

# SAW Filter

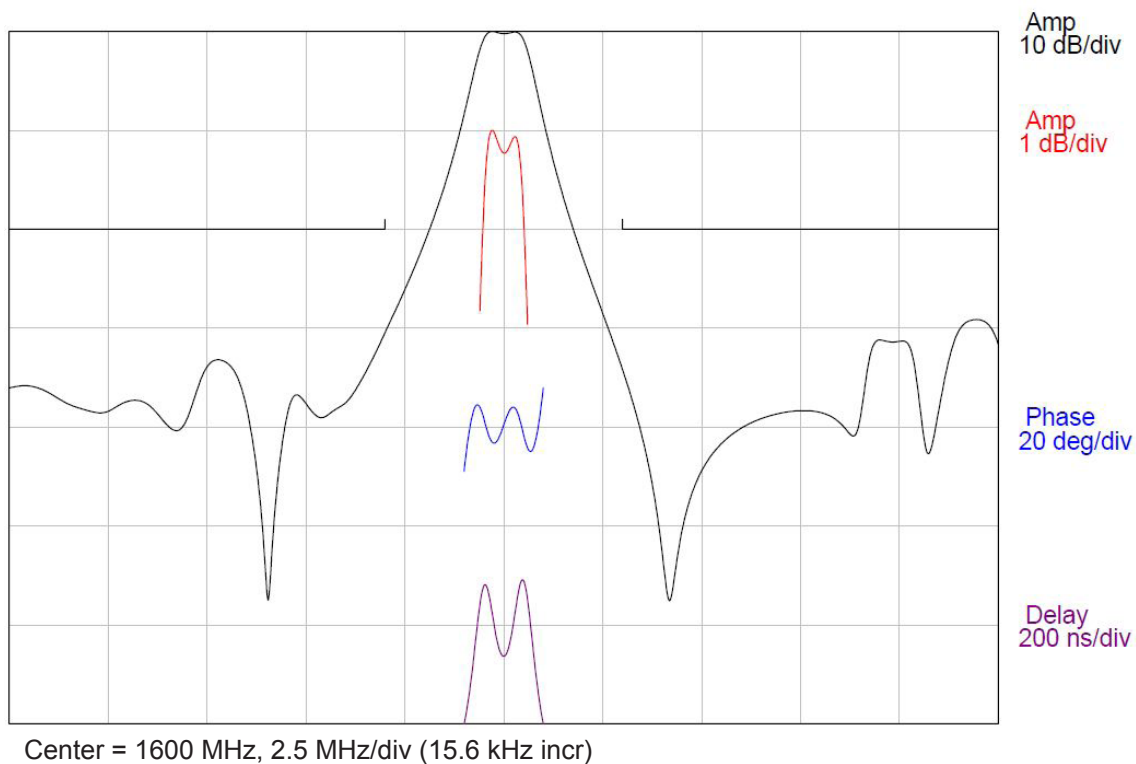
1600 MHz SAW Bandpass Filter, 0.5 MHz Bandwidth



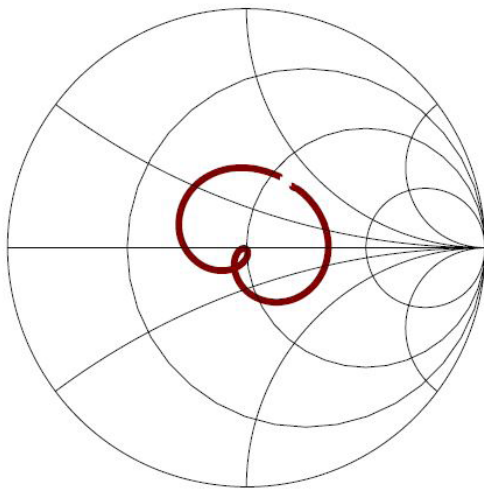
- 3 x 3 mm Ceramic LCC, 6 Pads
- RoHS Compliant

These filters are manufactured on quartz, which provides optimal temperature performance and are available from 80 -1600 MHz. This TCRF is designed for narrowband IF filtering such as in satellite transponders, directional finders and anti-jam modems. Other packaging styles are available for more rugged environments and applications. Standard part numbers as well as custom solutions are available. Please contact sales for more information.

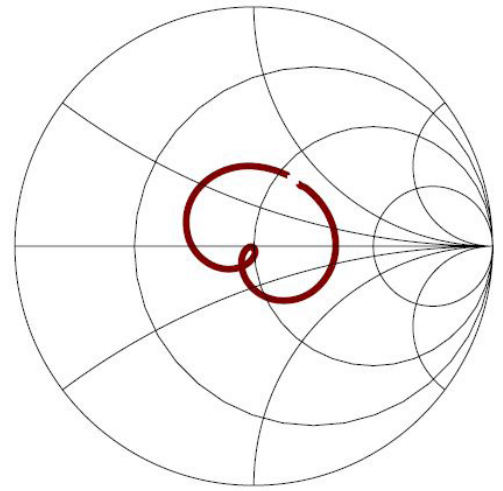
## TYPICAL PERFORMANCE



## S11 (1595-1605 MHz)



## S22 (1595-1605 MHz)



## SPECIFICATION

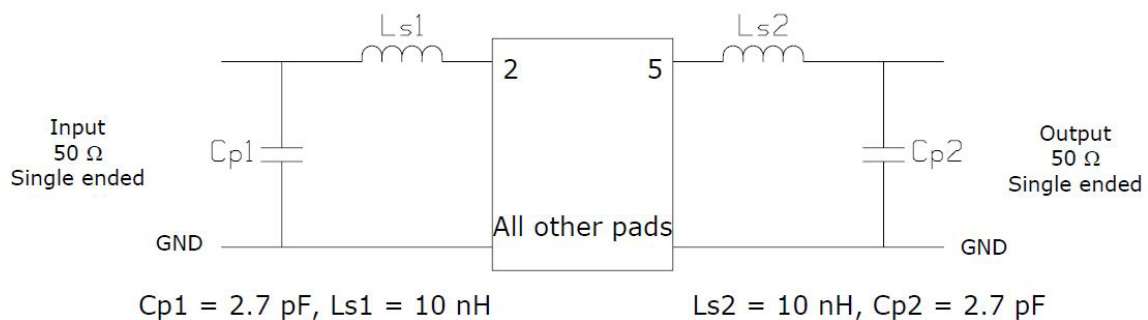
| Parameter                           | Min     | Typ     | Max     | Units |
|-------------------------------------|---------|---------|---------|-------|
| Nominal Center Frequency            | -       | 1600    | -       | MHz   |
| Minimum Insertion Loss              | -       | 7.5     | 10      | dB    |
| Nominal Delay                       | -       | 0.4     | -       | μs    |
| 1 dB Bandwidth                      | 0.8     | 1.0     | -       | MHz   |
| Lower 1 dB Frequency                | -       | 1599.48 | 1599.75 | MHz   |
| Upper 1 dB Frequency                | 1600.25 | 1600.52 | -       | MHz   |
| 3 dB Bandwidth                      | 1.0     | 1.35    | -       | MHz   |
| 20 dB Bandwidth                     | -       | 3.6     | -       | MHz   |
| Rejection (1000-1597 MHz)           | 20      | 30      | -       | dB    |
| Rejection (1603-2000 MHz)           | 20      | 28      | -       | dB    |
| Phase Deviation (1600 ± 0.25 MHz)   | -       | 8       | 20      | deg   |
| Group Delay Ripple (166 ± 0.25 MHz) | -       | 75      | 200     | ns    |
| Source and Load Impedance           | 50      |         |         | ohm   |

- Notes:
1. This specification applies across the whole operating temperature range (below). Allowance has been made for the movement of the response from sample to sample and with temperature change.
  2. All quoted dB levels other than the insertion loss are relative to the peak of the response.

## MAXIMUM RATINGS

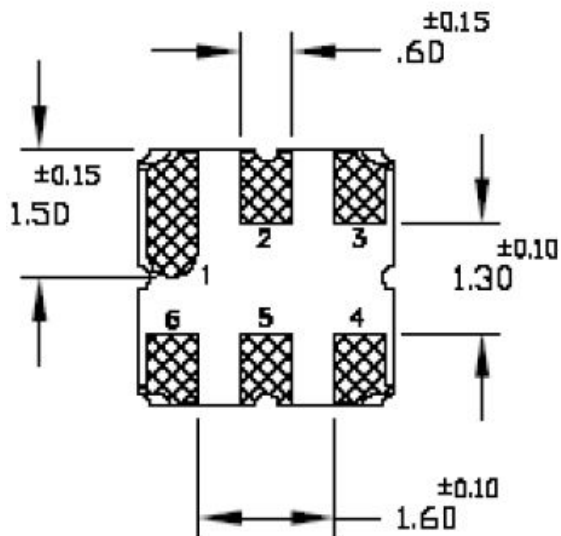
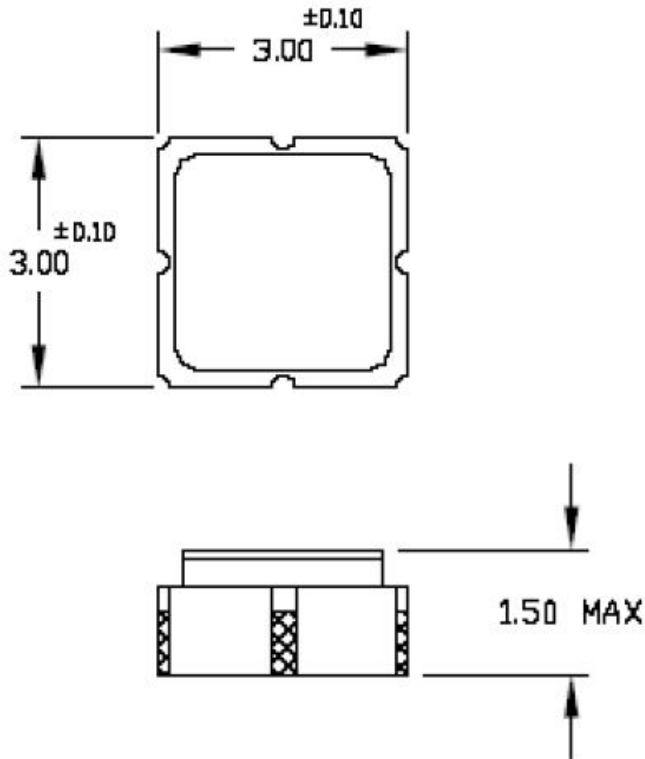
| Parameter                   | Min | Max | Units |
|-----------------------------|-----|-----|-------|
| Storage Temperature Range   | -40 | 85  | °C    |
| Operating Temperature Range | 0   | 70  | °C    |
| Input Power Level           | -   | 10  | dBm   |

## MATCHING CIRCUIT

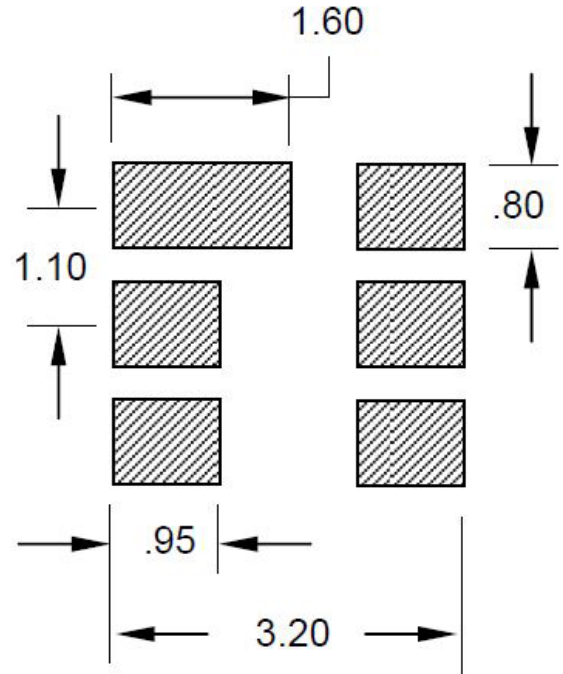


- Notes:
- Recommend ± 2% toleranced components. Typical inductor Q=40.
  - Values shown are for reference only. Actual values are dependent upon board layout.

## PACKAGE OUTLINE



## SUGGESTED FOOTPRINT



Units: mm

Tolerances are as shown.

### Pad Configuration:

Input: 2  
Output: 5  
Ground: 1, 3, 4, 6

Package Material:  
Body:  $Al_2O_3$  ceramic  
Lid: Kovar, Ni plated  
Terminations: Au plating 1  $\mu$ m min, over a 1.3 - 8.9  $\mu$ m Ni plating