

SAW Filter: ACTF9402-1842.5MHz-DCC6C

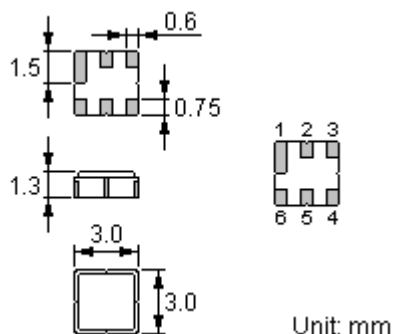
Features

- 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

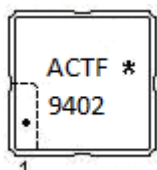
Ceramic Package: **DCC6C**



Pin Configuration

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

Marking



Top View, Laser Marking

"ACT": Manufacturer's mark "F": SAW filter
 "9402": Part number "•": Terminal 1
 "*": Lot number (The code shown below varies in a 4-year cycle)

Code	1	2	3	4	5	6	7	8	9	10	11	12
2013	A	B	C	D	E	F	G	H	J	K	L	M
2014	N	P	Q	R	S	T	U	V	W	X	Y	Z
2015	a	b	c	d	e	f	g	h	i	j	k	m
2016	n	p	q	r	s	t	u	v	w	x	y	z

Maximum Ratings

Rating		Value	Unit
Input Power Level	P	15	dBm
DC Voltage	V_{DC}	9	V
Operating Temperature Range	T_A	-40 ~ +85	°C
Storage Temperature Range	T_{stg}	-45 ~ +85	°C
ESD-HBM for all pin	E_{SD}	150	V

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

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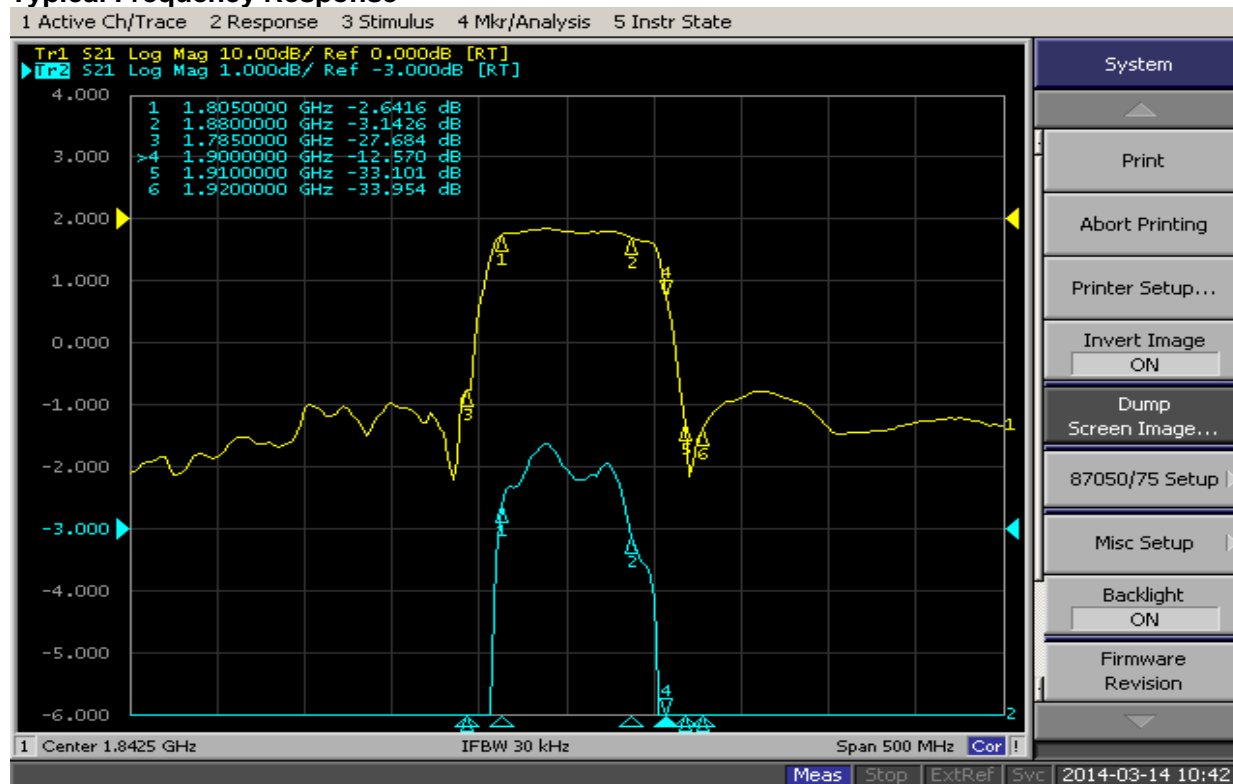
Electrical Characteristics

Item		Minimum	Typical	Maximum	Unit
Center Frequency	f_c		1842.5		MHz
Insertion Loss	IL				
	1805MHz1880 MHz	--	3.0	4.0	dB
Absolute Attenuation	α				
	420 496MHz	25	35		dB
	791MHz 821MHz	32	35		dB
	869MHz 894MHz	25	35		dB
	925MHz 960MHz	32	35		dB
	1900MHz 1920MHz	6	12		dB
	2010MHz 2025MHz	27	30		dB
	2110MHz 2169MHz	30	34		dB
	2496MHz 2690MHz	25	30		dB
	3400MHz 3800MHz	24	27		dB
Amplitude Ripple (p-p)	$\Delta\alpha$		1.2	2.5	dB
	1805MHz1880 MHz				
VSWR in	1805MHz1880 MHz		1.8	2.5	
Input / Output Impedance (Nominal)			50		Ω

 RoHS Compliant

 Electrostatic Sensitive Device

Typical Frequency Response



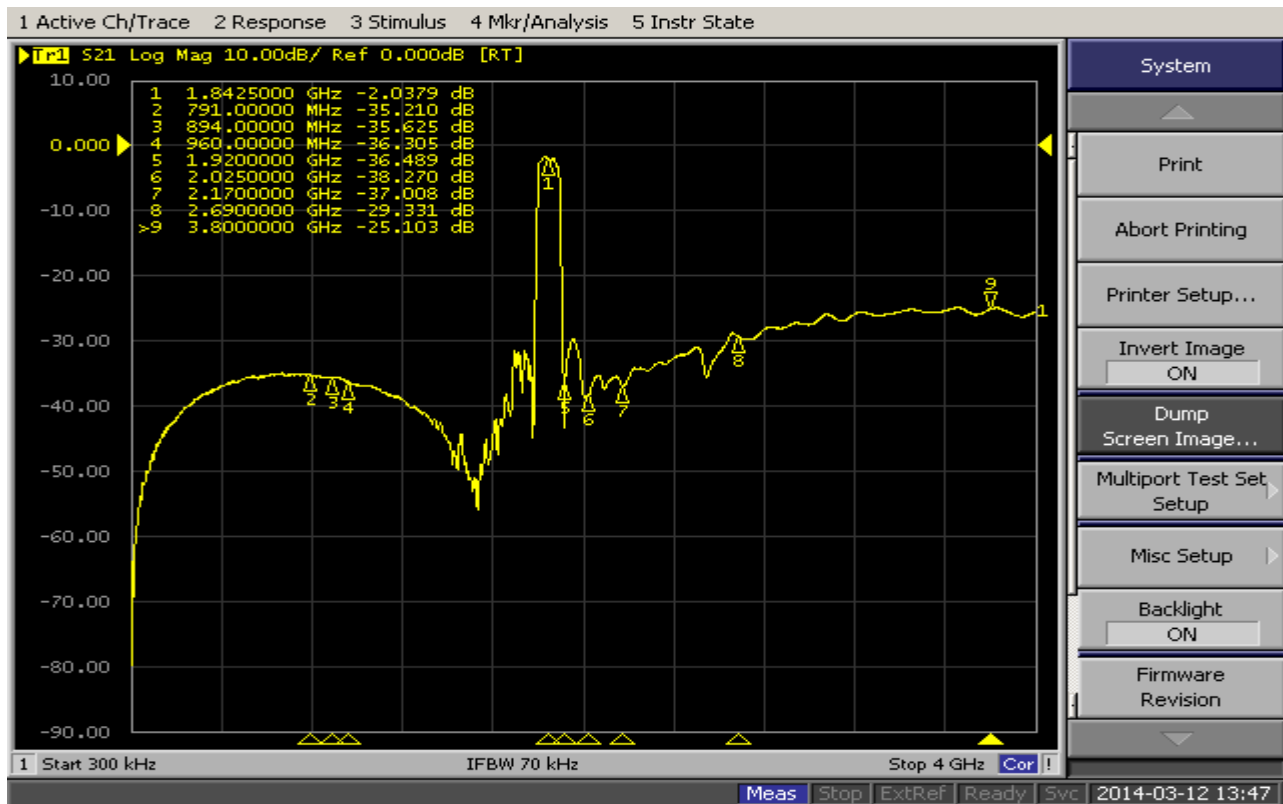
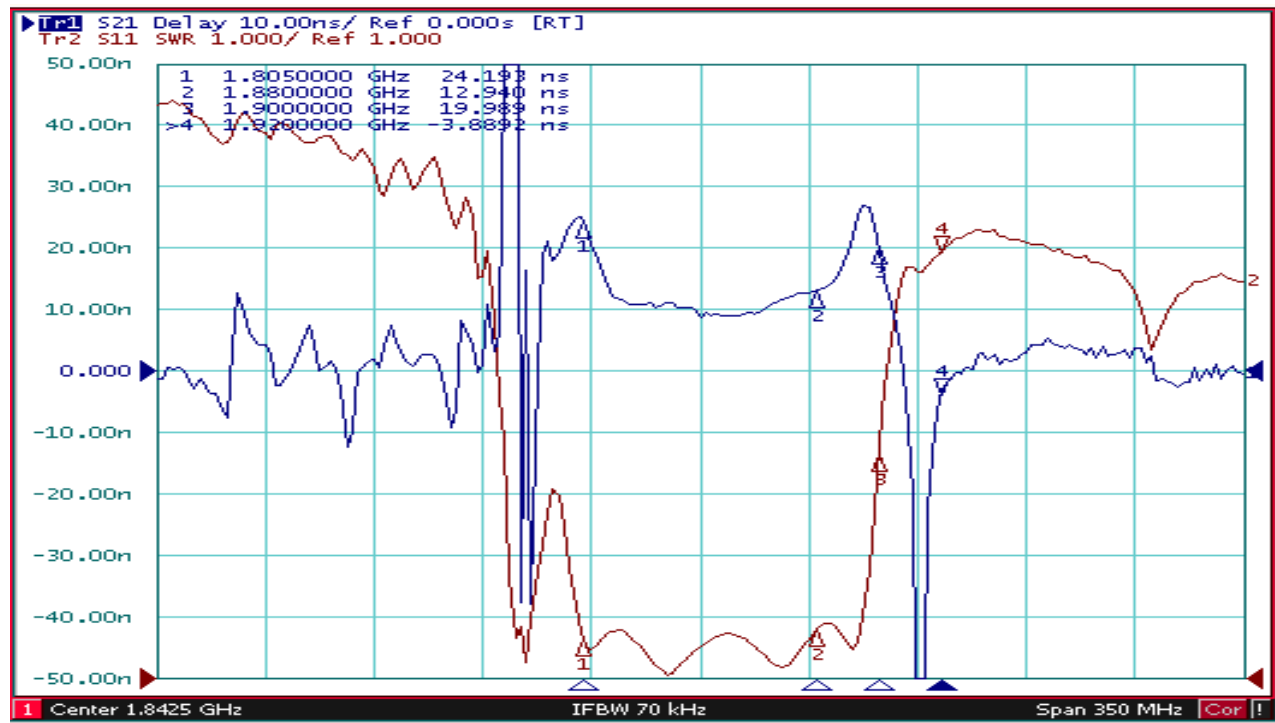
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Stability Characteristics

	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 (b) Amplitude: 1.5 mm (c) Directions: X,Y and Z (d) Duration: 2 hours
3	Moisture resistance	(a) Condition: 40°C \pm 2°C, 93 $^{+2}_{-3}$ % RH. (b) Duration: 96 hours (c) Wait 4 hours before measurement
4	Climatic sequence	(a) +70°C for 16 hours (b) +55°C for 24 hours, 90~95% R.H. (c) -25°C for 2 hours (d) +40°C for 24 hours, 90~95% R.H. (e) Wait 4 hours before measurement
5	High temperature exposure	(a) Temperature: 85°C (b) Duration: 250 hours (c) Wait 4 hours before measurement
6	Temperature cycling	(a) +85°C for 30 minutes \Rightarrow -40°C for 30 minutes repeated 120 times (b) Wait 4 hours before measurement

Requirements: The SAW filer 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.

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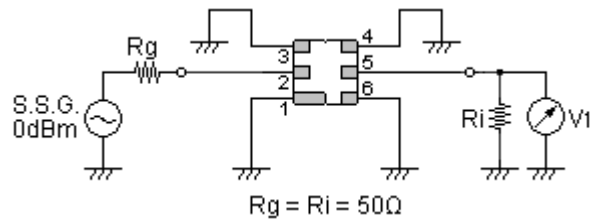
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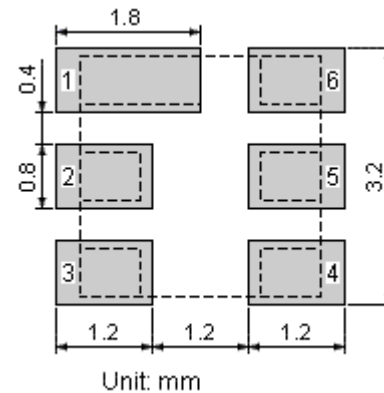
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Test Circuit

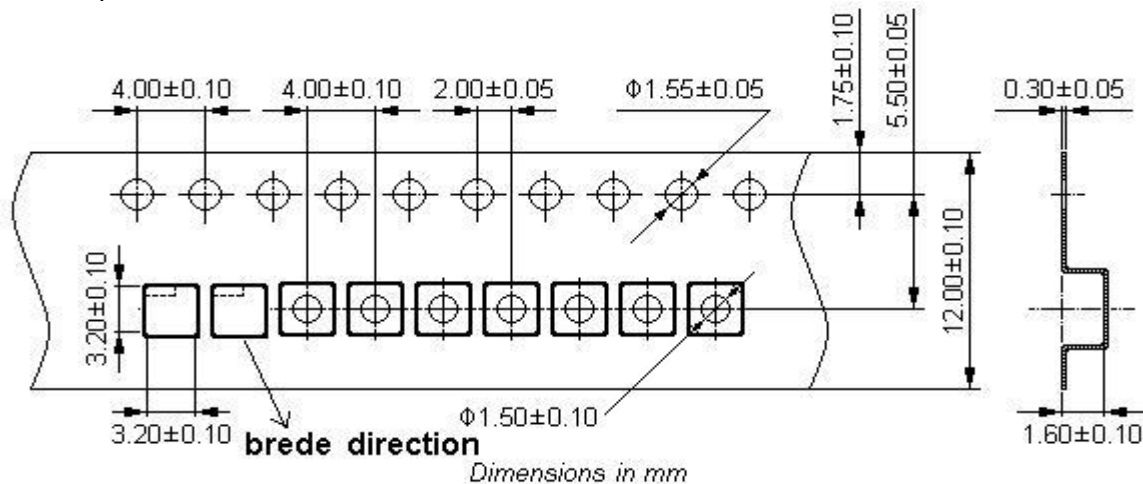


Recommended Land Pattern

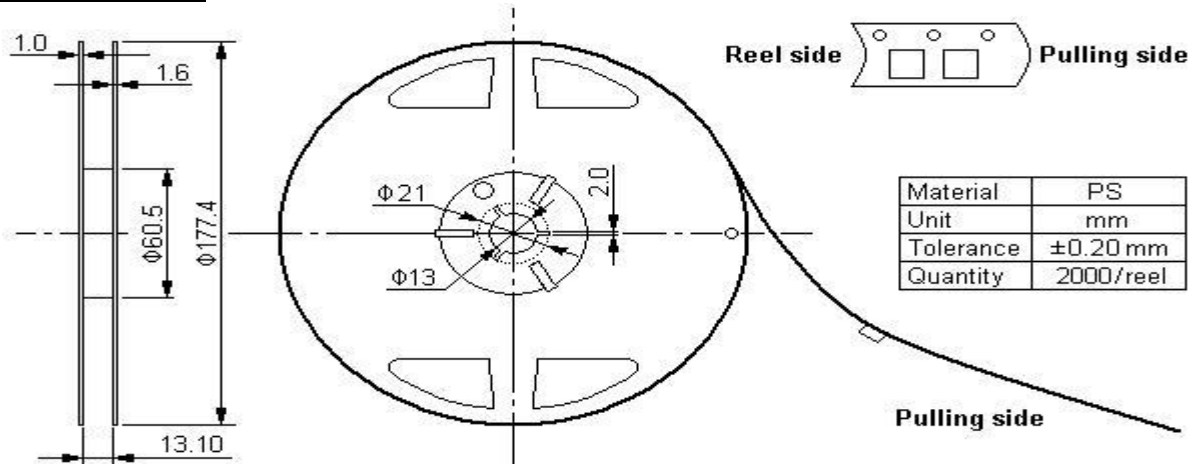


Packing Information

Carrier Tape



Reel Dimensions



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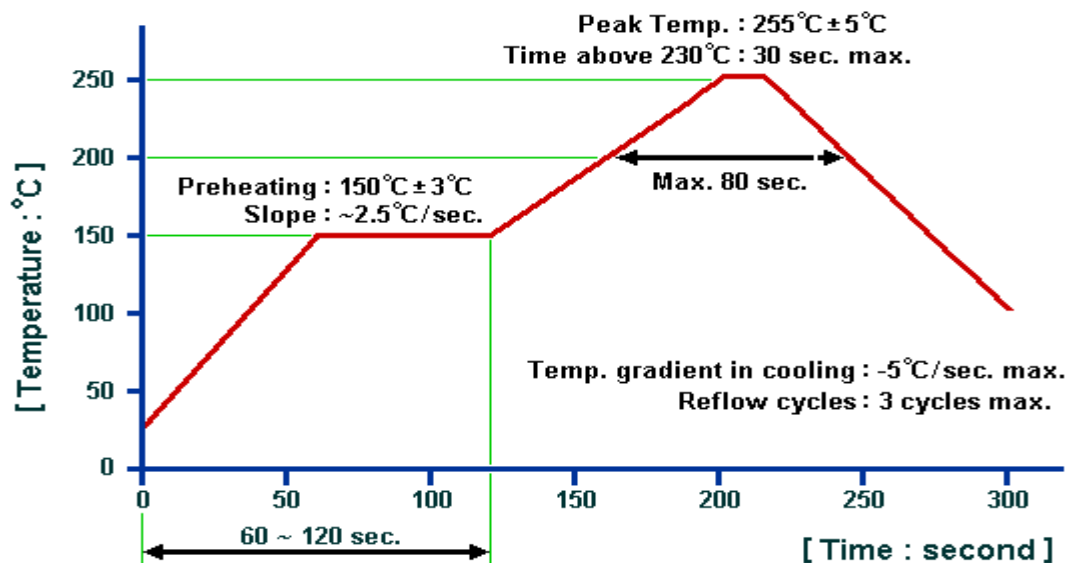
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Outer Packing

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	

Recommended Soldering Profile



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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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