

## 2.92mm Directional Coupler 20 dB 8 GHz to 40 GHz Rated to 30 Watts

The FM2CP1125-20 is an 20 dB RF coupler with 50 ohm 2.92mm connectors operating from 8 GHz to 40 GHz with a maximum input power of 20 Watts CW, and peak power handling of 500 watt. The FM2CP1125-20 has a coupling factor of 20 dB, insertion loss of 1 dB maximum and a maximum VSWR of 1.6:1. The coupler operates over a temperature range of -45 to 85° C and meets environmental standard for humidity, shock, vibration, and altitude. Couplers have many Applications and perform several functions within the RF/Microwave industry such as circuit feedback and signal sampling for measurement or monitoring.



### Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	8		40	GHz
Impedance		50		Ohms
Coupling	19	20	21	dB
Freq. Sensitivity		±0.5	±0.7	dB
Insertion Loss		0.9	1	dB
Main Line VSWR		1.45:1	1.6:1	
Sec. Line VSWR		1.4:1	1.6:1	
Input Power (CW)			30	Watts
Input Power (Peak)			500	Watts

### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	8 to 26.526.5 to 40					GHz
Insertion Loss, Typ	0.7	0.9				dB
Main Line VSWR, Typ	1.3:1	1.45:1				
Main Line VSWR, Max	1.5:1	1.6:1				
Sec. Line VSWR, Typ	1.31:1	1.4:1				
Sec. Line VSWR, Max	1.5:1	1.6:1				
Directivity, Min	12	10				dB
Directivity, Typ	15	14				dB

### Mechanical Specifications

Weight	0.034 lbs [15.42 g]
Housing Material and Plating	Aluminum

#### Configuration

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

### Features:

- 8 GHz to 40 GHz
- 30 Watts CW Max Power
- 20 dB Coupling Value
- Directional 2.92mm Coupler
- Meets Standards for Humidity, Shock, Vibration, Altitude

### Applications:

- Communications Systems
- GSM, LTE, 5G
- Amplifier Systems
- Point-to-Point Radio
- Automotive Radar
- Defense Applications
- Wireless Telecommunications

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**Environmental Specifications**

**Temperature**

Operating Range -45 to +85 deg C  
 Storage Range -55 to +125 deg C

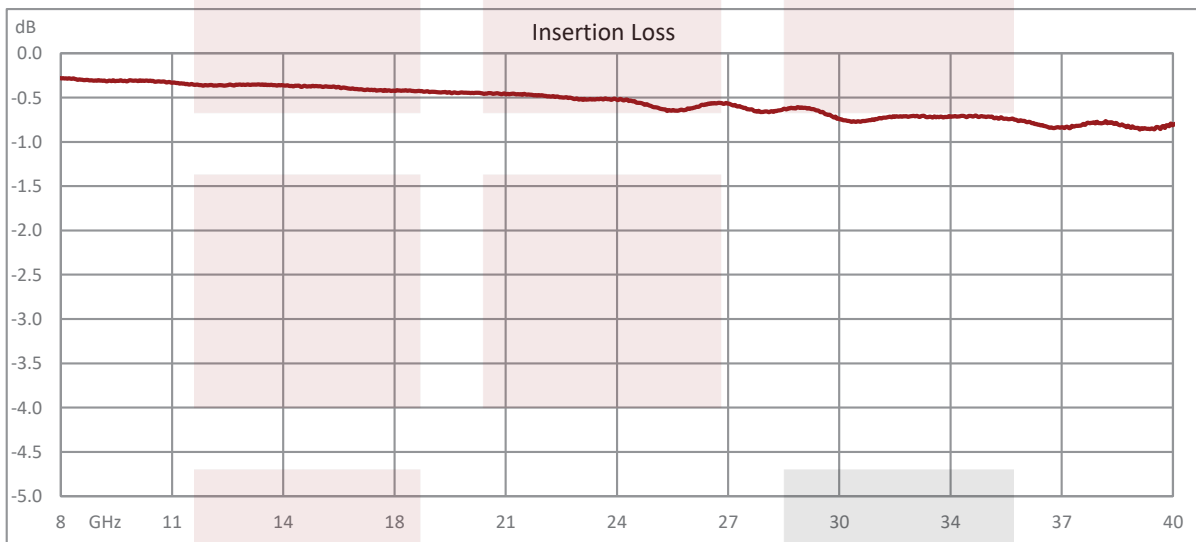
Humidity 100% RH at 35°C, 95% RH at 40°C  
 Shock 20G for 11msec half sine wave, 3 axis both directions  
 Vibration 25g RMS (15 degrees 2KHz) endurance, 1 hour per axis  
 Altitude 30,000 ft. (Epoxy Sealed Controlled environment)

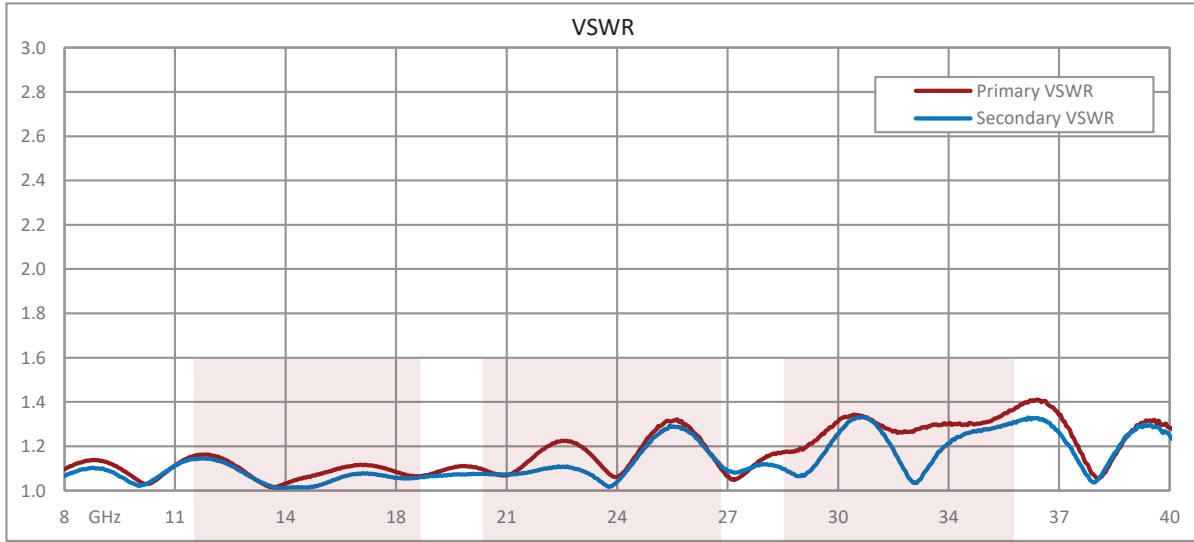
**Compliance Certifications** (see [product page](#) for current document)

**Plotted and Other Data**

Notes:

**Typical Performance Data**





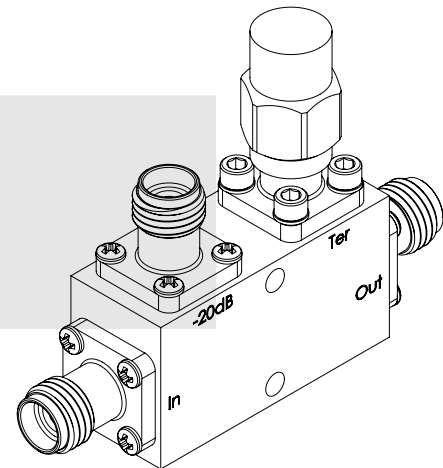
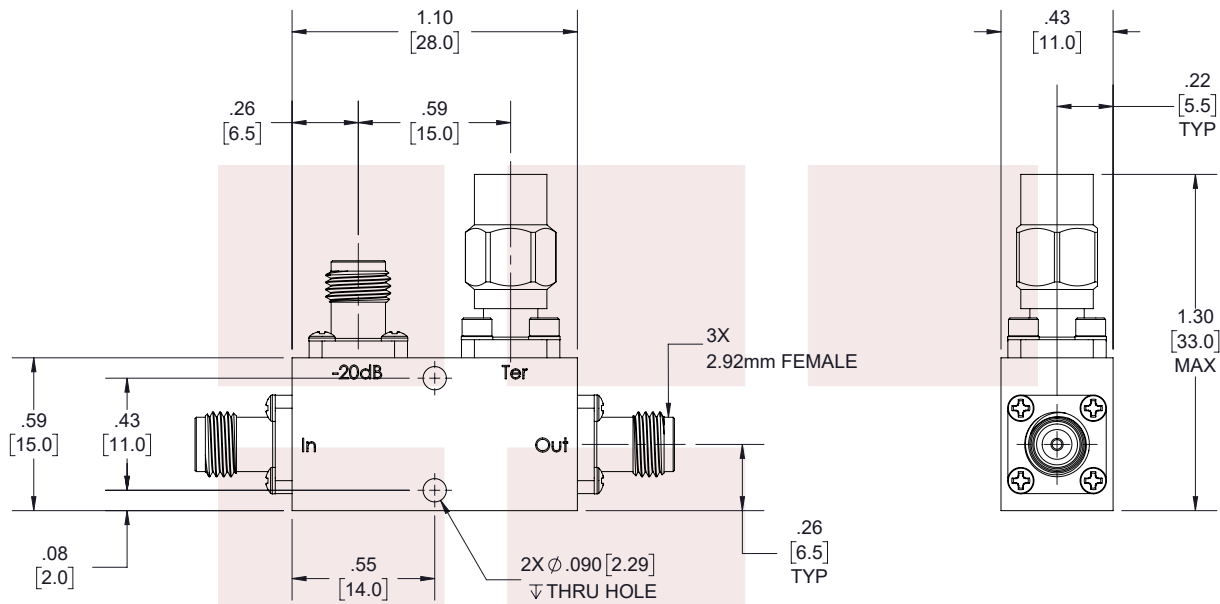
2.92mm Directional Coupler 20 dB 8 GHz to 40 GHz Rated to 30 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [2.92mm Directional Coupler 20 dB 8 GHz to 40 GHz Rated to 30 Watts FM2CP1125-20](https://www.fairviewmicrowave.com/2.92mm-directional-standard-20-db-40-ghz-fm2cp1125-20-p.aspx)

URL: <https://www.fairviewmicrowave.com/2.92mm-directional-standard-20-db-40-ghz-fm2cp1125-20-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.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
B	PCR FM2CP1125-20	8/11/2021	S.PONG



**LABEL**

FAIRVIEW MICROWAVE  
FM2CP1125-20  
D/C: YYWW

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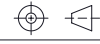
TITLE  
2.92mm Directional Coupler 20 dB 8 GHz to 40 GHz  
Rated to 30 Watts

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. FM2CP1125-20	REV B
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T-Rev.D