

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	1 in [25.4 mm]
Height	0.44 in [11.18 mm]
Weight	0.2525 lbs [114.53 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 (see [product page](#) for current document)

Plotted and Other Data

Notes:



Features:

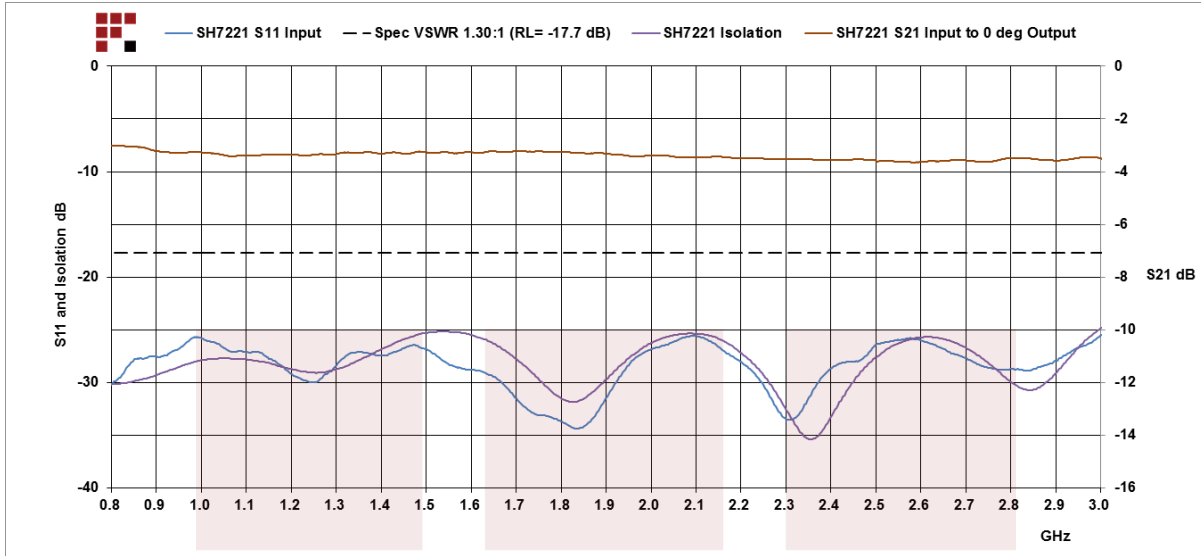
- 90° Hybrid Coupler
- 0.8 to 3 GHz Frequency Range
- Isolation > 20 dB
- VSWR < 1.3:1
- Max Power 50 Watt (CW)

Applications:

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

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Typical Performance Data

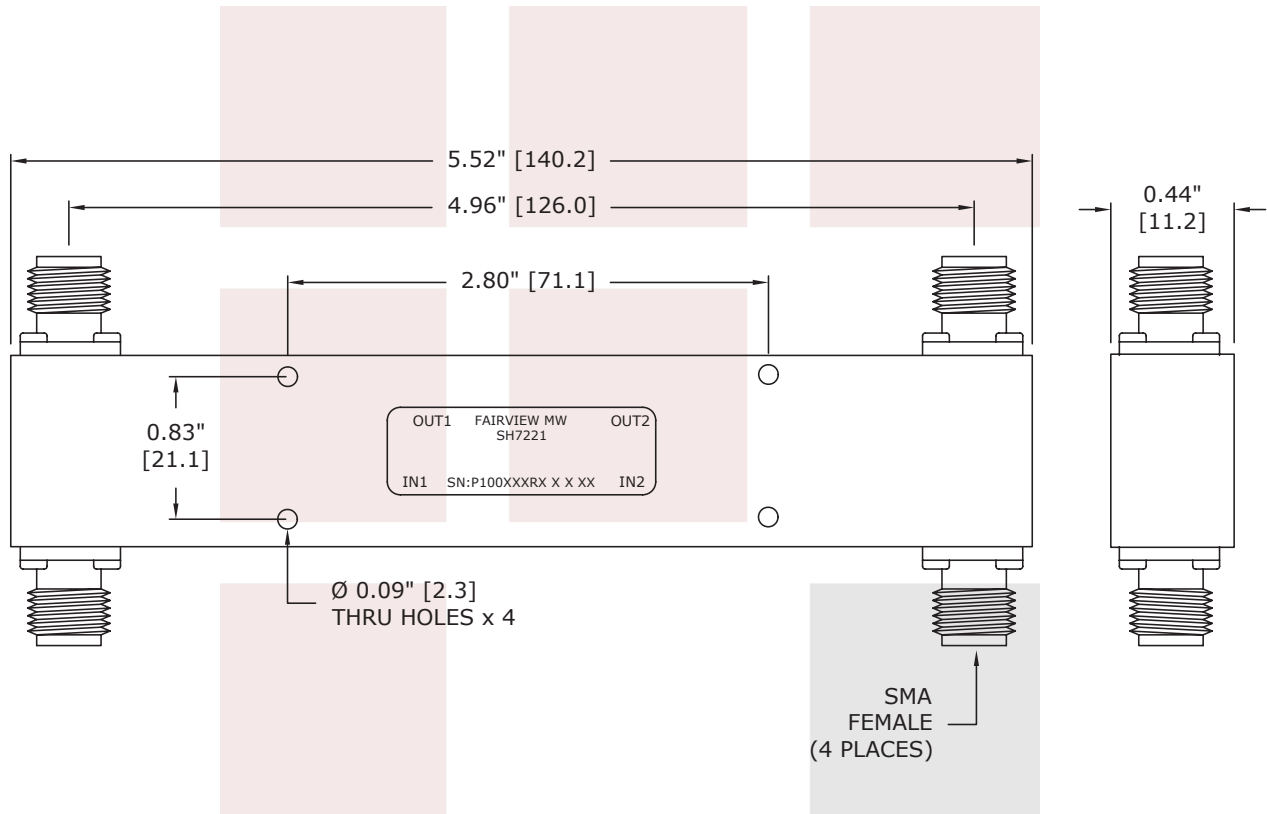


SMA 90 Degree Hybrid Coupler From 800 MHz to 3 GHz Rated To 50 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

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](https://www.fairviewmicrowave.com/sma-90-degree-hybrid-coupler-800-mhz-3-ghz-50-watts-sh7221-p.aspx)

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



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	SH7221	CAGE CODE	3FKR5
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CAD FILE	061416	SHEET	SCALE	N/A	SIZE	A	3045
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