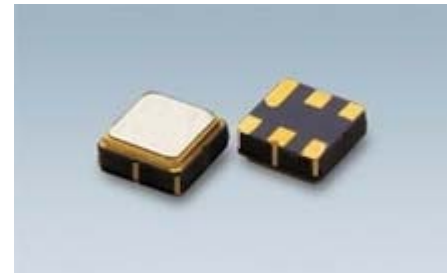


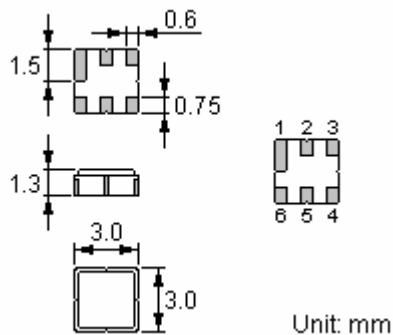
ACTF9191-1880.00-DCC6C: Features

- 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

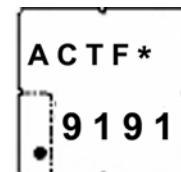
2	Input
5	Output
1, 3, 4, 6	Ground

Marking

Top View, Laser Marking

"ACT": Manufacturer's mark
 "9191": Part number
 "*": Lot number (The code shown below varies in a 4-year cycle)

"F": SAW filter
 ".": Terminal 1



Code	1	2	3	4	5	6	7	8	9	10	11	12
2009	A	B	C	D	E	F	G	H	J	K	L	M
2010	N	P	Q	R	S	T	U	V	W	X	Y	Z
2011	a	b	c	d	e	f	g	h	i	j	k	m
2012	n	p	q	r	s	t	u	v	w	x	y	z

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

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<http://www.actcrystals.com>

Maximum Ratings

Rating		Value	Unit
Input Power Level	P	13.5 dBm CW, $T_a=85^\circ\text{C}$, life time>10 years	
		20dBm CW, $T_a=85^\circ\text{C}$, pass band top frequency, test 1000 hours continuously ,electrical characters meet demand;	
		23dBm CW, $T_a=85^\circ\text{C}$, pass band top frequency, test 2 hours continuously ,electrical characters meet demand;	
DC Voltage	V_{DC}	0	V
Operating Temperature Range	T_A	-40 ~ +85	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-40 ~ +85	$^\circ\text{C}$

Electrical Characteristics

Item		Minimum	Typical	Maximum	Unit		
Center Frequency	f_c		1880		MHz		
Insertion Loss	IL	--	2.0**	3.0 *(dB		
						1850.00 1910.00 MHz	
Group Delay Ripple	1850.00 1910.00 MHz		15	40	ns		
Absolute Attenuation	α	DC 1570.00 MHz	20	25		dB	
			1570.00 1720.00 MHz	25	27		dB
			1720.00 1802.00 MHz	22	26		dB
			1802.00 1830.00 MHz	2	3		dB
			1930.00 1940.00 MHz	8*)	17**		dB
			1940.00 2000.00 MHz	26	30		dB
			2000.00 3700.00 MHz	25	30		dB
			3700.00 5000.00 MHz	20	26		dB
Amplitude Ripple (p-p)	1850.00 1910.00 MHz	$\Delta\alpha$	1.0 **	2.0 *(dB		
Input VSWR	1850.00 1910.00 MHz		1.7: 1**	2.0: 1 *(
Output VSWR	1850.00 1910.00 MHz		1.7: 1**	2.0: 1 *(
Input / Output Impedance (Nominal)			50		Ω		

 **RoHS Compliant**

*) : -40 $^\circ\text{C}$

** : +25 $^\circ\text{C}$

 **Electrostatic Sensitive Device**

*(: +85 $^\circ\text{C}$

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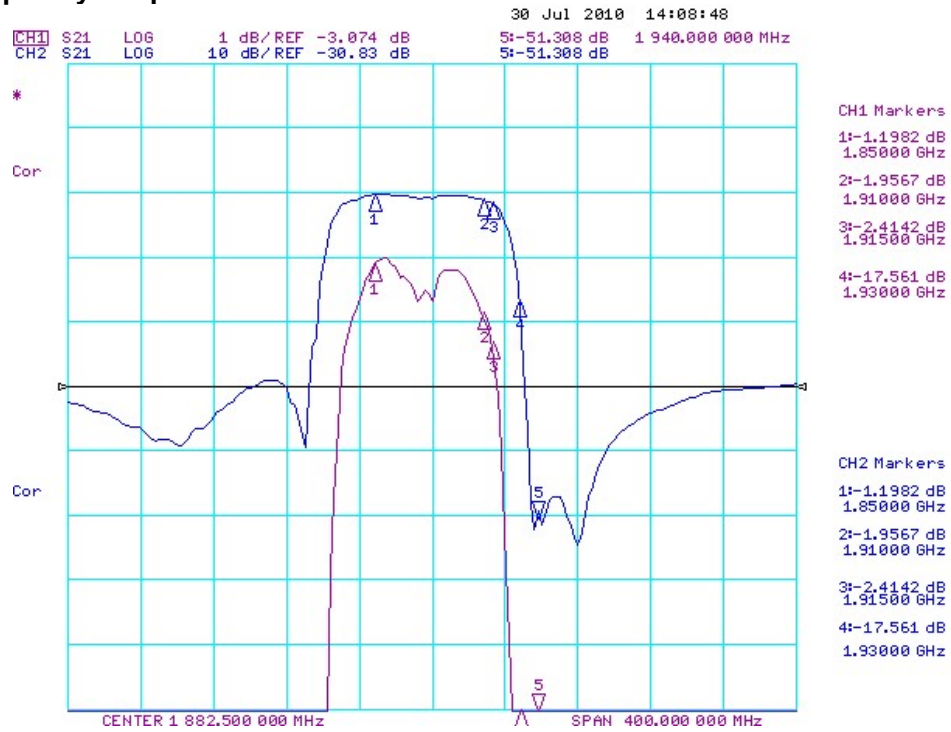
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Typical Frequency Response



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Stability Characteristics

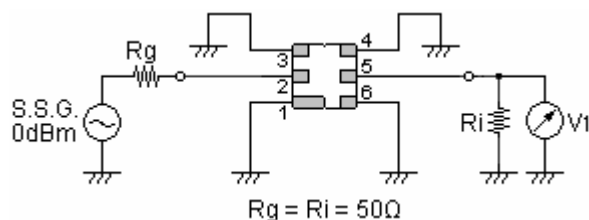
	Test item	Condition of test
1	Mechanical shock	(a) Drops: 3 times on concrete floor (b) Height: 1.0 m
2	Vibration resistance	(a) Frequency of vibration: 10~55Hz (c) Directions: X,Y and Z (b) Amplitude: 1.5 mm (d) Duration: 2 hours
3	Moisture resistance	(a) Condition: 40°C, 90~95% R.H. (c) Wait 4 hours 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.

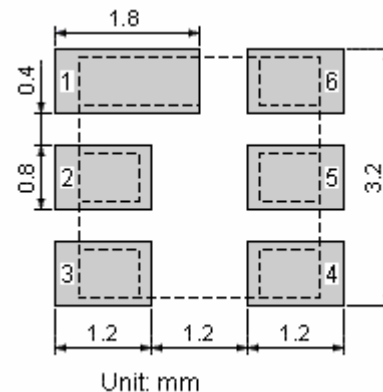
Remarks

- 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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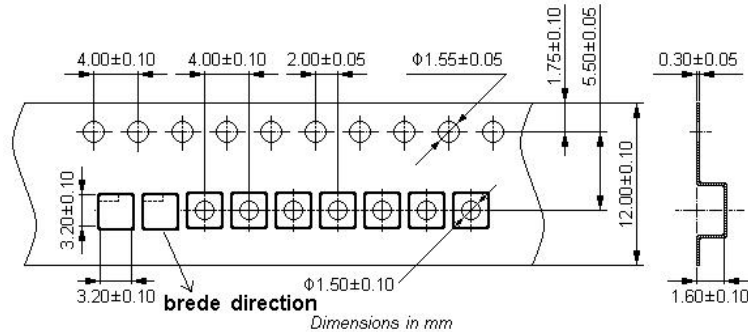
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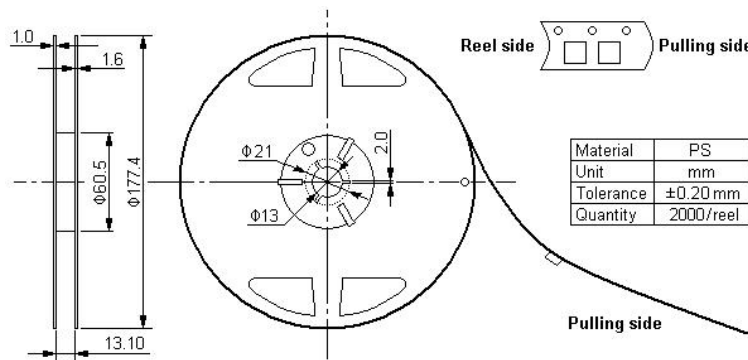
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Packing Information
Carrier Tape



Reel Dimensions



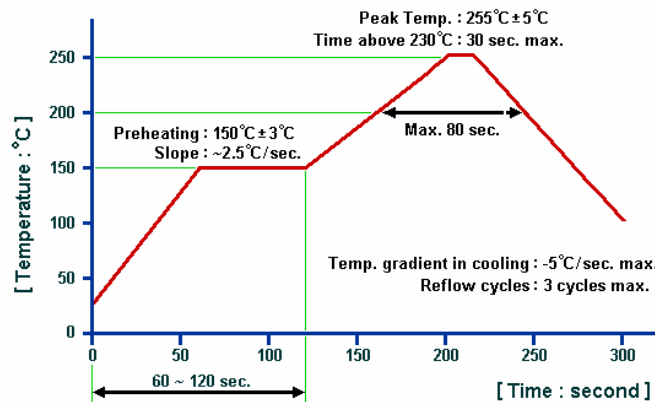
Outer Packing

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

Unit: mm

Unit: kg

Recommended Soldering Profile



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