



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 | 139.8 | 140 | 140.2 | |
| Insertion Loss | dB | - | 28 | 29 | |
| 3 dB Bandwidth | MHz | 19.9 | 19.95 | - | |
| 40 dB Bandwidth | MHz | - | 20.76 | - | |
| Passband Variation | dB | - | 1.2 | 1.5 | |
| Absolute Delay | usec | - | 3.26 | 4 | |
| Ultimate Rejection | $f_0 \pm 10.4\text{MHz}$ | dB | 35 | 42 | - |
| | $f_0 \pm 10.6\text{MHz}$ | dB | 45 | 53 | - |
| | $f_0 \pm 11\text{MHz}$ | dB | 50 | 51 | - |
| | $f_0 \pm 15\text{MHz}$ | dB | 55 | 58 | - |
| Material Temperature coefficient | KHz/°C | -13.16 | | | |
| 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 (35.0x12.8x4.7mm3) | | | | |

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 | LBN140A14 | |
| | | Rev. Date | 2008-07-04 | |
| | | Ver. | 1.0 | Page 1/3 |

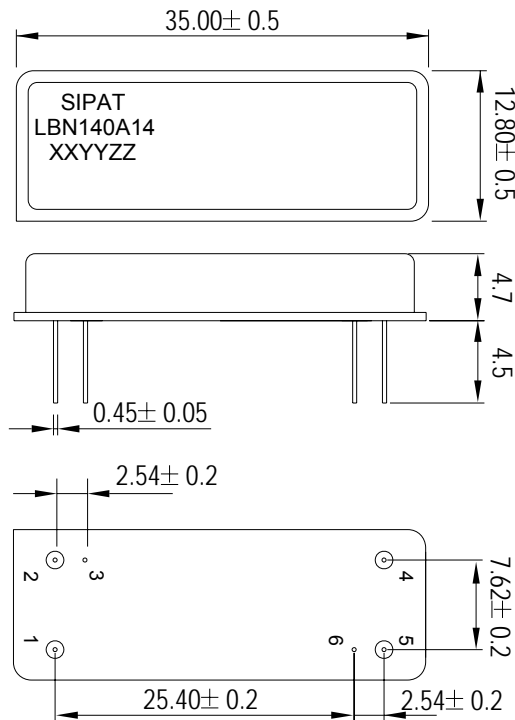
Matching Configuration



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) LBN140A14: Part Number
- 3) XXYY: Date(Year/month)
- 4) ZZ: Identified Code

Package: DIP3512

Unit: mm

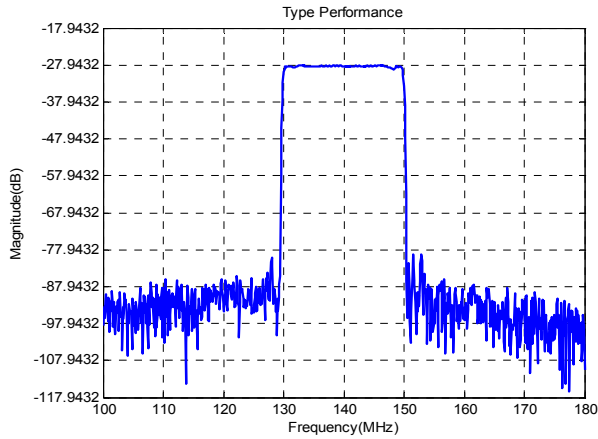


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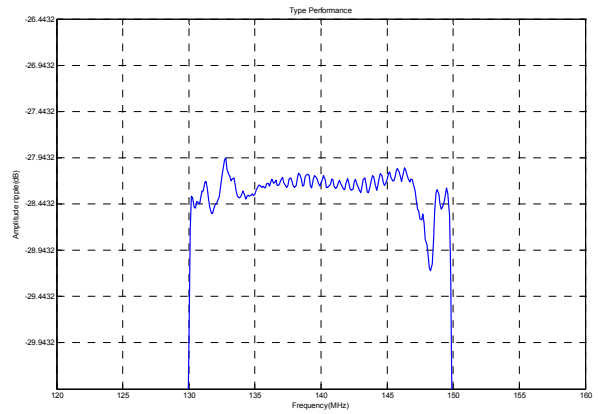
Typical Performance

Frequency Respond



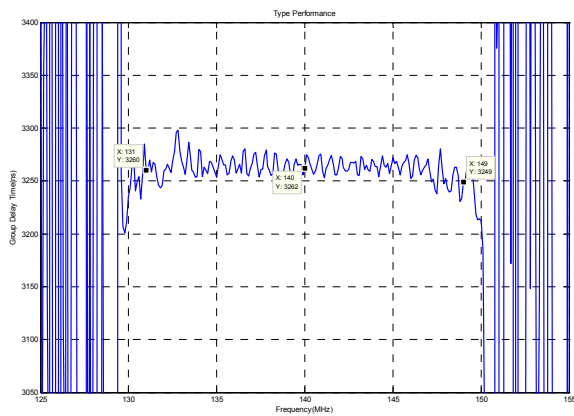
Horizontal: 10MHz/Div Vertical: 10dB/Div

Passband Respond



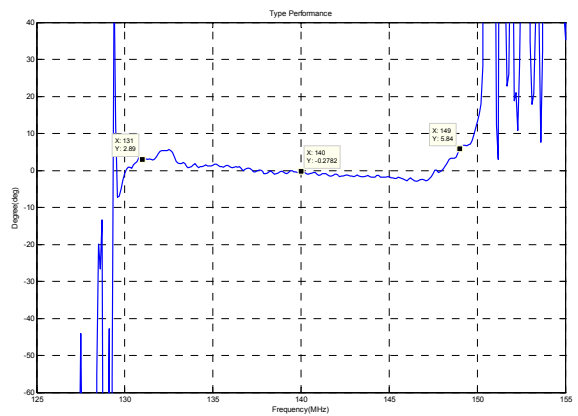
Horizontal: 5MHz/Div Vertical: 0.5dB/Div

Group Delay Variation($f_0 \pm 9\text{MHz}$)



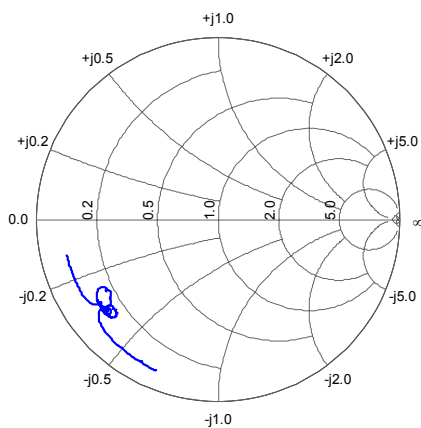
Horizontal: 5MHz/Div Vertical: 50ns/Div

Phase Linearity($f_0 \pm 9\text{MHz}$)

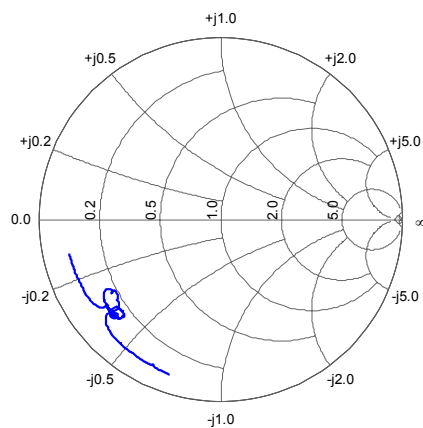


Horizontal: 5MHz/Div Vertical: 10deg/Div

Smith Chart S11



Smith Chart S22



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