



SAW Bandpass Filter Specifications

Unit Name	SAW Bandpass Filter
Part Name	SY250851B
Date	April 13, 2004

Written by	Checked by	Approved by



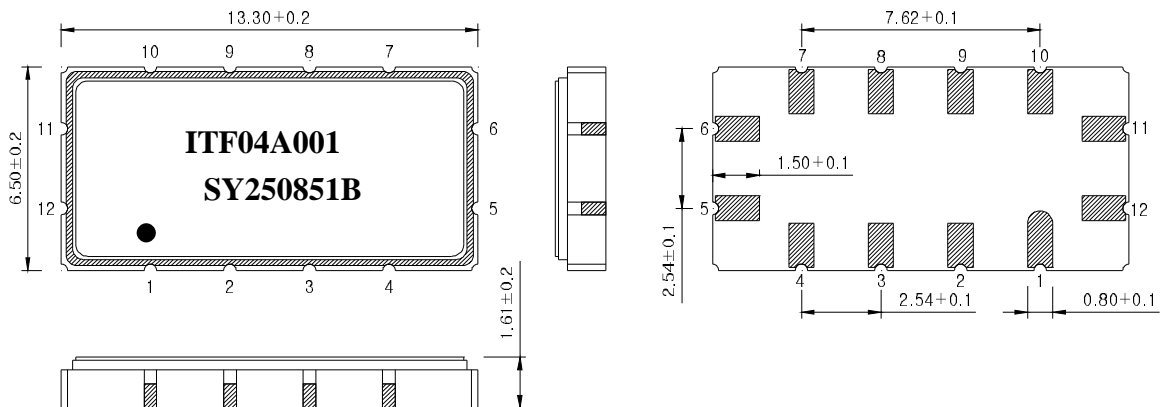
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1. Features

- 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 : Al₂O₃ 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 = 140 MHz

Terminating source impedance : 50Ω and matching network

Terminating load impedance : 50Ω and matching network

Operating Temperature Range : -35°C ~ +75°C		Minimum	Typical	Maximum
Center Frequency	MHz	139.2	140.0	140.8
Insertion Loss	dB	-	7.0	8.5
1dB Bandwidth	MHz	7.4	7.7	-
3dB Bandwidth	MHz	8.4	8.8	-
40dB Bandwidth	MHz	-	12.2	13.0
Amplitude Ripple (Fo +/- 2.6 MHz)	dB	-	0.6	1.0
Group Delay Variation (Fo +/- 2.6 MHz)	nsec	-	60	150
Absolute Delay	usec	-	0.87	-
Ultimate Rejection	dB	40	45	-
Temperature Coefficient of Frequency	ppm/°C	-	-86	-

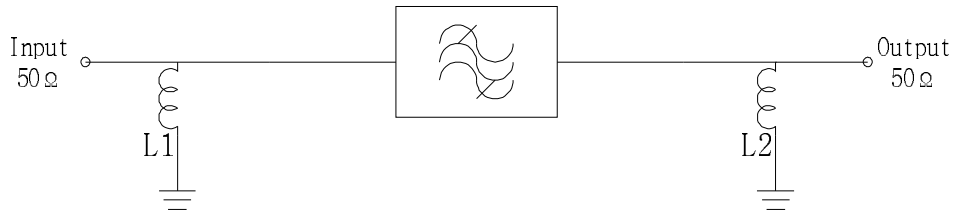
Room Temperature : +25°C		Minimum	Typical	Maximum
Amplitude Ripple (Fo +/-3.2 MHz)	dB	-	0.6	1.0
Group Delay Variation (Fo +/- 3.2 MHz)	nsec	-	60	150

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)



L1 = 56 nH, L2 = 47 nH

5. Marking Configuration

ITF04A001¹⁾

SY250851B²⁾

●³⁾

1) Lot Number

2) Part Number

3) Pad Number 1 Index

6. Typical Performance (at +25°C)

