

## Multi Band 41dBi GPS/GNSS Aviation Antenna 1,164-1,615 MHz TNC Female Connector IP67

The FMANGPS1002 is an active GPS/GNSS multi band L1/L2/L5 antenna with 41dBi overall gain. This high precision antenna is IP67 rated, light weight and designed for Aviation. The active Aviation GPS/GNSS antenna is ideally suited for use in harsh operating environments where stability and reliability of GPS/GNSS signal is required.

This antenna operates in the 1.164-1.3GHz and 1.525-1.615GHz bands meeting GPS L1/L2/L5, GALILEO E1/E5a/E5b/E6 and GLONASS L1/L2/L3 requirements. The FMANGPS1002 antenna has an integrated LNA with 2 dB noise figure and typical LNA gain of 36 dB.

The FMANGPS1002 GPS antenna from Fairview Microwave, with an axial ratio of 3 dB, can track visible satellites under extreme conditions, providing positioning solutions with accuracy for UAV navigation, autonomous tracking, or GIS surveying.

### Configuration

Design	GPS/GNSS
Gain	41 to 41 dBi
Polarization	RHCP
Connector Type	TNC Female

### Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	1,164		1,615	MHz
Output VSWR			2:1	
Impedance		50		Ohms
Gain		41		dBi
Noise Figure		2		dB
Operating DC Voltage	3.3		12	Volts
Current			45	mA
Axial Ratio		3		dB

### Specifications by Frequency

Description	Band 1	Band 2	Band 3	Band 4	Band 5	Units
Range	1.164-1.3	1.525-1.615				GHz
Gain	41	42				dBi

### Mechanical Specifications

<b>Size</b>	
Length	2.57 in [65.28 mm]
Width	2.57 in [65.28 mm]
Height	1.65 in [41.91 mm]
Weight	0.4 lbs [181.44 g]

### Environmental Specifications

<b>Temperature</b>	
Operating Range	-40 to +85 deg C
Storage Range	-55 to +85 deg C



### Features:

- Multi Band
- IP67 Rated
- 1.164-1.3GHz and 1.525-1.615GHz
- Stable Phase Center
- Millimeter Level Accuracy
- TNC Female

### Applications:

- GPS L1/L2/L5
- GLONASS L1/L2/L3
- Galileo E1/E5a/E5b/E6
- BDS B1/B2/B3
- QZSS L1/L2/L5/L6
- SBAS L1/L5
- IRNSS L5
- Unmanned Vehicles/Vessels
- GIS Surveying
- Autonomous Vehicles

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Humidity 95%  
Ingress Protection 67

**Compliance Certifications** (see [product page](#) for current document)

## Plotted and Other Data

Notes:

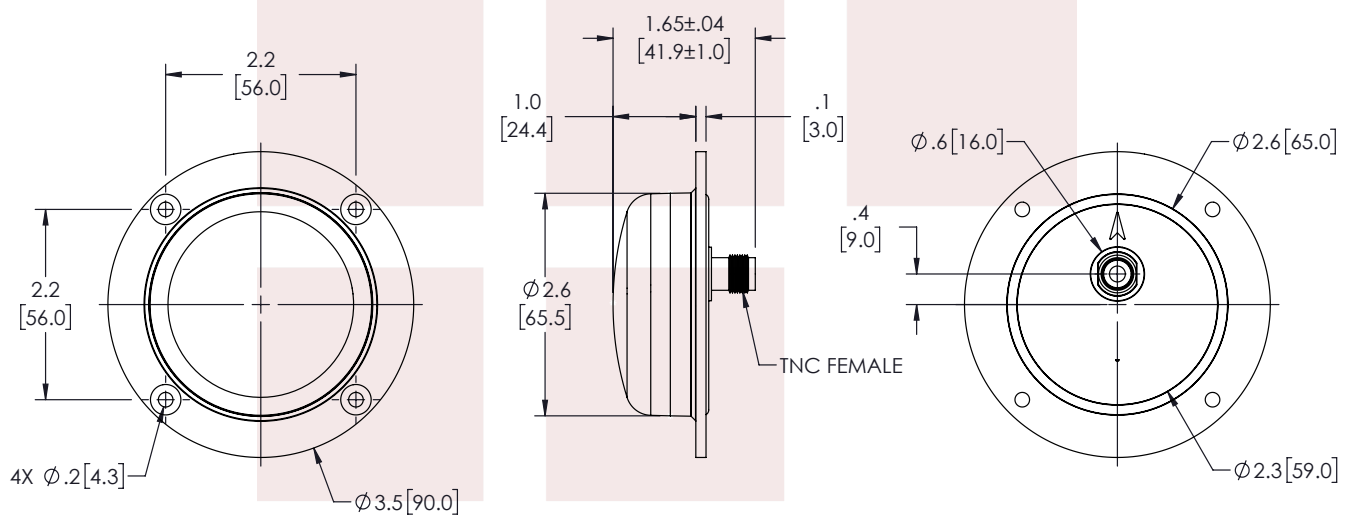
Multi Band 41dBi GPS/GNSS Aviation Antenna 1,164-1,615 MHz TNC Female Connector IP67 from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Multi Band 41dBi GPS/GNSS Aviation Antenna 1,164-1,615 MHz TNC Female Connector IP67 FMANGPS1002](#)

URL: <https://www.fairviewmicrowave.com/gps-active-band-antenna-1.164-1.615-ghz-41-dbi-gain-tnc-female-connector-rhcp-fmangps1002-p.aspx>

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	5/9/2022	KHIETPAS



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TITLE

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UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES  
DIMENSIONS IN [ ] ARE MILLIMETERS

TOLERANCES:

.X = ±.2 [5.08] FRACTIONS  
.XX = ±.02 [.51] ± 1/32  
XXX = ±.005 [.13] ANGLES ± 1°

CABLE LENGTH (L) TOLERANCES:

L ≤ 12 [305] = +1 [25] / -0  
12 [305] < L ≤ 60 [1524] = +2 [51] / -0  
60 [1524] < L ≤ 120 [3048] = +4 [102] / -0  
120 [3048] < L ≤ 300 [7620] = +6 [152] / -0  
300 [7620] < L = +5%L / -0

THIRD-ANGLE PROJECTION



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SHEET 1 OF 1

SCALE N/A

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	3FKR5	HBAKKE	FMANGPS1002	A

T-Rev.D