HUBER+SUHNER® DATA SHEET
Sencity Rail Antenna: 1399.99.0026

Rev.: X

SWA-0459/360/4/25/DFRX30

Description

Railway rooftop antenna for Tetra, DVB-T, GSM 900, GSM 1800,
GSM 1900, UMTS, LTE, WiFi and WiMAX 2.4, 3.5, 5.3 and 5.8 GHz Bands.
Rugged design, meets EN 50155 railway standard.
Embedded GPS antenna with integrated LNA.
Split installation support.
Optional grounding kit available.
Optional conduit support kit available to protect the cabling.
Fire retardant acc. to DIN 5510-2, BS 6853, NF F16-101/102, CEN/TS 45545 (2009).

Product Configuration

Technical Data

Electrical Data

	Band 1	Band 2	Band 3	Band 4
Frequency (MHz)	380 - 470	470 - 960	1710 - 2170	2400 - 2700
VSWR	1.8	1.8	1.8	1.6
Gain (dBi)	4	4	8	7.5

	Band 5	Band 6
Frequency (MHz)	3400 - 3700	4900 - 5935
VSWR	1.6	1.9
Gain (dBi)	7.5	8.5

General Data

Nominal impedance	50 Ω
DC grounded	Yes
Polarisation	vertical
Connector	N, jack (female), bottom
Composite power max.	100 W at ambient temperature 50 °C
Ground plane	Indicated VSWR values are valid for a metallic ground plane of 0.5 x 0.5m or larger.

Electrical Data (GPS)

Frequency (MHz)	1574.397 - 1576.443
VSWR	1.8
Nominal impedance	50 Ω
Polarisation	circular right
Connector	TNC, plug (male)
Connector	pigtail, using EF316D cable with 0.14m length.
LNA noise figure	1.8 dB
LNA current consumption	30 mA
EMC	EN 50121-3-2:2001
LNA input voltage range	3..5V
Total gain @90° elevation	30 dBiC
Note	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)	153 x 100 x 256 (Height x Width x Depth)

HUBER+SUHNER is certified according to ISO 9001 and ISO 14001

WAIVER!
It is exclusively in written agreements that we provide our customers with warrants and representations as to the technical specifications and/or the fitness for any particular purpose. The facts and figures contained herein are carefully compiled to the best of our knowledge, but they are intended for general informational purposes only.

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Weight	1.6 kg
Wind speed	survival: 500km/h
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.

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	IP 69K
Solar radiation	DIN 75220
RoHS 2002/95/EC	compliant
Environmental tests	EN 50155:2007
Flammability rating	DIN 5510-2, BS 6853, NF F16-101/102, CEN/TS 45545 (2009)

Material Data

Radome colour	RAL 7043 (dark grey)
Radome material	ASA_SAN
Back plate/base plate material	Aluminium

Related Products

9091.99.0235 Sencity Rail Antenna grounding kit
9091.99.0236 Sencity Rail conduit Support Kit
9091.99.0251 MIMO adapter plate for Sencity Rail antennas
9091.99.0252 Adapter plate for Sencity Rail antenna

Related Documents

Mounting instruction	DOC-0000295392
Painting instruction	DOC-0000256180
Security instruction	DOC-0000278984
Outline drawing1	DOU-00135091
Outline drawing 2	DOU-00154160
3D-model (Step)	DOC-0000339670

Additional Information

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

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