

DEQING HUAYING ELECTRONICS CO.,LTD.

APPROVAL SHEET

SAW BANDPASS FILTER PART NO.: NDFH069-0737SA

| Product Type: | Customer: |
|----------------------------|--------------------|
| SAW Filter | |
| Part NO.: | Customer Part NO.: |
| NDFH069-0742SA | |
| Ver. Ctrl.: | Issued Date: |
| SFH069-0742SA -190923-v1.1 | |

| PREPARED BY | CHECKED BY | APPROVED BY |
|-------------|------------|-------------|
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| Part No. | : | NDFH069-0742SA |
|----------|---|---------------------------|
| Pages | : | 8 |
| Data | : | 2019-09-23 |
| Revision | : | SFH069-0742SA-190923-v1.1 |

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| Revision | Date | Description | Remark |
|----------------------------|------------|----------------------------------|--------|
| SFH069-0742SA -170602-v1.0 | 2019-08-21 | First draft | |
| SFH069-0742SA -170602-v1.1 | 2019-09-23 | Renew Electrical Characteristics | |
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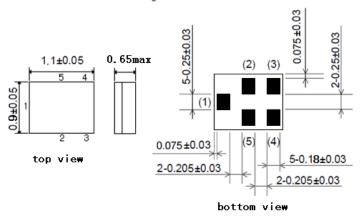
Features

SAW filter for Band 12 and Band 13.

- 1 High stability and reliability with good performance.
- 2 Single ended to Single ended.
- 3 Narrow and sharp pass band characteristics. RoHS compatible.
- 4 Low insertion loss and deep stop band attenuation for interference.
- 5 Package size 1.1mm*0.9mm

Package Dimensions

Ceramic Package: Unit: mm



Pin Configuration

| 1 | Input |
|-------|--------|
| 4 | Output |
| 2,3,5 | Ground |

Marking



Top View, Laser Marking

"**bW**" Part number

"." Dot marking, indicates input 1

" 1" Terminal1

The first "*": Month Code (The code shown below varies in a 4-year-cycle)

| Month | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|-----------|---|---|---|---|---|---|---|---|---|----|----|----|
| 2016/2020 | n | р | q | r | S | t | u | ٧ | W | Х | у | Z |
| 2017/2021 | Α | В | С | D | Е | F | G | Н | J | K | L | M |
| 2018/2022 | N | Р | Q | R | S | Т | U | V | W | Χ | Υ | Z |
| 2019/2023 | а | b | С | d | е | f | g | h | i | j | k | m |

The second "*": Date Code

| data | 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | 9th | 10th | |
|------|------|------|------|------|------|------|------|------|------|------|------|
| code | Α | В | С | D | Е | F | G | Н | J | K | |
| data | 11th | 12th | 13th | 14th | 15th | 16th | 17th | 18th | 19th | 20th | |
| code | L | М | N | Р | Q | R | S | Т | U | V | |
| data | 21st | 22nd | 23rd | 24th | 25th | 26th | 27th | 28th | 29th | 30th | 31st |
| code | W | Х | Υ | Z | а | b | d | е | f | g | h |

Maximum Ratings

| Rating | | Value | Unit |
|------------------------------------|------------------------|------------|---------------|
| DC Voltage (between any Terminals) | V _{DC} | 3 | V |
| RF Power (in BW) | P | +15 dBm 20 | 00h +50 deg.C |
| Operating Temperature Range | TA | -20 ~ +85 | °C |
| Storage Temperature Range | T _{stg} | -40 ~ +85 | °C |
| ESD Voltage (HB) | VESD | >150 | V |
| Moisture Sensitivity Levels | MSL | | 2A |

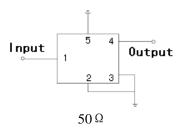
Electrical Characteristics:

| Item | | Minimum | Typical | Maximum | Unit |
|------------------------------------|------|---------|---------|---------|------|
| Center Frequency | fc | | 742.5 | | MHz |
| Insertion Loss | IL | | | | |
| 729 ···. 746 MHz | | | 2.0 | 2.8 | dB |
| 731.5 ···. 743.5 MHz | | | 1.9 | 2.5 | dB |
| 746 ···. 756 MHz | | | 2.8 | 3.0 | dB |
| 748.5 ···. 753.5 MHz | | | 2.5 | 3.0 | dB |
| 734 ···. 746 MHz | | | 2.0 | 2.5 | dB |
| 736.5 ···. 743.5 MHz | | | 1.7 | 2.0 | dB |
| Passband Ripple | Pr | | | | |
| 729 ···. 746 MHz | | | 0.8 | 1.8 | dB |
| 746 ···. 756 MHz | | | 1.7 | 2.0 | dB |
| VSWR | Vswr | | | | |
| 729 ···. 746 MHz | | | 2.3 | 2.5 | |
| 746 ···. 756 MHz | | | 2.3 | 2.5 | |
| Absolute Attenuation | α | | | | |
| 10 699 MHz | | 40 | 63 | | dB |
| 30 31 MHz | | 50 | 80 | | dB |
| 699 716 MHz | | 46 | 61 | | dB |
| 701.5 713.5 MHz | | 48 | 58 | | dB |
| 704 716 MHz | | 46 | 61 | | dB |
| 716 722 MHz | | 15 | 25 | | dB |
| 722 727 MHz | | 1.0 | 2.2 | | dB |
| 771 772 MHz | | 30 | 45 | | dB |
| 777 787 MHz | | 43 | 50 | | dB |
| 776 793 MHz | | 35 | 48 | | dB |
| 793 805 MHz | | 35 | 49 | | dB |
| 17101755 MHz | | 40 | 48 | | dB |
| 18501910 MHz | | 40 | 46 | | dB |
| 21872268 MHz | | 36 | 42 | | dB |
| 24002500 MHz | | 35 | 41 | | dB |
| 4900 5950 MHz | | 25 | 32 | | dB |
| 65616804 MHz | | 20 | 33 | | dB |
| 72907560 MHz | | 10 | 36 | | dB |
| 80198316 MHz | | 10 | 30 | | dB |
| Input / Output Impedance (Nominal) | | | 50 | • | Ω |

® RoHS Compliant

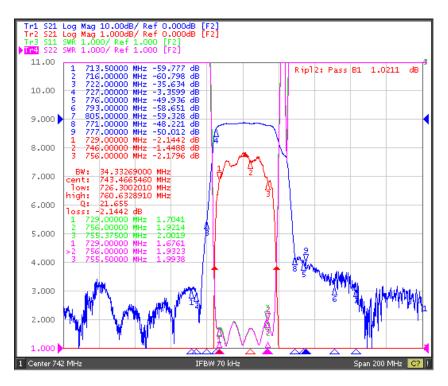
① Electrostatic Sensitive Device

Test Circuit

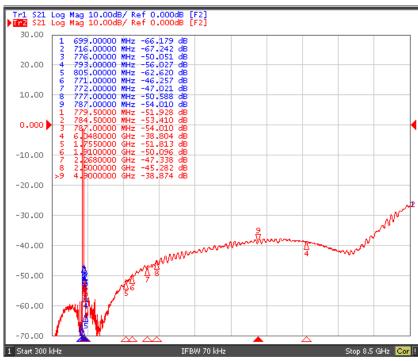


Typical Frequency Response

S21、S11、S22



Far side



Stability Characteristics

| Item No. | Test Item | STD Reference | Test Conditions | per lot |
|-------------|------------------------------|---------------------|--|------------|
| | Preconditioning | JESD22-A113 | 1) Temperature Cycling, 5 cycles -40°C to 85°C; 2) Bake, 24 hrs @85±5°C; 3)Moisture Soak, Soak time and conditions per IPC/JEDEC J-STD-020 based on device MSL level; 4) Reflow, 3 reflow cycles; 5) Drying, Room ambient temperature. | All behind |
| 1 | Temperature Cycling | JESD22-A104 | -40°C / +85°C,5°C/min,15min dwell,<1 min transfer time,500cycles | 3*25 pcs |
| 2 | High Temperature Storage | JESD22-A103 | Temperature=85°C, 1000 hours. | 3*25 pcs |
| 3 | Temperature Humidity no bias | JEDEC Std A101-B | 85°C 85%RH 240 hours | 3*25 pcs |
| 4 | Human Body Mode ESD | JESD22-A114 | Ta=25℃, ≥100V | 3 pcs |
| 5 | Charge Device Mode ESD | JESD22-C101 | Ta=25℃, ≥100V | 3 pcs |
| 6 | Solderability | JESD22-B102 | Wetting: 245℃, 5s. | 22 pcs |
| 7 | Drop Test | JESD22-B111 | 1500 Gs, 0.5 millisecond duration, half-sine pulse. | 20 pcs |
| 8 | Mechanical Shock | JESD-47 | Shock pulse of 1500g with pulse duration of 0.5+/-0.1msec (X,Y & Z); 5 shocks per axis. | 3*25 pcs |

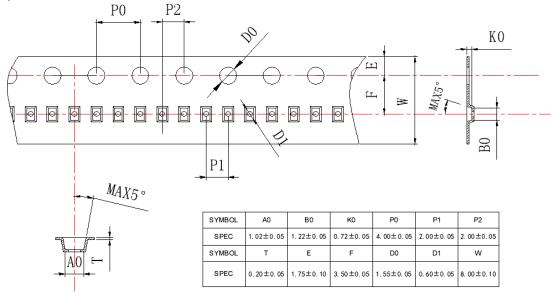
Requirements: The SAW filer shall remain within the electrical specifications after tests.

Remarks

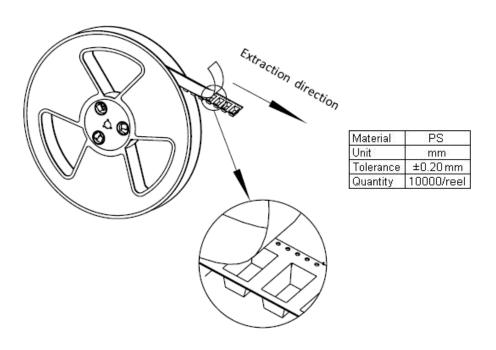
- SAW devices should not be used in any type of fluid such as water, oil, organic solvent, etc.
- Be certain not to apply voltage exceeding the rated voltage of components.
- Do not operate outside the recommended operating temperature range of components.
- Sudden change of temperature shall be avoided, deterioration of the characteristics can occur.
- Be careful of soldering temperature and duration of components when soldering.
- Do not place soldering iron on the body of components.
- Be careful not to subject the terminals or leads of components to excessive force.
- SAW devices are electrostatic sensitive. Please avoid static voltage during operation and storage.
- Ultrasonic cleaning shall be avoided. Ultrasonic vibration may cause destruction of components.

Packing Information

Carrier Tape



Reel Dimensions



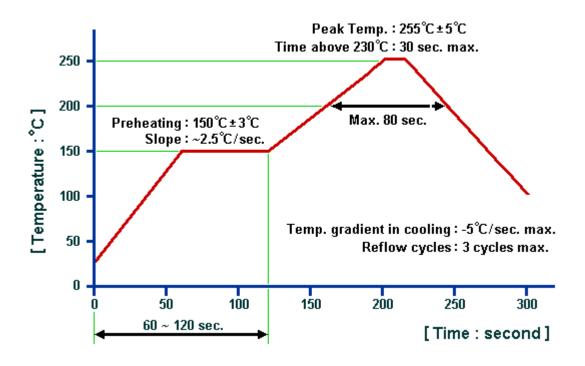
Outer Packing

| Туре | Quantity | Dimension | Description | Weight |
|---------------|----------|-------------|--|--------|
| Carton Box I | 100000 | 240×210×285 | anti-static plastic bag & carton box 1 reel / bag | 2.15 |
| Carton Box II | 300000 | 470×310×285 | 10bags / box (100000 pcs) 30 bags / box (300000pcs) | 6.22 |

Unit: mm

Unit: kg

Recommended Soldering Profile



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- 1. The specifications of this device are subject to change or obsolescence without notice.
- 2. Typically, equipment utilizing this device requires emissions testing and government approval, which is the responsibility of the equipment manufacturer.
- 3. Our liability is only assumed for the Surface Acoustic Wave (SAW) component(s) per se, not for applications, processes and circuits implemented within components or assemblies.
- 4. For questions on technology, prices and delivery, please contact our sales offices or e-mail sales@dqhuaying.com.

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MAPDCC0005 3A325 40287 ATB3225-75032NCT BD0810N50100AHF JHS-115-PIN DC0710J5005AHF DC2327J5005AHF 43020

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