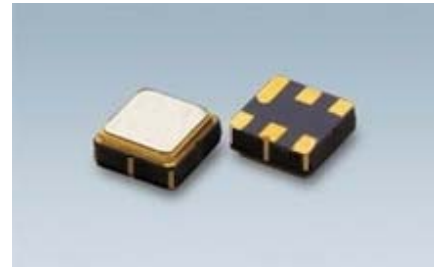


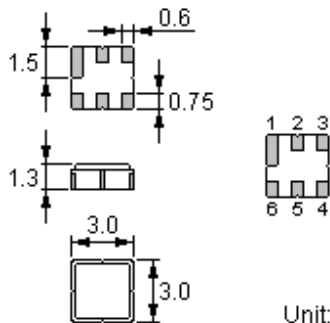
Features

- Low-loss RF filter for mobile systems
- Low amplitude ripple
- No matching network required for operation at 50Ω
- Ceramic package for **Surface Mounted Technology (SMT)**
- Lead-free production and **RoHS** compliant



Package Dimensions

Ceramic Package: **DCC6C**



Pin Configuration

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

<p>Marking</p>	Top View, Laser Marking			
	"ND":	Manufacturer's mark	"F":	SAW filter
	"8114":	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
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
2013	A	B	C	D	E	F	G	H	J	K	L	M

Maximum Ratings

Rating		Value	Unit
Input Power Level	P	15 dBm CW, Ta=85°C, life time>10 000 hurs	
		14 dBm CW, Ta=95°C, life time>10 000 hurs	
		20dBm CW, Ta=85°C, pass band top frequency, test 1000 hours continuously ,electrical characters meet demand;	
		19dBm CW, Ta=95°C, pass band top frequency, test 1000 hours continuously ,electrical characters meet demand;	
		23dBm CW, Ta=85°C, pass band top frequency, test 2 hours continuously ,electrical characters meet demand;	
		22dBm CW, Ta=95°C, pass band top frequency, test 2 hours continuously ,electrical characters meet demand;	
DC Voltage	V _{DC}	12	V
Operating Temperature Range	T _A	-40 ~ +95	°C
Storage Temperature Range	T _{stg}	-40 ~ +95	°C

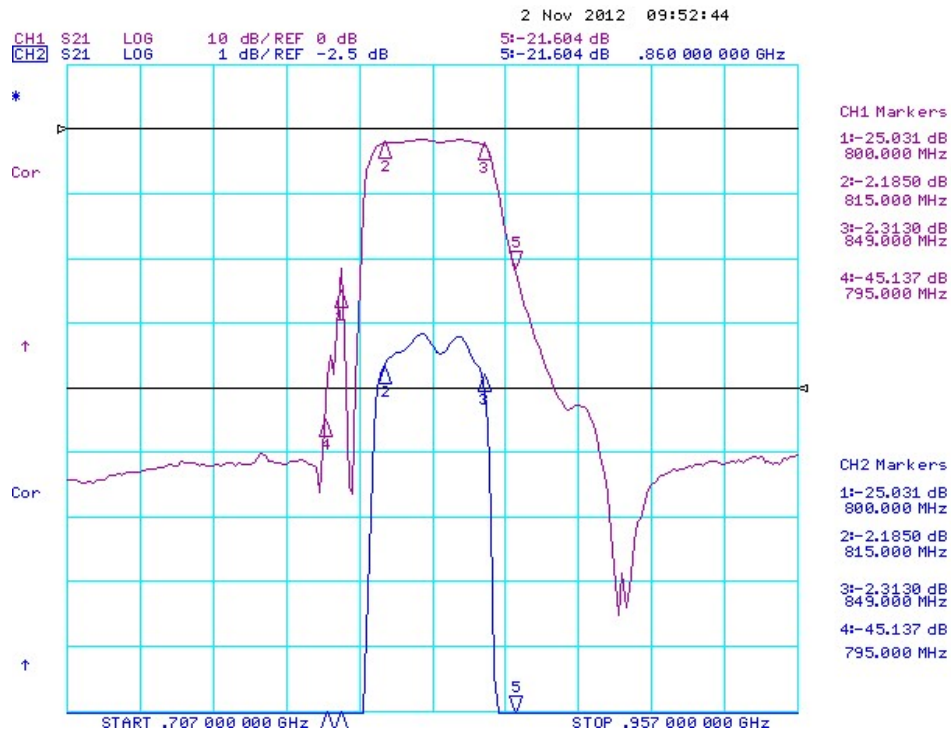
Electrical Characteristics

Parameter		Unit	Minimum	Typical	Maximum
Center frequency		MHz		832	
Insertion Loss (815.0~849.0MHz)		dB		2.5 ^{*)}	3.0 ^{*)}
				2.5 ^{**)}	3.5 ^{**)}
Amplitude Variation(815.0~849.0MHz)		dB		0.8 ^{*)}	1.5 ^{*)}
				0.8 ^{**)}	1.8 ^{**)}
Group delay Variation(815.0~849.0MHz)		ns		20	30
Group delay Variation over any 5MHz window (815.0~849.0MHz)		ns			20
Group delay Variation(815.0~849.0MHz)		ns		30	50
Group delay Variation over any 5MHz window (815.0~849.0MHz)		ns			20
Absolute Attenuation	0~795MHz	dB	25	35	
	795~800MHz	dB	20	25	
	860~865MHz	dB	12	18	
	865~894MHz	dB	25	30	
	894~1180MHz	dB	30	35	
	1180~1220MHz	dB	30	40	
	1220~2000MHz	dB	30	35	
	2000~3000MHz	dB	25	30	
	3000~5000MHz	dB	10	12	
VSWR S11 S22 (815.0~849.0MHz)				1.5	2.3
Input/Output Impedance		ohm		50	

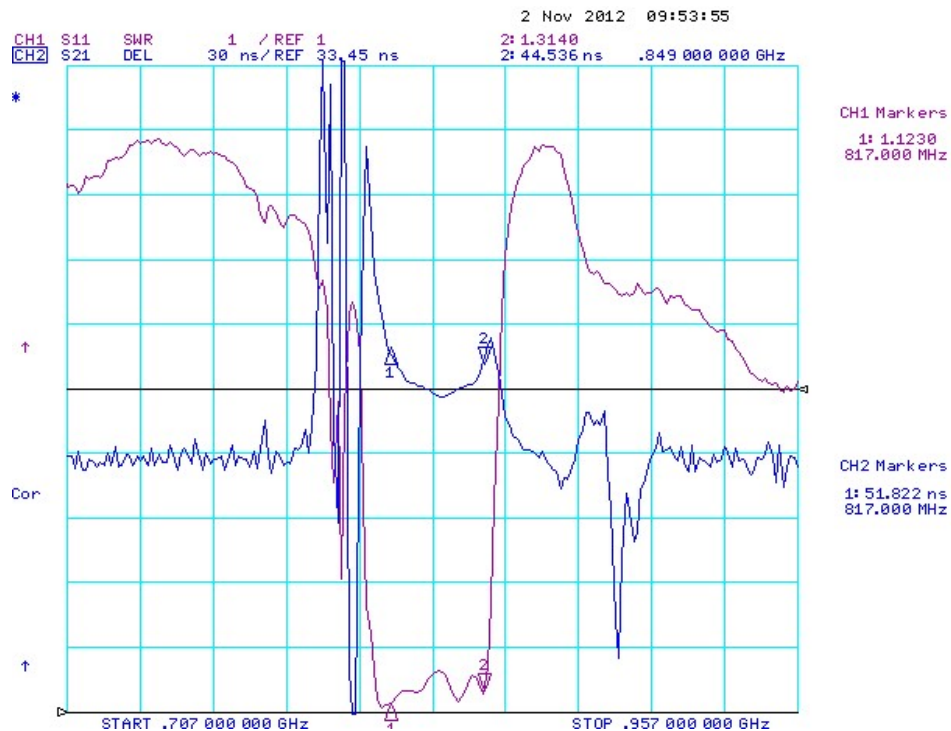
RoHS Compliant
Electrostatic Sensitive Device
^{*)} @ -40 °C ~85°C

^{**)} @ 85 °C ~95°C

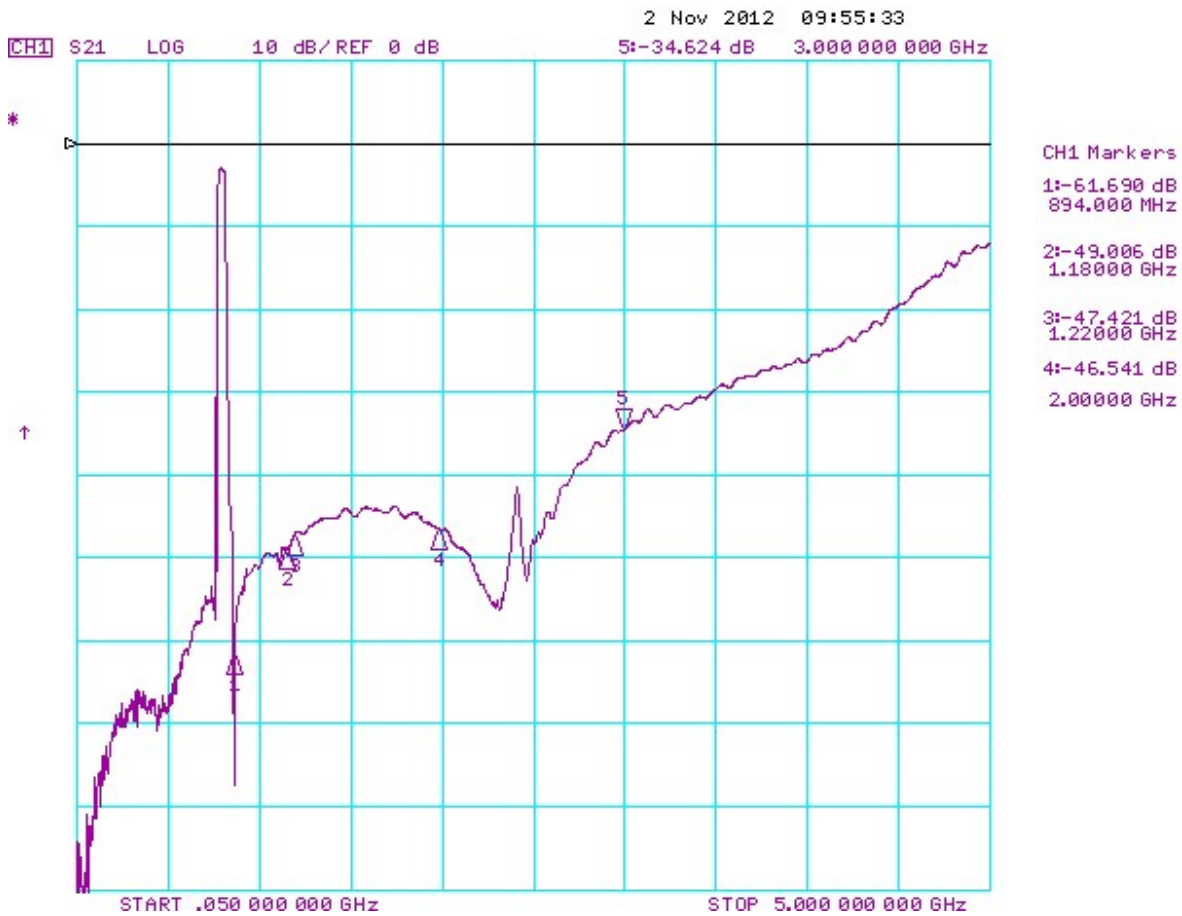
Typical Frequency Response



VSWR Group delay



50MHz~5GHz Frequency Response



Stability Characteristics

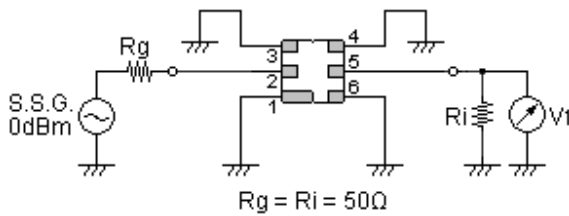
	Test item	Condition of test
1	Mechanical shock	(a) Drops: 3 times on concrete floor (b) Height: 1.0 m
2	Vibration resistance	(a) Frequency of vibration: 10~55Hz (b) Amplitude: 1.5 mm (c) Directions: X,Y and Z (d) Duration: 2 hours
3	Moisture resistance	(a) Condition: 40°C, 90~95% R.H. (b) Duration: 96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

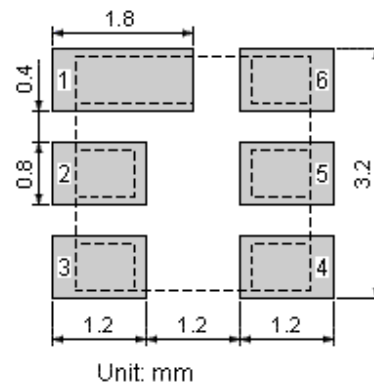
Remarks

- 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.

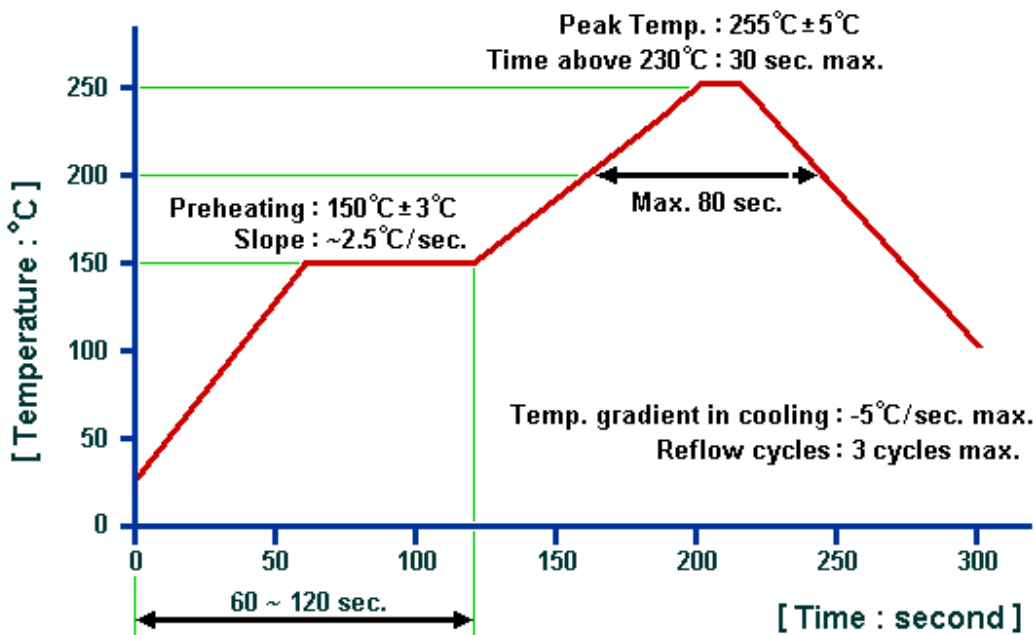
Test Circuit



Recommended Land Pattern

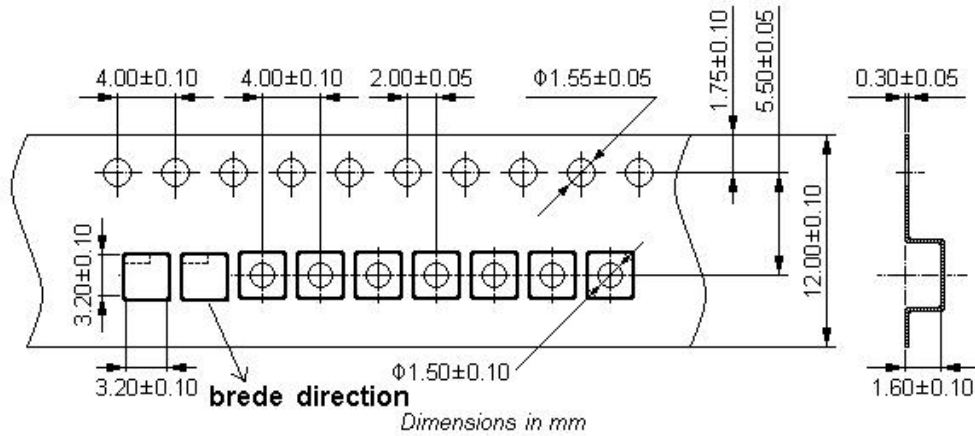


Recommended Soldering Profile

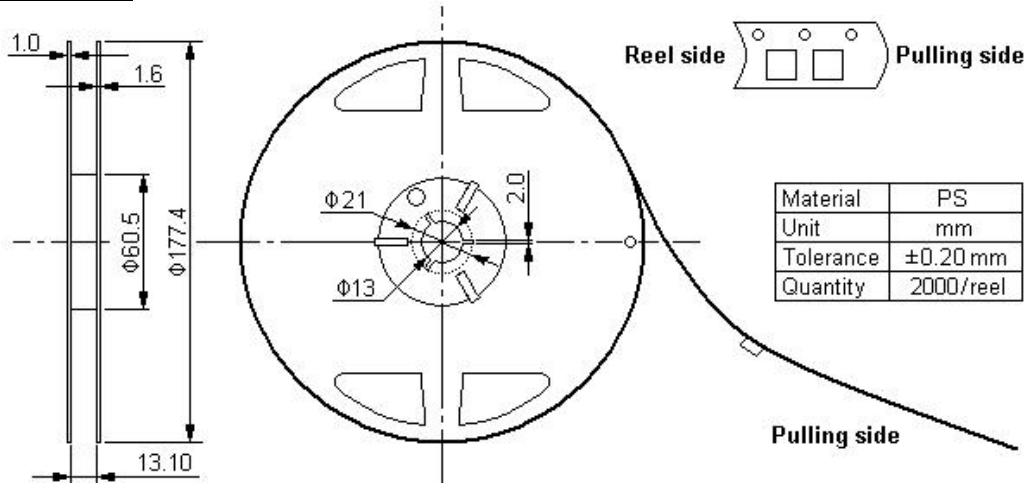


Packing Information

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	0.85
Carton Box II	20000	190×190×190	5 bags / box (10000 pcs) 10 bags / box (20000 pcs)	1.80

Unit: mm

Unit: kg

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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 winnsky@winnsky.com