DUAL BAND UHF – L1 GPS ANTENNA

410 ÷ 430 MHz, 1575.42 MHz

BLRD1

TRANSPORT

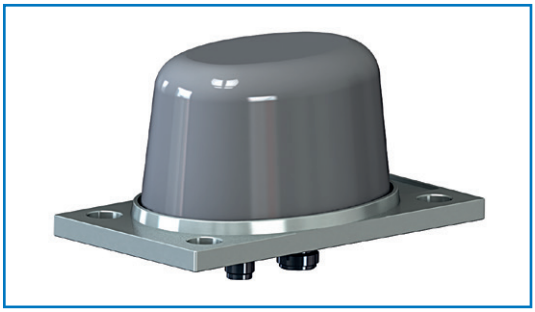
POLOMARCONI.IT

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

Electrical Specifications

UHF BAND	
Frequency range (MHz)	410 ÷ 430
Input impedance (Ω)	50
VSWR	≤ 2.6:1 (≤1.5:1 @ central band frequency 420MHz)
Continuous Max. Power (W)	15
Polarization	vertical
Gain (dBi)	1.5
SATELLITE NAVIGATION AND GEOLOCALIZATION BANDS	
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 ÷ 7
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	N female for UHF band TNC female for GPS band
Dimensions (Height x Width x Depth, mm)	70x80x145
Weight (kg)	abt. 0.5
Materials	
Base	Aluminium with SURTEC 650 treatment
Radome	High impact polycarbonate
Connectors	Silver plated brass
Mounting	on metallic conductive surface (800x800mm minimum)

Environmental Specifications

CLIMATIC CONDITIONS according to EN 50155:2017 and EN 60068	
Operating Temperature (°)	-40°C, +70°C
Storage Temperature (°)	-40°C, +70°C
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 EN 50153, UIC 758, UIC 533, EN 50388 and EN 50123	
Short-circuit currents flow/time before breaking	40 kA / 100 ms (DC) 15 kA / 100 ms (AC)
FLAMMABILITY RATING according to EN 45545-2:2013+A1:2015	
IP 67	
RoHS 2011/65/EU compliant	

MOUNTING FLANGE

Mounting: on a metallic conductive surface with a minimum size of 800x800mm; it's advisable to keep the mounting surface clean for a better electrical contact.

Grounding and high voltage protection: Our antennas have passed the strict SNCF's tests that approved our products as protected against lighting and high-tension voltage thanks to our patented DC and AC grounded system.
Multiband: Our multi-band antennas can operate in several frequencies simultaneously, so they don't need demixer.
Advantage: 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