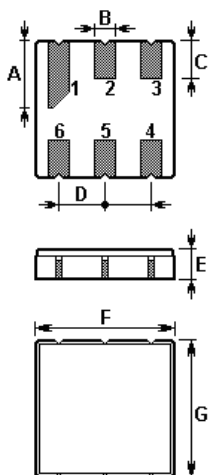


## ACTF4228/460/3.8SQ

### Features

- Low-loss Bandpass filter.
- 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	Ground

Sign	Data (unit: mm)	Sign	Data (unit: mm)
A	1.90±0.1	E	1.35±0.15
B	0.64±0.1 (x6)	F	3.80±0.15
C	1.00±0.1 (x5)	G	3.80±0.15
D	1.27±0.1 (x4)		

### Marking

Laser marking

### Maximum Ratings

Rating		Value	Unit
Source Power	$P$	15	dBm
DC Voltage	$V_{DC}$	0	V
Operating Temperature Range	$T_A$	-40 ~ +85	°C
Storage Temperature Range	$T_{stg}$	-40 ~ +85	°C

In keeping with our ongoing policy of product evolution and improvement, the above specification is subject to change without notice.

**ISO9001: 2000 Registered**

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<http://www.actcrystals.com>

### Electrical Characteristics

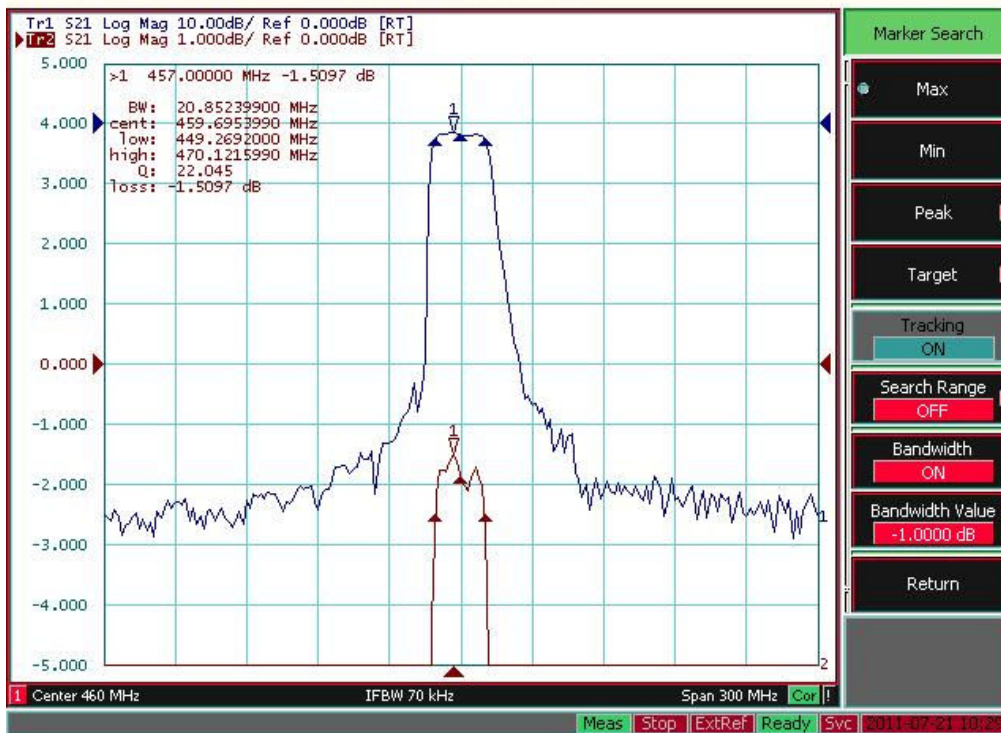
Reference temperature:  $T_A = 25\text{ }^\circ\text{C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 50\ \Omega$

Characteristic		Min.	Typ.	Max.	Unit
Center frequency	$f_c$	—	460.0	—	MHz
Insertion attenuation	$IL$	—	1.7	3.0	dB
Pass bandwidth $\alpha_{rel} \leq 1\text{ dB}$ $\alpha_{rel} \leq 3\text{ dB}$	$BW_1$		20.5	—	MHz
	$BW_3$	20	24	—	MHz
Absolute attenuation	10~360MHz	50	55		dB
	360~420MHz	47	53		
	500~600 MHz	47	52		
	600~1000 MHz	45	50		

 RoHS Compliant

 Electrostatic Sensitive Device

### Typical Frequency Response



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### Environmental Characteristic

	Test item	Condition of test	Requirements
1	Mechanical shock	(a) Drops: 3 times on concrete floor (b) Height: 1.0m	The SAW filter shall remain within the electrical specifications after tests.
2	Vibration resistance	(a) Frequency of vibration: 10~55Hz (b) Amplitude: 1.5mm (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 ⇒ -25°C for 30 minutes repeated 3 times (b) Wait 4 hours before measurement	

### Remarks

#### 8-1 Static voltage

Static voltage between signal load & ground may cause deterioration & destruction of the SAW filter. Please avoid static voltage.

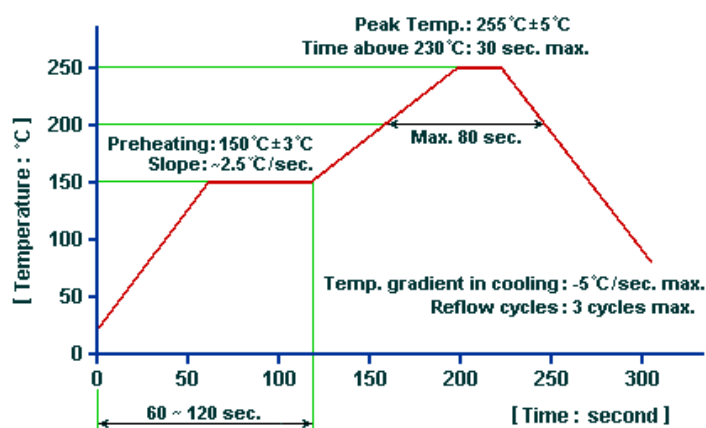
#### 8-2 Ultrasonic cleaning

Ultrasonic vibration may cause deterioration & destruction of the SAW filter. Please avoid ultrasonic cleaning.

#### 8-3 Soldering

Only terminals of the SAW filter may be soldered. Please avoid soldering other parts of the SAW filter.

### Soldering Profile



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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