



## SAW Bandpass Filter Specifications

Unit Name	SAW Bandpass Filter
Part Name	SY274351B
Date	October 15, 2004

Written by	Checked by	Approved by



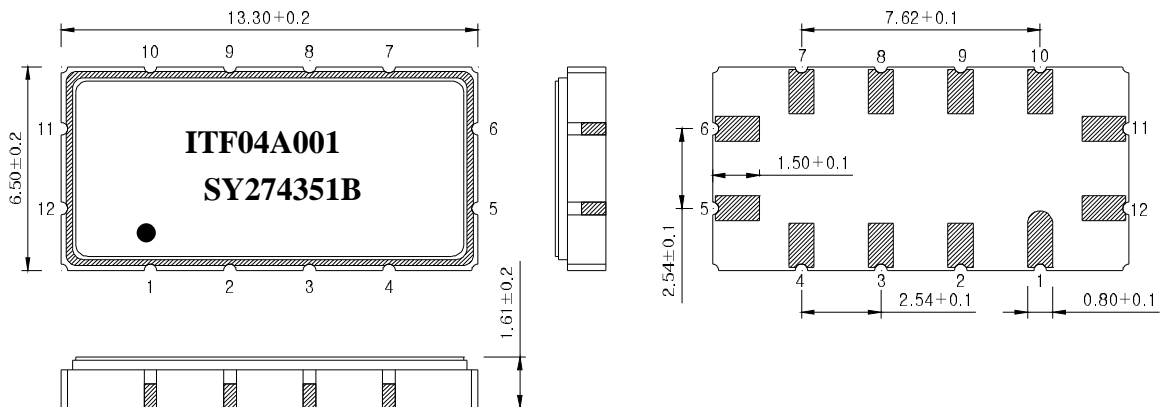
Systron Inc.  
1274 - 3<sup>rd</sup> Avenue South  
Lethbridge, Alberta  
T1J 0J9 Canada

Phone: (403) 327-1444  
Fax: (403) 327-1480  
e-mail: sales@systroninc.com

## 1. Features

- IF Bandpass Filter
- Low-Loss Filter
- Single-Ended Operation
- Ceramic Surface Mount Device (SMD) Package
- Maximum Storage Temperature Range : -40°C ~ 85°C
- Electrostatics Sensitive Device (ESD)

## 2. Package Dimensions



### Package : S1365

Dimensions shown are nominal in millimeters

Body : Al<sub>2</sub>O<sub>3</sub> Ceramic

Lid : Kovar, Ni Plated

Terminations : Au plating 0.3 ~ 1.0 um, Over a 1.27 ~ 8.89 um Ni Plating

Pad Configuration	
11	Input
5	Output
6, 12	Ground
Other	Case ground

### 3. Specifications

Fo = 70 MHz

<b>Operating temperature range : -25 to + 70 °C</b>		Minimum	Typical	Maximum
Center Frequency	MHz	69.55	70.0	70.45
Insertion Loss	dB	-	20.5	22.0
1dB Bandwidth	MHz	40.0	42.2	-
3dB Bandwidth	MHz	43.0	43.8	-
40dB Bandwidth	MHz	-	50.0	50.8
Amplitude Ripple (Fo +/- 19.75 MHz)	dB	-	0.8	1.0
Group Delay Variation (Fo +/- 19.75 MHz)	nsec	-	20	50
Absolute Delay	usec	-	0.95	-
Relative Attenuations				
0 ~ 45.35 MHz	dB	40	50	-
97.05 ~ 120 MHz	dB	35	43	-
Temperature Coefficient of Frequency	ppm/°C	-	-82	-

<b>Room temperature : + 25 °C</b>		Minimum	Typical	Maximum
Center Frequency	MHz	69.8	70.0	70.2
Insertion Loss	dB	-	20.5	21.5
1dB Bandwidth	MHz	40.0	42.2	-
3dB Bandwidth	MHz	43.0	43.8	-
40dB Bandwidth	MHz	-	50.0	50.8
Amplitude Ripple (Fo +/- 20.0 MHz)	dB	-	0.8	1.0
Group Delay Variation (Fo +/- 20.0 MHz)	nsec	-	20	50
Absolute Delay	usec	-	0.95	-
Relative Attenuations				
0 ~ 45.6 MHz	dB	40	50	-
96.8 ~ 120 MHz	dB	35	43	-
Temperature Coefficient of Frequency	ppm/°C	-	-82	-

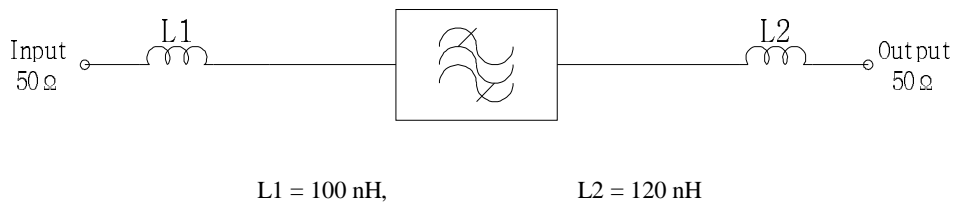
---

**Notes :**

- 1) All specifications are based on the matching schematic shown below
- 2) All specifications are measured by Agilent Network analyzer and full 2 port calibration
- 3) Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances
- 4) All attenuation measurements are measured relative to insertion loss

#### 4. Matching Schematic

( Actual matching values may vary due to PCB layout and parasitics )



#### 5. Marking Configuration

ITF04A001<sup>1)</sup>

SY274351B<sup>2)</sup>

● <sup>3)</sup>

1) Lot Number

2) Part Number

3) Pad Number 1 Index

## 6. Typical Performance ( at +25°C )

