LPAM-BC-3G-26

VITRIKO
SmartSolutions for IoT

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Low Profile MiMo Cellular Antenna with optional GPS/GNSS

Panel mount

2 x 2 Cellular /LTE MiMo and optional GPS/GNSS

Robust and cost effective solution for M2M and IOT applications

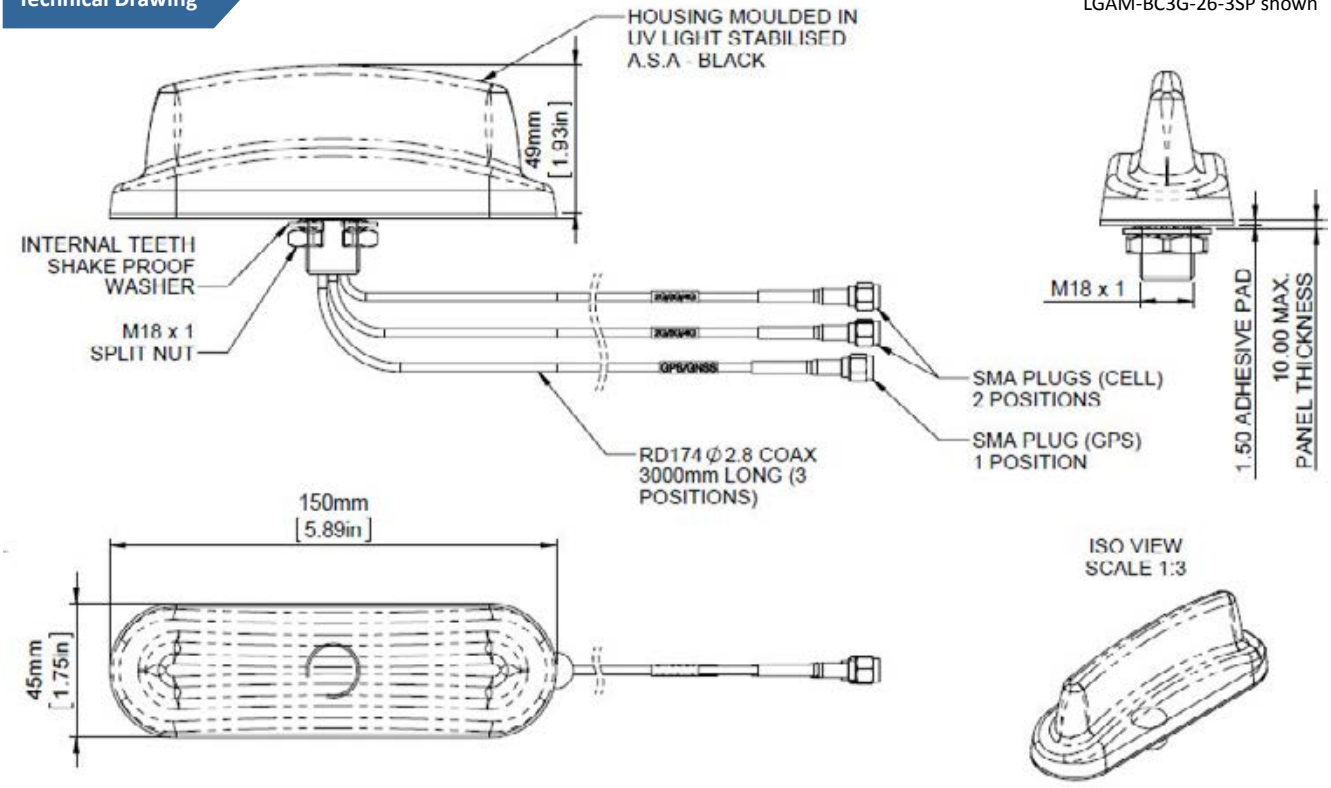
The LP[G]AM-BC3G-26 range has been designed to provide MiMo Cellular / LTE antenna function for IOT and M2M applications. The compact, robust low-profile housing is weatherproof and contains two antenna elements with effective isolation and correlation covering all current global cellular and LTE bands in freq. range 698-960/1710-3800MHz. The LG version includes an active GPS/GNSS/Galileo/Beidou antenna for applications which require position or timing function.

The antenna can be fitted on a non- conductive panel if required* and offers easy, quick, secure and weatherproof installation with the single hole mounting bush and acrylic adhesive sealing pad. Supplied with integrated 3m (10') cables and SMA plug connectors, the antenna will offer plug and play connectivity with many different terminals.

* Performance may change depending on mounting position/surface.

Technical Drawing

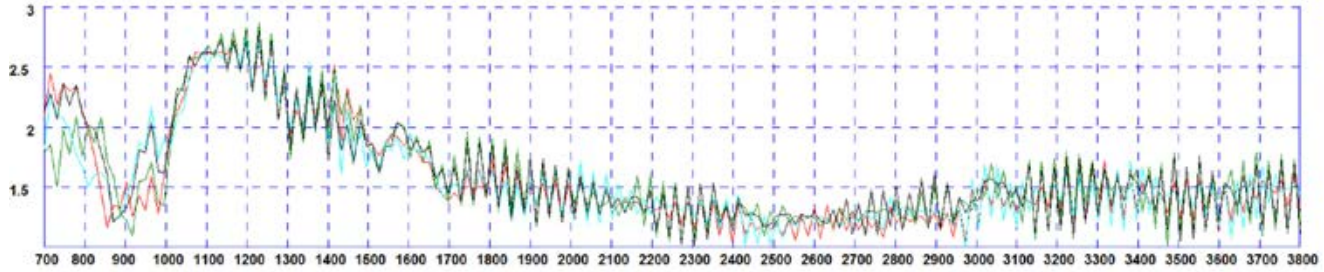
LGAM-BC3G-26-3SP shown



Part No.			
		LPAM-BC3G-26-3SP	LGAM-BC3G-26-3SP
Electrical Data			
Frequency Range (MHz)	Elements 1 & 2	698-960 / 1710-3800	
	Element 3	-	1562-1612MHz
Peak Gain: Isotropic ǂ	Element 1 & 2: 698-960MHz	1.5dBi	
	Elements 1 & 2: 1710-2170MHz	4.5dBi	
	Elements 1 & 2: 2500-3800MHz	5dBi	
Pattern		Omni-directional	
Nominal Impedance		50Ω	
Max input power (W)		20	
GPS/GNSS Data			
Frequency Range (MHz)		-	1562-1612MHz
LNA Gain (dB)		-	26
Polarisation		-	Right Hand Circular
Operating Voltage		-	3-5VDC (Fed via Coax)
Current		-	Typical <20mA
Mechanical Data			
Dimensions (mm)	Height	49 (1.92”)	
	Length	150 (5.90”)	
	Width	45 (1.77”)	
Operating Temp (°C)		-30° / +70°C (-30° / 158°F)	
Material		UV Stable ABS Plastic	
Colour		Black	
Typical Weight (g)		337	
Mounting Data			
Fixing		18mm (3/4”) mounting bush and acrylic adhesive pad	
Cable Data			
Elements 1 & 2: Cell / LTE	Cable Type	RG174	
	Diameter (mm)	2.8 (0.1”)	
	Length (m)	3 (9.8’)	
	Termination	2x SMA Plugs	
Element 3: GPS/GNSS	Cable Type	-	RG174
	Diameter (mm)	-	2.8 (0.1”)
	Length (m)		3 (9.8’)
	Termination	-	SMA Plug

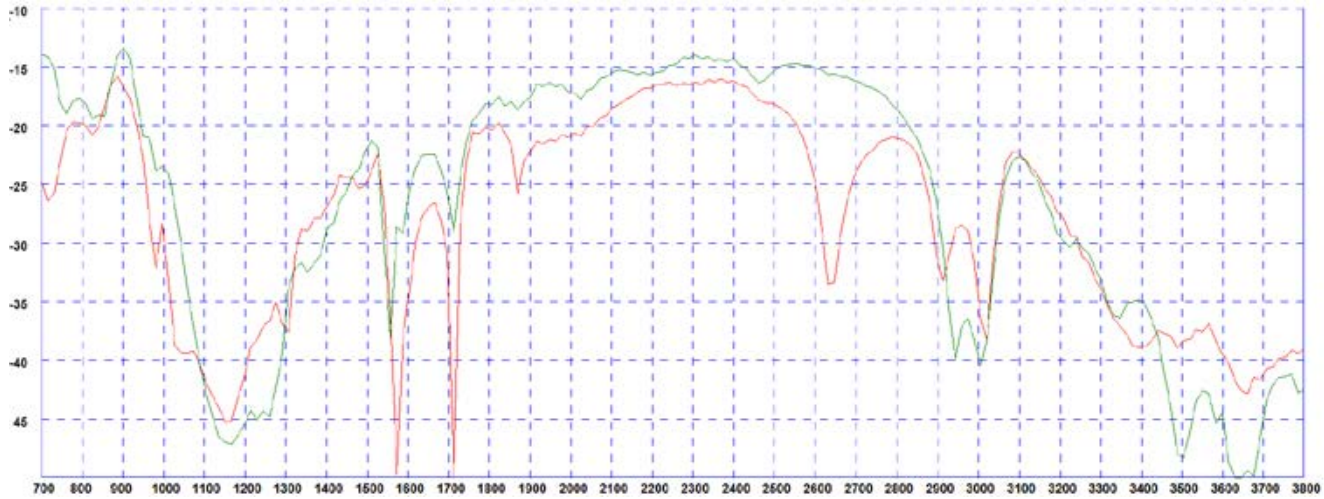
ǂ Peak gain simulated off a groundplane and does not include cable attenuation

Typical VSWR - Elements 1&2*



* VSWR measured with 3m (10') of RG174 cable Green and Red Plots = Elements 1&2 in free space Black and Blue plots = Elements 1&2 on a 400x400mm ground plane

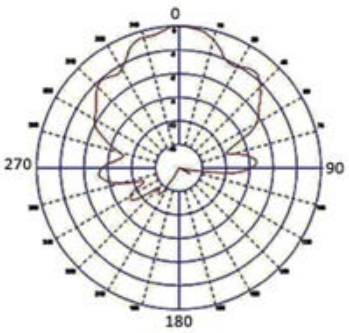
Typical Isolation - Elements 1&2*



*Isolation measured with 3m (10') of RG174 cable Red Plot = mounted on a 400x 400mm (1' 4" x 1'4") ground plane Green Plot = free space

Typical Radiation Pattern -GPS/GNSS Element 3

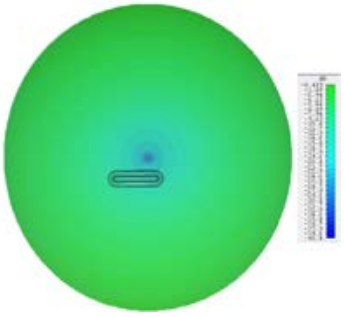
Element 3: Typical E Plane Pattern (1602MHz)



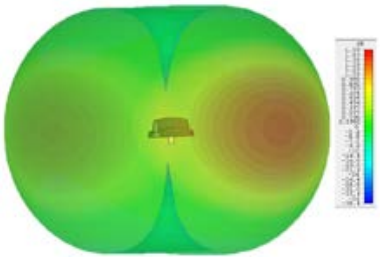
Typical 3D Radiation Patterns - Cell / LTE Elements 1&2

3D Gain Plot Side (700MHz)

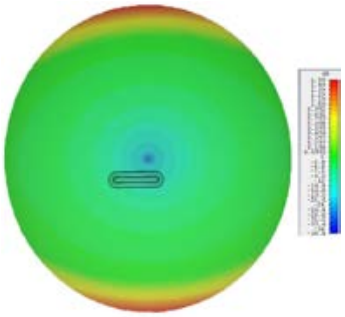
3D Gain Plot Top (700MHz)



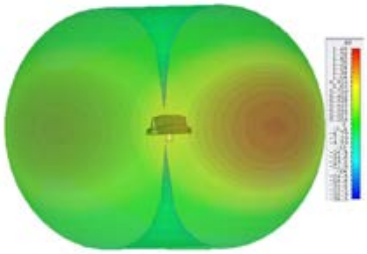
3D Gain Plot Side (800MHz)



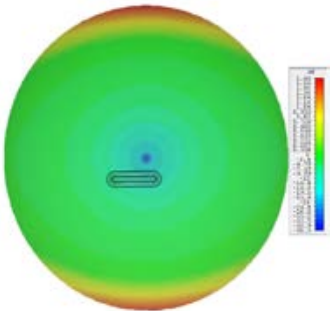
3D Gain Plot Top (800MHz)



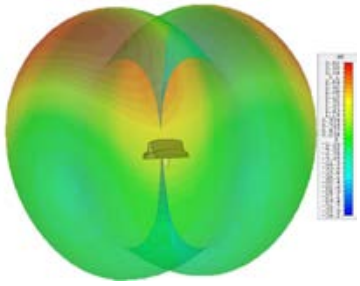
3D Gain Plot Side (900MHz)



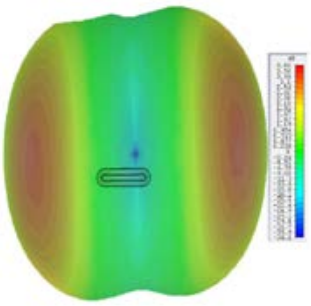
3D Gain Plot Top (900MHz)



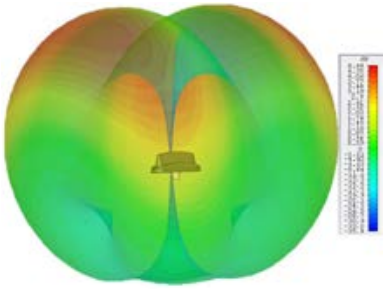
3D Gain Plot Side (1800MHz)



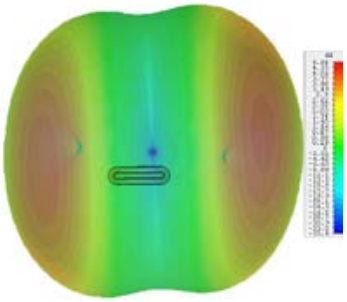
3D Gain Plot Top (1800MHz)



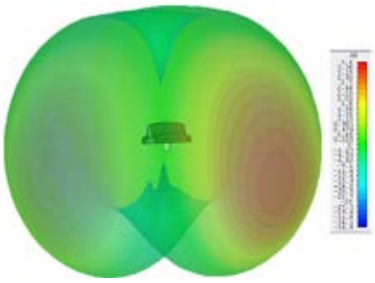
3D Gain Plot Side (2100MHz)



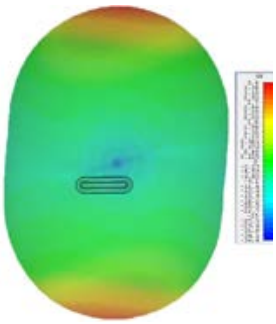
3D Gain Plot Top (2100MHz)



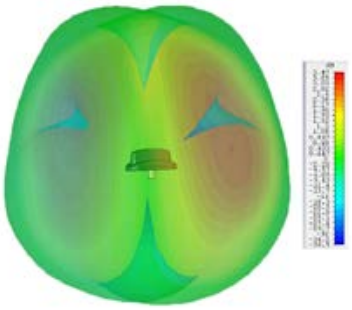
3D Gain Plot Side (2600MHz)



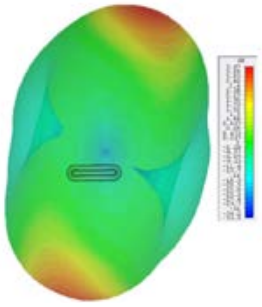
3D Gain Plot Top (2600MHz)



3D Gain Plot Side (3600MHz)



3D Gain Plot Top (3600MHz)



*3D radiation patterns simulated in CST Microwave Studio on a 600x600mm (2' X2') ground plane with both elements fed together.
ǂ Element 1&2 Patterns simulated in CST Microwave Studio in free space excluding cable loss. Element 3 pattern measured in free space.

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