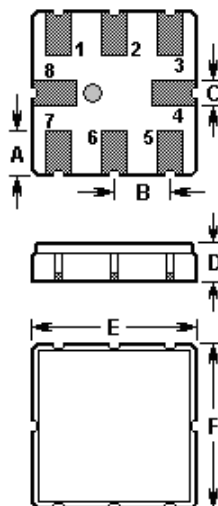


The **ACTF5031-746MHz-QCC8B** is a low-loss, compact, and economical surface-acoustic-wave (SAW) RF filter in a surface-mount ceramic **QCC8B** case designed for GPS applications.

## 1. Package Dimensions (QCC8B)



Pin	Configuration
2	Input
6	Output
1, 3, 5, 7	to be grounded
4, 8	Case Ground

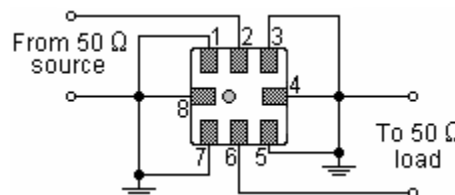
Sign	Data (unit: mm)	Sign	Data (unit: mm)
A	1.00	D	1.50
B	1.27	E	3.80
C	0.60	F	3.80

## 2. Marking

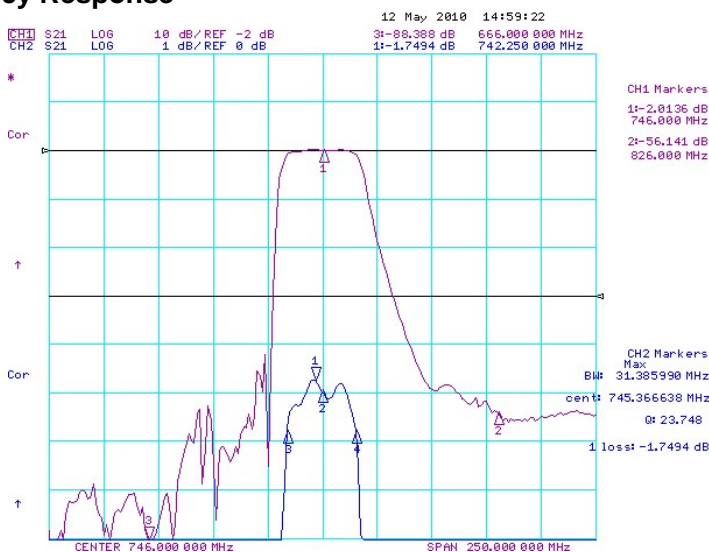


Laser Marking

## 3. Test Circuit



## 4. Typical Frequency Response



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

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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>

## 5. Performance

### 5-1. Maximum Ratings

Rating		Value	Unit
Input Power Level	$P$	10	dBm
DC Voltage	$V_{DC}$	10	V
Operable Temperature Range	$T_A$	-40 to +85	°C
Storage Temperature Range	$T_{stg}$	-40 to +85	°C

### 5-2. Electronic Characteristics

Characteristic		Min.	Typ.	Max.	Unit
Center Frequency	$f_c$		746		MHz
Insertion Loss	$IL$	--	2.2	3.0	dB
	734 .... 758 MHz				
Amplitude Ripple (p-p)		--	0.6	1.0	dB
	734 .... 758 MHz				
Absolute Attenuation	$\alpha$				dB
	$f_c \pm 80$ MHz ..... $f_c \pm 149$ MHz	40	57	--	dB
	$f_c + 149$ MHz ..... $f_c + 300$ MHz	50	58	--	dB
	1 MHz ..... 200 MHz	50	60	--	dB
	200 MHz ..... $f_c - 149$ MHz	55	71	--	dB
Group Delay Ripple (p-p)	$\Delta \tau$		25	50	ns
	734 .... 758 MHz				
VSWR			1.5	2.0	dB
	734 .... 758 MHz				
IIP3		35			dBm
Input / Output Impedance			50		$\Omega$
Temperature coefficient of frequency			-40		ppm/K

**ⓘ CAUTION: Electrostatic Sensitive Device. Observe precautions for handling!**

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1. The frequency  $f_c$  is defined as the midpoint between the 3dB frequencies.
2. Unless noted otherwise, all measurements are made with the filter installed in the specified test fixture that is connected to a 50 $\Omega$  test system with VSWR $\leq$ 1.2:1. The test fixture L and C are adjusted for minimum insertion loss at the filter center frequency,  $f_c$ . Note that insertion loss, bandwidth, and passband shape are dependent on the impedance matching component values and quality.
3. Unless noted otherwise, specifications apply over the entire specified operating temperature range.
4. The specifications of this device are based on the test circuit shown above and subject to change or obsolescence without notice.
5. All equipment designs utilizing this product must be approved by the appropriate government agency prior to manufacture or sale.
6. 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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