

规格书编号

SPEC NO:

产品规格书 SPECIFICATION

| CUSTOMER 客户: | | | | | | | | |
|-------------------------|----------------|------------|--|--|--|--|--|--|
| PRODUCT 产品: | SAW FILTER | | | | | | | |
| MODEL NO 型 号: | HDF153.21A S3 | | | | | | | |
| PREPARED 编 制: | CHECKED 审 核: _ | | | | | | | |
| APPROVED 批准: | DATE 日期: | 2006-12-06 | | | | | | |
| 客户确认 CUSTOMER RECEIVED: | | | | | | | | |
| 审核 CHECKED | 批准 APPROVED | 日期 DATE | | | | | | |
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无锡市好达电子有限公司 Shoulder Electronics Limited

SAW FILTER HDF153.21A S3

更改历史记录 History Record

| 更改日期 Date | 规格书编号 Spec. No. | 产品型号 Part No. | 客户产品型号 Customer No. | 更改内容描述 Modify Content | 备注 Remark |
|--------------|--------------------|------------------|------------------------|--------------------------|--------------|
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1. SCOPE

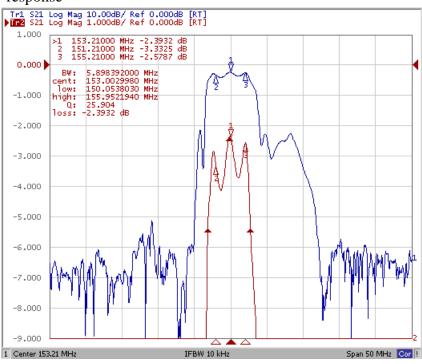
This specification shall cover the characteristics of SAW filter With F153.21A used for the page system.

2. ELECTRICAL SPECIFICATION

| DC Voltage VDC | 10V |
|-----------------------|----------------|
| AC Voltage Vpp | 10V50Hz/60Hz |
| Operation temperature | -40°C to +85°C |
| Storage temperature | -45°C to +85°C |
| RF Power Dissipation | 0dBm |

Electronic Characteristics

2-1. Type frequency response

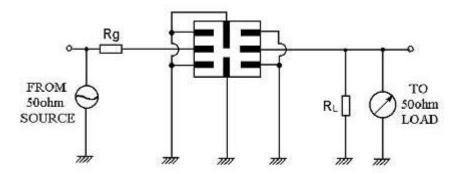


2-2Electrical characteristics

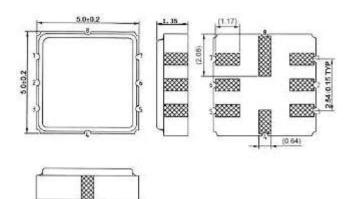
| Part number | F153.21A | Unit |
|---------------------------------|----------|------|
| Nominal center frequency(Fo) | 153.21.0 | MHz |
| Insertion Loss | | |
| 1. Fo \pm 1.5MHz | 5.0 | |
| 2. Fo-46.8~Fo- 38.8MHz | 50 | dB |
| 3. Fo+46.8~Fo+38.8MHz | 50 | |
| 4. Fo±46.8Mhz~2.5Fo | 40 | |
| Ripple(Within passband) | 2.0 | dB |
| Input/Output Impedance(Nominal) | 50 | Ohm |



3. TEST CIRCUIT



4. DIMENSION



- 1. Ground
- 2. Input/output
- 3. Ground
- 4. Ground
- 5. Ground
- 6. Input/output
- 7. Ground
- 8. Ground

5. ENVIRONMENTAL CHARACTERISTICS

5-1 High temperature exposure

Subject the device to $+85^{\circ}$ 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 2-2.

5-2 Low temperature exposure

Subject the device to -20° 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 2-2.

5-3 Temperature cycling

Subject the device to a low temperature of -40° C for 30 minutes. Following by a high temperature of $+85^{\circ}$ 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 2-2.

5-4 Resistance to solder heat

Dip the device terminals no closer than 1.5mm into the solder bath at 260° C $\pm 10^{\circ}$ C for 10 ± 1 sec. Then release the device into the room conditions for 4 hours. The device shall meet the specifications in 2-2.

5-5 Solderability

Subject the device terminals into the solder bath at 245° C $\pm 5^{\circ}$ C for 5s, More than 95% area of the terminals must be covered with new solder. It shall meet the specifications in 2-2.



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5-6 Mechanical shock

Drop the device randomly onto the concrete floor from the height of 1m 3 times. the device shall fulfill the specifications in 2-2.

5-7 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 2-2.

6. REMARK

6.1 Static voltage

Static voltage between signal load & ground may cause deterioration &destruction of the component. Please avoid static voltage.

6.2 Ultrasonic cleaning

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

6.3 Soldering

Only leads of component may be soldered. Please avoid soldering another part of component.

7. Packing

7.1 Dimensions

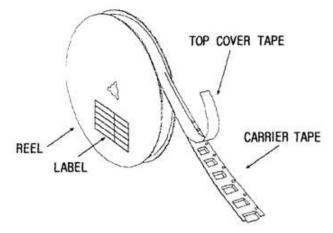
- (1) Carrier Tape: Figure 1
- (2) Reel: Figure 2
- (3) The product shall be packed properly not to be damaged during transportation and storage.

7.2 Reeling Quantity

1000 pcs/reel 7" 3000 pcs/reel 13"

7.3 Taping Structure

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



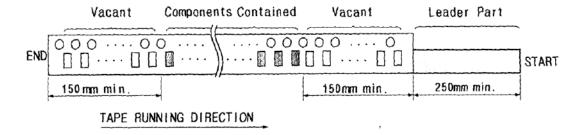




(2) Label

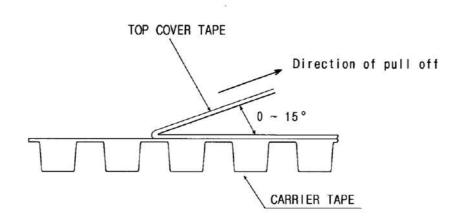
| Device Name | |
|-------------------|--|
| User Product Name | |
| Quantity | |
| Lot No. | |

(3) Leader part and vacant position specifications.



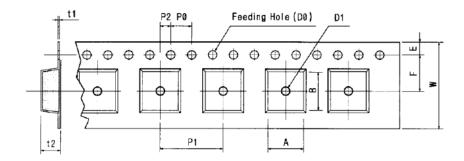
8. TAPE SPECIFICATIONS

- 8.1 Tensile Strength of Carrier Tape: 4.4N/mm width
- 8.2 Top Cover Tape Adhesion (See the below figure)
 - (1) pull off angle: 0~15°
 (2) speed: 300mm/min.
 (3) force: 20~70g



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[Figure 1] Carrier Tape Dimensions

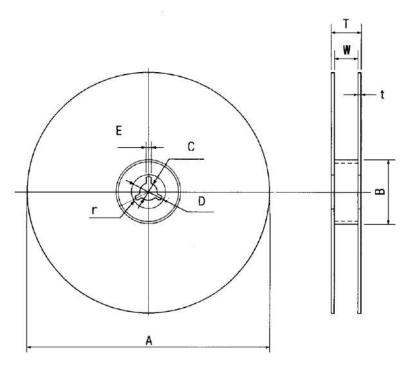


Tape Running Direction

[Unit:mm]

| W | F | Е | P0 | P1 | P2 | D0 | D1 | t1 | t2 | A | В |
|------|------------|-----------|-----------|-----------|------------|-----------|------------|------------|-----------|-----------|-----------|
| 12.0 | 5.5 | 1.75 | 4.0 | 8.0 | 2.0 | Ø1.5 | Ø1.0 | 0.3 | 2.10 | 6.40 | 5.20 |
| ±0 | ± 0.05 | ± 0.1 | ± 0.1 | ± 0.1 | ± 0.05 | ± 0.1 | ± 0.25 | ± 0.05 | ± 0.1 | ± 0.1 | ± 0.1 |

[Figure 2]



[Unit:mm]

| A | В | С | D | Е | W | t | r |
|-----------|-----------|-----------|-----------|-----------|-----------|------|------|
| Ø330 | Ø100 | Ø13 | 021 | 2 | 13 | 3 | 1.0 |
| ± 1.0 | ± 0.5 | ± 0.5 | ± 0.8 | ± 0.5 | ± 0.3 | max. | max. |