

**SMA 90 Degree Hybrid Coupler From 7 GHz to 18 GHz  
 Rated To 30 Watts**

The FMCP1022 is a 90° Hybrid Coupler that operates from 7 GHz to 18 GHz and can handle 30 watts of power with 18 dB isolation. The package is connectoized with field replaceable female SMA's and meets Military standard 202F for humidity, shock, vibration altitude, and temperature cycle. This coupler is a small unit that can handle a peak in power up to 1,000 Watts. This quadrature hybrid is an excellent option for any situation; to either equally split an input signal into two paths with a 90 degree phase shift between them or to combine two signals while maintaining high isolation between them.



**Electrical Specifications**

Description	Min	Typ	Max	Units
Frequency Range	7		18	GHz
Impedance		50		Ohms
Phase Difference		90		Degrees
Insertion Loss			1.3	dB
Isolation	18			dB
VSWR			1.4:1	
Amplitude Balance			±0.5	dB
Phase Balance		±5		Degrees
Input Power (CW)			30	Watts
Input Power (Peak)			1	KWatts

**Features:**

- 18 dB Isolation
- 7 GHz to 18 GHz Frequency Range
- Painted Body
- Field Replaceable SMA Female
- Meets MIL-STD-202F for Humidity, Shock, Vibration, Altitude, and Temperature Cycle

**Applications:**

- Test and Measurement
- Military Communications
- Commercial Communications
- Wireless Communications
- SATCOM
- Military Electronic Systems

**Mechanical Specifications**

<b>Size</b>	
Length	0.79 in [20.07 mm]
Width	1.22 in [30.99 mm]
Height	0.43 in [10.92 mm]
Weight	0.07 lbs [31.75 g]

<b>Configuration</b>	
RF Connector Type	SMA Female

**Environmental Specifications**

<b>Temperature</b>	
Operating Range	-55 to +85 deg C
Storage Range	-65 to +125 deg C
Humidity	MIL-STD-202F METHOD 103B COND. B
Shock	MIL-STD-202F METHOD 213B COND. B
Vibration	MIL-STD-202F METHOD 204D COND. B
Altitude	MIL-STD-202F METHOD 105C COND. B
Temperature Cycling	MIL-STD-202F METHOD 107D COND. A

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**Compliance Certifications** (visit [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com) for current document)

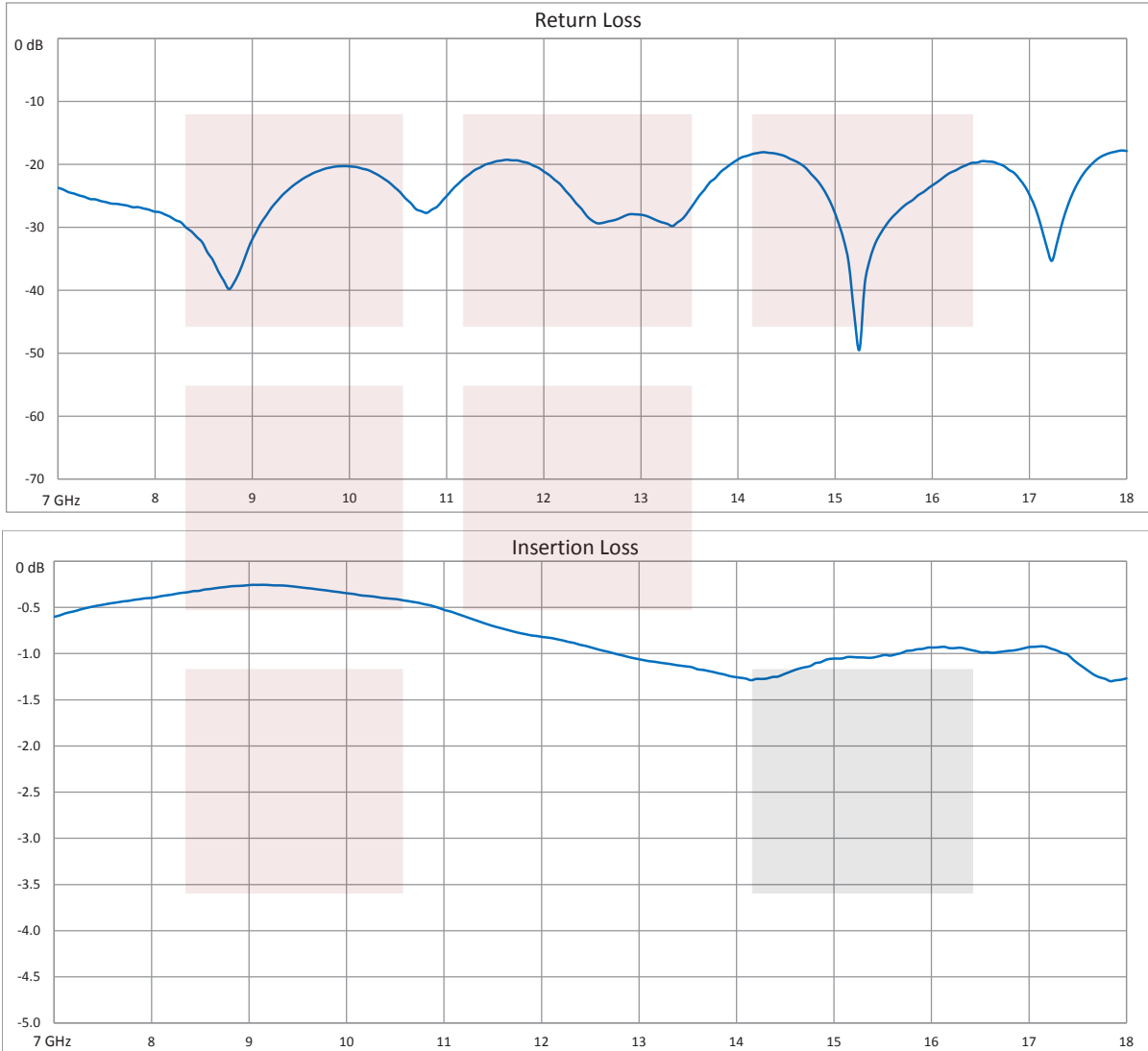
RoHS Compliant  
 REACH Compliant

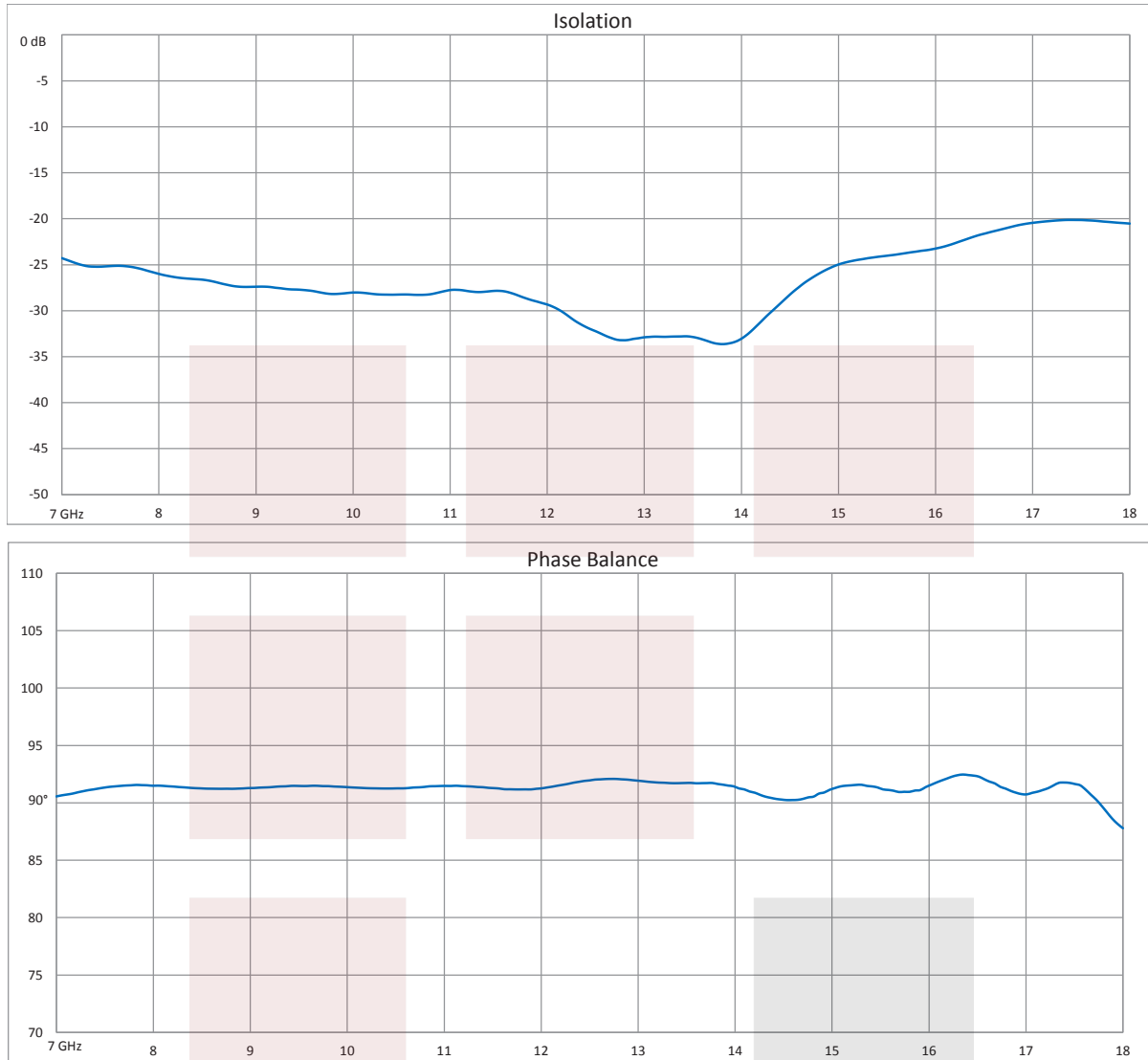
12/17/2015

**Plotted and Other Data**

Notes:

**Typical Performance Data**



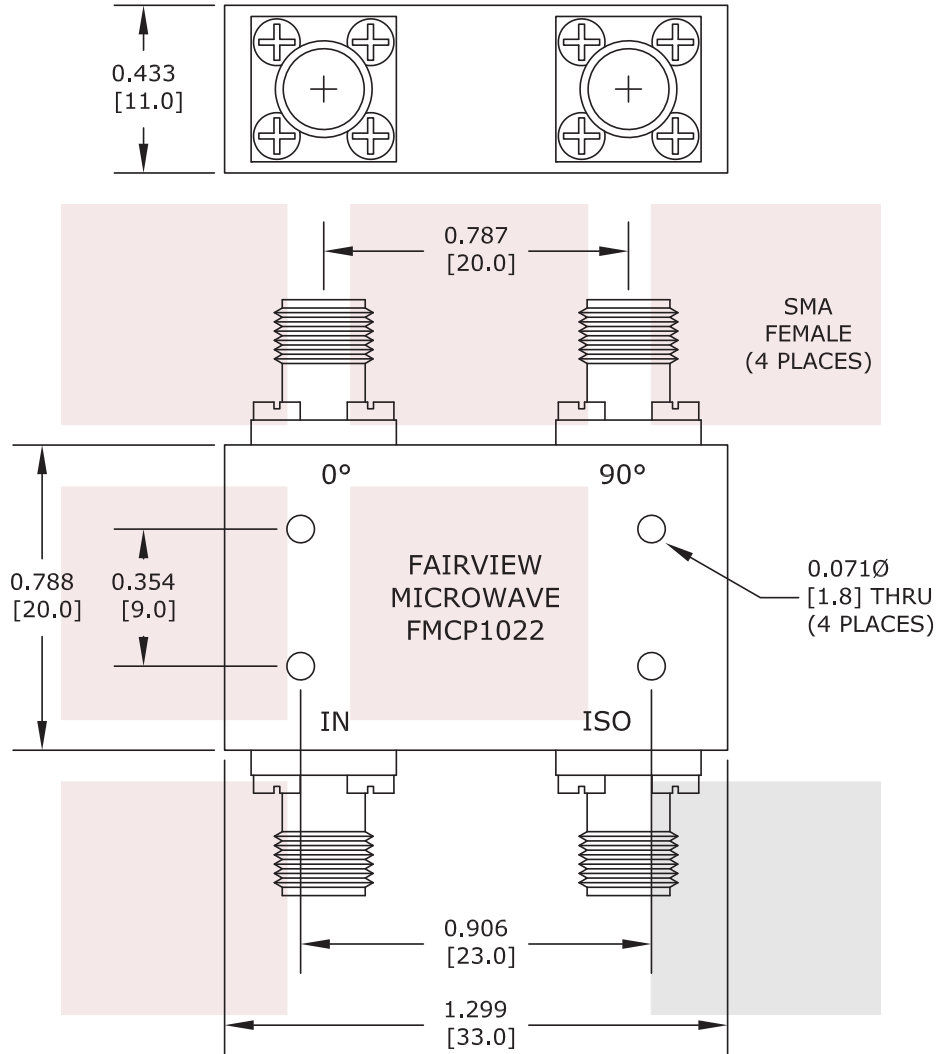


SMA 90 Degree Hybrid Coupler From 7 GHz to 18 GHz Rated To 30 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SMA 90 Degree Hybrid Coupler From 7 GHz to 18 GHz Rated To 30 Watts FMCP1022](http://www.fairviewmicrowave.com/sma-90-degree-hybrid-coupler-7-18-ghz-30-watts-fmcp1022-p.aspx)

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TITLE SMA 90 Degree Hybrid Coupler From 7 GHz to 18 GHz Rated To 30 Watts		DWG NO FMCP1022		CAGE CODE 3FKR5	
CAD FILE 041415 SHEET		SCALE N/A		SIZE A 2233	