

SMA Directional Coupler 20 dB 1 GHz to 2 GHz Rated to 50 Watts

The FMCP1108 is an 20 dB RF coupler with 50 ohm SMA connectors operating from 1 to 2 GHz with a maximum input power of 50 Watts CW, and peak power handling of 3 kilowatt. The FMCP1108 has a coupling factor of 1 dB, insertion loss of (excluding coupled power) and a maximum VSWR of 1.1:1. 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	1		2	GHz
Impedance		50		Ohms
Coupling	18.75	20	21.25	dB
Freq. Sensitivity			±0.75	dB
Insertion Loss			0.15	dB
Directivity	25			dB
Main Line VSWR			1.1:1	
Input Power (CW)			50	Watts
Input Power (Peak)			3	kWatts

Mechanical Specifications

Size	
Length	1.78 in [45.21 mm]
Width/Dia.	0.38 in [9.65 mm]
Height	0.5 in [12.7 mm]
Finish	Gray
Housing Material and Plating	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:

- 1 to 2 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:

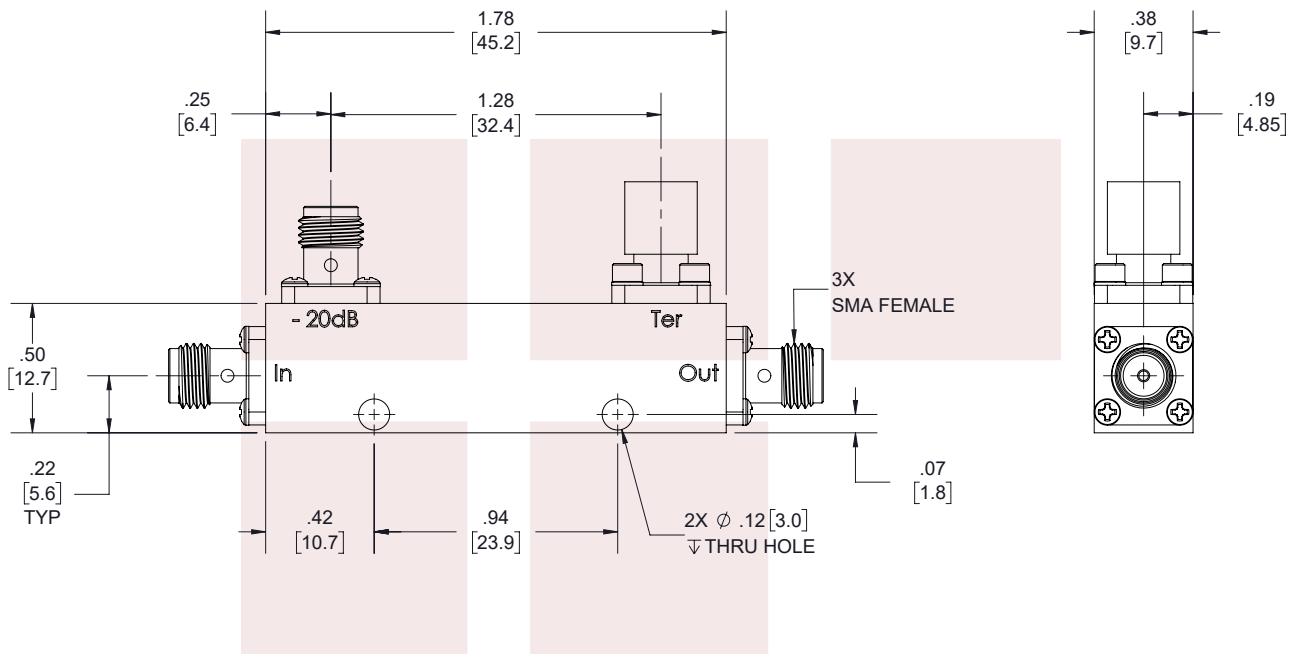
SMA Directional Coupler 20 dB 1 GHz to 2 GHz Rated to 50 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SMA Directional Coupler 20 dB 1 GHz to 2 GHz Rated to 50 Watts FMCP1108](#)

URL: <https://www.fairviewmicrowave.com/sma-directional-standard-20-db-2-ghz-fmcp1108-p.aspx>

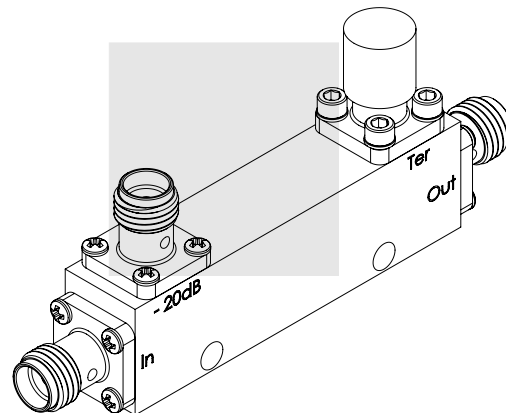
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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	4/8/2020	S.PONG



LABEL:

FAIRVIEW MICROWAVE
FMCP1108
D/C: YYWW



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

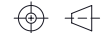
TOLERANCES:

.X = ±.2 [5.08] FRACTIONS
.XX = ±.02 [.51] ± 1/32
.XXX = ±.005 [.13] 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. FMCP1108	REV A

T-Rev.D