



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

Part No.	:	NDFH069-0742SA
Pages	:	8
Data	:	2019-09-23
Revision	:	SFH069-0742SA-190923-v1.1

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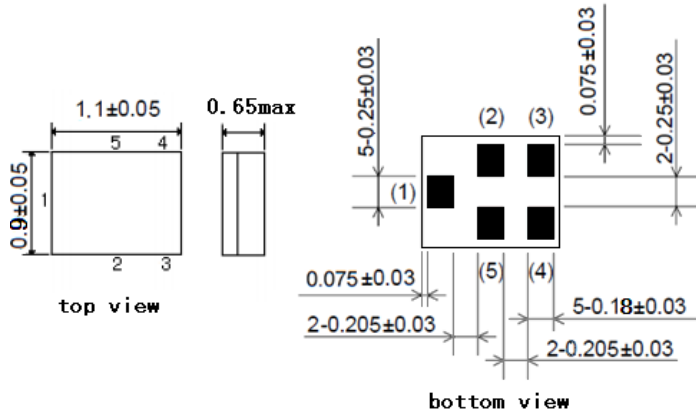
Features

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

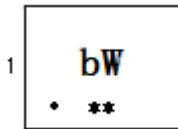
Ceramic Package: Unit: mm



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	p	q	r	s	t	u	v	w	x	y	z
2017/2021	A	B	C	D	E	F	G	H	J	K	L	M
2018/2022	N	P	Q	R	S	T	U	V	W	X	Y	Z
2019/2023	a	b	c	d	e	f	g	h	i	j	k	m

The second "*": Date Code

data	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	
code	A	B	C	D	E	F	G	H	J	K	
data	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	
code	L	M	N	P	Q	R	S	T	U	V	
data	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th	31st
code	W	X	Y	Z	a	b	d	e	f	g	h

Maximum Ratings

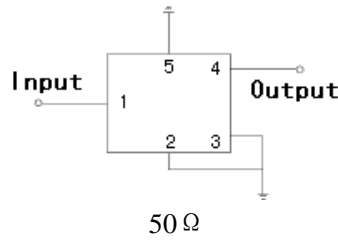
Rating		Value	Unit
DC Voltage (between any Terminals)	V_{bc}	3	V
RF Power (in BW)	P	+15 dBm 2000h +50 deg.C	
Operating Temperature Range	T_A	-20 ~ +85	°C
Storage Temperature Range	T_{stg}	-40 ~ +85	°C
ESD Voltage (HB)	V_{ESD}	>150	V
Moisture Sensitivity Levels	MSL	2A	

Electrical Characteristics:

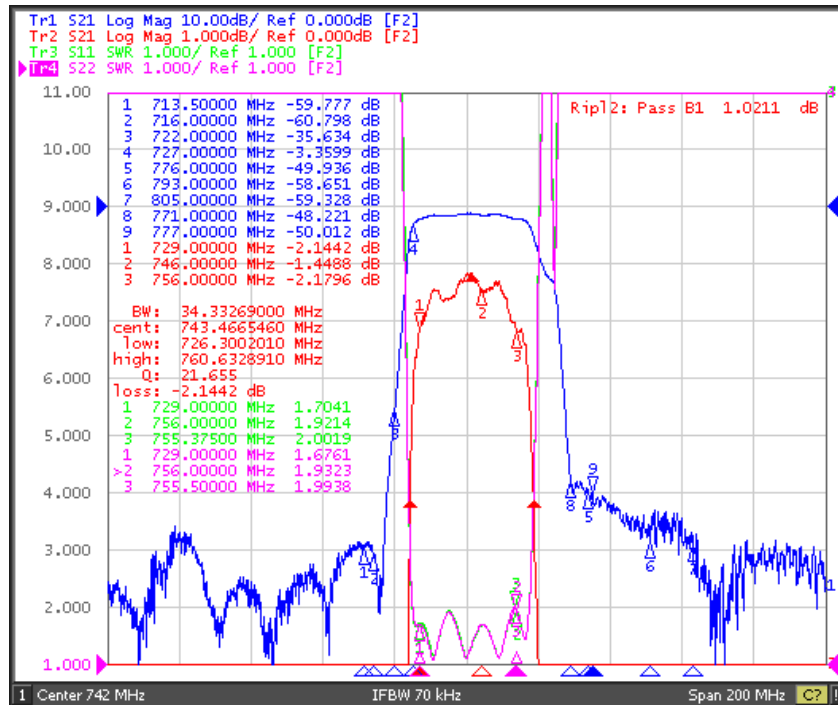
Item		Minimum	Typical	Maximum	Unit
Center Frequency	f_c		742.5		MHz
Insertion Loss	IL				
729 ... 746 MHz			2.0	2.8	dB
731.5 ... 743.5 MHz			1.9	2.5	dB
746 ... 756 MHz			2.8	3.0	dB
748.5 ... 753.5 MHz			2.5	3.0	dB
734 ... 746 MHz			2.0	2.5	dB
736.5 ... 743.5 MHz			1.7	2.0	dB
Passband Ripple	Pr				
729 ... 746 MHz			0.8	1.8	dB
746 ... 756 MHz			1.7	2.0	dB
VSWR	V_{swr}				
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**
 **Electrostatic Sensitive Device**

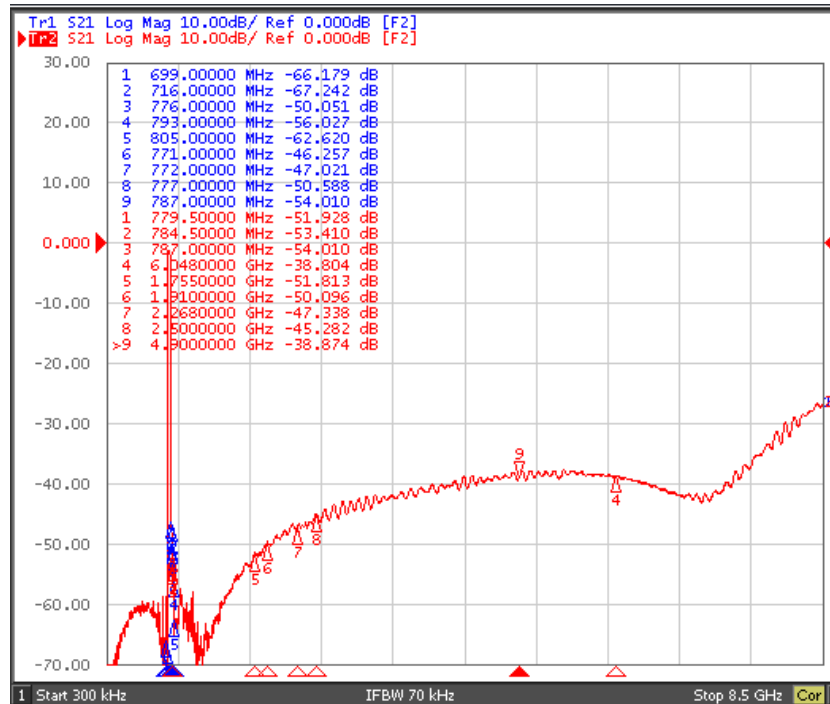
Test Circuit



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°C, ≥100V	3 pcs
5	Charge Device Mode ESD	JESD22-C101	Ta=25°C, ≥100V	3 pcs
6	Solderability	JESD22-B102	Wetting: 245°C, 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

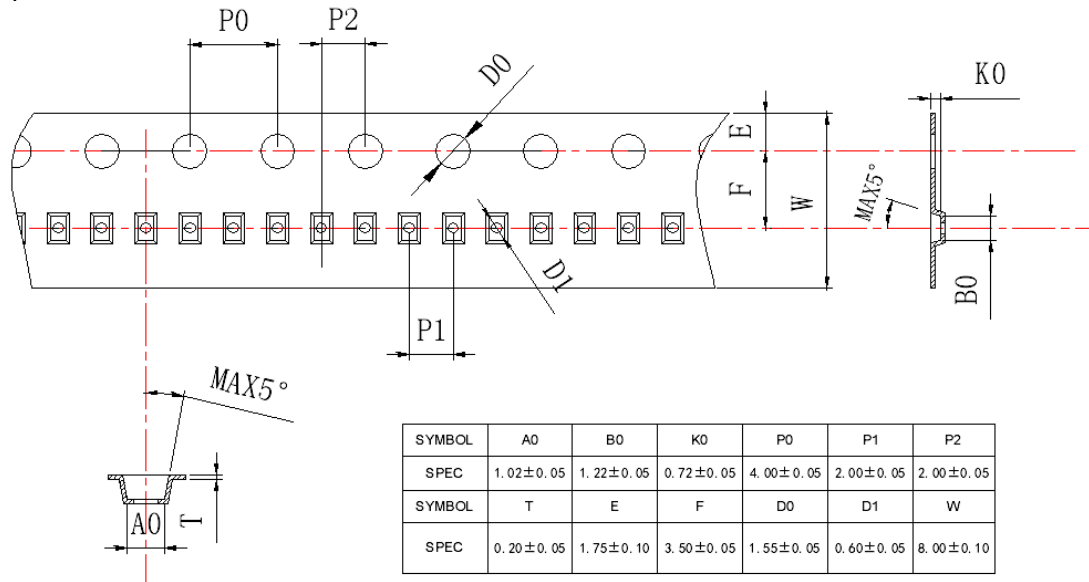
Requirements: The SAW filer shall remain within the electrical specifications after tests.

Remarks

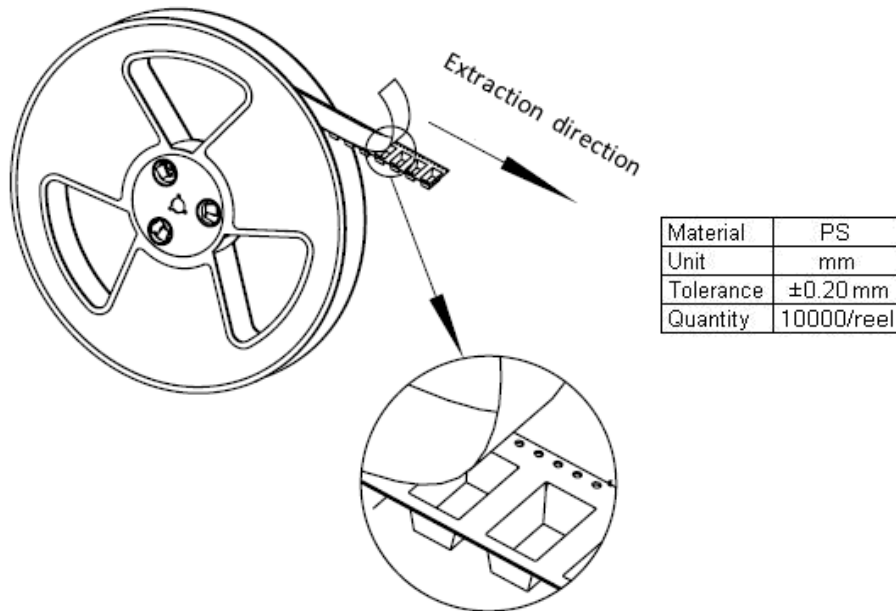
- SAW devices should not be used in any type of fluid such as water, oil, organic solvent, etc.
- Be certain not to apply voltage exceeding the rated voltage of components.
- Do not operate outside the recommended operating temperature range of components.
- Sudden change of temperature shall be avoided, 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



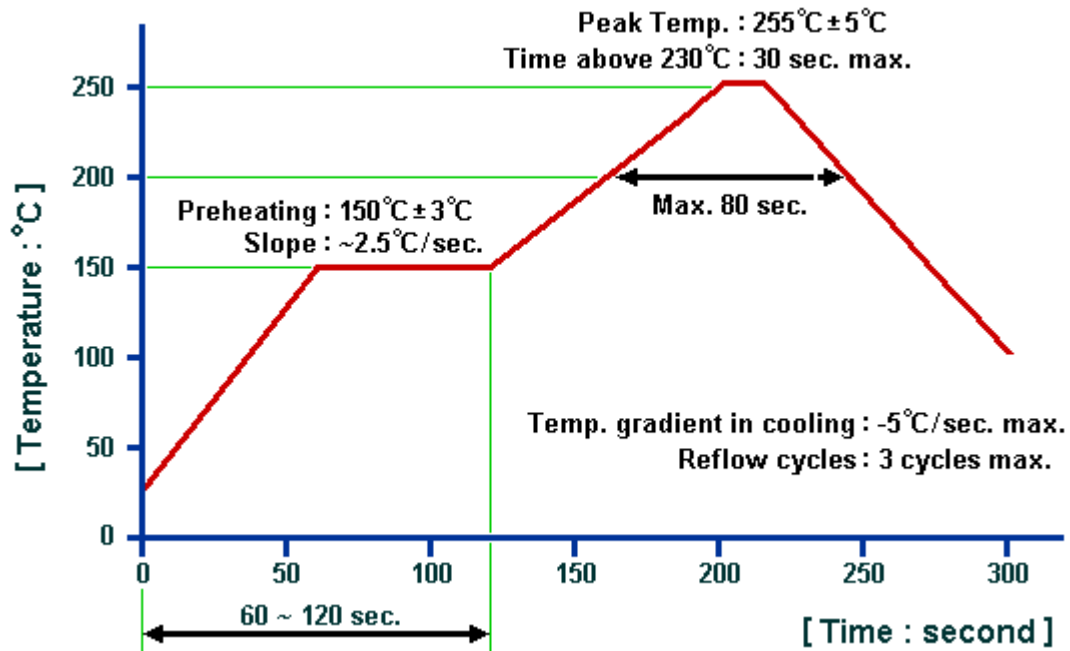
Outer Packing

Type	Quantity	Dimension	Description	Weight
Carton Box I	100000	240x210x285	anti-static plastic bag & carton box 1 reel / bag	2.15
Carton Box II	300000	470x310x285	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@dquaying.com.