

SAW Filter 707.50MHz
Part No: MP09936

Model: TA2438A
Rev No: 1

A. MAXIMUM RATING:

Electrostatic Sensitive Device (ESD)

1. Input Power Level: 10dBm (In passband)
2. DC Voltage: $\pm 5V$
3. Operating Temperature: $-30^{\circ}C$ to $+85^{\circ}C$
4. Storage Temperature: $-40^{\circ}C$ to $+100^{\circ}C$
5. Moisture Sensitive Level: Level 1 (MSL1)
6. ESD: 100V (MM), 200V (HBM)

B. ELECTRICAL CHARACTERISTICS:

1. Terminating source impedance: $Z_S = 50\Omega$
2. Terminating load impedance: $Z_L = 50\Omega$

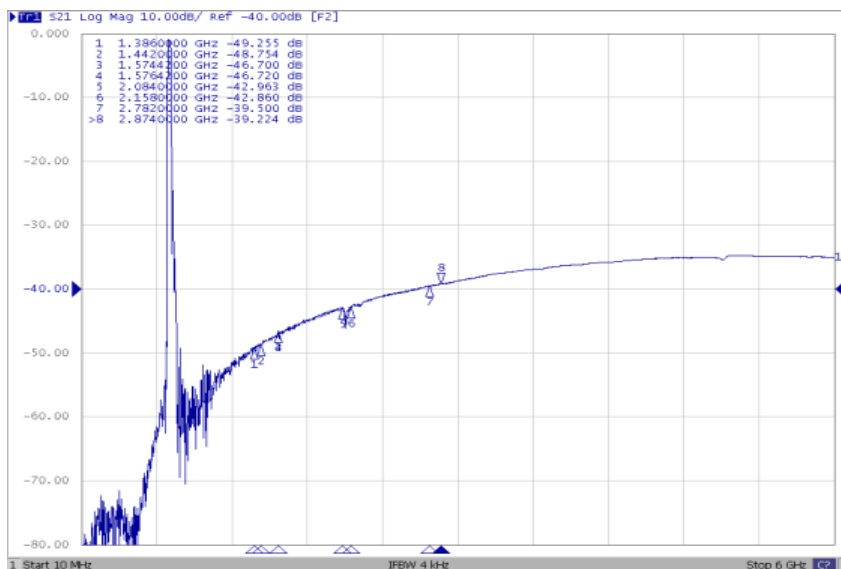
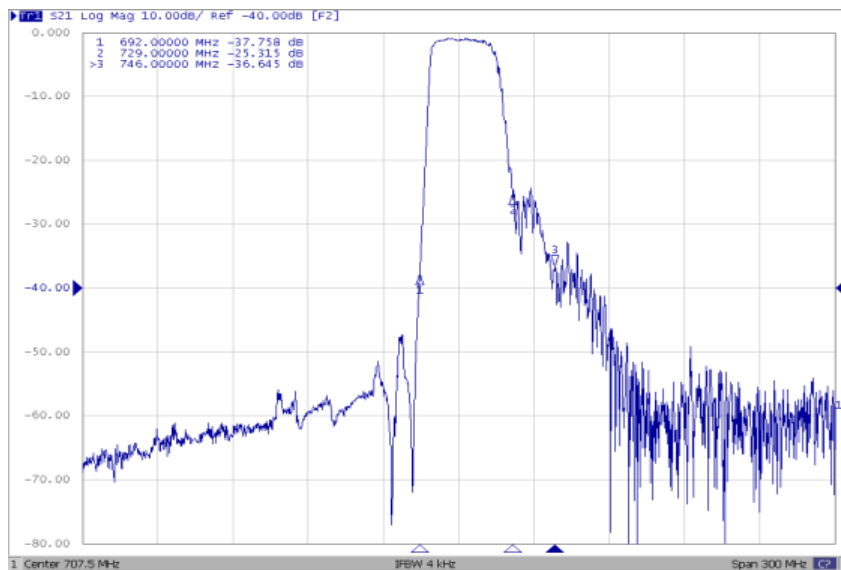
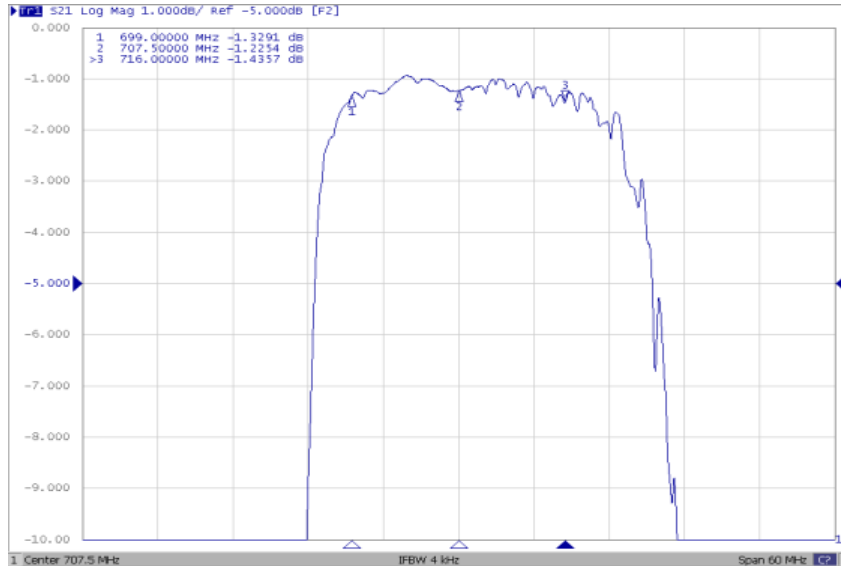
Parameters Description	Unit	Min.	Typ.	Max.
Center Frequency Fc	MHz	-	707.5	-
Insertion Loss (699 ~ 716MHz) IL	dB(*1)	-	1.6	2.2
Amplitude Ripple (699 ~ 716MHz)	dB	-	0.6	1.4
VSWR (699 ~ 716MHz)	-	-	1.7	2.0
Attenuation (Reference level from 0dB)				
1 ~ 692MHz	dB	20	37	-
729 ~ 746MHz	dB	15	23	-
1386 ~ 1442MHz	dB	40	47	-
1574.42 ~ 1576.42MHz	dB	38	46	-
2084 ~ 2158MHz	dB	30	42	-
2782 ~ 2874MHz	dB	25	39	-

(*1): Specification of insertion loss excludes loss that comes from the test board.

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C. FREQUENCY CHARATERISTICS:

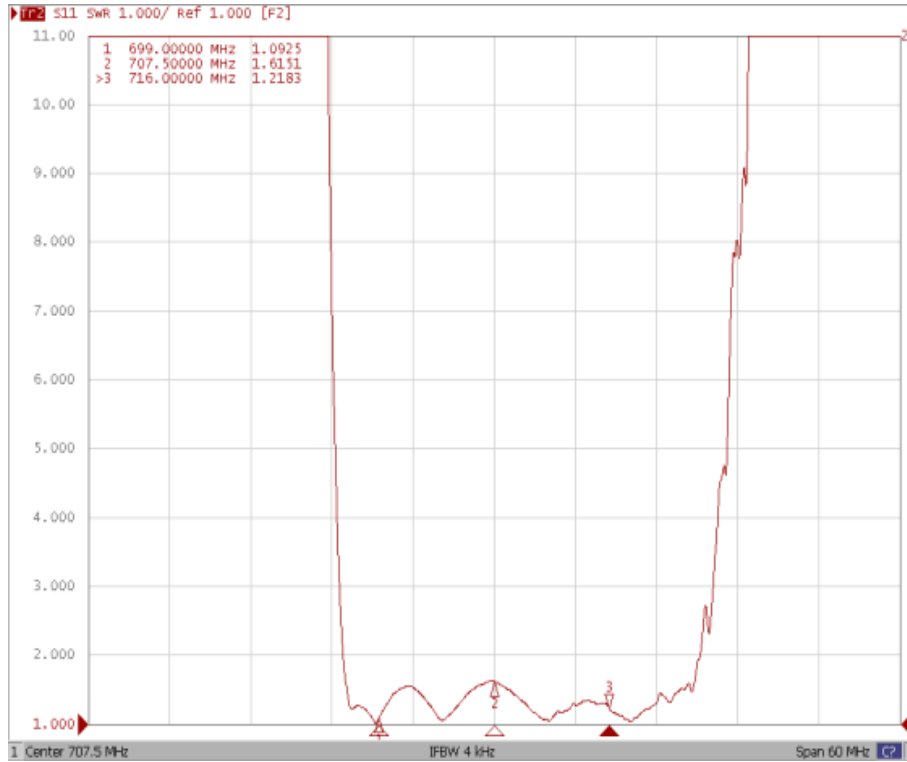


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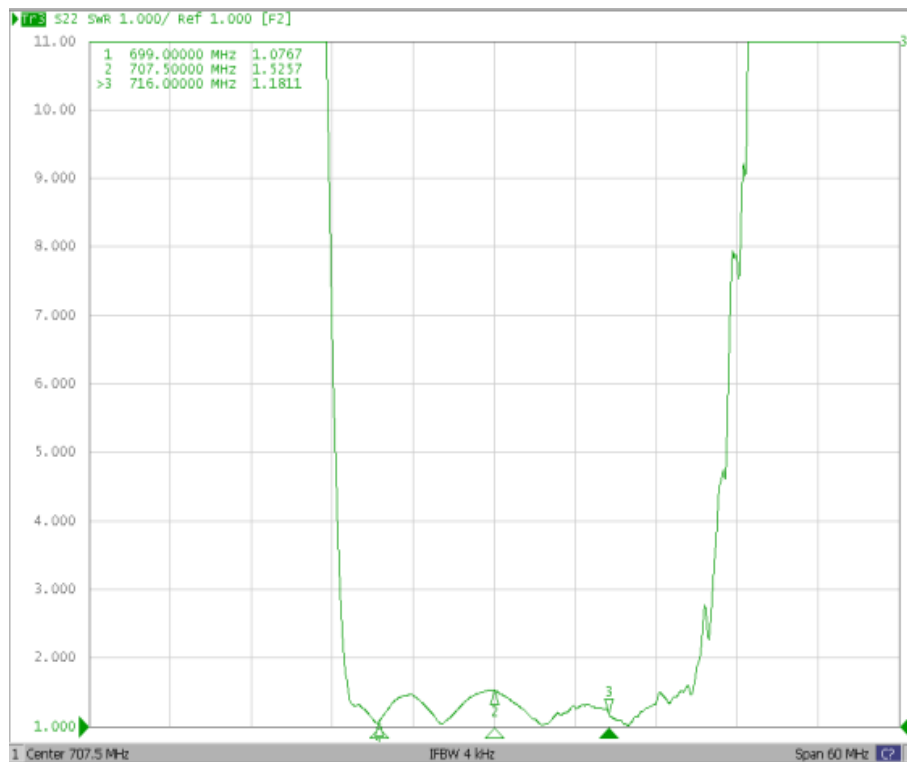
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Reflection Functions:

VSWR S11



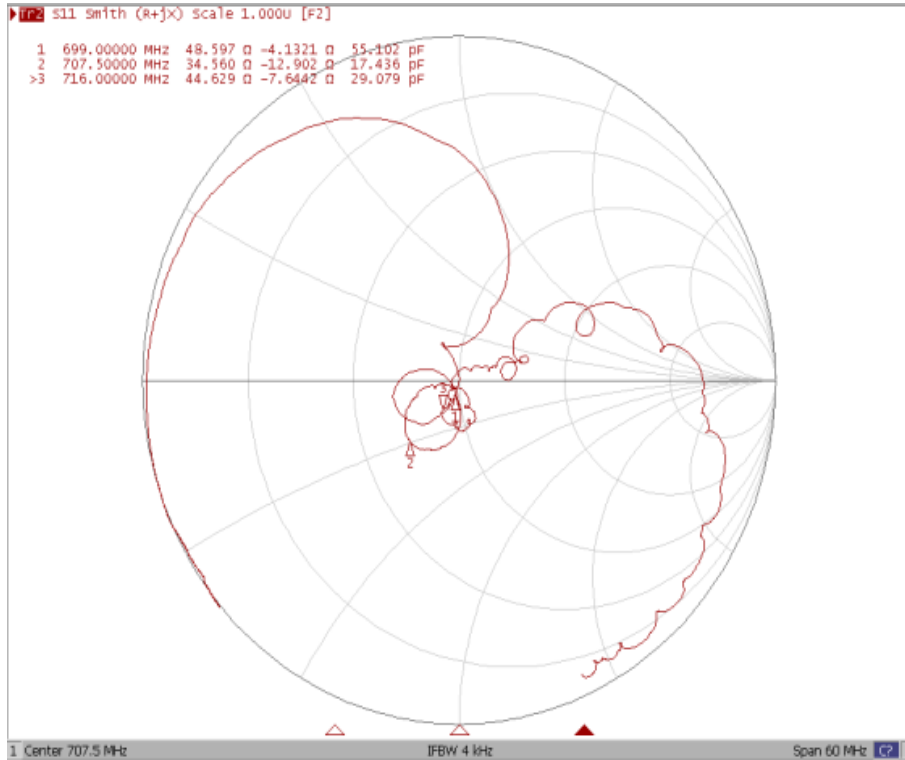
VSWR S22



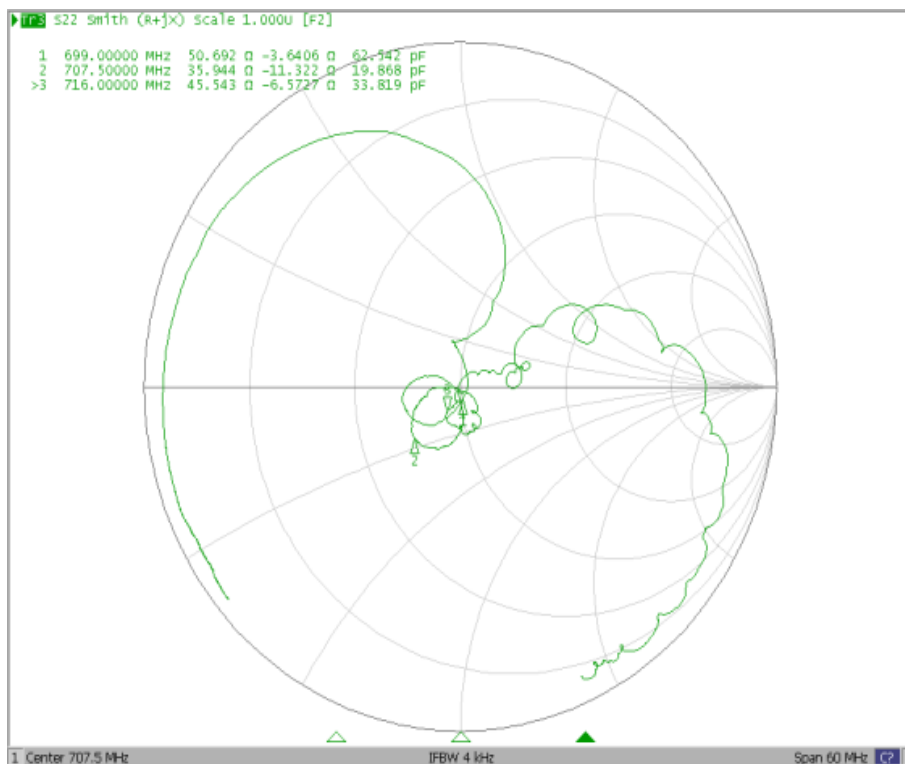
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Smith Chart S11



Smith Chart S22



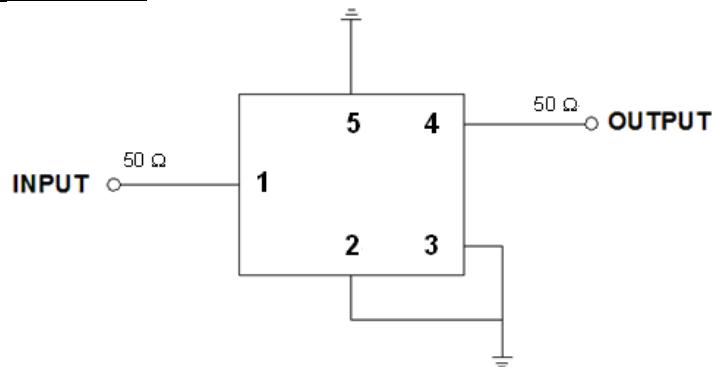
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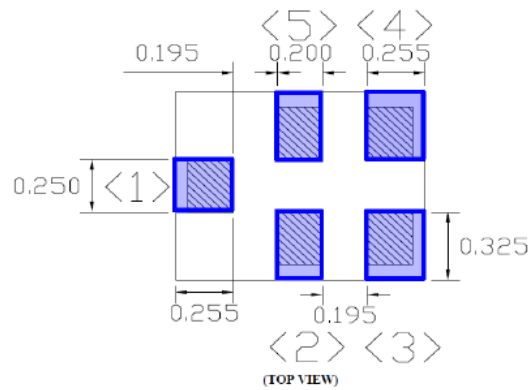
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D. MEASUREMENT CIRCUIT:

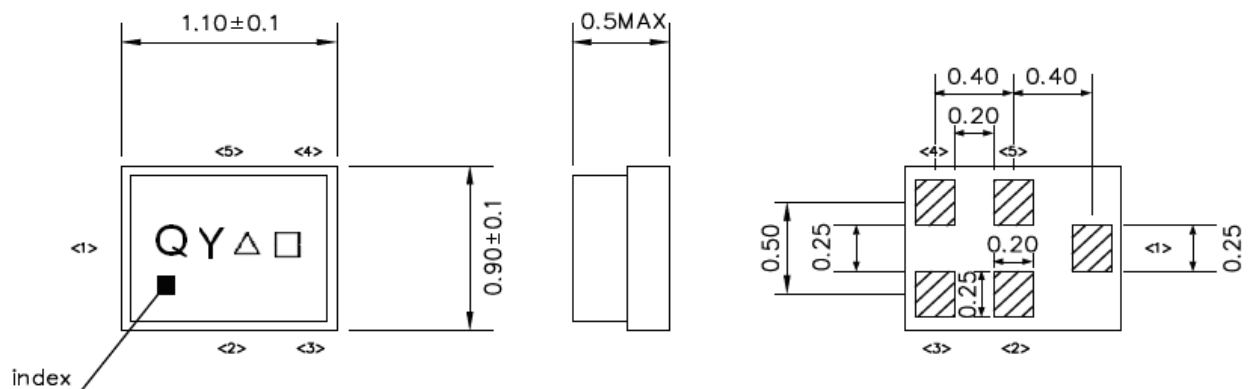


E. PCB FOOTPRINT:



F OUTLINE DRAWING: (Mass Production)

Device size: 1.1typ. x 0.9typ. x 0.5max.



Unit : mm

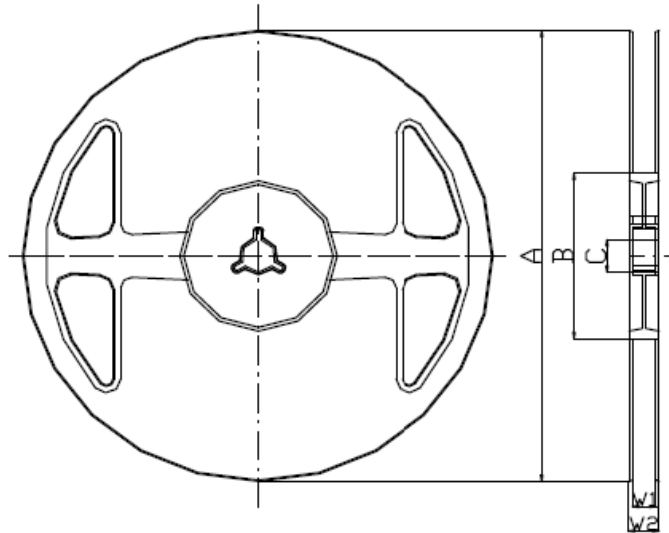
Pin No.	Symbol	Function
1	IN	Unbalanced pin
2	GND	Ground
3	GND	Ground
4	OUT	Unbalanced pin
5	GND	Ground

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G. PACKING:

1. Reel Dimensions



Materials of Reel

Material : Polystyrene + Carbon

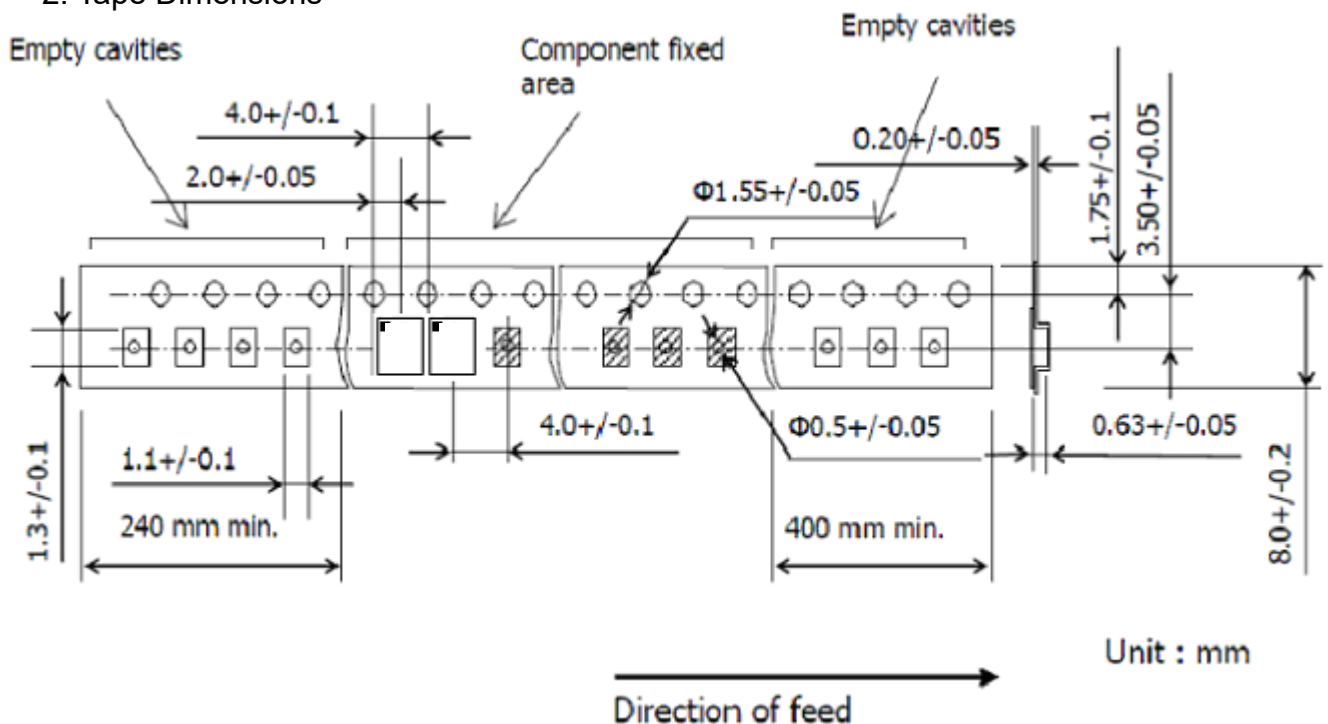
Color : Black

Surface resistance (reference value) : $10^9 \Omega/\text{sq Max.}$

Unit : mm

A	B	C	W1	W2
$\phi 180.0 +0.0/-1.5$	$\phi 66.0 +/-0.5$	$\phi 13.0 +/-0.2$	$9.0 +1.0/-0.0$	$11.4 +/-1.0$

2. Tape Dimensions



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.

