

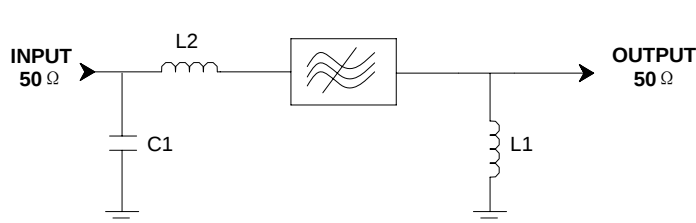
Specifications

Parameter		Unit	Minimum	Typical	Maximum
Center Frequency		MHz	-	400	-
Insertion Loss(f0±20MHz)		dB	-	16	18
1.5 dB Bandwidth		MHz	40	45.02	-
3 dB Bandwidth		MHz	45	46.25	-
35 dB Bandwidth		MHz	-	53.8	56
Passband Variation(f0±20MHz)		dB	-	0.8	1.5
Absolute Delay		usec	-	0.44	-
Group Delay Variation(f0±20MHz)		nsec	-	40	150
Ultimate Rejection	1 ~370MHz	dB	30	35	-
	430 ~500MHz	dB	30	35	-
	500 ~1000MHz	dB	30	38	
Material Temperature coefficient		KHz/°C	-37.6		
Ambient Temperature		°C	25		
Package Size		SMD7.0*5.0			

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



$$L1 = L2 = 10\text{nH}$$

$$C1 = 6.8\text{pF}$$

Source / Load Impedance = 50 ohm

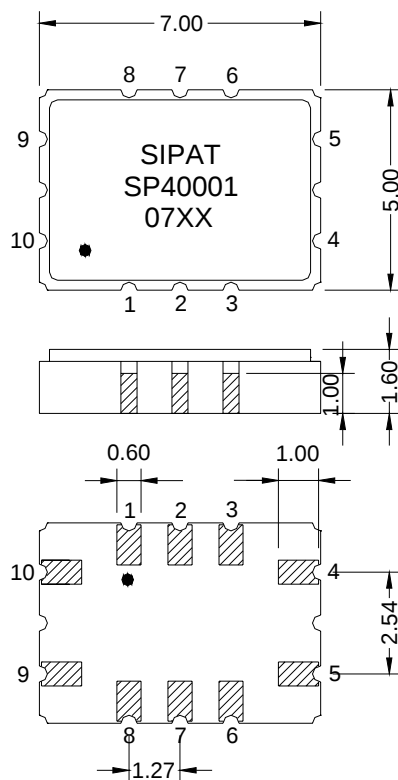
Notes - Component values may change depending on board layout.



SIPAT Co., Ltd.
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Nanping Huayuan Road No. 14
Chongqing, China, 400060

Part Number	SP40001		
Rev. Date	2007-04-25		
Ver.	1.0	Page	1/4

Package Dimension



- 1) ∴ Pad Number 1 Index
- 2) SIPAT: Manufacturer name
- 3) SP40001: Part Number
- 4) 07XX: Date Code

Input	9
Output	4
Ground	1,2,3,5,6,7,8,10

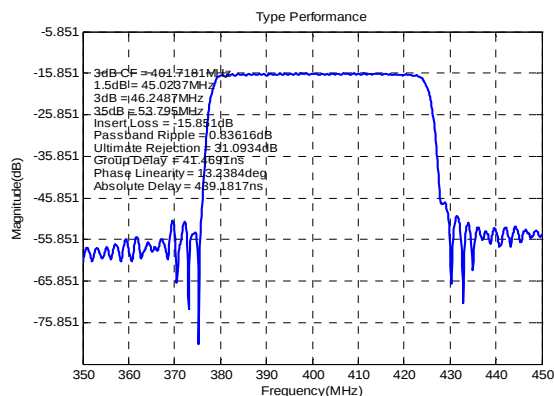
Package: SMD7.0*5.0

Unit: mm

	SIPAT Co., Ltd. (CETC No. 26 Research Institute) Nanping Huayuan Road No. 14 Chongqing, China, 400060	Part Number	SP40001	
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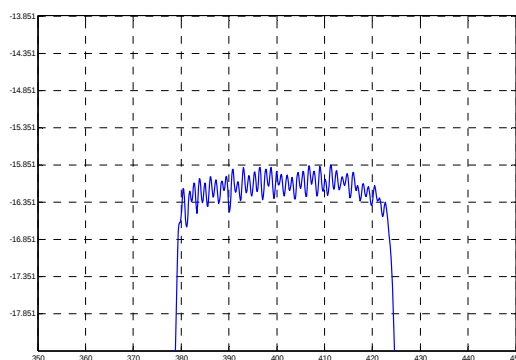
Typical Performance

Frequency Response



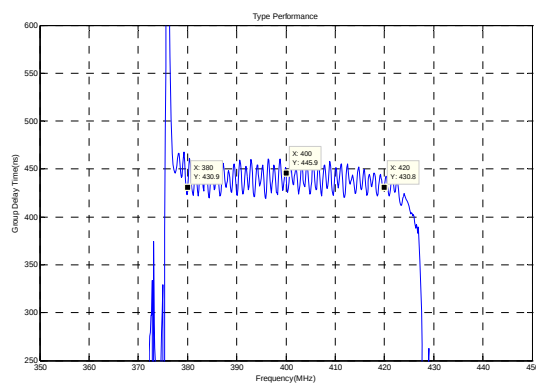
Horizontal: 10MHz/Div Vertical: 10dB/Div

Passband Response



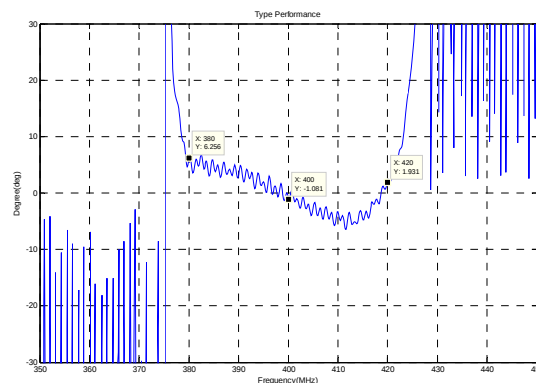
Horizontal: 10MHz/Div Vertical: 0.5dB/Div

Group Delay Variation (f0±20MHz)



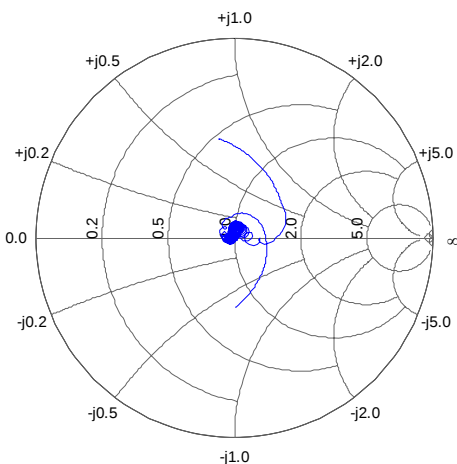
Horizontal: 10MHz/Div Vertical: 50ns/Div

Phase Linearity (f0±20MHz)

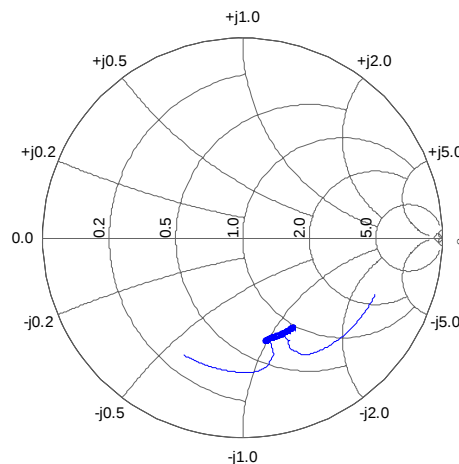


Horizontal: 10MHz/Div Vertical: 10deg/Div

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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