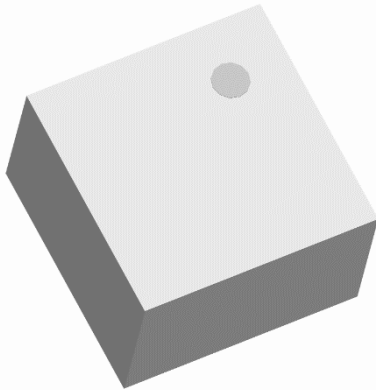




## Ultra Low Profile 0404 Balun 50Ω to 100Ω Balanced



### Description:

The BD1416N50100AHF is a low profile sub-miniature unbalanced to balanced transformer designed for differential inputs and output locations on modern chipsets specifically in the GPS, GLONASS, WiMAX 1.5 (legacy TDM) and US DVB-H space and in an easy to use surface mount package. The BD1416N50100AHF is ideal for high volume manufacturing and delivers higher performance than traditional ceramic baluns. The BD1416N50100AHF 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 modern integrated chipsets. The output ports have equal amplitude (-3dB) with 180 degree phase differential. The BD1416N50100AHF is available on tape and reel for pick and place high volume manufacturing

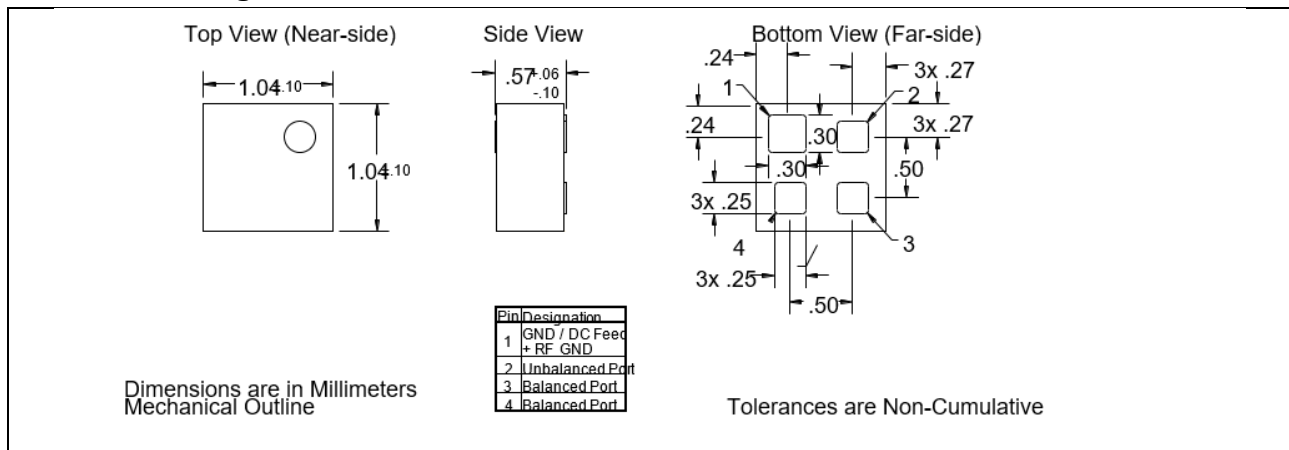
### Detailed Electrical Specifications:

Specifications subject to change without notice.

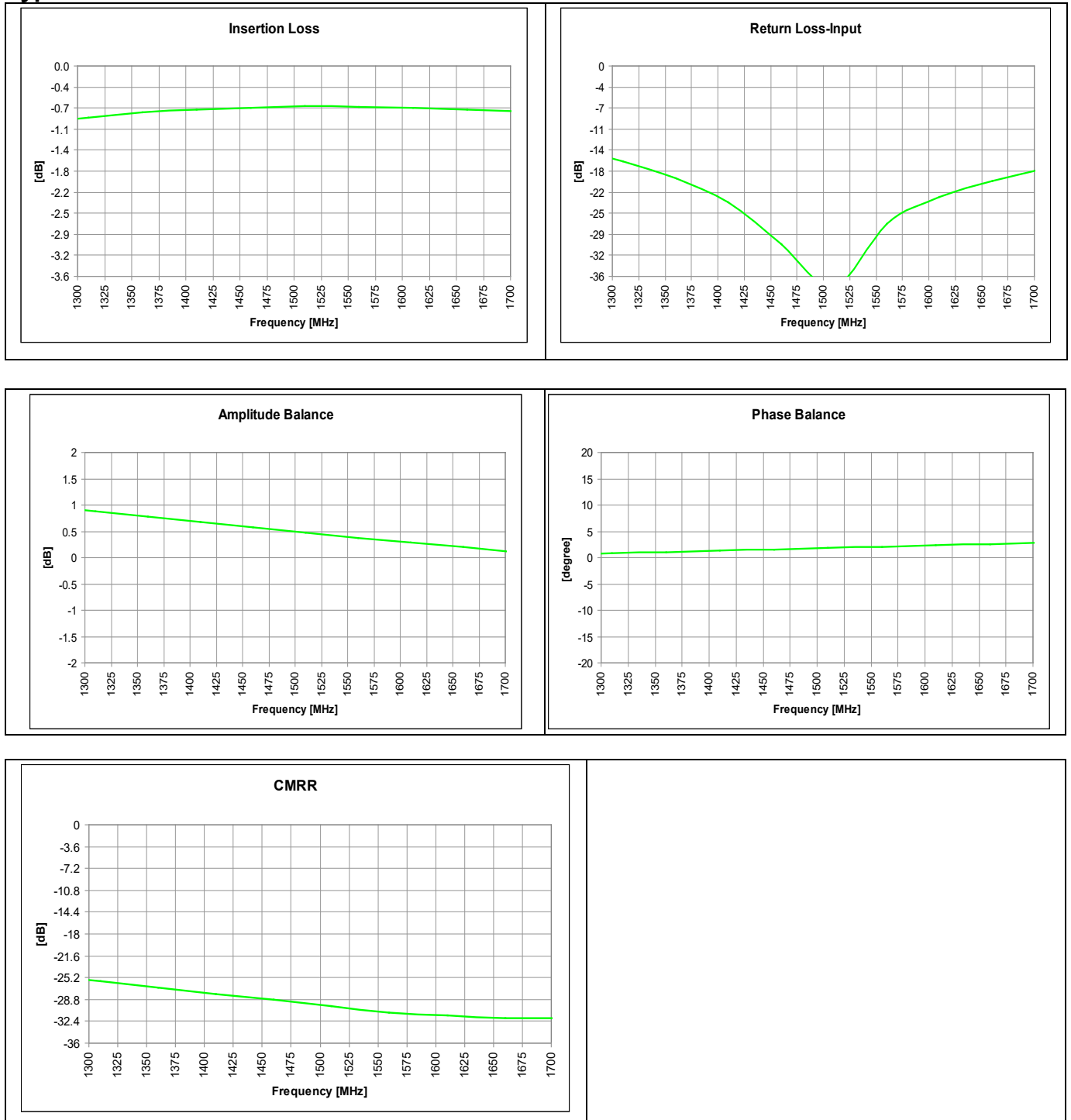
Features:	Parameter	ROOM (25°C)			Unit
		Min.	Typ.	Max	
<ul style="list-style-type: none"> <li>• 1400 – 1600 MHz</li> <li>• 0.57 mm Height Profile</li> <li>• 50 Ohm to 2 x 50 Ohm</li> <li>• Low Insertion Loss</li> <li>• Class Leading CMRR</li> <li>• Targeted At GPS, GLONASS, WiMAX 1.5 (legacy TDM) &amp; US DVB-H Markets</li> <li>• Surface Mountable</li> <li>• Tape &amp; Reel</li> <li>• Non-Conductive Top Surface</li> <li>• RoHS Compliant</li> <li>• Halogen Free</li> </ul>	Frequency	1400		1600	MHz
	Unbalanced Port Impedance		50		Ω
	Balanced Port Impedance		100		Ω
	Return Loss	14	18		dB
	Insertion Loss*		0.7	0.9	dB
	Amplitude Balance		0.8	1.2	dB
	Phase Balance		4	9	Degrees
	CMRR		26		dB
	Power Handling @85C			0.75	Watts
	Power Handling @105C			0.45	Watts
	Operating Temperature		-55		+105

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

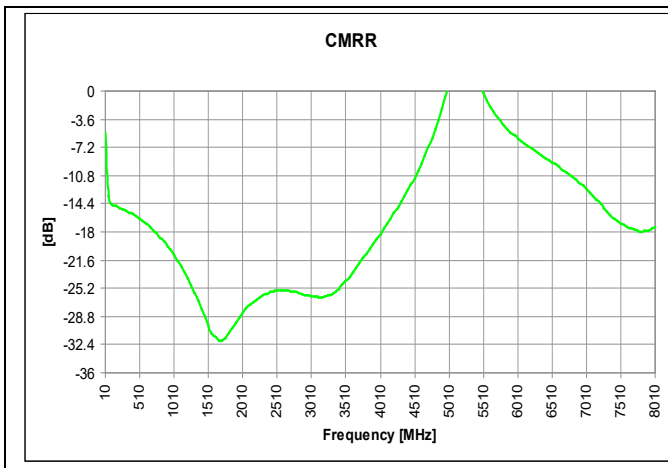
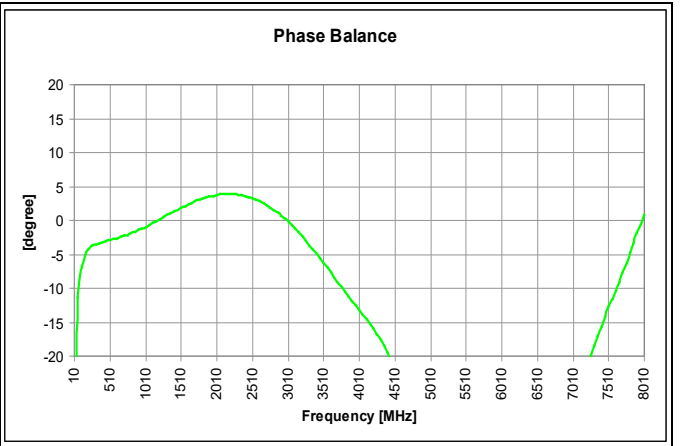
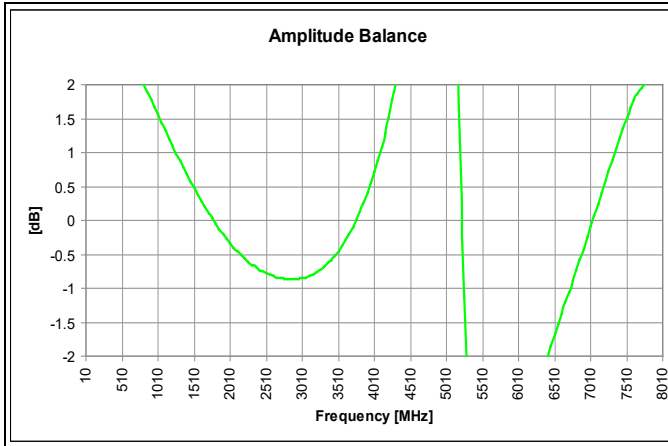
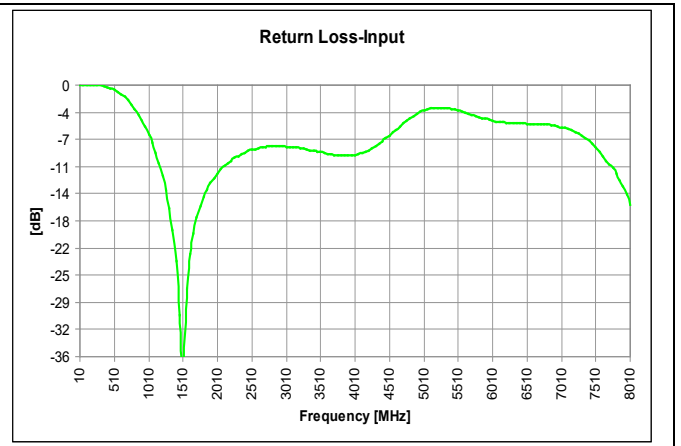
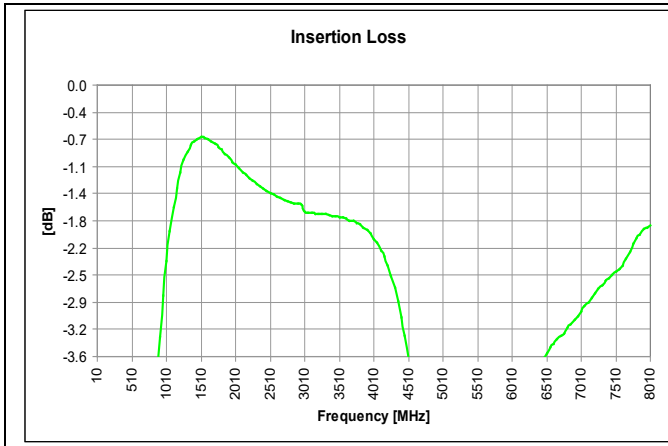
### Outline Drawing:



**Typical Performance: 1300 MHz. to 1700 MHz.**

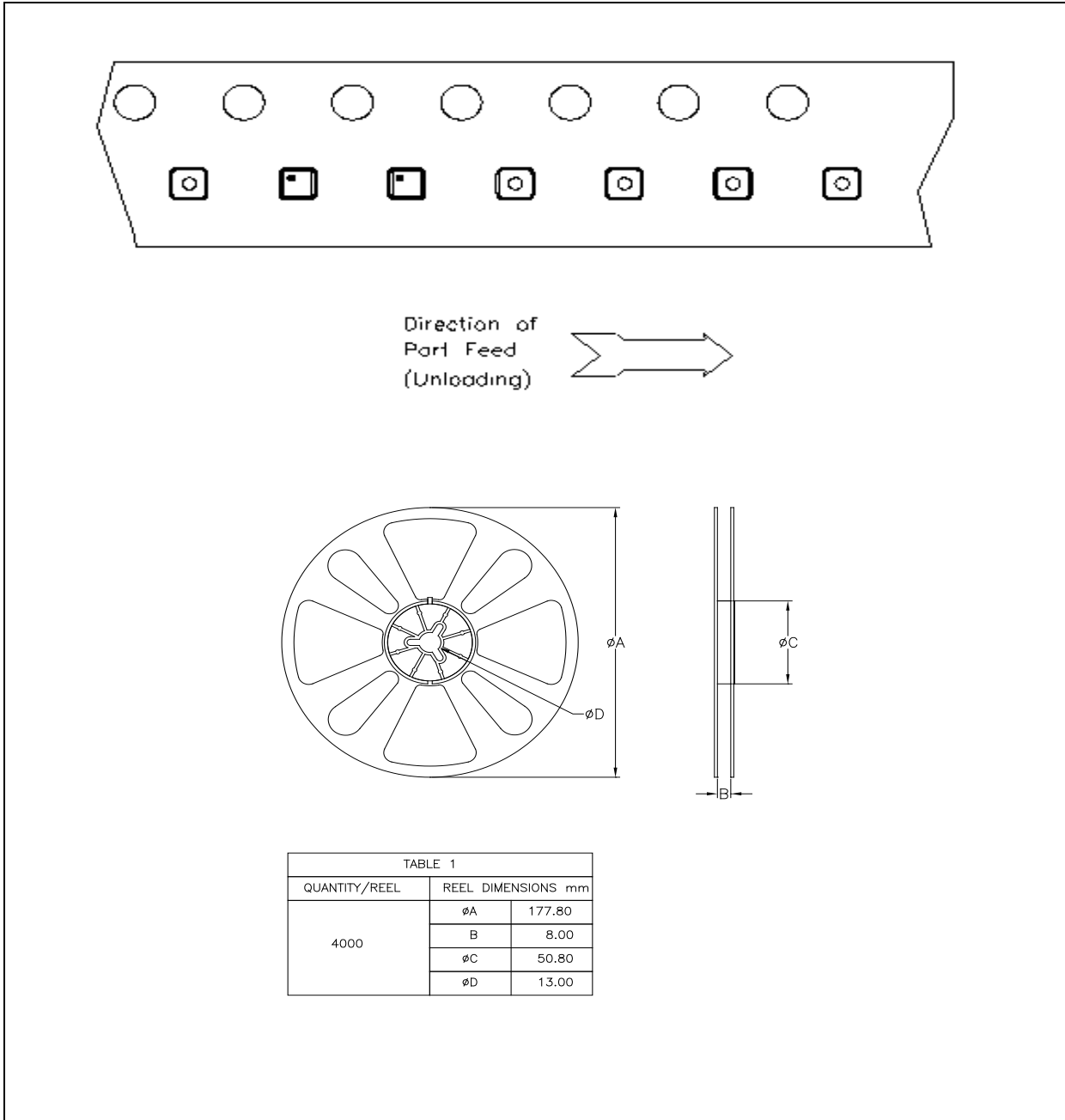


**Wide Band Performance: 10 MHz. to 8010 MHz.**



**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 re 4000 per reel.



Contact us:  
[rf&s\\_support@ttm.com](mailto:rf&s_support@ttm.com)