SAW Components
Data Sheet
CQTSF433M42.01

Customer's Approval Certificate	
Complies with Directive 2002/95/EC (RoHS)	
Please return this Page Via email as a certification of Your approval	
Checked & Approval by:	Date:

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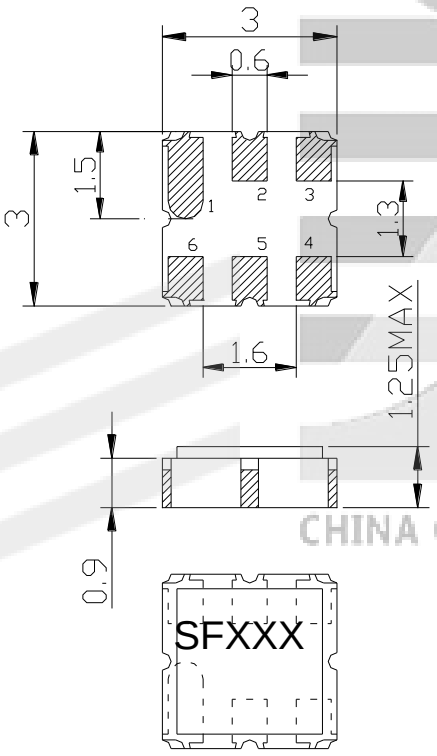
Application

- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 320.0 KHz

Features

- Ceramic Package for **S**urface **M**ounted **T**echnology (**SMT**)
- **RoHS** compatible
- Package size 3.00x3.00x1.25mm³
- Package Code DCC6C
- **E**lectrostatic **S**ensitive **D**evice(**ESD)**

1.Package Dimensions (Unit: mm)



Pin Configuration

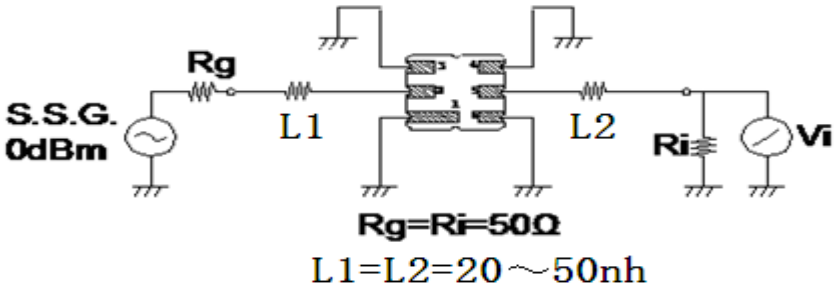
Pin No.	Description
2	Input
5	Output
1,3,4,6	Ground

Marking Description

S	Trademark
F	SAW Filter
XXX	Part Number
•	Pin 1
YYWW	Year Code & Week Code

***Fig：If the products produced in 06th week of 2012, The year code & week code is 1206.**

2.Test Circuit (Bottom View)



3.Performance

Maximum Rating

Item		Value	Unit
DC Voltage	V_{DC}	3	V
Operation Temperature	T	-20 ~ +70	℃
Storage Temperature	T_{stg}	-55 ~ +125	℃
RF Power (in BW)	P	10	dBm

Electronic Characteristics

Test Temperature: 25℃±2℃

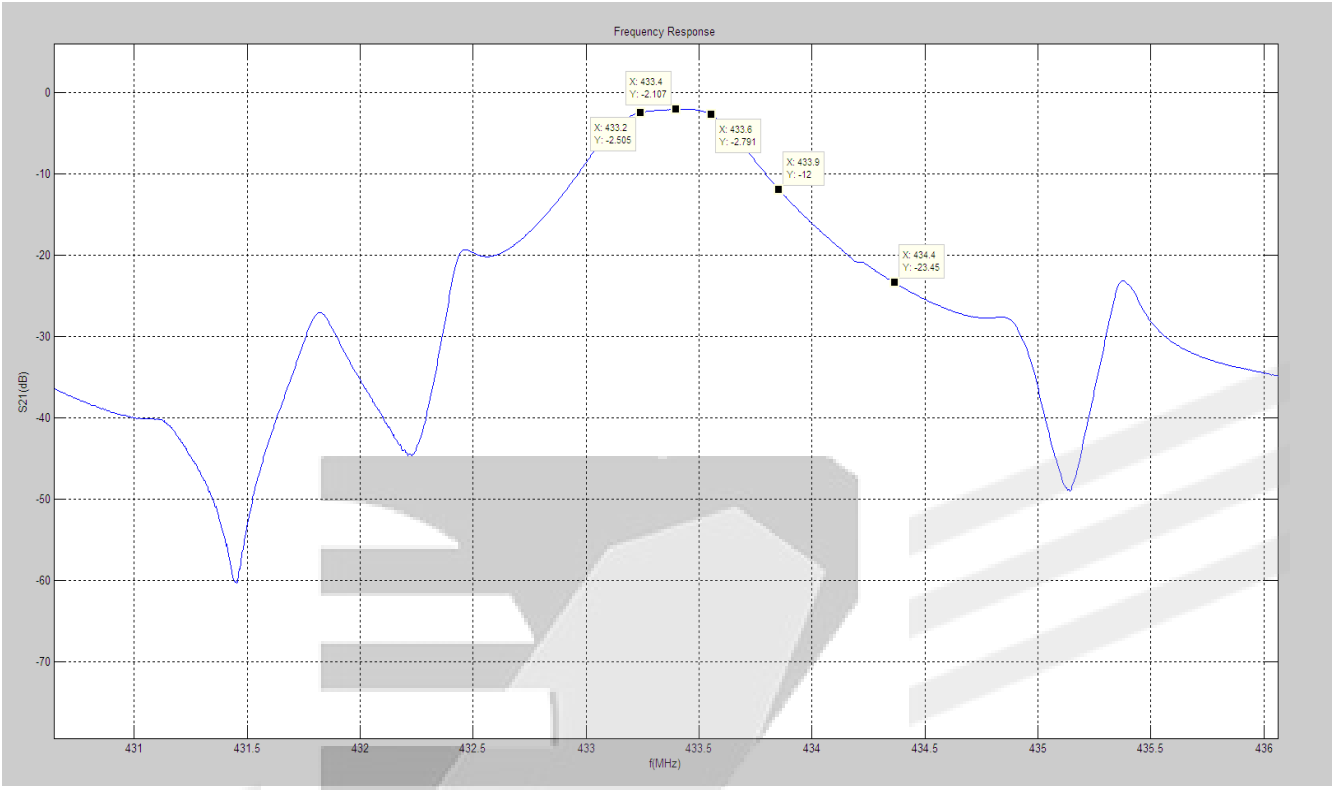
Terminating source impedance: 50Ω

Terminating load impedance: 50Ω

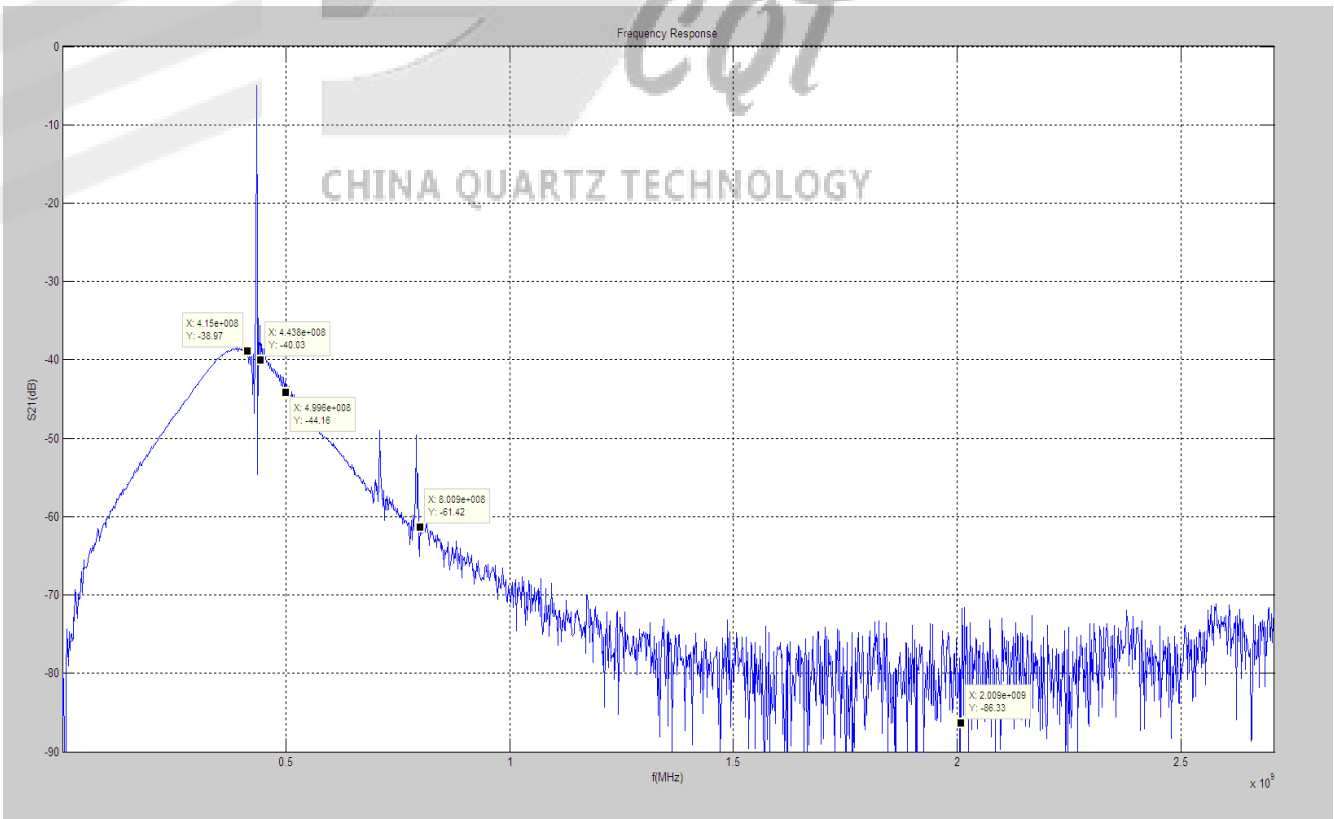
Item		Minimum	Typical	Maximum	Unit
Center Frequency	fc		433.42		MHz
Insertion Loss(min)	IL		2.1	2.8	dB
Amplitude Ripple (p-p) 433.34 - 433.50 MHz	△ α		0.6	2.0	dB
433.30 - 433.54 MHz	△ α		0.8	3.0	dB
433.48 - 433.58 MHz	△ α		1.0	4.0	dB
3 dB Bandwidth	BW_{3dB}	0.6	0.65	0.7	MHz
Absolute Attenuation	α				
DC - 414.00 MHz		56	62		dB
433.92 - 434.42 MHz		8.0	12.0		dB
434.42 - 436.00 MHz		20	25.0		dB

4.Frequency Characteristics

Frequency Response



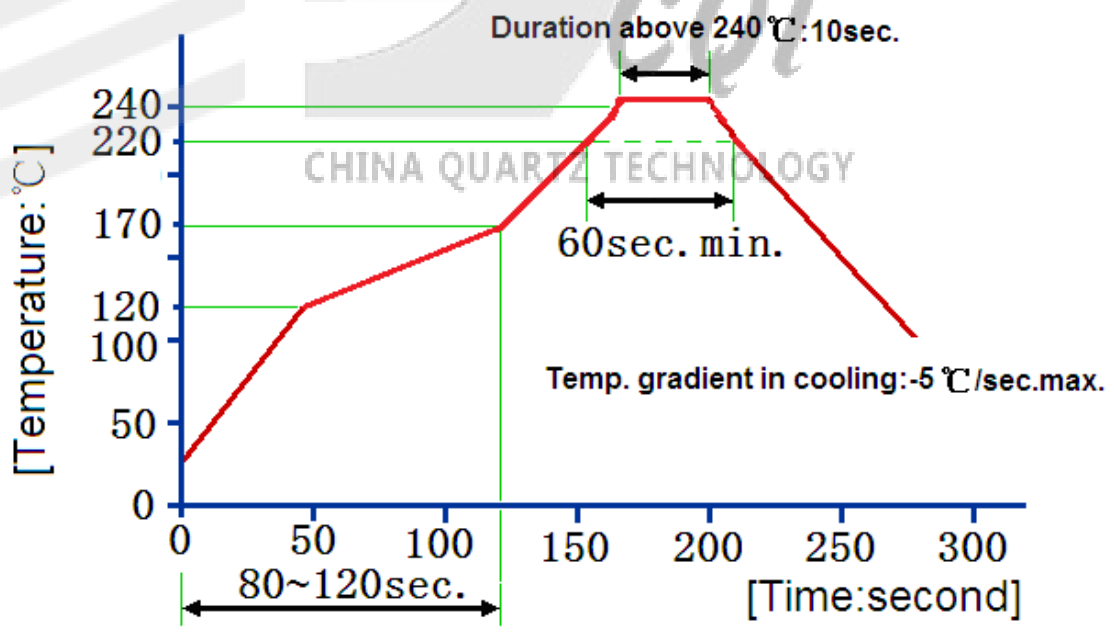
Frequency Response (wideband)



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

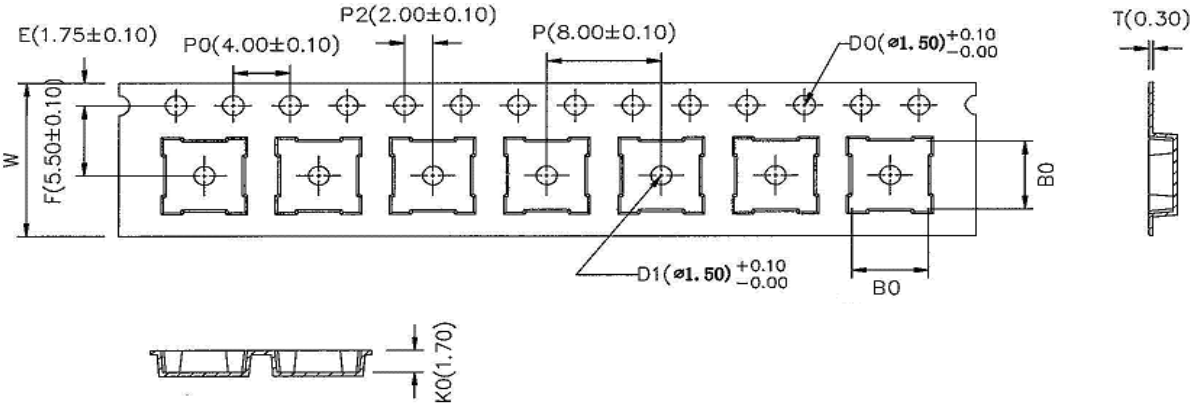
Recommended Reflow Soldering Diagram



Reflow cycles:3 cycles max.

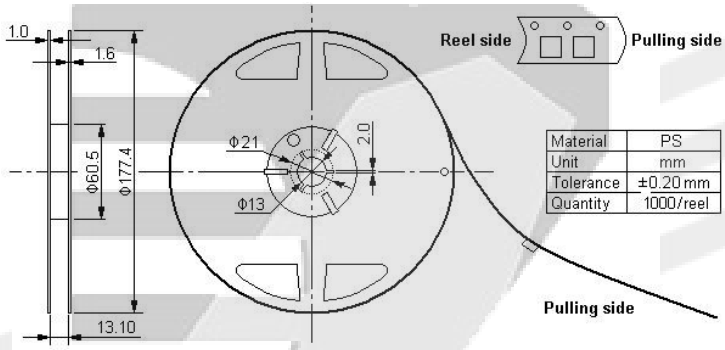
5.Packing Information

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.