

产品规格书

SPECIFICATION

CUSTOMER 客户: _____

PRODUCT 产品: _____ SAW FILTER _____

MODEL NO 型号: _____ KH-SAWF244A (可兼容 Band7/40) _____

MARKING 印字: _____ ● B176 _____

PREPARED 编制: _____ CHECKED 审核: _____

APPROVED 批准: _____ D A T E 日期: _____ 2017-08-04 _____

| | | |
|-------------------------|-------------|---------|
| 客户确认 CUSTOMER RECEIVED: | | |
| 审核 CHECKED | 批准 APPROVED | 日期 DATE |
| | | |

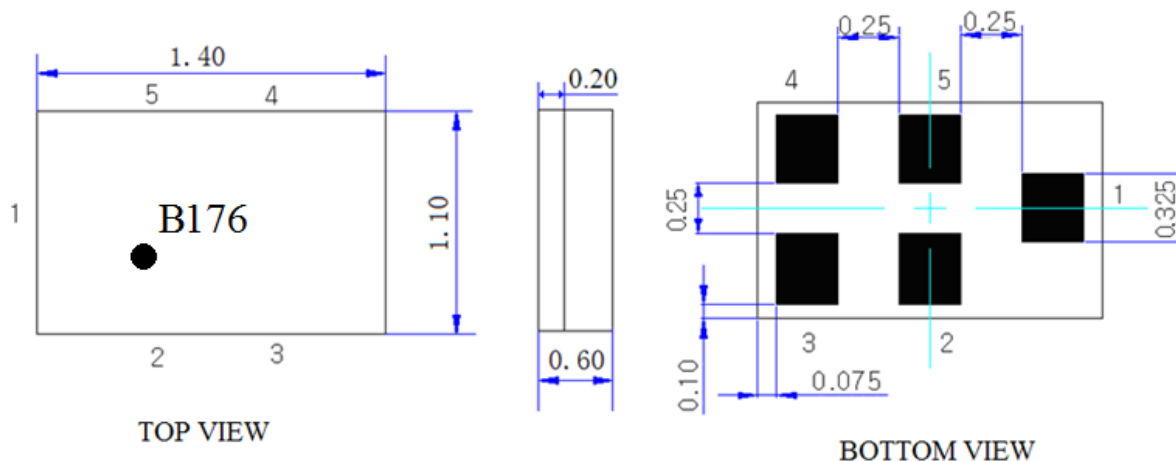
深圳市金航标电子有限公司
SHENZHEN KINGHELM ELECTRON CO., LTD.

SAW FILTER **KH-SAWF244A**

1. Application

- Low-loss RF filter for Bluetooth/WLAN with LTE Band 7/40 coexistence
- Impedance 50 ohm input and output.
- Unbalanced to unbalanced operation.
- Useable passband 78MHz.
- RoHS compatible.

2. DIMENSION



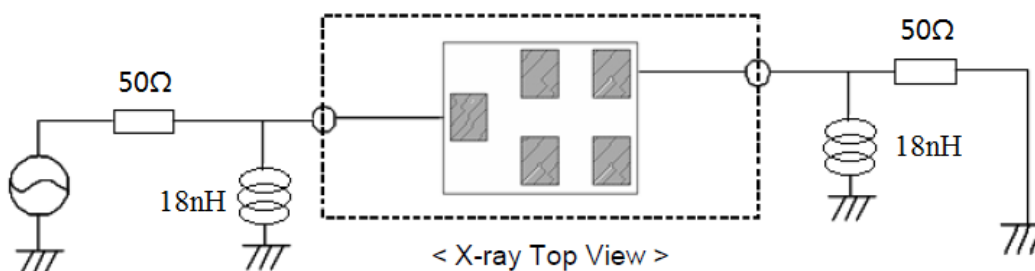
Pin configuration

- 1. Input (recommended) or Output
- 4. Output (recommended) or Input
- 2,3,5 To be grounded

3. Maximum Rating

| Items | Conditions |
|----------------------------|-------------------|
| Operation temperature rang | -30°C ~ +85°C |
| Storage temperature rang | -40°C ~ +85°C |
| ESD voltage | ESD(MM) : 50VDC |
| Sensitive discharge device | ESD(HBM) : 175VDC |
| DC Voltage VDC | 5V (25+/-2 deg.C) |
| Max Input Power | 24dBm 2000h |

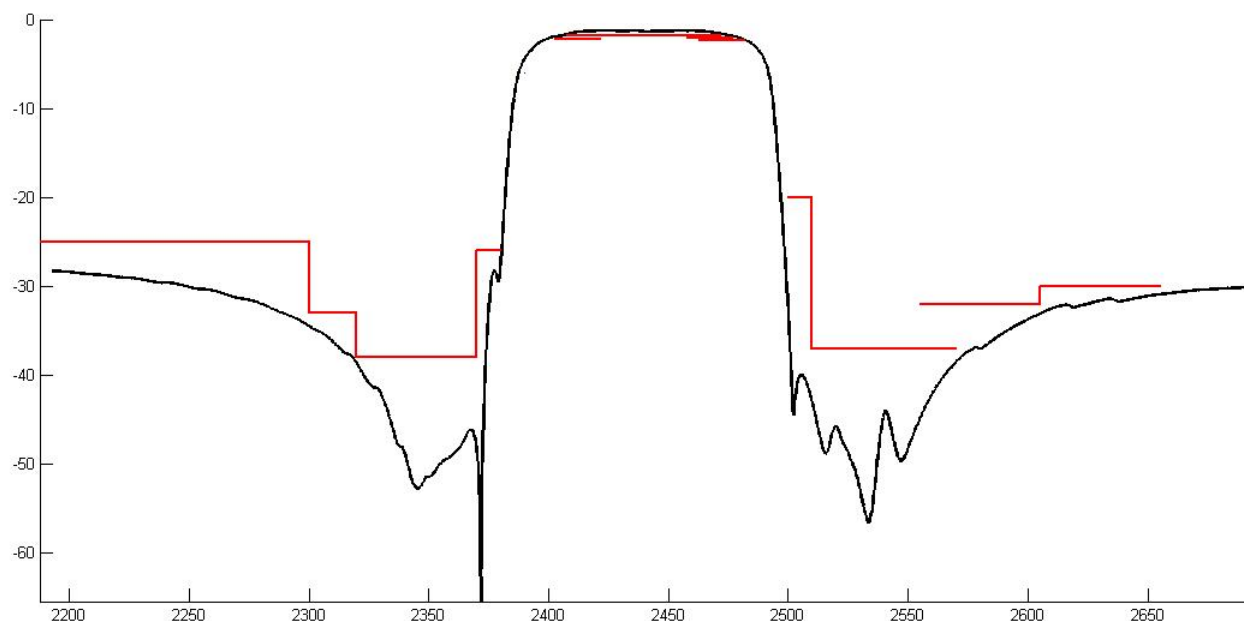
4. TEST CIRCUIT



4. ELECTRICAL SPECIFICATION

| Items | Test Condition | Min | Typ | Max | Unit | |
|-------------------------------------------|-------------------|-----------|------|-----|------|--------|
| Center Frequency | Fc | - | 2442 | - | MHz | |
| Insertion loss | 2402.5~2421.5 MHz | - | 1.8 | 2.2 | dB | CH1 |
| | 2407.5~2426.5 MHz | - | 1.5 | 1.8 | dB | CH2 |
| | 2412.5~2471.5 | - | 1.5 | 1.8 | dB | CH3~11 |
| | 2457.5~2476.5 | - | 1.8 | 2.0 | dB | CH12 |
| | 2462.5~2481.5 | - | 2.0 | 2.3 | dB | CH13 |
| Amplitude Ripple (p-p) | 2401~2483 MHz | - | 1.2 | 2.0 | dB | |
| VSWR | 2401~2483 MHz | - | 1.7 | 2.1 | - | |
| Attenuation (Reference level from 0dB) | 800~2300 MHz | 25 | 30 | - | dB | |
| | 2300~2320 MHz | 35 | 38 | - | dB | |
| | 2320~2370 MHz | 40 | 43 | - | dB | |
| | 2370~2380 MHz | 28 | 32 | - | dB | |
| | 2390 MHz | 6 | 8 | - | dB | |
| | 2500~2510MHz | 20 | 26 | - | dB | |
| | 2510~2570MHz | 37 | 40 | - | dB | |
| | 2555~2605MHz | 32 | 35 | - | dB | |
| | 2605~2655MHz | 30 | 32 | - | dB | |
| | 2690~4000MHz | 20 | 30 | - | dB | |
| | 4000~5000MHz | 20 | 30 | - | dB | |
| Input/Output Impedance | - | 50Ω//18nH | | | | |

6. Typical frequency response



7. ENVIRONMENTAL CHARACTERISTICS

7.1 High temperature exposure

Subject the device to +85°C for 16 hours. Then release the filter into the room conditions for 24 hours prior to the measurement. It shall fulfill the specifications in 5.

7.2 Low temperature exposure

Subject the device to -40°C for 16 hours. Then release the device into the room conditions for 24 hours prior to the measurement. It shall fulfill the specifications in 5.

7.3 Temperature cycling

Subject the device to a low temperature of -40°C for 30 minutes. Following by a high temperature of +85°C for 30 Minutes. Then release the device into the room conditions for 24 hours prior to the measurement. It shall meet the specifications in 5.

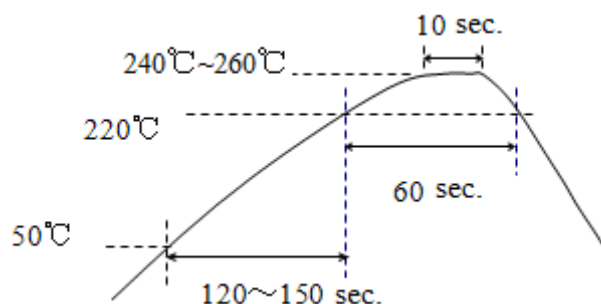
7.4 Resistance to solder heat

- 1、immerge the solder bath at 260°C for 10 sec.
- 2、 the iron at 370°C for 3 sec

7.5 Solderability

Submerge the device terminals into the solder bath at 245°C \pm 5°C for 5s, More than 95% area of the soldering pad must be covered with new solder. It shall meet the specifications in 5.

7.6 Reflow soldering



The specimen shall be passed through the reflow furnace with the condition shown in the above profile for 1 time.

The specimen shall be stored at standard atmospheric conditions for 1h, after which the measurement shall be made. Test board shall be 1.6 mm thick. Base material shall be glass fabric base epoxy resin.

7.7 Mechanical shock

Drop the device randomly onto the concrete floor from the height of 1m 3 times. the device shall fulfill the specifications in 5.

7.8 Vibration

Subject the device to the vibration for 1 hour each in x,y and z axes with the amplitude of 1.5 mm at 10 to 55 Hz. The device shall fulfill the specifications in 5.

8. REMARK

8.1 Static voltage

Static voltage between signal load & ground may cause deterioration & destruction of

SAW FILTER **KH-SAWF244A**

the component. Please avoid static voltage.

8.2 Ultrasonic cleaning

Ultrasonic vibration may cause deterioration & destruction of the component. Please avoid ultrasonic cleaning

8.3 Soldering

Only pad component may be solded. Please avoid soldering another part of component.

9. Packing

9.1 Dimensions

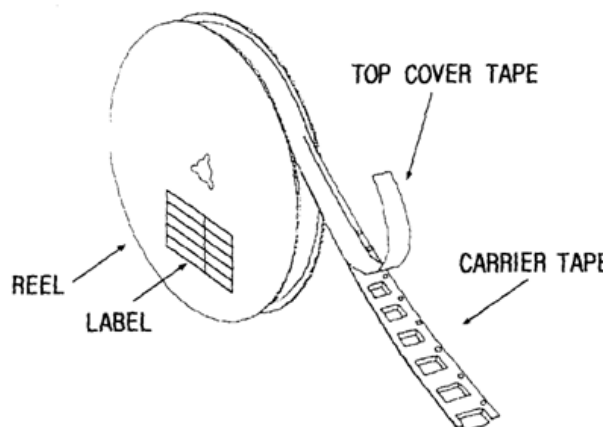
- (1) Carrier Tape: Figure 1
- (2) Reel: Figure 2
- (3) The product shall be packed properly not to be damaged during transportation and storage.

9.2 Reeling Quantity

- 3000 pcs/reel ϕ 178mm
- 10000 pcs/reel ϕ 259mm

9.3 Taping Structure

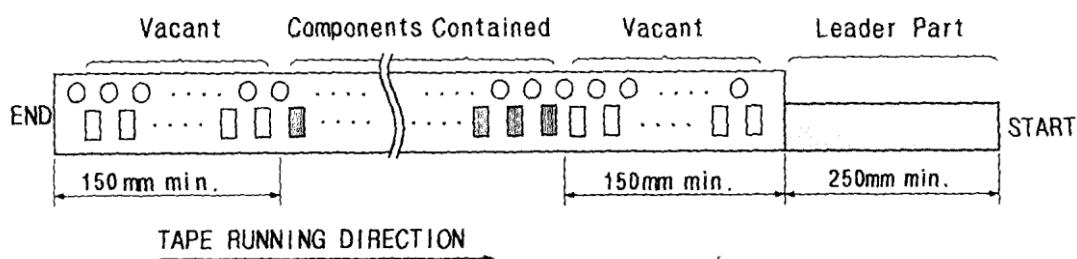
- (1) The tape shall be wound around the reel in the direction shown below.



- (2) Label

| | |
|-------------------|--|
| Device Name | |
| Marking | |
| User Product Name | |
| Quantity | |
| Lot No. | |

- (3) Leader part and vacant position specifications.

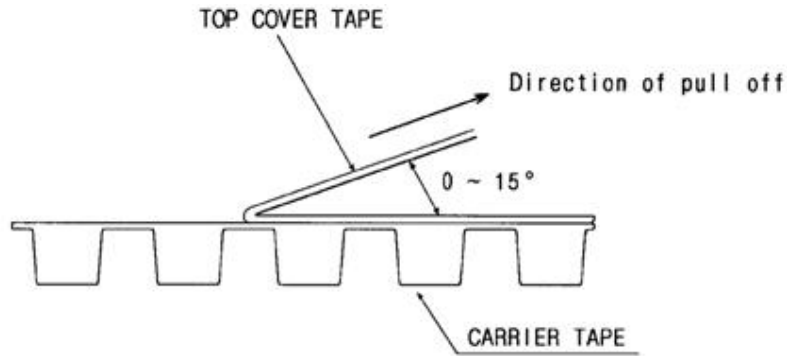


10. TAPE SPECIFICATIONS

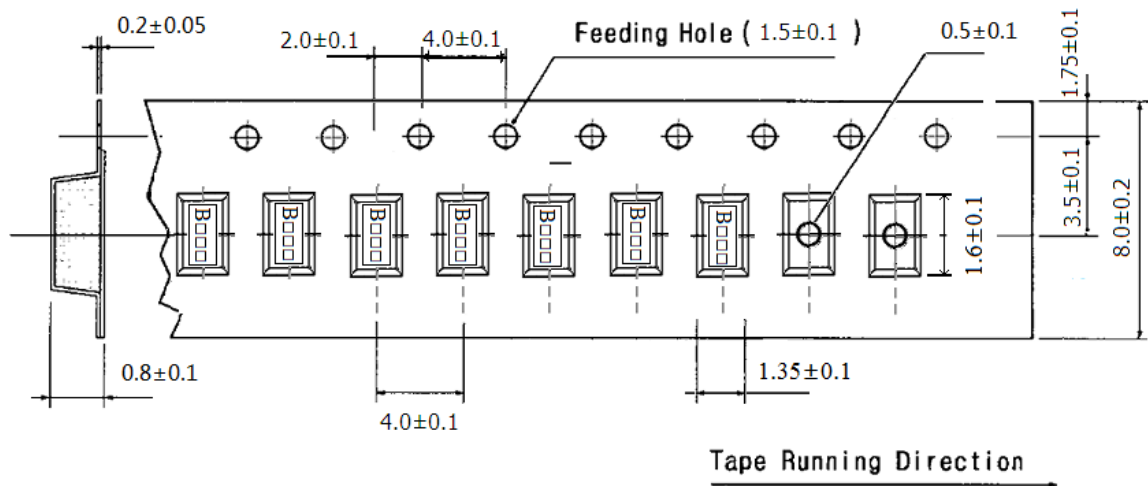
10.1 Tensile Strength of Carrier Tape: 4.4N/mm width

10.2 Top Cover Tape Adhesion (See the below figure)

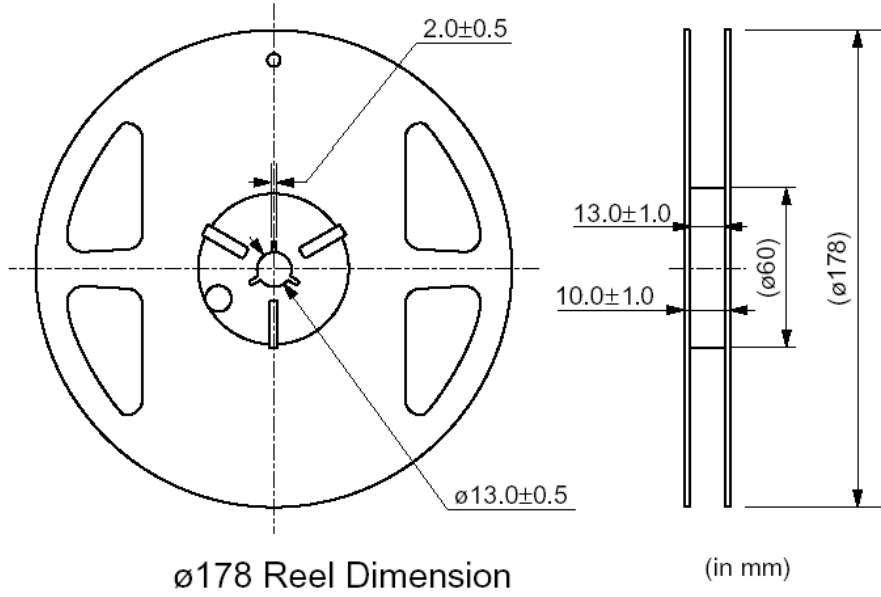
- (1) pull off angle: 0~15°
- (2) speed: 300mm/min.
- (3) force: 20~70g



[Figure 1] Carrier Tape Dimensions



[Figure 2] 3000 pcs/reel ϕ 178mm



10000 pcs/reel ϕ 257.5mm

