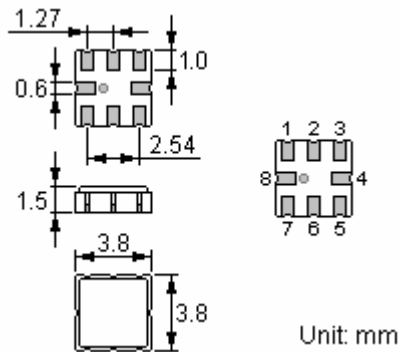


ACTF 5038-742.50-QCC8B Features

- 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: **QCC8B**



Pin Configuration

2	Input
6	Output
1, 3, 4,5,7,8	Ground

Marking



Top View, Laser Printing

ACT Manufacturer's logo F SAW filter
 5038 Part number

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
Operable Temperature Range*	-40~+105	°C
Storage Temperature Range	T_{stg} -40 ~+105	°C

* May not stay within specification between 85°C and 105°C.

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

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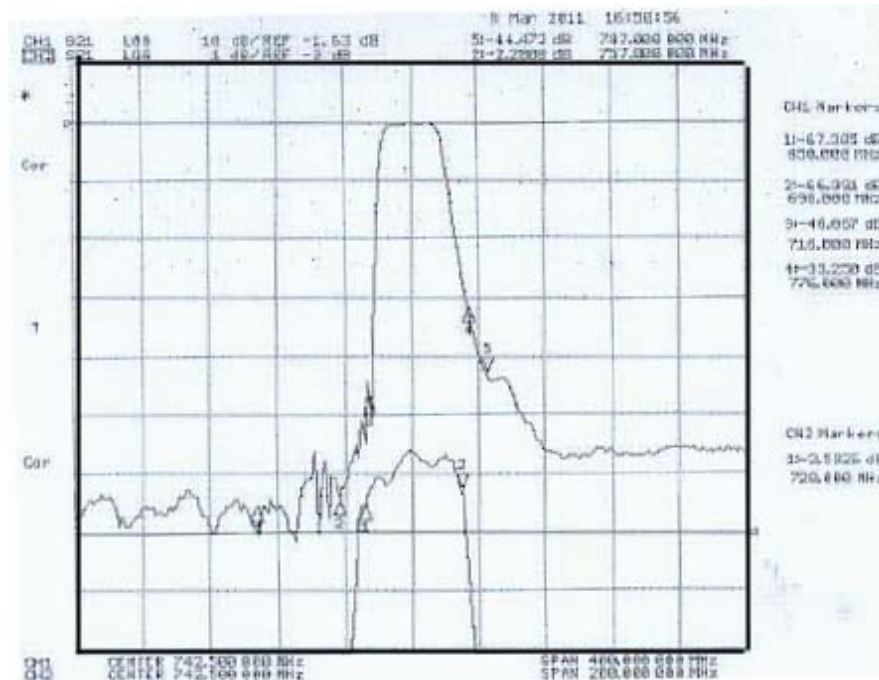
Electrical Characteristics

Item	Minimum	Typical	Maximum	Unit
Center Frequency f_c		742.5		MHz
Insertion Loss 728.00 757.00 MHz IL		2.7	3.5	dB
Bandwidth @ -2.5dB BW	29	33.5		MHz
Absolute Attenuation α				
300.00 650.00 MHz	40	50		dB
698.00 716.00 MHz	33	40		dB
722.00 723.00 MHz	10	12		dB
763.00 768.00 MHz	10	12		dB
776.00 787.00 MHz	25	33		dB
840.00 1050.00 MHz	40	50		dB
Amplitude Ripple (p-p) (less than 2.0dB in any 11MHz portion of the specified band) $\Delta\alpha$		0.7	2.5	dB
Input/ Output VSWR 728.00 746.00 MHz		1.5	2.0	
Input / Output Impedance (Nominal)		50		Ω

 **RoHS Compliant**

 **Electrostatic Sensitive Device**

Typical Frequency Response



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Stability Characteristics

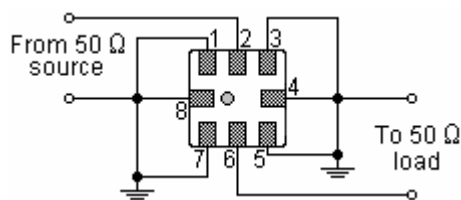
	Test item	Condition of test
1	Mechanical shock	(a) Drops: 3 times on concrete floor (b) Height: 1.0 m
2	Vibration resistance	(a) Frequency of vibration: 10~55Hz (c) Directions: X,Y and Z (b) Amplitude: 1.5 mm (d) Duration: 2 hours
3	Moisture resistance	(a) Condition: 40°C, 90~95% R.H. (c) Wait 4 hours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

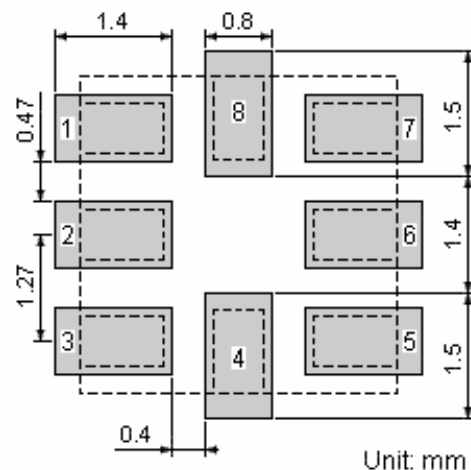
Remarks

- 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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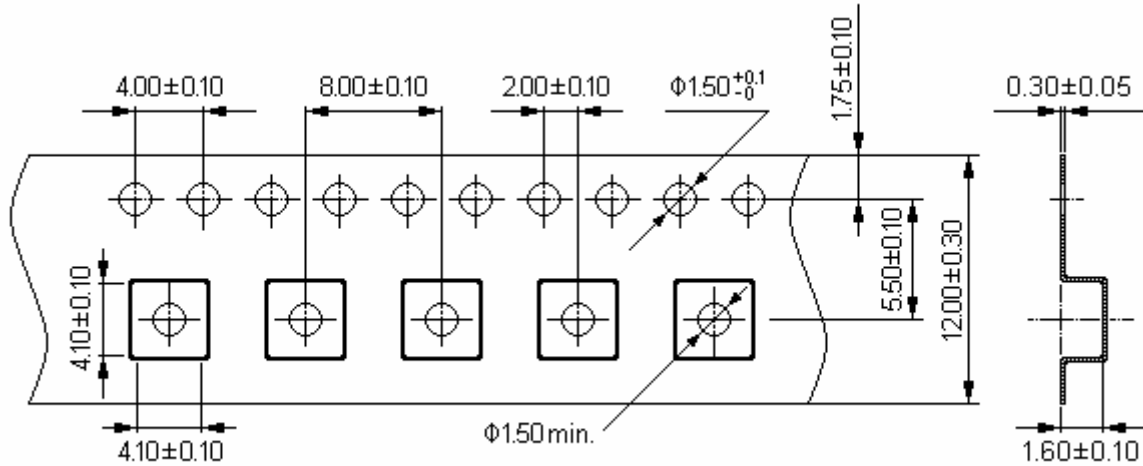
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Packing Information

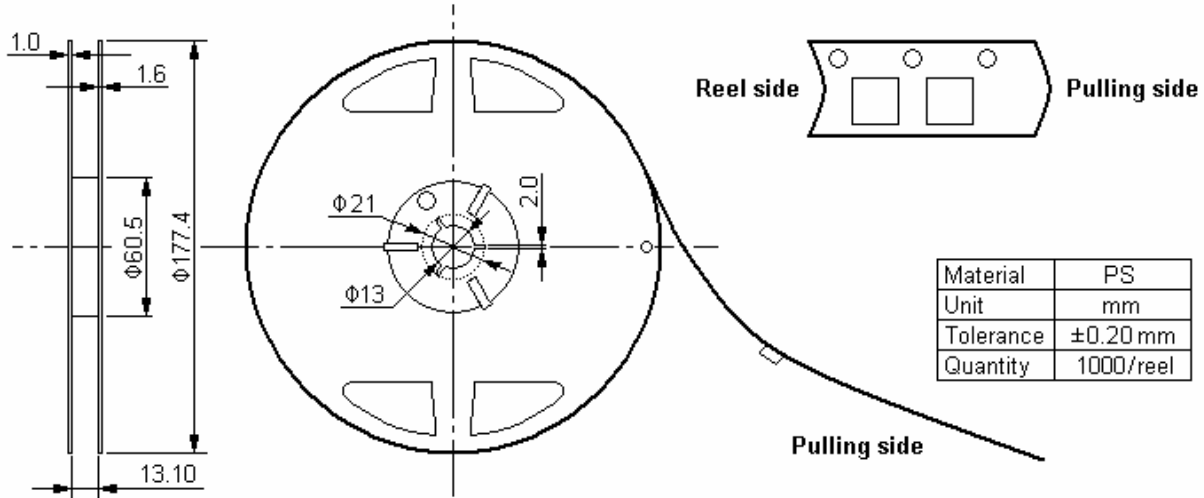
Carrier Tape



Dimensions in mm

All dimensions meet EIA-481-1-A requirements.

Reel Dimensions



Outer Packing

Type	Quantity	Dimension	Description	Weight
Carton Box I	5000	190×190×95	anti-static plastic bag & carton box 1 reel / bag	0.85
Carton Box II	10000	190×190×190	5 bags / box (5000 pcs) 10 bags / box (10000 pcs)	1.80

Unit: mm

Unit: kg

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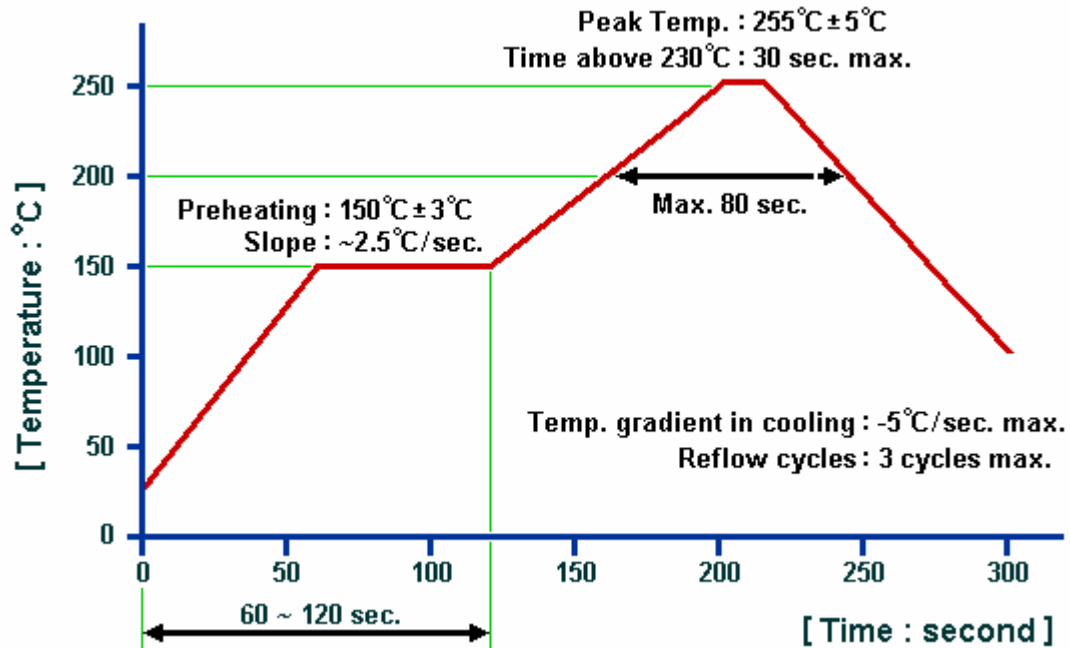
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Recommended Soldering Profile



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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