



DUAL BAND GPS & WiFi ANTENNA

2400 ÷ 2485 MHz and 1574.42 MHz

BLWD1

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)	2400 ÷ 2485
Impedance (Ω)	50
VSWR	<1.7:1
Continuous Max. Power (W)	30
Polarization	vertical
Gain (dB) over $\lambda/4$ monopole	0
Operating Temp. Range ($^{\circ}\text{C}$)	-40 ÷ +70

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), @ $T_0=25^{\circ}\text{C}$, $V_{\text{DC}}=5\text{V}$
Noise Figure (dB)	≤ 2.5 , @ $T_0=25^{\circ}\text{C}$, $V_{\text{DC}}=5\text{V}$
Operating supply voltage (V_{DC})	3 ÷ 7
Current consumption (mA)	≤ 35 , @ $T_0=25^{\circ}\text{C}$, $V_{\text{DC}}=5\text{V}$
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)	70x80x145
Weight (kg)	0.5
Materials	
Base	Aluminium with SURTEC 650 treatment
Radome	High impact Polycarbonate
Connectors	Silver plated brass
Mounting	on metallic surface (600x600 mm minimum)

Environmental Specifications

ATMOSPHERIC and CLIMATIC CONDITIONS according to EN 50155 and EN 60068

MECHANICAL CONDITIONS according to EN 50155

EMC according to EN 50121-3-2

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)
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RoHS 2011/65/EU compliant

FLAMMABILITY RATING according to EN 45545-2

IP rating IP67

MOUNTING FLANGE

Mounting: at the center of a metallic conductive surface with minimum sizes of 600x600mm for Full GSM band; 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 instructions 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.

Multiband: Our multiband antennas can operate in all the operating frequency bands simultaneously.

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



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.

