

SENCITY® Rail Antenna with GNSS

87010032

Properties

- Railway rooftop antenna for 2G/3G/4G/5G cellular and Wi-Fi 4/Wi-Fi 6 bands.
- Embedded Multi-band GNSS antenna (GPS, GLONASS, BEIDOU, GALILEO).
- 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
- GNSS requires separate LNA such as 86010142.



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 ... 1610 MHz
Impedance	50 Ω	50 Ω	50 Ω
VSWR	1.5	1.8	2
Gain	6.5 dBi	7.5 dBi	
Ambient Temperature	25 °C	25 °C	25 °C

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Electrical remarks	
Remarks	Indicated VSWR values are valid for a metallic ground plane of 1M x 1M or larger. Compatible with Low noise amplifier GPS 86010142 / 84460305 (please order separately).

Ports		
	Port 1	Port 2
Port name	Cell / WiFi	GNSS
Connector	N, jack (female)	TNC, plug (male)
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		✓

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 All screws and nuts: Stainless steel 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. Packaging size (outside): 170 x 120 x 100 mm

Material data	
Radome material	Fiberglass
Radome colour	Grey
Back plate/base plate material	Aluminium
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)	Mated / IP66
Flammability rating	EN 45545-2

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Environmental data		
Standards		Railway EN 50155
Environmental remarks		
Environmental tests: EN 50155:2018-05		
Lead-free soldered - yes.		
Antenna accessories		
Item description	Item number	Product name
86010142	84460305	SENCITY® Low Noise Amplifier GNSS (GPS, GLONASS, BeiDou, Galileo)
Ordering information		
Item description	Item number	Product name
87010032	84459531	SENCITY® Rail Antenna with GNSS

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