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**Anaren**

**Model 11304-3S**

Rev. B

**Xinger®**

**Hybrid Couplers  
3 dB, 90°**



**Description**

The 11304-3S is a low profile 3dB hybrid coupler in an easy to use surface mount package covering 500 to 1000 MHz. The 11304-3S is ideal for balanced amplifiers and signal distribution and can be used in most high power designs. Parts have been subjected to rigorous qualification testing and units are 100% tested. They are manufactured using materials with x and y thermal expansion coefficients compatible with common substrates such as FR4, G-10 and polyimide.

**ELECTRICAL SPECIFICATIONS\*\***

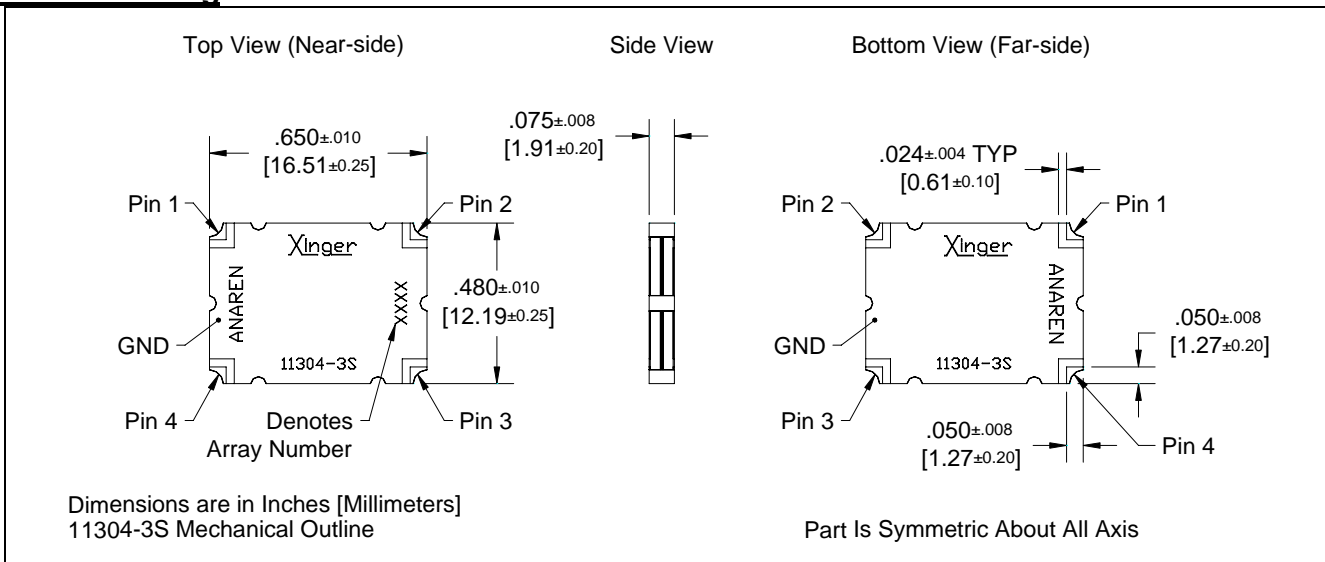
**Features:**

- 500 - 1000 MHz
- Low loss
- High Isolation
- 90° Quadrature
- Surface Mountable
- Tape And Reel
- Convenient Package
- 100% Tested
- Lead Free

Frequency	Isolation	Insertion Loss	VSWR		
MHz	dB Min	dB Max	Max:1		
500 – 1000	20	0.35	1.25		
Amplitude Balance	Phase Balance	Power	⊙JC	Operating Temp.	
dB Max	Degrees	Ave. CW Watts	°C/ Watt	°C	
± 0.55	± 3	100	8.6	-55 to +85	

\*\*Specification based on performance of unit properly installed on microstrip printed circuit boards with 50 Ω nominal impedance. Specifications subject to change without notice.

**Outline Drawing**

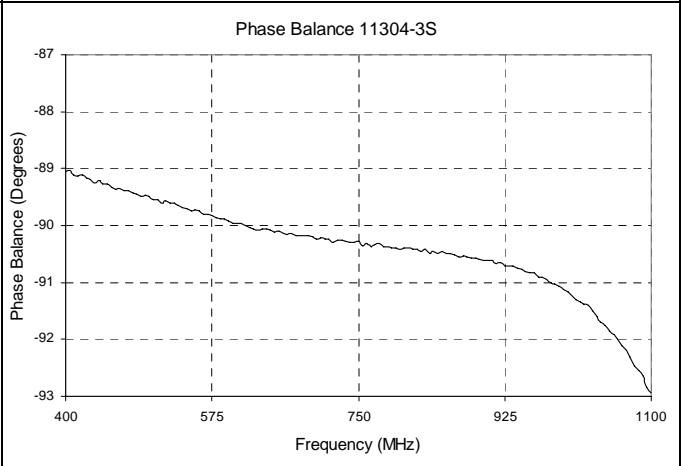
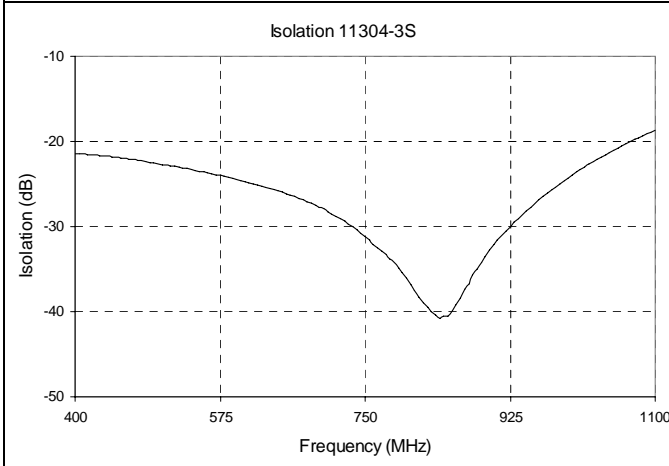
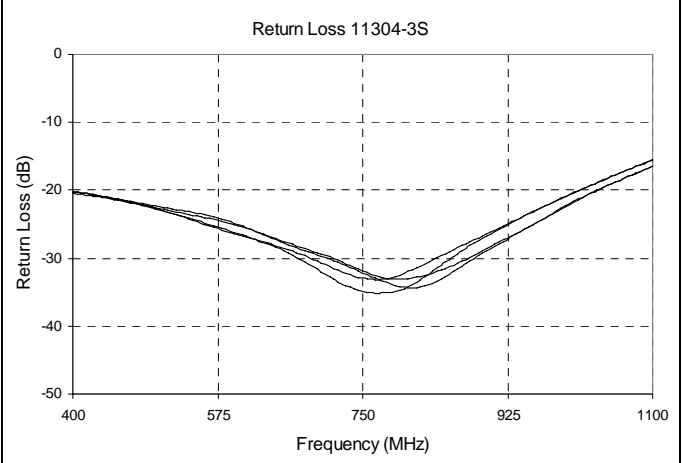
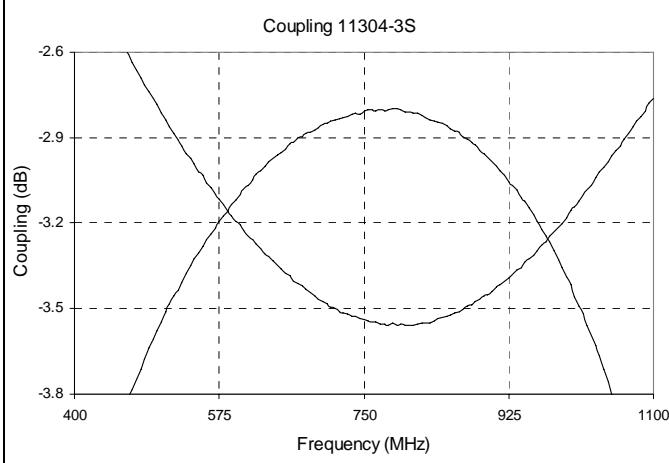


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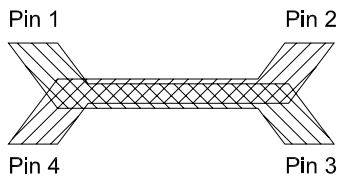
Rev. B



## Typical Performance: 500 MHz. to 1000 MHz.



### Pin Configuration

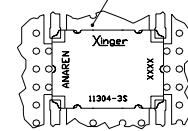


Hybrid Coupler Pin Configuration

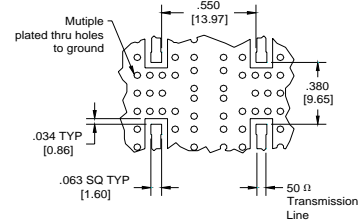
	Pin 1	Pin 2	Pin 3	Pin 4
Configuration #1	Input	Isolated	-3dB, -90°	-3dB, 0°
Configuration #2	Isolated	Input	-3dB, 0°	-3dB, -90°
Configuration #3	-3dB, -90°	-3dB, 0°	Input	Isolated
Configuration #4	-3dB, 0°	-3dB, -90°	Isolated	Input

### Mounting Footprint

To ensure proper electrical and thermal performance there must be a ground plane with 100% solder connection underneath the part



Part is Symmetric About All Axis



Dimensions are in Inches [Millimeters]  
11304-3S Mounting Footprint

USA/Canada: (315) 432-8909  
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Available on Tape and Reel For Pick and Place Manufacturing.



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