

Sencity Road Antenna 1399.99.0039

Description

Rugged vehicle rooftop multi-band antenna for heavy duty vehicles like bus and truck.
 Supports cellular, WiFi 2.4, 5 GHz and IEEE 802.11p, GPS/Glonass.
 Offers a stick antenna socket and separate connector for each application.
 Single hole mounting, easy cabling feed-through.
 Works also on non-metallic surfaces.



Product Configuration

Technical Data

Electrical Data

| | Band 1 | Band 2 | Band 3 | Band 4 |
|--------------------------|-----------|-----------|-------------|-------------|
| Frequency (MHz) | 698 - 790 | 790 - 960 | 1710 - 2690 | 1710 - 2690 |
| VSWR | 2.1 | 1.8 | 2 | 1.8 |
| Impedance (Ohm) | 50 | 50 | 50 | 50 |
| Gain (dBi) | 5 | 5 | 4 | 6 |
| Composite power max (W) | 80 | 40 | 40 | 40 |
| Ambient temperature (°C) | 25 | 25 | 25 | 25 |
| Port Isolation (dB) | | | 20 | 20 |

| | Band 5 | Band 6 | Band 7 |
|--------------------------|-------------|-------------|--------|
| Band Name | | GPS/Glonass | Socket |
| Frequency (MHz) | 4900 - 5935 | 1574 - 1610 | |
| VSWR | 1.8 | 2 | |
| Impedance (Ohm) | 50 | 50 | |
| Gain (dBi) | 7 | | |
| Composite power max (W) | 30 | | |
| Ambient temperature (°C) | 25 | | |
| Port Isolation (dB) | 30 | | |

Ports

| | Port 1 | Port 2 | Port 3 | Port 4 |
|------------------|---------------------|---------------------|---------------------|---------------------|
| Port name | (white sleeve) | (blue sleeve) | (black sleeve) | (red sleeve) |
| Connector | SMA, plug (male) | SMA, jack (female) | TNC, plug (male) | TNC, jack (female) |
| Cable Type | ENVIROFLEX_316_D-AM | ENVIROFLEX_316_D-AM | ENVIROFLEX_316_D-AM | ENVIROFLEX_316_D-AM |
| Cable Length (m) | 0.23 | 0.2 | 0.26 | 0.3 |
| Polarization | vertical | vertical | circular right | |
| DC grounded | Yes | No | No | No |

Connections

| | Band 1 | Band 2 | Band 3 | Band 4 | Band 5 | Band 6 | Band 7 |
|--------|--------|--------|--------|--------|--------|--------|--------|
| Port 1 | X | X | X | | | | |
| Port 2 | | | | X | X | | |
| Port 3 | | | | | | X | |
| Port 4 | | | | | | | X |

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General Data

Indicated VSWR values are valid for a metallic ground plane of 0.5 x 0.5m or larger. In the 790-5935 MHz band, indicated VSWR values are also valid for installations on non-metallic surfaces.

A W-CDMA 2100 and LTE 2600 2x2 MIMO configuration is supported by using port 1 and 2. In this setup, no stub antenna shall be equipped in order to ensure best MIMO performance.

Available stick antennas see section 'Related products'.

Electrical Data LNA

| | |
|------------------------------|--------|
| LNA noise figure dB | 2 |
| LNA current consumption (mA) | 30 |
| LNA is connected to | Port 3 |

LNA input voltage range 3..5V

Total gain @90° elevation 30 dBiC

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

| | |
|-----------------|--|
| Dimensions (mm) | 82 x 83 x 208 (Height x Width x Depth) |
| Weight (kg) | 0.41 |

Stick antenna max. length = 0.5m

Mounting breakthrough Ø30mm

Environmental Data

| | |
|----------------------------|----------------|
| Environmental conditions | indoor/outdoor |
| Operation temperature (°C) | -40 to 85 |
| Storage temperature (°C) | -40 to 85 |
| Transport temperature (°C) | -40 to 85 |
| IP rating | IP68, IP69 |
| Flammability rating | ECE-R118 |
| Solar radiation | DIN 75220 |
| RoHS 2011/65/EU | compliant |
| ELV 2000/53/EC | compliant |
| REACH 2006/1907/EC | compliant |

ISO 16750:2010 environmental tests

MIL-F-14072D low corrosion design

E-Mark

CE-Mark

Material Data

| | |
|--------------------------------|---|
| Radome colour | RAL 7043 (dark grey) |
| Radome material | ASA (acrylic ester-styrene-acrylonitrile) |
| Back plate/base plate material | Aluminium |

Related Products

9091.99.0246 FM Radio Stick antenna 88-108 MHz

9091.99.0247 TETRA Stick antenna 380-430 MHz

9091.99.0248 TETRA Stick antenna 450-470 MHz

9091.99.0250 Metal ground plane foil 0.6x0.6m

9091.99.0254 TETRA Stick antenna 410-430 MHz

Related Documents

| | |
|----------------------|----------------|
| Mounting instruction | DOC-0000361395 |
| Painting instruction | DOC-0000256180 |
| Security instruction | DOC-0000278984 |
| Outline drawing | DOU-00175956 |
| 3D-model | DOC-0000367494 |

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Additional Information

This product can be customized within the order process. Available options are:

- Different radiator combinations
- Different cable pigtail length and RF connector types
- Fulfillment of fire safety standards EN 45545, DIN 5510 or ECE-R118
- ...and more.

Note: The antenna gain as indicated above will vary for a different cable length. For a gain calculation please consider the cable attenuation per meter for the respective frequency band.