

Xinger®

Hybrid Couplers 3 dB, 90°



Description

The 11306-3 is a low profile 3dB hybrid coupler in an easy to use surface mount package covering 2.0 to 4.0 GHz. The 11306-3 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:

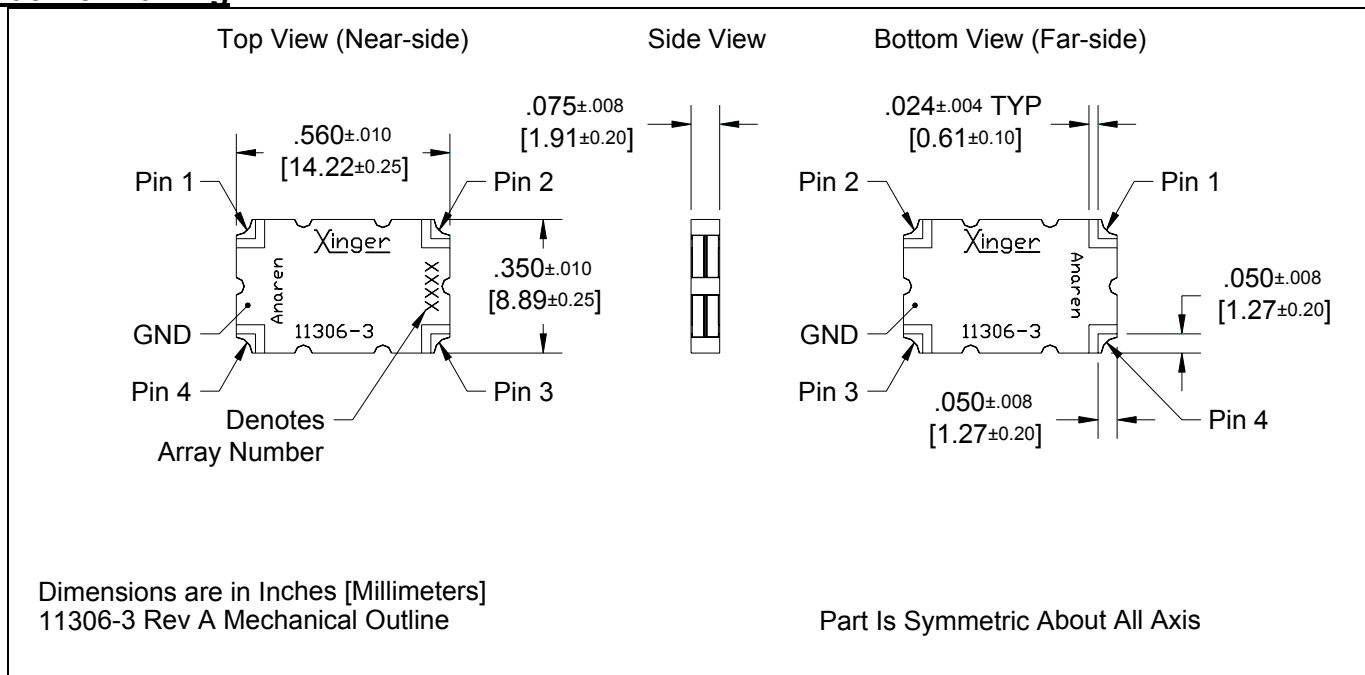
- 2.0 – 4.0 GHz
- Low loss
- High Isolation
- 90° Quadrature
- Surface Mountable
- Tape And Reel
- Convenient Package
- 100% Tested

ELECTRICAL SPECIFICATIONS**

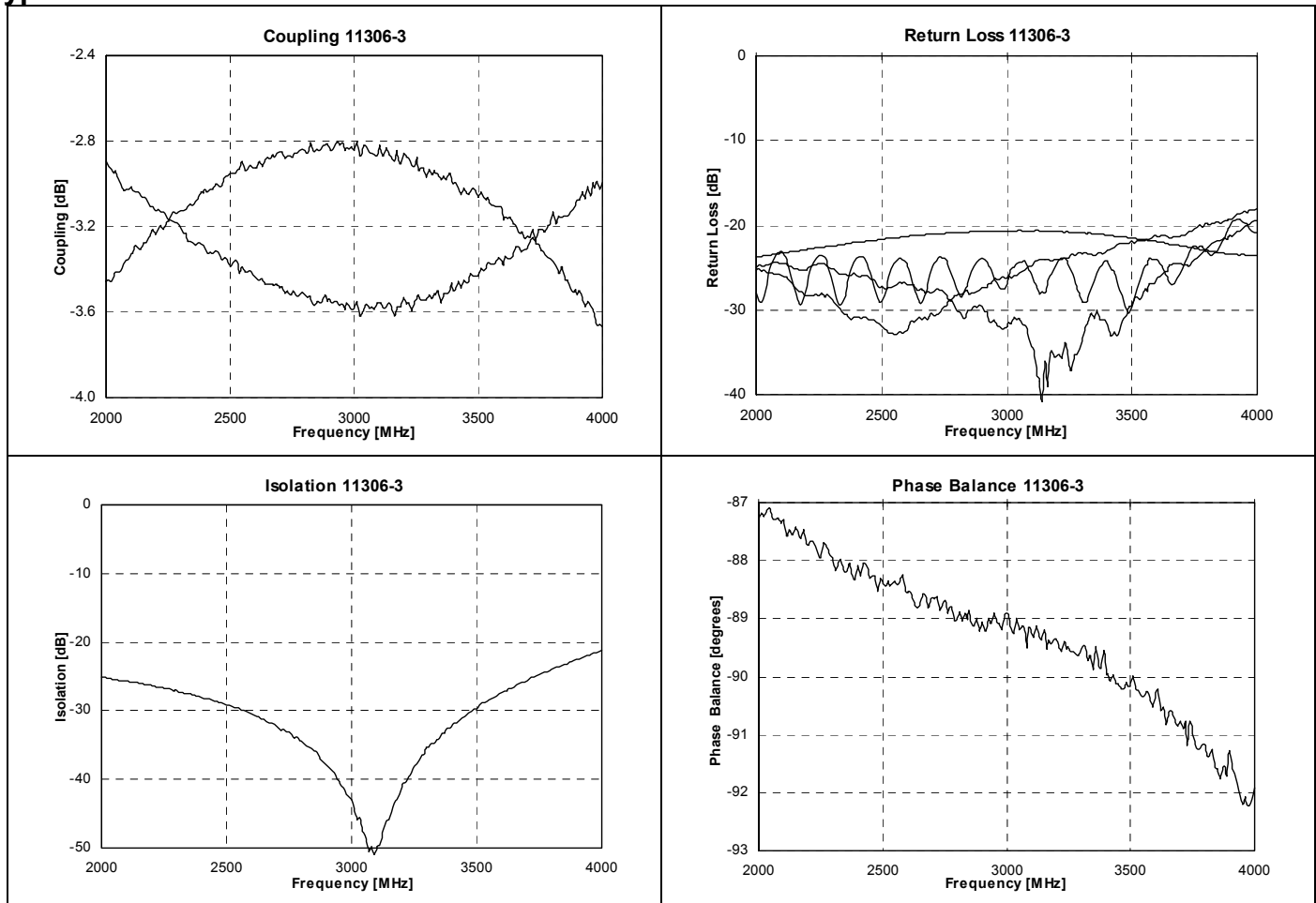
| Frequency | Isolation | Insertion Loss | VSWR | | |
|-------------------|---------------|----------------|----------|-----------------|--|
| GHz | dB Min | dB Max | Max:1 | | |
| 2.0 – 4.0 | 20 | 0.35 | 1.30 | | |
| Amplitude Balance | Phase Balance | Power | ΘJC | Operating Temp. | |
| dB Max | Degrees | Ave. CW Watts | °C/ Watt | °C | |
| ± 0.55 | ± 5 | 60 | 24.6 | -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.

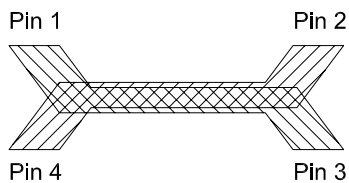
Outline Drawing



Typical Performance: 2.0 GHz. to 4.0 GHz.



Pin Configuration

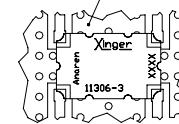


Hybrid Coupler Pin Configuration

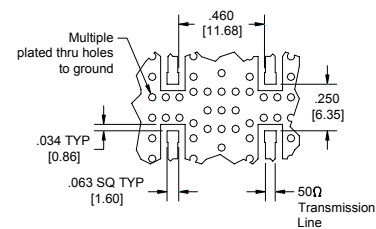
| | Pin 1 | Pin 2 | Pin 3 | Pin 4 |
|------------------|------------|------------|------------|------------|
| Configuration #1 | Input | Isolated | -3dB, -90° | -3dB, 0° |
| Configuration #2 | Isolated | Input | -3dB, 0° | -3dB, -90° |
| Configuration #3 | -3dB, -90° | -3dB, 0° | Input | Isolated |
| 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]
11306-3 Rev A Mounting Footprint

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