

## Sencity Road MIMO Antenna

### 1399.99.0129

### Description

Rugged vehicle rooftop multi-band antenna for heavy duty vehicles like bus and truck.  
Supports 2G/3G/4G cellular bands in 2x2 MIMO configurations and GPS/Glonass.  
Single hole mounting, easy cabling feed-through.



### Product Configuration

### Technical Data

#### Electrical Data

|                          | Band 1    | Band 2    | Band 3      | Band 4      |
|--------------------------|-----------|-----------|-------------|-------------|
| Frequency (MHz)          | 698 - 790 | 790 - 960 | 1710 - 2170 | 2400 - 2690 |
| VSWR                     | 2.2       | 2         | 2           | 2           |
| Impedance (Ohm)          | 50        | 50        | 50          | 50          |
| Gain (dBi)               | 4         | 4         | 6           | 6           |
| Composite power max (W)  | 80        | 50        | 40          | 40          |
| Ambient temperature (°C) | 25        | 25        | 25          | 25          |
| Port Isolation (dB)      | 12        | 12        | 15          | 15          |

  

|                 | Band 5      |
|-----------------|-------------|
| Band Name       | GPS/Glonass |
| Frequency (MHz) | 1574 - 1610 |
| VSWR            | 2           |
| Impedance (Ohm) | 50          |

#### Ports

|                  | Port 1              | Port 2              | Port 3              |
|------------------|---------------------|---------------------|---------------------|
| Connector        | SMA, plug (male)    | SMA, plug (male)    | TNC, plug (male)    |
| Cable Type       | ENVIROFLEX_316_D-AM | ENVIROFLEX_316_D-AM | ENVIROFLEX_316_D-AM |
| Cable Length (m) | 0.17                | 0.23                | 0.25                |
| Polarization     | vertical            | vertical            | circular right      |
| DC grounded      | No                  | No                  | No                  |

#### Connections

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

#### General Data

Ground plane: Indicated VSWR values are valid for a metallic ground plane of 0.75 x 0.75m or larger. In the 790-2700 MHz band, indicated VSWR values are also valid for installations on non-metallic surfaces (no specific ground plane requirements).

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### 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) | 88 x 83 x 208 (Height x Width x Depth) |
| Weight (kg)     | 0.5                                    |

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                 |
| 2011/65/EU (RoHS - including 2015/863 and 2017/2102) | compliant                 |
| WEEE 2012/19/EU                                      | no special marking needed |
| ELV 2000/53/EC                                       | compliant                 |
| REACH 1907/2006/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

9091.99.0250 Metal ground plane foil 0.6x0.6m

### Related Documents

|                      |                |
|----------------------|----------------|
| Mounting instruction | DOC-0000361395 |
| Painting instruction | DOC-0000256180 |
| Security instruction | DOC-0000278984 |
| Outline drawing      | DOU-00273723   |
| 3D-model             | DOC-0000468130 |

### 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.