

APPROVAL SHEET

Approval Specification	Customer's Approval Certificate		
TO:	Please return this copy as a certification of your approval		
Part No.:	Checked & Approved by:		
Customer's Part No.:	Date:		

BEIJING ZHONGXUN SIFANG SCIENCE & TECHNOLOGY CO.,LTD.

Tel: +86-010-62968745
Fax: +86-010-62973654
E-mail: bjzxsf@bjzxsf.net
Website: http://www.bjzxsf.net

Add: NO.7 NieGeZhuang Rd,SuJiaTuo Town,

HaiDian District, Beijing, P.R. China

Part No.	:	SF7117
Pages	:	6
Date	:	2013/3/13
Revision	:	1.0



Prepared by:	郑宝琴
Checked by:	
Approved by:	

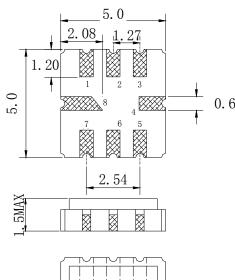
Application

- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 10 MHz

Features

- Ceramic Package for Surface Mounted Technology (SMT)
- RoHS compatible
- Package size 5.00x5.00x1.50mm³
- Package Code QCC8C
- Electrostatic Sensitive Device(ESD)

Package Dimensions (Unit: mm)





Pin Configuration

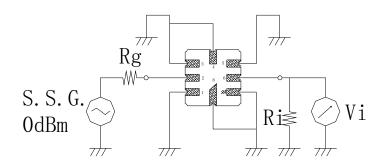
Pin No.	Description	
2	Input	
6	Output	
1,3,4,5,7,8	Ground	

Marking Description

S	Trademark		
F	SAW Filter		
7117 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.

Test Circuit



Please read notes at the end of this document.

Performance

Maximum Rating

Item		Value	Unit
DC Voltage	V_{DC}	3	V
Operation Temperature	Т	-40 ~ +85	$^{\circ}$
Storage Temperature	T _{stg}	-55 ~ +125	$^{\circ}$
RF Power Dissipation	Р	10	dBm

Electronic Characteristics

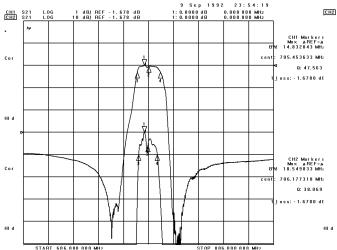
Test Temperature: $25^{\circ}C \pm 2^{\circ}C$

Terminating source impedance: 50Ω Terminating load impedance: 50Ω

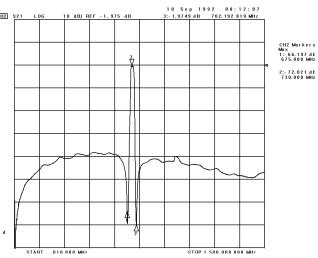
Item	Minimum	Typical	Maximum	Unit	
Center Frequency	fc	705.2	706.0	706.8	MHz
Insertion Loss(min)	IL		1.7	5.0	dB
Amplitude Ripple (p-p) 702.00-710.00MHz	Δa		0.9	1.5	dB
1 dB Bandwidth	BW _{1dB}	8.0	14.5		MHz
3 dB Bandwidth	ВWзdВ	10.0	18.0		MHz
40 dB Bandwidth	BW _{40dB}		36.5	42.0	MHz
50 dB Bandwidth	BW _{50dB}		39.0	46.5	MHz
Absolute Attenuation	а				
DC -675.00 MHz		35.0	38.0		dB
730.00-1500.00MHz		35.0	38.0		dB

Frequency Characteristics

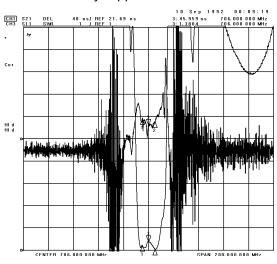
Frequency Response



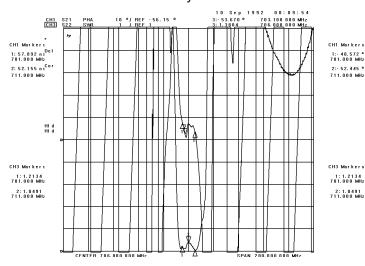
Frequency Response (wideband)



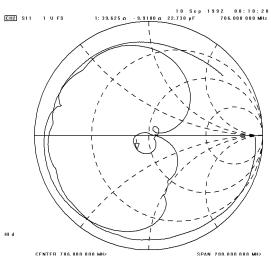
Delay Ripple & S11 VSWR



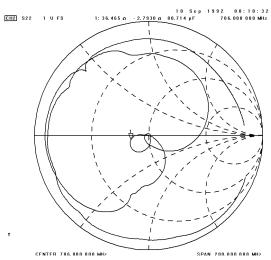
Phase Linearity & S22 VSWR



S11 Smith Chart



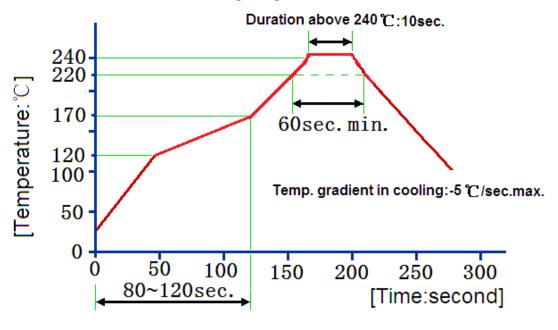
S22 Smith Chart



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

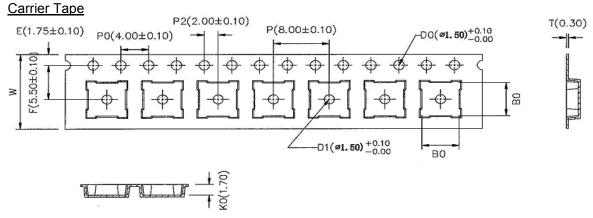
No.	Test item	Test condition		
4	Temperature	(1) Temperature: 85℃±2℃,Duration: 250h,Recovery time: 2h±0.5h		
1	Storage	(2) Temperature: –55℃±3℃ , Duration: 250h ,Recovery time: 2h±0.5h		
2	Humidity Test	Conditions: 60℃±2℃, 90~95% RH Duration: 250h		
3	Thormal Chook	Heat cycle conditions: TA=-55℃±3℃, TB=85℃±2℃, t1=t2=30min, Switch		
3 Thermal Shock		time: ≤3min, Cycle time: 100 times, Recovery time: 2h±0.5h.		
4	Vibration Estique	Frequency of vibration: 10~55Hz Amplitude:1.5mm		
4	4 Vibration Fatigue	Directions: X,Y and Z Duration: 2h		
5	Drop Test	Cycle time: 10 times Height: 1.0m		
		Temperature: 245 ℃ ±5 ℃ Duration: 3.0s5.0s		
6 Solder Ability Test		Depth: DIP2/3 , SMD1/5		
	(1)Thickness of PCB:1mm , Solder condition: 260°C±5°C , Duration			
7	Resistance to Soldering Heat	(2)Temperature of Soldering Iron: 350℃±10℃,Duration: 3~4s,		
		Recovery time: 2 ± 0.5h		

Recommended Reflow Soldering Diagram



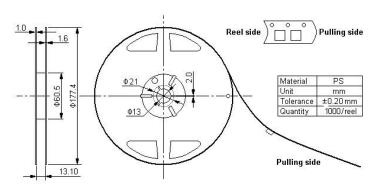
Reflow cycles:3 cycles max.

Packing Information



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

Reel Dimensions



Outer Packing

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