

Specifications

Parameter		Unit	Minimum	Typical	Maximum
Center Frequency		MHz	-	450	-
Insertion Loss(f0±20MHz)		dB	-	20	24
1.5 dB Bandwidth		MHz	40	46.14	-
3 dB Bandwidth		MHz	45	48.27	-
35 dB Bandwidth		MHz	-	56.98	60
Passband Variation(f0±20MHz)		dB	-	1.3	1.5
Absolute Delay		usec	-	0.68	-
Group Delay Variation(f0±20MHz)		nsec	-	40	150
Ultimate Rejection	100 ~420MHz	dB	30	29	-
	480 ~500MHz	dB	30	24	-
	500 ~1000MHz	dB	30	31	-
Material Temperature coefficient		KHz/°C	-42.3		
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

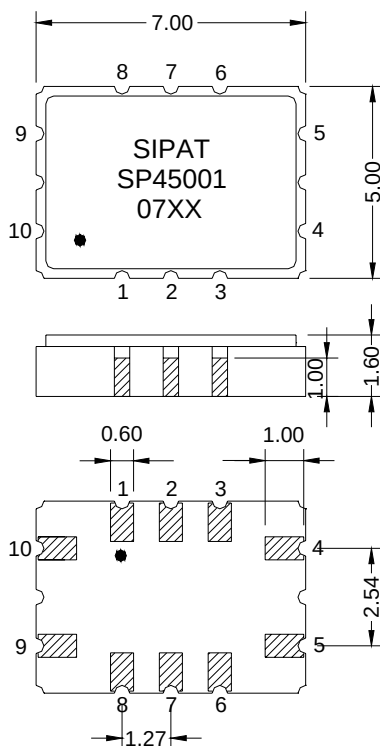


Source /Load Impedance= 50 ohm

Notes - Component values may change depending on board layout.

	SIPAT Co., Ltd. (CETC No. 26 Research Institute) Nanping Huayuan Road No. 14 Chongqing, China, 400060	Part Number	SP45001	
		Rev. Date	2007-05-06	
		Ver.	1.0	Page 1/4

Package Dimension



- 1) ∴ Pad Number 1 Index
- 2) SIPAT: Manufacturer name
- 3) SP45001: Part Number
- 4) 07XX: Date Code

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

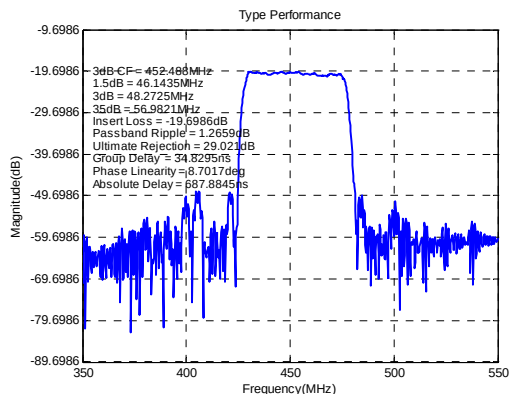
Package: SMD7.0*5.0

Unit: mm

	SIPAT Co., Ltd. (CETC No. 26 Research Institute) Nanping Huayuan Road No. 14 Chongqing, China, 400060	Part Number	SP45001	
		Rev. Date	2007-05-06	
		Ver.	1.0	Page 2/4

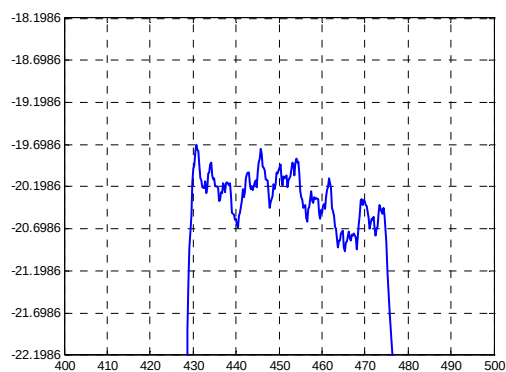
Typical Performance

Frequency Response



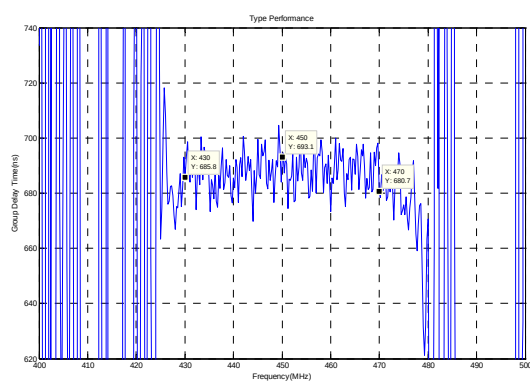
Horizontal: 50MHz/Div Vertical: 10dB/Div

Passband Response



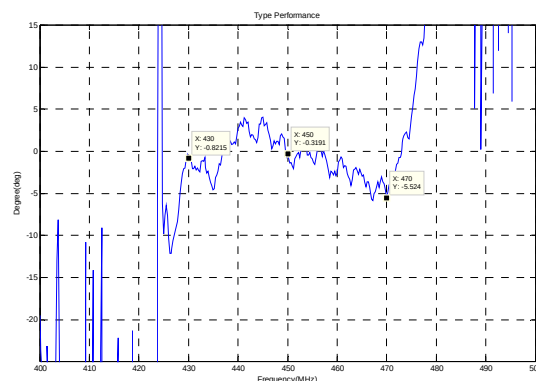
Horizontal: 10MHz/Div Vertical: 0.5dB/Div

Group Delay Variation(f0±20MHz)



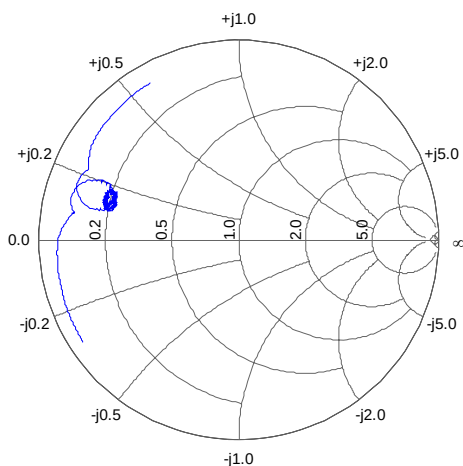
Horizontal: 10MHz/Div Vertical: 20ns/Div

Phase Linearity(f0±20MHz)

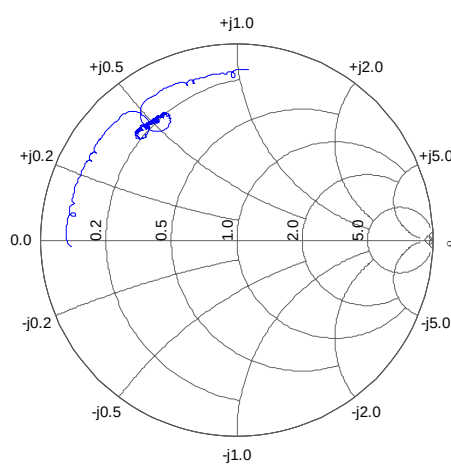


Horizontal: 10MHz/Div Vertical: 5deg/Div

Smith Chart S11



Smith Chart S22



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

Part Number SP45001

Rev. Date 2007-05-06

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

	SIPAT Co., Ltd. (CETC No. 26 Research Institute) Nanping Huayuan Road No. 14 Chongqing, China, 400060	Part Number	SP45001	
		Rev. Date	2007-05-06	
		Ver.	1.0	Page 4/4