

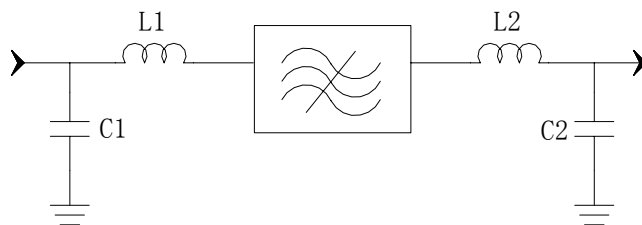
### Specifications

| Parameter   | Unit | Minimum                                 | Typical | Maximum |
|---|------|---|---------|---------|
| Center Frequency                                      | MHz  | 159.92                                  | 160     | 160.08  |
| Insertion Loss  | dB   | -                                       | 23.6    | 25      |
| 3 dB Bandwidth  | MHz  | 2.5                                     | 2.56    | -       |
| 40 dB Bandwidth                                       | MHz  | -                                       | 3.1     | 3.2     |
| Absolute Delay  | usec | -                                       | 4.58    | 4.6     |
| Passband Variation                                    | dB   | -                                       | 0.9     | 1       |
| Group delay Variation<br>( $f_0 \pm 1.15\text{MHz}$ ) | nsec | -                                       | 190     | 300     |
| Ultimate Rejection                                    | dB   | 40                                      | 45      | -       |
| Substrate Material                                    |      | Quartz                                  |         |         |
| Ambient Temperature                                   | °C   | 25                                      |         |         |
| Package Size  |      | DIP3512 (35.2x12.7x5.2mm <sup>3</sup> ) |         |         |

#### Notes:

1. All specifications are based on the test circuit shown
2. In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over temperature
3. Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances
4. This is the optimum impedance in order to achieve the performance show

### Matching Configuration




L1=38nH    L2=33nH

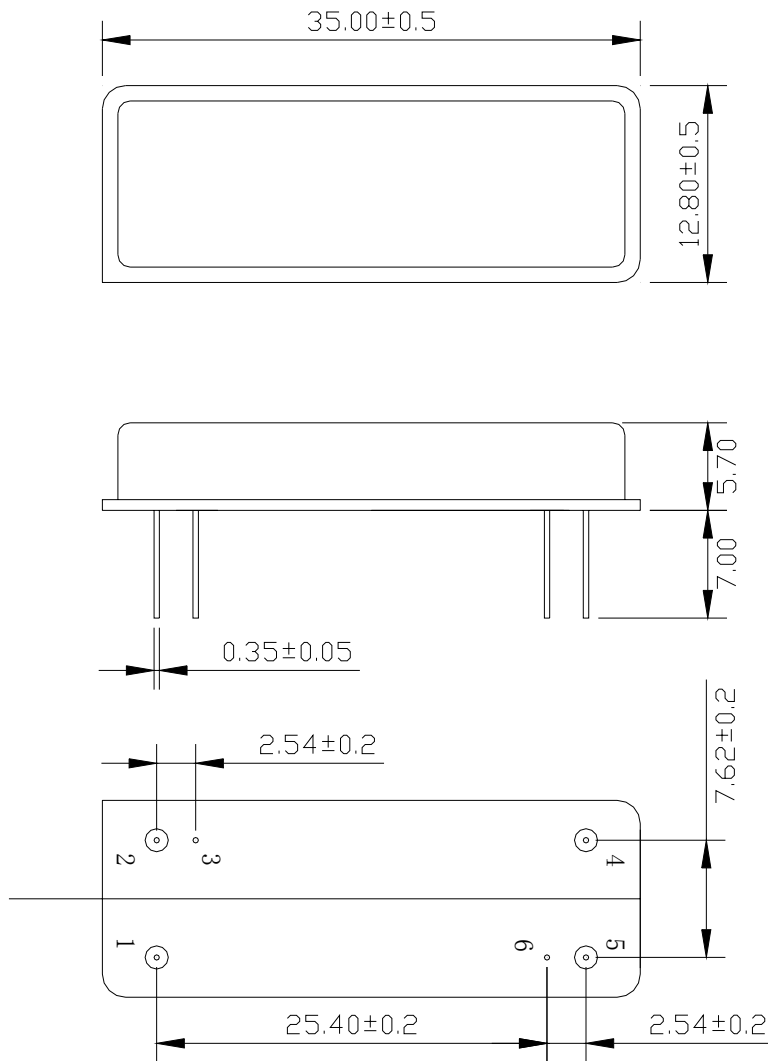
C1=56pF    C2=39pF

**Source/Load Impedance=50 ohm**

Notes - Component values may change depending on board layout.

|  |   |             |            |      |
|--|---|-------------|------------|------|
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|  |   | Rev. Date   | 2004-11-16 |      |
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*Package Dimension*

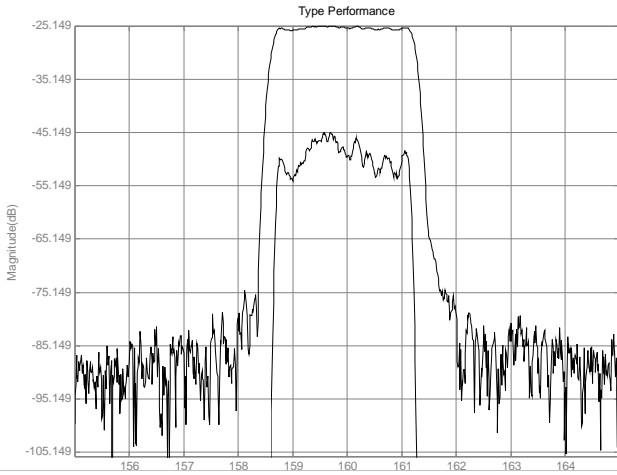


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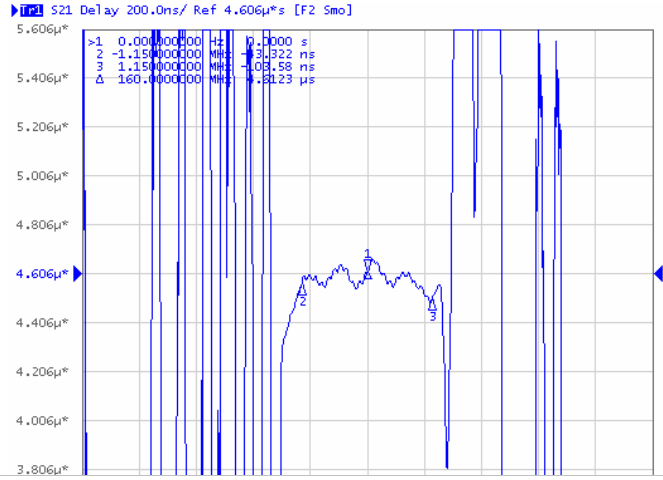
|             |            |          |
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Typical Performance

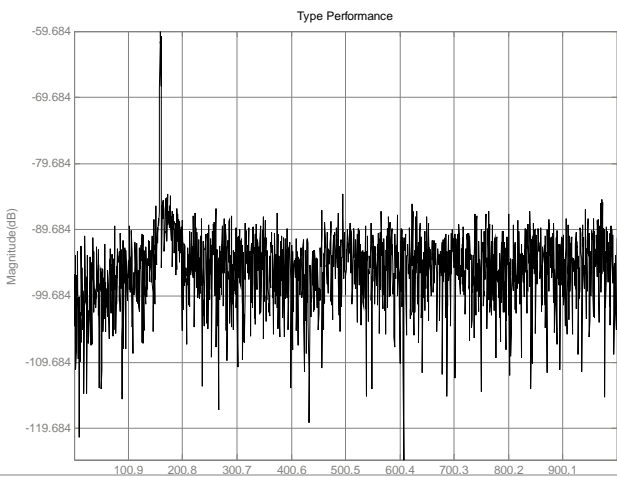
Frequency Respond



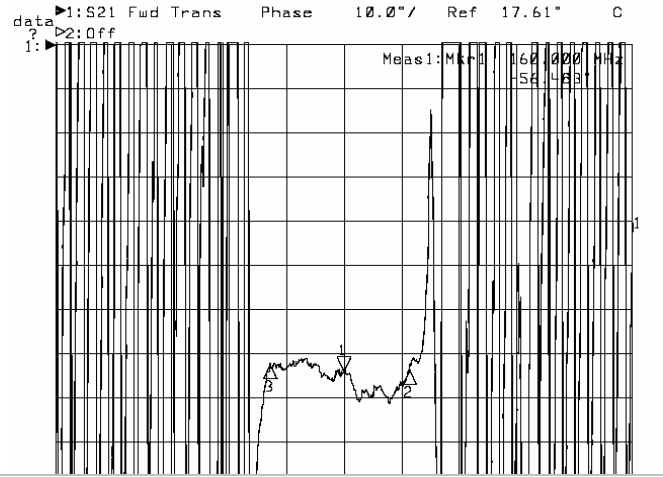
Group delay variation



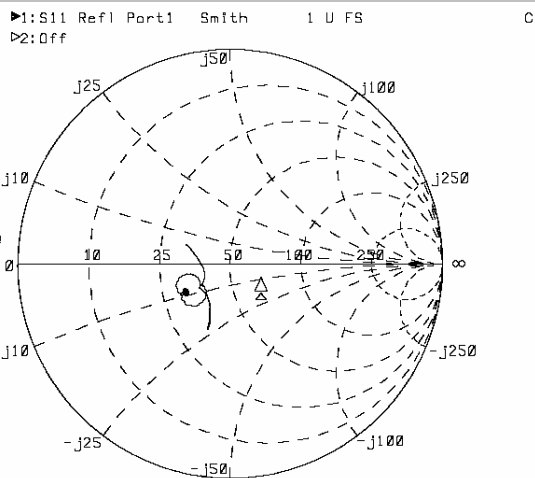
Wideband Respond



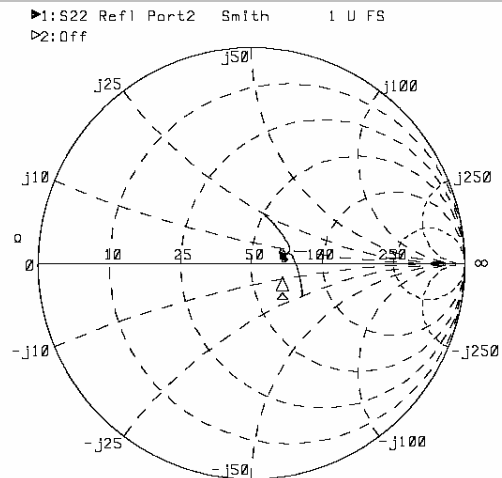
Phase Linearity



Smith Chart S11



Smith Chart S22



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