



DEQING HUAYING ELECTRONICS CO.,LTD.

APPROVAL SHEET

SAW BANDPASS FILTER
PART NO.: NDFH003-1580SA

Product Type:		Customer:	
SAW Filter			
Part NO.:		Customer Part NO.:	
NDFH003-1580SA			
Ver. Ctrl.:		Issued Date:	
SFH003-1580SA -160719-v1.0			

PREPARED BY	CHECKED BY	APPROVED BY

Part No.	:	NDFH003-1580SA
Pages	:	8
Data	:	2016-7-19
Revision	:	SFH003-1580SA -160719-v1.0

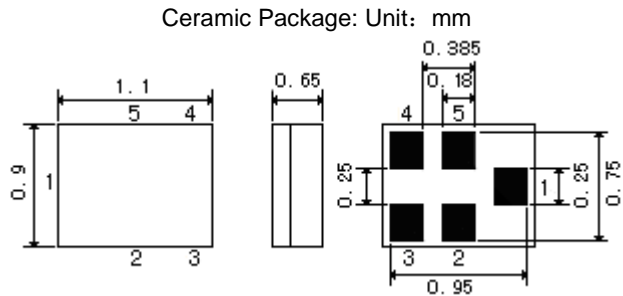
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Features

SAW filter for Beidou & GPS & GLONASS.

- 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 GPS.
- 5 Package size 1.1mm*0.9mm

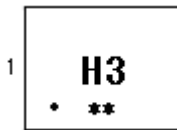
Package Dimensions



Pin Configuration

1	Input
4	Output
2,3,5	Ground

Marking



Top View, Laser Marking

"H3": Part number

"1": Terminal1

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

Code	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

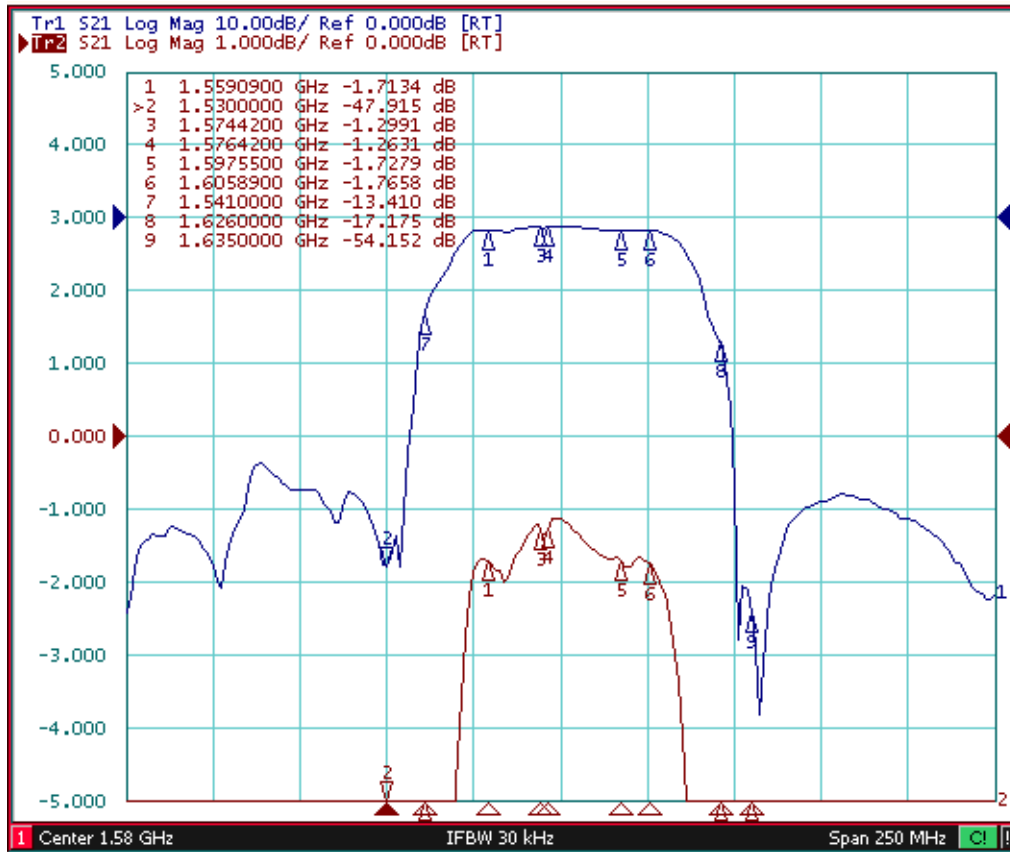
Rating		Value	Unit
DC Voltage (between any Terminals)	V_{DC}	10	V
RF Power (in BW)	P	13	dBm
Operating Temperature Range	T_A	-30 ~ +85	°C
Storage Temperature Range	T_{stg}	-40 ~ +85	°C

Electrical Characteristics:

Item		Minimum	Typical	Maximum	Unit
Insertion Loss	IL				
1559.09 1563.09 MHz			1.8	2.1	dB
1574.42 1576.42 MHz			1.3	1.6	dB
1597.55 1605.89 MHz			1.8	2.1	dB
Passband Ripple	Pr				
1559.09 1563.09 MHz			0.2	0.5	dB
1574.42 1576.42 MHz			0.2	0.4	dB
1597.55 1605.89 MHz			0.3	0.6	dB
VSWR	V_{swr}				
1559.09 1563.09 MHz			1.6	1.9	
1574.42 1576.42 MHz			1.2	1.6	
1597.55 1605.89 MHz			1.3	1.8	
Group delay Ripple	Gdr				
1559.09 1563.09 MHz			2	7	ns
1574.42 1576.42 MHz			2	7	ns
1597.55 1605.89 MHz			2	8	ns
Absolute Attenuation	α				
DC 925.00 MHz		45	50		dB
925.00 960.00 MHz		43	50		dB
1427.00 1453.00 MHz		41	47		dB
1453.00 1470.00 MHz		40	45		dB
1470.00 1530.00 MHz		30	35		dB
1530.00 1541.00MHz		7	13		dB
1626.00 1635.00 MHz		10	17		dB
1635.00 1700.00 MHz		33	37		dB
1710.00 1785.00 MHz		45	50		dB
1850.00 1910.00 MHz		43	48		dB
1920.00 1980.00 MHz		42	48		dB
2110.00 2170.00 MHz		40	45		dB
2300.00 2400.00 MHz		40	44		dB
2400.00 2500.00 MHz		39	43		dB
2500.00 2570.00 MHz		38	42		dB
2570.00 3000.00 MHz		33	39		dB
Input / Output Impedance (Nominal)			50		Ω

Typical Frequency Response

S21



S11 Group Delay

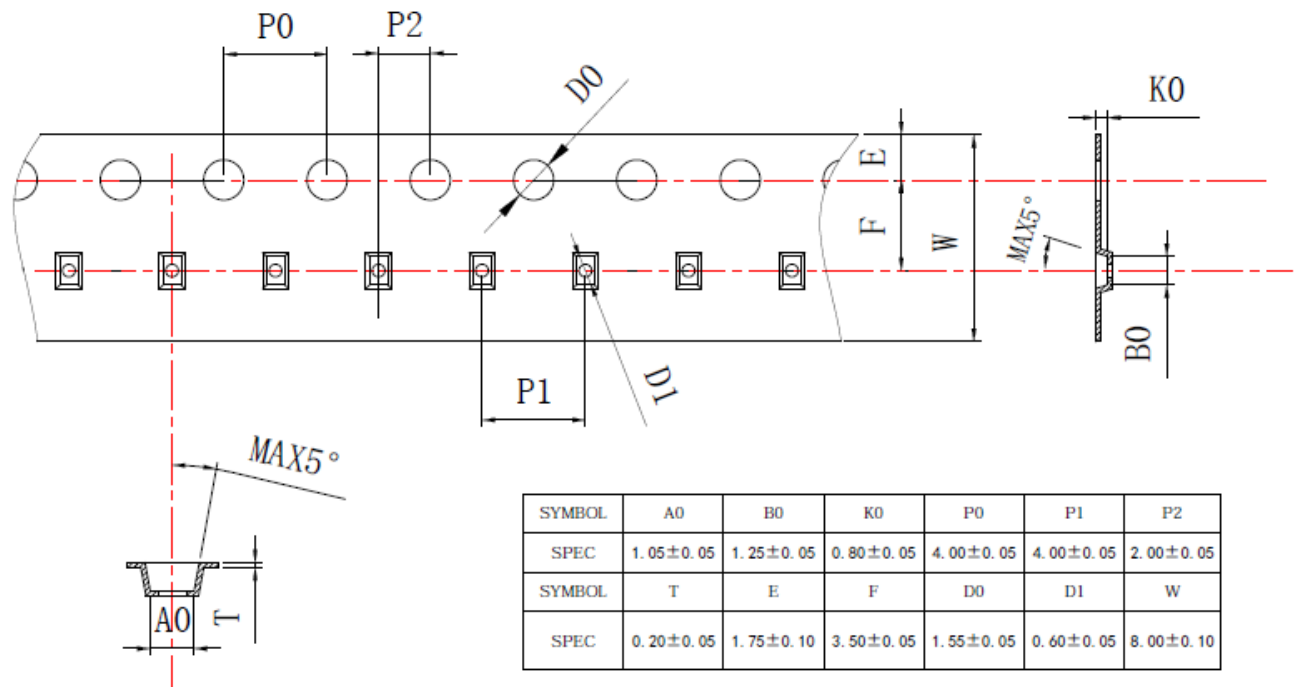


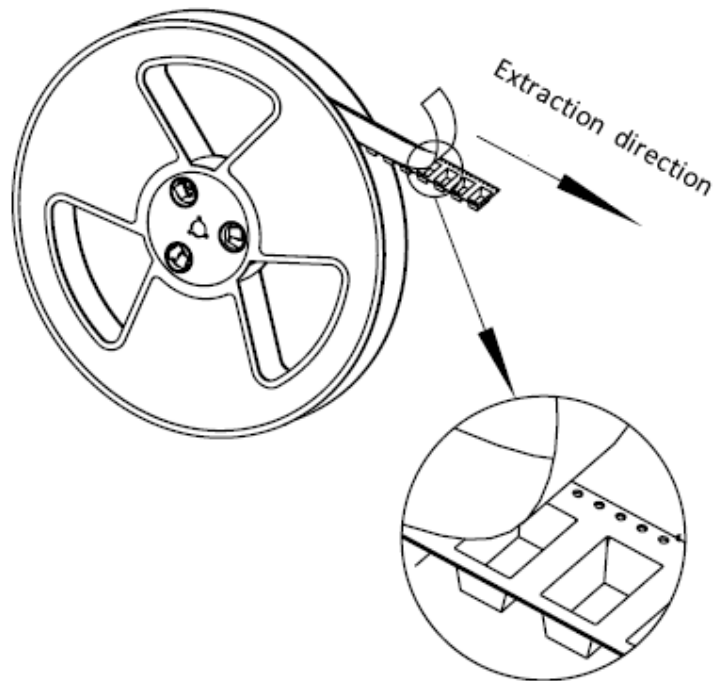
Far side



Packing Information

Carrier Tape



Reel Dimensions

Material	PS
Unit	mm
Tolerance	±0.20 mm
Quantity	10000/reel

Outer Packing

Type	Quantity	Dimension	Description	Weight
Carton Box I	10000	200×200×100	anti-static plastic bag & carton box 1 reel / bag	0.85
Carton Box II	20000	200×200×200	5 bags / box (50000 pcs) 10 bags / box (100000 pcs)	1.80

Unit: mm

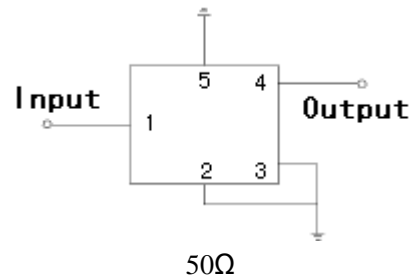
Unit: kg

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

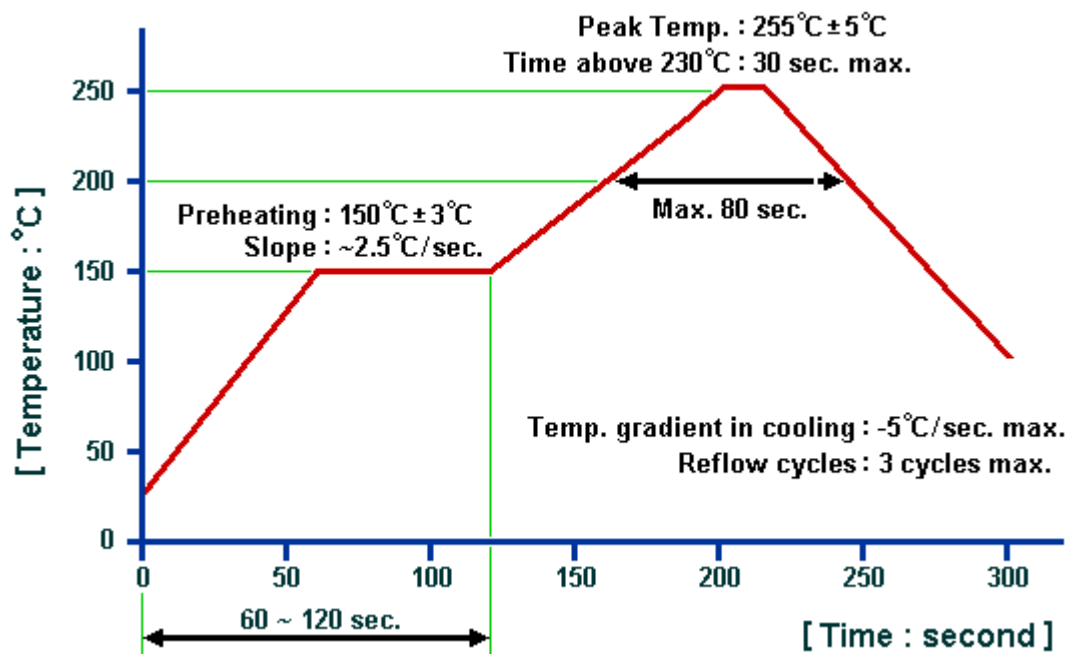
Remarks

- 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.

Test Circuit



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.