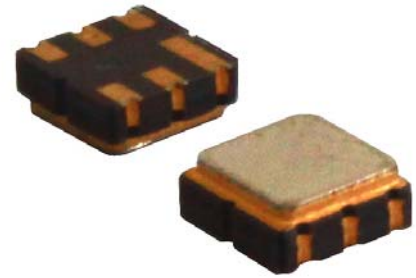


Application

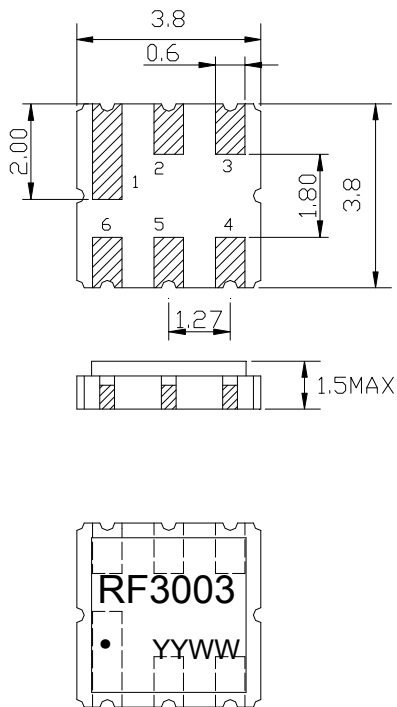
- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 4.0 MHz



Features

- Ceramic Package for Surface Mounted Technology (SMT)
- RoHS compatible
- Package size 3.80x3.80x1.50mm³
- Package Code DCC6
- Electrostatic Sensitive Device(ESD)

Package Dimensions (Unit: mm)



Pin Configuration

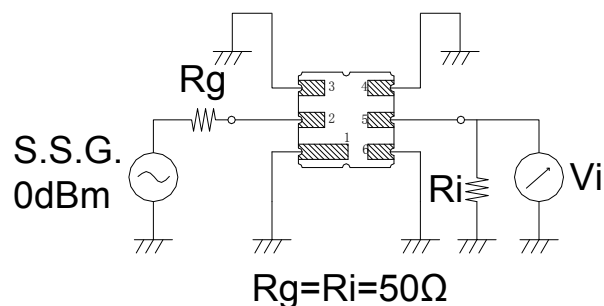
Pin No.	Description
2	Input
5	Output
1,3,4,6	Case Ground

Marking Description

RF	R	Manufacturer
	F	SAW Filter
3003	Part Number	
●	Pin 1	
YYWW	Year Code & Week Code	

*Fig: If the products produced in 06th week of 2015,
The year code & week code is 1506.

Test Circuit (Bottom View)



Performance**Maximum Rating**

Item		Value	Unit
DC Voltage	V_{DC}	3	V
Operation Temperature	T	-40 ~ +85	°C
Storage Temperature	T_{stg}	-55 ~ +125	°C
RF Power Dissipation	P	15	dBm

Electronic Characteristics

Test Temperature: $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$

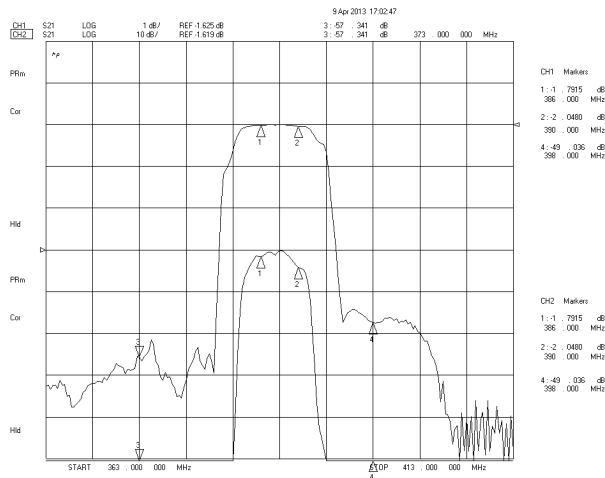
Terminating source impedance: 50Ω

Terminating load impedance: 50Ω

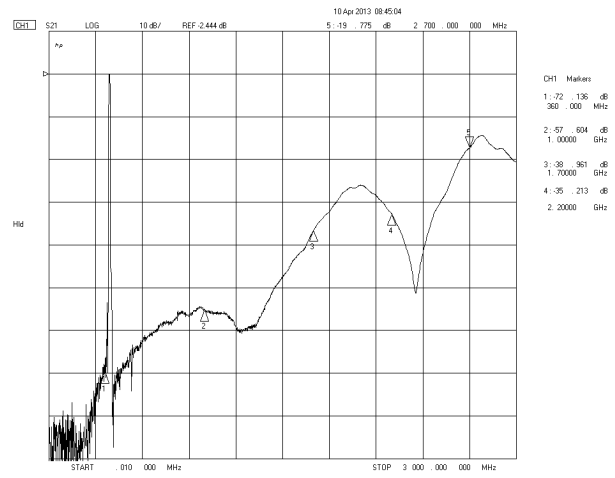
Item		Minimum	Typical	Maximum	Unit
Center Frequency	f_c		388.00		MHz
Insertion Loss(min)	IL		1.7	2.2	dB
Insertion Loss 386.00 - 390.00 MHz	IL		2.0	3.0	dB
Amplitude Ripple (p-p) 386.00 - 390.00 MHz	$\Delta\alpha$		0.6	1.0	dB
Group Delay Ripple 386.00 - 390.00 MHz	GDR		25.0	50.0	ns
Absolute Attenuation	α				
DC - 360.00 MHz		50.0	55.0		dB
360.00 - 373.00 MHz		44.0	50.0		dB
398.00 - 1000.00 MHz		42.0	46.0		dB
1700.00 - 1800.00 MHz		30.0	33.0		dB
1800.00 - 2200.00 MHz		25.0	27.0		dB
2400.00 - 2500.00 MHz		25.0	30.0		dB
2500.00 - 2700.00 MHz		15.0	18.0		dB
Input VSWR 386.00 - 390.00 MHz			1.7:1	2.0:1	/
Output VSWR 386.00 - 390.00 MHz			1.7:1	2.0:1	/

Frequency Characteristics

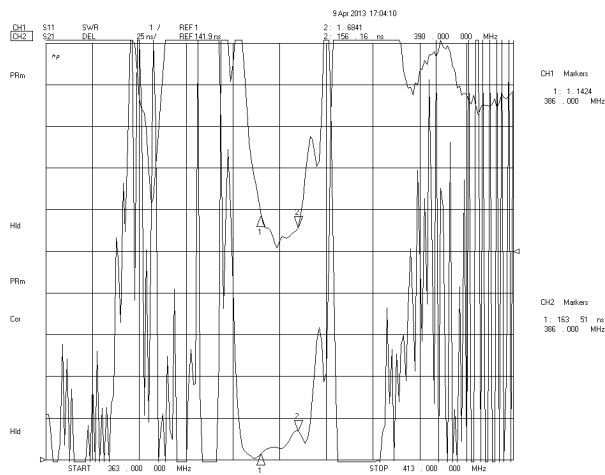
Frequency Response



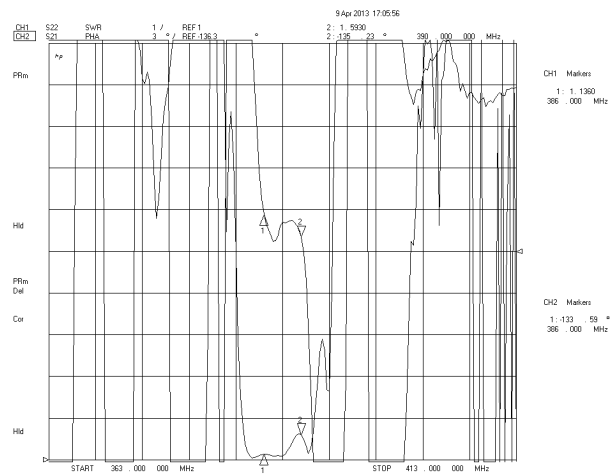
Frequency Response (wideband)



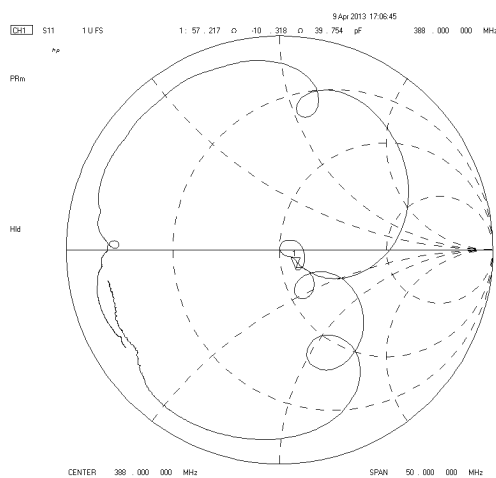
Delay Ripple & S11 VSWR



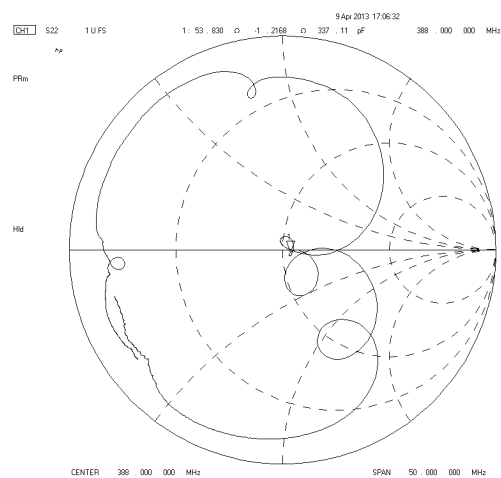
Phase Linearity & S22 VSWR



S11 Smith Chart



S22 Smith Chart



No.	Test item	Test condition
1	Temperature Storage	(1) Temperature: 85℃±2℃ , Duration: 250h , Recovery time: 2h±0.5h (2) Temperature: -55℃±3℃ , Duration: 250h ,Recovery time: 2h±0.5h
2	Humidity Test	Conditions: 60℃±2℃ , 90~95% RH Duration: 250h
3	Thermal Shock	Heat cycle conditions: TA=-55℃±3℃, TB=85℃±2℃, t1=t2=30min, Switch time: ≤3min, Cycle time: 100 times, Recovery time: 2h±0.5h.
4	Vibration Fatigue	Frequency of vibration: 10~55Hz Amplitude:1.5mm Directions: X,Y and Z Duration: 2h
5	Drop Test	Cycle time: 10 times Height: 1.0m
6	Solder Ability Test	Temperature: 245℃±5℃ Duration: 3.0s--5.0s Depth: DIP--2/3 , SMD--1/5
7	Resistance to Soldering Heat	(1)Thickness of PCB:1mm , Solder condition: 260℃±5℃ , Duration: 10±1s (2)Temperature of Soldering Iron: 350℃±10℃ , Duration: 3~4s, Recovery time : 2 ± 0.5h

Temperature: °C

Duration above 260 °C: 10 sec.

60 sec. min.

Temp. gradient in cooling: -5 °C/sec. max.

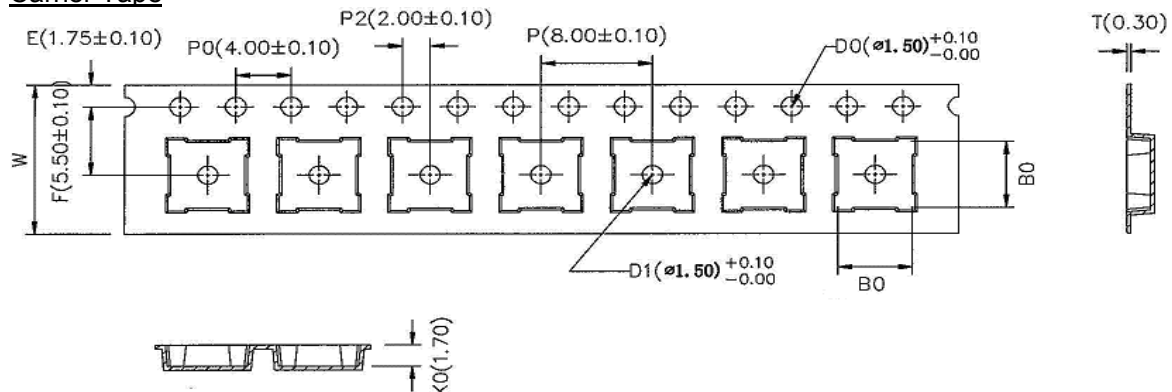
80~120 sec.

[Time: second]

Reflow cycles: 3 cycles max.

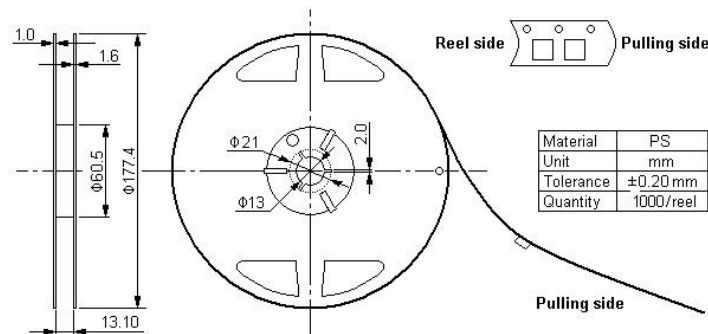
Packing Information

Carrier Tape



* B0: 5.35 for QCC8C; 4.15 for DCC6/QCC8B; 3.35 for DCC6C/QCC8D

Reel Dimensions



Outer Packing

Type	Quantity	Dimension	Description	Weight
Internal box	1000	190×188×42	carton box	0.18
External box	10000	235×205×210	2 reel / internal box 5 boxes / external box	1.80

Unit: mm

Unit: kg

Notes

- As a result of the particularity of inner structure of SAW products, it is easy to be breakdown by electrostatic, so we should pay attention to **ESD protect** in the test.
- Static voltage** between signal load and ground may cause deterioration and destruction of the component. Please avoid static voltage.
- Ultrasonic cleaning** may cause deterioration and destruction of the component. Please avoid ultrasonic cleaning.
- Only leads of component may **be soldered**. Please avoid soldering another part of component.
- There is a close relationship between the device's performance and **matching network**. The specifications of this device are based on the test circuit shown above. L and C values may change depending on board layout. Values shown are intended as a guide only.