

LGMTM[B]-7-27-24-58 'Great White'

Low Profile MiMo Antenna

25/08/2016 v.2

Low Profile MiMo Antenna



Rugged low profile design

2x Wideband LTE/cellular elements

Integrated GPS antenna

3x3 MiMo WiFi

The Panorama LGMTM low profile MIMO antenna range has been designed to support the new generation of vehicular LTE routers.

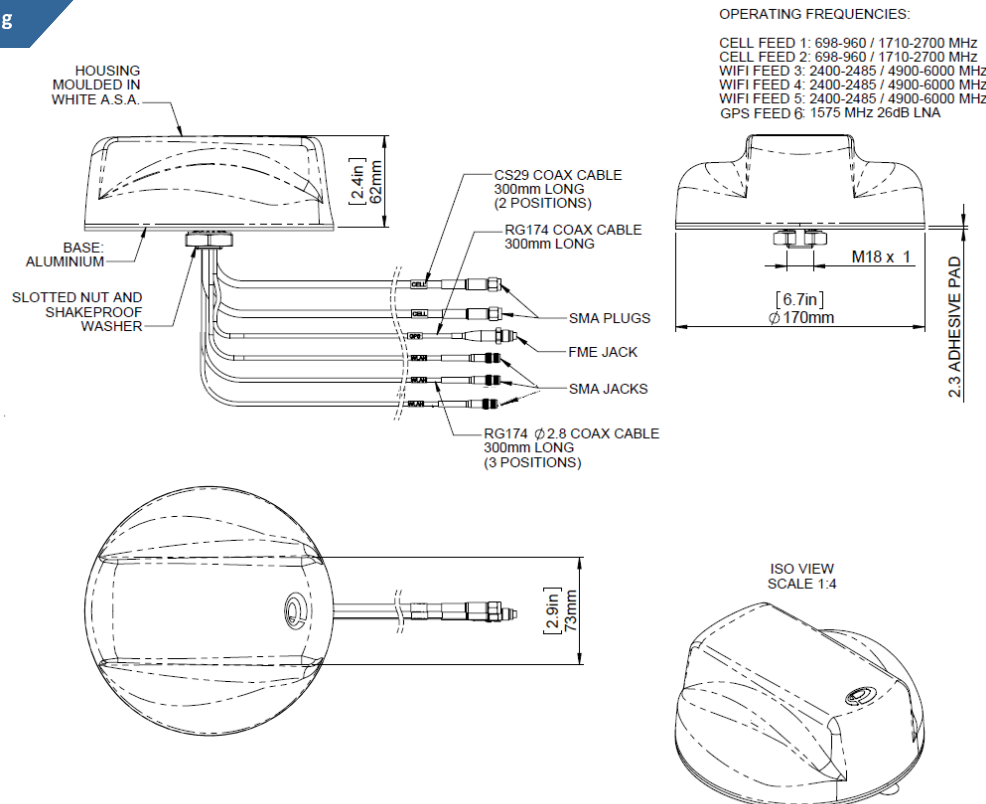
The antenna enclosure contains six isolated high performance antenna elements; two ultra-wideband elements covering 698-2700MHz support MiMo/diversity at cellular/LTE frequencies, a high performance GPS antenna with an integrated 26dB gain LNA and high quality filtering to combat noise offers excellent positioning accuracy and three dualband WiFi elements covering 2.4/4.9-6.0GHz provide 3x3 MiMo WiFi.

The antenna does not require a metallic ground plane, and maintains a high level of performance even when mounted on a non-metallic surface.

The GPS module in the LGMTM carries an E11 Mark type approval under ECE R10.4.



Technical Drawing



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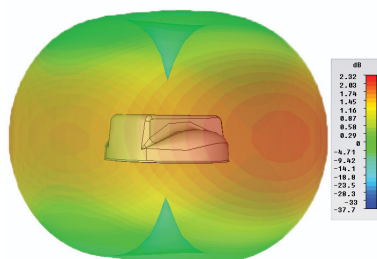
Waiver: The data given above is indicative of the performance of the product/s under particular conditions and does not imply a guarantee of performance. These specifications are subject to change without notice.

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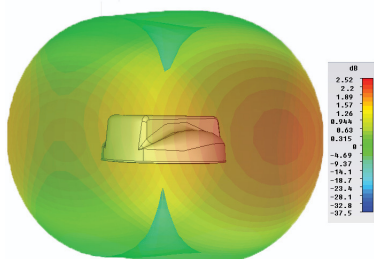
Part No.			
LGMTM-7-27-24-58			
Electrical Data			
Frequency Range (MHz)	Elements 1&2	698-960 / 1700-2700	
	Elements 3,4 & 5	2.4/4.9-6GHz	
Operational Bands	Elements 1&2	LTE / Cellular	
	Elements 3,4&5	Wifi 2.4/5.0GHz	
Peak Gain: Isotropic	Elements 1&2	698-960MHz	2.3dBi
		1710-2700MHz	5dBi
	Elements 3,4&5	2.4/4.9-6.0GHz	2dBi
Isolation	Elements 1&2	>15dB	
Correlation Co-efficient	Elements 1&2	<0.1	
Polarisation	Vertical		
Impedance	50Ω		
Max Input Power (W)	50		
GPS Data			
Frequency Range (MHz)	1575		
VSWR	<2:1 ± 4MHz		
Gain: LNA	26dB		
Operating Voltage	3-5V DC		
Type Approval	E11		
Mechanical Data			
Dimensions	Height	2.4" (62mm)	
	Diameter	6.7" (176mm)	
Operating Temp	-22° / 176°F (-30° / +80°C)		
Colour	White (Black also available - add [B] suffix to part number e.g., LGMMB)		
Ingress Protection	IP66 (Certificate No. 45214)		
Approx. Weight (g)	480		
Mounting Data			
Mounting type	Panel mount		
Max panel thickness	0.27"(7mm)		
Mounting hole	3/4" (19mm)		
Cable Data			
Cell / LTE Cables	Type	CS29 (double shielded RG58)	
	Diameter	0.2"(5mm)	
	Length	1' (0.3m)	
	Termination	SMA Plugs (m)	
GPS Cable	Type	RG174	
	Diameter	0.1" (2.8mm)	
	Length	12" (300mm)	
	Termination	FME Jack (f)	
WiFi Cables	Type	RG174	
	Diameter	0.1" (2.8mm)	
	Length	12" (300mm)	
	Termination	SMA Jacks (f)	

Electrical Data

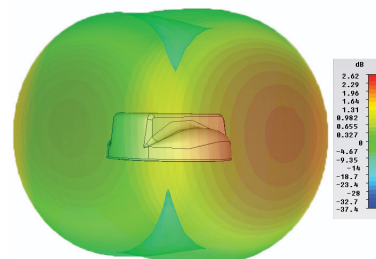
Typical 3D Pattern - Elements 1&2 700MHz



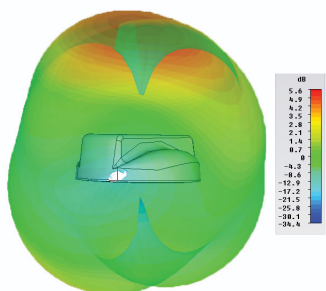
Typical 3D Pattern - Elements 1&2 800MHz



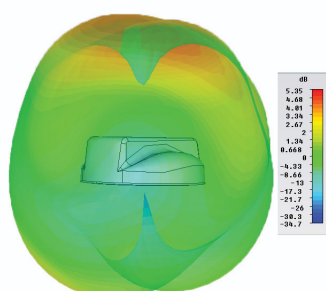
Typical 3D Pattern - Elements 1&2 900MHz



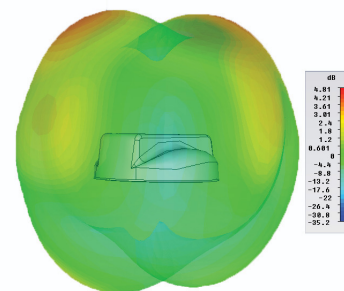
Typical 3D Pattern - Elements 1&2 1800MHz



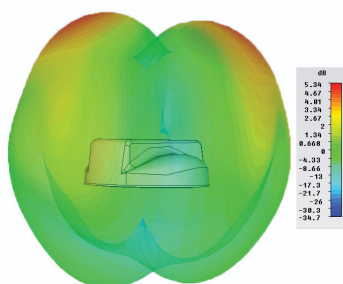
Typical 3D Pattern - Elements 1&2 1900MHz



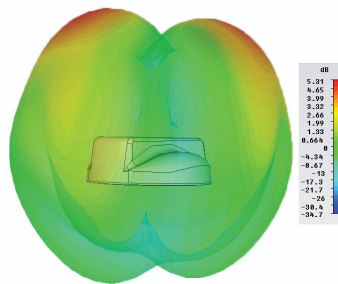
Typical 3D Pattern - Elements 1&2 2100MHz



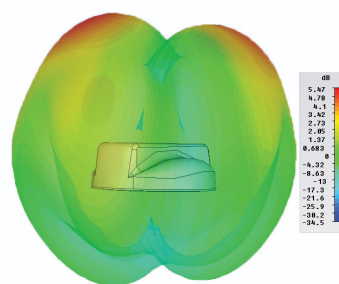
Typical 3D Pattern - Elements 1&2 2400MHz



Typical 3D Pattern - Elements 1&2 2500MHz

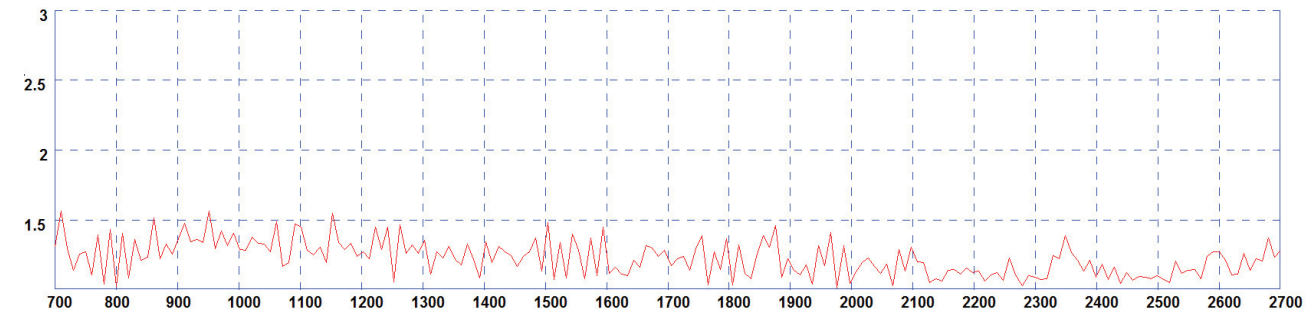


Typical 3D Pattern - Elements 1&2 2600MHz



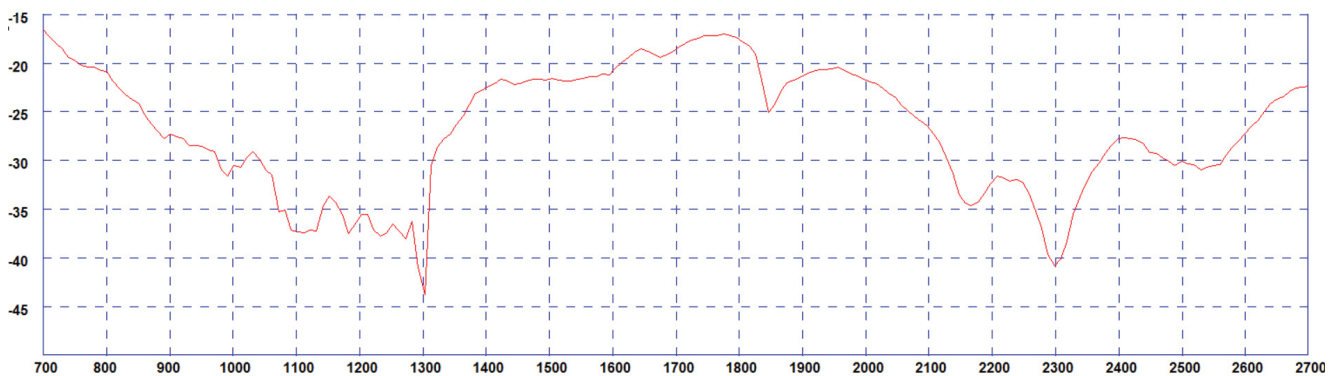
N.B. All pattern and gain measurements taken on a 400 x 400mm (2' x 2') ground plane without additional cable.

Typical VSWR (Elements 1 & 2)*



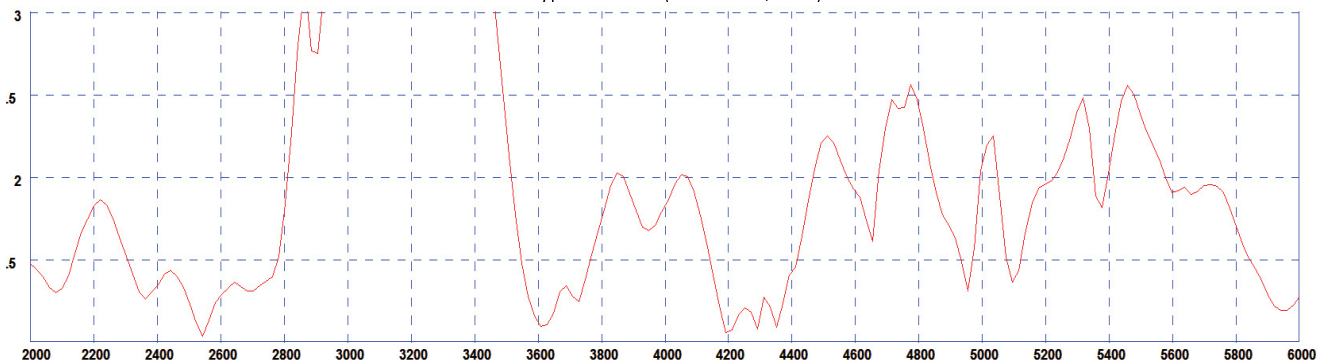
* VSWR measured with 5m (16') of cable.

Typical Isolation (elements 1 & 2)*



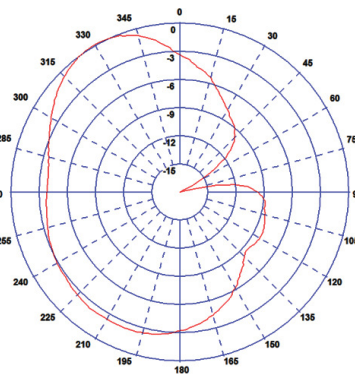
* Isolation measured without a groundplane or additional cable

Typical VSWR - (Elements 3, 4 & 5)



* VSWR measured without additional cable

Typical H-plane - Element 3 (2400MHz)



Typical H-plane - Element 3 (5400MHz)

