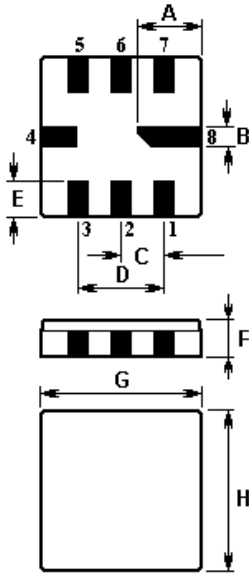


The **ACTF4003/433.92/QCC8C** is a low-loss, compact, and economical surface-acoustic-wave (**SAW**) filter in a surface-mount ceramic **QCC8C** case, designed to provide front-end selectivity in **433.920** MHz receivers. Receiver designs using this filter include superhet with 10.7 MHz or 500 kHz IF, direct conversion and superregen.

1.Package Dimension (QCC8C)

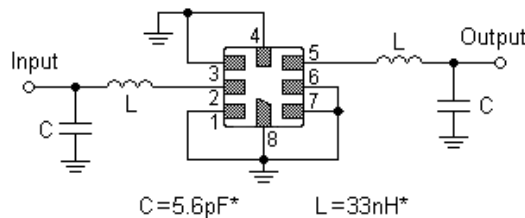


2.

| Pin | Connection |
|------|----------------|
| 1 | Input Ground |
| 2 | Input |
| 5 | Output |
| 6 | Output Ground |
| 3, 7 | to be Grounded |
| 4, 8 | Case 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



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

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For quotations or further information please contact us at:

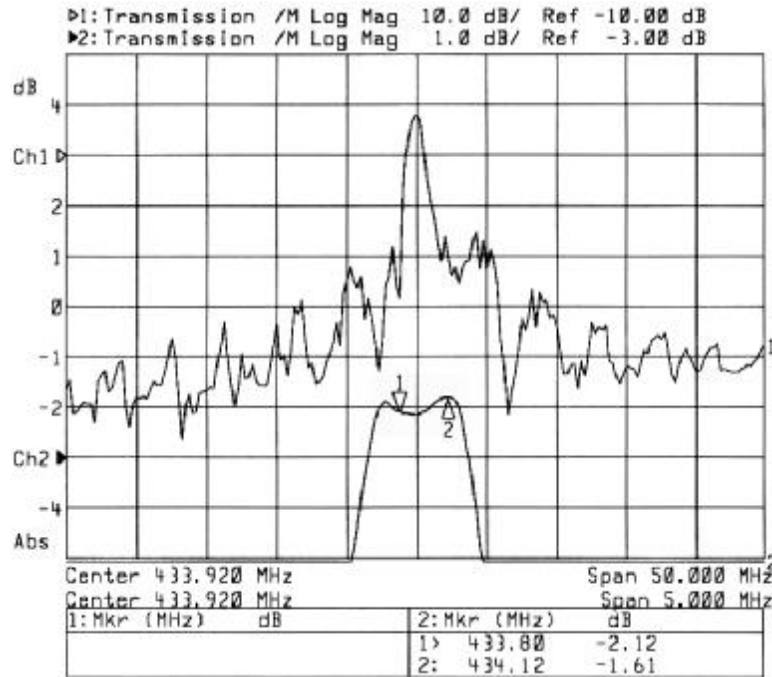
3 The Business Centre, Molly Millars Lane, Wokingham, Berks, RG41 2EY, UK

<http://www.actcrystals.com>

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4. Typical Frequency Response



5. Performance

5-1. Maximum Ratings

| Rating | Value | Units |
|-----------------------|-------------|-------|
| Input Power Level | 10 | dBm |
| DC Voltage | 0 | VDC |
| Operating Temperature | -45 to +120 | °C |
| Storage Temperature | -45 to +120 | °C |
| Soldering Temperature | +235 | °C |

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5-2.Electronic Characteristics

Reference temperature: $T_A = -45 \dots +95 \text{ }^\circ\text{C}$

| Characteristic | Minimum | Typical | Maximum | Units |
|-----------------------------------------------------------|---------|---------|---------|-------|
| Centre Frequency (Centre frequency between 3dB points) | | 433.920 | | MHz |
| Minimum insertion Loss 433.80 434.12 MHz | -- | 2.0 | 4.0 | dB |
| 3dB Pass bandwidth (relative to IL_{min}) | 670 | 730 | 790 | kHz |
| Pass band (relative to IL_{min}) | | | | |
| 433.76 434.08 MHz | -- | 1.0 | 2.0 | dB |
| 433.74 434.10 MHz | -- | 1.0 | 3.0 | dB |
| 433.68 434.16 MHz | -- | 1.5 | 6.0 | dB |
| Relative attenuation (relative to IL_{min}) | | | | |
| 10.00 414.00 MHz | 45 | 50 | -- | dB |
| 414.00 428.00 MHz | 35 | 40 | -- | dB |
| 428.00 432.84 MHz | 15 | 20 | -- | dB |
| 434.92 442.00 MHz | 10 | 15 | -- | dB |
| 442.00 550.00 MHz | 35 | 40 | -- | dB |
| 550.00....1000.00 MHz | 45 | 50 | -- | dB |

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

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 Ω 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.
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.

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

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