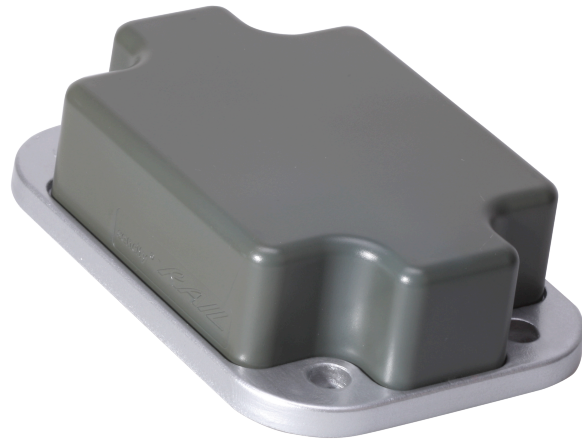


SENCITY® Rail Low Profile Antenna with GNSS/LNA

1399.99.0037

Properties

- Railway rooftop antenna for 2G/3G/4G cellular and Wi-Fi 4/Wi-Fi 6 bands
- Rugged design, meets EN 50155 Railway Standard
- Fire retardant according to EN 45545-2
- Includes embedded GNSS antenna with integrated LNA supporting GPS L1, Galileo E1, BeiDou B1 and GLONASS G1
- Extremely low profile (40mm)



Electrical bands				
	Band 1	Band 2	Band 3	Band 4
Name				
Frequency (MHz)	790 MHz ... 806 MHz	806 MHz ... 870 MHz	870 MHz ... 960 MHz	1350 MHz ... 2700 MHz
Impedance	50 Ω	50 Ω	50 Ω	50 Ω
VSWR	2.2	1.8	1.5	2
Gain (dBi)	5 dBi	5 dBi	5 dBi	5 dBi
Ambient Temperature	25 °C	25 °C	25 °C	25 °C
Composite Power max	80 W	80 W	80 W	80 W

	Band 5	Band 6
Name		GNSS
Frequency (MHz)	4900 MHz ... 6425 MHz	1559 MHz ... 1610 MHz
Impedance	50 Ω	50 Ω
VSWR	2.1	1.8
Gain (dBi)	8 dBi	
Ambient Temperature	25 °C	
Composite Power max	80 W	

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Electrical remarks	
Remarks	<p>Indicated VSWR values are valid for a metallic ground plane of 0.2 x 0.2m or larger. Indicated gain values will be achieved on a metallic ground plane of 1 x 1 m or larger.</p> <p>High-voltage-protection: no voltage on RF port, if catenary line touches antenna (EN 50124-1, 24 kVAC/1min). High-current-protection: Designed acc. to UIC 533, DC-grounded antenna element protection against lightning and short circuit with catenary lines (EN50388, EN 50122-1, 40kA/0.1sec)</p>

Ports		
	Port 1	Port 2
Connector	N, jack (female)	TNC, plug (male)
Cable length		0.14 m
Polarization	vertical	circular right
DC grounded	Yes	Yes

Connections		
Port number	Port 1	Port 2
Band 1	✓	
Band 2	✓	
Band 3	✓	
Band 4	✓	
Band 5	✓	
Band 6		✓

Mechanical data	
Weight	0.535 kg
Dimensions	40 mm x 100 mm x 145 mm (Height x Width x Depth)
Windload	Wind Speed survival: 500 km/h
Remarks	Mounting Shall be installed in longitudinal position to the wind/driving direction. Suitable for installation on high speed trains with a maximum speed of 500 km/hr. 4x composite sealing washers included for silicone-free sealing of the mounting screws.

Interface and material data	
Radome material	ASA (acrylic ester-styrene-acrylonitrile)
Radome colour	RAL 7043 (dark grey)
Back plate/base plate material	Aluminium
Back plate/base plate plating	Passivated (Plating)
Back plate/base plate colour	Grey
Housing material and surface treatment	Grey

Environmental data	
Operation temperature	-40 °C ... 85 °C
Storage temperature	-55 °C ... 85 °C
Environment (application)	Outdoor
Ingress protection (IP Rating)	IP69
Flammability rating	EN 45545-2

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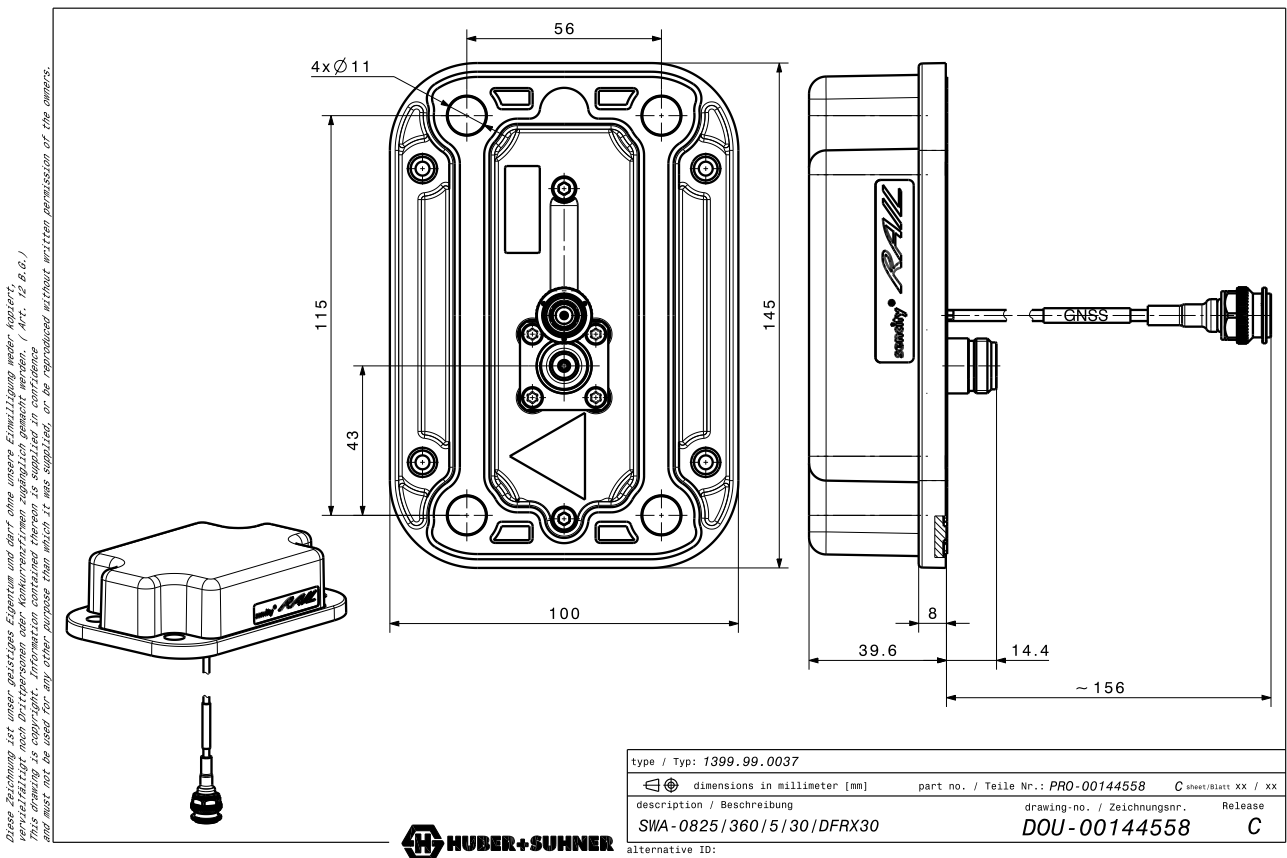
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Environmental data	
Solar radiation	DIN 75220
Standards	Railway EN 50155
	Railway EN 45545

Environmental remarks
Environmental tests: EN 50155:2007 Flammability rating: EN 45545-2. Corrosion Low corrosion design acc. to MIL-F-14072(E).

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

Outline drawing



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