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 7-Port Antenna, 2x2 MIMO + GNSS

SKU
ANT-HS-00003
MPN
1399.99.0153

**Description**

The Huber+Suhner Sencity Rail Multi 7-Port Antenna is designed for railway applications, providing robust connectivity across cellular, Wi-Fi, and GNSS frequencies. It supports 4x4 MIMO for cellular networks including 3G, 4G, and 5G, enhancing data throughput and reliability. The antenna operates within a wide frequency range of 617 MHz to 7125 MHz for cellular and Wi-Fi connections, making it versatile for various communication needs.

The antenna includes four cellular ports, two Wi-Fi ports, and one GNSS port, ensuring comprehensive coverage and connectivity. Each port is designed for specific frequency bands, allowing the antenna to handle multiple communication tasks simultaneously. The GNSS functionality, with integrated LNA, supports precise location services by operating within the 1559 MHz to 1610 MHz range.

Its construction from aluminium and polycarbonate and the IP69 ingress protection rating ensure durability in harsh...

Read More

**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

## Cables 1-4: Cellular

Start Frequency
617 MHz
Stop Frequency
7125 MHz
Max. Input Power
80 W
Polarisation
Vertical (V)
Input Impedance
50 Ω
RF Connectors

| Ports | RF Interface | Body Shape | Cable Series | Length |
|---|---|---|---|---|
| 4 | N Female | Straight | RG-316 | 529 mm |

Frequency Test Data

| Start Freq. | Stop Freq. | Peak Gain | VSWR | Inter-Port Iso. |
|---|---|---|---|---|

| | | | |
|---|---|---|---|
| 617 MHz | 694 MHz | 3.5 dBi | < 1.7:1 > 13 dB |
| 694 MHz | 960 MHz | 5 dBi | < 1.6:1 > 13 dB |
| 1350 MHz | 3300 MHz | 6 dBi | < 1.8:1 > 20 dB |
| 3300 MHz | 4900 MHz | 6 dBi | < 1.9:1 > 25 dB |
| 4900 MHz | 7125 MHz | 6 dBi | < 1.7:1 > 25 dB |

### Cables 5-6: Wi-Fi

Start Frequency
2400 MHz
Stop Frequency
7125 MHz
Max. Input Power
80 W
Polarisation
Vertical (V)
Input Impedance
50 Ω
RF Connectors

| Ports | RF Interface | Body Shape | Cable Series | Length |
|---|---|---|---|---|
| 2 | N Female | Straight | RG-316 | 529 mm |

Frequency Test Data

| Start Freq. | Stop Freq. | Peak Gain | VSWR | Inter-Port Iso. |
|---|---|---|---|---|
| 2400 MHz | 2500 MHz | 7 dBi | < 1.7:1 > | 22 dB |
| 4900 MHz | 7125 MHz | 7 dBi | < 1.5:1 > | 35 dB |

## Cable 7: 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
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 | 529 mm |

# Physical Specification

Subtype
Fin / Stud / Combo
Input Ports
7
MIMO
4x4 MIMO
Min. Operating Temperature
-40 °C
Max. Operating Temperature
85 °C
Dimensions
84 x 368 x 425
Ingress Protection
IP69
Materials
Aluminium, Polycarbonate (PC)
Mounting
Stud / Bulkhead / Panel
Weight
8 kg
Compliance/Certifications
RoHS
Mechanical Compliance
IEC 60068-2-11: Salt Mist

,
IEC 60068-2-14: Change of Temperature
,
IEC 60068-2-6: Vibration