

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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### **Description**

The 11303-3 is a low profile 3dB hybrid coupler in an easy to use surface mount package covering the NMT 450 band. The 11303-3 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 polyamide.

### Features:

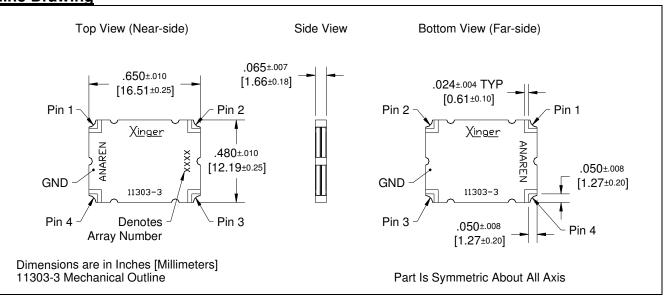
- 380 520 MHz
- Low loss
- High Isolation
- 90<sup>O</sup> Quadrature
- Surface Mountable
- Tape And Reel
- Convenient Package
- 100% Tested

#### **ELECTRICAL SPECIFICATIONS\*\***

Frequency	Isolation	Insertion Loss	VSWR				
MHz	dB Min	dB Max	Max:1				
380 – 520	20	0.35	1.28				
Amplitude Balance	Phase Balance	Power	ΘJC	Operating Temp.			
dB Max	Degrees	Ave. CW Watts	ºC/ Watt	ºC			
± 0.30	± 3	125	14	-55 to +85			

<sup>\*\*</sup>Specification based on performance of unit properly installed on microstrip printed circuit boards with 50  $\Omega$  nominal impedance. Specifications subject to change without notice.

## **Outline Drawing**







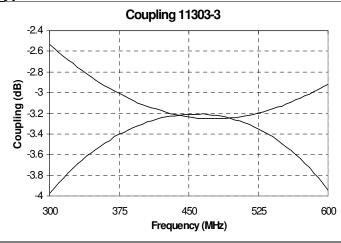
Available on Tape and Reel For Pick and Place Manufacturing.

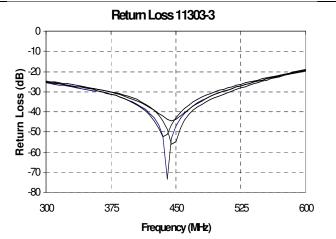
USA/Canada: (315) 432-8909 Toll Free: (800) 544-2414 Europe: +44 2392-232392

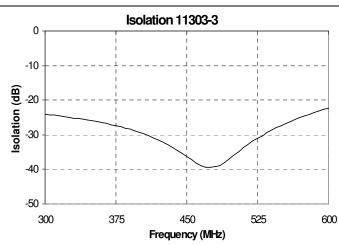


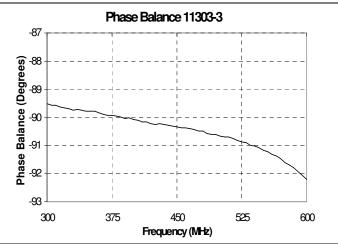


## Typical Performance: 300 MHz to 600 MHz.



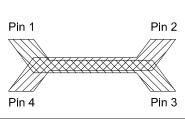






**Mounting Footprint** 

## Pin Configuration



Hybrid Coupler Pin Configruation							
	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			

# To ensure proper electrical and thermal performance there must be a ground plane with 100% solder connection underneath the part 00 0 0 Part Is Symmetric About All Axis Mutiple plated thru holes 00 000( .063 SQ TYP [1.60] Transmission Line Dimensions are in Inches [Millimeters] 11303-3 Mounting Footprint

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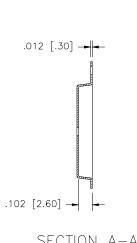
Available on Tape and Reel For Pick and Place Manufacturing.

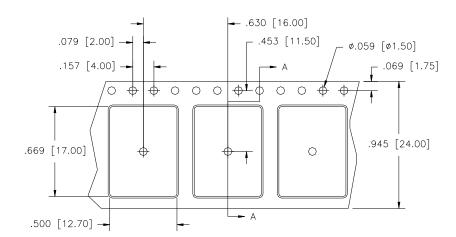




#### **PACKAGING**

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 1000 per reel and 35 per tube.

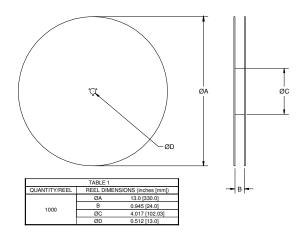




SECTION A-A



Dimensions are in inches [mm]





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