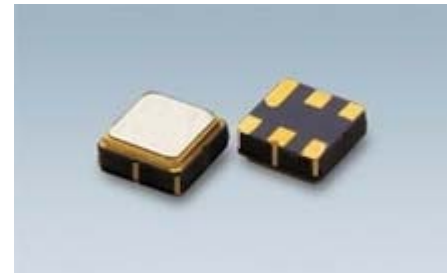


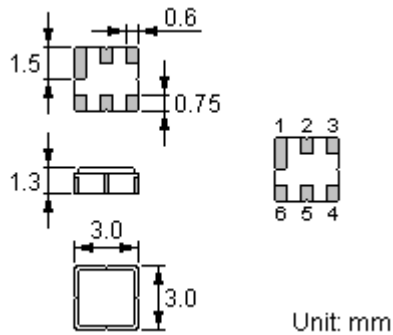
### Features ACTF9228-1120-DCC6C

- Low-loss RF filter for mobile systems
- Low amplitude ripple
- No matching network required for operation at 50Ω
- Ceramic package for **Surface Mounted Technology (SMT)**
- Lead-free production and **RoHS** compliant



### Package Dimensions

Ceramic Package: **DCC6C**



### Pin Configuration

2	Input
5	Output
1, 3, 4, 6	Ground

### Marking



Top View, Laser Marking

"ACT": Manufacturer's mark      "F": SAW filter  
 "9228": Part number

### Maximum Ratings

Rating		Value	Unit
Input Power Level	$P$	10	dBm
DC Voltage	$V_{DC}$	12	V
Operating Temperature Range	$T_A$	-40 ~ +85	°C
Storage Temperature Range	$T_{stg}$	-40 ~ +85	°C

In line with our ongoing policy of product evolution and improvement, the above specification may subject to change without notice

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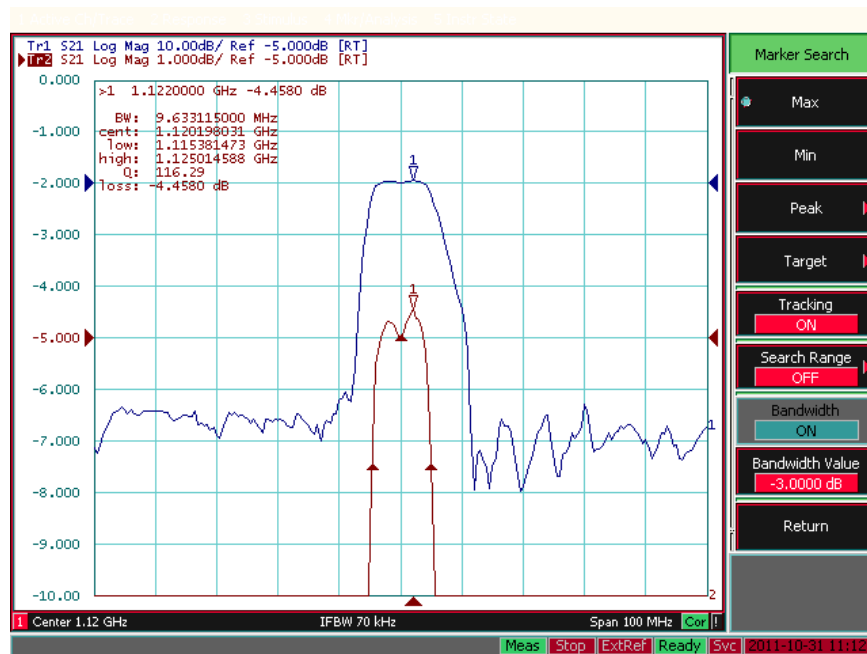
**Electrical Characteristics (@25°C)**

Parameter		Unit	Minimum	Typical	Maximum
Center frequency		MHz		1120	
Insertion Loss		dB		5.0	5.5
3 dB Bandwidth		MHz	8	9.5	
40 dB Bandwidth		MHz		19	20.5
Relative Attenuation	Fo-9MHz	dB	37	40	
	Fo+12MHz	dB	40	43	
SWR (Fo±3MHz)				1.5	1.8
Input/Output Impedance		ohm		50	

 RoHS Compliant

 Electrostatic Sensitive Device

**Typical Frequency Response**



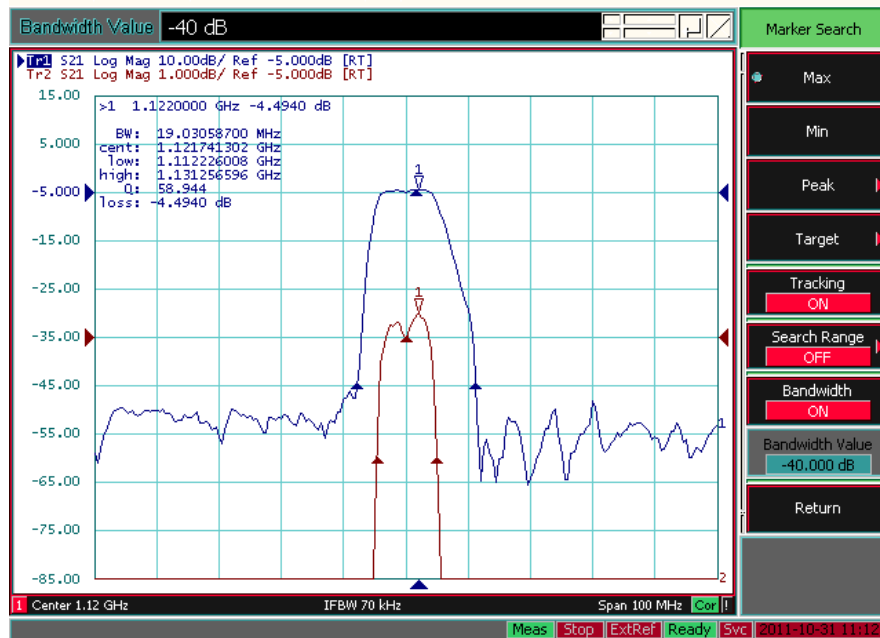
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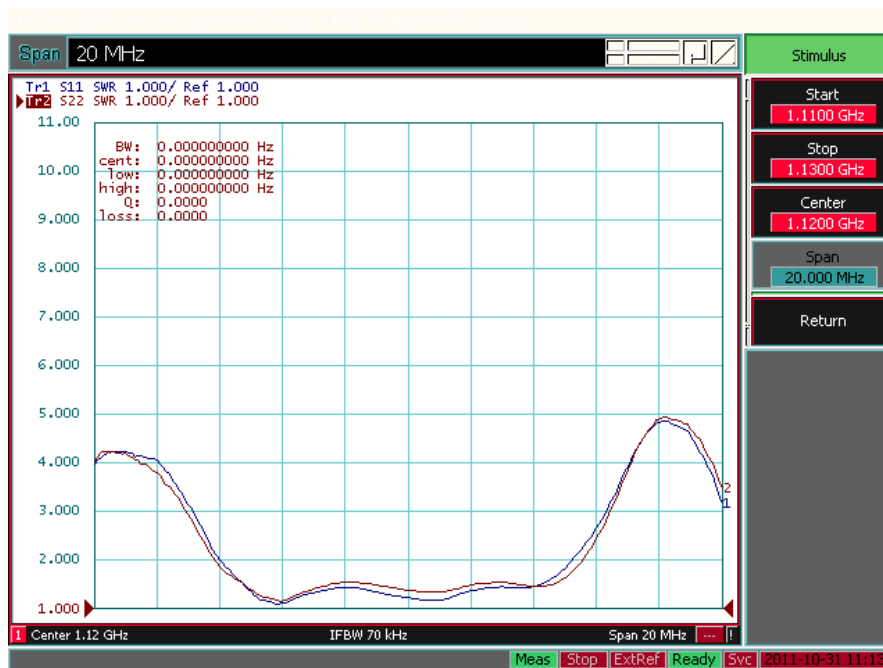
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**S11 and S22**



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## Stability Characteristics

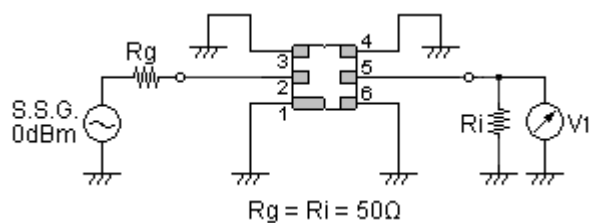
	Test item	Condition of test
1	Mechanical shock	(a) Drops: 3 times on concrete floor (b) Height: 1.0 m
2	Vibration resistance	(a) Frequency of vibration: 10~55Hz (c) Directions: X,Y and Z (b) Amplitude: 1.5 mm (d) Duration: 2 hours
3	Moisture resistance	(a) Condition: 40°C, 90~95% R.H. (c) Wait 4 hours before measurement (b) Duration: 96 hours
4	Climatic sequence	(a) +70°C for 16 hours (c) -25°C for 2 hours (e) Wait 4 hours before measurement (b) +55°C for 24 hours, 90~95% R.H. (d) +40°C for 24 hours, 90~95% R.H.
5	High temperature exposure	(a) Temperature: 70°C (c) Wait 4 hours before measurement (b) Duration: 250 hours
6	Thermal impact	(a) +70°C for 30 minutes ⇒ -25°C for 30 minutes repeated 3 times (b) Wait 4 hours before measurement

**Requirements:** The SAW filter shall remain within the electrical specifications after tests.

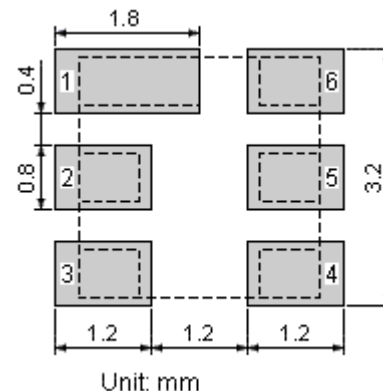
## Remarks

- SAW devices should not be used in any type of fluid such as water, oil, organic solvent, etc.
- Be certain not to apply voltage exceeding the rated voltage of components.
- Do not operate outside the recommended operating temperature range of components.
- Sudden change of temperature shall be avoided, deterioration of the characteristics can occur.
- Be careful of soldering temperature and duration of components when soldering.
- Do not place soldering iron on the body of components.
- Be careful not to subject the terminals or leads of components to excessive force.
- SAW devices are electrostatic sensitive. Please avoid static voltage during operation and storage.
- Ultrasonic cleaning shall be avoided. Ultrasonic vibration may cause destruction of components.

## Test Circuit



## Recommended Land Pattern



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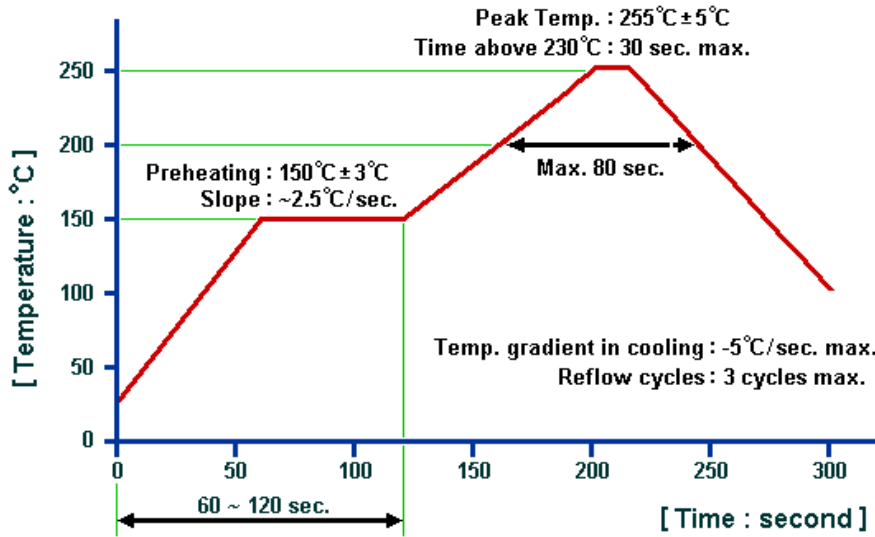
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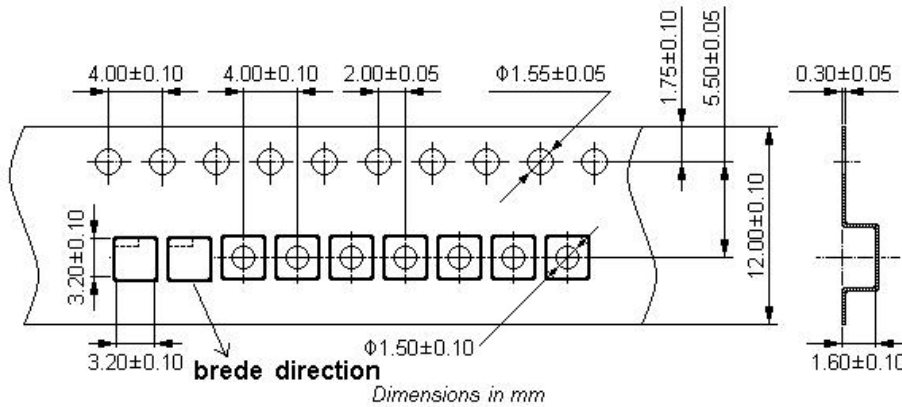
<http://www.actcrystals.com>

### Recommended Soldering Profile

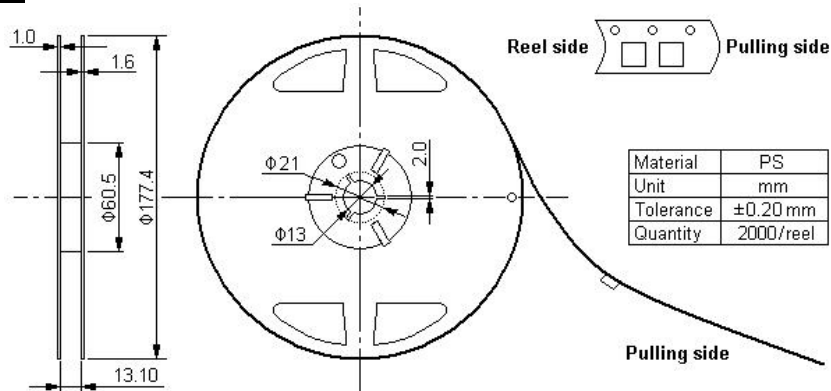


### Packing Information

#### Carrier Tape



#### Reel Dimensions



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Outer Packing

Type	Quantity	Dimension	Description	Weight
Carton Box I	10000	190×190×95	anti-static plastic bag & carton box 1 reel / bag 5 bags / box (10000 pcs) 10 bags / box (20000 pcs)	0.85
Carton Box II	20000	190×190×190		1.80

Unit: mm

Unit: kg

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1. The specifications of this device are subject to change or obsolescence without notice.
2. Typically, equipment utilizing this device requires emissions testing and government approval, which is the responsibility of the equipment manufacturer.
3. Our liability is only assumed for the Surface Acoustic Wave (SAW) component(s) per se, not for applications, processes and circuits implemented within components or assemblies.

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