

# Huber+Suhner 3G-4G Sencity Rail Multi 7-Port Antenna, 2x2 MIMO + GNSS

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## 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...

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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

## Cables 1-4: Cellular

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

### 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	Polarisation:	Vertical (V)
Stop Frequency:	7125 MHz	Input Impedance:	50
Max. Input Power:	80 W		

### 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	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

## RF Connectors

Ports	RF Interface	Body Shape	Cable Series	Length
1	TNC Male	Straight	RG-316	529 mm

# Physical Specification

Subtype:	Fin / Stud / Combo	Dimensions:	84 x 368 x 425
Input Ports:	7	Ingress Protection:	IP69
MIMO:	4x4 MIMO	Materials:	Aluminium, Polycarbonate (PC)
Min. Operating Temperature:	-40 °C	Mounting:	Stud / Bulkhead / Panel
Max. Operating Temperature:	85 °C	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

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