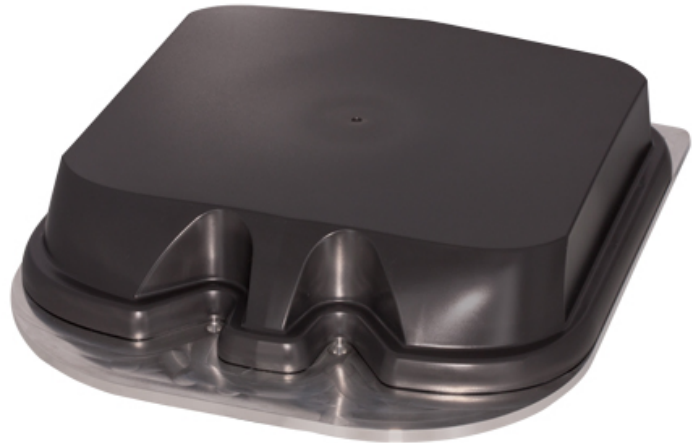


SENCITY® Rail MULTI 7-Port Antenna

1399.99.0153

Properties

- Railway rooftop antenna for 2G/3G/4G/5G cellular and Wi-Fi 6E bands
- 4x4 MIMO cellular with four separate broadband integrated antennas and 2x2 MIMO Wi-Fi
- Rugged design, meets EN 50155 Railway Standard
- Fire retardant according to EN 45545-2 and NFPA-130
- GNSS receiver supports GPS L1, Galileo E1, BeiDou B1, GLONASS G1 constellations



Electrical bands				
	Band 1	Band 2	Band 3	Band 4
Name	Cellular 1-4	Cellular 1-4	Cellular 1-4	Cellular 1-4
Frequency (MHz)	617 MHz ... 694 MHz	694 MHz ... 960 MHz	1350 MHz ... 3300 MHz	3300 MHz ... 4900 MHz
Impedance	50 Ω	50 Ω	50 Ω	50 Ω
VSWR	1.7	1.6	1.8	1.9
Gain (dBi)	3.5 dBi	5 dBi	6 dBi	6 dBi
Isolation between Ports	13 dB	13 dB	20 dB	25 dB
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	Band 7	Band 8
Name	Cellular 1-4	Wi-Fi 1-2	Wi-Fi 1-2	GNSS
Frequency (MHz)	4900 MHz ... 7125 MHz	2400 MHz ... 2500 MHz	4900 MHz ... 7125 MHz	1559 MHz ... 1610 MHz
Impedance	50 Ω	50 Ω	50 Ω	50 Ω
VSWR	1.7	1.7	1.5	1.8
Gain (dBi)	6 dBi	7 dBi	7 dBi	
Isolation between Ports	25 dB	22 dB	35 dB	
Ambient Temperature	25 °C	25 °C	25 °C	
Composite Power max	80 W	80 W	80 W	

SENCITY® Rail MULTI 7-Port Antenna

1399.99.0153

Electrical remarks	
Remarks	The antenna provides 4 separate cable leads defined as "Port 1". The antenna provides 2 separate cable leads defined as "Port 2". Ground plane: VSWR and gain values are also valid for installations on non-metallic surfaces (no specific ground plane requirements). Please refer to the outline drawing to read the cable pigtail length of each port.

Ports			
	Port 1	Port 2	Port 3
Port name	Cellular 1-4	Wi-Fi 1-2	GNSS
Connector	N, jack (female)	N, jack (female)	TNC, plug (male)
Cable type	RADOX_RF_316_D	RADOX_RF_316_D	RADOX_RF_316_D
Polarization	vertical	vertical	circular right
DC grounded	Yes	Yes	

Connections			
Port number	Port 1	Port 2	Port 3
Band 1	✓		
Band 2	✓		
Band 3	✓		
Band 4	✓		
Band 5	✓		
Band 6		✓	
Band 7		✓	
Band 8			✓

Mechanical data	
Weight	8 kg
Dimensions	84 mm x 368 mm x 425 mm (Height x Width x Depth)

Interface and material data	
Radome material	PC (Polycarbonate)
Radome colour	RAL 7043 (dark grey)
Back plate/base plate material	Aluminium

Environmental data	
Operation temperature	-40 °C ... 85 °C
Storage temperature	-55 °C ... 85 °C
Transport temperature	-40 °C ... 85 °C
Environment (application)	Outdoor
Ingress protection (IP Rating)	IP69
Flammability rating	EN 45545-2 R24 HL3
Solar radiation	UL 746C, F1
Standards	Railway EN 50155
	Railway EN 45545
	Railway NFPA130

SENCITY® Rail MULTI 7-Port Antenna

1399.99.0153

Environmental remarks

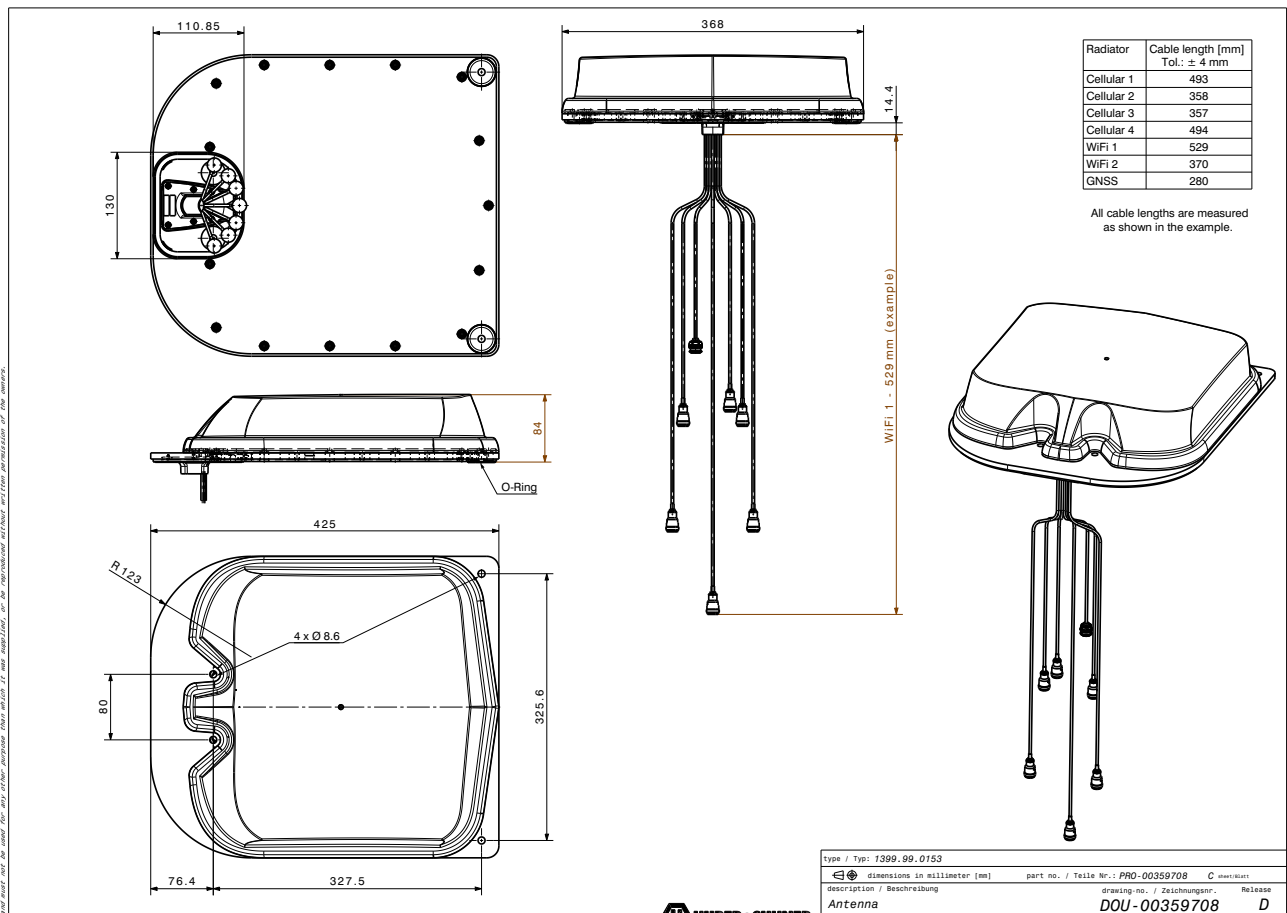
Environmental tests:
 EN 50155:2008-05 §12.2.3
 EN 60068-2-1 Cold temperature test Ad, -55°C, 16h §12.2.4
 EN 60068-2-2 Dry heat test Bd +85°C, 16h § 12.2.5
 EN 60068-2-30 Damp heat cyclic test Db, +25/55°C, 2 cycles
 §12.2.10 EN 60068-2-11 Salt Mist test Ka, 96h
 §12.2.11 EN 61373 § 9 Random Vibration (Long life) test, Cat. 1 class B
 §12.2.11 EN 61373 § 10 Mechanical shock test, Cat. 1 class B
 §12.2.12 DIN EN 60529 Ingress protection test, IP69

Flammability rating:
 EN45545-2:2013 + A1:2015, NFPA-130:2017 Tested according to ISO 4589-2:2017, NFX 70-100-1:2006, ISO 5659-2:2011.

Additional Information

The antenna needs a customer specific bracket when mounted on a curved roof (not part of the delivery content of the antenna). A standard bracket is available for the antenna mounting above an existing cable breakthrough on a flat roof (Article Number 9091.99.0270).

Outline drawing



HUBER+SUHNER is certified by ISO 9001, ISO 14001, ISO 45001, IATF 16949, AS/EN 9100 and ISO/TS 22163-IRIS. Waiver: Facts and figures herein are for information only and do not represent any warranty of any kind.

SENCITY® Rail MULTI 7-Port Antenna

1399.99.0153

DOCUMENT PIM-P3201 / Date of publication: 01.02.2024 / uncontrolled copy