

Sencity Rail Antenna 87010003

Description

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 WiFi MIMO.

Rugged design, meets EN 50155 railway standard.

Fire retardant acc. to EN 45545-2.

Works also on non-metallic surfaces.



Product Configuration

Technical Data

Electrical Data

	Band 1	Band 2	Band 3	Band 4
Frequency (MHz)	790 - 960	960 - 1710	1710 - 2200	2200 - 2700
VSWR	2	1.5	1.5	1.8
Impedance (Ohm)	50	50	50	50
Gain (dBi)	4.5	5.5	7.5	7
Ambient temperature (°C)	25	25	25	25

	Band 5
Band Name	GPS
Frequency (MHz)	1574.4 - 1576.6
VSWR	2
Impedance (Ohm)	50
Gain (dBi)	5.5
Ambient temperature (°C)	25

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

	Band 1	Band 2	Band 3	Band 4	Band 5
Port 1	X	X	X	X	
Port 2					X

General Data

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

Low noise amplifier GPS 86010142 (please order separately).

Mechanical Data

Dimensions (mm)	81 x 145 x 85 (Height x Width x Depth)
Weight (kg)	0.5
Windload	frontal: 0.5 N at 600 km/h, lateral: 0.05 N at 600 km/h , Wind speed survival: km/h

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Radiator: Copper and brass.
Flange: Anodized Aluminum.
Radome: Fiberglass.
All screws and nuts: Stainless steel.
Colour: Grey.
Sealing: Neoprene and silicon.

Packaging size (outside): 152 x 91 x 125 mm

Environmental Data

Environmental conditions	outdoor
Operation temperature (°C)	-40 to 85
Storage temperature (°C)	-40 to 85
IP rating	IP66
Flammability rating 2011/65/EU (RoHS - including 2015/863 and 2017/2102)	EN 45545-2 compliant
Lead-free soldered	yes
WEEE 2012/19/EU	no special marking needed
REACH 1907/2006/EC	compliant

Environmental tests: EN 50155:2018-05

Flammability rating: EN 45545-2.

Material Data

Radome colour	grey
Back plate/base plate colour	black
Back plate/base plate material	Aluminium

Related Products

86010142 Low Noise Amplifier GNSS (GPS, GLONASS, BEIDOU, GALILEO)

Related Documents

Mounting instruction	DOC-0000862989
Painting instruction	DOC-0000256180
Security instruction	DOC-0000278984
Outline drawing	DOU-00388992
3D-model	DOC-0000863405