

## SAW BANDPASS FILTER

**PART NO.: ACTF9272/2441.8MHz/DCC6C\_V2.0**

<b>Product Type:</b>	<b>Customer:</b>
SAW Filter	
<b>Part NO.:</b>	<b>Customer Part NO.:</b>
ACTF9272/2441.8MHz/DCC6C_V2.0	
	<b>Issued Date:</b>

<b>PREPARED BY</b>	<b>CHECKED BY</b>	<b>APPROVED BY</b>

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

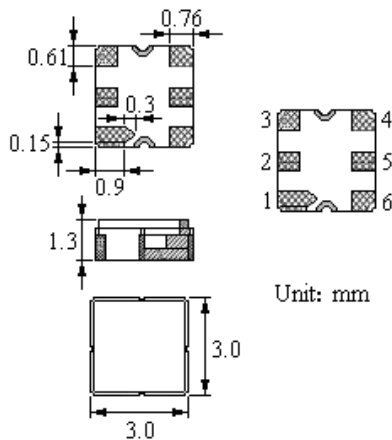
<http://www.actcrystals.com>

### 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**



Unit: mm

### Pin Configuration

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

### Marking



Top View, Laser Marking

- "ACT": Manufacturer's mark
- "F": SAW filter
- "9272": 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 CW, $T_a=85^{\circ}\text{C}$ , life time>10 000 hurs	
		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	$V_{DC}$	12	V
ESD Voltage (HB)	$V_{ESD}$	150	V
Operating Temperature Range	$T_A$	-40 ~ +85	$^{\circ}\text{C}$
Storage Temperature Range	$T_{stg}$	-40 ~ +85	$^{\circ}\text{C}$

## Electrical Characteristics

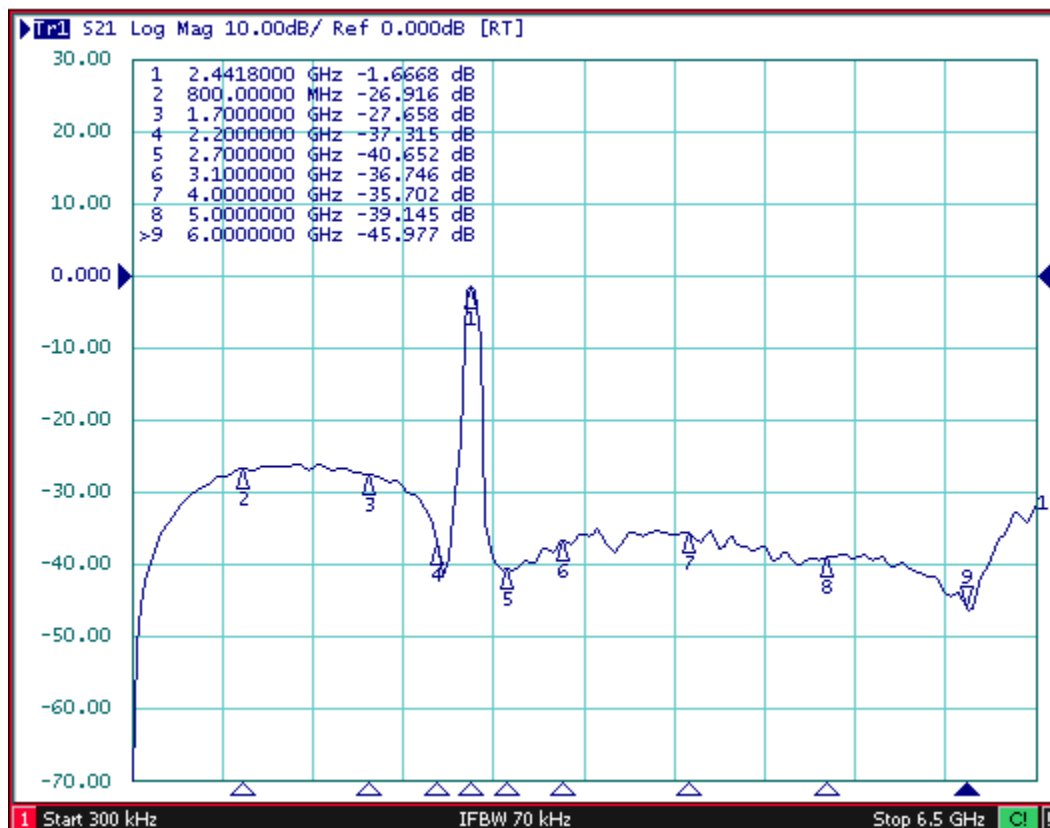
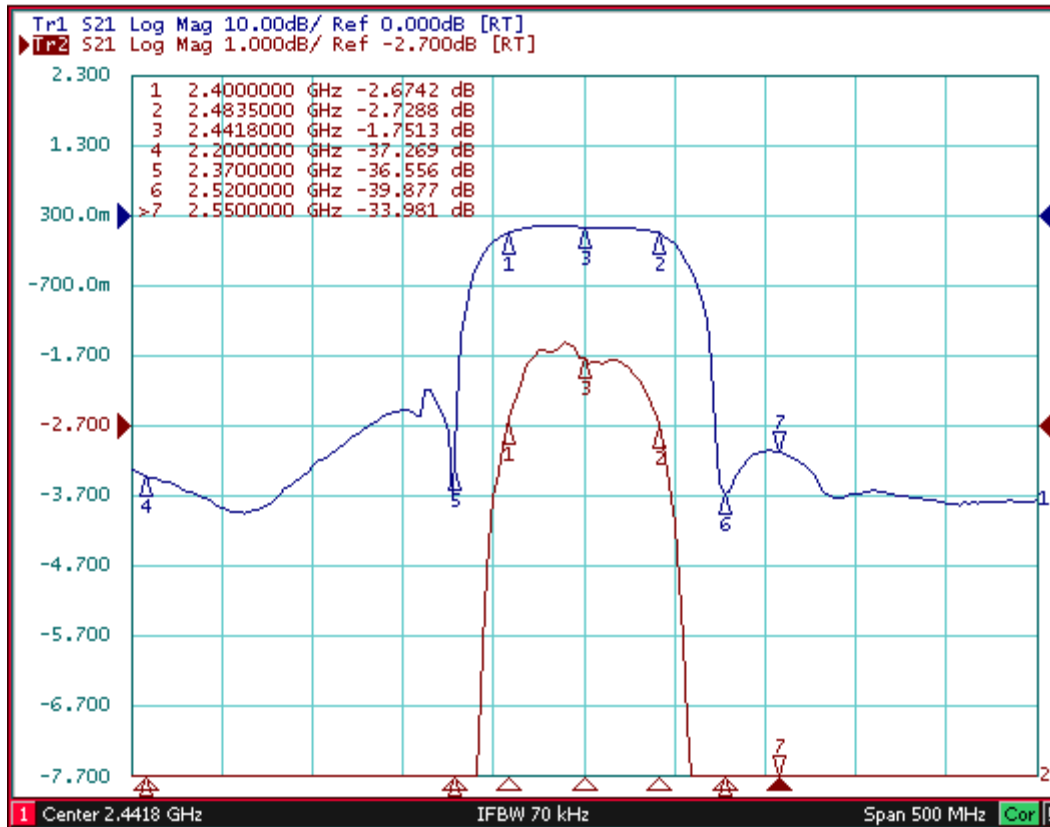
Item		Minimum	Typical	Maximum	Unit
Center Frequency	$f_C$	-	2441.8	-	MHz
Maximum Insertion Loss in 2400 MHz–2483.5 MHz	$IL$	-	2.6	3.5	dB
Amplitude Variation in 2400 MHz–2483.5 MHz	$\Delta\alpha$	-	1.0	2.0	dB
VSWR in 2400 MHz–2483.5 MHz		-	1.7:1	2.2:1	-
Group Delay Ripple in 2400 MHz–2483.5 MHz			6	15	ns
Absolute Attenuation	$\alpha$				
DC ... 1700MHz		22	25	-	dB
1700MHz ... 2200 MHz		25	27	-	dB
2200MHz ... 2350 MHz		23	27	-	dB
2350MHz ... 2370 MHz		15	25	-	dB
2520 MHz ...2700 MHz		25	33	-	dB
2700 MHz ...3100 MHz		30	36	-	dB
3100MHz ...4000MHz		30	35	-	dB
4000 MHz ...5000 MHz		25	35	-	dB
5000 MHz ...6000 MHz		25	40	-	dB
Source Impedance (single ended)		-	50	-	$\Omega$

 RoHS Compliant

 Electrostatic Sensitive Device

# Typical Frequency Response

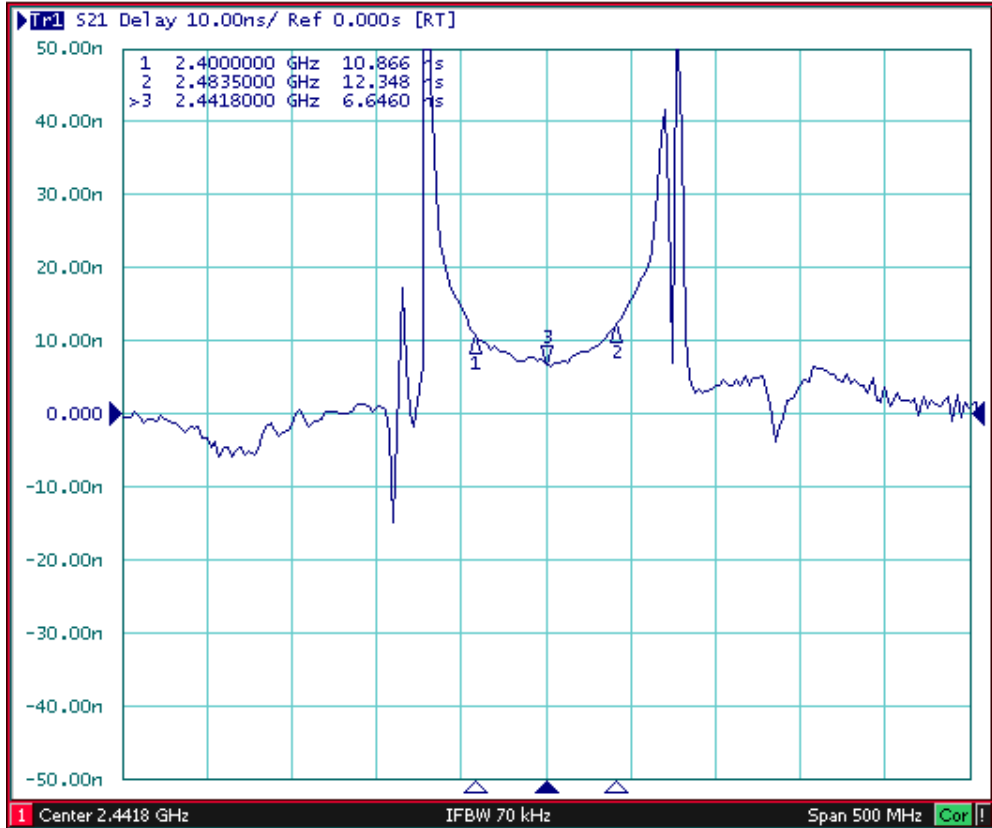
## S21



# S11 S22



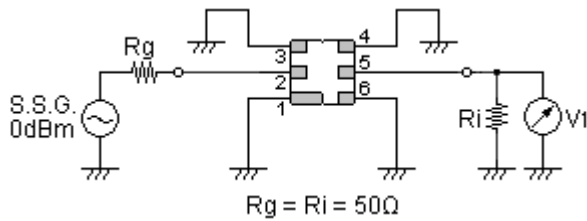
# Group Delay



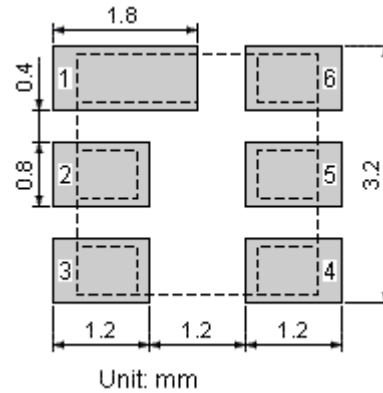
### Remarks

- 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

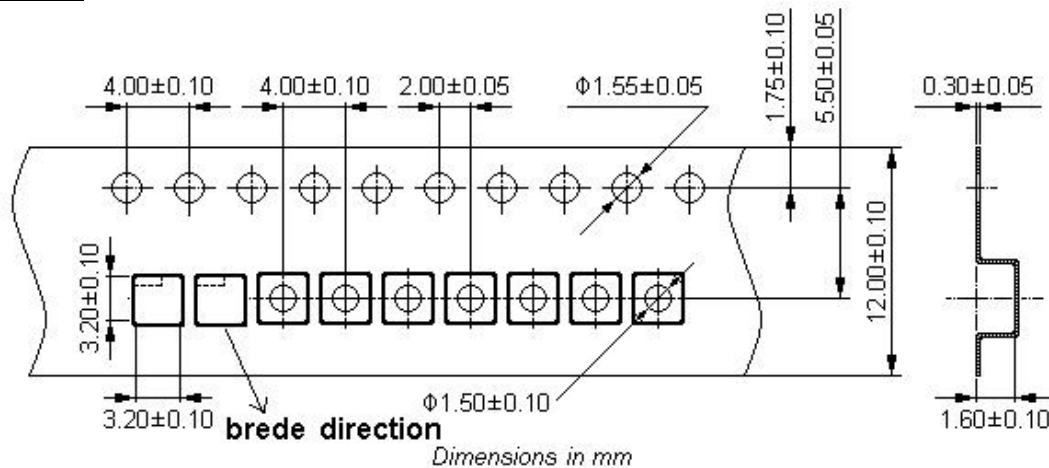


### Recommended Land Pattern

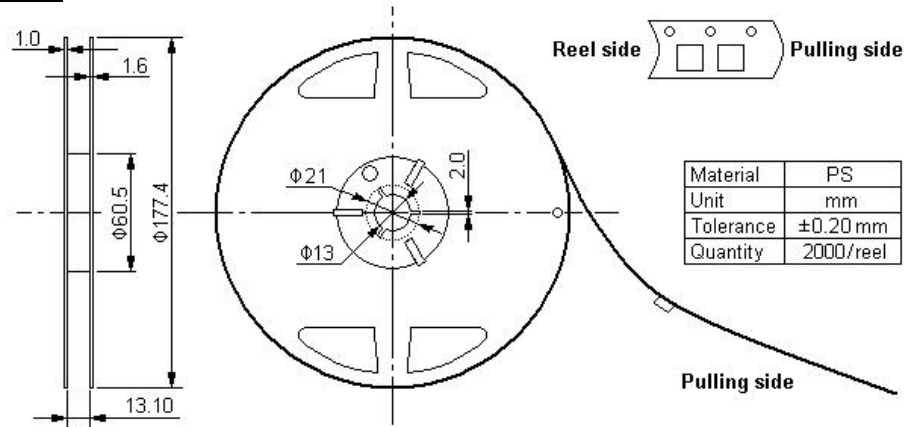


### Packing Information

#### Carrier Tape



### Reel Dimensions



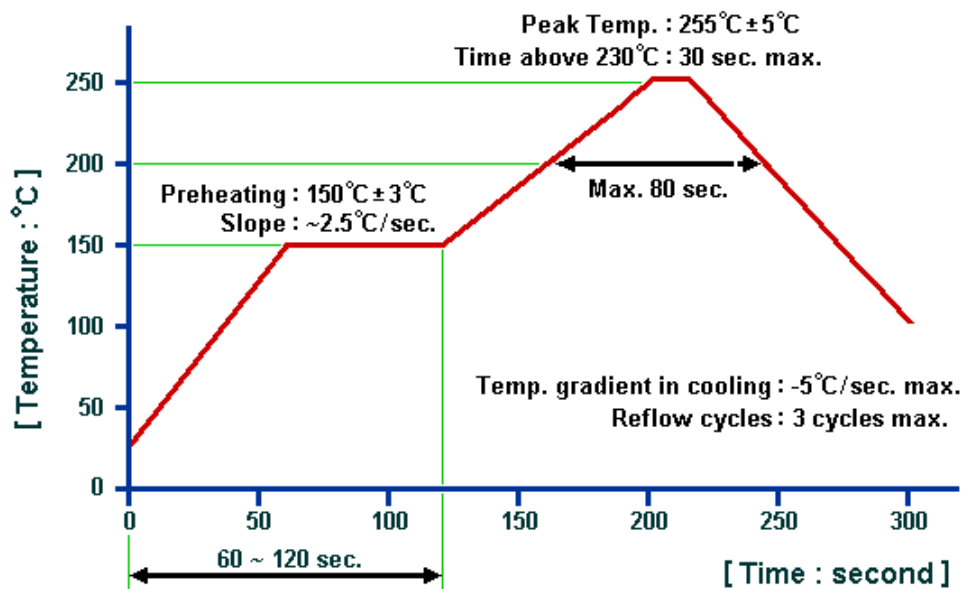
### Outer Packing

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.