

Multi Band 37dBi GPS/GNSS UAV Antenna 1,166-1,610 MHz SMA Male Connector IP67

The FMANGPS1001 is an active GPS/GNSS multi band L1/L2/L5 antenna with 37dBi overall gain. This high precision antenna is IP67 rated, light weight and designed for Unmanned Aerial Vehicles (UAV). The active UAV 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 1.166-1.278GHz and 1.52-1.61GHz bands meeting GPS L1/L2/L5, GALILEO E1/E5a/E5b/E6 and GLONASS L1/L2/L3 requirements. The FMANGPS1001 antenna has an integrated LNA with 1.5 dB noise figure and typical LNA gain of 33 dB.

The FMANGPS1001 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	39 to 37.5 dBi
Polarization	RHCP
Connector Type	SMA Male

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	1,166		1,610	MHz
Output VSWR			2:1	
Impedance		50		Ohms
Gain		37.5		dBi
Noise Figure		1.5		dB
Operating DC Voltage	3.3		12	Volts
Current			55	mA
Axial Ratio		3		dB

Specifications by Frequency

Description	Band 1	Band 2	Band 3	Band 4	Band 5	Units
Range	1.166-1.278	1.52-1.61				GHz
Gain	39	40				dBi

Mechanical Specifications

Size	
Length	3.25 in [82.55 mm]
Width	1.57 in [39.88 mm]
Height	1.57 in [39.88 mm]
Weight	0.15 lbs [68.04 g]



Features:

- Multi Band
- IP67 Rated
- 1.166-1.278GHz and 1.52-1.61GHz
- Stable Phase Center
- Millimeter Level Accuracy
- SMA Male

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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Environmental Specifications

Temperature

Operating Range	-40 to +70 deg C
Storage Range	-40 to +70 deg C
Humidity	95%

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

Plotted and Other Data

Notes:

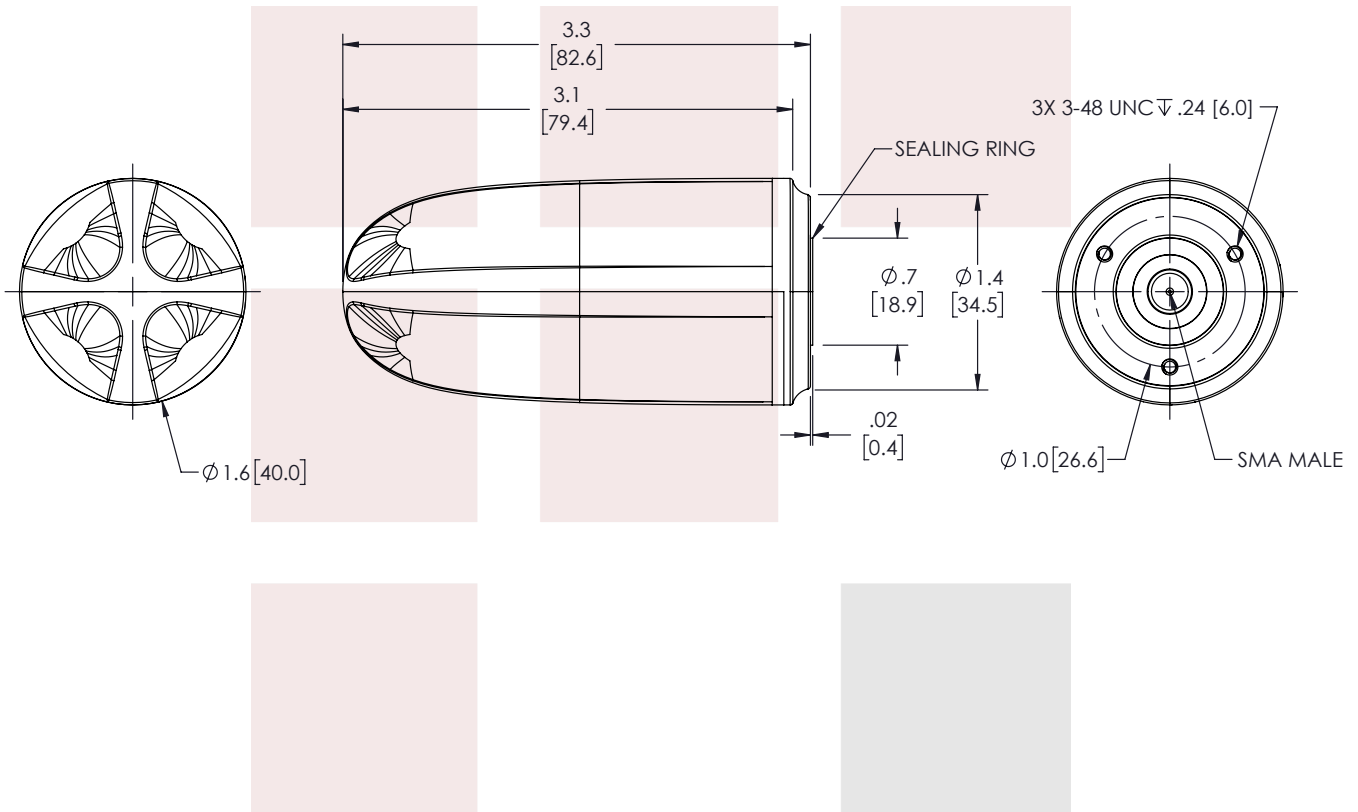
Multi Band 37dBi GPS/GNSS UAV Antenna 1,166-1,610 MHz SMA Male Connector IP67 from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Multi Band 37dBi GPS/GNSS UAV Antenna 1,166-1,610 MHz SMA Male Connector IP67 FMANGPS1001](#)

URL: <https://www.fairviewmicrowave.com/gps-active-band-antenna-1.166-1.61-ghz-37.5-dbi-gain-sma-male-connector-rhcp-fmangps1001-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 ± 1/32
.XX = ±.02 [.51]
.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

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SCALE

N/A

SIZE A	CAGE CODE 3FKR5	DRAWN BY HBAKKE	ITEM NO. FMANGPS1001	REV A
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T-Rev.D