LTE/Cellular Transit Antenna

TRNC[G]-7-60

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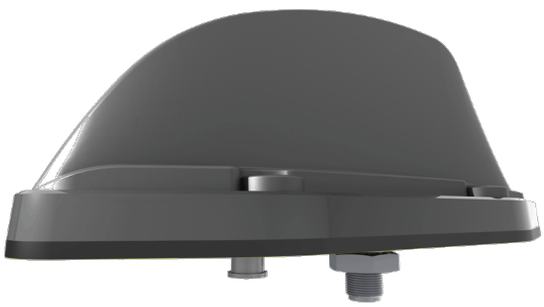


- Standard four hole rail fixing
- Wideband LTE/Celular/WIFI element
- Optional Integrated GPS / GNSS / antenna [TRNCG version]
- Suitable for GSM-R rail applications

The TRNC(G) antenna series has been designed specifically for use on trains, trams and buses underground or over ground.

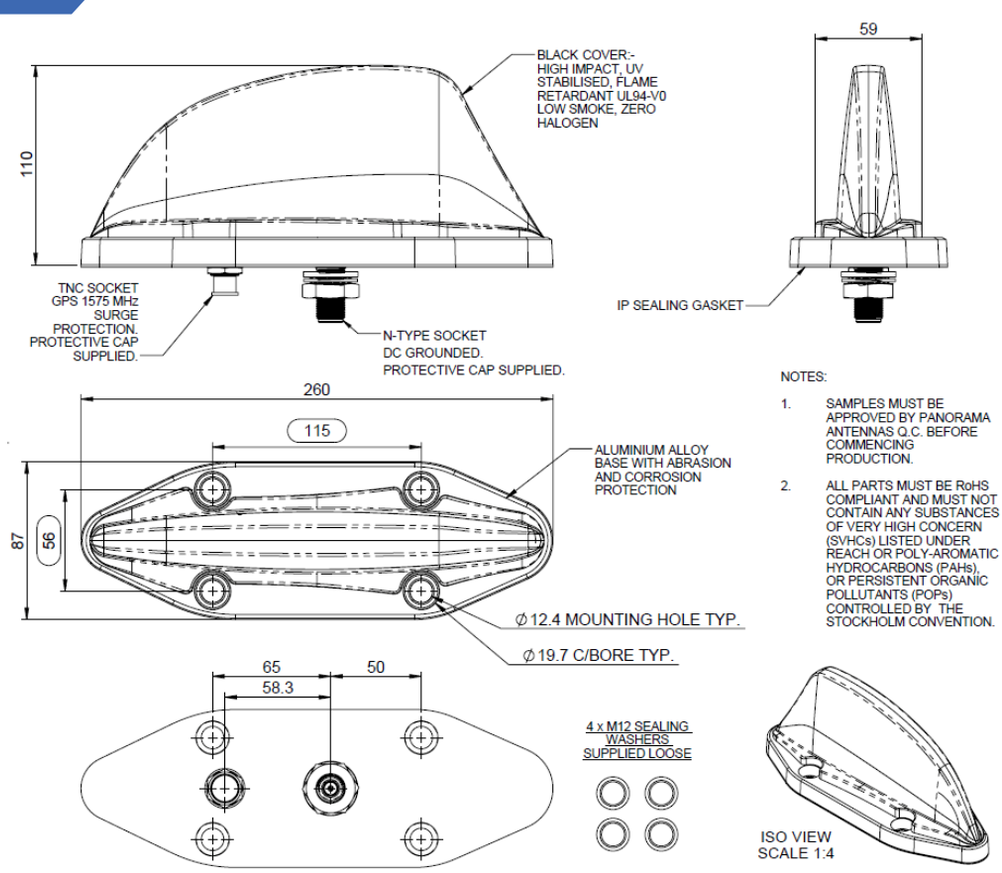
The TRNC(G)-7-60 range covers 698-960/1710-6000MHz with optional GPS/GNSS with a 26dB LNA. The radiating element is DC grounded and, in versions with a GPS module it is protected by a gas discharge surge arrestor.

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

The TRNC[G]-7-60 meets stringent industry standards including EN50I55, EN45545-2 (HLI-3), EN50124 (40 KA 100 MS) and is ingress protected to IP69K when properly installed.

Technical Drawing

TRNCG-7-60 shown



NOTES:

1. SAMPLES MUST BE APPROVED BY PANORAMA ANTENNAS Q.C. BEFORE COMMENCING PRODUCTION.
2. ALL PARTS MUST BE RoHS COMPLIANT AND MUST NOT CONTAIN ANY SUBSTANCES OF VERY HIGH CONCERN (SVHCs) LISTED UNDER REACH OR POLY-AROMATIC HYDROCARBONS (PAHs), OR PERSISTENT ORGANIC POLLUTANTS (POPs) CONTROLLED BY THE STOCKHOLM CONVENTION.

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26/10/2018 V3

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PANORAMA ANTENNAS

Product Data

Part No.		TRNCG-7-60	TRNC-7-60
Frequency Range (MHz)		698-960/1710-6000 MHz	
Peak Gain: **	698-960MHz	5dBi	
	1710-2700MHz	7dBi	
	4900-6000MHz	10dBi	
Polarisation		Vertical	
Typical VSWR*		< 2.5:1	
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)	110 (4.33")	
	Width	87 (3.42")	
	Length	260 (10.23")	
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	
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) / EN50124-1:2017 (40 KA 100 MS)	
Mounting Data			
Fixing		4 × mounting holes to suit M12 bolts	
Termination Data			
Termination	Comms	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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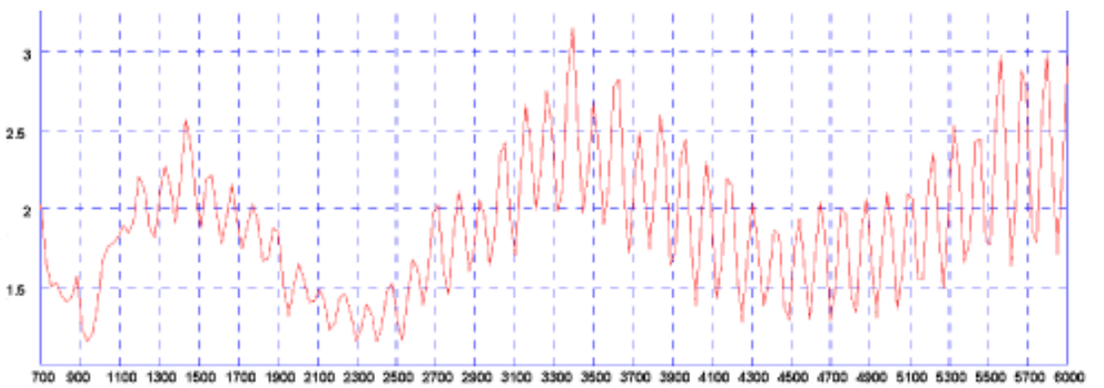
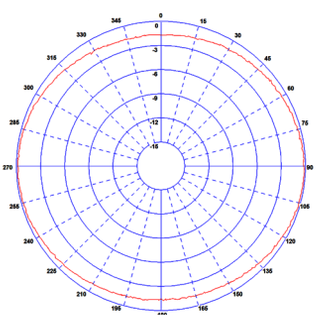
Electrical Data

Typical VSWR*

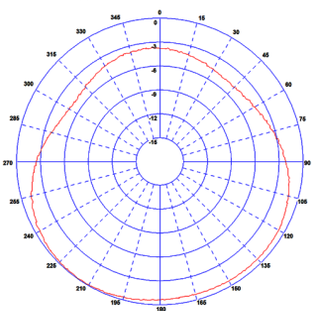


* Measured on a 600 x 600mm (2' x 2') ground plane with 1m (3')of low loss cable

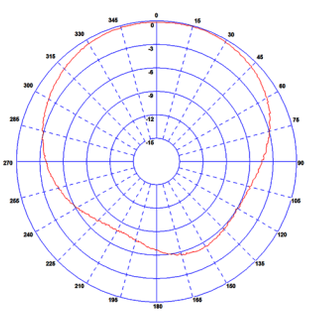
Typical H Plane - 700MHz



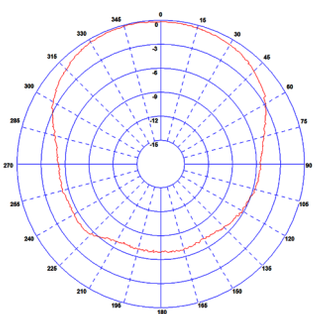
Typical H Plane - 800MHz



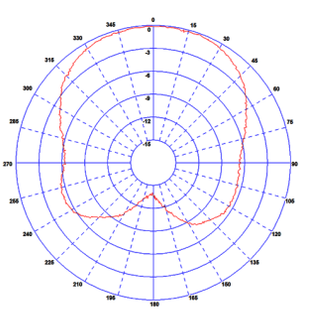
Typical H Plane - 900MHz



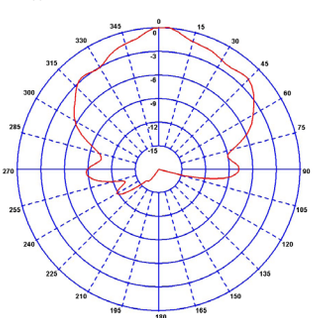
Typical H Plane - 1800MHz



Typical H Plane -2100MHz



Typical E-Plane Pattern - (GPS) 1575MHz



Patterns measured on a 600 x 600 (2' x 2') ground plane with 1m (3') of low loss cable

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