

## 698-960 MHz / 1350-2700 MHz / 3300-4200 MHz Low PIM Rated H-pol Ceiling Omni Antenna, 2.2-5 dBi, Low Profile, Type N Female Connector

The ceiling mount omnidirectional FM51220 antenna from Fairview Microwave is a high performance, low PIM rated RF component which operates from 698 to 4200 MHz. The FM51220 antenna is ideal for 5G, LTE, CDMA, LPWAN/IoT/M2M applications including LoRA, LTE-M, NB-IOT and Distributed Antenna System (DAS) Networks. The Multi-Band design of the Fairview Microwave FM51220 antenna can be used for a wide array of in-building wireless applications where wide coverage is desired. Fairview Microwave's FM51220 can be used to distribute Cellular and WiFi signals throughout a building or area.

The Type N connectorized FM51220 antenna with vertical polarization from Fairview Microwave provides Passive Intermodulation (PIM) ratings better than -150 dBc. The key to providing the best performance in telecommunications is to ensure the components used are low PIM rated. The 698-4200 MHz FM51220 with 6 dBi max gain helps meet the increasing demand for higher data rates and the ability to provide streaming video for mobile devices.

The Type N connectorized FM51220 antenna from Fairview Microwave excels in large open areas such as indoor courtyards, indoor sporting venues, convention centers and shopping malls. The mounting bracket and hardware are included for easy installation. Fairview Microwave ceiling mount omnidirectional with Type N female purchases will ship the same day. Our FM51220 antenna is part of over one million RF, microwave and millimeter wave components in stock and ready for same-day shipment worldwide.

### Configuration

Design	Ceiling
Frequency Range	698 to 4200 MHz
Gain	2.2 to 5 dBi
Polarization	Linear
Connector Type	N Female
Number of Ports	1

### Electrical Specifications

Description	Min	Typ	Max	Units
Impedance		50		Ohms
Gain		2.2		dBi
Gain			6	dBi
Input Power			50	Watts
VSWR			1.8:1	
Passive Intermodulation 3rd Order, 2 x 20 W		-153		dBc

### Specifications by Frequency

Description	Band 1	Band 2	Band 3	Band 4	Band 5	Units
Range	0.698-0.96	1.35-1.55	1.69-2.7	3.3-4.2		GHz
Gain	2.2	3.5	4.5	5		dBi
VSWR	1.8:1	1.8:1	1.8:1	1.8:1		



### Features:

- Low Passive Intermodulation (PIM) <-153 dBc @ 2x20W
- Horizontal Polarization
- Low Profile 3/4" thick antenna
- Type N Female connector with 12 inch pigtail
- Covers 5G, WiFi and LTE frequency bands including extended CBRS

### Applications:

- Indoor distribution of 5G, LTE, GSM/CDMA
- In-building public or private networks
- LPWAN, LoRA, LTE-M, NB-IoT, IoT, M2M applications
- DAS (Distributed Antenna Systems)
- Discrete Ceiling Mounts

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**Mechanical Specifications**

Radome Material	ABS
<b>Size</b>	
Length	8.66 in [219.96 mm]
Width	8.66 in [219.96 mm]
Height	0.71 in [18.03 mm]
Weight	0.66 lbs [299.37 g]

**Environmental Specifications**

<b>Temperature</b>	
Operating Range	-55 to +60 deg C
Humidity	< 95

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

**Plotted and Other Data**

Notes:

698-960 MHz / 1350-2700 MHz / 3300-4200 MHz Low PIM Rated H-pol Ceiling Omni Antenna, 2.2-5 dBi, Low Profile, Type N Female 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.

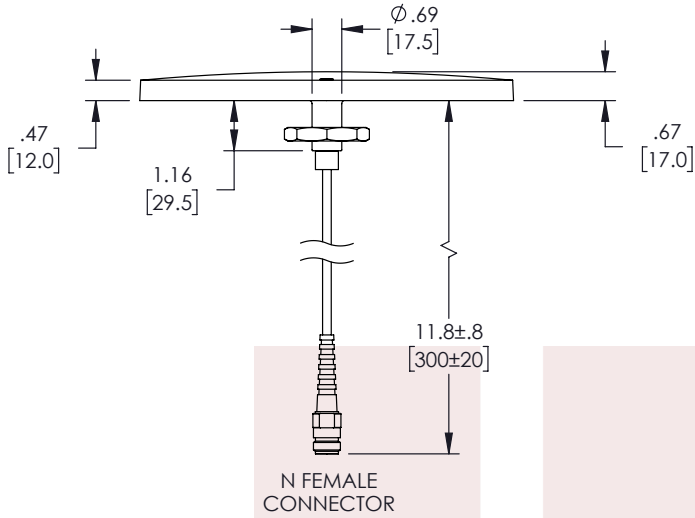
For additional information on this product, please click the following link: [698-960 MHz / 1350-2700 MHz / 3300-4200 MHz Low PIM Rated H-pol Ceiling Omni Antenna, 2.2-5 dBi, Low Profile, Type N Female Connector FM51220](#)

URL: <https://www.fairviewmicrowave.com/698-mhz-4200-mhz-indoor-4g-5g-wideband-omni-antenna-2.2-6-dbi-low-pim-low-profile-n-female-connector-hg74206cupr-nf-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.

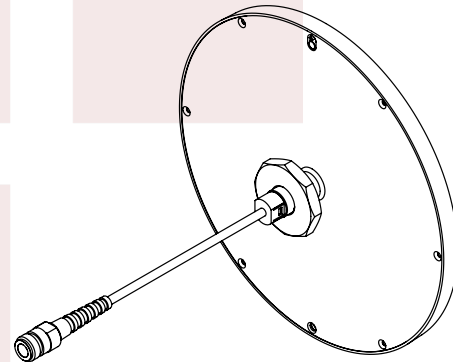
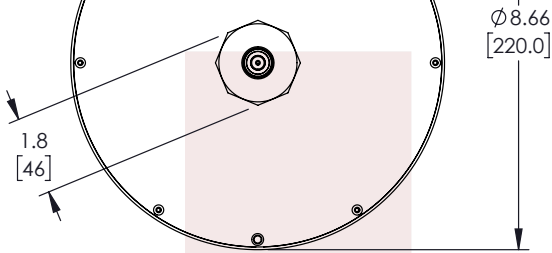
REVISIONS

REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	04/21/2021	KHIETPAS



N FEMALE CONNECTOR

LABEL PER ILS-100-03 SEE NOTE 1



NOTES:

1. LABEL PER ILS-100-03 (FOR INTERNAL REFERENCE ONLY) LABEL LOCATION FOR REFERENCE ONLY.

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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 ± 1/32  
.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



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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 DZINN	ITEM NO. FM51220	REV A
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