

# Xinger®

## Directional Couplers 20 dB



### Description

The 1A1306-20 is a low profile 20dB directional coupler in an easy to use surface mount package for PCS, ISM and wireless LAN applications. The 1A1306-20 is ideal for frequency detection and VSWR monitoring and can be used in most high power designs. They have been subjected to rigorous qualification testing and units are 100% tested. Parts are manufactured using materials with x and y thermal expansion coefficients compatible with common substrates such as FR4, G-10 and polyamide.

### Features:

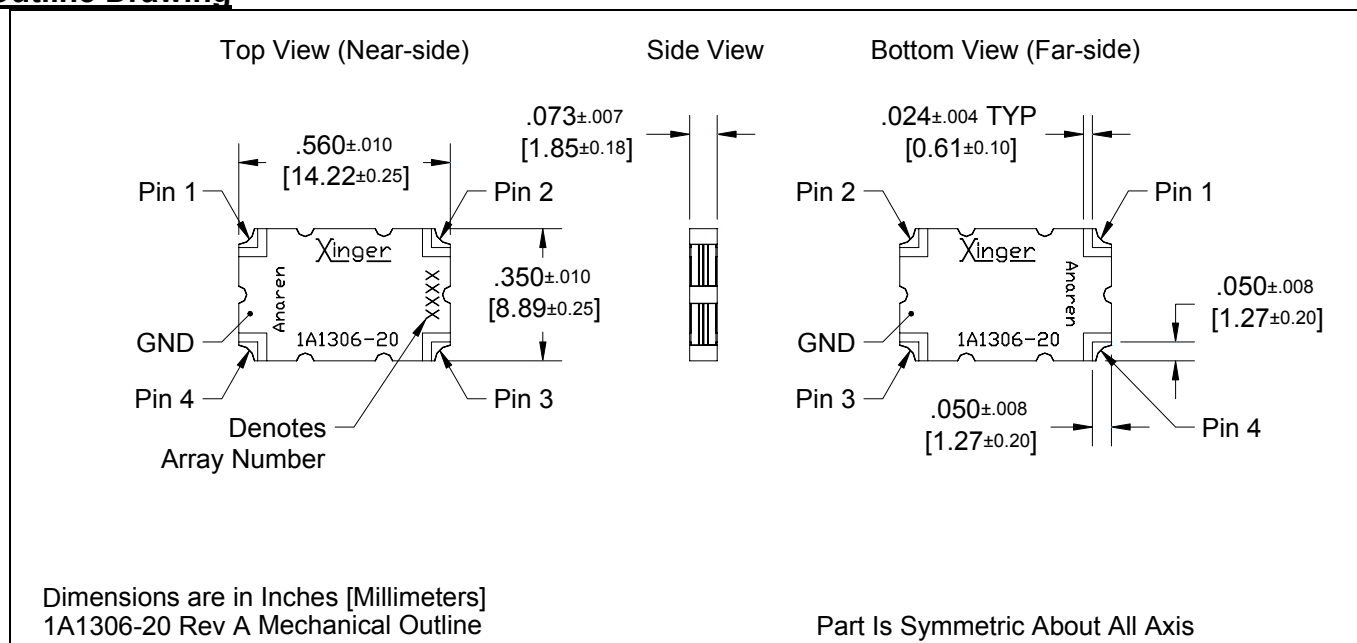
- 1.8 - 2.7 GHz
- Low loss
- High Directivity
- Surface Mountable
- Tape And Reel
- Convenient Package
- 100% Tested

### ELECTRICAL SPECIFICATIONS\*\*

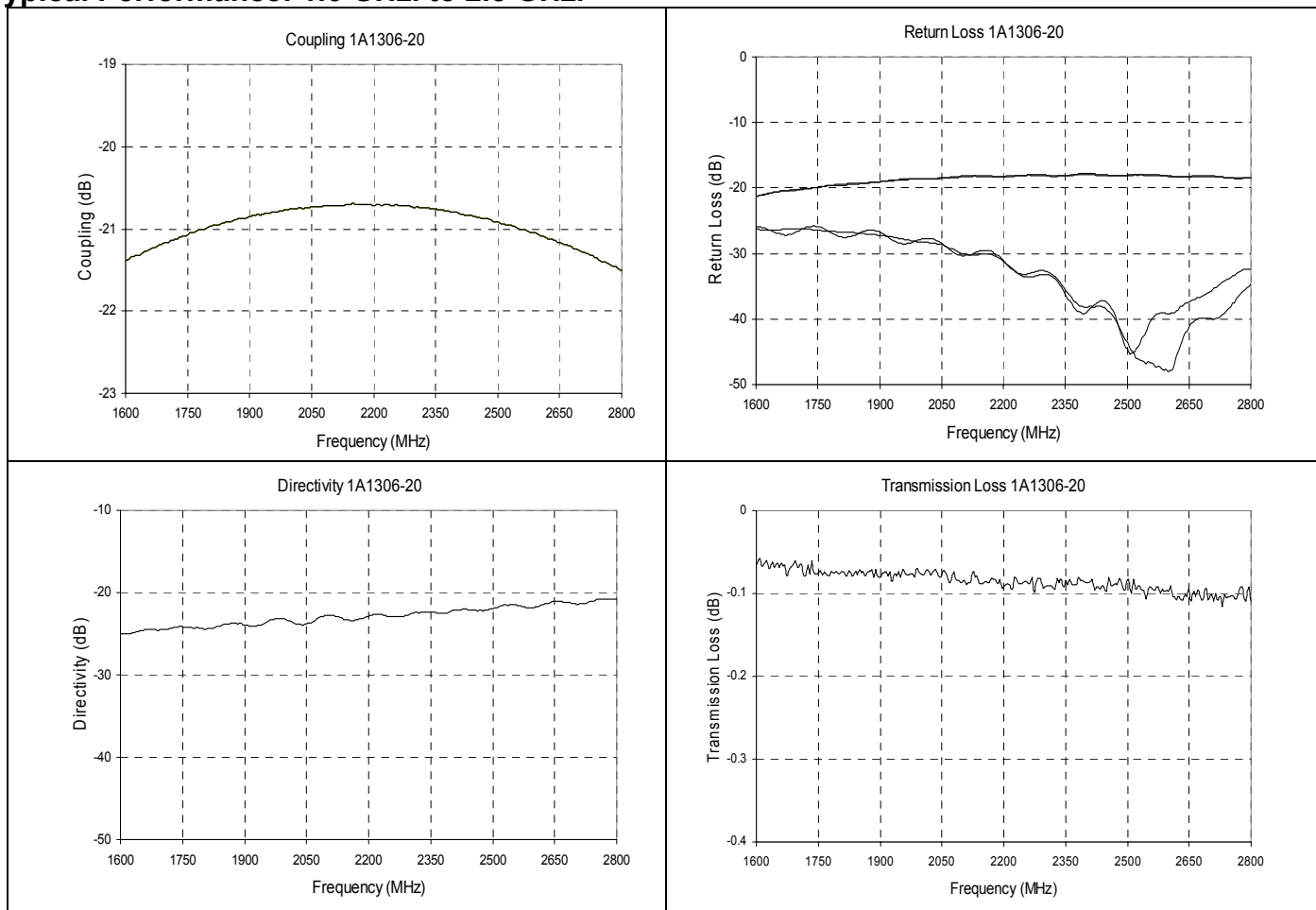
Frequency	Mean Coupling	Insertion Loss	VSWR	Freq. Sensitivity
GHz	dB	dB Max	Max:1	dB Max
2.2 – 2.6	21.0 ± 1.0	0.30	1.40	±0.20
1.8 - 2.7	21.0 ± 1.0	0.30	1.40	±0.30
Directivity	Power Handling	ΘJC	Operating Temp.	
dB Min	Watts	°C / Watt	°C	
17	60	20.8	-55 to +85	
16	60	20.8	-55 to +85	

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

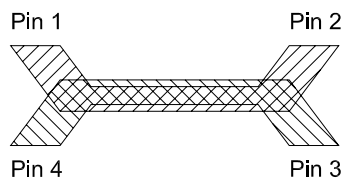
### Outline Drawing



### Typical Performance: 1.6 GHz. to 2.8 GHz.



### Pin Configuration

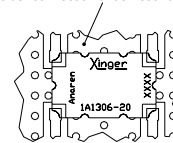


Directional Coupler Pin Configuration

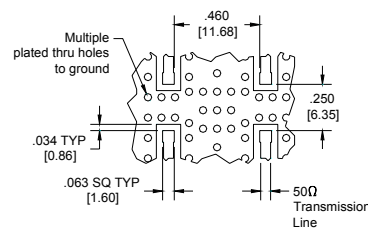
	Pin 1	Pin 2	Pin 3	Pin 4
Configuration #1	Input	Output	Isolated	Coupled
Configuration #2	Output	Input	Coupled	Isolated
Configuration #3	Isolated	Coupled	Input	Output
Configuration #4	Coupled	Isolated	Output	Input

### 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



Dimensions are in Inches [Millimeters]  
1A1306-20 Rev A Mounting Footprint

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Available on Tape and Reel For Pick and Place Manufacturing.

