

5.8 GHz 16.5 dBi Yagi Antenna

The Fairview Microwave FM51YA1005 radome enclosed yagi antenna features high gain and a 30° beam width. It is ideally suited for directional and multipoint IEEE 802.11a/n WiFi and wireless LAN applications and other systems operating in the 5.8GHz ISM band.

The FM51YA1005 is enclosed within a UV-stable ABS radome for all-weather operation. Included with the antenna is a 60° tilt and swivel mast mount kit. This allows the installer to make accurate alignment over a wide range of pointing angles. The FM51YA1005 features a 10 inch (25.4mm) coax cable terminated with an N-Female connector. Additional connector type are available, please inquire when ordering for options.

Configuration

Design	Yagi
Gain	16.5 to 16.5 dBi
Polarization	Vertical
Cable Length	10 in [254 mm]
Connector Type	N Female
Number of Ports	1
Lightning Protection	DC Ground

Electrical Specifications

Description	Min	Typ	Max	Units
Input VSWR			1.5:1	
Impedance		50		Ohms
Gain		16.5		dBi
Front to Back Ratio		18		dB
Input Power			100	Watts

Specifications by Frequency

Description	Band 1	Band 2	Band 3	Band 4	Band 5	Units
Range	5.725-5.825					GHz
Gain	16.5					dBi
Horiz. Beam Width	30					Degrees
Vert. Beam Width	25					Degrees
Max Input Power	100					Watts

Mechanical Specifications

Radome Material	ABS
Size	
Length	13.9 in [353.06 mm]
Width	2.6 in [66.04 mm]
Height	4.6 in [116.84 mm]
Mounting Mast Diameter	1.6 to 2 in [40.64 to 50.80 mm]
Weight	0.818 lbs [371.04 g]

Mechanical Specification Notes:



Features:

- Lightweight Superior performance YAGI Antenna
- All Weather Operation, UV Stable ABS Radome provides Protection
- 30° Beam Width Coverage
- Can be installed for either vertical or horizontal polarization
- Includes tilt and swivel mast mount

Applications:

- 5.8GHz UNII applications
- 5.8GHz ISM applications
- 5.8GHz Wireless LAN systems
- Long-range Directional Applications
- Point to Point, Point to Multi-point Systems

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Radome material is weatherproof ABS.

Environmental Specifications

Temperature

Operating Range -40 to +65 deg C

Wind Loading 130 MPH [209.21 KPH]

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

Plotted and Other Data

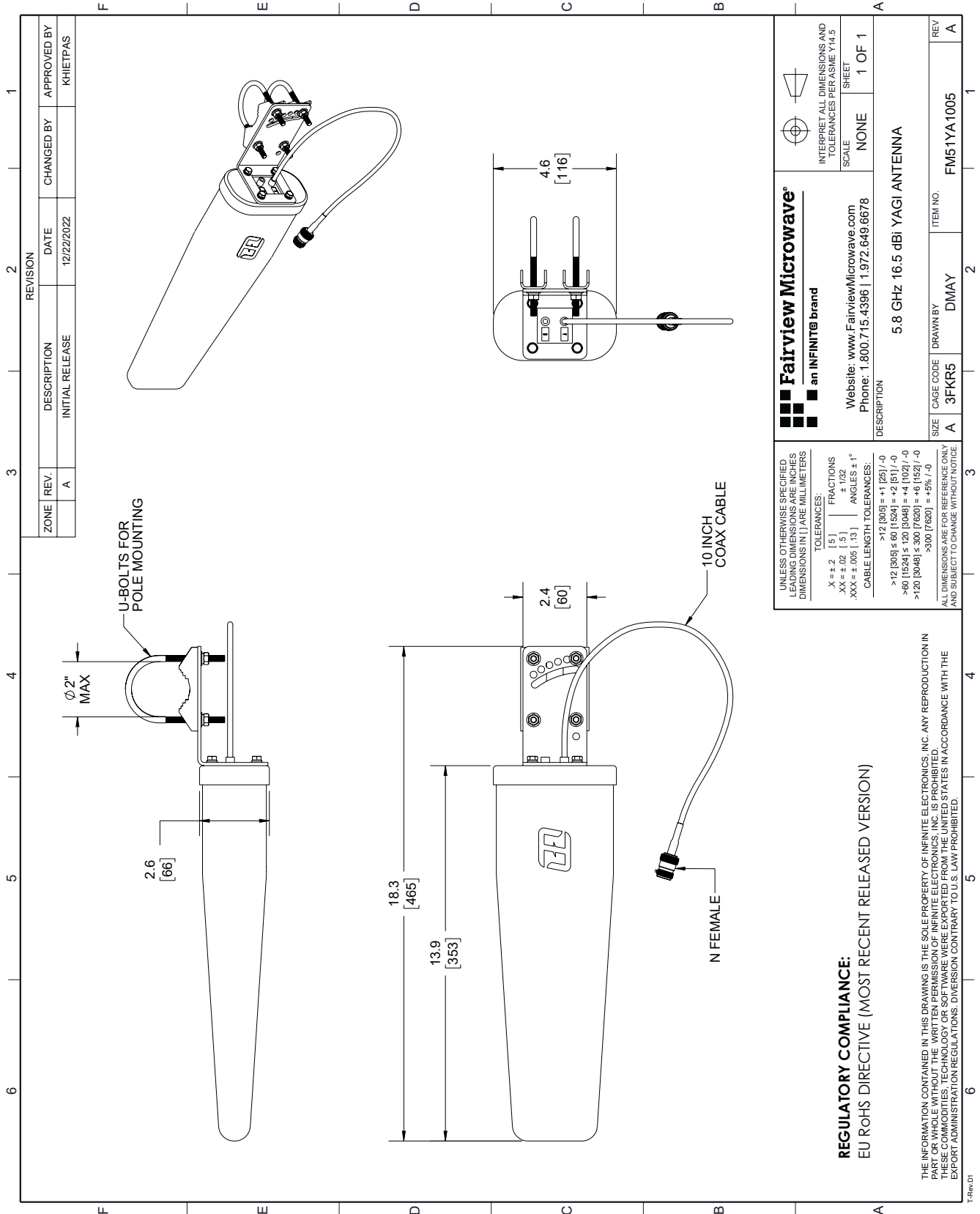
Notes:

5.8 GHz 16.5 dBi Yagi Antenna 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: [5.8 GHz 16.5 dBi Yagi Antenna FM51YA1005](#)

URL: <https://www.fairviewmicrowave.com/single-antenna-16.5-dbi-gain-n-fm51ya1005-p.aspx>

The information contained in 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 any liability arising out of the use of any part or documentation.



REVISION		DATE	APPROVED BY
ZONE	REV.	DESCRIPTION	CHANGED BY
	A	INITIAL RELEASE	KHIETPAS

<p>Fairview Microwave[®] an INFINIT[®] brand</p> <p>Website: www.FairviewMicrowave.com Phone: 1.800.715.4396 1.972.649.6678</p>		<p>INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5</p> <p>SCALE: NONE</p> <p>SHEET: 1 OF 1</p>
<p>DESCRIPTION: 5.8 GHz 16.5 dBi YAGI ANTENNA</p>		
SIZE	CAGE CODE	ITEM NO.
A	3FKR5	FM51YA1005
REV	DRAWN BY	REV
A	DMAY	A

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. DIMENSIONS IN PARENTHESES ARE IN MILLIMETERS.

TOLERANCES:

.X = ±.2 [5] FRACTIONS
 .XX = ±.02 [.5] ±.032
 .XXX = ±.005 [.13] ANGLES ± 1°

CABLE LENGTH TOLERANCES:

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

ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE.

REGULATORY COMPLIANCE:
EU RoHS DIRECTIVE (MOST RECENT RELEASED VERSION)

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