

SMA 90 Degree Hybrid Coupler From 800 MHz to 3 GHz Rated To 50 Watts

The SH7221 is a 90 degree hybrid coupler that operates from 0.8 to 3 GHz and can handle up to 50 Watts (CW) with 20 dB isolation minimum and 1.3:1 VSWR maximum. The package interface uses SMA female connectors, and is RoHS compliant.

The SH7221 is part of Fairview Microwave's family of 90 degree hybrid couplers that offer excellent performance featuring high isolation, low insertion loss and VSWR while maintaining great amplitude/phase balance over the entire operating frequency range. They are available in both narrow and broad bandwidths and can be used in a wide variety of applications including signal sampling, phased array radar, and any application that requires even power distribution with a 90 degree difference in phase.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	0.8		3	GHz
Impedance		50		Ohms
Phase Difference		90		Degrees
Coupling		3		dB
Isolation	20			dB
VSWR			1.3:1	
Amplitude Balance		1		dB
Phase Balance		0.8		Degrees
Input Power (CW)			50	Watts

Mechanical Specifications

Size

Length	5.52 in [140.21 mm]
Width	0.99 in [25.15 mm]
Height	0.43 in [10.92 mm]
Weight	0.251 lbs [113.85 g]

Configuration

RF Connector Type	SMA Female
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Environmental Specifications

Temperature

Operating Range	-55 to +85 deg C
Storage Range	-55 to +100 deg C

Compliance Certifications (visit www.FairviewMicrowave.com for current document)

RoHS Compliant

Plotted and Other Data

Notes:



Features:

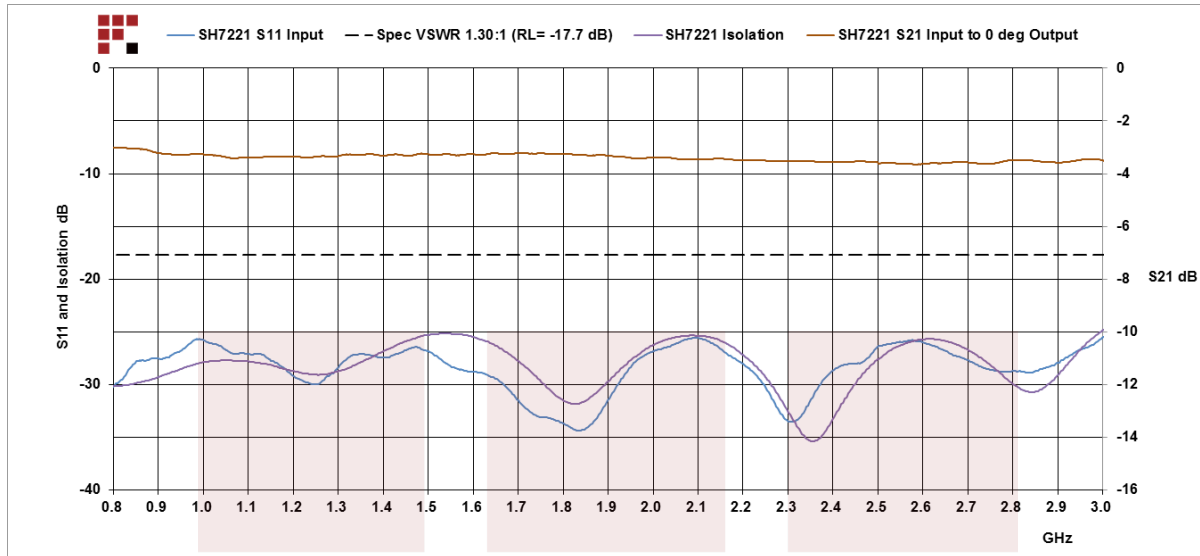
- 90° Hybrid Coupler
- 0.8 to 3 GHz Frequency Range
- Isolation > 20 dB
- VSWR < 1.3:1
- Max Power 50 Watt (CW)

Applications:

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

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Typical Performance Data

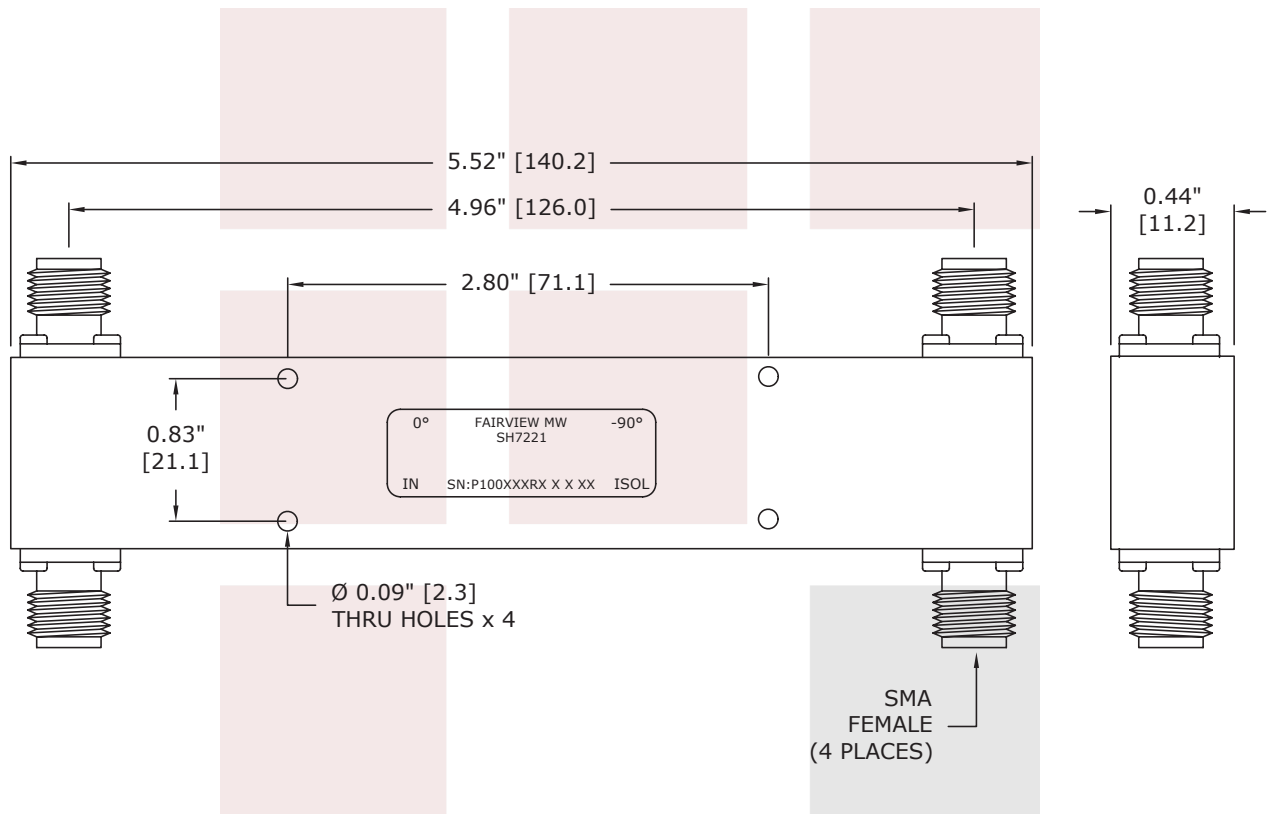


SMA 90 Degree Hybrid Coupler From 800 MHz to 3 GHz Rated To 50 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SMA 90 Degree Hybrid Coupler From 800 MHz to 3 GHz Rated To 50 Watts SH7221](#)

URL: <https://www.fairviewmicrowave.com/sma-90-degree-hybrid-coupler-800-mhz-3-ghz-50-watts-sh7221-p.aspx>

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TITLE SMA 90 Degree Hybrid Coupler From 800 MHz to 3 GHz Rated To 50 Watts		DWG NO SH7221		CAGE CODE 3FKR5	
CAD FILE	061416	SHEET	SCALE	N/A	SIZE A 3045