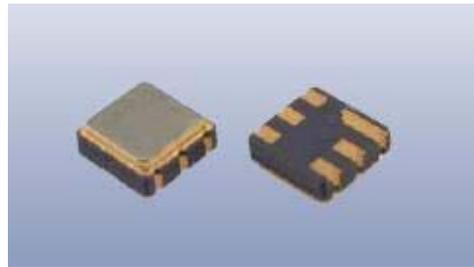
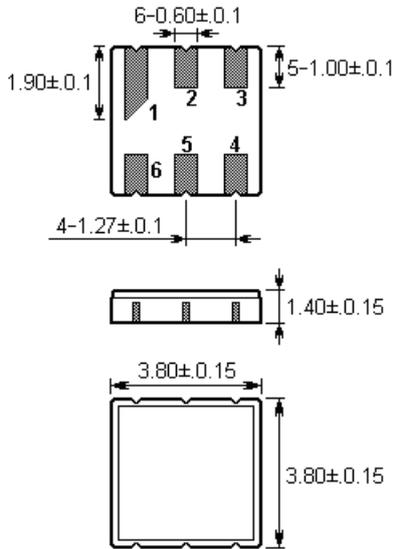


The **NDF4088** is a low-loss, compact, and economical surface-acoustic-wave (SAW) filter in a surface-mount ceramic **DCC6** case with **481.250** MHz center frequency.

1. Package Dimension (DCC6)



Pin	Configuration
2	Input
5	Output
1, 3, 4, 6	Ground

Unit: mm

2. Marking

- The logo “ND” indicates our product’s mark
- The character “F” indicates the type of SAW component
Including: F (filter), R (resonator) etc.
- The “4088” indicates the model name of SAW component
- The character “*” indicates the month code in a year



	1	2	3	4	5	6	7	8	9	10	11	12
2005	A	B	C	D	E	F	G	H	J	K	L	M
2006	N	P	Q	R	S	T	U	V	W	X	Y	Z
2007	a	b	c	d	e	f	g	h	j	k	l	m
2008	n	p	q	r	s	t	u	v	w	x	y	z

- The characters “001” indicate the lot number of mounting
Including: 001~999

3. Maximum Ratings

Rating		Value	Unit
Operable Temperature Range	T_A	-30 to +80	°C
Storage Temperature Range	T_{stg}	-40 to +85	°C
DC Voltage (between each Terminal)	V_{DC}	0	V
RF Power (in BW)	P	30 max.	dBm
ESD Voltage (HB)	V	150	V

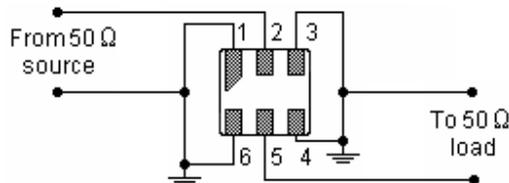
4. Electrical Characteristics

Characteristic		Minimum	Typical	Maximum	Unit
Center Frequency	f_c	--	481.250	--	MHz
User Signal Band	BW	478.75	--	483.75	MHz
Insertion Loss	IL	--	1.8	2.4	dB
478.75 ... 483.75 MHz					
Absolute Attenuation	α				dB
0.50 ... 350.00 MHz		27	32	--	dB
350.00 ... 450.00 MHz		24	28	--	dB
489.00 ... 493.50 MHz		40	45	--	dB
493.50 ... 507.50 MHz		32	37	--	dB
507.50 ... 1500.0 MHz		20	23	--	dB
Passband Ripple	$\Delta\alpha$		0.7	1.5	dB
478.75 ... 483.75 MHz					
VSWR	SWR		1.5	2.0	
478.75 ... 483.75 MHz					
Input / Output Impedance		50			Ω

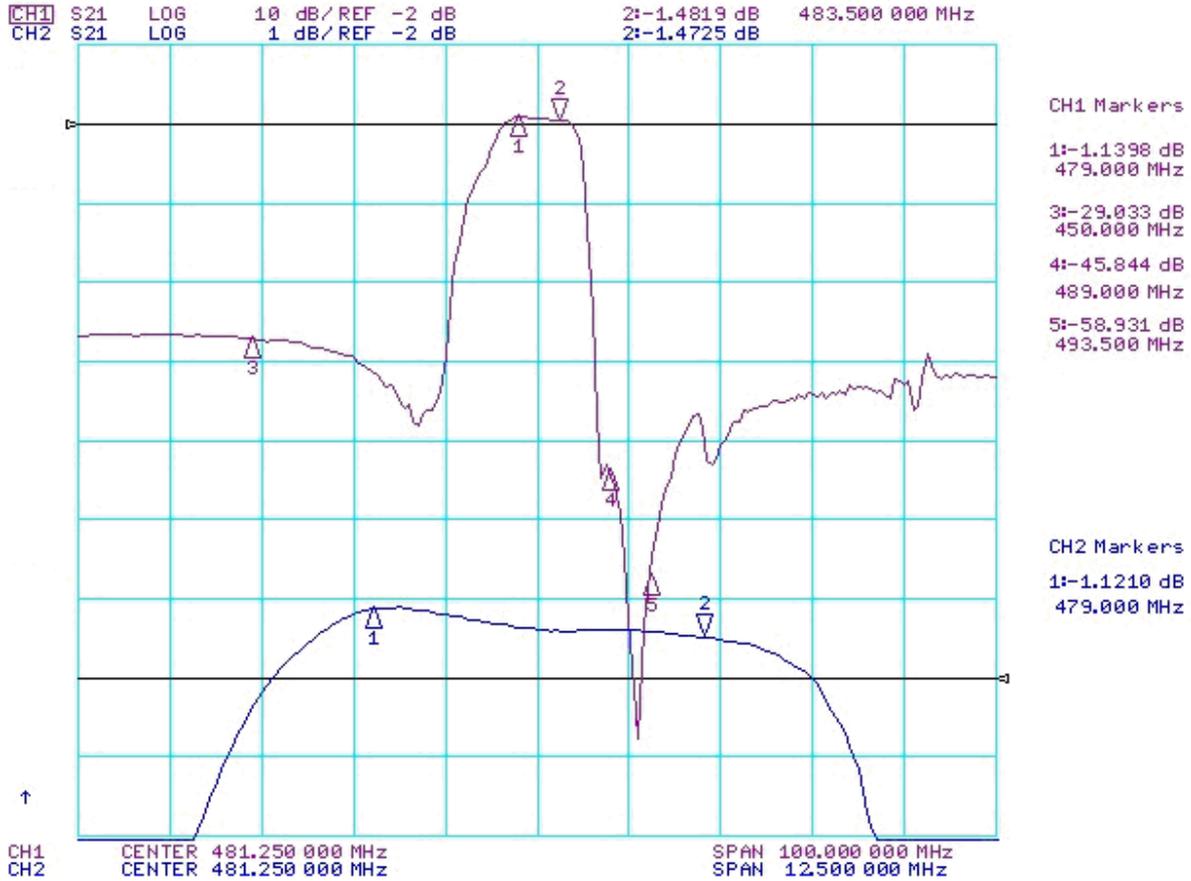
ⓘ CAUTION: Electrostatic Sensitive Device. Observe precautions for handling!

1. The frequency f_c is defined as the midpoint between the 3dB frequencies.
2. Unless noted otherwise, all measurements are made with the filter installed in the specified test fixture that is connected to a 50 Ω test system with VSWR \leq 1.2:1. The test fixture L and C are adjusted for minimum insertion loss at the filter center frequency, f_c . Note that insertion loss, bandwidth, and passband shape are dependent on the impedance matching component values and quality.
3. Unless noted otherwise, specifications apply over the entire specified operating temperature range.
4. The specifications of this device are based on the test circuit shown below and subject to change or obsolescence without notice.
5. All equipment designs utilizing this product must be approved by the appropriate government agency prior to manufacture or sale.

5. Test Circuit



6. Performance



7. Environmental Characteristics

	Test item	Condition of test	Requirements
1	Mechanical shock	(a) Drops: 3 times on concrete floor (b) Height: 1.0m	The SAW filter shall remain within the electrical specifications after tests.
2	Vibration resistance	(a) Frequency of vibration: 10~55Hz (b) Amplitude: 1.5mm (c) Directions: X,Y and Z (d) Duration: 2 hours	
3	Moisture resistance	(a) Condition: 40°C, 90~95% R.H. (b) Duration: 96 hours (c) Wait 4 hours before measurement	
4	Climatic sequence	(a) +70°C for 16 hours (b) +55°C for 24 hours, 90~95% R.H. (c) -25°C for 2 hours (d) +40°C for 24 hours, 90~95% R.H. (e) Wait 4 hours before measurement	
5	High Temperature Exposure	(a) Temperature: 70°C (b) Duration: 250 hours (c) Wait 4 hours before measurement	
6	Thermal impact	(a) +70°C for 30 minutes ⇒ -25°C for 30 minutes repeated 3 times (b) Wait 4 hours before measurement	

8. Remarks

8-1 Static voltage

Static voltage between signal load & ground may cause deterioration & destruction of the SAW filter. Please avoid static voltage.

8-2 Ultrasonic cleaning

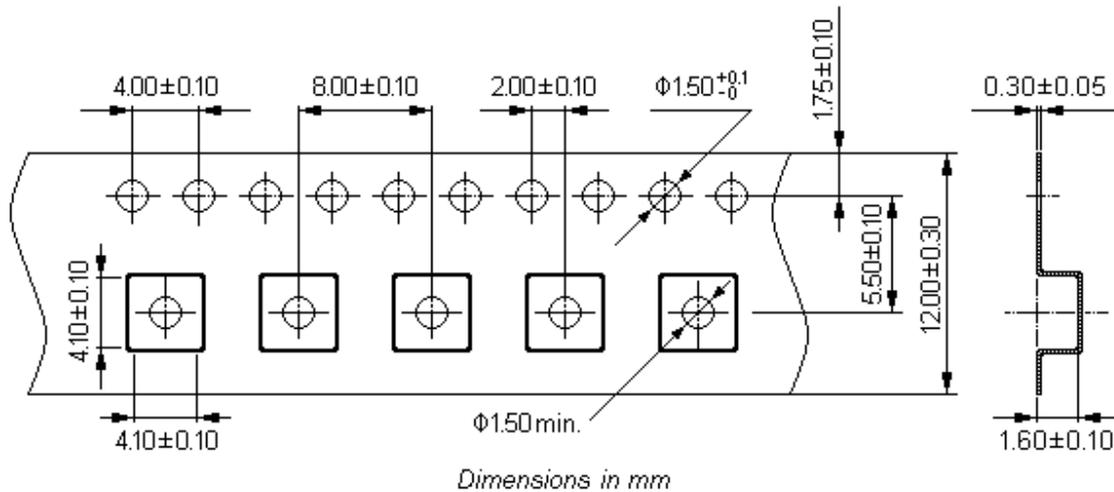
Ultrasonic vibration may cause deterioration & destruction of the SAW filter. Please avoid ultrasonic cleaning.

8-3 Soldering

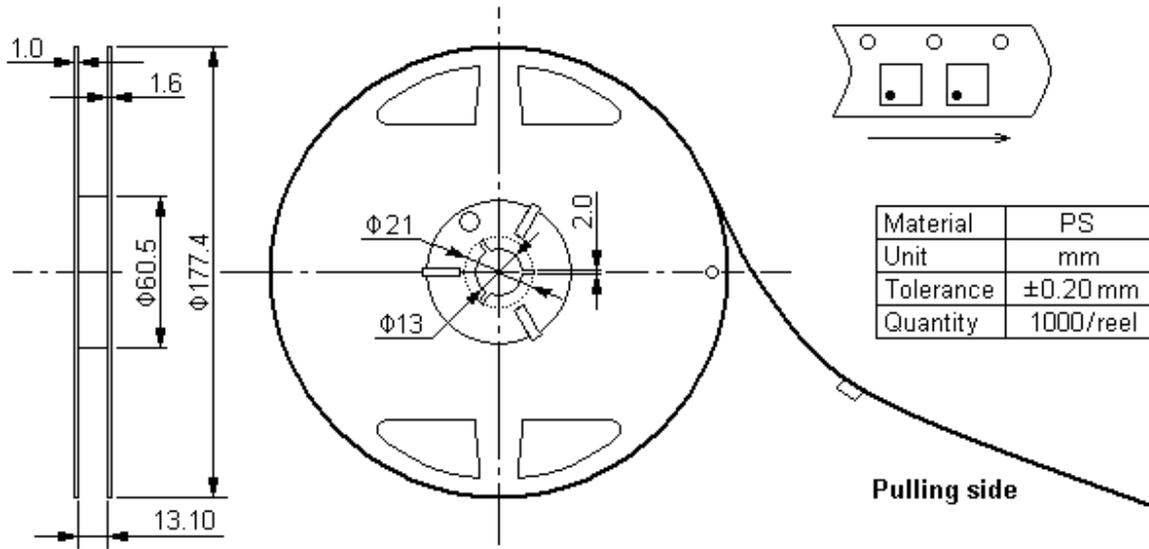
Only terminals of the SAW filter may be soldered. Please avoid soldering other parts of the SAW filter.

9. Packing

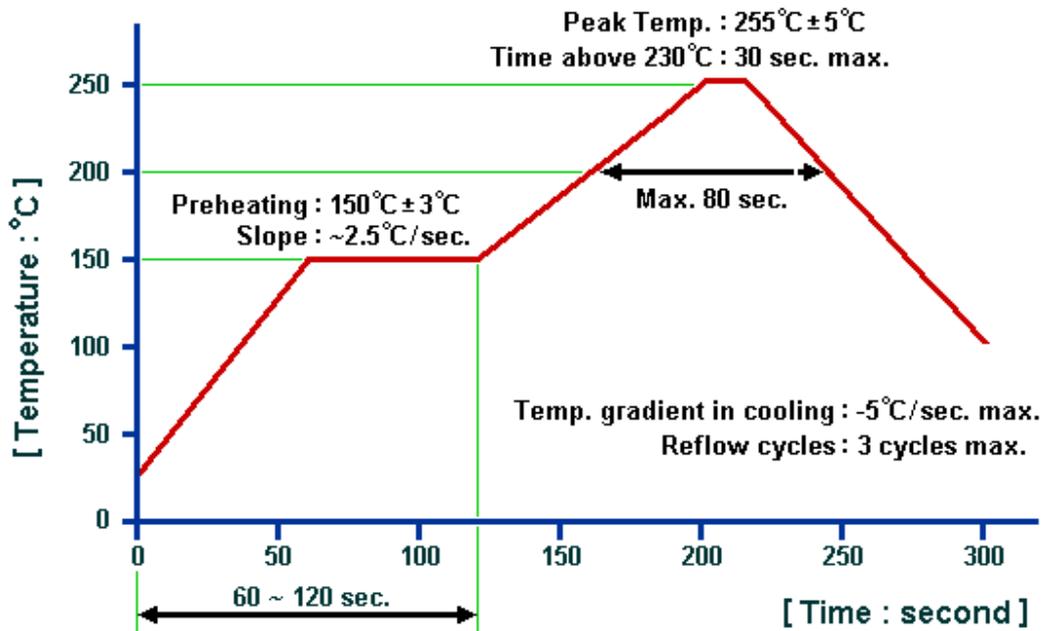
9-1. Carrier Tape



9-2. Reel Dimensions



10. Soldering Profile



© NEDI 2006. All Rights Reserved.

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.

For questions on technology, prices and delivery, please contact our sales offices or e-mail winnsky@winnsky.com