

SENCITY® Rail MIMO Low Profile Antenna

1399.17.0135

Properties



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	1.5	1.9
Gain	5 dBi	5 dBi	5 dBi	5 dBi
Isolation between Ports	18 dB	18 dB	18 dB	18 dB
Ambient Temperature	25 °C	25 °C	25 °C	25 °C
Composite Power max	50 W	50 W	50 W	40 W

	Band 5
Frequency	4900 MHz ... 6425 MHz
Impedance	50 Ω
VSWR	2
Gain	7.5 dBi
Isolation between Ports	30 dB
Ambient Temperature	25 °C
Composite Power max	30 W

Electrical remarks	
Remarks	Indicated VSWR and gain values are valid for a metallic ground plane of 0.5 x 1 m or larger.

Ports		
	Port 1	Port 2
Connector	N, jack (female)	N, jack (female)
Cable type	ENVIROFLEX_316_D	ENVIROFLEX_316_D
Cable length	0.2 m	0.2 m
Polarization	vertical	vertical

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Ports		
	Port 1	Port 2
DC grounded	Yes	Yes

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

Mechanical data	
Weight	1.2 kg
Dimensions	40 mm x 100 mm x 465 mm (Height x Width x Depth)
Windload	Wind Speed survival: 500 km/h
Remarks	High-voltage-protection: no voltage on RF port, if catenary line touches antenna (EN 50124-1, 3.8 kVDC, 27.5 kVAC). 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 the wind/driving direction. 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	Aluminium

Environmental data	
Operation temperature	-40 °C ... 85 °C
Storage temperature	-55 °C ... 85 °C
Environment (application)	Outdoor
Ingress protection (IP Rating)	IP69
Flammability rating	DIN 5510
Solar radiation	DIN 75220
Standards	Railway EN 50155 Railway EN 45545

Environmental remarks
Environmental tests: EN 50155 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: DE202015009331(U1), US10116056(B2), CN106663861B.

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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

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