

SAW BANDPASS FILTER

PART NO.: ACTF4230/433.92/DCC6C_v1.0

Product Type:	Customer:
SAW Filter	
Part NO.:	Customer Part NO.:
ACTF4230/433.92/DCC6C_v1.0	
	Issued Date:

PREPARED BY	CHECKED BY	APPROVED BY

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

ISO9001 Registered

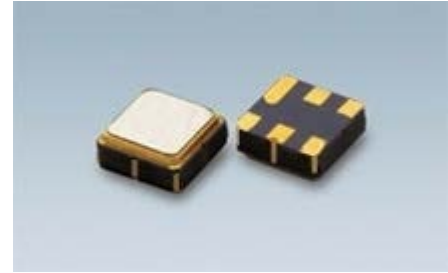
For quotations or further information please contact us at:

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

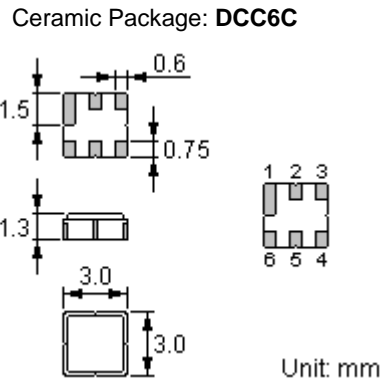
<http://www.actcrystals.com>

Features

- Low-loss RF filter
- High Rejection
- Single Ended Operation at 50Ω without matching
- Ceramic Package for **Surface Mounted Technology (SMT)**
- Lead-free Production and **RoHS** Compliance



Package Dimensions



Pin Configuration

2	Input
5	Output
1, 3, 4, 6	Case Ground
1, 3, 4, 6	To Be Grounded

Marking



Top View, Laser Marking

- "ACTF": Manufacturer's mark "F": SAW filter
 "4230": 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
Operating Temperature Range	T_A	-40 ~ +85	°C
Storage Temperature Range	T_{stg}	-40 ~ +85	°C
DC Voltage (between any Terminals)	V_{DC}	12	V
RF Power (in BW)	P	13 max.	dBm

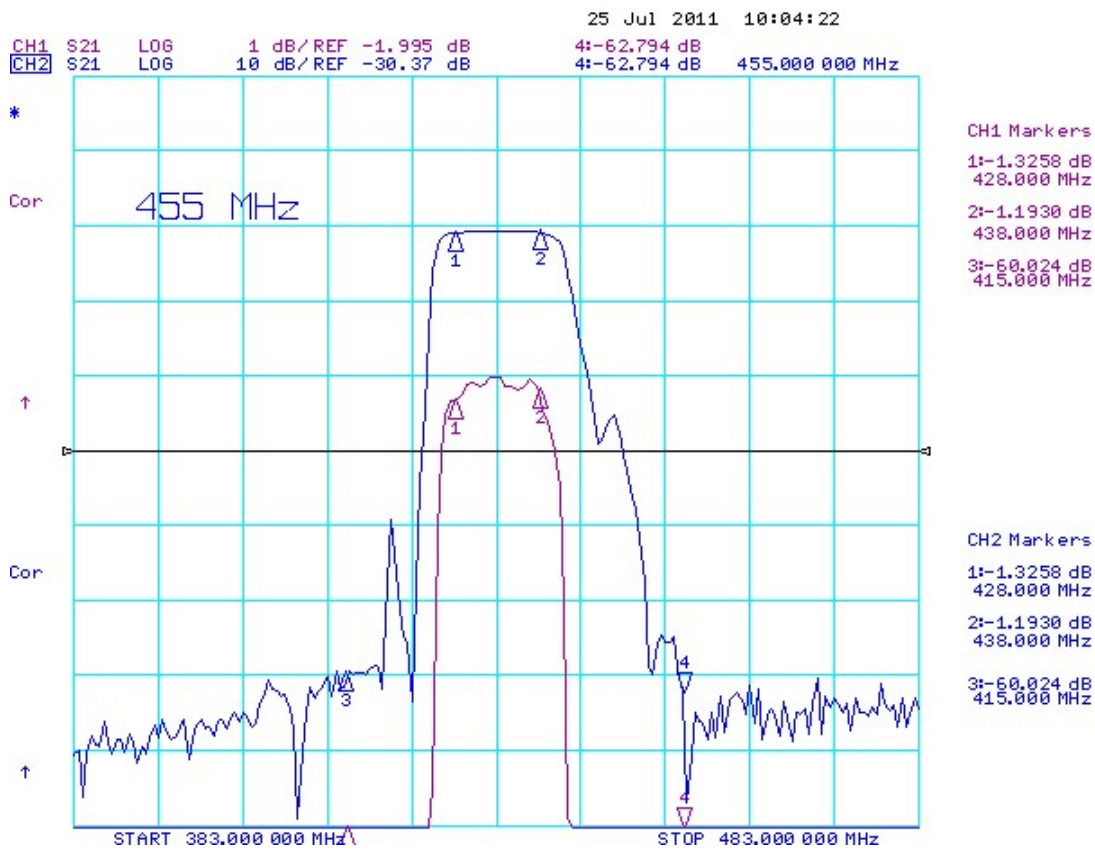
Electrical Characteristics

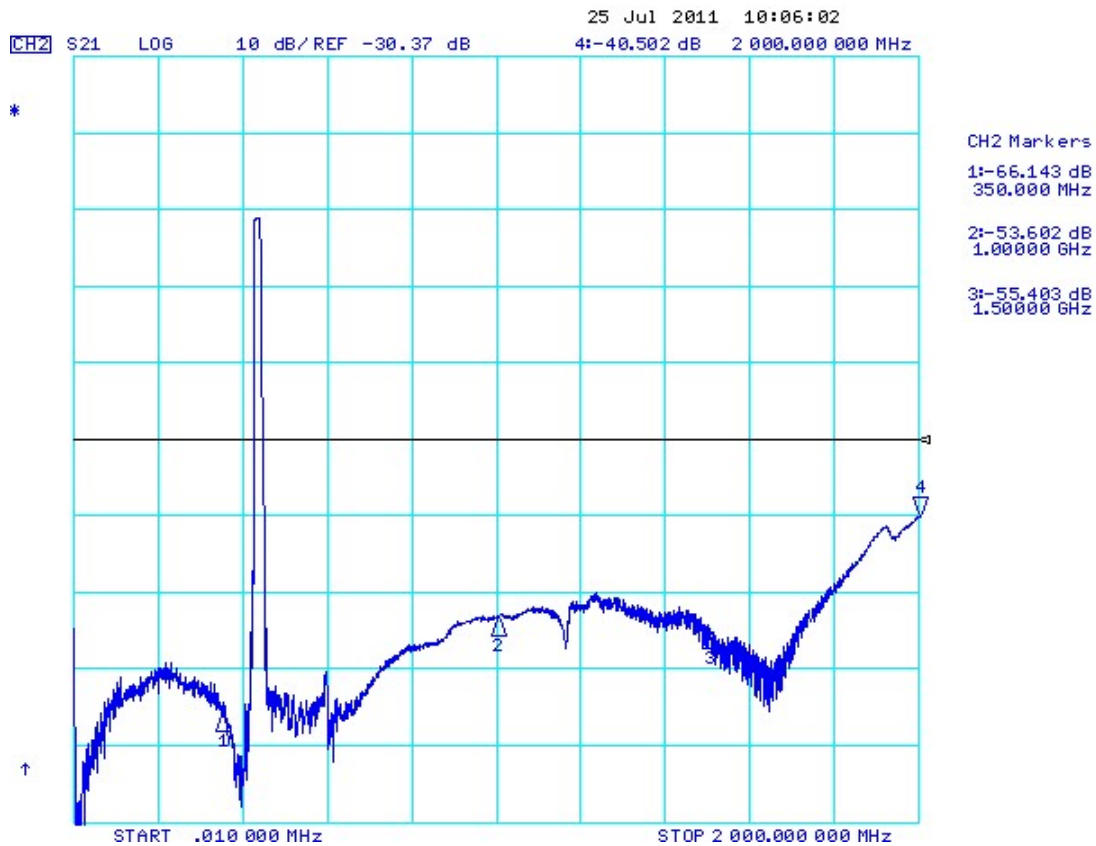
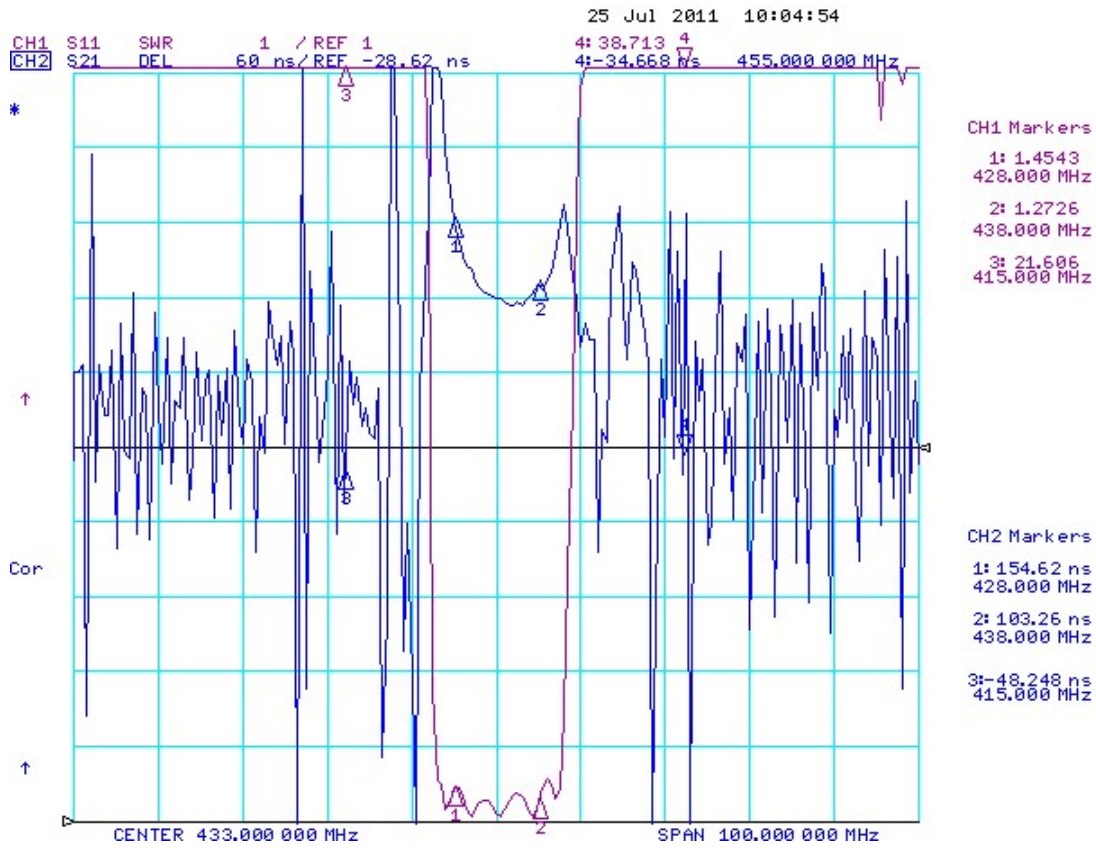
Item		Minimum	Typical	Maximum	Unit
Center Frequency	f_c	-	433.92	-	MHz
Maximum Insertion Loss in 433.05 MHz–434.79MHz	IL	-	1.3	2.0	dB
Amplitude Variation in 433.05 MHz–434.79MHz			0.15	1.0	dB
Absolute Attenuation	α				
0.30 ... 300.0MHz		50	60	-	dB
300.00 ... 415.00 MHz		50	55	-	dB
454.00 ... 457.00 MHz		40	50		dB
475.00 ... 479.00 MHz		50	60		dB
1000.00 ... 1500.00 MHz		40	45	-	dB
1500.00 ... 2000.00 MHz		35	40		dB
Input VSWR 433.05 MHz–434.79MHz		-	1.4	2.0	
Output VSWR in 433.05 MHz–434.79MHz		-	1.4	2.0	
Group delay ripple 433.05 MHz–434.79MHz			30	60	ns
Source / Load Impedance (single ended)			50		Ω

 **RoHS Compliant**

 **Electrostatic Sensitive Device**

Typical Frequency Response





Stability Characteristics

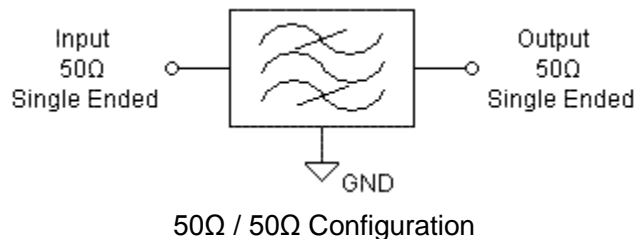
	Test item	Condition of test
1	Mechanical shock	(a) Drops: 3 times on concrete floor (b) Height: 1.0 m
2	Vibration resistance	(a) Frequency of vibration: 10~55Hz (c) Directions: X,Y and Z (b) Amplitude: 1.5 mm (d) Duration: 2 hours
3	Moisture resistance	(a) Condition: 40°C, 90~95% R.H. (c) Wait 4 hours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

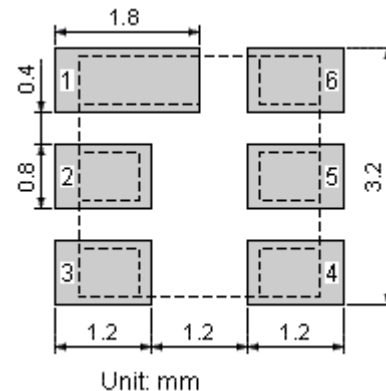
Remarks

- 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

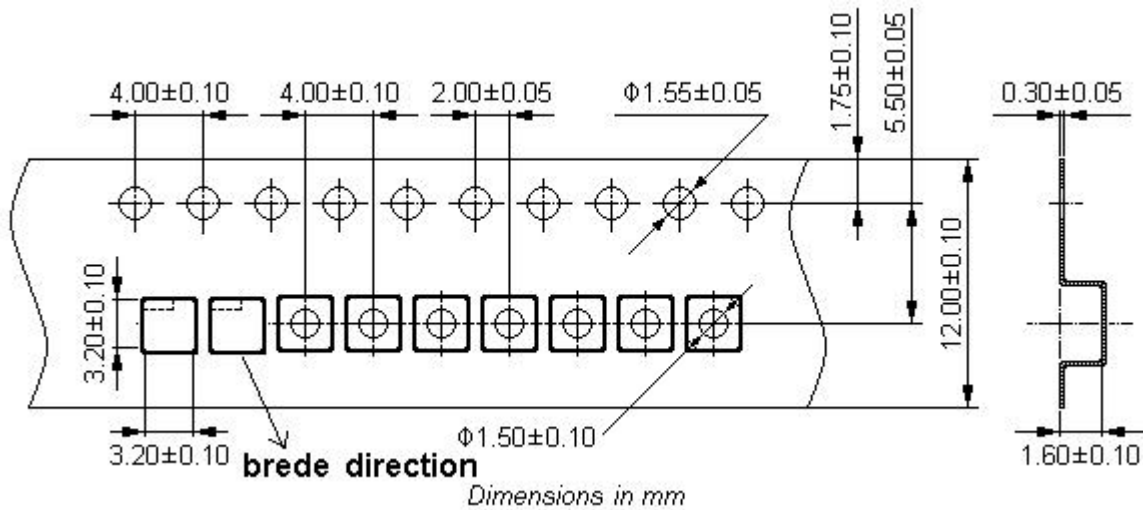


Recommended Land Pattern

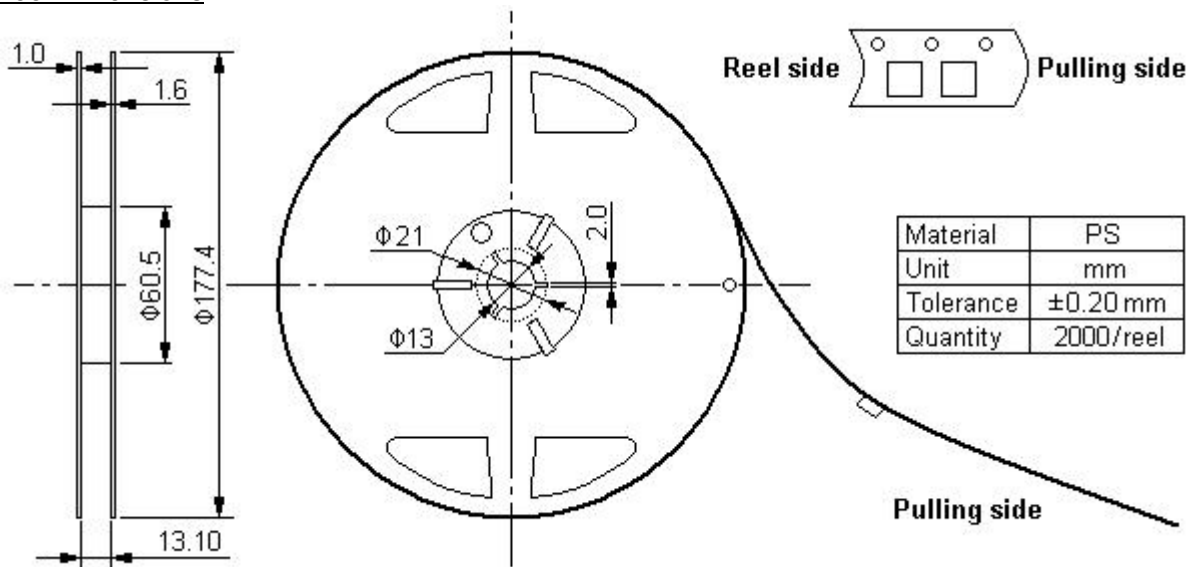


Packing Information

Carrier Tape



Reel Dimensions



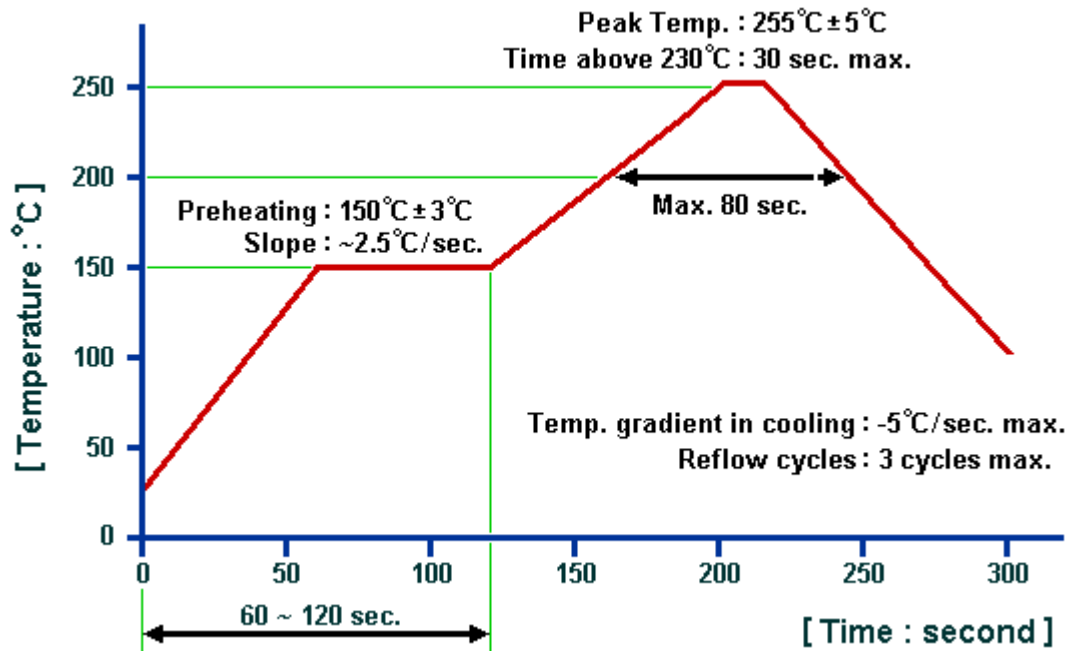
Outer Packing

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)	1.70

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.