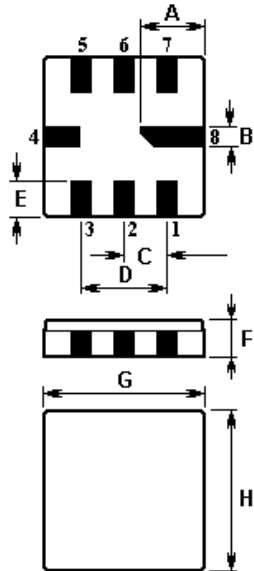


The **ACTF5565/465.0/QCC8C** is a low-loss, compact, and economical surface-acoustic-wave (**SAW**) filter in a surface-mount ceramic **QCC8C** case intended for use in Mobile Radio (FRS & PMR) applications.

1. Package Dimension (QCC8C)

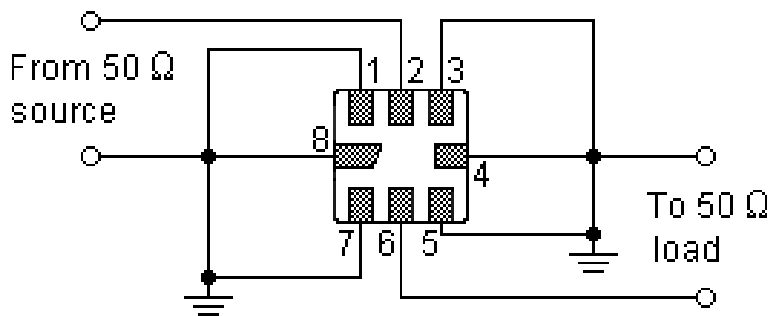


2.

| Pin | Configuration |
|---------|----------------|
| 2 | Input / Output |
| 6 | Output / Input |
| 1,3,5,7 | 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



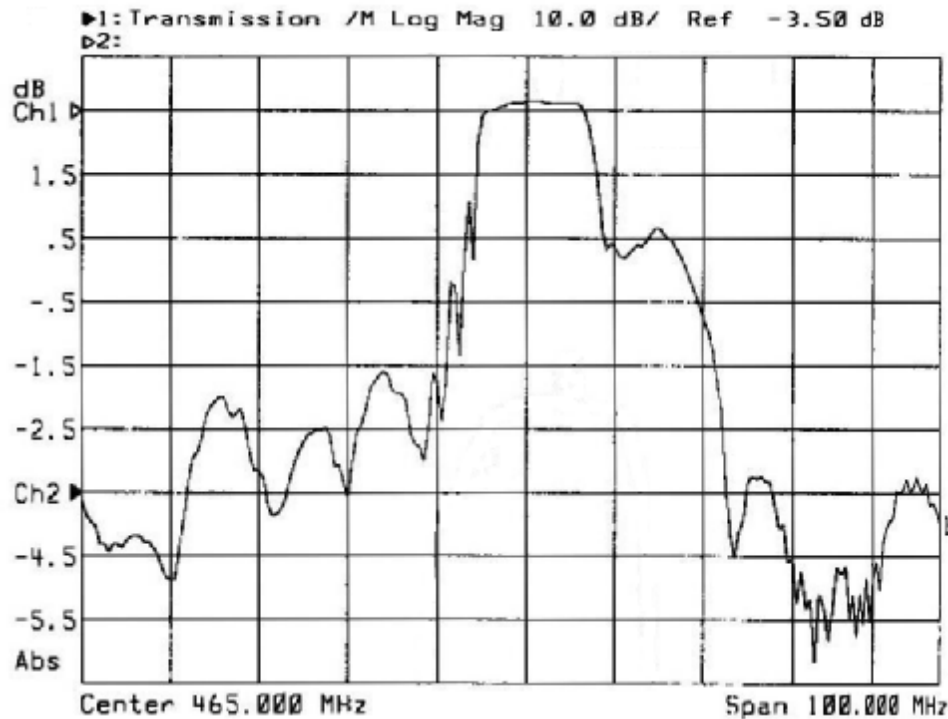
In keeping with our ongoing policy of product evolution and improvement, the above specification is subject to change without notice.

ISO9001: 2000 Registered

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>

Issue : 1.1 C1
 Date : March 2010

4. Typical Frequency Response



5. Performance

5-1. Maximum Ratings

| Rating | Value | Unit |
|-----------------------|------------|------|
| Input Power Level | 10 | dBm |
| DC Voltage | 12 | V |
| Storage Temperature | -40 to +85 | °C |
| Soldering Temperature | +235 | °C |

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Issue : 1.1 C1

Date : March 2010

5-2. Electronic Characteristics

| Characteristic | Minimum | Typical | Maximum | Unit |
|--|-------------------|-----------|----------|------|
| Centre Frequency f_c | -- | 465.000 | -- | MHz |
| User Signal Band BW | -- | ± 3.0 | -- | MHz |
| Insertion Loss IL $f_c \pm 3.0\text{MHz}$ | -- | 3.5 | 5.0 | dB |
| Absolute Attenuation α DC to $f_c - 30.0\text{MHz}$ $f_c - 30.0\text{MHz}$ to $f_c + 200.0\text{MHz}$ | 40 45 | 48 55 | -- -- | dB |
| Ripple $\Delta \alpha$ $f_c \pm 3.0\text{MHz}$ | -- | 2.0 | -- | dB |
| Input / Output Impedance (Nominal) | 50 Ω //0pF | | | |

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. Frequency aging is the change in f_c with time and is specified at +65°C or less. Aging may exceed the specification for prolonged temperatures above +65°C. Typically, aging is greatest the first year after manufacture, decreasing in subsequent years.
5. Turnover temperature, T_0 , is the temperature of maximum (or turnover) frequency, f_0 . The nominal frequency at any case temperature, T_C , may be calculated from: $f = f_0 [1 - FTC (T_0 - T_C)^2]$.
6. The specifications of this device are based on the test circuit shown above and subject to change or obsolescence without notice.
7. All equipment designs utilizing this product must be approved by the appropriate government agency prior to manufacture or sale.
8. 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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