

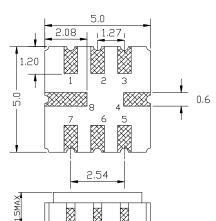
### Application

- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 4.0 MHz

#### Features

- Ceramic Package for Surface Mounted Technology (SMT)
- RoHS compatible
- Package size 5.00x5.00x1.50mm<sup>3</sup>
- Package Code QCC8C
- Electrostatic Sensitive Device(ESD)

### Package Dimensions (Unit: mm)





### Test Circuit (Bottom View)

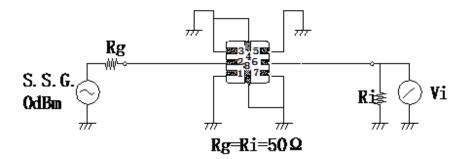
### Pin Configuration

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

### **Marking Description**

RF	R	Trademark& Manufacturer	
	F	SAW Filter	
1007	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

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

### **Electronic Characteristics**

Test Temperature:  $25^{\circ}C \pm 2^{\circ}C$ Terminating source impedance:  $50\Omega$ 

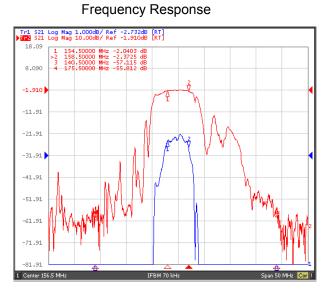
Terminating load impedance: 50Ω

	Item		Minimum	Typical	Maximum	Unit
Center Frequency		fc		156.50		MHz
Insertion Loss(min)		IL		2.0	2.5	dB
Insertion Loss	154.50-158.50MHz	IL		2.5	3.5	dB
Amplitude Ripple (p-p)	154.50-158.50MHz	riangle a		0.6	1.5	dB
Group Delay Ripple	154.50-158.50MHz	GDR		30.0	100.0	ns
Absolute Attenuation		α				
	DC-100.00 MHz		50.0	55.0		dB
	100.00-140.50 MHz		30.0	35.0		dB
	176.50-200.00 MHz		45.0	50.0		dB
	200.00-500.00 MHz		40.0	45.0		dB
	500.00-800.00 MHz		35.0	40.0		dB
Input VSWR	154.50-158.50MHz			1.6:1	2.1:1	/
Output VSWR	154.50-158.50MHz			1.6:1	2.1:1	/

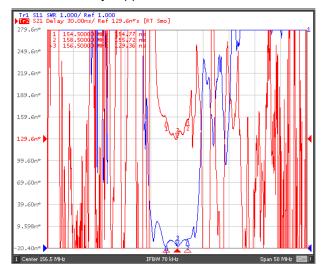
# REYCONNS

# **RF1007**

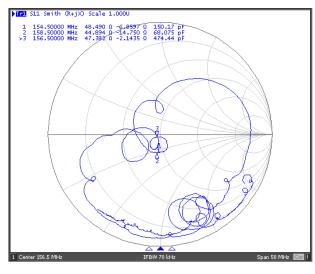
### **Frequency Characteristics**



Delay Ripple & S11 VSWR

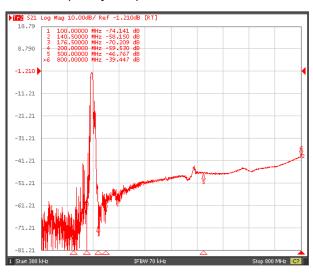


S11 Smith Chart

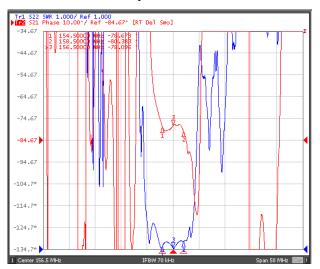


**REYCONNS CHINA LIMITED** 

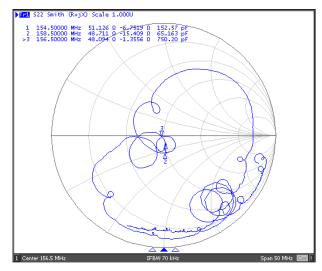
Frequency Response (wideband)



Phase Linearity & S22 VSWR



S22 Smith Chart



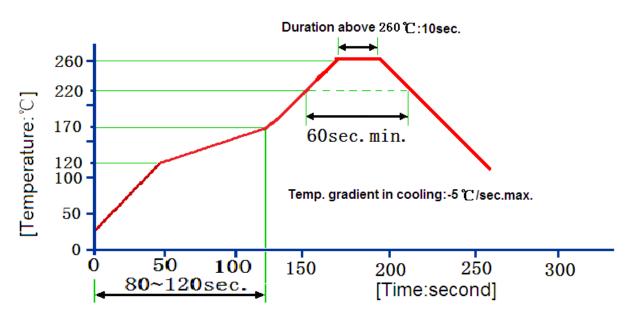
SAW Filter

# **RF1007**

### 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°C±2°C , 90~95% RH Duration: 250h		
0	The sume of Ohe sole	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 Estimus	Frequency of vibration: 10~55Hz Amplitude:1.5mm		
4	Vibration Fatigue	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 $^\circ\!\!\mathbb{C}\pm5^\circ\!\!\mathbb{C}$ , Duration: 10±1s		
7	Resistance to Soldering Heat	(2)Temperature of Soldering Iron: 350 $^\circ\!\!\mathbb{C}\pm10^\circ\!\!\mathbb{C}$ , Duration: 3~4s,		
		Recovery time : 2 ± 0.5h		

# **Recommended Reflow Soldering Diagram**

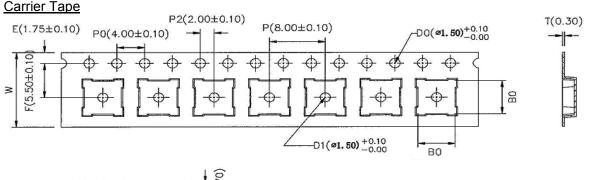


Reflow cycles:3 cycles max.

# **REYCONNS**

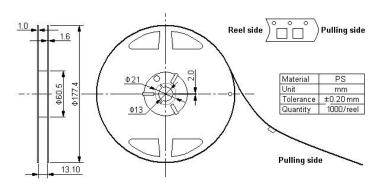
SAW Filter

### **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: 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.