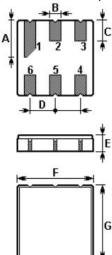


# **SAW FILTER**

Part Number: VTF13032

The VTF13032 is a low-loss, compact, and economical surface-acoustic-wave (**SAW**) RF filter in a surface-mount ceramic DCC6 case with 130.380 MHz center frequency used for mobile systems.

## 1. Package Dimensions (DCC6C)



| Pin    | Connection |
|--------|------------|
| 2      | Input      |
| 5      | Output     |
| Others | Ground     |

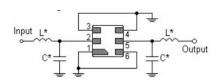
| Sign | Data (unit: mm) | Sign | Data (unit: mm) |
|------|-----------------|------|-----------------|
| Α    | 1.90±0.1        | E    | 1.35±0.15       |
| В    | 0.64±0.1 (x6)   | F    | 3.80±0.15       |
| С    | 1.00±0.1 (x5)   | G    | 3.80±0.15       |
| D    | 1.27±0.1 (x4)   |      |                 |

## 2. Marking

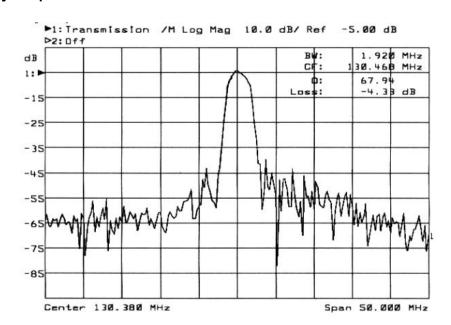
VTF 13032

Laser Marking

#### 3. Test Circuit



### 4. Frequency Response





#### 5. Performance

### 5-1. Maximum Ratings

| Rating                     |                     | Value      | Unit       |  |
|----------------------------|---------------------|------------|------------|--|
| RF Power Dissipation       | P                   | 0          | dBm        |  |
| DC Voltage                 | $V_{	t DC}$         | 10         | ٧          |  |
| Operable Temperature Range | T <sub>A</sub>      | -20 to +60 | $^{\circ}$ |  |
| Storage Temperature Range  | $\mathcal{T}_{stg}$ | -40 to +85 | $^{\circ}$ |  |

#### 5-2. Electronic Characteristics

| Characteristic   |                 | Min.          | Тур.    | Max. | Unit |
|--|-----------------|---------------|---------|------|------|
| Center Frequency   | f <sub>C</sub>  | -             | 130.380 |      | MHz  |
| Insertion Loss   | IL              |               | 1770    | 5.5  | dB   |
| 2dB Bandwidth  | BW <sub>2</sub> | ±500          |         | -    | kHz  |
| 3dB Bandwidth  | BW <sub>3</sub> | ±630          |         |      | kHz  |
| Stop Band Attenuation (from <i>IL</i> )<br>135.33 MHz<br>139.65 MHz ~ 140.91 MHz | а               | 40<br>45      |         | -    | dB   |
| Group Delay Deviation $f_{ m C} \pm 630  m kHz$                                  |                 |               |         | 0.8  | μS   |
| Input / Output Impedance   |                 | 310Ω // 1.6μΗ |         |      |      |

# (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 50Ω test system with VSWR≤1.2:1. The test fixture L and C are adjusted for minimum insertion loss at the filter center 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.
- 7. For questions on technology, prices and delivery, please contact our sales offices or e-mail info@vtorch.ca.