



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:

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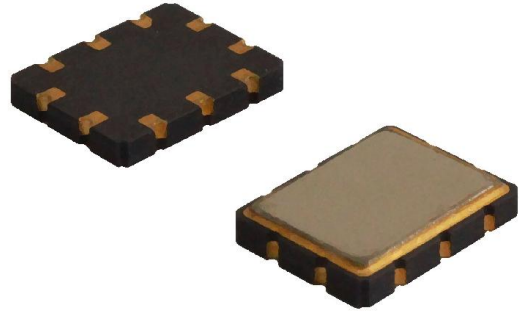


Part No.	:	SF1620
Pages	:	6
Date	:	2016/12/5
Revision	:	1.0

Prepared by:	刘建伟
Checked by:	卢翠
Approved by:	刘建伟

Application

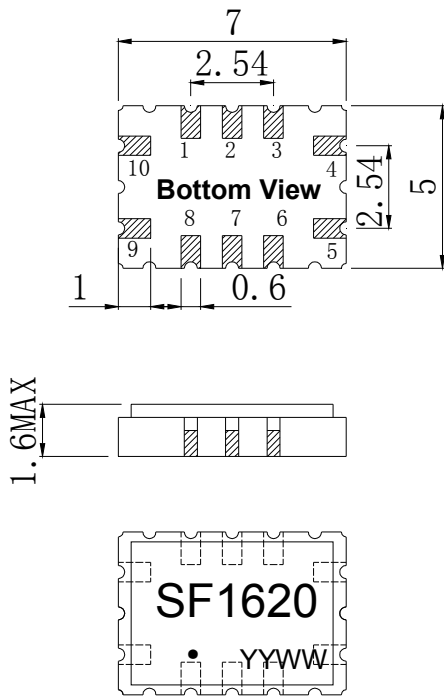
- Low -loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable Passband 10 MHz



Features

- Ceramic Package for **Surface Mounted Technology (SMT)**
- **RoHS** compatible
- Package size 7.00x5.00x1.60mm³
- Package Code QCC12C
- **Electrostatic Sensitive Device(ESD)**

Package Dimensions (Unit: mm)



Pin Configuration

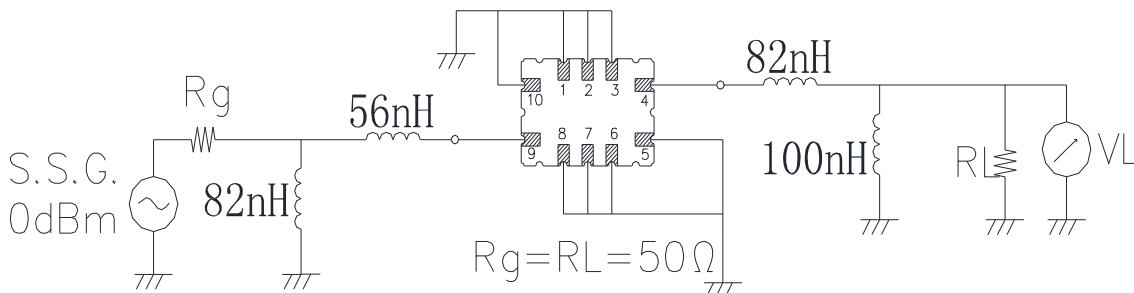
Pin No.	Description
9	Input
4	Output
1,2,3,5,6,7,8,10	Ground

Marking Description

S	Trademark
F	SAW Filter
1620	Part Number
●	Pin 1
YYWW	Year Code & Week Code

*Fig: If the products produced in 06th week of 2012,
The year code & week code is 1206.

Test Circuit(Bottom View)



Performance**Maximum Rating**

Item		Value	Unit
DC Voltage	V_{DC}	3	V
Operation Temperature	T	-40 ~ +85	°C
Storage Temperature	T_{stg}	-45 ~ +105	°C
RF Power Dissipation	P	10	dBm

Electronic Characteristics

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

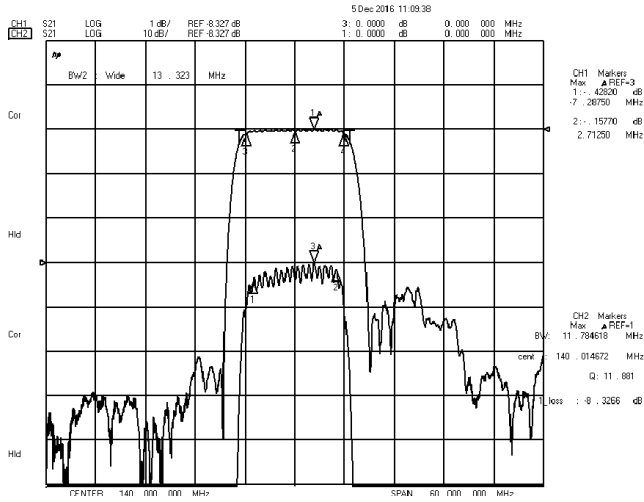
Terminating source impedance: 50Ω

Terminating load impedance: 50Ω

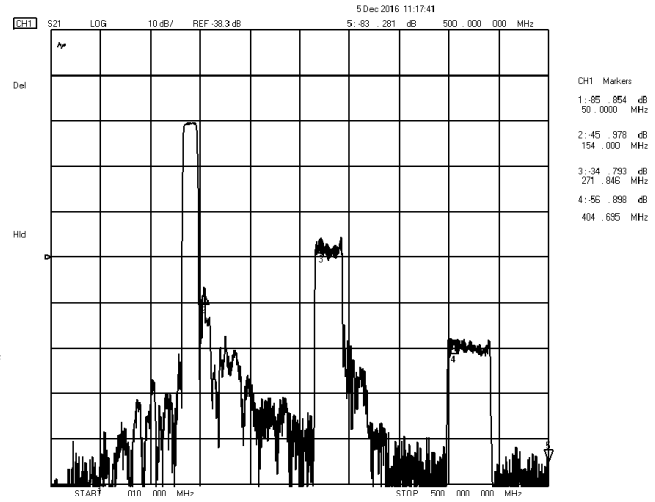
Item		Minimum	Typical	Maximum	Unit
Center Frequency	f_c		140.00		MHz
Insertion Loss(min)	IL		8.3	10.0	dB
Amplitude Ripple (p-p) 135.00-145.00MHz	$\Delta\alpha$		0.7	1.0	dB
1 dB Bandwidth	BW_{1dB}	11.00	11.78		MHz
3 dB Bandwidth	BW_{3dB}		13.32		MHz
Absolute Delay @Fc	AD		0.74		us
Group Delay Ripple 135.00-145.00MHz	GDR		90	120	ns
Absolute Attenuation	α				
	126.00MHz	25	60		dB
	154.00MHz	25	37		dB
	112.00MHz	40	68		dB
	168.00MHz	40	55		dB

Frequency Characteristics

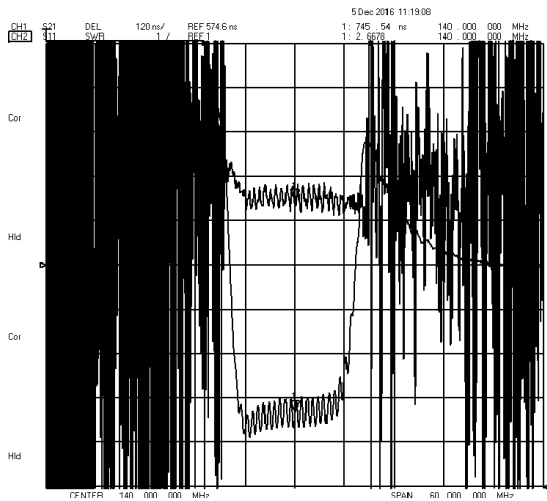
Frequency Response



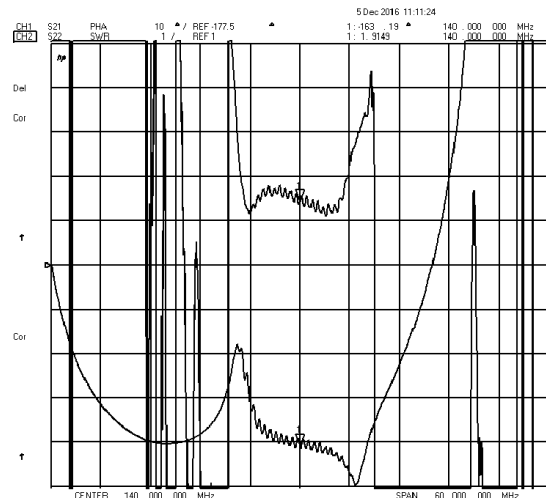
Frequency Response (wideband)



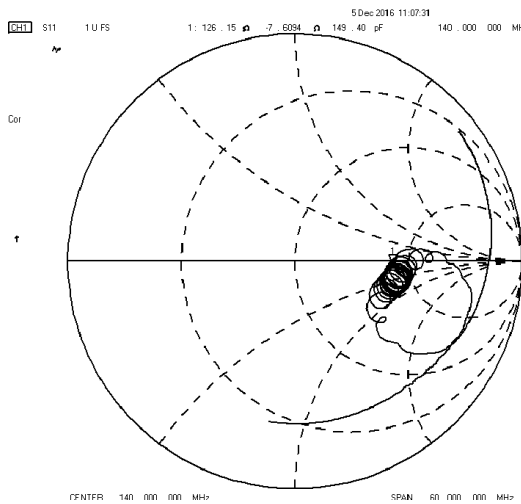
Delay Ripple & S11 VSWR



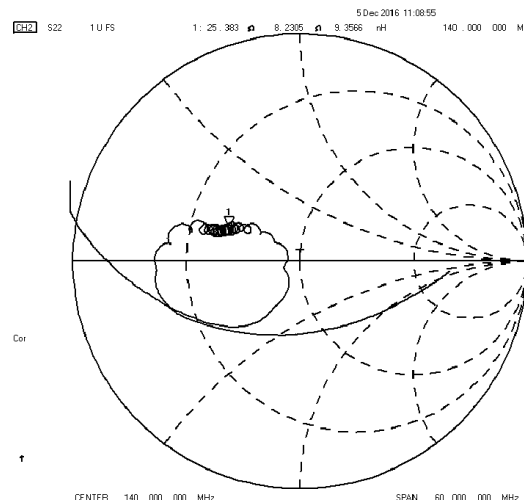
Phase Linearity & S22 VSWR



S11 Smith Chart



S22 Smith Chart



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.