



Directional Couplers 10 dB



Description

The 1W1305-10 is a low profile 10dB directional coupler in an easy to use surface mount package covering the DCS and PCS bands. The 1W1305-10 is ideal for power and frequency detection as well as power injection and can be used in most high power designs. The 1W1305-10 has modified RF pads which can handle higher peak power levels than the standard Xinger designs. Also, the new RF pad improves manufacturing reliability and minimizes the risk of failures due to misalignment from pick and place equipment. 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:

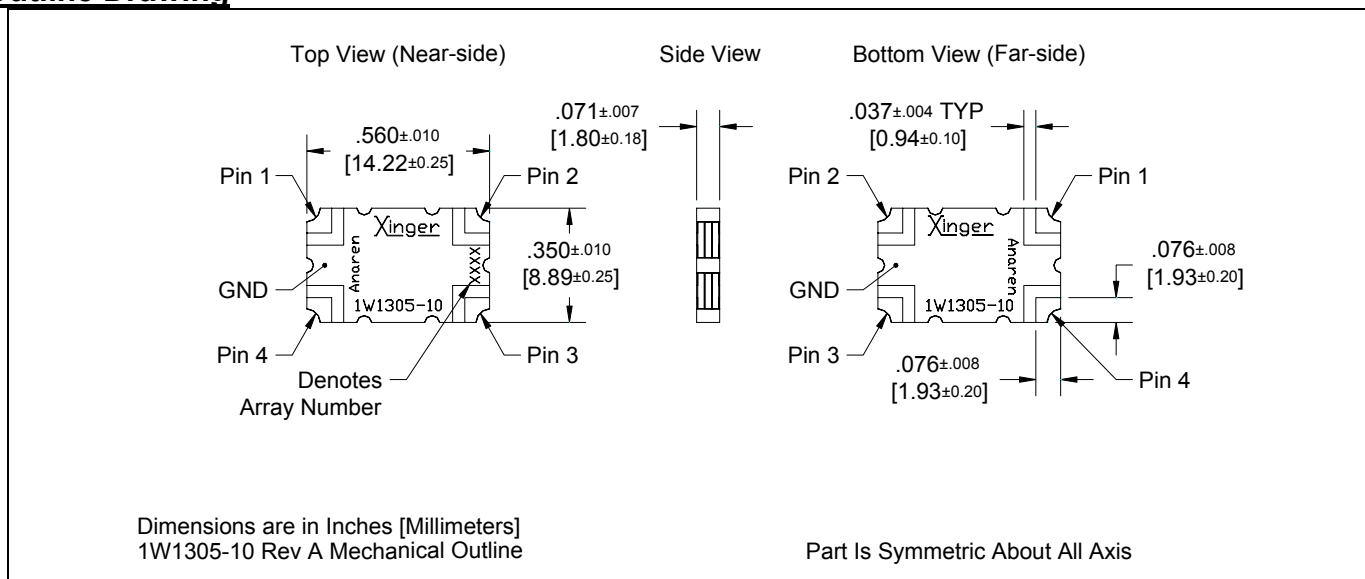
- 1.7 – 2.0 GHz
- Low loss
- High Directivity
- Surface Mountable
- Tape And Reel
- Convenient Package
- 100% Tested

ELECTRICAL SPECIFICATIONS**

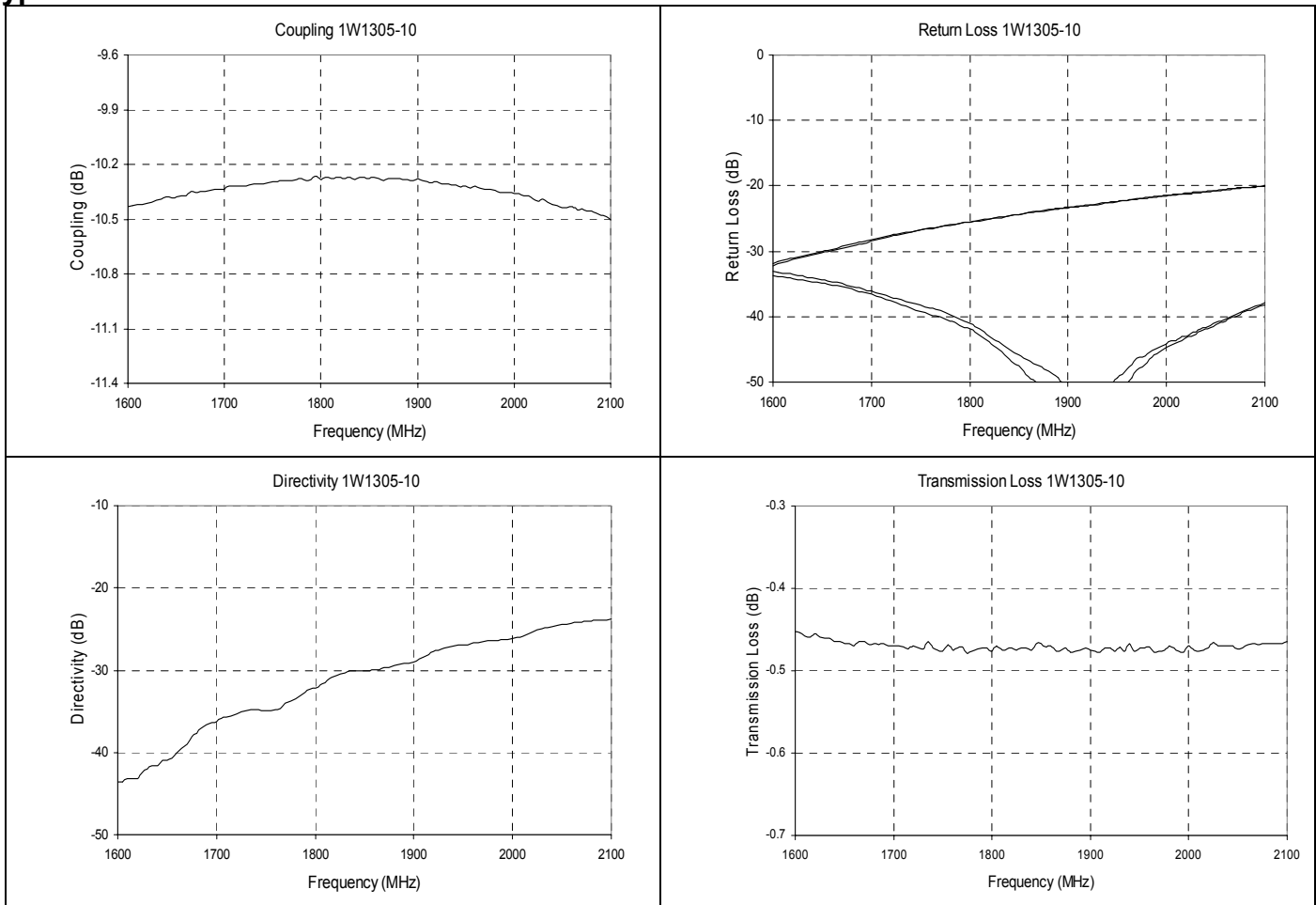
Frequency	Mean Coupling	Insertion Loss	VSWR	Freq. Sensitivity
GHz	dB	dB Max	Max:1	dB Max
1.805 – 1.880	10.3 ± 0.5	0.25	1.18	±0.05
1.930 – 1.990	10.3 ± 0.5	0.25	1.18	±0.05
1.7 – 2.0	10.3 ± 0.5	0.25	1.18	±0.25
Directivity	Power Handling	⊙JC	Operating Temp.	
dB Min	Watts	°C / Watt	°C	
20	100	12.9	-55 to +85	
20	100	12.9	-55 to +85	
20	100	12.9	-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.

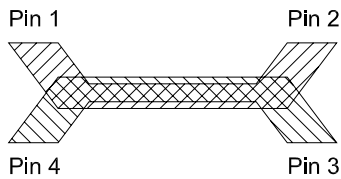
Outline Drawing



Typical Performance: 1.6 GHz. to 2.1 GHz.



Pin Configuration

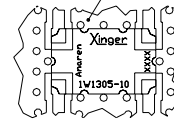


Directional Coupler Pin Configuration

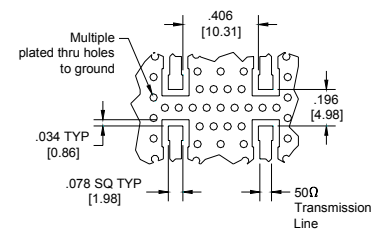
	Pin 1	Pin 2	Pin 3	Pin 4
Configuration #1	Input	Output	Isolated	Coupled
Configuration #2	Output	Input	Coupled	Isolated
Configuration #3	Isolated	Coupled	Input	Output
Configuration #4	Coupled	Isolated	Output	Input

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]
1W1305-10 Rev A Mounting Footprint

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

