











Product Data Sheet

LPMM-7-27

Low profile MiMo LTE & cellular antenna

C/Note	Doc Issue	Date	Approval
01019	1	07.06.2013	J.J.



Low Profile MIMO Antenna



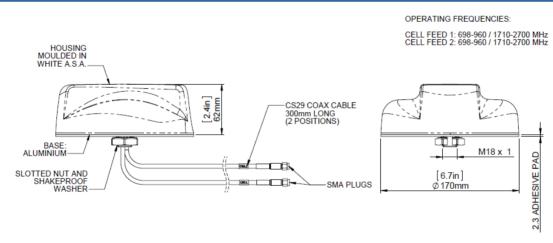
LPMM-7-27
Rugged low profile design
2x Wideband LTE/cellular elements

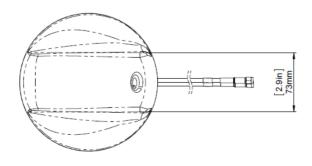
The Panorama LPMM low profile MIMO antenna range has been designed to support the new generation of vehicular LTE routers.

The antenna enclosure contains two isolated high performance antenna elements covering 698-2700MHz MIMO/diversity at cellular/LTE frequencies.

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

Technical Drawing





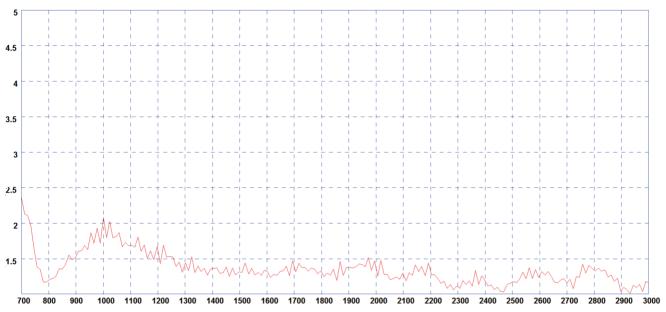


Low Profile MIMO Antenna

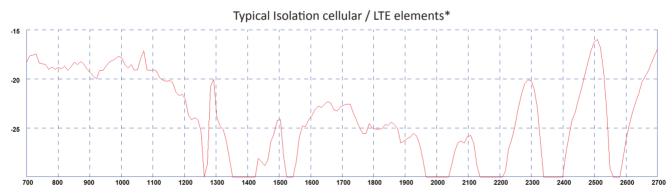
Part No.				
			LPMM-7-27	
Electrical Data				
	requency Range (MHz) Elements 1 & 2		698-960 / 1700-2700	
Operational Bands Peak Gain: Isotropic		Elements 1 & 2	LTE / Cellular	
		Elements 1 & 2 -698-960	2.3dBi	
		Elements 1 & 2 -1700-2700	5dBi	
VSWR	SWR Elements 1 & 2		< 2.5:1	
Isolation (in free space) Elements 1 & 2		Elements 1 & 2	> 15dB	
Polarisation			Vertical	
Impedance			50Ω	
Max Input Power (W	')		50	
Mechanical Data				
Dimensions	Height	2.4" (62mm)		
Differisions	Diameter		6.7" (170mm)	
Operating Temp			-22°/ 176°F (-30° / +80°C)	
Material			A.S.A & diecast aluminium	
Colour			White	
Mounting Data				
Mounting type	ounting type		Panel mount	
Max panel thickness			0.236"(6mm)	
Mounting hole	ting hole		3/4" (19mm)	
Cable Data				
Cell / LTE Cables x2 ·	Туре		CS29 (double shielded RG58)	
	Diameter	ter 0.2"(5mm)		
	Length		1' (0.3m)	
	Termination	ermination SMA (male)		

Low Profile MIMO Antenna

Typical VSWR cellular / LTE elements*



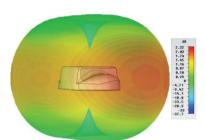
* VSWR measured in free space with 4.5m (15') of CS29 cable.



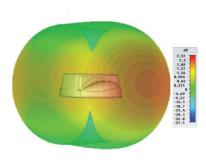
^{*} Isolation measured in free space with 300mm (1') of cable.

Low Profile MIMO Antenna

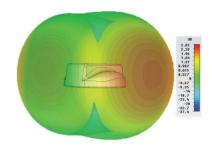
Typical 3D Pattern - Elements 1&2 700MHz



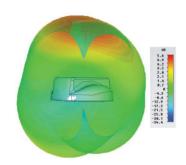
Typical 3D Pattern - Elements 1&2 800MHz



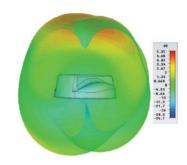
Typical 3D Pattern - Elements 1&2 900MHz



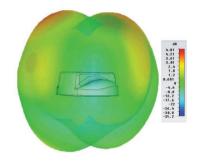
Typical 3D Pattern - Elements 1&2 1800MHz



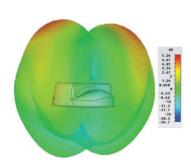
Typical 3D Pattern - Elements 1&2 1900MHz



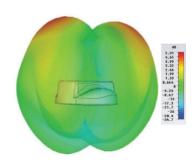
Typical 3D Pattern - Elements 1&2 2100MHz



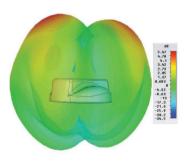
Typical 3D Pattern - Elements 1&2 2400MHz



Typical 3D Pattern - Elements 1&2 2500MHz



Typical 3D Pattern - Elements 1&2 2600MHz



N.B. All pattern and gain measurements taken in free space without additional ground plane.

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