

# GPSCO[F]-7-27-24-58

Tri-Function Telematics Antenna

28/04/2016 v.2

## Cellular, Wifi, GPS/GNSS Telematics Antenna

Dashboard or Windshield Mount

Cellular, WIFI and GPS/GNSS

Suitable for M3 Category vehicles (UNECE Reg 118)

Available with SMA or FAKRA connectors



The GPSCO(F)-7-27-24-58 range of telematics antennas offer a "3 in 1" product for vehicle communications and telematics. The housing incorporates antennas for Cellular/LTE, Dual Band WiFi and GPS/GLONASS/BEIDOU with a 26dB gain LNA.

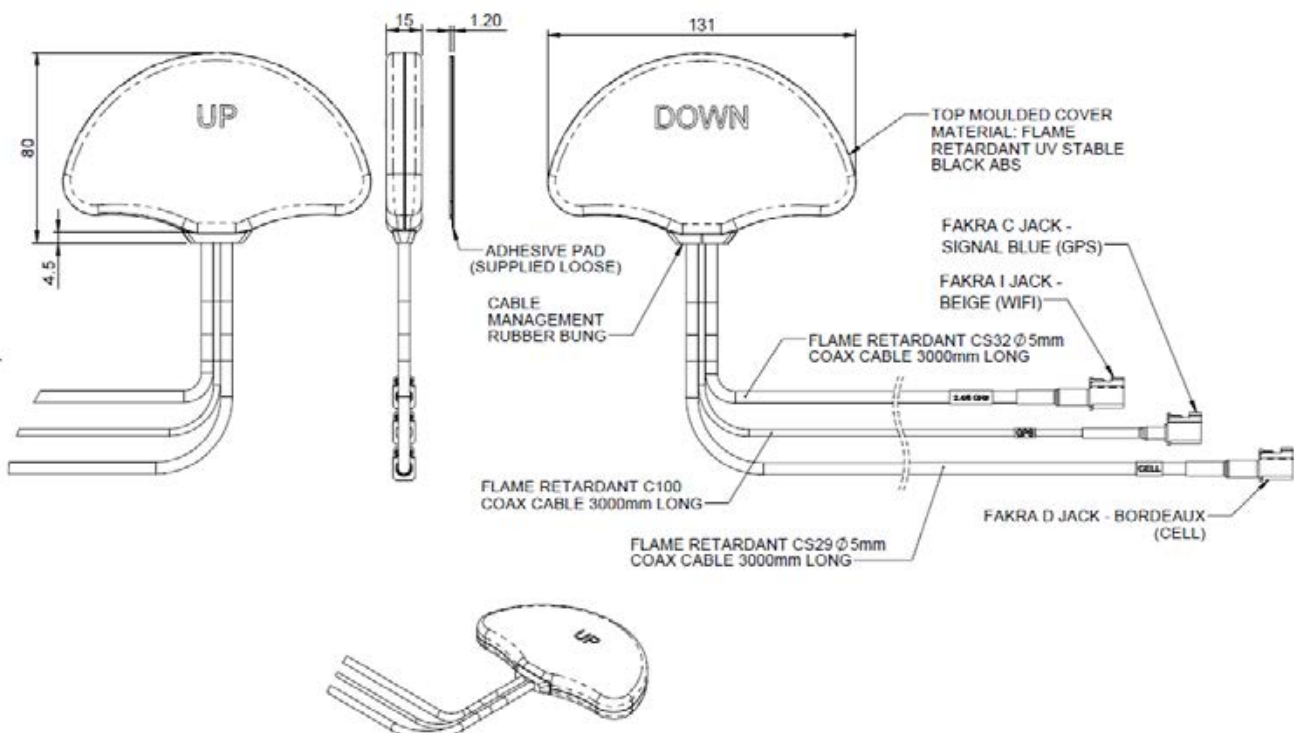
Meeting the requirements of UNECE Regulation R 118, the antenna is suitable for use in M3 Category vehicles (Transportation). The antenna housing is UV resistant and flame retardant, while the 3m length integrated coax cables are flame retardant, low smoke specification.

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 is not suitable for mounting on conductive surfaces or metalized windows.

### Technical Drawing

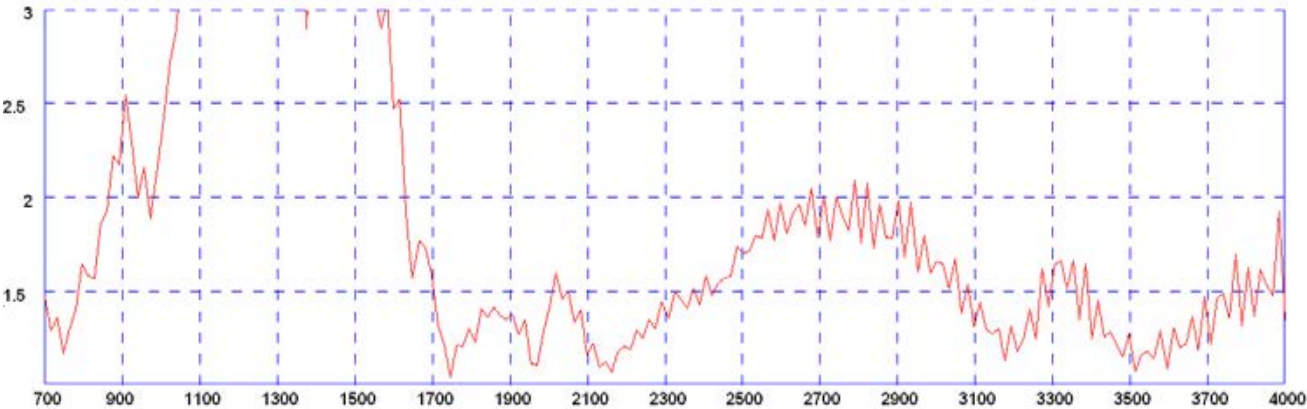
GPSCOF-7-27-24-58 shown



Part No.		
		GPSCO-7-27-24-58
		GPSCOF-7-27-24-58
Electrical Data		
Frequency Range (MHz)	Element 1	698-960 / 1710-3800
	Element 2	2.4/4.9-6.0 GHz
	Element 3	1562-1612MHz
Peak Gain: Isotropic †	Element 1: 890-960MHz	1.5dBi
	Element 1: 1710-2170MHz	4.5dBi
	Element 1: 2500-3800MHz	4.5dBi
	Element 2: 2.4GHz	6dBi
	Element 2: 4.9-6.0GHz	7dBi
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	131 (5.16")
	Depth	84.5 (3.33")
Operating Temp (°C)	-30° / +70°C (-30° / 158°F)	
Material	UV Stable Flame Retardant ABS Plastic	
Colour	Black	
Typical Weight (g)	330	
Mounting Data		
Fixing	Acrylic adhesive pad	
Cable Data		
Element 1: Cell	Cable Type	CS29 ( Meets UN118.01)
	Diameter (mm)	5 (0.2")
	Length (m)	3 ( 9.8')
	Termination	SMA Plug
Element 2: Wifi	Cable Type	CS32 (Meets UN118.01)
	Diameter (mm)	5 (0.2")
	Length (m)	3 ( 9.8')
	Termination	SMA Plug (Rev Pol)
Element 3: GPS/GNSS	Cable Type	LMR-100A-FR ( Meets UN118.01)
	Diameter (mm)	2.8 (0.1")
	Length (m)	3 ( 9.8')
	Termination	SMA Plug

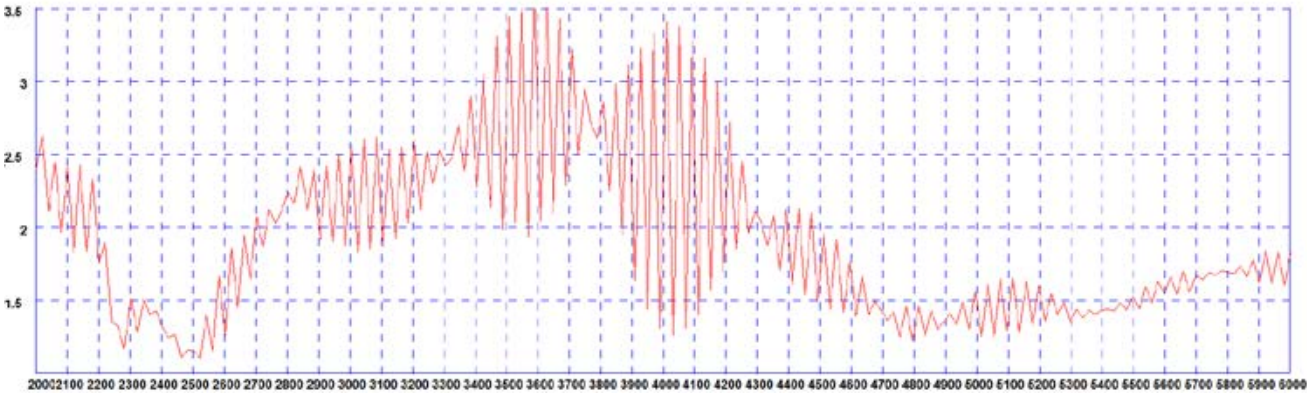
† Peak gain does not include cable attenuation

Typical VSWR - Element 1\*



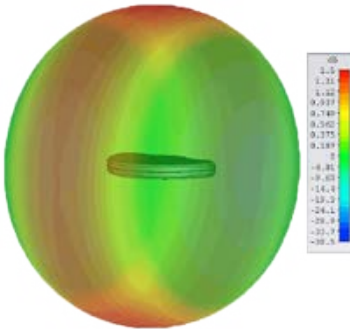
\*VSWR measured mounted on a glass sheet with 3m of CS29 cable

Typical VSWR - Element 2\*

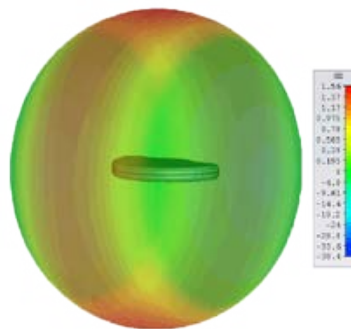


\*VSWR measured mounted on a glass sheet with 3m of CS32 cable

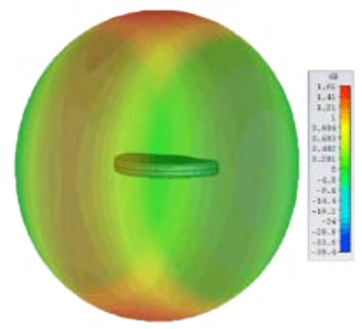
Element 1: Typical 3D Pattern (700MHz)



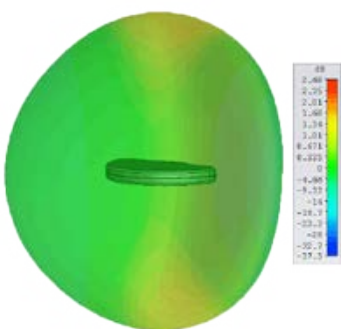
Element 1: Typical 3D Pattern (800MHz)



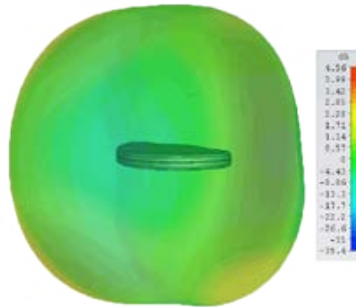
Element 1: Typical 3D Pattern (900MHz)



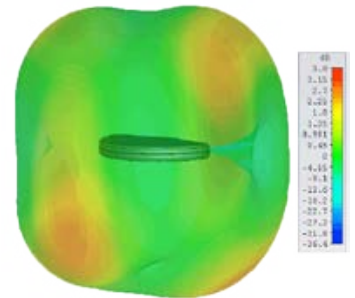
Element 1: Typical 3D Pattern (1800MHz)



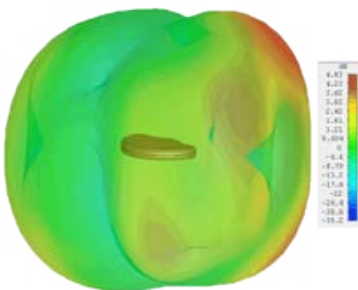
Element 1: Typical 3D Pattern (2100MHz)



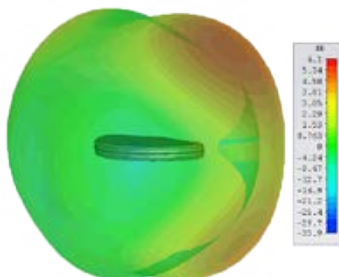
Element 1: Typical 3D Pattern (2600MHz)



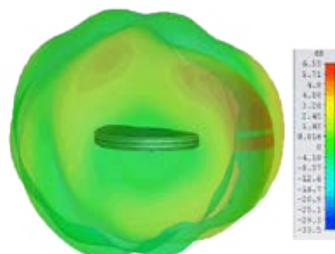
Element 1: Typical 3D Pattern (3700MHz)



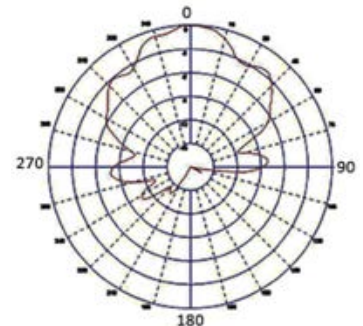
Element 2: Typical 3D Pattern (2.4GHz)



Element 2: Typical 3D Pattern (5.4GHz)



Element 3: Typical E Plane Pattern (1602MHz)



+ Element 1 & 2 Patterns simulated in CST Microwave Studio in free space excluding cable loss. Element 3 pattern measured in free space.



T: +61 3 9696 3011  
 E: sales@M2MConnectivity.com.au  
 W: www.M2MConnectivity.com.au  
 A: 1 Barrett Street, Kensington VIC 3031 Australia

Waiver: The data given above is indicative of the performance of the product/s under particular conditions and does not imply a guarantee of performance. These specifications are subject to change without notice.

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