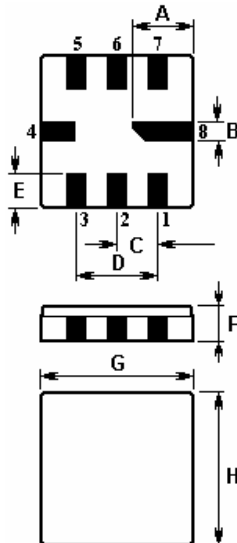


The **ACTF0327/903.0-927.0/QCC8C** is a low-loss, compact, and economical surface-acoustic-wave (**SAW**) filter in a surface-mount ceramic **QCC8C** case. It is designed as RF duplexer for cordless telephone ISM. Centre frequency is 903.75 / 926.25 MHz.

### 1. Package Dimension (QCC8C)

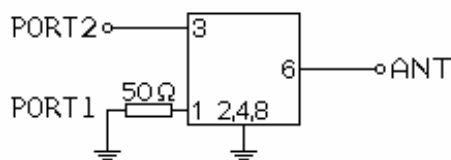


### 2.

Pin	Configuration
6	Ant
1	Port1 (Rx/Tx)
3	Port2 (Tx/Rx)
5,7	Ant - Ground
2	Port1 - Ground
4,8	Case / Port2-Ground

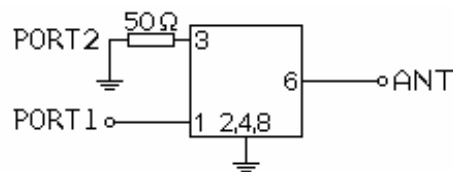
Sign	Data (unit: mm)	Sign	Data (unit: mm)
A	2.08	E	1.20
B	0.60	F	1.35
C	1.27	G	5.00
D	2.54	H	5.00

### 3. Test Circuit



Between Port2 and Antenna

Center Frequency: 903.75MHz



Between Port1 and Antenna

Center Frequency: 926.25MHz

### 4. Features

- High stability and reliability with good performance
- No matching network required for operation at 50 Ω
- Wide and sharp pass band characteristics
- Low insertion loss and deep stop band attenuation for interference
- Ceramic package for Surface Mounted Technology (SMT)

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

**ISO9001: 2000 Registered**

Issue : 1 C1

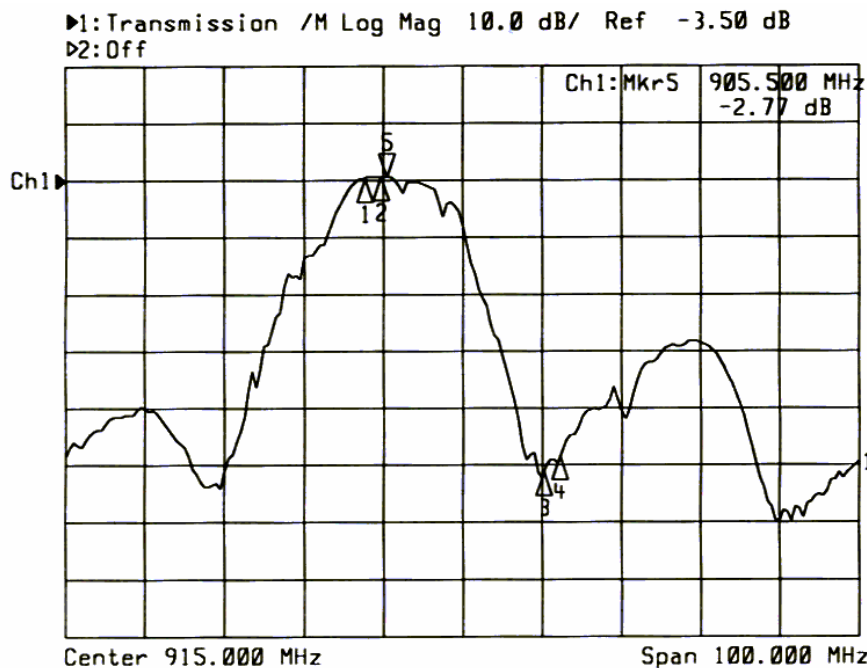
**For quotations or further information please contact us at:**

Date : SEPT 04

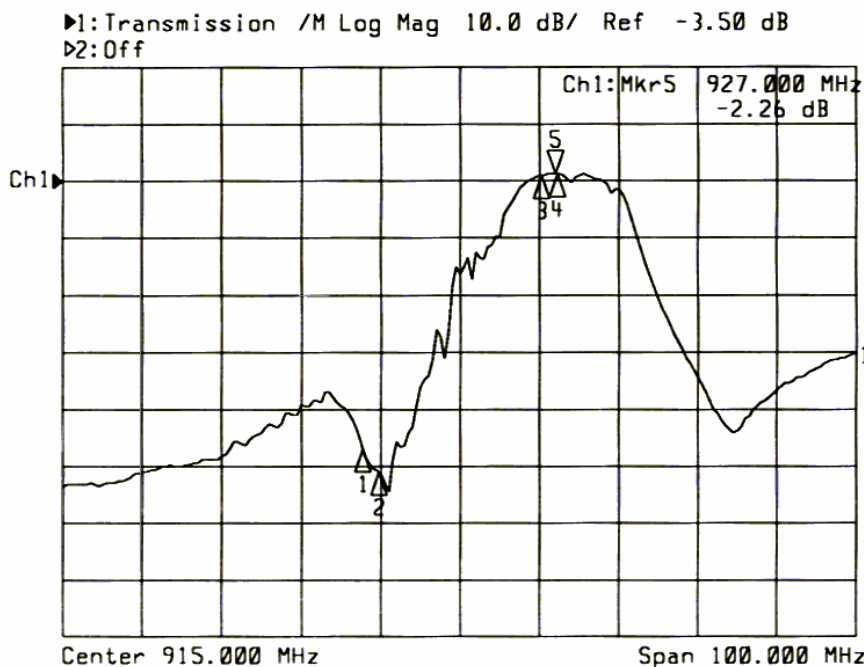
**3 The Business Centre, Molly Millars Lane, Wokingham, Berks, RG41 2EY, UK**

<http://www.actcrystals.com>

## 5. Typical Frequency Response



1: Mkr (MHz)	
1: 902.75	3: 925.25
2: 904.75	4: 927.25



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## 6. Electronic Specification

### 6-1. Maximum Ratings

Item	Symbol	Rating	Unit
Input Power	$P_{in}$	15	dBm
DC Voltage	$V_{DC}$	3	V
Operating Temperature Range	$T_A$	-10 ~ +60	°C
Storage Temperature Range	$T_{stg}$	-40 ~ +85	°C

### 6-2. Electronic Characteristics

Ant term. impedance	$Z_{Ant} = 50 \Omega$
Port 1 term. impedance	$Z_{Port1} = 50 \Omega$
Port 2 term. impedance	$Z_{Port2} = 50 \Omega$

Characteristic		Minimum	Typical	Maximum	Unit
<b>Centre frequency</b>	$f_c$	--	926.25	--	MHz
		--	903.75	--	MHz
<b>Insertion loss</b>	$IL$	--	3.5	4.5	dB
		--	3.5	4.5	dB
		--			
<b>Absolute attenuation Port1</b>	$\alpha$	30	35	--	dB
902.75MHz...904.75MHz					
<b>Absolute attenuation Port2</b>	$\alpha$	30	35	--	dB
925.25MHz...927.25MHz					
<b>Amplitude ripple (p-p)</b>	$\Delta \alpha$	--	0.7	2.0	dB
		--	0.7	2.0	dB
<b>Temperature coefficient of frequency</b>	$TC_f$	--	-30	--	ppm/K

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

1. 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 centre frequency,  $f_c$ . Note that insertion loss, bandwidth, and passband shape are dependent on the impedance matching component values and quality.
2. Unless noted otherwise, specifications apply over the entire specified operating temperature range.
3. The specifications of this device are based on the test circuit shown above and subject to change or obsolescence without notice.
4. All equipment designs utilizing this product must be approved by the appropriate government agency prior to manufacture or sale.
5. 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.

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

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