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DATA SHEET

SENCITY® Road MIMO Antenna

1399.99.0118

Properties

- Rugged vehicle rooftop multi-band antenna for heavy duty vehicles like bus and truck
- Supports 2G/3G/4G/5G cellular, Wifi 2.4/5 GHz, Wifi 6E and GNSS (Beidou, Galileo, GPS, Glonass).
- 5 separate ports for 2x2 cellular MIMO and 2x2 Wifi MIMO plus GNSS.
- Single hole mounting, easy cabling feed-through



Electrical data				
	Band 1	**Band 2**	**Band 3**	**Band 4**
Frequency	694 MHz ... 790 MHz	790 MHz ... 960 MHz	1710 MHz ... 2400 MHz	2400 MHz ... 2500 MHz
Impedance	50 Ω	50 Ω	50 Ω	50 Ω
VSWR	1.8	1.7	1.7	2
Gain	4 dBi	4 dBi	5 dBi	6 dBi
Isolation between Ports	10 dB	10 dB	12 dB	10 dB
Ambient Temperature	25 °C	25 °C	25 °C	25 °C
Composite Power max	40 W	40 W	40 W	40 W

	Band 5	**Band 6**	**Band 7**	**GNSS**
Frequency	2400 MHz ... 2690 MHz	3400 MHz ... 3800 MHz	4900 MHz ... 7125 MHz	1559 MHz ... 1610 MHz
Impedance	50 Ω	50 Ω	50 Ω	50 Ω
VSWR	2	1.7	1.8	1.8
Gain	5.5 dBi	6 dBi	7 dBi	
Isolation between Ports	22 dB	20 dB	25 dB	
Ambient Temperature	25 °C	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), apart from VSWR 2.5 below 840 MHz and VSWR 3 below 750 MHz. Indicated gain values will be achieved on a metallic ground plane of 1 x 1 m or larger. Port 2,3 performance in Band 6 is given with typical values of VSWR 1.7 only.

Ports				
	Cell 1	**Cell 2**	**WiFi 1**	**WiFi 2**
Connector	SMA, plug (male)	SMA, plug (male)	SMA, jack (female)	SMA, jack (female)
Cable type	ENVIROFLEX_316_D -AM	ENVIROFLEX_316_D -AM	ENVIROFLEX_316_D -AM	ENVIROFLEX_316_D -AM
Cable length	0.15 m	0.21 m	0.22 m	0.28 m
Polarization	vertical	vertical	vertical	vertical
DC grounded	No	No	No	No

	GNSS
Connector	TNC, plug (male)
Cable type	ENVIROFLEX_316_D -AM
Cable length	0.26 m
Polarization	circular right
DC grounded	No

Connections					
	Cell 1	Cell 2	WiFi 1	WiFi 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
Current cunsumption	20 mA
Noise figure	1.6 dB
Remarks	LNA input voltage range: 3..5V Total gain @90° elevation: 30 dBiC

Mechanical data	
Weight	0.5 kg
Dimensions	98 mm x 83 mm x 208 mm (Height x Width x Depth)
Mounting breakthrough	Ø 30 mm

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Mechanical data	
Remarks	Mounting breakthrough Ø30mm

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

Environmental data	
Operation temperature	-40 °C ... 85 °C
Storage temperature	-40 °C ... 85 °C
Transport temperature	-40 °C ... 85 °C
Ingress protection (IP Rating)	IP68, IP69
Flammability rating	ECE-R118
Solar radiation	DIN 75220

Environmental remarks

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

Antenna accessories

Item description	Item number	Product name
9091.99.0250	84124410	Metal ground plane foil 0.6x0.6m

Ordering information

Item description	Item number	Product name
1399.99.0118	85090876	SENCITY® Road MIMO Antenna

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