



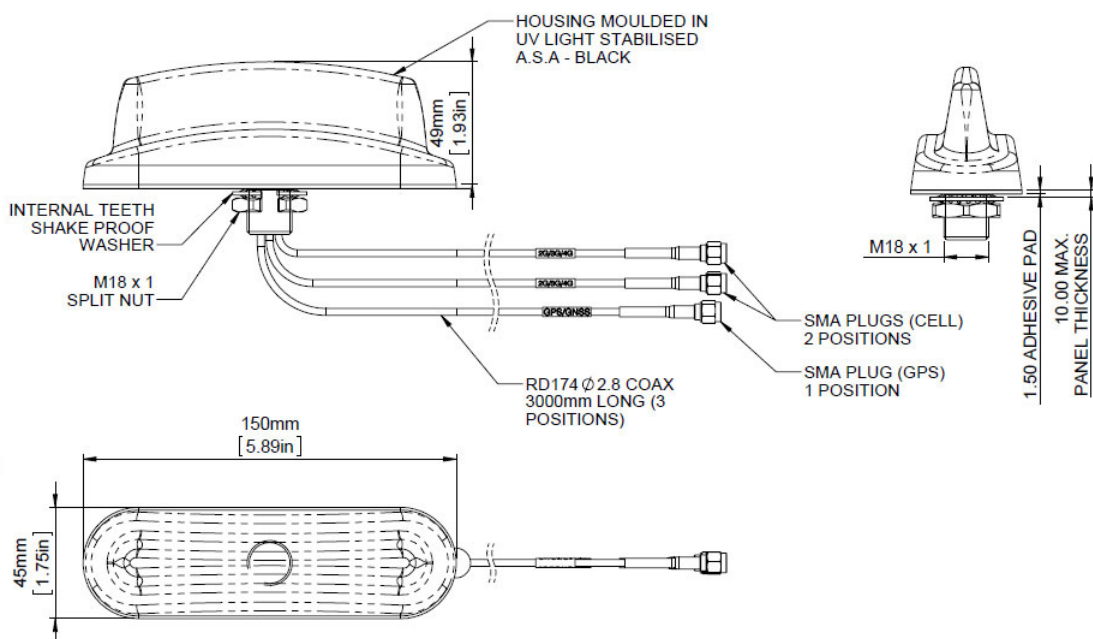
M2M MiMo LTE ANTENNA

LOW PROFILE MiMo CELLULAR ANTENNA WITH OPTIONAL GPS/GNSS

The M2M MiMo LTE Antenna 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 asset tracking 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.

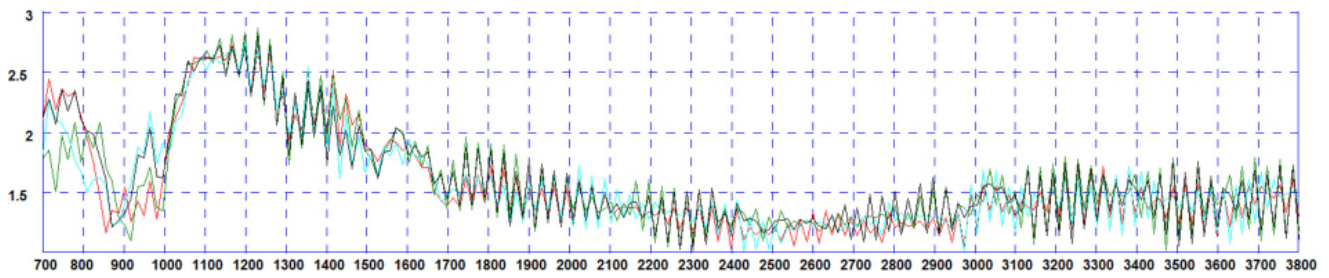
*Performance may change depending on mounting position/surface.



M2M MiMo LTE/GPS ANTENNA

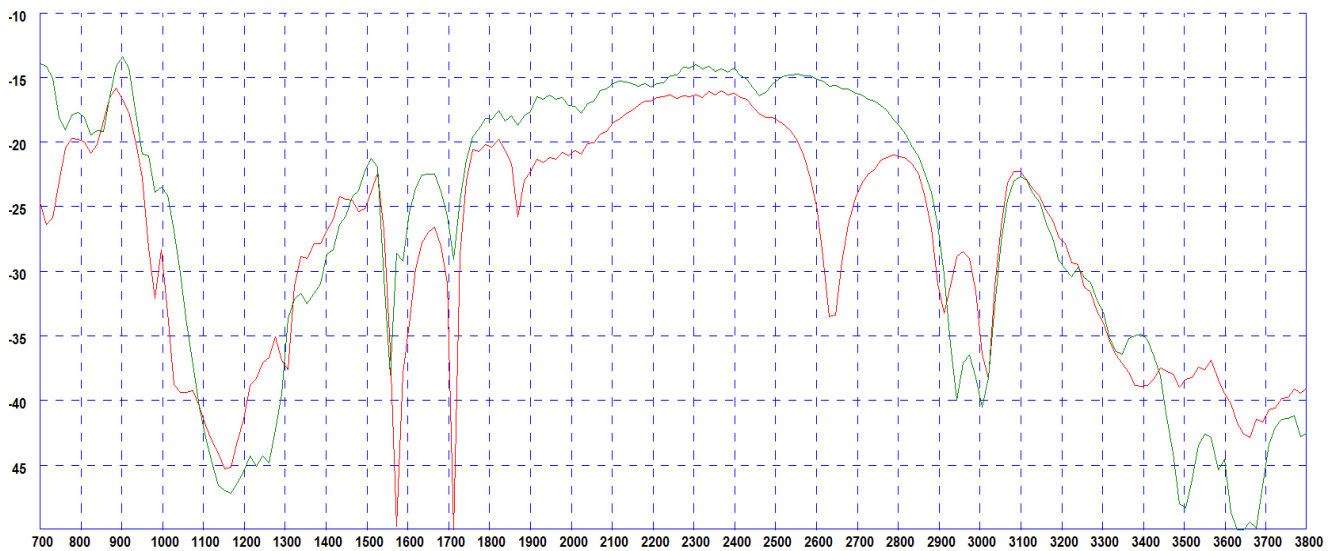
Low Profile MiMo Cellular Antenna with optional GPS/GNSS

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

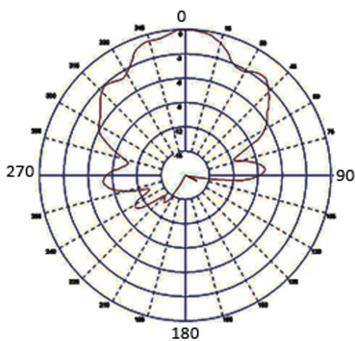
Typical Isolation - Elements 1 & 2*



* Isolation measured with 3m (10') of RG174 cable Red plot - mounted on a 400x400mm 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

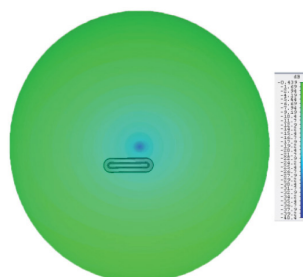


Typical 3D Radiation Patterns - Cell / LTE Elements 1 & 2

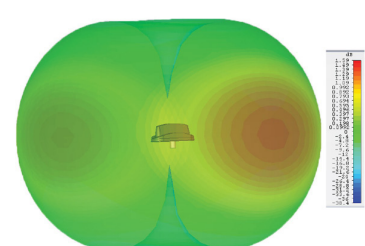
3D Gain Plot Side (700MHz)



3D Gain Plot Top (700MHz)



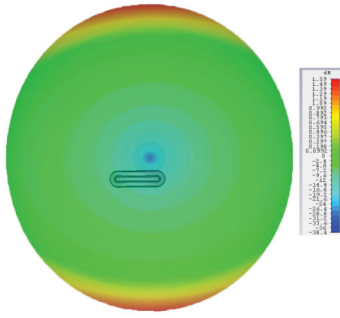
3D Gain Plot Side (800MHz)



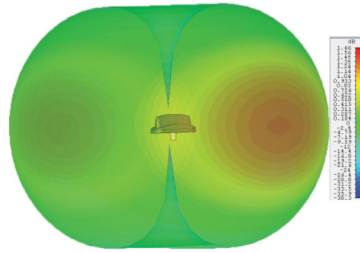
M2M MiMo LTE/GPS ANTENNA

Low Profile MiMo Cellular Antenna with optional GPS/GNSS

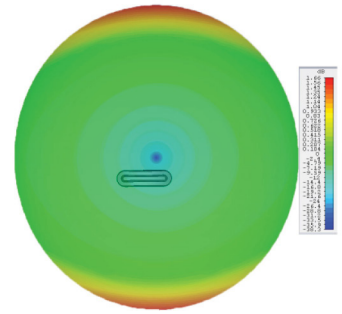
3D Gain Plot Top (800MHz)



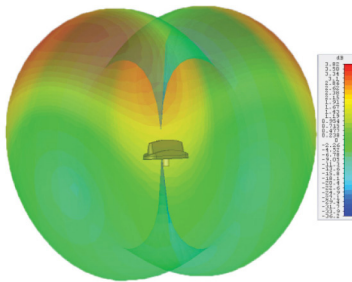
3D Gain Plot Side (900MHz)



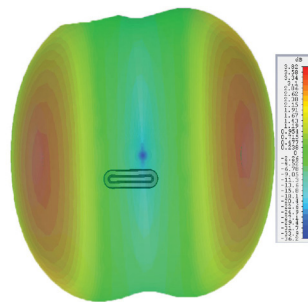
3D Gain Plot Top (900MHz)



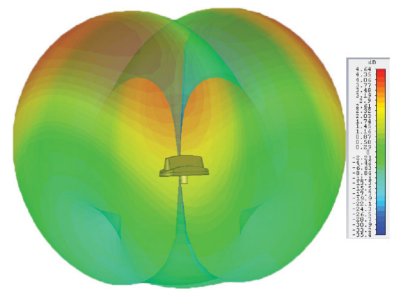
3D Gain Plot Side (1800MHz)



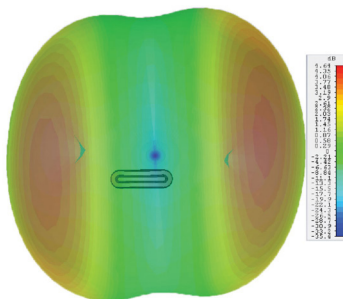
3D Gain Plot Top (1800MHz)



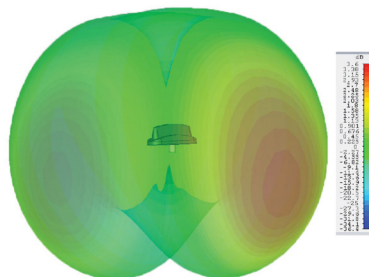
3D Gain Plot Side (2100MHz)



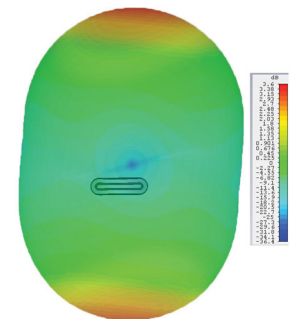
3D Gain Plot Top (2100MHz)



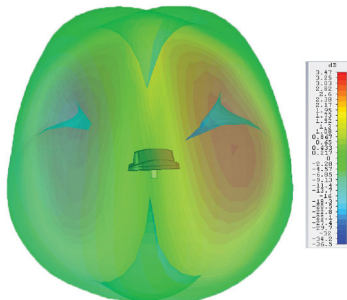
3D Gain Plot Side (2600MHz)



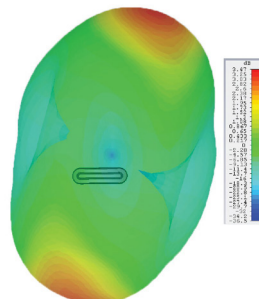
3D Gain Plot Top (2600MHz)



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.

M2M MiMo LTE/GPS ANTENNA

Low Profile MiMo Cellular Antenna with optional GPS/GNSS

Technical Information

| Technical Information | | Part Numbers | |
|----------------------------|--|------------------------|--------------|
| | | 1-2309605-1 | 1-2309646-1 |
| Electrical Data | | | |
| Frequency Range (MHz) | Elements 1 & 2 | 698-960 / 1710-3800MHz | |
| | Element 3 | - | 1562-1612MHz |
| Peak Gain Isotropic | Elements 1 & 2: 698-960MHz | 1.5dBi | |
| | Elements 1 & 2: 1710-2700MHz | 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 | - | 26 | |
| Polarisation | - | Right Hand Circular | |
| Operating Voltage | - | 3-5VDC (Fed via Coax) | |
| Current | - | Typical <20mA | |
| Mechanical Data | | | |
| Dimensions (mm) | Height | 49 (1.9") | |
| | Length | 150 (5.90") | |
| | Width | 45 (1.77") | |
| Operating Temp (°C) | -30 to +70 (-30°F to 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 |