



TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,
Taoyuan, 324, Taiwan, R.O.C.

Product Specifications Approval Sheet

Product Name: Dielectric Filter 5962.5MHz SMD 6.6x3.15 mm (BW=475 MHz)

TST Parts No.: TR0019A

Customer Parts No.: _____

| |
|-----------------------------|
| Customer signature required |
| Company: _____ |
| Division: _____ |
| Approved by : _____ |
| Date: _____ |

Checked by: _____ Hongpu Lin *Hong Pu Lin*

Approved by: _____ Andy Yu *Andy Yu*

Date: _____ 2019/01/23

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 5962.5 MHz

MODEL NO.: TR0019A

REV. NO.:1

A. MAXIMUM RATING:

1. Input Power Level: 1 W
2. DC Voltage : 0 V
3. Operating Temperature: -40°C to +85°C
4. Storage Temperature:-40°C to +85°C
5. Moisture Sensitivity Level: Level 2a (MSL 2a)

RoHS Compliant
Lead free
Lead-free soldering

Electrostatic Sensitive Device (ESD)

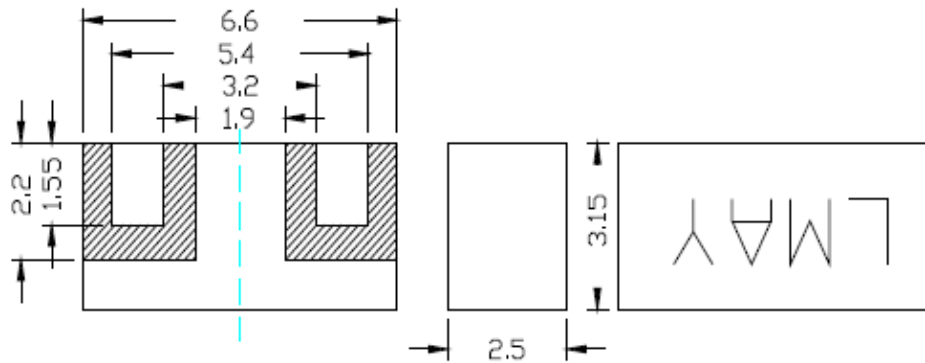
B. ELECTRICAL CHARACTERISTICS:

Terminating source impedance (single ended) : $Z_s = 50 \Omega$

Terminating load impedance (single ended) : $Z_L = 50 \Omega$

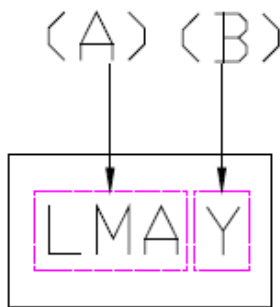
| NO. | ITEM | SPECIFICATION | | |
|--|--------------------------|---------------|---------|--------|
| | | Min | Typ. | Max |
| 1 | PSAA BAND INSERTION LOSS | | 2.0 dB | 2.6 dB |
| 2 | PASS BAND RIPPLE | | 0.85 dB | 1.0 dB |
| 3 | PASS BAND RETURN LOSS | 10 dB | 12 dB | |
| 4 | STOP-BAND ATTENUATION | at 5150 MHz | 15 dB | 20 dB |
| | | at 5250 MHz | 15 dB | 20 dB |
| | | at 5350 MHz | 15 dB | 20 dB |
| | | at 5460 MHz | 15 dB | 17 dB |
| | | at 6525 MHz | 12 dB | 14 dB |
| Item NO.4 specifies the absolute value of attenuation. | | | | |

C. OUTLINE DRAWING:
DIMENSION



LMA : Product name(J5962)
Y : Year/Month (2017/11)
Tolerance:±0.2mm

MARKING

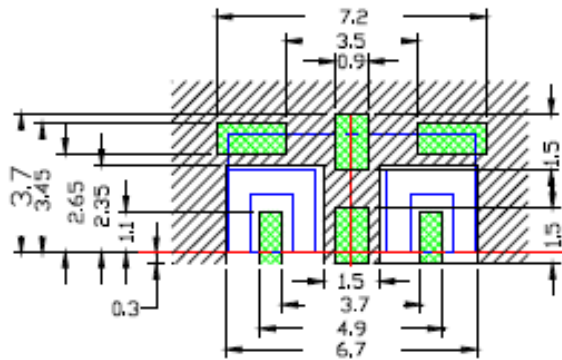


(A) Product name : LMA for 5962
(B) Year/Month : Please refer to the Table-1

(Table-1)

| Year | Month | Code | Year | Month | Code | Year | Month | Code | Year | Month | Code |
|------------------------------|-------|------|------------------------------|-------|------|------------------------------|-------|------|------------------------------|-------|------|
| 2012 2016 2020 2024 | 1 | A | 2013 2017 2021 2025 | 1 | N | 2014 2018 2022 2026 | 1 | A. | 2015 2019 2023 2027 | 1 | N. |
| | 2 | B | | 2 | P | | 2 | B. | | 2 | P. |
| | 3 | C | | 3 | Q | | 3 | C. | | 3 | Q. |
| | 4 | D | | 4 | R | | 4 | D. | | 4 | R. |
| | 5 | E | | 5 | S | | 5 | E. | | 5 | S. |
| | 6 | F | | 6 | T | | 6 | F. | | 6 | T. |
| | 7 | G | | 7 | U | | 7 | G. | | 7 | U. |
| | 8 | H | | 8 | V | | 8 | H. | | 8 | V. |
| | 9 | J | | 9 | W | | 9 | J. | | 9 | W. |
| | 10 | K | | 10 | X | | 10 | K. | | 10 | X. |
| | 11 | L | | 11 | Y | | 11 | L. | | 11 | Y. |
| | 12 | M | | 12 | Z | | 12 | M. | | 12 | Z. |

D. PCB Footprint



Tolerance: ± 0.15



Conductive Material:
Ground, connected to
lower ground diameter of
0.3mm and max. distance
of 1.0mm



I/O Pads and LAND
I/O must be connected to lines with
 $50\ \Omega$ impedance.
in the application a
termination of $50\ \Omega$
must be realized.

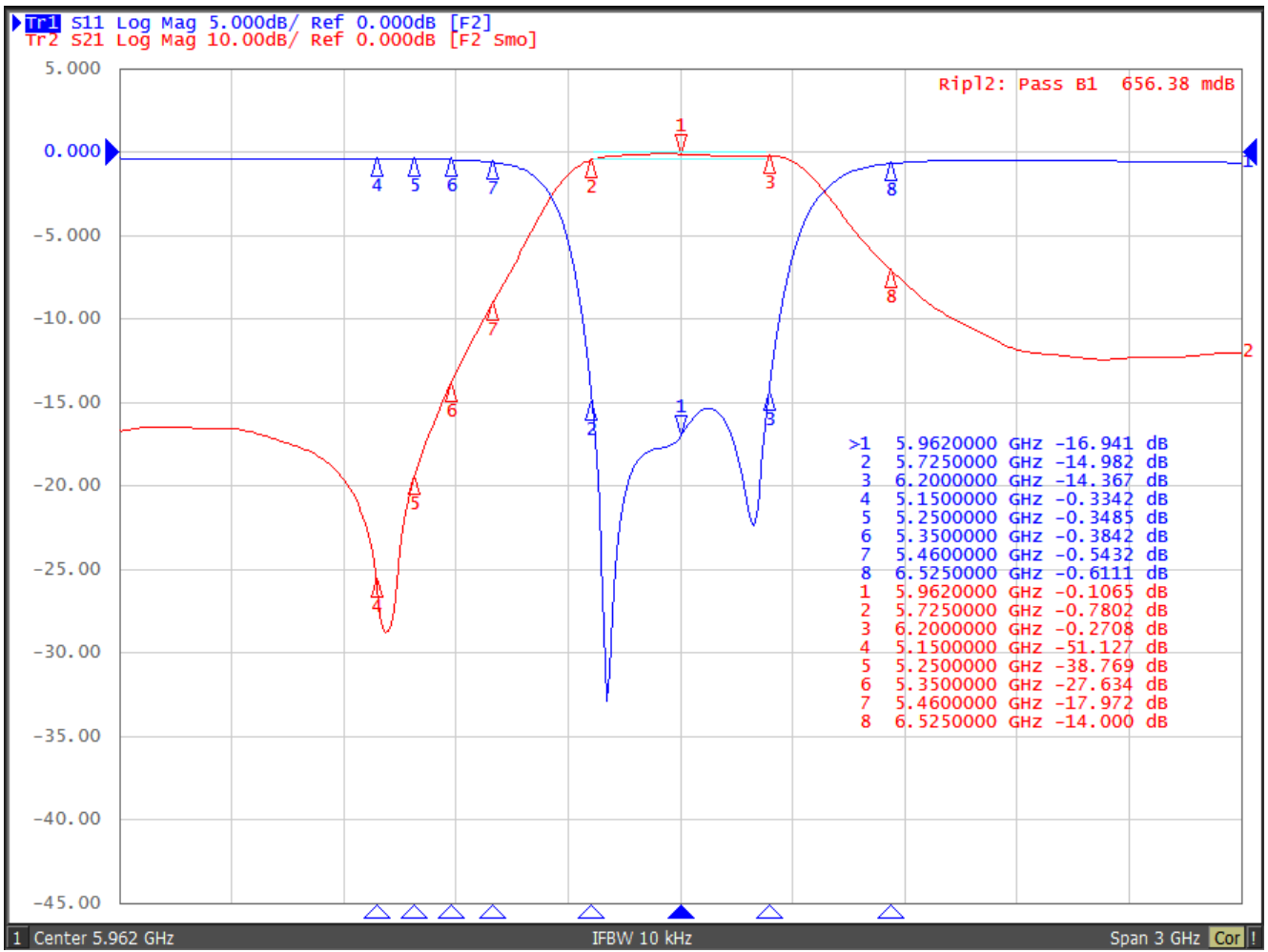


Solder Resist Without
Pattern



Filter
outline

E. Frequency Characteristics :

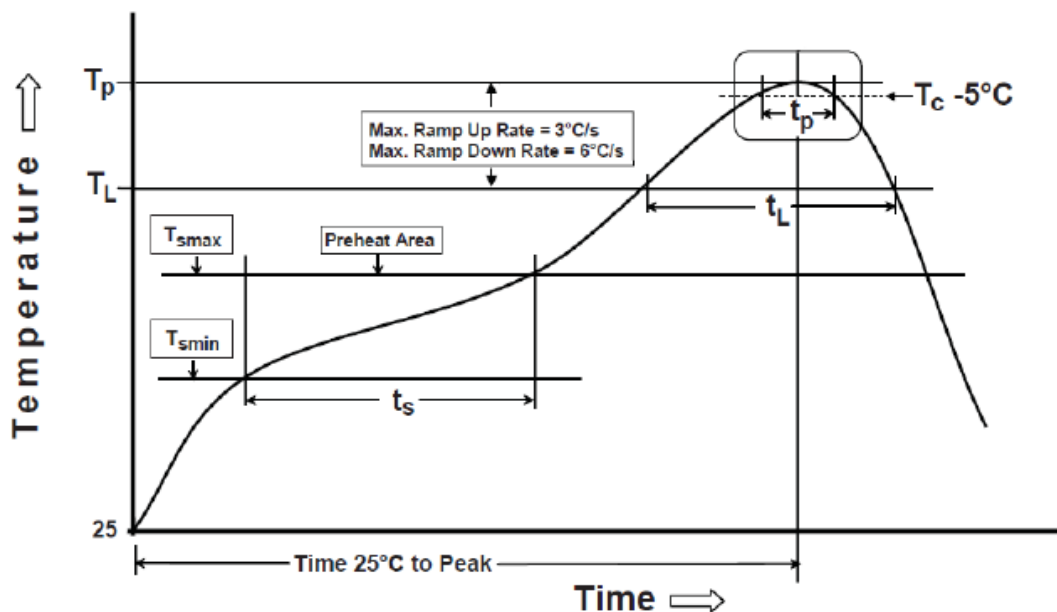


F. Recommended Reflow Profile:

| Phase | Profile features | Pb-Free Assembly (SnAgCu) |
|------------------------------------|--|----------------------------------|
| PREHEAT | -Temperature Min(T_{smin}) -Temperature Max(T_{smax}) -Time(t_s) form (T_{smin} to T_{smax}) | 150°C 200°C 60-120 seconds |
| RAMP-UP | Avg. Ramp-up Rate (T_{smax} to TP) | 3°C/second(max) |
| REFLOW | -Temperature(T_L) -Total Time above T_L (t_L) | 217°C 30-100 seconds |
| PEAK | -Temperature(T_P) -Time(t_p) | 260°C 3 second |
| RAMP-DOWN | Rate | 6°C / second max. |
| Time from 25°C 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 $270 \pm 10^\circ\text{C}$.

Apply preheating at 120°C for 2-3 minutes. Finish soldering for each terminal within 3 seconds, if soldering iron over temperature $270 \pm 10^\circ\text{C}$ or 3 seconds, it will make component surface peeling or damage. Soldering iron can not leakage of electricity.