

UHF Transit Antenna

TRNC[G]-S4

12/09/2018 V2



TRNC[G]-S4

Standard four hole rail fixing

Wideband UHF element

Optional Integrated GPS / GNSS / antenna [TRNCG version]

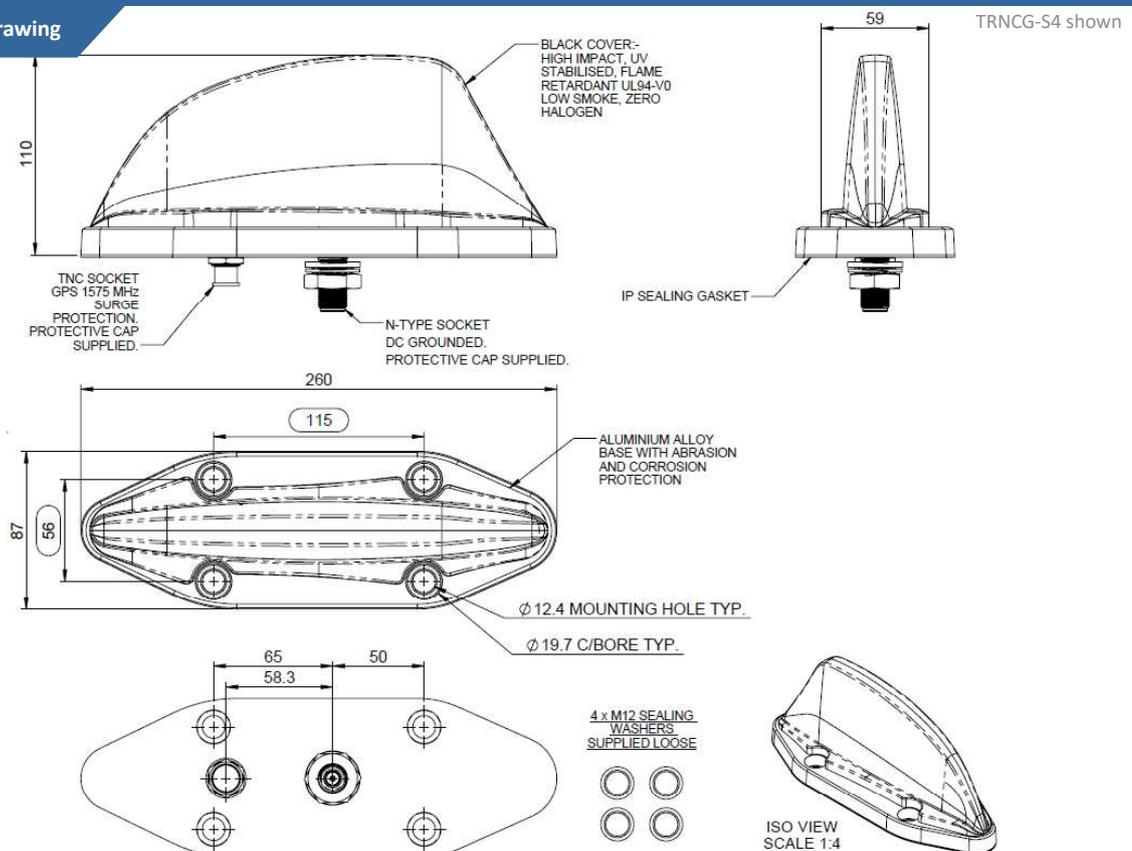
The TRNC(G) antenna series has been designed specifically for use on trains, trams and buses underground or over ground.

The TRNC(G)-S4 range covers 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 features IP69K protection (when properly installed) ensuring that the antenna's performance is never compromised.

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

Technical Drawing



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PANORAMA ANTENNAS

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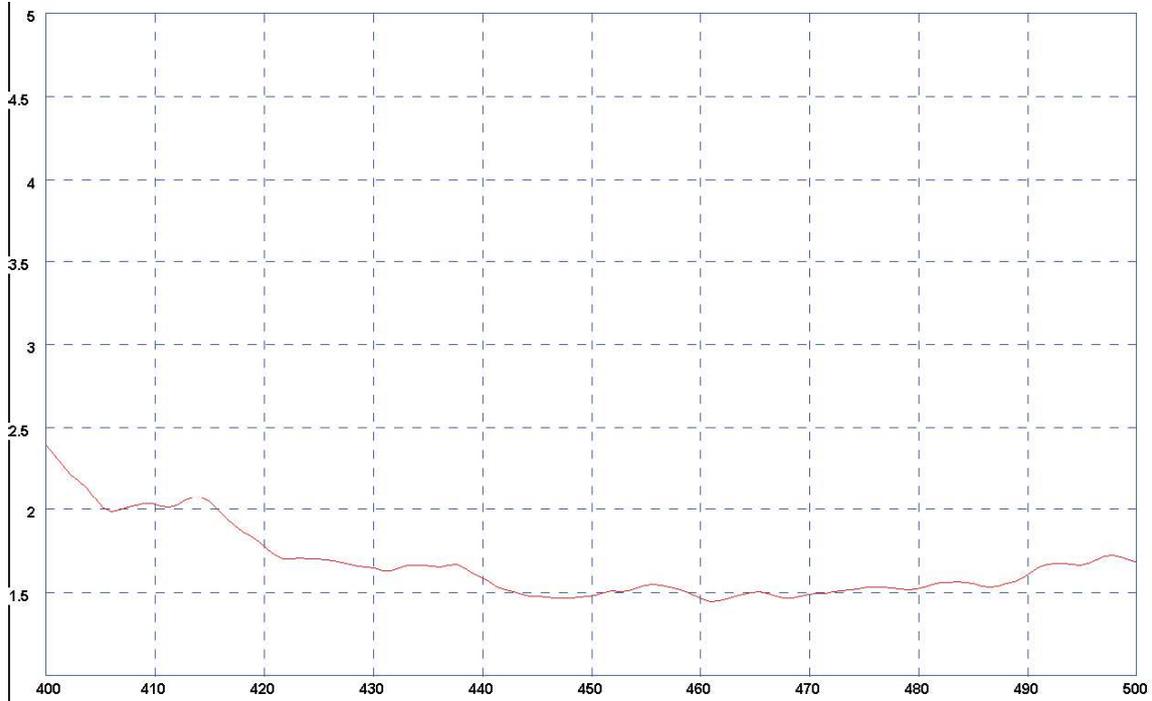
Part No.		TRNCG-S4	TRNC-S4
Electrical Data			
Frequency Range (MHz)		450-470 MHz	
Peak Gain: **		5dBi	
Polarisation		Vertical	
Typical VSWR*		< 2:1	
Pattern		Omni-directional	
Impedance		50Ω	
Max Input Power (W)		60	
GPS Data			
Frequency Range (MHz)		1560-1612	-
Impedance		50Ω	-
LNA Gain		26dB ± 3	-
Polarisation		Righth 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) 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)	
Mounting Data			
Fixing		4 x mounting holes to suit M12 bolts	
Termination Data			
Termination	Comms	N (female) - DC grounded	
	GPS	TNC (female) - surge protected	-

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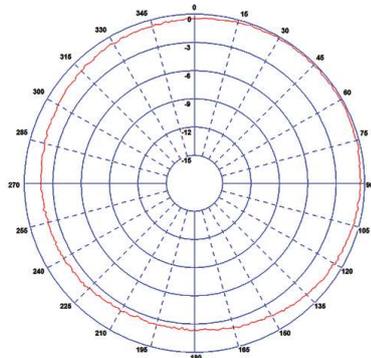
Electrical Data

Typical VSWR*

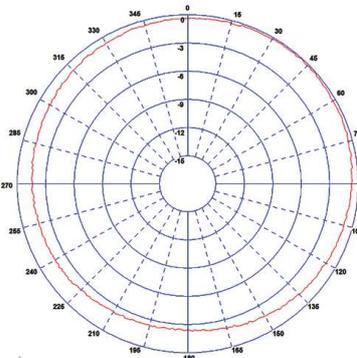


* Measured on a 600 x 600mm (2' x 2') ground plane with 1m (3') of low loss cable

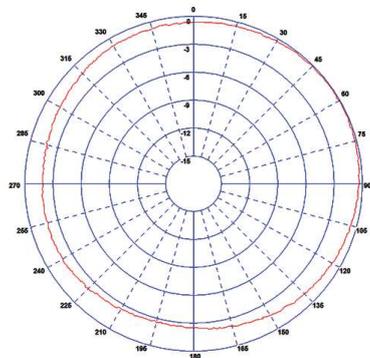
Typical H Plane - 450MHz



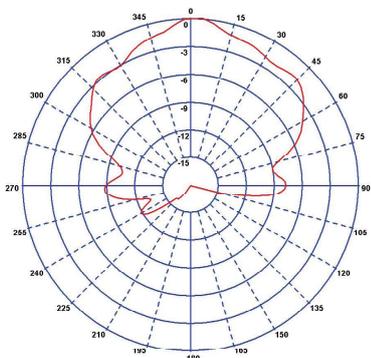
Typical H Plane - 460MHz



Typical H Plane - 470MHz



Typical E-Plane Pattern - (GPS) 1575MHz



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