

N Low PIM Directional Coupler 20 dB Coupled Port From 380 MHz To 4 GHz Rated to 200 Watts

The FMCP1069A is a 20 dB direction coupler with N Female connectors rated to 200 watts. Insertion loss is a low 0.3 dB. The total path loss (including accuracy, frequency variations, dissipative loss and theoretical loss due to coupling) is 0.3 dB.

Fairview Microwave's family of Low PIM couplers are tapered designs that cover the 380 to 4,000 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, and have PIM performance of -155 dBc or better. They can be used indoor or outdoor as they meet the moisture requirements of IP67. 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.

Electrical Specifications

| Description | Min | Typ | Max | Units |
|----------------------------------|------|---------|--------|-------|
| Frequency Range | 0.38 | | 4 | GHz |
| Impedance | | 50 | | Ohms |
| Coupling | | 20 ±1.2 | | dB |
| Freq. Sensitivity | | ±0.6 | | dB |
| Main Line Loss | | | 0.3 | dB |
| Insertion Loss | | | 0.3 | dB |
| Directivity | 17 | | | dB |
| Main Line VSWR | | | 1.22:1 | |
| Sec. Line VSWR | | | 1.29:1 | |
| Passive Intermodulation 2x20W | | | -155 | dBc |
| Input Power (CW) | | | 200 | Watts |

Mechanical Specifications

Size

| | |
|------------------------------|---------------------|
| Length | 5.93 in [150.62 mm] |
| Width/Dia. | 1 in [25.4 mm] |
| Height | 2.4 in [60.96 mm] |
| Weight | 1.72 lbs [780.18 g] |
| Housing Material and Plating | Aluminum, Brass |

Configuration

| | |
|--------------------|----------|
| Input Connector | N Female |
| Output Connector | N Female |
| Coupled Connectors | N Female |

Environmental Specifications

Temperature

| | |
|--------------------------------|------------------|
| Operating Range | -20 to +55 deg C |
| Ingress Protection (IP) Rating | IP67 |



Features:

- Low PIM (-155 dBc)
- 200 Watt Rating
- 380 – 4,000 MHz
- 20 dB Coupling Factor
- VSWR 1.29 Maximum
- N Female Connector

Applications:

- Indoor/Outdoor Use (IP67)
- Base Station
- 4G/AWS/PCS
- Low PIM
- Distributed Antenna Systems (DAS)
- Wireless Infrastructure

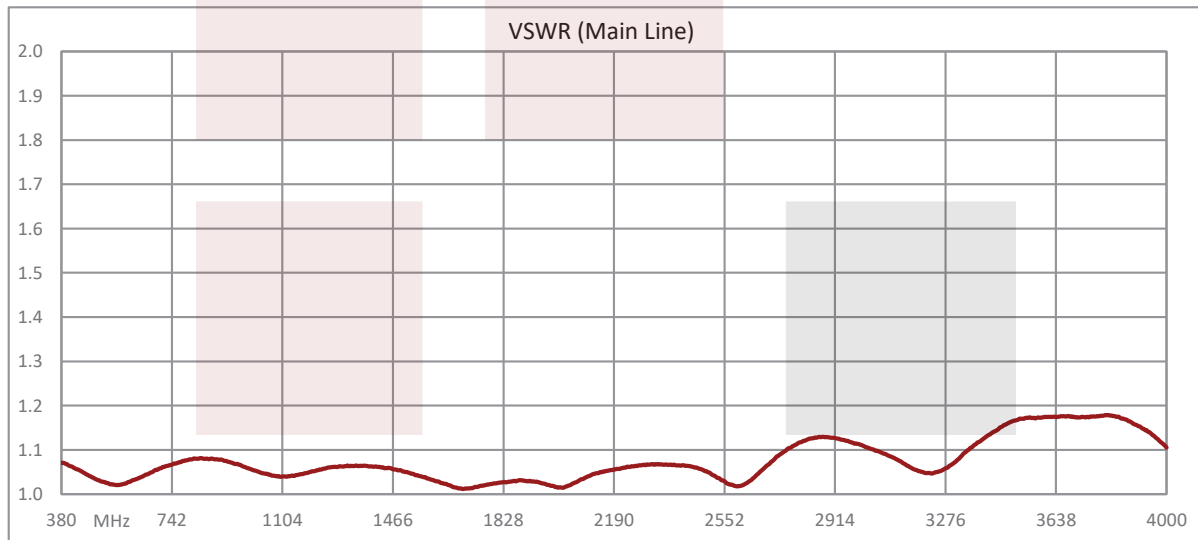
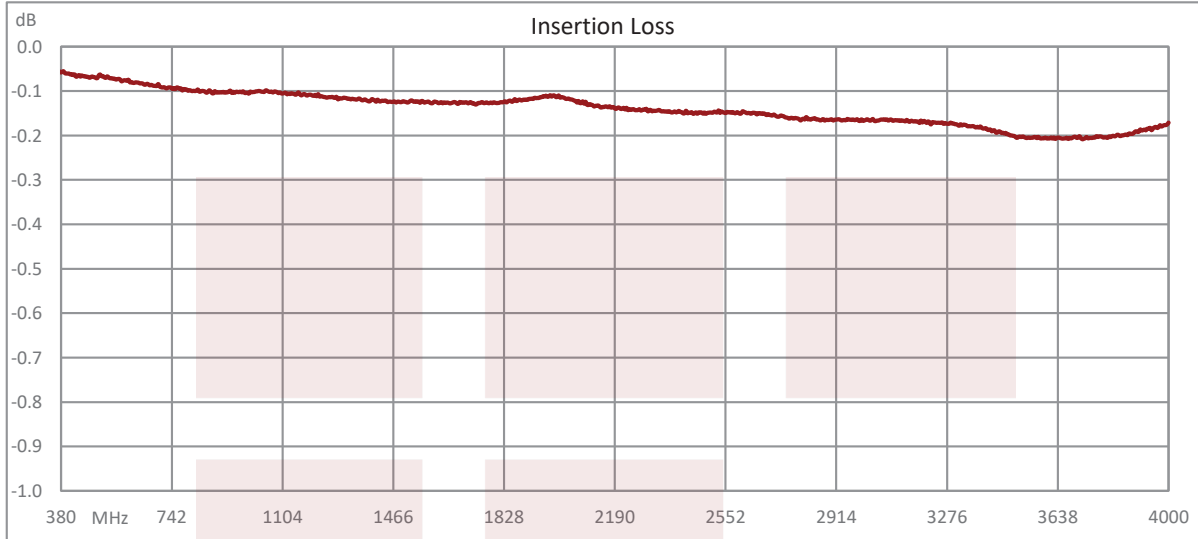
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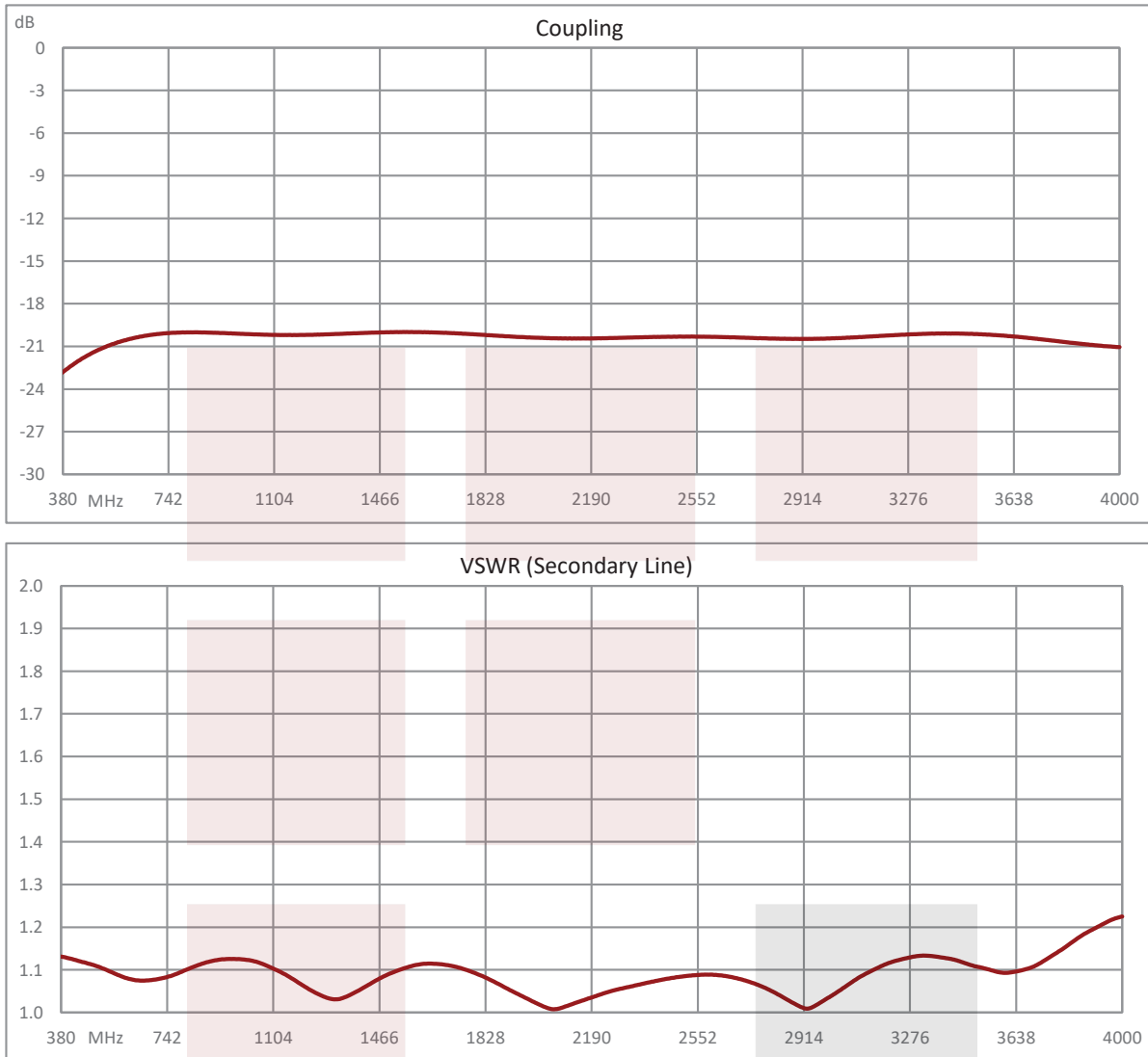
Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

Typical Performance Data





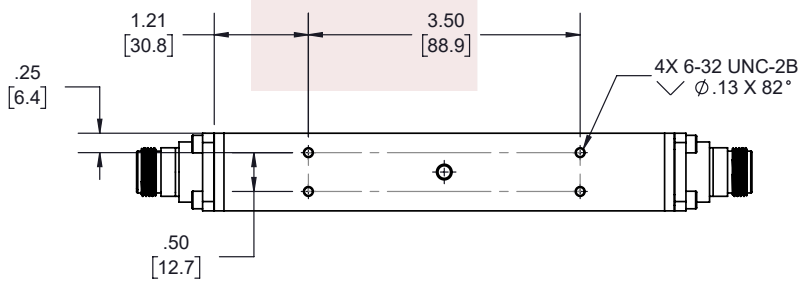
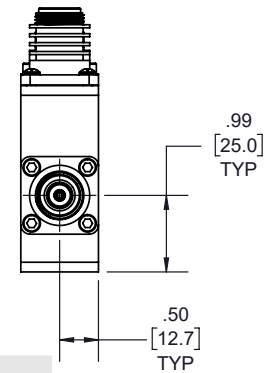
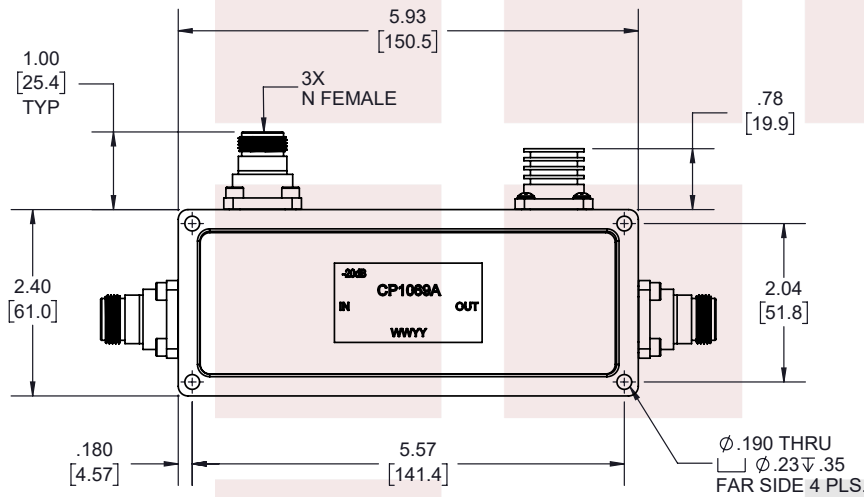
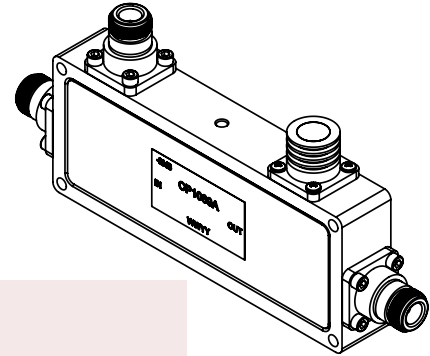
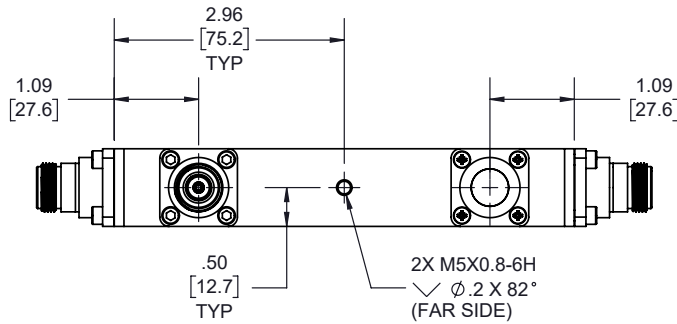
N Low PIM Directional Coupler 20 dB Coupled Port From 380 MHz To 4 GHz Rated to 200 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [N Low PIM Directional Coupler 20 dB Coupled Port From 380 MHz To 4 GHz Rated to 200 Watts FMCP1069A](#)

URL:

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 | 10/13/2022 | S. PONG |



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TITLE
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UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES: CABLE LENGTH (L) TOLERANCES:

| | | |
|-------------------|-------------|---|
| .X = ±.2 [5.08] | FRACTIONS | L ≤ 12 [305] = +1 [25] / -0 |
| .XX = ±.02 [51] | ± 1/32 | 12 [305] < L ≤ 60 [1524] = +2 [51] / -0 |
| .XXX = ±.005 [13] | ANGLES ± 1° | 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

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SCALE N/A

| | | | | |
|-----------|--------------------|--------------------|-----------------------|----------|
| SIZE A | CAGE CODE 3FKR5 | DRAWN BY K.DANG | ITEM NO. FMCP1069A | REV A |
|-----------|--------------------|--------------------|-----------------------|----------|

T-Rev.D