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[Anaren](#)
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sales@integrated-circuit.com

Xinger®

**Micro Xinger
3dB Hybrid Coupler**



Description

The 1M803 Micro Xinger® is a low profile, miniature 3dB hybrid coupler in an easy to use surface mount package designed for U-NII, ISM and hyper LAN applications. The 1M803 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. Available in both 5 of 6 tin lead (1M803) and 6 of 6 RoHS compliant tin immersion (1M803S).

Features:

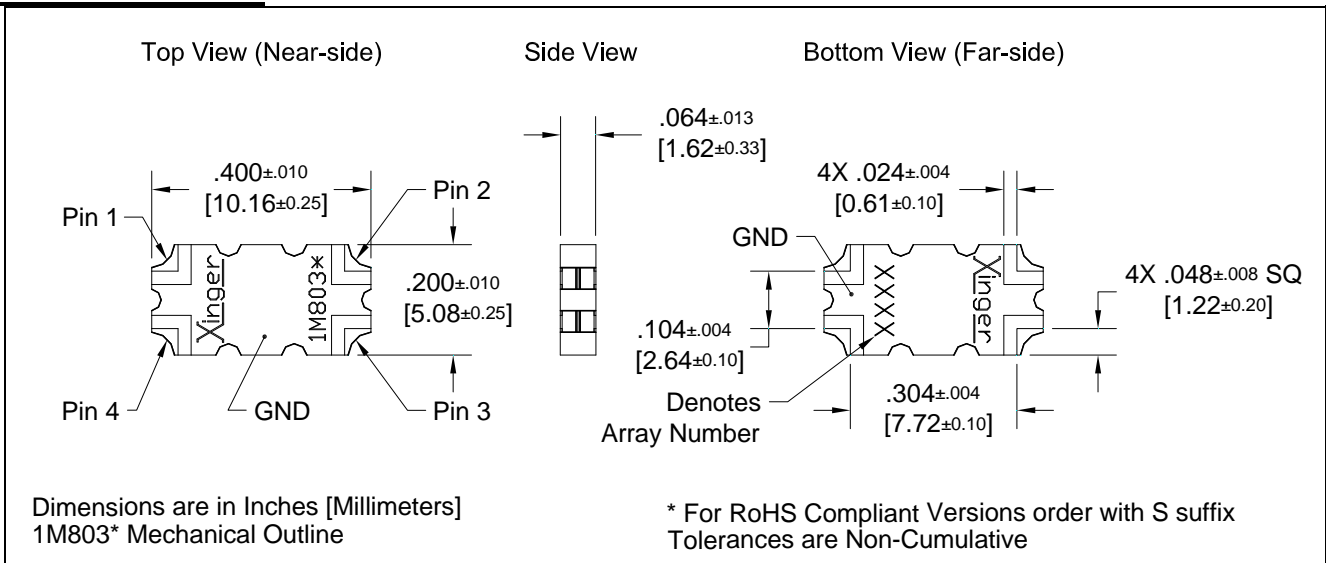
- Very Low Loss
- High Isolation
- 90° Quadrature
- Surface Mountable
- Tape And Reel
- Available in Lead-Free (as illustrated) or Tin-Lead

ELECTRICAL SPECIFICATIONS**

Frequency	Isolation	Insertion Loss	VSWR		
GHz	dB Min	dB Max	Max:1		
5.0 – 6.0	20	0.25	1.21		
4.8 – 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	
± 0.40	± 3.5				

**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

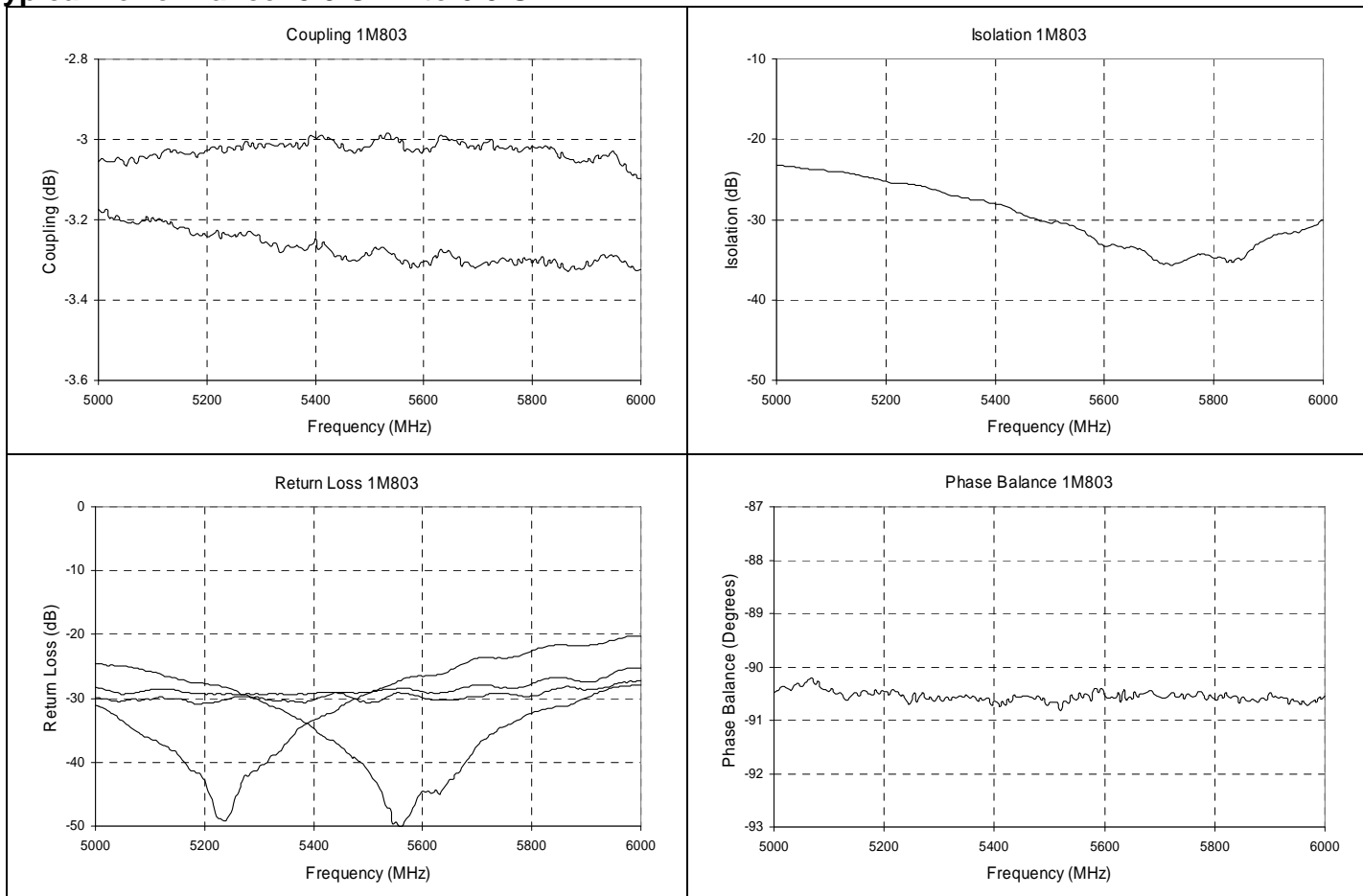




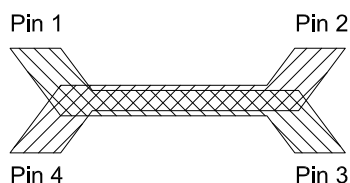
Model 1M803

Rev. F

Typical Performance: 5.0 GHz. to 6.0 GHz.



Pin Configuration

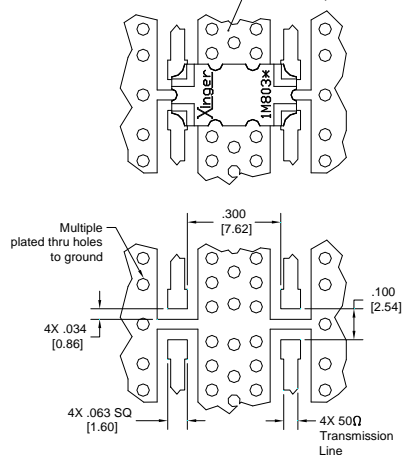


Hybrid Coupler Pin Configuration

	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



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

Available on Tape and Reel For Pick and Place Manufacturing.

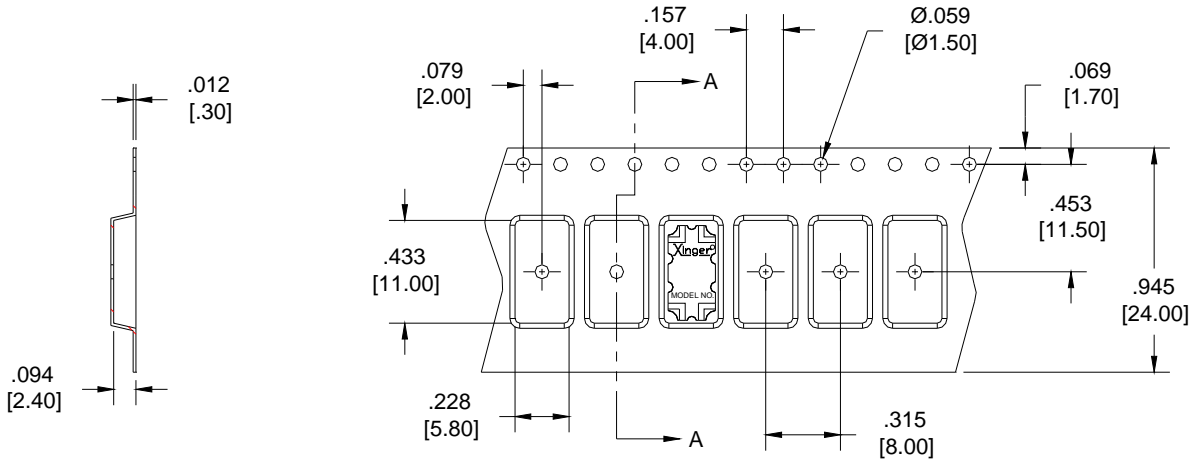


Anaren
What'll we think of next



PACKAGING

Packaging follows EIA-481-2. Parts available in tape and reel. Contact Customer service for Minimum reel order quantity.



Dimensions are in inches [mm]

Tape and Reel Diagram

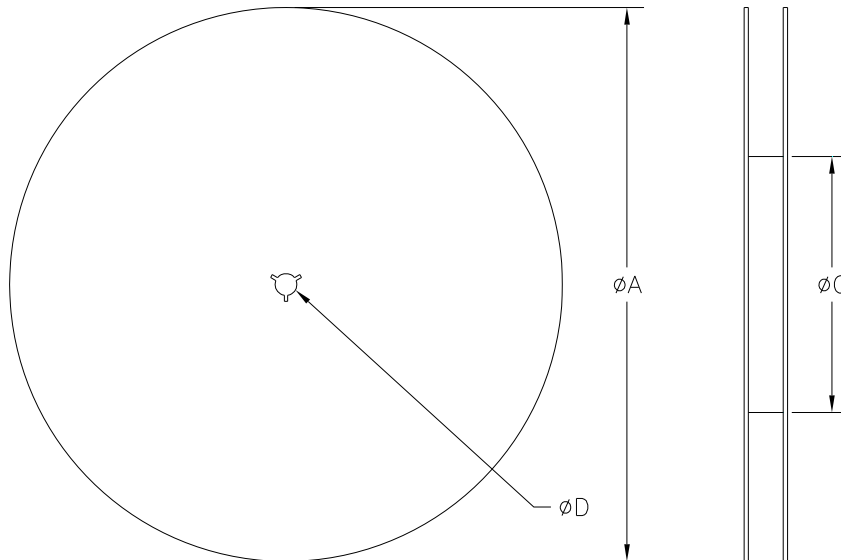


TABLE 1	
REEL DIMENSIONS (inches [mm])	
ØA	13.3 [333.0]
B	0.945 [24.0]
ØC	4.017 [102.03]
ØD	0.512 [13.0]

