

SAW BANDPASS FILTER

ACT PART NO.: ACTF9210_2655MHz_DCC6C

Product Type:		Customer:	
SAW Filter			
Part NO.:		Customer Part NO.:	
ACTF9210_2655MHz_DCC6C			
		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

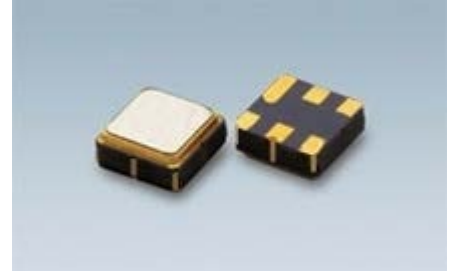
For quotations or further information please contact us at:

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

<http://www.actcrystals.com>

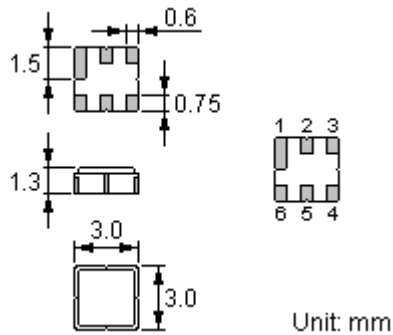
Features

- Low-loss RF filter 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

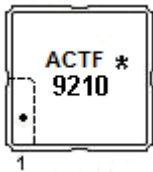
Ceramic Package: **DCC6C**



Pin Configuration

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

Marking



Top View, Laser Marking

- "ACT": Manufacturer's mark "F": SAW filter
 "9210": 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
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
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

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

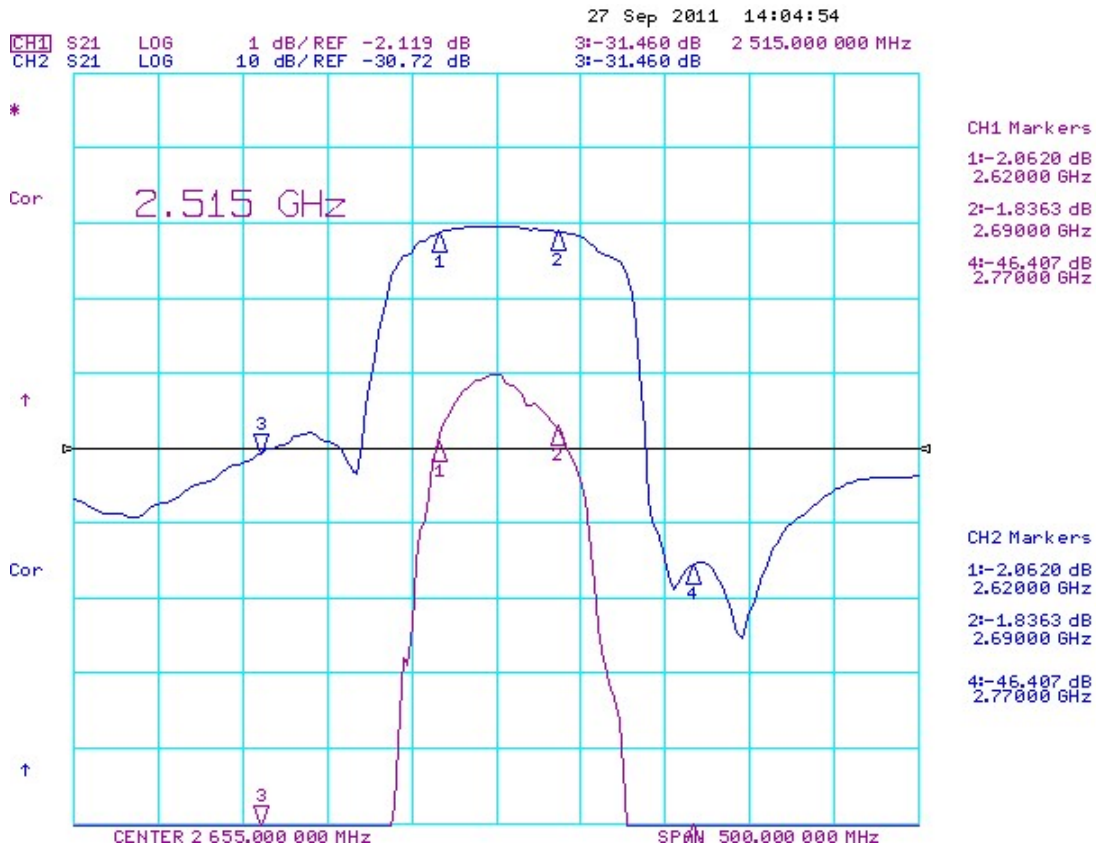
Electrical Characteristics

Item		Minimum	Typical	Maximum	Unit
Center Frequency	f_c		2655		MHz
Insertion Loss	IL				
	2620.00 2690.00 MHz	--	2.3	3.6	dB
Amplitude Ripple	2620.002690.00 MHz		0.8	2.0	dB
Group Delay Ripple	2620.00 2690.00 MHz		10	30	ns
Absolute Attenuation (Referenced to 0 dB)					
	DC 2100.00 MHz	25	37		dB
	2100.00 2515.00 MHz	27	31		dB
	2770.00 4000.00 MHz	30	35		dB
	4000.00 5000.00 MHz	15	22		dB
Input VSWR	2620.002690.00 MHz			2.5: 1	
Output VSWR	2620.002690.00 MHz			2.5: 1	
Input / Output Impedance (Nominal)		50			Ω

 **RoHS Compliant**

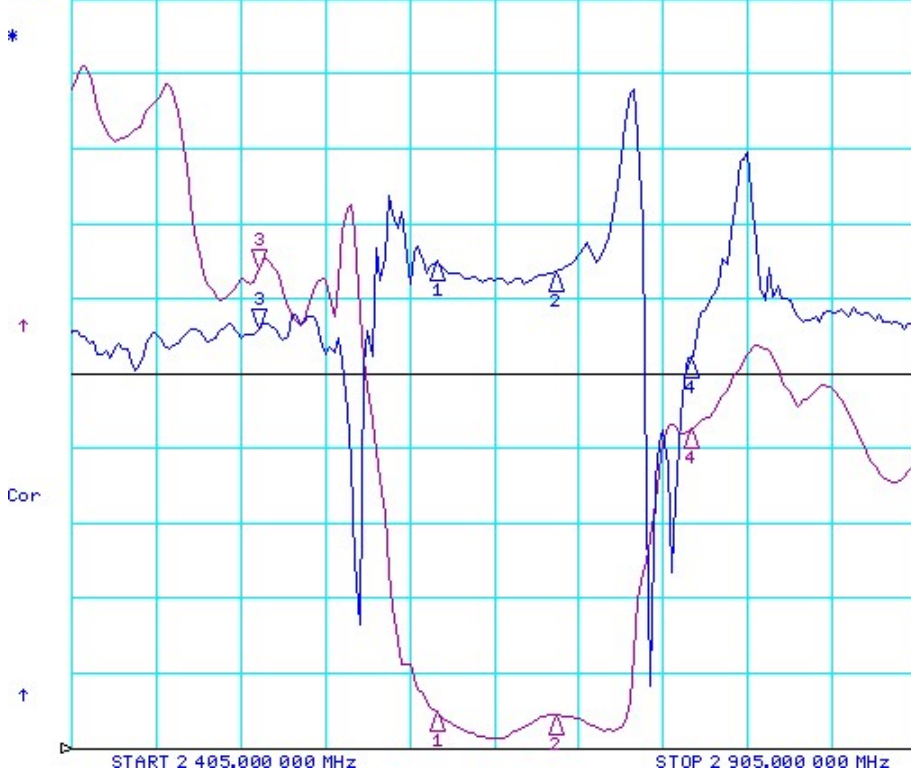
 **Electrostatic Sensitive Device**

Typical Frequency Response



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CH1 S11 SWR 1 / REF 1 3: 7.3994
CH2 S21 DEL 10 ns / REF -6.22 ns 3: -202.94 ps 2 515.000 000 MHz



CH1 Markers

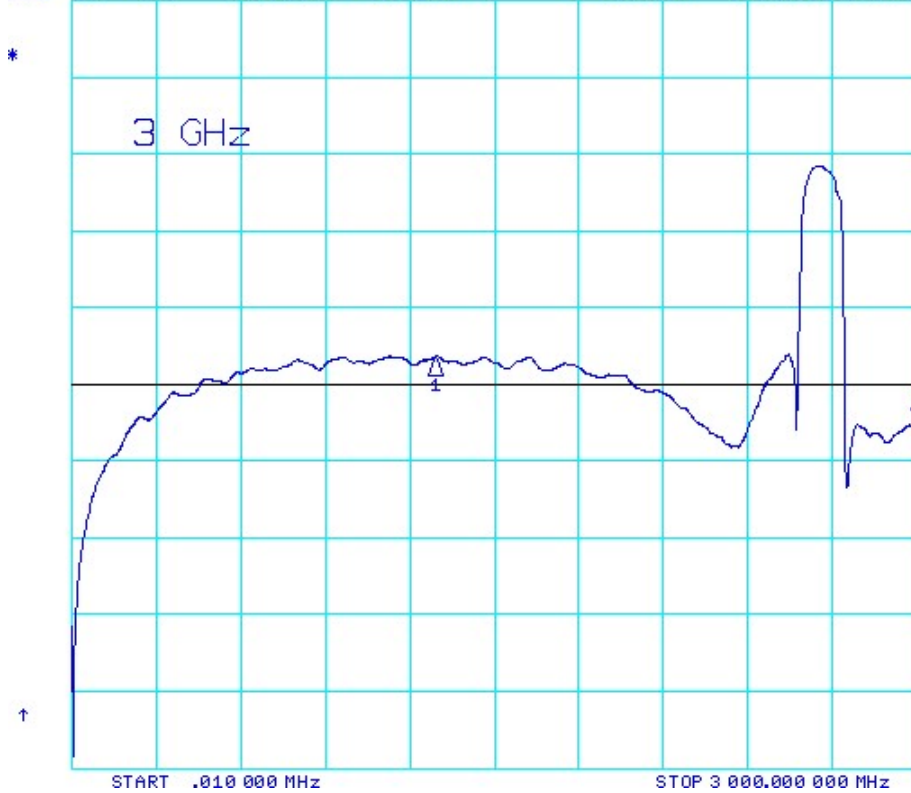
- 1: 1.4764
2.62000 GHz
- 2: 1.4324
2.69000 GHz
- 4: 5.2461
2.77000 GHz

CH2 Markers

- 1: 8.6334 ns
2.62000 GHz
- 2: 7.2479 ns
2.69000 GHz
- 4: -4.3976 ns
2.77000 GHz

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CH2 S21 LOG 10 dB / REF -30.72 dB 2: -36.404 dB 3 000.000 000 MHz



CH2 Markers

- 1: -27.246 dB
1.28530 GHz

Stability Characteristics

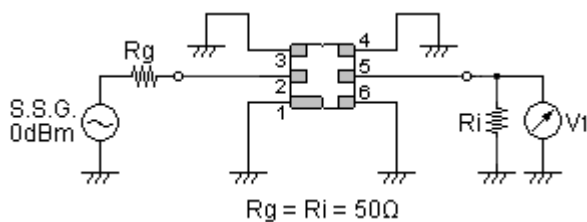
	Test item	Condition of test
1	Mechanical shock	(a) Drops: 3 times on concrete floor (b) Height: 1.0 m
2	Vibration resistance	(a) Frequency of vibration: 10~55Hz (c) Directions: X,Y and Z (b) Amplitude: 1.5 mm (d) Duration: 2 hours
3	Moisture resistance	(a) Condition: 40°C, 90~95% R.H. (c) Wait 4 hours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

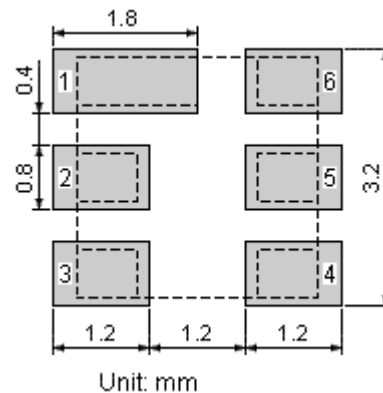
Remarks

- 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

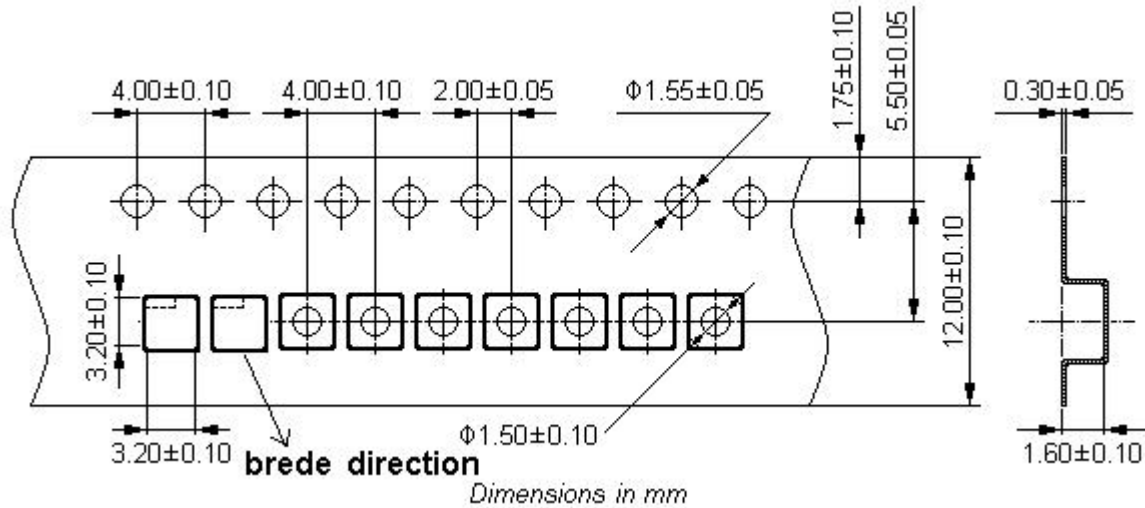


Recommended Land Pattern

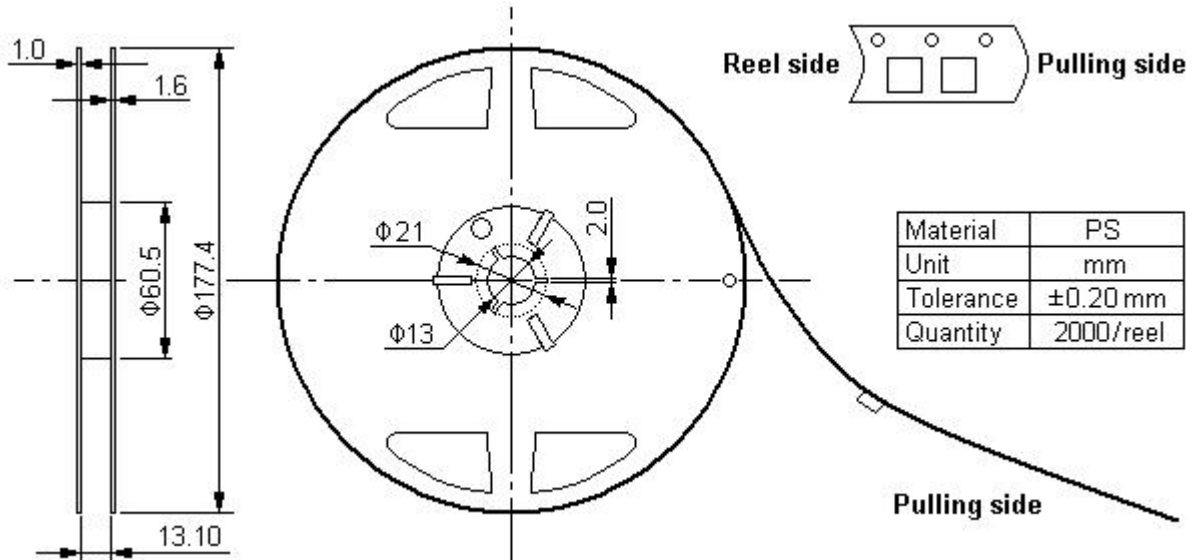


Packing Information

Carrier Tape



Reel Dimensions



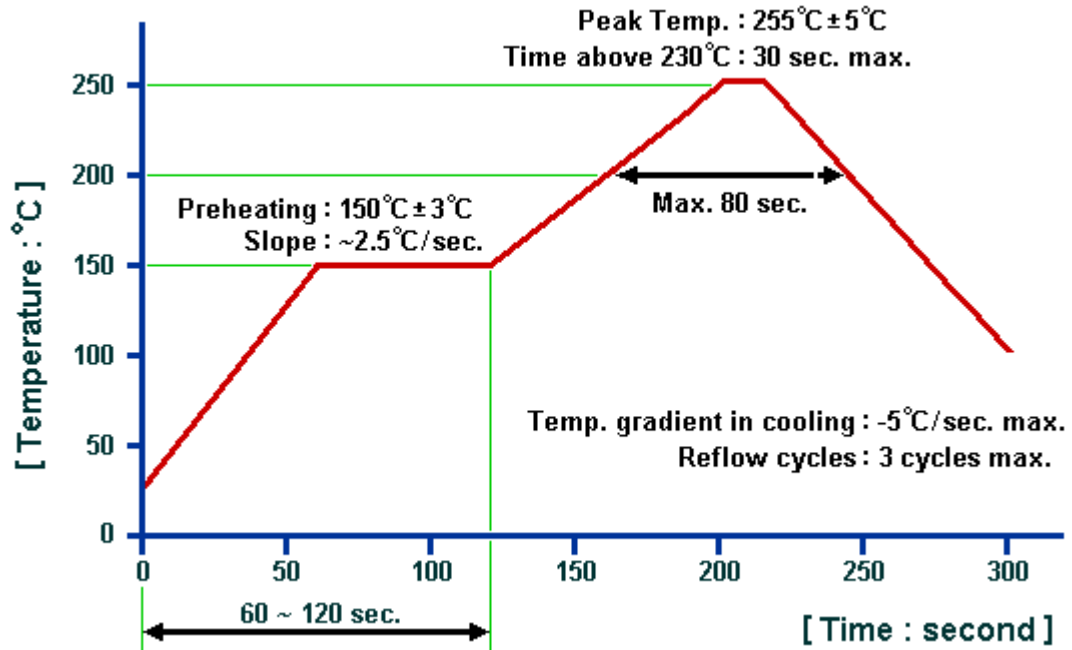
Outer Packing

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)	1.80

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.