High Frequency Ceramic Solutions

1.4GHz High Rejection Band Pass Filter. Recommended Application: D-Band MoCA **P/N 1400BP41A0550**

Detail Specification: 2/25/2014

General Specifications	
Part Number	1400BP41A0550
Frequency (MHz)	1125 ~ 1675
Impedance (Ohm)	75
Insertion Loss (dB)	1.8 max. @ 25°C 2.0 max. @ -40~85°C
Return Loss	9.0 dB min.
Attenuation (min.)	30 min. @ 5 ~ 864MHz
Attenuation (min.)	34 min. @ 865 ~ 1002MHz
Attenuation (min.)	32 min. @ 2300 ~ 3000MHz
Reel Quantity	2,000
Operating Temperature	-40 to +85°C



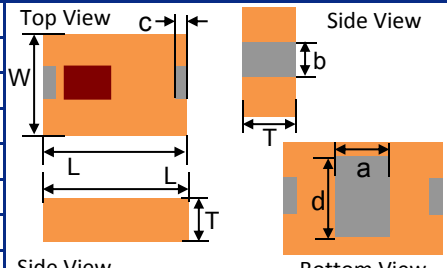
Solder Paste	SAC 305 type is recommended.
Power Capacity	1W max.(CW)
Storage Temperature Range*	+5 ~ +35°C, Humidity: 45~75%RH

18 months max in vacuum sealed bag, after bag opened, 1 week cumulative, Please keep unused parts in vacuum sealed bags at all times. For more info go to www.johansontechnology.com/silverleads.

P/N Suffix	**Packing Style**	Bulk	Suffix = S	eg. 1400BP41A0550S
		T & R	Suffix = E	eg. 1400BP41A0550E
	Evaluation Board	1400BP41A0550-EB1SMA (2 Female SMA connectors 75Ω)		

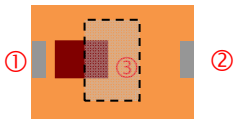
Mechanical Specifications

	In	mm
L	0.126 ± 0.008	3.20 ± 0.20
W	0.098 ± 0.008	2.50 ± 0.20
T	0.079 max.	2.0 max
a	0.047 ± 0.006	1.20 ± 0.15
b	0.024 ± 0.008	0.60 ± 0.20
c	0.012 ± 0.006	0.30 ± 0.15
d	0.008 ± 0.006	0.20 ± 0.15

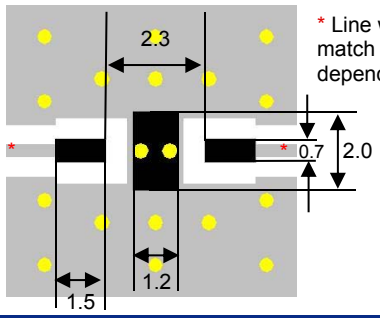


Terminal Configuration

No.	Function
1	IN/OUT
2	IN/OUT
3	GND



Mounting Considerations

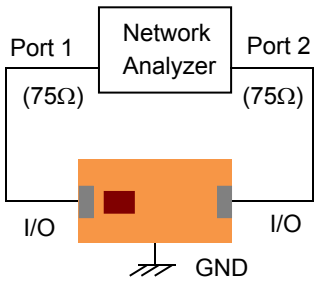


* Line width should be designed to match 75 ohm impedance, depending on PCB material and

Units: mm

Solder
Land
Through-hole (ϕ 0.38)

Measuring Diagram



Want the layout file of the above? Send us a message at: www.johansontechnology.com/component/techquestion

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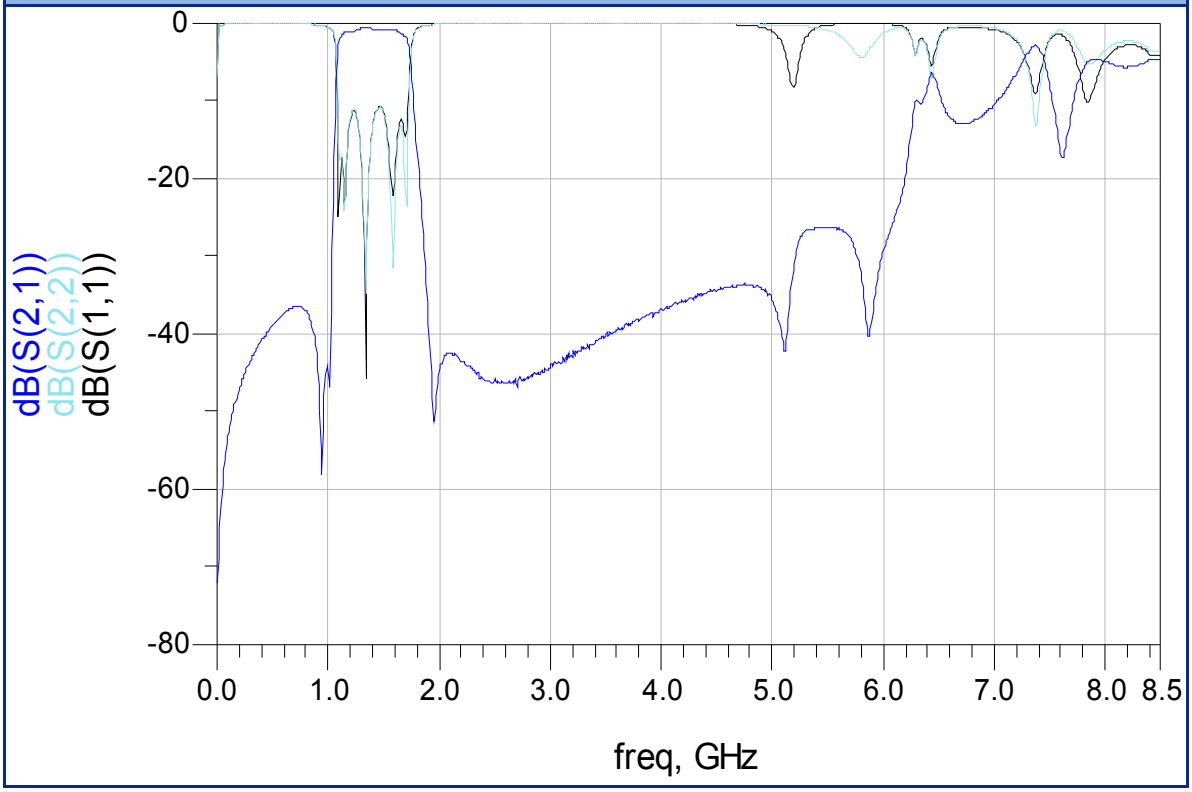
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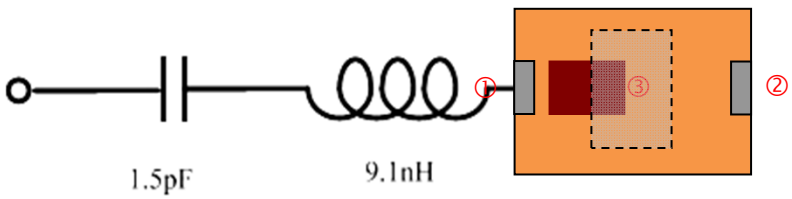
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Electrical Characteristics (T=25°C)



Application note for MoCA D-Band

Matching might be needed for MoCA D-Band, see diagram below using a wire-wound inductor and HighQ capacitor



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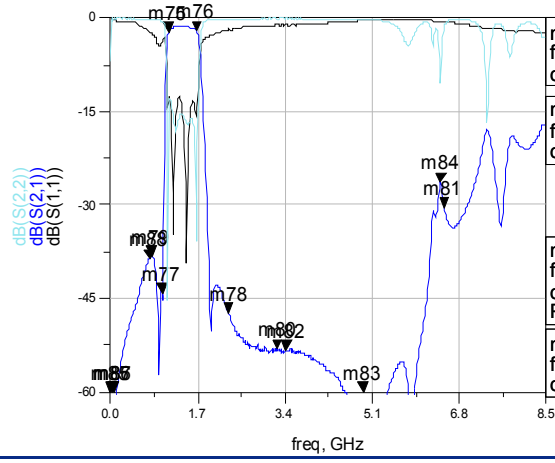
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Electrical Characteristics (T=25°C) with L/C Series network on Page 2



m75 freq=1.125GHz dB(S(2,1))=-2.321	m85 freq=5.000MHz dB(S(2,1))=-88.397	m78 freq=2.300GHz dB(S(2,1))=-47.390
m76 freq=1.675GHz dB(S(2,1))=-2.057	m86 freq=42.00MHz dB(S(2,1))=-68.838	m80 freq=3.250GHz dB(S(2,1))=-53.149
	m87 freq=54.00MHz dB(S(2,1))=-66.583	m82 freq=3.425GHz dB(S(2,1))=-53.321
m79 freq=795.0MHz dB(S(2,1))=-38.177 Peak	m88 freq=750.0MHz dB(S(2,1))=-38.709	m83 freq=4.925GHz dB(S(2,1))=-67.974
m84 freq=6.435GHz dB(S(2,1))=-26.322	m77 freq=1.002GHz dB(S(2,1))=-44.145	m81 freq=6.500GHz dB(S(2,1))=-30.416

Packaging information

www.johansontechnology.com/ipcpackaging.html

Soldering Information

www.johansontechnology.com/ipcsoldering-profile

RoHS Compliance

www.johansontechnology.com/technical-notes/rohs-compliance.html

MSL Info

www.johansontechnology.com/technical-notes/msl-rating.html

To Download Measured S-parameters for Evaluation and Simulation:

www.johansontechnology.com/bpf

For layout review contact our Applications Team at:

www.johansontechnology.com/component/techquestion?Itemid=407

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