

43 dBi MultiBand Timing GPS/GLNSS Antenna
1,166-1,606 MHz N Type Connector

FM51GPS1005 from Fairview Microwave is a Dual Band (L1 / L5) active GPS timing antenna that filters and amplifies global positioning system signals received from GNSS (L1 / L5), Galileo (E1 / E5), GLONASS (G1 /G3), BeiDou (B1 /B2), QZSS (L1/L5), and IRNSS (L5) satellite constellations. The antenna is designed with an integrated 40 dB LNA and operates within 1166 MHz to 1218 MHz and 1559 MHz to 1606 MHz with high out-of-band rejection.

The Fairview Microwave FM51GPS1005 recovers timing and positioning data for timing reference and phase synchronization. The 1 dB axial ratio increases position accuracy in densely populated urban areas. High 43 dBic gain and low 2 dB noise figure allows for longer commercial grade cable, making installation versatile and economical.

The dual band (L1 / L5) active antenna is a fully ruggedized unit and IP67 Rated. The antenna is DC fed through the RF cable and is externally grounded. This Type N Female Timing Antenna from Fairview Microwave is compatible with several existing mounting brackets. Our Active GPS Antennas are part of over 1 million in-stock components for RF, microwave and millimeter wave applications that are ready to ship same day worldwide.

Configuration

Design	GPS/GLNSS
Polarization	RHCP
Connector Type	N Female

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	1,166		1,606	MHz
Impedance		50		Ohms
Gain			43	dBi
Gain Variation		±3		dBi
Out Of Band Rejection	40	60		dB
VSWR		1.8:1		
Axial Ratio		1		dB
Operating DC Voltage	3.5		12	Volts

Mechanical Specifications

Housing Plating/Color	White
Size	
Length	3.937 in [100 mm]
Height	3.03 in [76.96 mm]
Weight	0.9 lbs [408.23 g]

Environmental Specifications

Humidity	95%
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Features:

- Dual Band L1/L5
- Multiple GNSS Systems Supported
- High 40 dB Gain
- Low 2 dB Noise Figure
- 1 dB Axial Ratio
- IP67 Rated
- External Grounding Lug

Applications:

- Global: GPS (L1 / L5), Galileo (E1 / E5), GLONASS (G1 /G3)
- Local: BeiDou (B1 / B2), IRNSS (L5)
- Timing and Positioning Phase Synchronization
- 1166 - 1218 MHz / 1559 - 1606 MHz
- High Accuracy Mission Critical Global Positioning
- Military and Security

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

Plotted and Other Data

Notes:

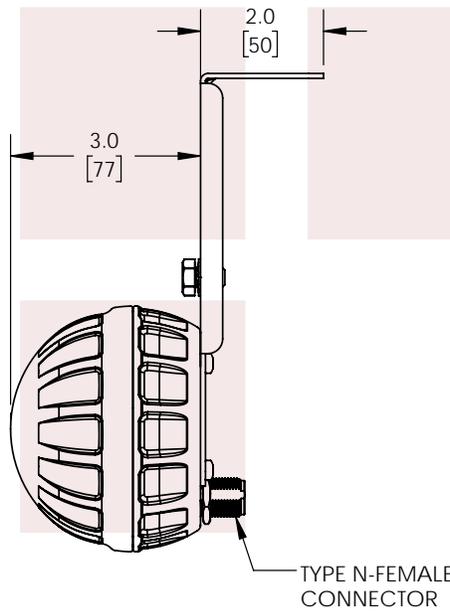
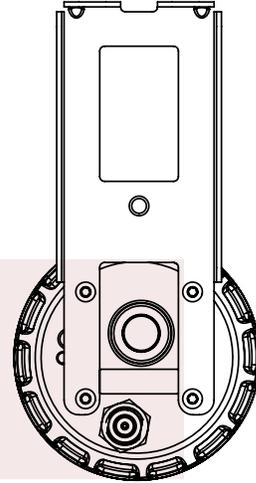
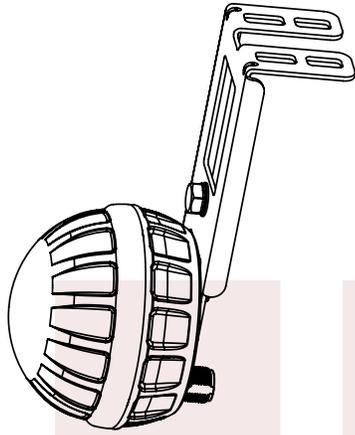
43 dBi MultiBand Timing GPS/GLNSS Antenna 1,166-1,606 MHz N Type Connector from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [43 dBi MultiBand Timing GPS/GLNSS Antenna 1,166-1,606 MHz N Type Connector FM51GPS1005](#)

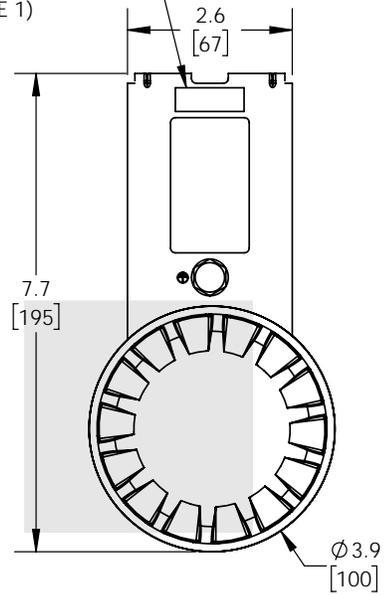
URL: <https://www.fairviewmicrowave.com/timing-multi-band-antenna-43-dbi-n-female-fm51gps1005-p.aspx>

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	04/22/2021	KHIETPAS



LABEL PER ILS-100-01
(SEE NOTE 1)



NOTES:

1. LABEL PER ILS-100-01 (FOR INTERNAL REFERENCE ONLY)
LABEL LOCATION FOR REFERENCE ONLY

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TITLE

43 dBi MultiBand Timing GPS/GLNSS Antenna 1,166-1,606 MHz N Type Connector

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

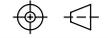
TOLERANCES:

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

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 A	CAGE CODE 3FKR5	DRAWN BY BPUCHASKI	ITEM NO. FM51GPS1005	REV A
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