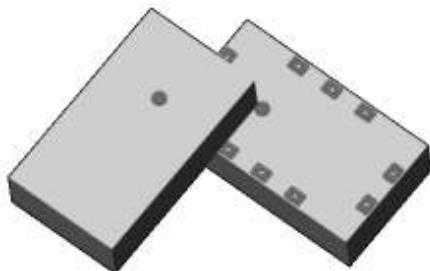


# Xinger®

## Ultra Low Profile 1608 Balun 50Ω to 50Ω Balanced



### Description

The BD0205F5050AHF is a low profile sub-miniature balanced to unbalanced transformer designed for differential input locations on data conversion devices such as A to D and D to A converters. In an easy to use surface mount package covering 75 MHz to 1000 MHz and with CMRR performances over 2x that of the incumbent wire wound products, this transformer is optimized to offer improved SFDR management during operation of the data converter device. The BD0205F5050AHF is ideal for high volume manufacturing and is higher performance and smaller form factor than traditional wire wound transformers. The BD0205F5050AHF has an unbalanced port impedance of 50Ω and a 50Ω balanced port impedance. This transformation enables single ended signals to be applied to differential ports on the data converter devices. The output ports have equal amplitude (-3dB) with 180 degree phase differential. The BD0205F5050AHF is available on tape and reel for pick and place high volume manufacturing.

### Detailed Electrical Specifications:

Specifications subject to change without notice.

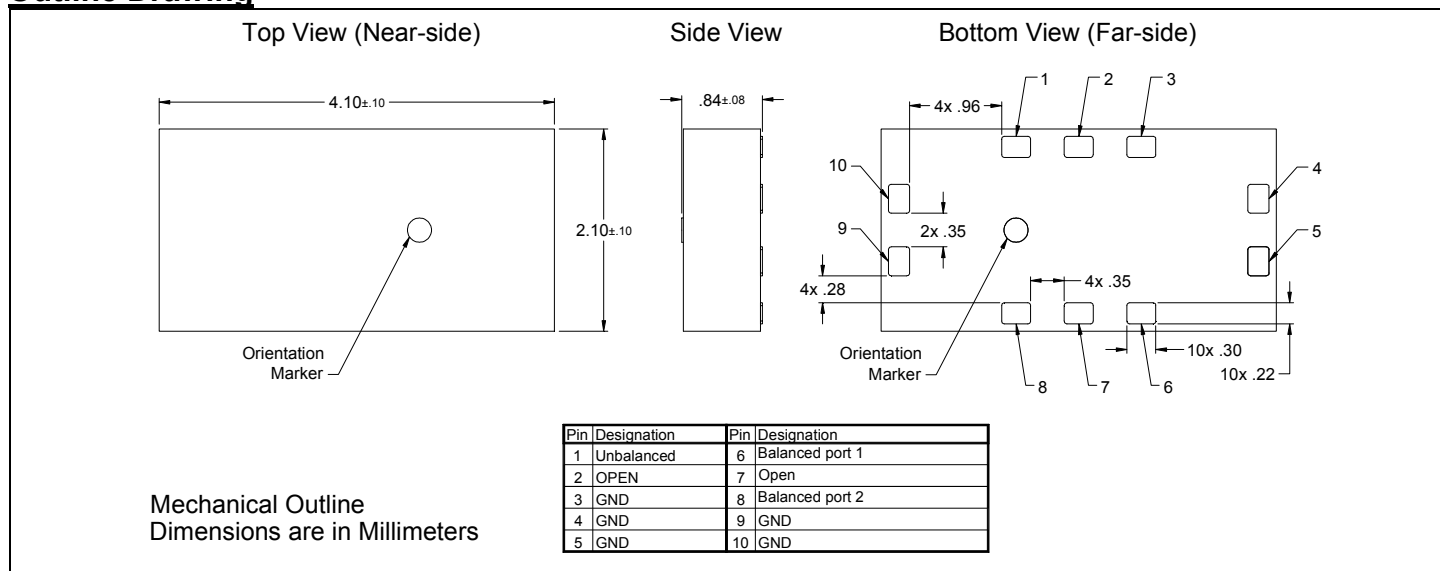
#### Features:

- 70 – 1000 MHz (IL 3dB BW)
- 200-500 MHz ( IL 1dB BW)
- 0.83 mm Height Profile
- 50 Ohm to 2 x 25 Ohm
- Excellent CMRR (36dB typical)
- Input to Output DC Isolation
- Surface Mountable
- Tape & Reel
- Non-conductive Top Surface
- RoHS Compliant
- Halogen Free

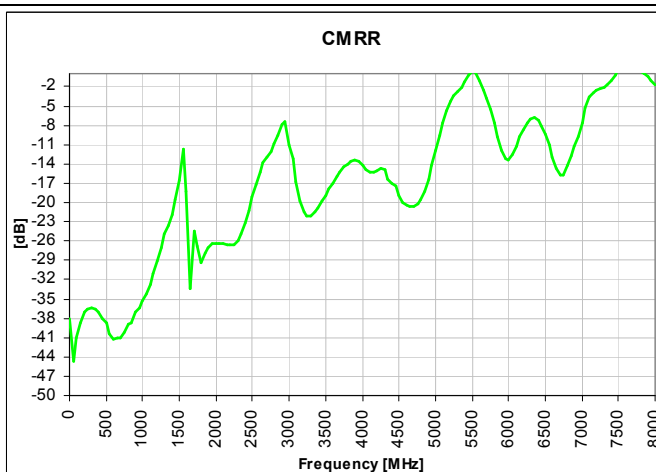
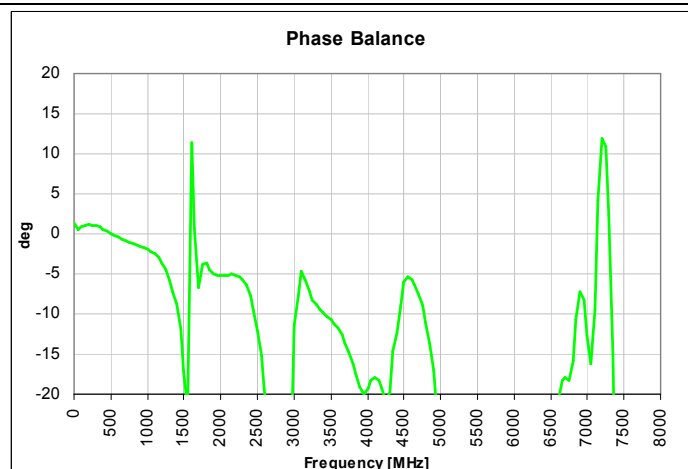
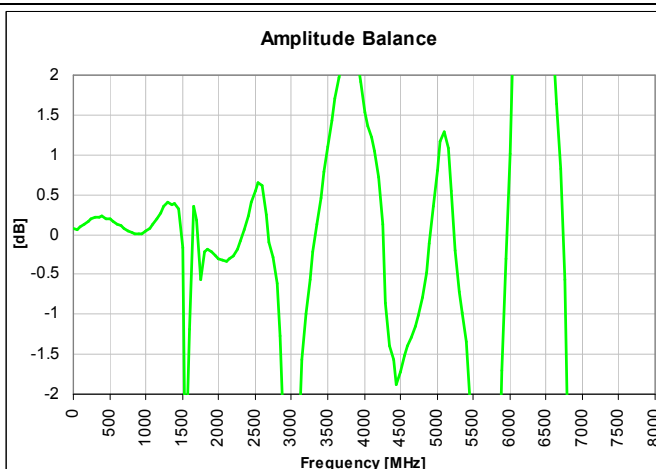
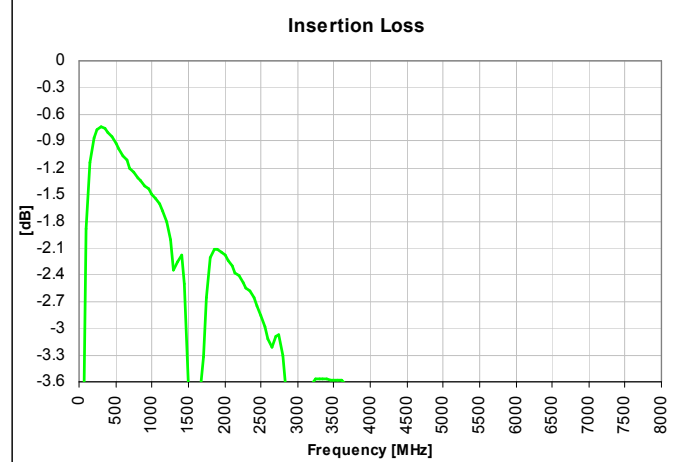
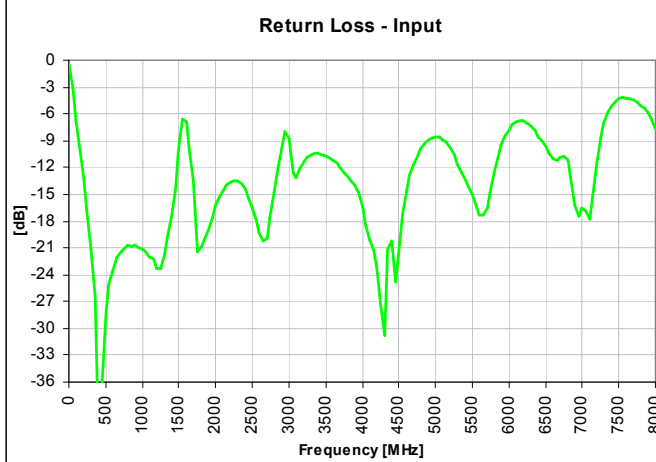
Parameter	ROOM (25°C)						Unit
	Min.	Typ.	Max	Min.	Typ.	Max	
Frequency	70		1000	200		500	MHz
Unbalanced Port Impedance		50			50		Ohm
Balanced Port Impedance		50			50		Ohm
Return Loss	4	4.6		11	13		dB
Insertion Loss*		3.0	3.4		0.9	1.1	dB
Amplitude Balance		0.2	0.6		0.2	0.6	dB
Phase Balance		1	3		1	3	Degrees
CMRR		36			36		dB
Power Handling			2			2	Watts
Operating Temperature	-55		+85	-55		+85	°C

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

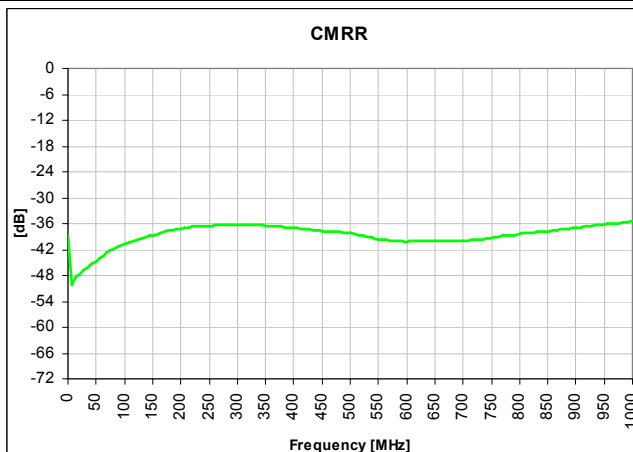
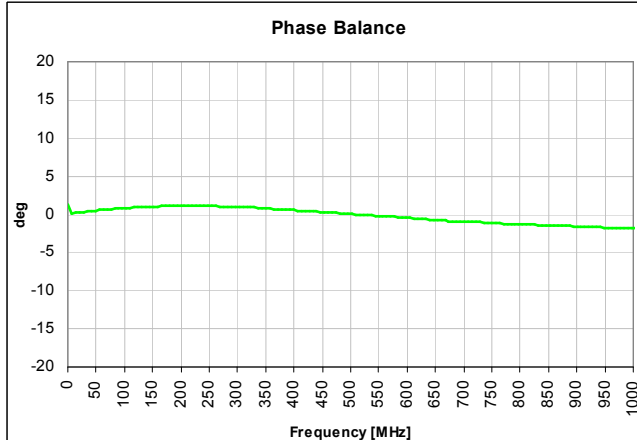
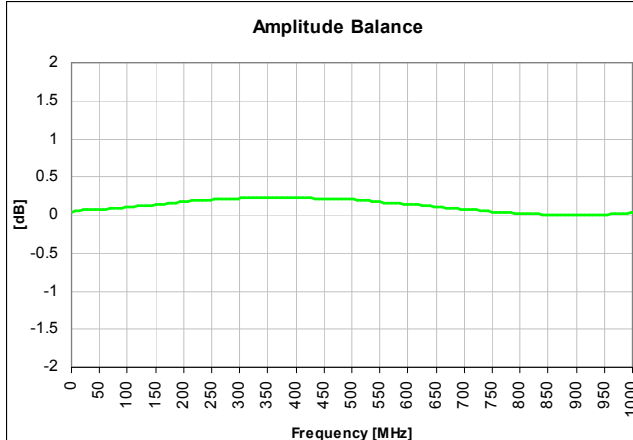
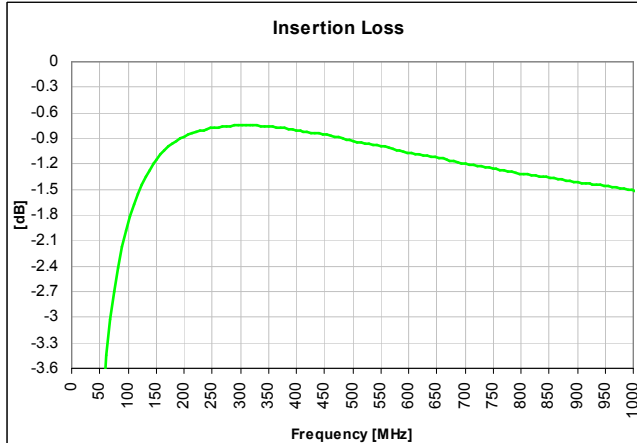
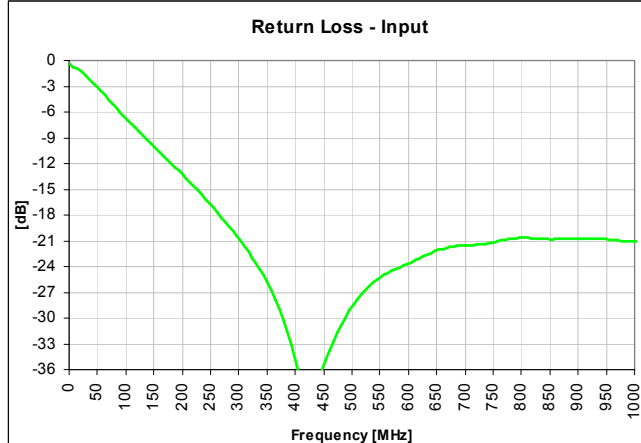
### Outline Drawing



## Typical Broadband Performance: 0 - 8.0 GHz.



### Typical Performance: 0 MHz. to 1000 MHz.







# Mouser Electronics

Authorized Distributor

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[BD0205F5050AHF](#)