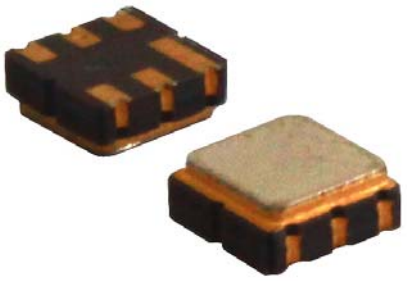
Application

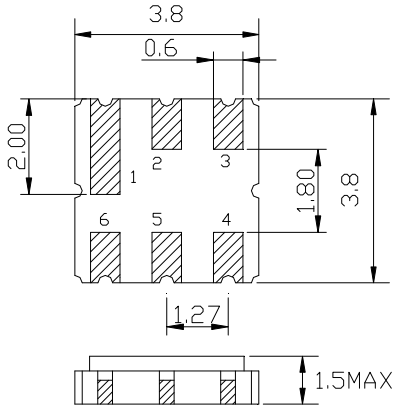


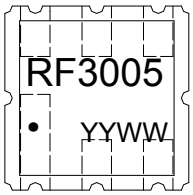
- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 5.0 MHz

Features

- Ceramic Package for **S**urface **M**ounted **T**echnology (**SMT**)
- **RoHS** compatible
- Package size 3.80x3.80x1.50mm^3
- Package Code DCC6
- **E**lectrostatic **S**ensitive **D**evice(**ESD)**

Package Dimensions (Unit: mm)





Pin Configuration

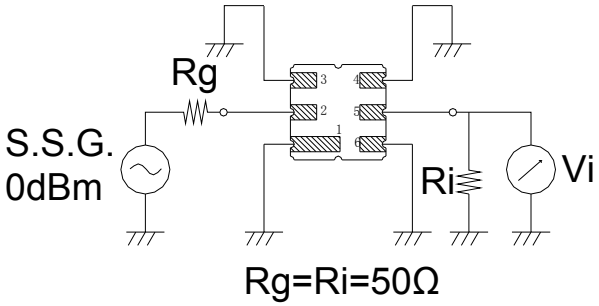
Pin No.	Description
2	Input
5	Output
1,3,4,6	Case Ground

Marking Description

RF	**R**	Manufacturer
	F	SAW Filter
3005	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	℃
Storage Temperature	T_{stg}	-55 ~ +125	℃
RF Power Dissipation	P	15	dBm

Electronic Characteristics

Test Temperature: 25℃±2℃

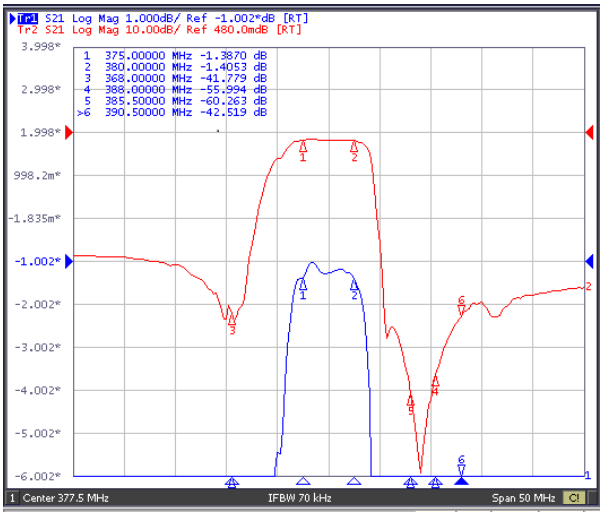
Terminating source impedance: 50Ω

Terminating load impedance: 50Ω

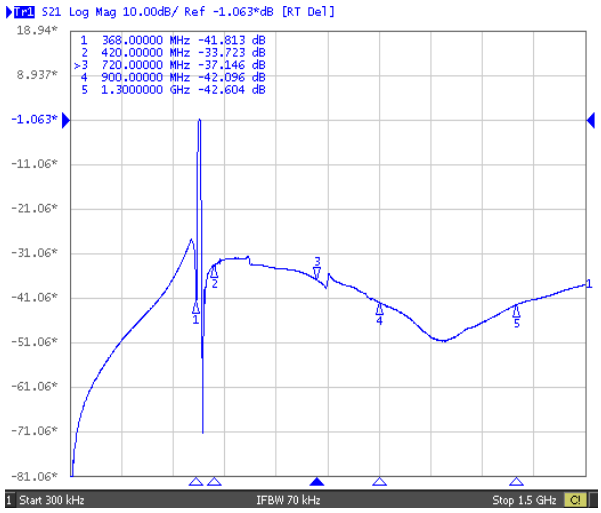
Item		Minimum	Typical	Maximum	Unit
Center Frequency	fc		377.50		MHz
Insertion Loss(min)	IL		1.0	1.5	dB
Insertion Loss 375.00 - 380.00 MHz	IL		1.5	2.5	dB
Amplitude Ripple (p-p) 375.00 - 380.00 MHz	△α		0.5	1.0	dB
Group Delay Ripple 375.00 - 380.00 MHz	GDR		60.0	100.0	ns
Absolute Attenuation	α				
DC - 348.00MHz		25.0	27.0		dB
368.00MHz		30.0	36.0		dB
385.50 - 390.50MHz		40.0	42.0		dB
388.00MHz		50.0	58.0		dB
390.50 - 900.00MHz		25.0	30.0		dB
900.00 - 1500.00MHz		30.0	35.0		dB
Input VSWR 375.00 - 380.00 MHz			1.3:1	2.0:1	/
Output VSWR 375.00 - 380.00 MHz			1.3:1	2.0:1	/

Frequency Characteristics

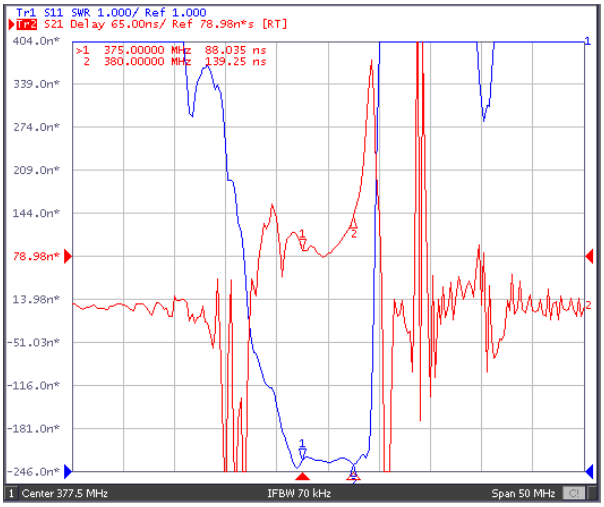
Frequency Response



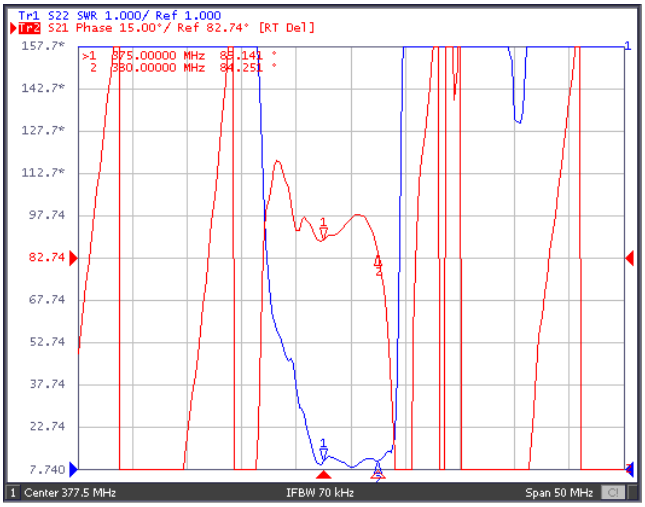
Frequency Response（wideband）



Delay Ripple & S11 VSWR

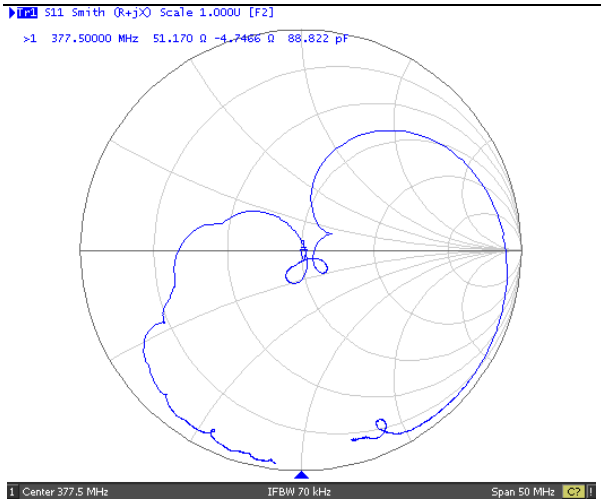


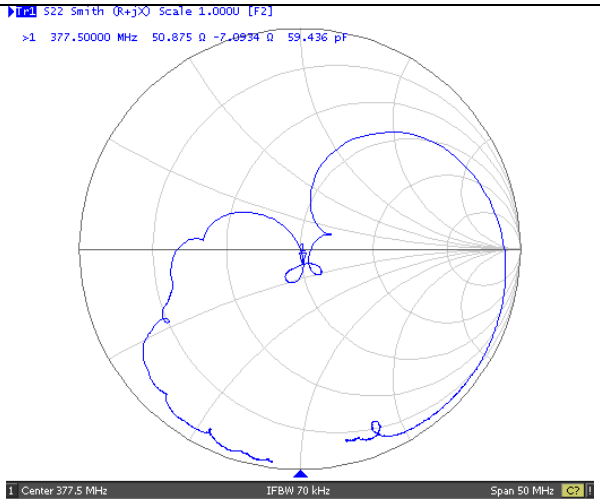
Phase Linearity & S22 VSWR



S11 Smith Chart

S22 Smith Chart

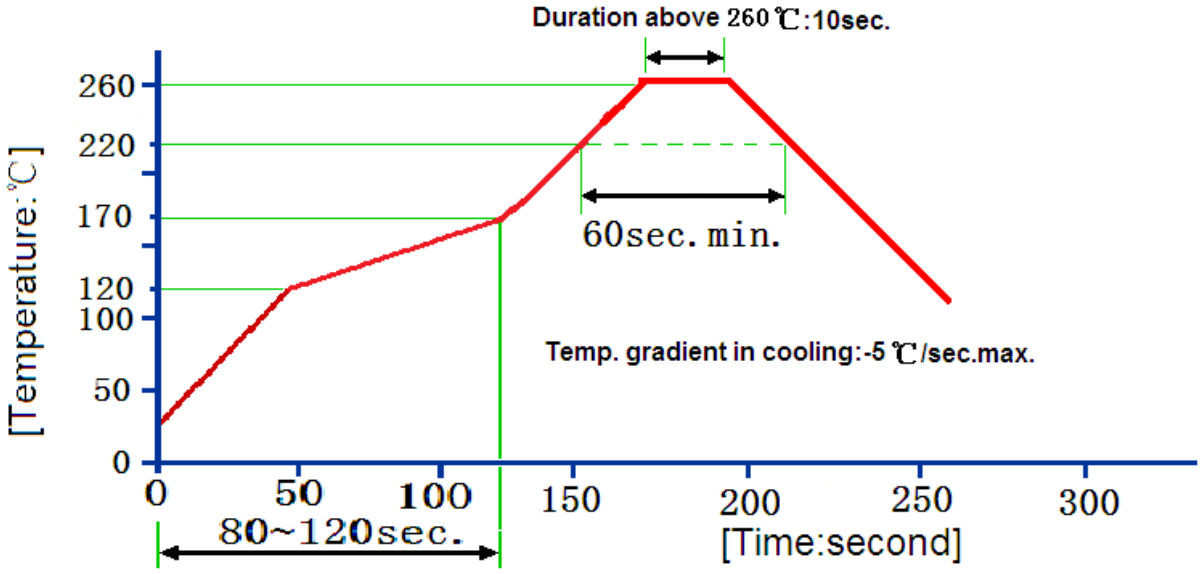

Tr1 S11 Smith (R+jX) Scale 1.000U [F2]
>1 377.50000 MHz 51.170 Ω -4.7486 Ω 88.822 pF
1 Center 377.5 MHz
IFBW 70 kHz
Span 50 MHz


Tr1 S22 Smith (R+jX) Scale 1.000U [F2]
>1 377.50000 MHz 50.875 Ω -7.0934 Ω 59.436 pF
1 Center 377.5 MHz
IFBW 70 kHz
Span 50 MHz

Reliability（The SAW components shall remain electrical performance after tests）

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

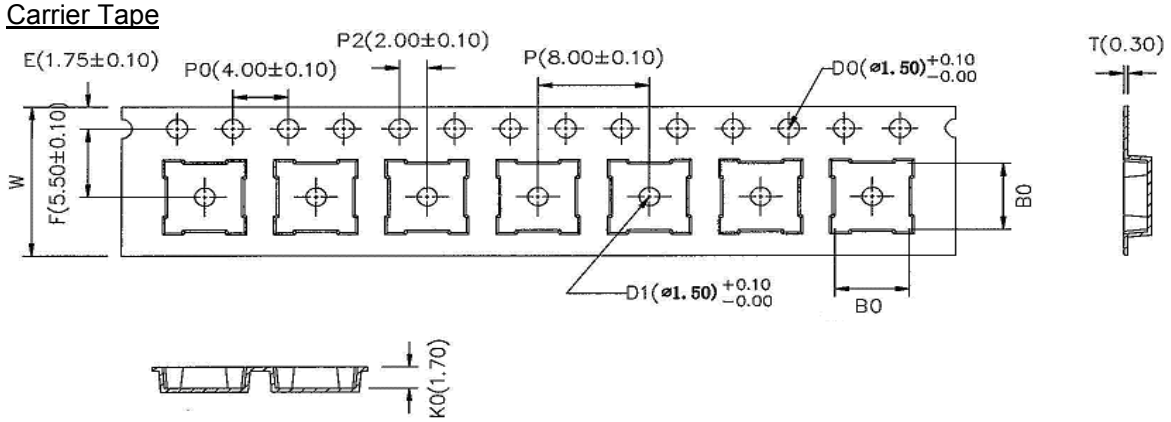
Recommended Reflow Soldering Diagram



Reflow cycles:3 cycles max.

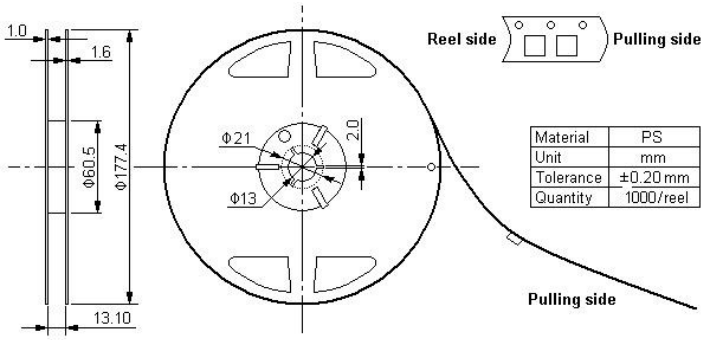
Packing Information

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 2 reel / internal box 5 boxes / external box	0.18
External box	10000	235×205×210		1.80
		Unit: mm		Unit: kg

Notes

1. As a result of the particularity of inner structure of SAW products, it easy to be breakdown by electrostatic, so we should pay attention to **ESD protect** in the test.
2. **Static voltage** between signal load and ground may cause deterioration and destruction of the component. Please avoid static voltage.
3. **Ultrasonic cleaning** may cause deterioration and destruction of the component. Please avoid ultrasonic cleaning.
4. Only leads of component may **be soldered**. Please avoid soldering another part of component.
5. 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.