Data Sheet

HUBER+SUHNER

Sencity Rail Antenna
1399.17.0044

Description

Railway rooftop antenna: GSM 900, GSM 1800, GSM 1900, UMTS, 2.4, 3.5, 5.3 and 5.8 GHz Bands.
Supports Wi-Fi 4/Wi-Fi 6 bands.
Rugged design, meets EN 50155 railway standard.
Embedded GPS antenna with integrated LNA.
Fire retardant acc. to DIN 5510-2, BS 6853, NF F16-101/102, EN 45545-2.
Works also on non-metallic surfaces.
Note: A new version of this product is available with extended frequency to cover the 5G Cellular bands - Article Number: 1399.99.0120 / 84071811.



Product Configuration

Technical Data

Electrical Data

	Band 1	Band 2	Band 3	Band 4
Frequency (MHz)	870 - 960	1710 - 2170	2400 - 2700	3400 - 3700
VSWR	1.5	1.5	1.5	1.5
Impedance (Ohm)	50	50	50	50
Gain (dBi)	6	8.5	9.5	9.5
Composite power max (W)	550	450	350	300
Ambient temperature (°C)	25	25	25	25

	Band 5	Band 6
Band Name		GPS
Frequency (MHz)	5150 - 5875	1574.397 - 1576.443
VSWR	2	1.7
Impedance (Ohm)	50	50
Gain (dBi)	8.5	
Composite power max (W)	300	550
Ambient temperature (°C)	25	25

Ports

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

Ground plane: Indicated VSWR values are also valid for installations on non-metallic surfaces (no specific ground plane requirements).

Electrical Data LNA

LNA noise figure dB	2.7
LNA current consumption (mA)	25
Out of band rejection f0± MHz (dB)	20
LNA is connected to	Port 2

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Total gain: 33dBi
LNA Input voltage range: 3...5 V
Values for LNA power consumption, noise figure and gain are given for a 5V operating voltage and may differ slightly for a lower voltage

Mechanical Data

Dimensions (mm)	90 x 100 x 260 (Heigth x Width x Depth)
Weight (kg)	1.2

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).

Environmental Data

Environmental conditions	outdoor
Operation temperature (°C)	-40 to 85
Storage temperature (°C)	-40 to 85
Transport temperature (°C)	-40 to 85
IP rating	IP68
Flammability rating	DIN 5510
Solar radiation	DIN 75220
WEEE 2012/19/EU	no special marking needed
REACH 1907/2006/EC	compliant

Environmental tests: EN 50155:2001
Flammability rating DIN 5510-2, 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 colour	RAL 7043 (dark grey)
Back plate/base plate material	Aluminium

Related Products

9091.99.0189 12mm adapter plate for Sencity Rail antenna
9091.99.0196 16mm adapter plate for Sencity Rail antenna

Related Documents

Mounting instruction	DOC-0000197864
Painting instruction	DOC-0000256180
Security instruction	DOC-0000278984
Outline drawing	DOU-00061635.1
3D-model	DOC-0000252380

Additional Information

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

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