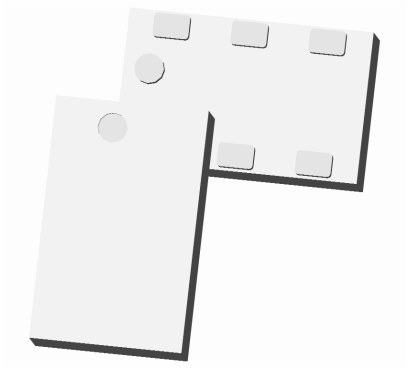
Xinger®

Ultra Low Profile 0805 Balun
50Ω to 100Ω Balanced



Description

The BD1722J50100AHF is a low profile sub-miniature 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 the DCS, PCS, UMTS and CDMA frequencies. The BD1722J50100AHF is ideal for high volume manufacturing and is higher performance than traditional ceramic, and lumped element baluns. The BD1722J50100AHF 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 semiconductors. The output ports have equal amplitude (-3dB) with 180 degree phase differential. The BD1722J50100AHF is available on tape and reel for pick and place high volume manufacturing.

Features:

- **1700 – 2200 MHz**
- **0.7mm Height Profile**
- **50 Ohm to 2 x 50 Ohm**
- **DCS/PCS/UMTS/CDMA**
- **Low Insertion Loss**
- **Input to Output DC Isolation**
- **Surface Mountable**
- **Tape & Reel**
- **Non-conductive Surface**
- **RoHS Compliant**
- **Halogen Free**

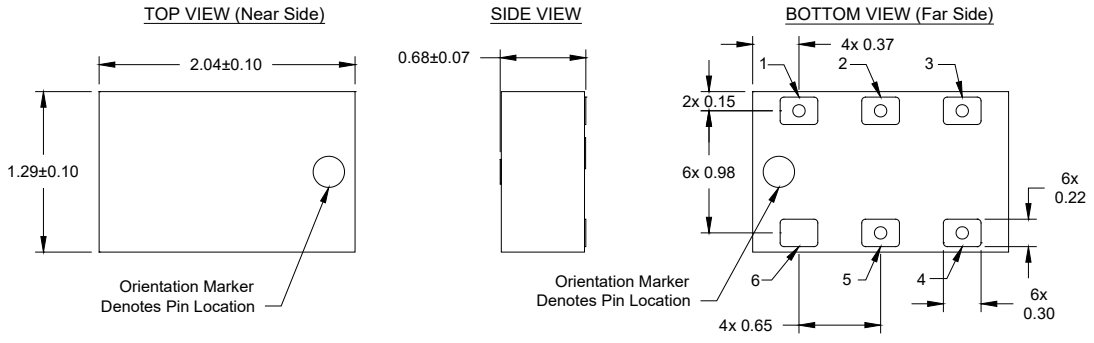
Detailed Electrical Specifications:

Specifications subject to change without notice.

Parameter	ROOM (25°C) Min.	Typ.	Max	Unit
Frequency	1700		2200	MHz
Unbalanced Port Impedance		50		Ω
Balanced Port Impedance		100		Ω
Return Loss	9	13		dB
Insertion Loss*		0.9	1.2	dB
Amplitude Balance		0.4	1.2	dB
Phase Balance		4	6	Degrees
CMRR		29		dB
Power Handling @85°C			2.0	Watts
Power Handling @105°C			1.3	Watts
Operating Temperature	-55		+140	°C

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

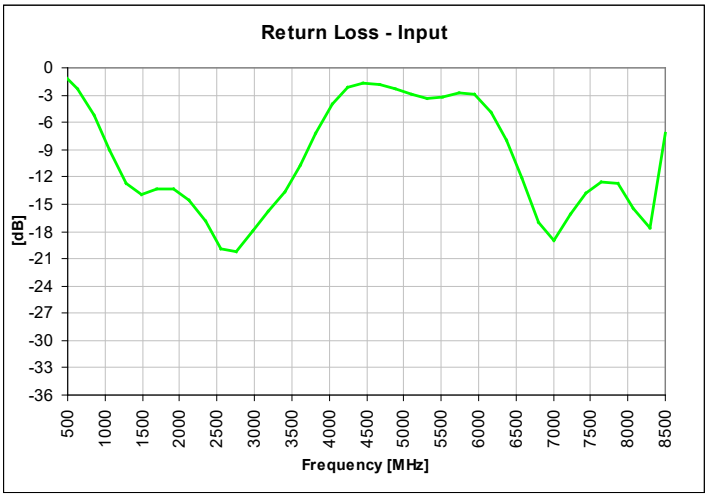
Outline Drawing

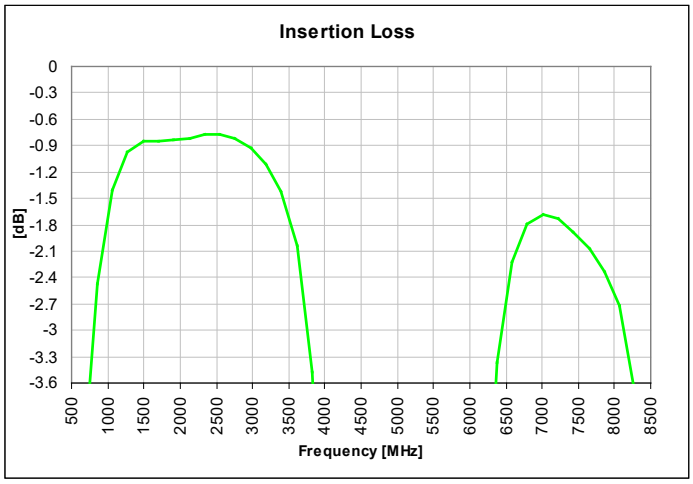


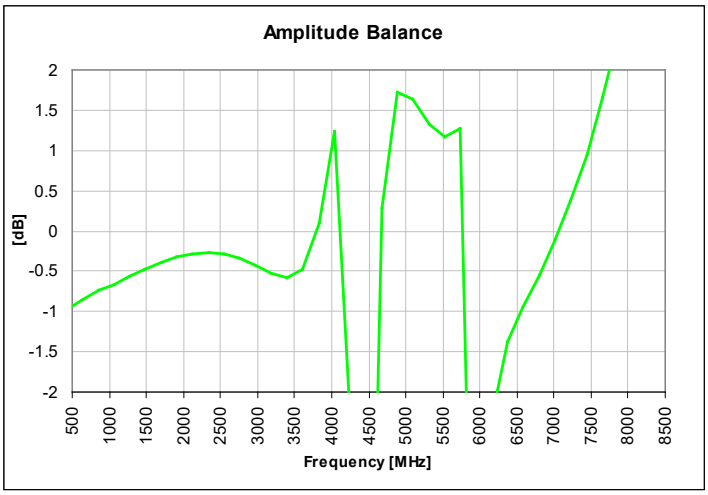
Mechanical Outline
-Dimensions are in Millimeters

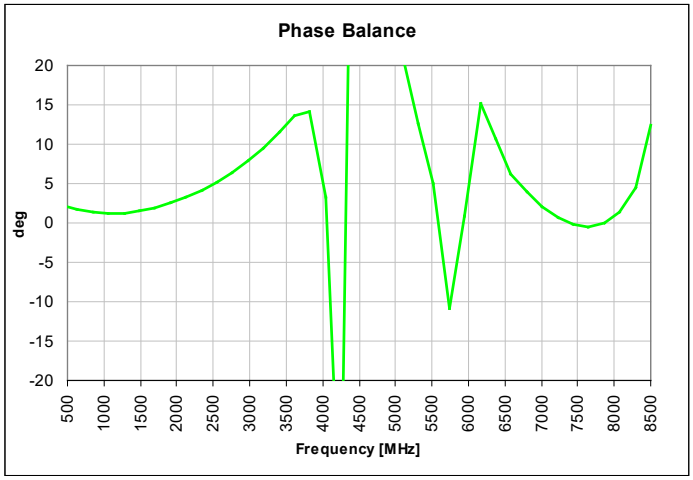
Pin	Designation
1	Unbalanced Port
2	GND/DC Feed +RF GND
3	Balanced Port
4	Balanced Port
5	GND
6	NC

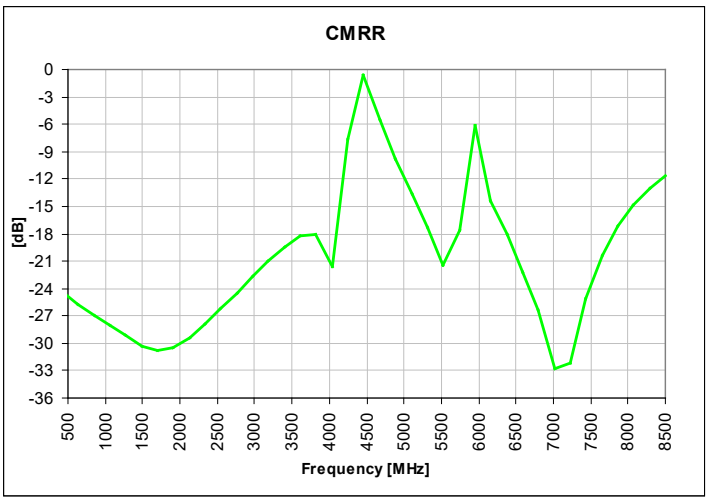
Typical Broadband Performance: 500 MHz. to 8.5 GHz.



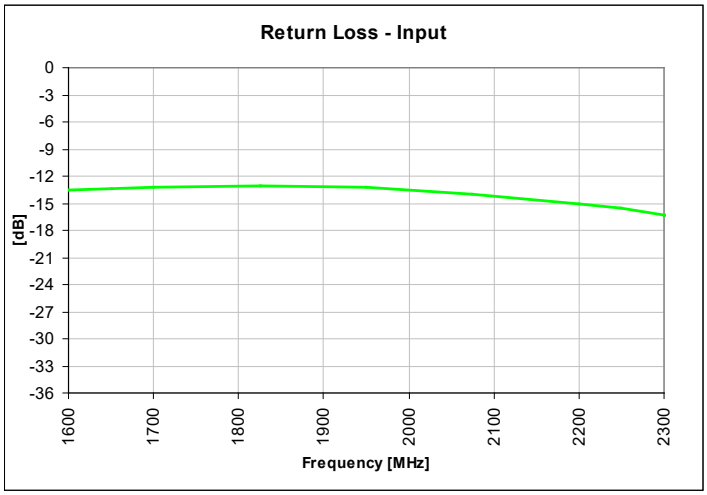


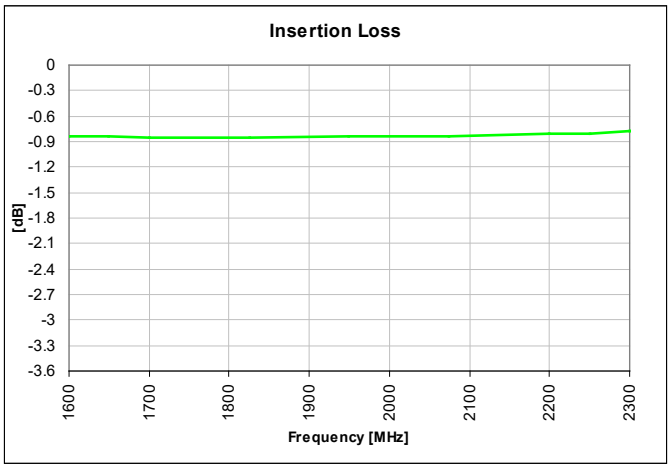


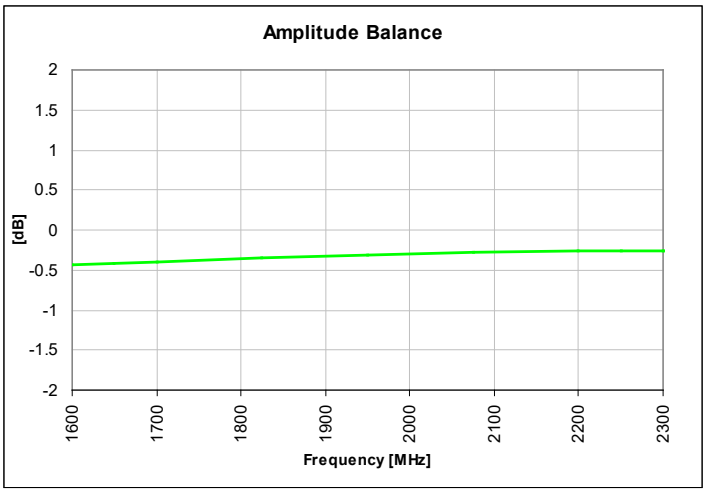


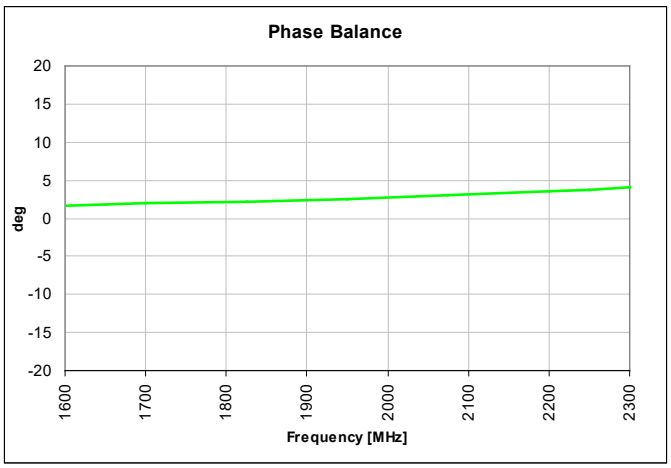


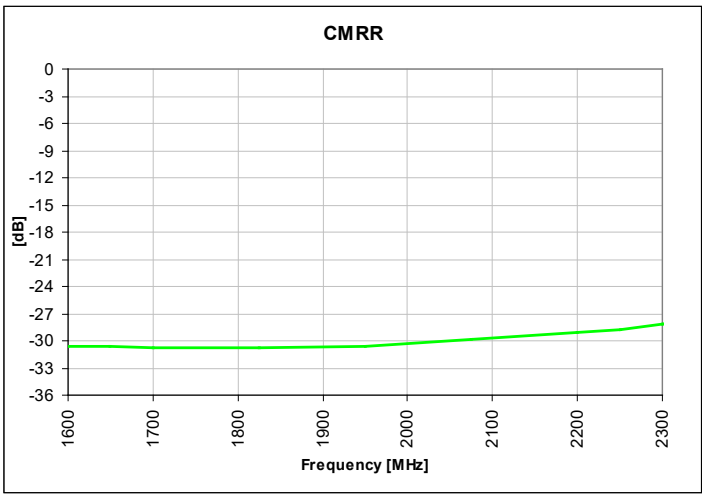
Typical Performance: 1600 MHz. to 2300 MHz.

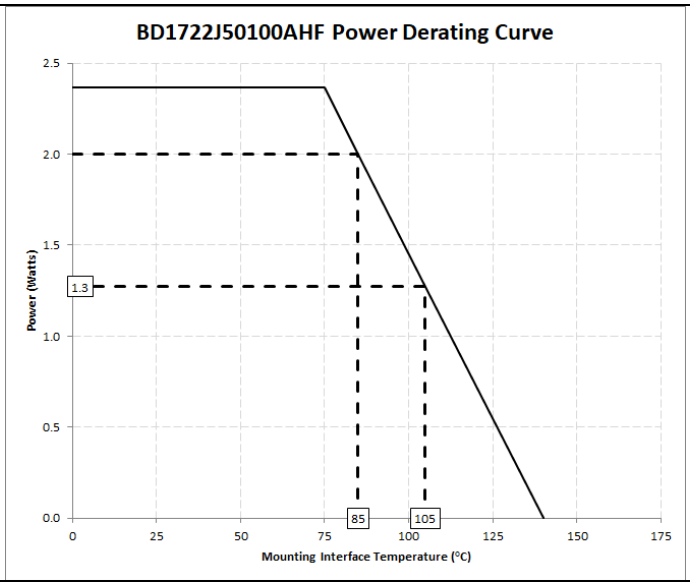












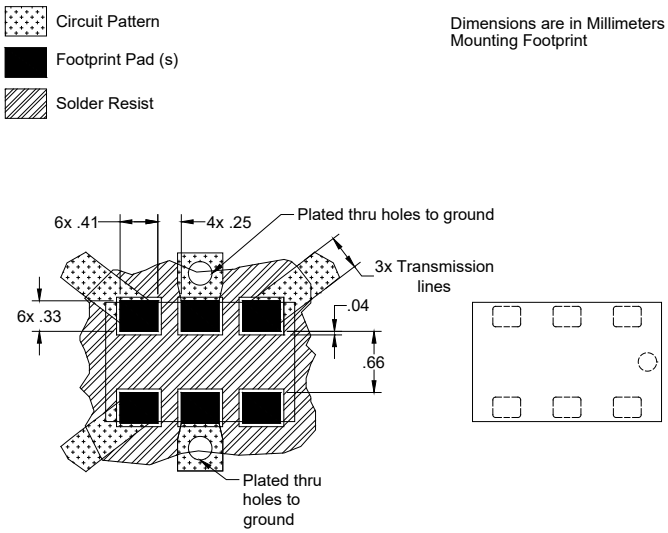
Mounting Configuration:

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.

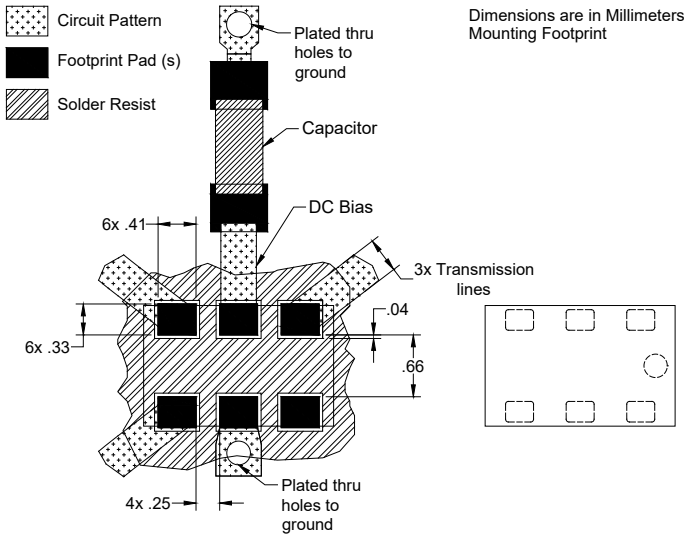
All of the Xinger components are constructed from ceramic filled PTFE composites which possess excellent electrical and mechanical stability.

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.

No Bias Footprint

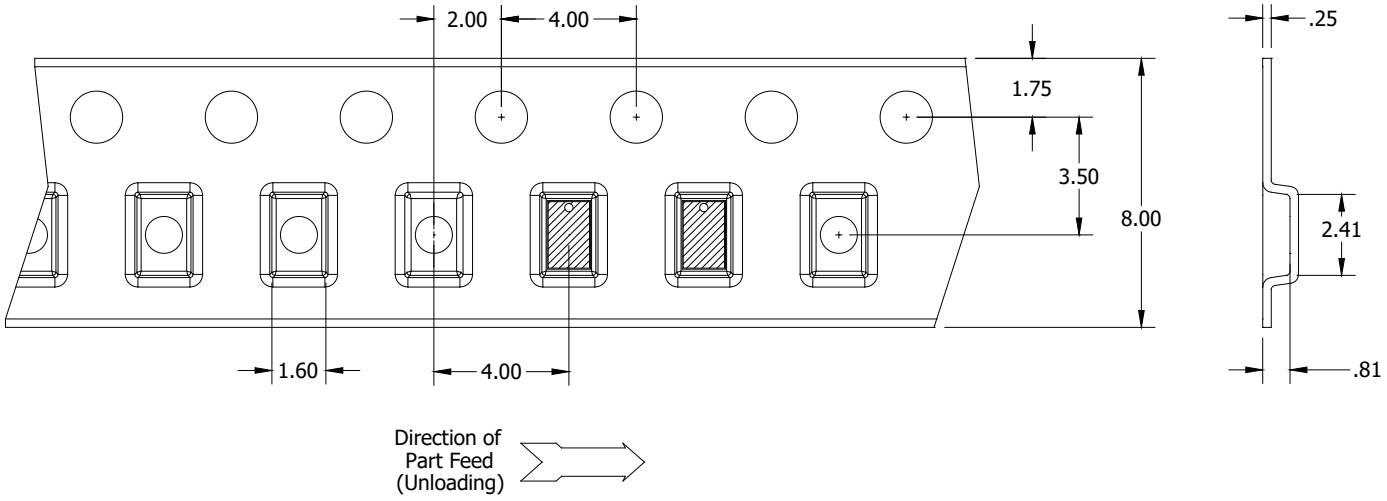


DC Bias Footprint



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.



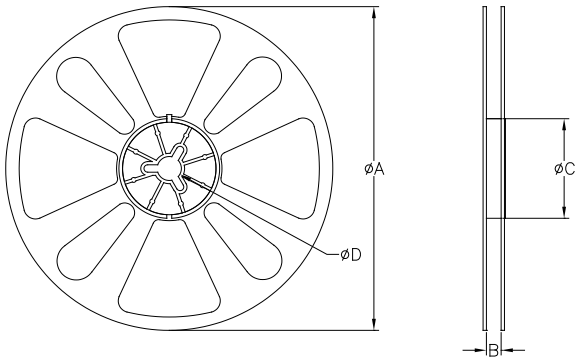


TABLE 1		
QUANTITY/REEL	REEL DIMENSIONS mm	
4000	øA	177.80
	B	8.00
	øC	50.80
	øD	13.00

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Signal Conditioning ***category:***

Click to view products by Anaren ***manufacturer:***

Other Similar products are found below :

MAPDCC0001 MAPDCC0004 PD0409J5050S2HF 880157 HHS-109-PIN DC1417J5005AHF AFS14A30-2185.00-T3 AFS14A35-1591.50-T3 DS-323-PIN B39321R801H210 1A0220-3 JP510S LFB212G45SG8C341 LFB322G45SN1A504 LFL182G45TC3B746 SF2159E 30057 FM-104-PIN CER0813B MAPDCC0005 3A325 40287 41180 ATB3225-75032NCT BD0810N50100AHF BD2425J50200AHF C5060J5003AHF JHS-115-PIN JP503AS DC0710J5005AHF DC2327J5005AHF DC3338J5005AHF 43020 LFB2H2G60BB1C106 LFL15869MTC1B787 X3C19F1-20S XC3500P-20S 10013-20 SF2194E CDBLB455KCAX39-B0 TGL2208-SM, EVAL RF1353C PD0922J5050D2HF 1E1305-3 1G1304-30 B0922J7575AHF 2020-6622-20 TP-102-PIN TP-103-PIN BD1222J50200AHF