

SENCITY® Tram Antenna 1399.99.0207

Description

Rugged vehicle rooftop multi-band antenna for Light Rail.
 Supports TETRA, Wifi 2.4/5 GHz, Wifi 6E and GNSS (Beidou, Galileo, GPS, Glonass).
 Meets EN50155 railway standard.
 Fire retardant acc. to EN45545-2 and NFPA-130.
 Offers a stick antenna socket and separate connector for each application.
 Single hole mounting, easy cabling feed-through.



Product Configuration

Technical Data

Electrical Data

	Band 1	Band 2	Band 3	Band 4
Band name				GNSS
Frequency (MHz)	410 - 430	2400 - 2690	4900 - 7125	1559 - 1610
VSWR	2	1.8	1.8	1.8
Impedance (Ohm)	50	50	50	50
Gain (dBi)	4	7	7	
Composite power max (W)	40	40	30	
Ambient temperature (°C)	25	25	25	
Port Isolation (dB)	20	20	20	

	Band 5
Band name	Socket

Ports

	Port 1	Port 2	Port 3	Port 4
Port name	Tetra (yellow)	WiFi 1 (blue)	GNSS (black)	(red)
Connector	SMA, jack (female)	SMA, jack (female)	TNC, jack (female)	TNC, jack (female)
Cable Type	RADOX_RF_316_D	RADOX_RF_316_D	RADOX_RF_316_D	RADOX_RF_316_D
Cable Length (m)	0.3	0.3	0.3	0.3
Polarization	vertical	vertical	circular right	
DC grounded	No	No	No	No

Connections

	Band 1	Band 2	Band 3	Band 4	Band 5
Port 1	X				
Port 2		X	X		
Port 3				X	
Port 4					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. In the 790-5935 MHz band, indicated VSWR values are also valid for installations on non-metallic surfaces. Available stick antennas see section 'Related products'.

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	EN45545-2, NFPA-130
Solar radiation	DIN 75220
2011/65/EU (RoHS - including 2015/863 and 2017/2102)	compliant
REACH 1907/2006/EC	compliant

Environmental tests: EN50155:2018-05
High-voltage protection: EN50124-1:2017-03 (tested without stick antenna)
Low corrosion designed acc. to MIL-F-14072D
This Antenna is compliant with the Radio Equipment Directive 2014/53/EU
CE-Mark

Material Data

Radome colour	RAL 9017 (black)
Radome material	PC (Polycarbonate)
Back plate/base plate material	Aluminium

Related Documents

Mounting instruction	DOC-0001163411
Painting instruction	DOC-0000256180
Security instruction	DOC-0000278984
Outline drawing	DOU-01122838
3D-model	DOC-0001123111