

Multifunction MiMo Antenna

L[G]PAM-7-27-24-58



Low Profile Design

MiMo 4G/3G/2G + MiMo 2.4/4.9-6GHz

Optional GPS/GNSS

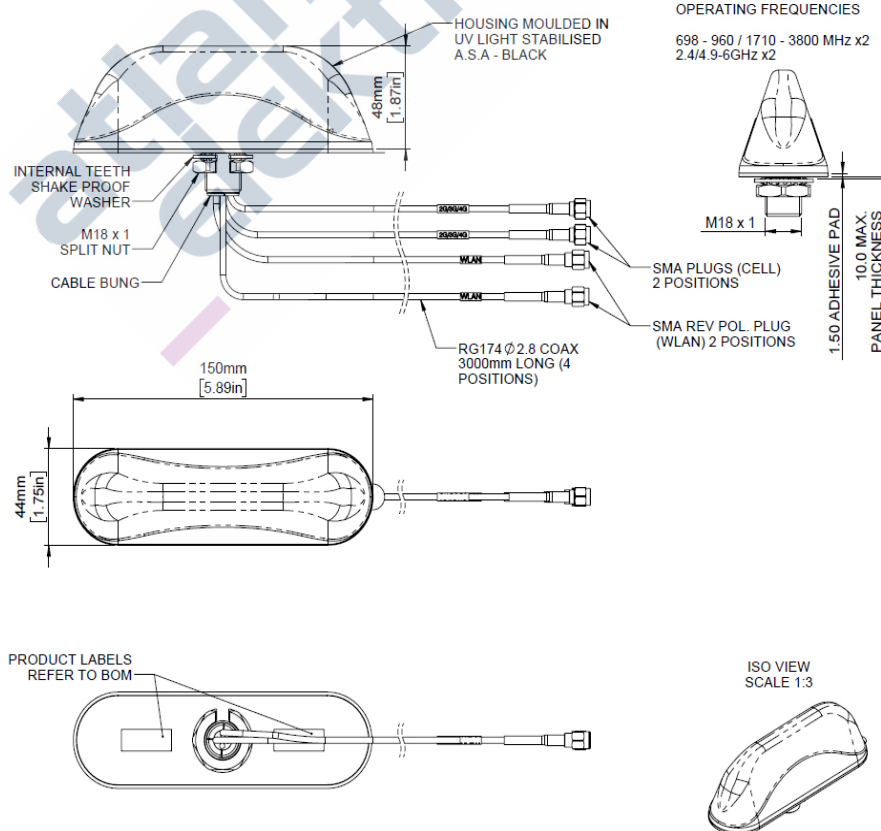
The L[G]PAM has a compact housing that contains 2x2 MiMo antenna function for 4G/3G/2G and 2x2 MiMo antenna function for 2.4/5.8GHz WiFi.

The LGAM version also includes an active antenna for GPS/GLONASS/Galileo/BeiDou with 26dB gain.

This antenna range is ideal for vending machines, payment terminals and other M2M type applications.

Technical Drawing

LPAM-7-27-24-58 shown



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PANORAMA ANTENNAS

L[G]PAM-7-27-24-58

Product Data

Part No.		LPAM-7-27-24-58	LGAM-7-27-24-58
Electrical Data			
Frequency Range (MHz)	Element 1	-	1562-1612
	Elements 2 & 3	698-960, 1710-2170, 2500-3800	
	Elements 4 & 5	2300-2500 & 4900-6000	
Operational Bands	Element 1	-	GPS/GNSS/Galileo/BeiDou
	Elements 2 & 3	4G/3G/2G	
	Elements 4 & 5	2.4 / 5.0GHz WiFi	
Peak gain: Isotropic*	Elements 2 & 3	2dBi (698-960MHz) 5dBi (1710-3800MHz)	
	Elements 4 & 5	4dBi (2.4GHz), 6dBi (5.8GHz)	
Isolation (with 5m (16') of RG174 cable)	Cellular	>12dB	
	WiFi	> 20dB	
Typical Efficiency*	Elements 2 & 3	> 50%	
Correlation Co-efficient	Elements 2 & 3	<0,2	
Polarisation	Vertical		
Pattern	Omni-directional		
Impedance	50Ω		
Max Input Power (W)	Internal elements 25W		
GPS/GNSS Data			
Frequency Range (MHz)	-	1562-1612	
VSWR	-	<2:1 ± 4MHz	
Gain: LNA	-	26dB	
Polarisation	-	Right Hand Circular	
Operating Voltage	-	3-5V DC (fed via coax)	
Current	-	Typical <20mA	
Mechanical Data			
Dimensions (mm)	Total Height	50 (2.2")	
	Length	150 (5.9")	
	Width	44 (1.47")	
Operating Temp (°C)	-40° / +80°C (-40° / 176°F)		
Material	ASA		
Colour	Black		
Mounting Info			
Fixing	Panel Mount		
Hole Size (mm)	19 (3/4")		
Cable Data			
Cable Type - All Feeds	RG174		
Dimensions (mm)	Diameter	2.8 (0.11")	
	Length	3000 (10')	
	GPS/GNSS	-	SMA Plug
Termination	2 x 4G/3G/2G	2 x SMA plug	
	2 x WiFi	2 x SMA Rev Pol Plug	

* without cable loss

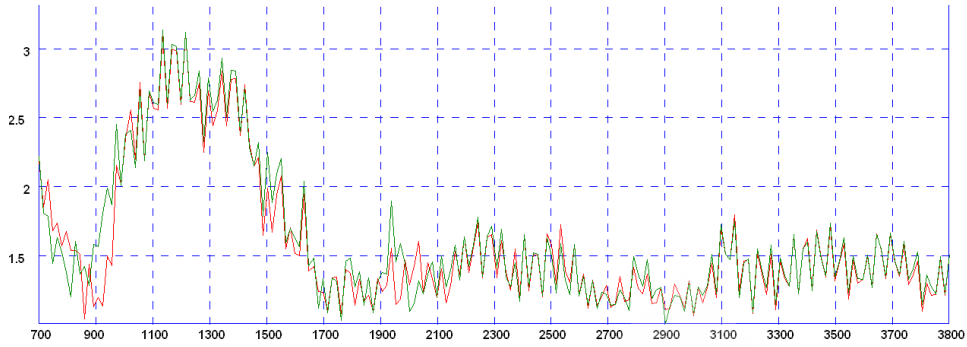
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Electrical Data

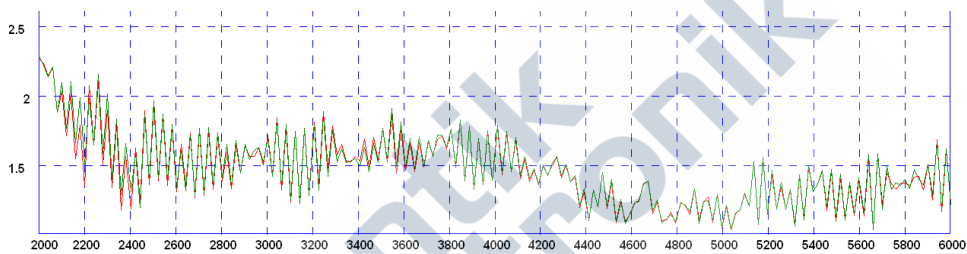
VSWR

Typical VSWR - 4G/3G/2G Elements 2&3*



*VSWR measured with 3m (10') of RG174 cable a) Red: in free space b) Green: on a 400x 400mm (1'4') ground plane

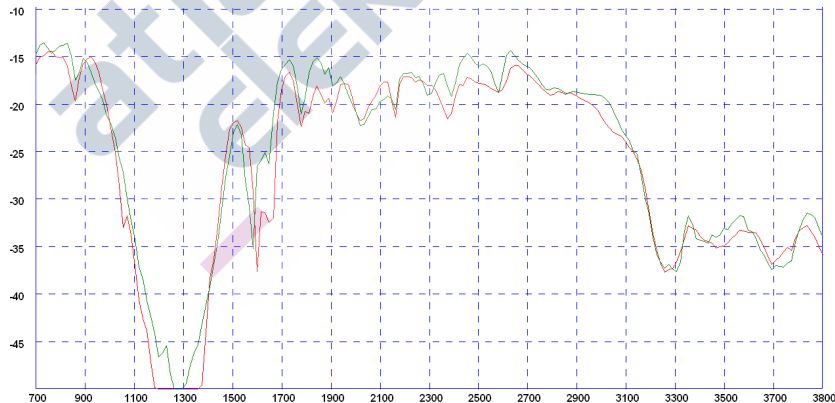
Typical VSWR - WiFi Elements 4&5*



*VSWR measured with 3m (10') of RG174 cable a) Red: in free space b) Green: on a 400x 400mm (1'4') ground plane

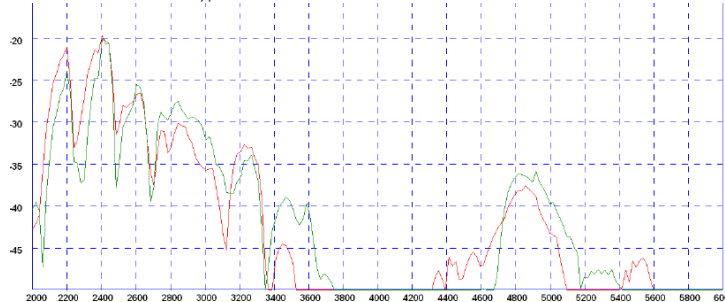
Isolation

Typical Isolation - Cellular Elements 2&3*



*Isolation measured with 3m (10') of RG174 cable a) Red: in free space b) Green: on a 400x 400mm (1'4') ground plane

Typical Isolation - WiFi Elements 4&5*



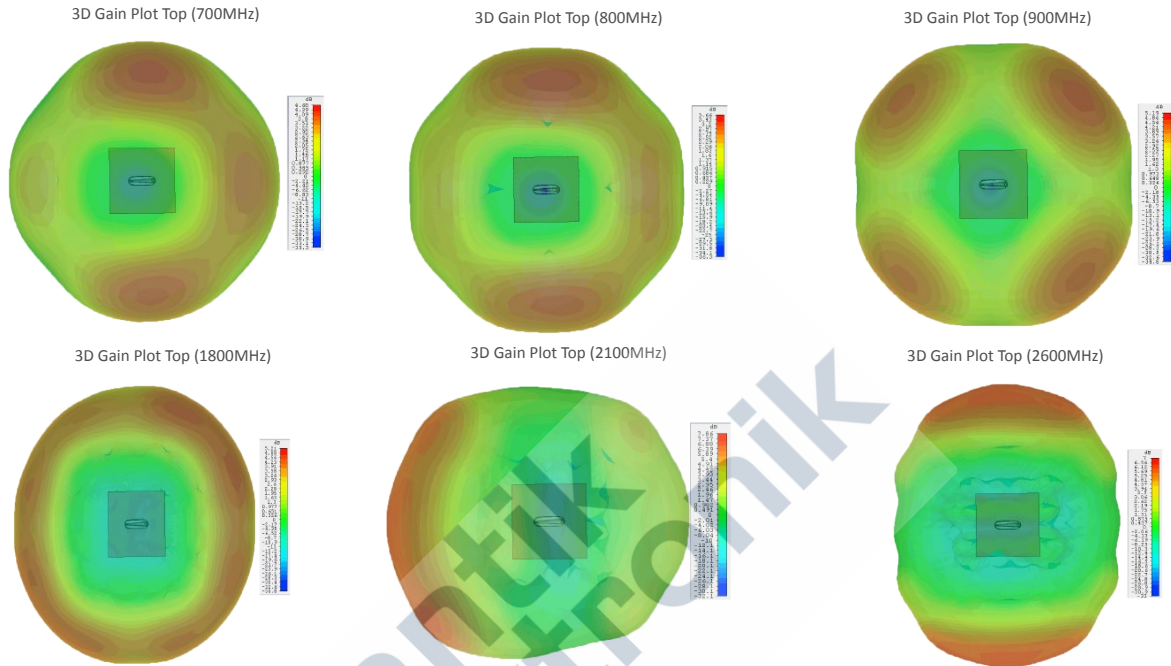
*Isolation measured with 3m (10') of RG174 cable a) Red: in free space b) Green: on a 400x 400mm (1'4') ground plane

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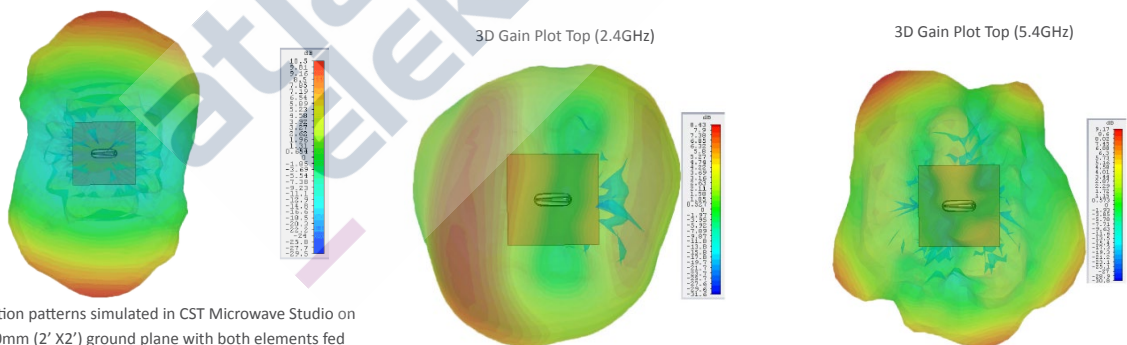
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Electrical Data

3D Radiation Patterns - Cell / LTE Elements 2&3



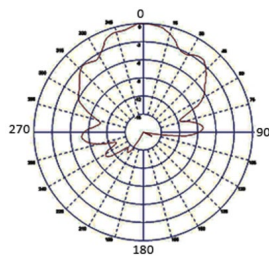
Typical 3D Radiation Patterns - Wifi Elements 4&5



*3D radiation patterns simulated in CST Microwave Studio on a 600x600mm (2' X2') ground plane with both elements fed together.

Typical Radiation Patterns - GPS/GNSS Element 1

Element 3: Typical E Plane Pattern



*3D radiation patterns simulated in CST Microwave Studio on a 600x600mm (2' X2') ground plane with both elements fed together.