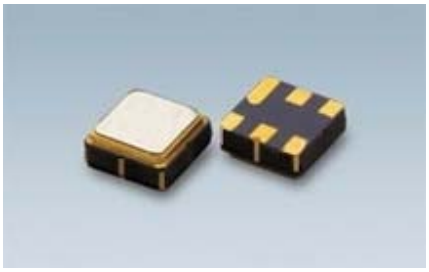
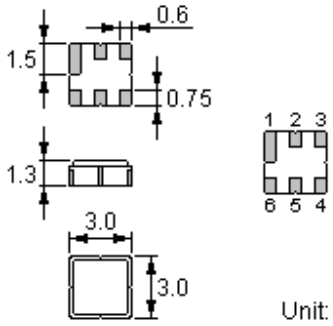
Features

- 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

"**9179**": 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

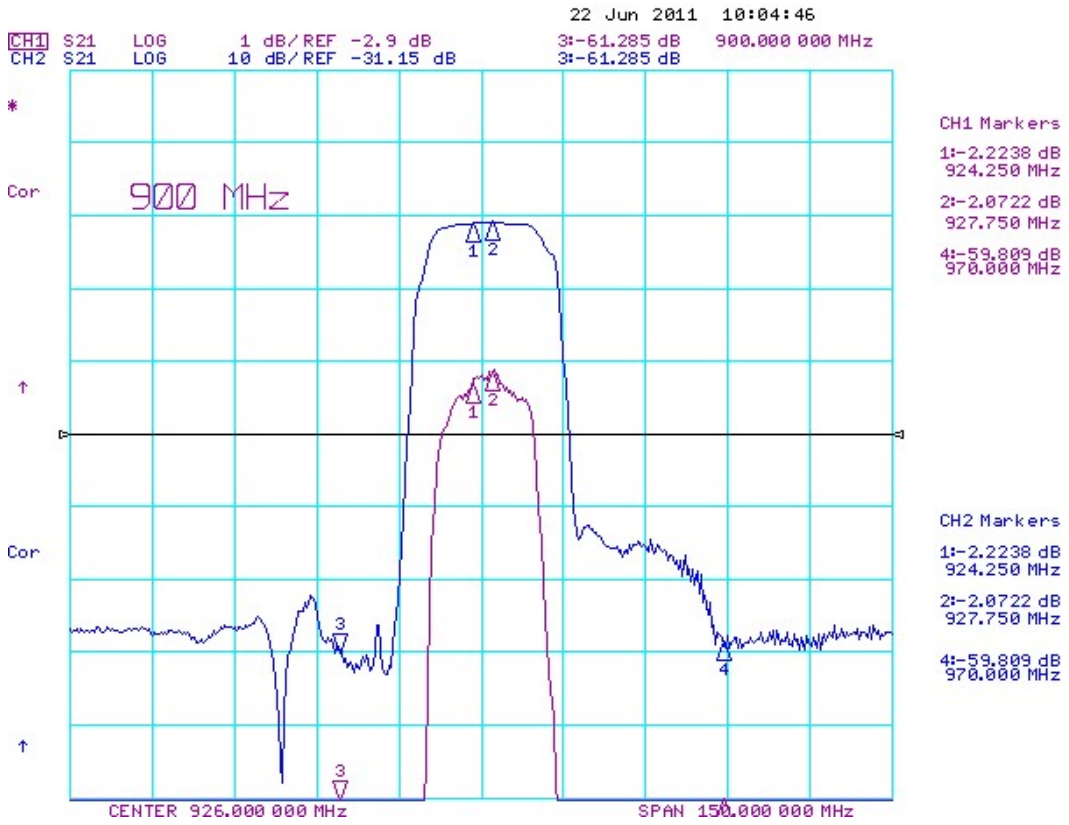
Rating		Value	Unit
Operating Temperature Range	T_A	-40 ~ +85	°C
Storage Temperature Range	T_{stg}	-40 ~ +85	°C
DC Voltage (between any Terminals)	V_{DC}	7.5	V
RF Power (in *BW*)	*P*	10.	dBm
ESD Voltage (HB)	V_{ESD}	250	V

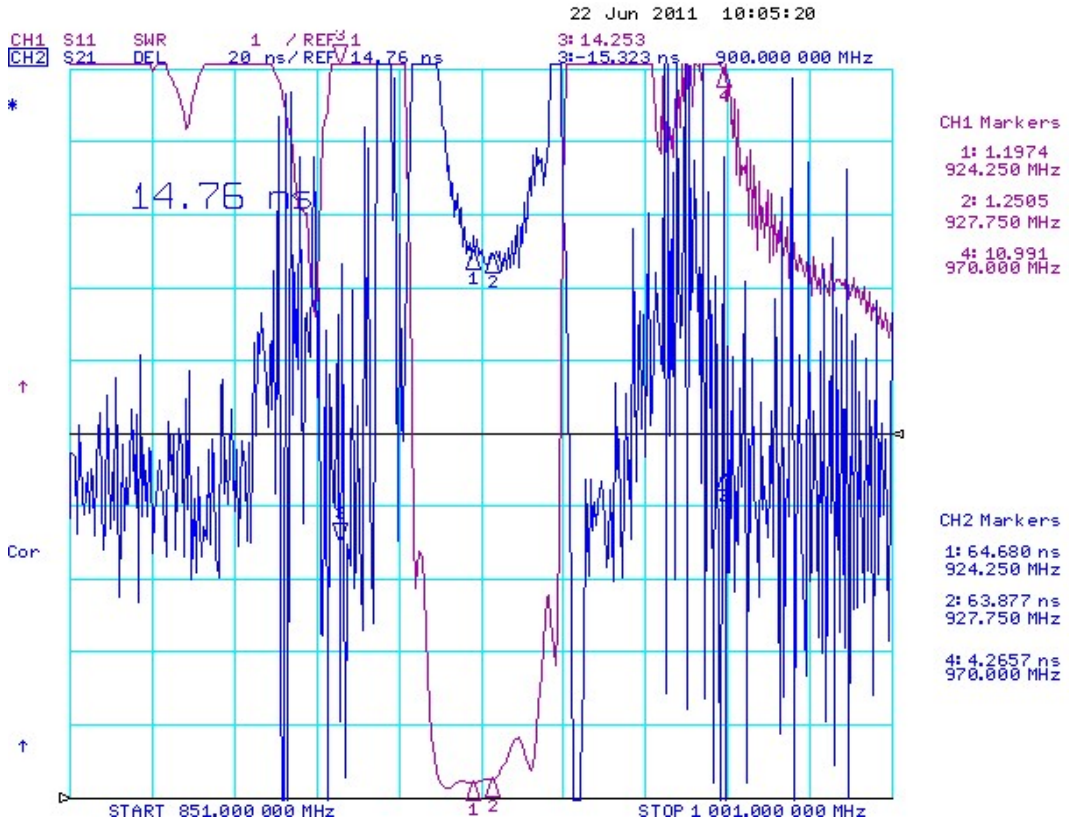
Electrical Characteristics

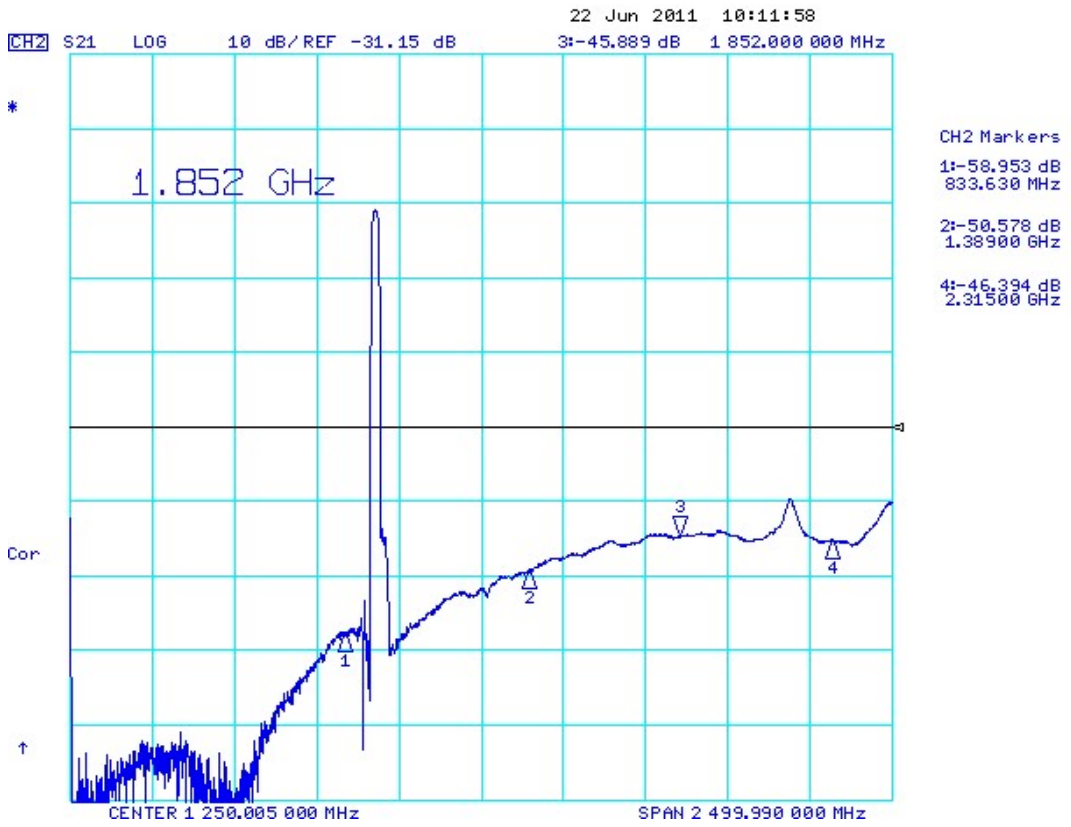
Item		Minimum	Typical	Maximum	Unit
Center Frequency	f_C	-	926	-	MHz
Maximum Insertion Loss in 924.25 MHz–927.75MHz	*IL*	-	2.2	3.0	dB
Amplitude Variation in 924.25 MHz–927.75MHz			0.5	1.0	dB
Absolute Attenuation	*α*				
0.30 … 773.97MHz		50	55	-	dB
773.97 … 777.47 MHz		50	55	-	dB
787.97 … 791.47 MHz		50	55	-	dB
816.13 … 819.63MHz		45	55	-	dB
830.13 … 833.63 MHz		45	55	--	dB
1389 MHz		40	50	--	dB
1852 MHz		30		--	dB
2315 MHz		20		--	dB
Input VSWR in 924.25 MHz–927.75MHz		-	1.5:1	2.0:1	
Output VSWR in 924.25 MHz–927.75MHz		-	1.5:1	2.0:1	
Group delay ripple 924.25 MHz–927.75MHz			20	40	ns
Source / Load Impedance (single ended)			50		Ω

RoHS Compliant **Electrostatic Sensitive Device**

Typical Frequency Response




22 Jun 2011 10:05:20
CH1 S11 SWR 1 / REF 1
CH2 S21 DEL 20 ns/ REF 14.76 ns
3: 14.253
3:-15.323 ns
900.000 000 MHz
14.76 ns
CH1 Markers
1: 1.1974
924.250 MHz
2: 1.2505
927.750 MHz
4: 10.991
970.000 MHz
CH2 Markers
1: 64.680 ns
924.250 MHz
2: 63.877 ns
927.750 MHz
4: 4.2657 ns
970.000 MHz
Cor
START 851.000 000 MHz
STOP 1 001.000 000 MHz


22 Jun 2011 10:11:58
CH2 S21 LOG 10 dB/ REF -31.15 dB
3:-45.889 dB 1 852.000 000 MHz
1.852 GHz
CH2 Markers
1:-58.953 dB
833.630 MHz
2:-50.578 dB
1.38900 GHz
4:-46.394 dB
2.31500 GHz
Cor
CENTER 1 250.005 000 MHz
SPAN 2 499.990 000 MHz

Stability Characteristics

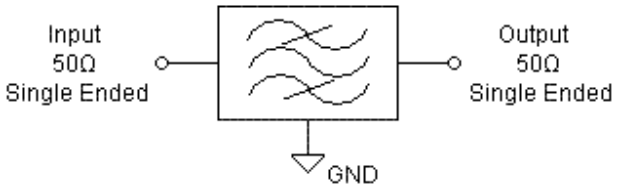
	Test item	Condition of test
1	Mechanical shock	(a) Drops: 3 times on concrete floor (b) Height: 1.0 m
2	Vibration resistance	(a) Frequency of vibration: 10~55Hz (b) Amplitude: 1.5 mm (c) Directions: X,Y and Z (d) Duration: 2 hours
3	Moisture resistance	(a) Condition: 40°C, 90~95% R.H. (b) Duration: 96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

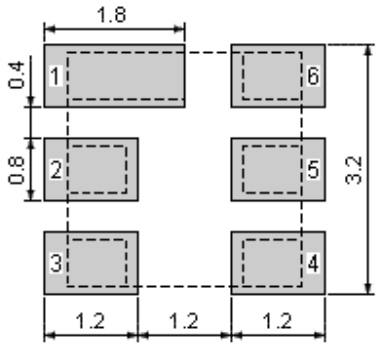
- SAW devices should not be used in any type of fluid such as water, oil, organic solvent, etc.
- Be certain not to apply voltage exceeding the rated voltage of components.
- Do not operate outside the recommended operating temperature range of components.
- Sudden change of temperature shall be avoided,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

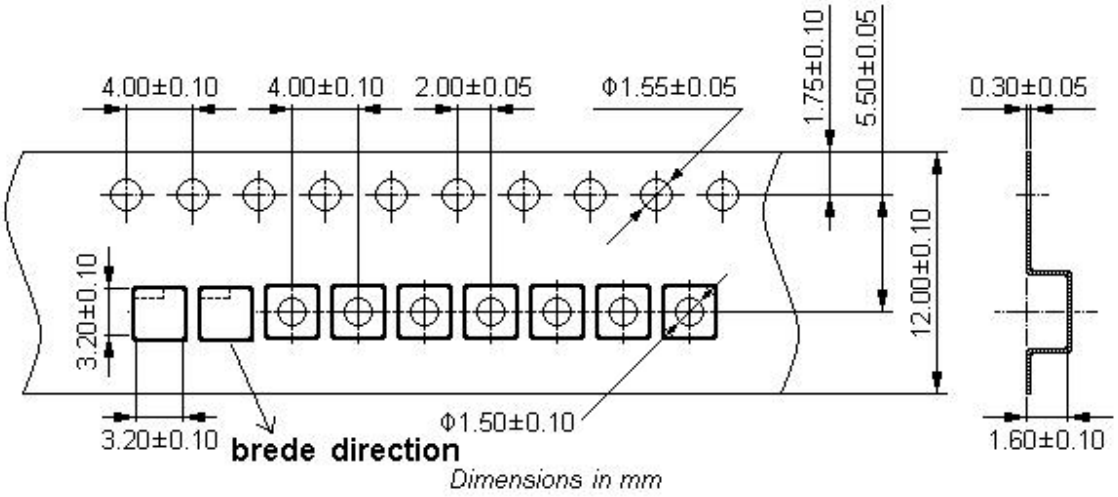
Recommended Land Pattern



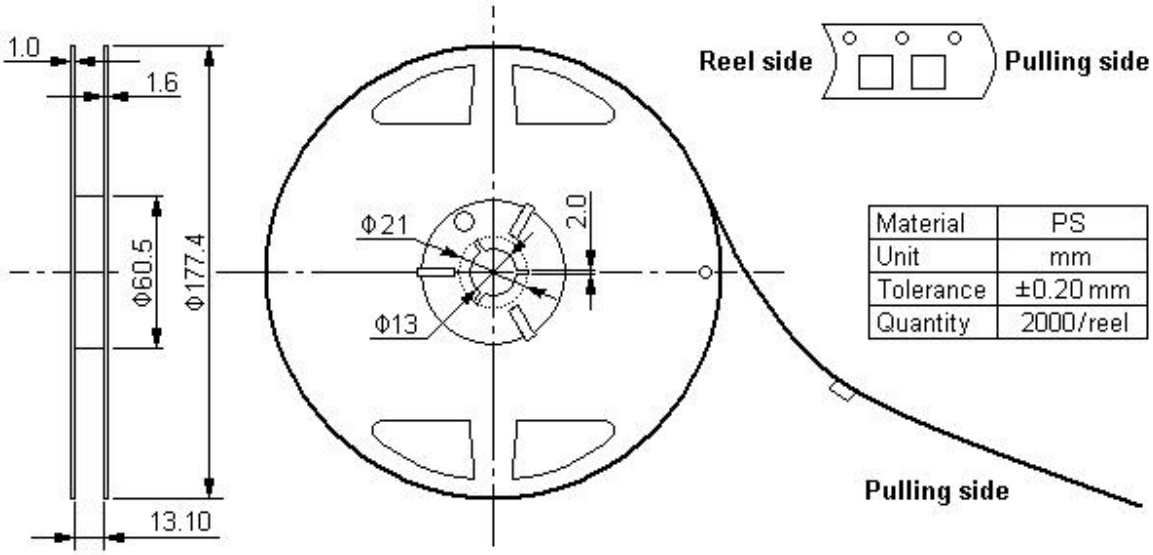
Unit: mm

Packing Information

Carrier Tape



Reel Dimensions

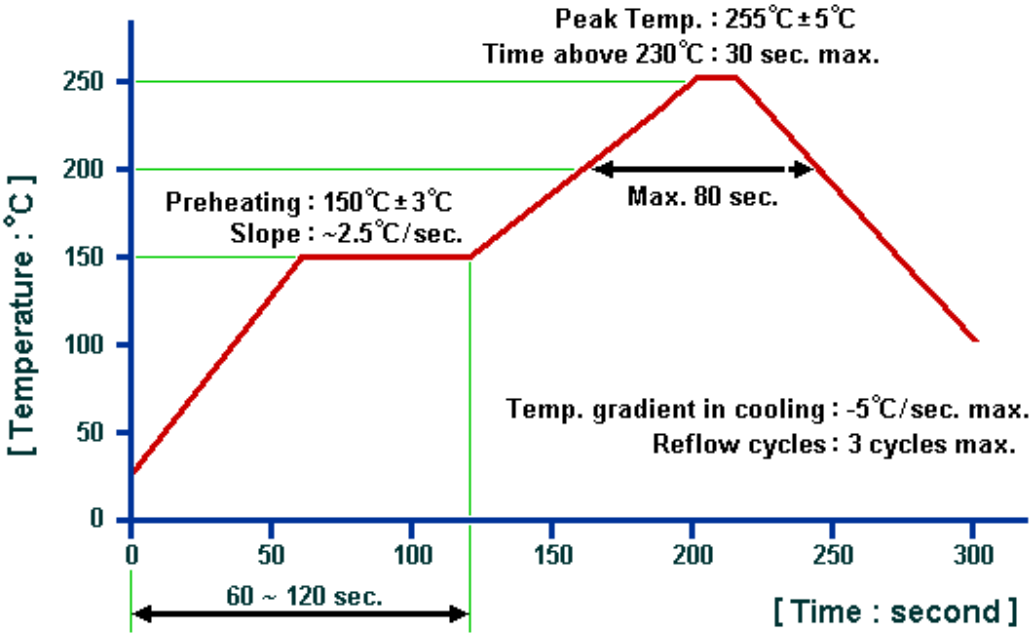


Outer Packing

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