## LTE/Cellular Transit Antenna

## PANORAMA 💬 ANTENNAS

TRNC[G]-7-60



### TRNC[G]-7-60

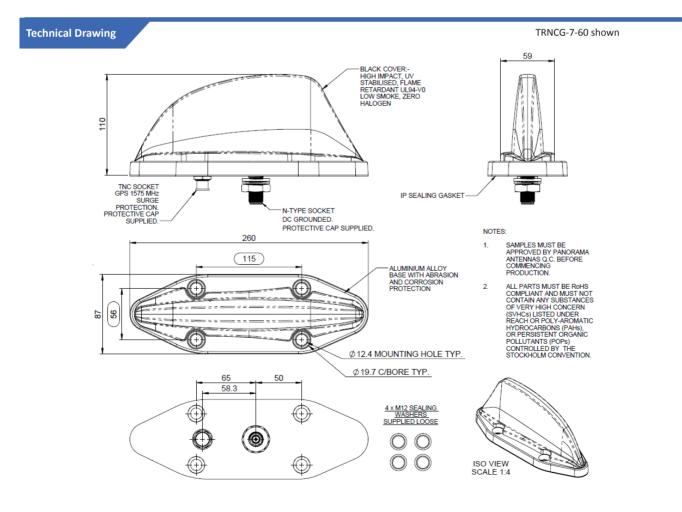
- Standard four hole rail fixing
- Wideband LTE/Celular/WIFI element
- Optional Integrated GPS / GNSS / antenna [TRNCG version]
- Suitable for GSM-R rail applications

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.



#### Panorama Antennas Ltd

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# LTE/Cellular Transit Antenna

TRNC[G]-7-60

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**Product Data** 

Part No.			
		TRNCG-7-60 TRNC-7-60	
Frequency Range (MHz)		698-960/1710-6000 MHz	
TRNCG-7-60   Frequency Range (MHz) 698-960/M1/2   698-960/M1/2 508   Peak Gain: ** 1710-2700/M1/2 708   Peak Gain: ** 1710-2700/M1/2 708   Peak Gain: ** 1710-2700/M1/2 708   Polarisation Vertiti   Typical VSWR* < 2.5   Pattern Ommi-dire   Impedance S00   CPS Data Frequency Range (MHz) 1560-1612   Impedance S00   LNA Gain 2.668 ± 3   Polarisation Right Hand Circular   Operating Voltage 3-5V DC   Current (Typical) 1560-1612   Impedance 2.2015   Mechanical Data EN 301 489-1 V1.81 & EN 301 489-3 V1.6.1   EN 50121-3-2   GPS Antenna EMC Compliance EN 301 489-1 V1.81 & EN 301 489-3 V1.6.1   EN 50121-3-2   Dimensions (mm) Width 87 40°C ( <   Rado	698-960MHz	5dBi	
	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 (N	1Hz)	1560-1612 -	
Impedance		50Ω -	
LNA Gain		26dB ± 3 -	
Polarisation		Rigth Hand Circular -	
Operating Voltage		3-5V DC -	
Current (Typical)		15mA -	
GPS Antenna EMC C	Compliance		
Mechanical Data			
	Height (N/inc pad)	110 (4.33")	
	Width	87 (3.42")	
	Length	260 (10.23")	
Environmental Spec	cification		
Operating Temp (°C)	)	-40° / +80°C(-40° / +176°F)	
Radome Material		Ultem 1000	
Radome Flame Reta	rdance 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 Approva	ls	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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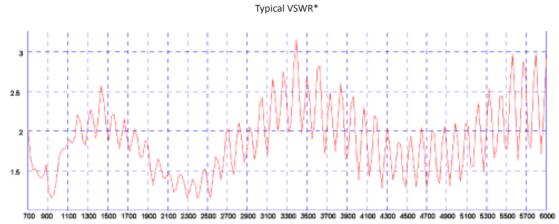
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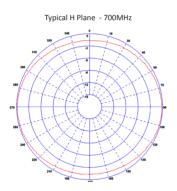
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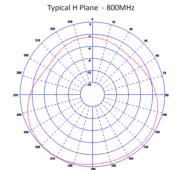
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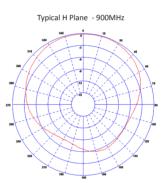
**Electrical Data** 



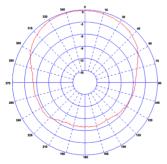
\* Measured on a 600 x 600mm (2' x 2') ground plane with 1m (3') of low loss cable



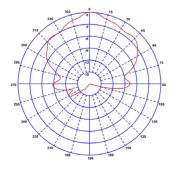




Typical H Plane - 1800MHz



Typical E-Plane Pattern - (GPS) 1575MHz



Typical H Plane -2100MHz

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

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