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2J Phoenix 4G-5G WiFi Ultraband 2x2 MIMO + GNSS 3-Port Combo Stud Antenna, 617 to 5925 MHz

SKU
ANT-2J-00018
MPN
2J6984BGFA

Description

The 2J Phoenix 4G-5G WiFi Ultraband 2x2 MIMO + GNSS 3-Port Combo Stud Antenna (SKU: ANT-2J-00018, Part Number: 2J6984BGFA) is a high-performance, multi-functional antenna designed for versatile applications across automotive, marine, telematics, automation, and M2M markets. Its rugged ASA plastic construction and IP67 certification ensure durability in harsh environments, with an operating temperature range from -40 °C to 85 °C.

The antenna features three RF connections for enhanced connectivity: two 5GNR ports supporting frequencies from 617 to 5925 MHz, offering reliable linear polarisation and a 50 Ω impedance. Each port includes an SMA Male connector on a 3 metre L-100 cable. The integrated GNSS functionality operates within 1575 to 1602 MHz, featuring a right-hand circular polarisation and an active LNA with a 28 dBic gain, ensuring precise positioning data.

2J's commitment to quality and innovation is reflected in the Phoenix...

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2J

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
25 W
Polarisation
Linear
Input Impedance
50 Ω
RF Connectors

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

Frequency Test Data

Start Freq.	Stop Freq.	Peak Gain	Return Loss	VSWR	Avg. Gain	Efficiency

617 MHz	960 MHz	2.1 dBi	> 11.2 dB	< 2:1	-3.5 dBi	46%
1427 MHz	2690 MHz	5 dBi	> 8.3 dB	< 2.6:1	-3.1 dBi	51%
3300 MHz	5000 MHz	3.8 dBi	> 7.1 dB	< 3.2:1	-5.1 dBi	33%
5150 MHz	5925 MHz	3.9 dBi	> 7.4 dB	< 2.6:1	-5.2 dBi	31%

Cable 2: 5GNR

Start Frequency
617 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	SMA Male	Straight	L-100	3000 mm

Frequency Test Data

Start Freq.	Stop Freq.	Peak Gain	Return Loss	VSWR	Avg. Gain	Efficiency
617 MHz	960 MHz	3.2 dBi	> 9.6 dB	< 2.1:1	-3.7 dBi	45%
1427 MHz	2690 MHz	5 dBi	> 8.2 dB	< 2.6:1	-3 dBi	52%
3300 MHz	5000 MHz	5.1 dBi	> 6.9 dB	< 3.3:1	-4.3 dBi	40%
5150 MHz	5925 MHz	4.7 dBi	> 7 dB	< 2.8:1	-4.9 dBi	34%

Cable 3: GNSS

Start Frequency
1575.42 MHz
Stop Frequency
1602 MHz
Input Impedance
50 Ω
Polarisation
Right Hand Circular (RHCP)

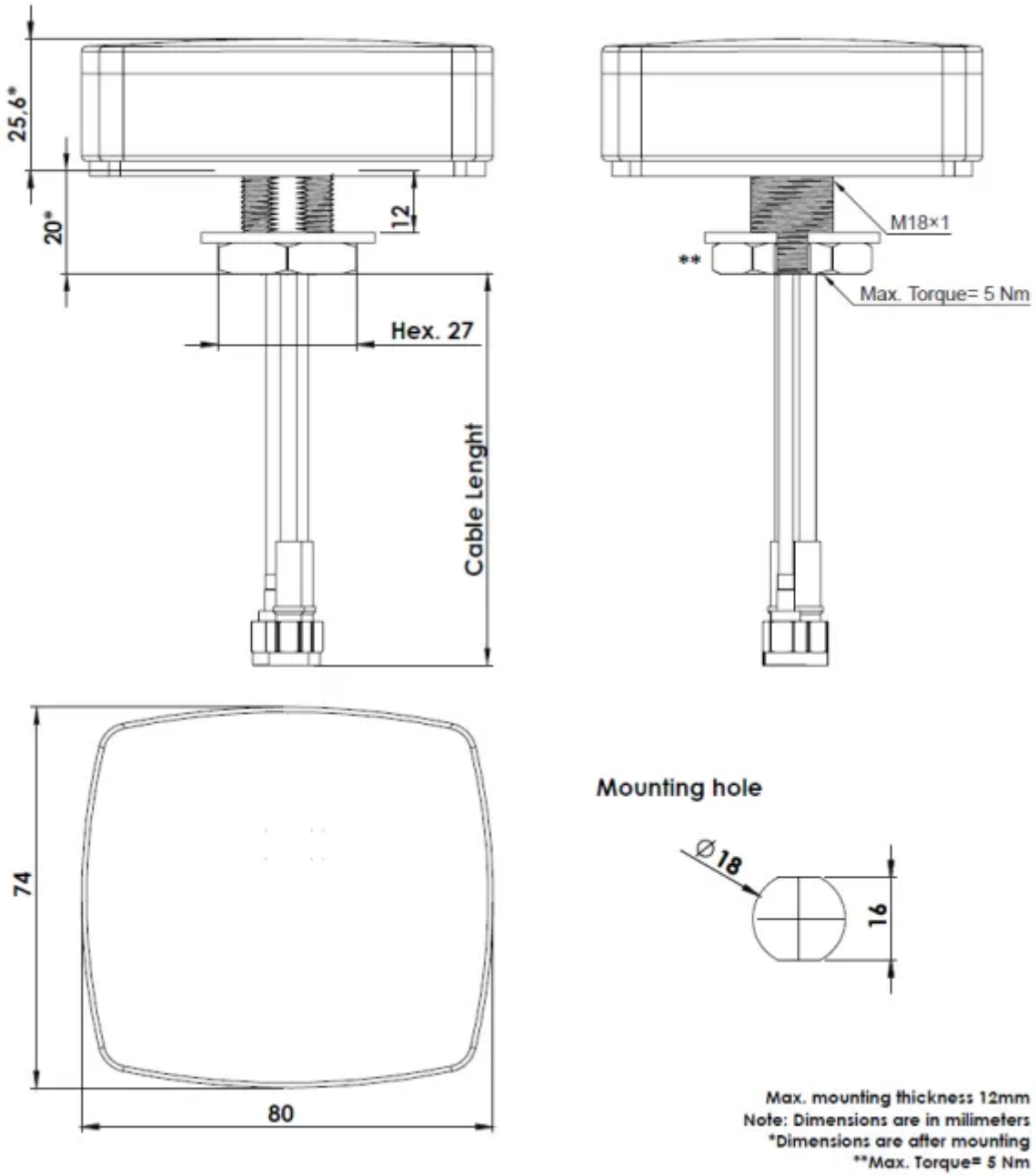
Low Noise Amplifier (LNA)

LNA Gain
28 dBic
Noise Figure
≤ 1.5 dB
Power Consumption
< 24.3 mW
Min. Operating Voltage
1.5 V
Max. Operating Voltage
3.6 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
3
MIMO
2x2 MIMO
Min. Operating Temperature
-40 °C
Max. Operating Temperature
85 °C
Dimensions
80 x 74 x 25.6
Ingress Protection
IP67
Materials
ASA Plastic
Compliance/Certifications
RoHS
Drawing



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