TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,
Taoyuan, 324, Taiwan, R.O.C.
TEL: 886-3-4690038 FAX: 886-3-4697532
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Product Specifications Approval Sheet

Product Description: Dielectric Filter 4700MHz Size15.9x4.5mm BW 600MHz
TST Parts No.: TR0064AA0092

Customer Parts No.:_____

Customer signature required

Company:_____

Division:_____

Approved by :_____

Date:_____

Checked by:_____ Nina Chen Nina Chen

Approved by:_____ Kazuma Lee Kazuma Lee

Date:_____ 2022/04/20

1. Customer signed back is required before TST can proceed with sample build and receive orders.
2. Orders received without customer signed back will be regarded as agreement on the specifications.
3. Any specifications changes must be approved upon by both parties and a new revision of specifications shall be released to reflect the changes.

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Dielectric Filter 4700MHz Size15.9x4.5mm BW 600MHz

MODEL NO.: TR0064AA0092 REV. NO.:1.0

RoHS Compliant
Lead free
Lead-free soldering

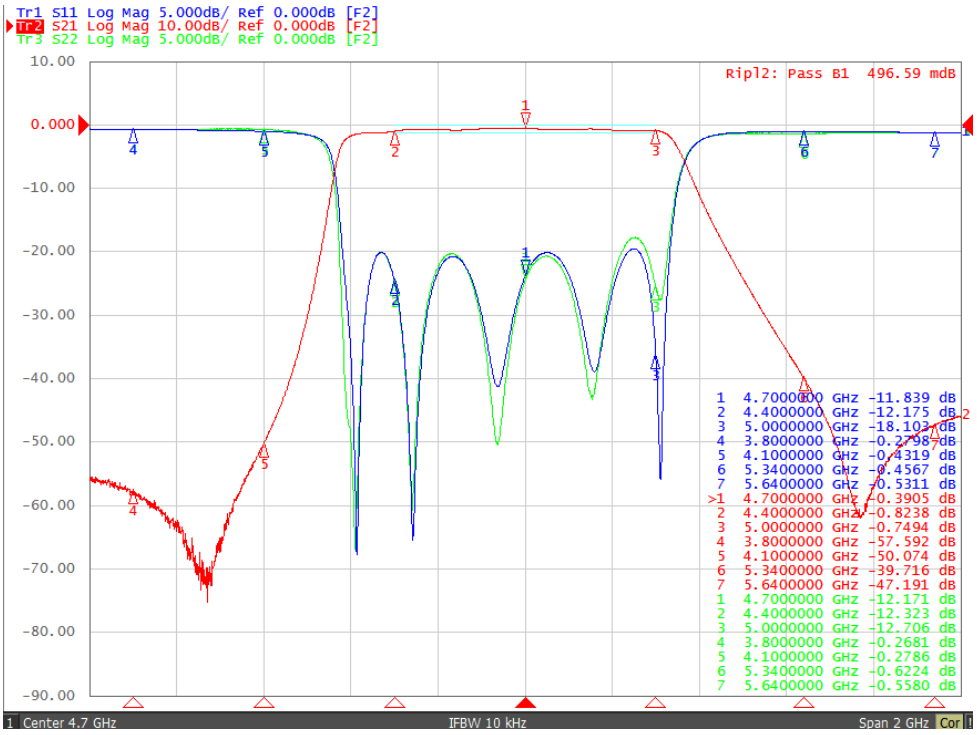
A. Maximum Rating:

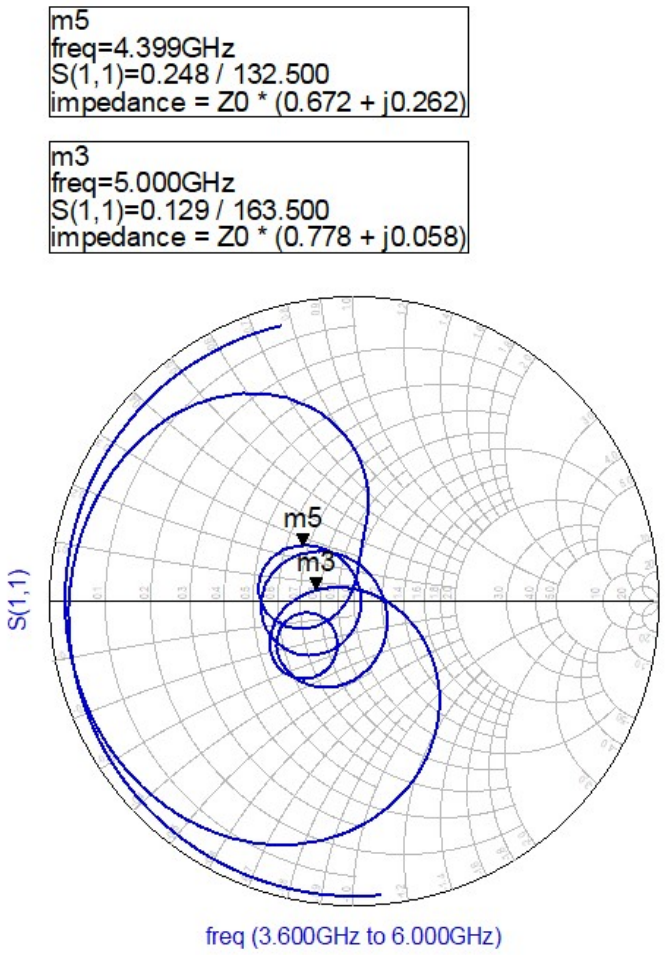
1. Input Power Level: 10W CW
2. Operating Temperature: -40°C to +105°C
3. Storage Temperature: -40°C to +85°C
4. Moisture Sensitivity Level: 2a

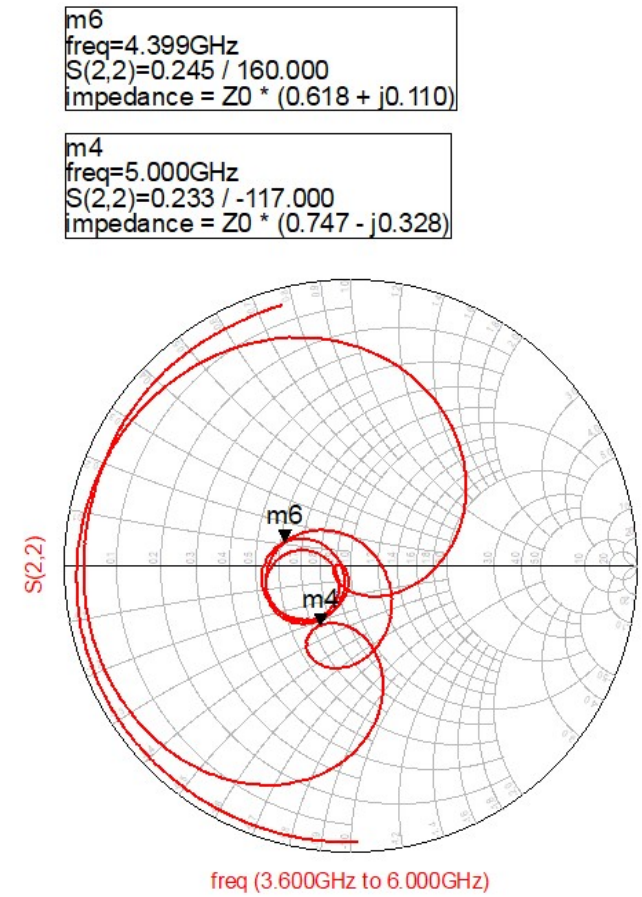
B. Electrical Characteristics:

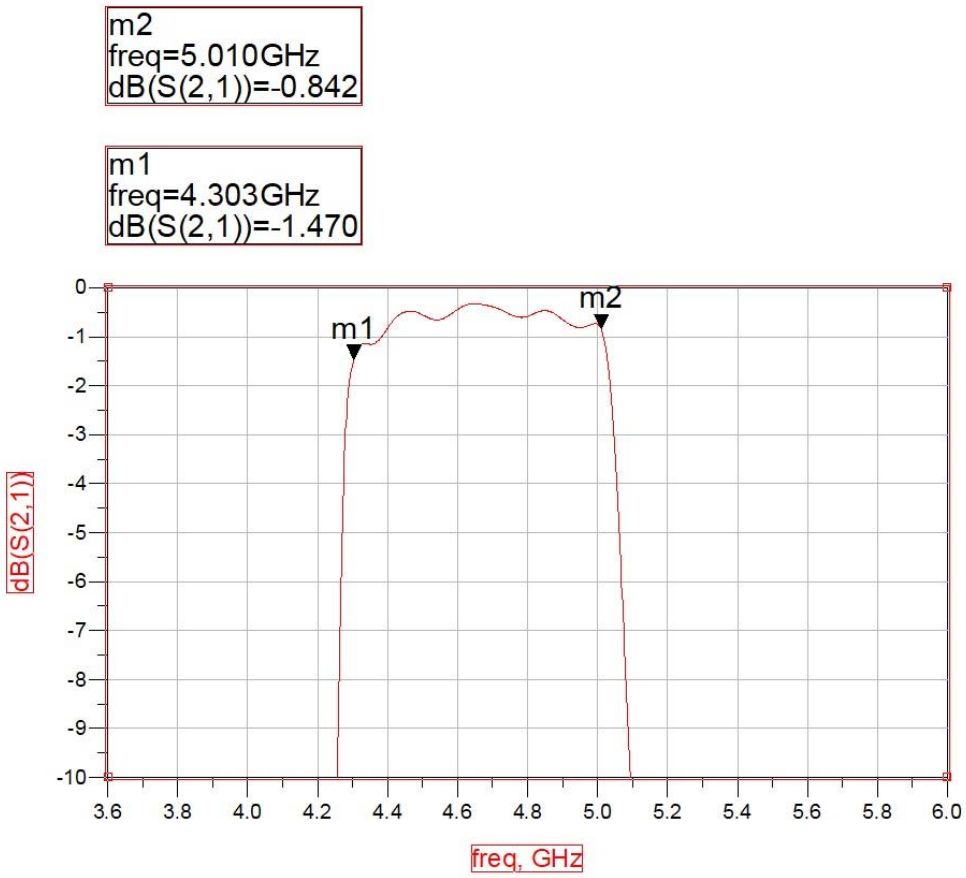
Item		Unit	Specification
Center Frequency	4400~5000 MHz	MHz	4700
Insertion Loss		dB	2.0(max)
Amplitude Ripple		dB	1.5(max)
Return Loss		dB	8(Min)
Attenuation	3800~4100 MHz	dB	40(min)
	5340~5640 MHz	dB	30(min)

C. Fregency Characteristics:

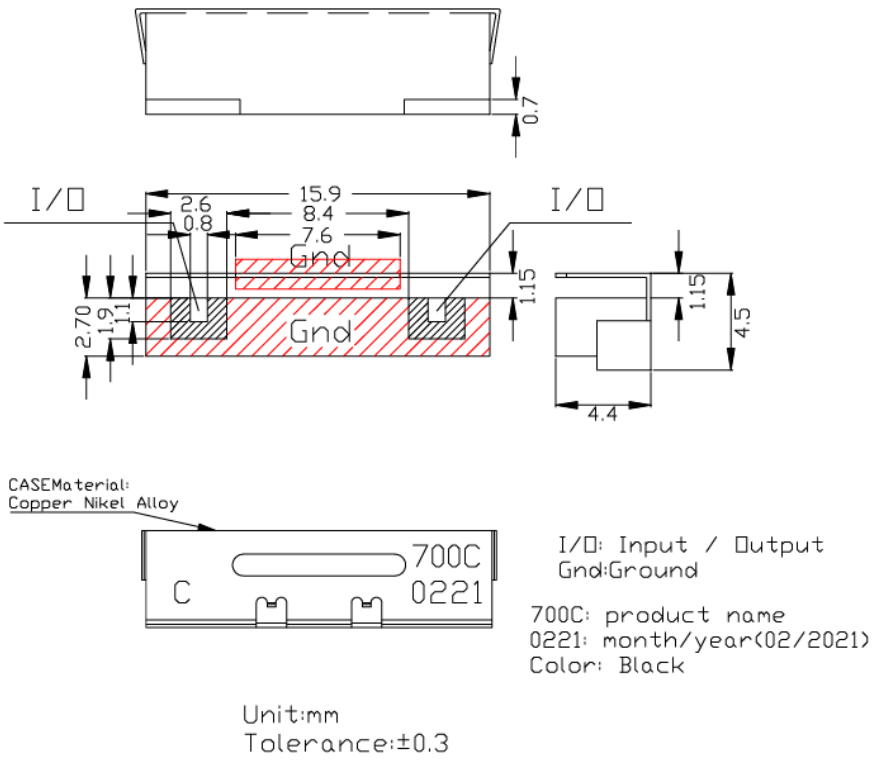



m5
freq=4.399GHz
S(1,1)=0.248 / 132.500
impedance = Z0 * (0.672 + j0.262)
m3
freq=5.000GHz
S(1,1)=0.129 / 163.500
impedance = Z0 * (0.778 + j0.058)
m5
m3
S(1,1)
freq (3.600GHz to 6.000GHz)

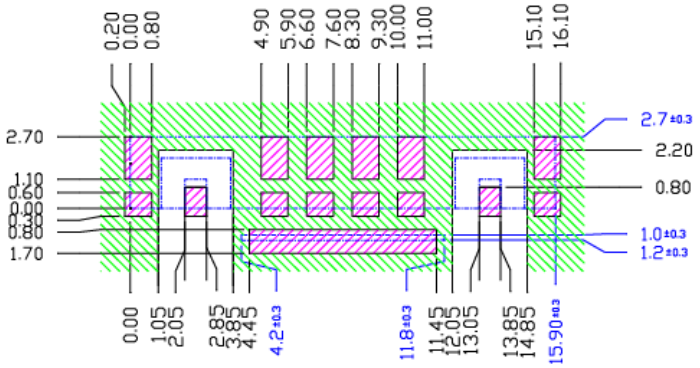

m6
freq=4.399GHz
S(2,2)=0.245 / 160.000
impedance = Z0 * (0.618 + j0.110)
m4
freq=5.000GHz
S(2,2)=0.233 / -117.000
impedance = Z0 * (0.747 - j0.328)
m6
m4
S(2,2)
freq (3.600GHz to 6.000GHz)


m2
freq=5.010GHz
dB(S(2,1))=-0.842
m1
freq=4.303GHz
dB(S(2,1))=-1.470
m1
m2
dB(S(2,1))
freq, GHz
0
-1
-2
-3
-4
-5
-6
-7
-8
-9
-10
3.6
3.8
4.0
4.2
4.4
4.6
4.8
5.0
5.2
5.4
5.6
5.8
6.0

D. Dimension:


0.7
I/O
I/O
15.9
2.6
0.8
8.4
7.6
Gnd
Gnd
1.15
1.15
4.5
2.70
1.9
1.1
4.4
CASEMaterial:
Copper Nikel Alloy
700C
C
0221
I/O: Input / Output
Gnd:Ground
700C: product name
0221: month/year(02/2021)
Color: Black
Unit:mm
Tolerance:±0.3

E. PCB Footprint:



unit:mm
Tolerance:±0.1

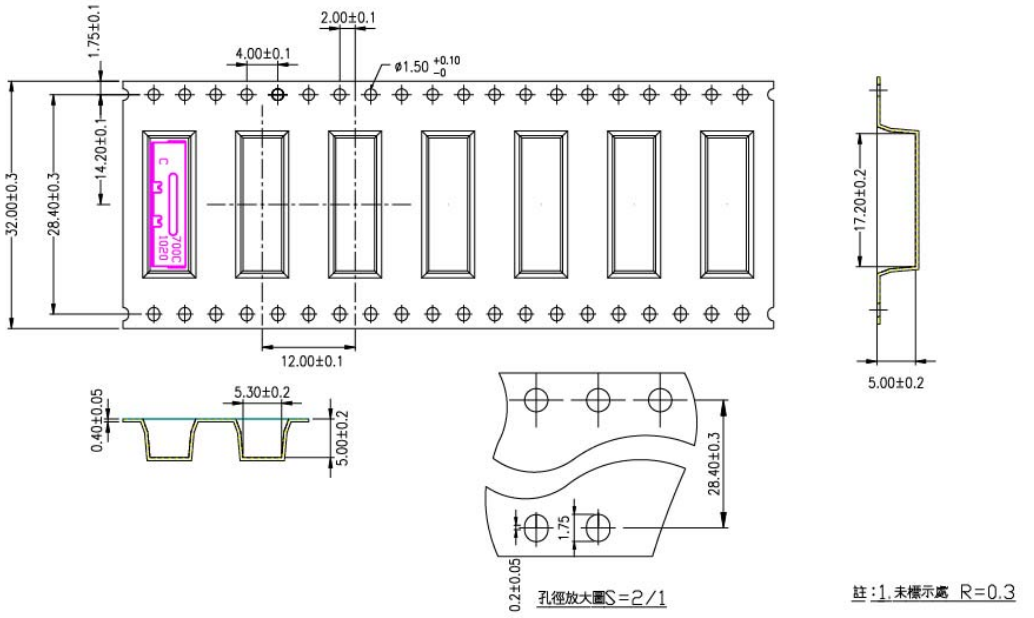
Solder Resist Over Conductor

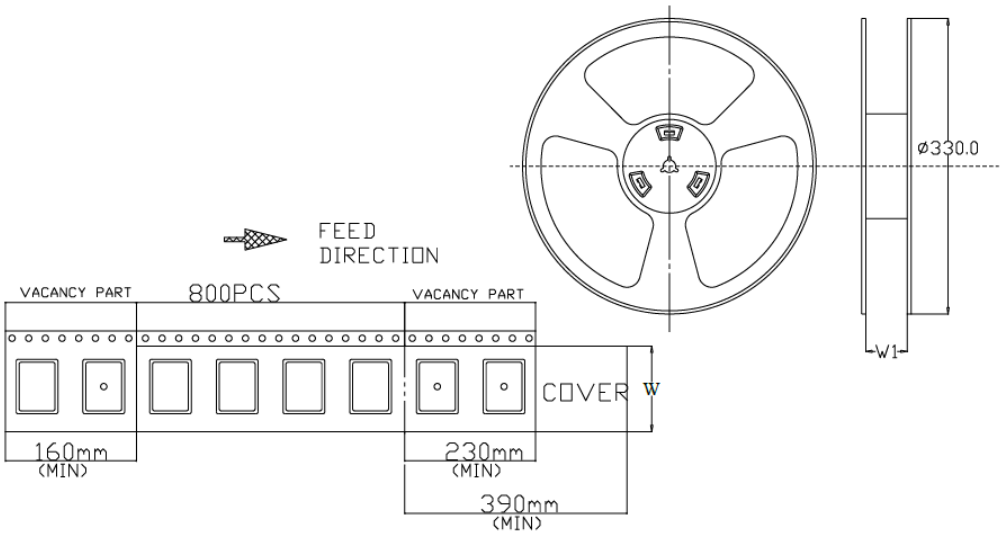
Solder Resist Over Dielectric

Exposed Conductor

Filter Outline

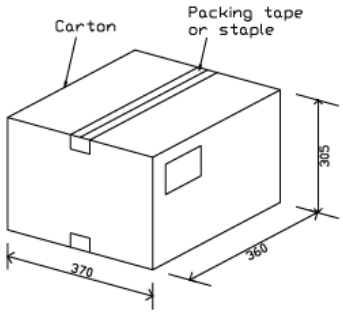
F.Packing:



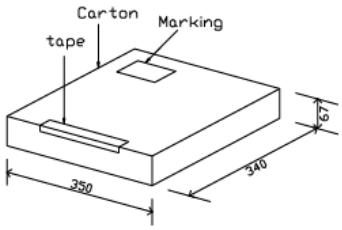


W	W1
25.5.±0.1mm	33±1.0mm

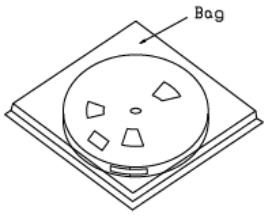
1. Outer Carton
   Quanyity:3200PCS



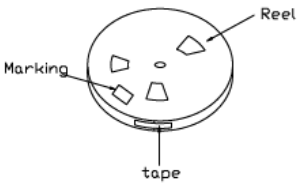
2. Inner Carton
   Quanyity:800PCS



3. Bag
   Quanyity:800PCS



4. Taping
   Quanyity:800PCS



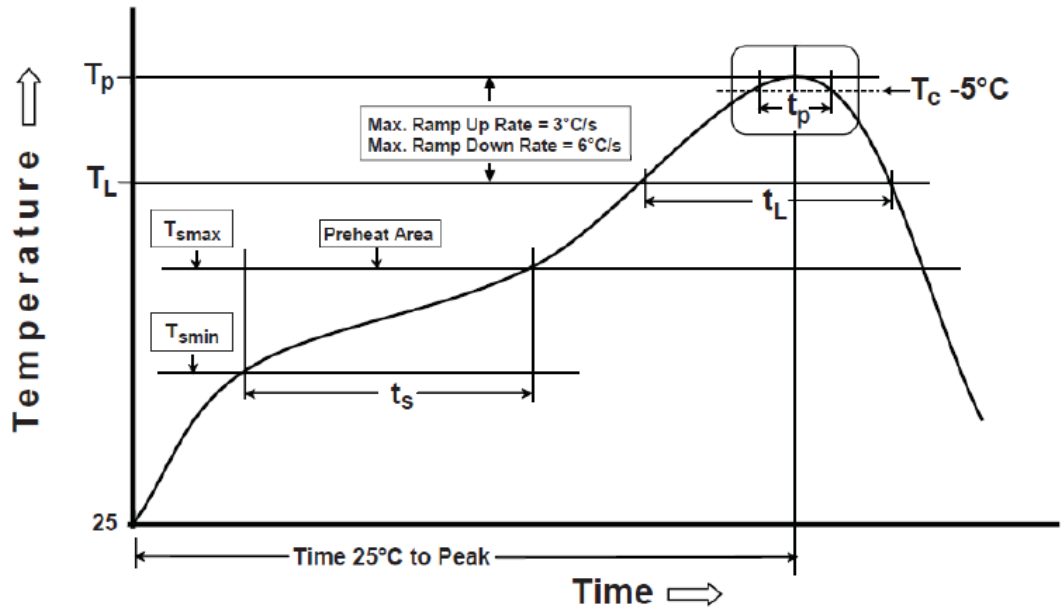
G. Recommended Reflow Profile:

products can be assembled following Pb-free assembly. According to the Standard **IPC/JEDEC J-STD-020C**, the temperature profile suggested is as follow:

Phase	Profile features	Pb-Free Assembly (SnAgCu)
PREHEAT	-Temperature Min(Tsmin) -Temperature Max(Tsmax) -Time(ts) form (Tsmin to Tsmax)	150℃ 200℃ 60-120 seconds
RAMP-UP	Avg. Ramp-up Rate (Tsmax to TP)	3℃/second(max)
REFLOW	-Temperature(TL) -Total Time above TL (t L)	217℃ 30-100 seconds
PEAK	-Temperature(TP) -Time(tp)	260℃ 3 second
RAMP-DOWN	Rate	6℃ / second max.
Time from 25℃ to Peak Temperature		8 minutes max.
Composition of solder paste		96.5Sn/3Ag/0.5Cu
Solder Paste Model		SHENMAO PF606-P26

Note：All the temperature measure point is on top surface of the component, if temperature over recommend, it will make component surface peeling or damage.

The graphic shows temperature profile for component assembly process in reflow ovens



Soldering With Iron:

Soldering condition : Soldering iron temperature 270±10 ℃.

Apply preheating at 120℃ for 2-3 minutes. Finish soldering for each terminal within 3 seconds, if soldering iron over temperature 270±10 ℃ or 3 seconds, it will make component surface peeling or damage.

Soldering iron can not leakage of electricity.