

SENCITY® Road MULTI Antenna

1399.99.0424

Properties

- Supports TETRA, LTE450, 2G/3G/4G/5G cellular, Wifi 2.4/5 GHz, Wifi 6E and GNSS (Beidou, Galileo, GPS, Glonass)
- 5 separate ports for 1x TETRA/cellular and 3x3 Wifi MIMO plus GNSS
- Meets ISO16750 automotive standard
- Fire retardant acc. to ECE-R118
- Single hole mounting, easy cabling feed-through



| Electrical data         |                     |                     |                       |                       |
|-------------------------|---------------------|---------------------|-----------------------|-----------------------|
|                         | Band 1              | Band 2              | Band 3                | Band 4                |
| Name                    | TETRA/LTE450        | Cellular            | Cellular              | Cellular              |
| Frequency               | 380 MHz ... 470 MHz | 617 MHz ... 960 MHz | 1350 MHz ... 2700 MHz | 3300 MHz ... 4200 MHz |
| Impedance               | 50 Ω                | 50 Ω                | 50 Ω                  | 50 Ω                  |
| VSWR                    | 2.5                 | 2.1                 | 2.1                   | 2.1                   |
| Gain                    | 3 dBi               | 2 dBi               | 4 dBi                 | 4 dBi                 |
| Isolation between Ports |                     |                     |                       |                       |
| Ambient Temperature     | 50 °C               | 25 °C               | 25 °C                 | 25 °C                 |
| Composite Power max     | 40 W                | 40 W                | 40 W                  | 40 W                  |

|                         | Band 5                | Band 6                | Band 7                | Band 8                |
|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Name                    | Cellular              | WiFi                  | WiFi                  | GNSS                  |
| Frequency               | 4900 MHz ... 7125 MHz | 2400 MHz ... 2500 MHz | 4900 MHz ... 7125 MHz | 1164 MHz ... 1279 MHz |
| Impedance               | 50 Ω                  | 50 Ω                  | 50 Ω                  | 50 Ω                  |
| VSWR                    | 2.1                   | 2.1                   | 2.1                   | 1.5                   |
| Gain                    | 5 dBi                 | 6 dBi                 | 6 dBi                 |                       |
| Isolation between Ports |                       | 20 dB                 | 20 dB                 |                       |
| Ambient Temperature     | 25 °C                 | 25 °C                 | 25 °C                 |                       |
| Composite Power max     | 40 W                  | 30 W                  | 30 W                  |                       |

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| Electrical remarks |                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Remarks            | Ground plane: Indicated VSWR values are valid for a metallic ground plane of 0.5 x 0.5m or larger and Isolation is provided as typical values. Indicated VSWR values are mostly valid for installations on non-metallic surfaces also (no specific ground plane requirements). Indicated gain values will be achieved on a metallic ground plane of 1 x 1 m or larger. |

| Ports        |                     |                     |                     |
|--------------|---------------------|---------------------|---------------------|
|              | Port 1              | Port 2 to 4         | Port 5              |
| Port name    | Tetra 1 (yellow)    | WiFi 1-3 (blue)     | GNSS (black)        |
| 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 | 0.3 m               | 0.3 m               | 0.3 m               |
| Polarization | vertical            | vertical            | circular right      |
| DC grounded  | Yes                 | Yes                 | No                  |

| Connections |                  |                 |              |
|-------------|------------------|-----------------|--------------|
|             | Port 1           | Port 2 to 4     | Port 5       |
| Port name   | Tetra 1 (yellow) | WiFi 1-3 (blue) | GNSS (black) |
| Band 1      | ✓                |                 |              |
| Band 2      | ✓                |                 |              |
| Band 3      | ✓                |                 |              |
| Band 4      | ✓                |                 |              |
| Band 5      | ✓                |                 |              |
| Band 6      |                  | ✓               |              |
| Band 7      |                  | ✓               |              |
| Band 8      |                  |                 | ✓            |

| Electrical data LNA       |             |
|---------------------------|-------------|
| LNA is connected to       | Port 5      |
| Input voltage             | 3 V ... 5 V |
| Current consumption       | 20 mA       |
| Noise figure              | 1.6 dB      |
| Total gain @90° elevation | 30 dBic     |

| Mechanical data       |                                    |
|-----------------------|------------------------------------|
| Weight                | 1.1 kg                             |
| Dimensions            | 60 mm x 210 mm (Height x Diameter) |
| Mounting breakthrough | Ø 30 mm                            |

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

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| Environmental data             |                      |
|--------------------------------|----------------------|
| Operation temperature          | -40 °C ... 85 °C     |
| Storage temperature            | -40 °C ... 85 °C     |
| Transport temperature          | -40 °C ... 85 °C     |
| Environment (application)      | Outdoor              |
| Ingress protection (IP Rating) | Mated / IP68, IP69k  |
| Flammability rating            | ECE-R118             |
| Solar radiation                | DIN 75220            |
| Standards                      | Automotive ISO 16750 |

**Environmental remarks**

Environmental tests: ISO 16750:2012/2010  
Low corrosion designed acc. to MIL-F-14072D  
ECE-R10  
E-Mark

**Ordering information**

| Item description | Item number | Product name                |
|------------------|-------------|-----------------------------|
| 1399.99.0424     | 85192499    | SENCITY® Road MULTI Antenna |

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