

## SENCITY® Road Antenna 1399.99.0177

### Description

Rugged vehicle rooftop multi-band antenna for heavy duty vehicles like bus and truck.  
Supports TETRA, Wifi 2.4/5 GHz, Wifi 6E and GNSS (Beidou, Galileo, GPS, Glonass).  
Offers a stick antenna socket and separate connector for each application.  
Single hole mounting, easy cabling feed-through.



### Product Configuration

#### Technical Data

##### Electrical Data

|                          | Band 1    | Band 2      | Band 3      | Band 4      |
|--------------------------|-----------|-------------|-------------|-------------|
| Band name                |           |             |             | GNSS        |
| Frequency (MHz)          | 410 - 430 | 2400 - 2690 | 4900 - 7125 | 1559 - 1610 |
| VSWR                     | 2         | 1.8         | 1.8         | 1.8         |
| Impedance (Ohm)          | 50        | 50          | 50          | 50          |
| Gain (dBi)               | 4         | 7           | 7           |             |
| Composite power max (W)  | 40        | 40          | 30          |             |
| Ambient temperature (°C) | 25        | 25          | 25          |             |
| Port Isolation (dB)      | 20        | 20          | 20          |             |

|           | Band 5 |
|-----------|--------|
| Band name | Socket |

##### Ports

|                  | Port 1              | Port 2              | Port 3              | Port 4              |
|------------------|---------------------|---------------------|---------------------|---------------------|
| Port name        | Tetra (yellow)      | WiFi 1 (blue)       | GNSS (black)        | (red)               |
| Connector        | SMA, plug (male)    | SMA, plug (male)    | 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) | 0.3                 | 0.3                 | 0.3                 | 0.3                 |
| Polarization     | vertical            | vertical            | circular right      |                     |
| DC grounded      | No                  | No                  | No                  | No                  |

##### Connections

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

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### General Data

Ground plane: 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. Available stick antennas see section 'Related products'.

### Electrical Data LNA

|                              |         |
|------------------------------|---------|
| LNA noise figure dB          | 1.6     |
| LNA current consumption (mA) | 20      |
| LNA is connected to          | Port 3  |
| LNA input voltage range:     | 3..5V   |
| Total gain @90° elevation:   | 30 dBiC |

### 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                             | outdoor     |
| Operation temperature (°C)                           | -40 to 85   |
| Storage temperature (°C)                             | -40 to 85   |
| Transport temperature (°C)                           | -40 to 85   |
| IP rating  | IP68, IP69k |
| Flammability rating                                  | ECE-R118    |
| Solar radiation                                      | DIN 75220   |
| 2011/65/EU (RoHS - including 2015/863 and 2017/2102) | compliant   |
| REACH 1907/2006/EC                                   | compliant   |

Environmental tests: ISO 16750:2010  
Low corrosion designed acc. to MIL-F-14072D  
ECE-R10  
E-Mark  
CE-Mark

### Material Data

|                                |                      |
|--------------------------------|----------------------|
| Radome colour                  | RAL 7043 (dark grey) |
| Radome material                | PC (Polycarbonate)   |
| Back plate/base plate material | Aluminium            |

### Related Products

9091.99.0246 FM Radio Stick antenna 88-108 MHz

### Related Documents

|                      |                |
|----------------------|----------------|
| Mounting instruction | DOC-0000361395 |
| Painting instruction | DOC-0000256180 |
| Security instruction | DOC-0000278984 |
| Outline drawing      | DOU-00480779   |
| 3D-model             | DOC-0000911628 |

### 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 - ...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.