Powertec Wireless Technology
ABN: 42 082 948 463
PO Box 1034, Ashmore City
Queensland, Australia, 4214
sales@powertec.com.au
1300 769 378

Huber+Suhner 3G-4G Sencity Rail Multi 5-Port Antenna, 2x2 MIMO + GNSS

SKU
ANT-HS-00004
MPN
1399.99.0147

Description

The Huber+Suhner Sencity Rail Multi 5-Port Antenna (SKU: ANT-HS-00004) is a robust solution for rail and transportation applications, offering 2x2 MIMO and GNSS capabilities. Designed with a fin/stud/combo format, it features five RF ports to support versatile communication needs. Constructed from ASA plastic and aluminium, the antenna is engineered to withstand extreme conditions, with an IP69K rating and an operational temperature range of -55 °C to 85 °C.

The antenna supports a comprehensive frequency range, enabling seamless connectivity for 3G, 4G, and Wi-Fi networks. It includes two cellular/Wi-Fi elements covering 617 MHz to 2700 MHz, with vertical polarisation and peak gains of up to 7.0 dBi. Additionally, two Wi-Fi elements extend coverage from 2700 MHz to 4900 MHz, ensuring high performance with peak gains of 5.5 dBi. The integrated GNSS element enhances navigation precision with right-hand circular polarisation and an active...

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Huber+Suhner

The global Swiss company HUBER+SUHNER develops and manufactures components and system solutions for electrical and optical transportation of data and energy. The company serves customers in the Communication, Transportation and Industrial markets with cables, connectors, cable systems, antennas and other passive components relying on its expertise in radio frequency, fiber optics and low frequency ...

RF Specification

Cell/Wi-Fi 1

Start Frequency
617 MHz
Stop Frequency
960 MHz
Max. Input Power
80 W
Polarisation
Vertical (V)
Input Impedance
50 Ω
RF Connectors

Ports	RF Interface	Body Shape	Cable Series	Length
1	N Female	Straight	RG-142	0.24 mm

Frequency Test Data

Start Freq.	Stop Freq.	Peak Gain	VSWR	Inter-Port Iso.
617 MHz	960 MHz	5 dBi	< 1.7:1 >	15 dB

Cell/Wi-Fi 2

Start Frequency
1350 MHz
Stop Frequency
2700 MHz
Max. Input Power
80 W
Polarisation
Vertical (V)
Input Impedance
50 Ω
RF Connectors

Ports	RF Interface	Body Shape	Cable Series	Length
1	N Female	Straight	RG-142	0.12 mm

Frequency Test Data

Start Freq.	Stop Freq.	Peak Gain	VSWR	Inter-Port Iso.
1350 MHz	2700 MHz	7 dBi	< 1.7:1 >	25 dB

Wi-Fi 1

Start Frequency
2700 MHz
Stop Frequency
3300 MHz
Max. Input Power
80 W
Polarisation
Vertical (V)
Input Impedance
50 Ω
RF Connectors

Ports	RF Interface	Body Shape	Cable Series	Length
1	N Female	Straight	RG-316	0.36 mm

Frequency Test Data

Start Freq.	Stop Freq.	Peak Gain	VSWR	Inter-Port Iso.
2700 MHz	3300 MHz	5.5 dBi	< 1.7:1	> 25 dB

Wi-Fi 2

Start Frequency
3300 MHz
Stop Frequency
4900 MHz
Max. Input Power
80 W
Polarisation
Vertical (V)
Input Impedance
50 Ω
RF Connectors

Ports	RF Interface	Body Shape	Cable Series	Length
1	N Female	Straight	RG-316	0.3 mm

Frequency Test Data

Start Freq.	Stop Freq.	Peak Gain	VSWR	Inter-Port Iso.
3300 MHz	4900 MHz	5.5 dBi	< 1.8:1	> 45 dB

GNSS

Start Frequency
1559 MHz
Stop Frequency
1610 MHz
Input Impedance
50 Ω
Polarisation
Right Hand Circular (RHCP)

Low Noise Amplifier (LNA)

LNA Gain
30 dBic
Noise Figure
≤ 1.6 dB
Power Consumption
< 20 mW
Min. Operating Voltage
3 V
Max. Operating Voltage
5 V
RF Connectors

Ports	RF Interface	Body Shape	Cable Series	Length
1	TNC Male	Straight	RG-316	0.17 mm

Physical Specification

Subtype
Fin / Stud / Combo
Input Ports
5
MIMO
2x2 MIMO
Min. Operating Temperature
-55 °C
Max. Operating Temperature
85 °C

Dimensions
81.6 x 102.5 x 352.5
Ingress Protection
IP69K
Materials
ASA Plastic, Aluminium
Weight
2.3 kg
Compliance/Certifications
ISO 9001 Quality Management
,
RoHS
Mechanical Compliance
IEC 60068-2-11: Salt Mist

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