

SMA Directional Coupler 20 dB 12.4 GHz to 18 GHz Rated to 50 Watts

The FMCP1111 is an 20 dB RF coupler with 50 ohm SMA connectors operating from 12.4 to 18 GHz with a maximum input power of 50 Watts CW, and peak power handling of 1 kilowatt. The FMCP1111 has a coupling factor of 1 dB, insertion loss of (excluding coupled power) and a maximum VSWR of 1.35:1. The coupler operates over a temperature range of -55° to 105° 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	12.4		18	GHz
Impedance		50		Ohms
Coupling	19	20	21	dB
Freq. Sensitivity		±0.25	±0.5	dB
Insertion Loss			0.5	dB
Directivity	15	17		dB
Main Line VSWR		1.3:1	1.35:1	
Input Power (CW)			50	Watts
Input Power (Peak)			1	kWatts

Mechanical Specifications

Size	
Length	1 in [25.4 mm]
Width/Dia.	0.38 in [9.65 mm]
Height	0.5 in [12.7 mm]
Finish	
Housing Material and Plating	Gray Aluminum

Configuration

Input Connector	SMA Female
Output Connector	SMA Female
Coupled Connectors	SMA Female

Environmental Specifications

Temperature

Operating Range	-55 to +105 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)



Features:

- 12.4 to 18 GHz
- 50 Watts CW Max Power
- 20 dB Coupling Value
- Directional SMA Coupler
- Meets Standards for Humidity, Shock, Vibration, Altitude

Applications:

- Communications Systems
- CDMA, GSM, LTE
- Amplifier Systems
- Amplifier Power Dividing
- Aviation/Aerospace
- Defense Applications
- Wireless Telecommunications

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

Plotted and Other Data

Notes:

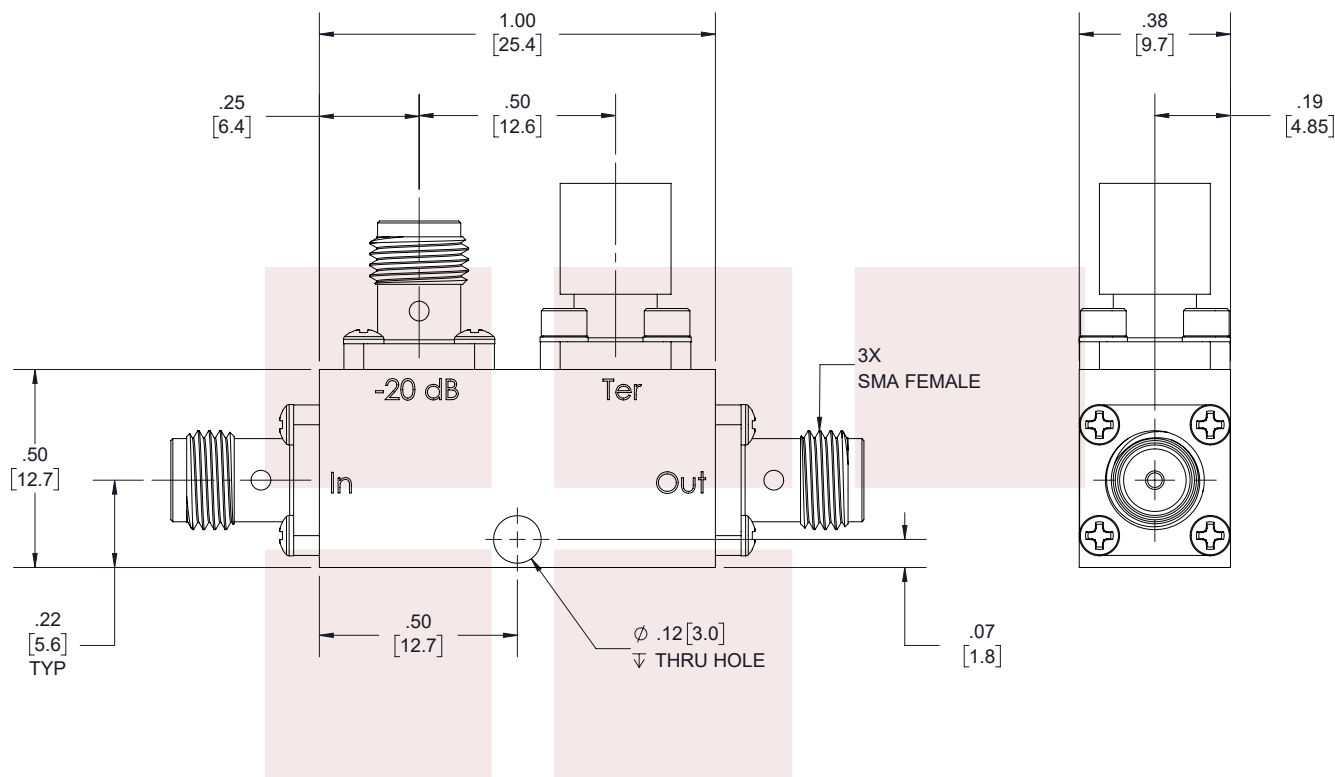
SMA Directional Coupler 20 dB 12.4 GHz to 18 GHz Rated to 50 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SMA Directional Coupler 20 dB 12.4 GHz to 18 GHz Rated to 50 Watts FMCP1111](#)

URL: <https://www.fairviewmicrowave.com/sma-directional-standard-20-db-18-ghz-fmcp1111-p.aspx>

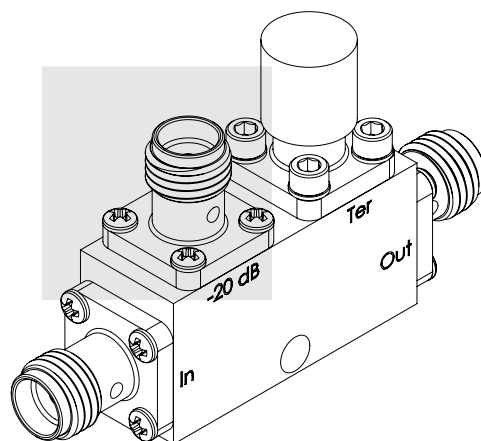
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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	5/1/2020	S.PONG



LABEL:

FAIRVIEW MICROWAVE
FMCP1111
D/C: YYWW



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TITLE

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

TOLERANCES:

.X = ±.2 [5.08]
.XX = ±.02 [5.1]
.XXX = ±.005 [1.3]

FRACTIONS
± 1/32
ANGLES ± 1°

CABLE LENGTH (L) TOLERANCES:

L ≤ 12 [305] = +1 [25] / -0
12 [305] < L ≤ 60 [1524] = +2 [51] / -0
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

SCALE

N/A

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SIZE
A

CAGE CODE
3FKR5

DRAWN BY
K.Dang

ITEM NO.
FMCP1111

REV
A

T-Rev.D