

SENCITY® Rail Antenna with GPS

87010003

Properties

- Railway rooftop antenna for sub-2700 MHz
2G/3G/4G cellular and Wi-Fi 1/ Wi-Fi 3 bands
- Embedded GPS antenna (requires separate LNA such as 86010142)
- 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
Name	Cell / WiFi	Cell / WiFi	Cell / WiFi	Cell / WiFi
Frequency	790 MHz ... 960 MHz	960 MHz ... 1710 MHz	1710 MHz ... 2200 MHz	2200 MHz ... 2700 MHz
Impedance	50 Ω	50 Ω	50 Ω	50 Ω
VSWR	2	1.5	1.5	1.8
Gain	4.5 dBi	5.5 dBi	7.5 dBi	7 dBi
Ambient Temperature	25 °C	25 °C	25 °C	25 °C

	Band 5
Name	GPS
Frequency	1574.4 MHz ... 1576.6 MHz
Impedance	50 Ω
VSWR	2
Gain	5.5 dBi
Ambient Temperature	25 °C

Electrical remarks	
Remarks	Indicated VSWR values are valid for a metallic ground plane of 500 x 500 mm or larger Low noise amplifier GPS 86010142 (please order separately)

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Ports		
	Port 1	Port 2
Port name	Cell / WiFi	GPS
Connector	N, jack (female)	TNC, plug (male)
Polarization	vertical	circular right
DC grounded	Yes	Yes

Connections		
	Port 1	Port 2
Port name	Cell / WiFi	GPS
Band 1	✓	
Band 2	✓	
Band 3	✓	
Band 4	✓	
Band 5		✓

Mechanical data	
Weight	0.5 kg
Dimensions	81 mm x 145 mm x 85 mm (Height x Width x Depth)
Remarks	Wind load - frontal: 0.5 N at 600 km/h, lateral: 0.05 N at 600 km/h
	Packaging size (outside): 152 x 91 x 125 mm
	Radiator: Copper and brass.
	Flange: Anodized Aluminum.
	All screws and nuts: Stainless steel.
	Sealing: Neoprene and silicon

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
Flammability rating	EN 45545-2

Environmental remarks
Environmental tests: EN 50155:2018-05

Antenna accessories		
Item description	Item number	Product name
86010142	84460305	SENCITY® Low Noise Amplifier GNSS (GPS, GLONASS, BeiDou, Galileo)

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Antenna accessories remarks
Low noise amplifier GPS 86010142 (please order separately).

Ordering information		
Item description	Item number	Product name
87010003	85125028	SENCITY® Rail Antenna with GPS

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