



## SAW Bandpass Filter Specifications

Unit Name	SAW Bandpass Filter
Part Name	SY250451B
Date	October 19, 2005

Written by	Checked by	Approved by



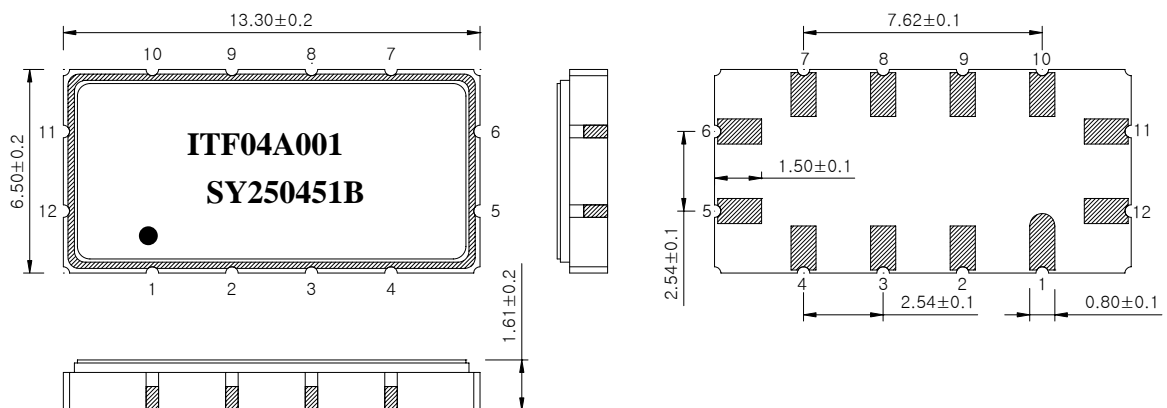
Systron Inc.  
1274 - 3<sup>rd</sup> Avenue South  
Lethbridge, Alberta  
T1J 0J9 Canada

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 :  $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$
- Electrostatics Sensitive Device (ESD)

## 2. Package Dimensions



### Package : S1365

Dimensions shown are nominal in millimeters

Body :  $\text{Al}_2\text{O}_3$  Ceramic

Lid : Kovar, Ni Plated

Terminations : Au plating  $0.3 \sim 1.0 \mu\text{m}$ , Over a  $1.27 \sim 8.89 \mu\text{m}$  Ni Plating

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

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### 3. Specifications

Fo = 140.0 MHz

Terminating source impedance : 50Ω and matching network

Terminating load impedance : 50Ω and matching network

Operating temperature range : -10°C ~ +60°C		Minimum	Typical	Maximum
Center Frequency	MHz	139.6	140.0	140.4
Insertion Loss	dB	-	10.8	13.0
1dB Bandwidth	MHz	3.4	3.9	-
3dB Bandwidth	MHz	4.0	4.8	-
40dB Bandwidth	MHz	-	7.7	9.1
Amplitude Ripple (Fo +/- 1.6 MHz)	dB	-	0.7	1.0
Group Delay Variation (Fo +/- 1.6 MHz)	nsec	-	50	100
Absolute Delay	usec	-	1.0	-
Ultimate Rejection	dB	45	55	-
Temperature Coefficient of Frequency	ppm/°C	-	-23	-

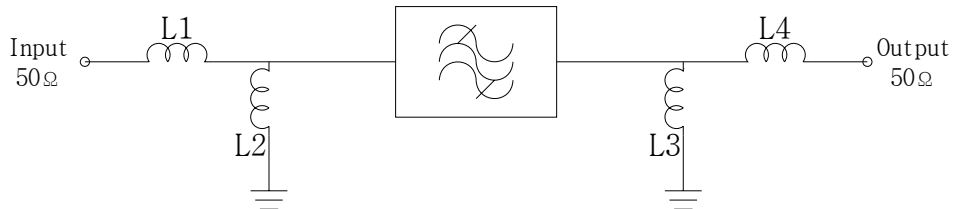
#### Notes :

- 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

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## 4. Matching Schematic

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



L1 = 68 nH,

L4 = 47 nH

L2 = 56 nH,

L3 = 39 nH

## 5. Marking Configuration

ITF04A001<sup>1)</sup>

SY250451B<sup>2)</sup>

● <sup>3)</sup>

1) Lot Number

2) Part Number

3) Pad Number 1 Index

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

