

# Dash Mount GPS/GNSS, WiFi + MiMo 4G/3G/2G Antenna

BATGM2-7-60[24-58]

## Dash Mount 4G/3G/2G Antenna with optional GPS/GNSS & optional (MiMo) WiFi

- Mount on or under dashboard
- MiMo 4G/3G/2G functionality
- Optional SiSo or MiMo WiFi
- GPS/GNSS 26dB LNA



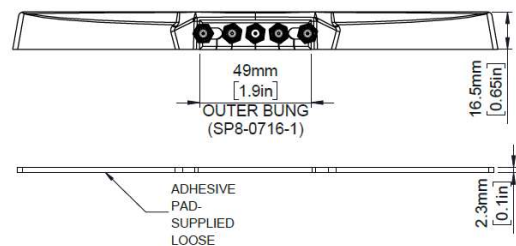
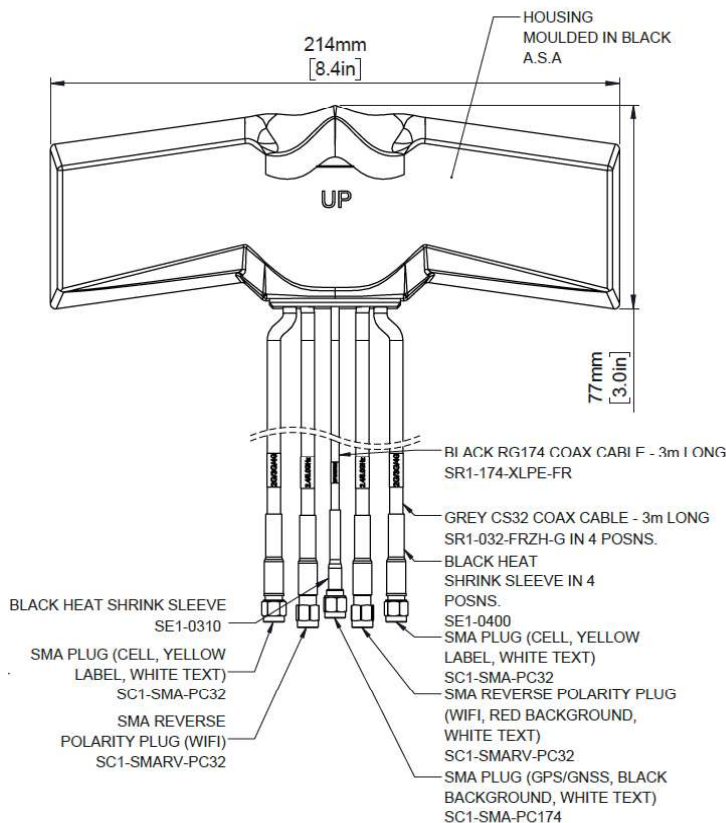
The Panorama BATG range is designed for Telematics applications requiring high speed data with MiMo 4G and fallback 3G/2G support along with optional positioning through GPS/GNSS, and optional dual band 2.4/5.0GHz Wifi.

The isolated dual 4G/3G/2G antennas cover 698-960/1710-6000MHz and the efficient element design ensures a high first time connection rate and an ongoing, robust communications link even in many low coverage areas.

The antenna is designed to be mounted on or under a vehicle dashboard but can be mounted on any non-conductive surface. The BAT range is supplied with up to five integrated low loss cables which are flame retardant and meet the requirements of UN ECE 118.

### Technical Drawing

BATGM2-7-60-24-58 shown



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PANORAMA ANTENNAS

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## Product Data

| Part No.                       | BATGM2-7-60-24-58           | BATGM2-7-60-524-58  | BATGM2-7-60                      |
|--------------------------------|-----------------------------|---|----------------------------------|
| <b>Electrical Data</b>         |                             |   |                                  |
| Frequency Range (MHz)          | Elements 1&2                | 698-960/1710-3800   |                                  |
|                                | Element 3                   | 1562-1612MHz  |                                  |
|                                | Element 4                   | 2.4/5.0GHz  | -                                |
|                                | Element 5                   | 2.4/5.0GHz  | -                                |
|                                | Elements 1&2                | 2dBi (698-960MHz) / 3dBi (1710-2170MHz) / 5dBi (2500-6000MHz) |                                  |
| Peak Gain†                     | Element 4                   | 4dBi (2.4GHz) / 5dBi (5.0GHz)                                 |                                  |
|                                | Element 5                   | 4dBi (2.4GHz) / 5dBi (5.0GHz)                                 | -                                |
|                                | Elements 1&2                | <2.5:1  |                                  |
| Typical VSWR*                  | Element 4                   | <2.5:1  |                                  |
|                                | Element 5                   | <2.5:1  | -                                |
|                                | Elements 1&2                | >10dB   |                                  |
| Typical Isolation*             | Elements 1&2                | >10dB   |                                  |
| Pattern                        | Omni-directional            |   |                                  |
| Impedance                      | 50Ω                         |   |                                  |
| Max input power (W)            | 20                          |   |                                  |
| <b>GPS/GNSS Data</b>           |                             |   |                                  |
| Frequency Range (MHz)          | 1562-1612MHz                |   |                                  |
| LNA Peak Gain                  | 26dB                        |   |                                  |
| Typical Out of Band Rejection  | >40dB (+/- 100MHz f)        |   |                                  |
| Notch filter Rejection @787MHz | 23dBm                       |   |                                  |
| Typical Voltage                | 3-5VDC <20ma                |   |                                  |
| <b>Mechanical Data</b>         |                             |   |                                  |
| Dimensions (mm)                | Length                      | 214 (8.4")  |                                  |
|                                | Width                       | 77 (3")   |                                  |
|                                | Height                      | 16.5 (0.65")  |                                  |
| Operating Temp (°C)            | -30° / +70°C (-30° / 158°F) |   |                                  |
| Material                       | ASA                         |   |                                  |
| Colour                         | Black                       |   |                                  |
| <b>Mounting Data</b>           |                             |   |                                  |
| Fixing                         | Adhesive pad                |   |                                  |
| <b>Cable Data</b>              |                             |   |                                  |
|                                | Elements 1&2 (Cell)         | Element 3(GPS)  | Elements 4&5 (WiFi) [if present] |
| Cable Type                     | CS32 (meets UN ECE 118)     | FR RG174 (meets UN ECE 118)                                   | CS32 (meets UNECE 118)           |
| Diameter (mm)                  | 5 (0.2")                    | 2.8 (0.1")  | 5 (0.2")                         |
| Length (m)                     | 3 (10')                     | 3 (10')   | 3 (10')                          |
| <b>Termination</b>             |                             |   |                                  |
| BATGM2-7-38-24-58              | 2x SMA Plug (m)             | SMA Plug (m)  | Rev Pol SMA Plug                 |
| BATGM-7-38-24-58               | 2x SMA Plug (m)             | SMA Plug (m)  | Rev Pol SMA Plug                 |

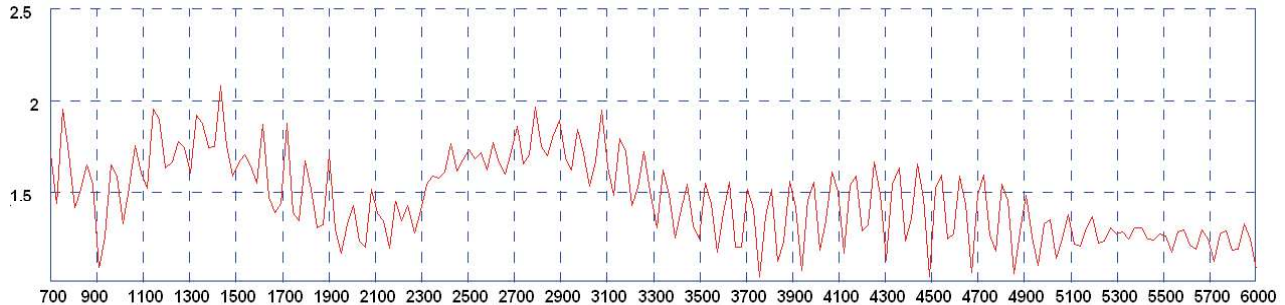
† Peak gain does not include cable attenuation \*VSWR & Isolation measured on 3mm thick ASA with 3m (10') of CS29 cable

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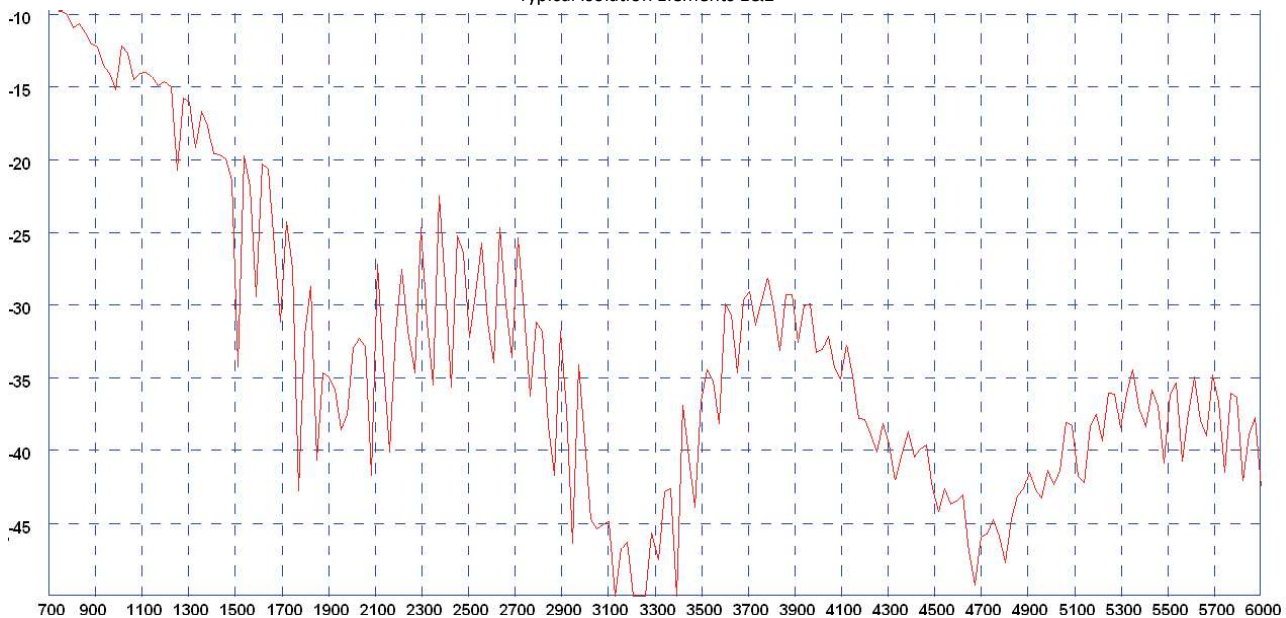
## Electrical Data - Cell

Typical VSWR Elements 1&2\*



\*VSWR measured on 3mm thick ASA with 3m (10') of CS32 cable

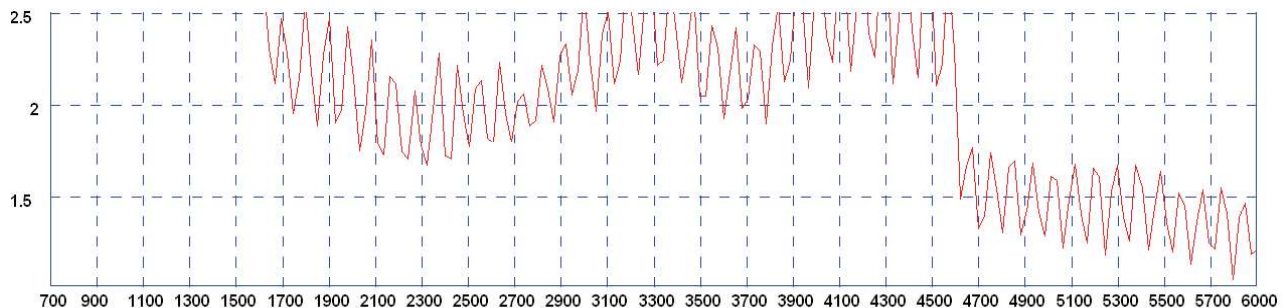
Typical Isolation Elements 1&2\*



\*Isolation measured on 3mm thick ASA with 3m (10') of CS32 cable

## Electrical Data- WiFi

Typical VSWR Elements 4&5\*



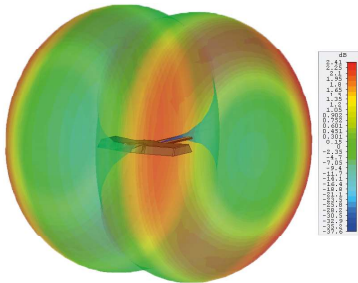
\*VSWR measured on 3mm thick ASA with 3m (10') of CS32 cable

# Dash Mount GPS/GNSS, WiFi + MiMo 4G/3G/2G Antenna

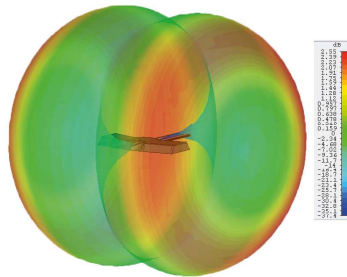
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## 3G Patterns - Cell

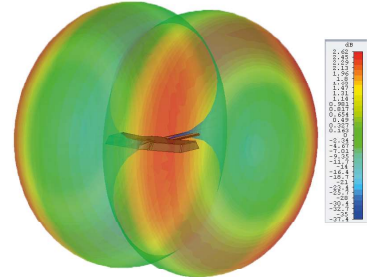
Typical 3D Pattern - 700MHz Elements 1&2 fed



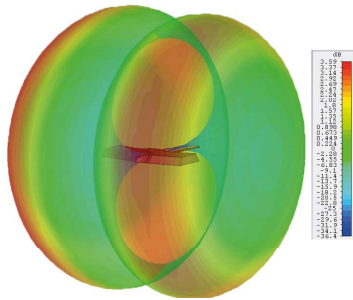
Typical 3D Pattern - 800MHz Elements 1&2 fed



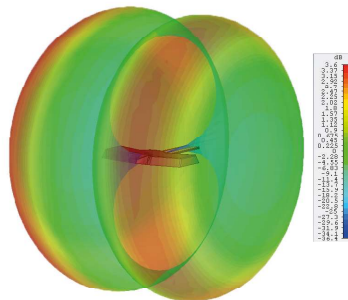
Typical 3D Pattern - 900MHz Elements 1&2 fed



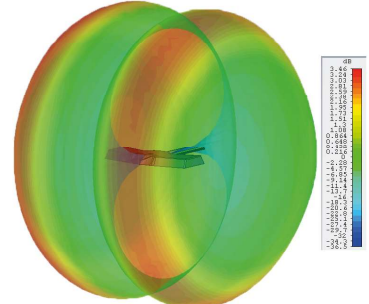
Typical 3D Pattern - 1800MHz Elements 1&2 fed



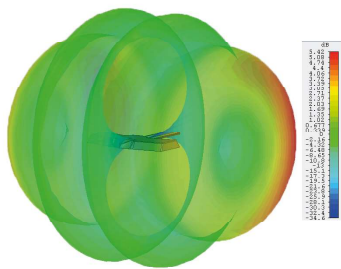
Typical 3D Pattern -1900MHz Elements 1&2 fed



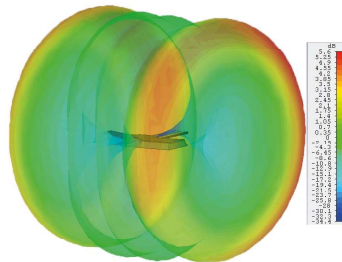
Typical 3D Pattern - 2100MHz Elements 1&2 fed



Typical 3D Pattern - 2600MHz Elements 1&2 fed

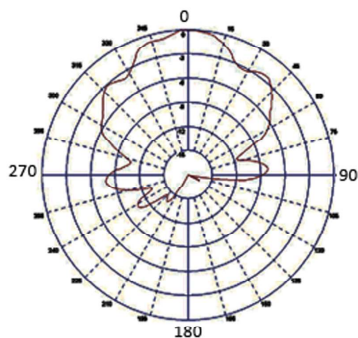


Typical 3D Pattern -3600MHz Elements 1&2 fed



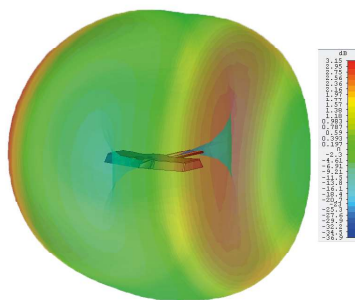
## Pattern -GNSS

Typical E Plane GPS/GNSS - 1575MHz Element 3



## 3D Patterns -WiFi

Typical 3D Pattern - 2.4GHz Elements 4&5 fed



Typical 3D Pattern - 5.4GHz Elements 4&5 fed

