

SENCITY® Road Antenna 1399.99.0176

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 and GNSS (Beidou, Galileo, GPS, Glonass).
Offers a separate connector for each application
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 - 2690	1710 - 2690
VSWR	2.1	1.8	2	1.8
Impedance (Ohm)	50	50	50	50
Gain (dBi)	5	5	4	6
Composite power max (W)	40	40	40	40
Ambient temperature (°C)	25	25	25	25
Port Isolation (dB)			20	20

	Band 5	Band 6	Band 7
Band Name			GNSS
Frequency (MHz)	3400 - 3800	4900 - 7125	1559 - 1610
VSWR	2	2	1.8
Impedance (Ohm)	50	50	50
Gain (dBi)	6	7	
Composite power max (W)	30	30	
Ambient temperature (°C)	25	25	

Ports

	Port 1	Port 2	Port 3
Port name	Cell 1 (white)	WiFi 1 (blue)	GNSS (black)
Connector	SMA, plug (male)	SMA, jack (female)	TNC, plug (male)
Cable Type	ENVIROFLEX_316_D-AM	ENVIROFLEX_316_D-AM	ENVIROFLEX_316_D-AM
Cable Length (m)	0.23	0.2	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		
Port 2				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. 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.

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)	82 x 83 x 208 (Height x Width x Depth)
Weight (kg)	0.41
Stick antenna max. length	0.5m
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 Documents

Mounting instruction	DOC-0000361395
Painting instruction	DOC-0000256180
Security instruction	DOC-0000278984
Outline drawing	DOU-00482055
3D-model	DOC-0000911633

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.