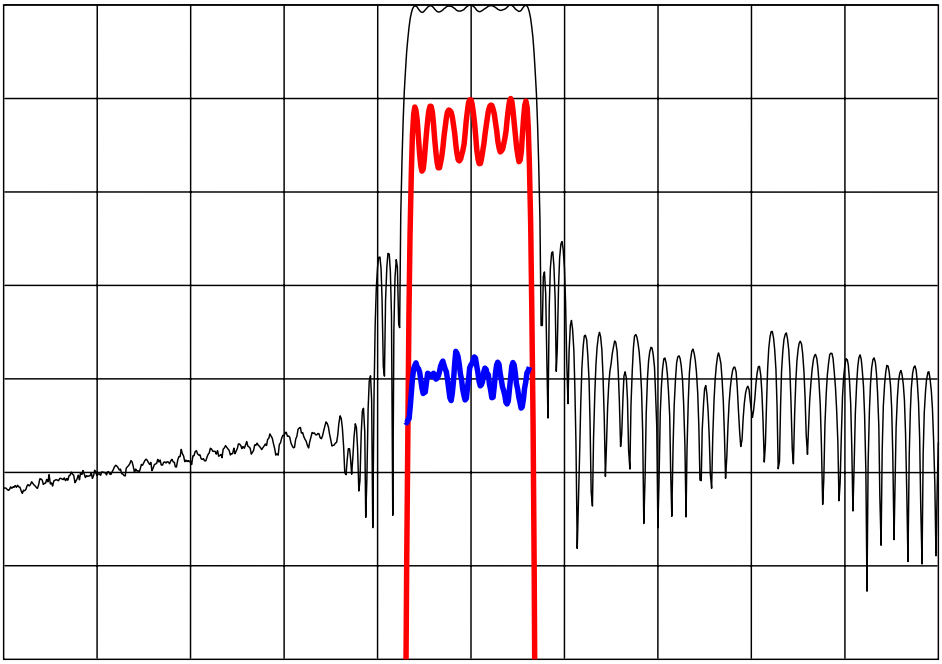
## DESCRIPTION

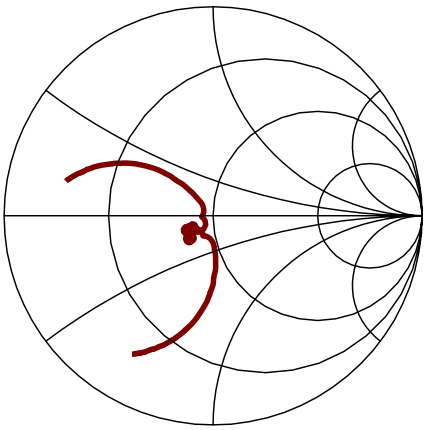
- 70 MHz SAW bandpass filter with 2.5 MHz bandwidth for Wireless Data applications.
- 27.2 x 12.7 mm DIP.
- RoHS compliant.

## TYPICAL PERFORMANCE

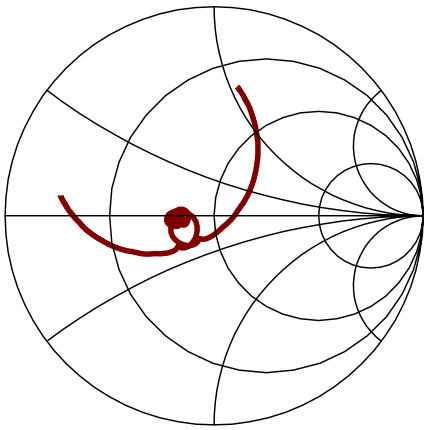


| | | | |
|---|---|---|---|
| Horizontal: | Frequency : | 1 | MHz/div |
| Vertical from top: | Relative Magnitude : | 10 | dB/div |
| | Relative magnitude : | 1 | dB/div |
| | Phase Linearity : | 5 | deg/div |

**S11 (64.99 to 74.99 MHz)**



**S22 (64.99 to 74.99 MHz)**



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## SPECIFICATION

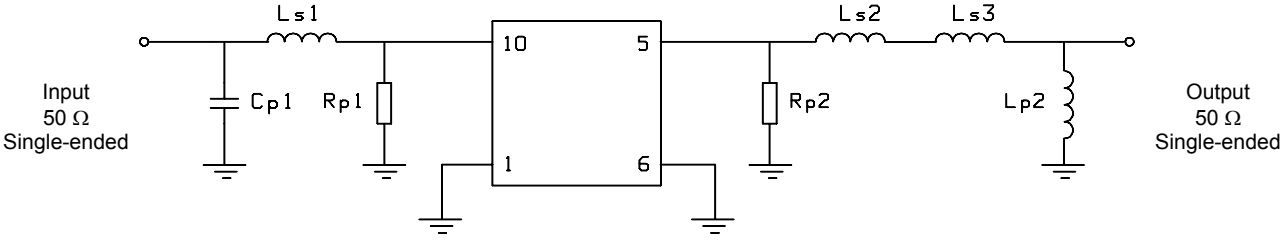
| Parameter | Min | Typ | Max | Units |
|---|---|---|---|---|
| Center Frequency ( Fc) [1] | | 69.99 | | MHz |
| Minimum Insertion Loss [2] | | 17 | 20 | dB |
| Lower 1.5 dB Band Edge | | 69.33 | 69.36 | MHz |
| Upper 1.5 dB Band Edge | 70.62 | 70.65 | | MHz |
| Lower 14 dB Band Edge | 69.21 | 69.25 | | MHz |
| Upper 14 dB Band Edge | | 70.73 | 70.77 | MHz |
| Lower 25 dB Band Edge | 69.09 | 69.18 | | MHz |
| Upper 25 dB Band Edge | | 70.80 | 70.89 | MHz |
| Passband Ripple (Fc +/- 0.615 MHz) | | 0.5 | 1.0 | dB p-p |
| Phase Linearity (Fc +/- 0.615 MHz) | | 4.5 | 8 | deg p-p |
| Input Return Loss @ Fc | 10 | 16 | | dB |
| Output return Loss @ Fc | 10 | 16 | | dB |
| Rejection (15 MHz to 61 MHz) [3] | 40 | 60 | | dB |
| Rejection (61 MHz to 68 MHz) [3] | 30 | 38 | | dB |
| Rejection (72 MHz to 79 MHz) [3] | 30 | 38 | | dB |
| Rejection (79 MHz to 140 MHz) [3] | 40 | 50 | | dB |
| Source and Load Impedance | | 50 | | Ω |

Notes:
1. Average of the lower and upper 3 dB band edge frequencies.
2. All dB values are referenced to the insertion loss.
3. Dependent on PC board layout.

## MAXIMUM RATINGS

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

## MATCHING CIRCUIT

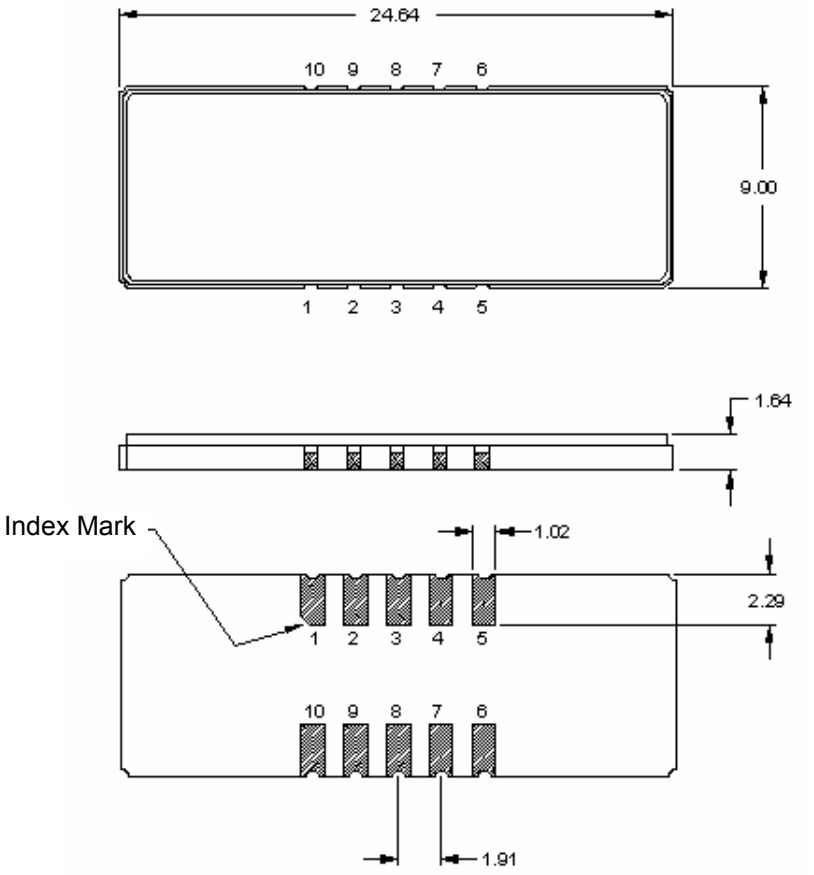



Typical component values:

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Ls1 | = | 220 | nH | Ls2 | = | 120 | nH | Ls3 = 56 nH |
| Cp1 | = | 120 | pF | Lp2 | = | 47 | nH | |
| Rp1 | = | 2.4 | KΩ | Rp2 | = | 3 | KΩ | |

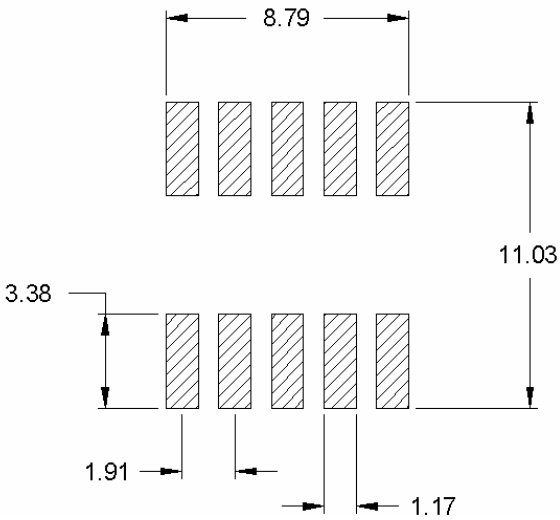
Notes:
1. Recommend use of +/- 2% tolerance components. Minimum Q=40.
2. Component values are for reference only and may change depending on board layout.

## PACKAGE OUTLINE




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

## SUGGESTED FOOTPRINT




**Units:** mm

Tolerances are ±0.15 mm except for the overall length, width and pad dimensions, which are nominal values.

**Pad Configuration:**

| | |
|---|---|
| Input: | 10 |
| Input return: | 1 |
| Output: | 5 |
| Output return: | 6 |
| Ground: | all other pads |

ISO 9001 Registered



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