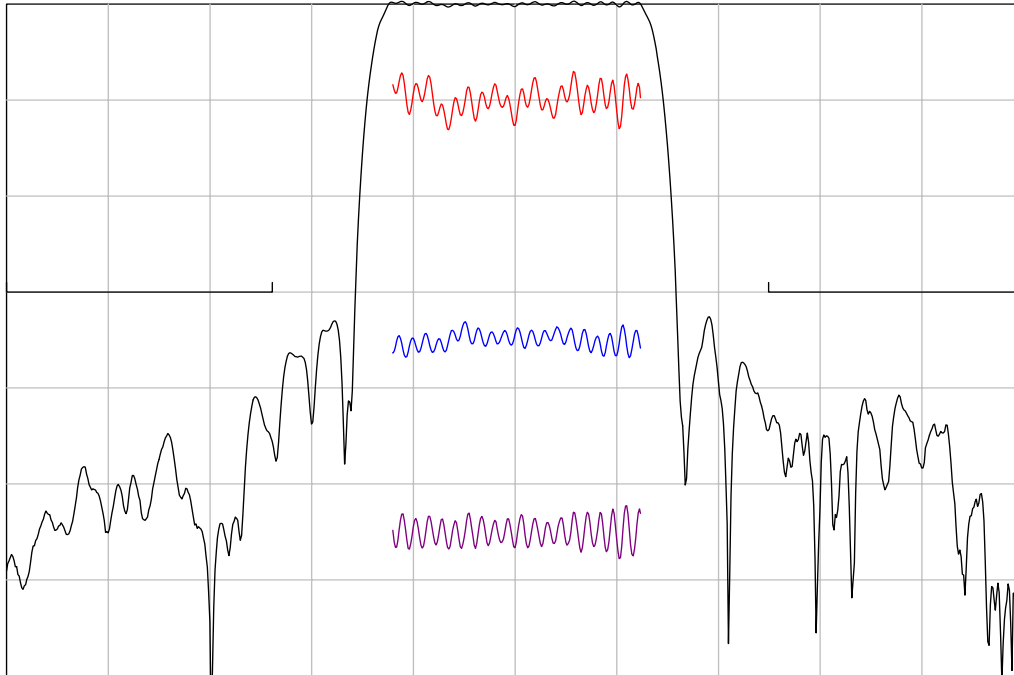


DESCRIPTION

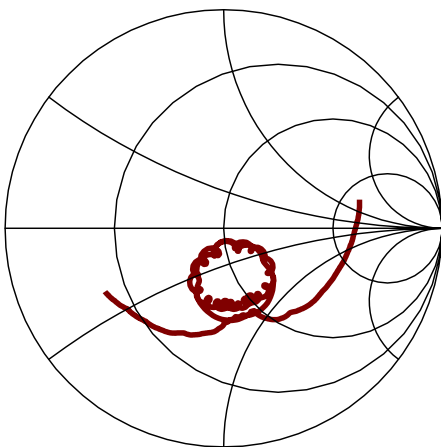
- 77.8 MHz SAW bandpass filter with 9.24 MHz bandwidth.
- 13.3 x 6.5 mm SMP package.
- RoHS compliant.

TYPICAL PERFORMANCE

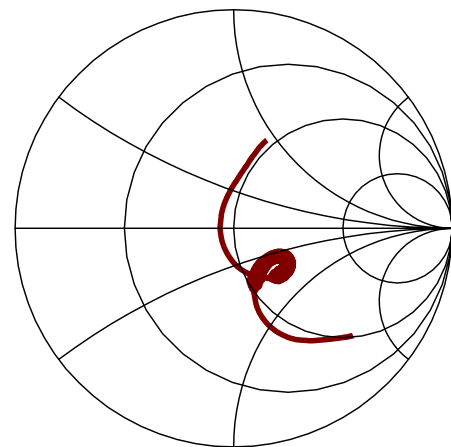


Horizontal: Frequency : 4 MHz/div
 Vertical from Top: Relative Magnitude : 10 dB/div
 Relative magnitude : 1 dB/div
 Phase Linearity : 10 deg/div
 Group Delay : 100 ns/div

S11



S22



SPECIFICATION

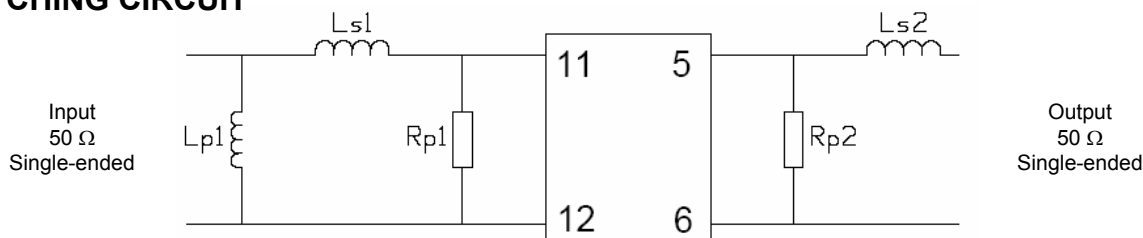
| Parameter ² | Min | Typ | Max | Units |
|--|------|------|-----|---------|
| Center Frequency (Fc) ¹ | - | 77.8 | - | MHz |
| Operating Bandwidth | 9.24 | 10.1 | - | MHz |
| Insertion Loss | - | 15.5 | 17 | dB |
| Amplitude Ripple ³ | - | 0.6 | 1.2 | dB p-p |
| Triple Travel Suppression | 30 | 36 | - | dB |
| Phase Deviation from Linear ³ | - | 4 | 10 | deg p-p |
| Group Delay Variation ³ | - | 100 | 180 | ns p-p |
| Absolute Delay | - | 0.97 | - | us |
| Rejection at Fc+/-6.0 MHz ² | 5 | 7 | - | dB |
| Rejection at Fc+7.1 MHz ² | 16 | 18 | - | dB |
| Rejection ² | | | | |
| 0.3 to 55 MHz | 45 | 59 | - | dB |
| 55 to 68 MHz | 30 | 40 | - | dB |
| 88 to 100 MHz | 30 | 41 | - | dB |
| 100 to 115 MHz | 45 | 52 | - | dB |
| 115 to 135 MHz | 42 | 47 | - | dB |
| 135 to 150 MHz | 45 | 52 | - | dB |
| 150 to 165 MHz | 30 | 37 | - | dB |
| 165 to 220 MHz | 45 | 55 | - | dB |
| 220 to 250 MHz | 26 | 30 | - | dB |
| 250 to 500 MHz | 40 | 63 | - | dB |
| Input/Output Return Loss (Fc+/-4.62 MHz) | 6 | 8.5 | - | dB |
| Temperature Coefficient of Frequency | - | -74 | - | ppm/°C |
| System Source and Load Impedance | - | 50 | - | Ω |

- Notes:
1. Fixed reference frequency..
 2. Rejection relative to passband insertion loss
 3. Evaluated over any 3.84 MHz band within Fc+/-4.62 MHz.
 4. All parameters met over operating temperature range.

MAXIMUM RATINGS

| Parameter | Min | Max | Units |
|-----------------------------|-----|-----|-------|
| Storage Temperature Range | -40 | 85 | °C |
| Operating Temperature Range | -10 | 75 | °C |
| Input Power Level | - | 22 | dBm |

MATCHING CIRCUIT



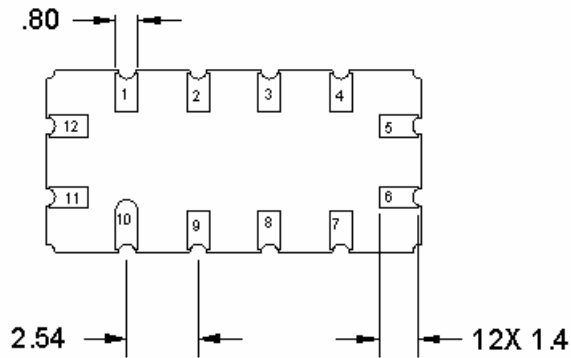
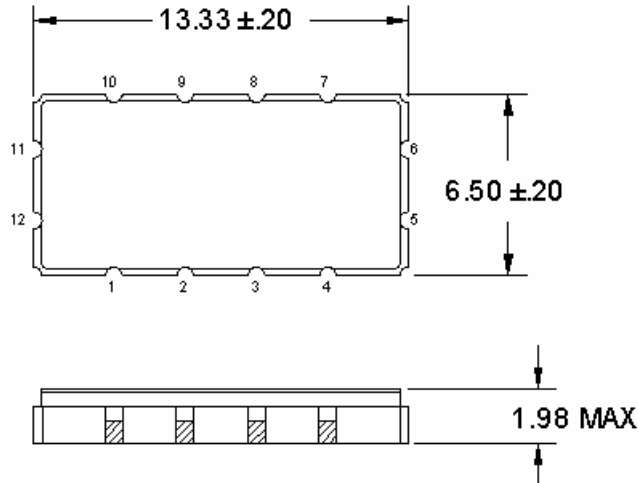
Typical component values:
(Minimum inductor Q = 45)

| | | | |
|-------|--------|-------|--------|
| Ls1 = | 56 nH | Ls2 = | 330 nH |
| Lp1 = | 150 nH | Rp1 = | 560 Ω |
| Rp2 = | 1000 Ω | | |

Notes:

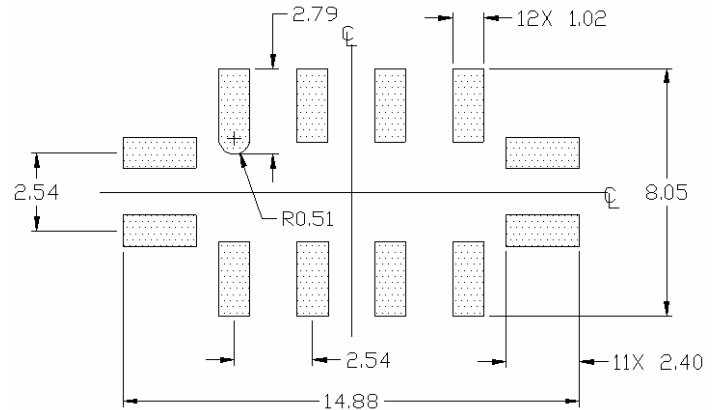
1. Recommend the use of +/-2% tolerance components.
2. Component values shown are for guidance only and may change depending on board layout.

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 and width, which are nominal values.

Pad Configuration:

| | |
|----------------|------------------|
| Input: | 11 |
| Input return: | 12 |
| Output: | 5 |
| Output return: | 6 |
| Ground: | 1,2,3,4,7,8,9,10 |

ISO 9001
 Registered

All specifications are believed to be accurate and reliable. However, Spectrum Microwave reserves the right to make changes without notice.
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