

1.85mm Directional Coupler 20 dB 1 GHz to 67 GHz Rated to 20 Watts

The FM2CP1127-20 is an 20 dB RF coupler with 50 ohm 1.85mm connectors operating from 1 GHz to 67 GHz with a maximum input power of 20 Watts CW, and peak power handling of 300 watt. The FM2CP1127-20 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	1		67	GHz
Impedance		50		Ohms
Coupling	19	20	23.5	dB
Freq. Sensitivity		±0.7	±1	dB
Insertion Loss		0.8	1	dB
Directivity	8	16		dB
Main Line VSWR		1.5:1	1.6:1	
Sec. Line VSWR		1.5:1	1.6:1	
Input Power (CW)			20	Watts
Input Power (Peak)			300	Watts

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	1 to 18	18 to 40	40 to 67			GHz
Insertion Loss, Typ	1.2	2	3.1			dB
Main Line VSWR, Typ	1.3:1	1.4:1	1.5:1			
Main Line VSWR, Max	1.5:1	1.6:1	1.7:1			
Sec. Line VSWR, Typ	1.3:1	1.4:1	1.5:1			
Sec. Line VSWR, Max	1.5:1	1.6:1	1.7:1			
Directivity, Min	15	10	8			dB
Directivity, Typ	16	12	10			dB
Coupling, Typ	20.5	21	22			dB
Freq. Sensitivity, Typ	±1	±0.7	±1			dB

Mechanical Specifications

Weight 0.1345 lbs [61.01 g]

Housing Material and Plating Aluminum

Configuration

Package Type Connectorized
 Input Connector 1.85mm Female



Features:

- 1 GHz to 67 GHz
- 20 Watts CW Max Power
- 20 dB Coupling Value
- Directional 1.85mm 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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Output Connector 1.85mm Female
Coupled Connectors 1.85mm Female

Environmental Specifications

Temperature

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

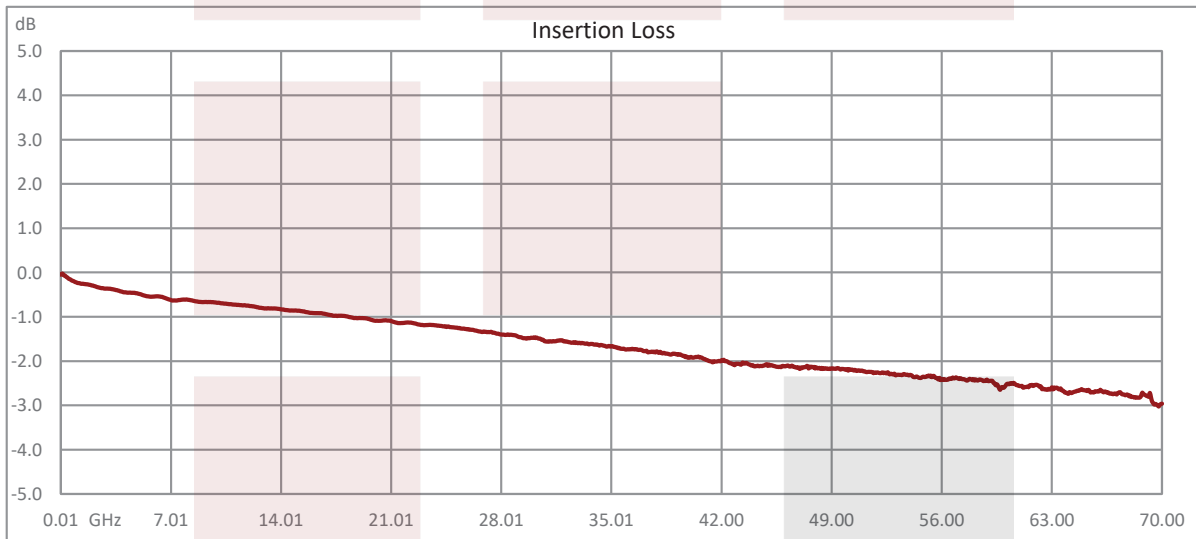
Humidity 100% RH at 35°C, 95% RH at 40°C
Shock 20G for 11msec half sine wave, 3 axis both directions
Vibration 25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Altitude 30,000 ft. (Epoxy Sealed Controlled environment)

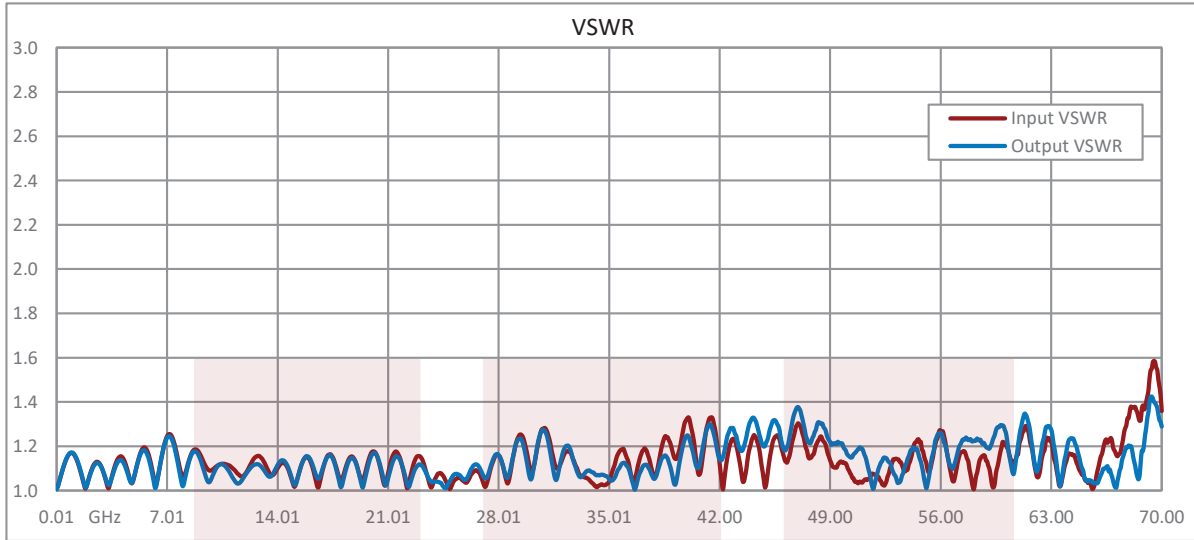
Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

Typical Performance Data



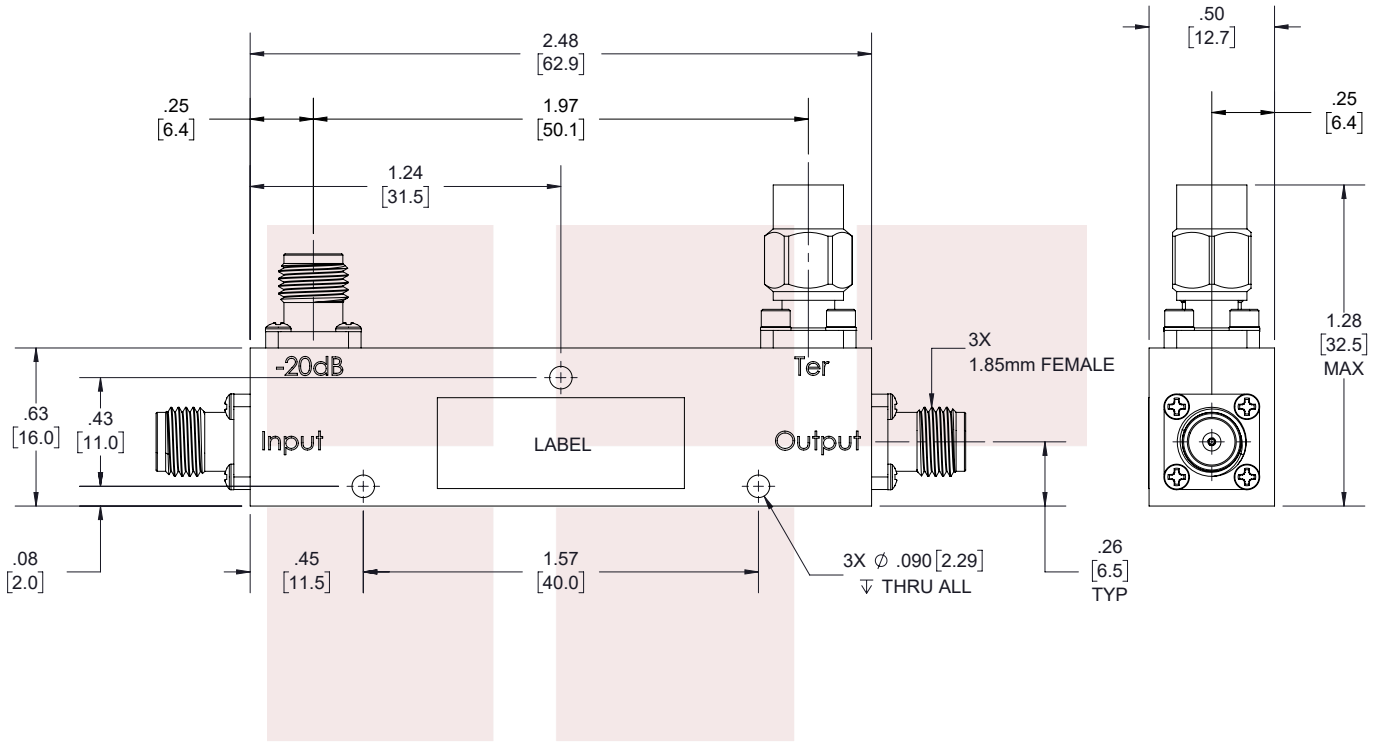


1.85mm Directional Coupler 20 dB 1 GHz to 67 GHz Rated to 20 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [1.85mm Directional Coupler 20 dB 1 GHz to 67 GHz Rated to 20 Watts FM2CP1127-20](https://www.fairviewmicrowave.com/1.85mm-directional-standard-20-db-67-ghz-fm2cp1127-20-p.aspx)

URL: <https://www.fairviewmicrowave.com/1.85mm-directional-standard-20-db-67-ghz-fm2cp1127-20-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.

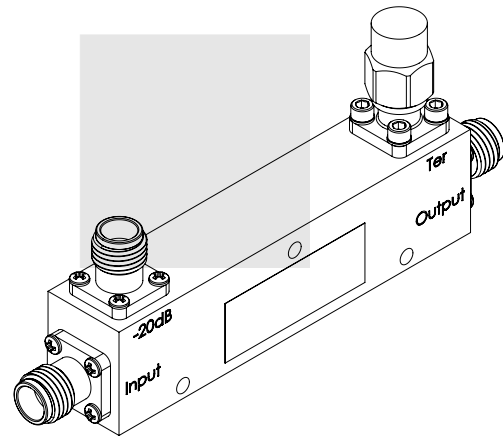


LABEL

FAIRVIEW MICROWAVE
FM2CP1127-20
D/C: XXXX

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

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES



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
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DWG NO **FM2CP1127-20** CAGE CODE **3FKR5**

CAD FILE 04/17/19 SHEET 1 OF 1 SCALE N/A SIZE A 7361