High Frequency Ceramic Solutions

2.4GHz EIA 0202 Micro Balun 1:2 impedance for BLE/WiFi/LTE/Cellular **P/N 2450BL05A0100**

Detail Specification: 5/2/2017

General Specifications	
Part Number	2450BL05A0100
Frequency (MHz)	2300 ~ 2690
Unbalanced Impedance	50 (ohms)
Balanced Impedance (ohm)	100 (ohms)
Insertion Loss (dB)	0.55 max.
Return Loss	9.5 dB min.
Phase Difference	180° ± 10°
Amplitude Difference (dB)	2.5 max.
Power Capacity	2 Watts max. (CW)
Operating Temperature	-40 to +85°C
Storage Temperature Range	-40 to +85°C



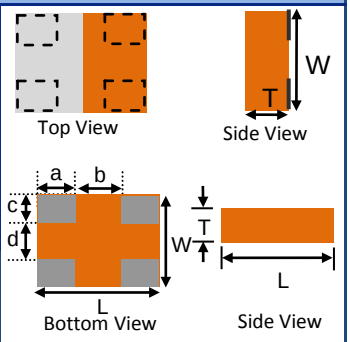
Solder Paste	SAC 305 type is recommended
Recommended Storage Cond.	+5 ~ +35°C, Humidity 45~75%RH
Storage Period	18 months max.*
Reel Quanity	10,000 pcs

*18 months in vacuum sealed bag and 1 week after opened. Please keep unused parts in vacuum sealed bags.

For more info like hadnling and sodlering profile, go to: www.johansontechnology.com/silverleads-profile.html

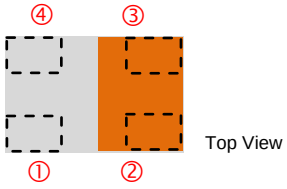
Mechanical Dimensions

	In	mm
L	0.026 ± 0.002	0.65 ± 0.05
W	0.020 ± 0.002	0.50 ± 0.05
T	0.018 max.	0.45 max.
a	0.008 +0.004/-0.002	0.20 +0.1/-0.05
b	0.010 +0.004/-0.002	0.25 +0.1/-0.05
c	0.004 +0.004/-0.002	0.10 +0.1/-0.05



Terminal Configuration

No	Function	No	Function
1	GND	3	Balanced Port
2	Unbalanced Port	4	Balanced Port



P/N Suffix				
	Packing Style	Bulk	Suffix = S	eg. 2450BL05A0100S
		T & R	Suffix = T	eg. 2450BL05A0100T
	Evaluation Board	2450BL05A0100-EB1SMA (3 Female SMA connector on a 50Ω PCB)		

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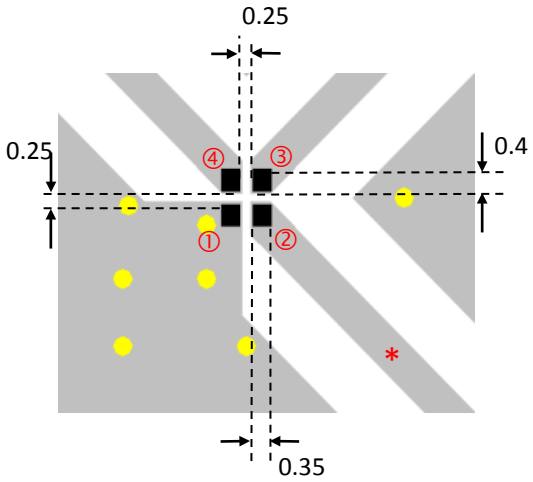
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Recommended PC Board Pattern

This micro balun fits well with differential feedlines that have a very small pitch.

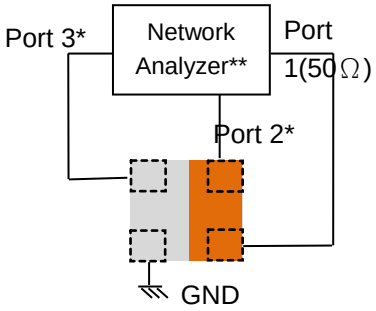


Want the layout file? Send us a message at:

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

Measuring Diagram



Port 1:Unbalanced Port
Ports 2 and 3: Balanced Port
IL=Sds21
RL=Sss11
Amp_balance = dB(S(2,1)/S(3,1))
Phase_balance = Phase(S(2,1)/S(3,1))

*Impedance for ports 2 and 3 = Balanced Impedance/2
**E5071B from Agilent

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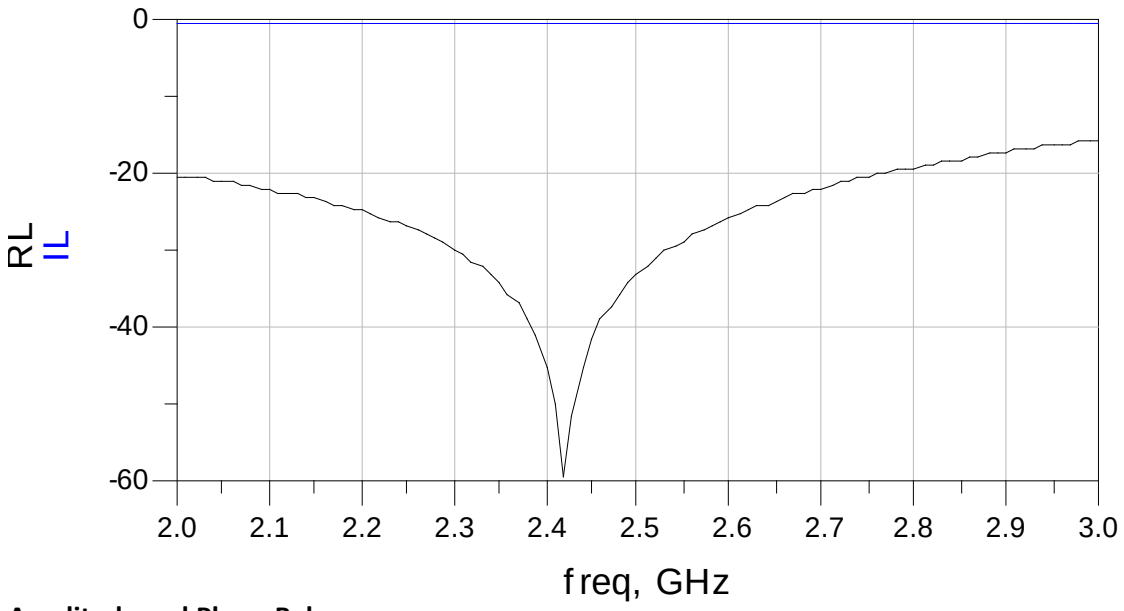
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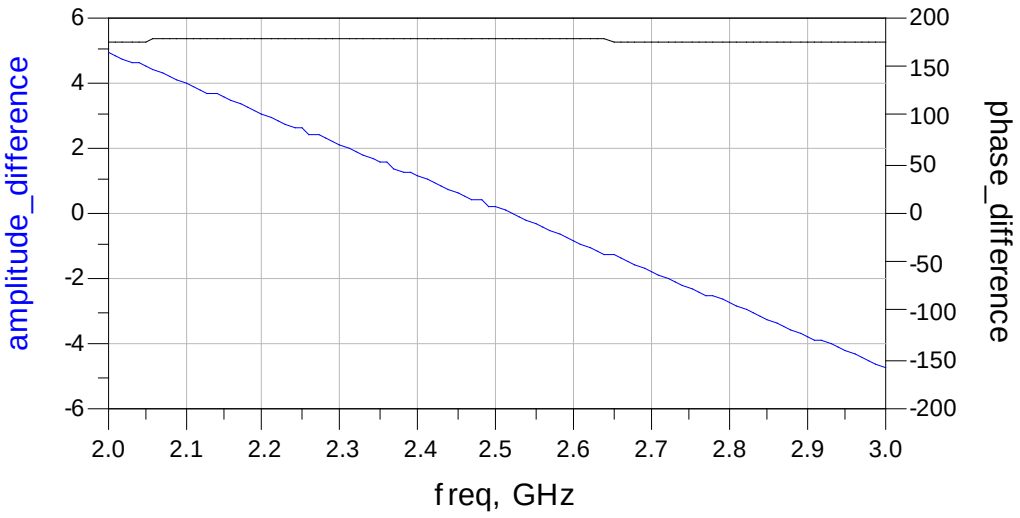
Detail Specification: 5/2/2017

Typical Electrical Characteristics (T=25°C)

Insertion and Return Loss



Amplitude and Phase Balance



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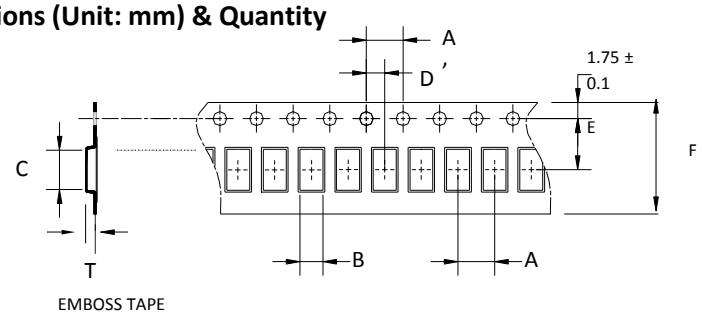
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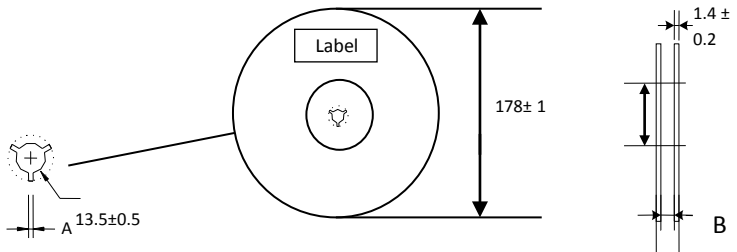
Taping Specifications

❖Tape Dimensions (Unit: mm) & Quantity



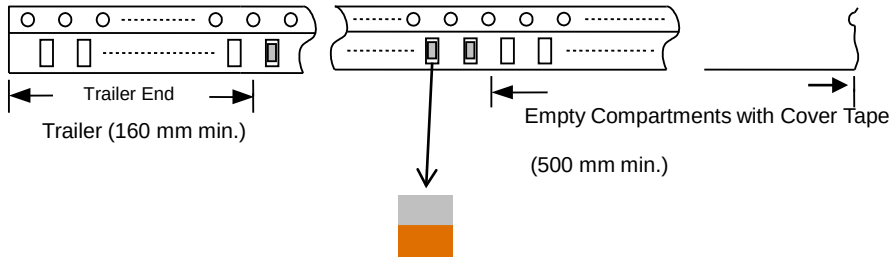
Type	A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
0202	2± 0.05	4.0± 0.1	0.58± 0.03	0.78± 0.03	2.0± 0.05	3.5± 0.05	8.0± 0.2	0.48± 0.03	10,000pcs	Paper

❖Reel Dimensions (Unit: mm)



Type	A	B
0202	2.3±0.5	9.0±0.3

❖Leader and Trailer Tape



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