

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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RF Specification

Cell/Wi-Fi 1

| | | | |
|-------------------|-------------------------|--|--------------|
| Start Frequency: | Huber+Suhner 617 MHz | Polarisation: | Vertical (V) |
| Stop Frequency: | 960 MHz | Input Impedance: | 50 |
| Max. Input Power: | 80 W | The global Swiss company HUBER+SUHNER develops and manufactures components and system solutions for electronic, optical transportation of data and telecommunication. 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 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 | Polarisation: | Vertical (V) |
| Stop Frequency: | 2700 MHz | Input Impedance: | 50 |
| Max. Input Power: | 80 W | | |

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 | Polarisation: | Vertical (V) |
| Stop Frequency: | 3300 MHz | Input Impedance: | 50 |
| Max. Input Power: | 80 W | | |

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 | Polarisation: | Vertical (V) |
|------------------|----------|---------------|--------------|

| | | | |
|-----------------|----------|------------------|----|
| Stop Frequency: | 4900 MHz | Input Impedance: | 50 |
|-----------------|----------|------------------|----|

| | |
|-------------------|------|
| Max. Input Power: | 80 W |
|-------------------|------|

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 | Input Impedance: | 50 |
|------------------|----------|------------------|----|

| | | | |
|-----------------|----------|---------------|----------------------------|
| Stop Frequency: | 1610 MHz | Polarisation: | Right Hand Circular (RHCP) |
|-----------------|----------|---------------|----------------------------|

Low Noise Amplifier (LNA)

| | | | |
|-----------|---------|-------------------------|-----|
| LNA Gain: | 30 dBic | Min. Operating Voltage: | 3 V |
|-----------|---------|-------------------------|-----|

| | | | |
|---------------|----------|-------------------------|-----|
| Noise Figure: | ≤ 1.6 dB | Max. Operating Voltage: | 5 V |
|---------------|----------|-------------------------|-----|

| | |
|--------------------|---------|
| Power Consumption: | < 20 mW |
|--------------------|---------|

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 | Dimensions: | 81.6 x 102.5 x 352.5 |
| Input Ports: | 5 | Ingress Protection: | IP69K |
| MIMO: | 2x2 MIMO | Materials: | ASA Plastic, Aluminium |
| Min. Operating Temperature: | -55 °C | Weight: | 2.3 kg |
| Max. Operating Temperature: | 85 °C | Compliance/Certifications: | ISO 9001 Quality Management |
| | | RoHS | |
| | | Mechanical Compliance: | IEC 60068-2-11: Salt Mist |

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