



DUAL BAND UHF- GSM-R ANTENNA

440 ÷ 470 MHz, 870 ÷ 960 MHz

BRGI-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 < 1.7:1

Gain (dB) over $\lambda/4$ monopole antenna 0

GSM-R BAND

Frequency band (MHz) 870 ÷ 960

VSWR < 1.5:1

Gain (dB) over $\lambda/4$ monopole antenna 0

UHF AND GSM-R BANDS COMMON DATA

Impedance (Ω) 50

Continuous Max. Composite Power (W) 30

Polarization vertical

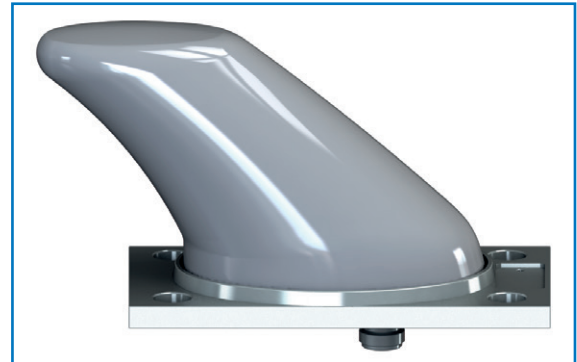
Operation Temp. Range ($^{\circ}\text{C}$) -40 ÷ + 70



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.



Mechanical Specifications

Connectors UHF and GSM-R bands N f

Dimensions (Height from installation surface x Width x Depth, mm) 98x80x145

Weight (kg) 0.5

Materials Base Aluminium with SURTEC 650 galvanic treatment
Radome High impact polycarbonate
Connector Silver plated brass

Mounting at the center of a metallic conductive surface with a minimum size of 500x500 mm

Reliability (hours) > 200,000

Environmental Specifications

ATMOSPHERIC and CLIMATIC CONDITIONS according to NF EN 60068

Temperature conditions	-40°C, +70°C
Atmospheric pressure	-40°C, +70°C, 95% HR at 2000 m
Rain, hail, snow, frost	1000 mm/h, 1 J impact, 0.5 m, 3 cm
Combined wind and train speed	530 km/h

MECHANICAL CONDITIONS according to NF EN 60068, 61373 and 15-818

Free falls	1 m
Hits (vertical, cross-sectional, longitudinal)	30m/s ² , 30m/s ² , 50m/s ² , 30ms
Impacts	50 J

GROUNDING and HIGH VOLTAGE PROTECTION according to NF EN 50388 and NF 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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MOUNTING FLANGE

Mounting: for the optimal performance we suggest at the center of a metallic conductive surface with a minimum size of 500x500 mm; for different ground plane dimensions see page 2; 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.

Approved by: SNCF, SNCB, TRENITALIA

BY



Made in Italy. We reserve the right to modify these data without any notice.

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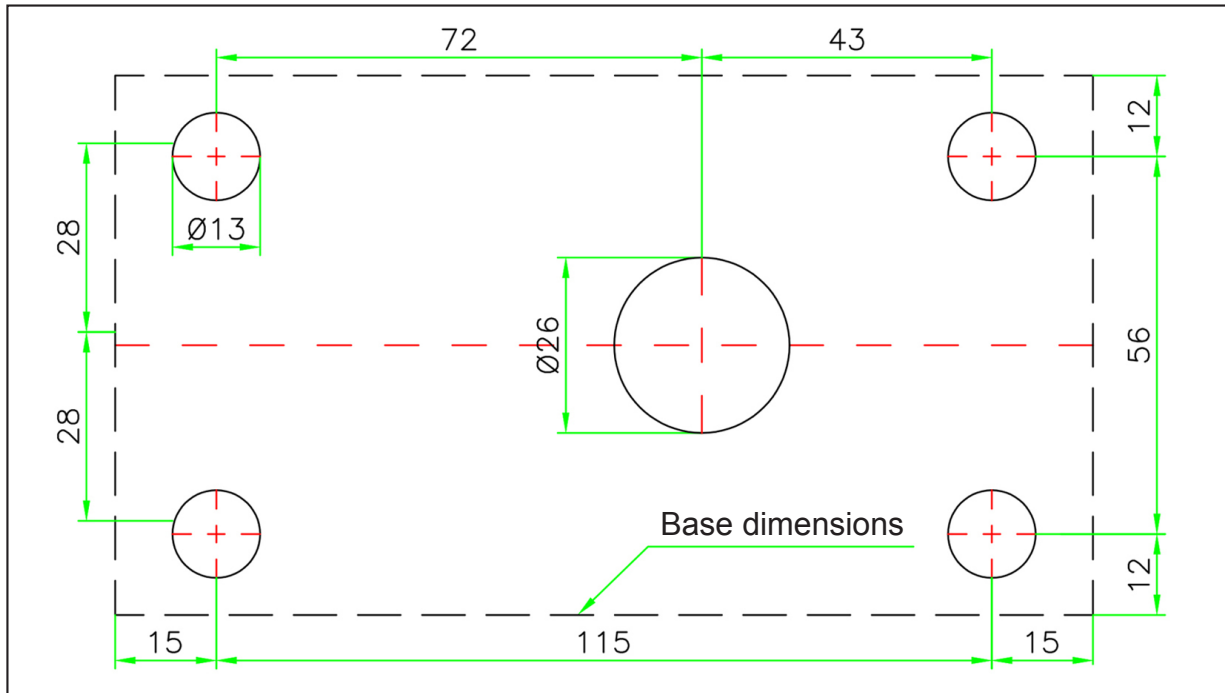
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DRILLING MASK



All dimensions are in mm