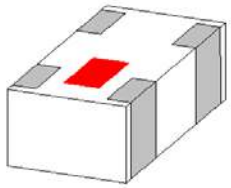
"High Frequency Ceramic Solutions"

Miniature 2.45GHz 1:1 RF Balun **P/N 2450BL07A0050**

Detail Specification: 08/02/12

General Specifications	
Part Number	2450BL07A0050
Frequency (MHz)	2400~2500
Unbalanced Impedence	50 Ω
Differential Balanced Impedance	50 Ω
Insertion Loss	1.0 dB max.
Return Loss	9.5 min.
Phase Difference (degree)	180 ± 10
Amplitude Difference	2.0 dB max.
Operating Temperature	-40 to +85°C
Power Capacity	2 Watt max.



Recommended Storage Conditions	+5 to +35˚C, Humidity 45~75%RH
Reel Quanity	10,000
Storage Period	18 months max.

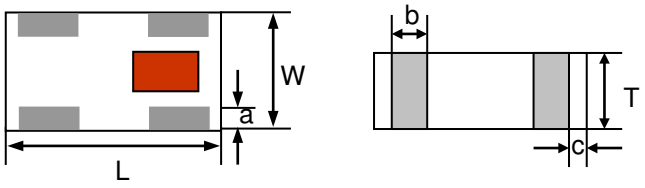
Part Number Explanation

P/N Suffix	**Packing Style**	Bulk	Suffix = S	eg. 2450BL07A0050S
		T & R (10000 pcs)	Suffix = T	eg. 2450BL07A0050T
	Termination style	100% Tin	Suffix = None	eg. 2450BL07A0050 (T or S)
	Evaluation Board	2450BL07A0050-EBSMA (x3 SMA Connectors)		

Mechanical Dimensions

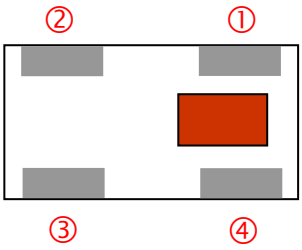
	In	mm
L	0.039 ± 0.004	1.00 ± 0.10
W	0.020 ± 0.004	0.50 ± 0.10
T	0.015 ± 0.020	0.37 ± 0.50
a	0.004 + 0.004 / -0.002	0.10 + 0.10 / -0.05
b	0.010 + 0.004 / -0.002	0.25 + 0.10 / -0.05
c	0.004 + 0.004 / -0.002	0.10 + 0.10 / -0.05

Unit : mm



Terminal Configuration

No.	Function
1	Unbalanced Port (IN)
2	Balanced Port (OUT1)
3	Balanced Port (OUT2)
4	GND



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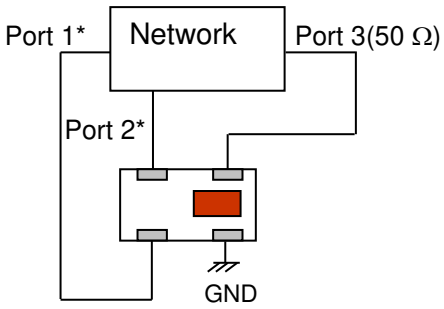
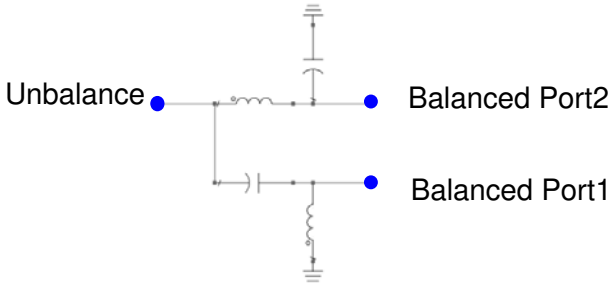
Detail Specification: 08/02/12

Measuring Diagram



Port 3:Unbalanced Port
Ports 1 and 2: Balanced Port
IL=Sds21
RL=Sss11
Amp_balance = dB(S(2,3)/S(1,3))
Phase_balance = Phase(S(2,3)/S(1,3))
*Impedance for ports 1 and 2 = Balanced Impedance/2
**E5071B from Agilent

Equivalent Circuit



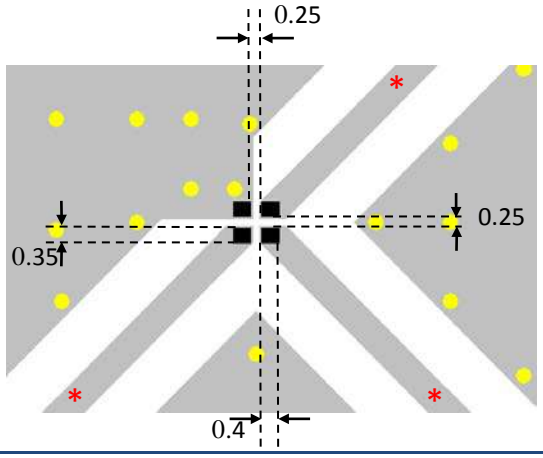
Mounting Considerations

* Line width should be designed to match 50Ω characteristic impedance, depending on PCB material and thickness.

LEGEND

- Solder Resist
- Land
- Through-hole (ϕ0.3)

Unit : mm



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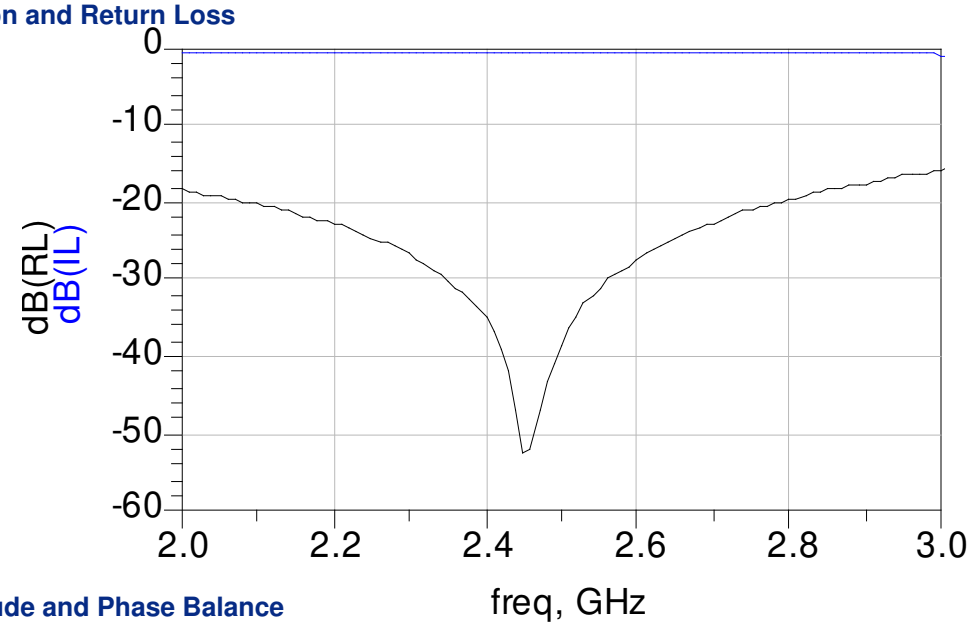
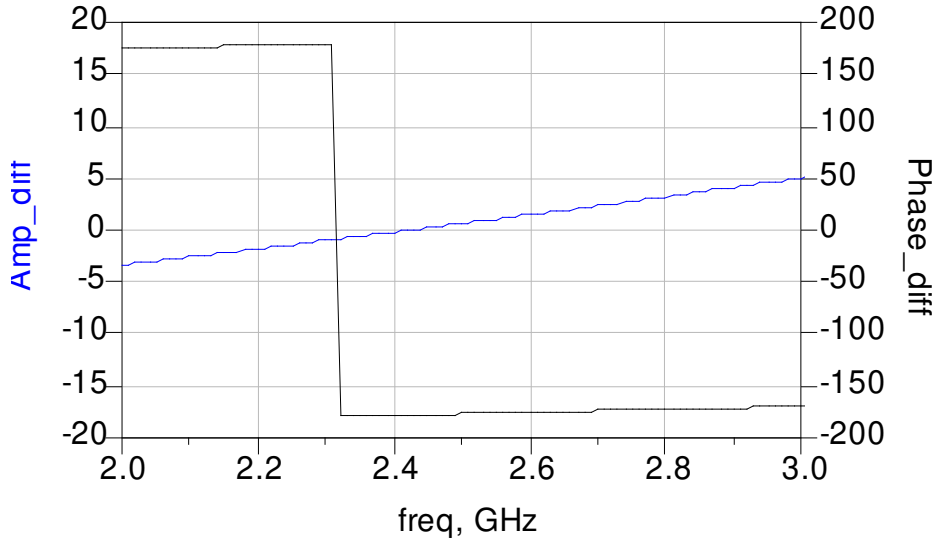
Typical Electrical Performance (T=25°C)

Insertion and Return Loss



Amplitude and Phase Balance



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