

Xinger®

Directional Coupler 20 dB



Description

The XMC0102F1-20G is a low profile, high performance 3dB hybrid coupler in a new easy to use, manufacturing friendly surface mount package. It is designed for L Band Avionics, DME and high reliability applications in the 1000 MHz to 2000 MHz range. It can be used in high power applications up to 50 Watts.

Parts have been subjected to rigorous qualification testing and they are manufactured using materials with coefficients of thermal expansion (CTE) compatible with common substrates such as FR4, G-10, RF-35, RO4350 and polyimide. Available in 6 of 6 ENIG (XMC0102F1-20G) RoHS compliant finish.

Features:

- 1000 - 2000 MHz
- L Band Avionics, DME
- High Power
- Very Low Loss
- Production Friendly
- Tape and Reel
- ENIG Finish

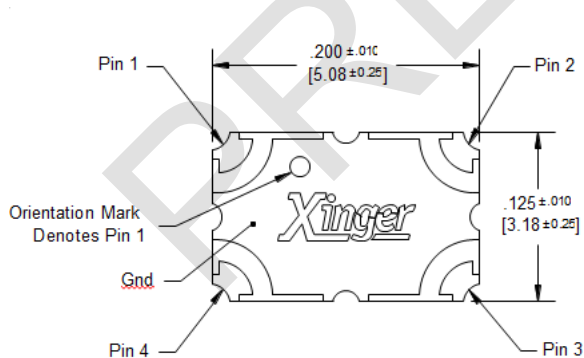
Electrical Specifications **

Frequency	Mean Coupling	Insertion Loss	VSWR	Directivity
MHz	dB	dB Max	Max : 1	dB Min
1000 - 2000	20 ± 1.0	0.10	1.15	23
Frequency Sensitivity	Power	ΘJC	Operating Temp.	
dB Max	Avg. CW Watts	°C/Watt	°C	
± 0.50	50	TBD	-55 to +85	

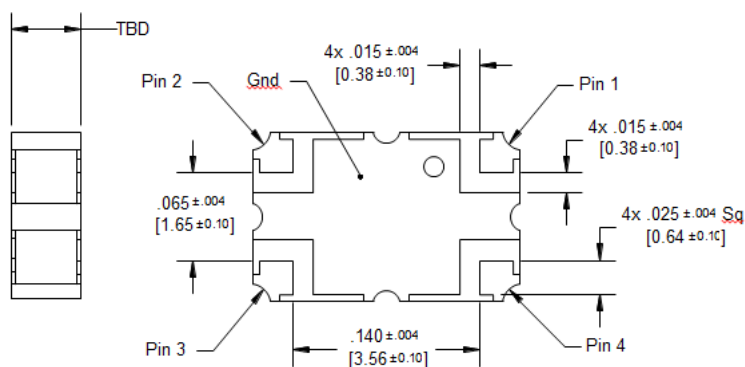
*Power Handling for commercial, non-life critical applications. See derating chart for other applications

**Specification based on performance of unit properly installed on Anaren Test Board with small signal applied. Specifications subject to change without notice. Refer to parameter definitions for details.

Mechanical Outline



Dimensions are in Inches [Millimeters]

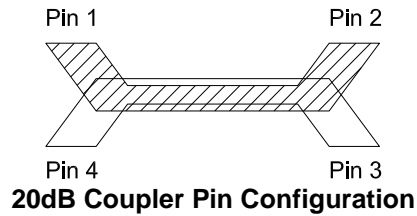


Tolerances are Non-cumulative



Directional Coupler Pin Configuration

The XMC0102F1-20G has an orientation marker to denote Pin 1. Once port one has been identified the other ports are known automatically. Please see the chart below for clarification:



Pin 1	Pin 2	Pin 3	Pin 4
Input	Direct	Isolated	Coupled
Direct	Input	Coupled	Isolated

Note: The direct port has a DC connection to the input port and the coupled port has a DC connection to the isolated port.

For optimum IL and power handling performance, use Pin 1 or Pin 2 as inputs.

