

**SAW Filter 1582.470MHz**  
**Part No: MP08190**

**Model: TA1954D**  
**Rev No: 2**

**A. MAXIMUM RATING:**

Electrostatic Sensitive Device (ESD)

1. Maximum Input Power Level: 15dBm
2. DC Voltage: 3V
3. Operating Temperature Range: -30°C to +85 °C
4. Storage Temperature Range: -40°C to +85°C
5. Moisture Sensitivity Level: Level 3 (MSL3)
6. ESD: 50V (MM), 100V (HBM)

**B. ELECTRICAL CHARACTERISTICS:**

1. Terminating source impedance:  $Z_S = 50\Omega$  (Single-ended)
2. Terminating load impedance:  $Z_L = 50\Omega$  (Single-ended)

Parameters Description		Unit	Min.	Typ.	Max.
Center Frequency Fc		MHz	-	1582.47	-
Insertion Loss	1574.42 ~ 1576.42MHz	dB	-	1.2	1.7
	1597.55 ~ 1605.89MHz	dB	-	2.0	2.5
	1559.05 ~ 1563.14MHz	dB	-	1.7	2.5
Amplitude Ripple	1574.42 ~ 1576.42MHz	dBp-p	-	0.1	0.8
	1597.55 ~ 1605.89MHz	dBp-p	-	0.55	1.4
	1559.05 ~ 1563.14MHz	dBp-p	-	0.2	1.2
Group Delay Ripple	1574.42 ~ 1576.42MHz	nsec	-	1.0	6.0
	1597.55 ~ 1605.89MHz	nsec	-	6.0	12.5
	1559.05 ~ 1563.14MHz	nsec	-	5.0	16.0
VSWR	1574.42 ~ 1576.42MHz	-	-	1.5	2.1
	1597.55 ~ 1605.89MHz	-	-	1.4	2.0
	1559.05 ~ 1563.14MHz	-	-	1.5	2.0
Attenuation (Reference level from 0dB)					
699 ~ 716MHz		dB	37	42	-
777 ~ 787MHz		dB	37	42	-
814 ~ 849MHz		dB	37	42	-
880 ~ 915MHz		dB	37	42	-
1427.9 ~ 1446.9MHz		dB	43	48	-

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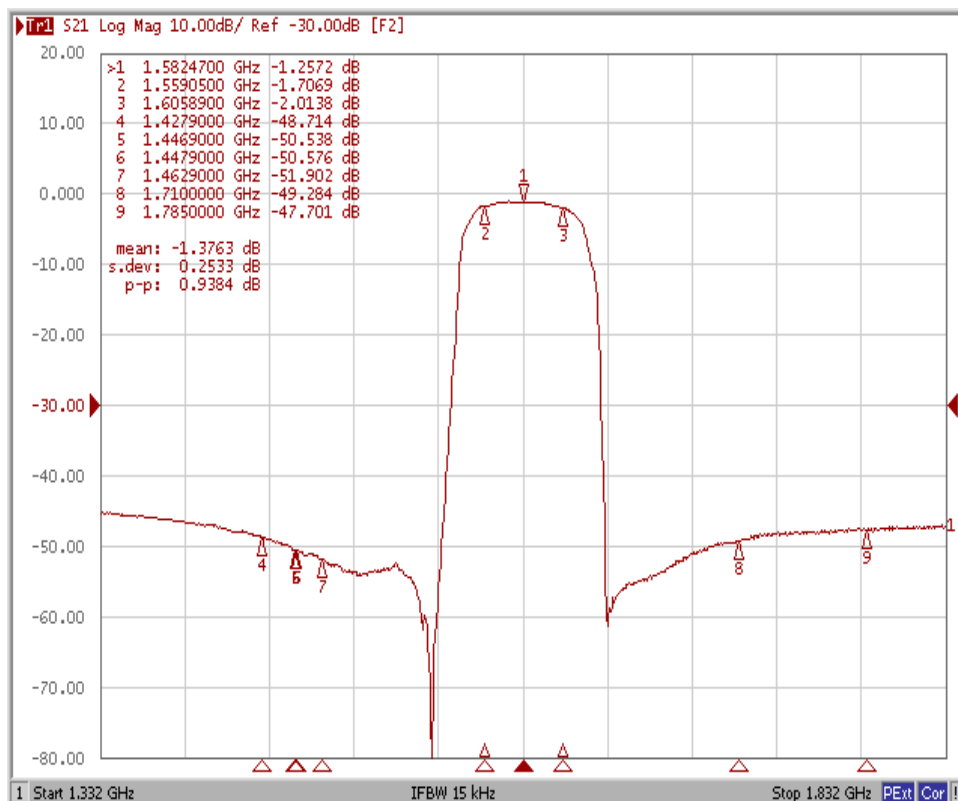
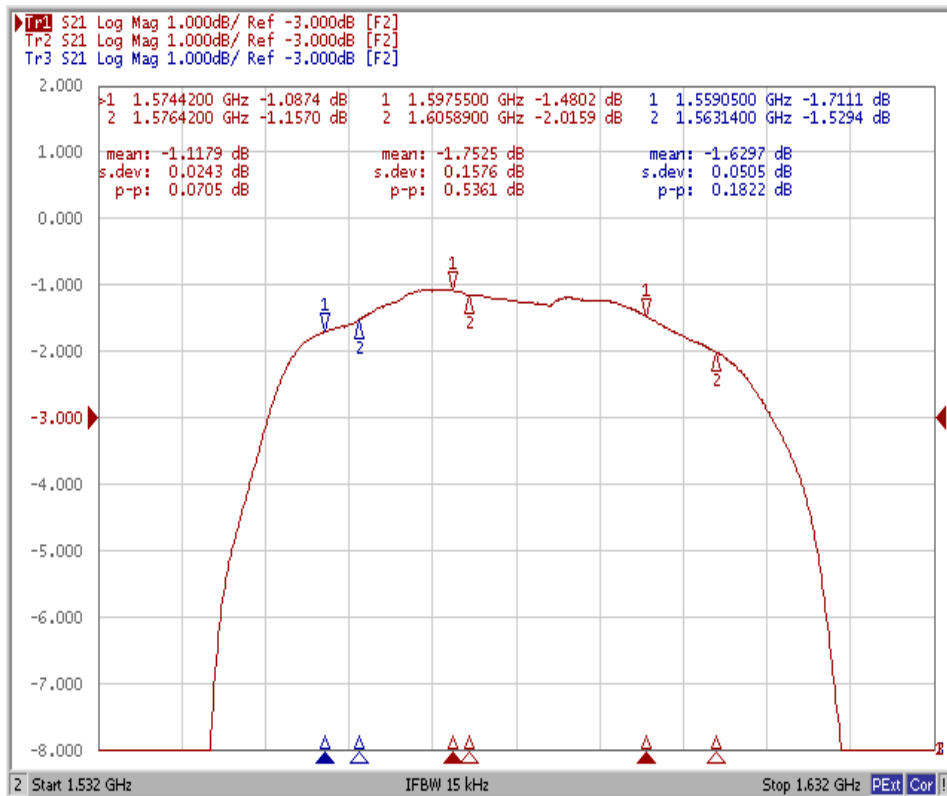
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1447.9 ~ 1462.9MHz	dB	45	50	-
1710 ~ 1785MHz	dB	40	47	-
1850 ~ 1915MHz	dB	40	46	-
1920 ~ 1980MHz	dB	40	46	-
2400 ~ 2500MHz	dB	37	42	-
2500 ~ 2570MHz	dB	37	42	-

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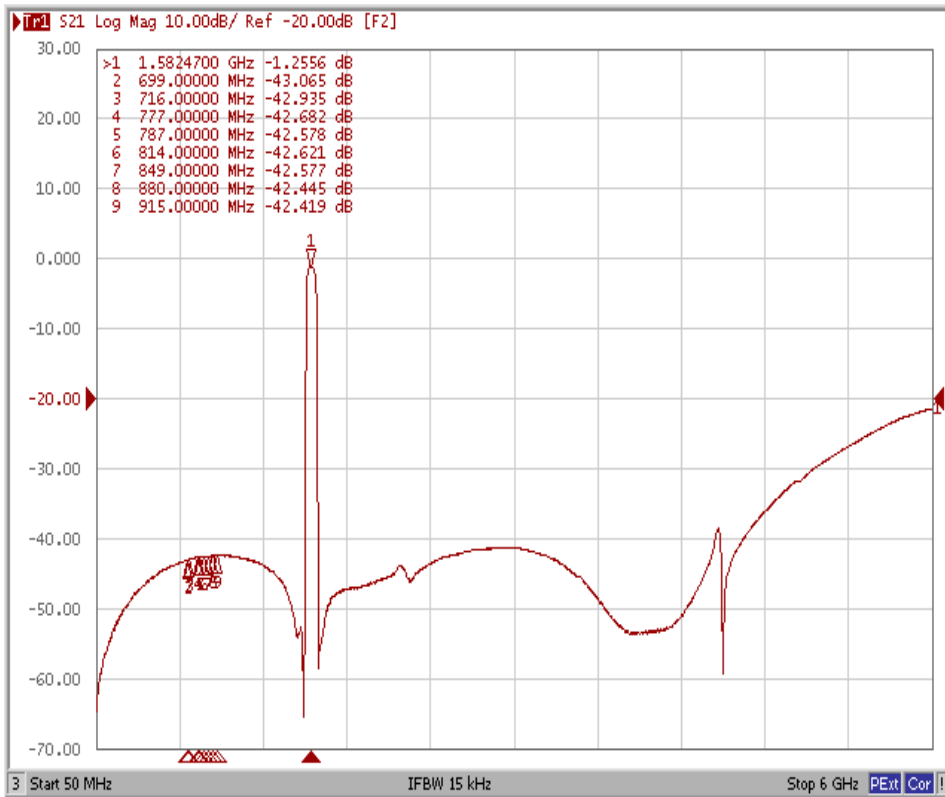
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**C. FREQUENCY CHARACTERISTICS:**

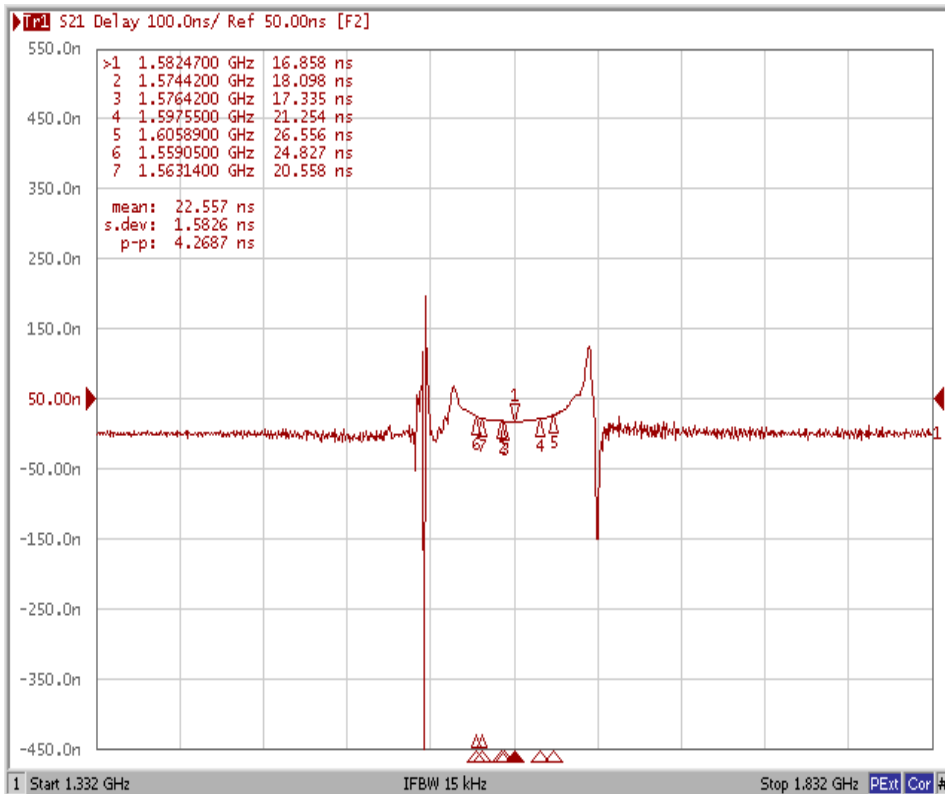


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**1. Group Delay Ripple**



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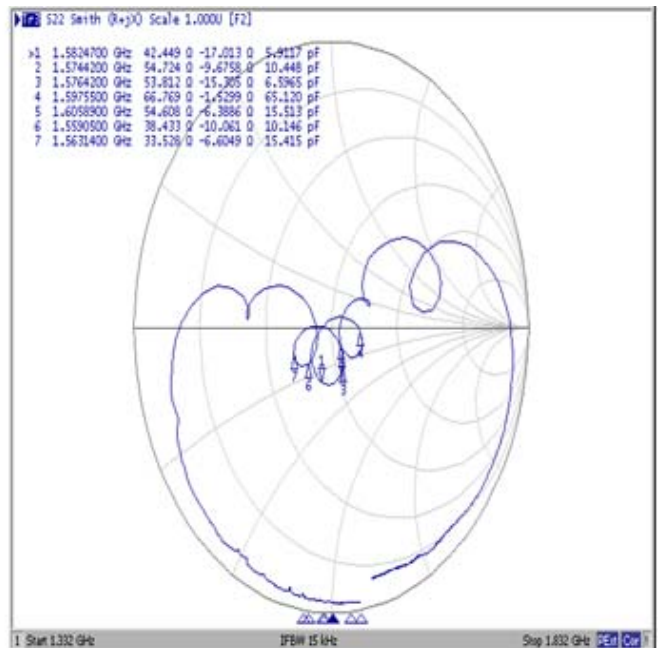
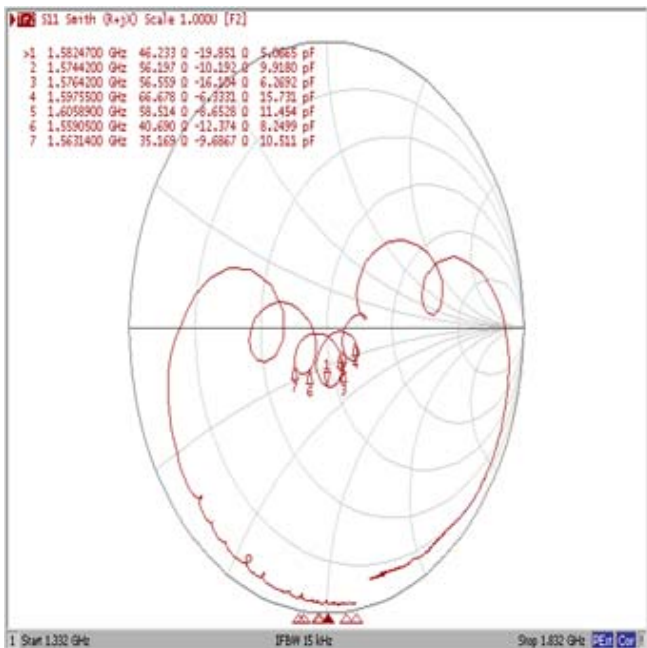
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2. Reflection Functions:

VSWR



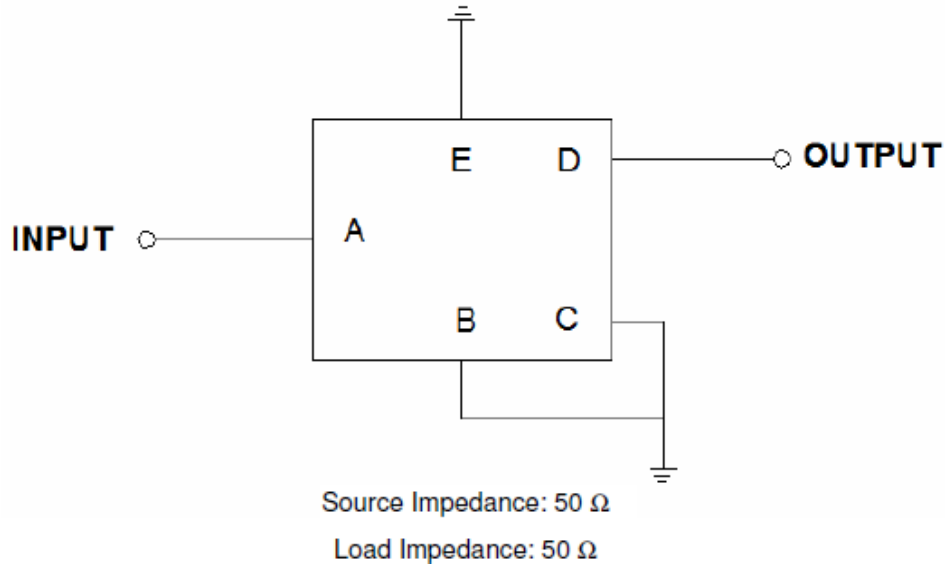
Smith Chart



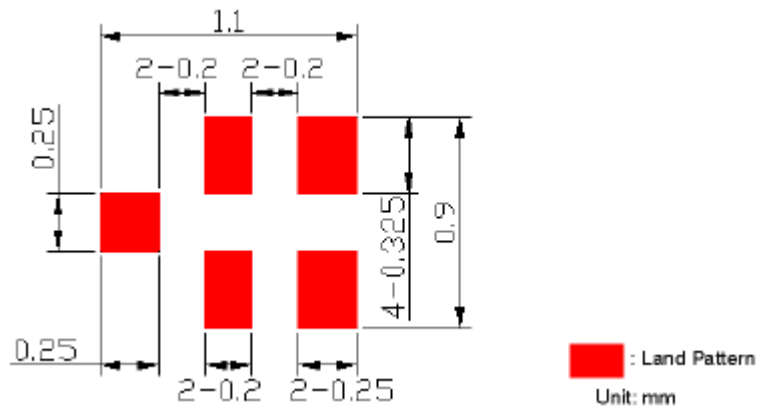
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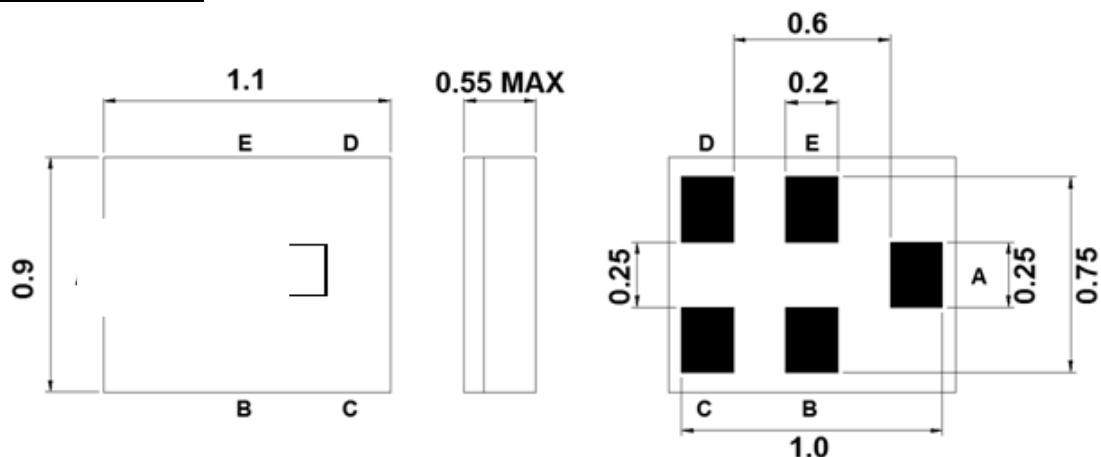
**D. MEASUREMENT CIRCUIT:**



**E. PCB FOOTPRINT:**



**F. OUTLINE DRAWING:**



All tolerances are  $\pm 0.1$ mm unless otherwise specified.  
 Unit: mm



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**H. RECOMMENDED REFLOW PROFILE:**

1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 260°C +0/-5°C peak (20~40 sec).
4. Time: 2 times.

