

# HUBER+SUHNER® DATA SHEET

## Sencity Avant Antenna: 1399.17.0101



Rev.: AF

SWA-0860/360/4/0/DFRX30\_2

### Description

Light-rail rooftop antenna for TDMA, D-AMPS, GSM 900, GSM 1800, GSM/PCS 1900, UMTS, 2.4, 3.5, 4.9 Public Safety, 5.3 & 5.8 GHz Bands.

Tramway or bus applications.

Rugged design, meets EN 50155 railway standard.

Embedded GPS/LNA.

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

	<b>Band 1</b>	<b>Band 2</b>	<b>Band 3</b>	<b>Band 4</b>
Frequency (MHz)	806 - 824	824 - 960	1710 - 2170	2400 - 2700
VSWR	1.9	1.6	1.8	1.5
Gain (dBi)	6	6	8.5	9.5

  

	<b>Band 5</b>	<b>Band 6</b>
Frequency (MHz)	3400 - 3700	4900 - 5935
VSWR	1.5	1.8
Gain (dBi)	9.5	8.5

##### General Data

Nominal impedance	50 $\Omega$
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	1.7
Nominal impedance	50 $\Omega$
Polarisation	circular right
Antenna gain at 90° elevation	6 dBi
Connector	N, jack (female)
LNA gain	27 dB
LNA noise figure	2.7 dB
LNA operating voltage	5 V
LNA current consumption	25 mA
Out of band rejection 1	20 dB
Rejection frequency 1	$f_0 \pm 50$ MHz
Out of band rejection 2	40 dB
Rejection frequency 2	$f_0 \pm 100$ MHz
EMC	EN 50121-3-2:2001
Input voltage range	3..5V
Note	Values for LNA power consumption, noise figure and gain are given for a 5V

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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operating voltage and may differ slightly for a lower voltage

### Mechanical Data

Dimensions (mm)	90 x 70 x 250 (Height x Width x Depth)
Weight	0.55 kg
DC Grounding	Designed acc. to UIC 533, DC-grounded antenna element (protection against lightning and short circuit with catenary lines (10 kA/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 80
Storage temperature (°C)	-55 to 85
Transport temperature (°C)	-40 to 80
IP rating	IP 68
ELV 2000/53/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 5011 (steel blue)
Radome material	ASA_SAN
Back plate/base plate colour	RAL 5011 (steel blue)
Back plate/base plate material	Aluminium

### Related Documents

Mounting instruction	DOC-0000248725
Painting instruction	DOC-0000256180
Security instruction	DOC-0000278984
Outline drawing1	DOU-00093373
3D-model (Step)	DOC-0000330514

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