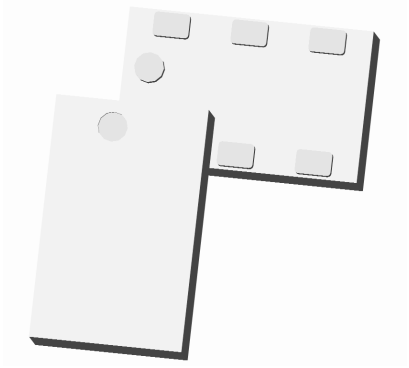
Model C3337J5003AHF

Rev A

Ultra Low Profile 0805
3 dB, 90° Hybrid Coupler



Description

The C3337J5003AHF is a low cost, low profile sub-miniature high performance 3 dB coupler in an easy to use surface mount package. It is designed for WiMax and WiBro applications. The C3337J5003AHF is ideal for balanced power and low noise amplifiers, plus signal distribution and other applications where low insertion loss and tight amplitude and phase balance are required. The C3337J5003AHF is available on tape and reel for pick and place high volume manufacturing.

All of the Xinger components are constructed from ceramic filled PTFE composites which possess excellent electrical and mechanical stability having X and Y thermal coefficient of expansion (CTE) of 17 ppm/°C

Detailed Electrical Specifications:

Specifications subject to change without notice.

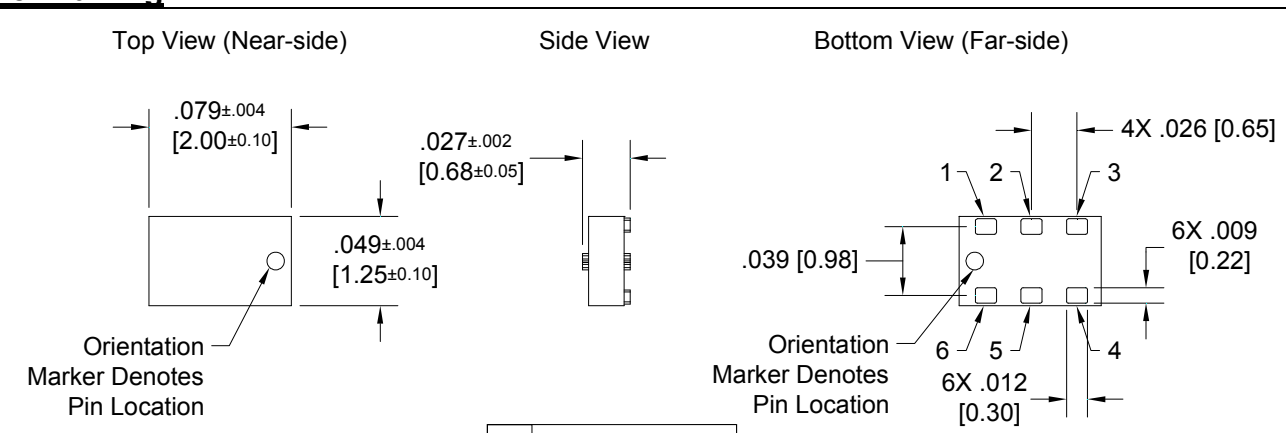
Features:

- **3300 – 3700 MHz**
- **0.7mm Height Profile**
- **WiMax and WiBro applications**
- **High Isolation & Low Loss**
- **Surface Mountable**
- **Tape & Reel**
- **Non-conductive Surface**
- **RoHS Compliant**
- **Halogen-Free**

Parameter	ROOM (25°C) Min.	Typ.	Max	Unit
Frequency	3300		3700	MHz
Port Impedance		50		Ω
Return Loss	15	18		dB
Isolation	18	22		dB
Insertion Loss*		0.2	0.3	dB
Amplitude Balance		0.3	1.0	dB
Phase Balance (relative to 90°)		3	7	Degrees
Power Handling			4	Watts
Operating Temperature	-55		+85	ºC

* Insertion Loss stated at room temperature (Insertion Loss is approximately 0.1 dB higher at +85 ºC)

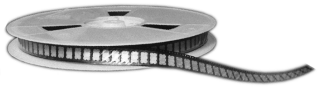
Outline Drawing



Pin	Designation
1	Input
2	GND
3	Isolated
4	Direct
5	GND
6	Coupled

Dimensions are in Inches [Millimeters]
Mechanical Outline

Tolerances are Non-Cumulative



Available on Tape and Reel for Pick and Place Manufacturing.

USA/Canada: (315) 432-8909
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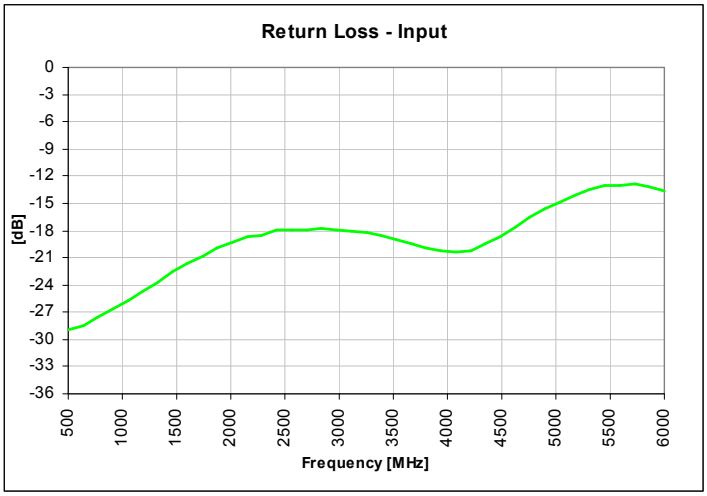
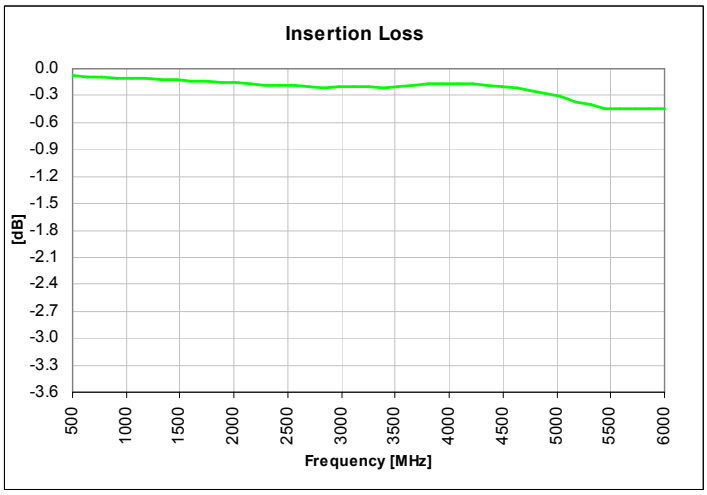
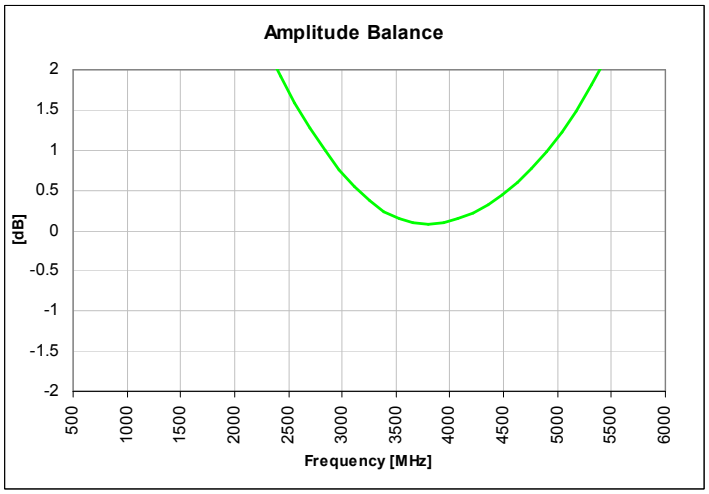
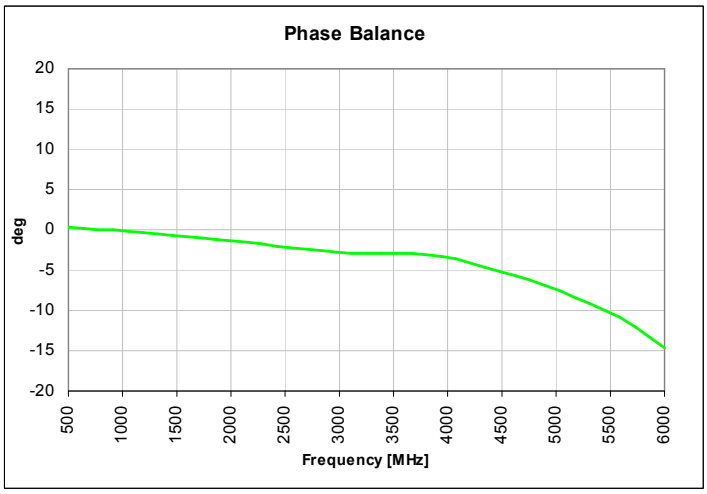
Rev A

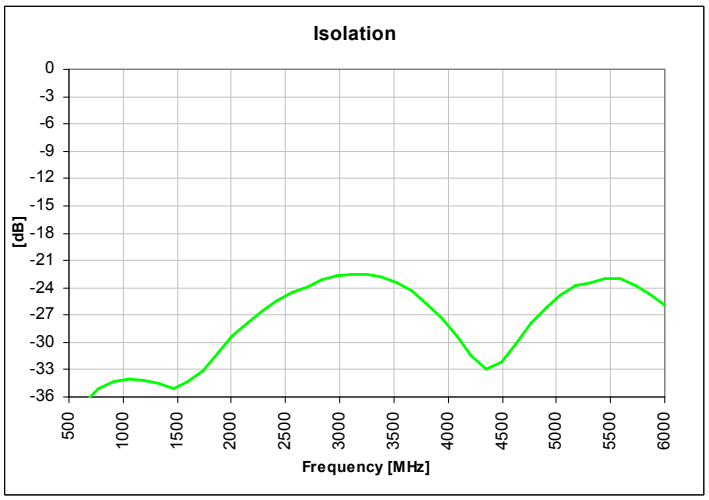
Typical Broadband Performance: 500 MHz. to 6000 MHz.











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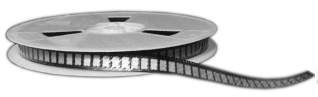

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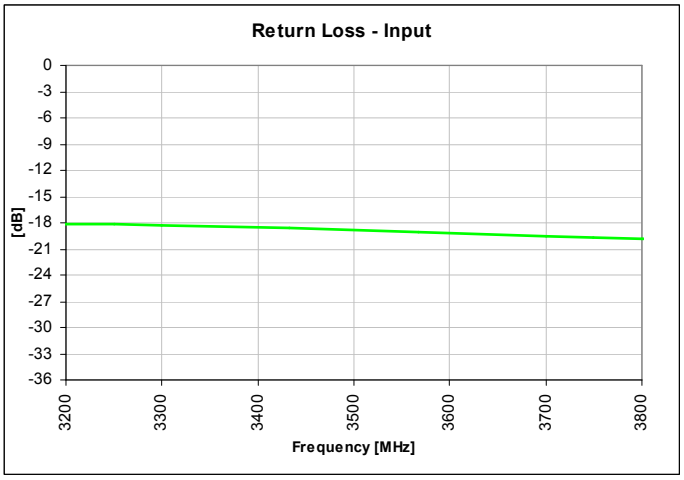
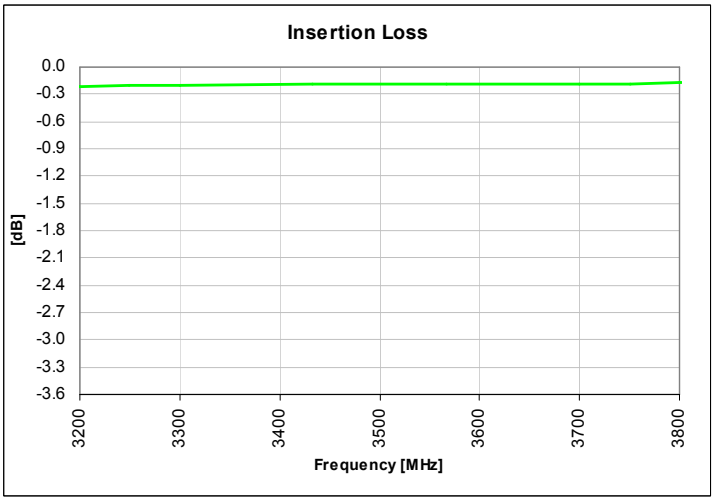
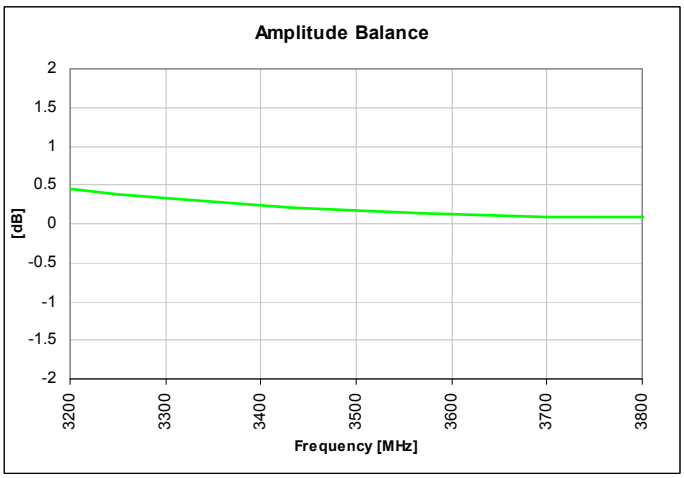
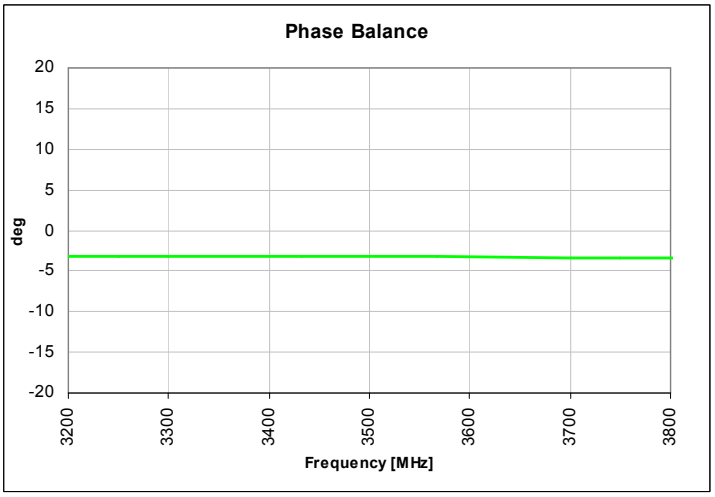
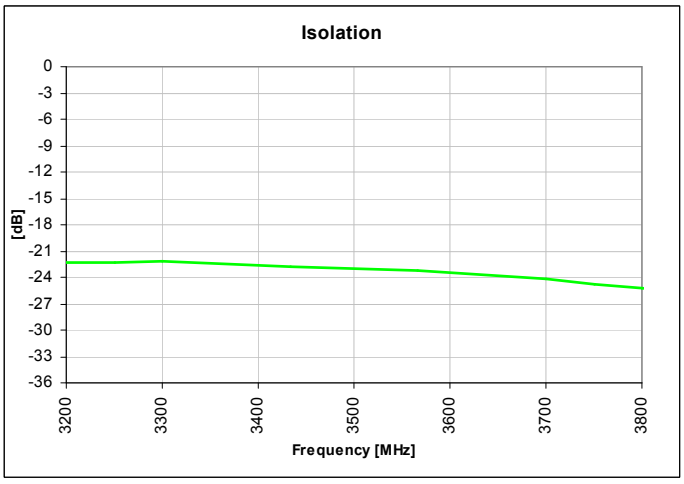
Typical Performance: 3200 MHz. to 3800 MHz.

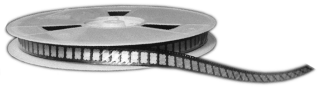












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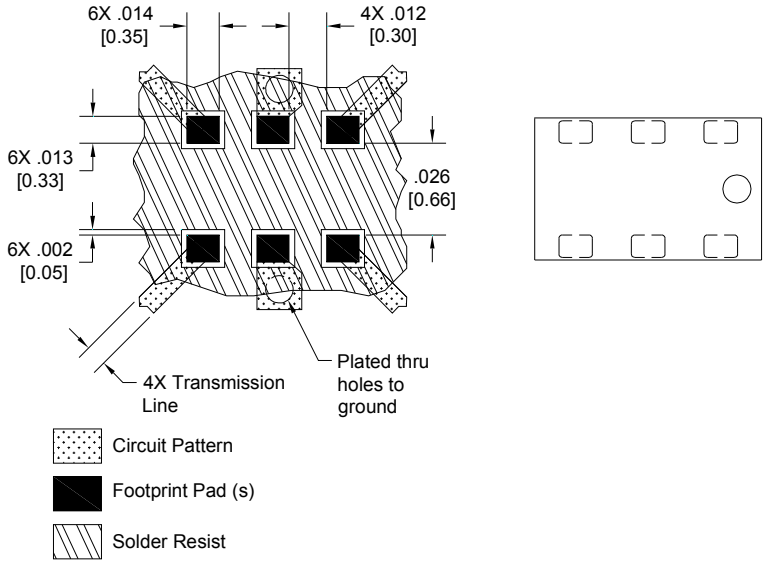
Mounting Configuration:

In order for Xinger surface mount components to work optimally, the proper impedance transmission lines must be used to connect to the RF ports. If this condition is not satisfied, insertion loss, Isolation and VSWR may not meet published specifications.

All of the Xinger components are constructed from ceramic filled PTFE composites which possess excellent electrical and mechanical stability having X and Y thermal coefficient of expansion (CTE) of 17 ppm/^{o}C.

An example of the PCB footprint used in the testing of these parts is shown below. In specific designs, the transmission line widths need to be adjusted to the unique dielectric coefficients and thicknesses as well as varying pick and place equipment tolerances.



Dimensions are in Inches [Millimeters]
Mounting Footprint

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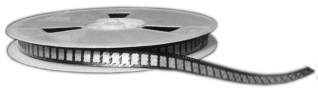
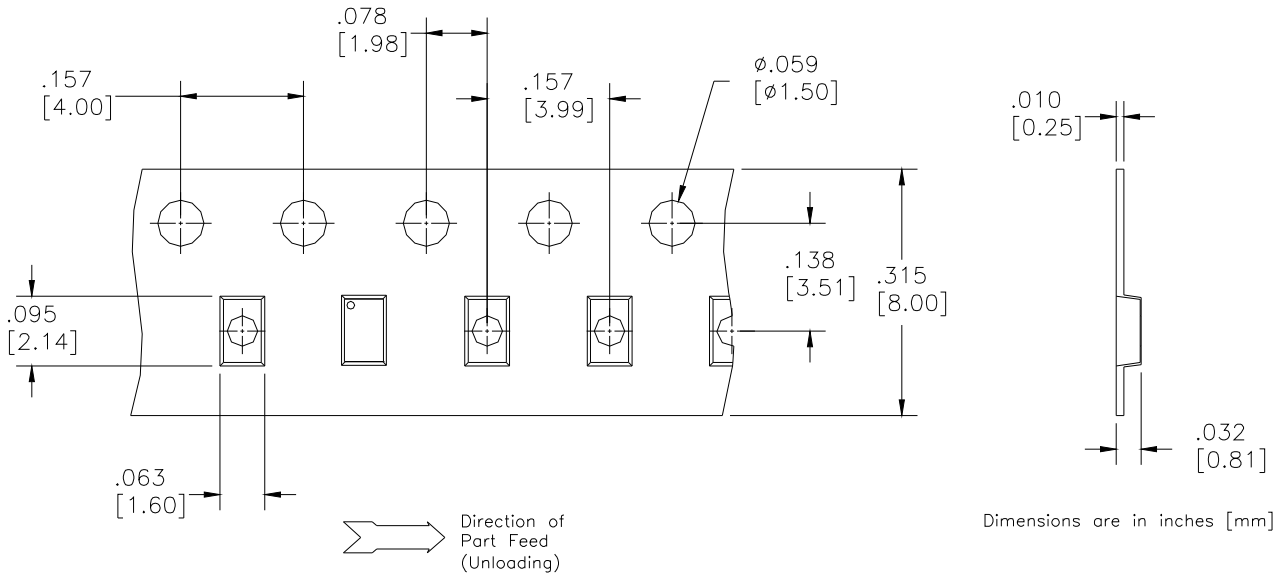


Packaging and Ordering Information

Parts are available in reel and are packaged per EIA 481-2. Parts are oriented in tape and reel as shown below. Minimum order quantities are 4000 per reel. See Model Numbers below for further ordering information.



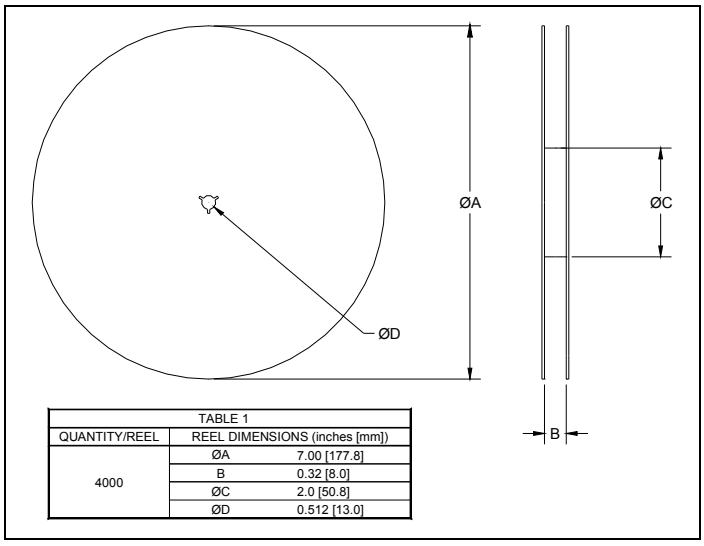
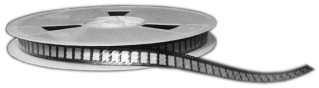


TABLE 1		
QUANTITY/REEL	REEL DIMENSIONS (inches [mm])	
4000	ØA	7.00 [177.8]
	B	0.32 [8.0]
	ØC	2.0 [50.8]
	ØD	0.512 [13.0]



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