

Specifications

Parameter	Unit	Minimum	Typical	Maximum
Center Frequency	MHz	69.9	70	70.1
Insertion Loss	dB	-	22.6	25
1 dB Bandwidth	MHz	4.7	5.01	-
3 dB Bandwidth	MHz	5.4	5.6	-
40 dB Bandwidth	MHz	-	7.8	8
Passband Variation	dB	-	0.9	1
Absolute Delay	usec	-	1.43	-
Group Delay Variation($f_0 \pm 2\text{MHz}$)	nsec	-	60	150
Ultimate Rejection($f_0 \pm 12\text{MHz}$)	dB	-	36	-
Material Temperature coefficient	KHz/°C	-1.26		
Ambient Temperature	°C	25		
Package Size	SMD13.3*6.5C			

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

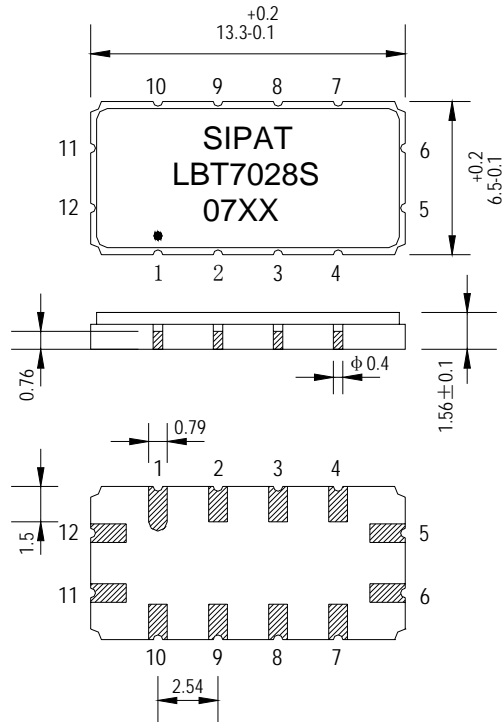


L1=180nH L2=82nH
Source/Load Impedance=50 ohm

Notes - Component values may change depending on board layout.

	SIPAT Co., Ltd. (CETC No.26 Research Institute) #14 Nanping Huayuan Road, Chongqing, China, 400060	Part Number	LBT7028S	
		Rev. Date	2008-01-17	
		Ver.	1.1	Page

Package Dimension




- 1) ∴ Pad Number 1 Index
- 2) SIPAT: Manufacturer name
- 3) LBT7028S: Part Number
- 4) 07XX: Date Code

Input	11
Output	5
Ground	All Others

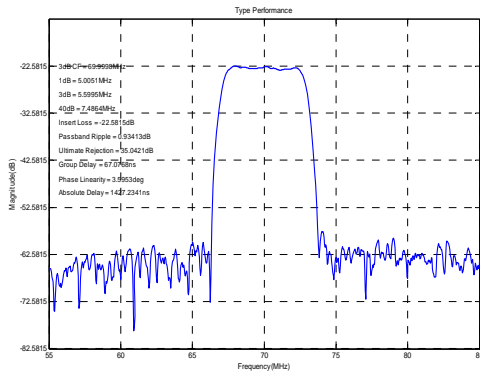
Package: SMD13.3*6.5C

Unit: mm

	SIPAT Co., Ltd. (CETC No.26 Research Institute) #14 Nanping Huayuan Road, Chongqing, China, 400060	Part Number	LBT7028S	
		Rev. Date	2008-01-17	
		Ver.	1.1	Page

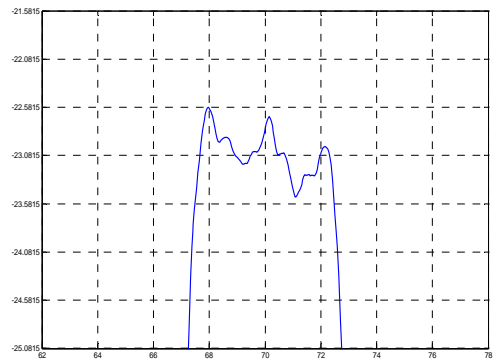
Typical Performance

Frequency Response



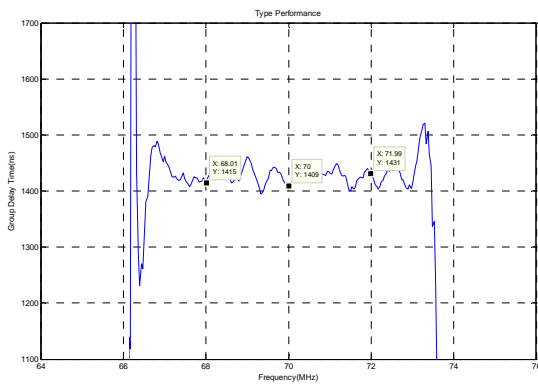
Horizontal: 5MHz/Div Vertical: 10dB/Div

Passband Response



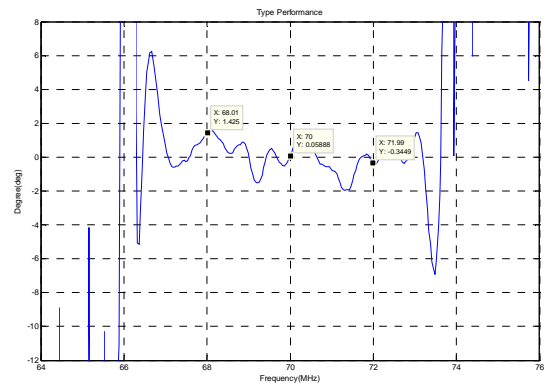
Horizontal: 2MHz/Div Vertical: 0.5dB/Div

Group Delay Variation(f0±2MHz)



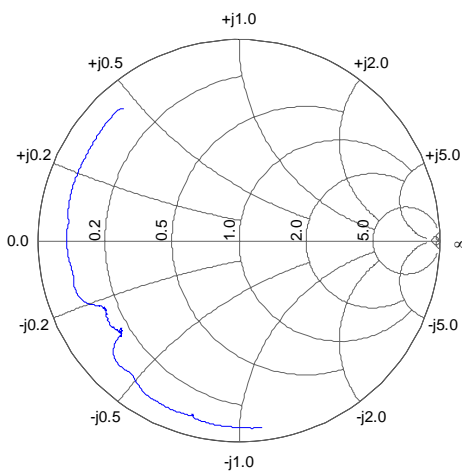
Horizontal: 2MHz/Div Vertical: 100ns/Div

Phase Linearity(f0±2MHz)

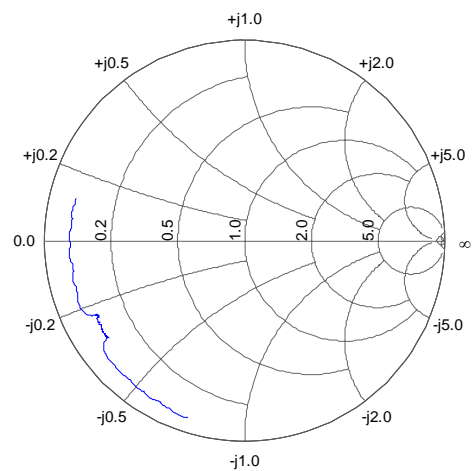


Horizontal: 2MHz/Div Vertical: 2deg/Div

Smith Chart S11



Smith Chart S22




SIPAT Co., Ltd.
(CETC No.26 Research Institute)
#14 Nanping Huayuan Road,
Chongqing, China, 400060

Part Number	LBT7028S	
Rev. Date	2008-01-17	
Ver.	1.1	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

	SIPAT Co., Ltd. (CETC No.26 Research Institute) #14 Nanping Huayuan Road, Chongqing, China, 400060	Part Number	LBT7028S	
		Rev. Date	2008-01-17	
		Ver.	1.1	Page