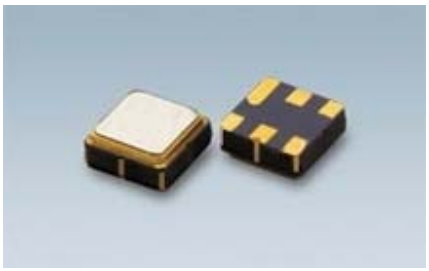
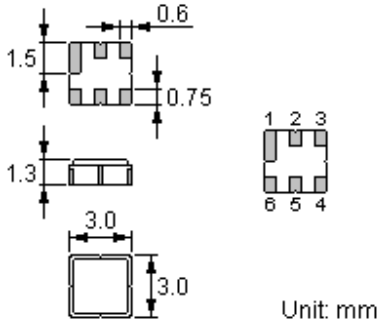
Features

- Low-loss RF Filter
- High Rejection
- Single Ended Operation at 50Ω without Matching
- Ceramic Package for **S**urface **M**ounted **T**echnology (**SMT**)
- Lead-free Production and **RoHS** Compliance



Package Dimensions

Ceramic Package: **DCC6C**



Pin Configuration

2	Input
5	Output
1, 3, 4, 6	Case Ground
1, 3, 4, 6	To Be Grounded

Marking

Top View, Laser Marking

"**ND**": Manufacturer's mark "**F**": SAW filter

"**8091**": Part number "・": Terminal 1

"＊": Lot number (The code shown below varies in a 4-year cycle)

Code	1	2	3	4	5	6	7	8	9	10	11	12
2009	A	B	C	D	E	F	G	H	J	K	L	M
2010	N	P	Q	R	S	T	U	V	W	X	Y	Z
2011	a	b	c	d	e	f	g	h	i	j	k	m
2012	n	p	q	r	s	t	u	v	w	x	y	z

Maximum Ratings

Rating		Value	Unit
Operating Temperature Range	T_A	-40 ~ +85	°C
Storage Temperature Range	T_{stg}	-40~ +85	°C
RF Power (in *BW*)	*P*	10max.	dBm
ESD Voltage (HB)	V_{ESD}	150	V

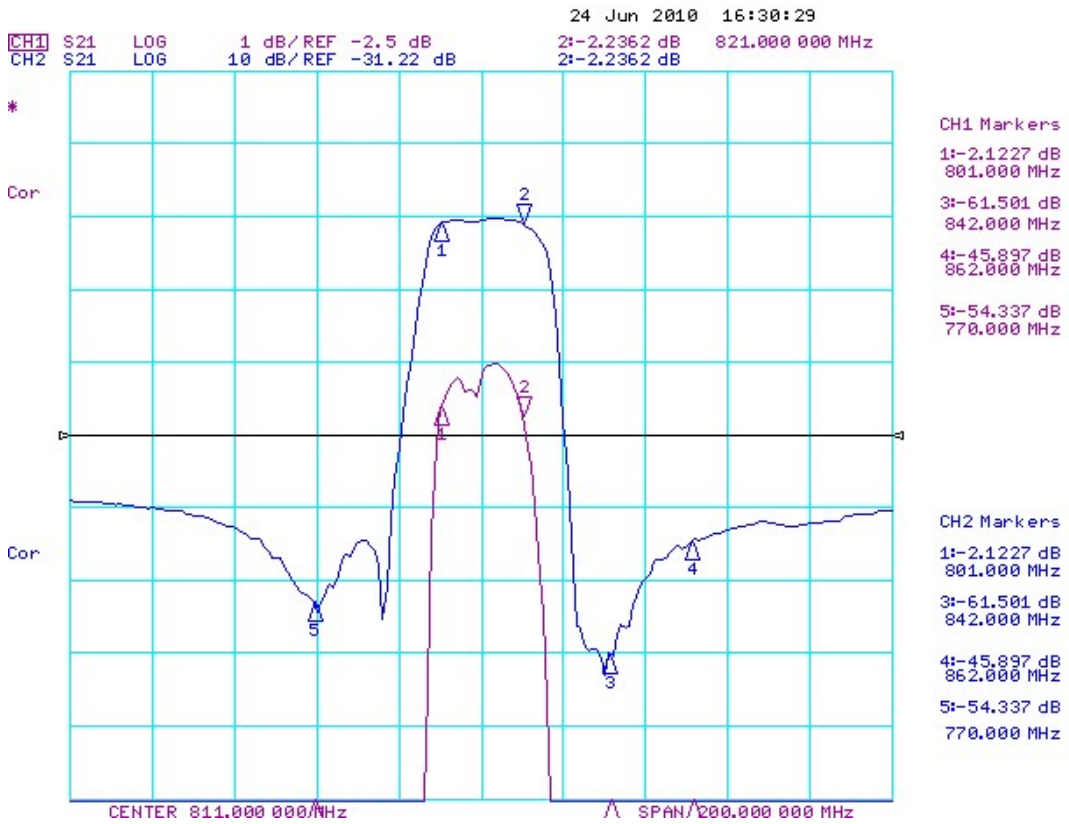
Electrical Characteristics (-40℃ ~ +85℃)

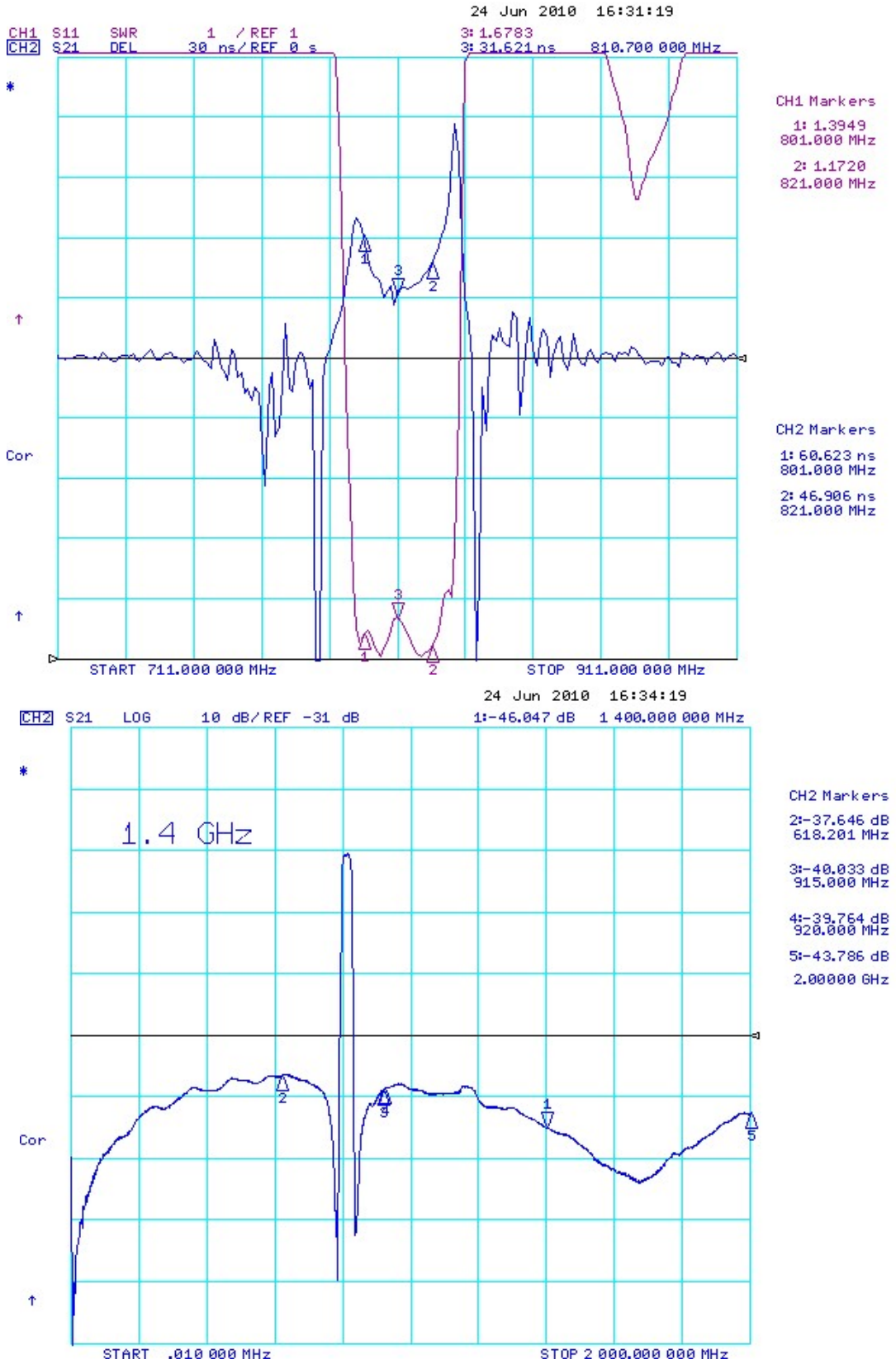
Item		Minimum	Typical	Maximum	Unit
Center Frequency	f_C	-	811	-	MHz
Maximum Insertion Loss in 801.0 MHz–821.0 MHz	*IL*	-	2.2	2.8	dB
Ripple 801.0 MHz–821.0 MHz			0.8	1.5	
Absolute Attenuation	*α*				
0.3000 … 770.00 MHz		33	37	-	dB
842.00 … 862.00 MHz		42 ***(**	46 ***)**	-	dB
862.00 …915.00 MHz		36	40	-	dB
915.00 …920.00 MHz		36	40		dB
920.00 … 1500.0 0MHz		36	40	--	dB
1500.0 … 2000.0 0MHz		38	42	--	dB
Group delay ripple 801.0 MHz–821.0 MHz			30	50	ns
Input VSWR in 801.0 MHz–821.0 MHz		-	1.7:1	2.0:1	
Output VSWR in 801.0 MHz–821.0 MHz		-	1.7:1	2.0:1	
Source / Load Impedance			50		Ω

RoHS Compliant **Electrostatic Sensitive Device**

***(** : -40℃ ~ +85℃ ***)** : +25℃

Typical Frequency Response




24 Jun 2010 16:31:19
CH1 S11 SWR 1 / REF 1
CH2 S21 DEL 30 ns/ REF 0 s
3: 1.6783
3: 31.621 ns 810.700 000 MHz
CH1 Markers
1: 1.3949
801.000 MHz
2: 1.1720
821.000 MHz
CH2 Markers
1: 60.623 ns
801.000 MHz
2: 46.906 ns
821.000 MHz
Cor
START 711.000 000 MHz
STOP 911.000 000 MHz
24 Jun 2010 16:34:19
CH2 S21 LOG 10 dB/ REF -31 dB
1:-46.047 dB 1 400.000 000 MHz
1.4 GHz
CH2 Markers
2:-37.646 dB
618.201 MHz
3:-40.033 dB
915.000 MHz
4:-39.764 dB
920.000 MHz
5:-43.786 dB
2.00000 GHz
Cor
START .010 000 MHz
STOP 2 000.000 000 MHz

Stability Characteristics

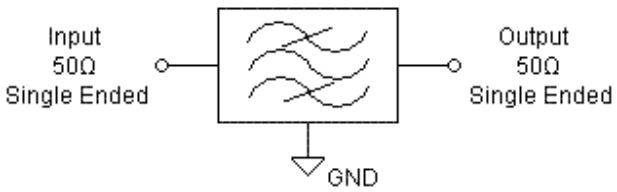
	Test item	Condition of test
1	Mechanical shock	(a) Drops: 3 times on concrete floor (b) Height: 1.0 m
2	Vibration resistance	(a) Frequency of vibration: 10~55Hz (b) Amplitude: 1.5 mm (c) Directions: X,Y and Z (d) Duration: 2 hours
3	Moisture resistance	(a) Condition: 40°C, 90~95% R.H. (b) Duration: 96 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

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

Remarks

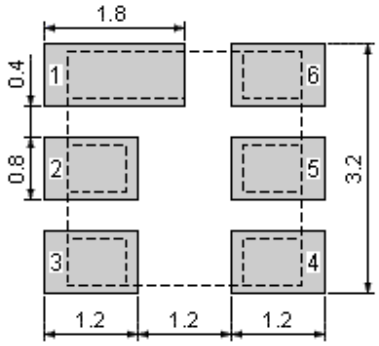
- SAW devices should not be used in any type of fluid such as water, oil, organic solvent, etc.
- Be certain not to apply voltage exceeding the rated voltage of components.
- Do not operate outside the recommended operating temperature range of components.
- Sudden change of temperature shall be avoided,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



50Ω / 50Ω Configuration

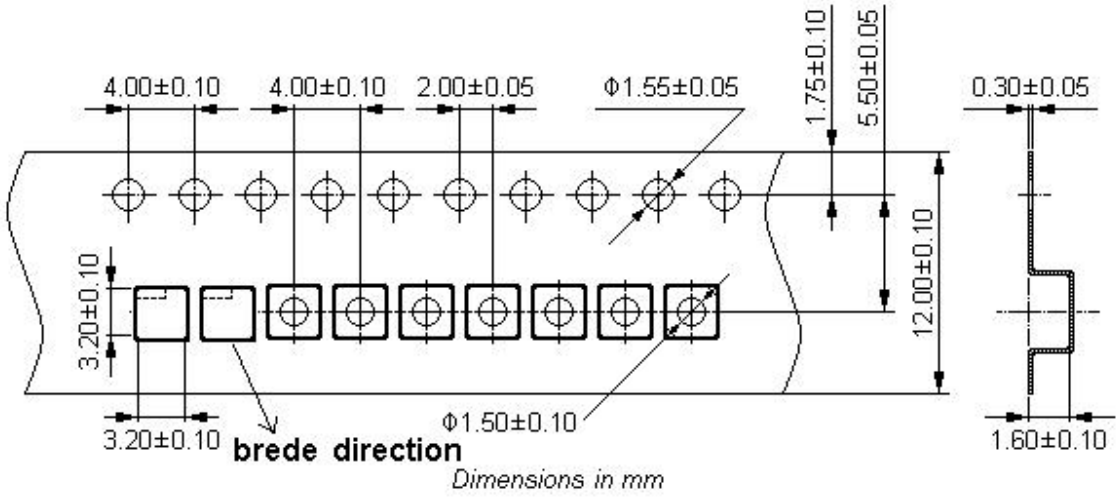
Recommended Land Pattern



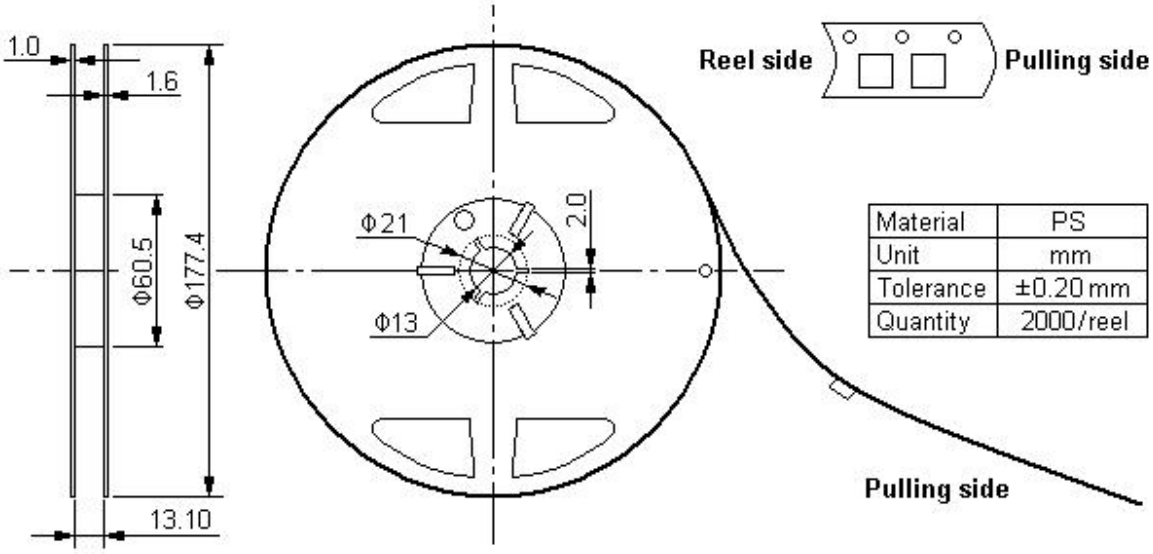
Unit: mm

Packing Information

Carrier Tape



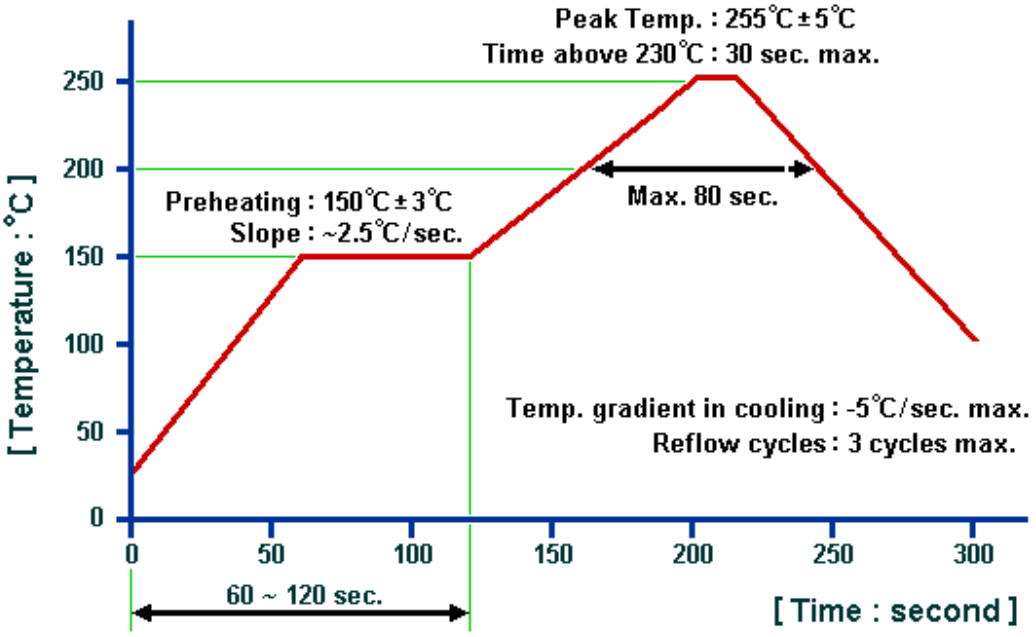
Reel Dimensions



Outer Packing

Type	Quantity	Dimension	Description	Weight
Carton Box Ⅰ	10000	190×190×95	anti-static plastic bag & carton box 1 reel / bag 5 bags / box (10000 pcs) 10 bags / box (20000 pcs)	0.85
Carton Box Ⅱ	20000	190×190×190		1.70
		Unit: mm		Unit: kg

Recommended Soldering Profile



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 winnsky@winnsky.com