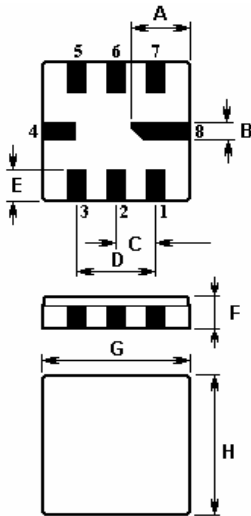


The **ACTF377/280.0/QCC8C** is a low-loss, compact, and economical surface-acoustic-wave (**SAW**) filter in a surface-mount ceramic **QCC8C** case for wireless LAN applications.

1. Package Dimension (QCC8C)

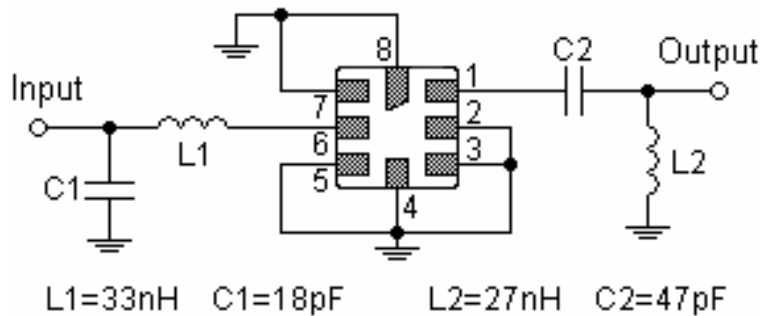


2.

| Pins | Configuration |
|---------|----------------|
| 6 | Input |
| 2 | Output |
| 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. Matching Network (50 Ω unbalanced)



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

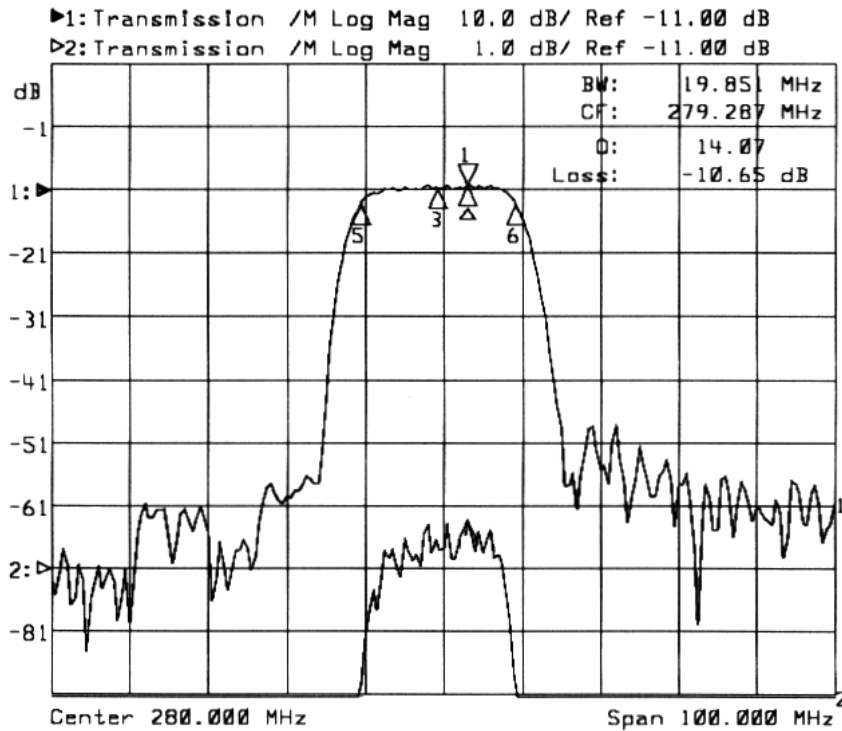
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<http://www.actcrystals.com>

4. Typical Frequency Response



5. Performance

5-1. Maximum Ratings

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

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5-2. Electronic Characteristics

Operating temperature: $T_A = -10 \dots +60 \text{ }^\circ\text{C}$
 Terminating source impedance: $Z_S = 50 \text{ } \Omega$ unbalanced and matching network
 Terminating load impedance: $Z_L = 50 \text{ } \Omega$ unbalanced and matching network

| Characteristics | | Minimum | Typical | Maximum | Units |
|---|-----------------------|----------|-----------|----------|----------|
| Centre frequency | f_C | -- | 280.000 | -- | MHz |
| Minimum insertion attenuation (including matching network) | α_{\min} | -- | 11.0 | 13.5 | dB |
| 3dB Bandwidth | BW_{3dB} | 16 | 20 | -- | MHz |
| Amplitude ripple (p-p) $f_C \pm 7\text{MHz}$ | $\Delta \alpha$ | -- | ± 0.5 | -- | dB |
| Group delay ripple (p-p) $f_C \pm 7\text{MHz}$ | $\Delta \tau$ | -- | 40 | 100 | ns |
| Relative attenuation (relative to α_{\min}) 230 MHz ~ 260 MHz 300 MHz ~ 330 MHz | α_{rel} | 35 28 | 46 37 | -- -- | dB dB |
| Temperature coefficient of frequency | T_{Cf} | -- | -87 | -- | ppm/K |

ⓘ 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 $50 \text{ } \Omega$ 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.
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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