

WiFi 6e, 2400-2500/5150-7250 MHz
6/6 dBi, 6x6 MIMO Omni, N-Female



FMANOM1166

Features

- N Female Connector
- 6 x Vertical Polarization
- 6x6 MIMO Functionality
- Outdoor Rated Omnidirectional Antenna
- 2.4 GHz, 5 GHz, 6 GHz WiFi Bands
- 6 dBi gain

Applications

- Infotainment systems, Routers, WiFi hotspots, HD video transmission, Gateways, Dash cameras, Public transportation
- WiFi 6e (802.11ax) networks
- Connected cars or self-driving cars, Fleet management, Logistics
- Public Safety Networks
- IoT, Industrial IoT, Zigbee, Bluetooth, WiFi

Description

The FMANOM1166 WiFi 6e 6x6 MIMO Omni Antenna from Fairview Microwave is a high performance omnidirectional antenna designed for the 2400 MHz to 7125 MHz bands and is available to ship same day. It features 6 (six) pigtailed terminated with Type N Female connectors for 6x6 MIMO applications. It is a UV protected, outdoor rated antenna with omni-directional pattern. The FMANOM1166 is ideally suited for 802.11 protocols including 802.11ax as well as IoT, Zigbee and Bluetooth.

The Fairview Microwave high performance omni FMANOM1166 is a rugged antenna providing vertical polarization, broad coverage, low latency, increased network capacity and 6 dBi gain. This N Type Female omnidirectional antenna is suitable for commercial radios and access points in public and private networks that are equipped with N Male connectors. Fairview Microwave's FMANOM1166 supports 2.4, 5 and 6 GHz bands.

This WiFi 6e FMANOM1166 omni antenna with 6 RP-N male connectors, as well as our wide selection of superior quality RF parts, ships same day. Contact our knowledgeable and friendly technical support and sales staff for your answers on antennas or other Fairview Microwave products.

Configuration

Design	Omni
Band Type	Dual
Radiation Pattern	Omni Directional
Polarization	Vertical
Cable Type	RG58/U
Connector Type	N Female
Number of Ports	6

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	2,400		7,250	MHz
Input VSWR			2:1	
Impedance		50		Ohms
Input Power			50	Watts

Specifications by Band

Description	Band 1	Band 2	Band 3	Band 4	Band 5	Units
Range	2.4 to 2.5	5.15 to 7.25				GHz
Bandwidth	100	2.1				

WiFi 6e, 2400-2500/5150-7250 MHz
6/6 dBi, 6x6 MIMO Omni, N-Female



FMANOM1166

Specifications by Band

Description	Band 1	Band 2	Band 3	Band 4	Band 5	Units
Gain	6	6				dBi
Horizontal HPBW	360	360				
Vertical HPBW	45	30				Degrees

Mechanical Specifications

Radome Material	UV Resistant ABS
Size	
Length	7.1 in [180.34 mm]
Width	5.94 in [150.88 mm]
Height	5.94 in [150.88 mm]
Mounting Mast Diameter	1.57 to 1.96 in [39.88 to 49.78 mm]
Weight	3.52 lbs [1.6 kg]

Environmental Specifications

Temperature	
Operating Range	-40 to +70 deg C
Wind Survivability	124 MPH [199.56 KPH]
Humidity	5 to 95 %
Ingress Protection	IP54

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

Plotted and Other Data

Notes:

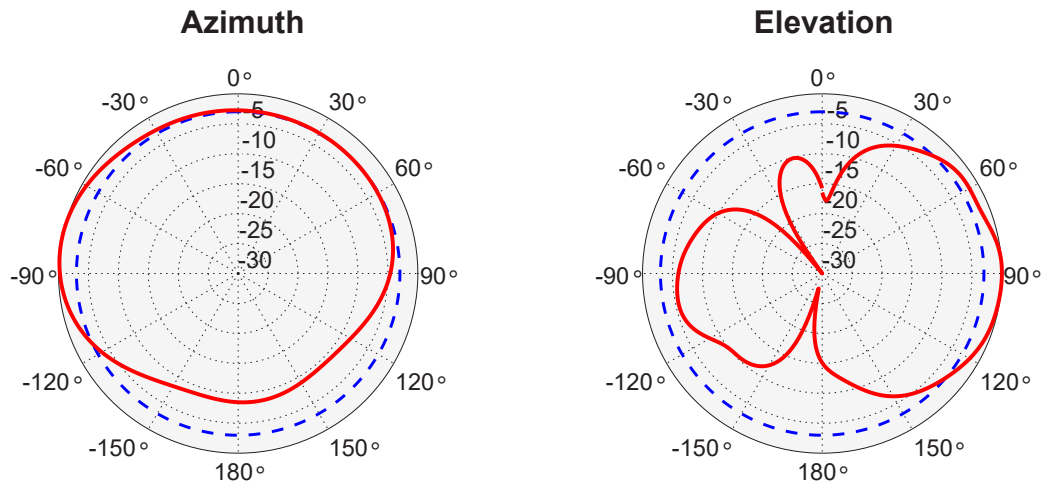
WiFi 6e, 2400-2500/5150-7250 MHz
6/6 dBi, 6x6 MIMO Omni, N-Female



FMANOM1166

Typical Radiation Pattern

Radiation Patterns of 2450 MHz

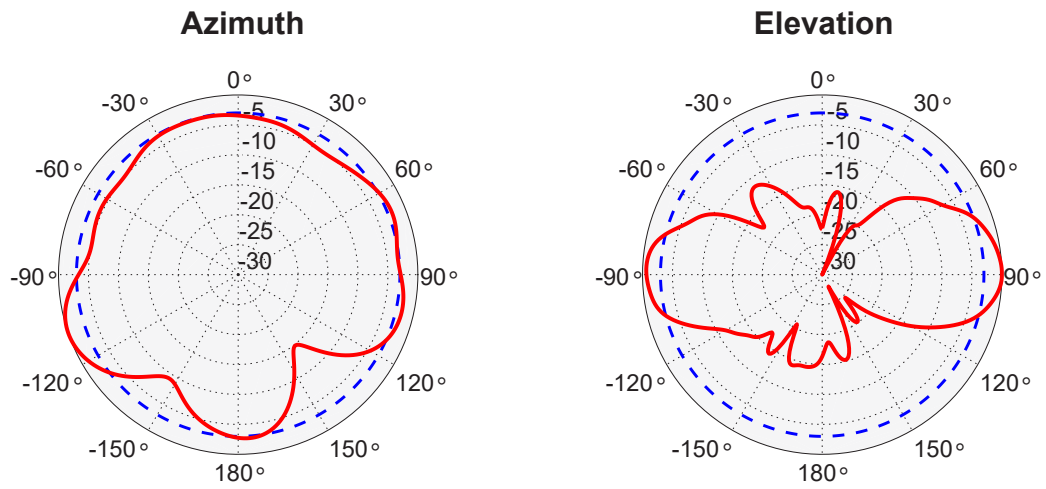


WiFi 6e, 2400-2500/5150-7250 MHz
6/6 dBi, 6x6 MIMO Omni, N-Female



FMANOM1166

Radiation Patterns of 5550 MHz

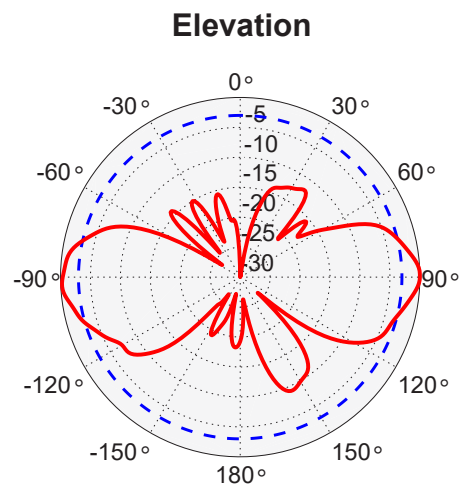
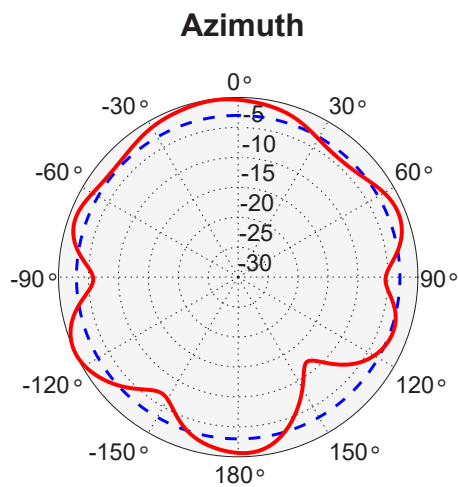


WiFi 6e, 2400-2500/5150-7250 MHz
6/6 dBi, 6x6 MIMO Omni, N-Female

FMANOM1166



Radiation Patterns of 6500 MHz



WiFi 6e, 2400-2500/5150-7250 MHz
6/6 dBi, 6x6 MIMO Omni, N-Female

FMANOM1166



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.

WiFi 6e, 2400-2500/5150-7250 MHz 6/6 dBi, 6x6 MIMO Omni, N-Female 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.

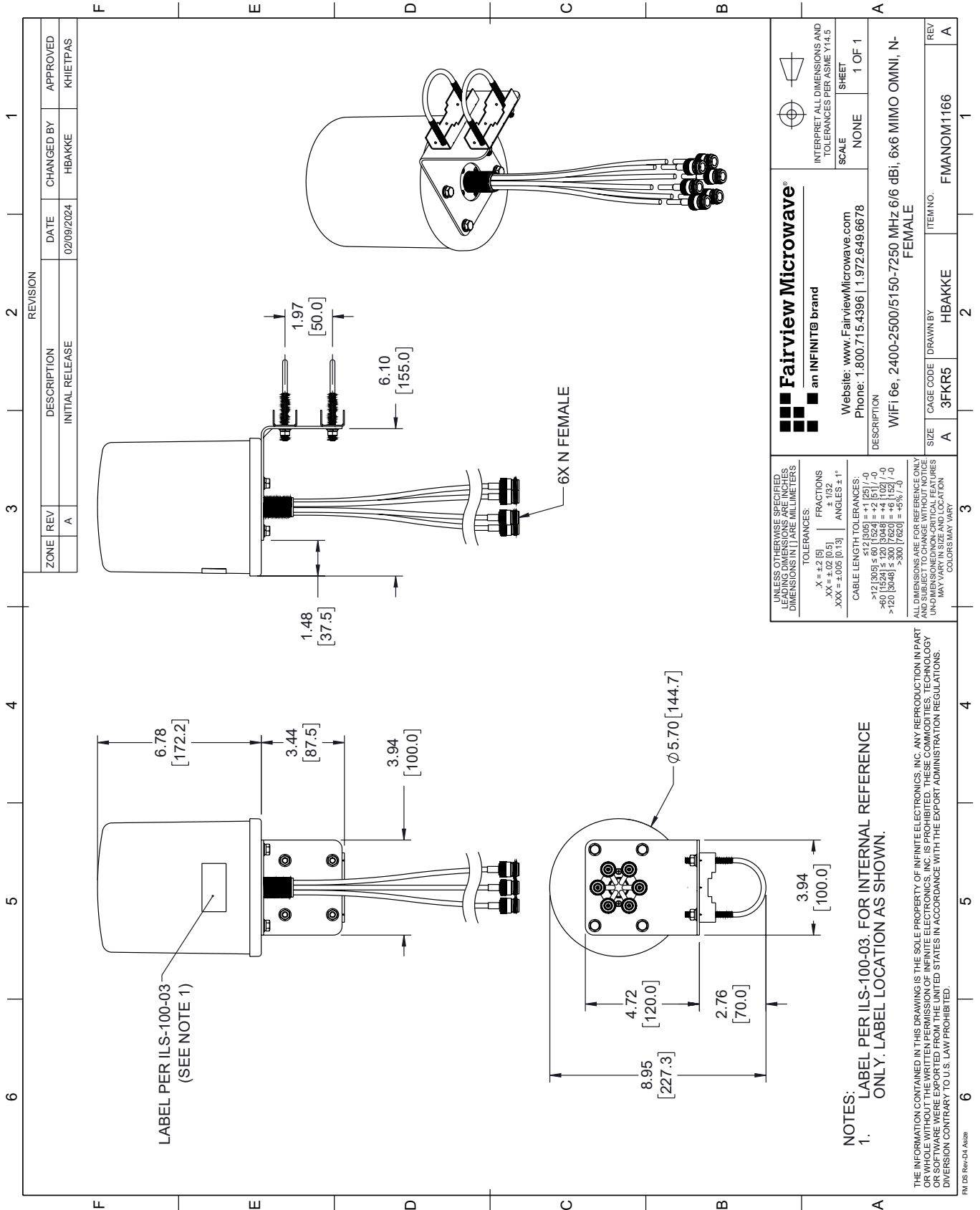
For additional information on this product, please click the following link: [WiFi 6e, 2400-2500/5150-7250 MHz 6/6 dBi, 6x6 MIMO Omni, N-Female FMANOM1166](#)

URL: <https://www.fairviewmicrowave.com/dbi-dualband-mimo-omni-antenna-2400-7250-mhz-n-type-connector-fmanom1166-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.

FMANOM1166 CAD Drawing

WiFi 6e, 2400-2500/5150-7250 MHz 6/6 dBi, 6x6 MIMO Omni, N-Female



REVISION		DATE	CHANGED BY	APPROVED	
ZONE	REV	DESCRIPTION	DATE	CHANGED BY	APPROVED
	A	INITIAL RELEASE	02/09/2024	HBAKKE	KHETTPAS

Fairview Microwave®
an INFINITI® brand

Website: www.FairviewMicrowave.com
Phone: 1.800.715.4396 | 1.972.649.6678

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES AND TRAILING DIMENSIONS IN [] ARE MILLIMETERS.

TOLERANCES:
 .X = ±.2 [5] FRACTIONS ± 1/32
 .XX = ±.02 [0.5] ANGLES ± 1°
 .XXX = ±.005 [0.13]

CABLE LENGTH TOLERANCES:
 >12 [305] ≤ 60 [1524] = ±1 [25] / -0
 >60 [1524] ≤ 120 [3048] = ±4 [102] / -0
 >120 [3048] ≤ 300 [7620] = ±5% / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES AND TRAILING DIMENSIONS IN [] ARE MILLIMETERS. COLORS MAY VARY.

FAIRVIEW MICROWAVE, INC. IS PROHIBITED FROM EXPORTING THIS PRODUCT TO THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVISION CONTRARY TO U.S. LAW PROHIBITED.

NOTES:

1. LABEL PER ILS-100-03 FOR INTERNAL REFERENCE ONLY. LABEL LOCATION AS SHOWN.

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF INFINITE ELECTRONICS, INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF INFINITE ELECTRONICS, INC. IS PROHIBITED. THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVISION CONTRARY TO U.S. LAW PROHIBITED.

1 2 3 4 5 6 F E D C B A

F 6 5 4 3 2 1