



APPROVAL SHEET

Approval Specification	Customer's Approval Certificate
<p>TO:</p> <p>Part No.:</p> <p>Customer's Part No.:</p>	<p>Please return this copy as a certification of your approval</p> <p>Checked & Approved by:</p> <p>Date:</p>

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Part No.	:	SF1187
Pages	:	6
Date	:	2014/6/21
Revision	:	1.0

Prepared by:	梁浩
Checked by:	
Approved by:	

Application

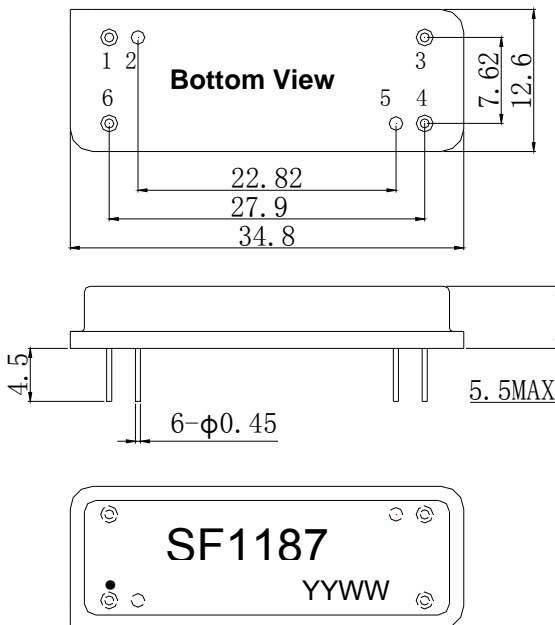
- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 18 MHz

Features

- RoHS compatible
- Package size 34.8x12.6x5.50mm³
- Package Code DIP3512J
- Electrostatic Sensitive Device(ESD)



Package Dimensions (Unit: mm)



Pin Configuration

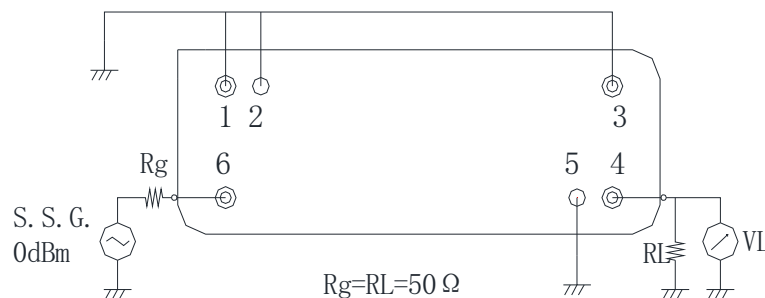
Pin No.	Description
6	Input
4	Output
1,2,3,5	Ground

Marking Description

S	Trademark
F	SAW Filter
1187	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}	-55 ~ +125	°C
RF Power Dissipation	P	10	dBm

Electronic Characteristics

Test Temperature: 25°C ± 2°C

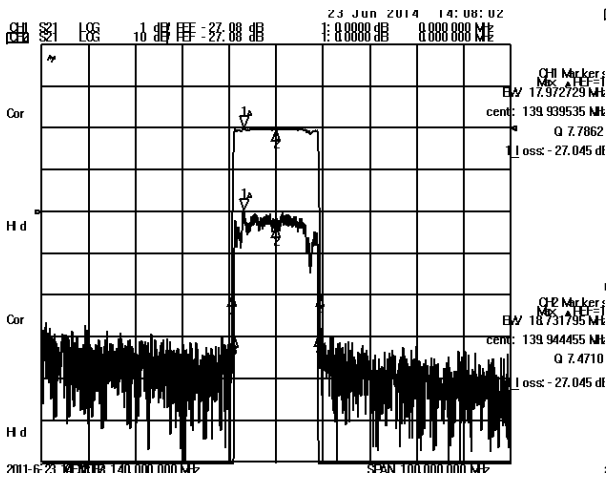
Terminating source impedance: 50Ω

Terminating load impedance: 50Ω

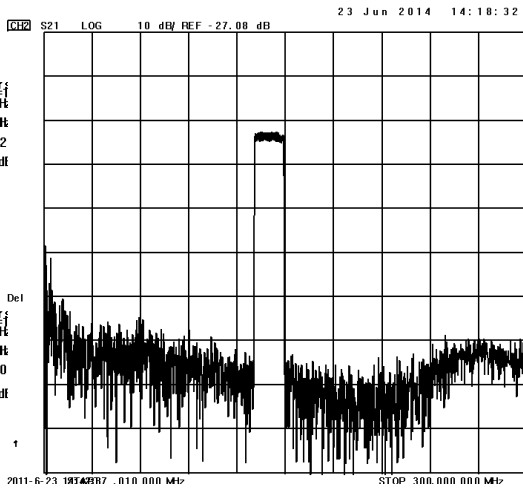
Item		Minimum	Typical	Maximum	Unit
Center Frequency	f _c	139.9	140.0	140.1	MHz
Insertion Loss(min)	IL		27.0	29.0	dB
Amplitude Ripple (p-p)	Δa		1.4	1.5	dB
3 dB Bandwidth	BW _{3dB}	17.90	17.95		MHz
Absolute Delay			3.35	3.9	us
Phase Linearity			9.0	10.0	deg
Absolute Attenuation	a				
	116.00MHz	52.0	60.0		dB
	126.00MHz	52.0	60.0		dB
	130.00MHz	50.0	55.0		dB
	130.40MHz	45.0	55.0		dB
	130.60MHz	35.0	38.0		dB
	149.40MHz	35.0	38.0		dB
	149.60MHz	45.0	55.0		dB
	150.00MHz	50.0	55.0		dB
	154.00MHz	52.0	60.0		dB
	164.00MHz	52.0	60.0		dB

Frequency Characteristics

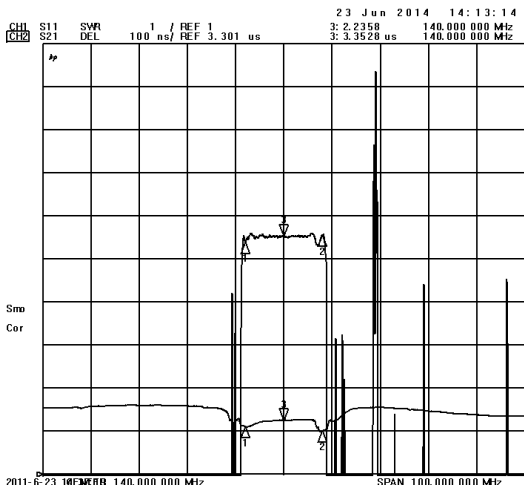
Frequency Response



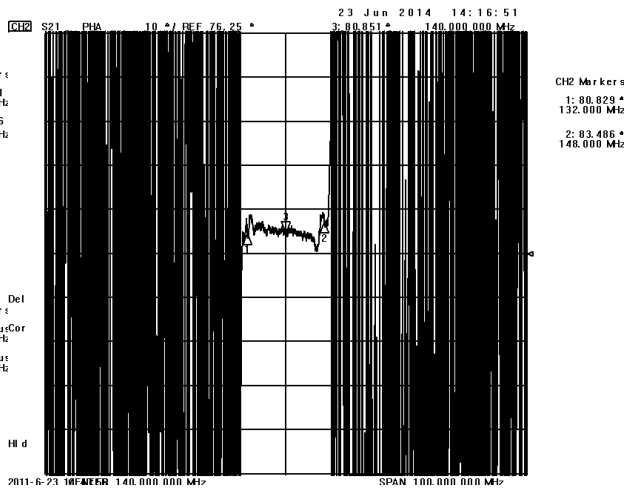
Frequency Response (wideband)



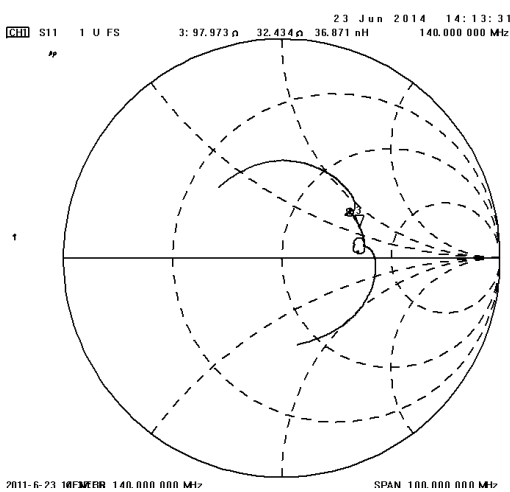
Delay Ripple & S11 VSWR



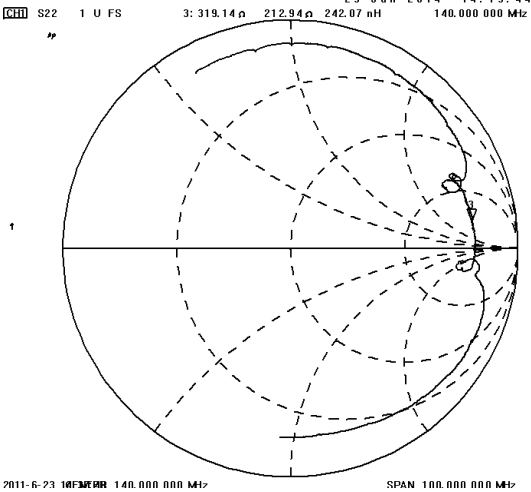
Phase Linearity & S22 VSWR



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.