

SENCITY® Rail Low Profile Antenna

1399.17.0125

Properties

- Railway rooftop antenna for 2G/3G/4G cellular and Wi-Fi 4/Wi-Fi 6 bands
- Rugged design, meets EN 50155 Railway Standard
- Fire retardant according to EN 45545-2
- Multiple Antenna installations support Cellular and Wi-Fi MIMO
- Extremely low profile (40mm)



Electrical data				
	Band 1	Band 2	Band 3	Band 4
Frequency	790 MHz ... 806 MHz	806 MHz ... 870 MHz	870 MHz ... 960 MHz	1350 MHz ... 2700 MHz
Impedance	50 Ω	50 Ω	50 Ω	50 Ω
VSWR	2.2	1.9	1.6	2
Gain	5 dBi	5 dBi	5 dBi	5 dBi
Ambient Temperature	25 °C	25 °C	25 °C	25 °C
Composite Power max	550 W	550 W	550 W	350 W

	Band 5
Frequency	4900 MHz ... 6425 MHz
Impedance	50 Ω
VSWR	2.1
Gain	8 dBi
Ambient Temperature	25 °C
Composite Power max	300 W

Electrical remarks	
Remarks	Indicated VSWR values are valid for a metallic ground plane of 0.2 x 0.2m or larger for the 806-6425 MHz frequency band. Indicated gain values will be achieved on a metallic ground plane of 1 x 1 m or larger.

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Electrical remarks	
	High-voltage-protection: no voltage on RF port, if catenary line touches antenna (EN 50124-1, 24 kVAC/1min). High-current-protection: Designed acc. to UIC 533, DC-grounded antenna element protection against lightning and short circuit with catenary lines (EN50388, EN 50122-1, 40kA/0.1sec)

Ports	
	Port 1
Connector	N, jack (female)
Polarization	vertical
DC grounded	Yes

Connections	
	Port 1
Band 1	✓
Band 2	✓
Band 3	✓
Band 4	✓
Band 5	✓

Mechanical data	
Weight	0.488 kg
Dimensions	40 mm x 100 mm x 145 mm (Height x Width x Depth)
Remarks	Corrosion Low corrosion design acc. to MIL-F-14072(E). Mounting Shall be installed in longitudinal position to the wind/driving direction. Suitable for installation on high speed trains with a maximum speed of 500 km/hr. 4x composite sealing washers included for silicone-free sealing of the mounting screws.

Material data	
Radome material	ASA (acrylic ester-styrene-acrylonitrile)
Radome colour	RAL 7043 (dark grey)
Back plate/base plate material	Aluminum
Back plate/base plate plating	Passivated (Plating)
Back plate/base plate colour	Grey

Environmental data	
Operation temperature	-40 °C ... 85 °C
Storage temperature	-55 °C ... 85 °C
Environment (application)	Outdoor
Ingress protection (IP Rating)	IP67, IP69
Flammability rating	EN 45545-2
Solar radiation	DIN 75220

Environmental remarks	
Environmental tests: EN 50155:2007; Flammability rating: EN 45545-2.	

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Additional Information		
This product meets the Deutsche Bahn specifications for rolling stock equipment.		

Antenna accessories		
Item description	Item number	Product name
9091.99.0257	85068234	Sencity Rail - M10 sealing washer kit
9090.99.0062	84098894	Sencity Rail mounting plate

Ordering information		
Item description	Item number	Product name
1399.17.0125	84080683	SENCITY® Rail Low Profile Antenna

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