SAW Filter

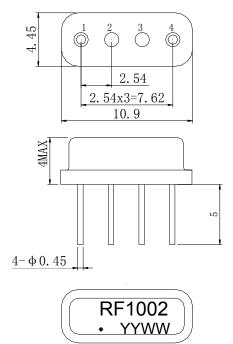
Application

- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 8.0 MHz

Features

- **RoHS** compatible
- Package size 10.9x4.45x5.00mm³
- Package Code SC04-06
- Electrostatic Sensitive Device(ESD)

Package Dimensions (Unit: mm)



Test Circuit (Bottom View)

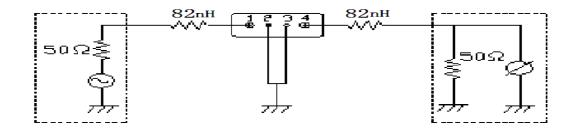
Pin Configuration

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

Marking Description

RF	R Manufacture		
	F	SAW Filter	
1002	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.



SAW Filter

Performance

Maximum Rating

Item		Value	Unit
DC Voltage	V _{DC}	3	V
Operation Temperature	т	-40 ~ +85	°C
Storage Temperature	T _{stg}	-55 ~ +125	°C
RF Power Dissipation	Р	15	dBm

Electronic Characteristics

Test Temperature: 25℃±2℃

Terminating source impedance: 150Ω

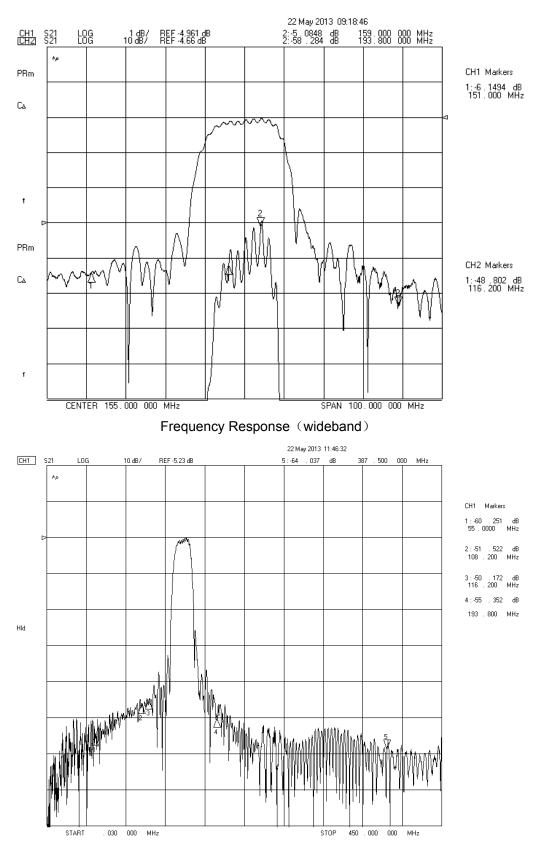
Terminating load impedance: 150Ω

Item		Minimum	Typical	Maximum	Unit	
Center Frequency		fc		155.00		MHz
Insertion Loss(min)		IL		4.9	5.5	dB
Insertion Loss	151.00 - 159.00 MHz	IL		6.0	6.5	dB
Amplitude Ripple (p-p)	151.00 - 159.00 MHz	$ riangle \mathbf{a}$		1.8	2.0	dB
Absolute Attenuation		a				
	DC - 55.00 MHz		45.0	50.0		dB
	55.00 - 108.20 MHz		40.0	45.0		dB
	108.20 - 116.20 MHz		45.0	50.0		dB
	193.80 - 387.50 MHz		42.0	50.0		dB
	387.50 - 450.00 MHz		55.0	60.0		dB

SAW Filter

RF1002

Frequency Characteristics



Frequency Response

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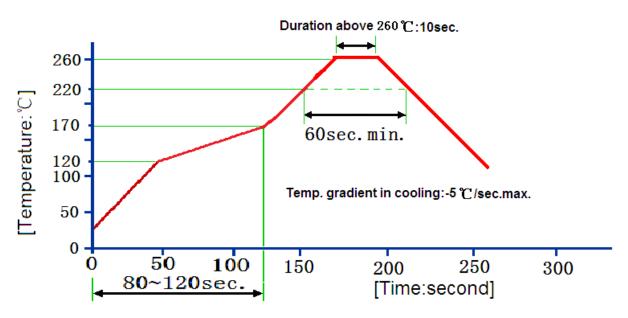
SAW Filter

RF1002

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

No.	Test item	Test condition	
1	1 Temperature	(1) Temperature: $85^{\circ}C \pm 2^{\circ}C$, Duration: 250h, Recovery time: 2h±0.5h	
-	Storage	(2) Temperature: –55 $^\circ\!\mathrm{C}\pm\!3^\circ\!\mathrm{C}$, Duration: 250h ,Recovery time: 2h±0.5h	
2	Humidity Test	Conditions: 60℃±2℃ , 90~95% RH Duration: 250h	
3	2 Thermal Check	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	4 Vibration Fatigue	Frequency of vibration: 10~55Hz Amplitude:1.5mm	
	Vibration ratigue	Directions: X,Y and Z Duration: 2h	
5	Drop Test	Cycle time: 10 times Height: 1.0m	
		Temperature: 245 °C ±5 °CDuration: 3.0s5.0s	
6	Solder Ability Test	Depth: DIP2/3 , SMD1/5	
		(1)Thickness of PCB:1mm , Solder condition: 260 $^\circ\!\!\mathrm{C}\pm5^\circ\!\!\mathrm{C}$, Duration: 10±1s	
7	Resistance to Soldering Heat	(2)Temperature of Soldering Iron: 350 $^\circ\!\mathrm{C}\pm10^\circ\!\mathrm{C}$, Duration: 3~4s ,	
		Recovery time : 2 ± 0.5h	

Recommended Reflow Soldering Diagram



Reflow cycles:3 cycles max.

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.