

# Xinger®

## Micro Xinger 3dB Hybrid Coupler



### Description

The 1M803S Micro Xinger® is a low profile, miniature 3dB hybrid coupler in an easy to use surface mount package designed for U-NII, ISM and hyperLAN applications. The 1M803S is designed for balanced amplifiers and signal distribution 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 and G-10. Produced with 6 of 6 RoHS compliant tin immersion.

### Features:

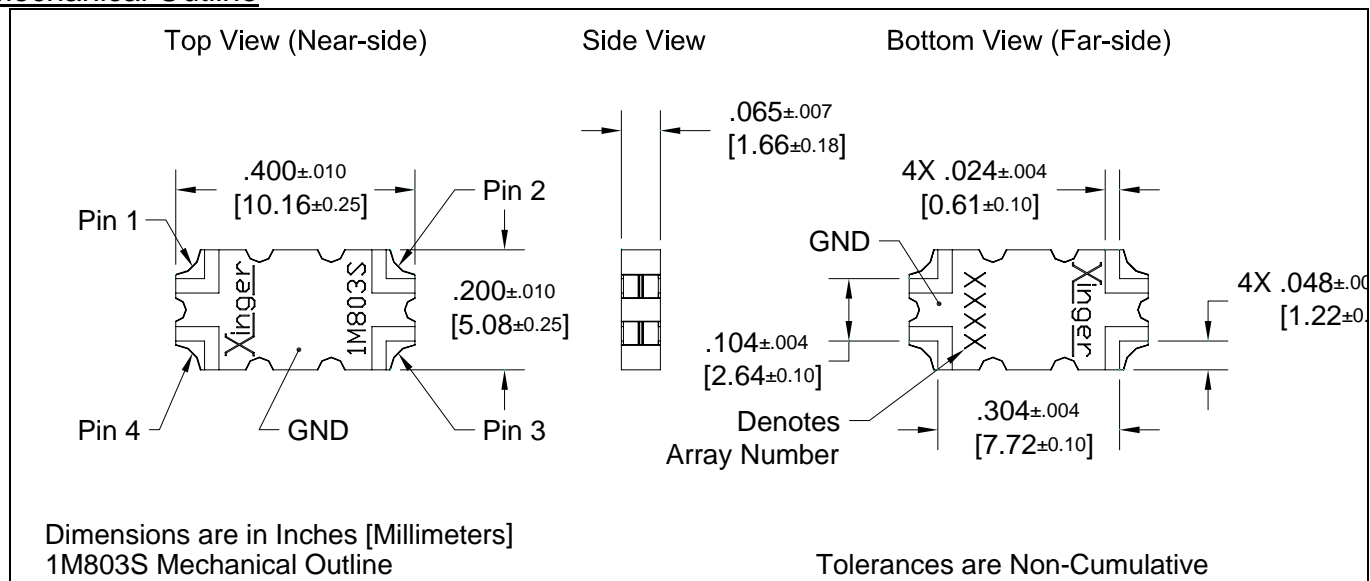
- 5.0 – 6.0 GHz
- Very Low Loss
- High Isolation
- 90° Quadrature
- Surface Mountable
- Tape And Reel
- New Micro-Package
- 100% Tested
- Lead Free

### ELECTRICAL SPECIFICATIONS\*\*

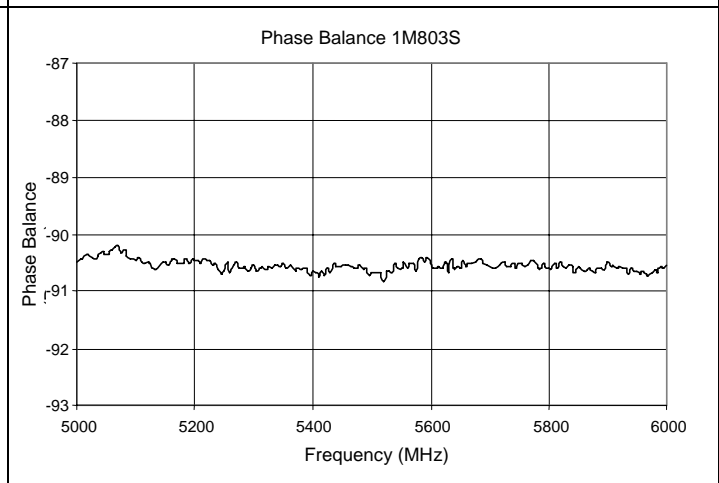
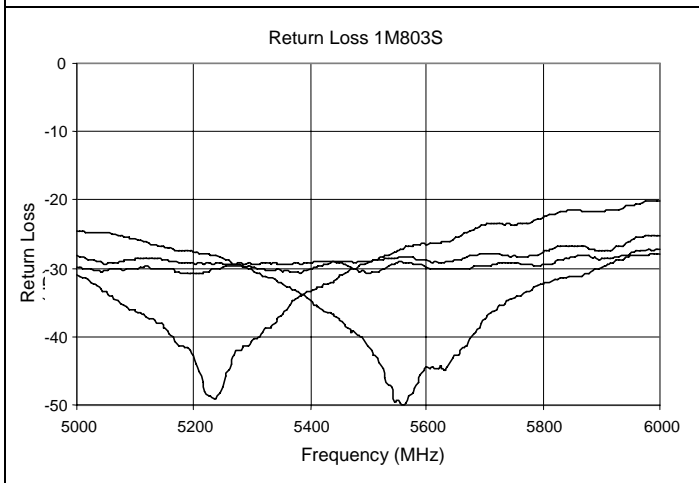
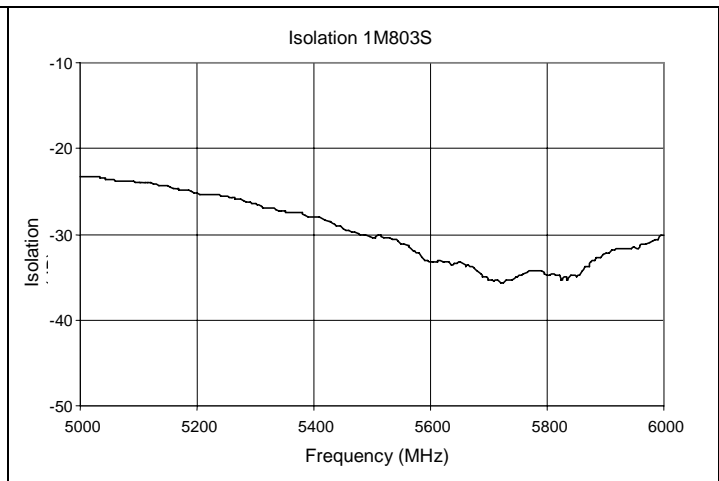
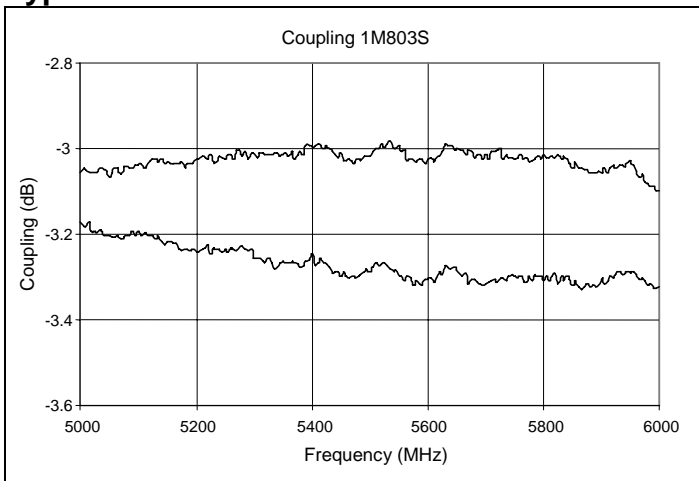
Frequency	Isolation	Insertion Loss	VSWR	
GHz	dB Min	dB Max	Max:1	
5.0 – 6.0	20	0.25	1.21	
Amplitude Balance	Phase Balance	Power	ΘJC	Operating Temp.
dB Max	Degrees	Ave. CW Watts	°C/Watt	°C
± 0.30	± 3	20	78.1	-55 to +85

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

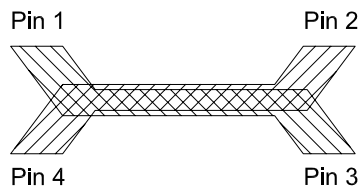
### Mechanical Outline



### Typical Performance: 5.0 GHz. to 6.0 GHz.



### Pin Configuration

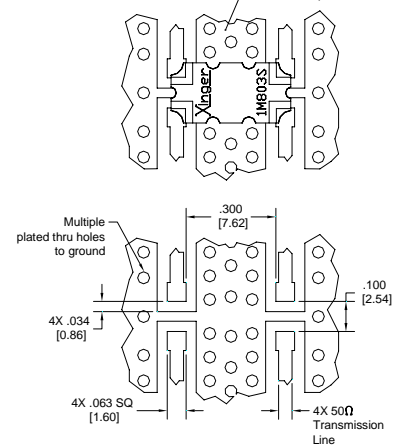


Hybrid Coupler Pin Configuration

	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



Dimensions are in Inches [Millimeters]  
1M803S Mounting Footprint

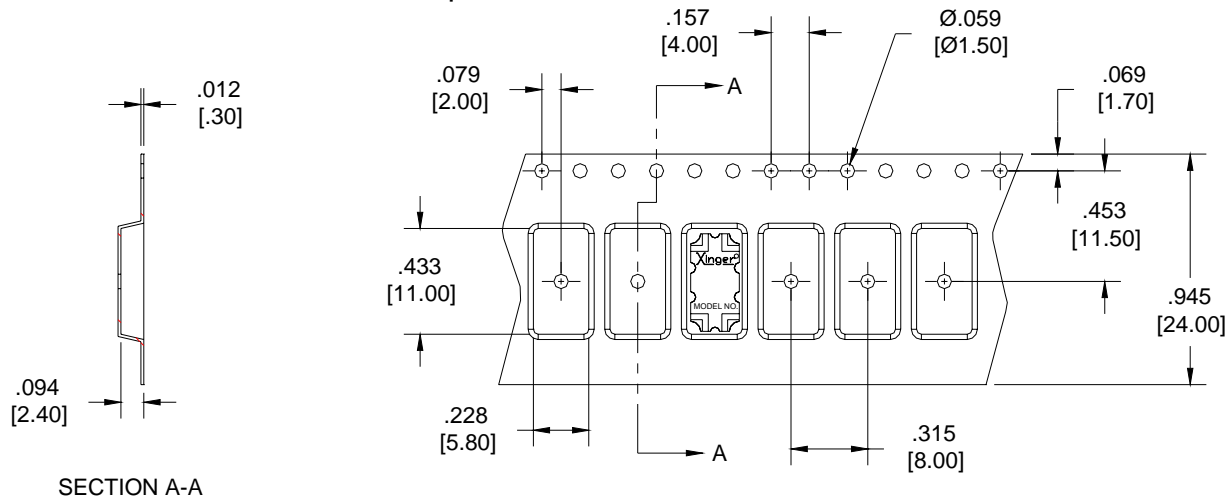
USA/Canada: (315) 432-8909  
Toll Free: (800) 544-2414  
Europe: +44 2392-232392

Available on Tape and Reel For Pick and Place Manufacturing.



### Carrier Tape

Parts are oriented in embossed tape as shown below

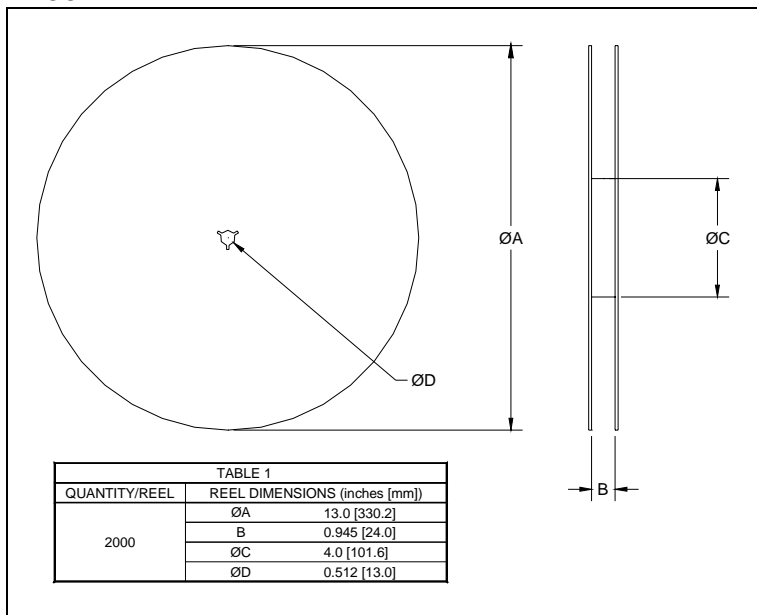


SECTION A-A

Dimensions are in inches [mm]

Direction of Part Feed (Unloading)

### Reel



- Parts are available in both reel and tube
- Quantity of 48 parts available per tube



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