

TRNM[G]-7-60-NJ



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- Standard four hole rail fixing
- 2x2 MiMo Cell / LTE / WiFi 2.4/5.0
- Optional Integrated GPS / GNSS / Beidou antenna
- Suitable for GSM-R rail applications

The TRNM(G) MiMo antenna series is designed specifically for use on trains, trams and buses underground or over ground. Incorporating two elements operating wideband across all frequencies from 698MHz to 6000MHz the TRNM(G) range is versatile and future proof.

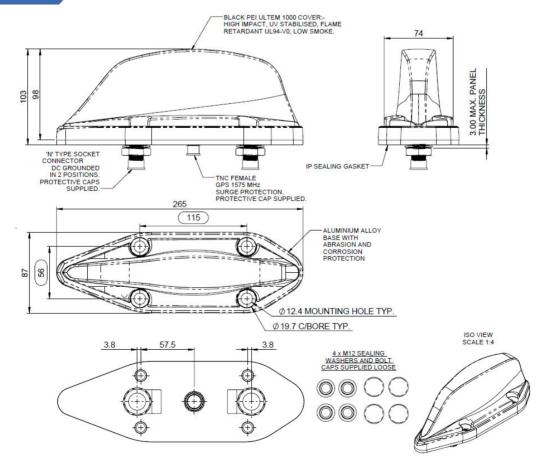
The TRNM(G) series covers GSMR, 700MHz LTE, 800MHz TETRA and trunking bands along with all Cellular and GSM frequencies, 2.4 & 5.8GHz WLAN, 2.6 GHz LTE and WIMAX all in one housing.

The TRNM(G) has two DC grounded radiating elements, in versions with a GPS module it is protected by a gas discharge surge arrestor.

Housed in a high impact, flame retardant Ultem housing, the TRNM(G) series is weatherproof ensuring that the antenna's performance is never compromised.

The TRNM[G] antenna meets stringent industry standards including EN50155, EN45545-2 (HL 1-3), EN50124-1 (25 KA / 100 MS) and is ingress protected to IP69k when properly installed.

Technical Drawing TRNMG-7-60-NJ Shown



TRNM[G]-7-60-NJ

Product Data

Part No.		
		TRNM-7-60-NJ TRNMG-7-60-NJ
Electrical Data		
Frequency Range (MHz)		2x 698-960 / 1700-6000 MHz
Peak Gain: Isotropic**	698-960	6dBi
	1710-2700	6dBi
	4.9-6GHz	10dBi
Polarisation		Vertical
Typical VSWR*		< 2.5:1
Correlation Co-Efficient		<0.1
Typical Isolation***		<15dB
Pattern		Omni-directional
Impedance		50Ω
Max Input Power (W)		60
GPS Data		
Frequency Range (MHz)		- 1560-1612
Impedance		- 50Ω
LNA Gain		- 26dB ± 3
Polarisation		- Rigth Hand Circular
Operating Voltage		- 3-5V DC
Current (Typical)		- 15mA
GPS Antenna EMC Compliance		EN 301 489-1 V1.81 & EN 301 489-3 V1.6.1 EN 50121- 3-2:2015
Mechanical Data		
Dimensions (mm)	Height (N/inc pad)	98 (3.86")
	Width	87 (3.42")
	Length	265 (10.4")
Environmental Specification		
Operating Temp (°C)		-40°/+80°C (-40°/+176°F)
Radome Material		Ultem 1000
Radome Flame Retardance Rating		V0 (UL 94)
Base Material		Cast Aluminium (corrosion protected & powder coated)
Ingress Protection		IP67 (Report No. 98883) or IP69K when installed in accordance with SW3 - 988 (Report No. 103439)
Approvals Data		
Regulatory Approvals		EN50155:2007 (Dry heat & Cooling), EN61373:2010 / EN50155:2007 (Shock & Vibration), EN45545 - HL3 (flammability), EN50124-1 (Rated Insulation UNm 17.25/27.5 KV Short Circuit Current 25 Ka 100ms)
Mounting Data		
Fixing		4 × mounting holes to suit M12 bolts
Termination Data		
Termination	Comms	2x N (female) - DC grounded
	GPS	- TNC (female) - surge protected

^{**} Simulated on a 600 x 600mm (2′ x 2′) ground plane without cable.

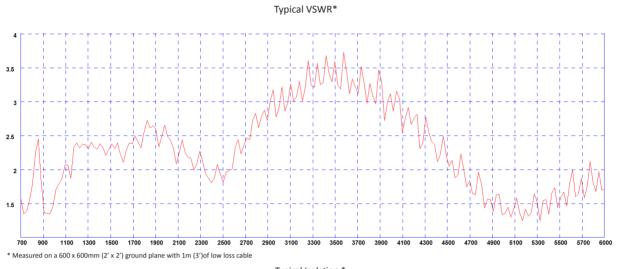
^{*} Measured on a 600 x 600mm (2' x 2') ground plane with 1m (3')of low loss cable





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Electrical Data





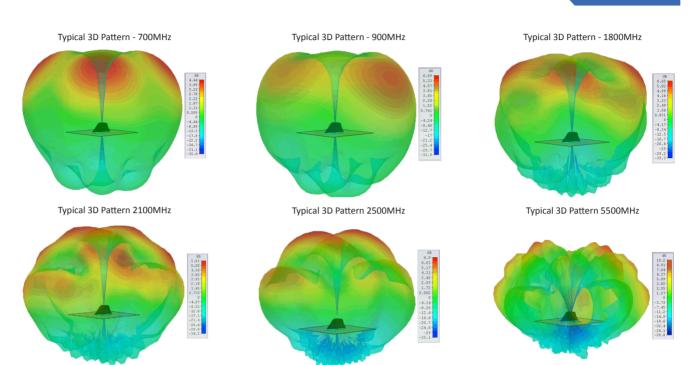


^{*} Simulated in CST Microwave Studio on a 600 x 600mm (2′ x 2′) ground plane with 1m (3′)of low loss cable



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Patterns



Typical E-Plane Pattern - (GPS) 1575MHz