Ingress Protected Dipole Antenna

EFBC3G26SC-2SPIP

EFBC3G26SC-2SPIP

- Covers 698-960/1710-2700MHz bands
- Efficient element design
- IP68 rated

The EFBC3G26SC-2SPIP antenna is designed for installation in hostile ennvironments, either buried at street level or inside manholes. The antenna features an efficient dipole element design encapsulated in robust impact resistant plastic and covering 698-960/1710-2700MHz frequency bands.

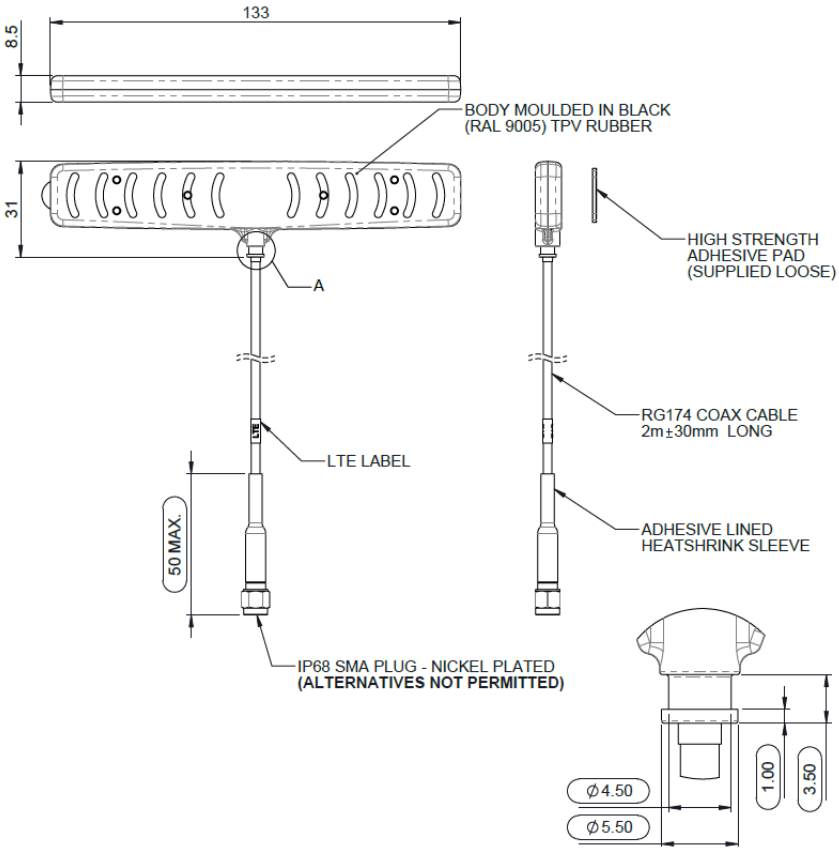
The antenna is supplied with an adhesive tape pad for easy adhesive installation on suitable surfaces and features integral flexible coaxial cable fitted with a special SMA connector to protect the cable assembly and antenna during full immersion.

The antenna is rated to IP68 for ingress protection.

Note that the EFBC3G26-2SPIP series is not designed for installation on metal surfaces and that if buried performance will be affected by how deep the antenna is buried, whether the ground is waterlogged and what materials the antenna is buried in. While the antenna is capable of being buried it must therefore be noted that this is not without significant performance impacts.

Technical Drawing

EFBC3G26SC-2SPIP Shown



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Ingress Protected Dipole Antenna

EFBC3G26SC-2SPIP

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Product Data

Part No.		
		EFBC3G26SC-2SPIP
Electrical Data		
Frequency Range (MHz)		698-960/1710-2700
Peak Gain: Isotropic*		1.9 (698-960MHz) / 5.9 (1710-2700MHz)
Typical VSWR*		<2:1
Typical Efficiency*		60% (698-960MHz) / 56% (1710-2700MHz)
Polarisation		Vertical
Pattern		Omni-directional
Impedance		50Ω
Max Input Power (W)		5
Mechanical Data		
Dimensions (mm)	Length	133 (5.2”)
	Width	22 (0.87”)
	Thickness	8.5 (0.33”)
Operating Temp (°C)		-40° / +80°C (-40° / +176°F)
Material		TPV
Colour		Black
Ingress protection		IP68
Mounting Data		
Fixing		Adhesive mount
Material		Adhesive pad
Cable Data		
Type		RG174
Diameter (mm)		2.8 (0.1”)
Length (m)		2 (6.6’)
Termination		IP68 SMA Plug

* Based on EFBC3G26SC measured buried in concrete with 0.5m (1.5’) RG174 cable. Efficiency stated is average efficiency across stated bands

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Ingress Protected Dipole Antenna

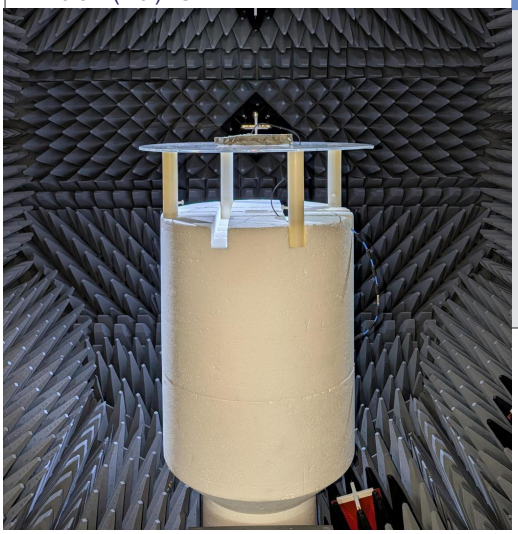
EFBC3G26SC-2SPIP

PANORAMA ANTENNAS

Electrical Data Embedded in Concrete

Measurement Conditions

EFBC3G26-2SPIP measured buried in concrete with 0.5m (1.5')RG174 cable



4G Antenna

Frequency Range (MHz)	LTE Bands	Antenna Element	Peak Gain (dBi)	Efficiency (%)
699-798	12,13, 14 17,28	Cell	1.4	67
807- 862	5,19,20,26,27	Cell	1.9	62
880-960	8	Cell	1.9	50
1710-1920	2,3,4,9,25,35,39,66	Cell	4.0	48
1920-2170	1,23	Cell	4.9	56
2300-2400	30,40	Cell	5.4	62
2496-2690	7,38,41	Cell	5.9	59

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Ingress Protected Dipole Antenna

EFBC3G26SC-2SPIP

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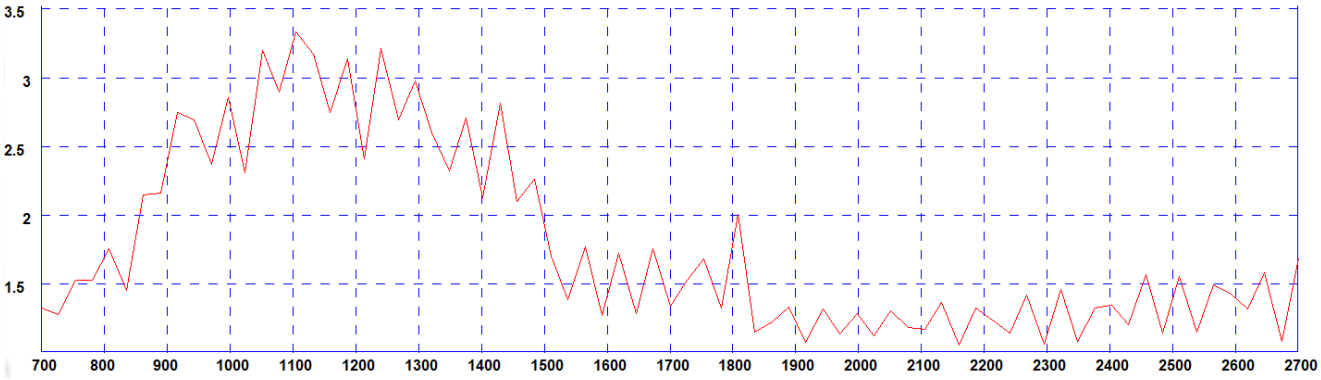
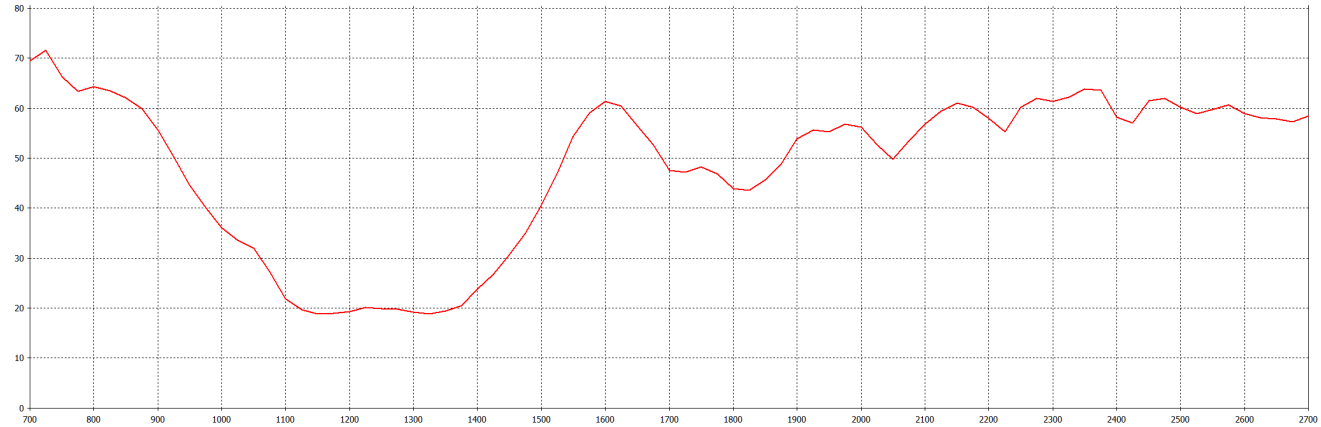
Electrical Data Embedded in Concrete

Typical VSWR*



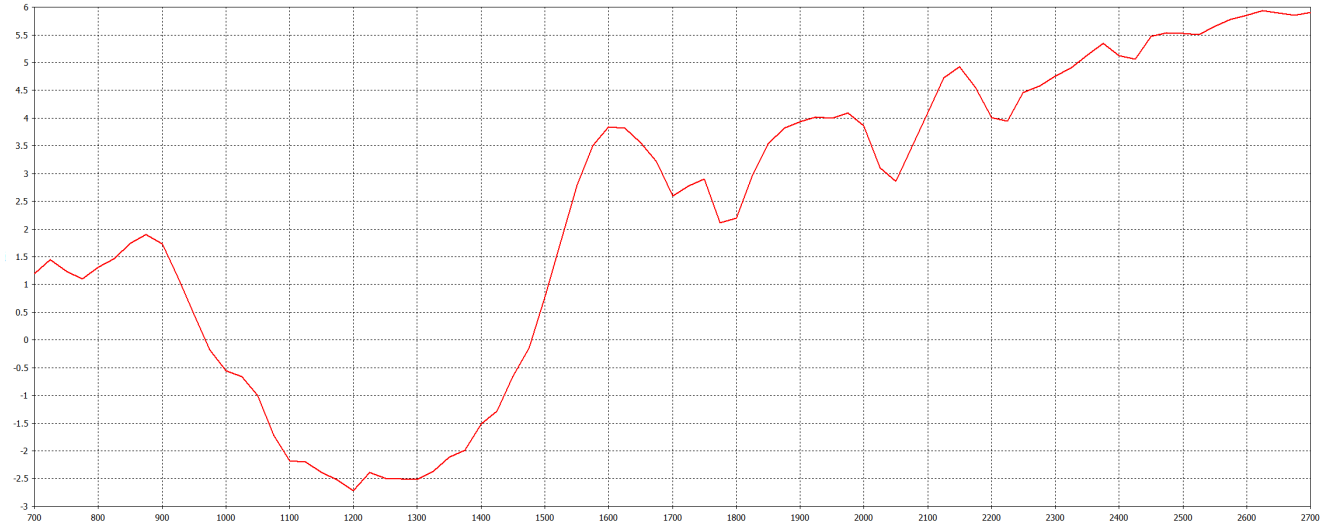
*VSWR measured embedded in concrete with 0.5m (1.5') of RG174 cable

Typical Efficiency*



*Efficiency measured embedded in concrete with 0.5m (1.5') of RG174 cable

Typical Swept Peak Gain*



*Peak Gain measured embedded in concrete with 0.5m (1.5') of RG174 cable

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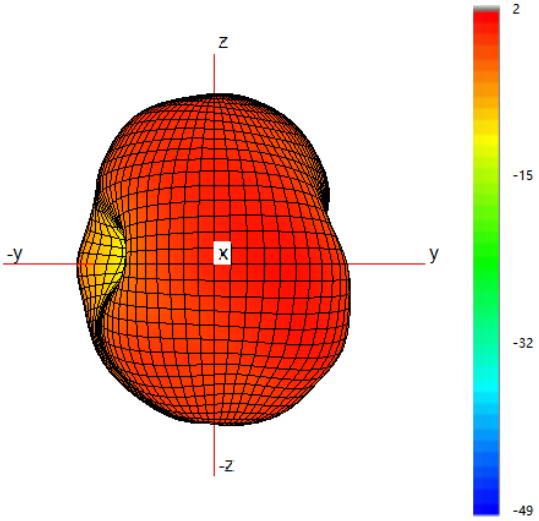
Ingress Protected Dipole Antenna

EFBC3G26SC-2SPIP

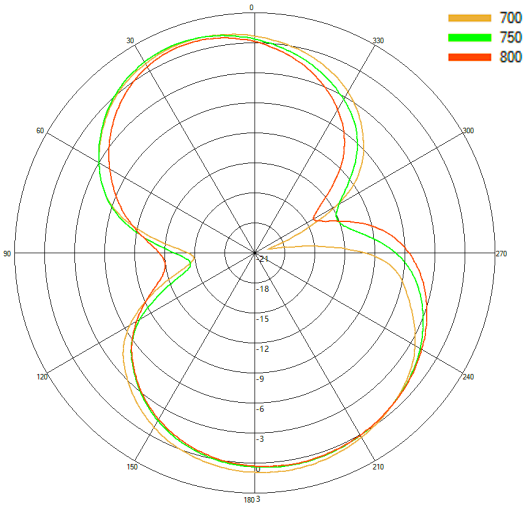
PANORAMA ANTENNAS

3D Pattern Data Embedded in Concrete Cell

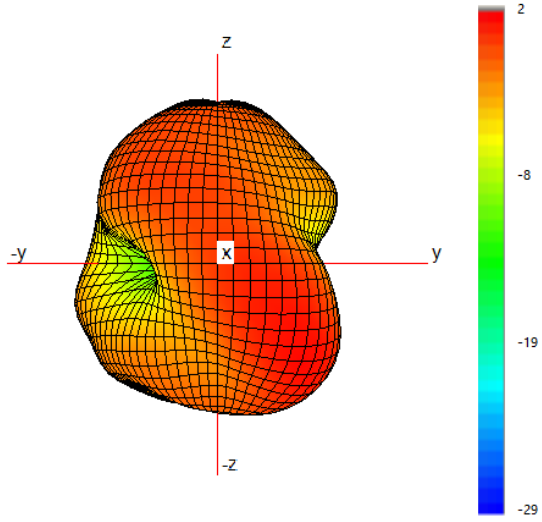
Typical 3D Pattern- Cell - 750 MHz



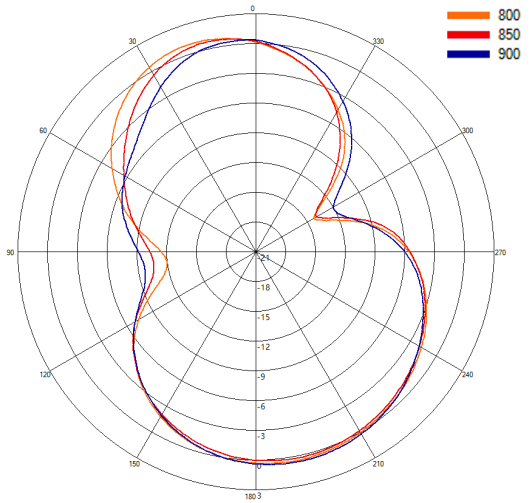
Typical H Plane- Cell - Patterns- 700-800MHz



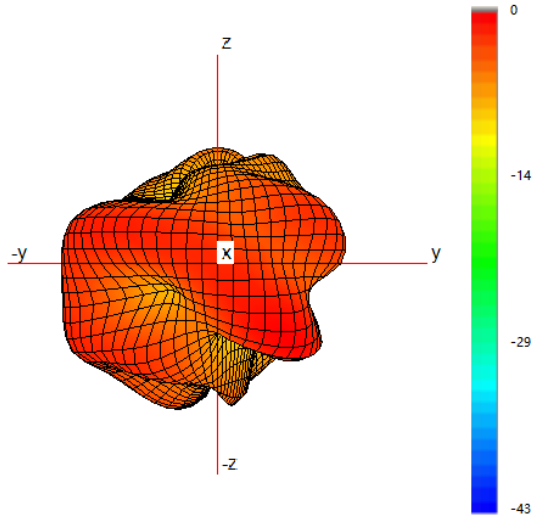
Typical 3D Pattern- Cell - 850 MHz



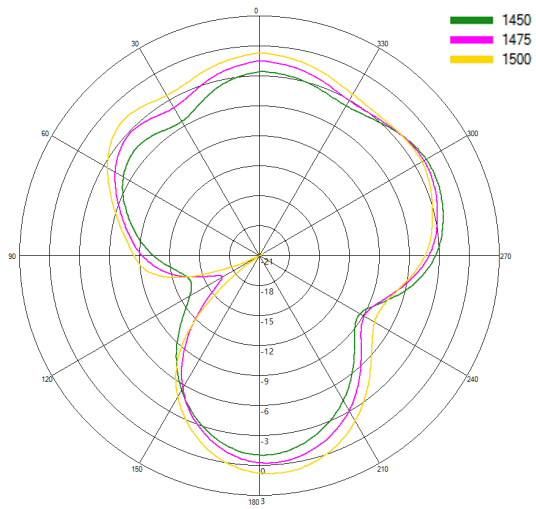
Typical H Plane- Cell - Patterns- 800-900MHz



Typical 3D Pattern- Cell - 1475 MHz



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



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Ingress Protected Dipole Antenna

EFBC3G26SC-2SPIP

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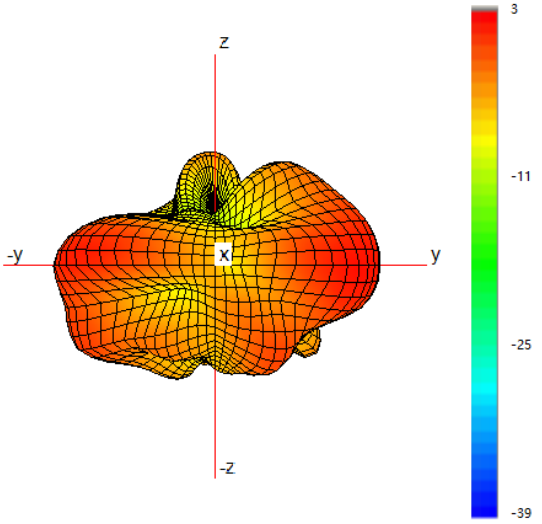
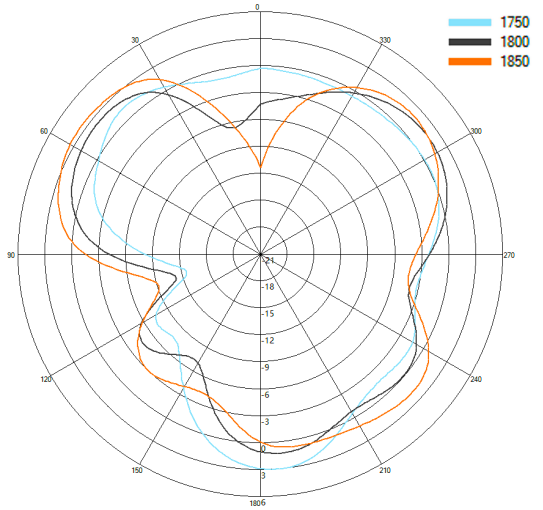
3D Pattern Data Embedded in Concrete Cell

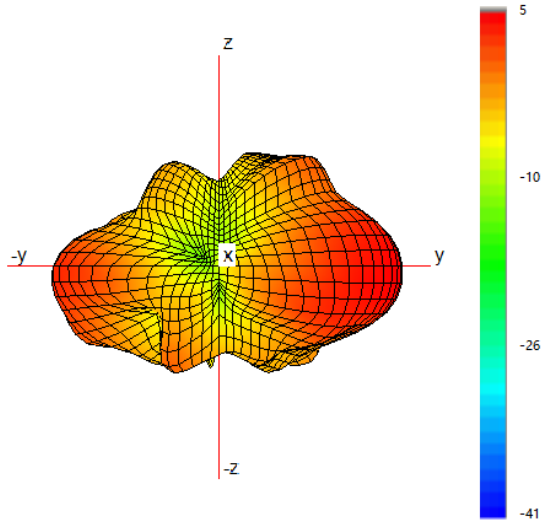
Typical 3D Pattern- Cell - 1800 MHz



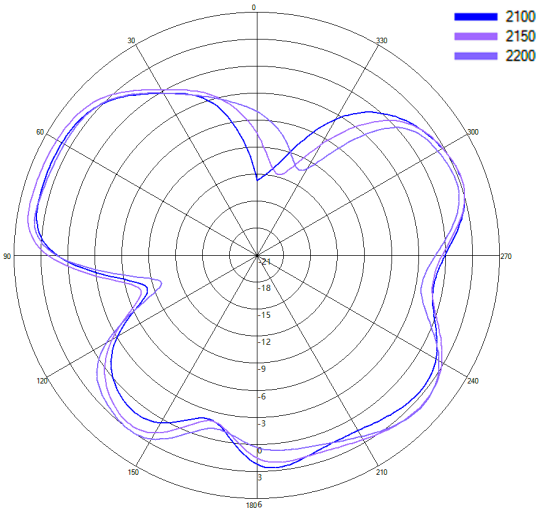
Typical H Plane- Cell- Patterns- 1750-1850 MHz



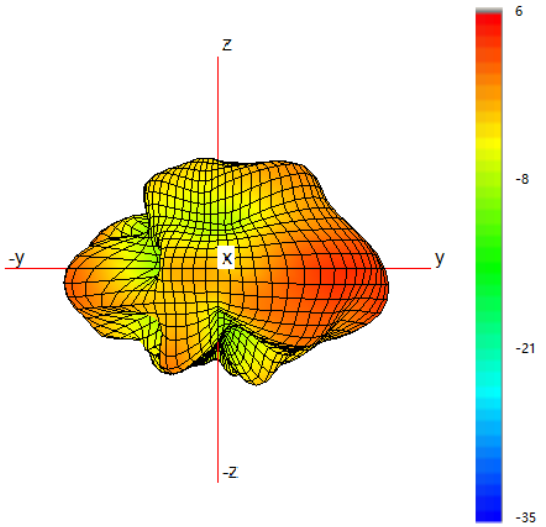
Typical 3D Pattern- Cell - 2150 MHz



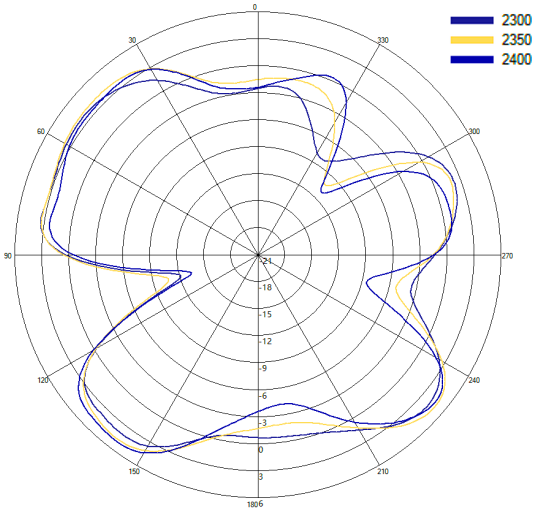
Typical H Plane- Cell- Patterns- 2100-2200 MHz



Typical 3D Pattern- Cell - 2350 MHz



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



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EFBC3G26SC-2SPIP

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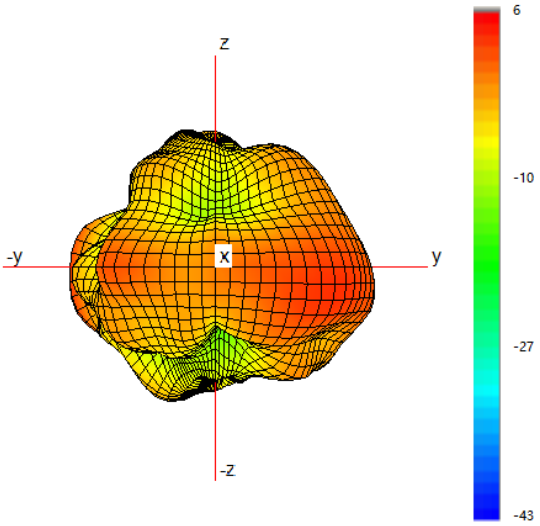
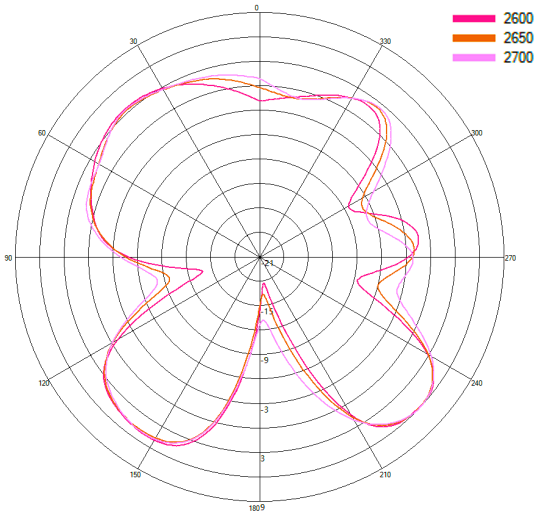
3D Pattern Data Embedded in Concrete Cell

Typical 3D Pattern- Cell - 2650 MHz



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



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Ingress Protected Dipole Antenna

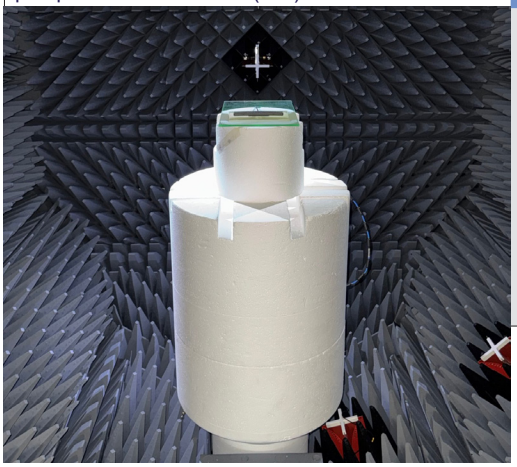
EFBC3G26SC-2SPIP

PANORAMA ANTENNAS

Electrical Data in Free Space on Perspex Sheet

Measurement Conditions

EFBC3G26SC-2SPIP measured in free space on perspex sheet with 0.5m (1.5') RG174 cable



4G Antenna

Frequency Range (MHz)	LTE Bands	Antenna Element	Peak Gain (dBi)	Efficiency (%)
699-798	12,13, 14 17,28	Cell	2.1	58
807- 862	5,19,20,26,27	Cell	2.6	81
880-960	8	Cell	2.4	66
1710-1920	2,3,4,9,25,35,39,66	Cell	4.0	51
1920-2170	1,23	Cell	4.0	46
2300-2400	30,40	Cell	4.6	51
2496-2690	7,38,41	Cell	6.4	72

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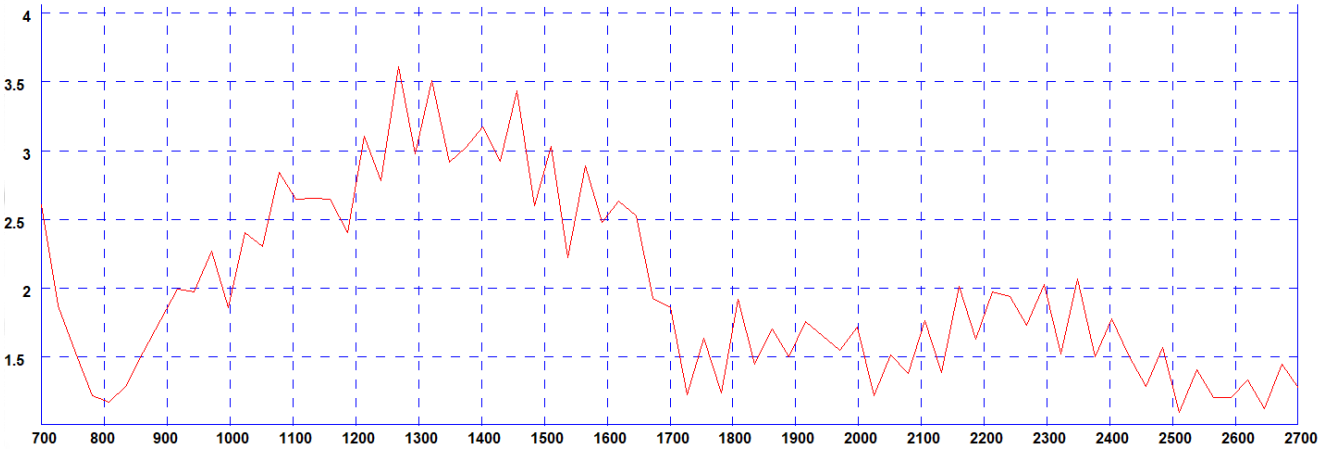
Ingress Protected Dipole Antenna

EFBC3G26SC-2SPIP

PANORAMA ANTENNAS

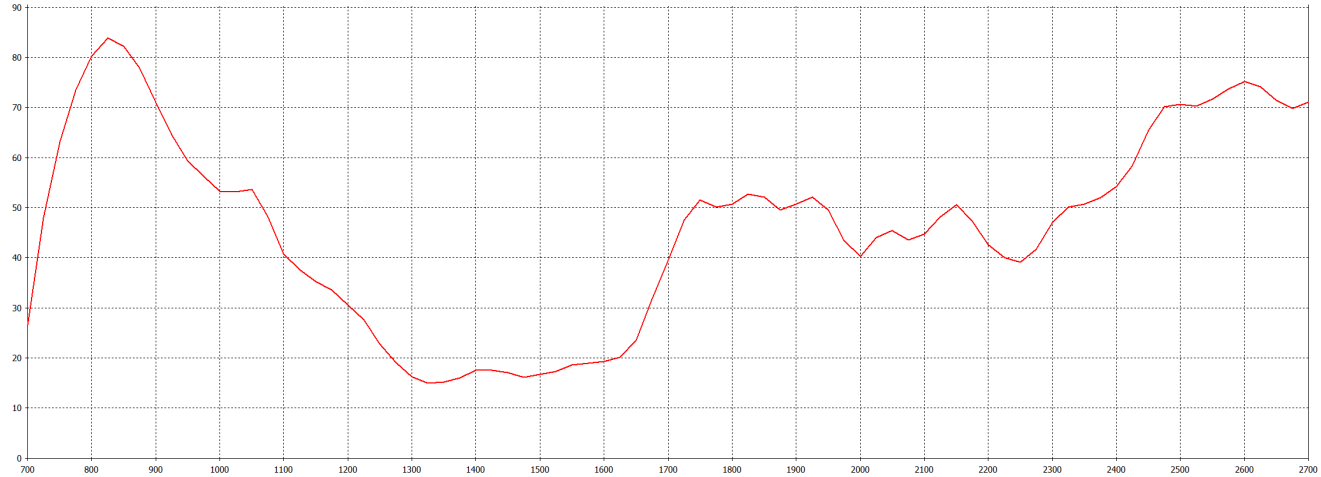
Electrical Data in Free Space on Perspex Sheet

Typical VSWR*



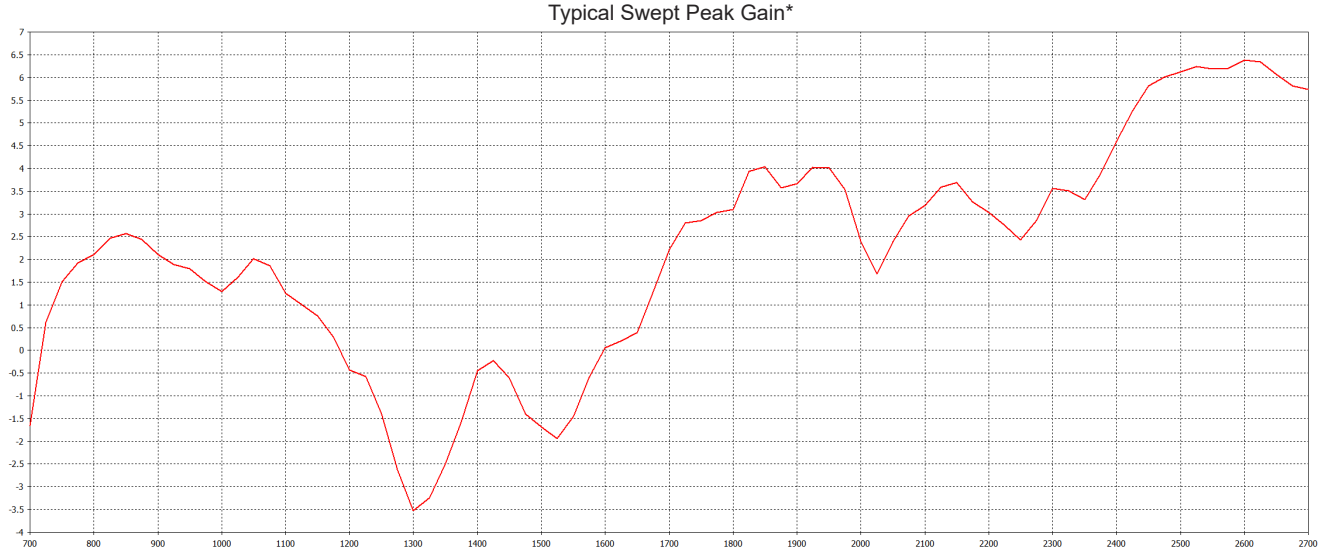
*VSWR measured in free space on perspex sheet with 0.5m (1.5') of RG174 cable

Typical Efficiency*



*Efficiency measured in free space on perspex sheet with 0.5m (1.5') of RG174 cable

Typical Swept Peak Gain*



*Peak Gain measured in free space on perspex sheet with 0.5m (1.5') of RG174 cable

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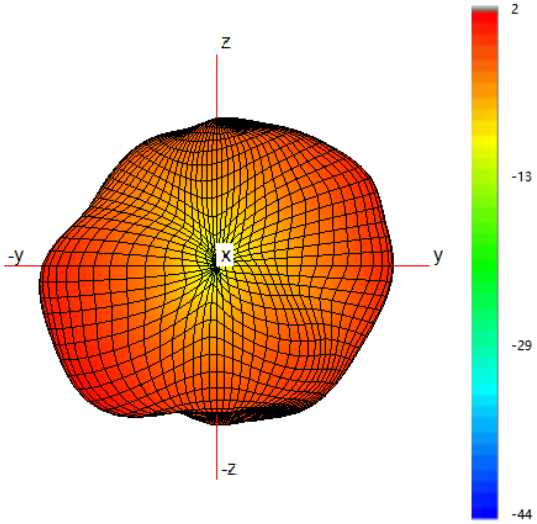
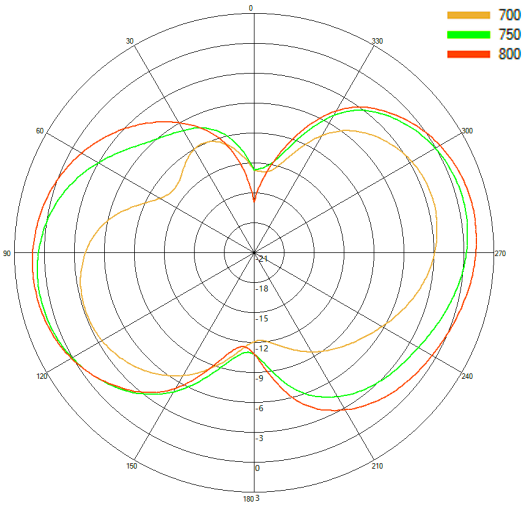
PANORAMA ANTENNAS

3D Pattern Data in Free Space on Perspex Sheet

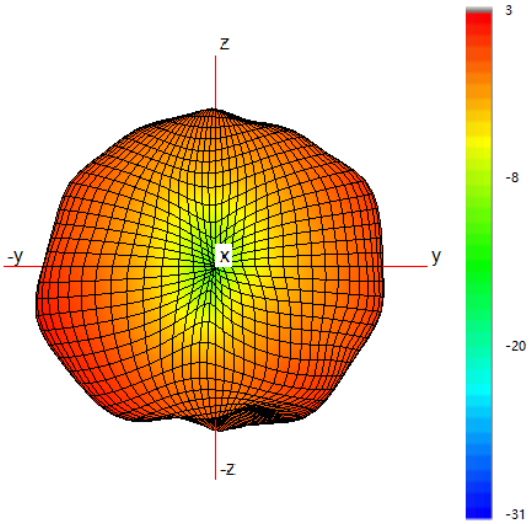
Typical 3D Pattern- Cell - 750 MHz



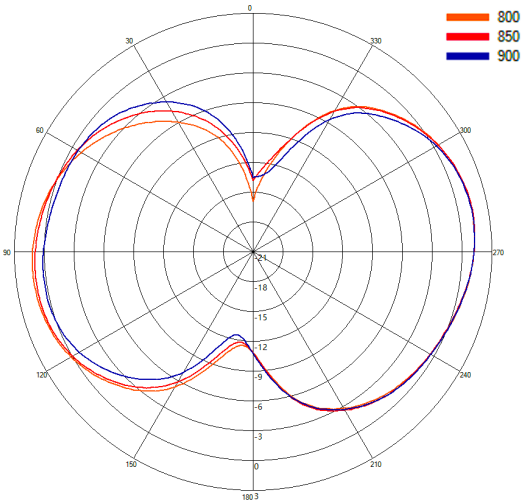
Typical H Plane- Cell - Patterns- 700-800MHz



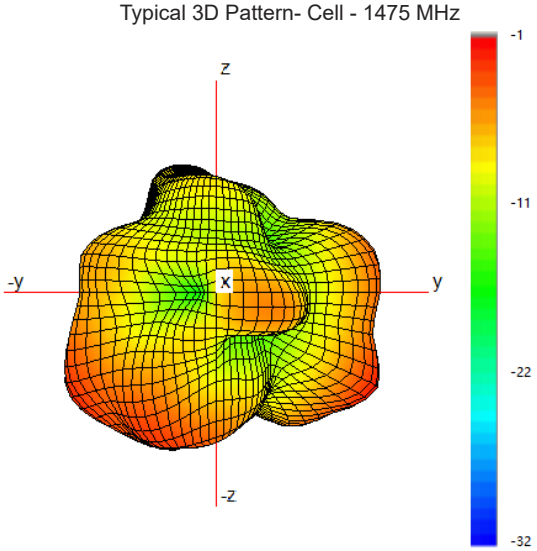
Typical 3D Pattern- Cell - 850 MHz



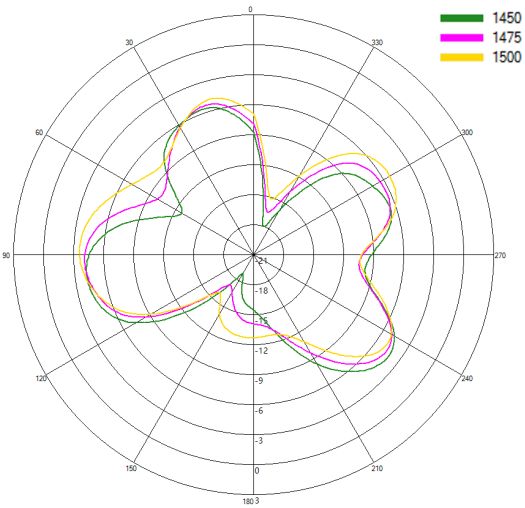
Typical H Plane- Cell - Patterns- 800-900MHz



Typical 3D Pattern- Cell - 1475 MHz



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



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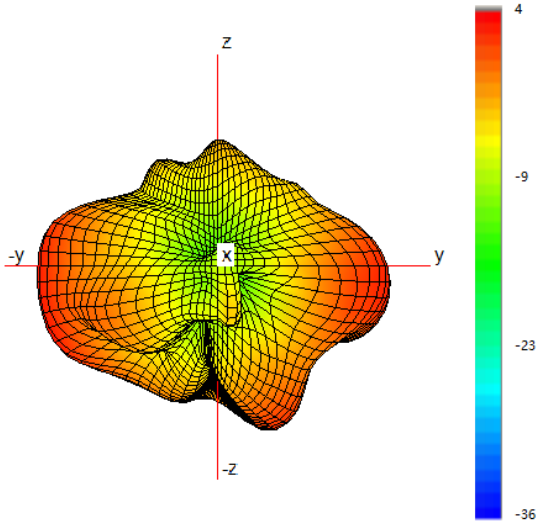
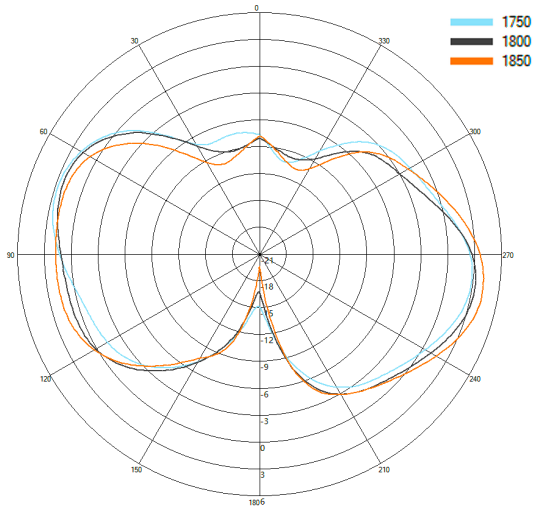
PANORAMA ANTENNAS

3D Pattern Data in Free Space on Perspex Sheet

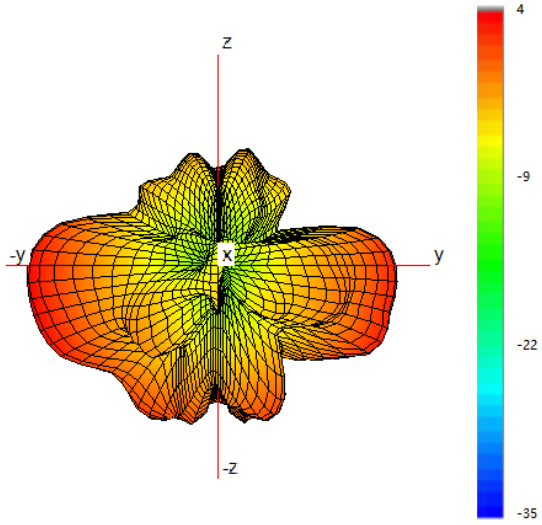
Typical 3D Pattern- Cell - 1800 MHz



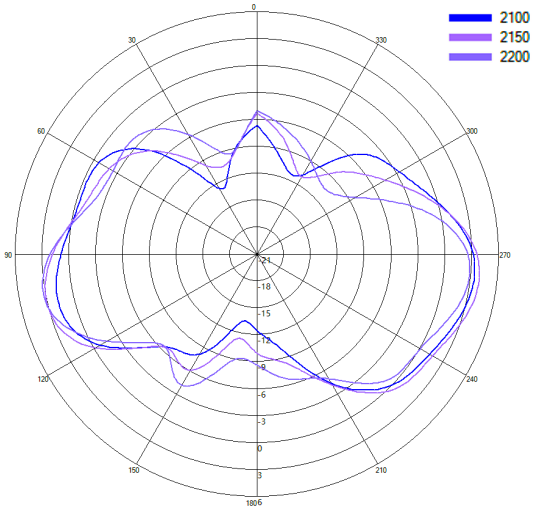
Typical H Plane- Cell- Patterns- 1750-1850 MHz



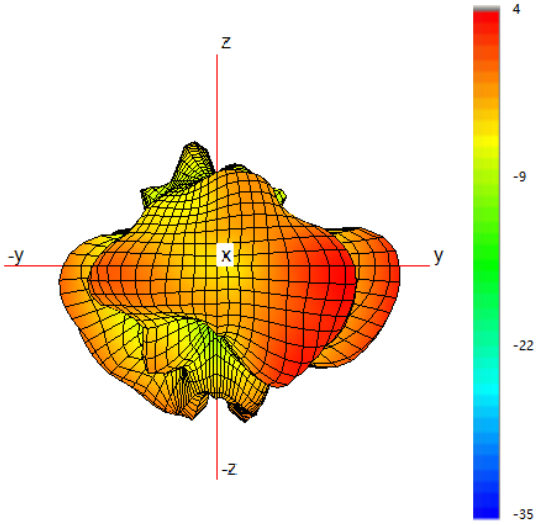
Typical 3D Pattern- Cell - 2150 MHz



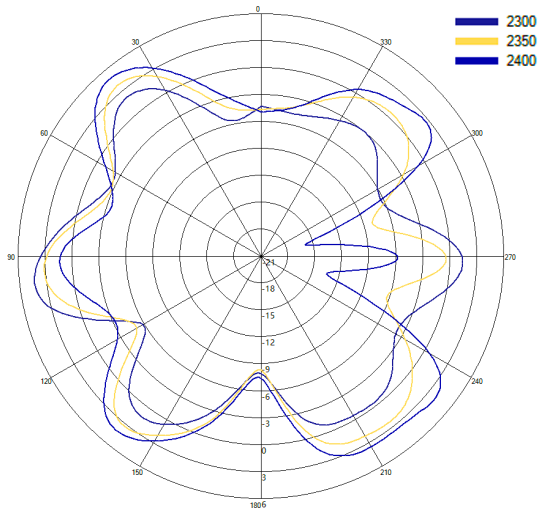
Typical H Plane- Cell- Patterns- 2100-2200 MHz



Typical 3D Pattern- Cell - 2350 MHz



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



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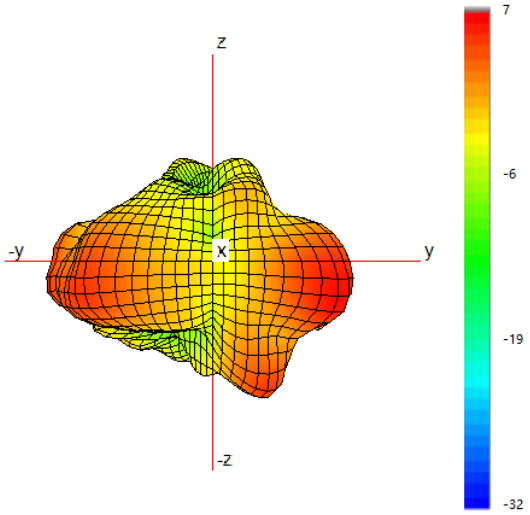
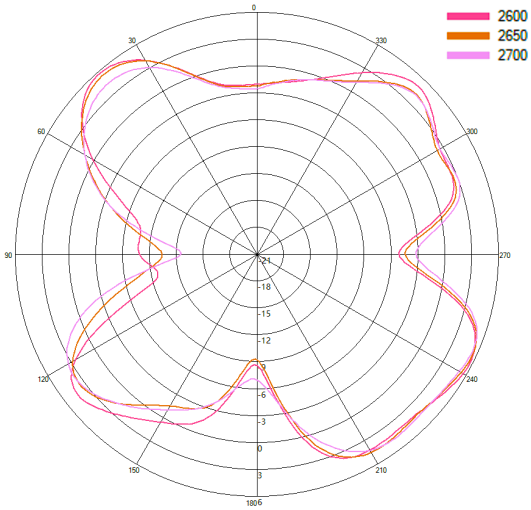
3D Pattern Data in Free Space on Perspex Sheet

Typical 3D Pattern- Cell - 2650 MHz



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



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