

Multifunction MiMo Antenna

LGAM-7-27-S24-58

PANORAMA ANTENNAS



- Low Profile Design
- MiMo 5G/4G/3G/2G
- SiSo 2.4/ 5GHz
- GPS/GNSS

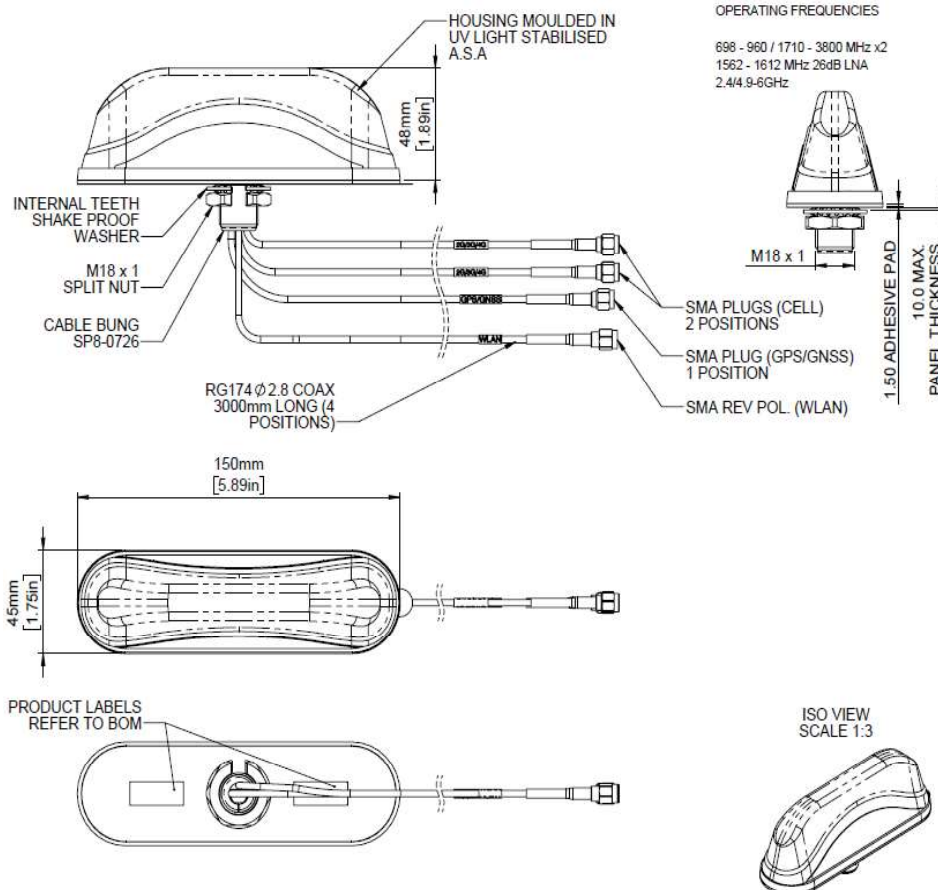
The LGAM-7-27-S24-58 has a compact housing that contains 2x2 MiMo antenna function for 5G/4G/3G/2G and SiSo antenna function for 2.4/5GHz.

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

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



Technical Drawing



Multifunction MiMo Antenna

LGAM-7-27-S24-58

Product Data

Part No.		LGAM-7-27-S24-58	
Electrical Data			
Frequency Range (MHz)	Element 1	1562-1612	
	Elements 2 & 3	698-960, 1710-2170, 2500-3800	
	Element 4	2300-2500 & 4900-6000	
Operational Bands	Element 1	1560-1612	
	Elements 2 & 3	5G/4G/3G/2G	
	Element 4	2x cell 2.4 / 5.0GHz WiFi WiFi	
Peak gain: Isotropic*	Elements 2 & 3	2dBi (698-960MHz) 5dBi (1710-3800MHz)	
	Element 4	4dBi (2.4GHz), 6dBi (5.0GHz)	
Isolation (with 5m (16') of RG174 cable)	Cellular	>12dB	
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 -	GPS	FR RG174 (UN ECE 118 Compliant)	
	Cell	FR CS29 (UN ECE 118 Compliant)	
	WiFi	FR CS32 (UN ECE 118 Compliant)	
Dimensions (mm)	Length	3000 (10')	
	GPS/GNSS	1x SMA Plug	
Termination	2 x Cell	2 x SMA plug	
	WiFi	1 x SMA Rev Pol Plug	

* without cable loss

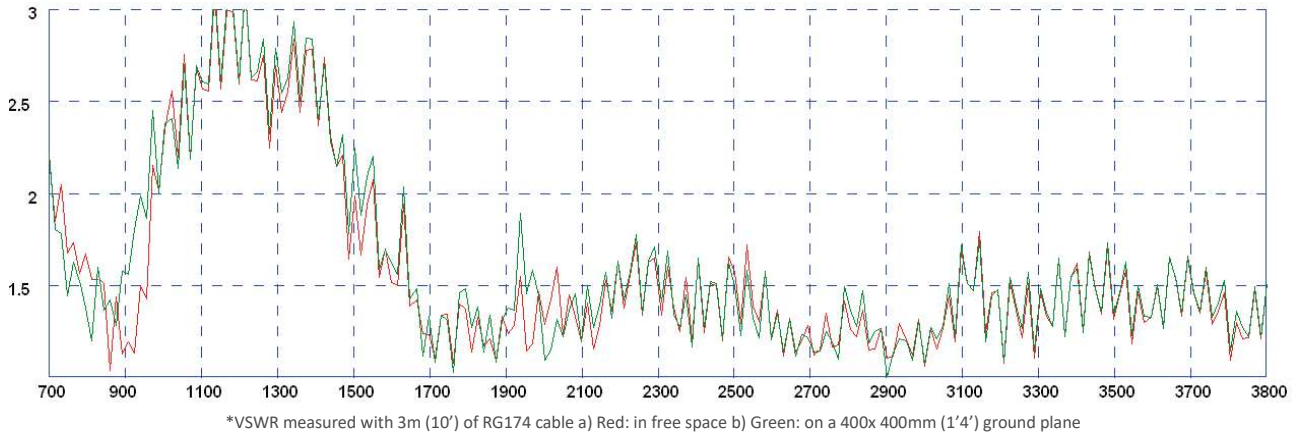
Multifunction MiMo Antenna

LGAM-7-27-S24-58

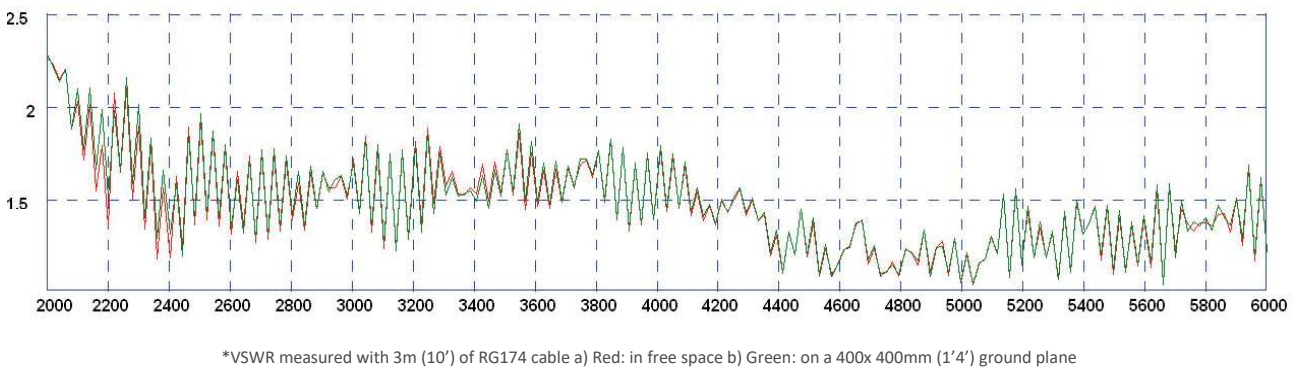
Electrical Data

VSWR

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

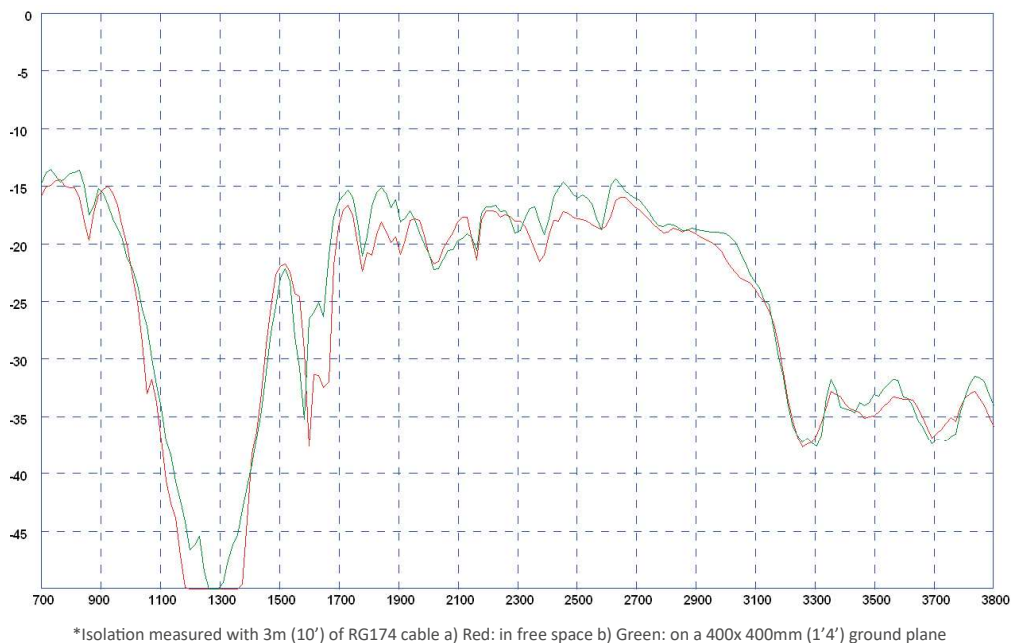


Typical VSWR - WiFi Elements 4



Isolation

Typical Isolation - Cellular Elements 2&3*

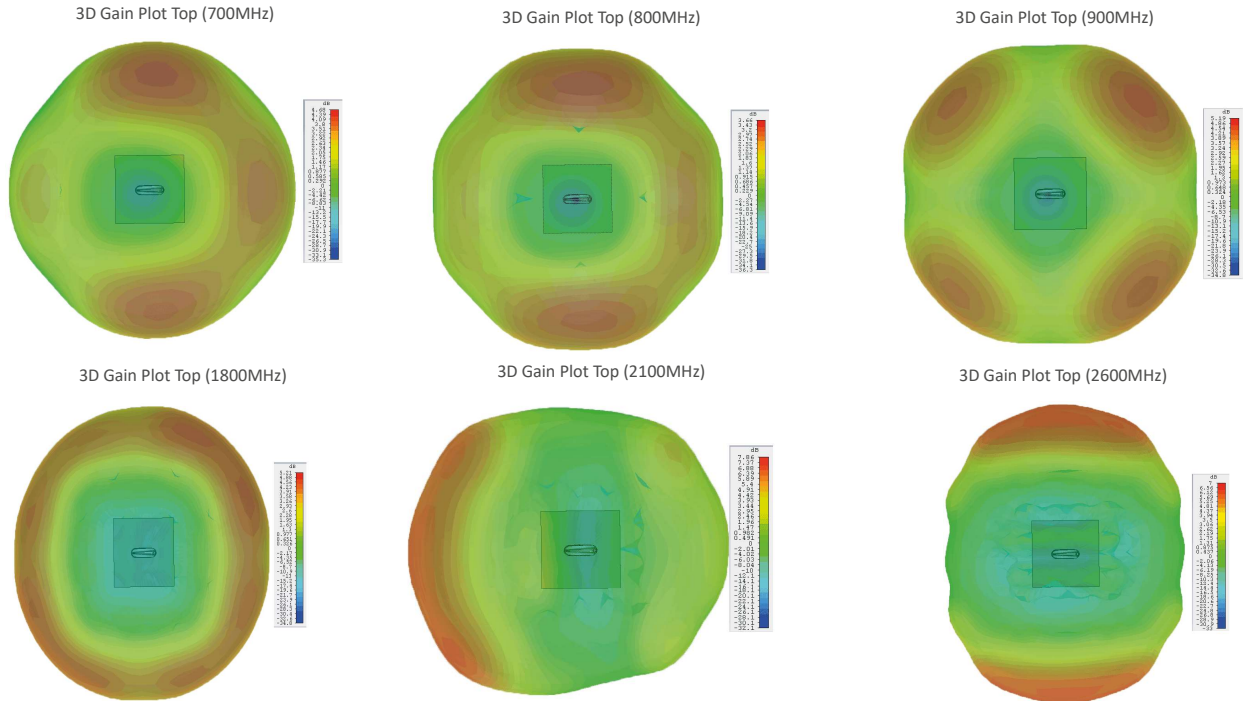


Multifunction MiMo Antenna

LGAM-7-27-S24-58

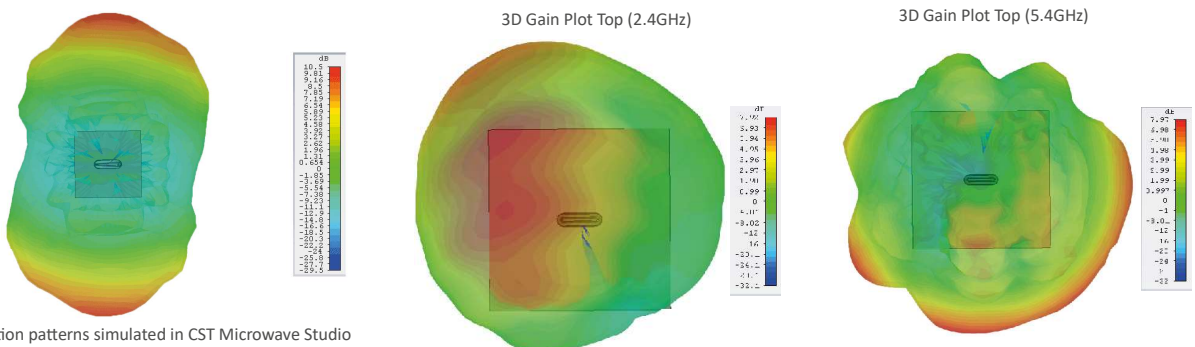
Electrical Data

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 (Single Wifi)



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

Typical Radiation Patterns - GPS/GNSS Element 1

Element 3: Typical E Plane Pattern

