



SAW Bandpass Filter Specifications

Unit Name	SAW Bandpass Filter
Part Name	SY250251B
Date	November 24, 2004

Written by	Checked by	Approved by



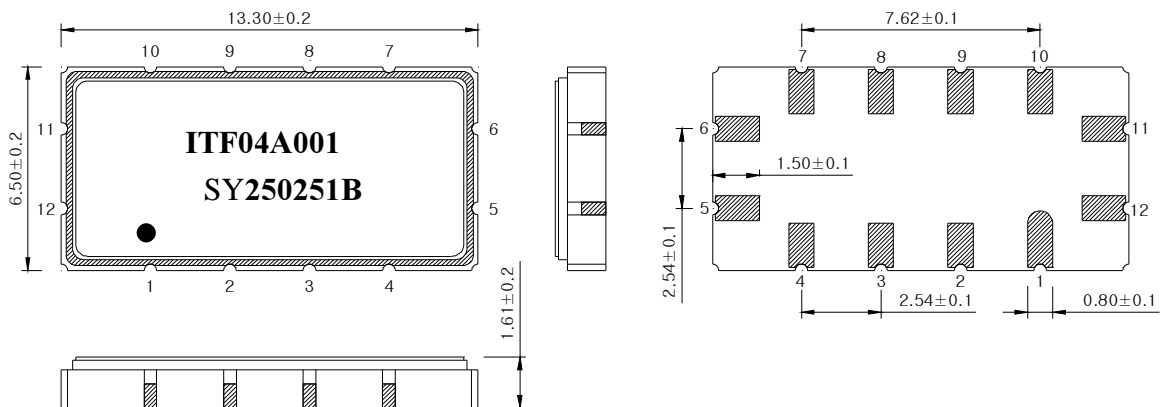
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1. Features

- 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

F_o = 140 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	-	140.0	-
Insertion Loss	dB	-	11.0	14.5
1dB Bandwidth	MHz	-	1.77	-
3dB Bandwidth	MHz	1.9	2.2	-
25dB Bandwidth	MHz	-	3.4	3.5
Amplitude Ripple (F _o +/- 0.6 MHz)	dB	-	0.6	1.5
Group Delay Variation (F _o +/- 0.6 MHz)	nsec	-	170	300
Absolute Delay	usec	-	1.7	-
Attenuation at F _o +/- 1.75 MHz	dB	20	25	-
Ultimate Rejection	dB	35	45	-
Temperature Coefficient of Frequency	ppm/°C	-	-23	-

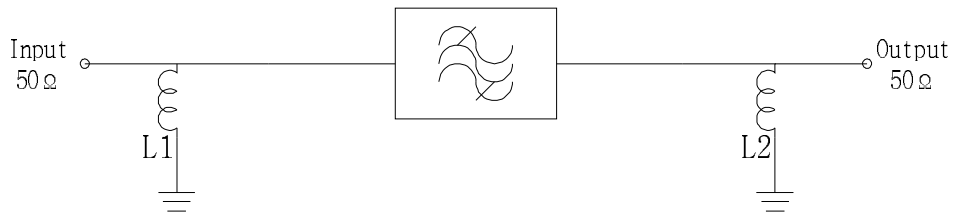
Room Temperature : +25°C		Minimum	Typical	Maximum
Amplitude Ripple (F _o +/- 0.7 MHz)	dB	-	0.6	1.5
Group Delay Variation (F _o +/- 0.7 MHz)	nsec	-	180	300

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)



$$L1 = L2 = 39 \text{ nH}$$

5. Marking Configuration

ITF04A001¹⁾

SY250251B²⁾

●³⁾

1) Lot Number

2) Part Number

3) Pad Number 1 Index

6. Typical Performance (at +25°C)

