

Low Profile MiMo Cellular Antenna

LP[G]AM-BC3G-26-[XSP]



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

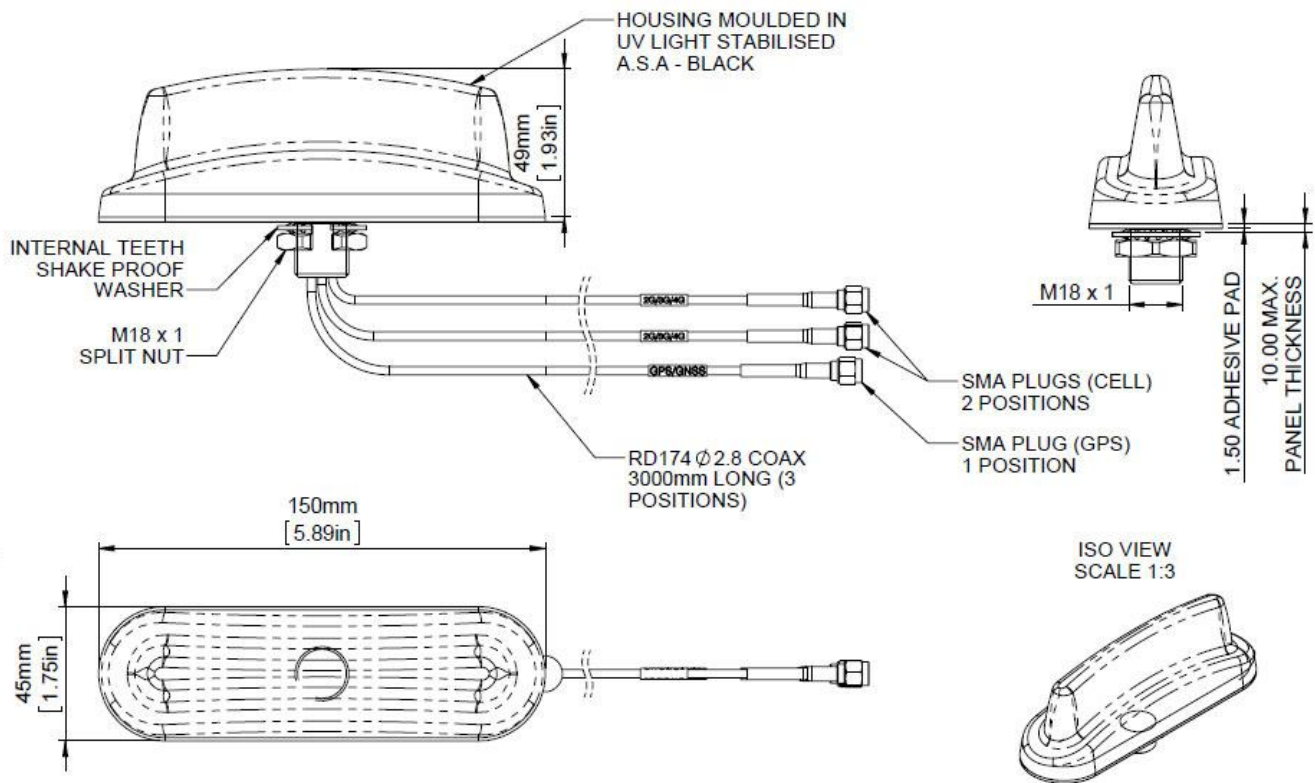
The LP[G]AM-BC3G-26-[XSP] range has been designed to provide MiMo Cellular /LTE antenna function for IOT and M2M applications. The compact, robust low-profile housing is weatherproof and contains two antenna elements with effective isolation and correlation covering all current global cellular and LTE 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 1m (3.3') or 3m (10') cable 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



Low Profile MiMo Cellular Antenna

LP[G]AM-BC3G-26-[XSP]

Product Data

| Part No. | | LPAM-BC3G-26-1SP | LGAM-BC3G-26-1SP | LPAM-BC3G-26-3SP | LGAM-BC3G-26-3SP |
|----------------------------|--|-------------------------|-------------------------|-------------------------|-------------------------|
| Electrical Data | | | | | |
| Frequency Range (MHz) | Elements 1 & 2 | 698-960 / 1710-3800 | | | |
| | Element 3 | - | 1562-1612MHz | - | 1562-1612MHz |
| Peak Gain: Isotropic † | 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 | - | 1562-1612MHz | - |
| LNA Gain (dB) | - | 26 | - | 26 | - |
| Polarisation | - | Right Hand Circular | - | Right Hand Circular | - |
| Operating Voltage | - | 3-5VDC (Fed via Coax) | - | 3-5VDC (Fed via Coax) | - |
| Current | - | Typical <20mA | - | Typical <20mA | - |
| Mechanical Data | | | | | |
| Dimensions (mm) | Height | 49 (1.92") | | | |
| | Length | 150 (5.90") | | | |
| | Width | 45 (1.77") | | | |
| Operating Temp (°C) | -30° / +70°C (-22° / 158°F) | | | | |
| Material | UV Stable ABS Plastic | | | | |
| Colour | Black | | | | |
| Typical Weight (g) | 337 | | | | |
| Ingress Protection | IP66 | | | | |
| Mounting Data | | | | | |
| Fixing | 18mm (3/4") Mounting Bush and Acrylic Adhesive Pad | | | | |
| Cable Data | | LPAM-BC3G-26-1SP | LGAM-BC3G-26-1SP | LPAM-BC3G-26-3SP | LGAM-BC3G-26-3SP |
| Elements 1 & 2: Cell / LTE | Cable Type | RG174 | RG174 | RG174 | RG174 |
| | Diameter (mm) | 2.8 (0.1") | 2.8 (0.1") | 2.8 (0.1") | 2.8 (0.1") |
| | Length (m) | 1 (3.3') | 1 (3.3') | 3 (10') | 3 (10') |
| | Termination | 2x SMA Plugs | 2x SMA Plugs | 2x SMA Plugs | 2x SMA Plugs |
| Element 3: GPS/GNSS | Cable Type | - | RG174 | - | RG174 |
| | Diameter (mm) | - | 2.8 (0.1") | - | 2.8 (0.1") |
| | Length (m) | - | 1 (3.3') | - | 3 (10') |
| | Termination | - | SMA Plug | - | SMA Plug |

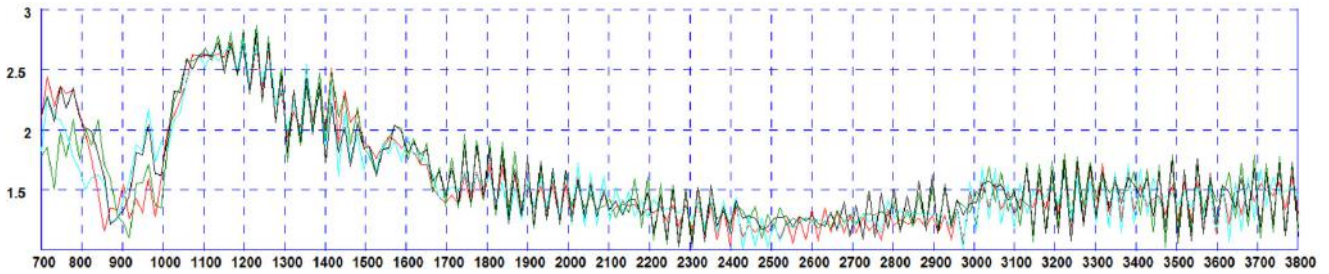
† Peak gain simulated off a groundplane and does not include cable attenuation

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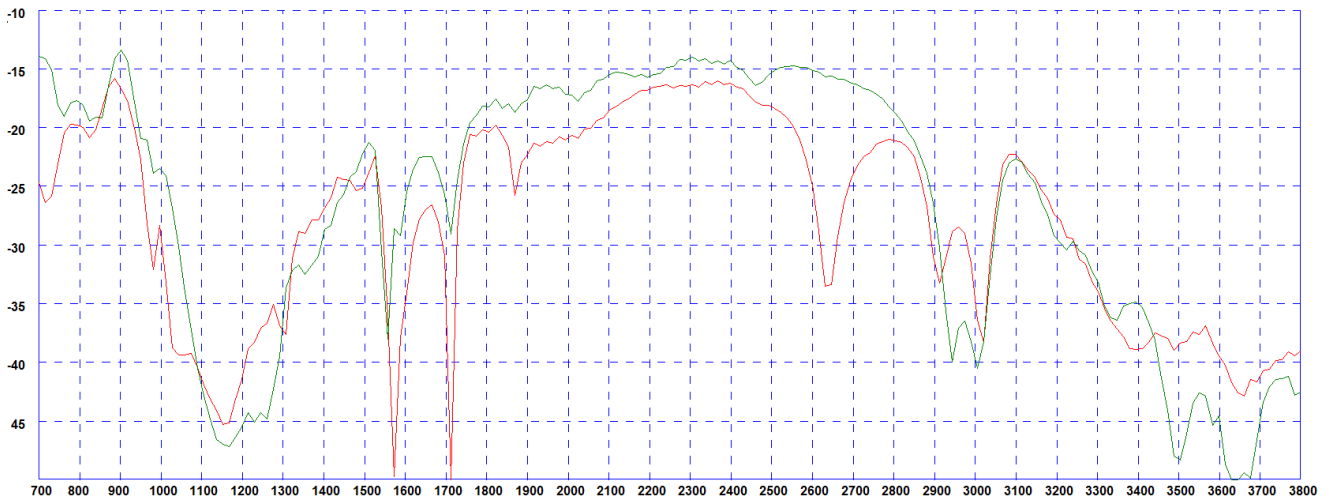
Electrical Data - Cell

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*



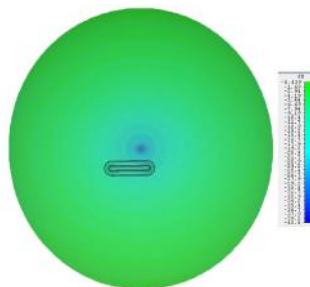
*Isolation measured with 3m (10') of RG174 cable Red Plot = mounted on a 400x 400mm (1' 4" x 1'4") ground plane Green Plot = free space

3D Patterns - Cell

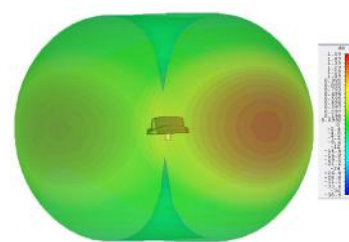
3D Gain Plot Side (700MHz)

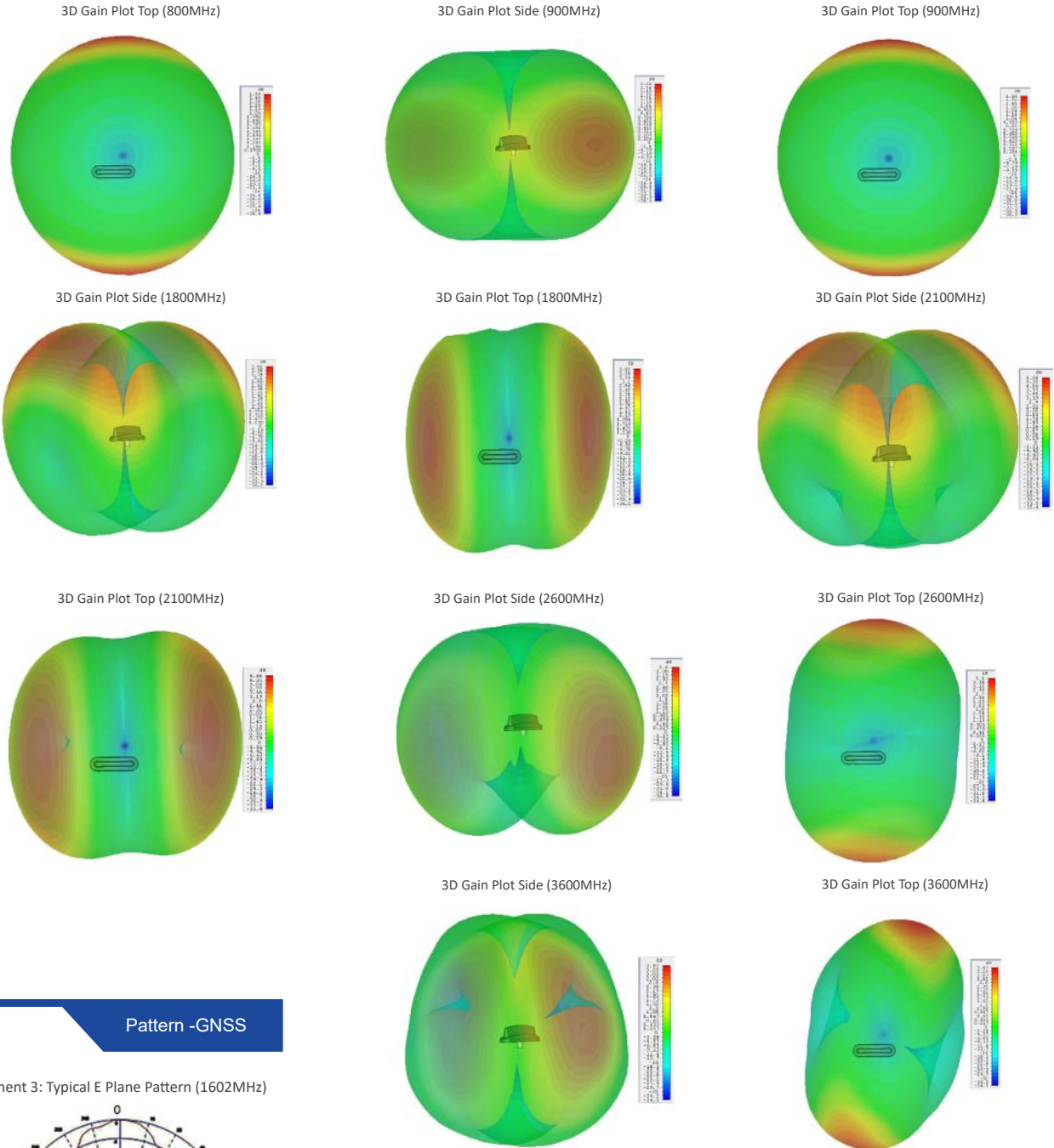


3D Gain Plot Top (700MHz)



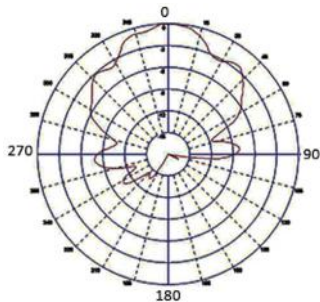
3D Gain Plot Side (800MHz)





Pattern -GNSS

Element 3: Typical E Plane Pattern (1602MHz)



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

† Element 1&2 Patterns simulated in CST Microwave Studio in free space excluding cable loss. Element 3 pattern measured in free space.