

High Frequency Ceramic Solutions

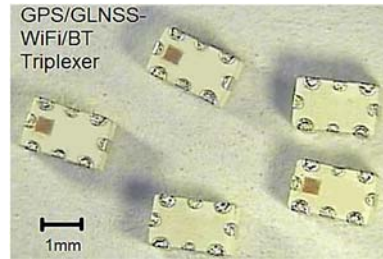
Triplexer 1.5/2.4/5.5GHz for GPS/GLNSS/BLE/802.11/WLAN/WiFi P/N 1590TP15B5500

Detail Specification: 01/03/2014

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General Specifications

Impedance	50Ω INPUT/OUTPUT (Bi-directional)		
Frequencies	1560-1610 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			
1.5GHz Band	14 dB min.	2400 - 2500 MHz	
	15 dB min.	4800 - 6000 MHz	
2.4GHz Band	10 dB min.	3600 - 3750 MHz	
	20 dB min.	4800 - 5000 MHz	
	10 dB min.	7200 - 7500 MHz	
	10 dB min.	9600 - 10000 MHz	
5GHz Band	24 dB min.	860 - 960 MHz	
	24 dB min.	1545 - 1605 MHz	
	25 dB min.	1710 - 1990 MHz	
	30 dB min.	2170 MHz	
	10 dB min.	8100 - 8800 MHz	
	15 dB min.	8820 - 9800 MHz	
25 dB min.	9800 - 11800 MHz		
Isolation			
1.5GHz Band	20 dB min.	2400 - 2500 MHz	
2.4GHz Band	20 dB min.	4800 - 5000 MHz	
5GHz Band	25 dB min.	1560 - 1610 MHz	



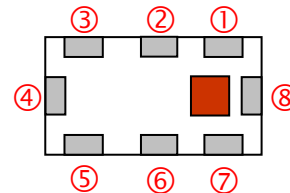
Quantity/Reel	4000
Power Capacity	2W
Operating Temperature	-40 to +85°C
Recommended Storage Conditions (unused product)	+5 ~ +35° C Humidity 45 ~ 75% RH 18 months max.

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	5GHz Band Port
3	GND	7	GND
4	1.5GHz Port	8	2.4GHz Band Port



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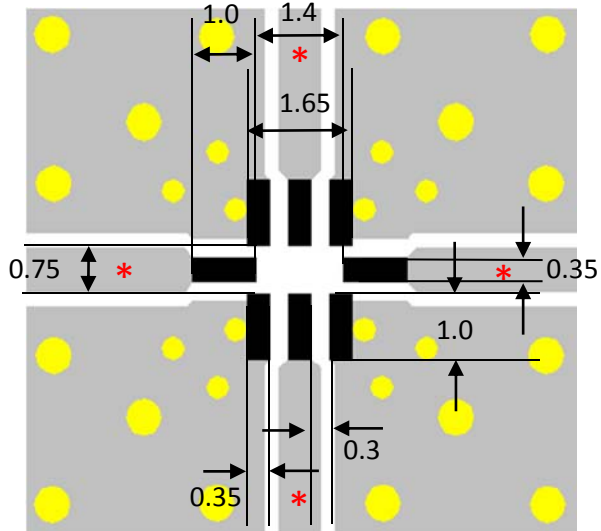
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Mounting Considerations (Evaluation Board)

Units in mm

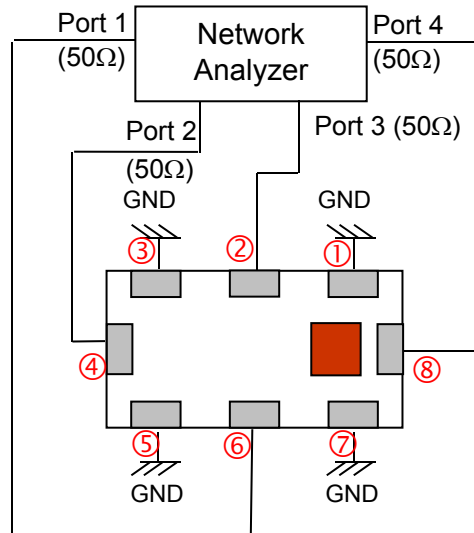


-  Solder Resist
-  Land
-  Through-hole (ϕ 0.35/0.55)

*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



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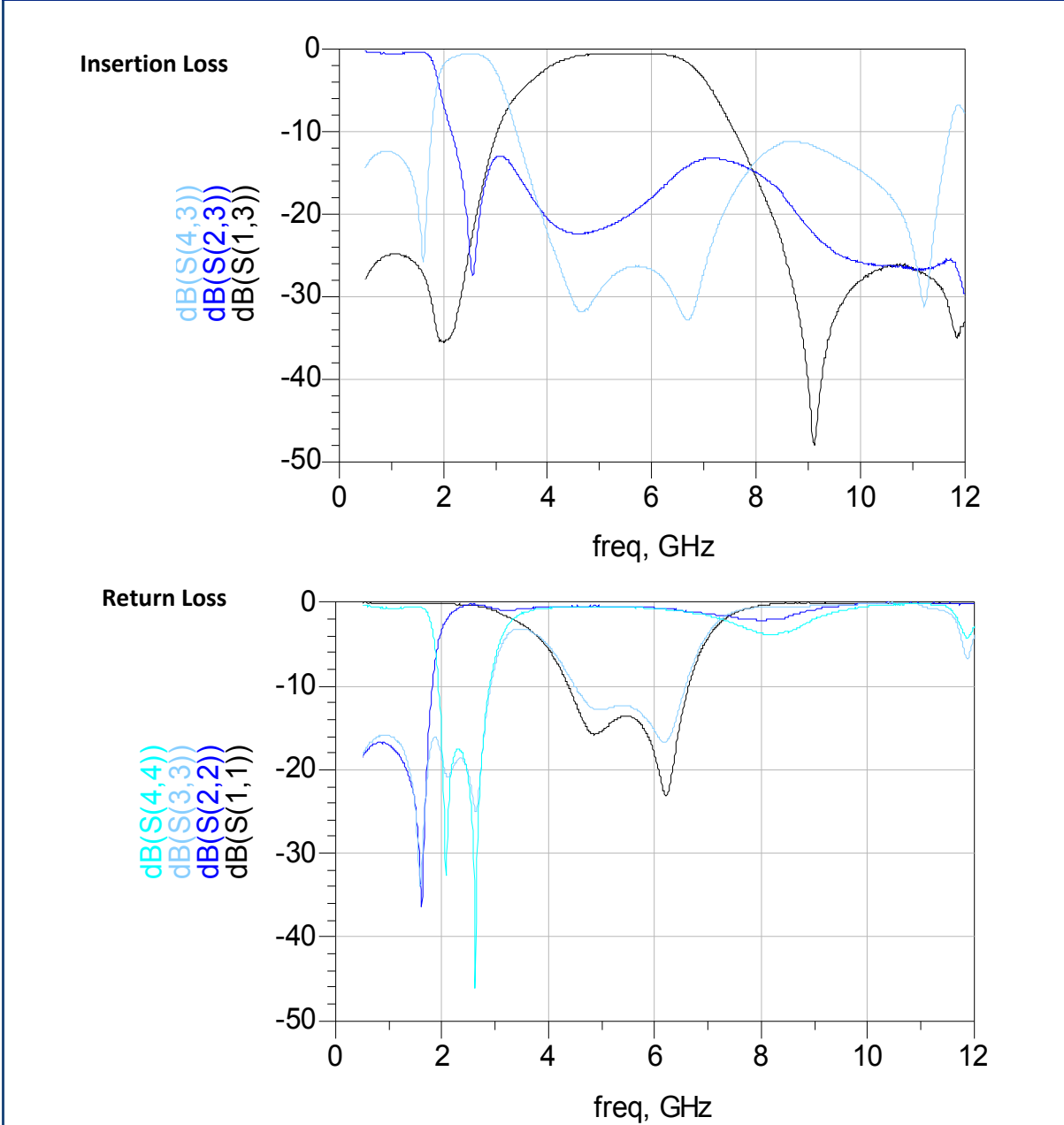
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Typical Electrical Performance (T=25°C)



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Packaging information

<https://www.johansontechnology.com/tape-reel-packaging>

Soldering Information

<https://www.johansontechnology.com/ipcsoldering-profile>

RoHS Compliance

<https://www.johansontechnology.com/technical-notes/rohs-compliance>

MSL Info

<https://www.johansontechnology.com/technical-notes/msl-rating>

To Download Measured S-parameters for Evaluation and Simulation:

<https://www.johansontechnology.com/triplexers>

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

<https://www.johansontechnology.com/ask-a-question>

Ordering Information

P/N Suffix	Packing Style	Bulk	Suffix = S	eg. 1590TP15B5500S
		T & R	Suffix = E	eg. 1590TP15B5500E
Evaluation Board (3xSMA female connectors, 50		1590TP15B5500-EB1SMA		

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