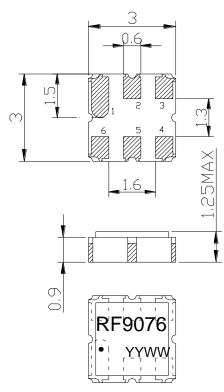
#### **Application**

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

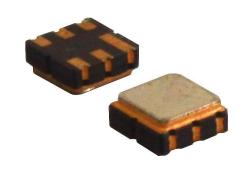
#### **Features**

- Ceramic Package for Surface Mounted Technology (SMT)
- RoHS compatible
- Package size 3.00x3.00x1.25mm<sup>3</sup>
- Package Code DCC6C
- Electrostatic Sensitive Device(ESD)

## Package Dimensions (Unit: mm)



#### **Test Circuit (Bottom View)**



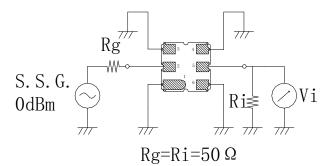
# **Pin Configuration**

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

# **Marking Description**

D.F.	R	Manufacturer	
RF	F	SAW Filter	
9076	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	$V_{DC}$	3	V
Operation Temperature	Т	-40 ~ +85	$^{\circ}$
Storage Temperature	T <sub>stg</sub>	-55 ~ +125	${\mathbb C}$
RF Power Dissipation	Р	10	dBm

## **Electronic Characteristics**

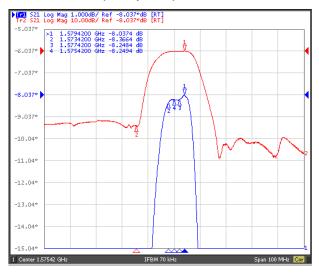
Test Temperature:  $25^{\circ}C \pm 2^{\circ}C$ 

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

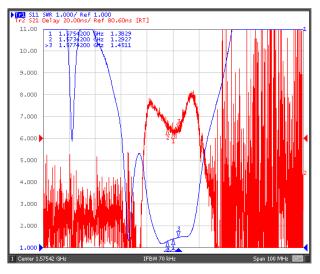
Item	Minimum	Typical	Maximum	Unit	
Center Frequency	fc		1575.42		MHz
Insertion Loss(min)	IL		8.0	9.5	dB
Insertion Loss 1573.42 – 1577.42MHz	IL		8.5	10.5	dB
Amplitude Ripple (p-p) 1573.42 – 1577.42MHz	Δa		0.8	2.0	dB
Group Delay Ripple 1573.42 – 1577.42MHz	GDR		20.0	60.0	ns
Absolute Attenuation	а				
DC - 780.00 MHz		50.0	55.0		dB
780.00 - 1160.00 MHz		40.0	45.0		dB
1160.00 - 1530.00 MHz		25.0	30.0		dB
1561.00 MHz		15.0	30.0		dB
1600.00 - 2200.00 MHz		25.0	30.0		dB
2200.00 -3000.00 MHz		20.0	25.0		dB
Input VSWR 1573.42 – 1577.42MHz			1.8:1	2.0:1	/
Output VSWR 1573.42 – 1577.42MHz			1.8:1	2.0:1	/

#### **Frequency Characteristics**

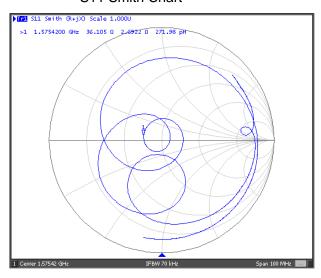
#### Frequency Response



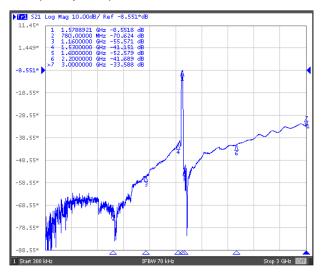
Delay Ripple & S11 VSWR



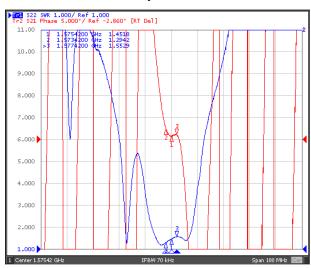
S11 Smith Chart



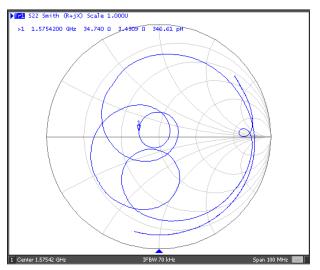
Frequency Response (wideband)



Phase Linearity & S22 VSWR



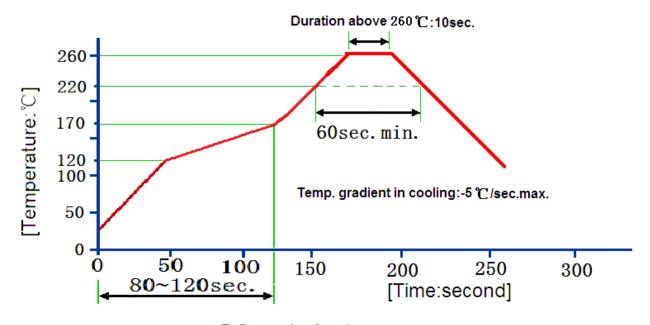
S22 Smith Chart



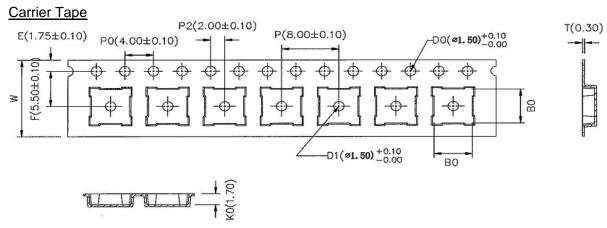
## Reliability (The SAW components shall remain electrical performance after tests)

No.	Test item	Test condition		
1	Temperature Storage	(1) Temperature: 85°C±2°C , Duration: 250h , Recovery time: 2h±0.5h		
	Storage	(2) Temperature: –55°C±3°C , 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		
3	THEITIAI SHOCK	time: ≤3min, Cycle time: 100 times, Recovery time: 2h±0.5h.		
4	Vibration Fatigue	Frequency of vibration: 10~55Hz Amplitude:1.5mm		
	violation ranguo	Directions: X,Y and Z Duration: 2h		
5	Drop Test	Cycle time: 10 times Height: 1.0m		
6 Solder Ability Test		Temperature: 245°C±5°C Duration: 3.0s5.0s		
		Depth: DIP2/3 , SMD1/5		
7	Resistance to Soldering Heat	(1)Thickness of PCB:1mm , Solder condition: $260^\circ\!$		

# **Recommended Reflow Soldering Diagram**

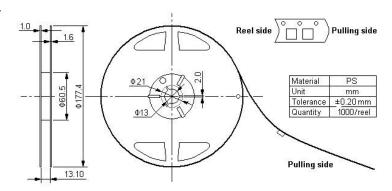


# **Packing Information**



\* 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	0.18
External box	10000	235×205×210	2 reel / internal box 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.