

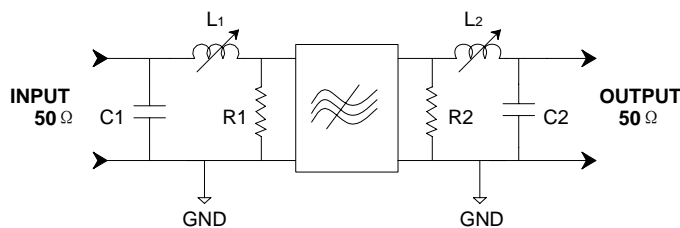
Specifications

Parameter	Unit	Minimum	Typical	Maximum
Center Frequency	MHz	-	150	-
Insertion Loss	dB	-	21.3	25
1 dB Bandwidth	MHz	-	1.34	-
1.5 dB Bandwidth	MHz	1.18	1.42	-
3 dB Bandwidth	MHz	-	1.63	-
5 dB Bandwidth	MHz	-	1.78	1.85
15 dB Bandwidth	MHz	-	2.21	2.5
30 dB Bandwidth	MHz	-	2.52	4.5
40 dB Bandwidth	MHz	-	2.64	-
Passband Variation($f_0 \pm 0.6\text{MHz}$)	dB	-	0.5	0.6
Group Delay Variation($f_0 \pm 0.6\text{MHz}$)	nsec	-	120	200
Phase Linearity($f_0 \pm 0.6\text{MHz}$)	deg	-	3	5
Absolute Delay	usec	-	2.43	-
Ultimate Rejection(Over $f_0 \pm 1.6\text{MHz}$)	dB	50	52	-
Material Temperature coefficient	KHz/°C	0.15		
Ambient Temperature	°C	25		
Package Size	SMD19.0*6.5			

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=82nH L2=68nH

C1=39pF C2=47pF

R1=820Ω R2=470Ω

Source/Load Impedance=50 ohm

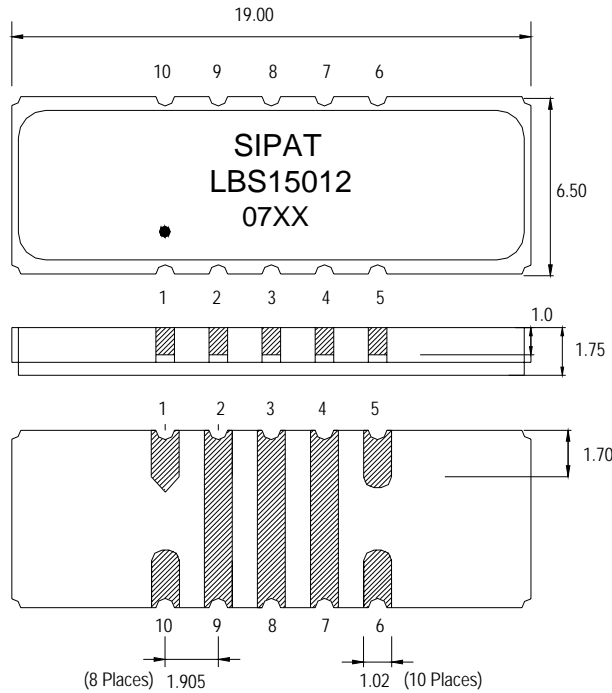
Notes - Component values may change depending on board layout.



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Part Number	LBS15012	
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Package Dimension



- 1) ∴ Pad Number 1 Index
- 2) SIPAT: Manufacturer name
- 3) LBS15012: Part Number
- 4) 07XX: Date Code

Input	10
Output	5
Ground	All Others

Package: SMD19.0*6.5

Unit: mm

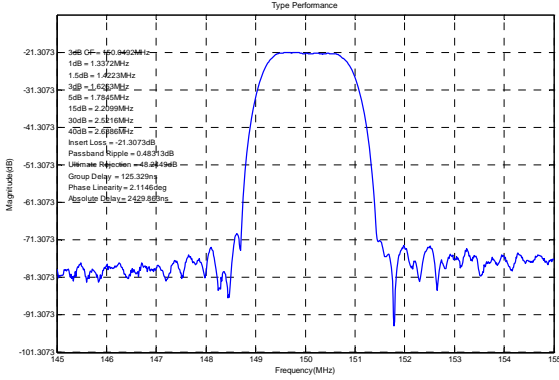


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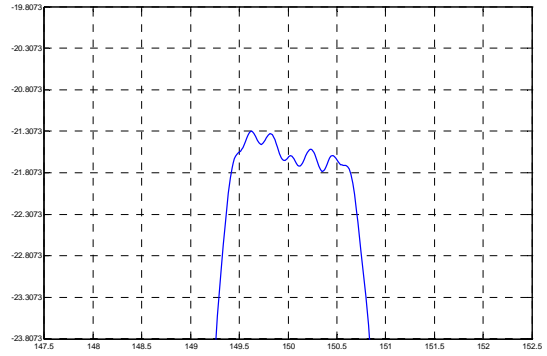
Typical Performance

Frequency Response



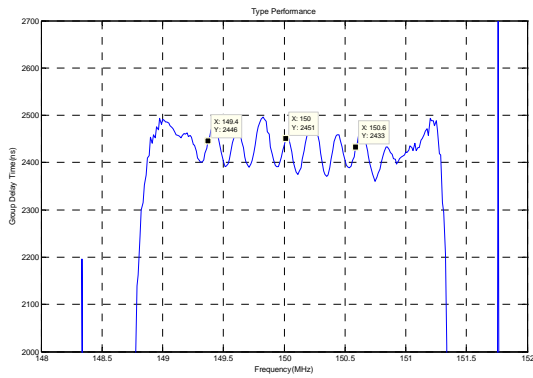
Horizontal: 1MHz/Div Vertical: 10dB/Div

Passband Response



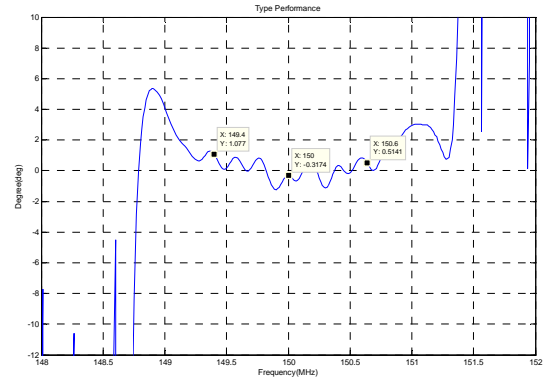
Horizontal: 0.5MHz/Div Vertical: 0.5dB/Div

Group Delay Variation (f0±0.6MHz)



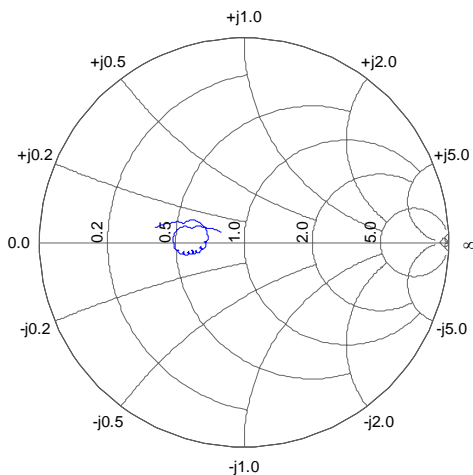
Horizontal: 0.5MHz/Div Vertical: 100ns/Div

Phase Linearity (f0±0.6MHz)

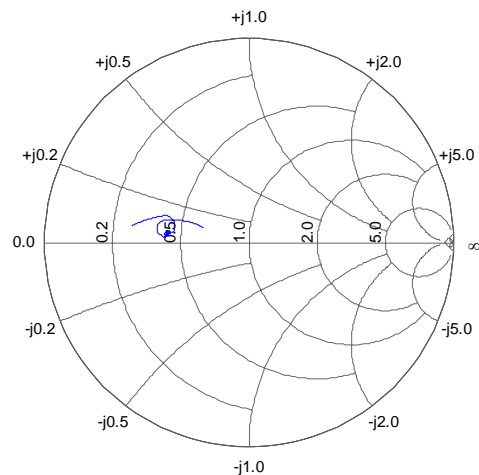


Horizontal: 0.5MHz/Div Vertical: 2deg/Div

Smith Chart S11



Smith Chart S22




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Maximum Ratings

Operating Temperature Range	°C	[-40°C;+85°C]
Storage Temperature Range	°C	[-40°C;+105°C]
DC Voltage	V	0
Input Power	dBm	10 max
ESD Class		1

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