Fairview Microwave
an INFINITE brand

FMANGPS1003 DATA SHEET

Dual Band 47dBi GPS/GNSS Survey Antenna 1,205-1,615 MHz TNC Female Connector IP67

The FMANGPS1003 is an active GPS/GNSS dual band L1/L2 antenna with 47.5 dBi overall gain. This high precision antenna is IP67 rated, light weight and designed for Survey. The active Survey 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 1.205-1.278GHz and 1.559-1.615GHz bands meeting GPS L1/L2, GALILEO E1 and GLONASS L1/L2 requirements. The FMANGPS1003 antenna has an integrated LNA with 2 dB noise figure and typical LNA gain of 40 dB.

The FMANGPS1003 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.

Features:

- Dual Band
- IP67 Rated
- 1.205-1.278GHz and 1.559-1.615GHz
- Stable Phase Center
- Millimeter Level Accuracy
- TNC Female

Applications:

- GPS L1/L2
- GLONASS L1/L2
- Galileo E1
- QZSS L1/L2
- SBAS L1
- Unmanned Vehicles/Vessels
- GIS Surveying
- Autonomous Vehicles

Configuration

Design	GPS/GNSS
Gain	47.5 to 47.5 dBi
Polarization	RHCP
Connector Type	TNC Female

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	1,205		1,615	MHz
Output VSWR			2:1	
Impedance		50		Ohms
Gain		47.5		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	1.205-1.278	1.559-1.615				GHz
Gain	47.5	47.5				dBi

Mechanical Specifications

Size

Length	5.98 in [151.89 mm]
Width	5.98 in [151.89 mm]
Height	2.44 in [61.98 mm]
Weight	1.25 lbs [566.99 g]

Environmental Specifications

Temperature

Operating Range	-40 to +85 deg C
Storage Range	-55 to +85 deg C

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Humidity	95%

Compliance Certifications (see product page for current document)

Plotted and Other Data

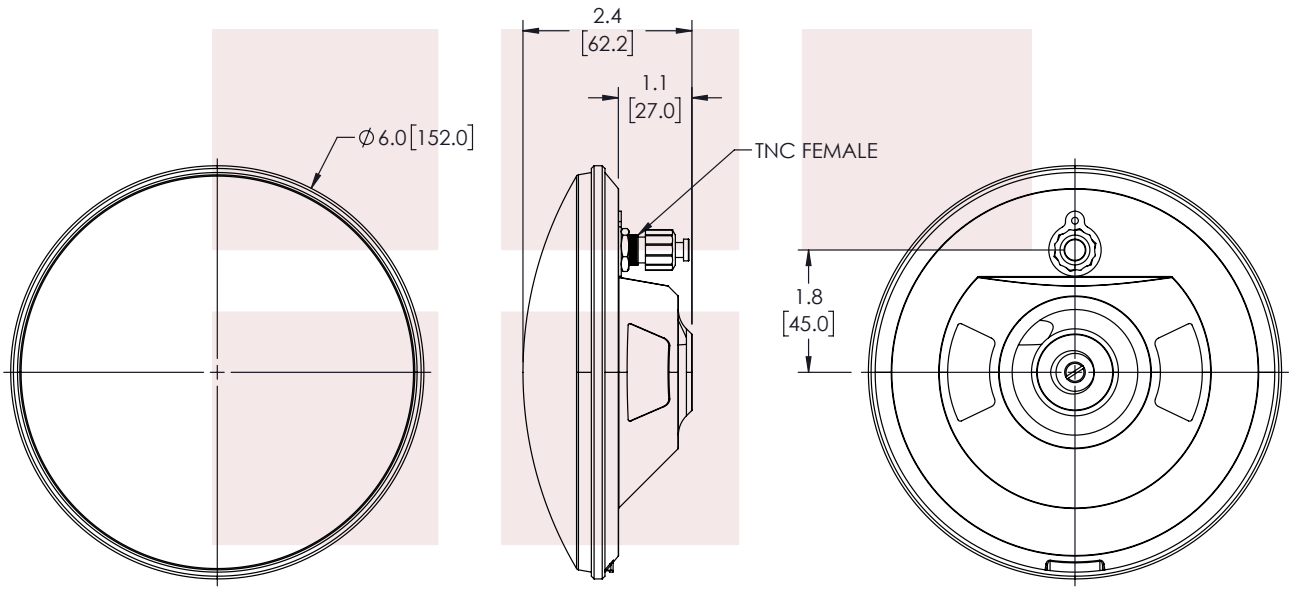
Notes:

Dual Band 47dBi GPS/GNSS Survey Antenna 1,205-1,615 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: Dual Band 47dBi GPS/GNSS Survey Antenna 1,205-1,615 MHz TNC Female Connector IP67 FMANGPS1003

URL: https://www.fairviewmicrowave.com/gps-active-band-antenna-1.205-1.615-ghz-47.5-dbi-gain-tnc-female-connector-rhcp-fmangps1003-p.aspx

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

SHEET 1 OF 1

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SCALE N/A

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	3FKR5	HBAKKE	FMANGPS1003	A

T-Rev.D