



# DUAL BAND GSM-R - GPS ANTENNA

876 ÷ 960 and 1575.42 MHz

BGLD2-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

Frequency band (MHz)	876 ÷ 960
Impedance ( $\Omega$ )	50
VSWR	<1.7
Continuous Max. Power (W)	30
Polarization	vertical
Gain (dB over $\lambda/4$ monopole)	3

## SATELLITE NAVIGATION AND GEOLOCALIZATION BAND

Frequency band (MHz)	1574.42 ÷ 1576.42
Impedance ( $\Omega$ )	50
Polarization	Right Hand Circular Polarization (RHCP)
Gain (dBic)	$\geq 25$ (typical 27), @ $T_0=25^\circ\text{C}$ , $V_{DC}=5\text{V}$
Noise Figure (dB)	$\leq 2.5$ , @ $T_0=25^\circ\text{C}$ , $V_{DC}=5\text{V}$
Operating supply voltage ( $V_{DC}$ )	3.0 ÷ 7.0
Current consumption (mA)	$\leq 35$ , @ $T_0=25^\circ\text{C}$ , $V_{DC}=5\text{V}$
Satellite navigation and geolocalization supported systems	GPS

## Mechanical Specifications

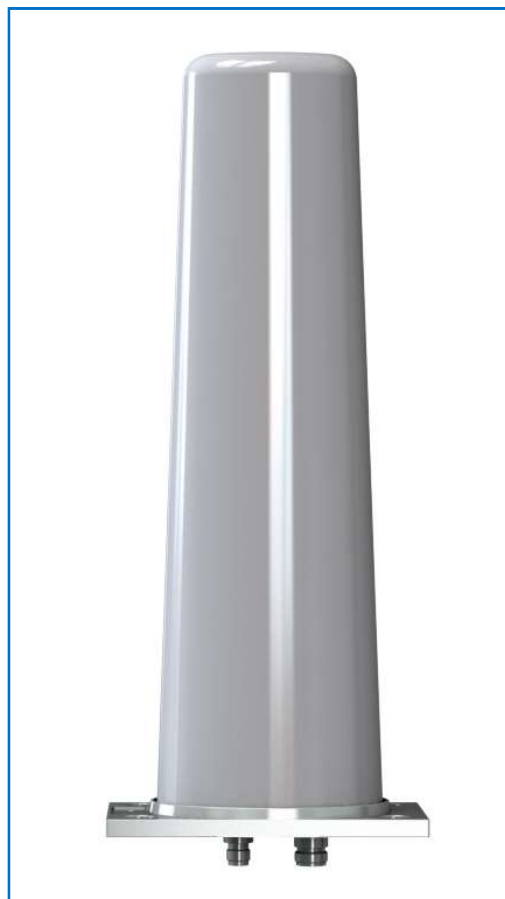
Connectors	N female for GSM/R TNC female for GPS (SMA female for 3V model)
Dimensions (mm)	360x80x145
Weight (kg)	0.8
Materials	base Aluminium with SURTEC 650 treatment radome High impact polycarbonate connectors Silver plated brass
Mounting	on metallic surface (600x600 mm minimum)
Operating Temp. Range ( $^\circ\text{C}$ )	-40 ÷ +70



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.





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## Environmental Specifications

**ATMOSPHERIC and CLIMATIC CONDITIONS** according to EN 50155 and EN 60068

**MECHANICAL CONDITIONS** according to EN 50155

**HIGH VOLTAGE PROTECTION** according to EN 50153 and EN 50124-1

**DC GROUNDING, HIGH CURRENT PROTECTION** according to EN 50153, UIC 758, UIC 533, EN 50388 and EN 50123

Short-circuit currents flow / time before breaking  
70 kA / 5 ms – 40 kA / 100 ms (DC)  
31.5 kA / 10 ms – 15 kA / 100 ms (AC)

**RoHS 2011/65/EU compliant**

**FLAMMABILITY RATING** according to EN 45545-2

**IP rating: IP67**

## MOUNTING FLANGE

Mounting: on a conductive surface with a minimum size of 600x600 mm; it's advisable to keep the mounting surface clean for a better electrical contact.

BGLD2-R 4 holes flange: flange with 4 M10 studs included.

**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: amplifier included; there is no need of an external low noise GPS amplifier as the internal GPS signal is already amplified**

**Approved by:** SNCF, SNCB, TRENITALIA

## Drilling Mask

