

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. Available in both 5 of 6 tin lead (1M710) and 6 of 6 RoHS compliant tin immersion (1M710S).

Features:

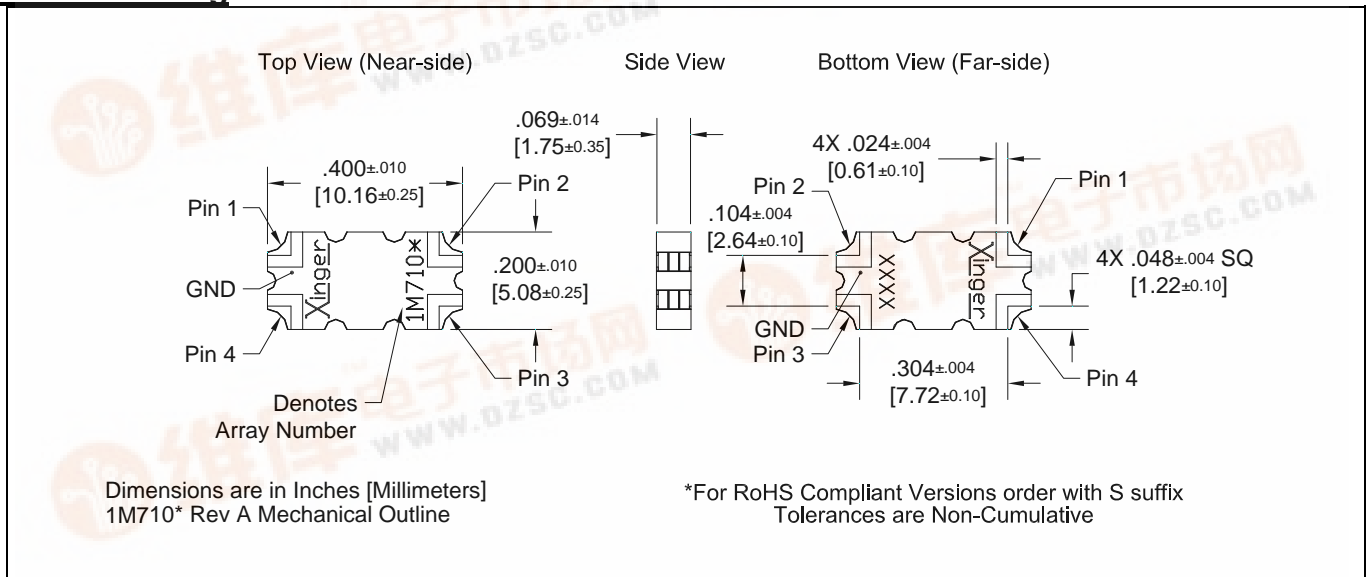
- 3.3 – 3.7 GHz
- Very Low Loss
- High Directivity
- Surface Mountable
- Tape And Reel
- Available in Lead-Free (as illustrated) or Tin-Lead

ELECTRICAL SPECIFICATIONS**

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

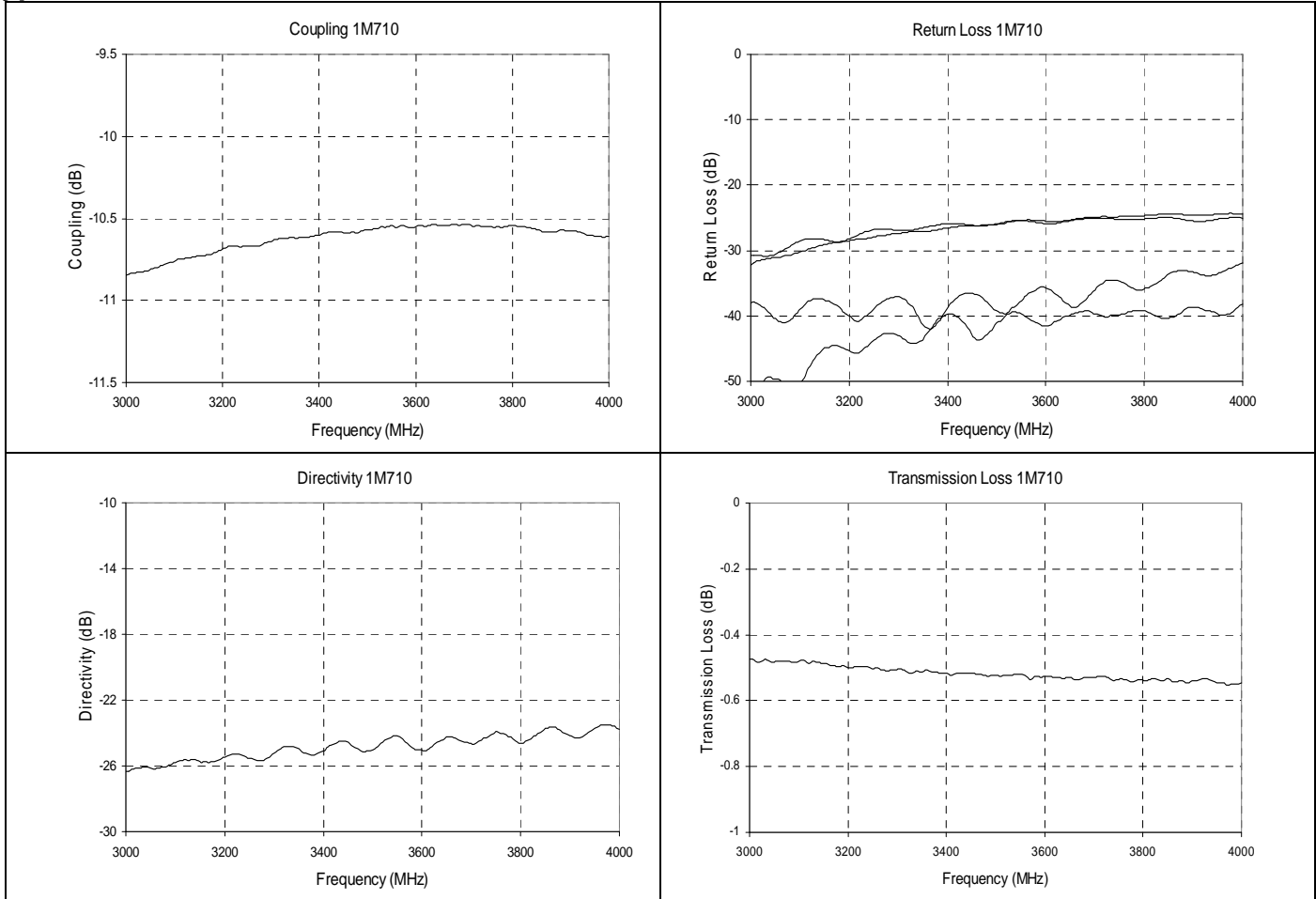


Model 1M710

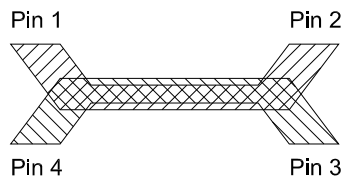
Rev. B



Typical Performance: 3.0 GHz. to 4.0 GHz.



Pin Configuration

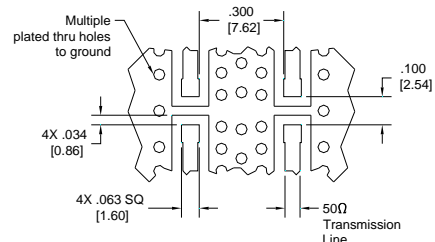
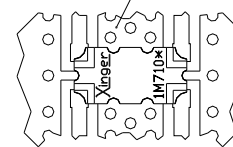


Directional Coupler Pin Configuration

	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



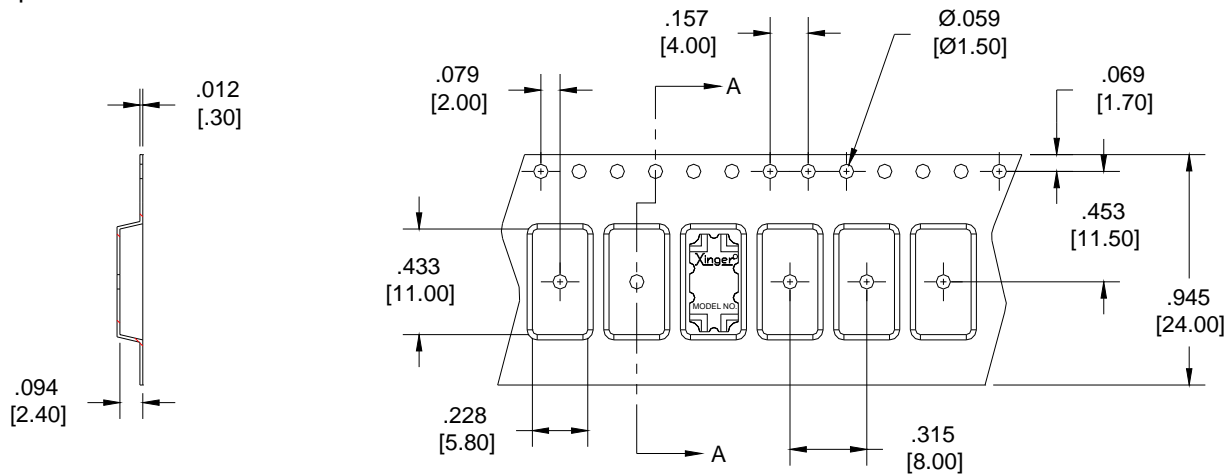
Dimensions are in Inches [Millimeters]
1M710 Rev A Mounting Footprint





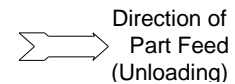
PACKAGING

Packaging follows EIA-481-2. Parts are oriented in tape as shown below. Minimum order quantities are 2000 per reel and 48 per tube.



SECTION A-A

Dimensions are in inches [mm]



Tape and Reel Diagram

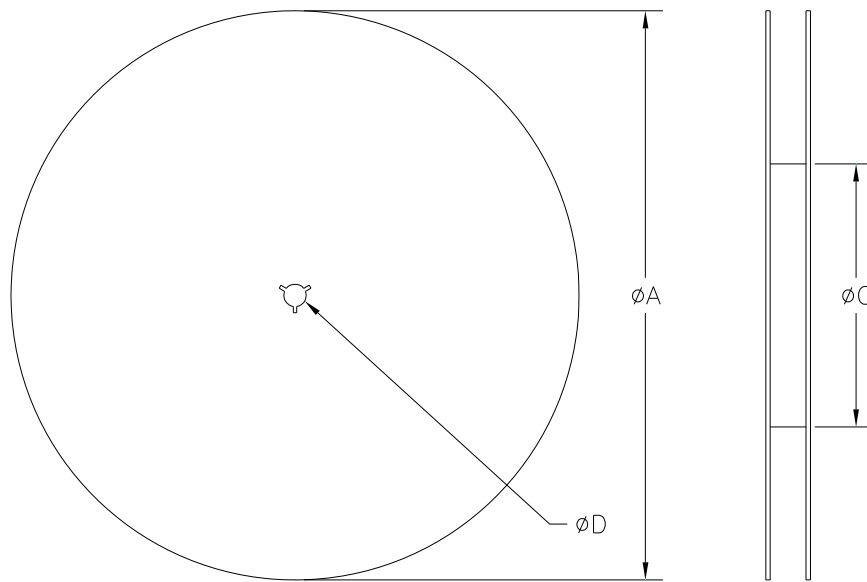


TABLE 1	
REEL DIMENSIONS (inches [mm])	
ØA	13.3 [333.0]
B	0.945 [24.0]
ØC	4.017 [102.03]
ØD	0.512 [13.0]

