

SMA Female High Power Circulator With 18 dB Isolation From 4 GHz to 8 GHz And 50 Watts

The FMCR1006 is a high power circulator offering a forward and reverse power rating of 50 watts over an operational frequency band of 4 to 8 GHz. This coaxial part uses SMA female connectors on all ports and has a minimum of 18 dB of isolation.

Fairview Microwave offers a wide variety of circulators to fit your needs. These unique devices enable two signals to use one channel. The classic use of this three port device is for the line/coax between an antenna and a transceiver, allowing the receive signal to come from the antenna (port 1) to the receiver (port 2) while the transmit signal goes from the transmitter (port 3) to the antenna (port 1). An isolator can be created by terminating one port into a matched load. These components can be used in antenna transmitting and receiving, radar, amplifier systems and anything that requires isolation from a signal reflection and the ability to send signals in opposite directions down a single channel. These circulators feature excellent insertion loss, high isolation and reliability, low VSWR, and a wide dynamic temperature range.



Features:

- Forward Power of 50 watts
- Frequency Range of 4 to 8 GHz
- Female SMA Connectors
- VSWR of 1.3:1
- Isolation of 18 dB

Applications:

- Radar Systems
- Military
- Wireless Radio Systems
- Telecom Infrastructure
- Communication Systems
- R&D Labs
- Microwave Radio Systems

Electrical Specifications

| Description | Min | Typ | Max | Units |
|---------------------|-----|-----|-------|-------|
| Frequency Range | 4 | | 8 | GHz |
| Insertion Loss | | | 0.6 | dB |
| Isolation | 18 | | | dB |
| VSWR | | | 1.3:1 | |
| Forward Power, CW | | | 50 | Watts |
| Forward Power, Peak | | | 60 | Watts |
| Reverse Power, CW | | | 50 | Watts |

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

Mechanical Specifications

| | |
|-------------|---------------------|
| Size | |
| Length | 1 in [25.4 mm] |
| Width | 0.63 in [16 mm] |
| Height | 1 in [25.4 mm] |
| Weight | 0.103 lbs [46.72 g] |

Configuration

| | |
|-------------|-----------------|
| Design | Single Junction |
| Connector 1 | SMA Female |
| Connector 2 | SMA Female |
| Connector 3 | SMA Female |

Environmental Specifications

| | |
|--------------------|----------------|
| Temperature | |
| Operating Range | 0 to +50 deg C |

Compliance Certifications (visit www.FairviewMicrowave.com for current document)

| | |
|-----------------|------------|
| RoHS Compliant | Yes |
| REACH Compliant | 12/17/2015 |

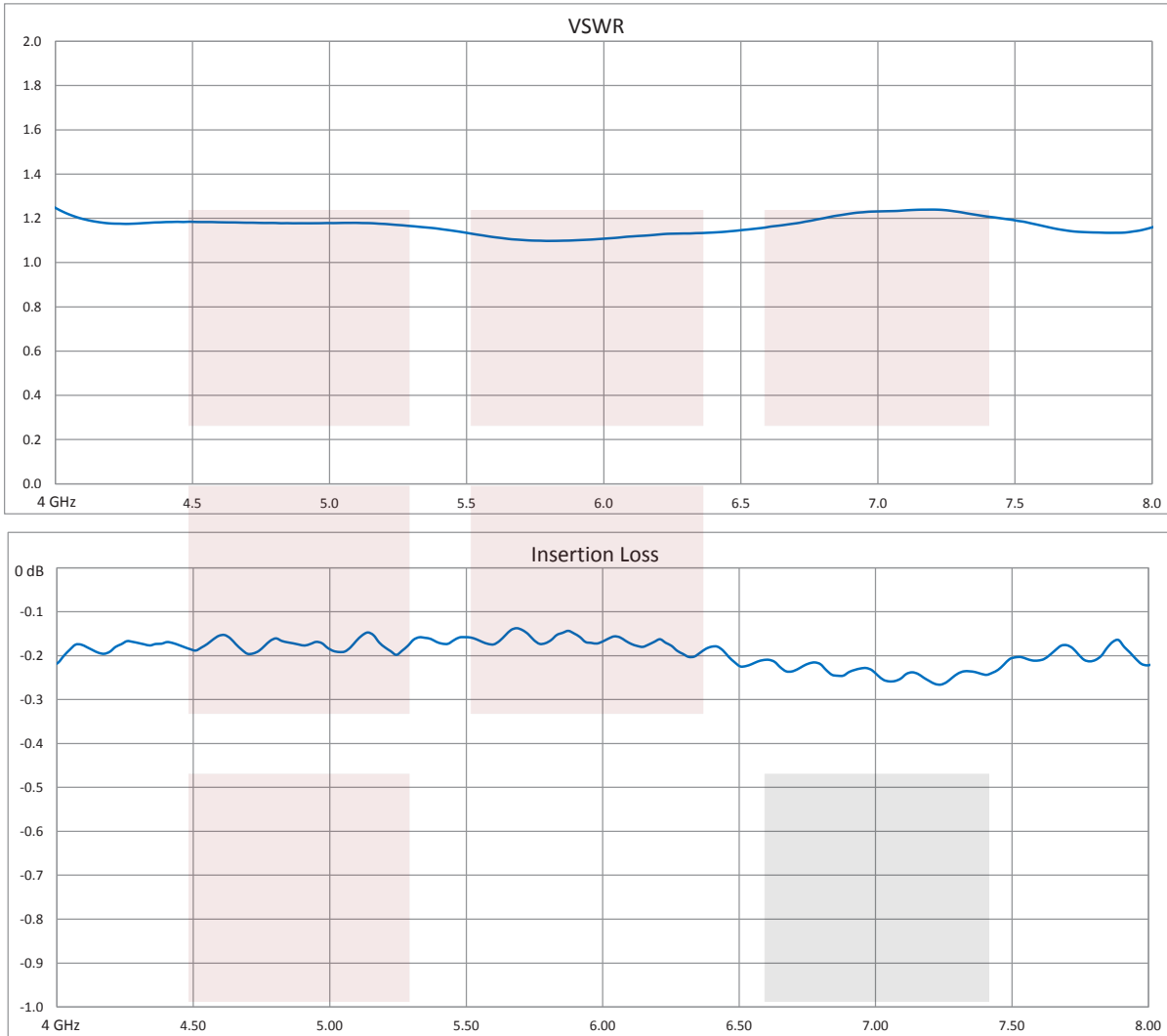
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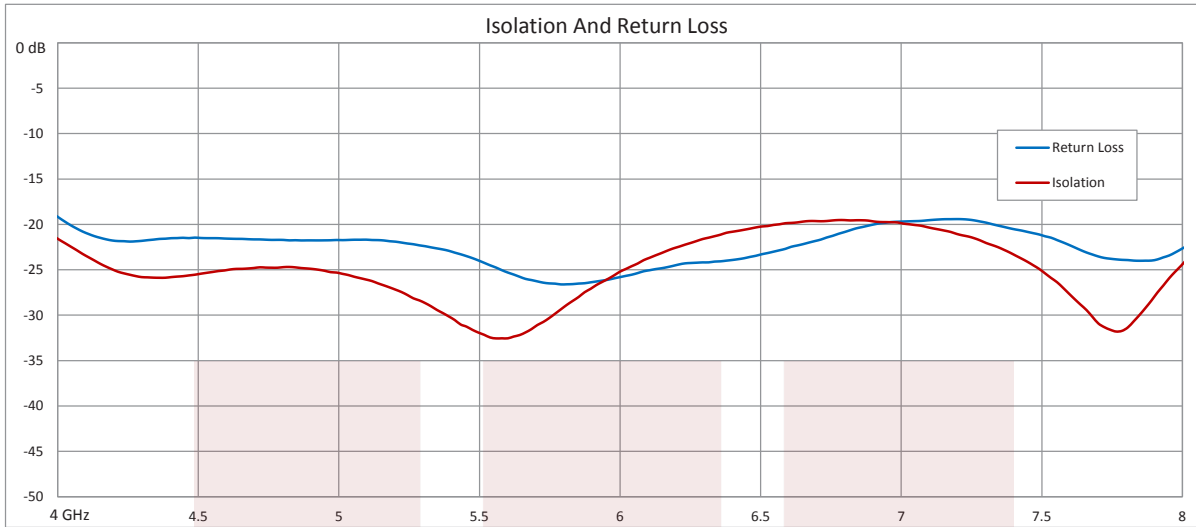
Plotted and Other Data

Notes:

- Values at 25°C, sea level.

Typical Performance Data



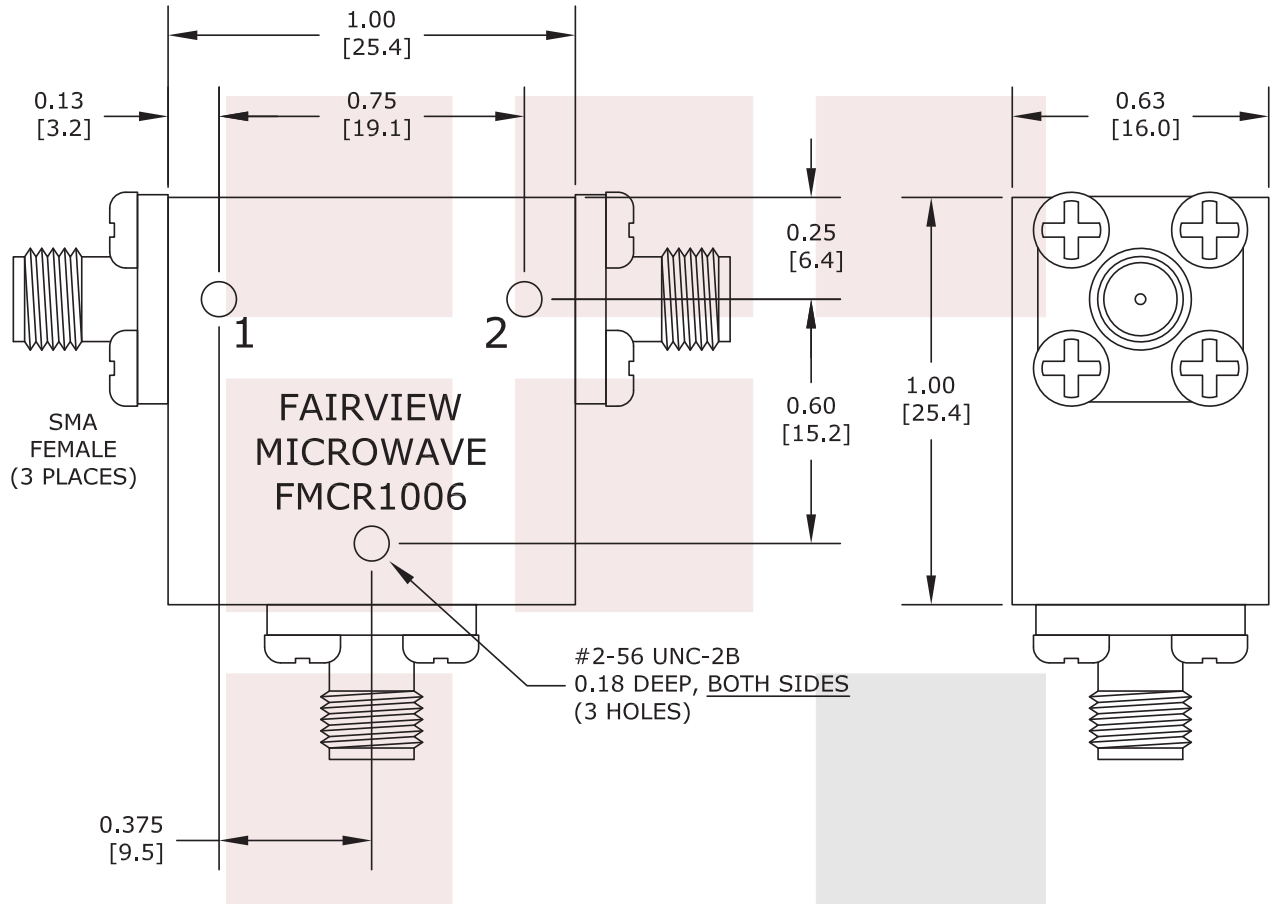


SMA Female High Power Circulator With 18 dB Isolation From 4 GHz to 8 GHz And 50 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SMA Female High Power Circulator With 18 dB Isolation From 4 GHz to 8 GHz And 50 Watts FMCR1006](#)

URL: <http://www.fairviewmicrowave.com/sma-female-high-power-circulator-18db-isolation-8-ghz-50-watts-fmcr1006-p.aspx>

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|---|--------|---|-------|--------------------|-------------|
| FAIRVIEW MICROWAVE INC. 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 SMA Female High Power Circulator With 18 dB Isolation From 4 GHz to 8 GHz And 50 Watts | | DWG NO FMCR1006 | | CAGE CODE 3FKR5 | |
| CAD FILE | 012216 | SHEET | SCALE | N/A | SIZE A 2233 |