

Xinger®

Micro Xinger 10dB Directional Coupler



Description

The 1M810 Micro Xinger® is a low profile, miniature 10dB directional coupler in an easy to use surface mount package designed for U-NII, ISM and hyperLAN applications. The 1M810 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 (1M810) and 6 of 6 RoHS compliant tin immersion (1M810S).

Features:

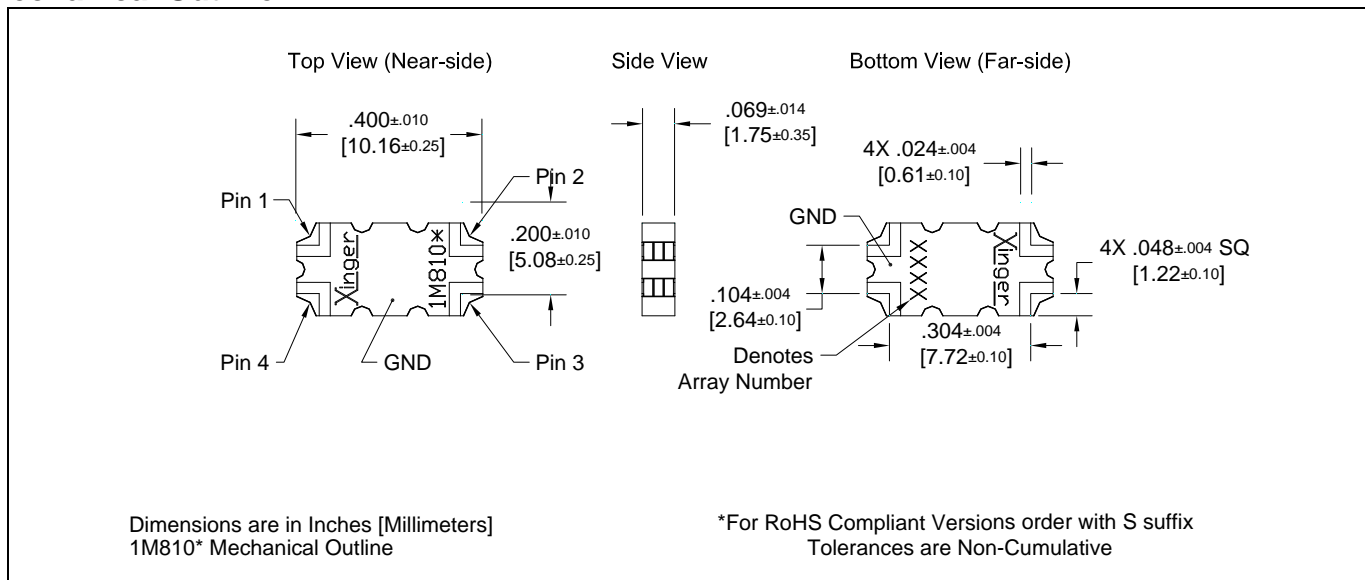
- 5.0 – 6.0 GHz
- Very Low Loss
- High Directivity
- Surface Mountable
- Tape And Reel
- Available in Lead-Free (as illustrated) or Tin-Lead

ELECTRICAL SPECIFICATIONS**

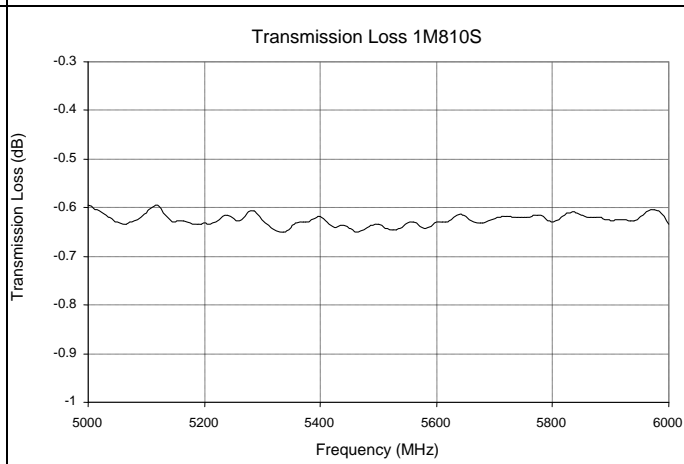
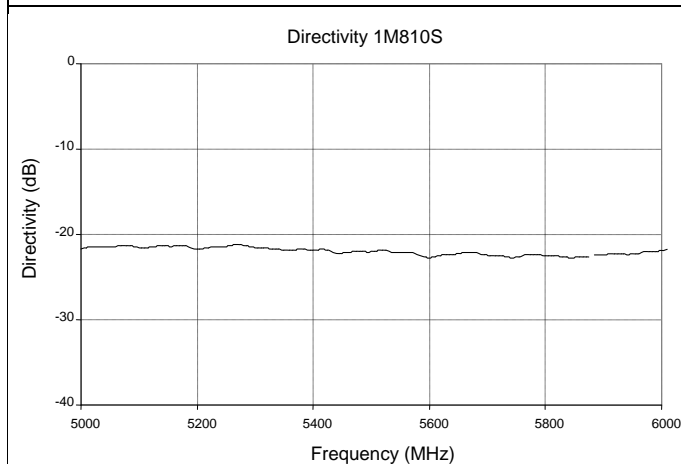
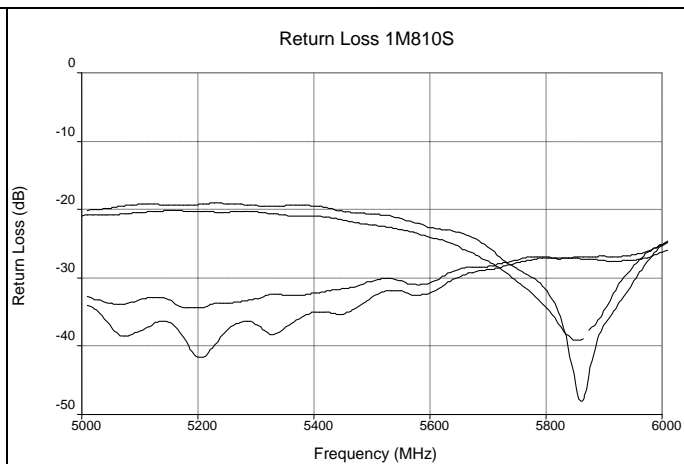
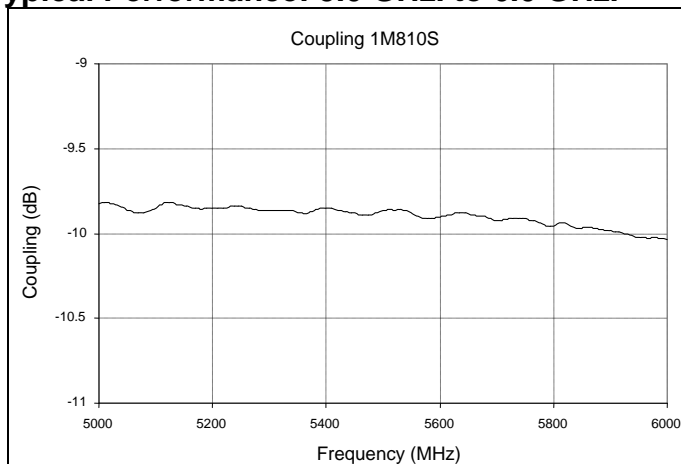
Frequency	Mean Coupling	Insertion Loss	VSWR	Freq. Sensitivity
GHz	dB	dB Max	Max : 1	dB Max
5.0 – 6.0	10.0 ± .75	0.30	1.33	± .30
Directivity	Power Handling	ΘJC	Operating Temp.	
dB Min	Watts	°C / Watt	°C	
18	15	23.8	-55 to +85	

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

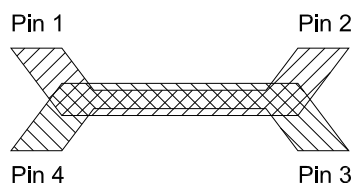
Mechanical Outline



Typical Performance: 5.0 GHz. to 6.0 GHz.



Pin Configuration

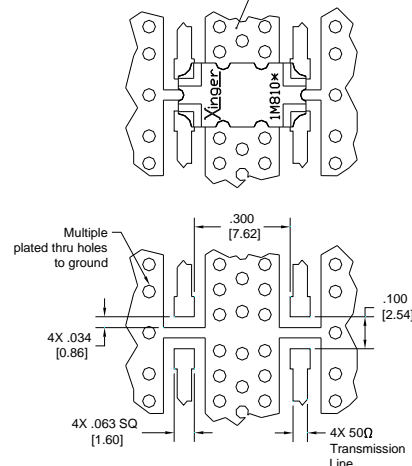


Directional Coupler Pin Configuration

	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]
1M810* Mounting Footprint

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

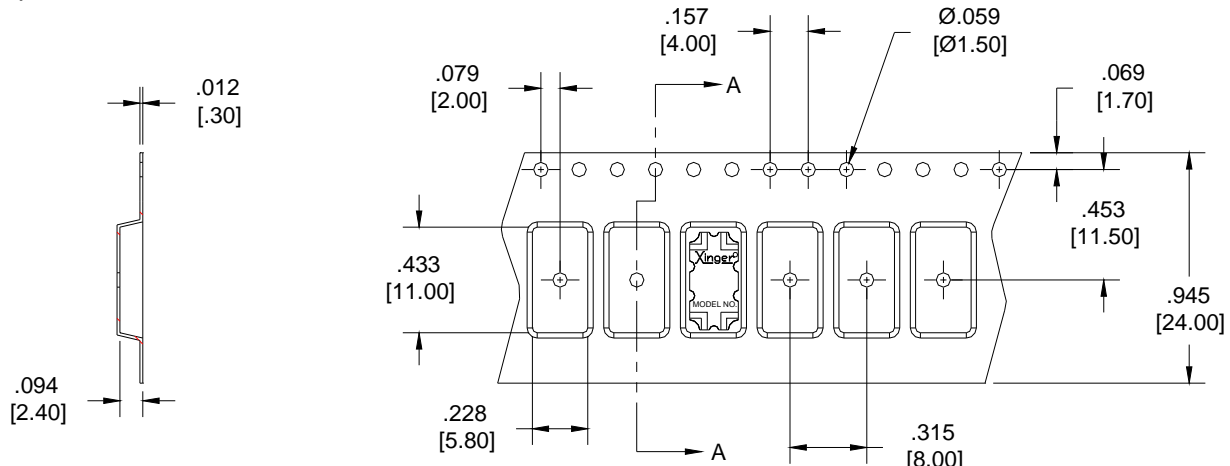
Available on Tape and Reel For Pick and Place Manufacturing.





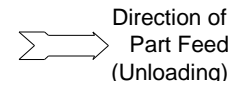
PACKAGING

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])	
$\varnothing A$	13.3 [333.0]
B	0.945 [24.0]
$\varnothing C$	4.017 [102.03]
$\varnothing D$	0.512 [13.0]

