

Xinger III

Coupler
2 dB, 90°



Description

The X3C35F1-02S is a low profile, high performance 2dB coupler in a new easy to use, manufacturing friendly surface mount package. It is designed for Doherty applications. The X3C35F1-02S is designed particularly for Doherty amplifiers, plus signal distribution and other applications where low insertion loss and tight amplitude and phase balance 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, RO4003 and polyimide. Produced with 6 of 6 RoHS compliant tin immersion finish.

Features:

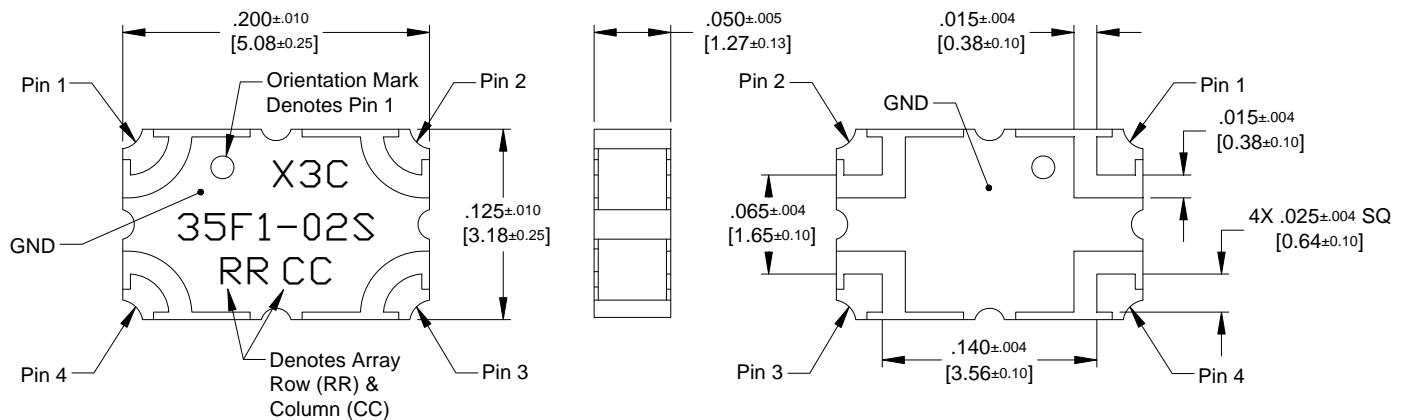
- 3300-3700 MHz
- Doherty Amplifier
- High Power
- Very Low Loss
- Tight Amplitude Balance
- High Isolation
- Production Friendly
- Tape and Reel
- Lead-Free

Electrical Specifications **

Frequency	Isolation	Insertion Loss	VSWR	Coupling
<i>MHz</i>	<i>dB Min</i>	<i>dB Max</i>	<i>Max : 1</i>	<i>dB</i>
3300-3700	23	0.2	1.15	1.9 ± 0.15
Phase	Power	ΘJC	Operating Temp.	
<i>Degrees</i>	<i>Avg. CW Watts</i>	<i>°C/Watt</i>	<i>°C</i>	
90 ± 4.0	25*	TBD	-55 to +105	

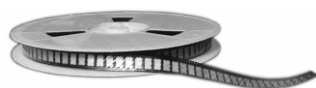
**Specification based on performance of unit properly installed on Anaren Test Board with small signal applied. Specifications subject to change without notice. Refer to parameter definitions for details.

Mechanical Outline



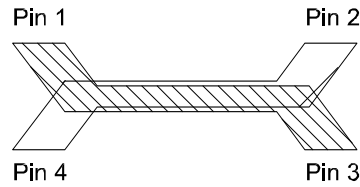
Dimensions are in Inches [Millimeters]
X3C35F1-02S Mechanical Outline

Tolerances are Non-Cumulative



Hybrid Coupler Pin Configuration

The X3C35F1-02S 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:



Configuration	Pin 1	Pin 2	Pin 3	Pin 4
Splitter	Input	Isolated	-5dB $\angle \theta - 90$	-2dB $\angle \theta$
Splitter	Isolated	Input	-2dB $\angle \theta$	-3dB $\angle \theta - 90$
Splitter	-5dB $\angle \theta - 90$	-2dB $\angle \theta$	Input	Isolated
Splitter	-2dB $\angle \theta$	-5dB $\angle \theta - 90$	Isolated	Input

