

# 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: +86-010-58937383 Fax: +86-010-58937263 E-mail: zxsf\_sales@163.com

QQ: 2109300457

Website: <a href="http://www.bjzxsf.net">http://www.bjzxsf.net</a>

Add: No 201, Block A. Building 3. Yongjie Beilu

Yongfeng high-tech industrial base Haidian District Beijing city

Part No.	:	SF9048
Pages	:	7
Date	:	2013/8/08
Revision	:	1.0



Prepared by:	3 f3 ft
Checked by:	杨玄伟
Approved by:	21/18/90

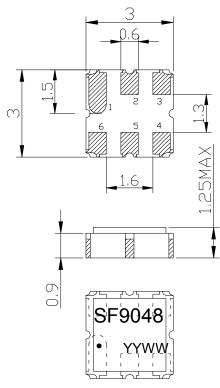
#### **Application**

- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 75.0 MHz

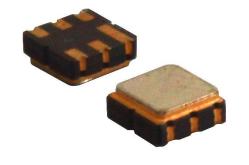


- Ceramic Package for Surface Mounted Technology (SMT)
- RoHS compatible
- Package size 3.00x3.00x1.25mm³
- Package Code DCC6C
- Electrostatic Sensitive Device(ESD)

#### Package Dimensions (Unit: mm)



**Test Circuit (Bottom View)** 



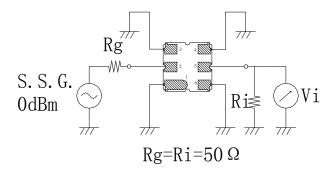
### **Pin Configuration**

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

#### **Marking Description**

05	SF	Trademark	
SF	F	SAW Filter	
9048	Part Number		
•	Pin 1		
YYWW	Year Code & Week Code		

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



#### **Performance**

# **Maximum Rating**

ltem		Value	Unit
DC Voltage	V <sub>DC</sub>	3	V
Operation Temperature	Т	-40 ~ +85	${\mathbb C}$
Storage Temperature	T <sub>stg</sub>	-55 ~ +125	${\mathbb C}$
RF Power Dissipation	Р	10	dBm

#### **Electronic Characteristics**

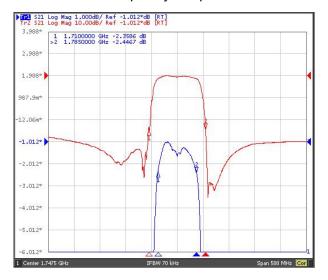
Test Temperature:  $25^{\circ}C \pm 2^{\circ}C$ 

Terminating source impedance:  $50\Omega$  Terminating load impedance:  $50\Omega$ 

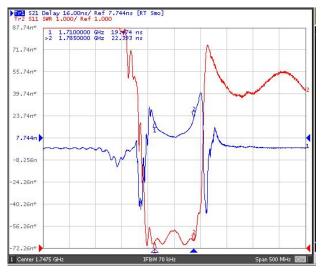
Item		Minimum	Typical	Maximum	Unit
Center Frequency	fc		1747.50		MHz
Insertion Loss(min)	IL		1.5	2.0	dB
Insertion Loss 1710.00 - 1785.00MHz	IL		2.5	3.0	dB
Amplitude Ripple (p-p) 1710.00 - 1785.00MHz	Δa		1.5	3.0	dB
Group Delay Ripple 1710.00 - 1785.00MHz	GDR		18.0	40.0	ns
Absolute Attenuation	α				
DC - 960.00MHz		20.0	25.0		dB
960.00 - 1690.00MHz		20.0	25.0		dB
1690.00 - 1693.00MHz		15.0	20.0		dB
1802.00 - 1805.00MHz		20.0	25.0		dB
1805.00 - 1880.00MHz		25.0	30.0		dB
1880.00 - 3200.00MHz		23.0	28.0		dB
3200.00 - 5000.00MHz		4.0	28.0		dB
Input VSWR 1710.00 - 1785.00MHz			1.8:1	2.2:1	1
Output VSWR 1710.00 - 1785.00MHz			1.8:1	2.2:1	1

#### **Frequency Characteristics**

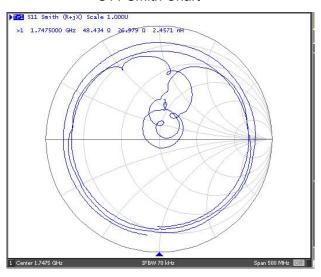
#### Frequency Response



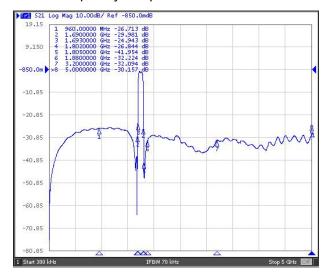
Delay Ripple & S11 VSWR



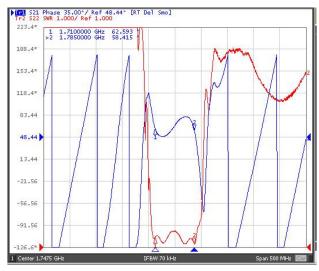
S11 Smith Chart



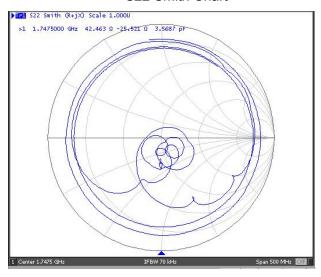
Frequency Response (wideband)



Phase Linearity & S22 VSWR



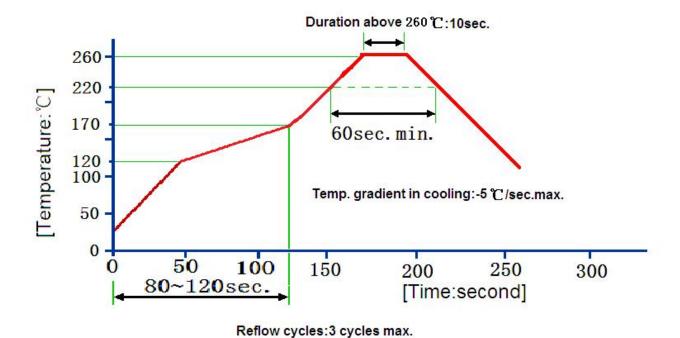
S22 Smith Chart



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

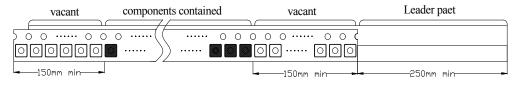
No.	Test item	Test condition			
1	Temperature	(1) Temperature: 85℃±2℃ , Duration: 250h , Recovery time: 2h±0.5h			
	Storage	(2) Temperature: –55℃±3℃, Duration: 250h, Recovery time: 2h±0.5h			
2	Humidity Test	Conditions: 60 ℃±2 ℃ , 90~95% RH			
3	Thermal Shock	Heat cycle conditions: TA=-55°C±3°C, TB=85°C±2°C, t1=t2=30min, Switch			
	THEITIAI SHOCK	time: ≤3min, Cycle time: 100 times, Recovery time: 2h±0.5h.			
4	Vibration Fatigue	Frequency of vibration: 10~55Hz Amplitude:1.5mm			
4	Vibration ratigue	Directions: X,Y and Z Duration: 2h			
5	Drop Test	Cycle time: 10 times Height: 1.0m			
		Temperature: 245°C±5°C Duration: 3.0s5.0s			
6	Solder Ability Test	Depth: DIP2/3 , SMD1/5			
		(1)Thickness of PCB:1mm , Solder condition: 260℃±5℃ , Duration: 10±1s			
7	Resistance to	(a)T			
'	Soldering Heat	(2)Temperature of Soldering Iron: 350 ℃ ±10 ℃, Duration: 3~4s,			
		Recovery time: 2 ± 0.5h			

# **Recommended Reflow Soldering Diagram**



# **Packing Information**

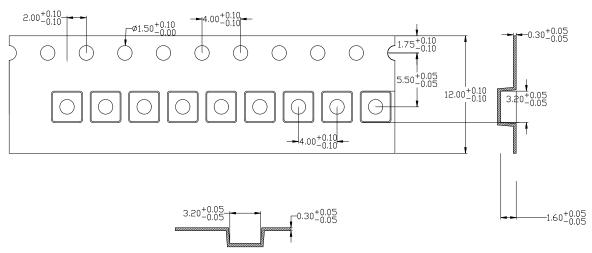
#### Carrier Tape



TAPE RUNNING DIRECTION

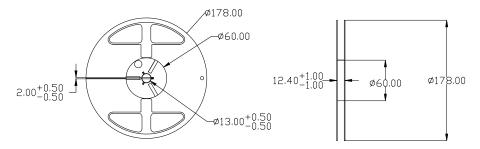
#### **Reel Dimensions**

#### Unit: mm



#### **Outer Packing**

Unit: mm



3000 pcs/reel

Туре	Quantity	Dimension	Description	Weight
Internal box	6000	190×188×42	carton box 2 reel / internal box	0.50
External box	30000	235×205×210	5 boxes / external box	2.77

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.

Please read notes at the end of this document.