

**2.92mm Directional Coupler 10 dB Coupled Port
 From 6 GHz to 40 GHz Rated To 20 Watts**

Directional couplers are indispensable components for isolating, separating and combining signals. For example, they provide a simple way of sampling microwave signals. They also can make accurate attenuator measurements since reflections are eliminated. The MC0640-10 is a 10 dB directional coupler that operates from 6 to 40 GHz and can handle up to 20 Watts (CW) with 8 dB directivity minimum and 2.5:1 VSWR maximum. The package interface uses 2.92mm female connectors, and is also REACH and RoHS compliant.

The MC0640-10 is part of Fairview Microwave's family of directional/dual-directional couplers that offer coupling ratios up to 50 dB with excellent performance featuring high directivity, low insertion loss and VSWR. They are available in both narrow and broad bandwidths and can be used in a wide variety of applications including signal sampling, VSWR measurements, power combining and distribution.



Features:

- Directional Coupler
- 6 to 40 GHz Frequency Range
- Coupling 10±2 dB
- Directivity > 8 dB
- VSWR < 2.5:1
- Max Power 20 Watts (CW)

Applications:

- Test and Measurement
- Military Communications
- Commercial Communications
- Wireless Communications
- SATCOM

Electrical Specifications

| Description | Min | Typ | Max | Units |
|-------------------|-----|-------|-------|-------|
| Frequency Range | 6 | | 40 | GHz |
| Impedance | | 50 | | Ohms |
| Coupling | | 10 ±2 | | dB |
| Freq. Sensitivity | | | ±1.5 | dB |
| Insertion Loss | | | 1.75 | dB |
| Directivity | 8 | | | dB |
| Main Line VSWR | | | 2.5:1 | |
| Input Power (CW) | | | 20 | Watts |

Electrical Specification Notes:
 Values at 25°C, sea level.
 Max power is rated for load VSWR better than 1.2:1.

Mechanical Specifications

| | |
|-------------|---------------------|
| Size | |
| Length | 1.06 in [26.92 mm] |
| Width/Dia. | 0.63 in [16 mm] |
| Height | 0.4 in [10.16 mm] |
| Weight | 0.053 lbs [24.04 g] |

Configuration

| | |
|--------------------|---------------|
| Package Type | Connectorized |
| Input Connector | 2.92mm Female |
| Output Connector | 2.92mm Female |
| Coupled Connectors | 2.92mm Female |

Environmental Specifications

Temperature

| | |
|-----------------|-------------------|
| Operating Range | -25 to +80 deg C |
| Storage Range | -55 to +150 deg C |

Humidity

MIL-STD-202, Method 106 (90% relative humidity, +65°C)

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| | |
|---------------|--|
| Shock | MIL-STD-202, Method 213/I (100 G's, 6 ms) |
| Vibration | MIL-STD-202, Method 204/D (10 to 2,000 Hz, 20 G's, 12 hours) |
| Altitude | MIL-STD-202, Method 105/E (150,000 feet) |
| Thermal Shock | MIL-STD-202, Method 107/B (-55°C to +85°C) |

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

Plotted and Other Data

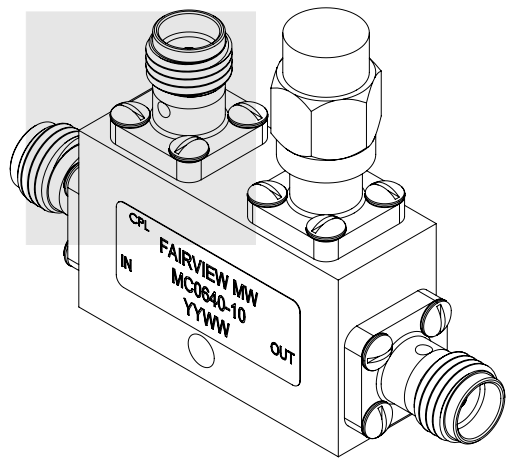
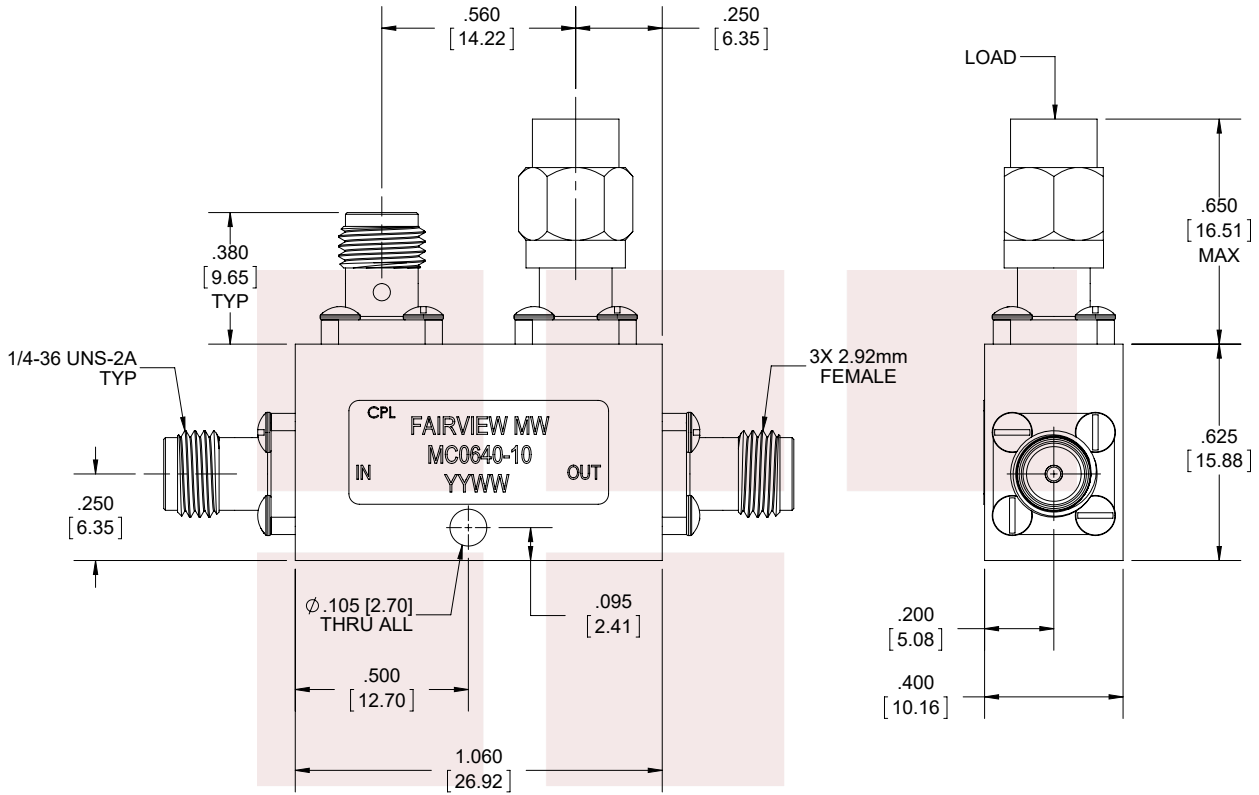
Notes:

2.92mm Directional Coupler 10 dB Coupled Port From 6 GHz to 40 GHz Rated To 20 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: [2.92mm Directional Coupler 10 dB Coupled Port From 6 GHz to 40 GHz Rated To 20 Watts MC0640-10](#)

URL: <https://www.fairviewmicrowave.com/2.92mm-directional-coupler-10-db-40-ghz-20-watts-mc0640-10-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.



| STANDARD TOLERANCES | |
|---------------------|--------|
| .X | ±0.2 |
| .XX | ±0.01 |
| .XXX | ±0.005 |

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

| | | | | | |
|---|--------|---|--------|--------------------|------|
| 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 2.92mm Directional Coupler 10 dB Coupled Port From 6 GHz to 40 GHz Rated To 20 Watts | | DWG NO MC0640-10 | | CAGE CODE 3FKR5 | |
| CAD FILE | 072617 | SHEET | 1 OF 1 | SCALE | N/A |
| | | SIZE | A | | 9999 |