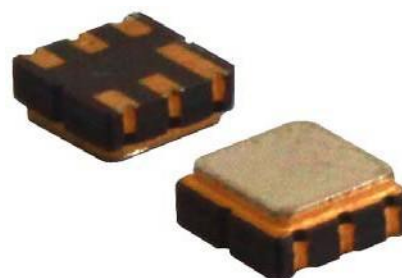


Application

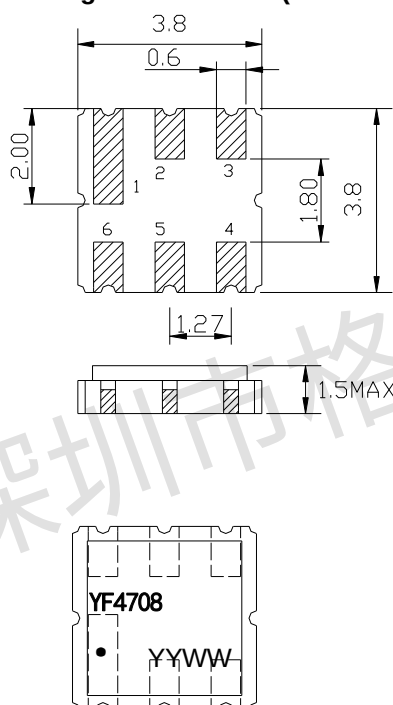
- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 6.0 MHz

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

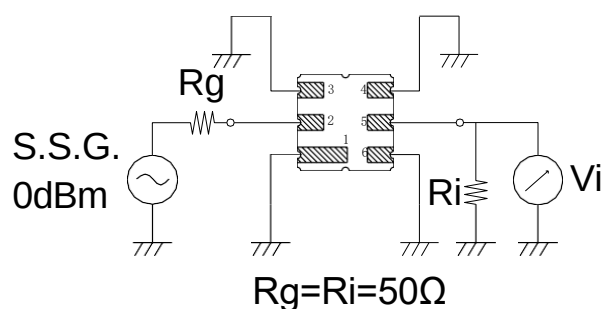
Pin No.	Description
2	Input
5	Output
1,3,4,6	Case Ground

Marking Description

Y	Trademark
F	SAW Filter
4708	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.
This item is optional.

Test Circuit (Bottom View)



Performance**Maximum Rating**

Item		Value	Unit
DC Voltage	V _{DC}	5	V
Operation Temperature	T	-40 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +85	°C
RF Power Dissipation	P	20	dBm

Electronic Characteristics

Test Temperature: 25°C ± 2°C

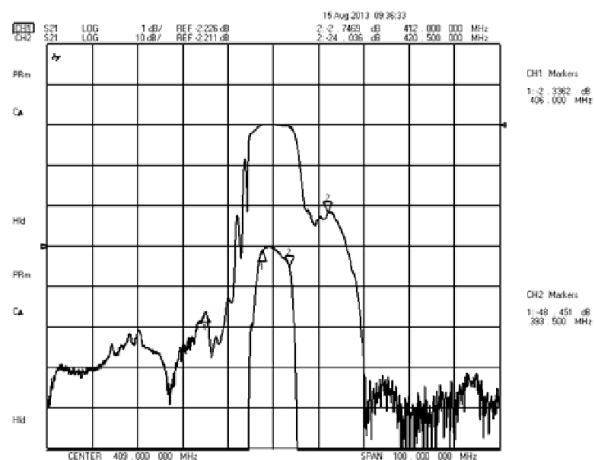
Terminating source impedance: 50Ω

Terminating load impedance: 50Ω

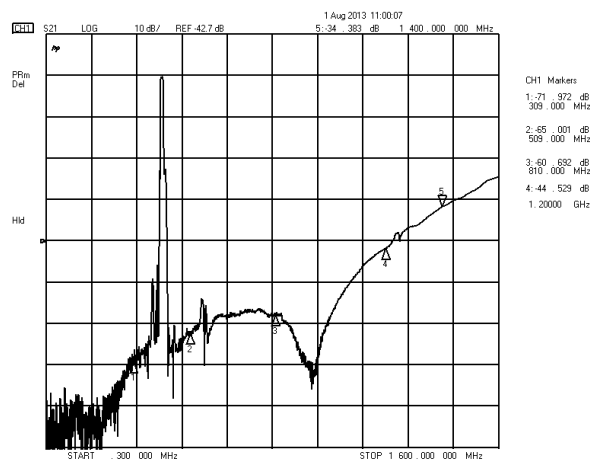
Item		Minimum	Typical	Maximum	Unit
Center Frequency	f _c		409.00		MHz
Insertion Loss(min)	IL		2.3	2.6	dB
Insertion Loss 406.00 – 412.00 MHz	IL		2.8	3.5	dB
Amplitude Ripple (p-p) 406.00 – 412.00 MHz	Δα		0.8	1.5	dB
Group Delay Ripple 406.00 – 412.00 MHz			30.0	55.0	ns
Absolute Attenuation	α				
DC -309.00 MHz		55.0	60.0		dB
309.00 – 393.50 MHz		45.0	48.0		dB
430.00 – 509.00 MHz		50.0	55.0		dB
509.00 - 810.00 MHz		48.0	52.0		dB
810.00 -1200.00 MHz		35.0	40.0		dB
1200.00 -1400.00 MHz		28.0	30.0		dB
Input VSWR 406.00 – 412.00 MHz			1.6:1	2.0:1	
Output VSWR 406.00 – 412.00 MHz			1.6:1	2.0:1	

Frequency Characteristics

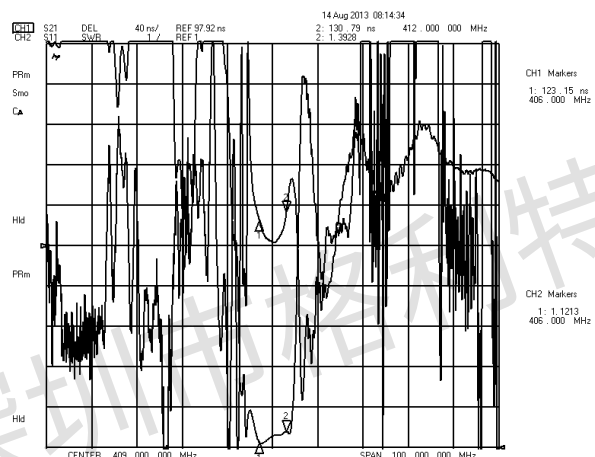
Frequency Response



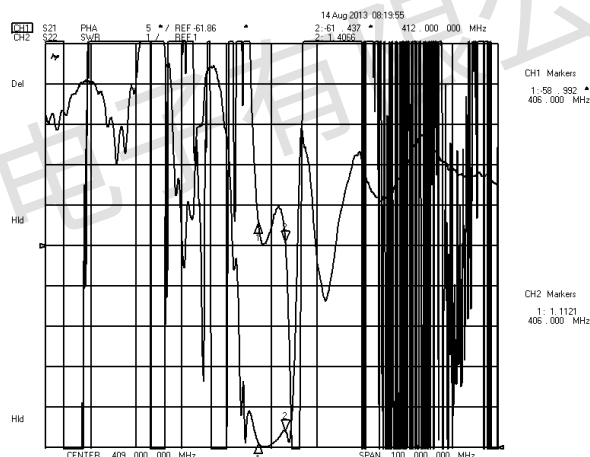
Frequency Response (wideband)



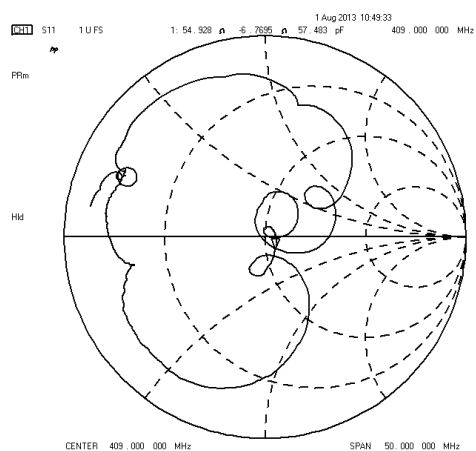
Delay Ripple & S11 VSWR



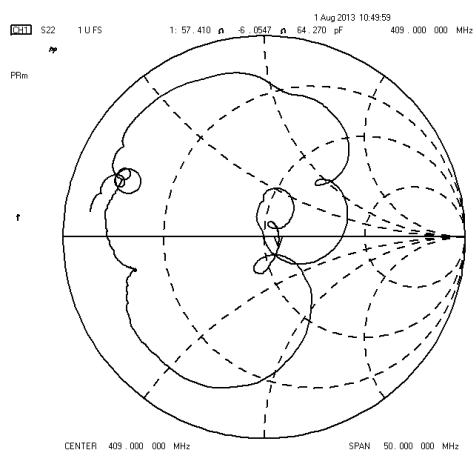
Phase Linearity & S22 VSWR



S11 Smith Chart



S22 Smith Chart

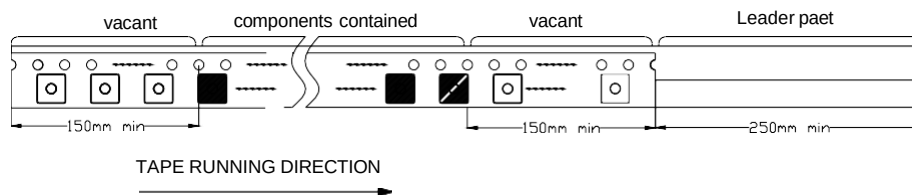


No.	Test item	Test condition
1	Temperature Storage	(1) Temperature: 85℃(2℃ , Duration: 250h , Recovery time: 2h(0.5h (2) Temperature: -55℃(3℃ , Duration: 250h ,Recovery time: 2h(0.5h
2	Humidity Test	Conditions: 60℃(2℃ , 90~95C RH Duration: 250h
3	Thermal Shock	Heat cycle conditions: TA=-55℃(3℃, TB=85℃(2℃, 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

Figure 1 is a graph showing the temperature profile of the sample during the DSC measurement. The Y-axis is Temperature (Deg. °C) ranging from 20 to 280. The X-axis is Time (Sec) ranging from 0 to 380. The curve shows a pre-heating phase (50-180°C, 60-90sec), a heating phase (220°C, 50-80sec), and a maximum peak at 260±0/-5°C (20-40sec).

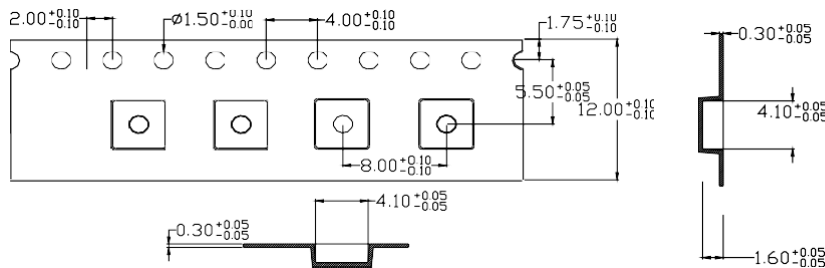
Packing Information

Carrier Tape



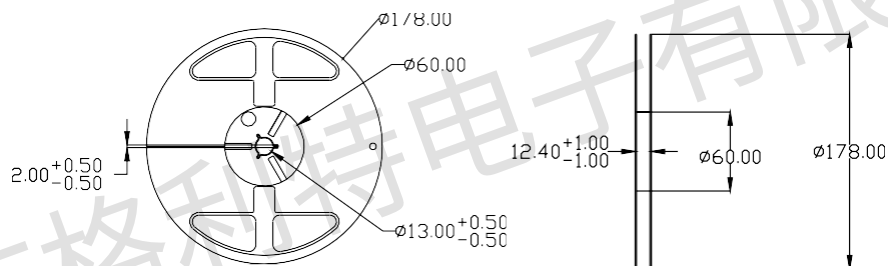
Reel Dimensions

Unit: mm



Outer Packing

Unit: mm



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.