



Ultra Small Low Profile 0603 Balun 50 Ω to 100 Ω Balanced

Description

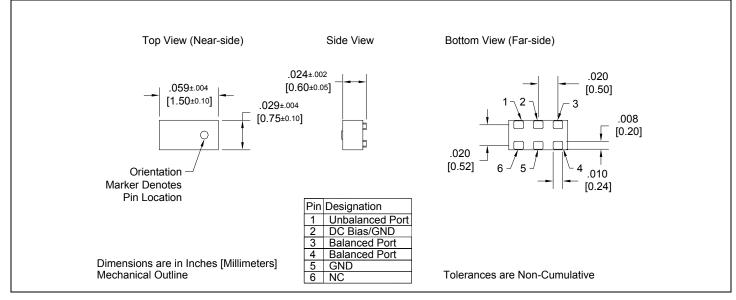
The BD2326L50100A00 is an ultra-small low profile balanced to unbalanced transformer designed for differential inputs and output locations on next generation wireless chipsets in an easy to use surface mount package. Covering 802.11b+g +MIMO, WiMAX, Bluetooth, ZigBee and more, the BD2326L50100A00 is ideal for high volume manufacturing and is higher performance than traditional ceramic baluns. The BD2326L50100A00 has an unbalanced port impedance of 50 Ω and a 100 Ω 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 BD2326L50100A00 is available on tape and reel for pick and place high volume manufacturing.

Detailed Electrical Specifications: Specifications subject to change without notice.

		ROOM (25°C)			
<u>Features:</u>	Parameter	Min.	Тур.	Max	Unit
 2300 - 2600 MHz 0.6mm Height Profile 50 Ohm to 2 x 50 Ohm 802.11 g MIMO, Bluetooth, WiMAX & ZigBee Compliant Low Insertion Loss Input to Output DC Isolation Surface Mountable Tape & Reel Non-conductive Surface RoHS Compliant 	Frequency	2300		2600	MHz
	Unbalanced Port Impedance		50		Ω
	Balanced Port Impedance		100		Ω
	Return Loss	15	22		dB
	Insertion Loss*		0.7	0.9	dB
	Amplitude Balance		0.4	1.0	dB
	Phase Balance		3°	9°	Degrees
	CMRR		28		dB
	Power Handling			0.5	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



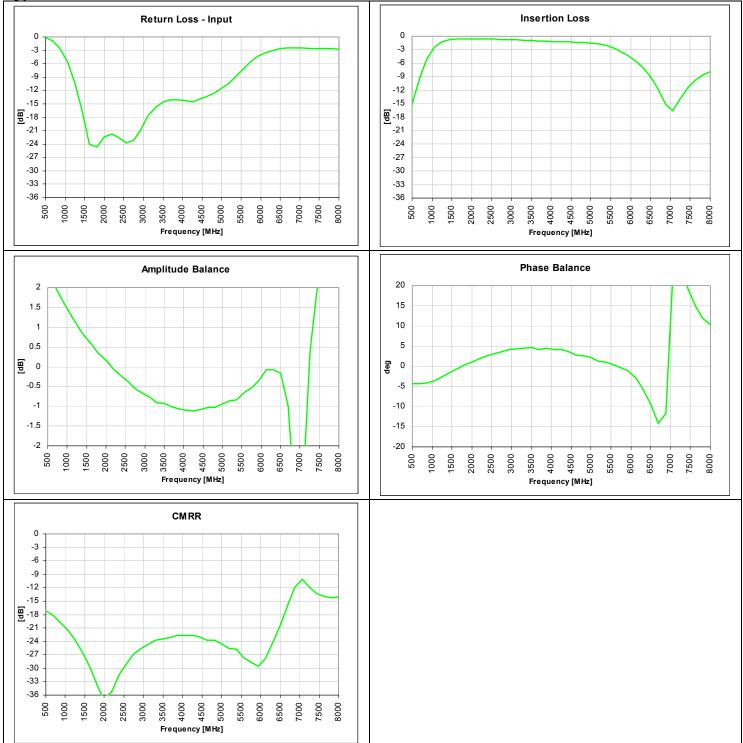




Available on Tape and Reel for Pick and Place Manufacturing. USA/Canada: (315) 432-8909 Toll Free: (800) 411-6596 Europe: +44 2392-232392



Typical Broadband Performance: 500 MHz. to 8000 MHz.



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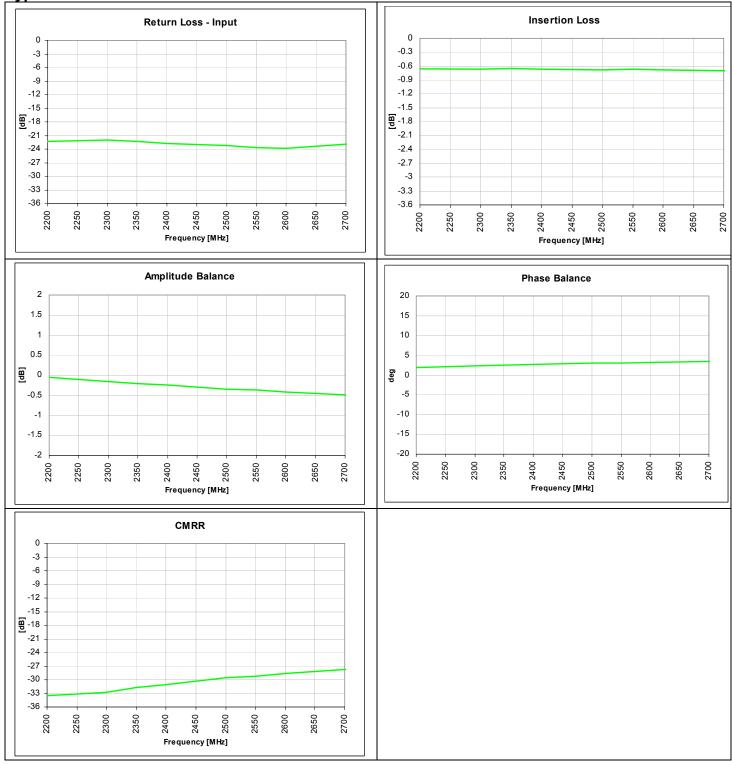
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Model BD2326L50100A00

Typical Performance: 2200 MHz. to 2700 MHz.







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Mounting Configuration:

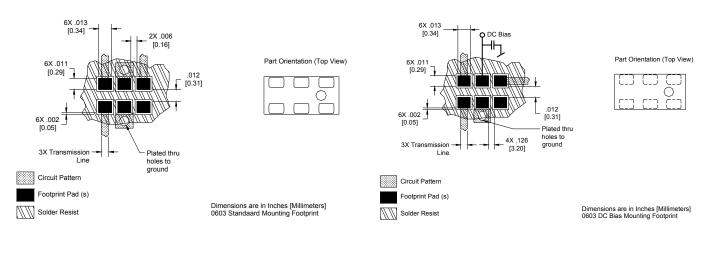
In order for Xinger surface mount components to work optimally, the proper impedance transmission lines must be used to connect to the RF ports. If this condition is not satisfied, insertion loss, Isolation and VSWR may not meet published specifications.

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/°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.

DC Bias Footprint

No Bias Footprint



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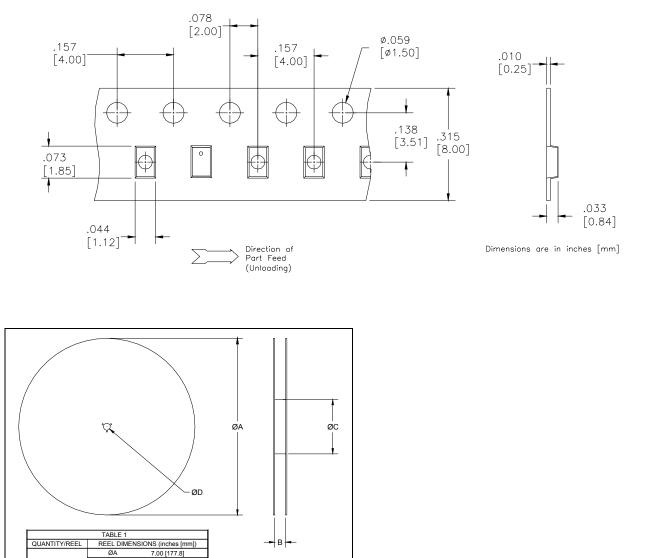
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Packaging and Ordering Information

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.





В

ØC ØD

4000

0.32 [8.0] 2.0 [50.8]

0.512 [13.0

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BD 2425 J 50 100 A 00

Function	Frequency	Package Dimensions	Unbalanced Impedance	Balanced Impedance + Coupling	Finish	Codes
B = Balun BD = Balun + DC F = Filter FB = Filter / Balun C = 3dB Coupler DC = Directional J = RF Jumper X = RF cross over	0810 = 800 - 1000 MHz 0922 = 950 - 2150 MHz 0826 = 800 - 6200 MHz 1222 = 1200 - 2200 MHz 1416 = 1400 - 1600 MHz 1722 = 1700 - 2200 MHz 2326 = 2300 - 2600 MHz 2425 = 2400 - 2500 MHz 3150 = 3100 - 5000 MHz	A = 150 x 150 mils (4mm * 4mm) C = 120 x 120 mils (3mm * 3mm) E = 100 x 80 mils (25mm * 2mm) J = 80 x 50 mils (2mm * 125mm) L = 60 x 30 mils (15mm * 0.75mm) N = 40 x 40 mils (1mm * 1mm)	50 = 50 Ohm 75 = 75 Ohm	$\begin{array}{l} 25 = 25 \ \Omega \ \text{Balanced} \\ 30 = 30 \ \Omega \ \text{Balanced} \\ 50 = 50 \ \Omega \ \text{Balanced} \\ 75 = 75 \ \Omega \ \text{Balanced} \\ 100 = 100 \ \Omega \ \text{Balanced} \\ 150 = 150 \ \Omega \ \text{Balanced} \\ 200 = 200 \ \Omega \ \text{Balanced} \\ 300 = 300 \ \Omega \ \text{Balanced} \\ 400 = 400 \ \Omega \ \text{Balanced} \\ 400 = 400 \ \Omega \ \text{Balanced} \\ 10 = 10 \ \text{Balanced} \\ 10 = 10 \ \text{Balanced} \\ 10 = 10 \ \text{Balanced} \\ 10 = 20 \ \text{Balanced} \\ 10 = 10 \ \text{Balanced} \\ 10 = 20 \ \text{Balanced} \\ 10 = 10 \ \text{Balanced} \\ 10 \ \text{Balanced} \\ 10 \ \text{Balanced} \\ 10 \ $	A = Gold P = Tin-Lead	

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