

SENCITY® OMNI-M

1399.99.0313

Properties

- 5-Port antenna for Cellular and Wi-Fi bands
- Supports 2x2 Cellular MIMO for 3G, 4G and 5G
- Supports 2x2 Wi-Fi MIMO in all Wi-Fi 6E bands
- Embedded GNSS with integrated LNA supports GPS L1+L2+L5, Galileo E1+E5a+E5b, BeiDou B1+B2+B3 and GLONASS G1+G2 bands
- 2 radiators for Cellular bands and 2 radiators for Wi-Fi/WiMAX bands
- Rugged design, meets EN 60068 Standard
- Single hole mounting on cabinet or roof

**Electrical data**

	Band 1	Band 2	Band 3	Band 4
Name	Cellular 1-2	Cellular 1-2	Cellular 1-2	Cellular 1-2
Frequency	617 MHz ... 960 MHz	1350 MHz ... 2700 MHz	3300 MHz ... 4200 MHz	4900 MHz ... 7125 MHz
Impedance	50 Ω	50 Ω	50 Ω	50 Ω
VSWR	1.9	2	1.7	1.7
Gain	2 dBi	5 dBi	6 dBi	6 dBi
Isolation between Ports	9 dB	20 dB	20 dB	20 dB
Ambient Temperature	25 °C	25 °C	25 °C	25 °C
Composite Power max	80 W	80 W	80 W	80 W

	Band 5	Band 6	Band 7	Band 8
Name	Wi-Fi 1-2	Wi-Fi 1-2	GNSS 1	GNSS 2
Frequency	2400 MHz ... 2500 MHz	4900 MHz ... 7125 MHz	1164 MHz ... 1279 MHz	1555 MHz ... 1610 MHz
Impedance	50 Ω	50 Ω	50 Ω	50 Ω
VSWR	1.9	1.7	1.8	1.5
Gain	5.5 dBi	6 dBi		
Isolation between Ports	30 dB	25 dB		
Ambient Temperature	25 °C	25 °C		

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	Band 5	Band 6	Band 7	Band 8
Composite Power max	80 W	80 W		

Electrical remarks

Remarks	Indicated VSWR values and gain are valid for installations on metallic surfaces of 500x500 mm. Please refer to the outline drawing to read the cable pigtail length of each port.
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Ports

	Port 1 to 2	Port 3 to 4	Port 5
Port name	Cellular 1-2	Wi-Fi 1-2	GNSS
Connector	N, jack (female)	N, jack (female)	TNC, plug (male)
Cable type	Enviroflex_316_D	Enviroflex_316_D	Enviroflex_316_D
Polarization	vertical	vertical	circular right
DC grounded	Yes	Yes	

Connections

	Port 1 to 2	Port 3 to 4	Port 5
Port name	Cellular 1-2	Wi-Fi 1-2	GNSS
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	40 mA
Noise figure	1.6 dB
Total gain @90° elevation	30 dBic
Remarks	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

Weight	1.2 kg
Dimensions	62.5 mm x 211.5 mm (Height x Diameter)
Remarks	Corrosion: Low corrosion design according to MIL-F-14072(E), 96 hours Salt Spray test. Mounting: Shall be installed in longitudinal position to the wind/driving direction. Suitable for installation on vehicles with a maximum speed of 160 km/hr.

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Material data	
Radome material	PC (Polycarbonate)
Radome colour	RAL 7044 (light grey)
Back plate/base plate material	Aluminum

Environmental data	
Operation temperature	-40 °C ... 85 °C
Storage temperature	-55 °C ... 85 °C
Transport temperature	-40 °C ... 85 °C
Environment (application)	Outdoor
Ingress protection (IP Rating)	Mated / IP69
Solar radiation	UL 746C, F1

Environmental remarks	
Environmental tests: EN 60068 EN 60068-2-1 Cold temperature test Ad, -55°C, 16h EN 60068-2-2 Dry heat test Bd +85°C, 16h EN 60068-2-30 Damp heat cyclic test Db, +25/55°C, 2 cycles EN 60068-2-11 Salt Mist test Ka, 96h EN 61373 § 9 Mechanical Vibration test, Cat. 2 EN 61373 § 10 Mechanical shock test, Cat. 2 EN 60529 Ingress protection test, IP69	

Additional Information	
This Antenna is compliant with the Radio Equipment Directive 2014/53/EU ETSI EN 303 413 V1.1.1 (2017-06) ETSI EN 301 489-1 V2.2.3 (2019-03) ETSI EN 301 489-19 V2.1.1 (2019-04)	

Ordering information		
Item description	Item number	Product name
1399.99.0313	85185299	SENCITY® OMNI-M

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