

Specifications

Parameter	Unit	Minimum	Typical	Maximum
Center Frequency	MHz	82.45	82.6	82.75
Insertion Loss	dB	-	29	31
3 dB Bandwidth	MHz	24.3	24.35	-
35 dB Bandwidth	MHz	-	25	25.1
40 dB Bandwidth	MHz	-	25.03	-
45dB Bandwidth	MHz	-	25.08	25.5
50 dB Bandwidth	MHz	-	25.38	26.3
Passband Variation	dB	-	1.5	1.7
Absolute Delay	usec	-	4.24	4.5
Ultimate Rejection($f_0 \pm 15\text{MHz}$)	dB	50	52	-
Material Temperature coefficient	KHz/°C	-7.76		
Ambient Temperature	°C	25		
Package Size	DIP3512 (35.0x12.8x4.7mm3)			

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 = (100 + 10)nH L2 = 120nH
Source/Load Impedance = 50 ohm

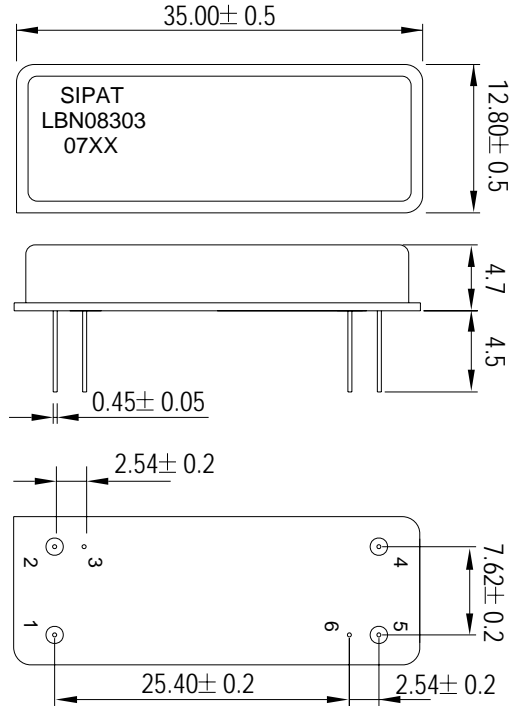
Notes - Component values may change depending on board layout.



SIPAT Co., Ltd.
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Part Number	LBN08303	
Rev. Date	2007-08-20	
Ver.	1.0	Page 1/4

Package Dimension




- 1) ∴ Pad Number 1 Index
- 2) SIPAT: Manufacturer name
- 3) LBN08303: Part Number
- 4) 07XX: Date Code

Input	1
Output	5
Ground	All Others

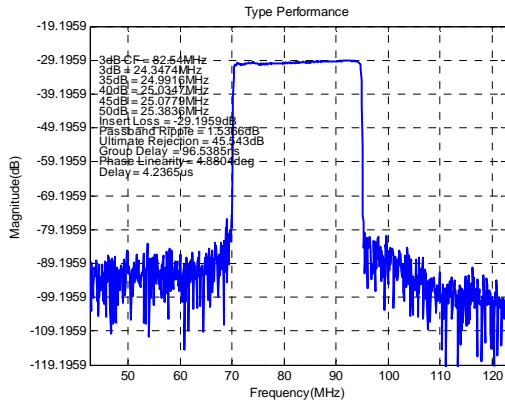
Package: DIP3512

Unit: mm

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		Rev. Date	2007-08-20	
		Ver.	1.0	Page

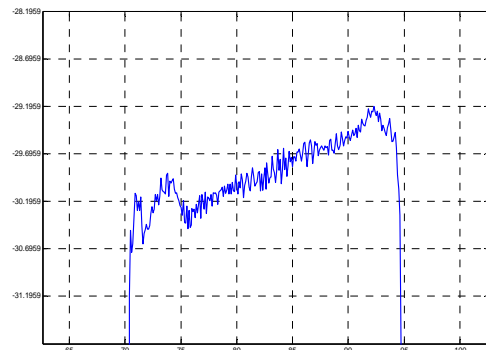
Typical Performance

Frequency Respond



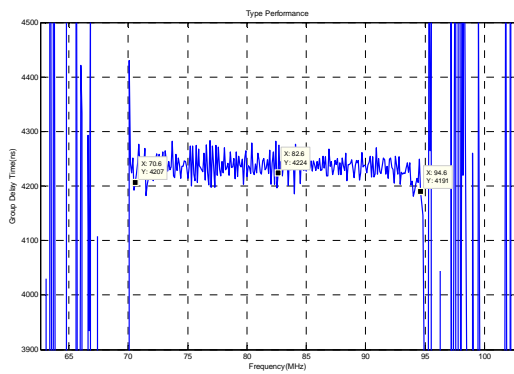
Horizontal: 10MHz/Div Vertical: 10dB/Div

Passband Respond



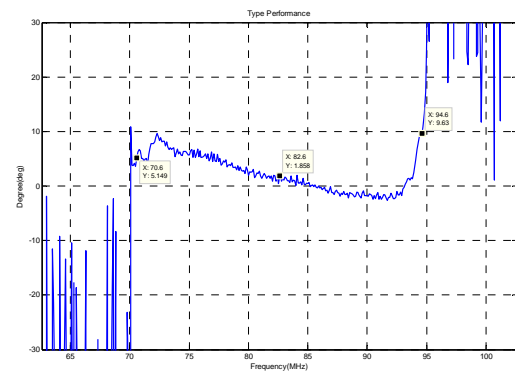
Horizontal: 5MHz/Div Vertical: 0.5dB/Div

Group Delay Variation(f0±12MHz)



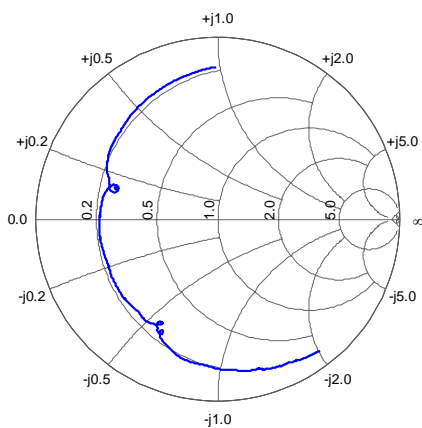
Horizontal: 5MHz/Div Vertical: 100ns/Div

Phase Linearity(f0±12MHz)

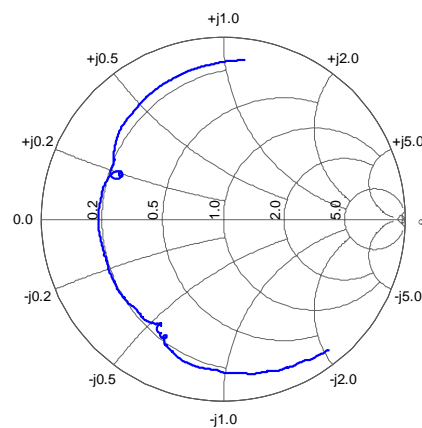


Horizontal: 5MHz/Div Vertical: 10deg/Div

Smith Chart S11



Smith Chart S22




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Ver.	1.0	Page 3/4

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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		Rev. Date	2007-08-20	
		Ver.	1.0	Page