



DEQING HUAYING ELECTRONICS CO.,LTD.

# APPROVAL SHEET

## SAW BANDPASS FILTER PART NO.: NDFG020-2442SA

<b>Product Type:</b>		<b>Customer:</b>	
SAW Filter			
<b>Part NO.:</b>		<b>Customer Part NO.:</b>	
NDFG020-2442SA			
<b>Ver. Ctrl.:</b>		<b>Issued Date:</b>	
SFG020-2442SA -161018v1.0			

PREPARED BY	CHECKED BY	APPROVED BY

Part No.	:	NDFG020-2442SA
Pages	:	8
Data	:	2016-10-18
Revision	:	SFG020-2442SA -161018v1.0

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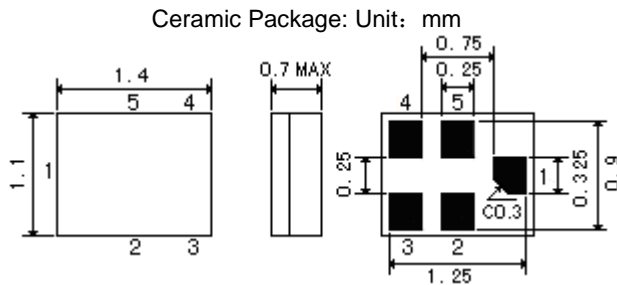


**Features**

SAW filter for WIFI.

- 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 WIFI transmission.
- 5 Package size 1.4 mm \*1.1 mm

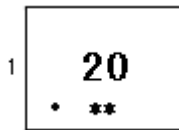
**Package Dimensions**



**Pin Configuration**

1	Input
4	Output
2,3,5	Ground

**Marking**



Top View, Laser Marking

“20”: 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

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

**Maximum Ratings**

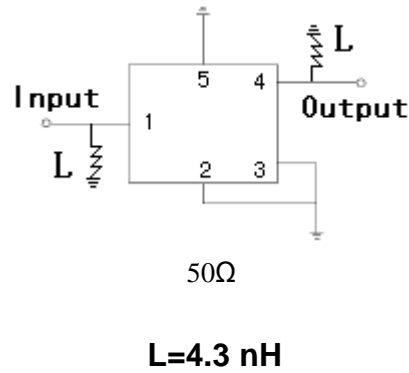
Rating		Value	Unit
DC Voltage (between any Terminals)	$V_{DC}$	10	V
RF Power (in BW)	$P$	24	dBm
Operating Temperature Range	$T_A$	-30 ~ +85	°C
Storage Temperature Range	$T_{stg}$	-40 ~ +85	°C

**Electrical Characteristics:**

Item		Minimum	Typical	Maximum	Unit
Insertion Loss	$IL$				
2403 ... 2471 MHz			1.2	2.2	dB
2458 ... 2476 MHz			1.2	1.8	dB
2463 ... 2481 MHz			1.6	2.5	dB
Passband Ripple	$Pr$				
2403 ... 2481 MHz			0.8	2.0	dB
VSWR	$V_{swr}$				
2401 ... 2483 MHz			1.2	2.0	
Absolute Attenuation	$\alpha$				
800 ... 2000.00 MHz		25	27		dB
2000.00 ... 2300.00 MHz		25	27		dB
2300.00 ... 2370.00 MHz		27	30		dB
2370.00 ... 2380.00 MHz		18	30		dB
2500.00 ... 2502.00 MHz		7	42		dB
2502.00 ... 2570.00 MHz		12	41		dB
2570.00 ... 2620.00 MHz		29	34		dB
2620.00 ... 2690.00MHz		26	31		dB
2690.00 ... 4800.00 MHz		25	29		dB
4800.00 ... 58250.00 MHz		27	35		dB
7200.00 ... 7500.00 MHz		30	42		dB
Input / Output Impedance (Nominal)		50Ω//4.3nH			

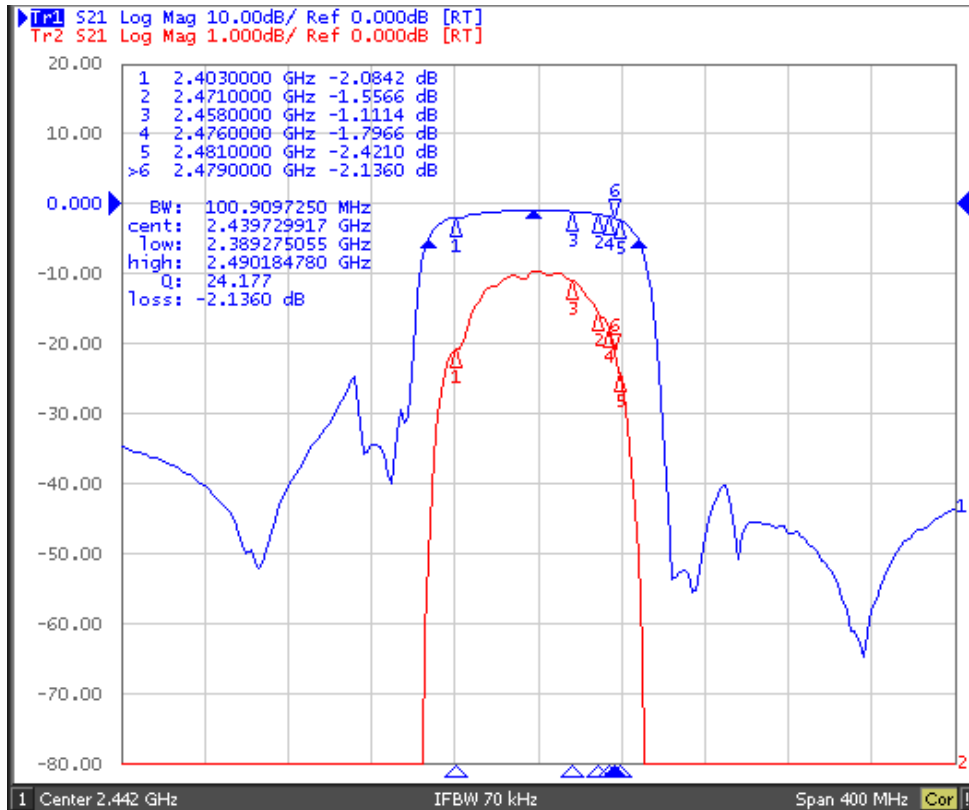
 **RoHS Compliant**
 **Electrostatic Sensitive Device**

Test Circuit

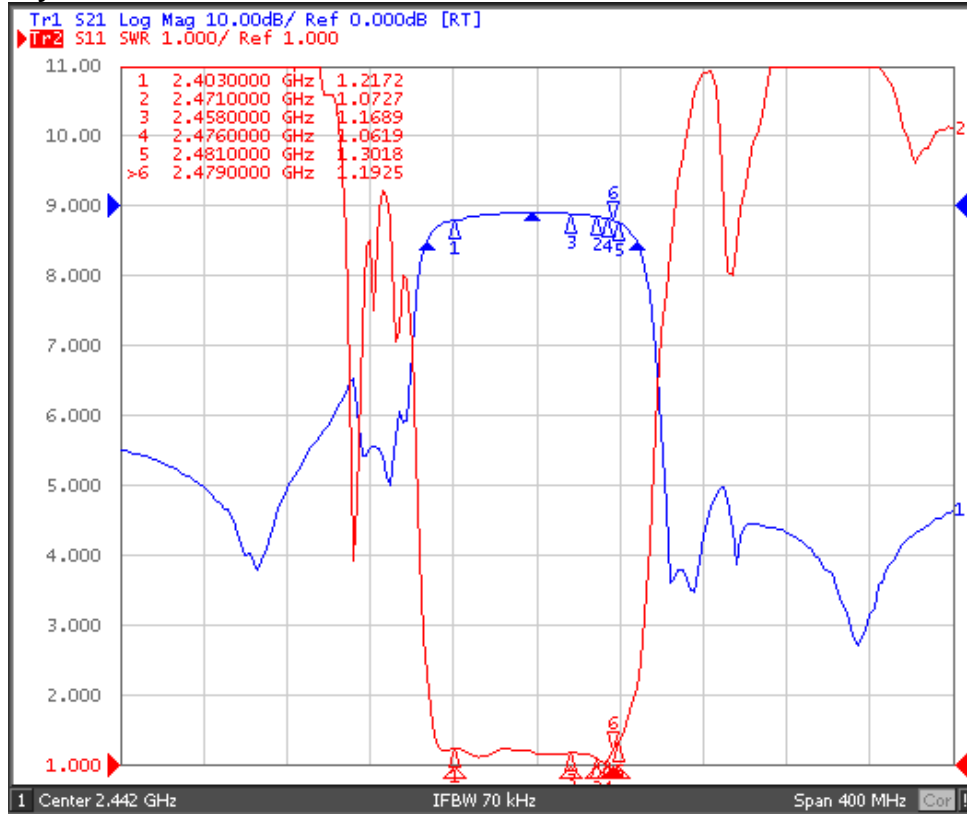


Typical Frequency Response

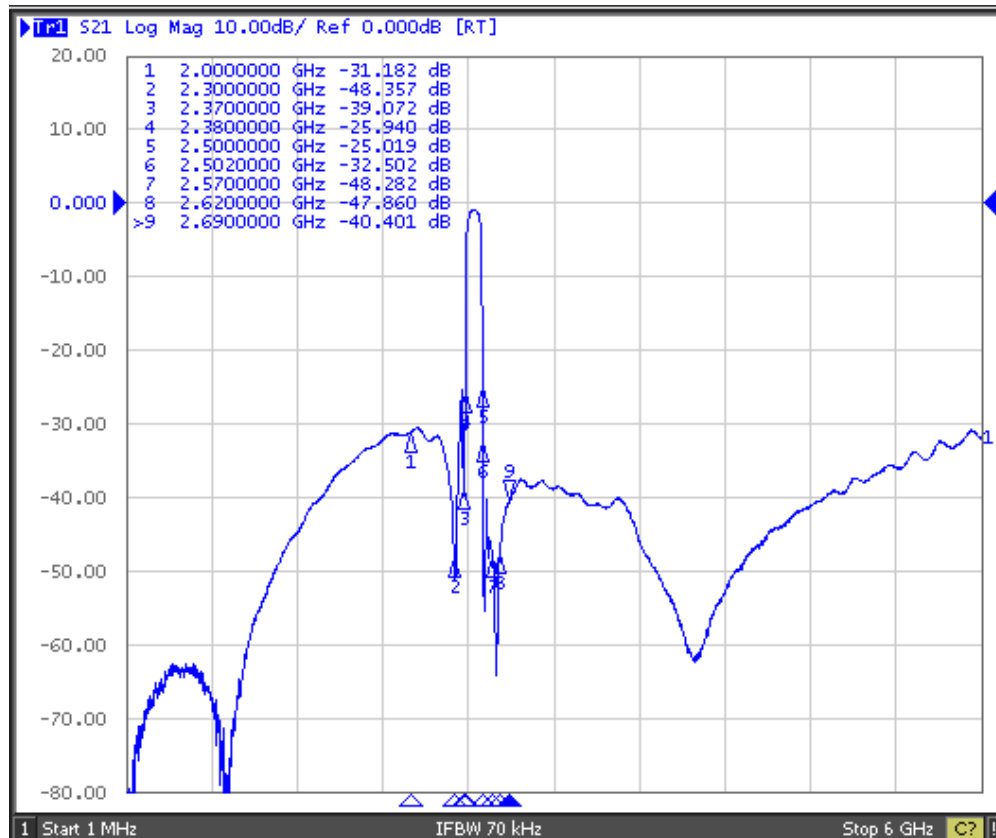
S21



S11 Group Dealy

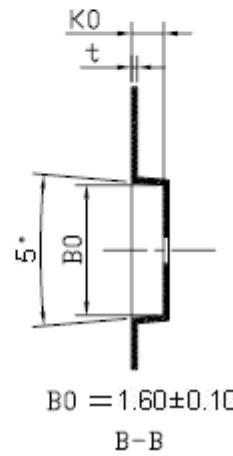
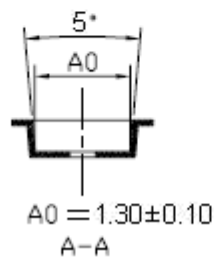
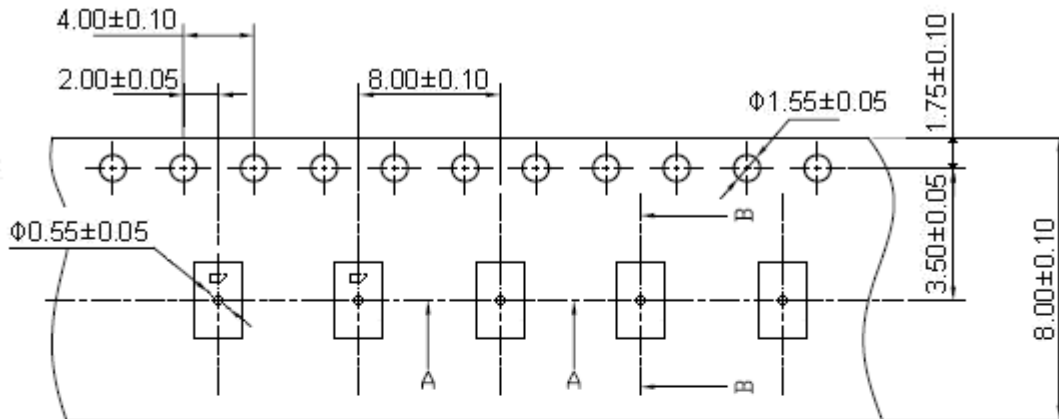


Far side



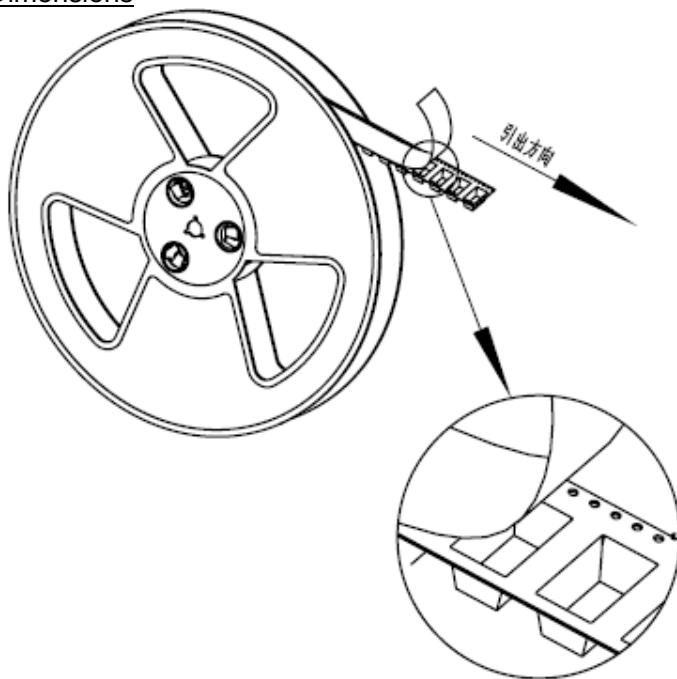
**Packing Information**

Carrier Tape



$K0 = 0.90 \pm 0.10$   
 $t = 0.20 \pm 0.05$

Reel Dimensions



Material	PS
Unit	mm
Tolerance	$\pm 0.20$ mm
Quantity	4000/reel

Outer Packing

Type	Quantity	Dimension	Description	Weight
Carton Box I	10000	200x200x100	anti-static plastic bag & carton box 1 reel / bag 5 bags / box (20000 pcs) 10 bags / box (40000 pcs)	0.85
Carton Box II	20000	200x200x200		1.80

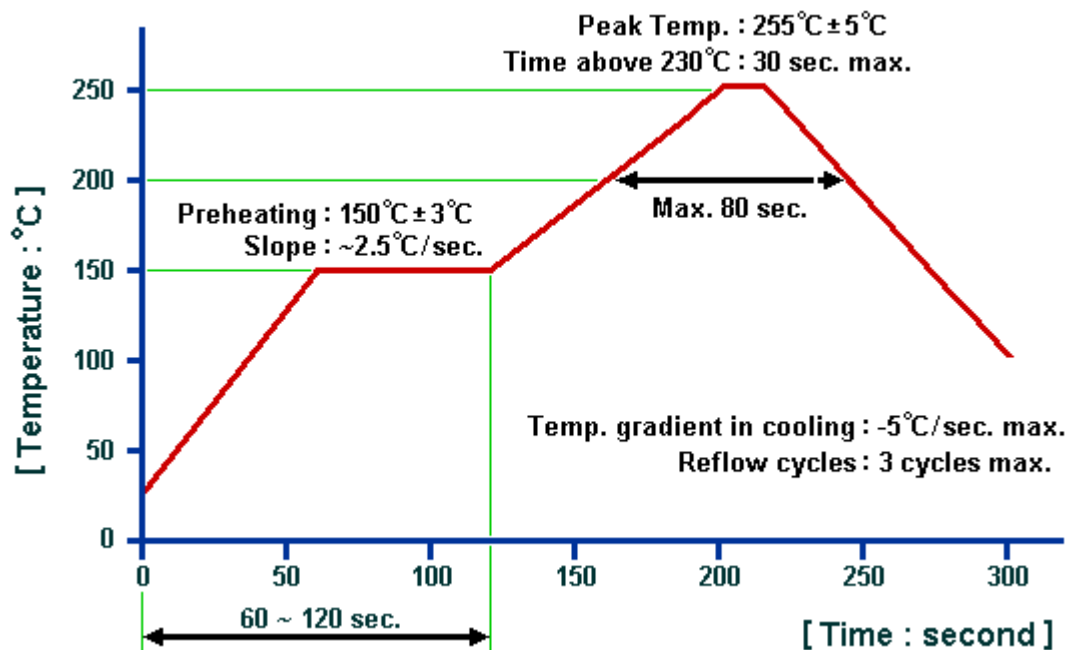
Unit: mm

Unit: kg

**Requirements:** The SAW filter 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.

**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](mailto:sales@dquaying.com).