

**N Directional Coupler 20 dB Coupled Port From  
 698 MHz to 2.7 GHz Rated To 200 Watts**

The FMCP1069 is a 20 dB direction coupler with N Female connectors rated to 200 watts CW. Insertion loss is a low 0.25 dB. The total path loss (including accuracy, frequency variations, dissipative loss and theoretical loss due to coupling) is 0.31 dB.

Fairview Microwave's family of Low PIM couplers are tapered designs that cover the 698 to 2,700 MHz frequency range. Offered in a broad range of coupling values to allow flexibility in the design of your low PIM system: 6, 10, 15, 20, and 30 dB. Especially designed and manufactured for the rigors of low PIM systems, this family of couplers is rated at an average power of 200 watts CW, and have PIM performance of -155 dBc or better. They can be used indoor or outdoor as they meet the moisture requirements of IP65. If higher power is needed please consider Fairview Microwave's unequal tappers. All couplers are available in four different connector types: N, DIN 7-16, MiniDIN 4.3-10, and MiniDIN 4.1-9.5.



**Features:**

- Low PIM (-155 dBc)
- 200 watts CW Rating
- 698 – 2,700 MHz
- 20 dB Coupling Factor
- VSWR 1.23 Maximum
- N Female Connector

**Applications:**

- Indoor/Outdoor Use (IP65)
- Base Station
- 4G/AWS/PCS
- Low PIM
- Distributed Antenna Systems (DAS)
- Wireless Infrastructure

**Electrical Specifications**

Description	Min	Typ	Max	Units
Frequency Range	0.698		2.7	GHz
Impedance		50		Ohms
Coupling		20 ±1.2		dB
Freq. Sensitivity			0.6	dB
Main Line Loss			0.31	dB
Insertion Loss			0.25	dB
Directivity	20			dB
Main Line VSWR			1.23:1	
Sec. Line VSWR			1.29:1	
Passive Intermodulation 2x20W			-155	dBc
Input Power (CW)			200	Watts

Electrical Specification Notes:  
 Values at 25°C, sea level.

**Mechanical Specifications**

**Size**  
 Length 5.58 in [141.73 mm]  
 Width/Dia. 1 in [25.4 mm]  
 Height 2.45 in [62.23 mm]

**Configuration**  
 Package Type Connectorized  
 Input Connector N Female  
 Output Connector N Female  
 Coupled Connectors N Female

**Environmental Specifications**

**Temperature**  
 Operating Range -20 to +55 deg C

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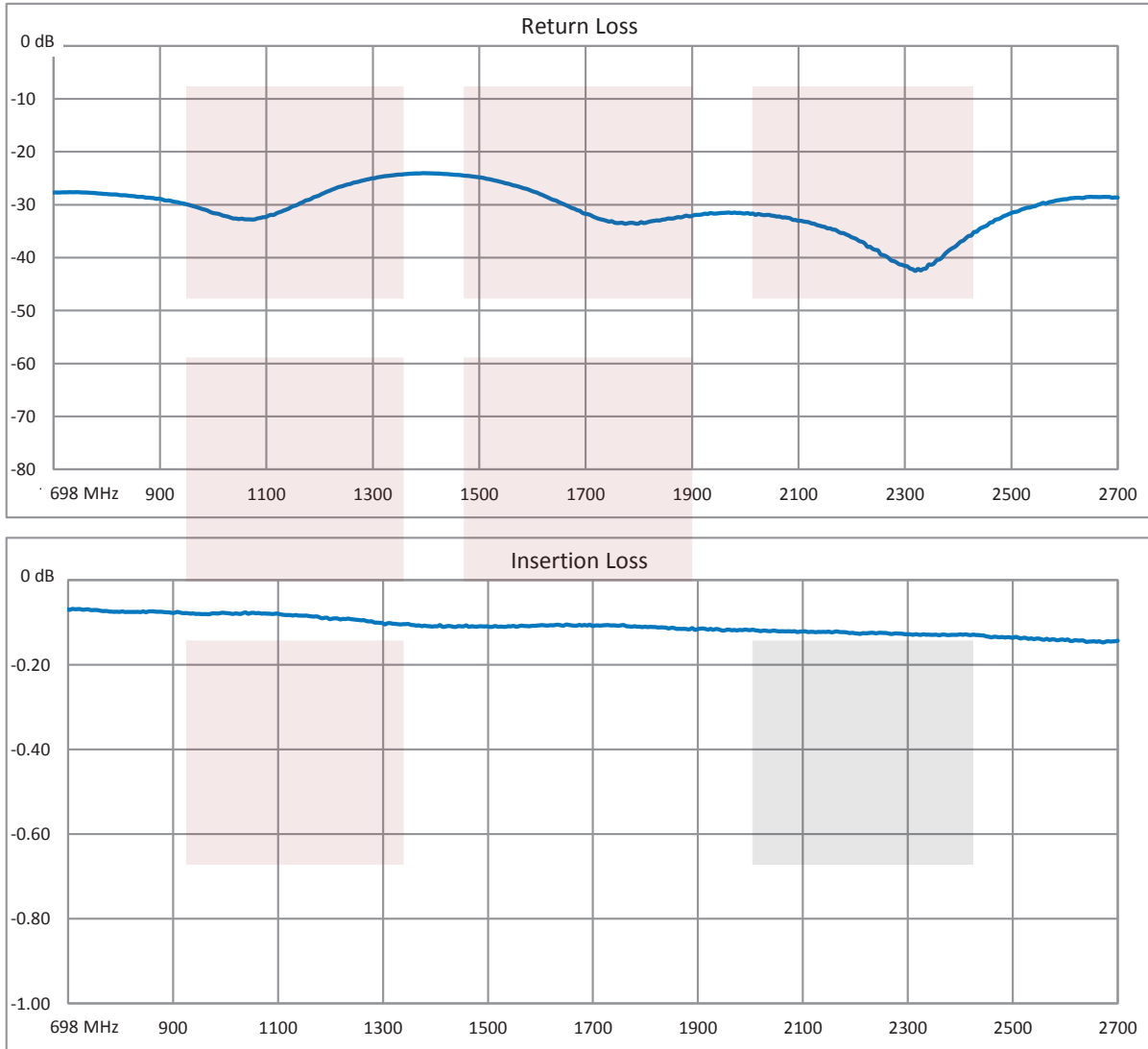
**Compliance Certifications** (visit [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com) for current document)

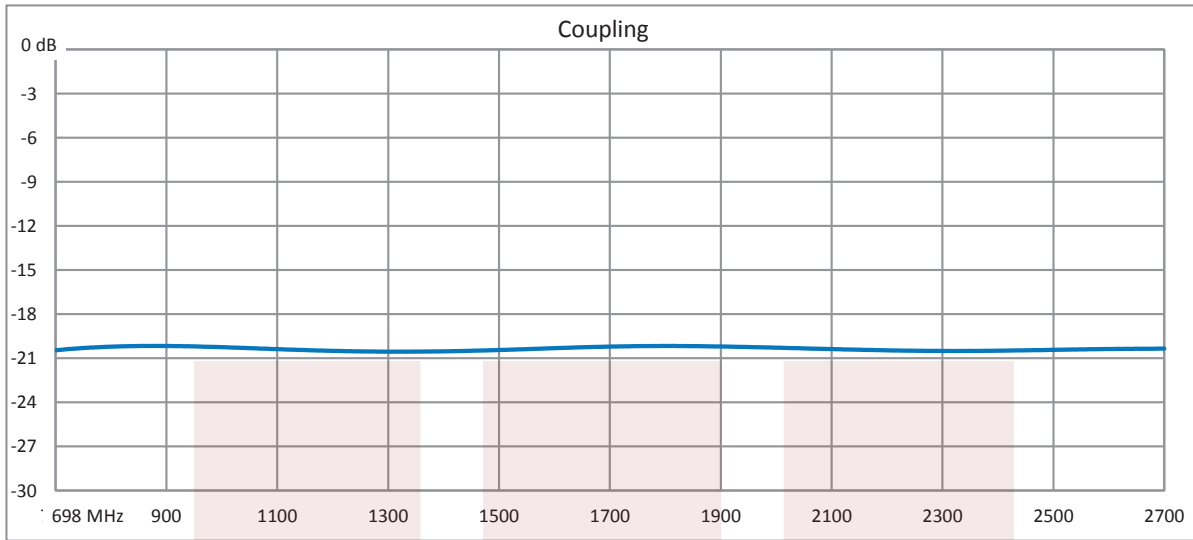
RoHS Compliant Yes  
 REACH Compliant 12/17/2015

**Plotted and Other Data**

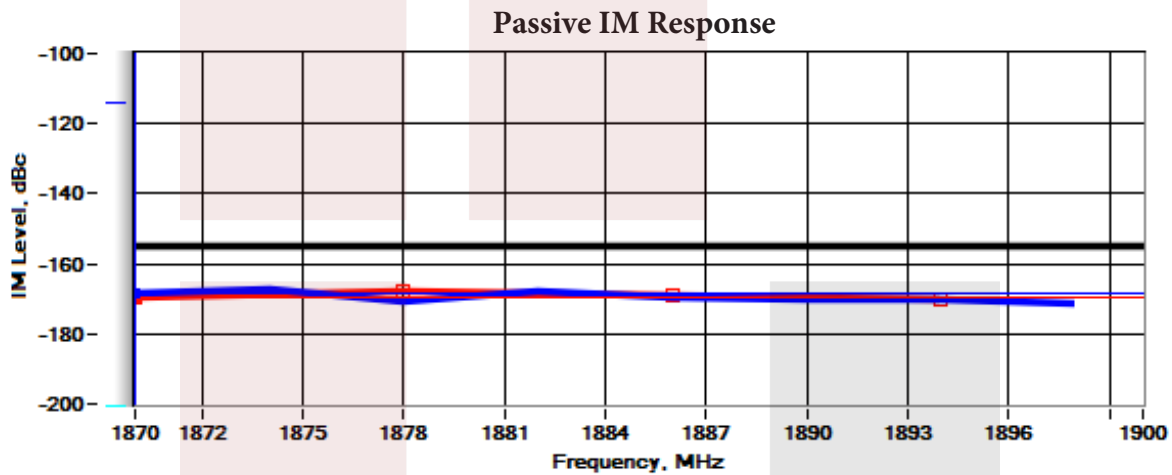
- Notes:  
 • Values at 25°C, sea level.

**Typical Performance Data**





**F2 Down** — F1=1930.0 MHz, F2=1990.0 MHz; IM3=-168.3 dBc at 1870.0  
**F1 Up** — F1=1930.0 MHz, F2=1990.0 MHz; IM3=-168.4 dBc at 1870.0

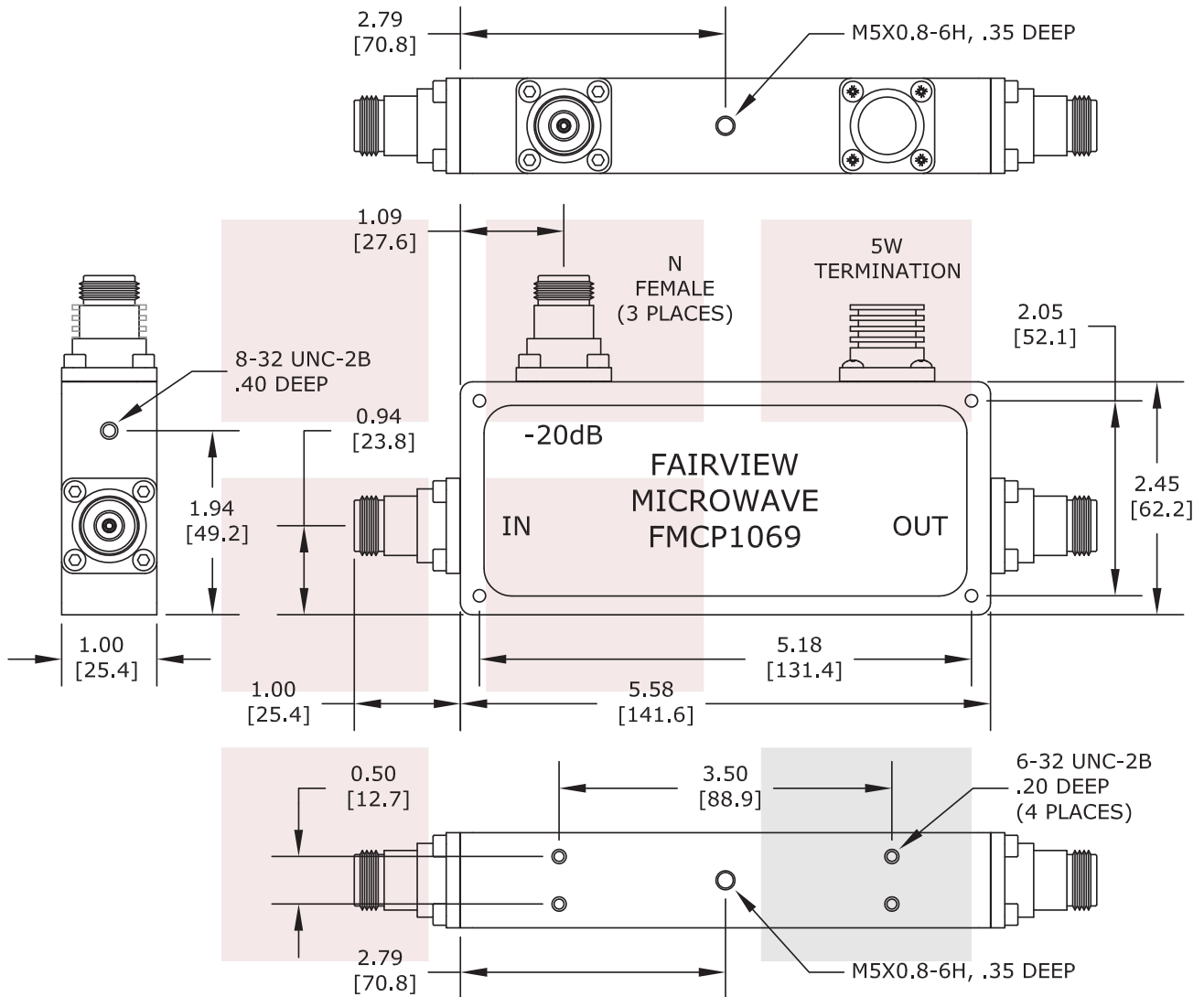


N Directional Coupler 20 dB Coupled Port From 698 MHz to 2.7 GHz Rated To 200 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [N Directional Coupler 20 dB Coupled Port From 698 MHz to 2.7 GHz Rated To 200 Watts FMCP1069](#)

URL: <https://www.fairviewmicrowave.com/n-directional-coupler-20-db-2.7-ghz-200-watts-fmcp1069-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.



UNLESS OTHERWISE SPECIFIED:  
 DIMENSIONS ARE IN: inches  
 TOLERANCES ARE: [mm]  
 HOLE TOLERANCE: X.XXX ± .003 [±.076]  
 LENGTH TOLERANCE: X.XXX ± .010 [±.254]  
 LENGTH TOLERANCE: X.XX ± .030 [±.762]

\* THESE DIMENSIONS AND TOLERANCES SUPERSEDE NOTE #1 ON TITLE BLOCK.

<b>FAIRVIEW MICROWAVE INC.</b> ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM		NOTES: 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL. 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME. 3. DIMENSIONS ARE IN INCHES [mm].			
TITLE N Directional Coupler 20 dB Coupled Port From 698 MHz to 2.7 GHz Rated To 200 Watts		DWG NO FMCP1069		CAGE CODE 3FKR5	
CAD FILE	061716	SHEET	SCALE	N/A	SIZE A 2233