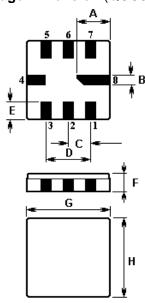


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This specification shall cover the characteristics of SAW Filter ACTF474S/374.0/QCC8C. The device is packaged in the popular QCC8C package and has a centre frequency of 374.0MHz

# 1.Package Dimension (QCC8C)



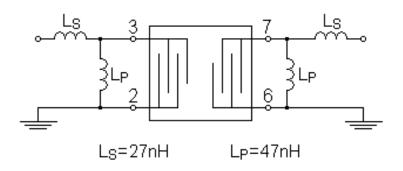
2.

Pins	Configuration			
2	Input Ground			
3	Input			
6	Output Ground			
7	Output			
1,5	To be Grounded			
4,8	Case Ground			

Sign	Data (unit: mm)	Sign	Data (unit: mm)
Α	2.08	E	1.20
В	0.60	F	1.35
С	1.27	G	5.00
D	2.54	Н	5.00

## 3. Matching network (Element values may depend on PCB layout)

#### 50 Ω unbalanced:



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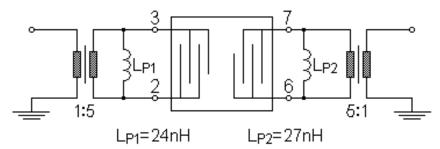
Date: SEPT 04

Issue: 1 C1

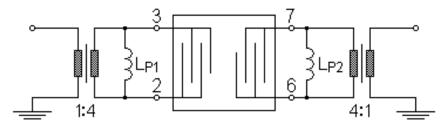


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250 Ω balanced:

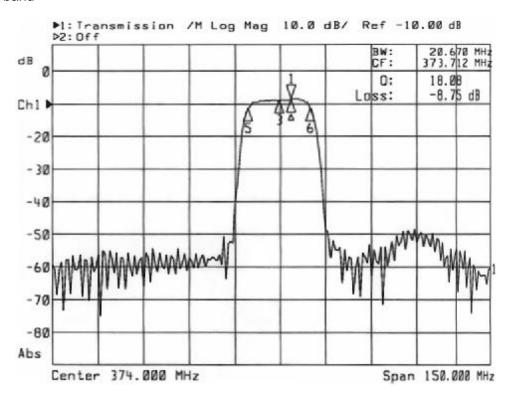


200  $\Omega$  balanced:



### 4. Typical Response

Wide band



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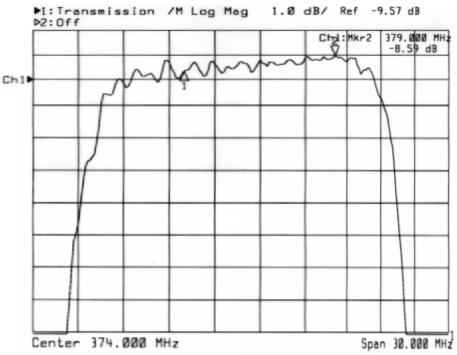
3 The Business Centre, Molly Millars Lane, Wokingham, Berks, RG41 2EY, UK



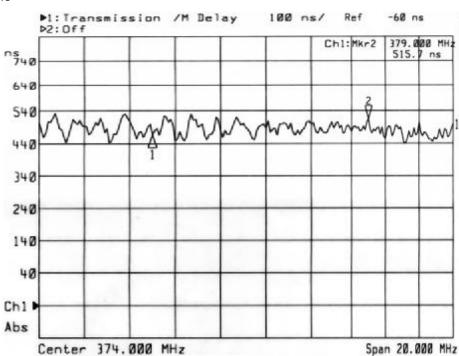
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### Delay Ripple



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Date: SEPT 04

## 5-1. Maximum Ratings

Rating		Value	Units	
Source Power	Ps	10	dBm	
DC Voltage	$V_{DC}$	0	V	
Storage Temperature		-40 to +85	°C	
Soldering Temperature		+235	°C	

#### 5-2. Electronic Characteristics

Operating temperature:  $T_A = -10 \dots +80 \, ^{\circ}\text{C}$  Terminating source impedance:

 $Z_S = 50 \Omega$  unbalanced and matching network

Terminating load impedance:  $Z_L = 50 \Omega$  unbalanced and matching network

Characteristics	Minimum	Typical	Maximum	l linita	
Characteristics		Willimum	Typical	Maximum	Units
Centre Frequency	f <sub>C</sub>		374.000		MHz
Minimum insertion attenuation (including matching network)	$lpha_{min}$		8.5	10.0	dB
Bandwidth αrel≤3 dB	BW <sub>3dB</sub>	17	22		MHz
Amplitude ripple (p-p) f <sub>C</sub> ±7MHz	Δα		0.5	1.0	dB
Group delay ripple (p-p) f <sub>C</sub> ±7MHz	Δτ		40	100	ns
Triple transit suppression		30	40		dB
Relative attenuation (relative to $\alpha_{min}$ ) 357.5 ~ 352.0 MHz 352.0 ~ 341.0 MHz 341.0 ~ 224.0 MHz 390.5 ~ 392.0 MHz 392.0 ~ 396.0 MHz 396.0 ~ 422.0 MHz 422.0 ~ 454.0 MHz	α <sub>rel</sub>	30 40 48 20 30 38 40	42 45 52 38 42 44 45	    	dB dB dB dB dB dB
Temperature coefficient of frequency	T <sub>Cf</sub>		-87		ppm/K

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Date: SEPT 04

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

- 1. The frequency f<sub>C</sub> 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 Ω test system with VSWR ≤1.2:1. The test fixture L and C are adjusted for minimum insertion loss at the filter centre frequency, f<sub>C</sub>. 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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