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2J Medusa 4G-5G Ultraband MIMO + Dual-Band WiFi MIMO + GNSS 5-Port Combo Stud Antenna, 617 to 5925 MHz

SKU
ANT-2J-00027
MPN
2J7B86BGFA

Description

The 2J Medusa 4G-5G Ultraband MIMO + Dual-Band WiFi MIMO + GNSS 5-Port Combo Stud Antenna (SKU: ANT-2J-00027) is a versatile and robust communication solution designed for a wide range of applications, including automotive, marine, and M2M systems. This antenna operates across a broad frequency range from 617 MHz to 5925 MHz, ensuring reliable connectivity for 4G and 5G networks. Featuring dual-band WiFi MIMO capabilities, it supports frequencies from 2410 MHz to 5925 MHz, enhancing data throughput and network efficiency.

Constructed with durable ASA plastic and aluminium, the antenna is IP67-rated for excellent resistance against dust and water, making it suitable for harsh environments. The antenna's five-port configuration includes dedicated GNSS functionality, with GPS/GLONASS capability supported by an integrated LNA for improved signal reception.

2J, a Slovakian company, is known for its innovative engineering and high-quality...

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2J is a worldwide supplier of antenna solutions for Automotive, Marine, Telematic, Automation and M2M markets. 2J utilise a plethora of modern engineering tools, from network analysers and anechoic chambers, to simulation software and 3D printers. These tools help reduce design phases, and enable us to react to customers' needs promptly and efficiently.

Over the past decade, 2J has established ...

RF Specification

Cable 1: 5GNR

Start Frequency
617 MHz
Stop Frequency
5925 MHz
Max. Input Power
35 W
Polarisation
Linear
Input Impedance
50 Ω
RF Connectors

Ports	RF Interface	Body Shape	Cable Series	Length
1	SMA Male	Straight	L-195	3000 mm

Frequency Test Data

Start Freq.	Stop Freq.	Peak Gain	Return Loss	VSWR	Azimuth	Avg. Gain	Efficiency
617 MHz	960 MHz	0.3 dBi	> 8.2 dB	< 2.51:1	360°	-4.2 dBi	39%
1427 MHz	2690 MHz	3.6 dBi	> 16.3 dB	< 1.41:1	360°	-3.4 dBi	46%
3300 MHz	5000 MHz	4.7 dBi	> 17.9 dB	< 1.41:1	360°	-3.8 dBi	42%
5150 MHz	5925 MHz	3.8 dBi	> 18.9 dB	< 1.31:1	360°	-4.4 dBi	37%

Cable 2: 5GNR

Start Frequency
617 MHz
Stop Frequency
5925 MHz
Max. Input Power
35 W
Polarisation
Linear
Input Impedance
50 Ω
RF Connectors

Ports	RF Interface	Body Shape	Cable Series	Length
1	SMA Male	Straight	L-195	3000 mm

Frequency Test Data

Start Freq.	Stop Freq.	Peak Gain	Return Loss	VSWR	Azimuth	Avg. Gain	Efficiency
617 MHz	960 MHz	0.7 dBi	> 8.2 dB	< 2.51:1	360°	-3.8 dBi	42%
1427 MHz	2690 MHz	3.7 dBi	> 15.6 dB	< 1.41:1	360°	-3.5 dBi	45%
3300 MHz	5000 MHz	4.6 dBi	> 13.7 dB	< 1.71:1	360°	-3.7 dBi	43%
5150 MHz	5925 MHz	3.6 dBi	> 13.2 dB	< 1.91:1	360°	-4.4 dBi	37%

Cable 3: 2.4/5.0 GHz ISM

Start Frequency
2410 MHz
Stop Frequency
5925 MHz
Max. Input Power
25 W
Polarisation
Linear
Input Impedance
50 Ω
RF Connectors

Ports	RF Interface	Body Shape	Cable Series	Length
1	RP-SMA Male	Straight	L-195	3000 mm

Frequency Test Data

Start Freq.	Stop Freq.	Peak Gain	Return Loss	VSWR	Azimuth	Avg. Gain	Efficiency
2410 MHz	2490 MHz	5.3 dBi	> 13.7 dB	< 1.51:1	360°	-3.6 dBi	43%
4920 MHz	5925 MHz	1.5 dBi	> 17.3 dB	< 1.41:1	360°	-5.9 dBi	26%

Cable 4: 2.4/5.0 GHz ISM

Start Frequency
2410 MHz
Stop Frequency
5925 MHz
Max. Input Power
25 W
Polarisation
Linear
Input Impedance
50 Ω
RF Connectors

Ports	RF Interface	Body Shape	Cable Series	Length
1	RP-SMA Male	Straight	L-195	3000 mm

Frequency Test Data

Start Freq.	Stop Freq.	Peak Gain	Return Loss	VSWR	Azimuth	Avg. Gain	Efficiency
2410 MHz	2490 MHz	5.3 dBi	> 13.3 dB	< 1.61:1	360°	-3.8 dBi	42%
4920 MHz	5925 MHz	2.3 dBi	> 18.4 dB	< 1.31:1	360°	-5.2 dBi	31%

Cable 5: GPS/GLONASS

Start Frequency
1575.42 MHz
Stop Frequency
1610 MHz
Input Impedance
50 Ω
Polarisation
Right Hand Circular (RHCP)

Low Noise Amplifier (LNA)

LNA Gain
23 dBic
Noise Figure
≤ 1.2 dB
Power Consumption
< 137.5 mW
Min. Operating Voltage
2.7 V
Max. Operating Voltage
5.5 V
RF Connectors

Ports	RF Interface	Body Shape	Cable Series	Length
1	SMA Male	Straight	L-100	3000 mm

Physical Specification

Subtype
Fin / Stud / Combo
Input Ports
5

MIMO
2x2 MIMO
Min. Operating Temperature
-40 °C
Max. Operating Temperature
85 °C
Dimensions
Ø 96 x H 130
Ingress Protection
IP67
Materials
Aluminium, ASA Plastic
Mounting
Stud / Bulkhead / Panel
Compliance/Certifications
RoHS

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