

50 dB WR-340 Waveguide Loop Coupler, CPR340F Flange, N Female Coupled Port, 2.17 GHz to 3.3 GHz in Aluminum



**FMWCP1105N-50**

**Features**

- Three Port Broadwall Waveguide Coupler
- 50±0.7 dB Nominal Coupling Level
- Integrated N Female Connector coupled port
- 2.17 GHz to 3.3 GHz Frequency Range
- Main Line VSWR < 1.1:1
- Max Power 3kW (CW)

**Applications**

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

**Description**

The FMWCP1105N-50 is a WR-340 Directional Loop waveguide coupler with N female coupled port that operates in the frequency range of 2.17 to 3.3 GHz. This Waveguide component has a maximum VSWR of 1.4:1. These designs are made of painted aluminum and incorporate a Loop configuration that result in a mid-band nominal coupling value of 10, 20, 30, 40 or 50 dB. Common applications for this component would be where power measurements are required within a system for measuring/sampling power or frequency monitoring with minimal signal loss to the main transmission line. Fairview Microwave offers a complete family of waveguide Crossguide, Loop and Broadwall couplers that are in-stock and ship same day.

**Electrical Specifications**

| Description            | Min  | Typ  | Max   | Units  |
|------------------------|------|------|-------|--------|
| Frequency Range        | 2.17 |      | 3.3   | GHz    |
| <b>Coupler</b>         |      |      |       |        |
| Nominal Coupling Level |      | 50   |       | dB     |
| Coupling Accuracy      |      | ±0.7 |       | dB     |
| Directivity            | 15   |      |       | dB     |
| Insertion Loss         |      |      | 0.2   | dB     |
| Main Line VSWR         |      |      | 1.1:1 |        |
| Secondary Line VSWR    |      |      | 1.4:1 |        |
| Input Power (CW)       |      |      | 3     | kWatts |
| Input Power, Peak      |      |      | 2,000 | kWatts |

**Mechanical Specifications**

**Size**

|        |                     |
|--------|---------------------|
| Length | 7.48 in [189.99 mm] |
| Width  | 5.44 in [138.18 mm] |
| Height | 4.93 in [125.22 mm] |
| Weight | 2 lbs [907.18 g]    |

**Interface**

|                             |                               |
|-----------------------------|-------------------------------|
| Waveguide Size              | WR-340                        |
| Flange Type                 | CPR-340F                      |
| Flange Material and Plating | Aluminum, Chromate Conversion |
| RF Connector Type           | N Female                      |

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## FMWCP1105N-50

Coupler Body Material and Plating

Aluminum, Chromate Conversion

### Environmental Specifications

#### Temperature

Operating Range

-40 to +70 deg C

Storage Range

-55 to +85 deg C

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

### Plotted and Other Data

Notes:

50 dB WR-340 Waveguide Loop Coupler, CPR340F Flange, N Female Coupled Port, 2.17 GHz to 3.3 GHz in Aluminum 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.

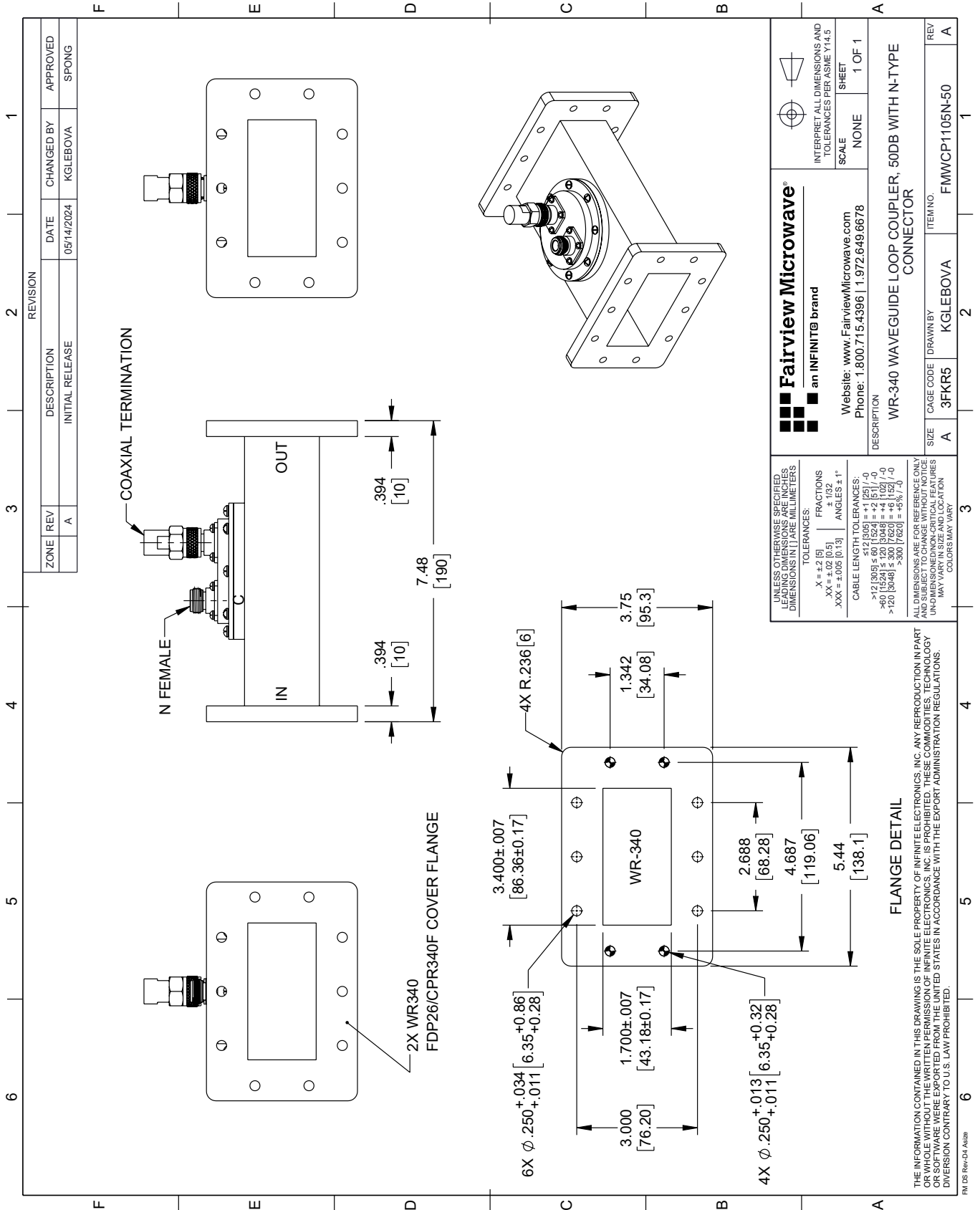
For additional information on this product, please click the following link: [50 dB WR-340 Waveguide Loop Coupler, CPR340F Flange, N Female Coupled Port, 2.17 GHz to 3.3 GHz in Aluminum FMWCP1105N-50](#)

URL: <https://www.fairviewmicrowave.com/50db-wr340-waveguide-coupler-cpr-340f-3.3ghz-fmwcp1105n-50-p.aspx>

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# FMWCP1105N-50 CAD Drawing

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an INFINIT® brand

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Phone: 1.800.715.4396 | 1.972.649.6678

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN [ ] ARE MILLIMETERS.

TOLERANCES:  
 .X = ±.2 [5]  
 .XX = ±.02 [0.5]  
 .XXX = ±.005 [0.13]  
 ±.132  
 ANGLES ± 1°

FRACTIONS:  
 ±.132  
 ±.132 [3.35]

CABLE LENGTH TOLERANCES:  
 >12 [305] ≤ 60 [1524] = ±.125 [-0]  
 >60 [1524] ≤ 120 [3048] = ±.125 [-0]  
 >120 [3048] ≤ 300 [7620] = ±.125 [-0]  
 >300 [7620] = ±.125 [-0]

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. DIMENSIONS IN [ ] ARE MILLIMETERS. COLORS MAY VARY.

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE: NONE  
SHEET: 1 OF 1

DESCRIPTION: WR-340 WAVEGUIDE LOOP COUPLER, 50DB WITH N-TYPE CONNECTOR

SIZE: A  
CAGE CODE: 3FKR5  
DRAWN BY: KGLEBOVA  
ITEM NO.: FMWCP1105N-50

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FM DS Rev-D4 Alt2