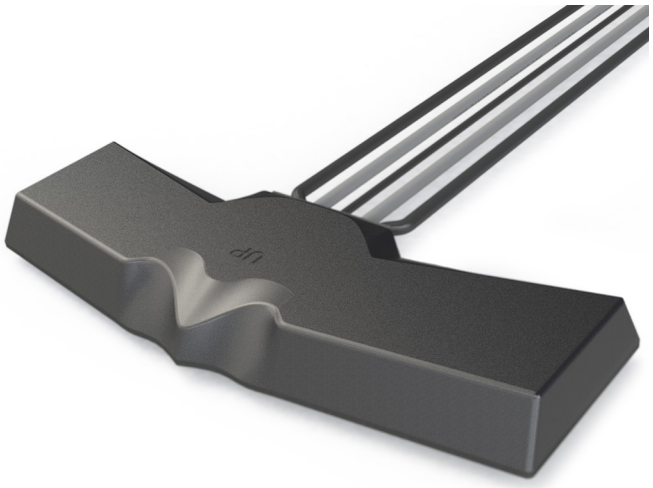
# Dash Mount GPS/GNSS, WiFi + MiMo 4G/3G/2G Antenna

BATGM-7-60[-24-58]



## Dash Mount 3.5GHz 5G 4G/3G/2G Antenna with optional GPS/GNSS & / (MiMo) WiFi

- Mount on or under dashboard
- MiMo 3.5GHz 5G & 4G/3G/2G functionality
- Optional SiSo or MiMo WiFi
- GPS/GNSS 26dB LNA

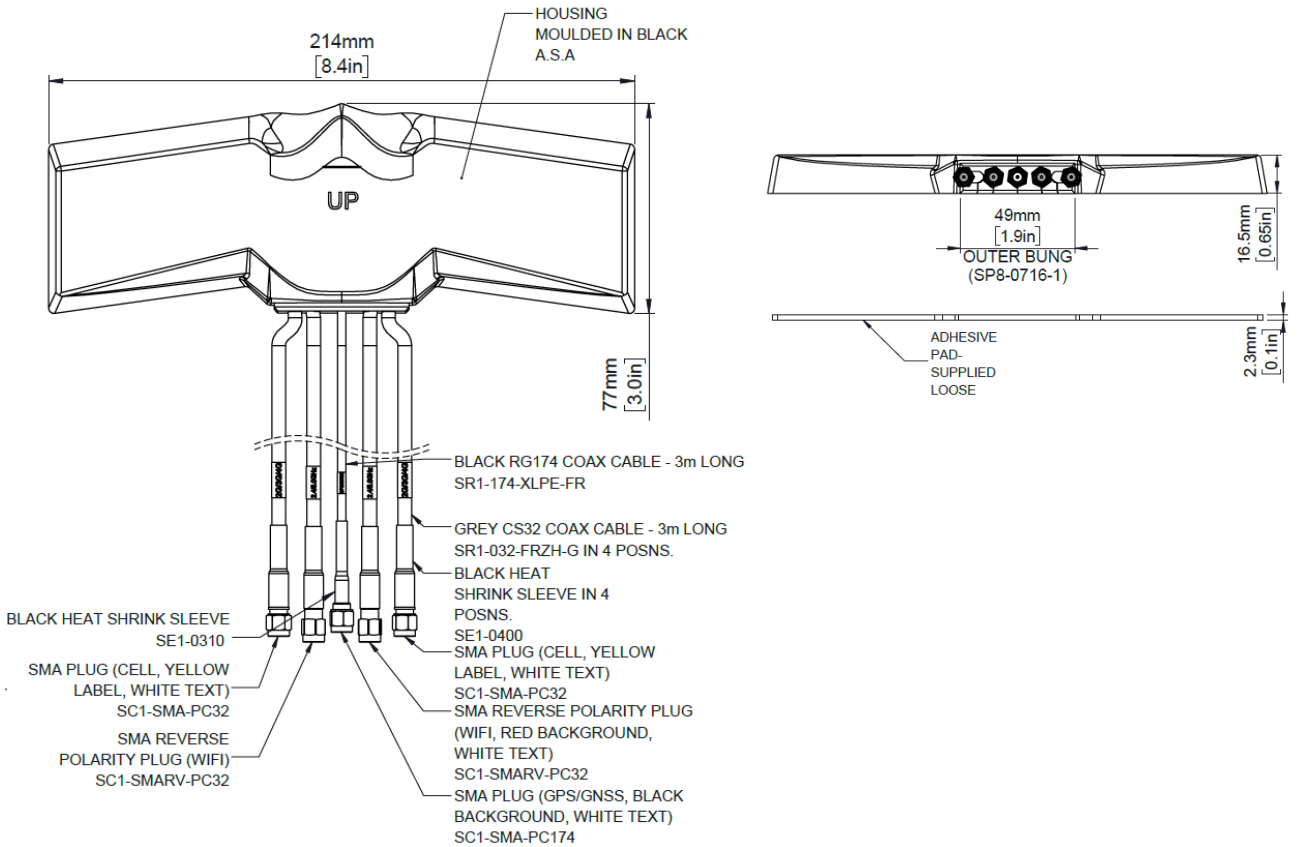
The Panorama BATG range is designed for Telematics applications requiring high speed data with MiMo 4G / 3.5GHz 5G and fallback 3G/2G support along with optional positioning through GPS/GNSS, and optional dual band 2.4/5.0GHz Wifi.

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

BATGM-7-60-24-58 shown

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

BATGM-7-60[-24-58]

PANORAMA ANTENNAS

Product Data

| Part No. | | | | |
|---|---|---|---|---|
| | | BATGM-7-60-24-58 | BATGM-7-60-S24-58 | BATGM-7-60 |
| **Electrical Data** | | | | |
| Frequency Range (MHz) | Elements 1&2 | 698-960/1710-6000 | | |
| | Element 3 | 1562-1612MHz | | |
| | Elements 4 (& 5) | 2.4/5.0GHz | | - |
| Peak Gain† | Elements 1&2 | 2dBi (698-960MHz) / 3dBi (1710-2170MHz) / 5dBi (2500-6000MHz) | | |
| | Element 4 (& 5) | 4dBi (2.4GHz) / 5dBi (5.0GHz) | | - |
| Typical VSWR* | Elements 1&2 | <2:1 | | |
| | Element 4 (&5) | <2.5:1 | | |
| Typical Isolation* | Elements 1&2 | <10dB | | |
| Pattern | | Omnidirectional | | |
| Impedance | | 50 Ohms | | |
| Max input power (W) | | 20 | | |
| **GPS/GNSS Data** | | | | |
| Frequency Range (MHz) | | 1562-1612MHz | | |
| LNA Peak Gain | | 26dB | | |
| Tyical Out of Band Rejection | | >40dB (+/- 100MHz f) | | |
| Notch filter Rejection @787MHz | | 23dBm | | |
| Typical Voltage | | 3-5VDC <20ma | | |
| **Mechanical Data** | | | | |
| 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 | | |
| **Mounting Data** | | | | |
| Fixing | | Adhesive pad | | |
| **Cable Data** | | 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') |
| Termination | | | | |
| BATGM-7-60-24-58 | | 2x SMA Plug (m) | SMA Plug (m) | 2x Rev Pol SMA Plug |
| BATGM-7-60-S24-58 | | 2x SMA Plug (m) | SMA Plug (m) | 1x Rev Pol SMA Plug |
| BATGM-7-60 | | 2x SMA Plug (m) | SMA Plug (m) | |

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

† Peak gain simulated in CST Microwave Studio and does not include cable loss.

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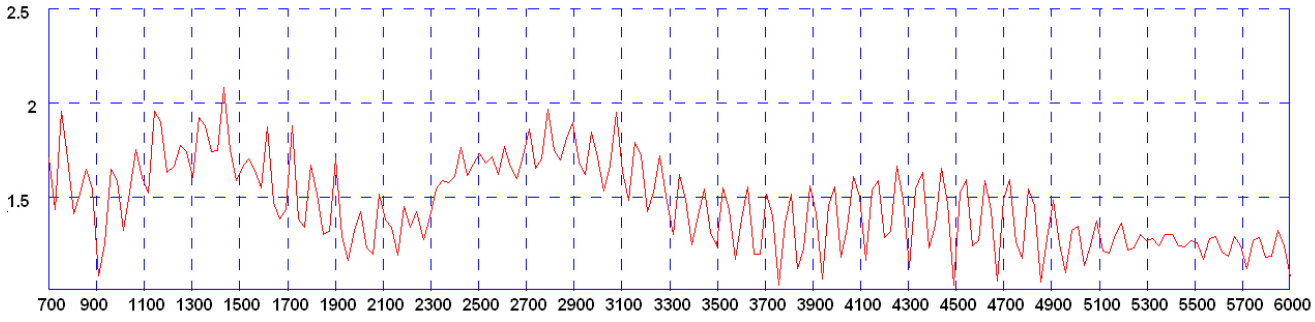
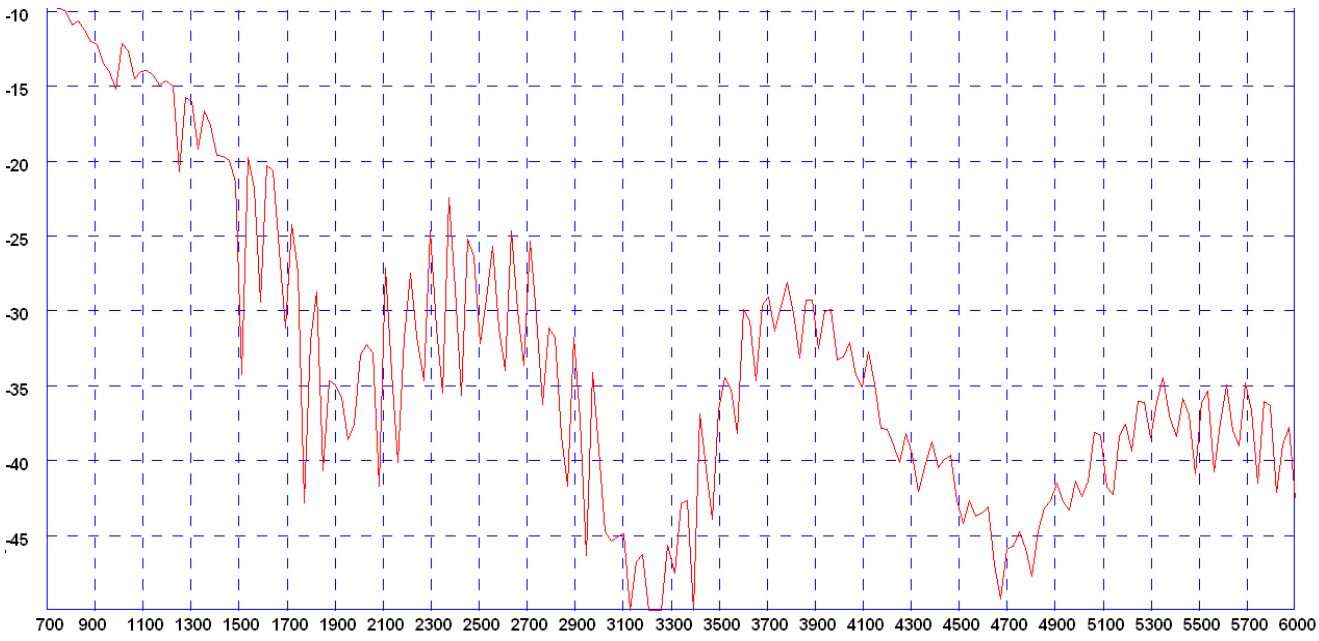
## Electrical Data - Cell

Typical VSWR Elements 1&2*




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

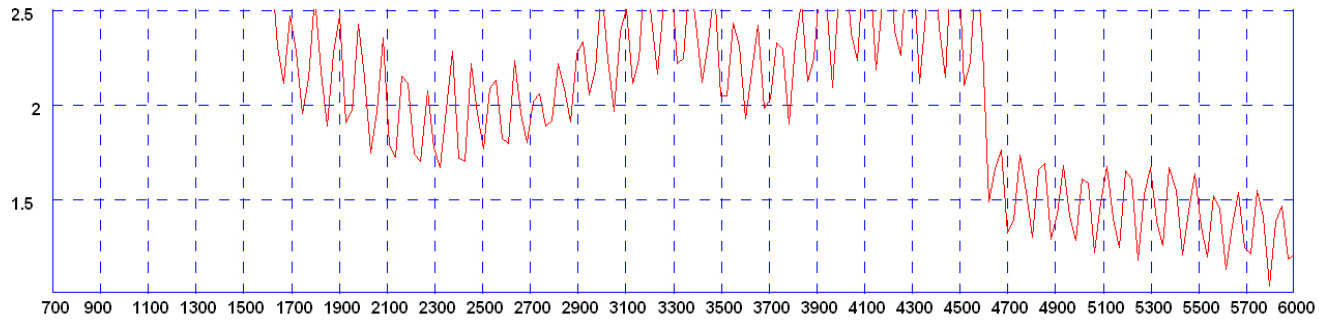
Typical Isolation Elements 1&2*




*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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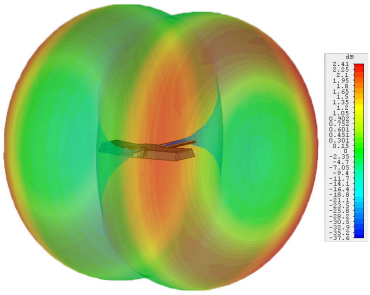
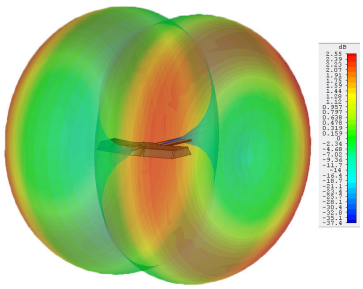
## 3D Patterns - Cell

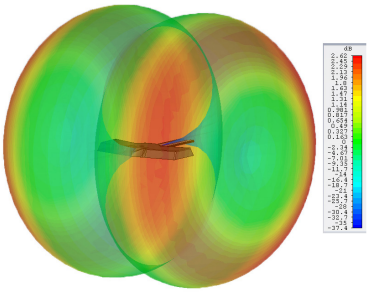
Typical 3D Pattern - 700MHz Elements 1&2 fed



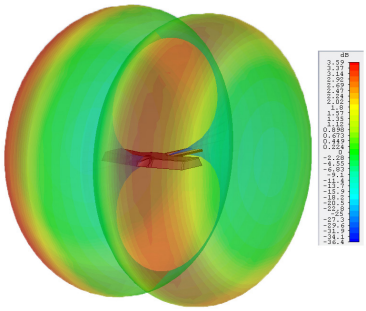
Typical 3D Pattern - 800MHz Elements 1&2 fed



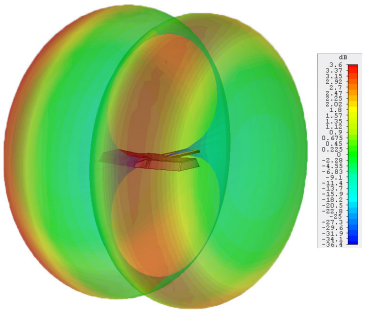
Typical 3D Pattern - 900MHz Elements 1&2 fed



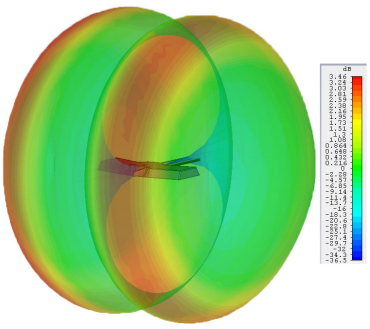
Typical 3D Pattern - 1800MHz Elements 1&2 fed



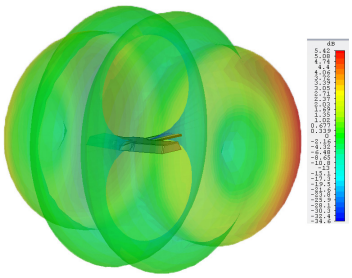
Typical 3D Pattern -1900MHz Elements 1&2 fed



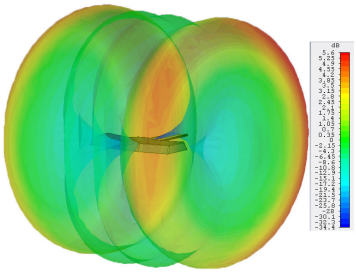
Typical 3D Pattern - 2100MHz Elements 1&2 fed



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

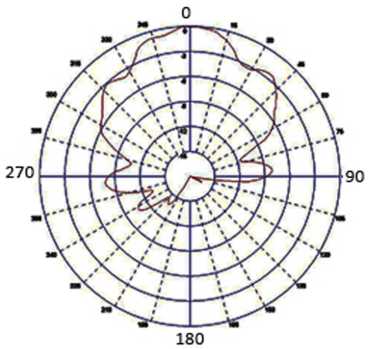


Typical 3D Pattern -3600MHz Elements 1&2 fed



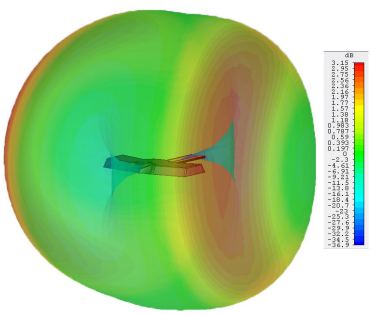
## Pattern -GNSS

Typical E Plane GPS/GNSS - 1575MHz Element

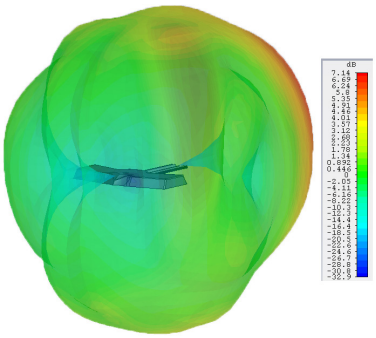



## 3D Patterns -WiFi

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



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

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