

SENCITY® Tram MIMO Antenna

1399.99.0205

Properties

- 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)
- Meets EN50155 railway standard
- Fire retardant acc. to EN45545-2 and NFPA-130
- Single hole mounting, easy cabling feed-through
- Works also on non-metallic surfaces



Electrical data				
	Band 1	Band 2	Band 3	Band 4
Name				
Frequency	694 MHz ... 790 MHz	790 MHz ... 960 MHz	1710 MHz ... 2170 MHz	2400 MHz ... 2690 MHz
Impedance	50 Ω	50 Ω	50 Ω	50 Ω
VSWR	1.8	1.8	1.8	1.8
Gain	4 dBi	4.5 dBi	5 dBi	5 dBi
Isolation between Ports	12 dB	12 dB	15 dB	18 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
Name			GNSS
Frequency	3400 MHz ... 4200 MHz	4900 MHz ... 7125 MHz	1559 MHz ... 1610 MHz
Impedance	50 Ω	50 Ω	50 Ω
VSWR	1.7	1.6	1.8
Gain	6 dBi	6.5 dBi	
Isolation between Ports	15 dB	19 dB	
Ambient Temperature	25 °C	25 °C	
Composite Power max	30 W	25 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.

Ports			
	Port 1	Port 2	Port 3
Port name	Cell 1 (white)	Cell 2 (white)	GNSS (black)
Connector	SMA, jack (female)	SMA, jack (female)	TNC, plug (male)
Cable type	RADOX_RF_316_D	RADOX_RF_316_D	RADOX_RF_316_D
Cable length	0.17 m	0.23 m	0.25 m
Polarization	vertical	vertical	circular right
DC grounded	No	No	No

Connections			
	Port 1	Port 2	Port 3
Port name	Cell 1 (white)	Cell 2 (white)	GNSS (black)
Band 1	✓	✓	
Band 2	✓	✓	
Band 3	✓	✓	
Band 4	✓	✓	
Band 5	✓	✓	
Band 6	✓	✓	
Band 7			✓

Electrical data LNA	
LNA is connected to	Port 3
Input voltage	3 V ... 5 V
Current consumption	20 mA
Noise figure	1.6 dB
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

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

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Environmental data	
Operation temperature	-40 °C ... 85 °C
Storage temperature	-40 °C ... 85 °C
Transport temperature	-40 °C ... 85 °C
Environment (application)	Outdoor
Ingress protection (IP Rating)	Mated / IP68, IP69k
Flammability rating	EN 45545-2 NFPA-130
Solar radiation	DIN 75220

Environmental remarks
Environmental tests: EN50155:2018-05 High-voltage protection: EN50124-1:2017-03 Low corrosion designed acc. to MIL-F-14072D This Antenna is compliant with the Radio Equipment Directive 2014/53/EU CE-Mark

Ordering information		
Item description	Item number	Product name
1399.99.0205	85176492	SENCITY® Tram MIMO Antenna

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