

High Frequency Ceramic Solutions

Triplexer 1.5/2.4/5.5GHz for GPS/GLNSS/BLE/802.11/WLAN/WiFi P/N 1590TP15A5500

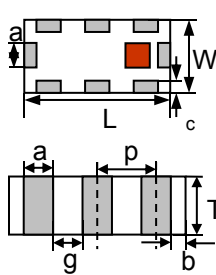
Detail Specification: 01/03/2014

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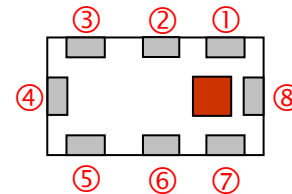
General Specifications				
Input (or output)	50Ω Single Ended			
Output (or Input) Frequencies	1560-1606 MHz	2400- 2500 MHz	4900-5950 MHz	
Insertion Loss	0.9 dB max.	1.1 dB max.	1.0 dB max.	
Return Loss	10 dB min.	10 dB min.	10 dB min.	
Attenuation (dB)	15 min. @ 2400 ~ 2500 MHz	25 min. @ 1560 ~ 1606 MHz	20 min. @ 1560 ~ 1606 MHz	
	20 min. @ 4900 ~ 5950 MHz	20 min. @ 4900 ~ 5950 MHz	25 min. @ 2400 ~ 2500 MHz	
				15 min. @ 9800 ~ 11900 MHz
Q'ty/Reel (pcs)	4,000			Operating Temperature
Storage Period	18 months max.			Recommended Storage Conditions (unused product)
Power Capacity	2W max.(CW)			+5 ~ +35° C, Humidity 45 ~ 75% RH
Bi-Directionality	This is a fully bi-directional passive device, all ports behave as I/Os.			
If the designer wants to use one or two port(s) instead of all three, make sure to 50Ω-terminate the unused port(s)				



Mechanical Dimensions		
	In	mm
L	0.079 ± 0.004	2.00 ± 0.10
W	0.049 ± 0.004	1.25 ± 0.10
T	0.037 ± 0.004	0.95 ± 0.10
a	0.012 ± 0.004	0.30 ± 0.10
b	0.008 ± 0.004	0.20 ± 0.10
c	0.012 ± 0.004/-0.008	0.30 ± 0.1/-0.2
g	0.014 ± 0.004	0.35 ± 0.10
p	0.026 ± 0.002	0.65 ± 0.05



Terminal Configuration			
No	Function	No	Function
1	GND	5	GND
2	Common Port	6	2.4GHz Band Port
3	GND	7	GND
4	5.5GHz Band Port	8	1.5GHz Band Port



Ordering Information				
P/N Suffix	Packing Style	Bulk	Suffix = S	eg. 1590TP15A5500S
		T & R	Suffix = E	eg. 1590TP15A5500E
	Evaluation Board (3xSMA female connectors, 50Ω)			1590TP15A5500-EB1SMA

Johanson Technology, Inc. reserves the right to make design changes without notice.
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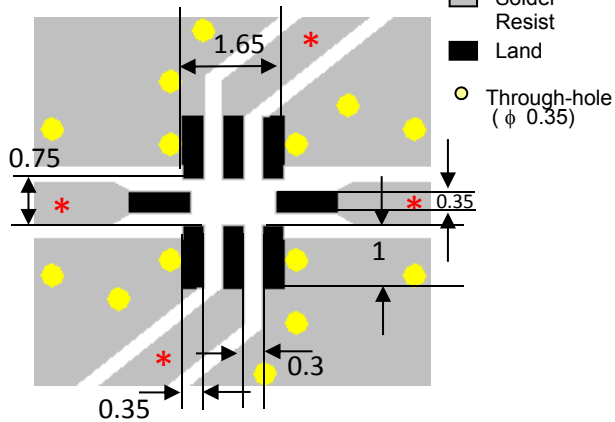
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Mounting Considerations

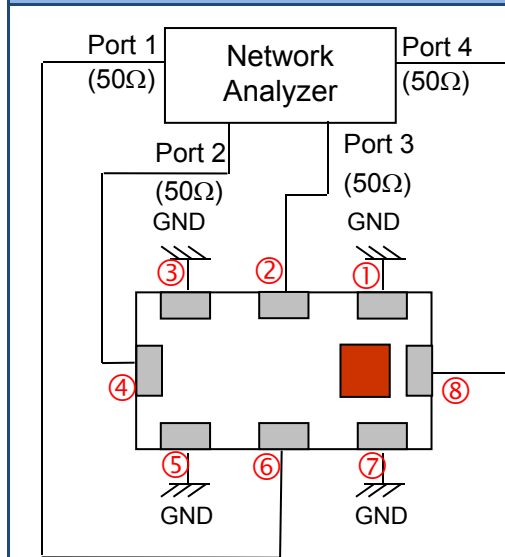
All Units in mm



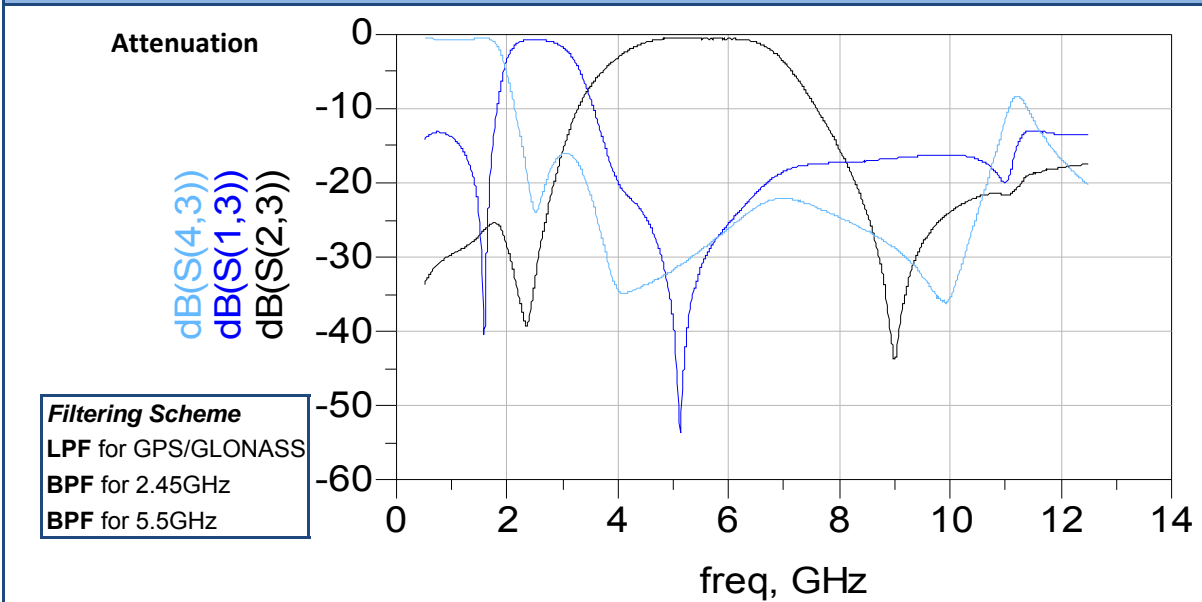
*Line width should be designed to match 50 Ω characteristic impedance, which will depend on PCB material, GND thickness.

The above PCB is orderable! p/n: 1590TP15A5500-EB1SMA

Measuring Diagram for mass production measurements and S-Parameter Characterization



Typical Electrical Characteristics (T=25° C)



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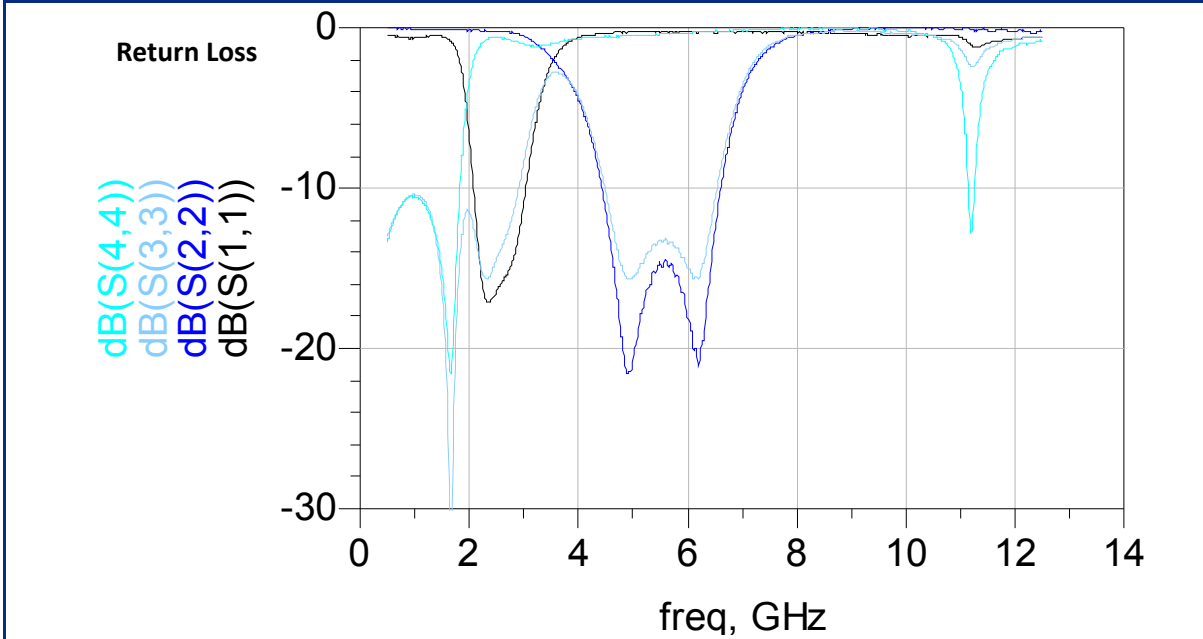
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Typical Electrical Performance (T=25°C)



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/triplexers

For layout review or any other technical questions, please contact our Applications Team at:

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

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