Data Sheet

HUBER+SUHNER

Sencity Rail Antenna
1399.17.0043

Description

Railway rooftop antenna for GSM 900, GSM 1800, GSM 1900, UMTS, 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 passive GPS antenna.
GPS requires seperate LNA such as 86010142.
Fire retardant acc. to DIN 5510-2, BS 6853, NF F16-101/102, EN 45545-2.
Works also on non-metallic surfaces.

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	1.6
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).
Warning: The center conductor of the GPS antenna is grounded (DC short circuit)

Mechanical Data

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

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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 wind/driving direction.

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
2011/65/EU (RoHS - including 2015/863 and 2017/2102)	compliant
REACH 1907/2006/EC	compliant

Environmental tests: EN 50155:2004
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
86010142 Low Noise Amplifier GNSS (GPS, GLONASS, BEIDOU, GALILEO)

Related Documents

Mounting instruction	DOC-0000197864
Painting instruction	DOC-0000256180
Security instruction	DOC-0000278984
Outline drawing	DOU-00018445.1
3D-model	DOC-0000287112

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.