

# Xinger®

## Micro Xinger 10dB Directional Coupler



### Description

The 1M710 Micro Xinger® is a low profile, miniature 10dB directional coupler in an easy to use surface mount package designed for ISM and LMDS applications. The 1M710 is for power and frequency detection as well as power injection and is an ideal solution for the ever-increasing demands of the wireless industry for smaller printed circuit boards and high performance. 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:

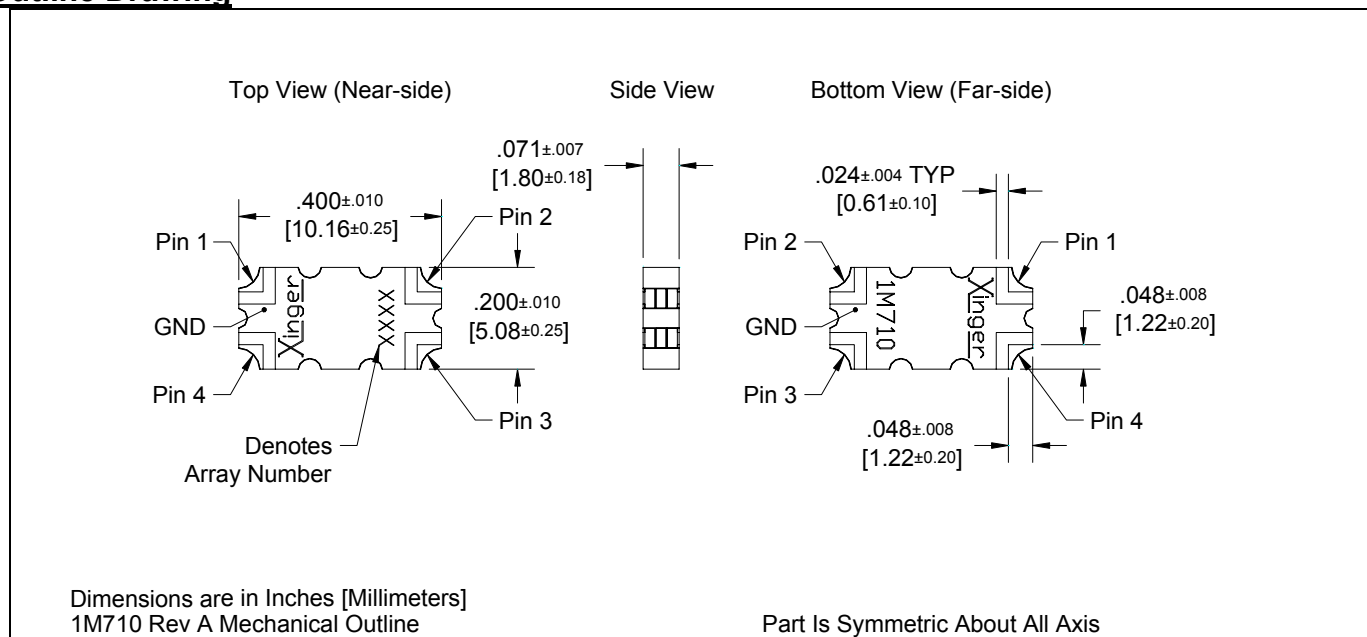
- 3.3 – 3.7 GHz
- Very Low Loss
- High Directivity
- Surface Mountable
- Tape And Reel
- New Micro-Package
- 100% Tested

### ELECTRICAL SPECIFICATIONS\*\*

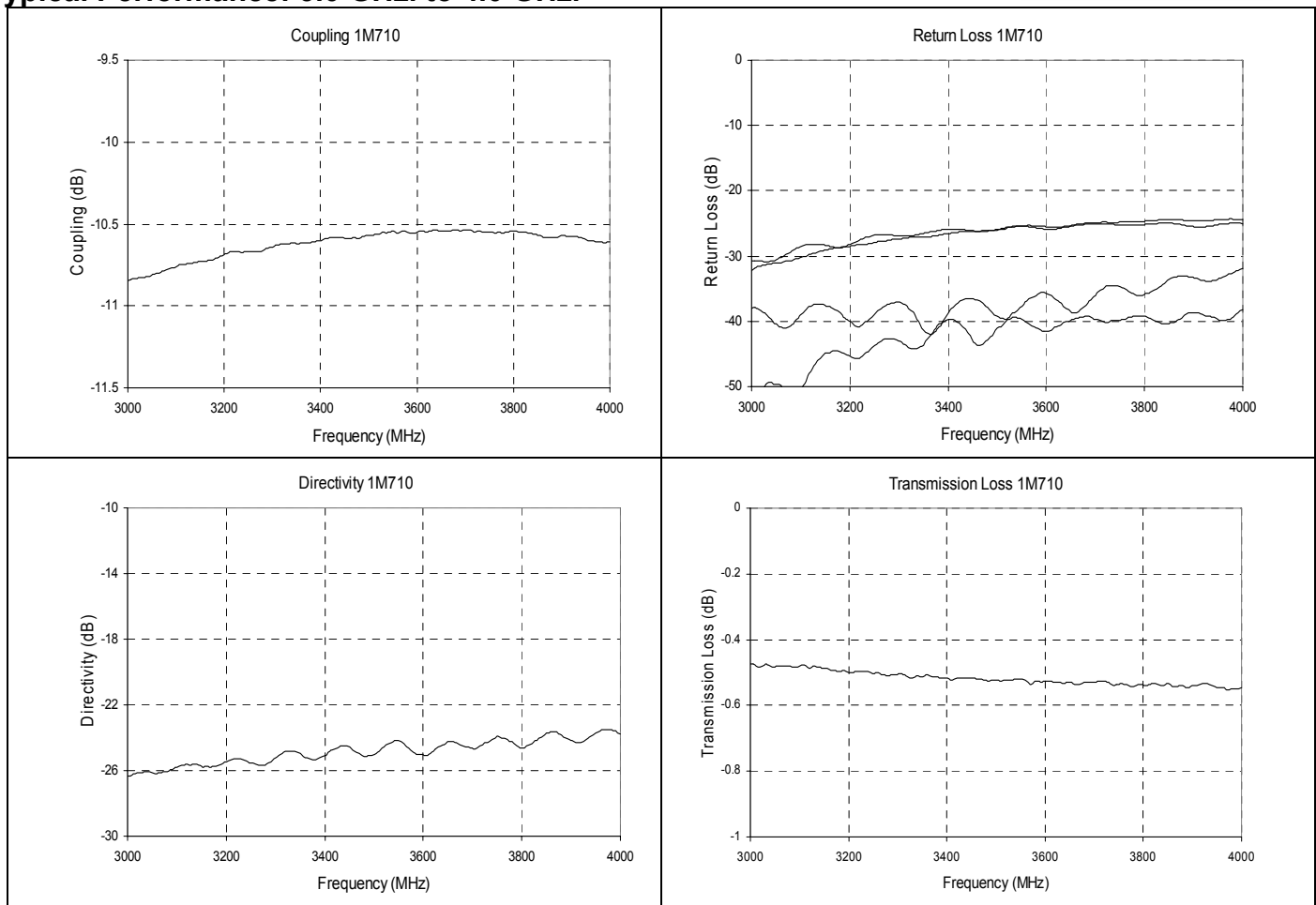
| Frequency   | Mean Coupling  | Insertion Loss | VSWR            | Freq. Sensitivity |
|-------------|----------------|----------------|-----------------|-------------------|
| GHz         | dB             | dB Max         | Max : 1         | dB Max            |
| 3.3 – 3.7   | 10.5 ± 0.8     | 0.25           | 1.20            | ± 0.2             |
| Directivity | Power Handling | ⊙JC            | Operating Temp. |                   |
| dB Min      | Watts          | °C / Watt      | °C              |                   |
| 20          | 22             | 34.4           | -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.

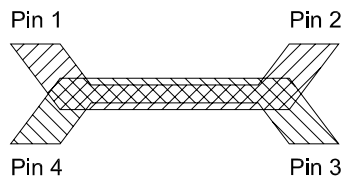
### Outline Drawing



## Typical Performance: 3.0 GHz. to 4.0 GHz.



### Pin Configuration

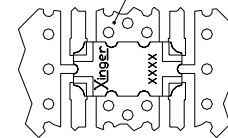


Directional Coupler Pin Configuration

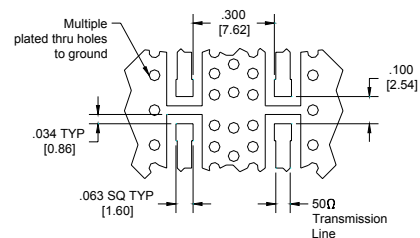
|                  | Pin 1    | Pin 2    | Pin 3    | Pin 4    |
|------------------|----------|----------|----------|----------|
| Configuration #1 | Input    | Output   | Isolated | Coupled  |
| Configuration #2 | Output   | Input    | Coupled  | Isolated |
| Configuration #3 | Isolated | Coupled  | 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]  
1M710 Rev A Mounting Footprint

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Available on Tape and Reel For Pick and Place Manufacturing.

