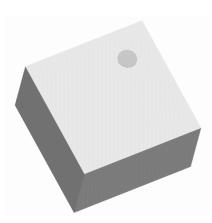




Nano Profile 0404 Balun 50Ω to 100Ω Balanced

Description:



The BD2425P50100AHF is a low cost, nano 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. The BD2425P50100AHF has been developed for placement inside highly integrated, over moldable packaging solutions where overall module height is of greatest concern. Ideal for high volume manufacturing and delivers higher performance than traditional ceramic baluns in a sub 0.5mm height profile. The BD2425P50100AHF 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 BD2425P50100AHF is available on tape and reel for pick and place high volume manufacturing.

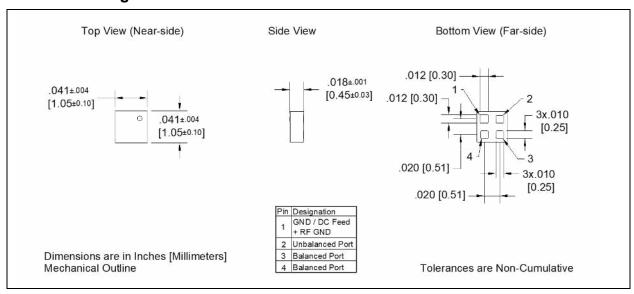
Detailed Electrical Specifications:

Specifications subject to change without notice.

Features:		ROOM (25°C)			
• 2400 – 2500 MHz	Parameter	Min.	Тур.	Max	Unit
0.45mm Height Profile	Frequency	2400		2500	MHz
50 Ohm to 2 x 50 OhmLow Insertion Loss	Unbalanced Port Impedance		50		Ω
• 802.11 b+g	Balanced Port Impedance		100		Ω
MIMO b+g	Return Loss	17	25.6		dB
Bluetooth	Insertion Loss*		0.8	0.9	dB
• Zigbee	Amplitude Balance		0.9	1.5	dB
 Proprietary Ultra Low Power Radio 	Phase Balance		6	9	Degrees
Surface Mountable	CMRR		24		dB
Tape & Reel	Power Handling			1	Watts
RoHS Compliant	Operating Temperature	-55		+85	°C

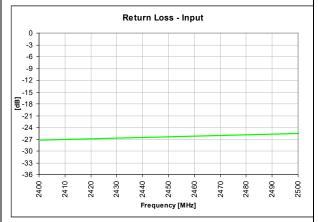
^{*} Insertion Loss stated at room temperature (Insertion Loss is approximately 0.1 dB higher at +85 °C)

Outline Drawing

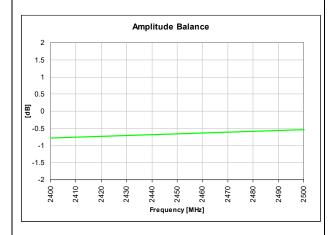


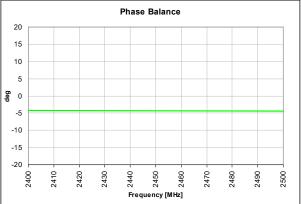


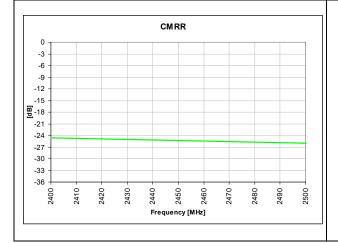
Typical Performance: 2400 MHz. to 2500 MHz.





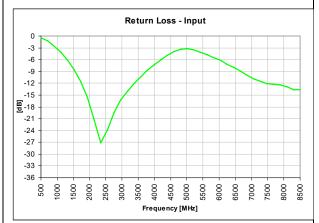




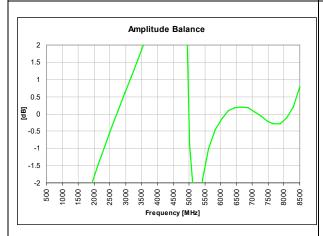


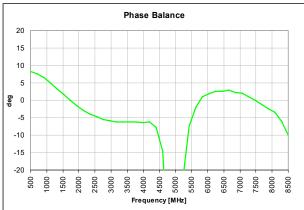


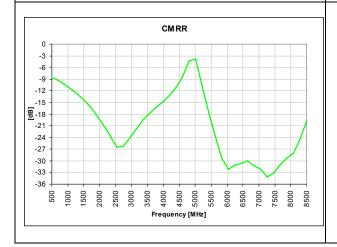
Wide Band Performance: 500 MHz. to 8500 MHz.











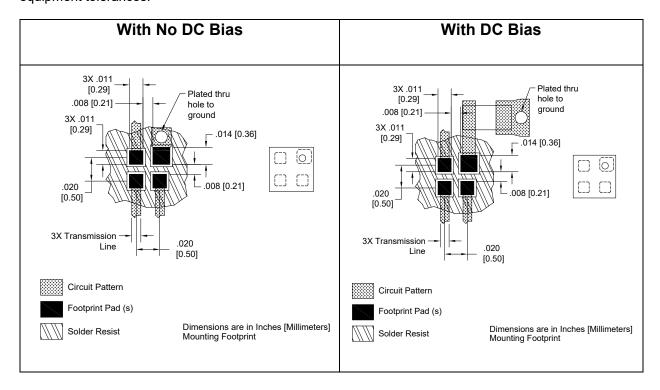


Mounting Configuration:

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.

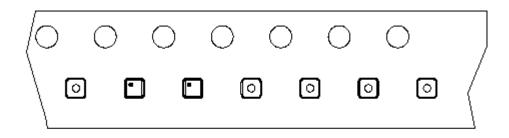
An example of the PCB footprint used in the testing of these parts is shown below. An example of a DC-biased footprint is also shown below. In specific designs, the transmission line widths need to be adjusted to the unique dielectric coefficients and thicknesses as well as varying pick and place equipment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

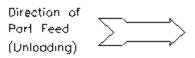




Packaging and Ordering Information

Parts are available in reel and are packaged per EIA 481-D. Parts are oriented in tape and reel as shown below. Minimum order quantities are 4000 per reel.





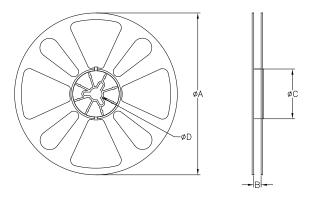


TABLE 1					
QUANTITY/REEL	REEL DIMENSIONS mm				
	ØΑ	177.80			
4000	В	8.00			
	φC	50.80			
	ØD	13.00			

Contact us:

rf&s support@ttm.com

