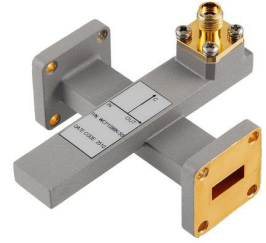


## 50 dB WR-42 Waveguide Crossguide Coupler with UG-595/U and 2.92mm Female Coupling Port from 17.6 GHz to 26.7 GHz in Brass



### FMWCP1098K-50

#### Features

- Three Port Crossguide Waveguide Coupler
- 50±1.5 dB Nominal Coupling Level
- Integrated 2.92mm Female Connector for the coupled port
- 17.6 GHz to 26.7 GHz Frequency Range
- Low VSWR < 1.5:1

#### Applications

- Test Benches
- Radar
- Satellite
- Microwave Radio
- Attenuation Measurements
- Power Measurements
- Source Leveling

#### Description

The FMWCP1098K-50 is a 50 dB WR-42 three port crossguide Coupler withh integrated 2.92mm Female connector for the coupled port. This coupler can be mounted directly into the waveguide signal path, connected via coax to allow signal sampling /monitoring. The coupler has a typical VSWR of 1.1:1 and are made of Brass with UG-595/U flanges. The FMWCP1098K-50 is part of a family of cross guide couplers offered by Fairview Microwave with coupling values ranging from 20 to 50 dB.

#### Electrical Specifications

| Description            | Min  | Typ  | Max   | Units  |
|------------------------|------|------|-------|--------|
| Frequency Range        | 17.6 |      | 26.7  | GHz    |
| Impedance              |      | 50   |       | Ohms   |
| <b>Coupler</b>         |      |      |       |        |
| Nominal Coupling Level |      | 50   |       | dB     |
| Coupling Accuracy      |      | ±1.5 |       | dB     |
| Directivity            | 15   |      |       | dB     |
| Insertion Loss         |      |      | 0.2   | dB     |
| Main Line VSWR         |      |      | 1.1:1 |        |
| Secondary Line VSWR    |      |      | 1.5:1 |        |
| Input Power (CW)       |      |      | 300   | Watts  |
| Input Power, Peak      |      |      | 15    | kWatts |

#### Mechanical Specifications

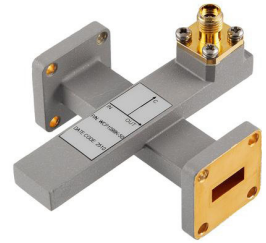
##### Size

|        |                    |
|--------|--------------------|
| Length | 2.56 in [65.02 mm] |
| Width  | 2.13 in [54.1 mm]  |
| Height | 0.88 in [22.35 mm] |
| Weight | 1 lbs [453.59 g]   |

##### Interface

|                             |                    |
|-----------------------------|--------------------|
| Waveguide Size              | WR-42              |
| Flange Type                 | UG-595/U           |
| Flange Material and Plating | Brass Copper, Gold |
| RF Connector Type           | 2.92mm Female      |

## 50 dB WR-42 Waveguide Crossguide Coupler with UG-595/U and 2.92mm Female Coupling Port from 17.6 GHz to 26.7 GHz in Brass



### FMWCP1098K-50

Coupler Body Material and Plating  
Coupler Body Plating Specification

Brass Copper, Gold  
Anticorrosion grey paint

#### Environmental Specifications

##### Temperature

Operating Range  
Storage Range

-40 to +70 deg C  
-55 to +85 deg C

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

#### Plotted and Other Data

Notes:

50 dB WR-42 Waveguide Crossguide Coupler with UG-595/U and 2.92mm Female Coupling Port from 17.6 GHz to 26.7 GHz in Brass 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: [50 dB WR-42 Waveguide Crossguide Coupler with UG-595/U and 2.92mm Female Coupling Port from 17.6 GHz to 26.7 GHz in Brass FMWCP1098K-50](#)

URL: <https://www.fairviewmicrowave.com/50db-wr42-waveguide-crossguide-coupler-ug-595-u-26.7ghz-fmwcp1098k-50-p.aspx>

The information contained within 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 liability arising out of the use of any part or document.

FMWCP1098K-50 CAD Drawing

50 dB WR-42 Waveguide Crossguide Coupler with UG-595/U and 2.92mm  
Female Coupling Port from 17.6 GHz to 26.7 GHz in Brass

