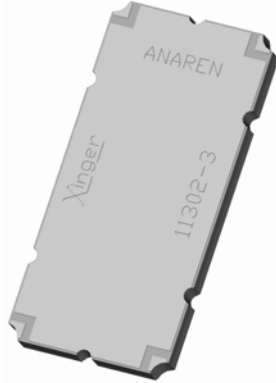


# Xinger®

## Hybrid Couplers 3 dB, 90°



### Description

The 11302-3 is a low profile 3dB hybrid coupler in an easy to use surface mount package for applications in the 225 - 400 MHz band. The 11302-3 is ideal for balanced amplifiers and signal distribution and is an ideal solution for the ever increasing demands for smaller printed circuit boards. Parts have been run through rigorous qualification and units are 100% tested. They are manufactured using materials with x and y thermal expansion coefficients compatible with common substrates.

### Features:

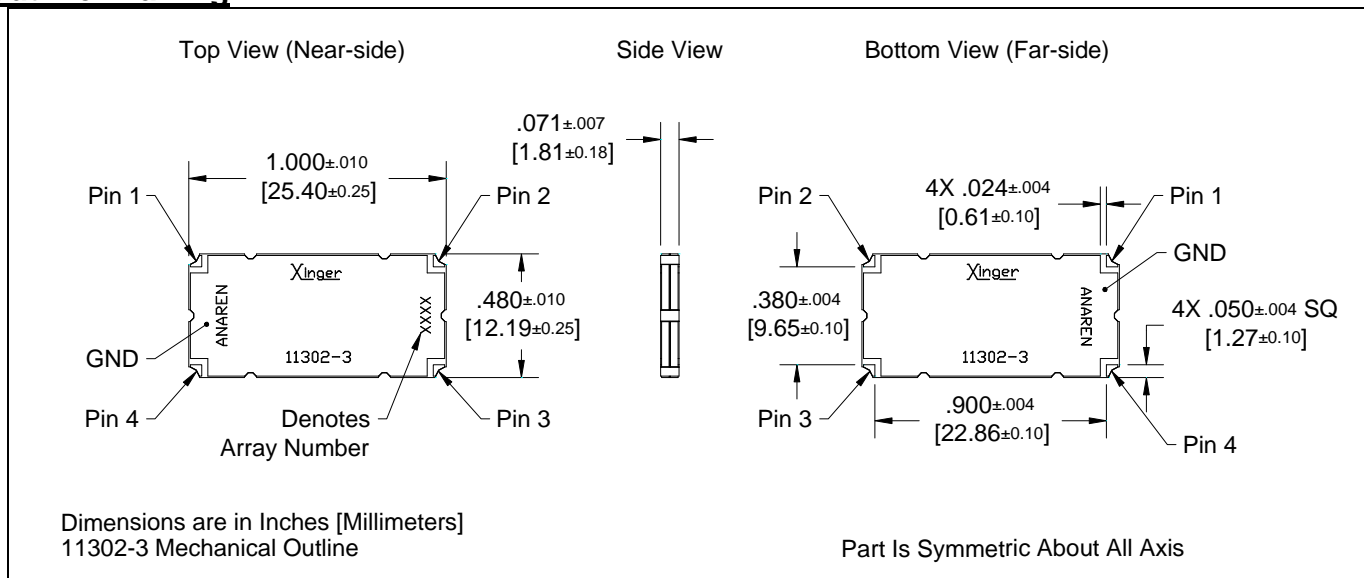
- 225 - 400 MHz
- Low loss
- High Isolation
- 90° Quadrature
- Surface Mountable
- Tape And Reel
- Convenient Package
- 100% Tested

### ELECTRICAL SPECIFICATIONS\*\*

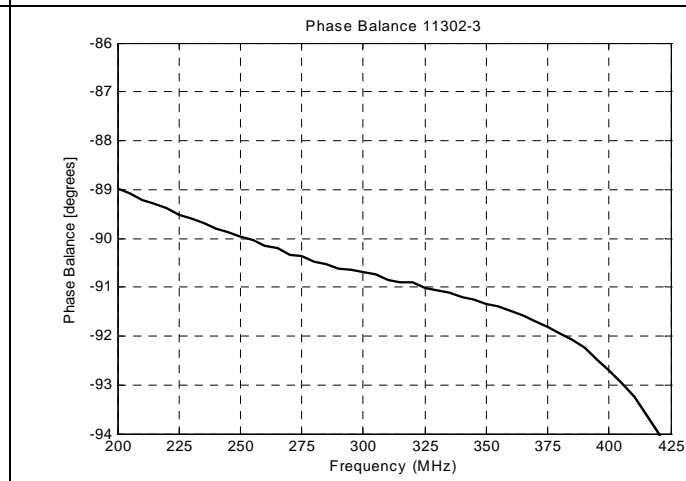
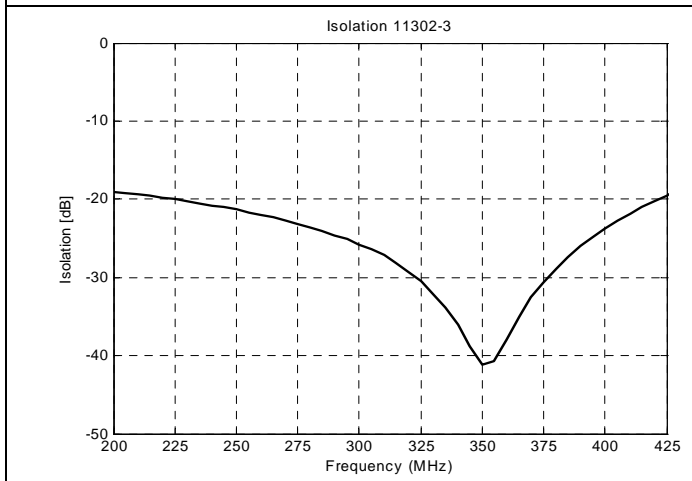
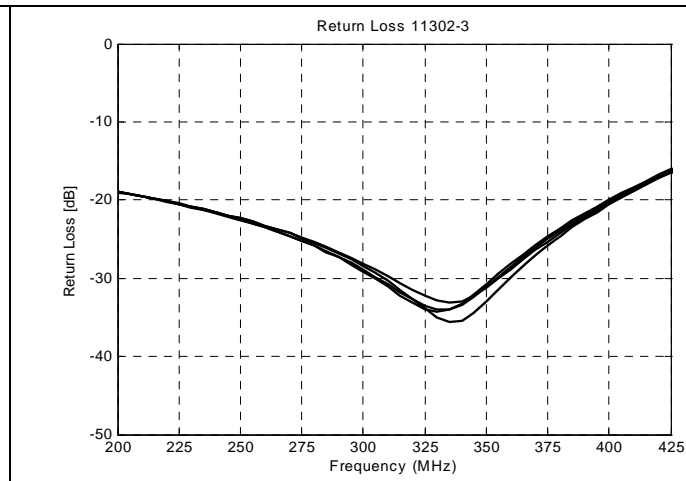
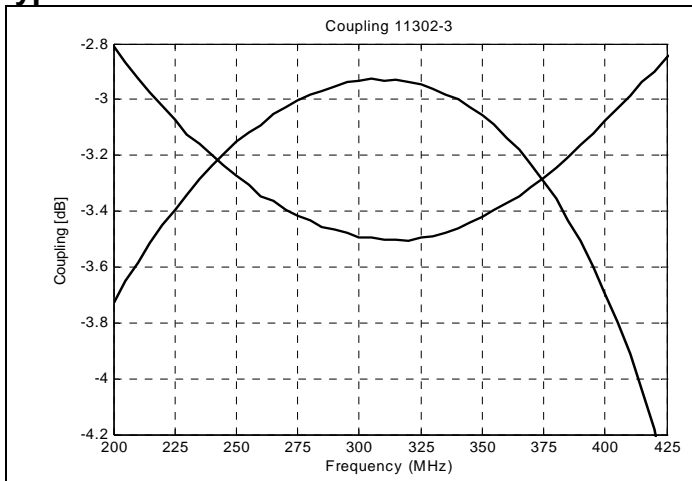
Frequency	Isolation	Insertion Loss	VSWR		
<i>MHz</i>	<i>dB Min</i>	<i>dB Max</i>	<i>Max:1</i>		
225-400	15	0.55	1.40		
Amplitude Balance	Phase Balance	Power	ΘJC	Operating Temp.	
<i>dB Max</i>	<i>Degrees</i>	<i>Ave. CW Watts</i>	<i>°C/ Watt</i>	<i>°C</i>	
± 0.50	± 4	100	5.9	-55 to +85	

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

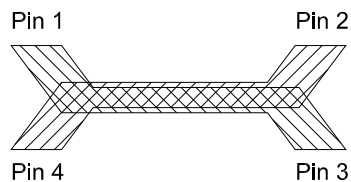
### Outline Drawing



### Typical Performance: 200 MHz to 425 MHz.



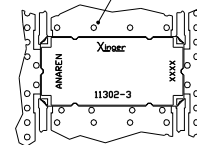
### Pin Configuration



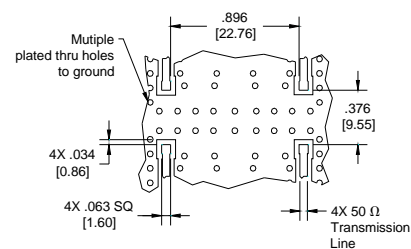
Hybrid Coupler Pin Configuration				
	Pin 1	Pin 2	Pin 3	Pin 4
Configuration #1	Input	Isolated	-3dB, -90°	-3dB, 0°
Configuration #2	Isolated	Input	-3dB, 0°	-3dB, -90°
Configuration #3	-3dB, -90°	-3dB, 0°	Input	Isolated
Configuration #4	-3dB, 0°	-3dB, -90°	Isolated	Input

### 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]  
11302-3 Mounting Footprint

USA/Canada: (315) 432-8909  
Toll Free: (800) 544-2414  
Europe: +44 2392-232392

Available on Tape and Reel For Pick and Place Manufacturing.



### PACKAGING

Parts are available in both reel and tube. Packaging follows EIA 481-2. Parts are provided in tape and reel as shown below. Minimum order quantities are 500 per reel and 19 per tube.

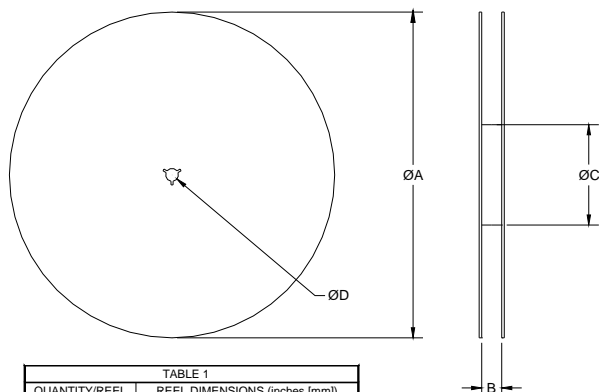
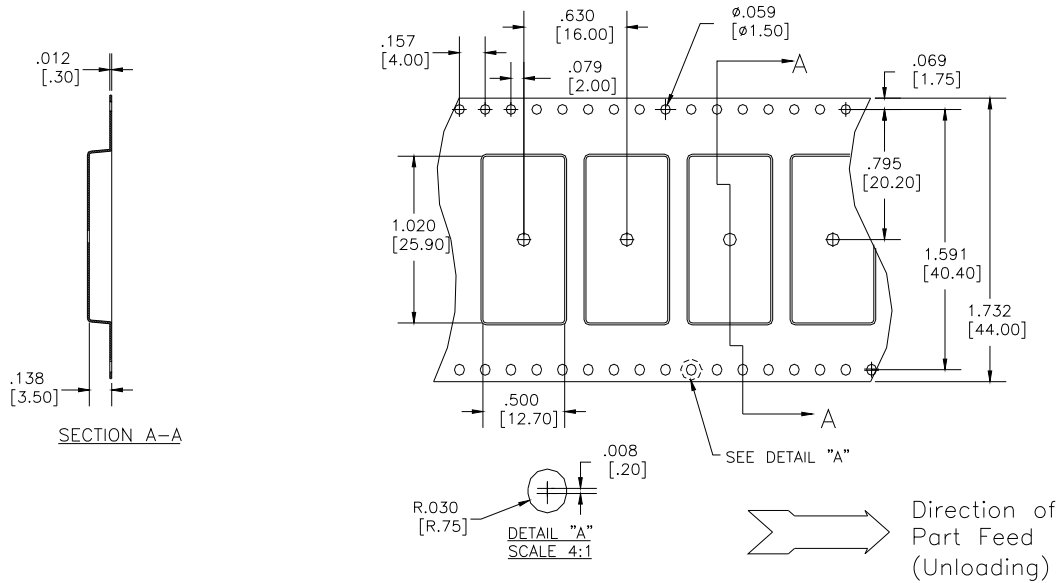


TABLE 1	
QUANTITY/REEL	REEL DIMENSIONS (inches [mm])
500	ØA 13.0 [330.0]
	B 1.732 [44.0]
	ØC 4.017 [102.03]
	ØD 0.512 [13.0]



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