

# UHF Transit Antenna

## TRNC[G]



### TRNC[G]

- Standard Four Hole Rail Fixing
- Wideband UHF Element
- Optional Integrated GPS/GNSS Antenna [TRNCG Version]

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

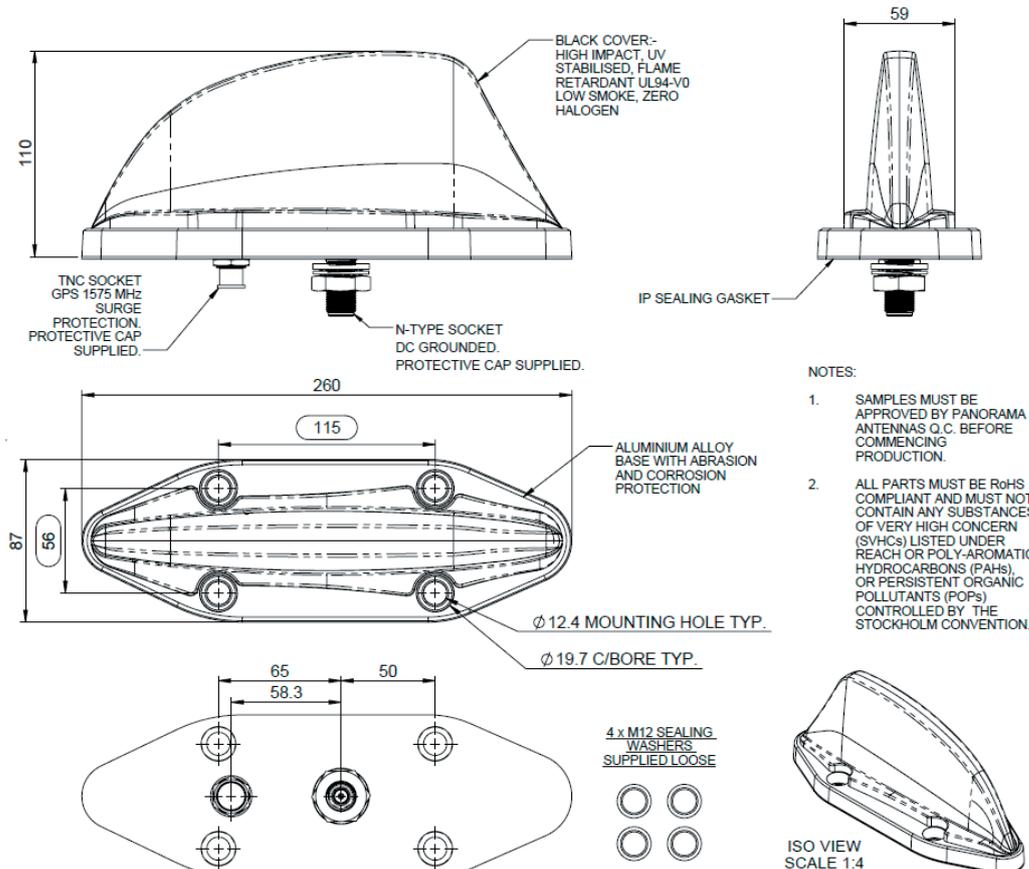
The TRNC[G] range covers 380-430MHz or 450-470MHz UHF with optional GPS/ GNSS with a 26dB LNA. The radiating element is DC grounded and, in versions with a GPS module it is protected by a gas discharge surge arrestor.

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] meets stringent industry standards including EN50155, EN45545-2 (HL1-3) and is ingress protected to IP69K when properly installed.

### Technical Drawing

Part No. TRNCG-TET



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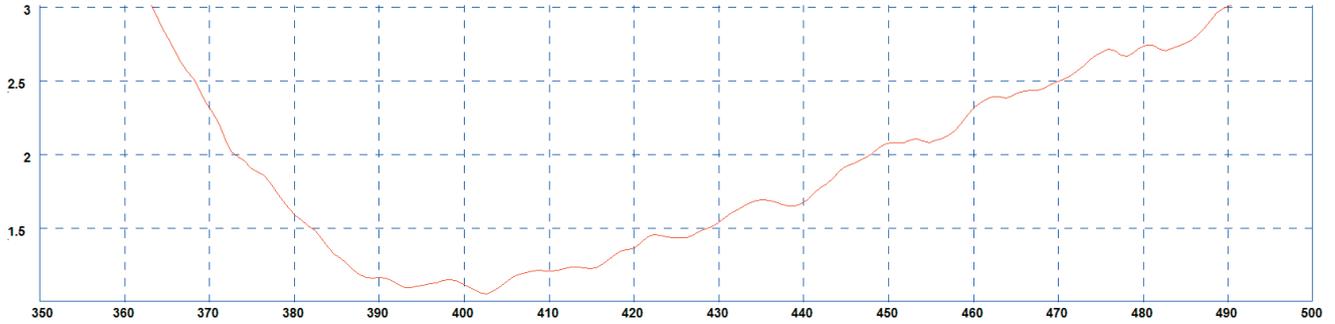
### Product Data

Part No.	TRNCG-TET	TRNC-TET	TRNCG-S4	TRNC-S4
<b>Electrical Data</b>				
Frequency Range (MHz)	380-430		450-470	
Peak Gain **	380-430MHz		5dBi	
	450-470MHz		5dBi	
Polarisation	Vertical			
Typical VSWR*	<2:1			
Pattern	Omni-directional			
Impedance	50Ω			
Max input power (W)	60			
<b>GPS Data</b>				
Frequency Range (MHz)	1560-1612	-	1560-1612	-
Impedance	50Ω	-	50Ω	-
LNA Peak Gain	26dB ± 3	-	26dB ± 3	-
Polarisation	Right Hand Circular	-	Right Hand Circular	-
Operating Voltage	3-5V DC	-	3-5V DC	-
Current (Typical)	15mA	-	15mA	-
GPS Antenna EMC Compliance	EN 301 489-1 V1.81 & EN 301 489-3 v1.61 EN 50121-3-2:2015	-	EN 301 489-1 V1.81 & EN 301 489-3 v1.61 EN 50121-3-2:2015	-
<b>Mechanical Data</b>				
Dimensions (mm)	Height (N/inc pad)	110 (4.33")		
	Width	87 (3.42")		
	Length	260 (10.23")		
<b>Environmental Specification</b>				
Operating Temp (°C)	-40° / +80°C ( -40° / +176°F )			
Radome Material	Ultrem 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)			
<b>Approvals Data</b>				
Regulatory Approvals	EN50155:2007 (Dry heat & Cooling), EN61373:2010 / EN50155:2007 (Shock & Vibration), EN45545 - HL3 (Flammability)			
<b>Mounting Data</b>				
Fixing	4x Mounting holes to suit M12 bolts			
<b>Cable Data</b>				
Termination	Comms	N (female) - DC grounded		
	GPS	TNC (female) - surge protected		

\*\* Measured on a 1x1m (3'x3') ground plane excluding cable loss.

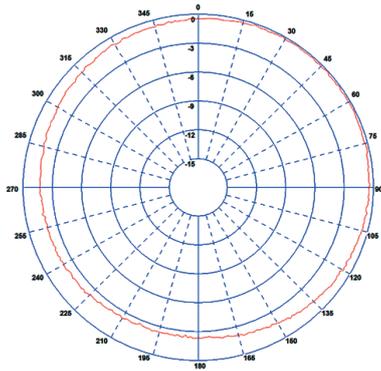
\* Measured on a 600 x 600mm (2' x 2') ground plane with 1m (3') of low loss cable.

Typical VSWR

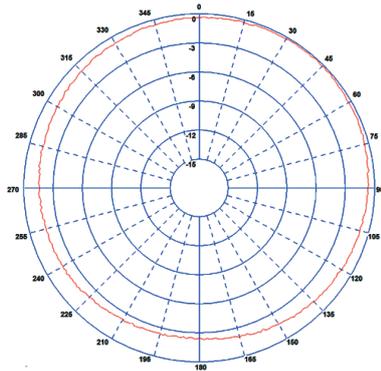


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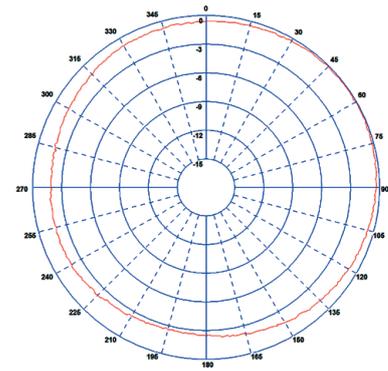
Typical H Plane - 380MHz



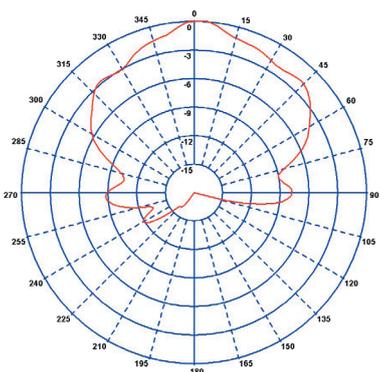
Typical H Plane - 400MHz



Typical H Plane - 430MHz



Typical E-Plane Pattern - (GPS) 1575MHz



Patterns measures on a 600x600mm (2'x2') ground plane without cable