

SAW Filter 1582.470MHz
Part No: MP07322

Model: TA1954A
Rev No: 2

A. MAXIMUM RATING:

Electrostatic Sensitive Device (ESD)

1. Maximum Input Power Level: 15dBm (In passband)
2. DC Voltage: $\pm 5V$
3. Operating Temperature Range: $-30^{\circ}C$ to $+85^{\circ}C$
4. Storage Temperature Range: $-40^{\circ}C$ to $+100^{\circ}C$
5. Moisture Sensitivity Level: Level 1 (MSL1)
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		MHz	-	1582.47	-
Insertion Loss	1574.42 ~ 1576.42MHz	dB (*1)		1.2	1.7
	1597.55 ~ 1605.89MHz	dB (*1)		1.8	2.5
	1559.05 ~ 1563.14MHz	dB (*1)		1.7	2.5
Amplitude Ripple	1574.42 ~ 1576.42MHz	dB		0.1	0.8
	1597.55 ~ 1605.89MHz	dB		0.55	0.14
	1559.05 ~ 1563.14MHz	dB		0.2	1.2
Group Delay Ripple	1574.42 ~ 1576.42MHz	nsec		1.0	6.0
	1597.55 ~ 1605.89MHz	nsec		4.0	12.5
	1559.05 ~ 1563.14MHz	nsec		5.0	16.0
VSWR(Input/Output)	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 0 dB)					
699.0 ~ 716.0MHz		dB	43	47	-
777.0 ~ 787.0MHz		dB	45	46.5	-
814.0 ~ 849.0MHz		dB	45	46.5	-
880.0 ~ 915.0MHz		dB	45	46.5	-
1427.90 ~ 1446.90MHz		dB	45	53	-

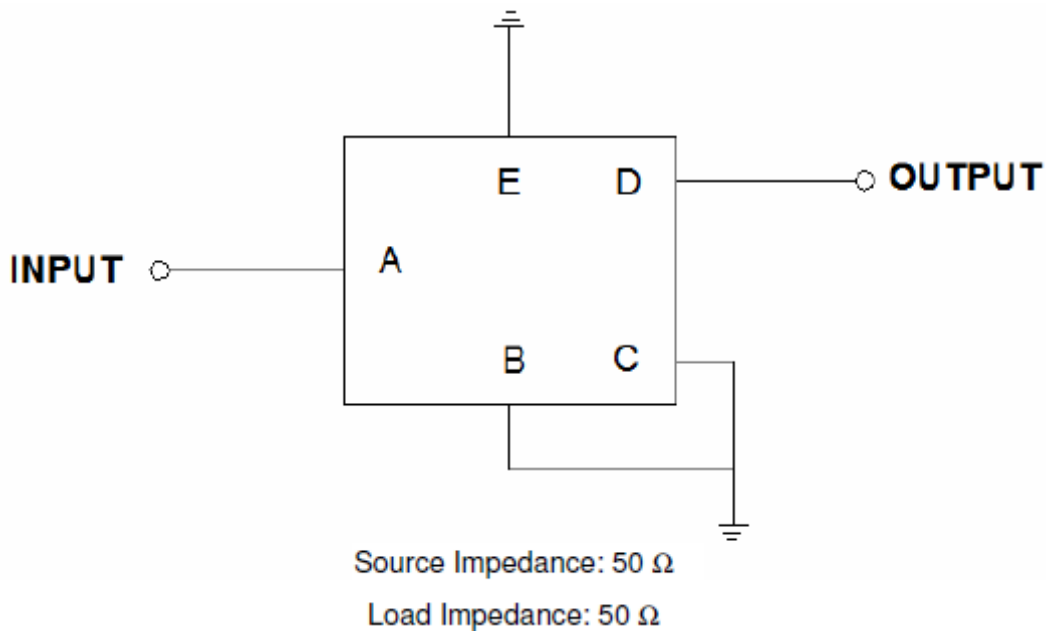
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1447.90 ~ 1462.90MHz	dB	45	54	-
1710.0 ~ 1785.0MHz	dB	47	54	-
1850.0 ~ 1915.0MHz	dB	47	54	-
1920.0 ~ 1980.0MHz	dB	47	54	-
2400.0 ~ 2500.0MHz	dB	45	50	-
2500.0 ~ 2570.0MHz	dB	45	50	-

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

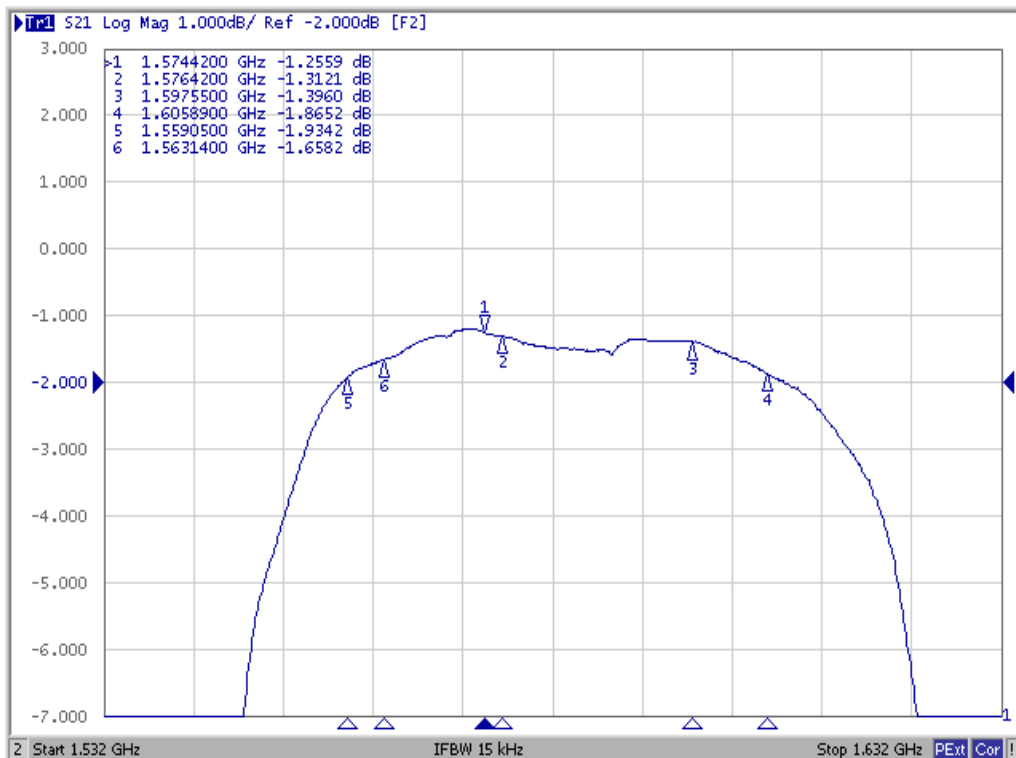
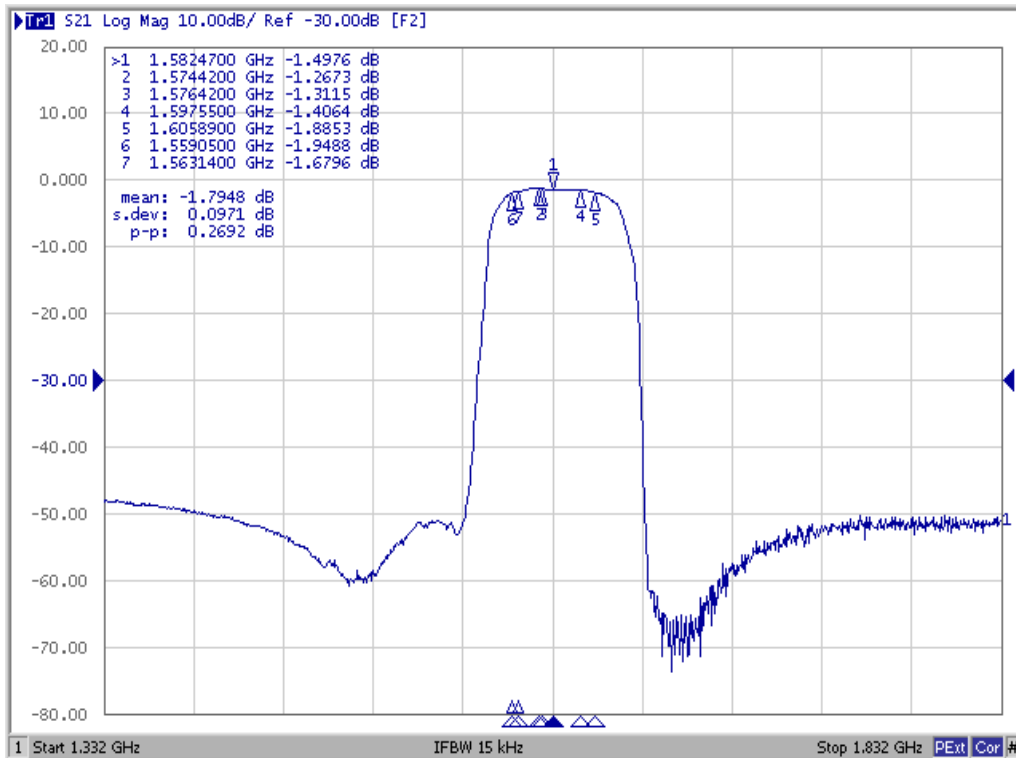
C. MEASUREMENT CIRCUIT:



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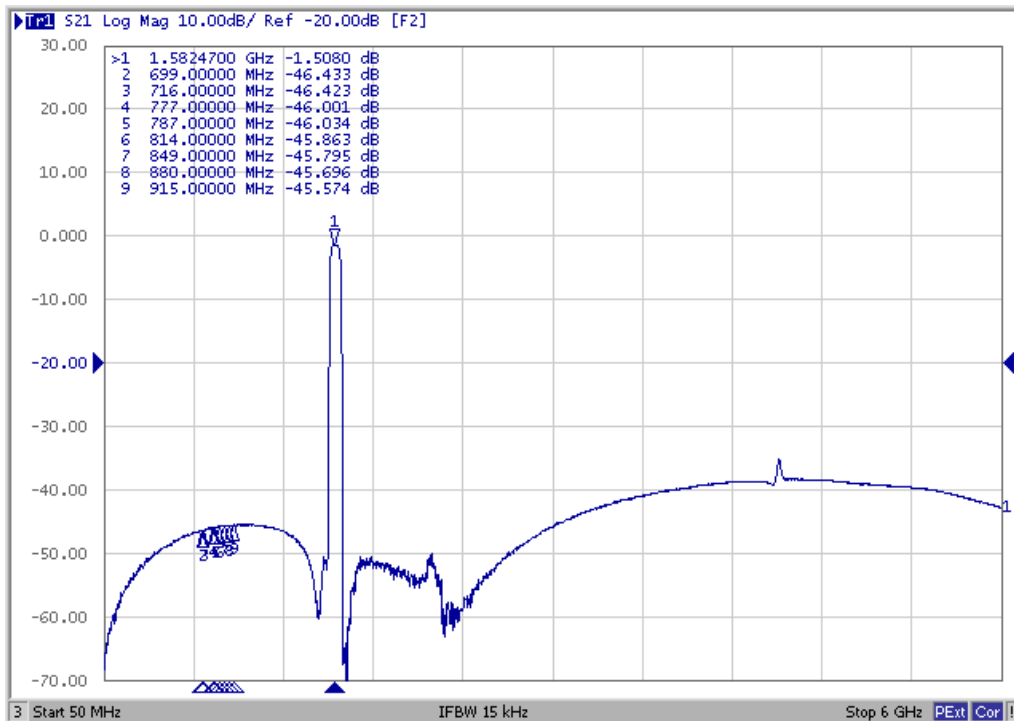
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D. FREQUENCY CHARACTERISTICS:

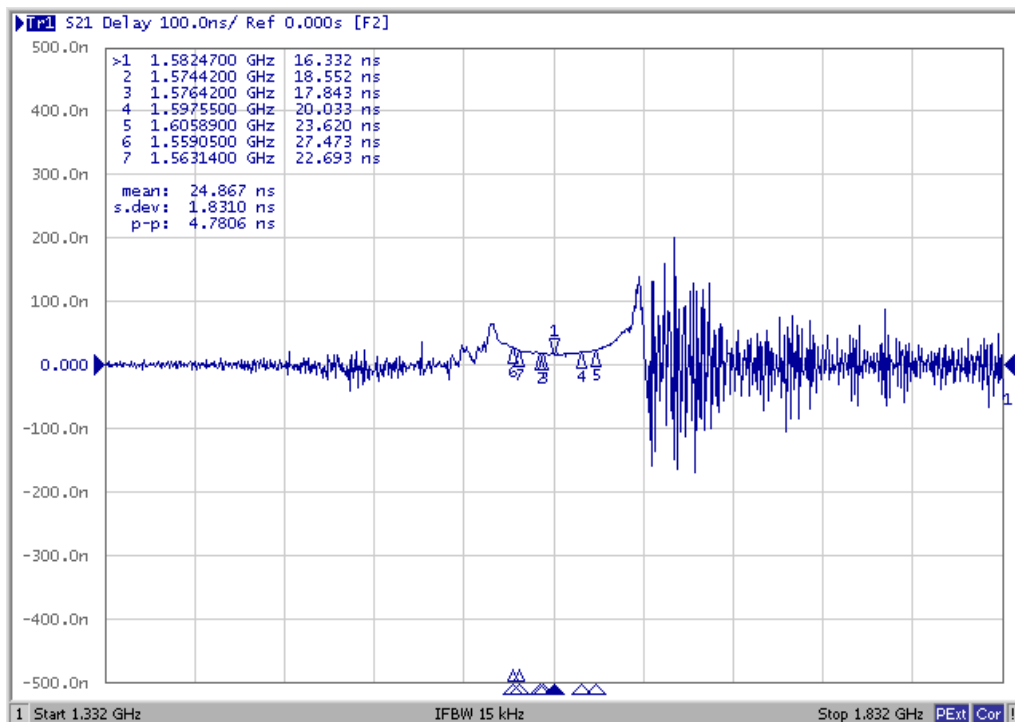


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1. Group Delay Ripple

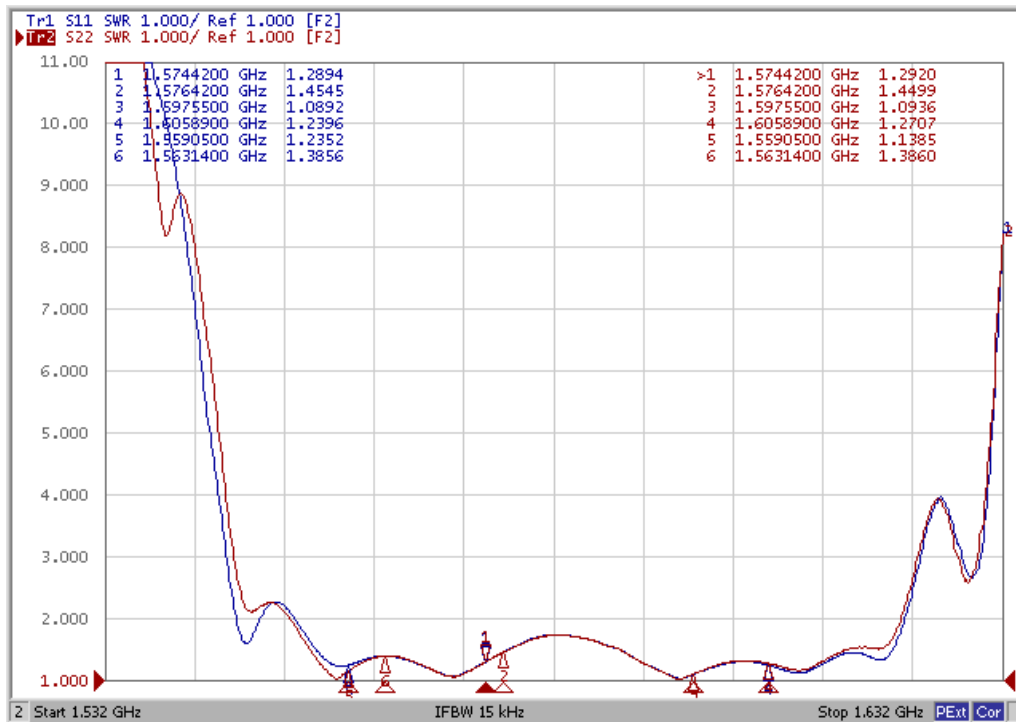


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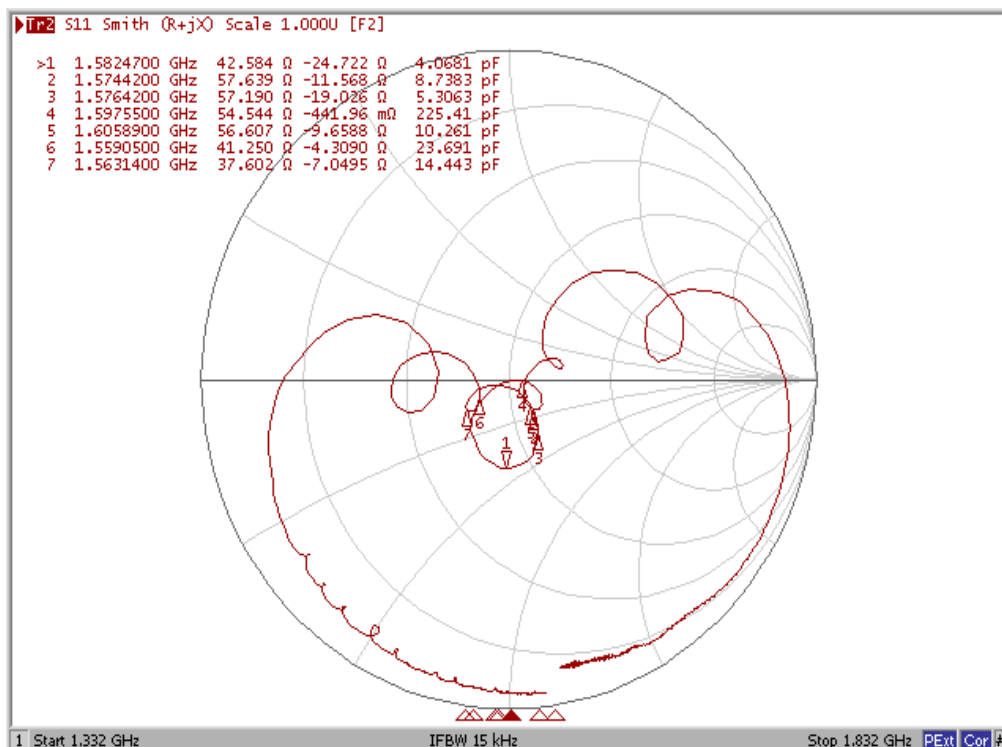
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2. Reflection functions:

VSWR

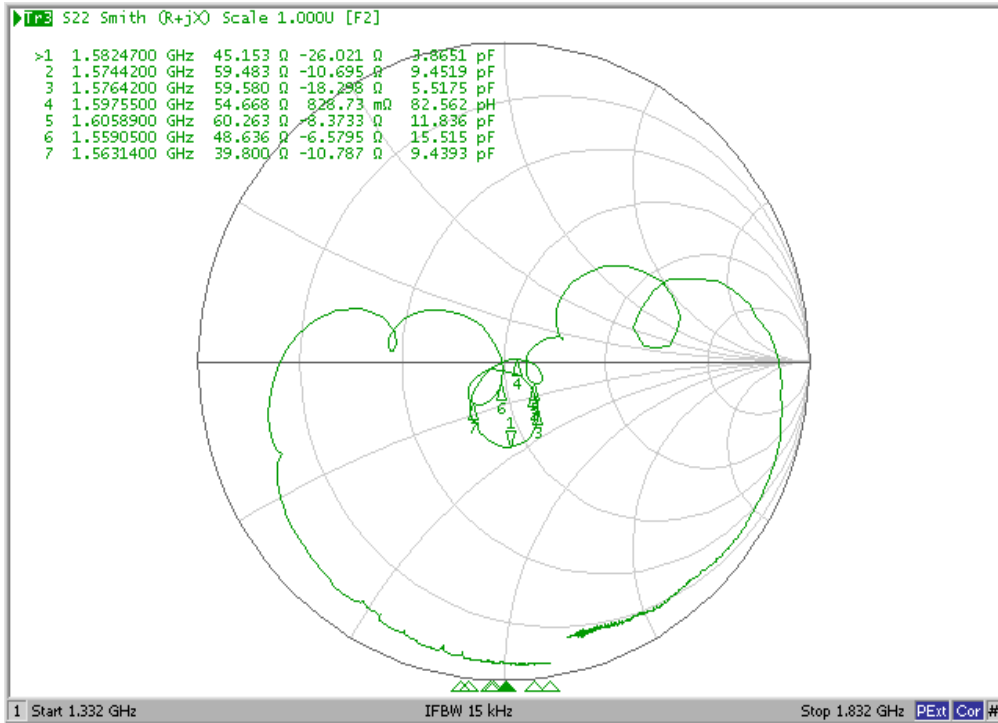


3. Smith Chart



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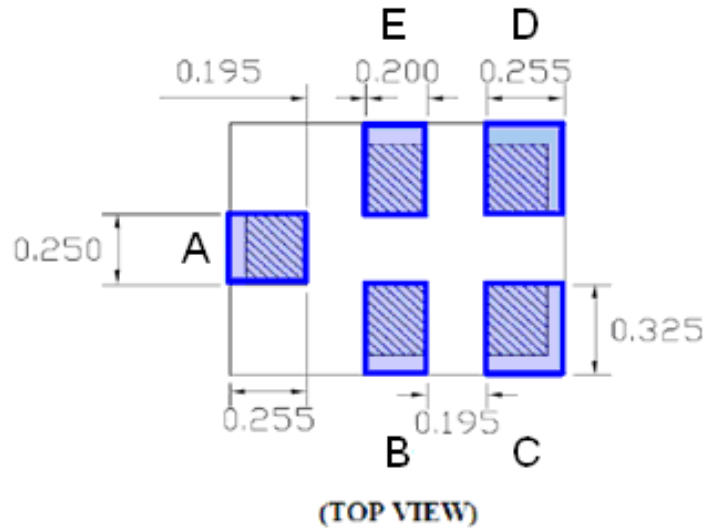
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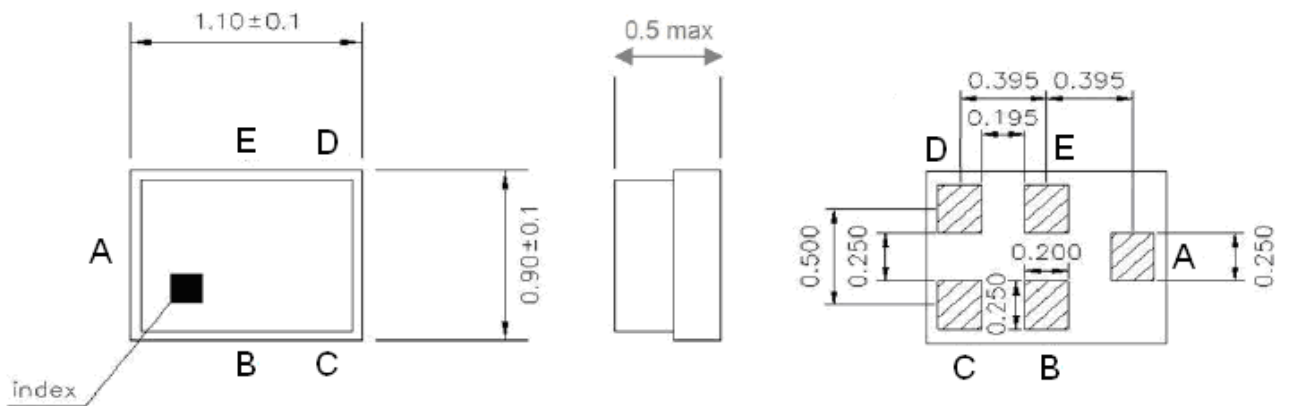
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E. PCB FOOTPRINT:



F. OUTLINE DRAWING:

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



All tolerances are ±0.1mm unless otherwise specified.

Unit: mm

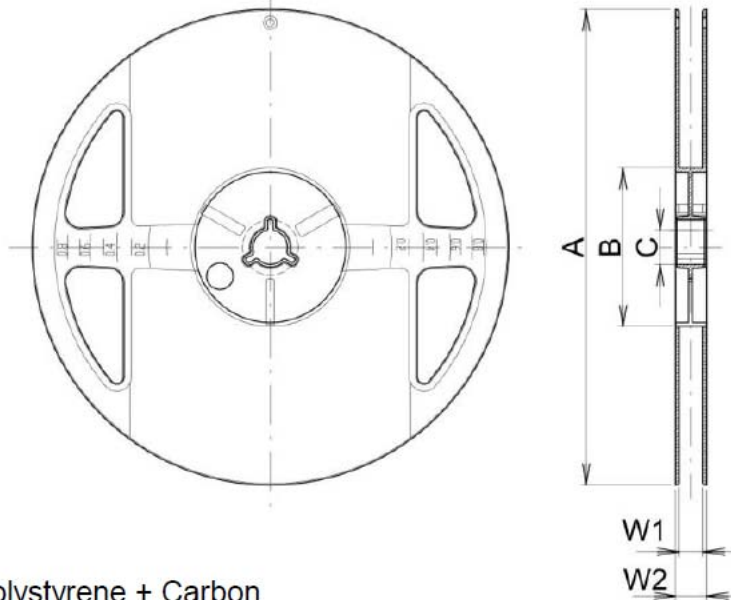
Pin No.	Symbol	Function
A	IN	Unbalanced input
B	GND	Ground
C	GND	Ground
D	OUT	Unbalanced output
E	GND	Ground

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G. PACKING:

1. Reel Dimensions



Material : Polystyrene + Carbon

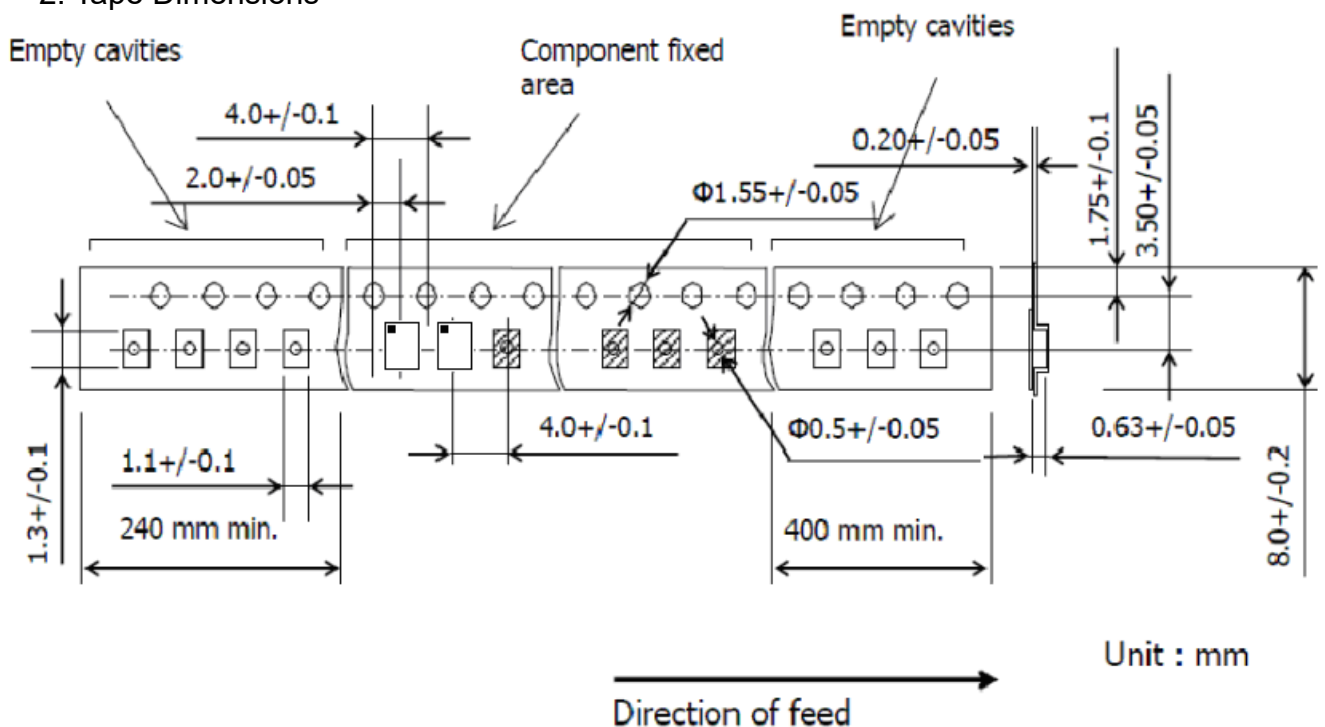
Color : Black

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

Unit : mm

A	B	C	W1	W2
180.0 +0.0/-1.5	60.0 +1.0/-0.0	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 TEMPERATURE PROFILE OF REFLOW SOLDERING:

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.

