



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!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

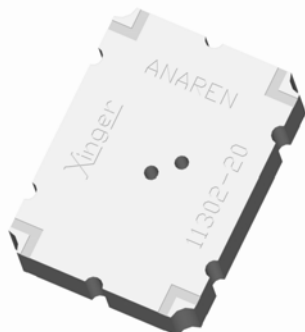
Email & Skype: info@chipsmall.com Web: www.chipsmall.com

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## Directional Couplers 20 dB



### Description

The 11302-20 is a low profile 20dB directional coupler in an easy to use surface mount package covering 190 to 400 MHz. The 11302-20 is ideal for power and frequency detection as well as VSWR monitoring 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:

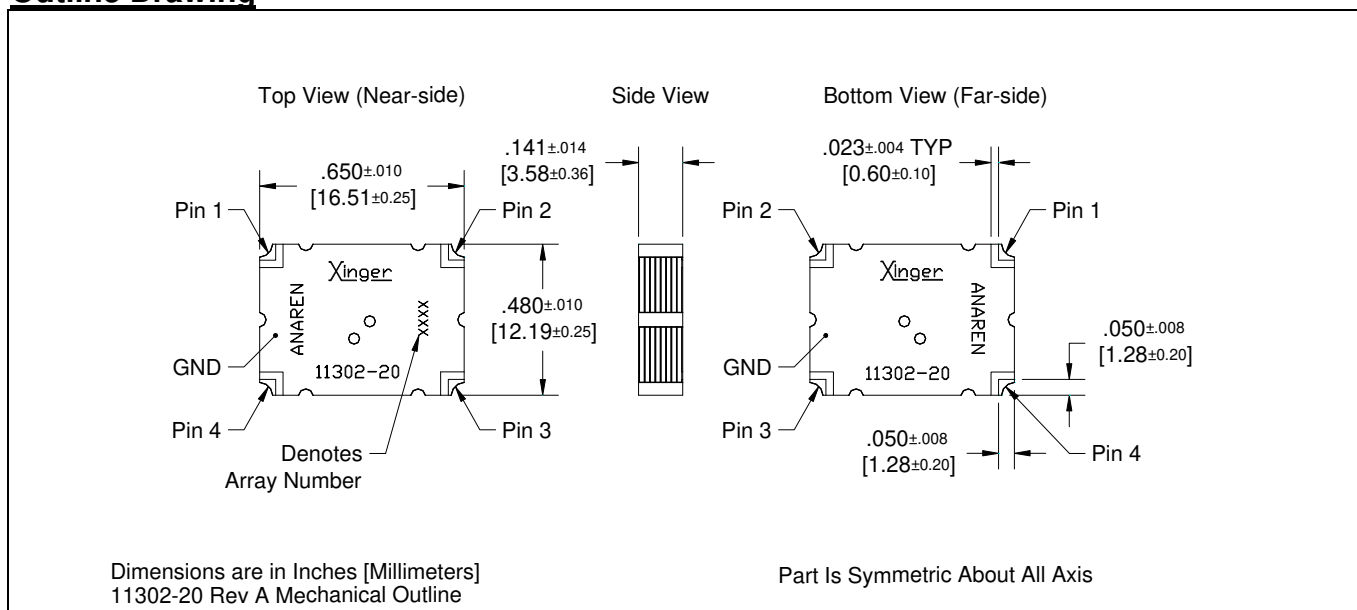
- 190 - 400 MHz
- Low loss
- High Directivity
- Surface Mountable
- Tape And Reel
- Convenient Package
- 100% Tested

### ELECTRICAL SPECIFICATIONS\*\*

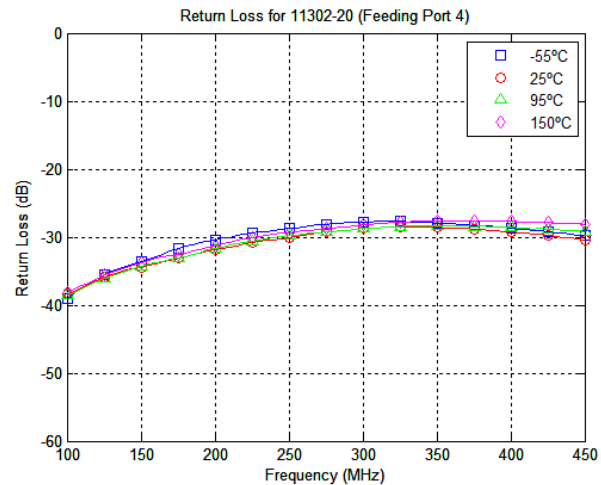
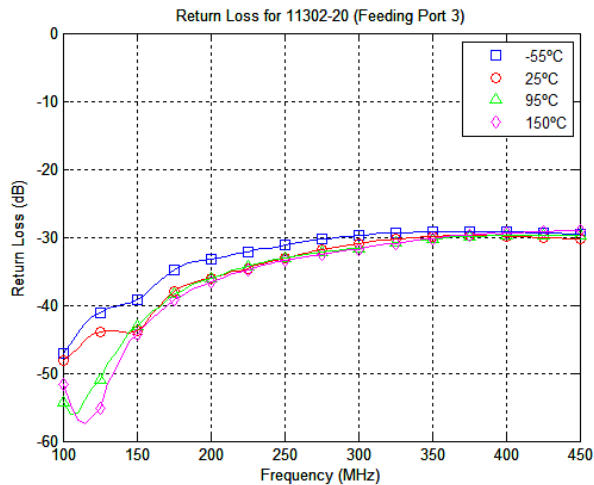
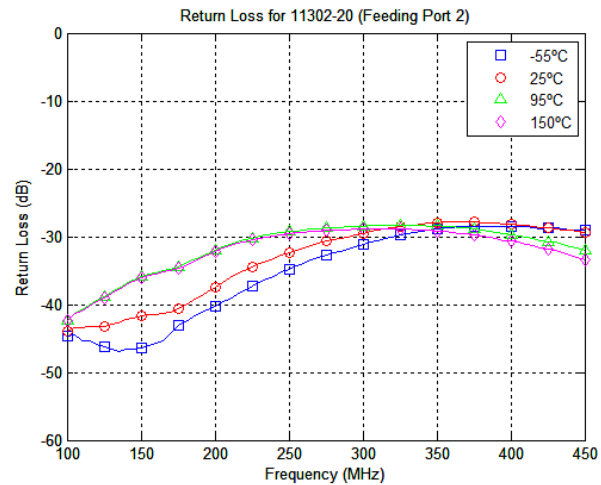
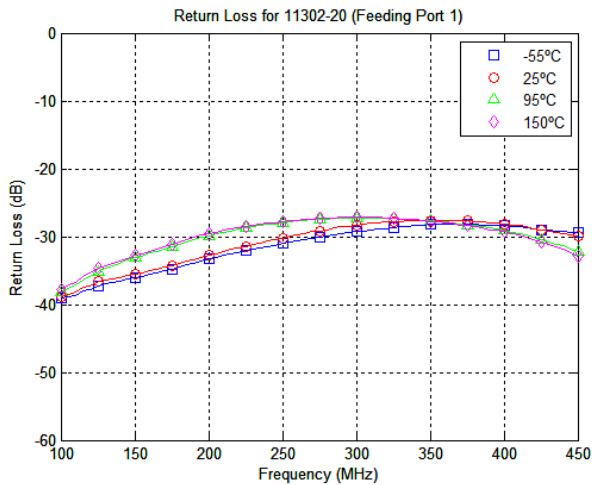
Frequency	Mean Coupling	Insertion Loss	VSWR	Freq. Sensitivity
MHz	dB	dB Max	Max:1	dB Max
190 - 400	20 ± 1.5	0.30	1.15	±0.90
Directivity	Power Handling	ΘJC	Operating Temp.	
dB Min	Watts	°C / Watt	°C	
14	100	5.4	-55 to +85	

\*\*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: 150 MHz. to 450 MHz.



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

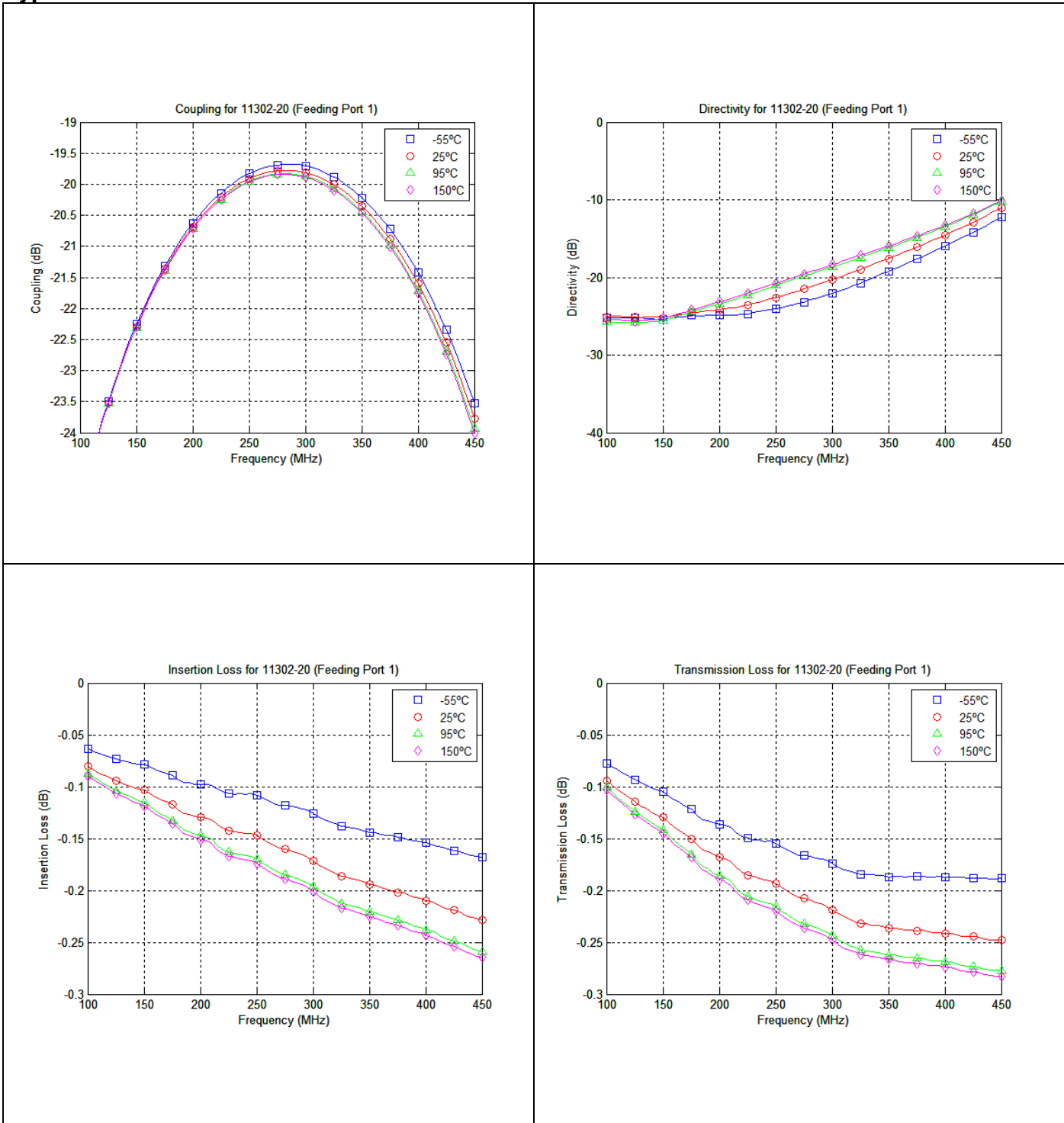
Available on Tape and Reel For Pick and Place Manufacturing.



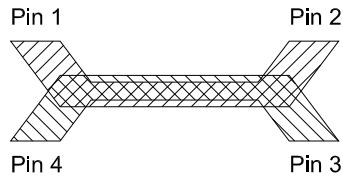




## Typical Performance: 150 MHz. to 450 MHz.



### Pin Configuration

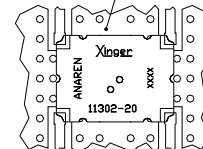


Directional Coupler Pin Configuration

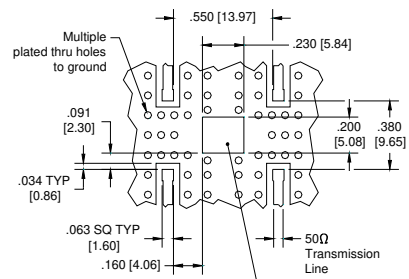
	Pin 1	Pin 2	Pin 3	Pin 4
Configuration #1	Input	Output	Isolated	Coupled
Configuration #2	Output	Input	Coupled	Isolated
Configuration #3	Isolated	Coupled	Input	Output
Configuration #4	Coupled	Isolated	Output	Input

### 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



Multiple plated thru holes to ground

Exposed substrate

Dimensions are in Inches [Millimeters]  
11302-20 Rev A Mounting Footprint

