

SAW Filter 2140.0MHz

Model: TA1699D

Part No: MP07913

Rev No: 1

A. MAXIMUM RATING:

Electrostatic Sensitive Device (ESD)

1. Maximum Input Power: 15dBm
2. DC voltage: 5V
3. Operating Temperature: -30°C to +85°C
4. Storage Temperature: -40°C to +85°C

B. ELECTRICAL CHARACTERISTICS:

1. Terminating source impedance: $Z_S = 50\Omega$ (unbalance)
2. Terminating load impedance: $Z_L = 100\Omega$ (balance)

Parameters Description (Band 1)	Unit	Min.	Typ.	Max.
Center Frequency (Fc)	MHz	-	2140	-
Insertion Loss within 2110.0 ~ 2170.0MHz	dB	-	2.0	2.4
Amplitude Ripple within 2110.0 ~ 2170.0MHz	dB p-p	-	0.7	1.5
VSWR within 2110.0 ~ 2170.0MHz	-	-	1.9	2.2
Amplitude balance within 2110.0 ~ 2170.0MHz	dB	-1.5	-0.9 ~ +0.4	+1.5
Phase balance within 2110.0 ~ 2170.0MHz	deg	-10	-3.0 ~ +2.8	+10

Parameters Description (Band 4)	Unit	Min.	Typ.	Max.
Center Frequency (Fc)	MHz	-	2132.0	-
Insertion Loss within 2110.0 ~ 2155.0MHz	dB	-	1.8	2.2
Amplitude Ripple within 2110.0 ~ 2155.0MHz	dB p-p	-	0.5	1.5
VSWR within 2110.0 ~ 2155.0MHz	-	-	1.6	2.2
Amplitude balance within 2110.0 ~ 2155.0MHz	dB	-1.5	-0.9 ~ +0.2	+1.5
Phase balance within 2110.0 ~ 2155.0MHz	deg	-10	-2.4 ~ +2.8	+10

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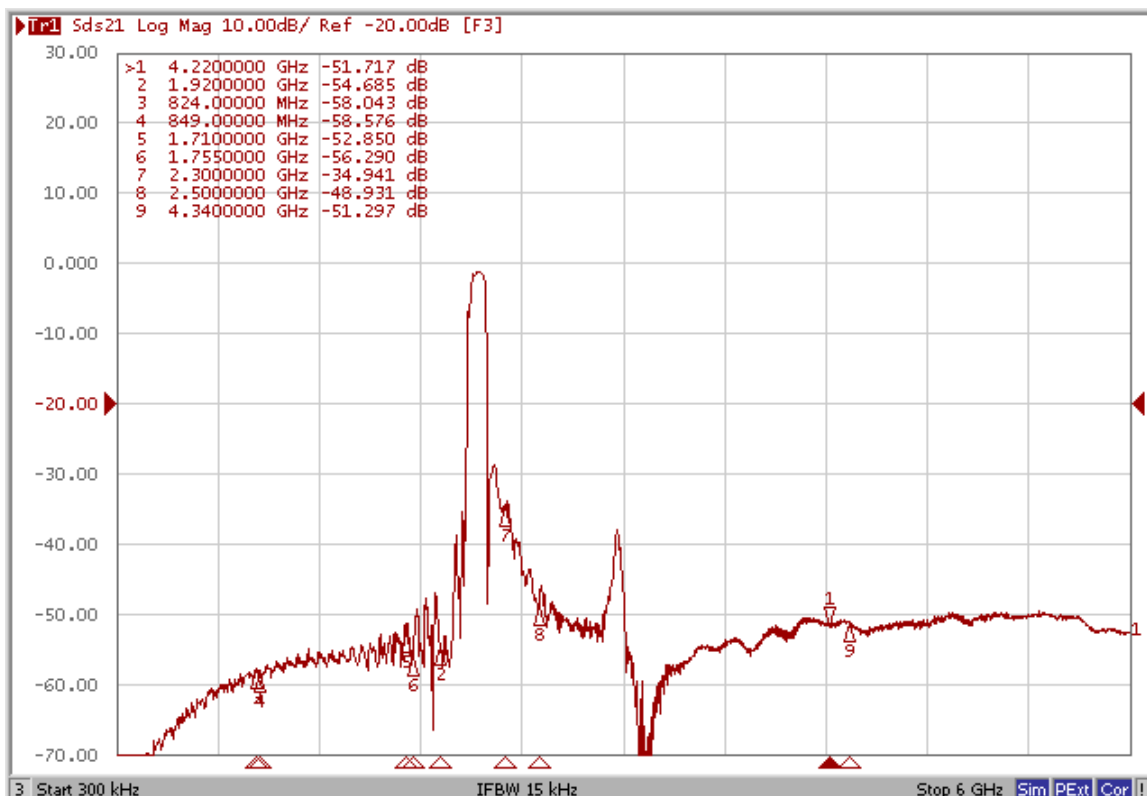
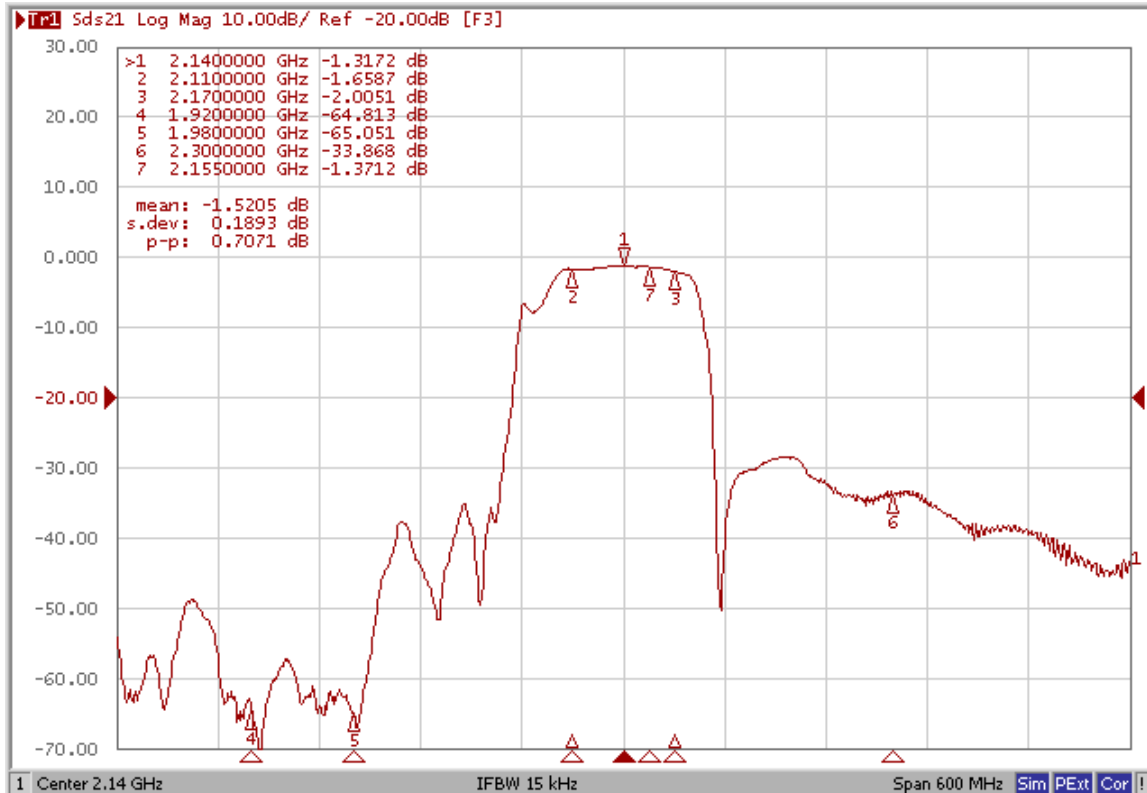
Parameters Description	Unit	Min.	Typ.	Max.
Attenuation:				
10.0 ~ 1920.0MHz	dB	40	48	-
824.0 ~ 849.0MHz	dB	50	58	-
1710.0 ~ 1755.0MHz	dB	45	52	-
1920.0 ~ 1980.0MHz	dB	50	54	-
2300.0 ~ 2500.0MHz	dB	25	33	-
4220.0 ~ 4340.0MHz	dB	35	51	-

Note: (1) No Matching Network.

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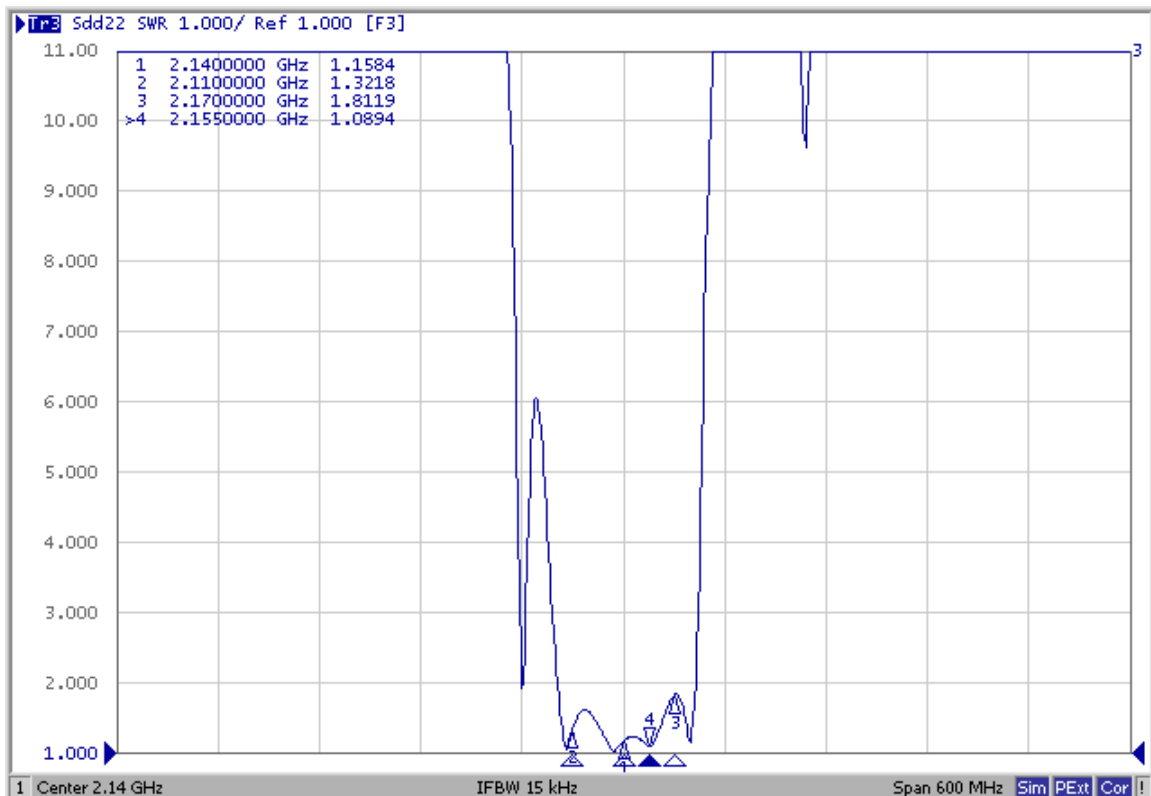
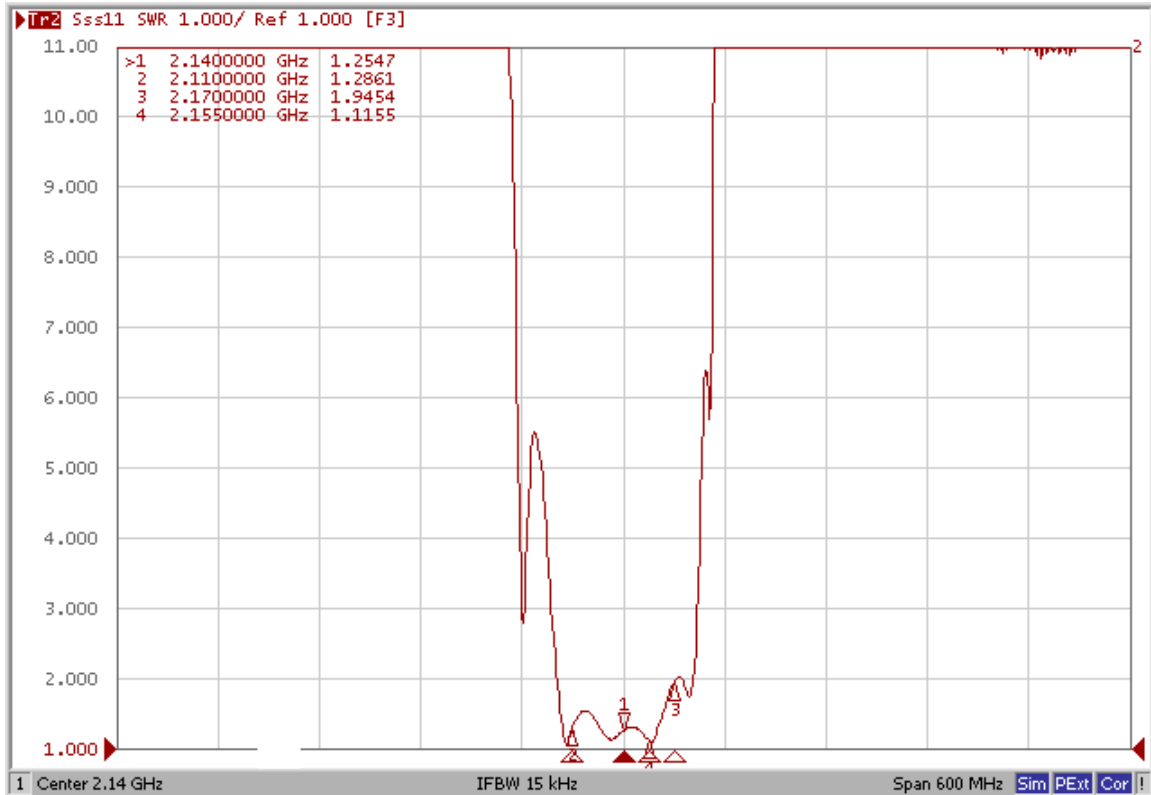
C. FREQUENCY CHARACTERISTICS:



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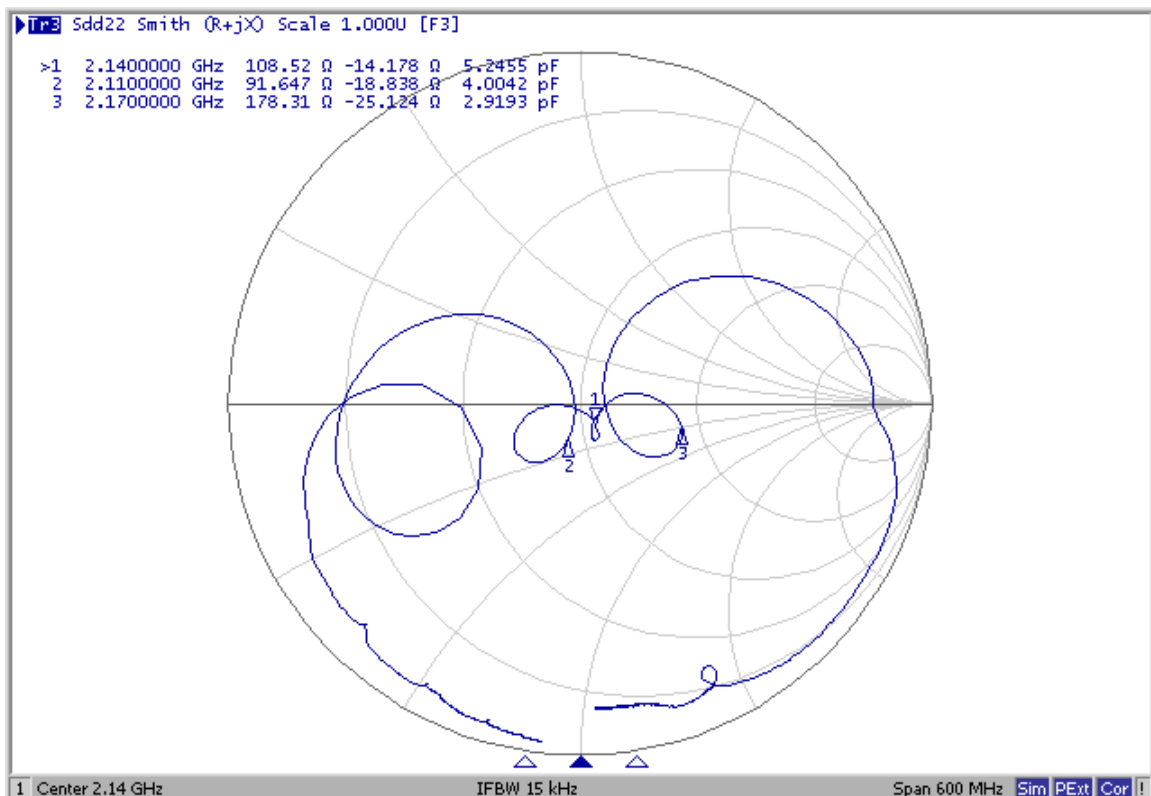
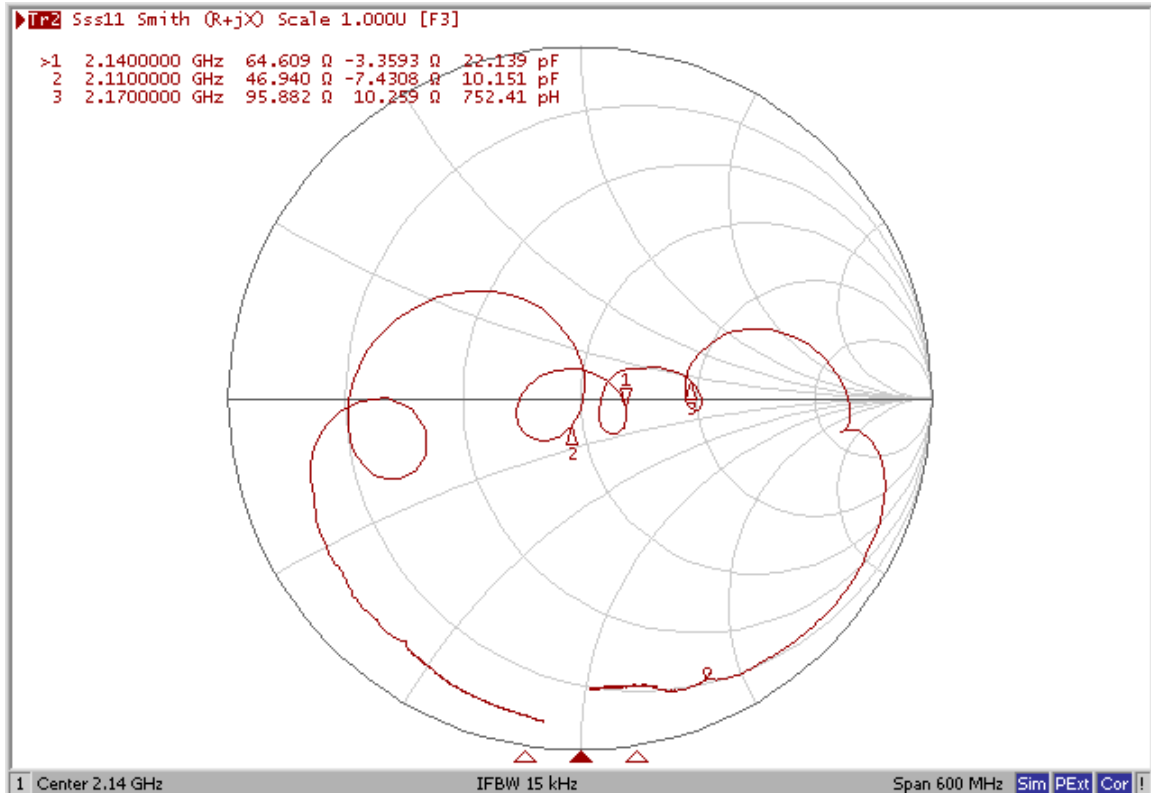
1. VSWR



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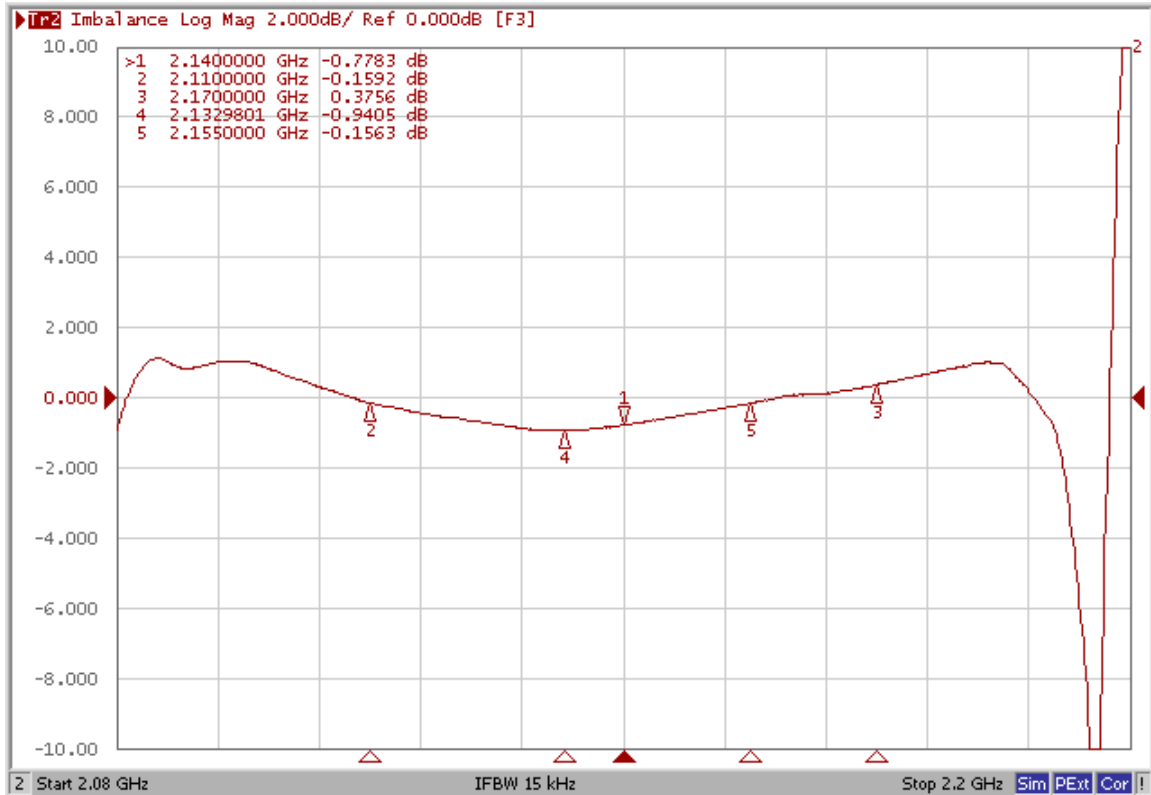
2. Smith Chart



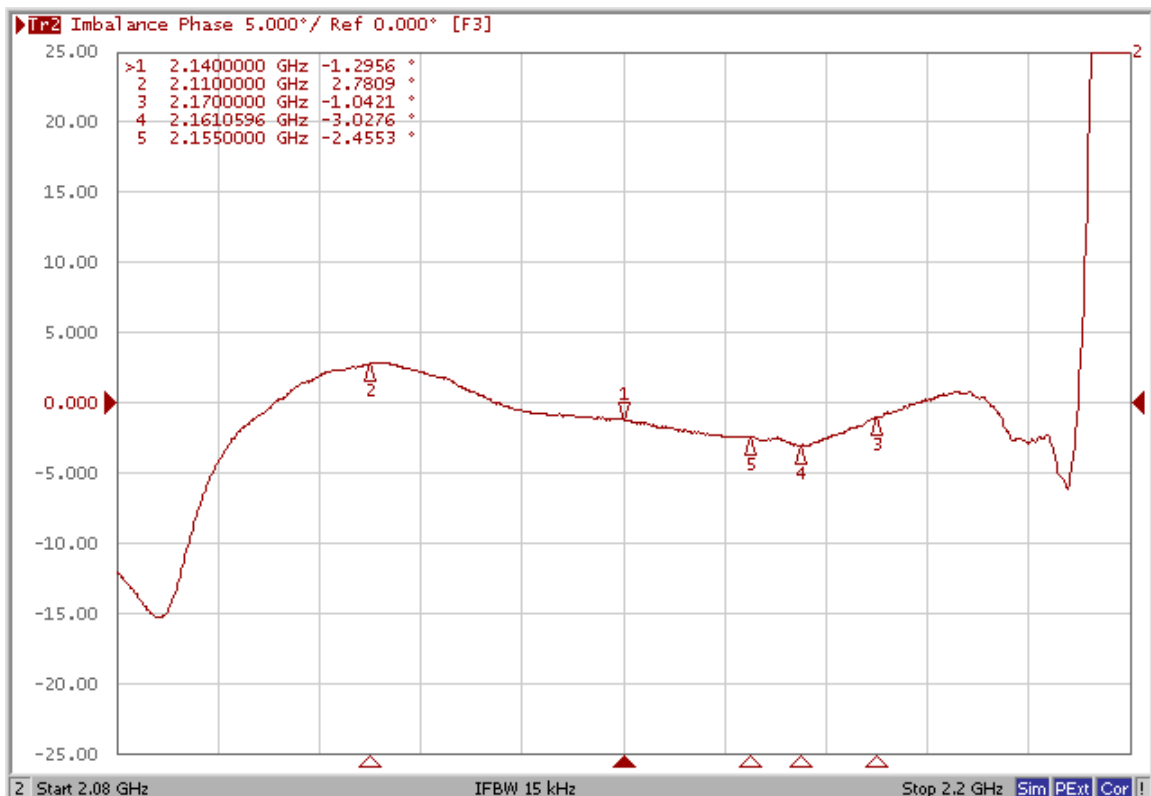
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3. Amplitude balance



4. Phase balance



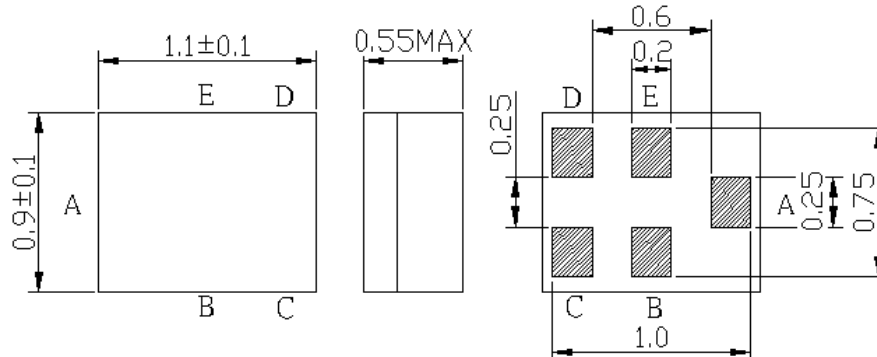
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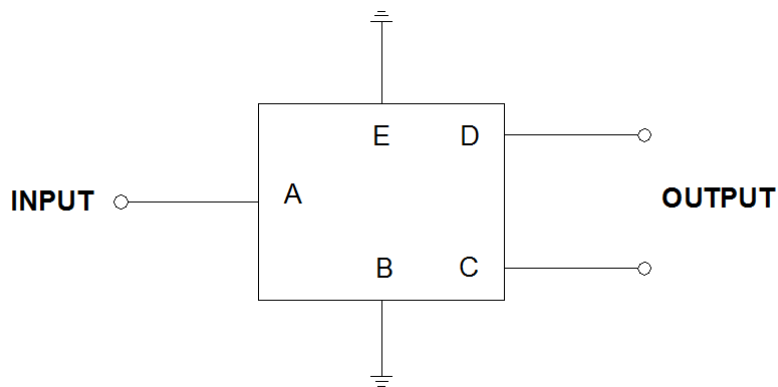
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D. OUTLINE DRAWING:



B, E: Ground
 A: Input
 C, D: Balanced output

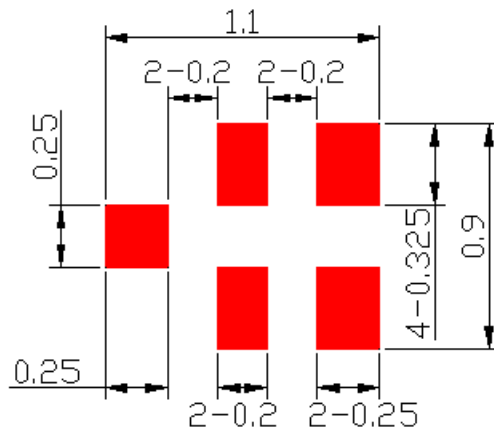
E. MEASUREMENT CIRCUIT:



Source Impedance: 50Ω

Load Impedance: 100Ω

F. PCB FOOTPRINT:



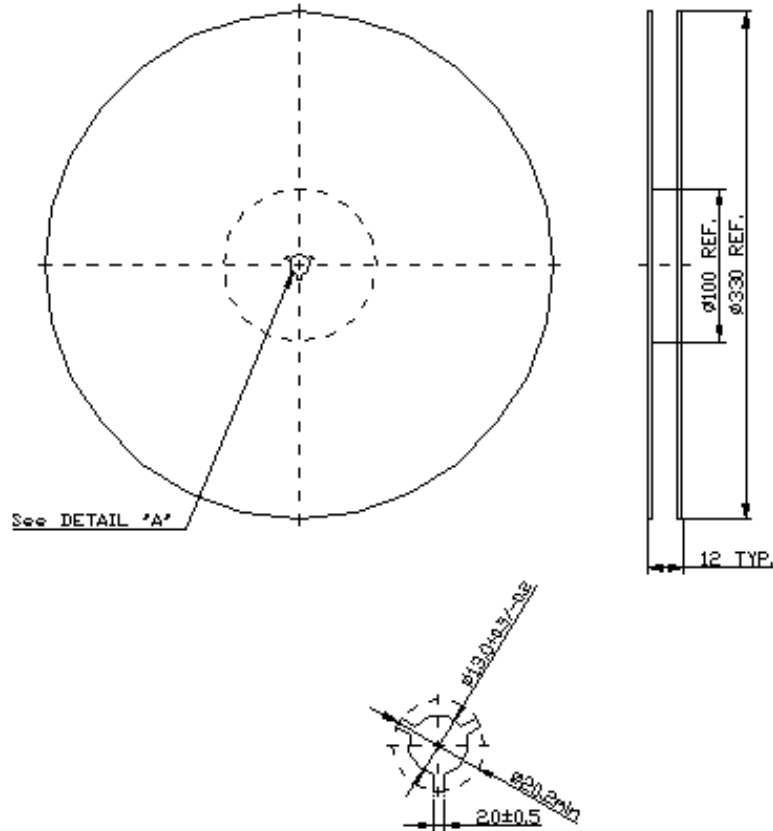
: Land Pattern
 Unit: mm

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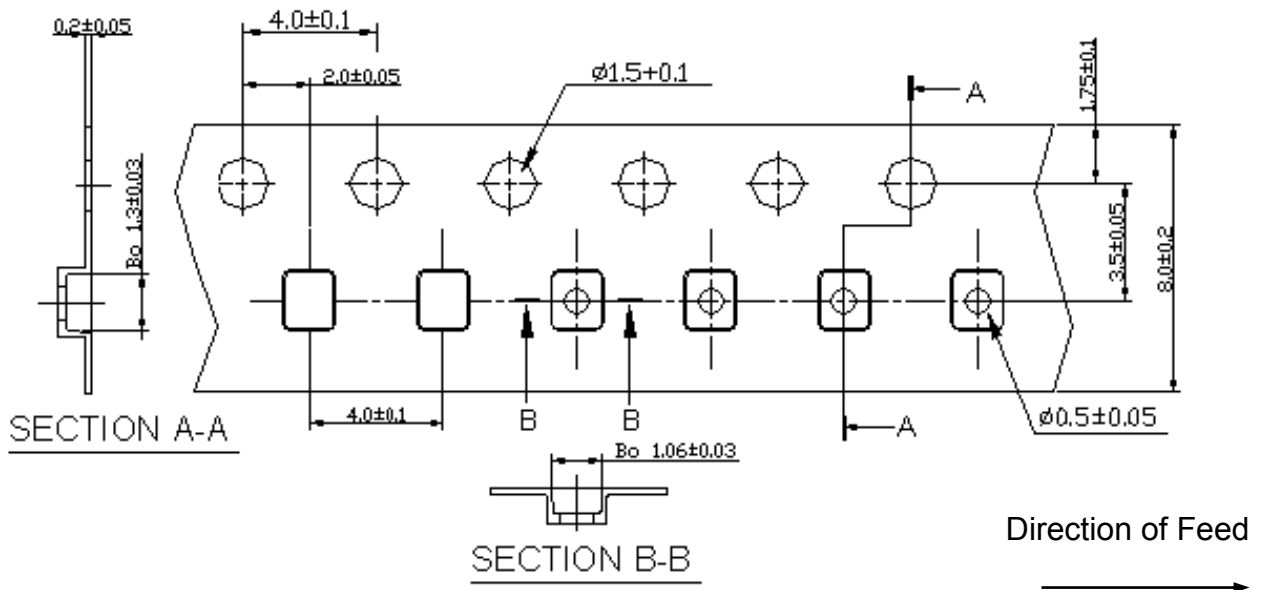
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G. PACKING:

1. Reel Dimension (Please refer to FR-75D10 for packing quantity)



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.

