4x4 MiMo 4G/5G Dome Combination Antenna Range

LP-IN2706 & LG-IN2707

MAKO 5G DOME

- Low Profile 4x4 4G/5G MiMo - Optimised for Band 28
- 2x2 MiMo Dual Band WiFi
- GPS/GNSS Active Antenna 26dB LNA (LG-IN2707 Only)

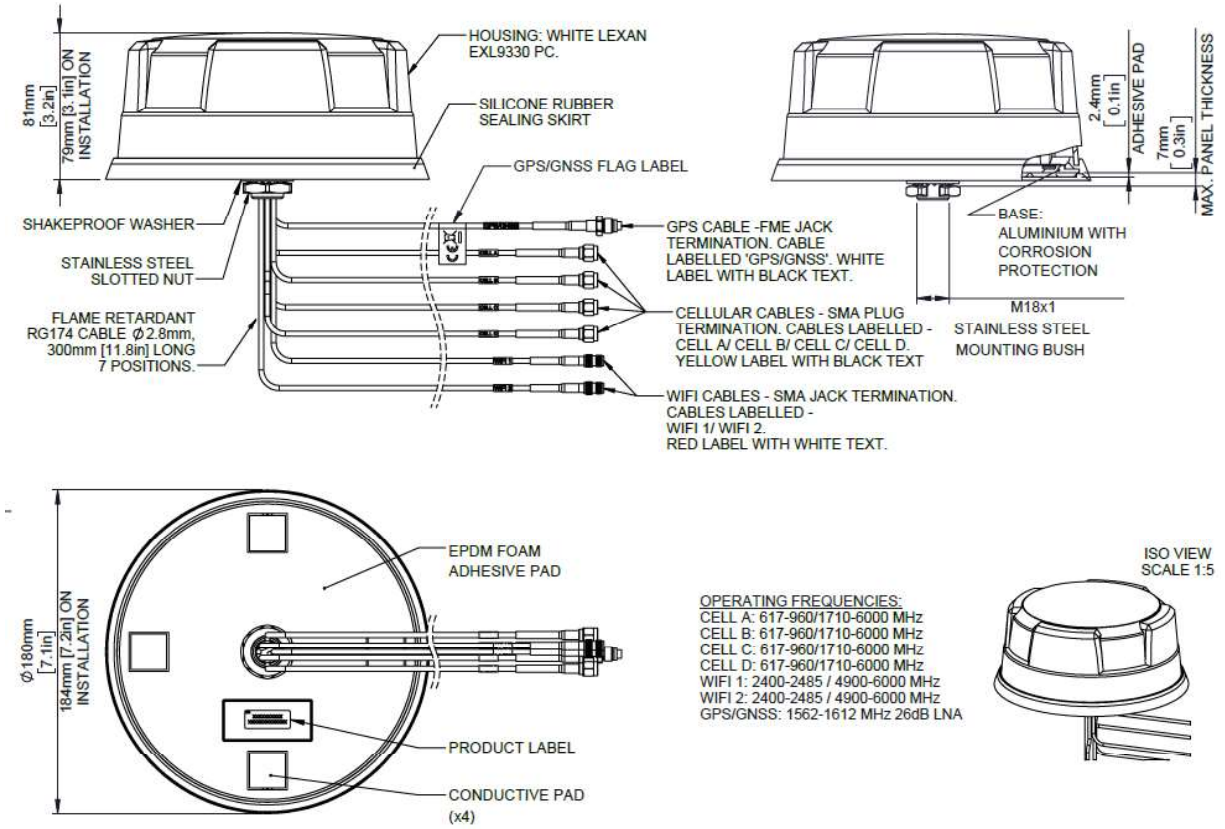
The LP-IN2706 / LG-IN2707 range has been designed to provide 4x4 4G/5G MiMo performance from 617-960/1427-6000MHz in a robust low profile package. While each LTE antenna element covers this frequency range in its entirety the LP-IN2706 and LG-IN2707 antennas are optimised for LTE band 28 with higher efficiency and peak gain in this LTE band than standard models. The LP-IN2706 and LG-IN2707 both include two WiFi elements for 2x2 MiMO WiFi 6e covering 2.4/5.0/7.2GHz while the LG-IN2707 also incorporates an active GPS/GNSS antenna.

The antennas are designed to be panel mounted and can be fitted on a conductive or non- conductive panels. Supplied with integrated flame retardant RG174 cables (Compliant to UN ECE R118 and EN45545-2) and a halogen free flame retardant radome the antennas are suitable for many environments and applications.

The LG-IN2707 incorporates an integrated GPS/GNSS module supporting GPS, Glonass, Galileo, QZSS and Compass with 26dB LNA gain. This GPS module features advanced filtering for LTE B13/14 designed to minimise potential in-band interference.

Technical Drawing

LG-IN2707 Shown



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4x4 MiMo 4G/5G Dome Combination Antenna Range

LP-IN2706 & LG-IN2707

PANORAMA ANTENNAS

Part No.			LP-IN2706	LG-IN2707
Electrical Data				
Frequency Range (MHz)	4G/5G Elements		4x 617-960 / 1427-6000	
	WiFi Elements		2x 2.4/4.9-7.2GHz	
Peak Gain: Isotropic : (dBi)*	4G/5G Elements	617-703 / 803-960MHz	6	
		703-803MHz (Band 28)	6.5	
		1427-3800MHz	8	
		4900-6000MHz	8	
	WiFi Elements	2.4 GHz	7	
		4.9-7.2GHz	10	
Typical Efficiency *	4G/5G Elements	617-703 / 803-960MHz	>50%	
		703-803MHz (Band 28)	>80%	
		1427-3800MHz	>60%	
		4900-6000MHz	>60%	
	WiFi Elements		>70%	
Isolation **	4G/5G Elements		>10dB	
	Wifi Elements		>12dB	
Nominal Impedance			50Ω	
GPS/GNSS Data				
Frequency Range (MHz)				1562-1612
VSWR				<2.5:1
Gain: LNA				26dB
Out of band rejection				>40dB (@ > +/- 100MHz f)
Operating Voltage				3 - 5V DC
Typcal Current (mA)				15
Mechanical Data				
Dimensions (mm)	Height		80 (3.1")	
	Diameter		180 (7.1")	
Operating Temp (°C)			-40°/ +80°C (-40° / +176°F)	
Colour			White	
Ingress Protection			IP69K	
Mounting Data				
Mounting type			Panel mount	
Max panel thickness (mm)			7 (0.27")	
Mounting hole (mm)			19 (3/4")	
Cable Data				
All Cables	Type		RG174 -FR (UN ECE R118 Compliant)	
	Diameter (mm)		2.8 (0.1")	
	Nominal Length (m)		0.3 (1')	
Terminations				
4G/5G			SMA (m)	
WiFi			SMA (f)	
GPS/GNSS			FME (f)	

*Peak gain and efficiency are modelled in CST Microwave Studio on a 600x600mm (2'x2') ground plane with one element of each type fed as indicative of performance of other elements of that type and exclude cable loss.

**Typical worst case Isolation measured on a 600x600mm (2'x2') ground plane.

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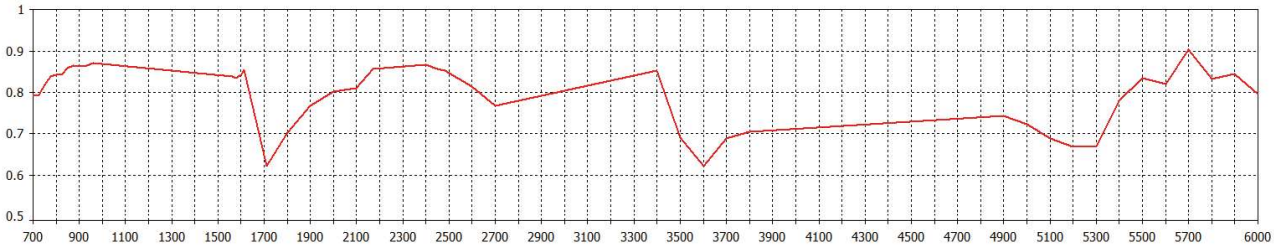
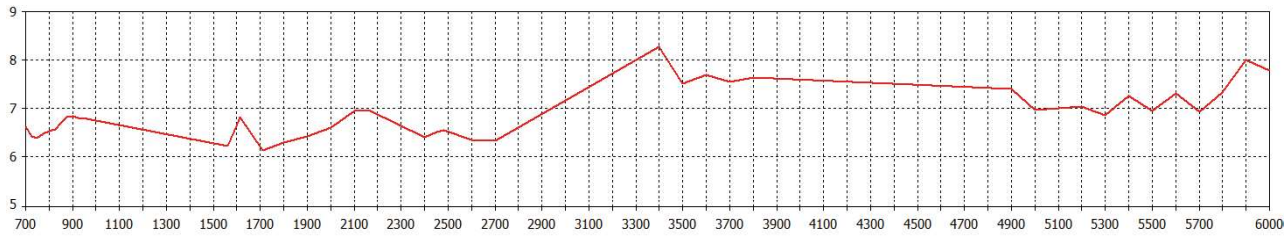
Electrical Data

Typical Efficiency- 4G/5G Elements*



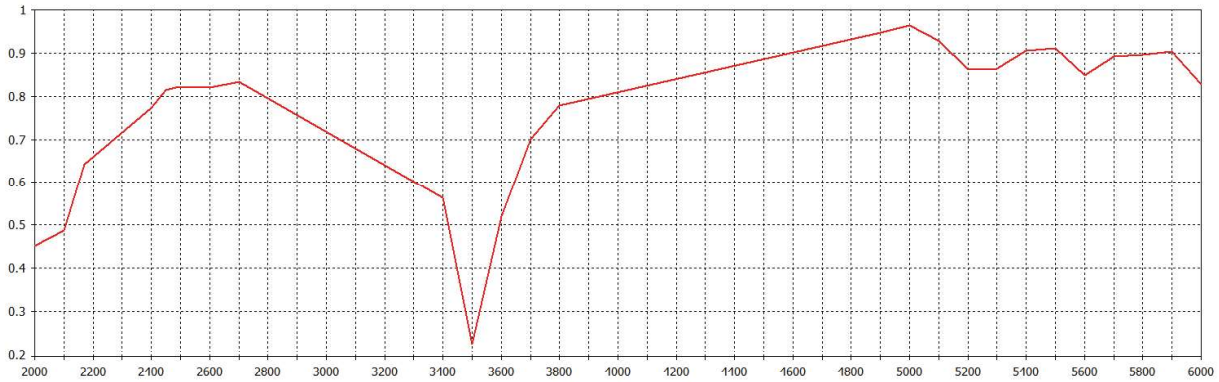
* Efficiency modelled with one element fed in CST Microwave Studio with antenna mounted on 600x600mm (2'x2') ground plane and and ignores cable losses

Typical Peak Gain - 4G/5G Elements*



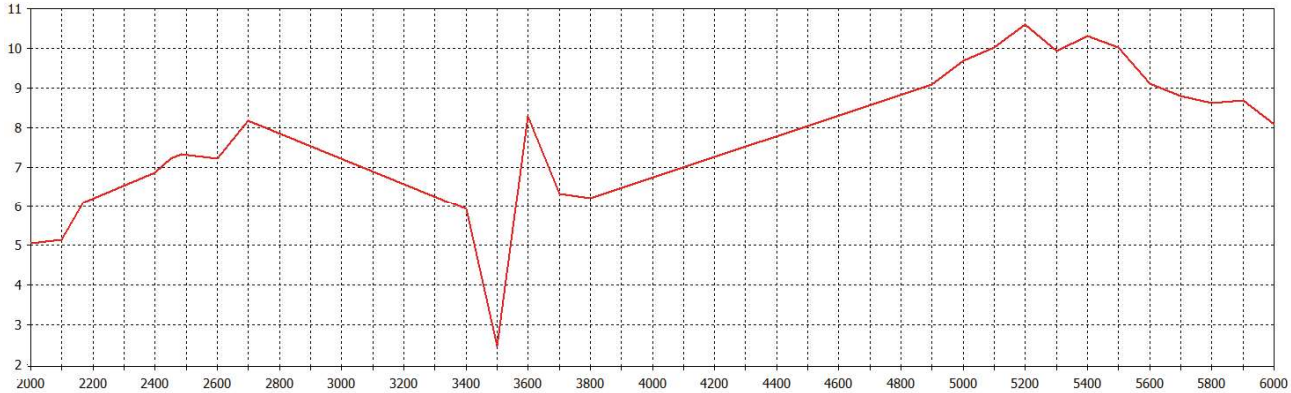
*Swept peak gain modelled with one element fed in CST Microwave Studio on a 600x600mm (2'x2') ground plane excluding cable loss

Typical Efficiency - WiFi Elements*



* Efficiency modelled in CST Microwave Studio with one element fed and antenna mounted on 600x600mm (2'x2') ground plane excluding cable losses

Typical Swept Peak Gain - WiFi Elements*



*Swept peak gain modelled with one element fed in CST Microwave Studio on a 600x600mm (2'x2') ground plane excluding cable loss

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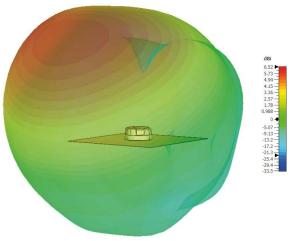
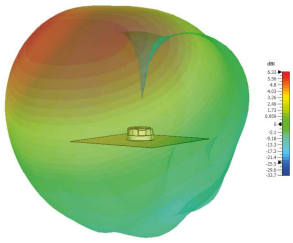
3D Patterns - Cell

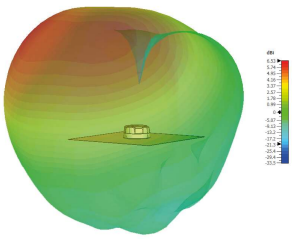
Typical 3D Pattern LTE Element 1
700 MHz



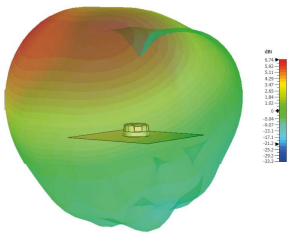
Typical 3D Pattern LTE Element 1
750 MHz



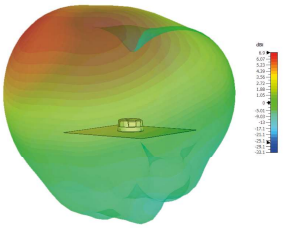
Typical 3D Pattern LTE Element
1 800 MHz



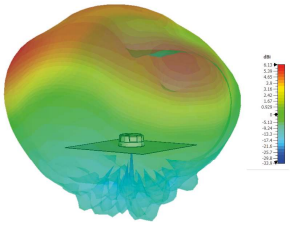
Typical 3D Pattern LTE Element
1 850 MHz



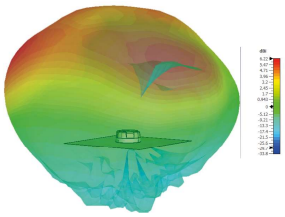
Typical 3D Pattern LTE Element 1
900 MHz



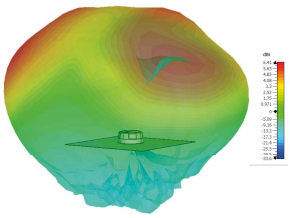
Typical 3D Pattern LTE Element 1
1800 MHz



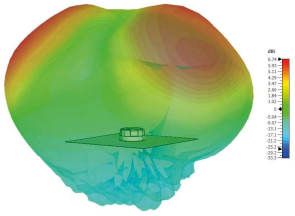
Typical 3D Pattern LTE Element 1
1900 MHz



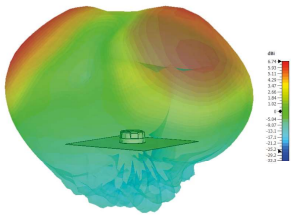
Typical 3D Pattern LTE Element 1
2000 MHz



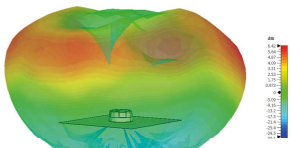
Typical 3D Pattern LTE Element 1
2100 MHz



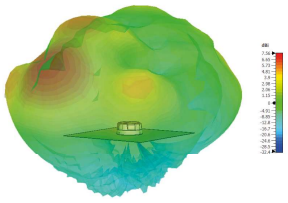
Typical 3D Pattern LTE Element 1
2170 MHz



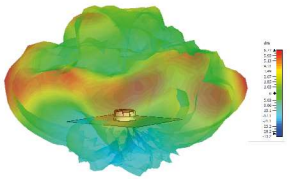
Typical 3D Pattern LTE Element 1
2400 MHz



Typical 3D Pattern LTE Element 1
3600 MHz



Typical 3D Pattern LTE Element 1
5400 MHz



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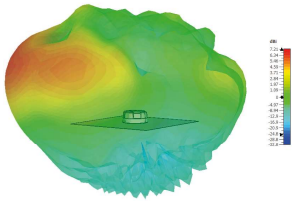
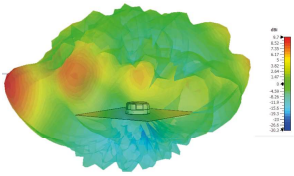
3D Patterns - WiFi

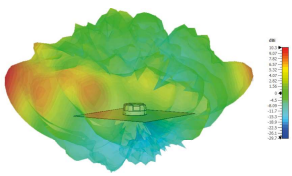
Typical 3D Pattern WiFi Element1
2450MHz



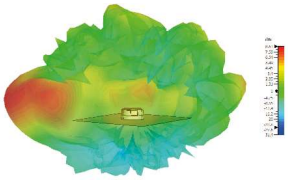
Typical 3D Pattern - WiFi Element1
5000MHz



Typical 3D Pattern WiFi Element 1
5400MHz



Typical 3D Pattern WiFi Element 1
5800MHz



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