



## 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                        | 114.9   | 115     | 115.1   |
| Insertion Loss                   | dB                         | -       | 21.8    | 26      |
| 1 dB Bandwidth                   | MHz                        | -       | 9.21    | -       |
| 3 dB Bandwidth                   | MHz                        | 9.4     | 9.46    | -       |
| 35 dB Bandwidth                  | MHz                        | -       | 10.37   | 10.4    |
| 50 dB Bandwidth                  | MHz                        | -       | 10.42   | -       |
| Passband Variation               | dB                         | -       | 0.9     | 1       |
| Absolute Delay                   | usec                       | -       | 2.64    | -       |
| Ultimate Rejection               | dB                         | 50      | 57      | -       |
| Material Temperature coefficient | KHz/°C                     | -10.8   |         |         |
| Substrate Material               | -                          | YZ LN   |         |         |
| Ambient Temperature              | °C                         | 25      |         |         |
| DC Voltage                       | V                          | 0       |         |         |
| Input Power                      | dBm                        | -       | -       | 10      |
| ESD Class                        | -                          | 1A      |         |         |
| Package Size                     | DIP3512 (35.0x12.8x4.7mm3) |         |         |         |

### Notes:

- All specifications are based on the test circuit shown;
- In production, all specifications are measured by Agilent Network analyzer and full 2 port calibration at room temperature;
- Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances;
- This is the optimum impedance in order to achieve the performance show.



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|             |            |      |     |
|-------------|------------|------|-----|
| Part Number | LBN11566   |      |     |
| Rev. Date   | 2011-01-12 |      |     |
| Ver.        | 1.0        | Page | 1/3 |

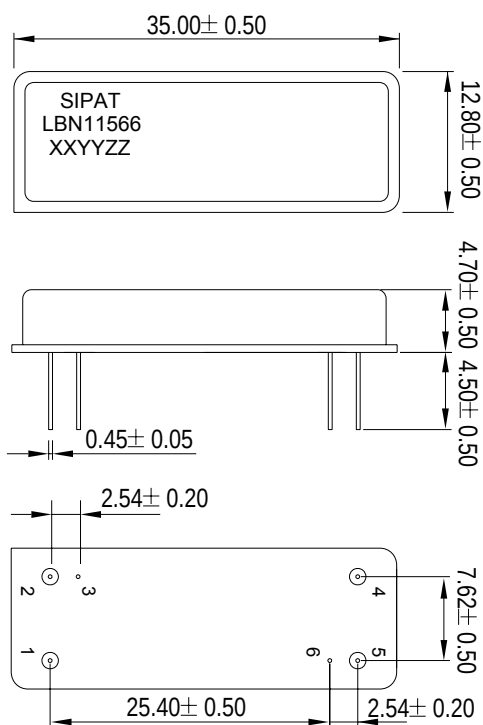
### Matching Configuration



**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) LBN11566: Part Number
- 3) XXYY: Date(Year/month)
- 4) ZZ: Identified Code

**Package: DIP3512**

**Unit: mm**



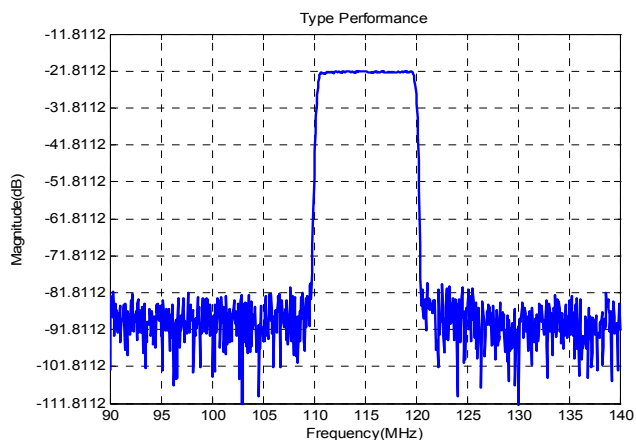
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### Typical Performance

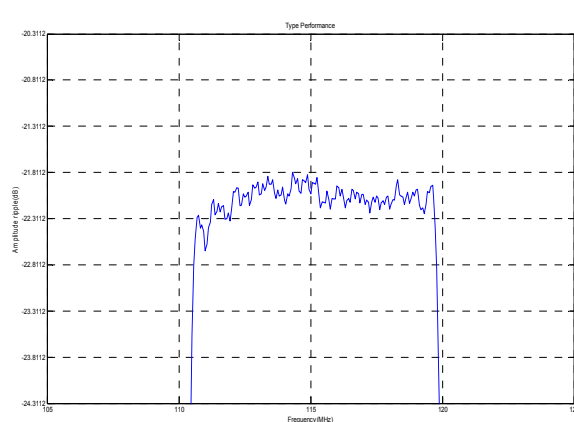
Frequency Response



Horizontal: 5MHz/Div

Vertical: 10dB/Div

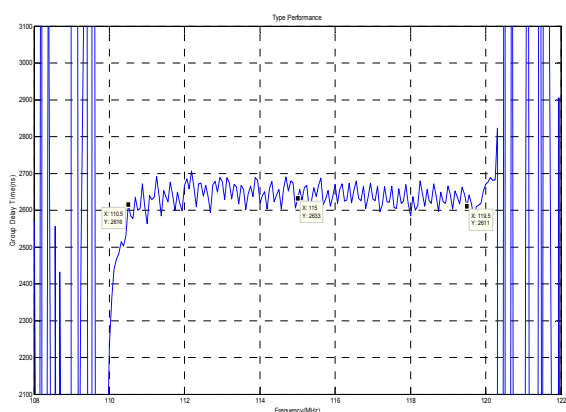
Passband Response



Horizontal: 5MHz/Div

Vertical: 0.5dB/Div

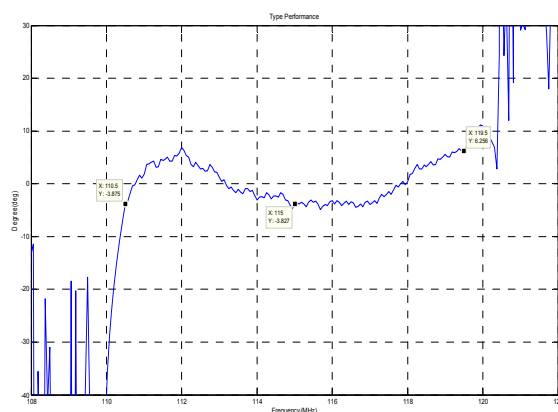
Group Delay Variation( $f_0 \pm 4.5\text{MHz}$ )



Horizontal: 2MHz/Div

Vertical: 100ns/Div

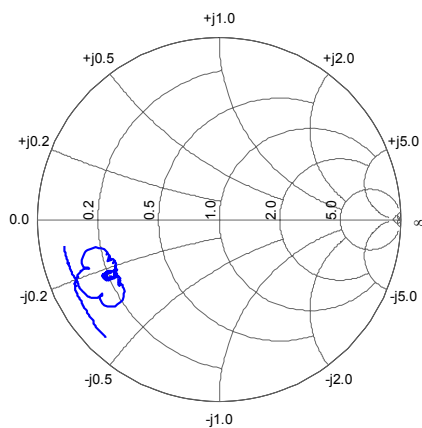
Phase Linearity( $f_0 \pm 4.5\text{MHz}$ )



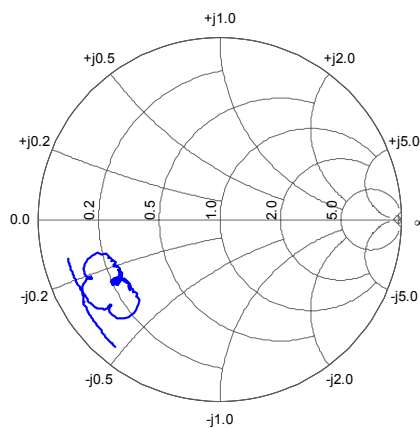
Horizontal: 2MHz/Div

Vertical: 10deg/Div

Smith Chart S11



Smith Chart S22



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