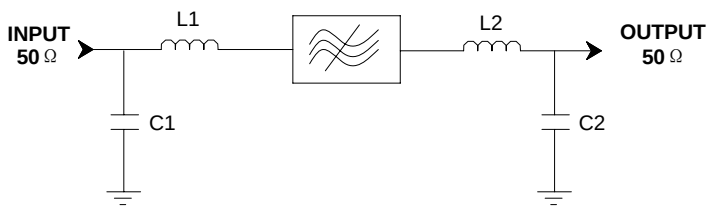
## Specifications

| Parameter | Unit | Minimum | Typical | Maximum |
|---|---|---|---|---|
| *Center Frequency* | MHz | - | 165.5 | - |
| *Insertion Loss* | dB | - | 32 | 33.5 |
| *1 dB Bandwidth* | MHz | 7 | 7.05 | - |
| *3 dB Bandwidth* | MHz | - | 7.23 | - |
| *40 dB Bandwidth* | MHz | - | 7.92 | 8 |
| *Passband Variation(f0±3.5MHz)* | dB | - | 0.6 | 1 |
| *Absolute Delay* | usec | - | 3.82 | 4.5 |
| *Group Delay Variation(f0±3.5MHz)* | nsec | - | 50 | 150 |
| *Ultimate Rejection(@f0±4MHz)* | dB | 35 | 45 | - |
| *Ultimate Rejection* | dB | 45 | 48 | - |
| *Material Temperature coefficient* | KHz/°C | 0.166 | | |
| *Ambient Temperature* | °C | 25 | | |
| *Package Size* | DIP3512 (35.0x12.8x4.7mm3) | | | |

**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

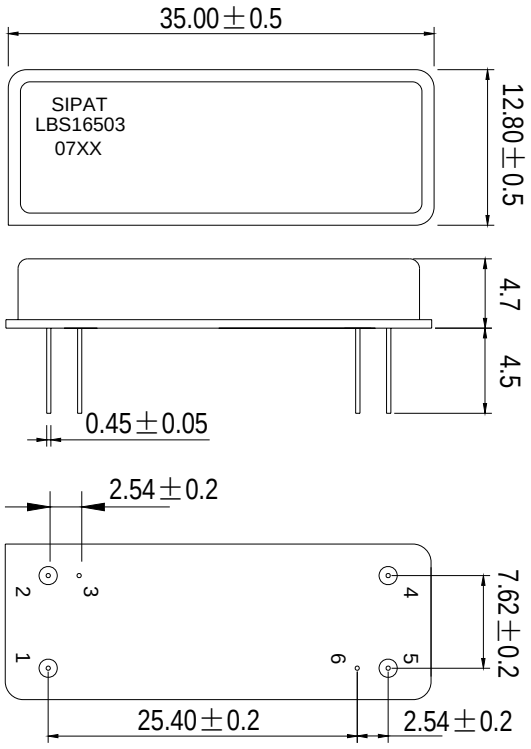
## Matching Configuration




**L1=100nH L2=68nH**
**C1=C2=15pF**
**Source/Load Impedance=50 ohm**

Notes - Component values may change depending on board layout.

## Package Dimension




1) ·: Pad Number 1 Index
2) SIPAT: Manufacturer name
3) LBS16503: Part Number
4) 07XX: Date Code

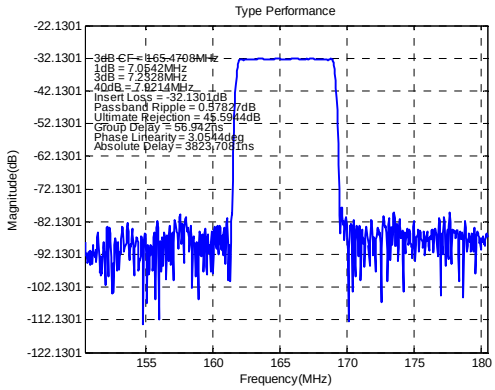
| | |
|---|---|
| Input | 1 |
| Output | 5 |
| Ground | 2,3,4,6 |

**Package: DIP3512**

**Unit: mm**

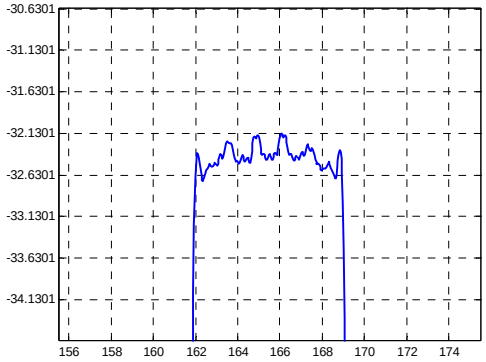
## *Typical Performance*

### Frequency Respond



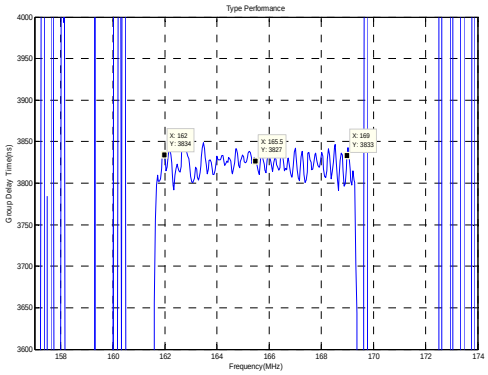

Horizontal: 5MHz/Div Vertical: 10dB/Div

### Passband Respond



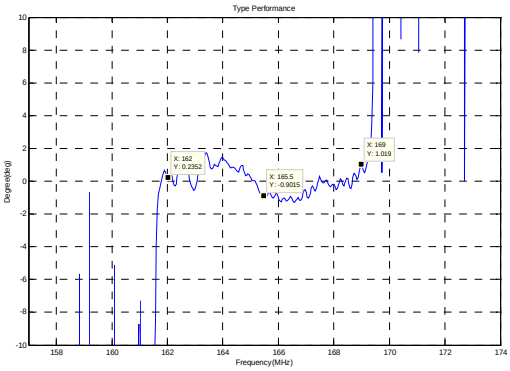
Horizontal: 2MHz/Div Vertical: 0.5dB/Div

### Group Delay Variation(f0±3.5MHz)



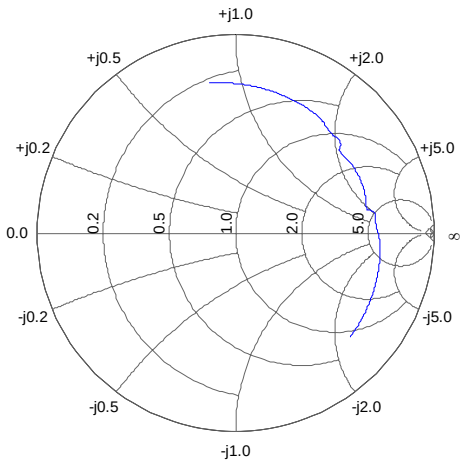

Horizontal: 2MHz/Div Vertical: 50ns/Div

### Phase Linearity(f0±3.5MHz)

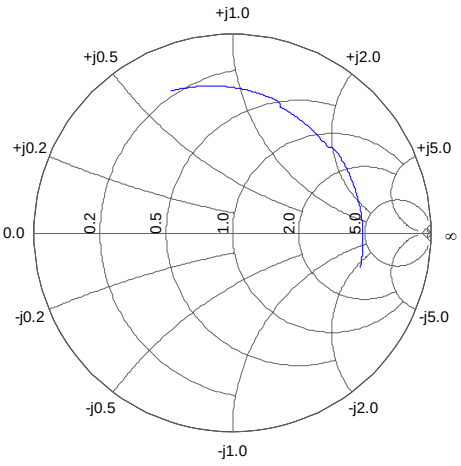



Horizontal: 2MHz/Div Vertical: 2deg/Div

### Smith Chart S11




### Smith Chart S22



| *Maximum Ratings* | | |
|---|---|---|
| **Operating Temperature Range** | °C | [-40°C;+85°C] |
| **Storage Temperature Range** | °C | [-40°C;+105°C] |
| **DC Voltage** | V | 0 |
| **Input Power** | dBm | 10 max |
| **ESD Class** | | 1 |