

SENCITY® Road MIMO Antenna 1399.99.0180

Description

Rugged vehicle rooftop multi-band antenna for heavy duty vehicles like bus and truck. Supports 2G/3G/4G/5G cellular and Wifi 2.4/5 GHz, Wifi 6E bands in 2x2 MIMO configurations and GNSS (Beidou, Galileo, GPS, Glonass). Single hole mounting, easy cabling feed-through. Works also on non-metallic surfaces



Product Configuration

Technical Data

Electrical Data

	Band 1	Band 2	Band 3	Band 4
Frequency (MHz)	694 - 790	790 - 960	1710 - 2170	2400 - 2690
VSWR	1.8	1.8	1.8	1.8
Impedance (Ohm)	50	50	50	50
Gain (dBi)	4	4.5	5	5
Composite power max (W)	40	40	40	40
Ambient temperature (°C)	25	25	25	25
Port Isolation (dB)	12	12	15	18

	Band 5	Band 6	Band 7
Band Name			GNSS
Frequency (MHz)	3400 - 3800	4900 - 7125	1559 - 1610
VSWR	1.6	1.6	1.8
Impedance (Ohm)	50	50	50
Gain (dBi)	6	6.5	
Composite power max (W)	30	25	
Ambient temperature (°C)	25	25	
Port Isolation (dB)	18	20	

Ports

	Port 1	Port 2	Port 3
Port name	Cell 1 (white)	Cell 2 (white)	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 (m)	0.15	0.19	0.26
Polarization	vertical	vertical	circular right
DC grounded	No	No	No

Connections

	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6	Band 7
Port 1	X	X	X	X	X	X	
Port 2	X	X	X	X	X	X	
Port 3							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 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.

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)	98 x 83 x 208 (Height x Width x Depth)
Weight (kg)	0.5
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

9091.99.0250 Metal ground plane foil 0.6x0.6m

Related Documents

Mounting instruction	DOC-0000361395
Painting instruction	DOC-0000256180
Security instruction	DOC-0000278984
Outline drawing	DOU-00460436
3D-model	DOC-0000900839

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.