

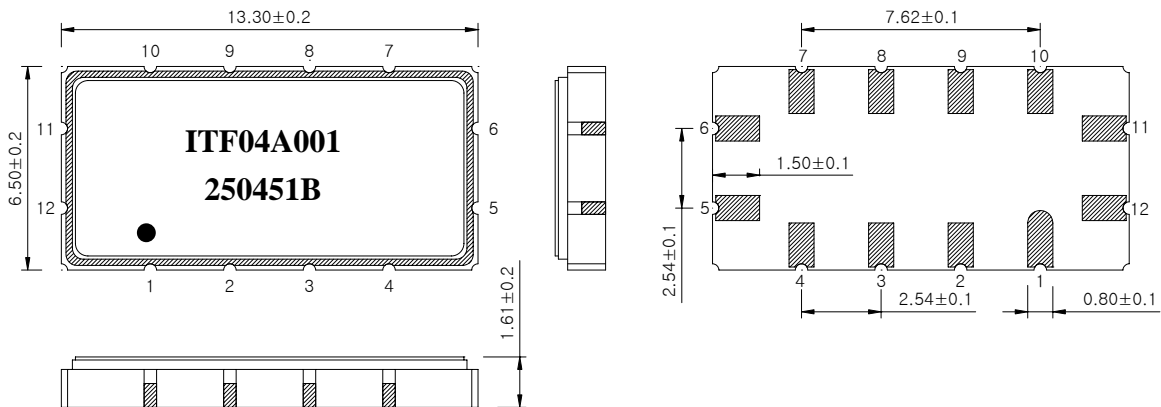
# SAW Bandpass Filter 250451B



## 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



**ITF Co., Ltd.**  
 102-901, Bucheon Technopark 364,  
 Samjeong-Dong, Ojeong-Gu, Bucheon-City,  
 Gyeonggi-Do, Korea 421-809

Part No.	250451B	
Rev. Date	2005-10-19	
Rev.	NJ3010-CS04	1/5

# SAW Bandpass Filter 250451B



## 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

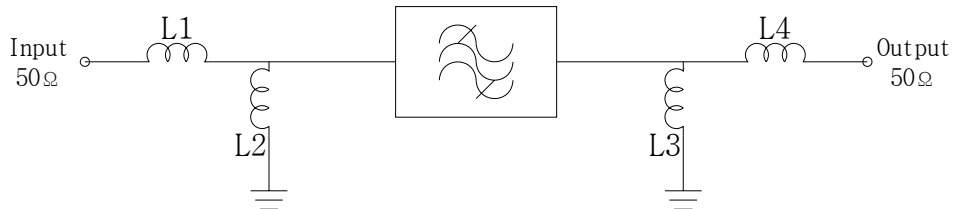
 Integrated Technology Future	<b>ITF Co., Ltd.</b> 102-901, Bucheon Technopark 364, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Gyeonggi-Do, Korea 421-809	Part No.	250451B	
		Rev. Date	2005-10-19	
		Rev.	NJ3010-CS04	2/5

# SAW Bandpass Filter 250451B



## 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

ITF<sup>1)</sup>04A001<sup>2)</sup>

250451B<sup>3)</sup>

●<sup>4)</sup>

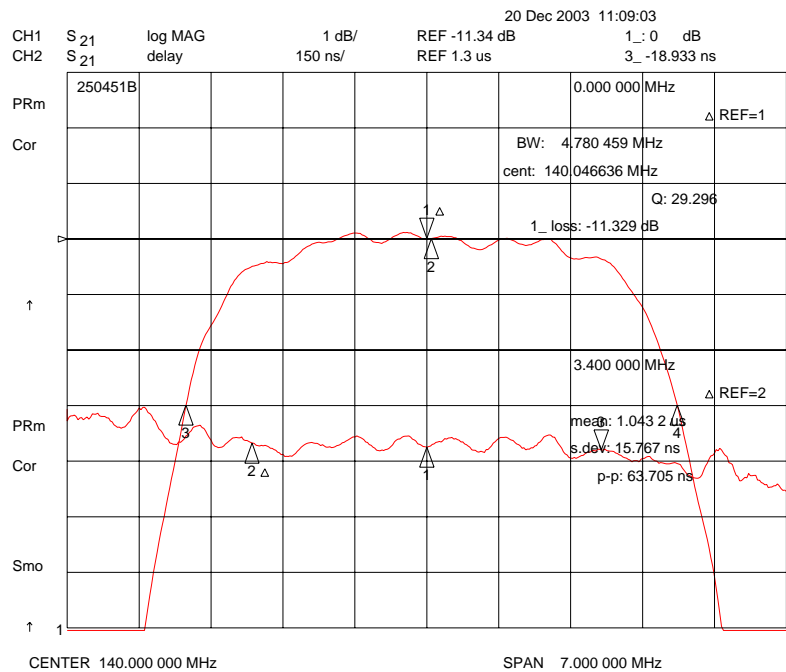
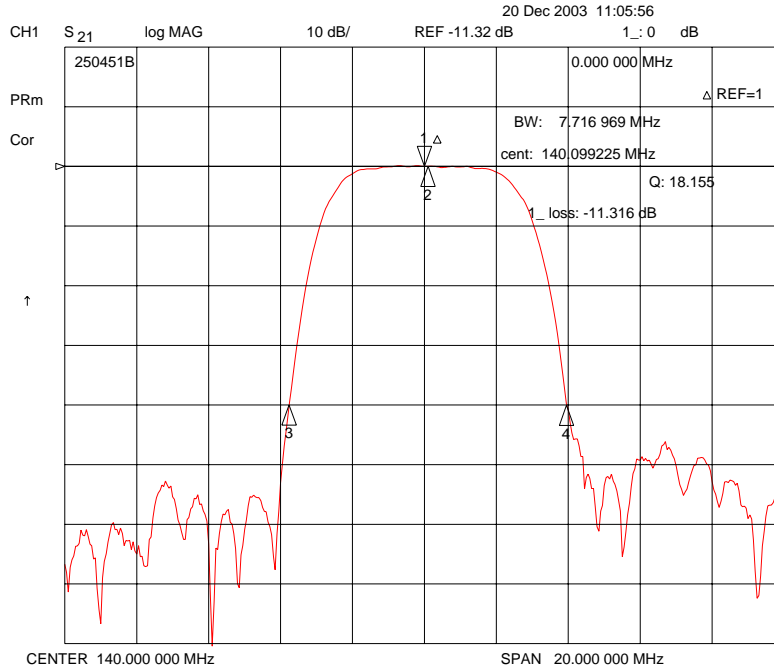
- 1) Manufacturer name
- 2) Lot Number
- 3) Part Number
- 4) Pad Number 1 Index

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		Rev. Date	2005-10-19	
		Rev.	NJ3010-CS04	3/5

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



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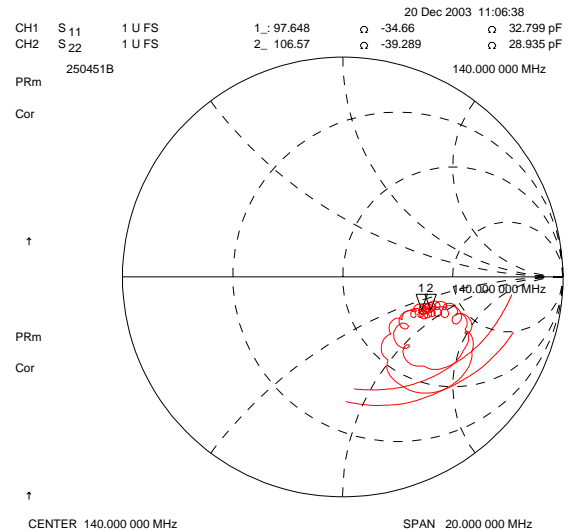
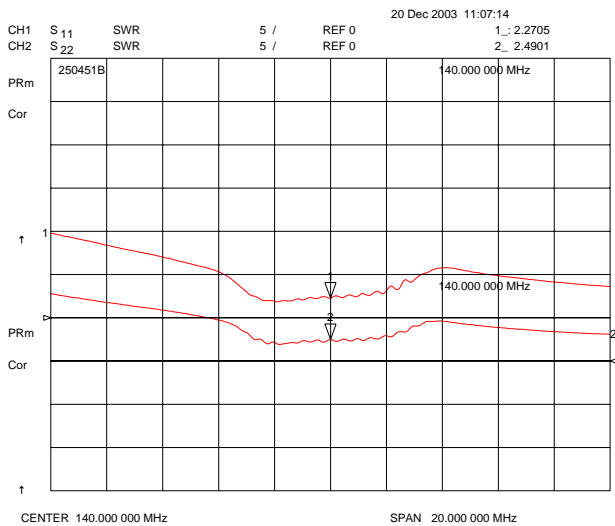
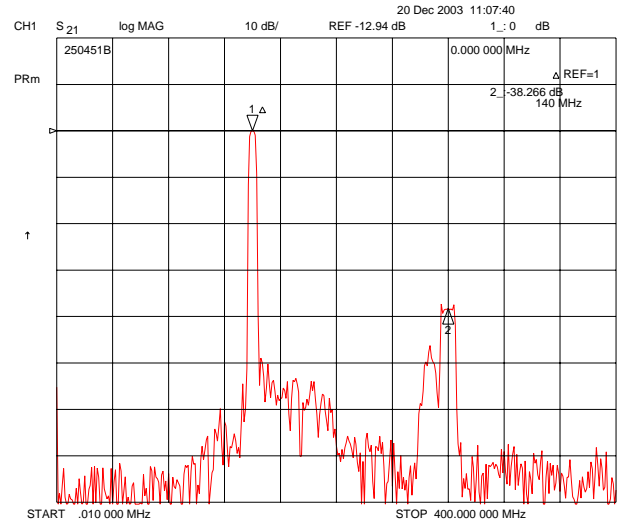
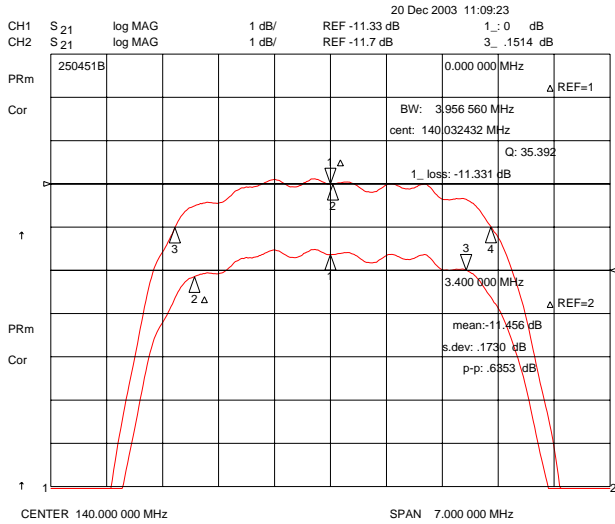
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Rev.

NJ3010-CS04

4/5

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Rev. Date	2005-10-19	
Rev.	NJ3010-CS04	5/5