

SAW Filter 70.0MHz
Part No: MA05392

Model: TB0213A
Rev No: 3

A. MAXIMUM RATING:

Electrostatic Sensitive Device

1. Input Power Level: 10dBm
2. Input DC Voltage: 10V
3. Operating Temperature: -30°C to +85°C
4. Storage Temperature: -30°C to +85°C
5. Moisture Sensitivity Level: Level 1 (MSL1)

B. ELECTRICAL CHARACTERISTICS:

Ambient Temperature: 25°C

Parameters	Unit	Min.	Typ.	Max.
Center frequency Fc	MHz	-	70	-
Insertion Loss, IL at Fc	dB	-	10.5	12.0
1dB Bandwidth	MHz	8.40	8.74	-
3dB Bandwidth	MHz	-	9.54	-
35dB Bandwidth	MHz	-	12.0	13.0
Amplitude ripple within Fc ± 3.7MHz	dB	-	0.35	1.00
Group Delay ripple within Fc ± 3.7MHz	nsec	-	50	120
Absolute Delay at Fc	usec	-	0.99	-
Attenuation Reference level from Min IL)				
Ultimate Rejection	dB	40	45	-
Substrate Material	-	-	YZ-LN	-
Temperature Coefficient of frequency	ppm/°C	-	-86	-

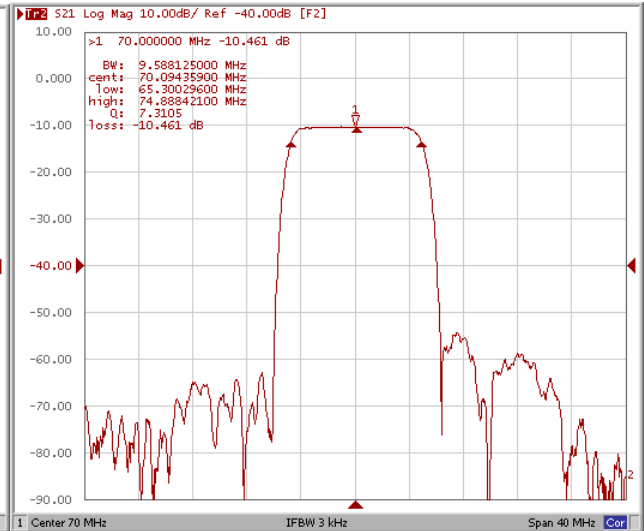
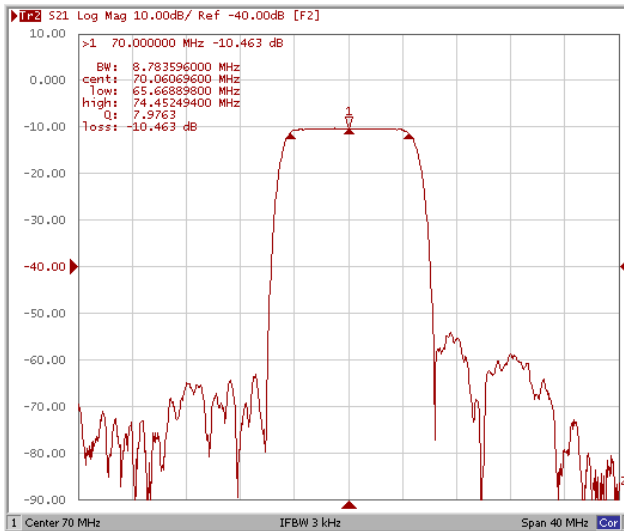
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C. FREQUENCY CHARACTERISTICS:

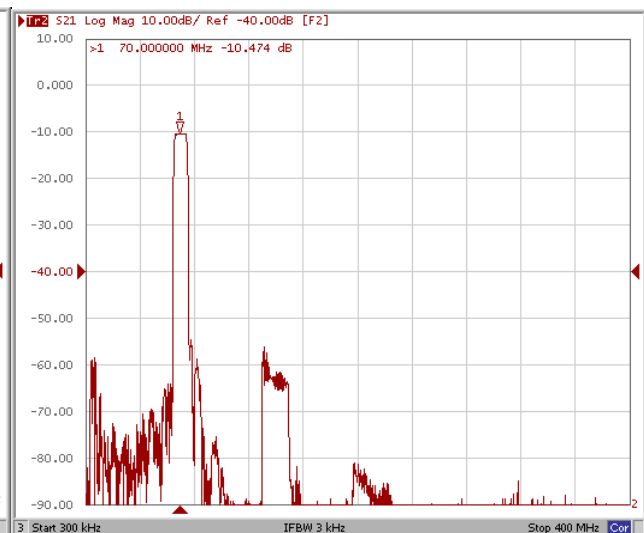
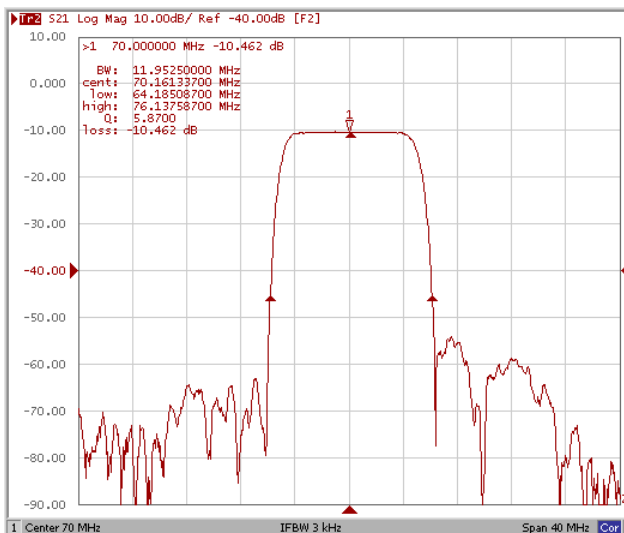
Bandwidth at -1.0Db

Bandwidth at -3.0 dB



Bandwidth at -35 dB

Wide Band

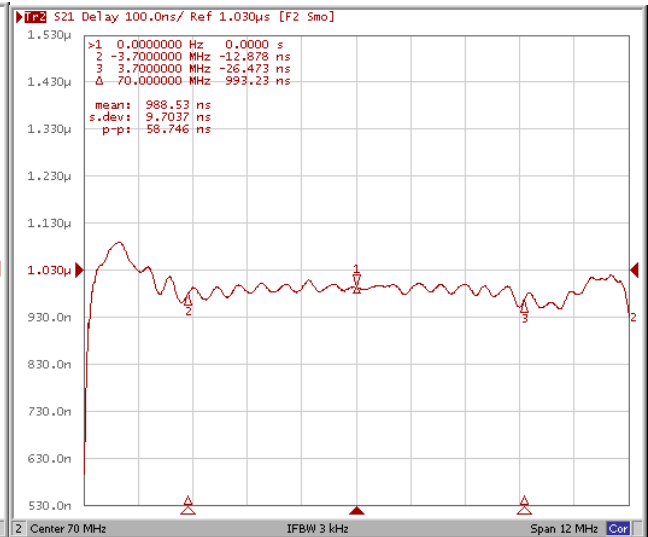
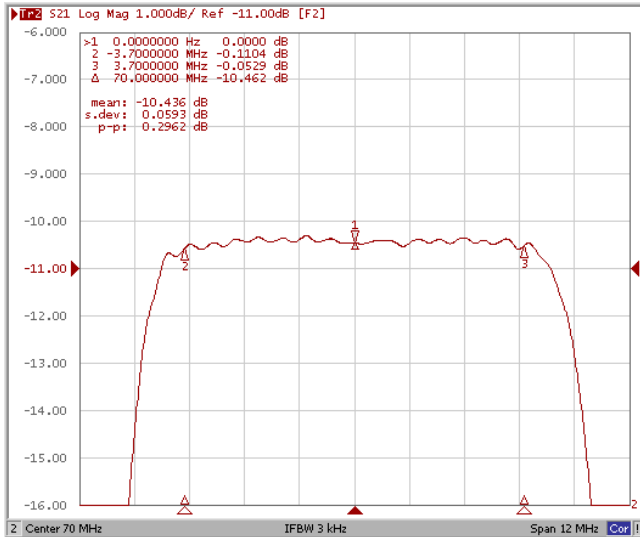


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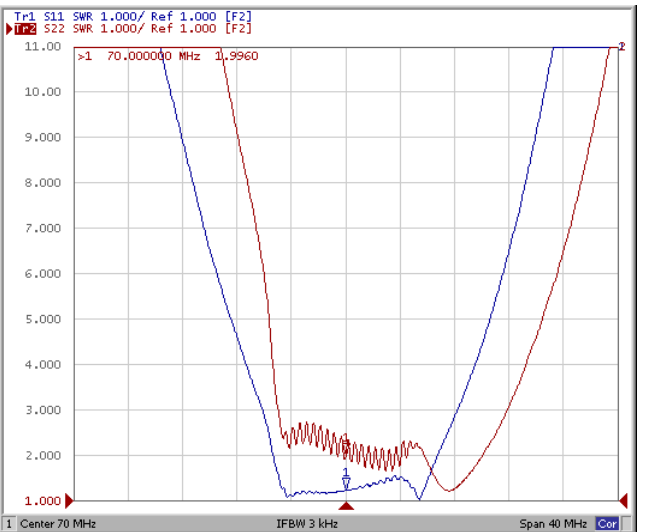
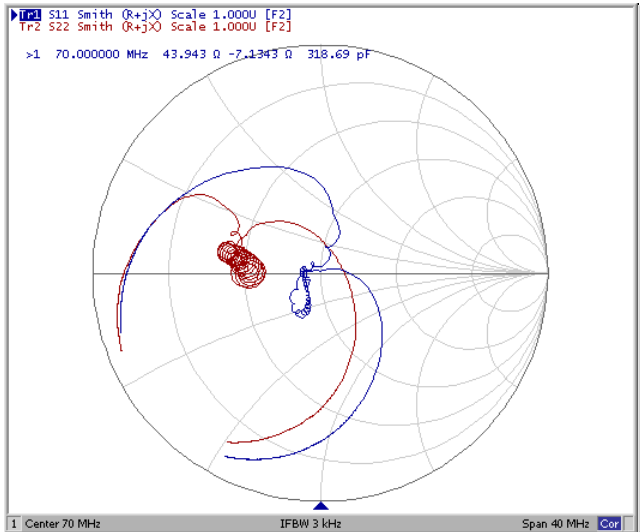
Ripple Variation Fc ± 3.7 MHz

Group Delay Variation Fc ± 3.7 MHz



Smith Chart

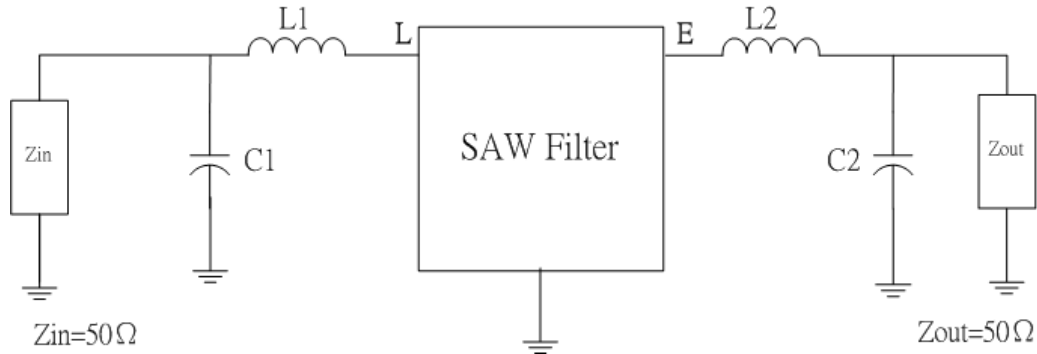
VSWR



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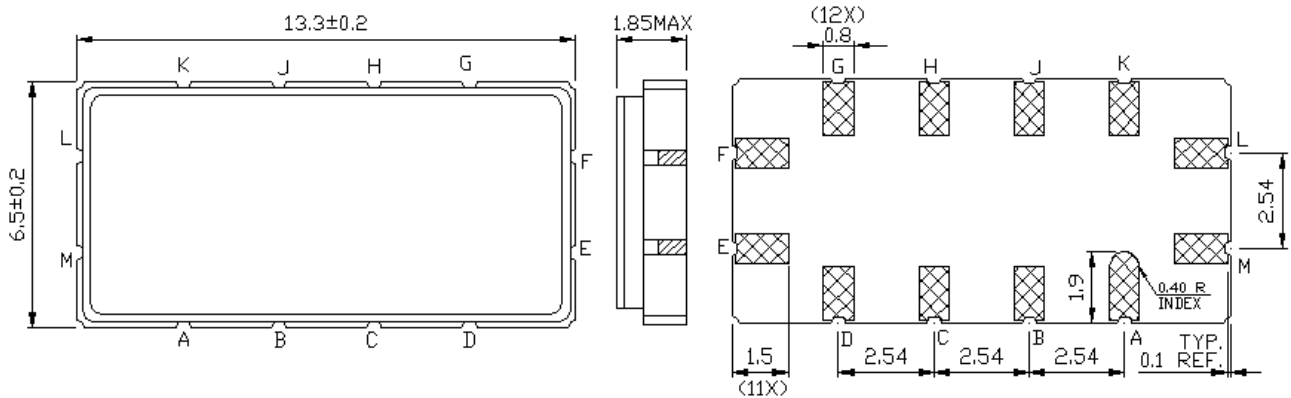
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D. MEASUREMENT CIRCUIT:



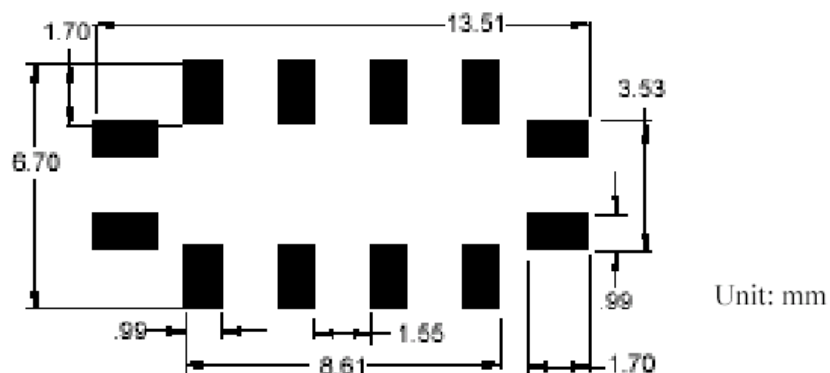
$L1 = 150\text{nH}$, $L2 = 100\text{nH}$ $C1 = 91\text{pF}$, $C2 = 100\text{pF}$

E. OUTLINE DRAWING:



L: RF Input
 E: RF Output
 Others: To be Ground
 Unit: mm

F. PCB FOOTPRINT:



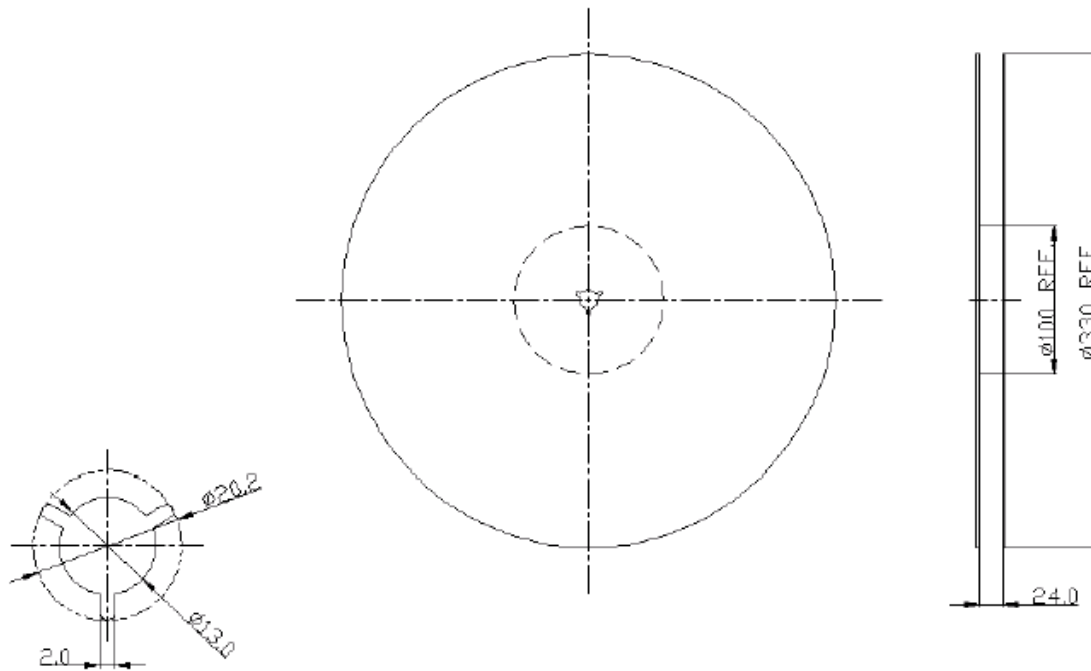
Unit: mm

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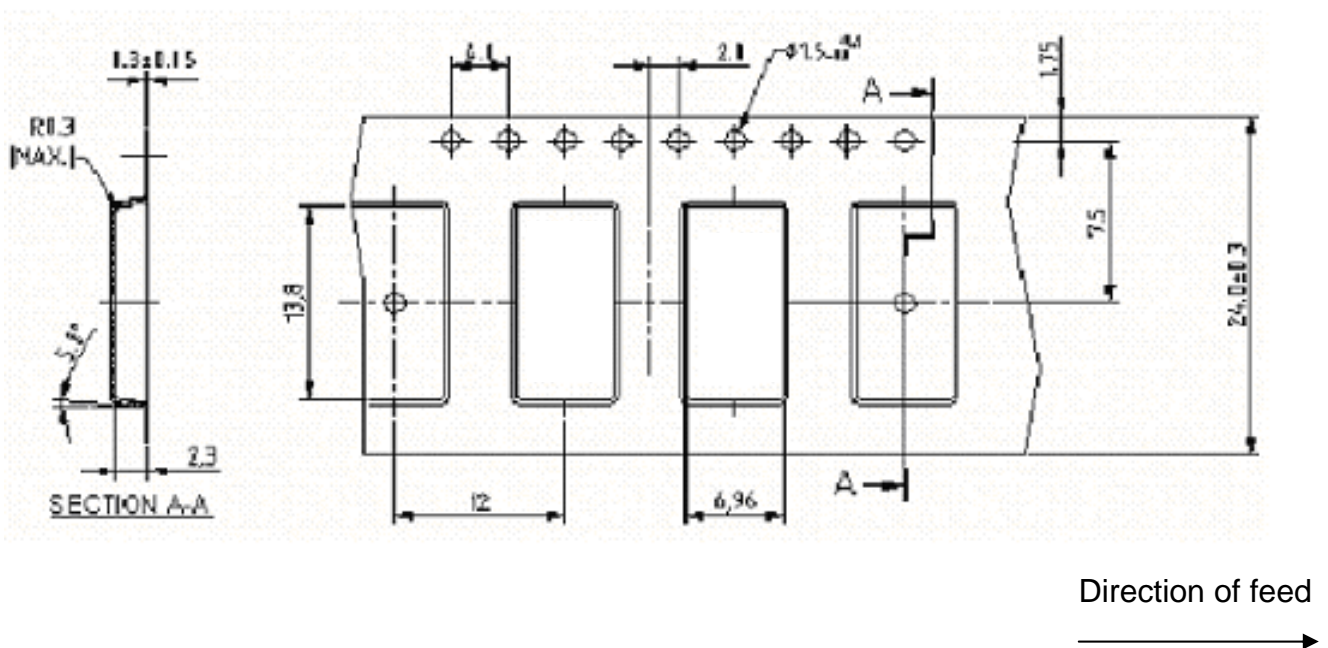
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G. PACKING:

1. Reel Dimension



2. Tape Dimension



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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.

