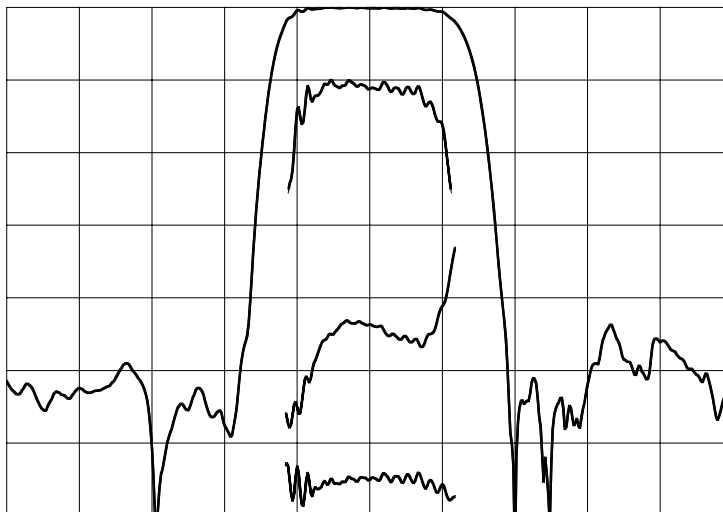




## TYPICAL PERFORMANCE



Horizontal: 3 MHz/div

Vertical (from top):

Magnitude 10,1 dB/div  
Phase Deviation 10 deg/div  
Group Delay Variation 200 ns/div

## SPECIFICATION

| Parameter                                              | Min   | Typ                   | Max   | Units  |
|--------------------------------------------------------|-------|-----------------------|-------|--------|
| Center Frequency (Fc) <sup>1</sup>                     | 139.6 | 140                   | 140.4 | MHz    |
| Insertion Loss                                         |       | 7.2                   | 8.0   | dB     |
| 1 dB Bandwidth                                         | 5.9   | 6.3                   |       | MHz    |
| 3 dB Bandwidth                                         | 7.0   | 7.3                   |       | MHz    |
| 36 dB Bandwidth                                        |       | 10.2                  | 10.7  | MHz    |
| Passband Ripple                                        |       | 0.4                   | 1     | dB     |
| Phase Deviation from Linear <sup>2</sup>               |       | 7                     | 14    | deg    |
| Group Delay Variation <sup>2</sup>                     |       | 60                    | 200   | ns     |
| Absolute Delay                                         |       | 1.1                   |       | μs     |
| Substrate                                              |       | YZ LiNbO <sub>3</sub> |       | -      |
| Temperature Coefficient of Frequency (Tc) <sup>3</sup> |       | -90                   |       | ppm/°C |
| Ambient Temperature                                    |       | 25                    |       | °C     |
| System Source and Load Impedance                       |       | 50                    |       | Ω      |

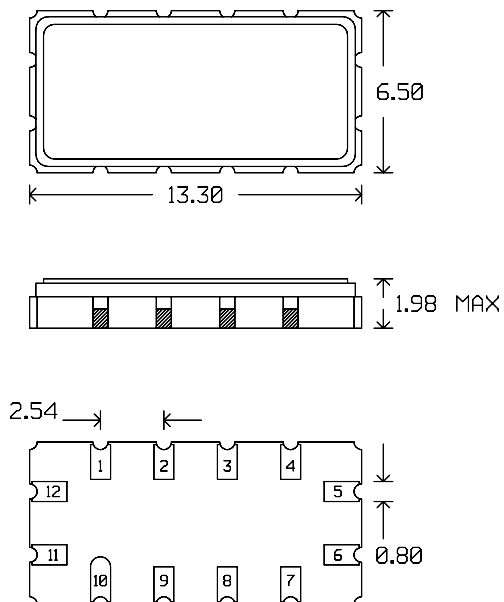
Notes: 1. Average of lower & upper 3 dB frequencies.

2. Evaluated over 70% of the 3 dB bandwidth.

3. Typical change of filter frequency response with temperature is  $\Delta f/f_{ref} = (T - T_{ref}) \cdot T_c$  ppm.



## PACKAGE OUTLINE



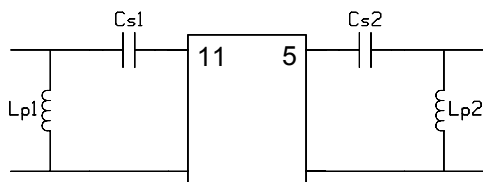
Units: mm

### Pin Configuration:

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

Component values in 50  $\Omega$ : Cs1 = 220 pF

## MATCHING CIRCUIT



(Minimum Q = 45)

Lp1 = 33 nH

Lp2 = 33 nH

### Notes

- Optimum component values may change depending on board layout. The values shown here are intended as a guide only.

ISO 9001  
Registered

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