

SENCITY® Rail Antenna

1399.17.0043

Properties

- Railway rooftop antenna for GSM 900, GSM 1800, GSM 1900, UMTS, 3.5, 5.3 and 5.8GHz Bands
- Rugged design, meets EN 50155 Railway Standard
- Includes embedded passive GPS antenna (requires separate LNA such as 86010142)
- Fire retardant acc. to DIN 5510-2, BS 6853, NF F16-101/102, EN 45545-2
- Works also on non-metallic surfaces



Electrical data

	Band 1	Band 2	Band 3	Band 4
Name				
Frequency	870 MHz ... 960 MHz	1710 MHz ... 2170 MHz	2400 MHz ... 2700 MHz	3400 MHz ... 3700 MHz
Impedance	50 Ω	50 Ω	50 Ω	50 Ω
VSWR	1.5	1.5	1.5	1.5
Gain	6 dBi	8.5 dBi	9.5 dBi	9.5 dBi
Ambient Temperature	25 °C	25 °C	25 °C	25 °C
Composite Power max	550 W	450 W	350 W	300 W

	Band 5	Band 6
Name		GPS
Frequency	5150 MHz ... 5875 MHz	1574.397 MHz ... 1576.443 MHz
Impedance	50 Ω	50 Ω
VSWR	2	1.6
Gain	8.5 dBi	
Ambient Temperature	25 °C	25 °C
Composite Power max	300 W	550 W

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Electrical remarks	
Remarks	Ground plane: Indicated VSWR values are also valid for installations on non-metallic surfaces (no specific ground plane requirements). Warning: The center conductor of the GPS antenna is grounded (DC short circuit)

Ports		
	Port 1	Port 2
Connector	N, jack (female)	N, jack (female)
Polarization	vertical	circular right
DC grounded	Yes	

Connections		
	Port 1	Port 2
Band 1	✓	
Band 2	✓	
Band 3	✓	
Band 4	✓	
Band 5	✓	
Band 6		✓

Mechanical data	
Weight	1.2 kg
Dimensions	90 mm x 100 mm x 260 mm (Height x Width x Depth)
Remarks	High-current-protection: Designed acc. to UIC 533, DC-grounded antenna element (protection against lightning and short circuit with catenary lines(40kA/0.1s). Corrosion: Low corrosion design acc. to MIL-F-14072(E). Mounting: Shall be installed in longitudinal position to wind/driving direction

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 colour	RAL 7043 (dark grey)

Environmental data	
Operation temperature	-40 °C ... 85 °C
Storage temperature	-40 °C ... 85 °C
Transport temperature	-40 °C ... 85 °C
Environment (application)	Outdoor
Ingress protection (IP Rating)	IP68
Flammability rating	DIN 5510
Solar radiation	DIN 75220

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Environmental remarks
Environmental tests: EN 50155:2004 Flammability rating DIN 5510-2, BS 6853, NF F16-101/102, EN 45545-2.

Additional Information
This product meets the Deutsche Bahn specifications for rolling stock equipment. Protected by Patents: US7327320B2, CN1765030B, AU2003218856A1, CA2521771C, SG114406, ZA200508290.

Antenna accessories		
Item description	Item number	Product name
9091.99.0189	84008192	12mm adapter plate for Sencity Rail antenna
86010142	84460305	SENCITY® Low Noise Amplifier GNSS (GPS, GLONASS, BeiDou, Galileo)

Ordering information		
Item description	Item number	Product name
1399.17.0043	84002817	SENCITY® Rail Antenna

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