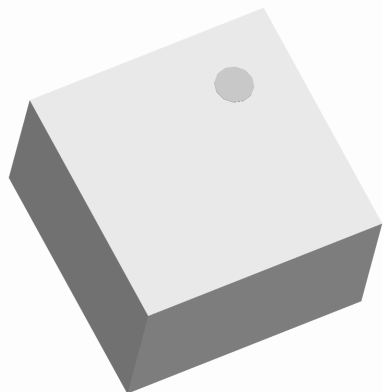


Xinger®



Ultra Low Profile 0404 Balun 50Ω to 100Ω Balanced

Description

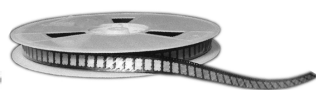
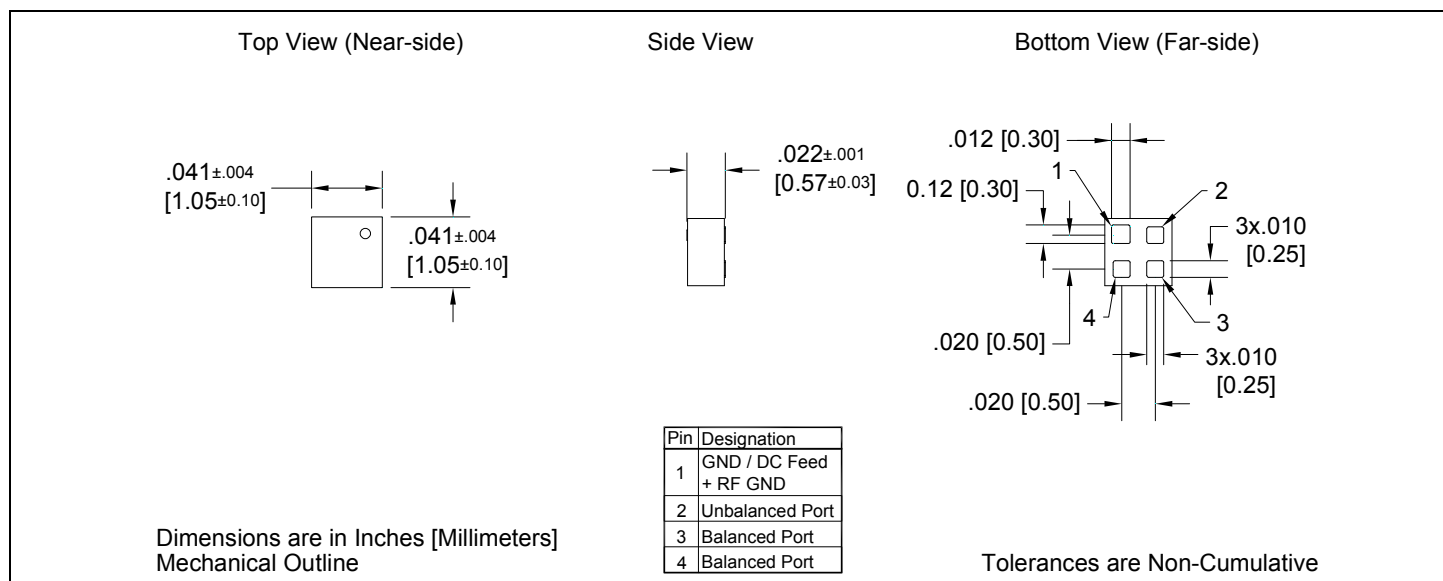
The BD4859N50100A00 is a low cost, low profile sub-miniature unbalanced to balanced transformer designed for differential inputs and output locations on modern chipsets in an easy to use surface mount package covering 802.11a Uni-Band II & III and the Japanese ISM band (4.9 GHz). The BD4859N50100A00 is ideal for high volume manufacturing and delivers higher performance than traditional ceramic baluns. The BD4859N50100A00 has an unbalanced port impedance of 50Ω and a 100Ω balanced port impedance. This transformation enables single ended signals to be applied to differential ports on modern integrated chipsets. The output ports have equal amplitude (-3dB) with 180 degree phase differential. The BD4859N50100A00 is available on tape and reel for pick and place high volume manufacturing.

Detailed Electrical Specifications: Specifications subject to change without notice.

Features:	Parameter	ROOM (25°C)			Unit
		Min.	Typ.	Max	
<ul style="list-style-type: none"> 4800 – 5900 MHz 0.57 mm Height Profile 50 Ohm to 2 x 50 Ohm Low Insertion Loss 802.11a Uni-Band II & III Home Cordless Compliant Surface Mountable Tape & Reel Non-conductive Surface RoHS Compliant 	Frequency	4800		5900	MHz
	Unbalanced Port Impedance		50		Ω
	Balanced Port Impedance		100		Ω
	Return Loss	15	20		dB
	Insertion Loss*		0.4	0.6	dB
	Amplitude Balance		0.9	1.5	dB
	Phase Balance		3	8	Degrees
	CMRR		26		dB
	Power Handling			1	Watts
	Operating Temperature	-55		+85	°C

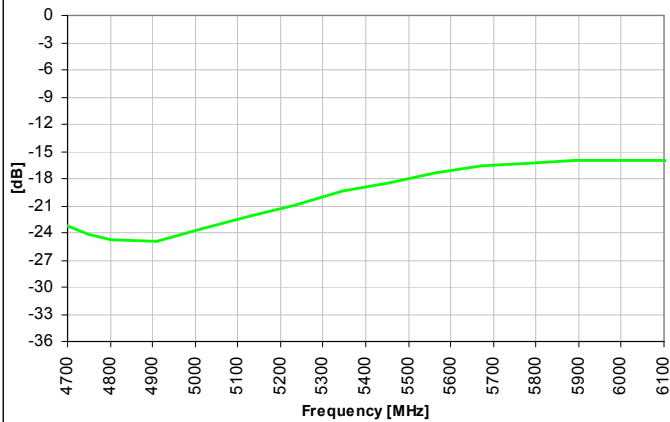
* Insertion Loss stated at room temperature (Insertion Loss is approximately 0.1 dB higher at +85 °C)

Outline Drawing

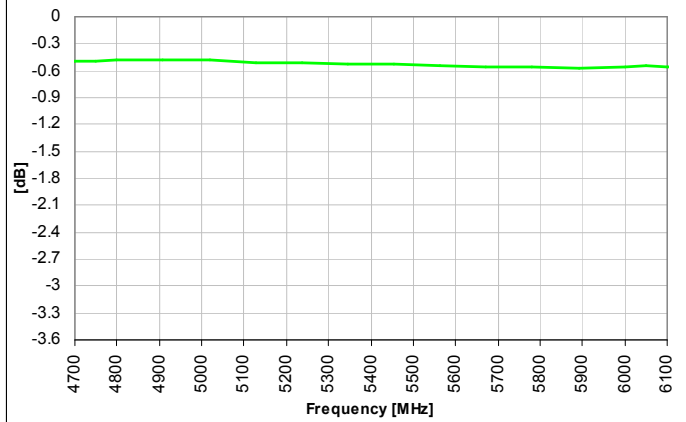


Typical Performance: 4700 MHz. to 6100 MHz.

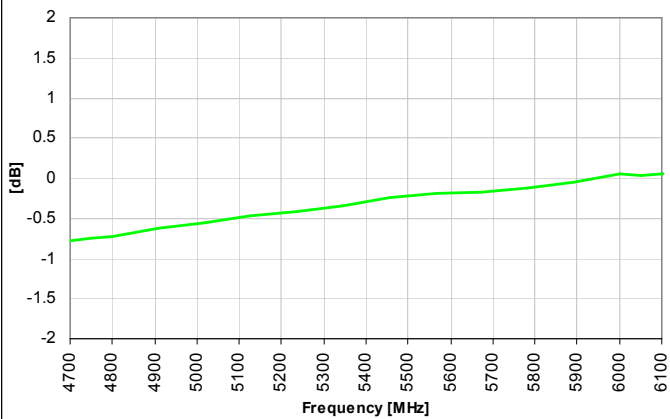
Return Loss - Input



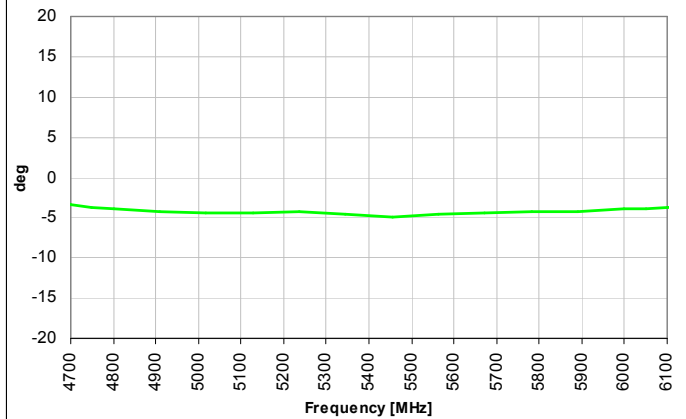
Insertion Loss



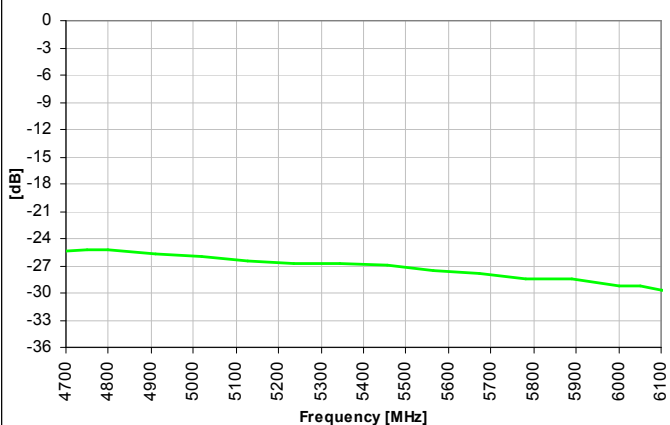
Amplitude Balance



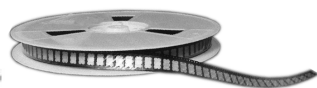
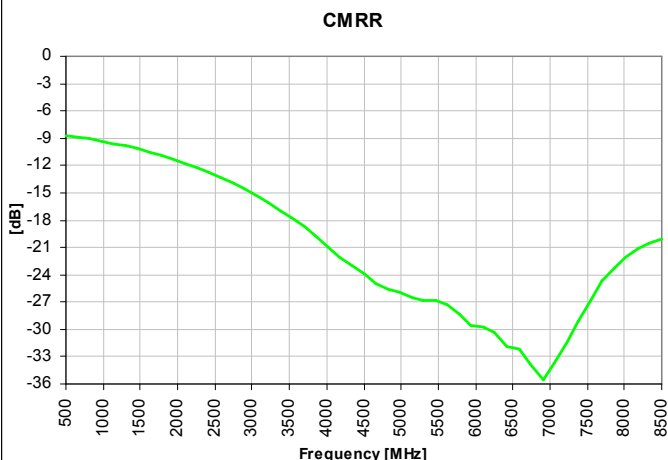
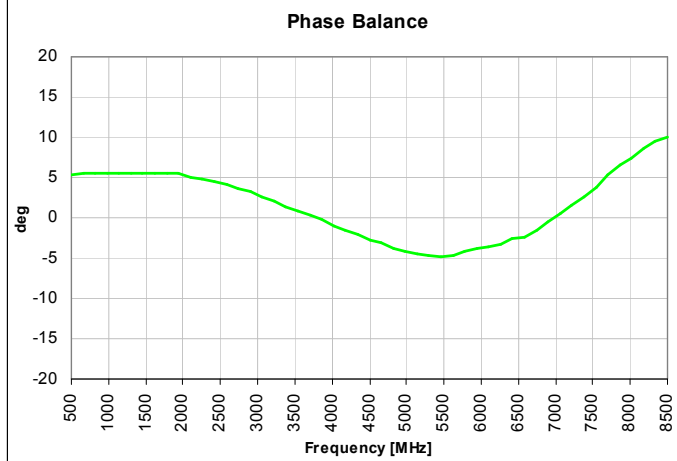
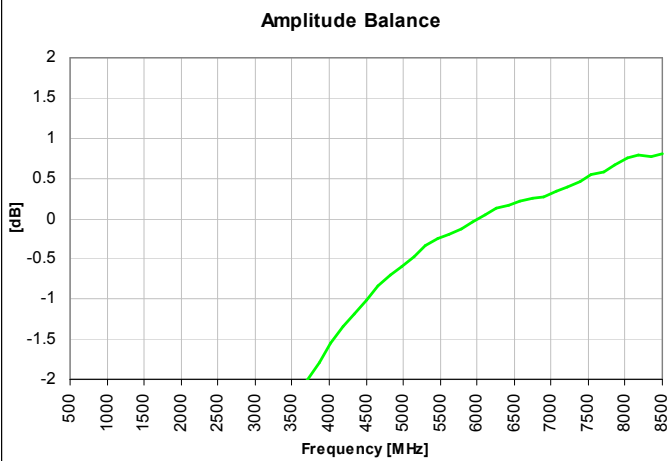
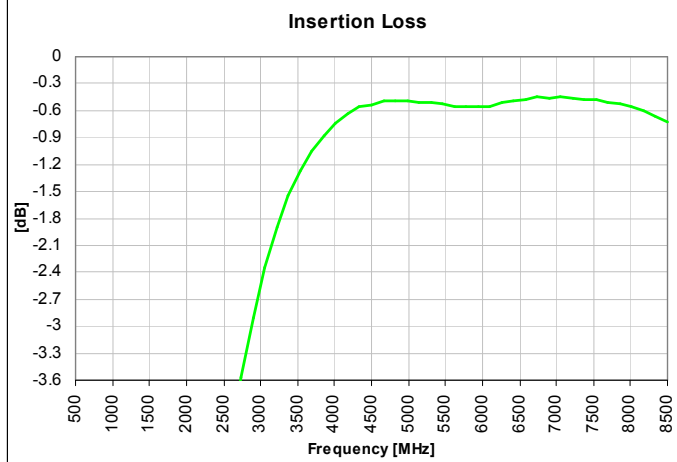
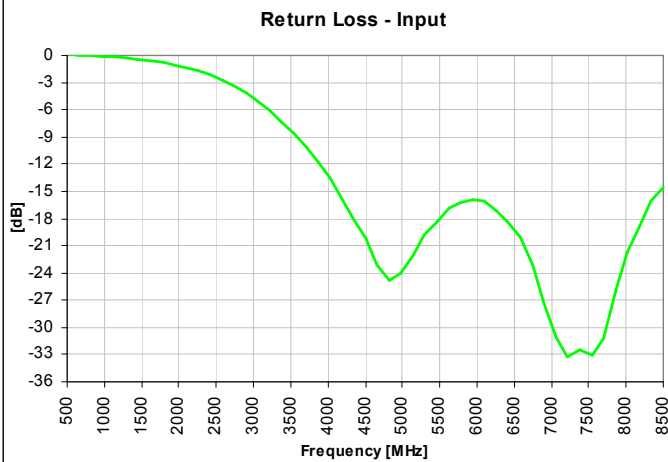
Phase Balance



CMRR



Wide Band Performance: 500 MHz. to 8500 MHz.

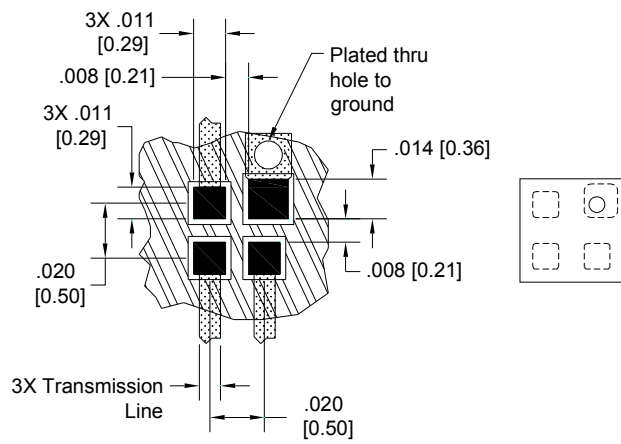



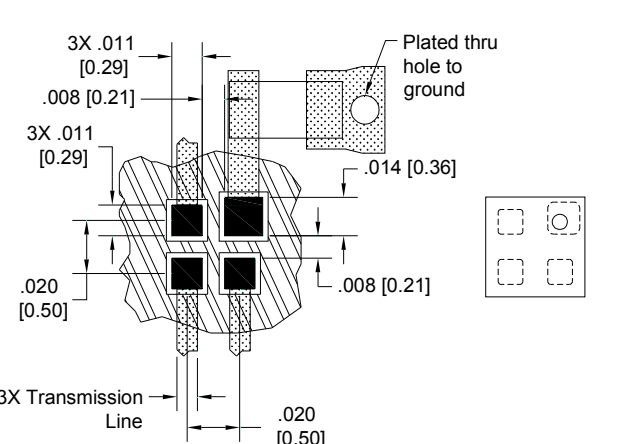





Mounting Configuration:

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/°C.

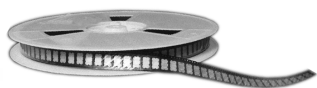
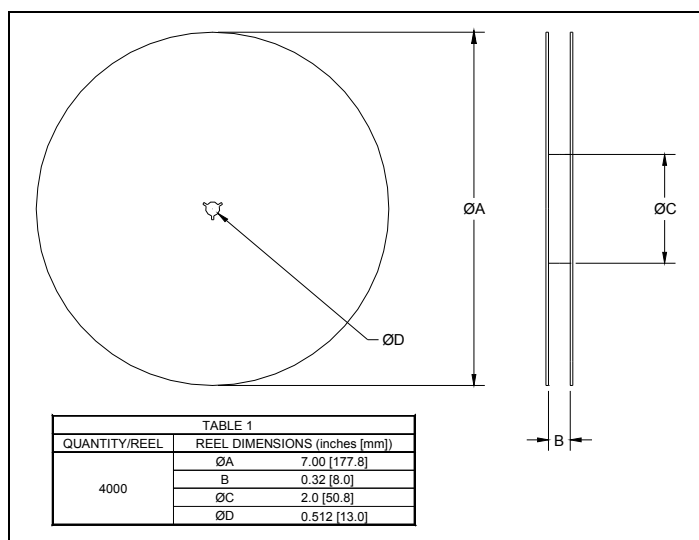
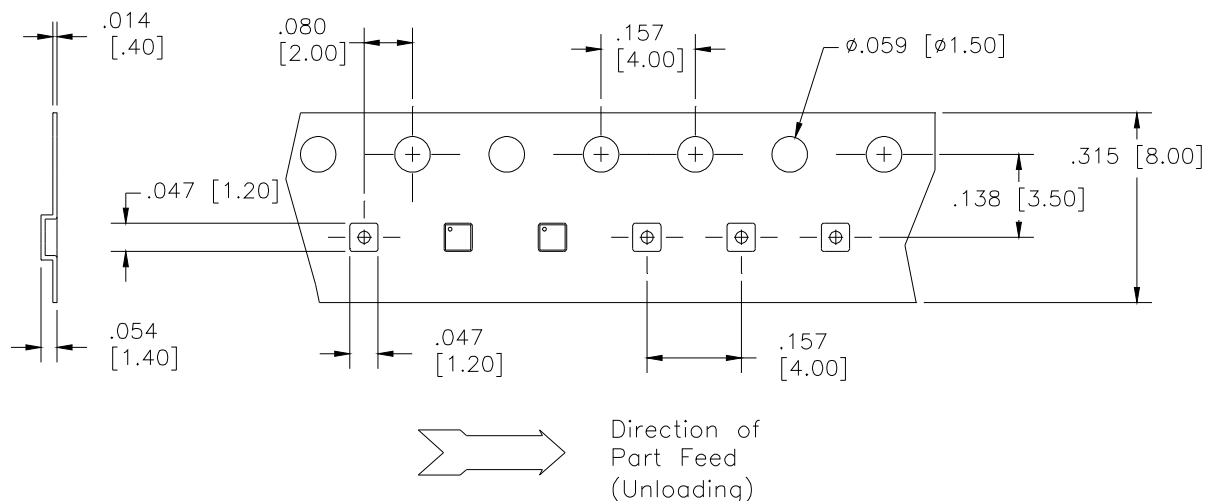
An example of the PCB footprint used in the testing of these parts is shown below. An example of a DC-biased footprint is also shown below. In specific designs, the transmission line widths need to be adjusted to the unique dielectric coefficients and thicknesses as well as varying pick and place equipment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

With No DC Bias	With DC Bias
 <p>3X .011 [0.29] .008 [0.21] 3X .011 [0.29] .014 [0.36] .020 [0.50] 3X Transmission Line .020 [0.50] Plated thru hole to ground 0.008 [0.21]</p> <p>  Circuit Pattern  Footprint Pad (s)  Solder Resist </p> <p>Dimensions are in Inches [Millimeters] Mounting Footprint</p>	 <p>3X .011 [0.29] .008 [0.21] 3X .011 [0.29] .014 [0.36] .020 [0.50] 3X Transmission Line .020 [0.50] Plated thru hole to ground 0.008 [0.21]</p> <p>  Circuit Pattern  Footprint Pad (s)  Solder Resist </p> <p>Dimensions are in Inches [Millimeters] Mounting Footprint</p>



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.



AMEYA360

Components Supply Platform

Authorized Distribution Brand :



Website :

Welcome to visit www.ameya360.com

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