

GPSC-7-27

Dual-Function Telematics Antenna

26/04/2016 v.2

Cellular & GPS/GNSS Telematics Antenna

Dashboard or Windshield Mount

Cellular/LTE and GPS/GNSS

Suitable for M3 Category vehicles (UNECE Reg 118)

Available with SMA or FAKRA connectors



The GPSC-7-27 range of telematics antennas offer a "2 in 1" product for vehicle communications and telematics. The housing incorporates antennas for Cellular/LTE and GPS/GLONASS/BEIDOU with a 26dB gain LNA.

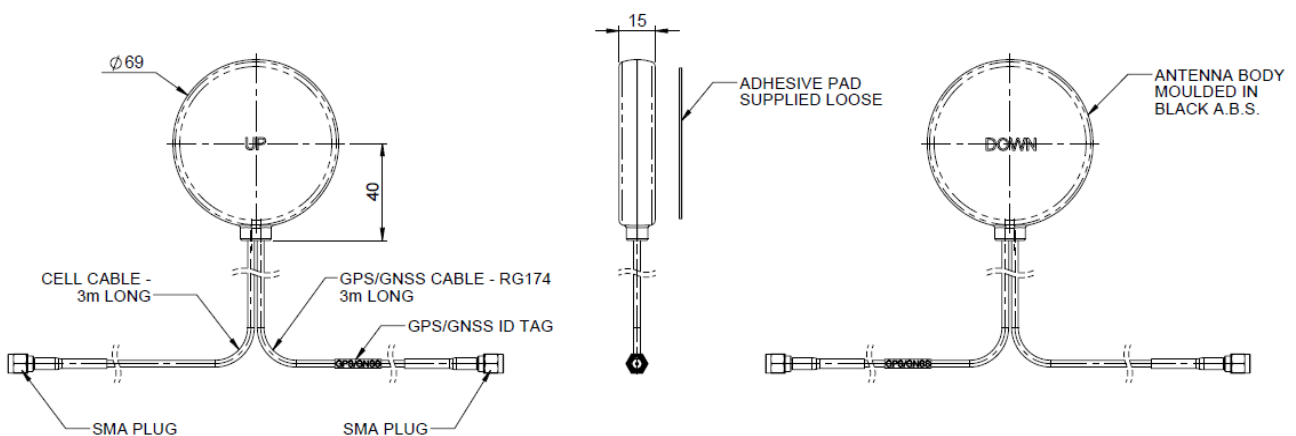
Meeting the requirements of UNECE Regulation R 118, the antenna is suitable for use in M3 Category vehicles (Transportation). The antenna housing is UV resistant, while the 3m length integrated coax cables are flame retardant, low smoke specification.

The antenna offers easy and quick installation on/under the dashboard or on the windshield using the supplied acrylic adhesive pad *

* Performance may change depending on mounting position/surface. The product should not be mounted on conductive surfaces or metalized glass

Technical Drawing

GPSC-7-27-3SP shown

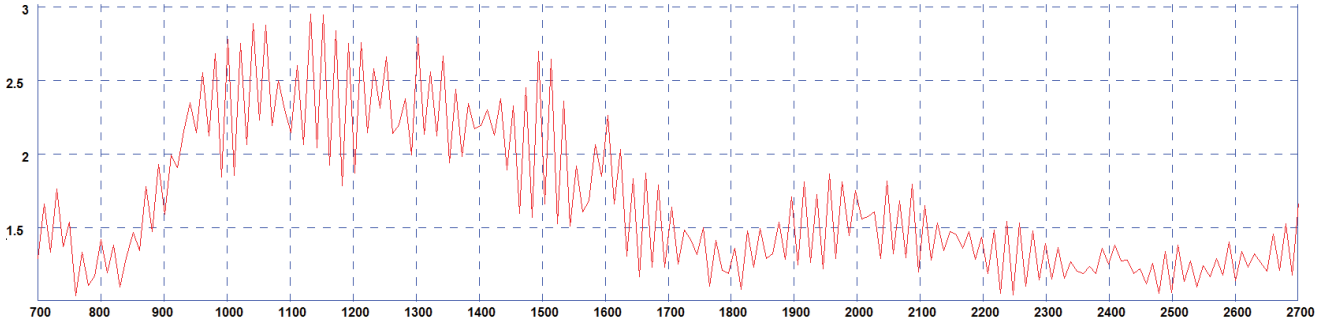


| Part No. | | GPSC-7-27-3SP | GPSC-7-27-3FAKRA |
|------------------------|-----------------------------|--------------------------------------|-------------------------|
| Electrical Data | | | |
| Frequency Range (MHz) | Element 1 | 698-960 / 1710-2700 | |
| | Element 2 | 1562-1612MHz | |
| Peak Gain: Isotropic † | Element 1: 698-960MHz | 2dBi | |
| | Element 1: 1710-2170MHz | 2dBi | |
| | Element 1: 2500-2700MHz | 4dBi | |
| 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 15mA | | |
| Mechanical Data | | | |
| Dimensions (mm) | Height | 15 (0.6") | |
| | Length | 74.5 (2.9") | |
| | Depth | 69 (2.7") | |
| Operating Temp (°C) | -30° / +70°C (-30° / 158°F) | | |
| Material | UV Stable ABS Plastic | | |
| Colour | Black | | |
| Typical Weight (g) | 130 | | |
| Mounting Data | | | |
| Fixing | Acrylic adhesive pad | | |
| Cable Data | | | |
| Element 1: Cell | Cable Type | SR1-174-XLPE-T-FR (Meets UN 118.01) | |
| | Diameter (mm) | 2.8 (0.1") | |
| | Length (m) | 3 (9.8') | |
| | Termination | SMA Plug | Fakra D Jack (Bordeaux) |
| Element 2: GPS/GNSS | Cable Type | SR1-174-XLPE-T-FR (Meets UN 118.01) | |
| | Diameter (mm) | 2.8 (0.1") | |
| | Length (m) | 3 (9.8') | |
| | Termination | SMA Plug | FAKRA C Jack (Blue) |

† Peak gain does not include cable loss

† Peak gain does not include cable attenuation

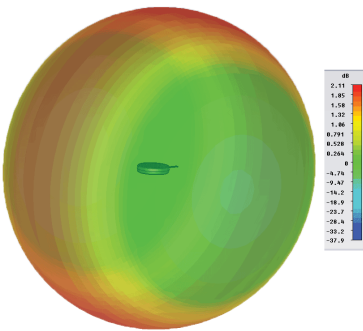
Typical VSWR - Element 1*



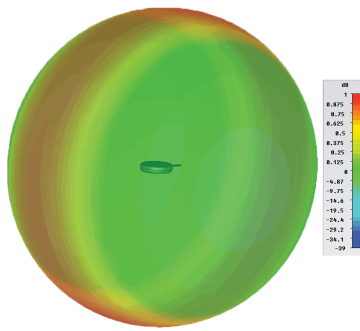
*VSWR measured in free space with 3m (10') of RG174 cable

Patterns

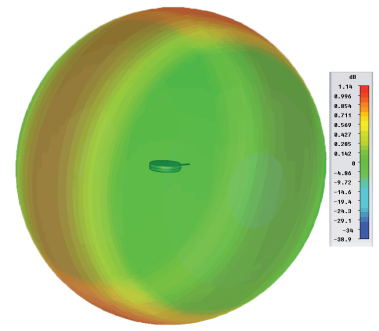
Element 1: Typical 3D Pattern (700MHz)



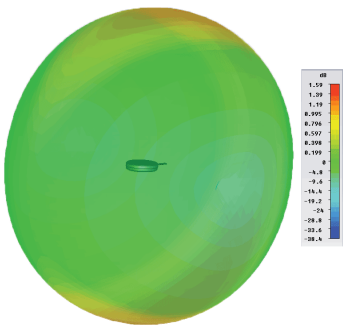
Element 1: Typical 3D Pattern (800MHz)



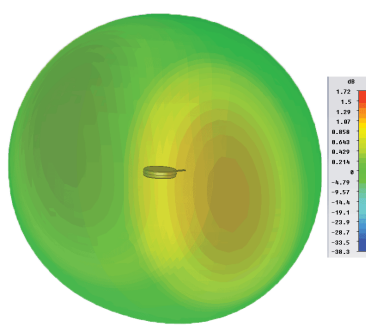
Element 1: Typical 3D Pattern (900MHz)



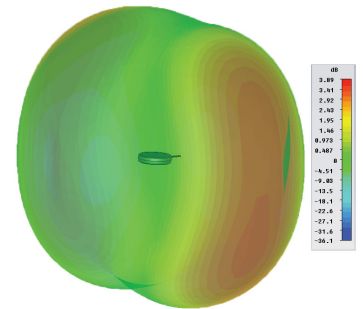
Element 1: Typical 3D Pattern (1800MHz)



Element 1: Typical 3D Pattern (2100MHz)



Element 1: Typical 3D Pattern (2600MHz)



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

Element 2: Typical E Plane Pattern (1602MHz)

