

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.

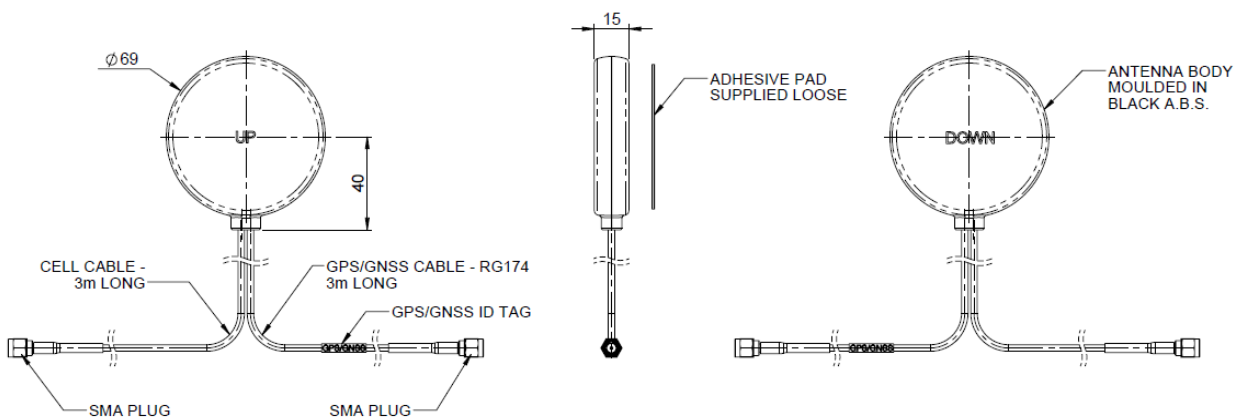
Meeting the requirements of UNECE Regulation R 118, the antenna is suitable for use in M3 Category vehicles (Transportation). The antenna housing is UV resistant, while the 3m length integrated coax cables are flame retardant, low smoke specification.

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

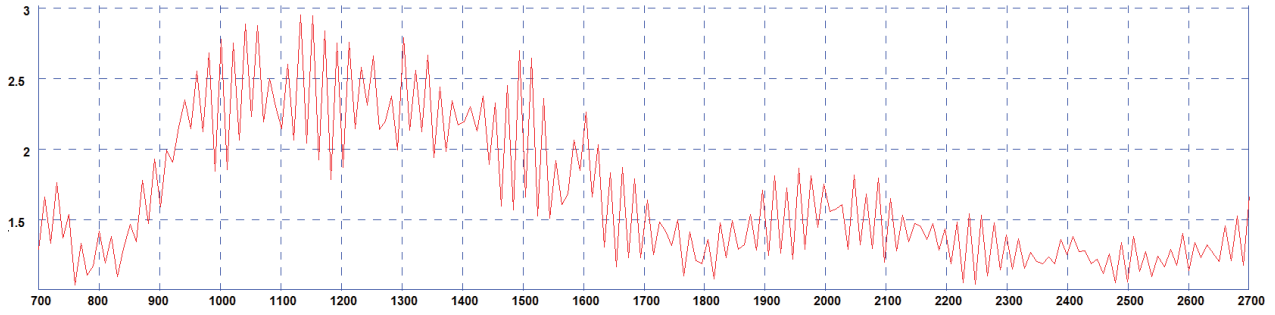


Part No.		GPSC-7-27-3SP	GPSC-7-27-3FAKRA
Electrical Data			
Frequency Range (MHz)	Element 1	698-960 / 1710-2700	
	Element 2	1562-1612MHz	
Peak Gain: Isotropic †	Element 1: 698-960MHz	2dBi	
	Element 1: 1710-2170MHz	2dBi	
	Element 1: 2500-2700MHz	4dBi	
Pattern	Omni-directional		
Nominal Impedance	50Ω		
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 UN118.01)	
	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 UN118.01)	
	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

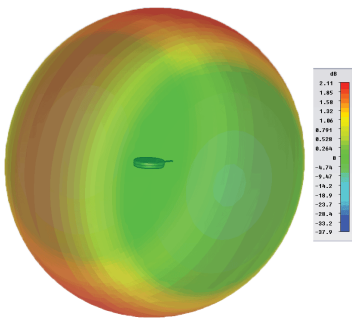
Typical VSWR - Element 1*



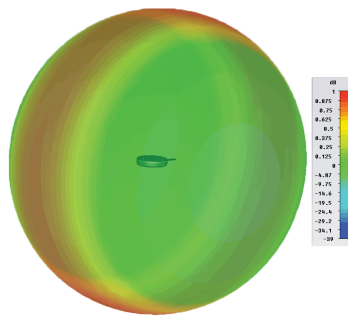
*VSWR measured in free space with 3m (10') of RG174 cable

Patterns

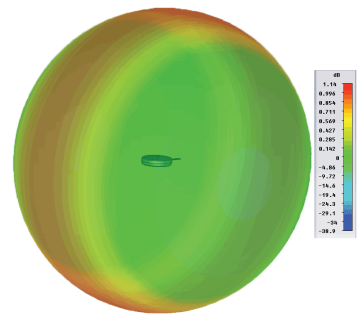
Element 1: Typical 3D Pattern (700MHz)



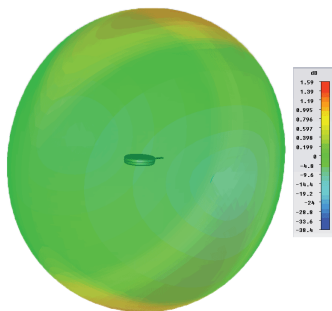
Element 1: Typical 3D Pattern (800MHz)



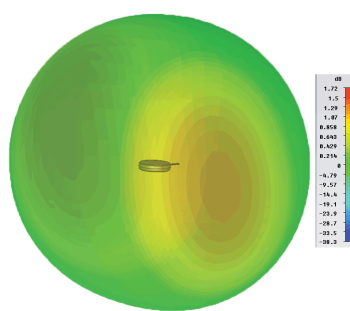
Element 1: Typical 3D Pattern (900MHz)



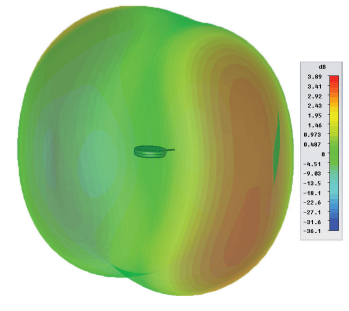
Element 1: Typical 3D Pattern (1800MHz)



Element 1: Typical 3D Pattern (2100MHz)

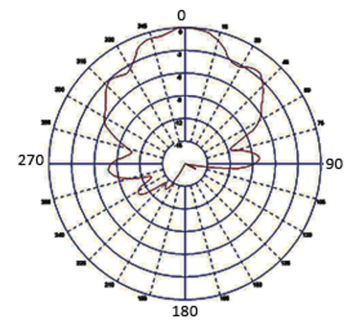


Element 1: Typical 3D Pattern (2600MHz)



† 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)



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