

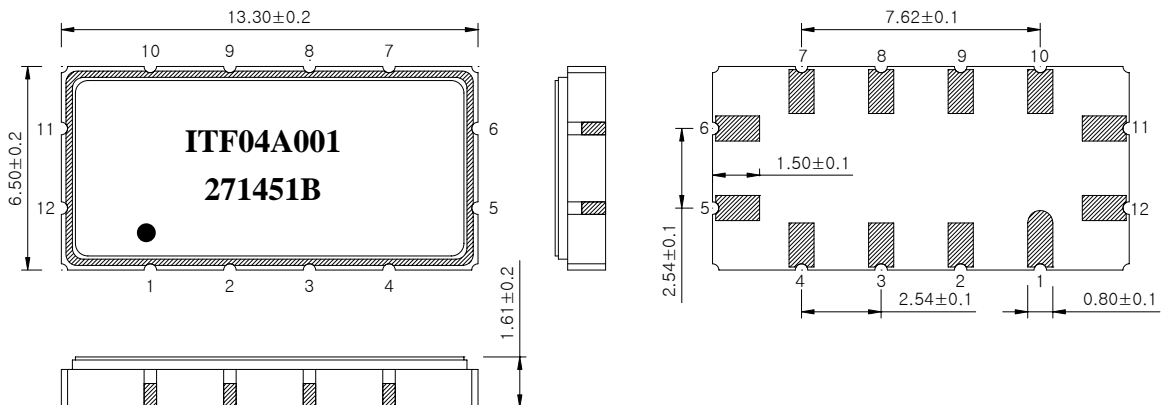
SAW Bandpass Filter 271451B



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



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

Part No.	271451B	
Rev. Date	2004-06-09	
Rev.	NJ4008-CS01	1/6

SAW Bandpass Filter 271451B



3. Specifications

Fo = 70.0 MHz

Terminating source impedance : 50Ω and matching network

Terminating load impedance : 50Ω and matching network

Operating Temperature Range : -40°C ~ +85°C		Minimum	Typical	Maximum
Center Frequency	MHz	69.5	70.0	70.5
Insertion Loss	dB	-	12.0	13.5
1dB Bandwidth	MHz	13.3	13.6	-
3dB Bandwidth	MHz	14.2	14.5	-
40dB Bandwidth	MHz	-	18.9	19.8
Amplitude Ripple (Fo +/- 5.75 MHz)	dB	-	0.5	1.0
Group Delay Variation (Fo +/- 5.75 MHz)	nsec	-	30	100
Phase Linearity(Fo +/- 5.75 MHz)	degree	-	30	50
Absolute Delay	usec	-	0.85	-
Relative Attenuation				
at 0.1 to 55.0 MHz	dB	50	55	-
at 55.0 to 60.0 MHz	dB	40	50	-
at 63.35 to 76.65 MHz	dB	-	1.0	3.0
at 80.0 to 85.0 MHz	dB	40	45	-
at 85.0 to 110.0 MHz	dB	50	55	-
Temperature Coefficient of Frequency	ppm/°C	-	-86	-

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

	ITF Co., Ltd. 102-901, Bucheon Technopark 364, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Gyeonggi-Do, Korea 421-809	Part No.	271451B	
		Rev. Date	2004-06-09	
		Rev.	NJ4008-CS01	2/6

SAW Bandpass Filter 271451B



Ambient temperature range : 25°C		Minimum	Typical	Maximum
Center Frequency	MHz	69.85	70.0	70.15
Insertion Loss	dB	-	12.0	12.7
1dB Bandwidth	MHz	13.3	13.6	-
3dB Bandwidth	MHz	14.2	14.5	-
40dB Bandwidth	MHz	-	18.9	19.8
Amplitude Ripple (Fo +/- 6.1 MHz)	dB	-	0.5	1.0
Group Delay Variation (Fo +/- 6.1 MHz)	nsec	-	30	100
Phase Linearity(Fo +/- 6.1 MHz)	degree	-	10	15
Absolute Delay	usec	-	0.85	-
Relative Attenuation				
at 0.1 to 55.0 MHz	dB	50	55	-
at 55.0 to 60.35 MHz	dB	40	50	-
at 63.0 to 77.0 MHz	dB	-	2.0	3.0
at 79.65 to 85.0 MHz	dB	40	45	
at 85.0 to 110.0 MHz	dB	50	55	-
Temperature Coefficient of Frequency	ppm/°C	-	-86	-

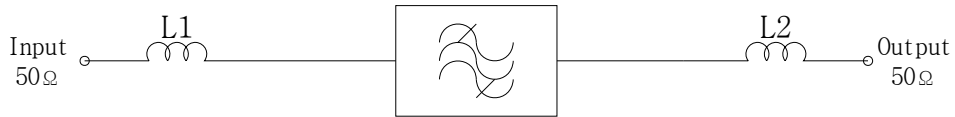
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		Rev. Date	2004-06-09	
		Rev.	NJ4008-CS01	3/6

SAW Bandpass Filter 271451B



4. Matching Schematic

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



L1 = 180 nH, L2 = 150 nH

5. Marking Configuration

ITF¹⁾ 04A001²⁾

271451B³⁾


●⁴⁾

1) Manufacturer name

2) Lot Number

3) Part Number

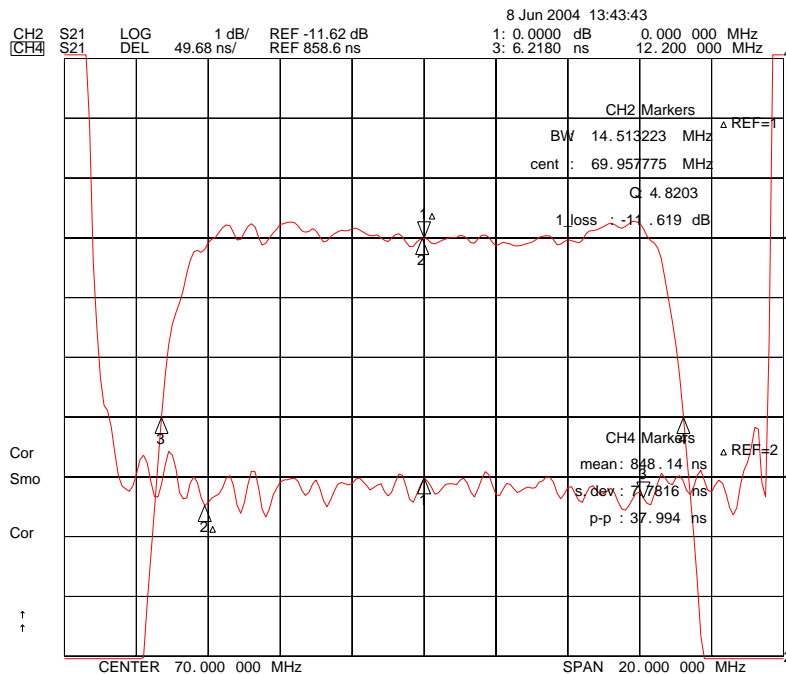
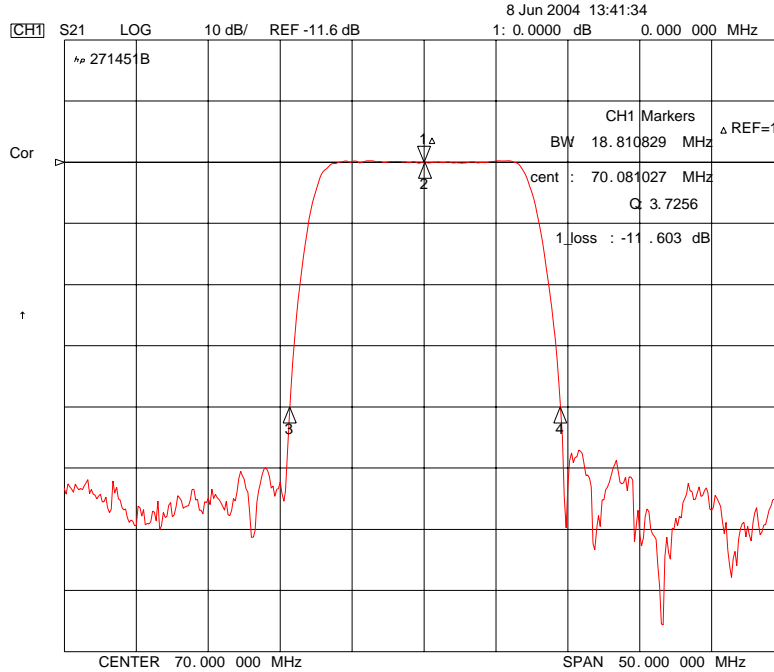
4) Pad Number 1 Index

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		Rev. Date	2004-06-09	
		Rev.	NJ4008-CS01	4/6

SAW Bandpass Filter 271451B



6. Typical Performance (at +25°C)



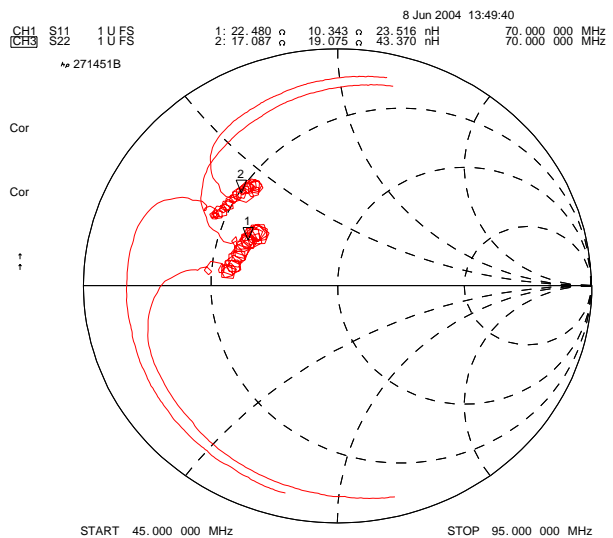
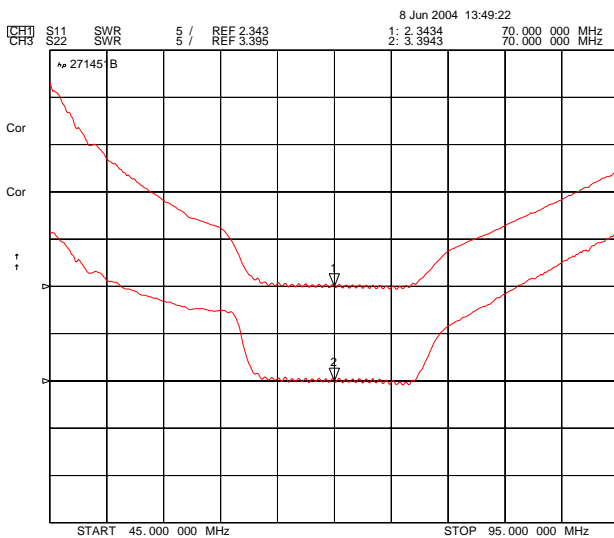
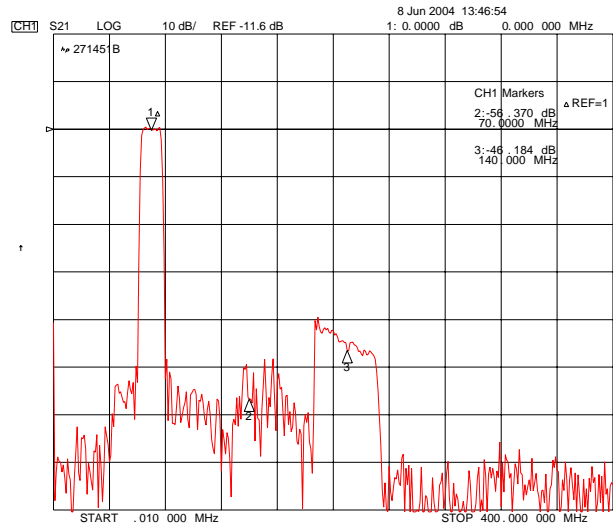
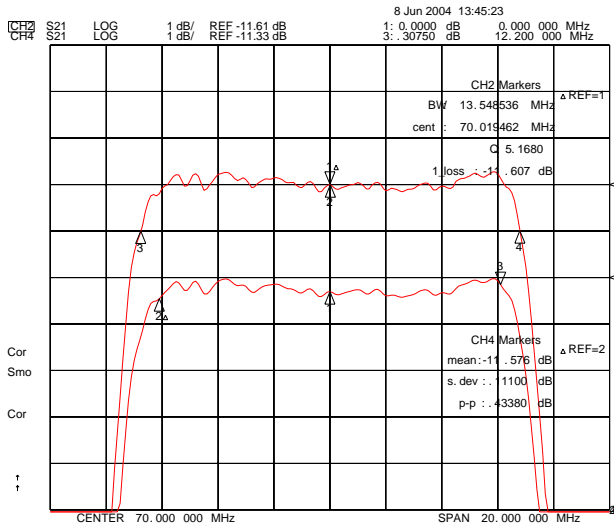
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Rev. NJ4008-CS01 5/6

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Rev.	NJ4008-CS01	6/6