

HUBER+SUHNER® DATA SHEET

Sencity Rail Antenna: 1399.17.0043

Rev.: AS



SWA-0859/360/4/0/DF

Description

Railway rooftop antenna for GSM 900, GSM 1800, GSM 1900, UMTS, WiFi and WiMAX 2.4, 3.5, 5.3 and 5.8 GHz Bands. Rugged design, meets EN 50155 railway standard. Embedded GPS antenna. Fire retardant acc. to DIN 5510-2, BS 6853, NF F16-101/102, CEN/TS 45545 (2009). 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
Gain (dBi)	6	8.5	9.5	9.5

	Band 5
Frequency (MHz)	5150 - 5875
VSWR	2
Gain	8.5 dBi

General Data

Nominal impedance	50 Ω
IMD level	143 dBc at carrier power 2x 30 dBm
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 also valid for installations on non-metallic surfaces (no specific ground plane requirements).

Electrical Data (GPS)

Frequency (MHz)	1574.397 - 1576.443
VSWR	1.6
Nominal impedance	50 Ω
Polarisation	circular right
Antenna gain at 90° elevation	6 dBi
Connector	N, jack (female)
Warning:	The center conductor of the GPS antenna is grounded (DC short circuit) and therefore, precautions should be taken with receivers providing a DC power supply for passive antennas.

Mechanical Data

Dimensions (mm)	90 x 100 x 260 (Height x Width x Depth)
Weight	1.2 kg
Wind speed	survival: 500km/h, operational: 500 km/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).

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.



HUBER+SUHNER AG
RF Industrial
9100 Herisau, Switzerland
Phone +41 (0)71 353 41 11
Fax +41 (0)71 353 45 90
www.hubersuhner.com

HUBER+SUHNER – Excellence in Connectivity Solutions

HUBER+SUHNER® DATA SHEET

Sencity Rail Antenna: 1399.17.0043



Rev.: AS

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	IP 68
Solar radiation	DIN 75220
RoHS 2002/95/EC	compliant
Environmental tests:	EN 50155:2004
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 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 drawing1	DOU-00018445.1
3D-model (Step)	DOC-0000287112

Additional Information

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

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.



HUBER+SUHNER AG
RF Industrial
9100 Herisau, Switzerland
Phone +41 (0)71 353 41 11
Fax +41 (0)71 353 45 90
www.hubersuhner.com

HUBER+SUHNER – Excellence in Connectivity Solutions