



Features

- ◇ For IF SAW filter
- ◇ Single-ended operation
- ◇ Ceramic Surface Mount Package
- ◇ Small size
- ◇ RoHS compliant (2002/95/EC), Pb-free

Specifications

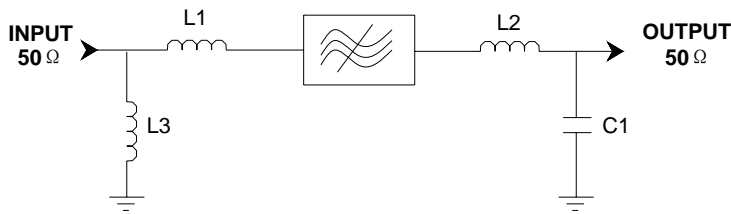
| Parameter | Unit | Minimum | Typical | Maximum |
|---------------------------------------|--------------|---------|---------|---------|
| Center Frequency | MHz | - | 140 | - |
| Insertion Loss | dB | - | 15.6 | 16 |
| Passband Variation(139.2~140.8MHz) | dB | - | 0.2 | 1.2 |
| Phase Linearity(139.2~140.8MHz) | deg | - | 3 | 10 |
| Group Delay Variation(139.2~140.8MHz) | nsec | - | 70 | 180 |
| Absolute Delay | usec | - | 1.23 | - |
| Ultimate Rejection | 10~137MHz | dB | 40 | - |
| | 143~280MHz | dB | 40 | - |
| Material Temperature coefficient | KHz/°C | 0.14 | | |
| Substrate Material | - | Qz | | |
| 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 | SMD13.3*6.5C | | | |

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.

| | | | | |
|--|--|-------------|------------|----------|
| | SIPAT Co., Ltd. (CETC No.26 Research Institute) #14 Nanping Huayuan Road, Chongqing, China, 400060 | Part Number | LB140DS31 | |
| | | Rev. Date | 2008-03-07 | |
| | | Ver. | 1.0 | Page 1/3 |

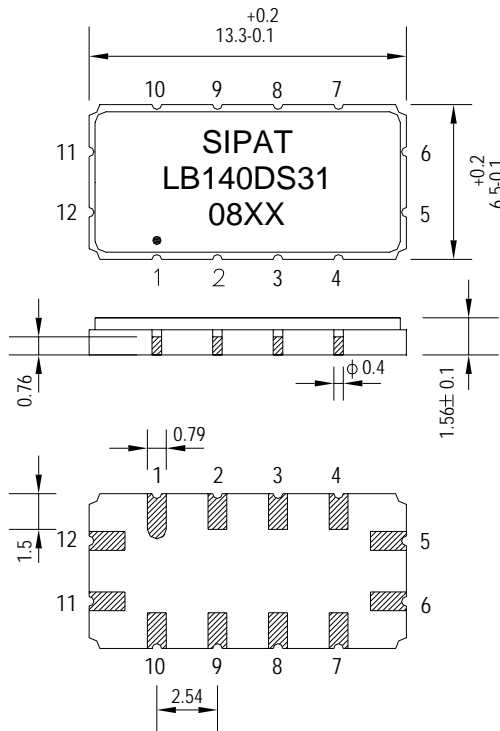
Matching Configuration



L1=120nH L2=(150+18)nH
L1=27nH C1=56pF
Source/Load Impedance=50 ohm

Notes - Component values may change depending on board layout.

Package Dimension



Pad Configuration:

Input 11
Output 5
Ground All Others

Marking Configuration:

- 1) •: Pad Number 1 Index
- 2) SIPAT: Manufacturer Name
- 3) LB140DS31: Part Number
- 4) 08XX: Date Code

Package: SMD13.3*6.5C

Unit: mm



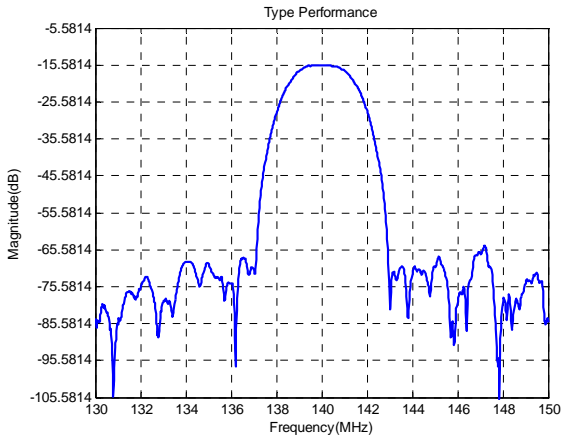
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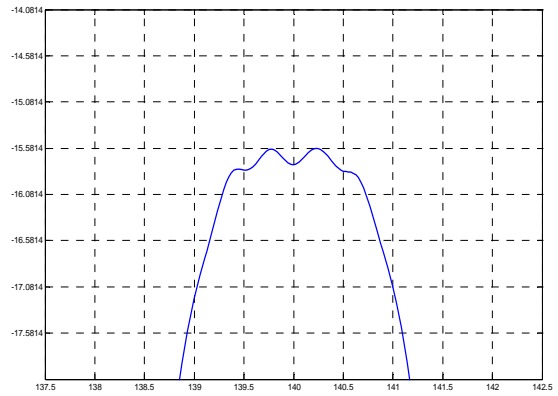
Typical Performance

Frequency Respond



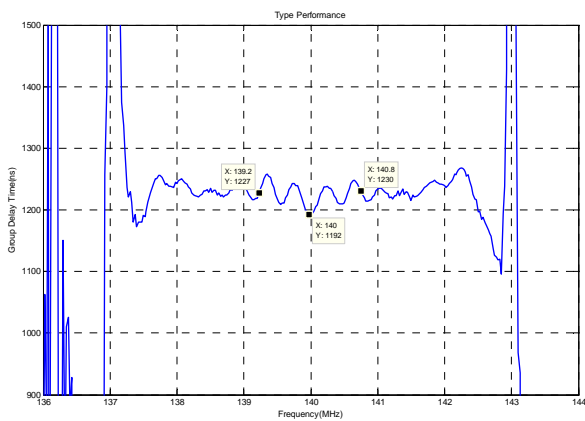
Horizontal: 2MHz/Div Vertical: 10dB/Div

Passband Respond



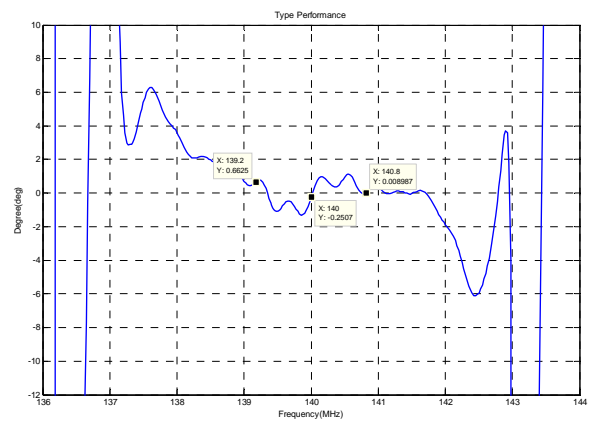
Horizontal: 0.5MHz/Div Vertical: 0.5dB/Div

Group Delay Variation(f0±0.8MHz)



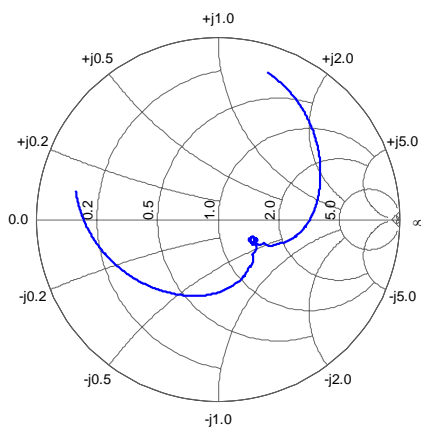
Horizontal: 1MHz/Div Vertical: 100ns/Div

Phase Linearity(f0±0.8MHz)

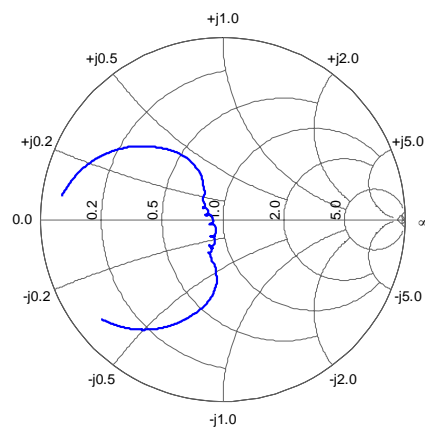


Horizontal: 1MHz/Div Vertical: 2deg/Div

Smith Chart S11



Smith Chart S22



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