

Sencity Rail Antenna 1399.99.0037

Description

Railway rooftop antenna for 2G/3G/4G cellular and WiFi 2.4 and 5 GHz bands.
 Embedded GPS antenna with LNA.
 Rugged design, meets EN 50155 railway standard.
 Fire retardant acc. to DIN 5510-2, BS 6853, NF F16-101/102, 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	1.8	1.5	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	Band 6
Band Name		GPS
Frequency (MHz)	4900 - 6425	1574.397 - 1576.443
VSWR	2.1	1.8
Impedance (Ohm)	50	50
Gain (dBi)	8	
Composite power max (W)	300	
Ambient temperature (°C)	25	

Ports

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

Connections

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

General Data

Indicated VSWR values are valid for a metallic ground plane of 0.2 x 0.2m or larger. Indicated gain values will be achieved on a metallic ground plane of 1 x 1 m or larger.

Electrical Data LNA

LNA noise figure dB	1.8
LNA current consumption (mA)	30
LNA is connected to	Port 2

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LNA Input voltage range: 3...5V

Total gain @90° elevation: 34dBiC

Values for LNA power consumption, noise figure and gain are given for a 5V operating voltage and may differ slightly for a lower voltage

EMC: EN 50121-3-2:2001, ETSI EN 301 489-1 V1.8.1 (2008-04)

Mechanical Data

Dimensions (mm)	40 x 100 x 145 (Height x Width x Depth)
Weight (kg)	0.535

High-voltage-protection: no voltage on RF port, if catenary line touches antenna (EN 50124-1, 24 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.

Environmental Data

Environmental conditions	indoor/outdoor
Operation temperature (°C)	-40 to 85
Storage temperature (°C)	-55 to 85
IP rating	IP69
Flammability rating	DIN 5510
Solar radiation	DIN 75220
RoHS 2011/65/EU	compliant
REACH 2006/1907/EC	compliant

Environmental tests: EN 50155:2007

Flammability rating DIN 5510, 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

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-00144558
3D-model	DOC-0000329807

Additional Information

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

Mouser Electronics

Authorized Distributor

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