

HUBER+SUHNER® DATA SHEET

Sencity Rail Antenna: 1399.99.0037



Rev.: Y

SWA-0825/360/5/30/DFRX30

Description

Railway rooftop antenna for GSM 900, GSM 1800, GSM 1900, UMTS, LTE and WiFi 2.4 GHz Band communication.
Embedded GPS antenna with LNA.
Rugged design, meets EN 50155 railway standard.
Extremely low profile (40mm).
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)	790 - 806	806 - 870	870 - 960	1710 - 2170
VSWR	2.2	1.8	1.5	1.8
Gain (dBi)	5	5	5	6

	Band 5	Band 6
Frequency (MHz)	2400 - 2500	2500 - 2700
VSWR	1.9	2.2
Gain (dBi)	6	6

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 0.2 x 0.2m 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
LNA Input voltage range	3...5V
Total gain @90° elevation	34dBIC
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
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	0.535 kg
Wind speed	survival: 500km/h, operational: 500 km/h

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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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
IP rating IP 69K
Solar radiation DIN 75220
RoHS 2002/95/EC compliant
Environmental tests: EN 50155:2007
Flammability rating DIN 5510, 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

9090.99.0062 Sencity Rail Mounting plate ***Customer specific***

Related Documents

Mounting instruction DOC-0000311051
Painting instruction DOC-0000256180
Security instruction DOC-0000278984
Outline drawing1 DOU-00144558
3D-model (Step) DOC-0000329807

Additional Information

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

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