

5-in-1 Dome Antenna Kit

5m Cables

LG-IN2457[-VAR]



- Low Profile 2x2 4G/5G MiMo
- 2x2 MiMo Dual Band WiFi
- Active GPS/GNSS Antenna 26dB LNA
- Supplied with 5m (16.4') cables loose or fitted

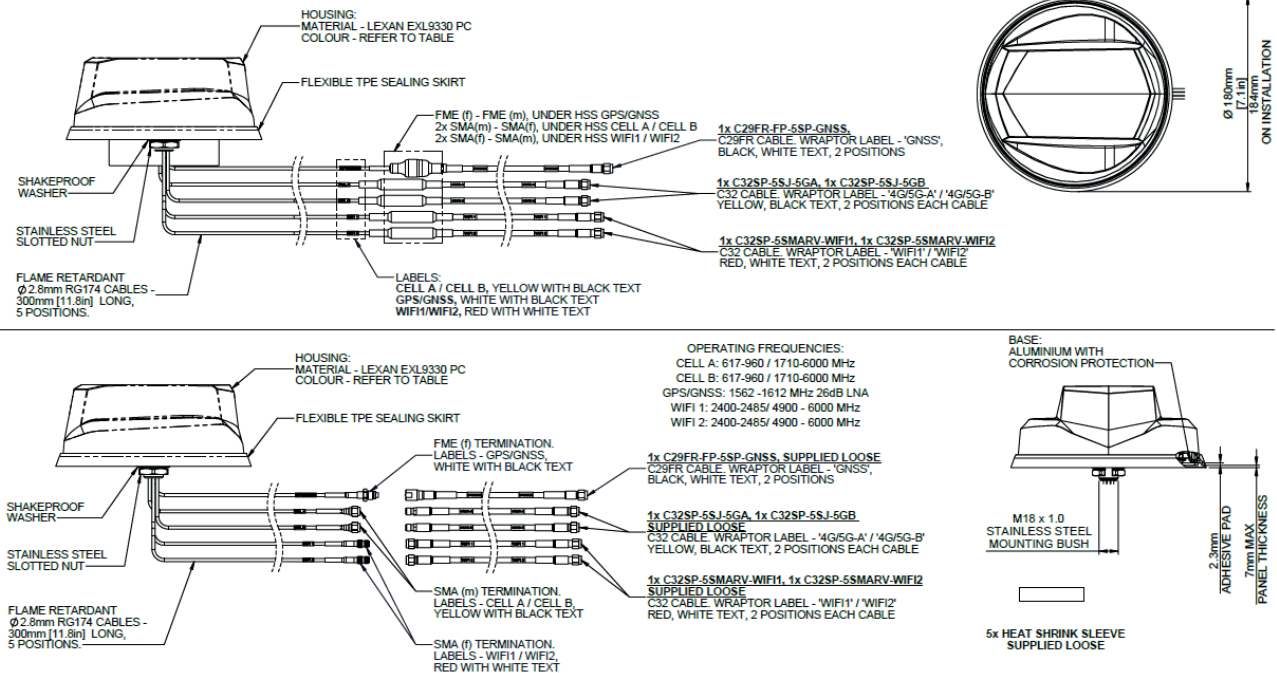
The LG-IN2457 range has been designed to provide 2x2 4G/5G MiMo performance from 617-960/1427-6000MHz with 2x2 MiMo WiFi (2.4/5.0GHz.) and active GPS/GNSS in a robust low profile package. The GPS module features advanced filtering for LTE B13/14 designed to minimise potential in-band interference.

The antenna is designed to be panel mounted and can be fitted on a conductive or non-conductive panel. Supplied with either loose or fully fitted flame retardant ultra low loss extension cables (Compliant to UN ECE R118.03 and EN45545-2) and a halogen free flame retardant radome the antenna is suitable for many environments and applications.

The antenna is available with a black or white radome which meets IK10 for vandal resistance and IP69K for ingress protection. Accessories are available separately for mounting on ribbed or thick panels and for magnetic mounting.

Technical Drawing

LG-IN2457[-VAR] Shown



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Product Data

Part No.		LG-IN2457	LG-IN2457-W	LGIN2457-LC	LG-IN2457-W-LC
Electrical Data					
Frequency Range (MHz)	4G/5G Elements	2x 617-960 / 1427-6000			
	WiFi Elements	2x 2396-2485/4900-6000			
Typical VSWR*	4G/5G Elements	617-960/1427-6000MHz	<2.5:1		
	WiFi Elements	2.4/5.0GHz	<2:1		
Nominal Impedance					50Ω
Max Input Power (w)					10
GPS/GNSS Data					
Frequency Range (MHz)	1562-1612				
VSWR	<2.0:1 ± 4MHz				
Gain: LNA	26dB				
Out of band rejection	>40dB (@ > +/- 100MHz f)				
Typical Noise Figure	-2.7dB				
Notch Filter rejection @787MHz	23dBm				
Operating Voltage	3 - 5V DC				
Typical Current (mA)	15				
Mechanical Data					
Dimensions (mm)	Height	75 (3")			
	Diameter	180 (7.1")			
Operating Temp	-40° / +80°C (-40° / +176°F)				
Colour	Black	White	Black	White	
Ingress Protection	IP69K				
Vandal Protection	IK10				
Mounting Data					
Mounting type	Panel mount				
Max panel thickness (mm)	7 (0.27")				
Mounting hole (mm)	19 (3/4")				
Extension Cable Data		4G/5G and WiFi Cables		GPS Cable	
All Cables	Type	CS32 (UN ECE R118.03 Compliant)		FR CS29 (UN ECE R118.03 Compliant)	
	Diameter (mm)	5 (0.2")			
	Length (m)	5 (16.4')			
	Loose or fitted	Fitted	Fitted	Loose	Loose
Terminations					
4G/5G	2x SMA Plug (m)				
WiFi	2x Reverse Polarity SMA Plug				
GPS/GNSS	1x SMA Plug (m)				

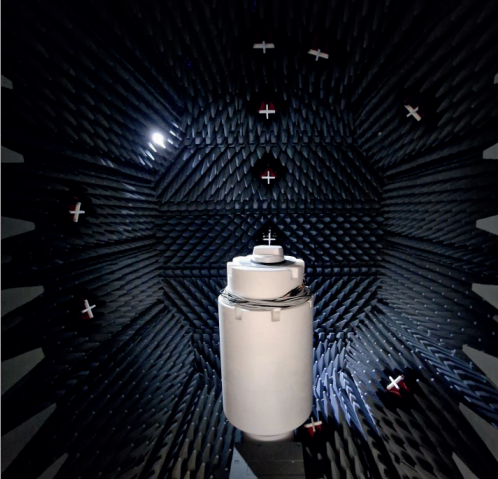
*VSWR measured with 5m (16.4') of CS32 cable in free space

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Electrical Data Free Space

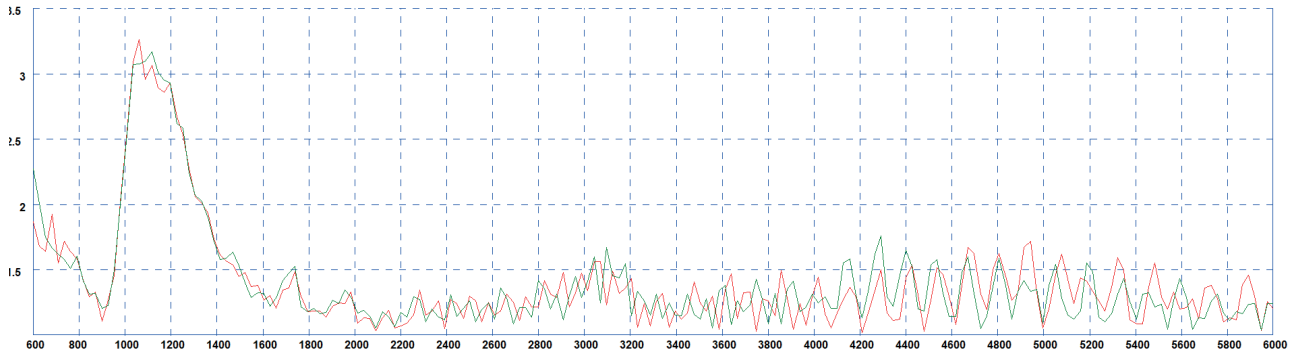
Measurement Conditions	4G/5G Antennas				
	Frequency Range (MHz)	LTE Bands	Antenna Element	Peak Gain (dBi)	Efficiency (%)
Free Space 0.3m (1') FR RG174 Pigtailed + 5m (16.4') CS32 Extension Cables 	617-698	71	Cell A	0.5	43
			Cell B	0.15	43
	699-798	12,13, 14 17,28	Cell A	1.3	50
			Cell B	1.5	50
	807- 862	5,19,20,26,27	Cell A	1.9	52
			Cell B	2.0	52
	880-960	8	Cell A	1.6	45
			Cell B	2.0	45
	1427-1518	11,21,74,75,76	Cell A	1.5	37
			Cell B	2.6	37
	1625-1661	24	Cell A	2.0	42
			Cell B	1.8	40
	1710-1920	2,3,4,9,25,35, 39,66	Cell A	1.6	39
			Cell B	1.6	39
	1920-2170	1,23	Cell A	2.2	40
			Cell B	2.0	41
	2300-2400	30,40	Cell A	1.2	37
			Cell B	1.5	37
	2496-2690	7,38,41	Cell A	1.3	35
			Cell B	1.4	35
3300-4200	22,42,43,48,77, 78,79	Cell A	2.2	27	
		Cell B	2.6	26	
4400-5000	79	Cell A	1.9	25	
		Cell B	1.7	23	
WiFi Antennas					
Frequency Range (MHz)	WiFi Bands	Antenna Element	Peak Gain (dBi)	Efficiency (%)	
2396-2485	2.5GHz	WiFi 1	2	35	
		WiFi 2	2.4	35	
5150-5250	UNII-1	WiFi 1	1.1	20	
		WiFi 2	0.9	20	
5250-5350	UNII-2A	WiFi 1	2.4	20	
		WiFi 2	1.7	20	
5470-5725	UNII-2B	WiFi 1	3.1	20	
		WiFi 2	2.9	20	
5725-5900	UNII-3	WiFi 1	3.5	20	
		WiFi 2	3.5	20	

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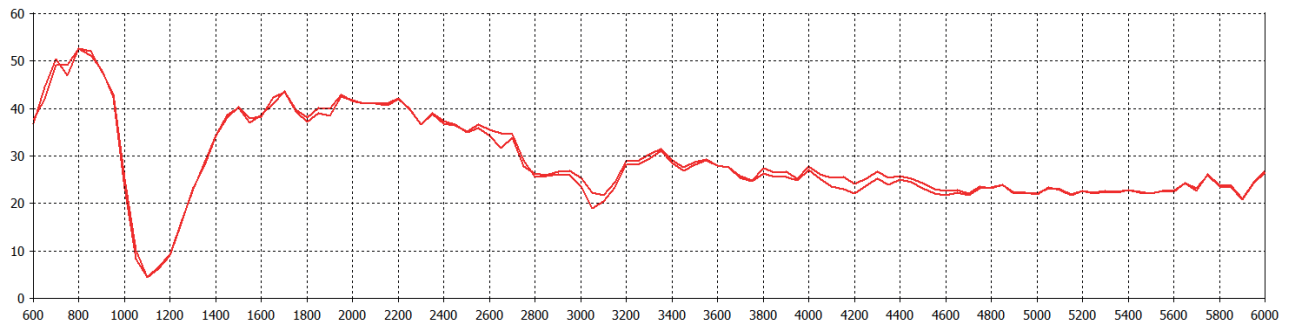
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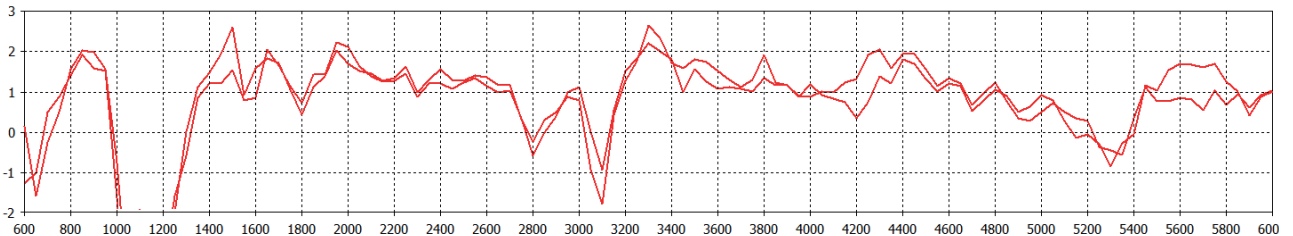
Typical VSWR- 4G/5G Elements



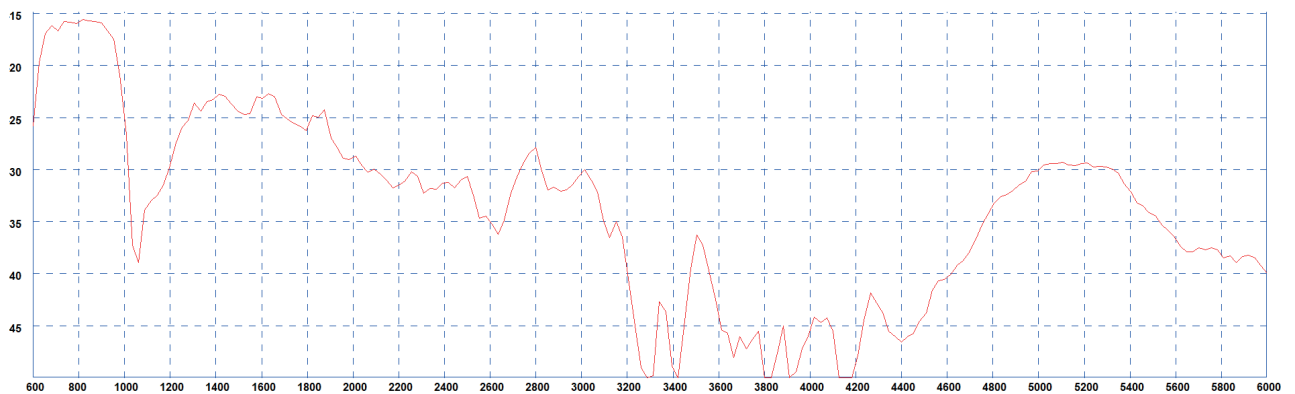
Typical Efficiency- 4G/5G Elements



Typical Peak Gain - 4G/5G Elements



Typical Isolation- 4G/5G Elements



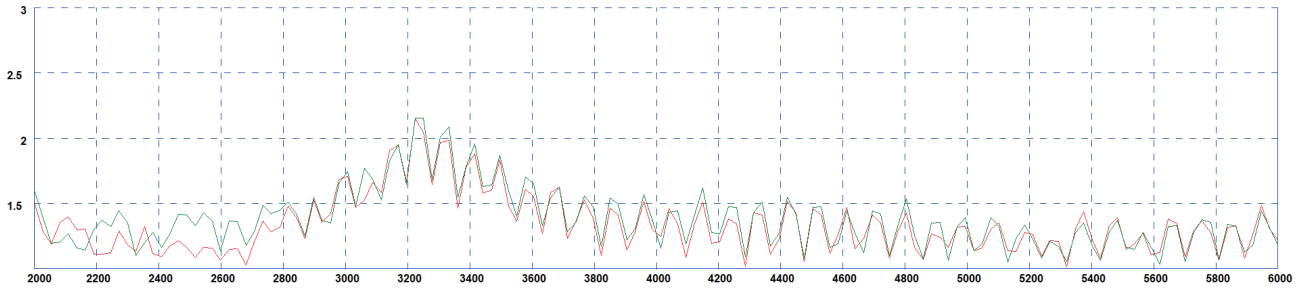
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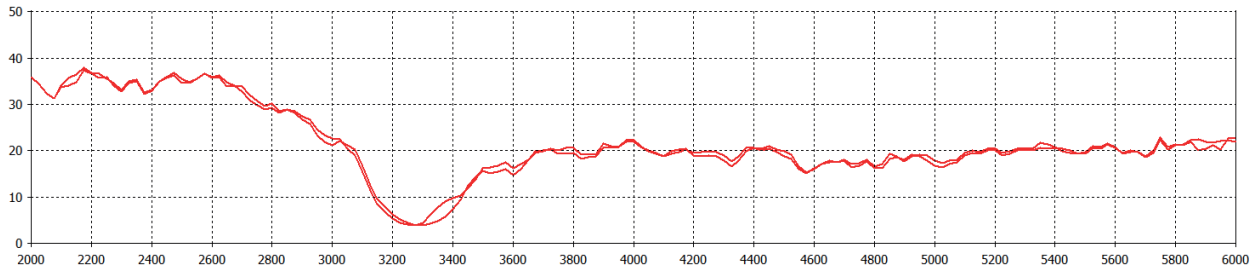
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Electrical Data Free
Space - WiFi Elements

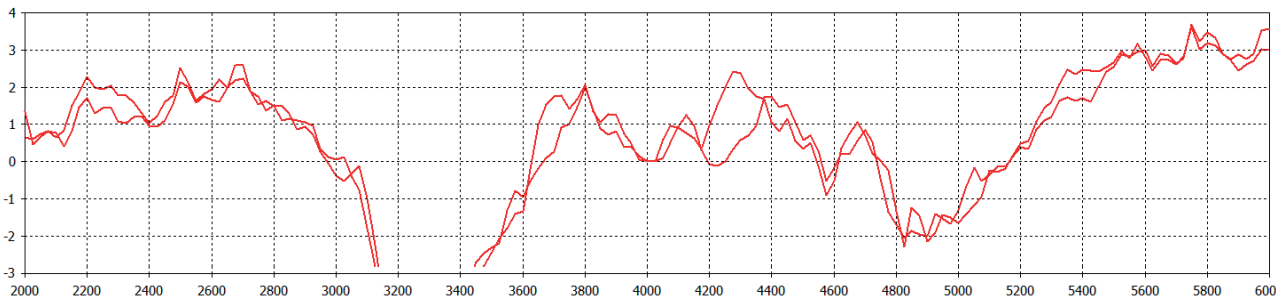
Typical VSWR - WiFi Elements



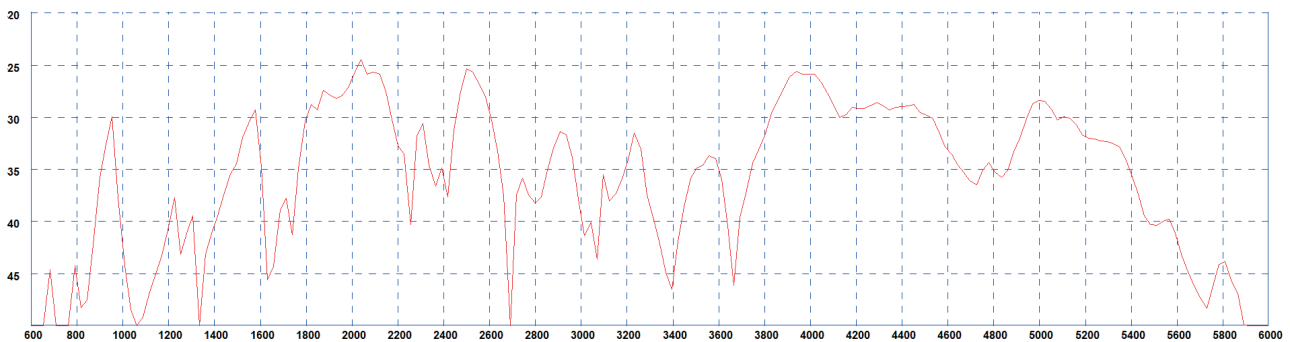
Typical Efficiency- WiFi Elements



Typical Peak Gain - WiFi Elements



Typical Isolation- WiFi Elements

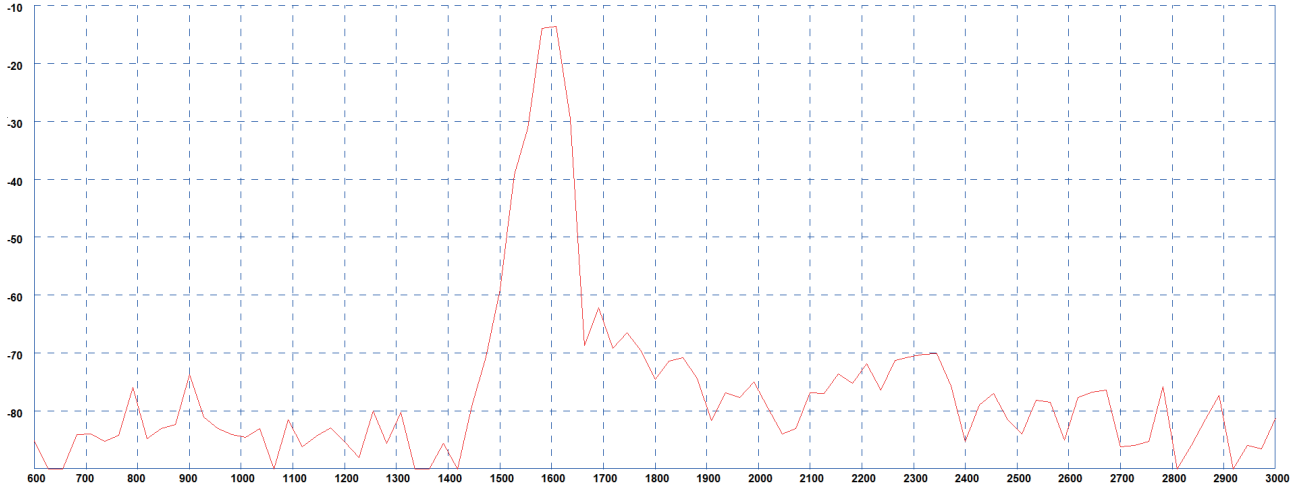


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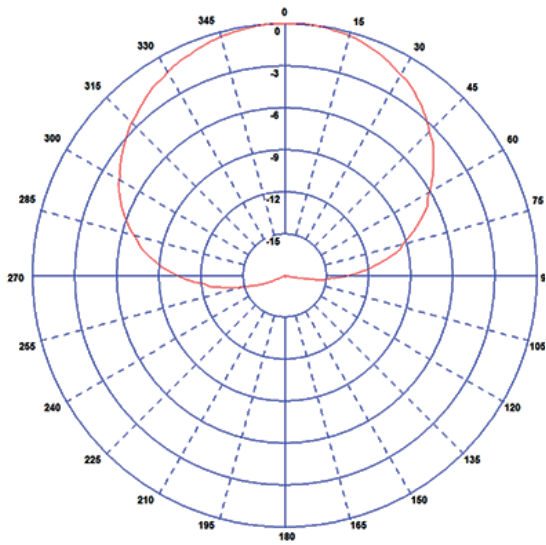
5m Cables

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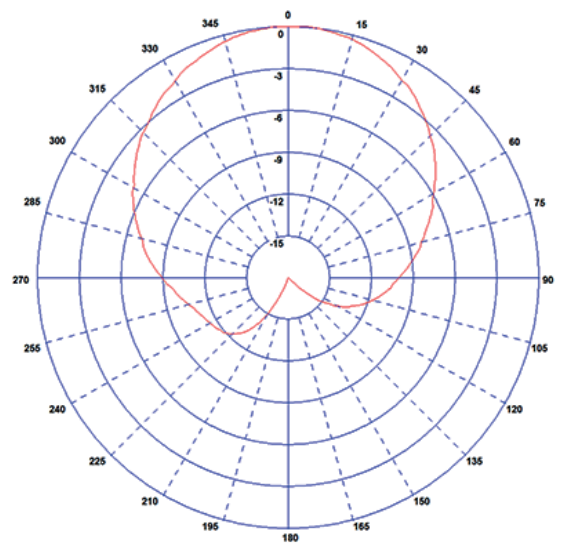
Swept Peak Gain GPS/GNSS*



Typical E Plane Pattern - GPS/GNSS 1575 MHz



Typical E Plane Pattern - GPS/GNSS 1602 MHz



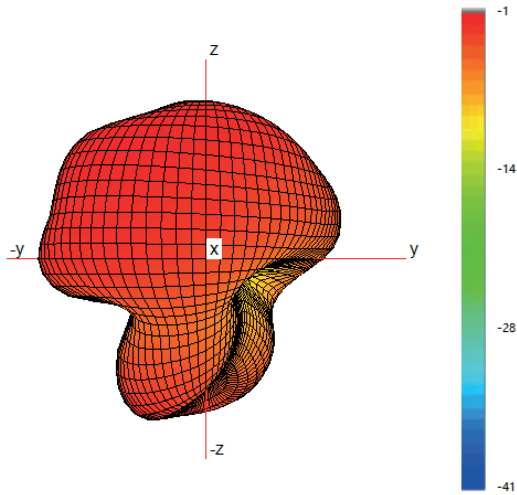
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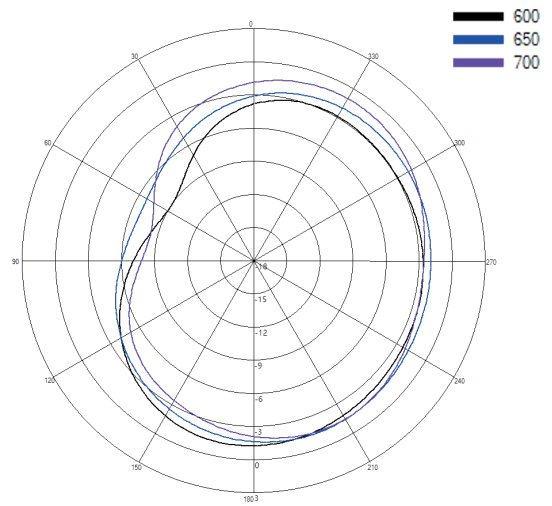
LG-IN2457[-VAR]

Pattern Data Free
Space - Cell A

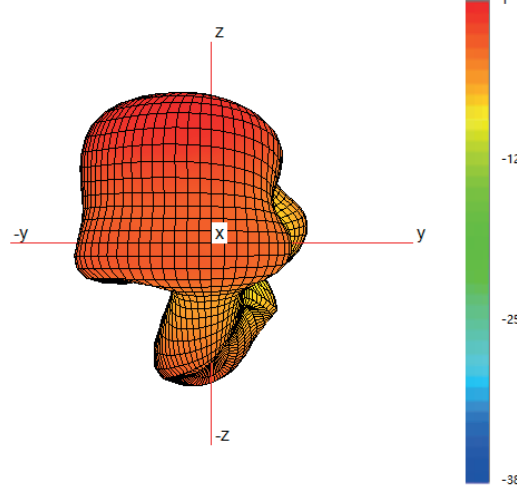
Typical 3D Pattern - Cell A 650 MHz



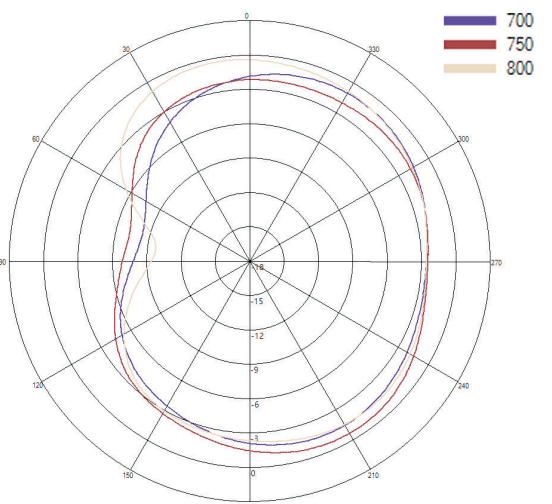
Typical H Plane Pattern - Cell A 600-700 MHz



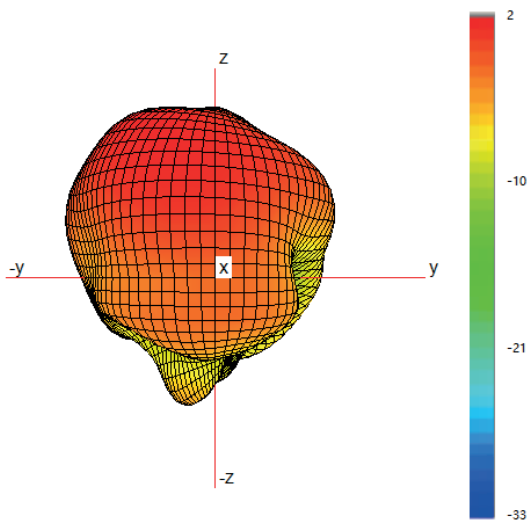
Typical 3D Pattern - Cell A 750 MHz



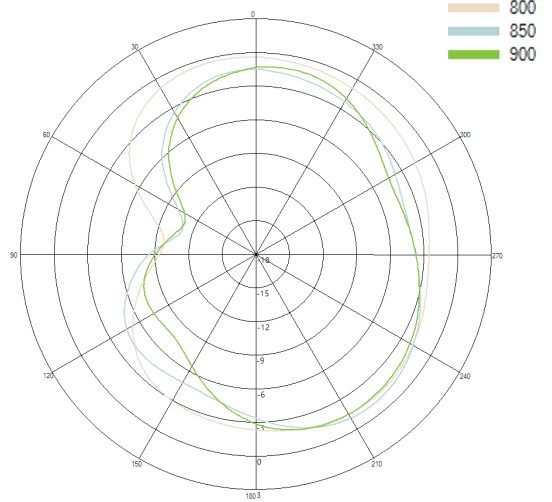
Typical H Plane Pattern - Cell A 700-800 MHz



Typical 3D Pattern - Cell A 850 MHz



Typical H Plane Pattern - Cell A 800-900 MHz

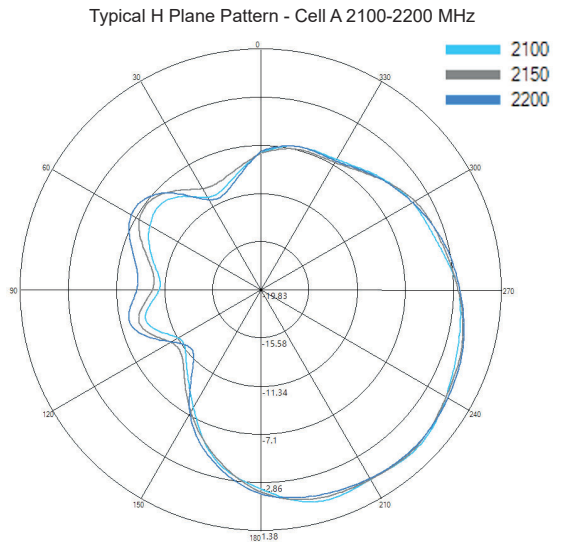
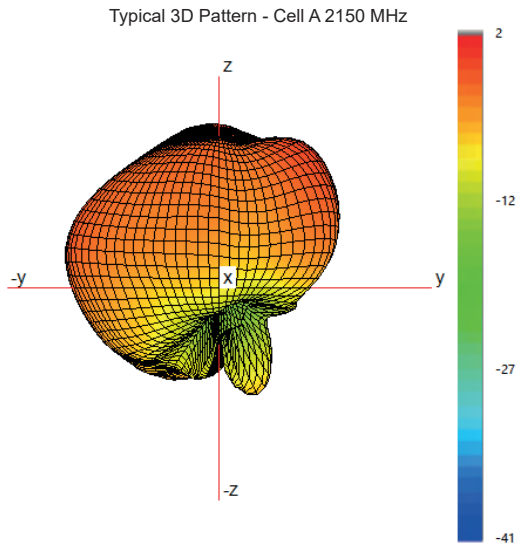
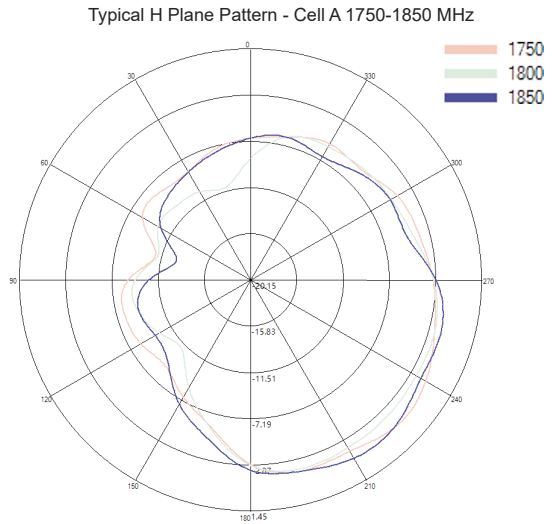
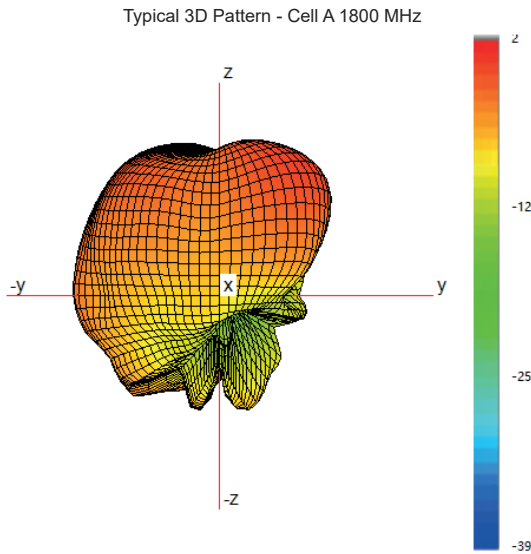
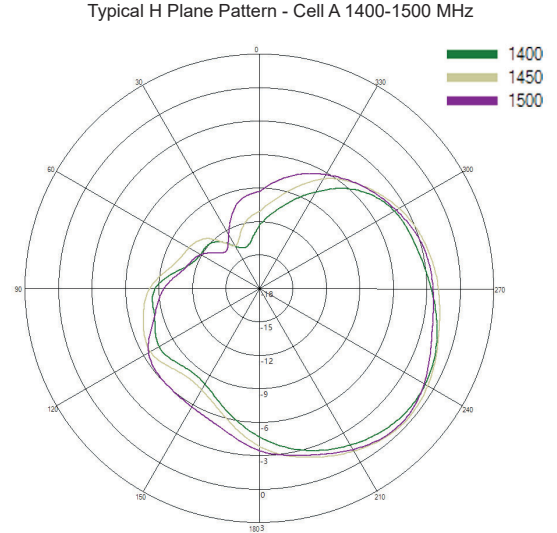
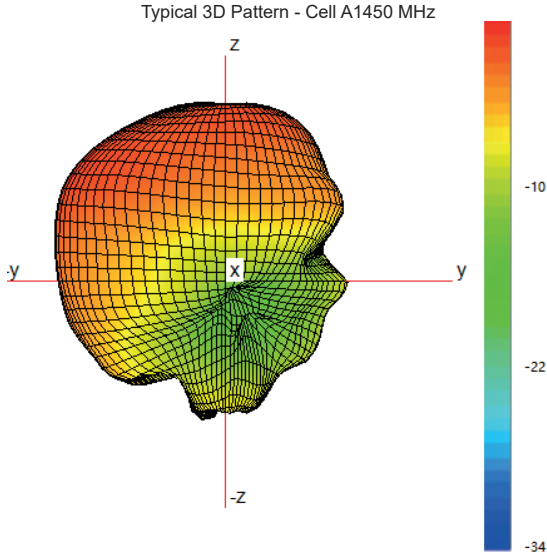


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Pattern Data Free Space - Cell A



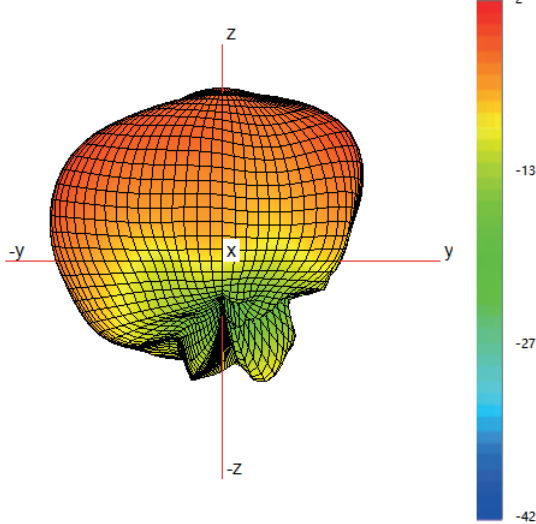
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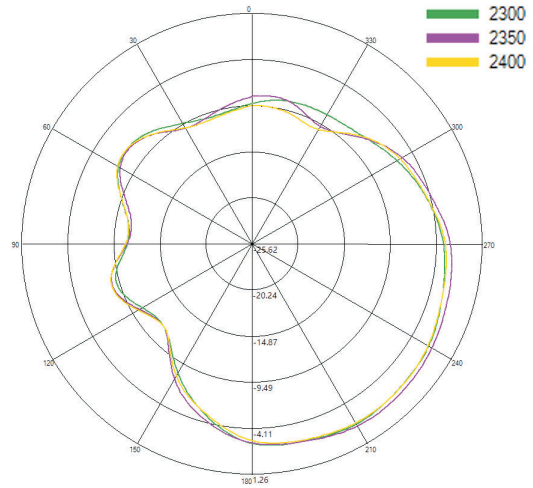
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Pattern Data Free
Space - Cell A

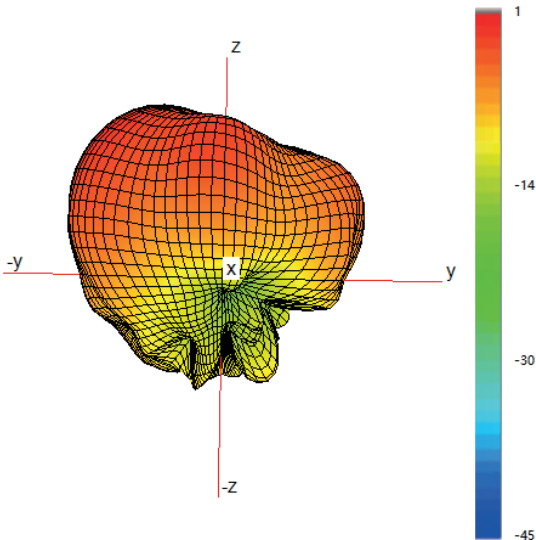
Typical 3D Pattern - Cell A 2350 MHz



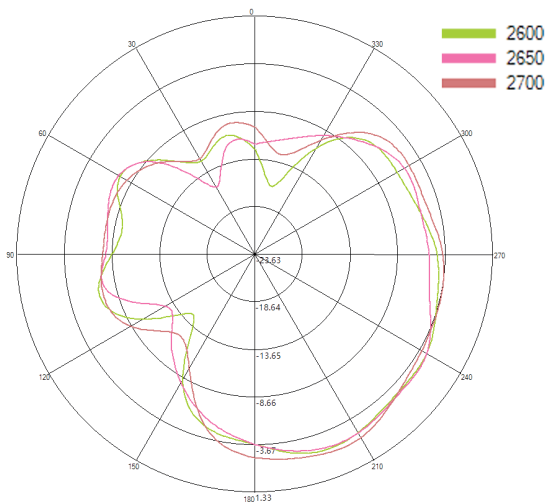
Typical H Plane Pattern - Cell A 2300-2400 MHz



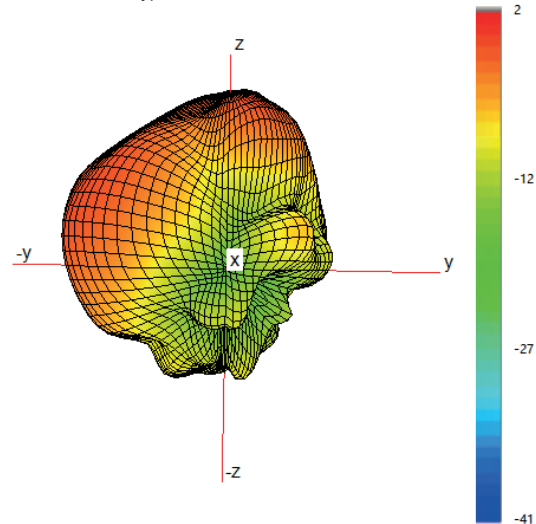
Typical 3D Pattern - Cell A 2650 MHz



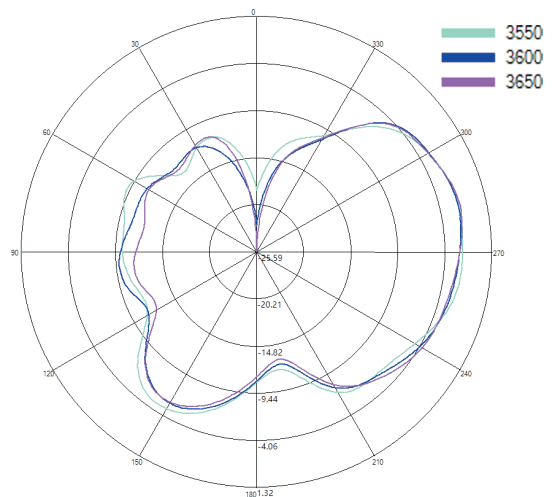
Typical H Plane Pattern - Cell A 2600-2700 MHz



Typical 3D Pattern - Cell A 3600 MHz



Typical H Plane Pattern - Cell A 3550-3650 MHz

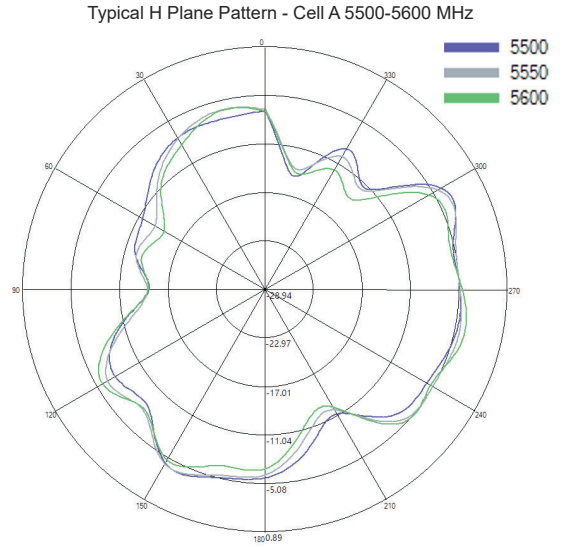
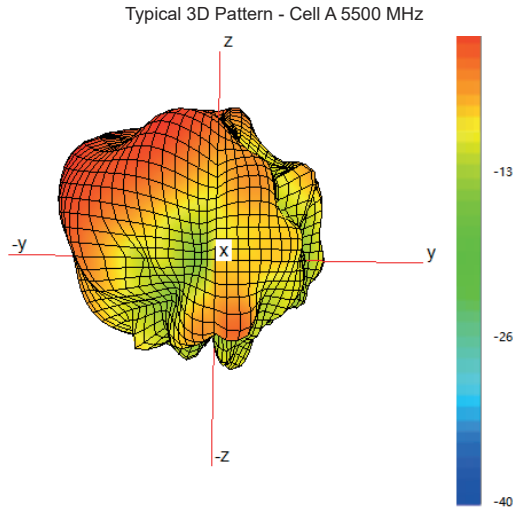


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Pattern Data Free Space -
Cell A



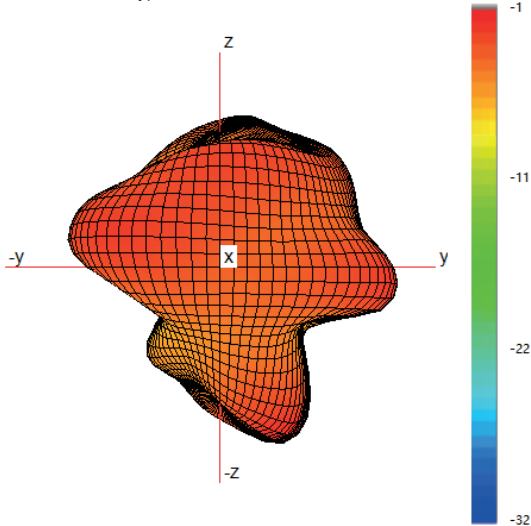
5-in-1 Dome Antenna Kit

5m Cables

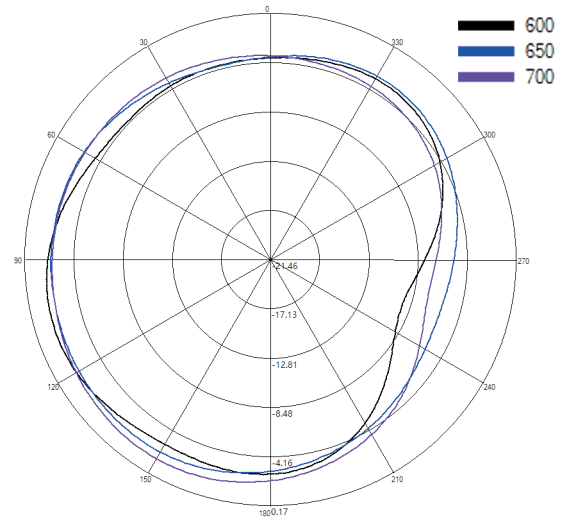
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Pattern Data Free
Space - Cell B

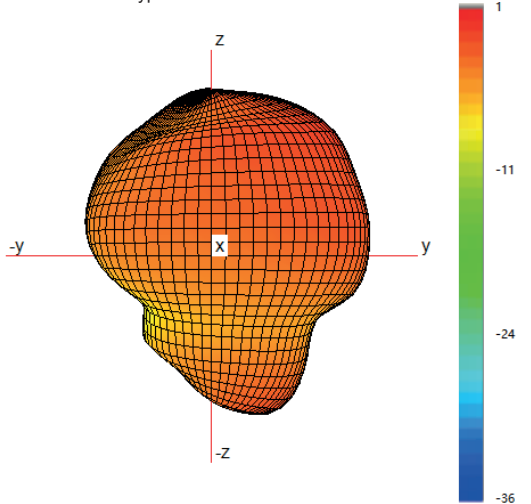
Typical 3D Pattern - Cell B 650 MHz



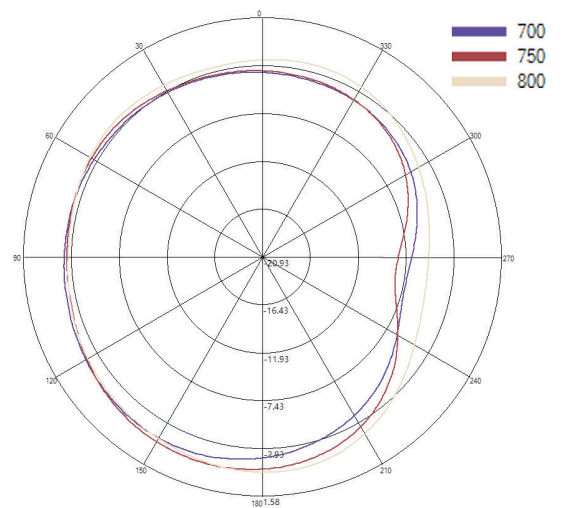
Typical H Plane Pattern - Cell B 600-700 MHz



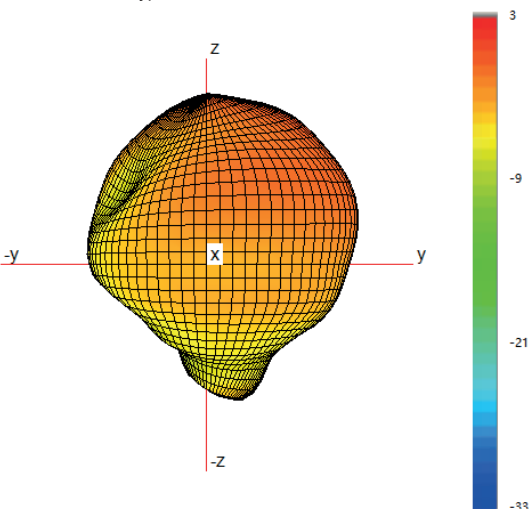
Typical 3D Pattern - Cell B 750 MHz



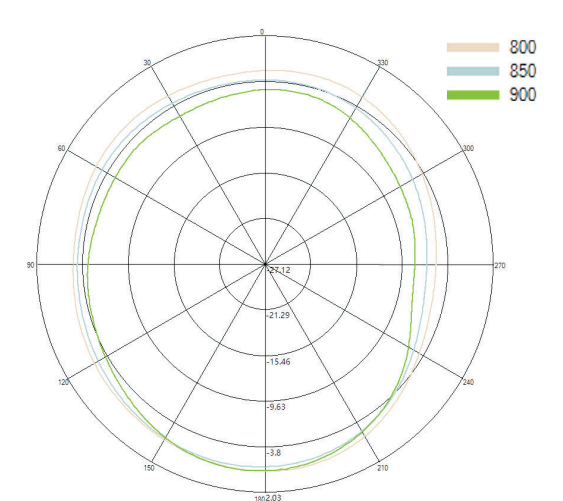
Typical H Plane Pattern - Cell B 700-800 MHz



Typical 3D Pattern - Cell B 850 MHz



Typical H Plane Pattern - Cell B 800-900 MHz

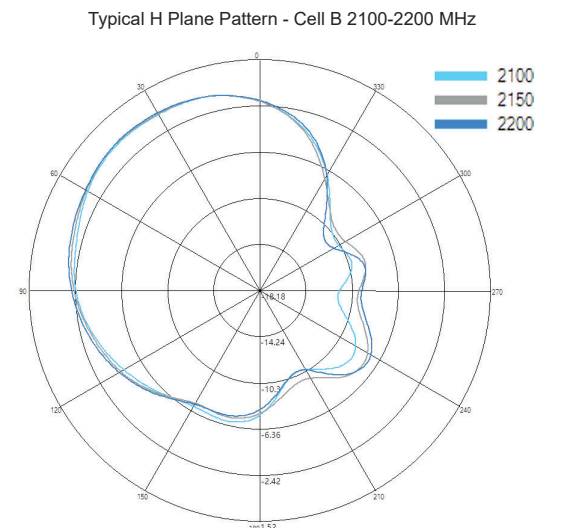
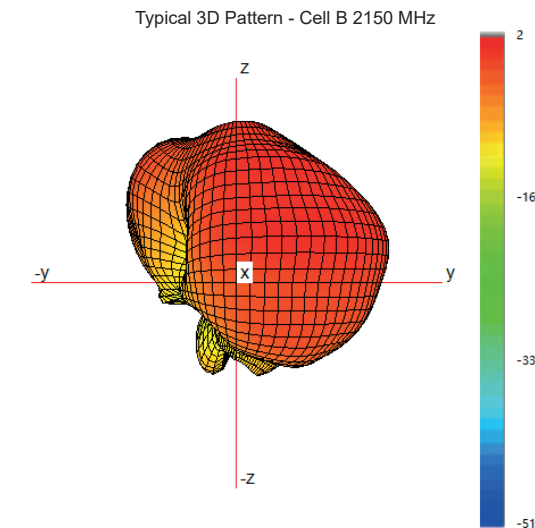
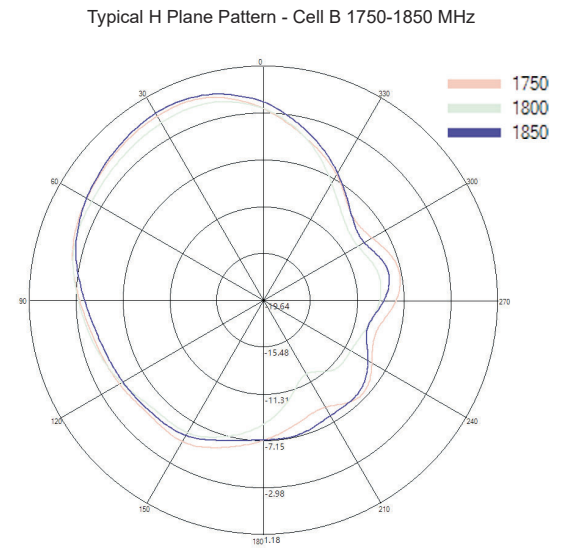
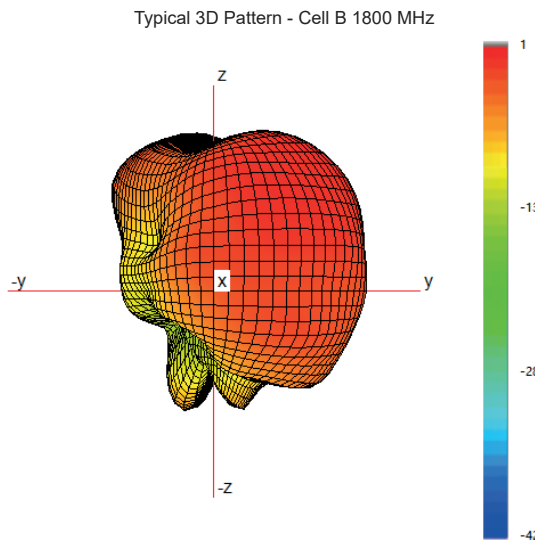
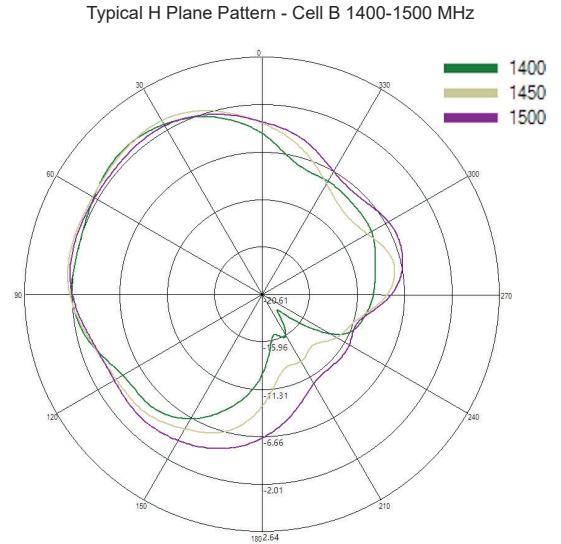
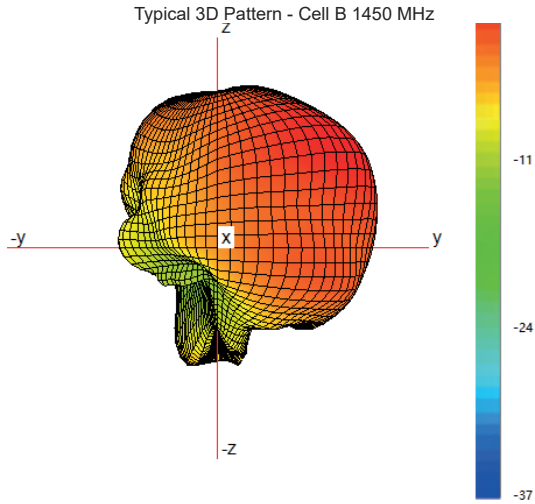


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Pattern Data Free Space - Cell B



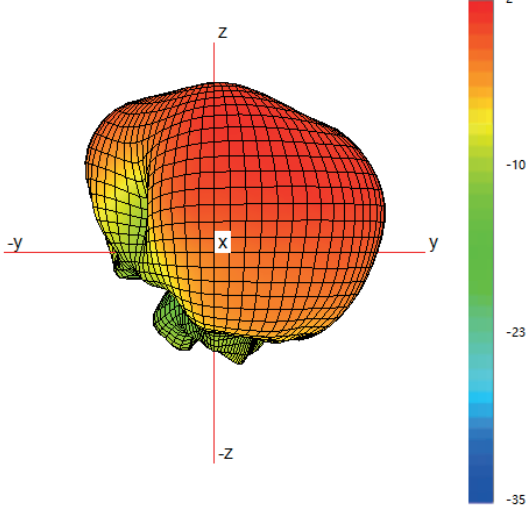
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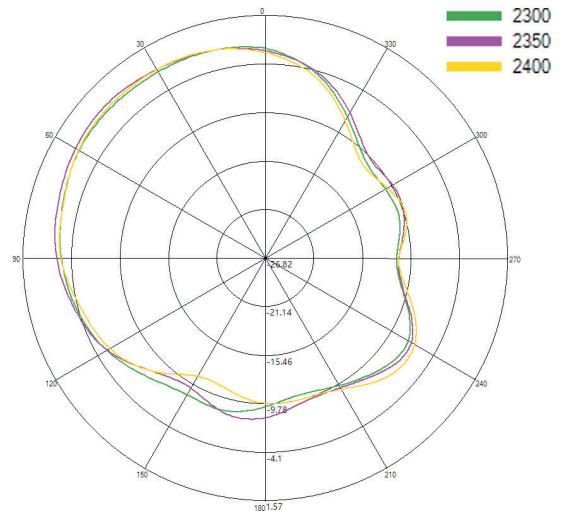
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Pattern Data Free
Space - Cell B

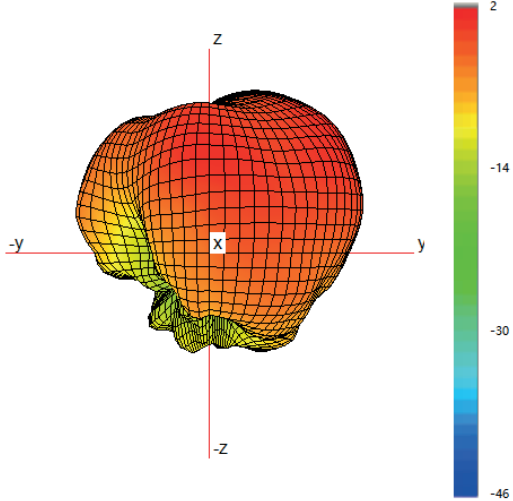
Typical 3D Pattern - Cell B 2350 MHz



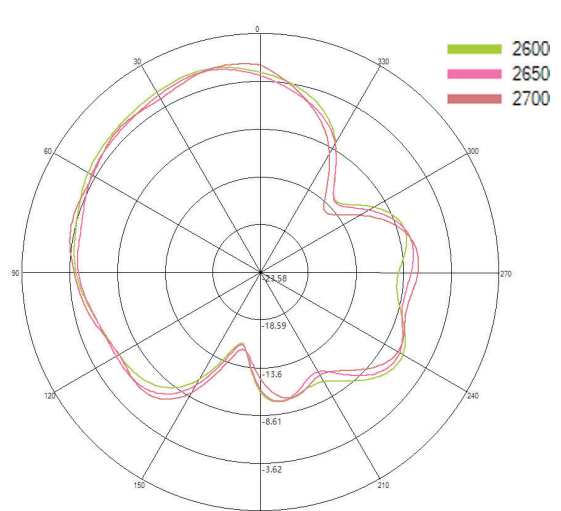
Typical H Plane Pattern - Cell B 2300-2400 MHz



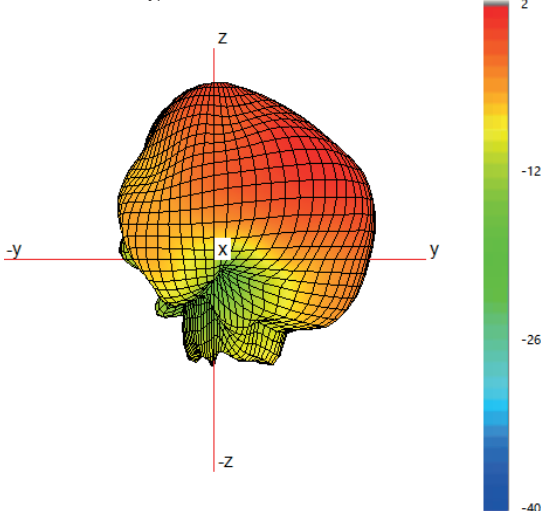
Typical 3D Pattern - Cell B 2650 MHz



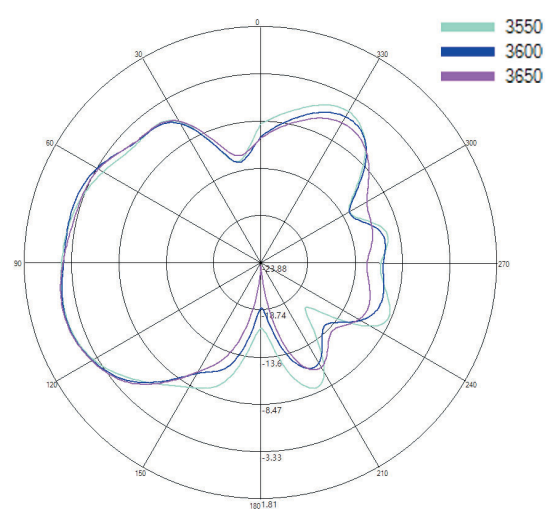
Typical H Plane Pattern - Cell B 2600-2700 MHz



Typical 3D Pattern - Cell B 3600 MHz



Typical H Plane Pattern - Cell B 3550-3650 MHz



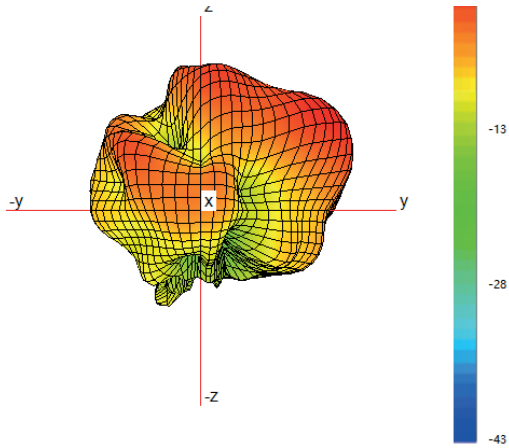
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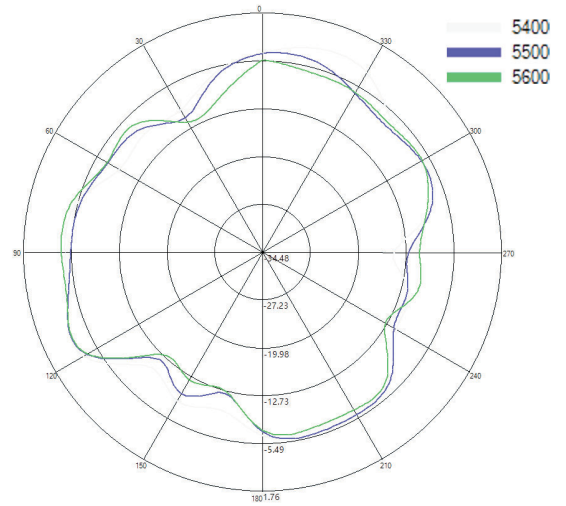
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Pattern Data Free Space -
Cell B

Typical 3D Pattern - Cell B 5550 MHz



Typical H Plane Pattern - Cell B 5400-5600 MHz



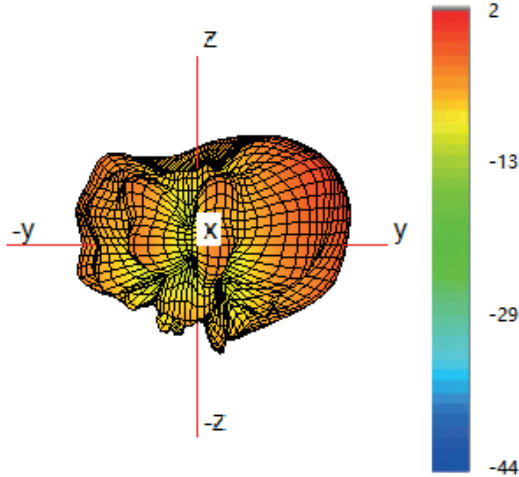
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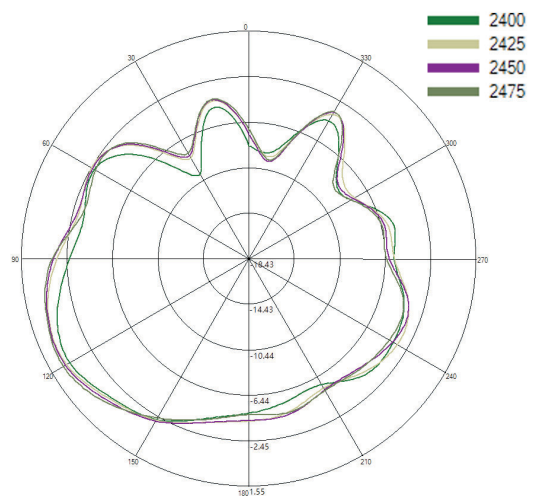
LG-IN2457[-VAR]

Pattern Data Free
Space - WiFi 1

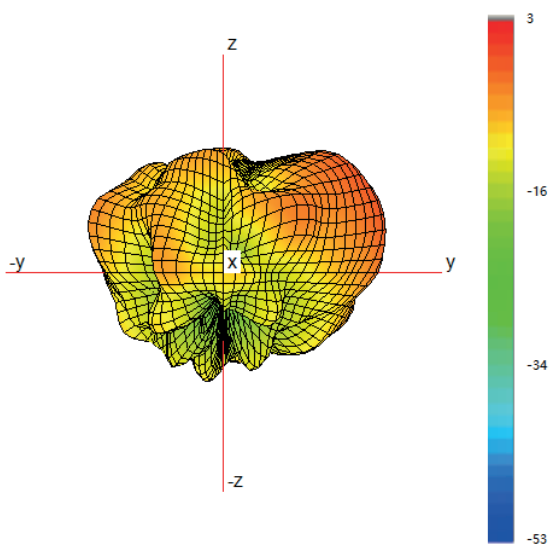
Typical 3D Pattern - WiFi 1 2450 MHz



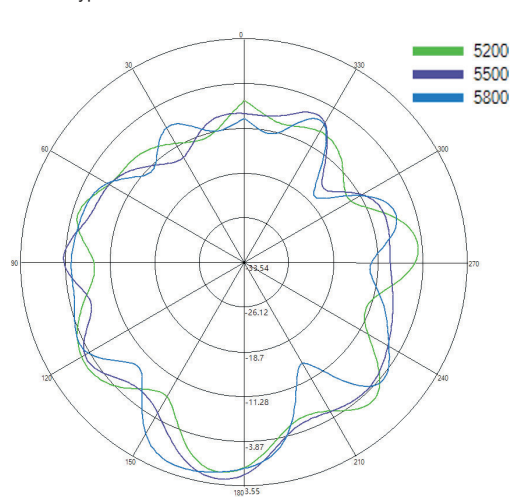
Typical H Plane Pattern - WiFi 1 2400-2475 MHz



Typical 3D Pattern - WiFi 1 5500 MHz



Typical H Plane Pattern - WiFi 1 5200-5800 MHz



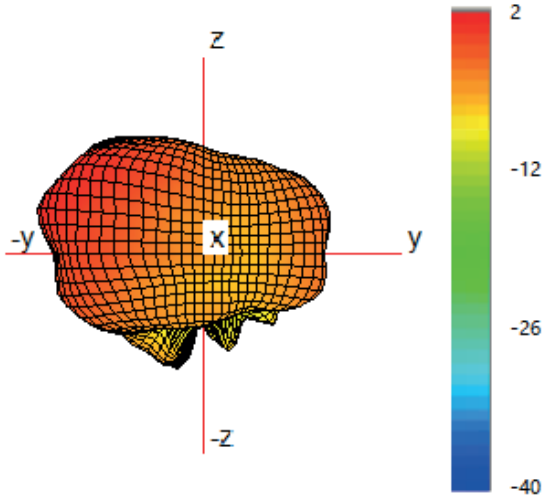
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5m Cables

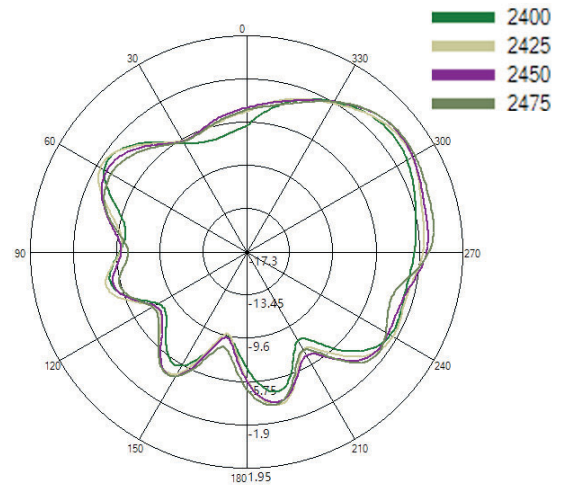
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Pattern Data Free Space -
WiFi 2

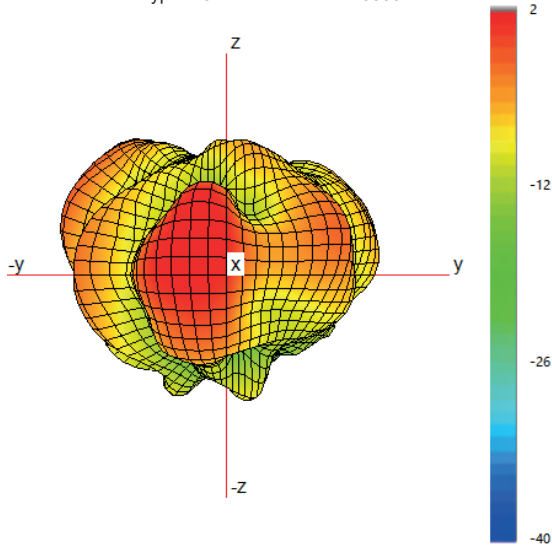
Typical 3D Pattern - WiFi 2 2450 MHz



Typical H Plane Pattern - WiFi 2 2400-2475 MHz



Typical 3D Pattern - WiFi 2 5500 MHz



Typical H Plane Pattern - WiFi 2 5200-5800 MHz

