

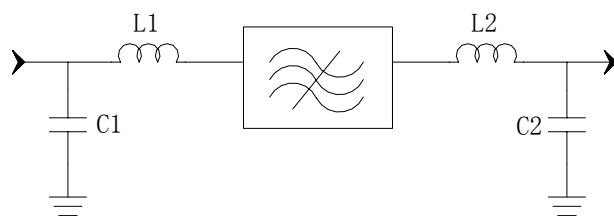
### Specifications

| Parameter  | Unit                                | Minimum | Typical | Maximum |
|--|-------------------------------------|---------|---------|---------|
| Center Frequency                                 | MHz                                 | 113.975 | 114     | 114.025 |
| Insertion Loss                                   | dB                                  | -       | 12.4    | 13      |
| Ripple within $f_0 \pm 150\text{kHz}$            | dB                                  | -       | 0.6     | 1       |
| Rejection outside at $f_0 \pm 500\text{kHz}$     | dB                                  | 20      | 25      | -       |
| Ultimate Rejection ( $f_0 \pm 3\text{MHz}$ )     | dB                                  | 40      | 45      | -       |
| Group delay Variation( $f_0 \pm 150\text{kHz}$ ) | nsec                                | -       | 70      | 120     |
| Passband Variation                               | dB                                  | -       | 0.5     | 1       |
| Absolute Delay                                   | usec                                | -       | 2.4     | -       |
| SWR (S11)  | -                                   | -       | 1.6     | -       |
| SWR (S22)  | -                                   | -       | 1.3     | -       |
| Substrate Material                               | -                                   | Quartz  |         |         |
| Ambient Temperature                              | °C                                  | 25      |         |         |
| Package Size                                     | DIP2012 (20x12.5x4mm <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

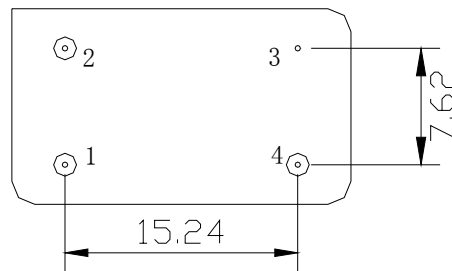
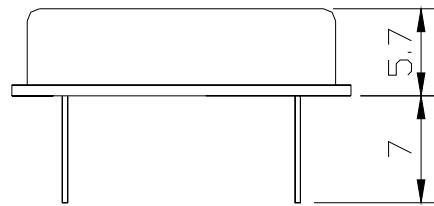
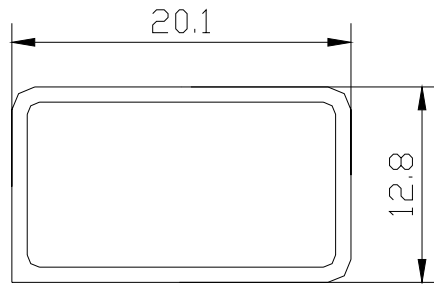


**L1=100+47nH L2=82nH**  
**C1=47pF C2=47pF**  
**Source/Load Impedance=50 ohm**


Notes - Component values may change depending on board layout.

|  |   |             |           |      |
|--|---|-------------|-----------|------|
|  | <b>SIPAT Co., Ltd.</b><br>( CETC No. 26 Research Institute )<br>Nanping Huayuan Road No. 14<br>Chongqing, China, 400060 | Part Number | LBS11402  |      |
|  |   | Rev. Date   | 2005-7-25 |      |
|  |   | Rev.        | 1.01      | Page |

*Package Dimension*

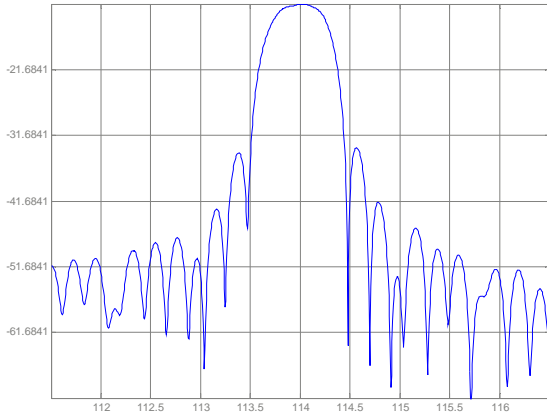


**Input: 2**  
**Output: 4**  
**Grounded: 3**

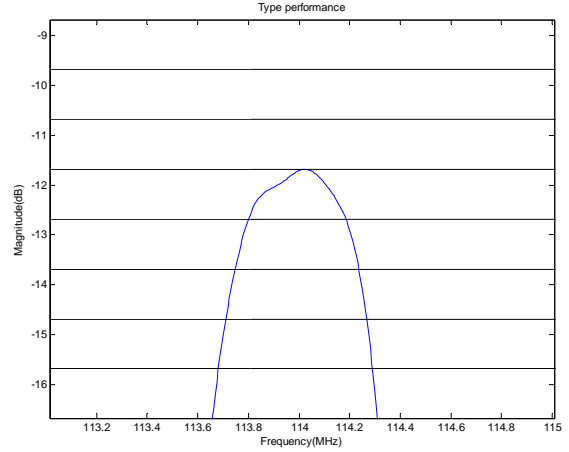
|  |   |             |           |      |
|--|---|-------------|-----------|------|
|  | <b>SIPAT Co., Ltd.</b><br>( CETC No. 26 Research Institute )<br>Nanping Huayuan Road No. 14<br>Chongqing, China, 400060 | Part Number | LBS11402  |      |
|  |   | Rev. Date   | 2005-7-25 |      |
|  |   | Rev.        | 1.01      | Page |

*Typical Performance*

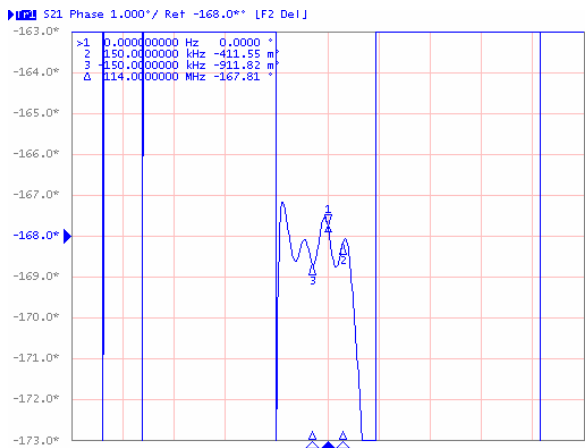
Frequency Respond



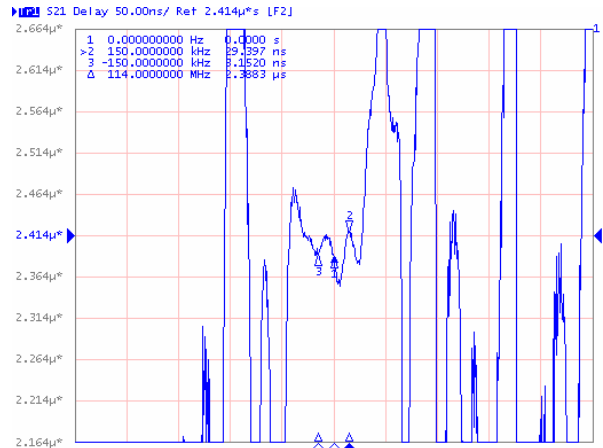
Passband Respond



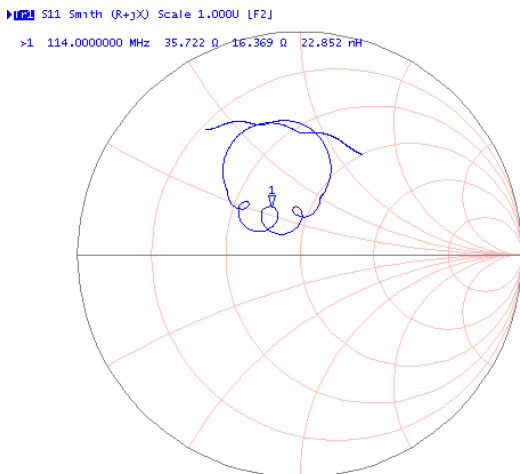
Phase Linearity ( $f_0 \pm 150\text{KHz}$ )



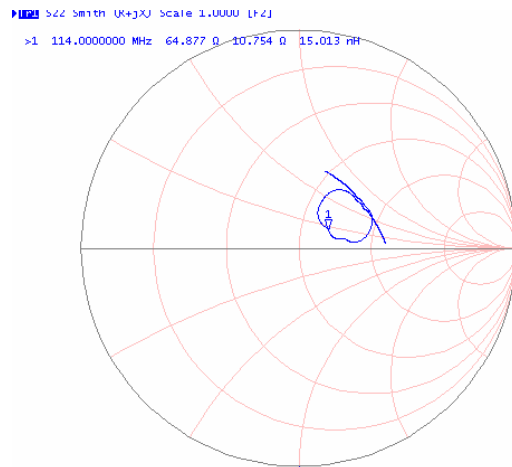
Group delay variation ( $f_0 \pm 150\text{KHz}$ )



Smith Chart S11



Smith Chart S22



**SIPAT Co., Ltd.**  
( CETC No. 26 Research Institute )  
Nanping Huayuan Road No. 14  
Chongqing, China, 400060

|             |           |          |
|-------------|-----------|----------|
| Part Number | LBS11402  |          |
| Rev. Date   | 2005-7-25 |          |
| Rev.        | 1.01      | Page 3/3 |