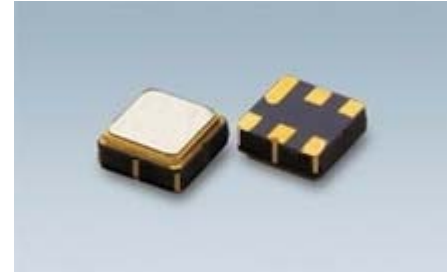


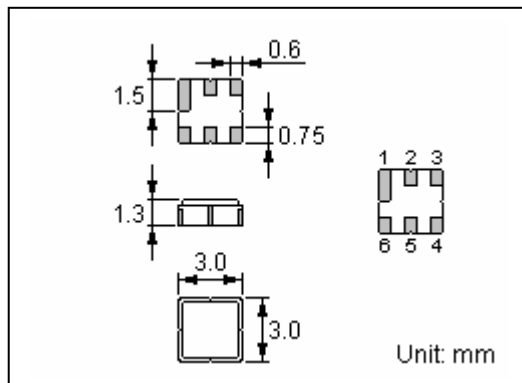
SAW BANDPASS FILTER PART NO.: ACTF9194-1950-DCC6C

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
 "9194": 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
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

Maximum Ratings

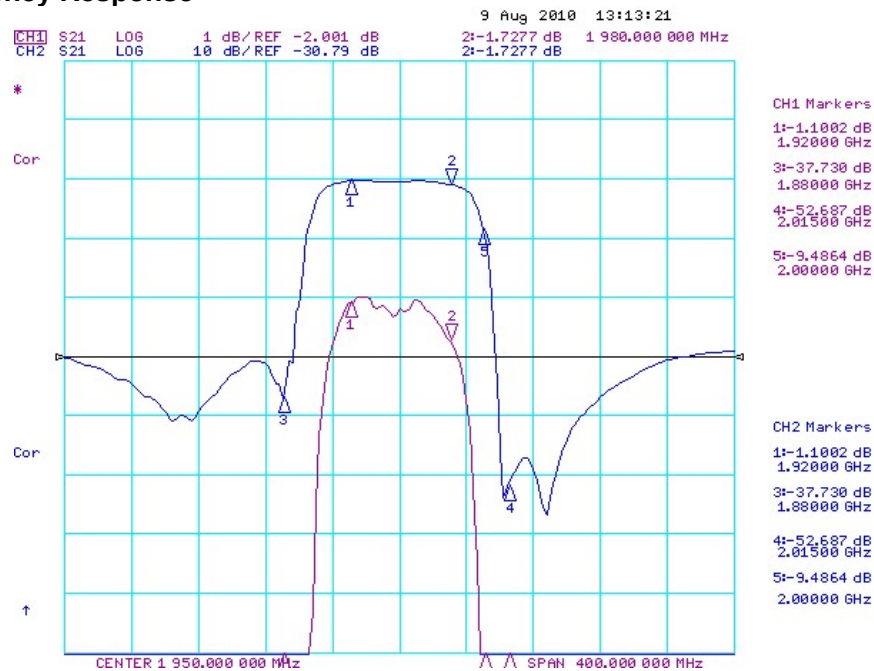
Rating		Value	Unit
Input Power Level	P	10	dBm
DC Voltage	V_{DC}	12	V
Operating Temperature Range	T_A	-40 ~ +85	°C
Storage Temperature Range	T_{stg}	-40 ~ +85	°C

Electrical Characteristics

Item		Minimum	Typical	Maximum	Unit
Center Frequency	f_C		1950		MHz
Insertion Loss	IL				
	1920.00 1980.00 MHz	--	1.8 **	2.5 *(	dB
Group Delay Ripple	1920.00 1980.00 MHz		10 **	40	ns
Absolute Attenuation	α				
	DC 1400.00 MHz	22	25		dB
	1400.00 1495.00 MHz	25	27		dB
	1495.00 1700.00 MHz	25	27		dB
	1700.00 1870.00 MHz	28	30		dB
	1870.00 1880.00 MHz	23 *(	31		dB
	2000.00 2015.00 MHz	4.0 *)	9.0		dB
	2015.00 2030.00 MHz	22	45		dB
	2030.00 2050.00 MHz	35	45		dB
	2050.00 2080.00 MHz	33	36		dB
	2080.00 2170.00 MHz	28	30		dB
	2170.00 3000.00 MHz	25	30		dB
Amplitude Ripple (p-p)	1920.00 1980.00 MHz $\Delta\alpha$		0.6 **	1.2	dB
Input VSWR	1920.00 1980.00 MHz		1.5: 1	2.0: 1	
Output VSWR	1920.00 1980.00 MHz		1.5: 1	2.0: 1	
Input / Output Impedance (Nominal)		50			Ω

 **RoHS Compliant**
 *) : -40°C
 ** : +25°C
 *(: +85°C
  **Electrostatic Sensitive Device**

Typical Frequency Response



Iss 1 C1u Date 21-7-2011

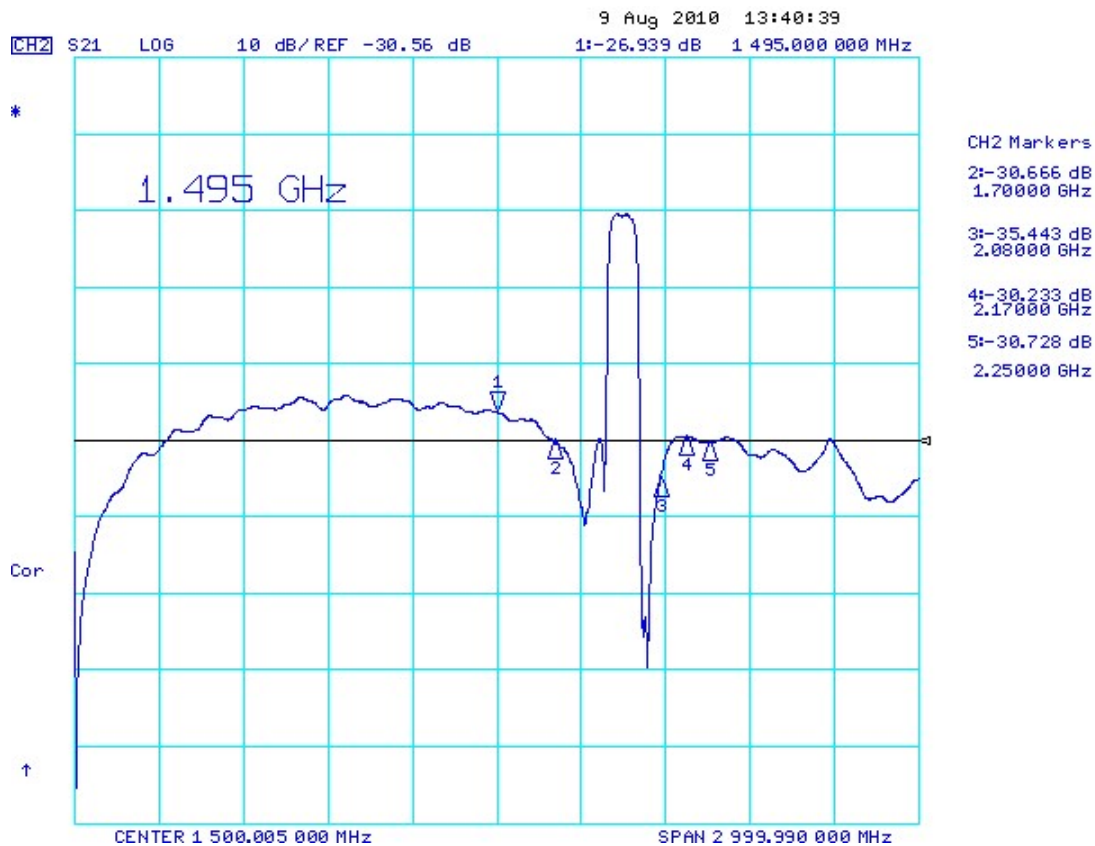
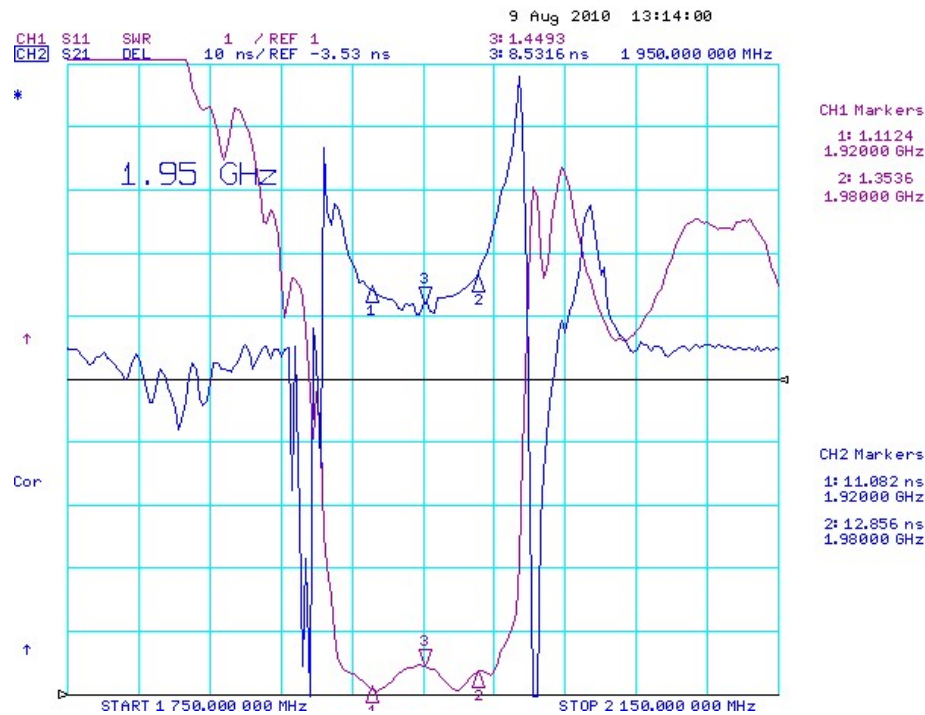
In line with our ongoing policy of product evolution and improvement, the above specification may subject to change without notice

ISO9001:2000 Registered

For quotations or further information please contact us at:

3 The Business Centre, Molly Millars Lane, Wokingham, Berkshire, RG41 2EY, UK

<http://www.actcrystals.com>



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Stability Characteristics

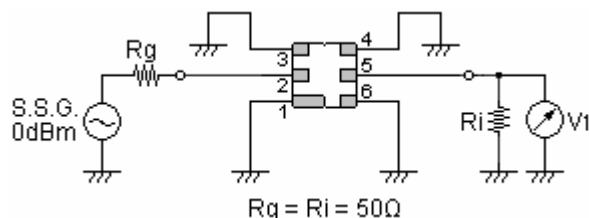
	Test item	Condition of test
1	Mechanical shock	(a) Drops: 3 times on concrete floor (b) Height: 1.0 m
2	Vibration resistance	(a) Frequency of vibration: 10~55Hz (b) Amplitude: 1.5 mm (c) Directions: X,Y and Z (d) Duration: 2 hours
3	Moisture resistance	(a) Condition: 40°C, 90~95% R.H. (b) Duration: 96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

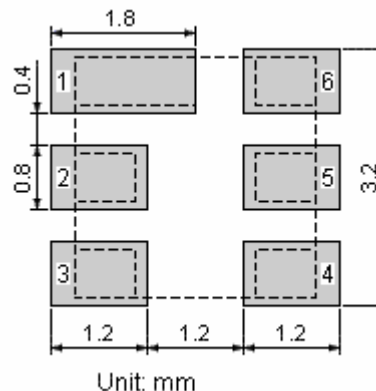
Remarks

- 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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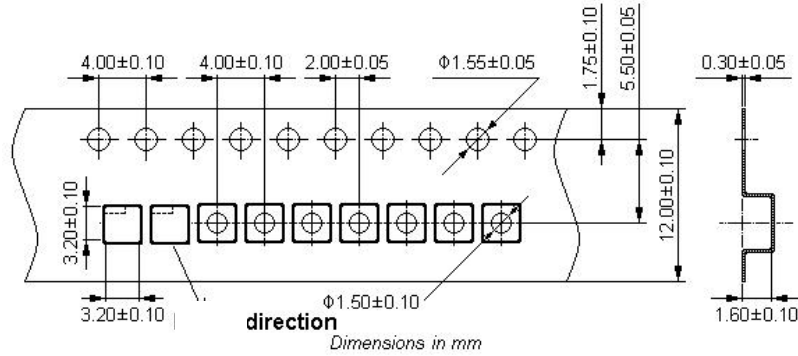
ISO9001:2000 Registered

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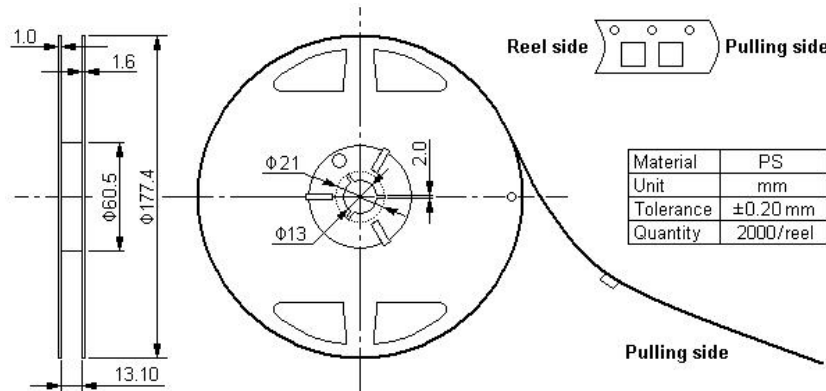
3 The Business Centre, Molly Millars Lane, Wokingham, Berkshire, RG41 2EY, UK

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Carrier Tape



Reel Dimensions

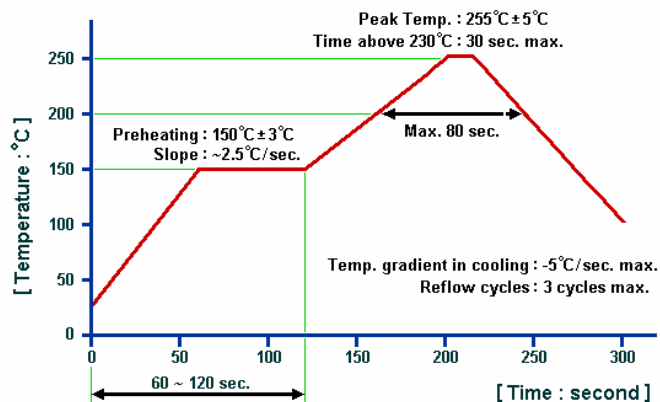


Outer Packing

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



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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