

# High Frequency Ceramic Solutions

Preliminary

**2.45 GHz Balun / Matching Network : Optimized for Nordic's Chipset nRF24L01/+ P/N 2450BM14A0002**

Detail Specification: 03/31/09

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## General Specifications

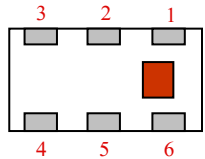
<b>Part Number</b>	2450BM14A0002
<b>Frequency (MHz)</b>	2400 - 2500
<b>Unbalanced Impedance</b>	50 $\Omega$
<b>Differential Balanced Impedance</b>	Conjugate match to Nordic nRF24L01/nRF24L01+
<b>Attenuation: Differential Mode</b>	15 min.@4800~5000MHz 15 min.@7200~7500MHz
<b>Attenuation: Common Mode</b>	20 min.@4800~5000MHz

<b>Insertion Loss</b>	2.0 dB max.
<b>Return Loss</b>	9.5 dB min.
<b>Phase Difference</b>	160° $\pm$ 15°
<b>Amplitude Difference</b>	3.5 $\pm$ 1.5 dB
<b>Reel Quantity</b>	4,000
<b>Operating Temperature</b>	-40 to +85°C
<b>Storage Temperature</b>	+5 to +35°C, Humidity: 45-75%RH, 12 mos. Max

<b>P/N Suffix</b>	<b>Packaging Style</b>	Bulk	Suffix = S	Eg. 2450BM14A0002S
		T & R	Suffix = E	Eg. 2450BM14A0002E
	<b>Termination Style</b>	100% Tin	Suffix = None	Eg. 2450BM14A0002(E or S)
		Tin / Lead	Please consult Factory	

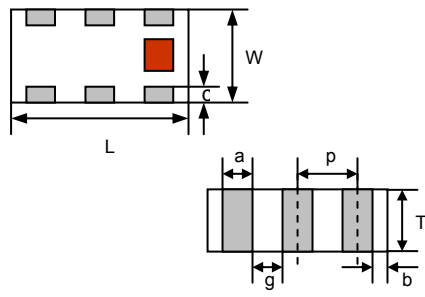
## Terminal Configuration

No.	Function
1	Unbalanced Port
2	GND
3	Balanced Port
4	Balanced Port
5	DC Feed+RF GND or GND
6	GND



## Mechanical Dimensions

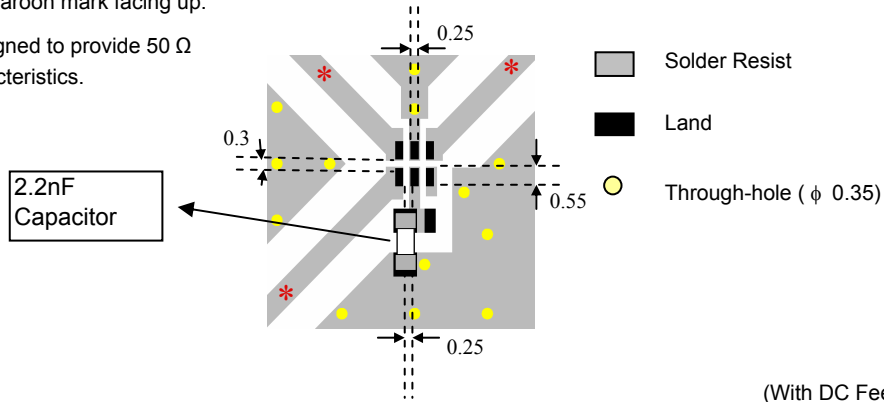
	In	mm
<b>L</b>	0.063 $\pm$ 0.004	1.60 $\pm$ 0.10
<b>W</b>	0.031 $\pm$ 0.004	0.80 $\pm$ 0.10
<b>T</b>	0.024 $\pm$ 0.004	0.60 $\pm$ 0.10
<b>a</b>	0.008 $\pm$ 0.004	0.20 $\pm$ 0.10
<b>b</b>	0.008 +.004/- .006	0.20 +0.1/-0.15
<b>c</b>	0.006 $\pm$ 0.004	0.15 $\pm$ 0.10
<b>g</b>	0.012 $\pm$ 0.004	0.30 $\pm$ 0.10
<b>p</b>	0.020 $\pm$ 0.002	0.50 $\pm$ 0.05



## Mounting Considerations

Mount these devices with maroon mark facing up.

\* Line width should be designed to provide 50  $\Omega$  impedance matching characteristics.



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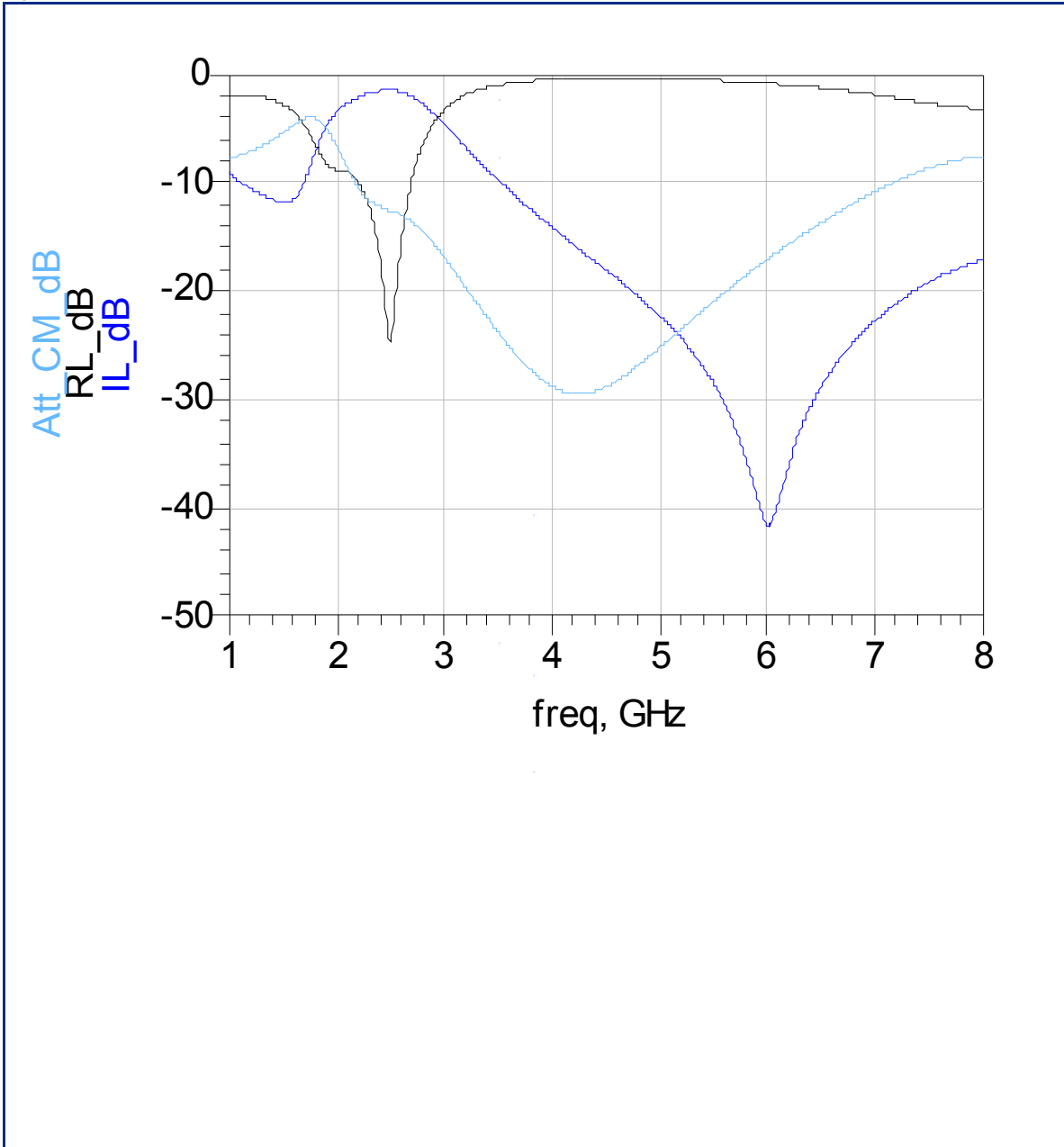
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## Typical Electrical Performance (T=25°C)



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