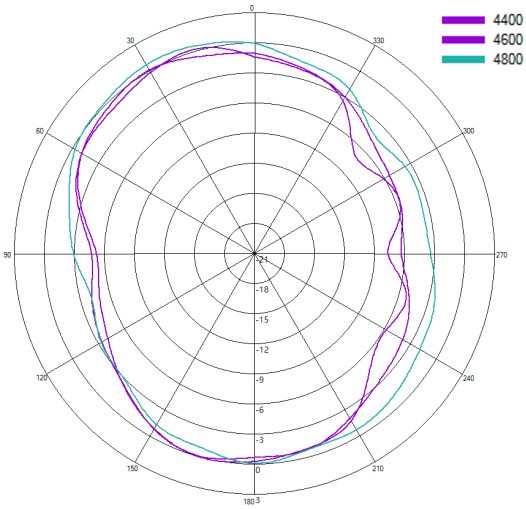
3D Pattern Data on Ground Plane Cell

Typical 3D Pattern- Cell - 4700 MHz



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



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