

31 dBi Active GPS/BeiDou/GLONASS Timing Antenna  
RHCP 1563/1575/1602, RG174 TNC Female IPX6



**FMANGPS1016**

**Features**

- TNC Female
- Right Hand Circular Polarized
- 28 dB LNA w/ low 1.5 dB Noise Figure
- Neodymium Rare-Earth Magnet
- IPX6 Rated

**Applications**

- GPS L1/BDS B1/GLONASS G1
- High Accuracy Global Positioning
- Precision Agriculture, Mining and Construction
- Military and Security
- Law Enforcement and Public Safety

**Description**

Fairview Microwave's FMANGPS1016 active GPS timing antenna filters and amplifies GNSS L1, GLONASS G1, and BeiDou B1 global positioning signals received from satellite constellations. The antenna operates within 1559 MHz to 1563 MHz, 1574 MHz to 1606 MHz with high out-of-band rejection with an integrated 28 dB LNA.

The Fairview Microwave FMANGPS1016 recovers timing and positioning data for timing reference and phase synchronization. High 31 dBi gain and low 1.5 dB noise figure allows for longer commercial grade cable, making installation versatile and economical.

The GPS timing antenna FMANGPS1016 from Fairview Microwave is externally grounded with a DC feed through the RF cable. This Timing Antenna with TNC Female connector is compatible with several existing mounting brackets. The active antenna is fully ruggedized and IPX6 Rated. Active GPS Antennas from Fairview Microwave are high-quality components backed by expert technical support and sales personnel.

**Configuration**

Design	GPS Active
Band Type	Single
Polarization	RHCP
Cable Type	RG174
Connector Type	TNC Female
Number of Ports	1

**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	1,559		1,607	MHz
Input VSWR			2:1	
Output VSWR			2:1	
Impedance		50		Ohms
Gain		31		dBi
Gain Variation		±5		
Noise Figure			2	
Out Of Band Rejection	20			dB
Operating DC Voltage	3		5.5	
Current	8		22	mA

31 dBi Active GPS/BeiDou/GLONASS Timing Antenna  
RHCP 1563/1575/1602, RG174 TNC Female IPX6



## FMANGPS1016

### Specifications by Band

Description	Band 1	Band 2	Band 3	Band 4	Band 5	Units
Range	1.559 to 1.563	1.574 to 1.577	1.597 to 1.607			GHz
Center Frequency	1.561	1.575	1.602			GHz

### Mechanical Specifications

#### Size

Length	4.27 in [108.46 mm]
Width	3.15 in [80.01 mm]
Height	3.15 in [80.01 mm]
Weight	1 lbs [453.59 g]

### Environmental Specifications

#### Temperature

Ingress Protection	IPX6
--------------------	------

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

### Plotted and Other Data

Notes:

## 31 dBi Active GPS/BeiDou/GLONASS Timing Antenna RHCP 1563/1575/1602, RG174 TNC Female IPX6



### FMANGPS1016

#### Typical Radiation Pattern

#### Appendix

**Electrical Downtilt:** Angle in the antenna's elevation pattern in which the maximum gain occurs.

**Gain:** Antenna's average gain.

**Front to Back Ratio @ 180°±30°:** Average difference between the antenna's maximum gain and the maximum gain in the antenna's back lobe over ±30° angles.

**Cross-polarization Ratio (dB):** Typical difference between the co-polarization and cross-polarization gain across the sector's 3 dB Beam Width.

Dedicated to serving the needs of the Wireless Internet Service Provider (WISP) market, KP Performance Antennas offers purpose built products that reliably perform in the field. KP Performance Antennas product line consists of Yagi, Grid, Omni, Dish and other style antennas that operate in the 900 MHz, 2.4 GHz, 3 GHz, and 5 GHz frequencies.

31 dBi Active GPS/BeiDou/GLONASS Timing Antenna RHCP 1563/1575/1602, RG174 TNC Female IPX6 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: [31 dBi Active GPS/BeiDou/GLONASS Timing Antenna RHCP 1563/1575/1602, RG174 TNC Female IPX6 FMANGPS1016](https://www.fairviewmicrowave.com/gps-active-antenna-1.559-to-1.607-ghz-31-dbi-gain-tnc-female-connector-rh-cp-fmangps1016-p.aspx)

URL: <https://www.fairviewmicrowave.com/gps-active-antenna-1.559-to-1.607-ghz-31-dbi-gain-tnc-female-connector-rh-cp-fmangps1016-p.aspx>

The information contained within this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume liability arising out of the use of any part or document.

# FMANGPS1016 CAD Drawing

31 dBi Active GPS/BeiDou/GLONASS Timing Antenna RHCP, RG174 TNC Female IPX6

