

Xinger. III

Directional Coupler 20 dB



Description

The XMC0812F1-20G is a low profile, high performance 20Db directional coupler in a new easy to use, manufacturing friendly surface mount package. The XMC0812F1-20G is designed particularly for X band radar applications and other applications where low insertion loss is required. It can be used in high power applications up to 25* 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 (XMC0812F1-20G) RoHS compliant finish.

Features:

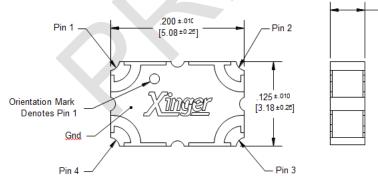
- 8000-12000 MHz
- X Band Radar
- **High Power**
- **Very Low Loss**
- **Production Friendly**
- Tape and Reel
- **ENIG Finish**

Electrical Specifications **

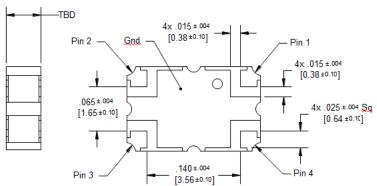
| =100ti10ti10p00110ti10110 | | | | | | |
|---------------------------|------------------|-------------------|-----------------|-------------|--|--|
| Frequency | Mean Coupling | Insertion Loss | VSWR | Directivity | | |
| MHz | dB Min | dB Max | Max : 1 | dB Min | | |
| 8000-12000 | 20 ± 1.00 | 0.50 | 1.22 | 20 | | |
| Frequency Sensitivity | Power | ΘJC | Operating Temp. | | | |
| dB Max | Avg. CW Watts | ºC/Watt | ^o C | | | |
| ± 0.50 | 25* | TBD | -55 to +85 | | | |

^{**}Specification based on performance of unit properly installed on Anaren Test Board 67406-0001 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





Available on Tape and Reel for Pick and Place Manufacturing.

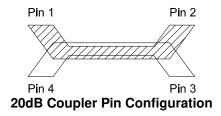
USA/Canada: Toll Free:

(315) 432-8909 (800) 411-6596 +44 2392-232392 Europe:



Directional Coupler Pin Configuration

The XMC0812F1-20G 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.

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