



### Features


- ◇ For IF SAW filter
- ◇ High attenuation
- ◇ Single-ended operation
- ◇ Dual In-line Package
- ◇ No matching required for operation at 50Ω
- ◇ RoHS compliant (2002/95/EC), Pb-free

### Specifications

| Parameter                                      | Unit                                    | Minimum | Typical | Maximum |
|--|---|---------|---------|---------|
| Center Frequency                               | MHz                                     | 69.9    | 70      | 70.1    |
| Insertion Loss                                 | dB                                      | -       | 33.3    | 38      |
| 1.8 dB Bandwidth                               | MHz                                     | 19      | 19.19   | -       |
| 15 dB Bandwidth                                | MHz                                     | -       | 19.68   | 19.8    |
| 40 dB Bandwidth                                | MHz                                     | -       | 20      | 20.2    |
| 50 dB Bandwidth                                | MHz                                     | -       | 20.1    | 21      |
| Passband Variation                             | dB                                      | -       | 0.5     | 1.5     |
| Absolute Delay                                 | usec                                    | -       | 3.74    | 4.7     |
| Ultimate Rejection( $f_0 \pm 10.5\text{MHz}$ ) | dB                                      | 50      | 53      | -       |
| Material Temperature coefficient               | KHz/°C                                  | -6.58   |         |         |
| Substrate Material                             | -                                       | YZ LN   |         |         |
| Ambient Temperature                            | °C                                      | 25      |         |         |
| Operating Temperature Range                    | °C                                      | -40     | -       | +85     |
| Storage Temperature Range                      | °C                                      | -45     | -       | +105    |
| DC Voltage                                     | V                                       | 0       |         |         |
| Input Power                                    | dBm                                     | -       | -       | 10      |
| ESD Class                                      | -                                       | 1A      |         |         |
| Package Size                                   | DIP3512 (35.0x12.8x4.7mm <sup>3</sup> ) |         |         |         |

#### Notes:

1. All specifications are based on the test circuit shown;
2. In production, all specifications are measured by Agilent Network analyzer and full 2 port calibration at room 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.

|  |  |             |            |      |
|--|--|-------------|------------|------|
|  | <b>SIPAT Co., Ltd.</b><br>( CETC No.26 Research Institute )<br>#14 Nanping Huayuan Road,<br>Chongqing, China, 400060 | Part Number | LBN7057    |      |
|  |  | Rev. Date   | 2008-04-10 |      |
|  |  | Ver.        | 2.0        | Page |

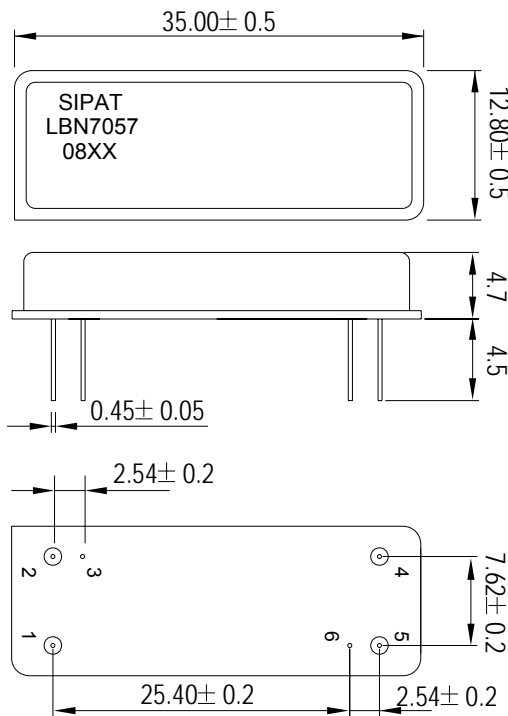
### Matching Configuration



Source/Load Impedance=50 ohm

Notes - Component values may change depending on board layout.

### Package Dimension



#### Pad Configuration:

Input 1  
Output 5  
Ground All Others

#### Marking Configuration:

- 1) SIPAT: Manufacturer Name
- 2) LBN7057: Part Number
- 3) 08XX: Date Code

Package: DIP3512

Unit: mm



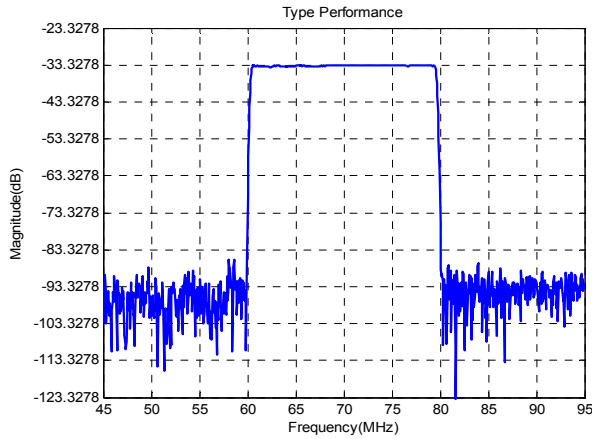
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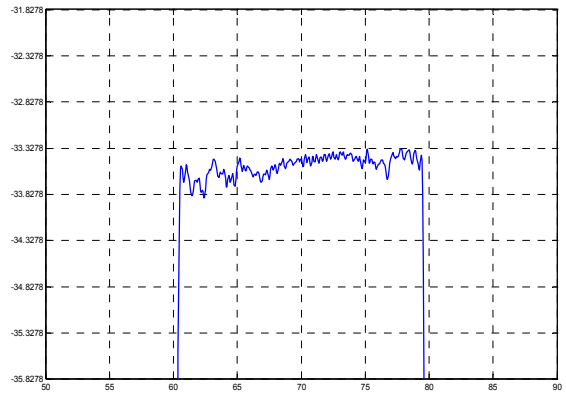
Typical Performance

Frequency Respond



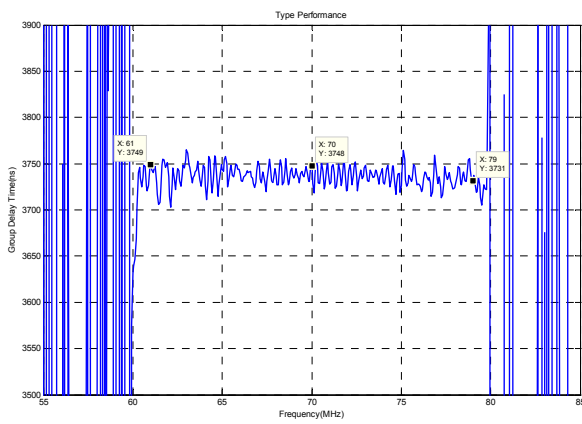
Horizontal: 5MHz/Div Vertical: 10dB/Div

Passband Respond



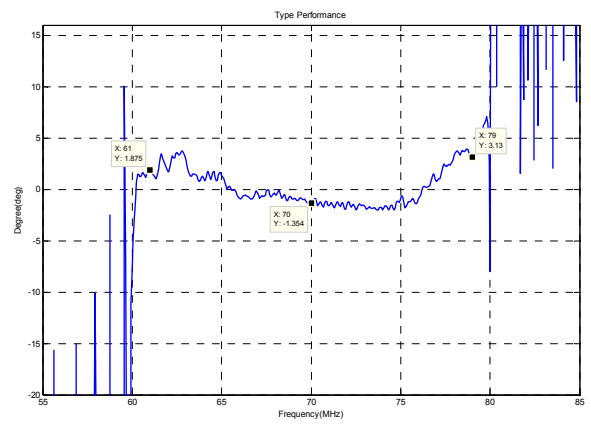
Horizontal: 5MHz/Div Vertical: 0.5dB/Div

Group Delay Variation( $f_0 \pm 9$ MHz)



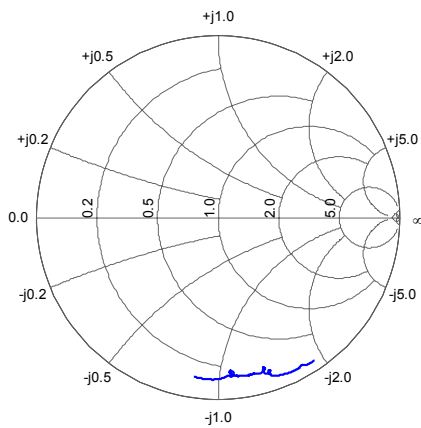
Horizontal: 5MHz/Div Vertical: 50ns/Div

Phase Linearity( $f_0 \pm 9$ MHz)

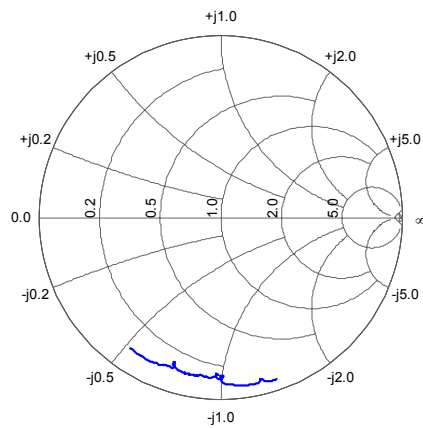


Horizontal: 5MHz/Div Vertical: 5deg/Div

Smith Chart S11



Smith Chart S22



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