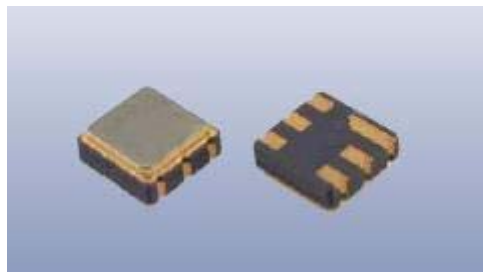
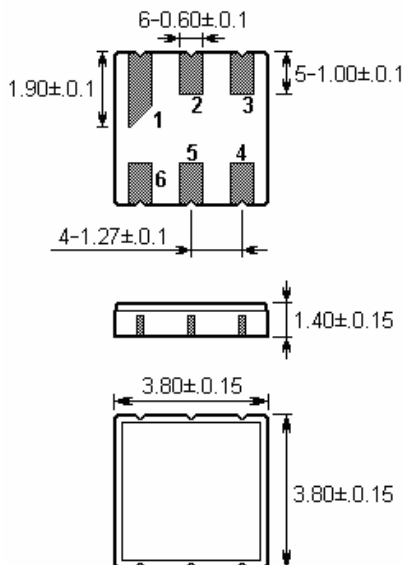


The **ACTF4158** is a low-loss, compact, and economical surface-acoustic-wave (**SAW**) filter in a surface-mount ceramic **DCC6** case with **457.50** MHz center frequency.

1. Package Dimension (DCC6)

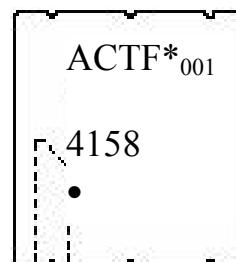


Pin	Configuration
2	Input
5	Output
1, 3, 4, 6	Ground

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 “4158” 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

In line with our ongoing policy of product evolution and improvement, the above specification may subject to change without notice

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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	--	457.50	--	MHz
User Signal Band	BW	454.5	--	460.5	MHz
Insertion Loss	IL	--	2.1	2.4	dB
	454.5 ... 460.5 MHz				
Absolute Attenuation	α				dB
	0.3 ... 350.0 MHz	27	32	--	dB
	350.0 ... 445.0 MHz	25	30	--	dB
	465.0 ... 470.0 MHz	40	42	--	dB
	470.0 ... 907.5 MHz	22	27	--	dB
	907.5 ... 917.5 MHz	27	32	--	dB
	917.5 ... 1500.0 MHz	20	24	--	dB
Passband Ripple	$\Delta\alpha$	--	1.0	1.5	dB
	454.5 ... 460.5 MHz				
VSWR	SWR	--	1.5	2.0	
	454.5 ... 460.5 MHz				
Temperature Coefficient of Frequency	TC_f	--	-36	--	ppm/°C
Input / Output Impedance		50			Ω

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

NOTE:

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.
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.

In line with our ongoing policy of product evolution and improvement, the above specification may subject to change without notice

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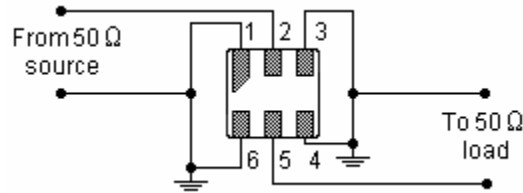
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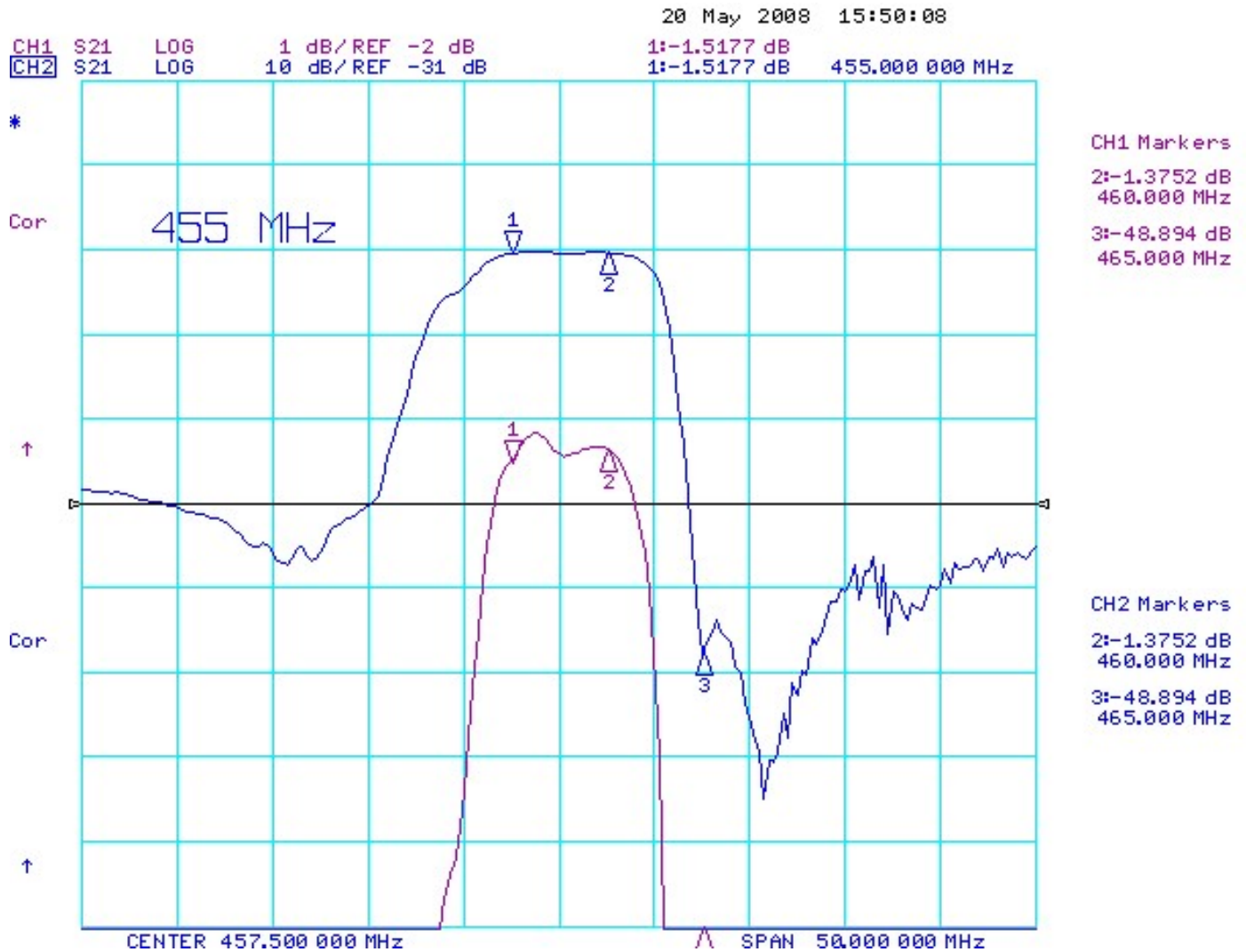
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5. Test Circuit



5. Performance



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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□ for 16 hours (b) +55□ for 24 hours, 90~95% R.H. (c) -25□ for 2 hours (d) +40□ 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

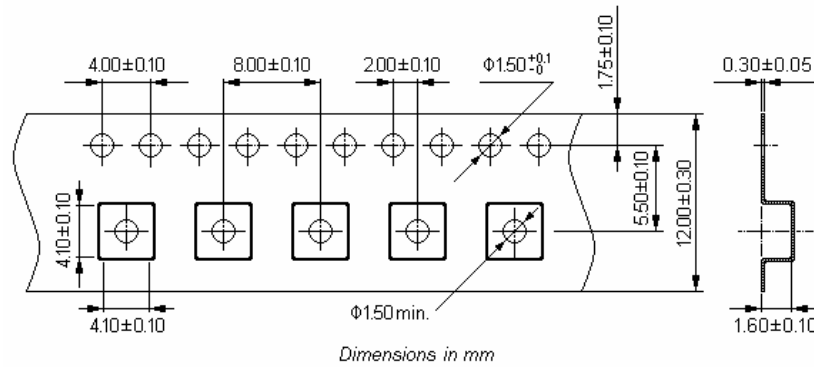
8-1 Static voltage: Static voltage between signal load & ground may cause deterioration & destruction of the SAW filter. Please avoid static voltage.

8-2 Ultrasonic cleaning: Ultrasonic vibration may cause deterioration & destruction of the SAW filter. Please avoid ultrasonic cleaning.

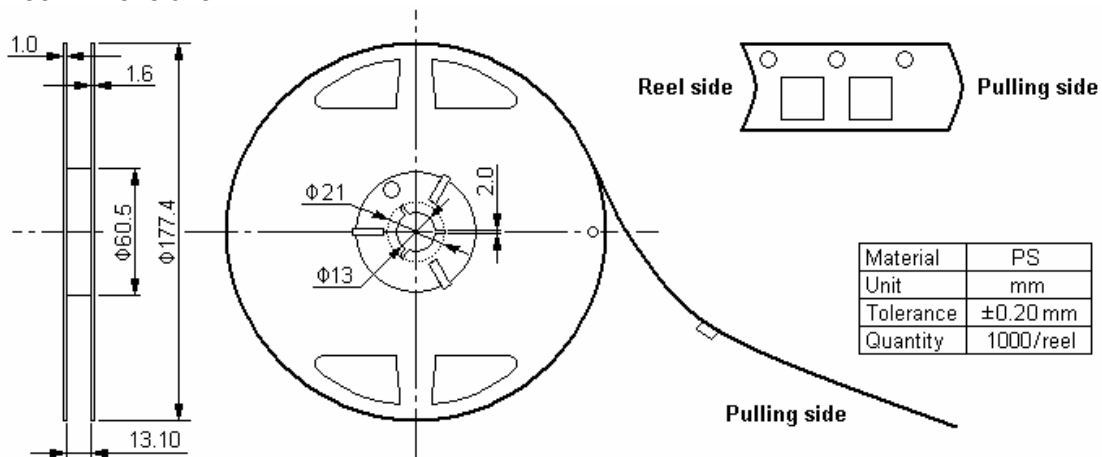
8-3 Soldering: Only terminals of the SAW filter may be soldered. Please avoid soldering other parts of the SAW filter.

9. Packing

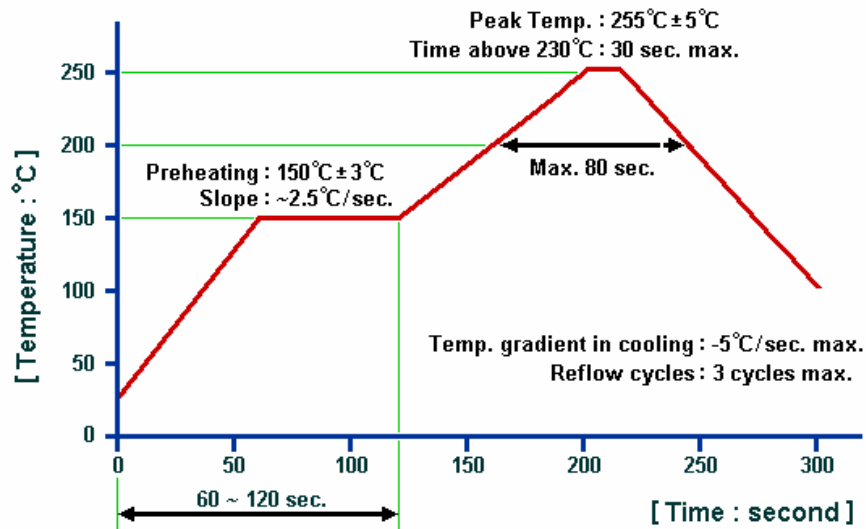
9-1. Carrier Tape



9-2. Reel Dimensions



10. Soldering Profile



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