



THREE BAND UHF- GSM-R - GPS ANTENNA

440 ÷ 470 MHz , 870 ÷ 960 MHz, 1575.42 MHz

TRGLD-R

POLOMARCONI.IT

POLOMARCONI offers a very wide range of wireless products. Our products can be tailored according to the customer's need.

TRANSPORT

Electrical Specifications

UHF BAND

Frequency band (MHz)	440 ÷ 470
VSWR*	≤ 1.6:1
Gain (dBi)	> 2.5

GSM-R BAND

Frequency band (MHz)	870 ÷ 960
VSWR*	≤ 1.6:1
Gain (dBi)	> 2.5

UHF AND GSM-R BANDS COMMON DATA

Impedance (Ω)	50
Continuous Max. Composite Power (W)	30
Polarization	vertical

(*) VSWR values are referred to the ground 600x600mm

SATELLITE NAVIGATION AND GEOLOCALIZATION BAND

Frequency band (MHz)	1574.42 ÷ 1576.42
Impedance (Ω)	50
Polarization	Right Hand Circular Polarization (RHCP)
Gain (dBic)	≥ 25 (typical 27), @T ₀ =25°C, V _{DC} =5V
Noise Figure (dB)	≤ 2.5, @T ₀ =25°C, V _{DC} =5V
Operating supply voltage (V _{DC})	3.0 ÷ 7.0
Current consumption (mA)	≤ 35, @T ₀ =25°C, V _{DC} =5V
Satellite navigation and geolocalization supported systems	GPS



Patent n° 1548873

Antenna for train with protective means against high voltages.

Patent has been used by SNCF and by the most important producers of trains.



Mechanical Specifications

Connectors	UHF and GSM-R bands GPS	N f TNC f
Dimensions (Height from installation surface x Width x Depth, mm)	140x80x145	
Weight (kg)	0.5	
Materials	Base Radome Connectors	Aluminium with SURTEC 650 galvanic treatment High impact polycarbonate Silver plated brass
Mounting	at the center of a metallic conductive surface with a minimum size of 600x600 mm	



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Environmental Specifications

ATMOSPHERIC and CLIMATIC CONDITIONS according to NF EN 60068

Operating Temperature (°) -40 ÷ +70

Storage Temperature (°) -40 ÷ +70

MECHANICAL CONDITIONS according to EN 50155:2017 and EN 61373

EMC according to EN 50121-3-2

HIGH VOLTAGE PROTECTION according to EN 50124-1

HIGH CURRENT PROTECTION according to EN50153, UIC 758, UIC 533, EN 50388 and EN 50123

Short-circuit currents flow/time before breaking 15 kA / 100 ms (AC)
40 kA / 100 ms (DC)

FLAMMABILITY RATING according to EN 45545-2:2013+A1:2015

IP 67

RoHS 2011/65/EU compliant

MOUNTING FLANGE

Mounting: for the optimal performance we suggest at the center of a metallic conductive surface with a minimum size of 600x600 mm; it's advisable to keep the mounting surface clean and free from paint for an optimal electrical contact.

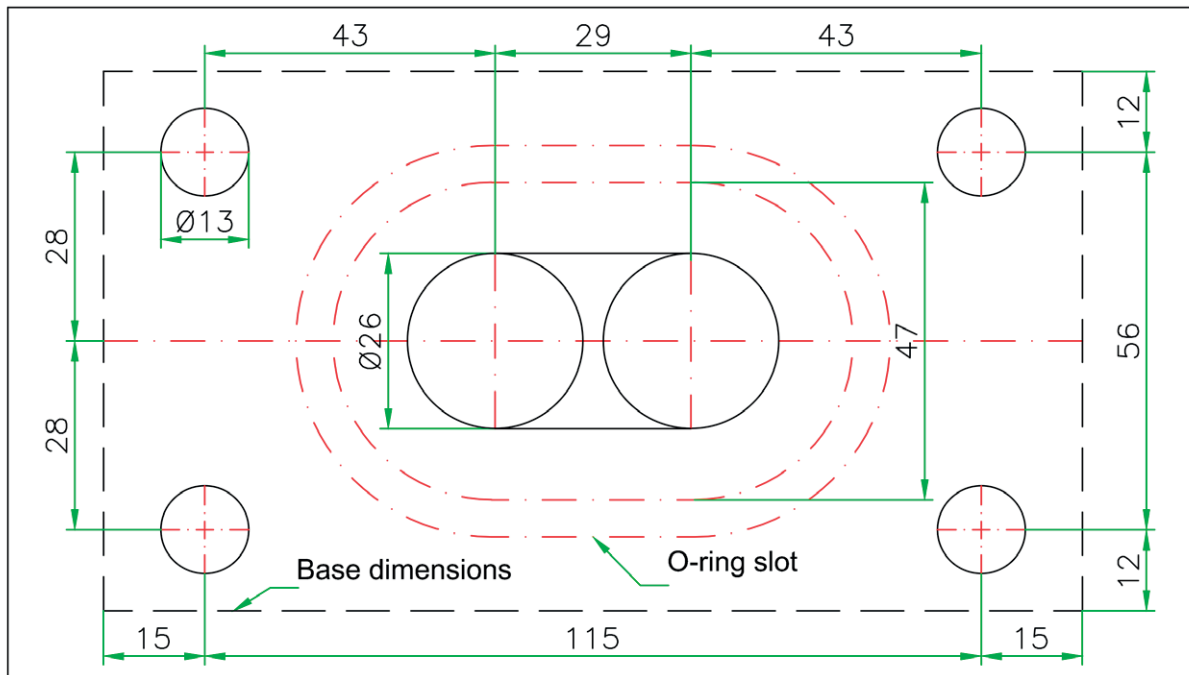
Mounting flange holes are indicated in the relevant mounting instruction document.

Grounding and high voltage protection: Our antennas have passed the strict SNCF's tests that approved our products as protected against lightning and high-tension voltage thanks to our patented DC and AC grounded system.

Advantage: GPS LNA amplifier included; there is no need of an external low noise GPS amplifier as the internal GPS antenna is already amplified.

Approved by: SNCF, SNCB, TRENITALIA

DRILLING MASK



All dimensions are in mm