

Sencity Rail MIMO Antenna 1399.17.0222

Description

Railway rooftop antenna for Cellular and WiFi bands.
 Supports Cellular MIMO for 3G, 4G and 5G.
 Supports WiFi MIMO in 2.4 GHz and 5 GHz bands.
 Rugged design, meets EN 50155 railway standard.
 Fire retardant acc. to BS 6853, NF F16-101/102, EN 45545-2.
 Works on non-metallic surfaces.
 Dedicated grounding contact (optional).
 Cable conduit support (optional).
 Note: For NFPA-130 approval use antenna 1399.17.0221.



Product Configuration

Technical Data

Electrical Data

	Band 1	Band 2	Band 3	Band 4
Frequency (MHz)	694 - 790	790 - 960	1350 - 2700	2700 - 3300
VSWR	1.7	1.7	1.8	2
Impedance (Ohm)	50	50	50	50
Gain (dBi)	5	6	7.5	6.5
Composite power max (W)	250	180	130	130
Ambient temperature (°C)	25	25	25	25
Port Isolation (dB)	15	15	20	25

	Band 5	Band 6
Frequency (MHz)	3300 - 4900	4900 - 6425
VSWR	2.1	1.8
Impedance (Ohm)	50	50
Gain (dBi)	6.5	8
Composite power max (W)	100	100
Ambient temperature (°C)	25	25
Port Isolation (dB)	25	35

Ports

	Port 1	Port 2
Connector	N, jack (female)	N, jack (female)
Cable Type	ENVIROFLEX_142	ENVIROFLEX_142
Cable Length (m)	0.2	0.2
Polarization	vertical	vertical
DC grounded	Yes	Yes

Connections

	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6
Port 1	X	X	X	X	X	X
Port 2	X	X	X	X	X	X

General Data

Indicated VSWR values are valid for a metallic ground plane of 0.5 x 0.5m or larger. In the 790-5935 MHz band, Indicated VSWR values are also valid for installations on non-metallic surfaces (no specific ground plane requirements). Indicated gain values will be achieved on a metallic ground plane of 1 x 1 m or larger.

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Mechanical Data

Dimensions (mm)	81.6 x 102.5 x 352.5 (Height x Width x Depth)
Weight (kg)	1.5

High-voltage-protection: no voltage on RF port, if the catenary line touches the 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/0.125s, 70kA/0.05s).

Corrosion: Low corrosion design acc. to MIL-DTL-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.

Environmental Data

Environmental conditions	outdoor
Operation temperature (°C)	-40 to 85
Storage temperature (°C)	-55 to 85
Transport temperature (°C)	-40 to 85
IP rating	IP69
Flammability rating	DIN 5510
Solar radiation	DIN 75220
2011/65/EU (RoHS - including 2015/863 and 2017/2102)	compliant
WEEE 2012/19/EU	no special marking needed
REACH 1907/2006/EC	compliant

Environmental tests EN 50155

Flammability rating BS 6853, NF F16-101/102, EN 45545-2.

Material Data

Radome colour	RAL 7043 (dark grey)
Radome material	ASA (acrylic ester-styrene-acrylonitrile)
Back plate/base plate material	Aluminium

Related Products

9091.99.0235 Sencity Rail Antenna grounding kit

9091.99.0236 Sencity Rail antenna conduit support Kit

9091.99.0256 Sencity Rail - M8 sealing washer kit

9091.99.0261 Sencity Rail antenna mounting plate

Related Documents

Mounting instruction	DOC-0000443802
Painting instruction	DOC-0000256180
Security instruction	DOC-0000278984
Outline drawing	DOU-00258855
3D-model	DOC-0000450919

Additional Information

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