



MULTIBAND ROOFTOP 2 PORTS MIMO ANTENNA

GPRS & 3G, LTE, Wi-Fi and GPS

T01811814

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

TRANSPORT

Electrical Specifications

GPRS and 3G BANDS

Frequency range (MHz)	GSM 900	870 ÷ 960
	GSM 1800 and UMTS	1710 ÷ 2170
VSWR	≤ 2.0:1	
Gain (dBi)	5 for GSM 900 band 7 for GSM 1800 and UMTS bands	

LTE BANDS

Frequency range (MHz)	703 ÷ 790
	790 ÷ 870
	2500 ÷ 2700
VSWR	≤ 2.0:1
Gain (dBi)	5 for 703 ÷ 790 MHz band 5 for 790 ÷ 870 MHz band 7 for 2500 ÷ 2700 MHz band

Wi-Fi BANDS

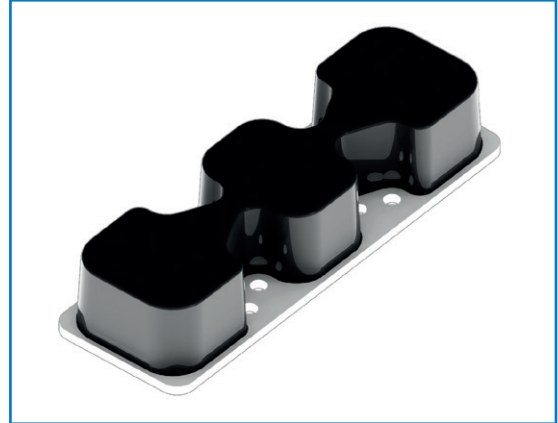
Frequency range (MHz)	2400 ÷ 2500
	4900 ÷ 5935
VSWR	≤ 2.0:1
Gain (dBi)	7 for 2400 ÷ 2500 MHz 8.5 for 4900 ÷ 5935 MHz

GENERAL DATA

Input impedance (Ω)	50
Polarization	linear vertical
Isolation between ports (dB)	≥14 for frequency <790 MHz ≥15 for frequency ≥790 MHz and ≤1000 MHz ≥25 for frequency ≥1710 MHz
Maximum rated RF composite power (W)	10
Operation Temp. Range (°C)	-40 ÷ +85

NAVIGATION AND GEOLOCALIZATION BANDS

Frequency range (MHz)	1574 ÷ 1610
Output impedance (Ω)	50
VSWR	≤ 2.0:1
Polarization	RHCP
LNA noise figure (dB)	≤2.5 @ 25°C
LNA current consumption (mA)	<50 @ 25°C
LNA input voltage (V)	3...5
Total gain (dBic) @ 90° of elevation	30 @ 25°C and 5 V
Satellite navigation and geolocalization supported systems	GPS, Galileo and GLONASS



DESCRIPTION

Railway rooftop 2 ports MIMO antenna for 2G/3G/4G cellular, Wi-Fi 2.4 GHz and 5 GHz bands, with embedded GPS, Galileo and Glonass antenna with integrated LNA. Works also on non-metallic surfaces for frequency ≥790MHz. For the frequency band 703÷790MHz, it is necessary to install the antenna at the center of metallic conductive ground plane of minimum dimensions 500x500mm. Antenna is designed to conduct short-circuit currents according to EN 50124



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Mechanical Specifications

Connectors	2 x N female for GPRS and 3G, LTE and Wi-Fi bands; 1 x 200mm of low loss RF coaxial cable pigtail with TNC male connector for NAVIGATION AND GEOLOCALIZATION BANDS (cable length and connectors could be tailored on customer needs).
Dimensions (Height x Width x Depth, mm)	75 x 125 x 380
Weight (kg)	abt. 2.8
Materials	body Aluminium with SURTEC 650 treatment radome High impact polycarbonate connector Silver plated brass
Mounting	the antenna need to be installed in longitudinal position with respect to the wind/driving direction
Ground plane requirement	For frequency ≥ 790 MHz, the above indicated VSWR values are also valid for installations on non-metallic surfaces, but in order to obtain the above indicated gain values it is necessary to install the antenna at the center of metallic conductive ground plane of minimum dimensions 500x500mm; it's advisable to keep the mounting metallic conductive surface clean and free from paint for an optimal electrical contact. For the frequency band 703 ÷ 790MHz, it is necessary to install the antenna at the center of metallic conductive ground plane of minimum dimensions 500x500mm; it's advisable to keep the mounting metallic conductive surface clean and free from paint for an optimal electrical contact.

Environmental Specifications

MOUNTING FLANGE

ATMOSPHERIC and CLIMATIC CONDITIONS according to EN50155:2017-10 and EN60068

MECHANICAL CONDITIONS according to EN50155:2017-10 and EN61373

EMC according to EN50121-3-2:2016

DC GROUNDING, HIGH VOLTAGE, HIGH CURRENT PROTECTION according to EN50124-1 and UIC533

RoHS and REACH compliant

FLAMMABILITY RATING according to EN45545-2:2013/A1:2015

IP rating: IP69

UV Protected

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



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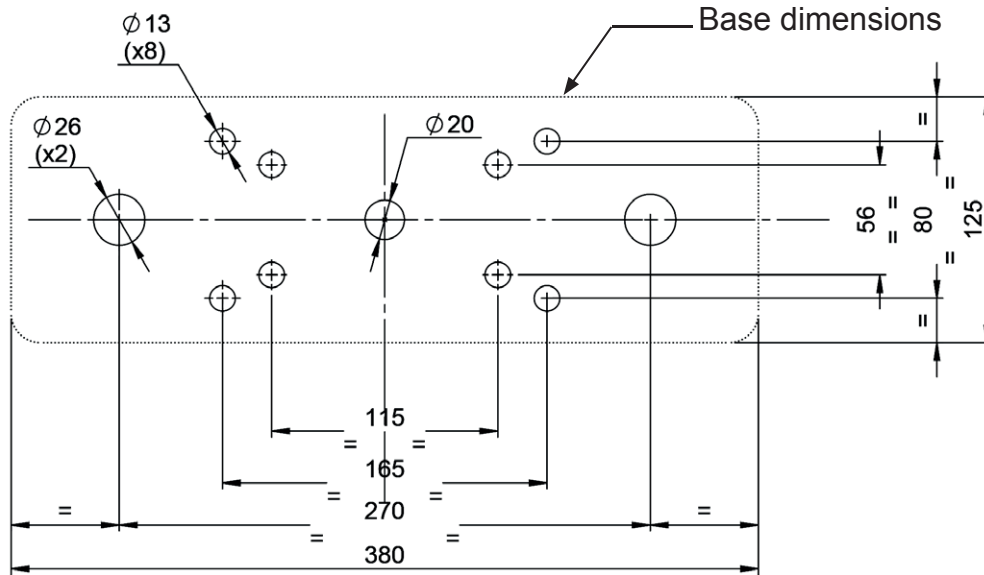
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TRANSPORT

MOUNTING FLANGE



MOUNTING RECOMMENDATIONS

