

Multifunction Magnetic MiMo Antenna

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

PANORAMA ANTENNAS



Low Profile Design

MiMo 5G/4G/3G/2G + Single or 2x2 MiMo 2.4/ 5GHz

Optional GPS/GNSS

Magnetic Mounting

The L[G]AMM has a compact housing that contains 2x2 MiMo antenna function for 5G/4G/3G/2G and either single or 2x2 MiMo antenna function for 2.4/5GHz.

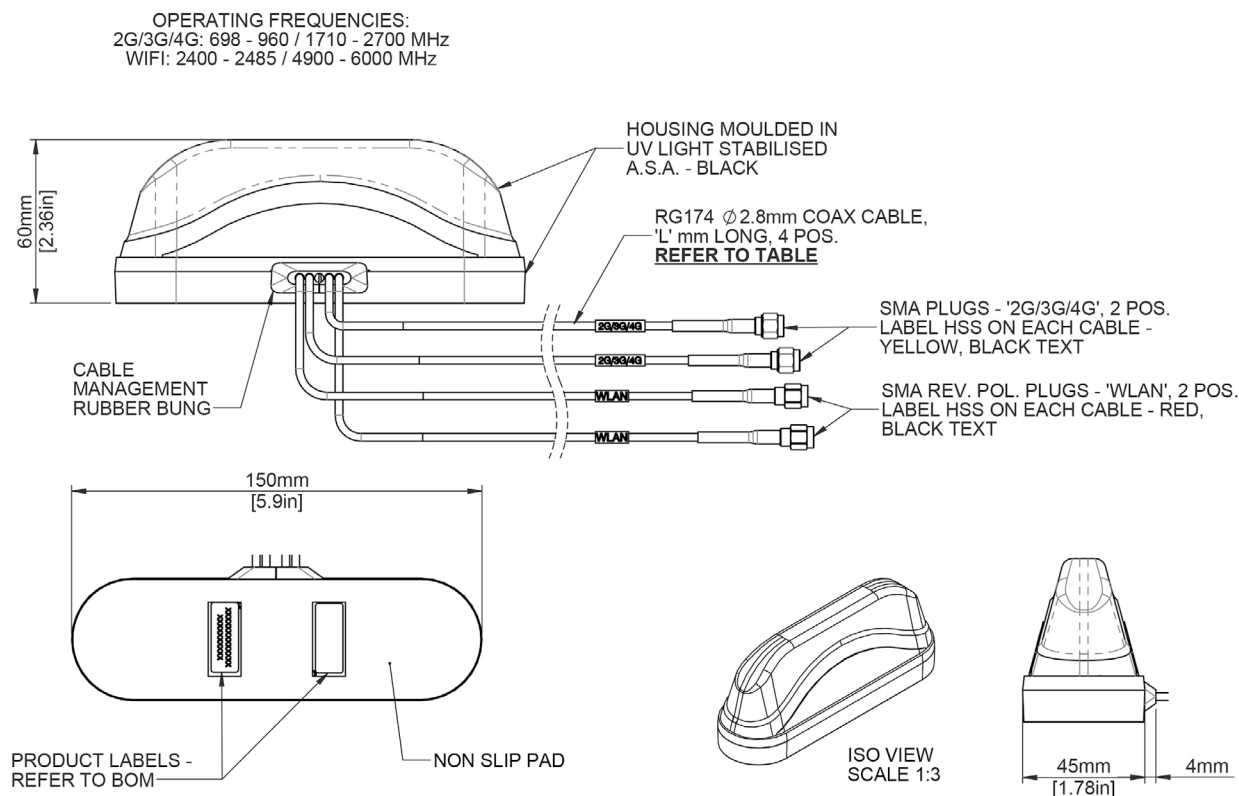
The LGAMM version also includes an active antenna for GPS/GLONASS/Galileo/BeiDou with 26dB gain LNA.

The antenna is designed to be mounted magnetically. This antenna range is ideal for vending machines, payment terminals and other M2M or IoT applications where installation without drilling a hole is desired.



Technical Drawing

LPAMM-7-27-24-58 shown



Multifunction Magnetic MiMo Antenna

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

PANORAMA ANTENNAS

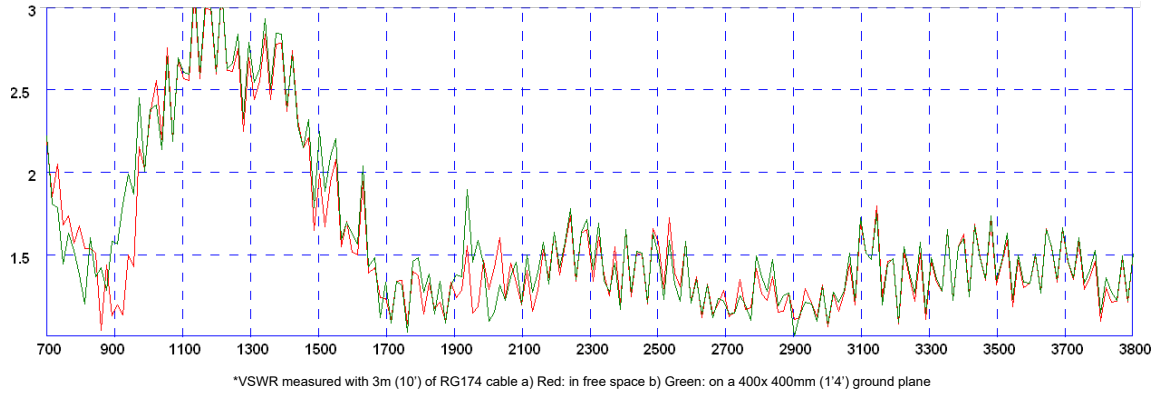
Product Data

Part No.		LPAMM-7-27-24-58	LPAMM-7-27-S24-58	LGAMM-7-27-24-58	LGAMM-7-27-S24-58
Electrical Data					
Frequency Range (MHz)	Element 1 (G Version)	1562-1612			
	Elements 2 & 3	698-960, 1710-2170, 2500-3800			
	Elements 4 & 5	2300-2500 & 4900-6000			
Operational Bands	Elements 1 (G Version)	-	-	GPS/GNSS/Galileo/BeiDou	
	Elements 2 & 3	5G/4G/3G/2G			
		2x cell			
	Elements 4 & 5	2.4 / 5.0GHz WiFi			
		2 x WiFi	1 x WiFi	2x WiFi	1x WiFi
Peak gain: Isotropic*	Elements 2 & 3	2dBi (698-960MHz) 5dBi (1710-3800MHz)			
	Elements 4 & 5	4dBi (2.4GHz), 6dBi (5.0GHz)			
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)		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	60 (2.36")			
	Length	150 (5.9")			
	Width	44 (1.47")			
Operating Temp (°C)		-40° / +80°C (-40° / 176°F)			
Material		ASA			
Colour		Black			
Mounting Data					
Fixing		Magnetic mount			
Cable Data					
Cable Type - All Feeds		RG174			
Dimensions (mm)	Diameter	2.8 (0.11")			
	Length	3000 (10')			
Termination	GPS/GNSS	SMA Plug		SMA Plug	
	2 x Cell	2 x SMA Plug			
	WiFi	2 x SMA Rev Pol Plug	1 x SMA Rev Pol Plug	2 x SMA Rev Pol Plug	1 x SMA Rev Pol Plug

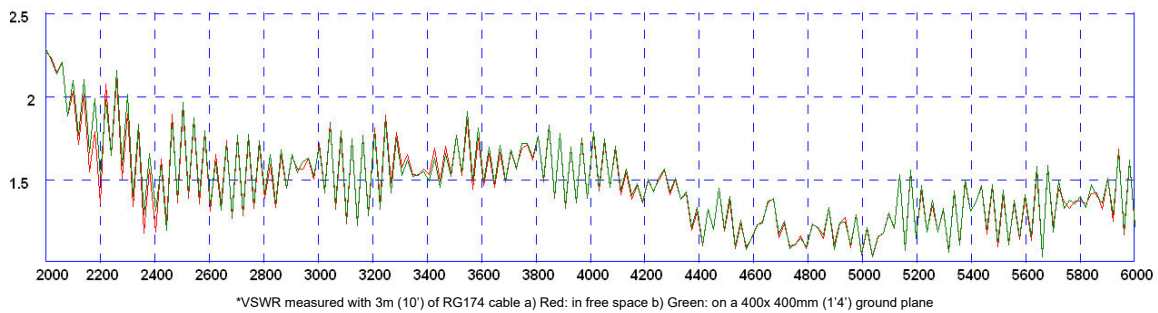
* without cable loss

Electrical Data - Cell

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

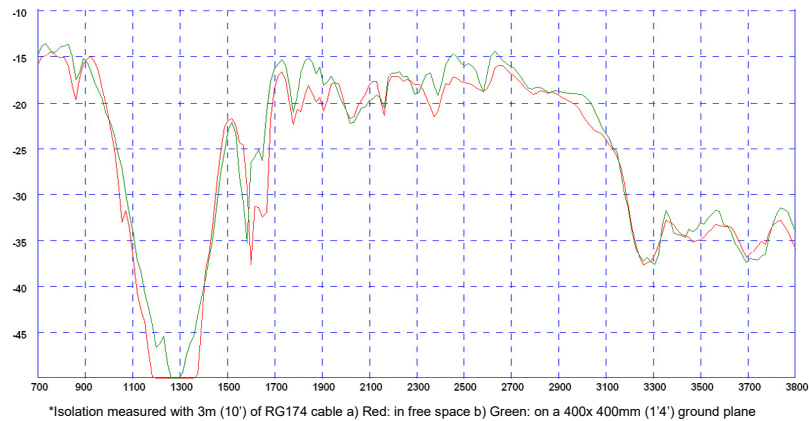


Typical VSWR - WiFi Elements 4&5*

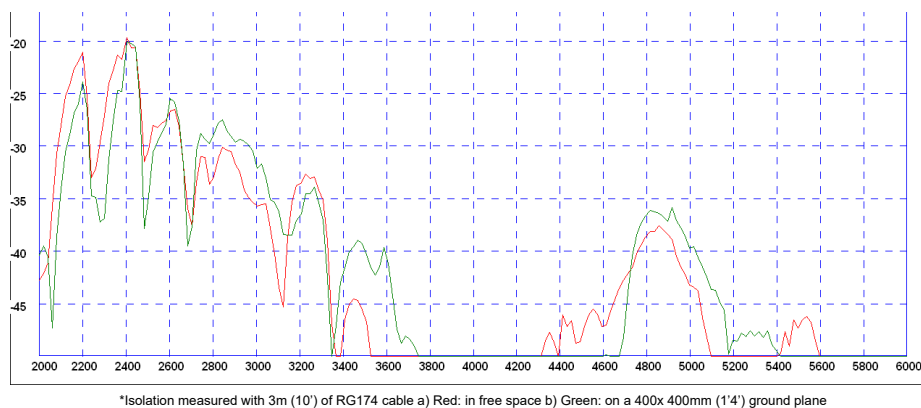


Isolation

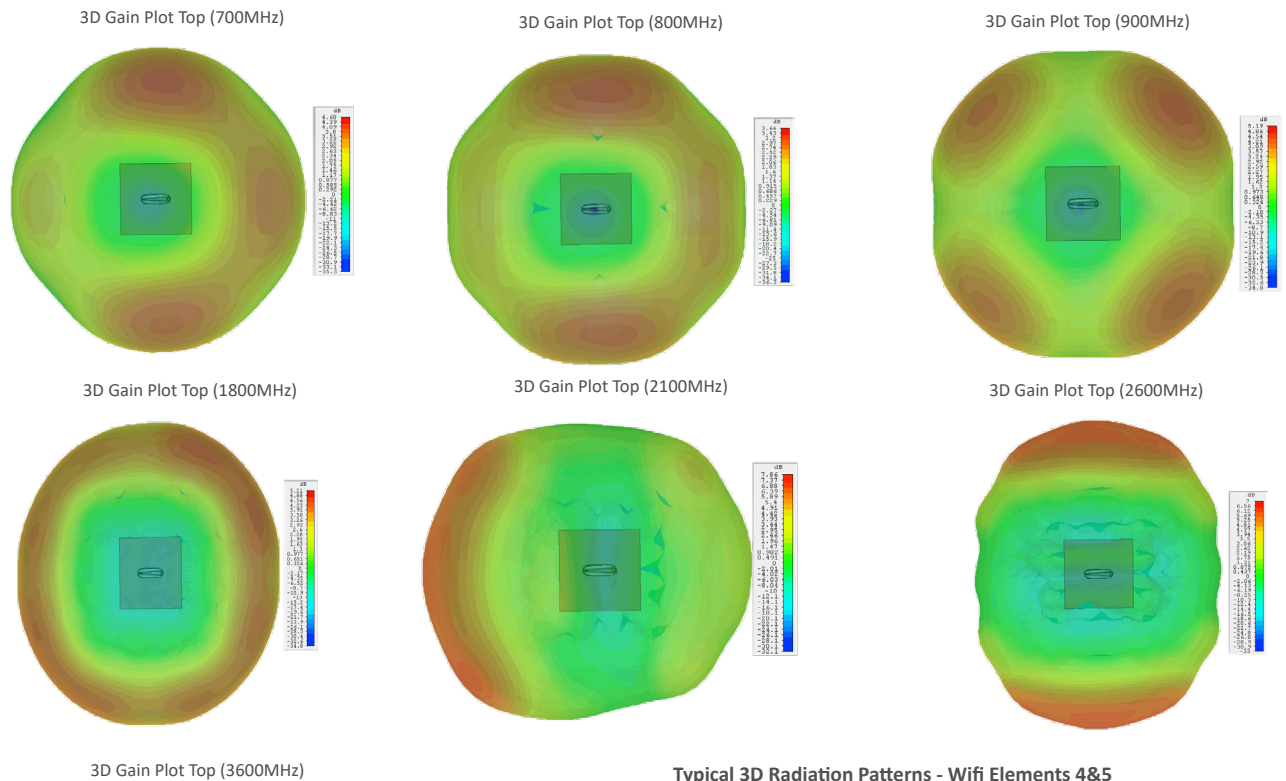
Typical Isolation - Cellular Elements 2&3*



Typical Isolation - WiFi Elements 4&5*

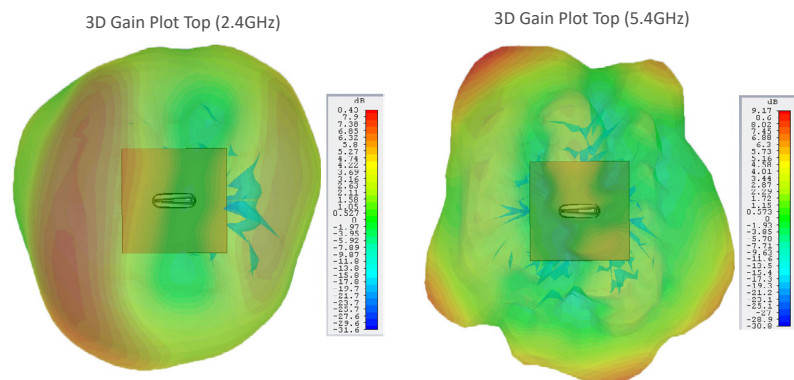


Typical 3D Radiation Patterns - Cell / LTE Elements 2&3



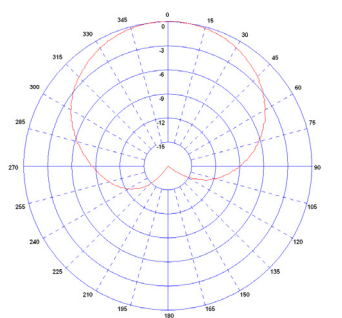
*3D radiation patterns simulated in CST Microwave Studio on a 600x600mm (2' X2') ground plane with both elements fed together.

Typical 3D Radiation Patterns - Wifi Elements 4&5

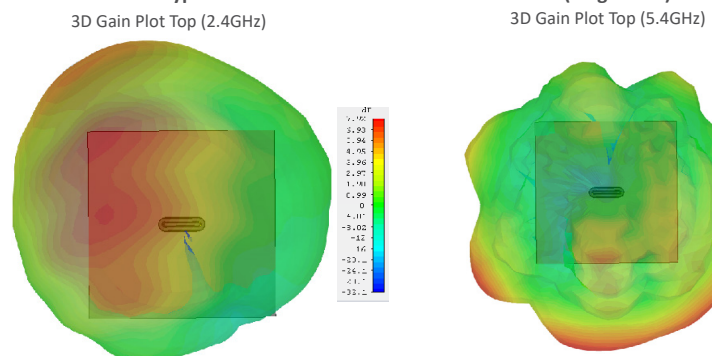


Typical Radiation Patterns - GPS/GNSS Element 1

Element 3: Typical E Plane Pattern



Typical 3D Radiation Patterns - Wifi Elements (Single Wifi)



*3D radiation patterns simulated in CST Microwave Studio on a 600x600mm (2' X2') ground plane with a single element feed.