Data Sheet

SENCITY® Rail Low Profile Antenna
1399.17.0125

Description

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



Product Configuration

Technical Data

Electrical Data

	Band 1	Band 2	Band 3	Band 4
Frequency (MHz)	790 - 806	806 - 870	870 - 960	1350 - 2700
VSWR	2.2	1.9	1.6	2
Impedance (Ohm)	50	50	50	50
Gain (dBi)	5	5	5	5
Composite power max (W)	550	550	550	350
Ambient temperature (°C)	25	25	25	25

	Band 5
Frequency (MHz)	4900 - 6425
VSWR	2.1
Impedance (Ohm)	50
Gain (dBi)	8
Composite power max (W)	300
Ambient temperature (°C)	25

Ports

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

Connections

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

General Data

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.

There is no applicable EU directive nor related harmonized standard for passive antennas. Consequently there is no CE marking on these antennas and no EU Declaration of Conformity can be issued.

Mechanical Data

Dimensions (mm)	40 x 100 x 145 (Heigth x Width x Depth)
Weight (kg)	0.488

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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)
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.

Environmental Data

Environmental conditions	outdoor
Operation temperature (°C)	-40 to 85
Storage temperature (°C)	-55 to 85
IP rating	IP67, IP69
Flammability rating	EN 45545-2
Solar radiation	DIN 75220
2011/65/EU (RoHS - including 2015/863 and 2017/2102)	compliant acc. Annex III
Lead-free soldered	not soldered
WEEE 2012/19/EU	no special marking needed
ELV 2000/53/EC	compliant
REACH 1907/2006/EC	compliant

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

Material Data

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

Related Products

9090.99.0062 Sencity Rail Mounting plate ***Customer specific***
9091.99.0257 Sencity Rail - M10 sealing washer kit

Related Documents

Mounting instruction	DOC-0000311051
Painting instruction	DOC-0000256180
Security instruction	DOC-0000278984
Outline drawing	DOU-00144038
3D-model	DOC-0000326786

Additional Information

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

Waiver: Fact and figures herein are for information only and do not represent any warranty of any kind.