



DEQING HUAYING ELECTRONICS CO.,LTD.

APPROVAL SHEET

SAW BANDPASS FILTER
PART NO.: NDFH006-1900SA

Product Type:		Customer:	
SAW Filter			
Part NO.:		Customer Part NO.:	
NDFH006-1900SA			
Ver. Ctrl.:		Issued Date:	
SFH006-1900SA -181115-v1.2			

PREPARED BY	CHECKED BY	APPROVED BY

Part No.	:	NDFH006-1900SA
Pages	:	8
Data	:	2018-11-15
Revision	:	SFH006-1900SA -181115-v1.2

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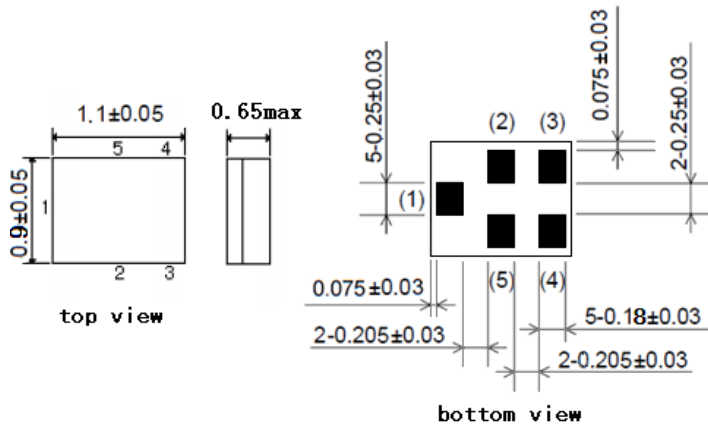
Features

SAW filter for Cellular/Cordless phone(Terminal) relevant market only..

- 1 High stability and reliability with good performance and no adjustment.
- 2 Narrow and sharp pass band characteristics. RoHS compatible.
- 3 Low insertion loss and deep stop band attenuation for interference.
- 4 Low – loss SAW filter for Band39 (Rx).
- 5 Package size 1.1mm*0.9mm

Package Dimensions

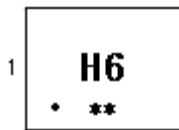
Ceramic Package: Unit: mm



Pin Configuration

1	Input
4	Output
2,3,5	Ground

Marking



Top View, Laser Marking

"H6": Part number

"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

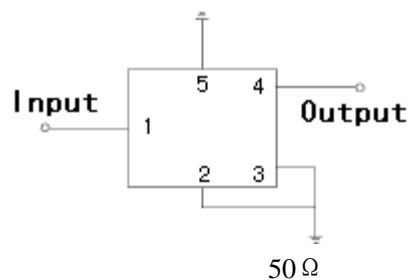
Rating		Value	Unit
DC Voltage (between any Terminals)	V_{DC}	3	V
RF Power (in BW)	P	13dBm/2000hrs/55°C	
Operating Temperature Range	T_A	-30 ~ +85	°C
Storage Temperature Range	T_{stg}	-40 ~ +85	°C

Electrical Characteristics:

Item		Minimum	Typical	Maximum	Unit
Center Frequency	F_o		1900		MHz
Insertion Loss	IL				
	1880 ... 1920 MHz		1.4	2.0	dB
Passband Ripple	Pr				
	1880 ... 1920 MHz		0.5	1.4	dB
VSWR	V_{swr}				
	1880 ... 1920 MHz		1.4	2.0	
Absolute Attenuation	α				
	10 ... 1710 MHz	30	35		dB
	1710 ... 1805 MHz	35	43		dB
	1805 ... 1840 MHz	35	41		dB
	1840 ... 1850 MHz	30	43		dB
	2000 ... 2110 MHz	30	41		dB
	2110 ... 2200MHz	36	41		dB
	2200 ... 4000 MHz	30	38		dB
	4000 ... 6000 MHz	27	34		dB
Input / Output Impedance (Nominal)			50		Ω

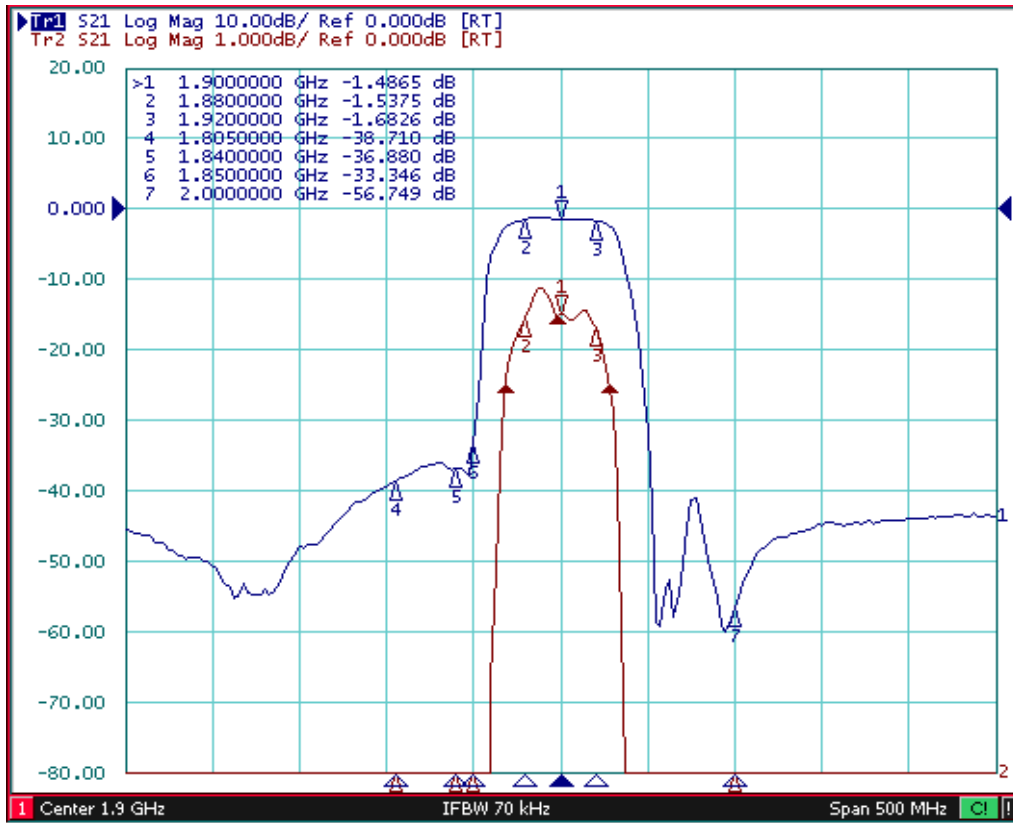
 **RoHS Compliant**

 **Electrostatic Sensitive Device**

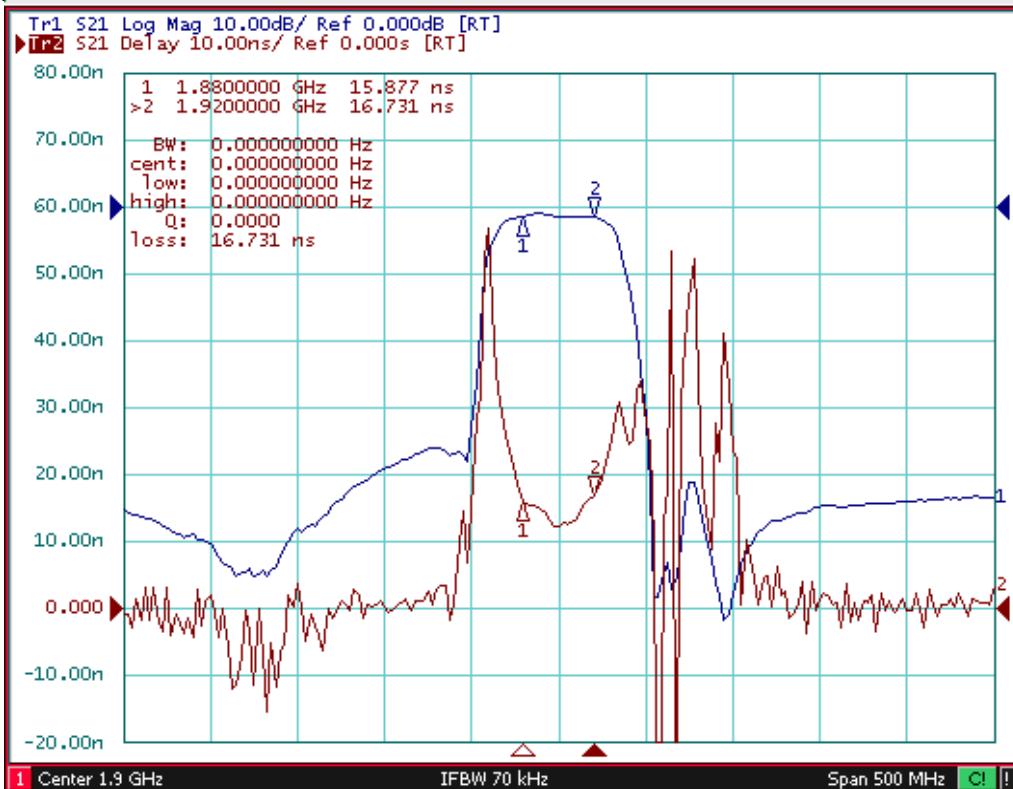
Test Circuit

Typical Frequency Response

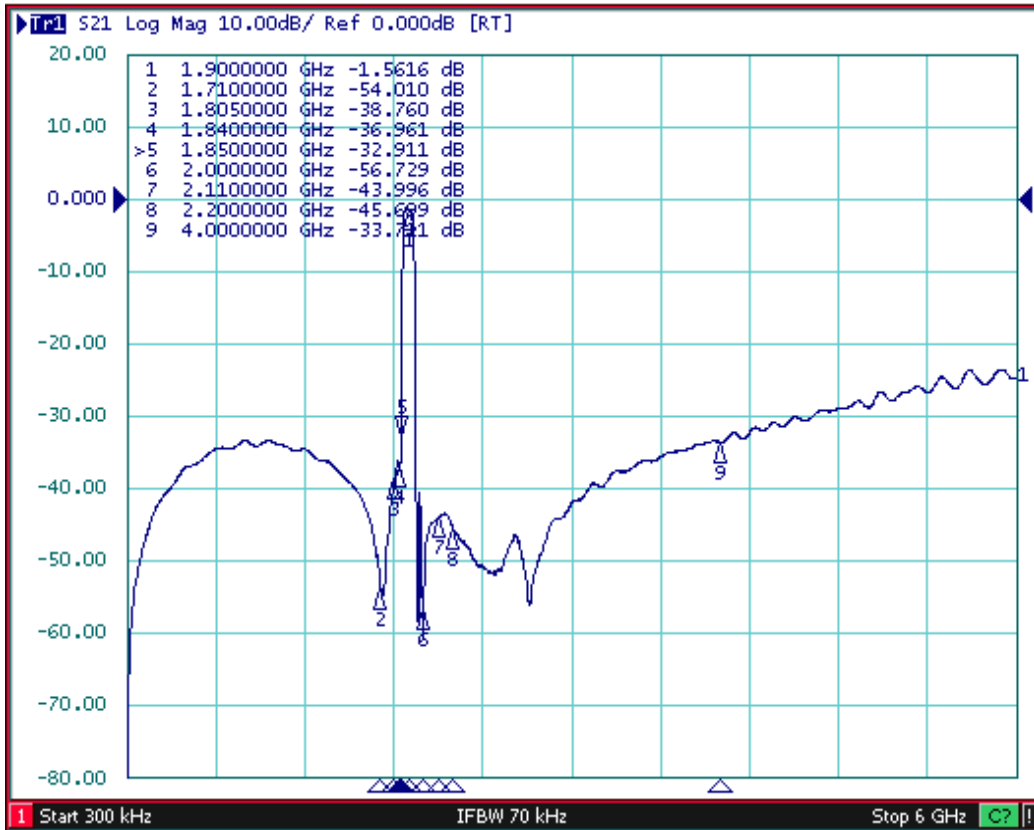
S21



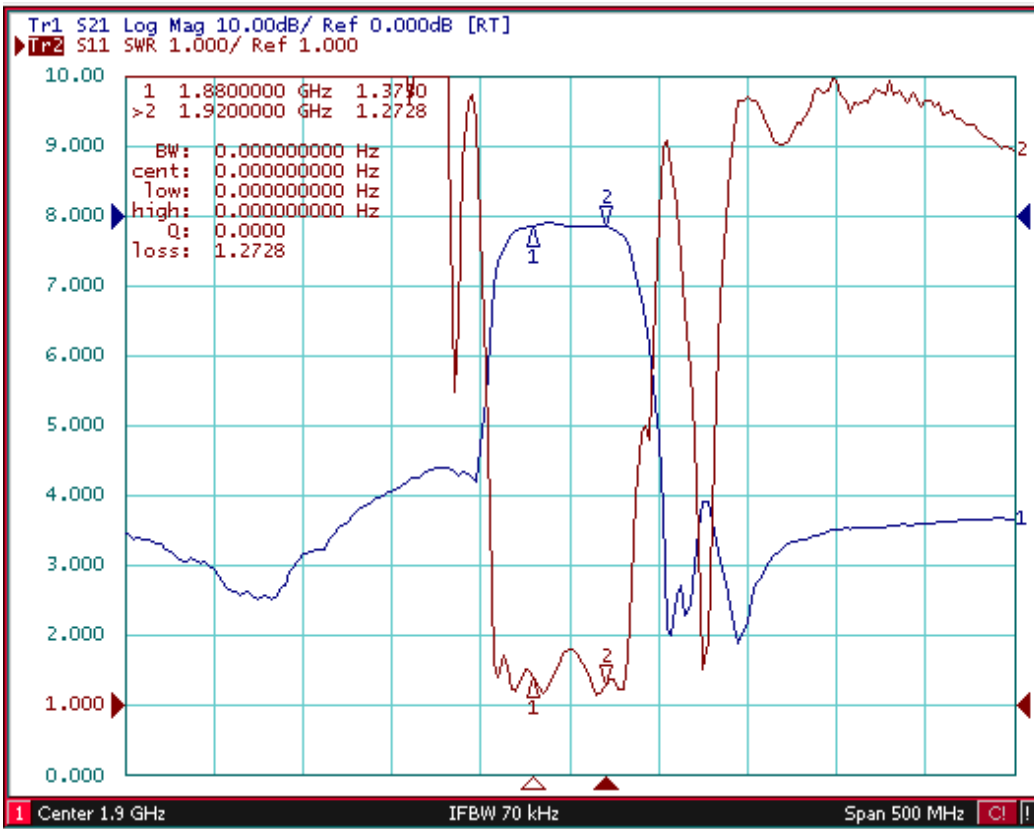
Group Delay



Far side



VSWR



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

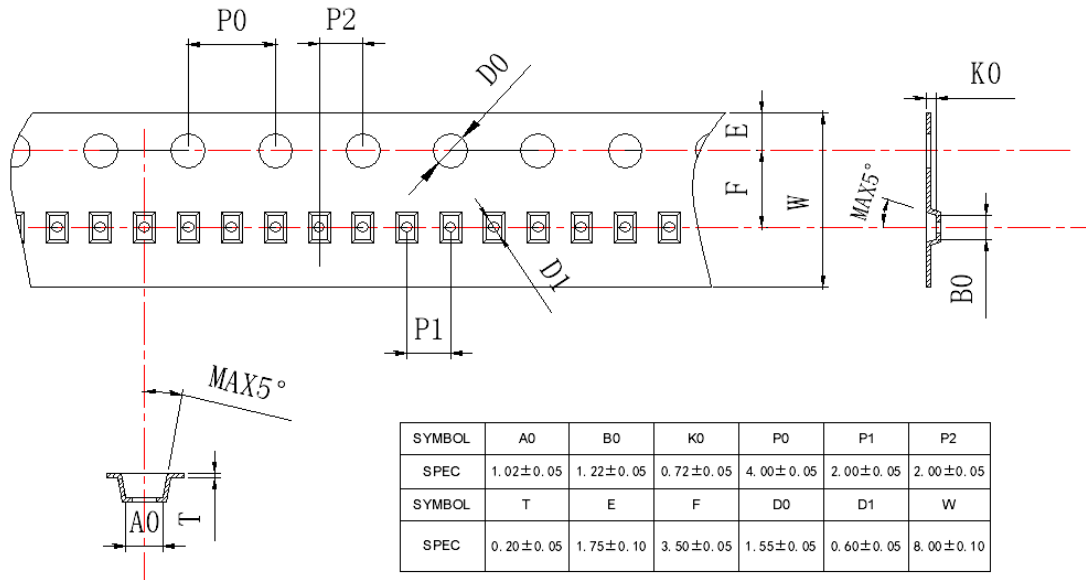
Requirements: The SAW filer shall remain within the electrical specifications after tests.

Remarks

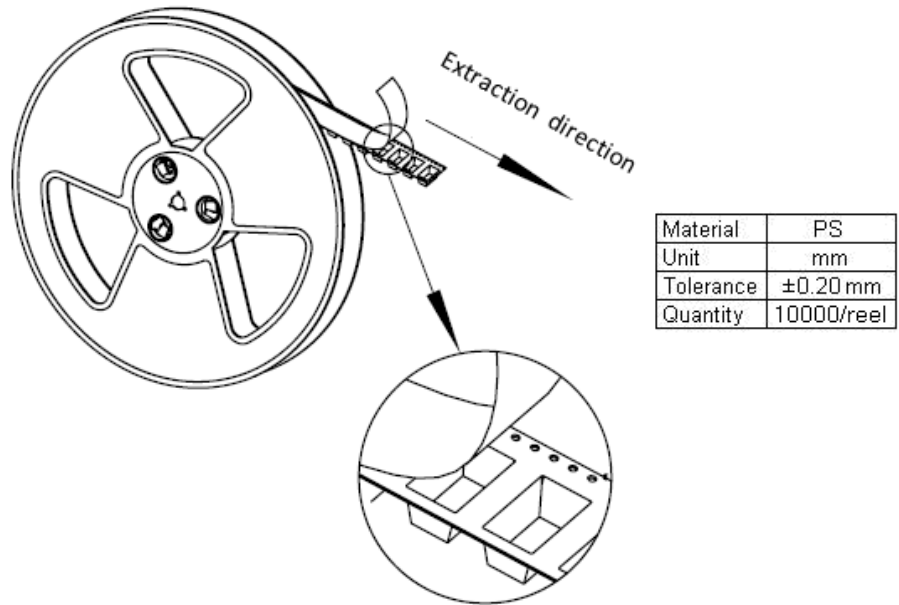
- SAW devices should not be used in any type of fluid such as water, oil, organic solvent, etc.
- Be certain not to apply voltage exceeding the rated voltage of components.
- Do not operate outside the recommended operating temperature range of components.
- Sudden change of temperature shall be avoided,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



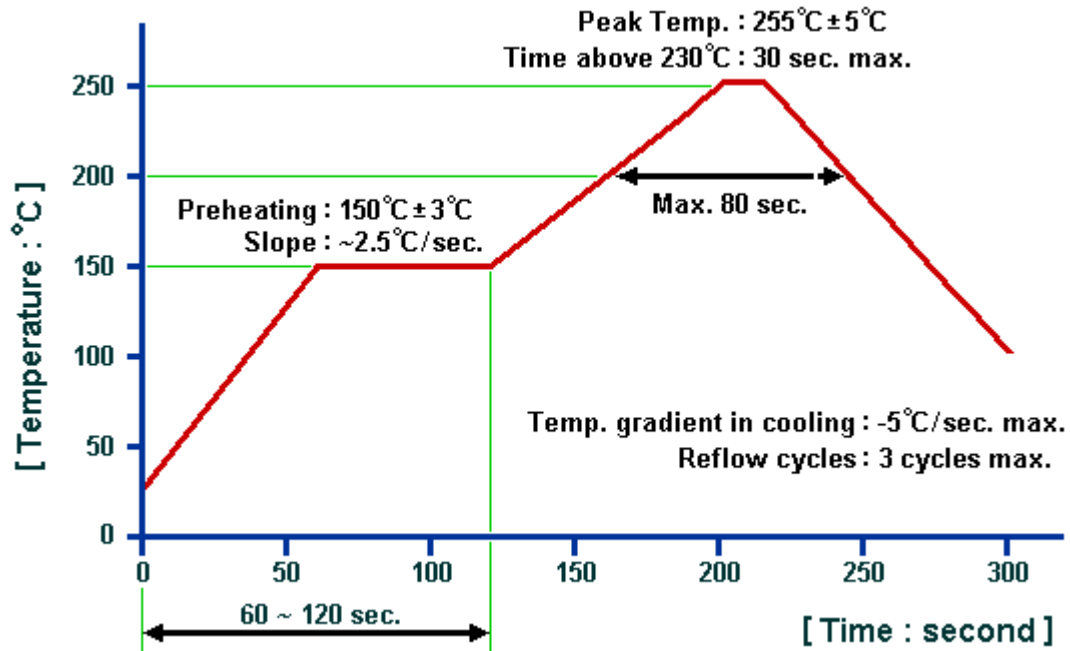
Outer Packing

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.