

SENCITY® Rail Antenna

87010012

Properties

- Railway rooftop antenna for 2G/3G/4G/5G cellular and Wi-Fi 4/Wi-Fi 6 bands
- Multi-band GNSS (GPS, GLONASS, BEIDOU, GALILEO) with integrated LNA
- Multiple Antenna installations support Cellular and Wi-Fi MIMO
- Rugged design, meets EN 50155 Railway Standard
- Fire retardant acc. to EN 45545-2
- Works also on non-metallic surfaces

**Electrical data**

	Band 1	Band 2	Band 3	Band 4
Frequency	694 MHz ... 960 MHz	960 MHz ... 2200 MHz	2200 MHz ... 2700 MHz	2700 MHz ... 3300 MHz
Impedance	50 Ω	50 Ω	50 Ω	50 Ω
VSWR	1.5	2	2	2
Gain	5 dBi	6 dBi	7.5 dBi	7 dBi
Ambient Temperature	25 °C	25 °C	25 °C	25 °C

	Band 5	Band 6	Band 7
Frequency	3300 MHz ... 4900 MHz	4900 MHz ... 6425 MHz	1559 MHz ... 1620 MHz
Impedance	50 Ω	50 Ω	50 Ω
VSWR	1.5	1.7	2
Gain	6.5 dBi	7.5 dBi	28 dBi
Ambient Temperature	25 °C	25 °C	25 °C

Electrical remarks

Remarks	Indicated VSWR values are valid for a metallic ground plane of 1M x 1M or larger
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Ports

	Port 1	Port 2
Port name	Cell / WiFi	GNSS

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Ports		
	Port 1	Port 2
Connector	N, jack (female)	SMA, jack (female)
Polarization	vertical	circular right
DC grounded	Yes	Yes

Connections		
	Port 1	Port 2
Port name	Cell / WiFi	GNSS
Band 1	✓	
Band 2	✓	
Band 3	✓	
Band 4	✓	
Band 5	✓	
Band 6	✓	
Band 7		✓

Electrical data LNA	
LNA is connected to	Port 2
Input voltage	2.5 V ... 5.5 V
Current consumption	7 mA
Noise figure	2 dB
Remarks	87010012 is in compliance with Directive 2014/53/EU EMC: EN 50121-3-2:2016 Values for LNA power consumption, noise figure and gain are given for a 5V operating voltage and may differ slightly for a lower voltage

Mechanical data	
Weight	0.63 kg
Dimensions	93 mm x 146 mm x 86 mm (Height x Width x Depth)
Remarks	Radiator: Aluminum Flange: Aluminum Sealing: Polyurethan and silicone This antenna, tested by an independent institute is DC grounded to protect against lightning and short circuit from high-tension lines.

Material data	
Radome material	Fiberglass
Radome colour	Grey
Back plate/base plate material	Aluminum
Back plate/base plate colour	Black

Environmental data	
Operation temperature	-40 °C ... 85 °C
Storage temperature	-40 °C ... 85 °C
Environment (application)	Outdoor
Ingress protection (IP Rating)	IP66

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Environmental data		
Flammability rating	EN 45545-2	
Environmental remarks		
Environmental tests: EN 50155:2018-05		
Flammability rating: EN 45545-2		
Additional Information		
Protected by Patents No.: D871,377 S / USD801,320 S / US10,355,345 B2		
Ordering information		
Item description	Item number	Product name
87010012	84459559	SENCITY® Rail Antenna

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