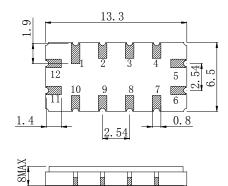
Application

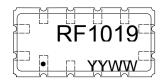
- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 19.80 MHz

Features

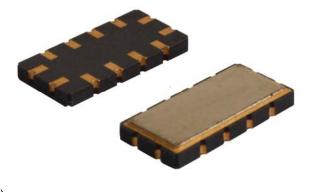
- Ceramic Package for Surface Mounted Technology (SMT)
- RoHS compatible
- Package size 13.30x6.50x1.80mm³
- Package Code QCC12
- Electrostatic Sensitive Device(ESD)

Package Dimensions (Unit: mm)





Test Circuit (Bottom View)



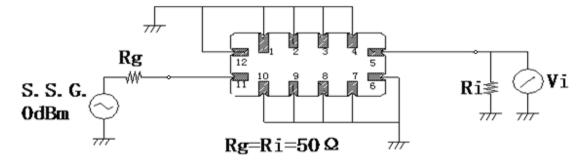
Pin Configuration

Pin No.	Description	
11	Input	
5	Output	
1,2,3,4,7,8,9,10	Case Ground	
6,12	To be Grounded	

Marking Description

	R	Manufacturer	
RF	F	SAW Filter	
1019	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.



Performance

Maximum Rating

Item		Value	Unit
DC Voltage	V _{DC}	3	V
Operation Temperature	Т	-40 ~ +85	${\mathbb C}$
Storage Temperature	T _{stg}	-55 ~ +125	$^{\circ}$
RF Power Dissipation	Р	15	dBm

Electronic Characteristics

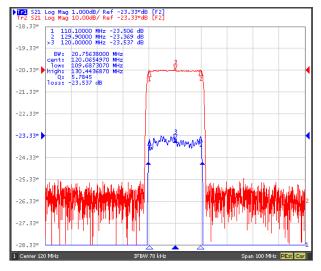
Test Temperature: $25^{\circ}C \pm 2^{\circ}C$

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

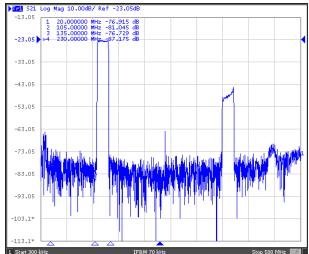
Item			Minimum	Typical	Maximum	Unit
Center Frequency		fc		120.00		MHz
Insertion Loss	@120.00MHz	IL		23.5	25.0	dB
Amplitude Ripple (p-p)	$Fo \pm 9.9 MHz$	∆a		0.6	1.0	dB
1 dB Bandwidth	@120.00MHz	BW _{1dB}	20.55	20.75		MHz
3 dB Bandwidth	@120.00MHz	ВWзdВ		21.31		MHz
40 dB Bandwidth	@120.00MHz	BW _{40dB}		23.36	23.5	MHz
Group Delay Ripple	Fo±9.9MHz	GDR		20.0	60.0	ns
Absolute Group Delay	@120.00MHz	GDR		1.277		us
Absolute Attenuation						
20	.00 – 105.00 MHz		45.0	50.0		dB
135.00 - 230.00 MHz		45.0	50.0		dB	

Frequency Characteristics

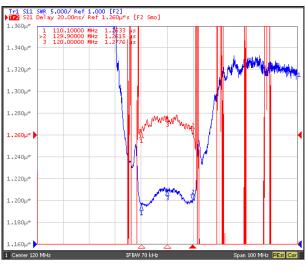
Frequency Response



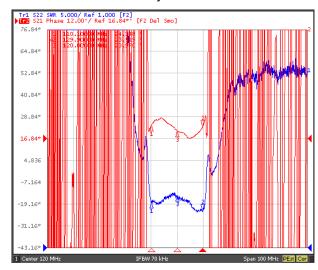
Frequency Response (wideband)



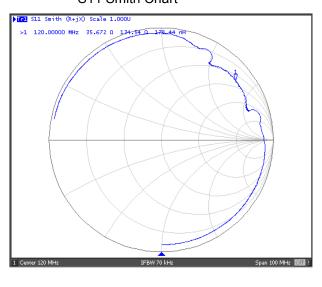
Delay Ripple & S11 VSWR



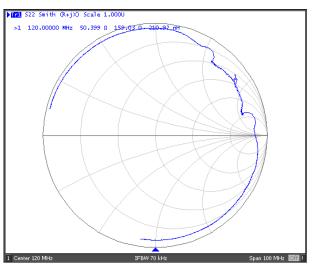
Phase Linearity & S22 VSWR



S11 Smith Chart



S22 Smith Chart

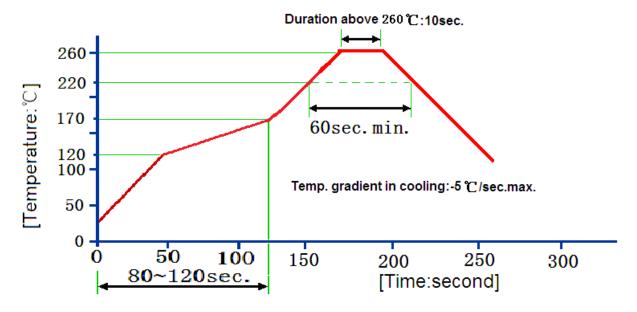


REYCONNS SAW Filter RF1019

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

No.	Test item	Test condition		
_ Temperature		(1) Temperature: 85℃±2℃, Duration: 250h, Recovery time: 2h±0.5h		
1	Storage	(2) Temperature: –55°C±3°C , Duration: 250h ,Recovery time: 2h±0.5h		
2	Humidity Test	Conditions: 60℃±2℃, 90~95% RH Duration: 250h		
3	O The arrest Ohea de	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 Fatigue	Frequency of vibration: 10~55Hz Amplitude:1.5mm		
	Vibration Latigue	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 ℃±5 ℃ , Duration: 10±1s		
7	Resistance to Soldering Heat	(2)Temperature of Soldering Iron: 350°C±10°C , Duration: 3~4s ,		
		Recovery time: 2 ± 0.5h		

Recommended Reflow Soldering Diagram



REYCONNS SAW Filter RF1019

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.