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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 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	<u>Straight</u>	<u>L-100</u>	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 Fraguancy									
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 <u>SMA</u>	Male Str	aight	<u>L-100</u>	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

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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