

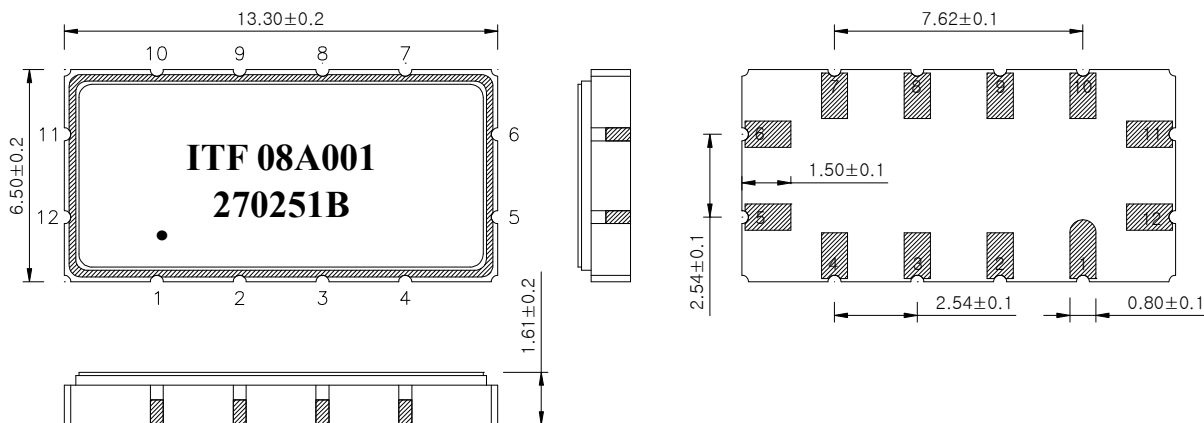
Bandpass Filter 270251B



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 Dimension



Package : S1365

Dimensions shown are nominal in millimeters

Body : Al₂O₃

Lid : Kovar, Ni Plated

Termination : Au plating 0.3 ~ 1.0um, over a 1.27 ~ 8.89um Ni Plating

| Pin 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. | 270251B | |
| | | Rev. Date | 2008-05-16 | |
| | | Rev. | NJ8007-AS01 | 1/5 |

Bandpass Filter 270251B



3. Specifications

Fo = 70.0 MHz

Terminating source impedance : 50Ω and matching network

Terminating load impedance : 50Ω and matching network

| Operating temperature range : -40℃ ~ +85℃ | | Minimum | Typical | Maximum |
|--|-------|---------|---------|---------|
| Center Frequency (Fc) | MHz | - | 70.0 | - |
| Insertion Loss | dB | - | 7.0 | 10.0 |
| 1dB Bandwidth | MHz | 1.6 | 2.1 | - |
| 3dB Bandwidth | MHz | - | 2.73 | - |
| 40dB Bandwidth | MHz | - | 4.9 | 5.5 |
| Amplitude Ripple (Fo +/- 0.4 MHz) | dB | - | 0.7 | 1.0 |
| Group Delay Variation (Fo +/- 0.4 MHz) | nsec | - | 80 | 150 |
| Absolute Delay | usec | - | 1.23 | - |
| Ultimate Rejection | dB | 40 | 45 | - |
| Temperature Coefficient of Frequency (TCF) | ppm/℃ | - | - 86 | - |

| Room temperature : + 25 ℃ | | Minimum | Typical | Maximum |
|--|------|---------|---------|---------|
| Insertion Loss | dB | - | 7.0 | 9.5 |
| Amplitude Ripple (Fo +/- 0.8 MHz) | dB | - | 0.7 | 1.0 |
| Group Delay Variation (Fo +/- 0.8 MHz) | nsec | - | 80 | 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

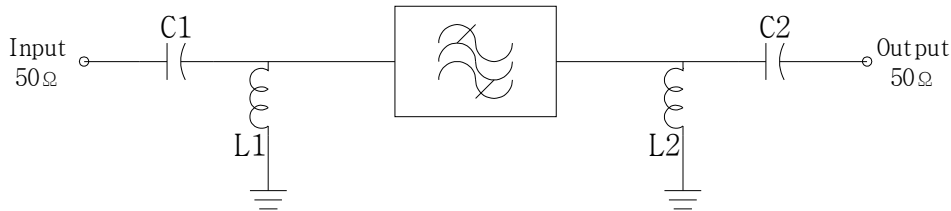
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| | | Rev. Date | 2008-05-16 | |
| | | Rev. | NJ8007-AS01 | 2/5 |

Bandpass Filter 270251B



4. Matching Schematic

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



$$C1 = C2 = 56 \text{ pF}$$

$$L1 = 120 \text{ nH}, \quad L2 = 82 \text{ nH}$$

5. Marking Configuration

ITF¹⁾ 08A001²⁾

270251B³⁾


●⁴⁾

1) Manufacturer name

2) Lot Number

3) Part Number

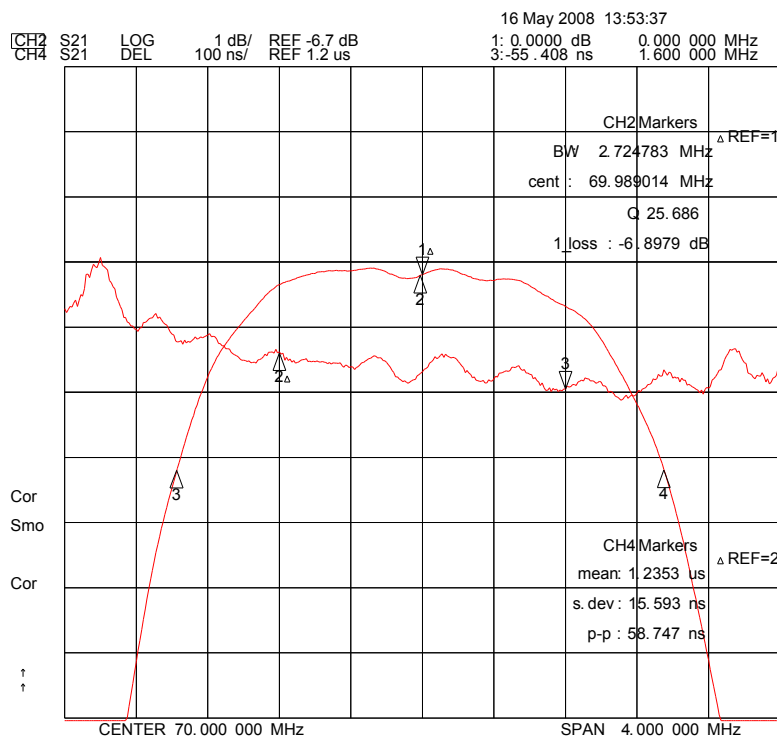
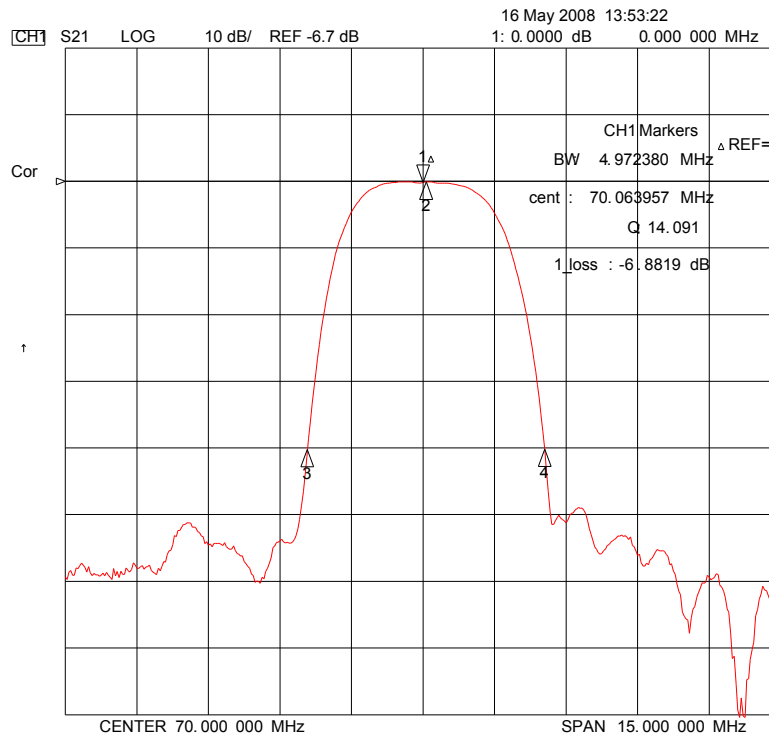
4) Pad Number 1 Index

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| | | Rev. Date | 2008-05-16 | |
| | | Rev. | NJ8007-AS01 | 3/5 |

Bandpass Filter 270251B

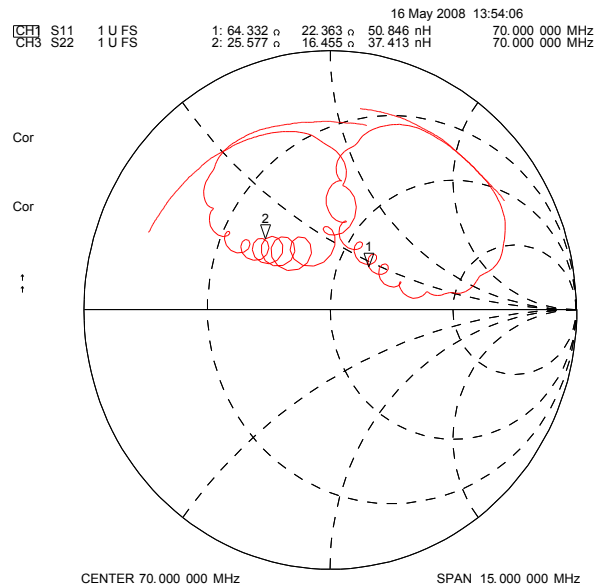
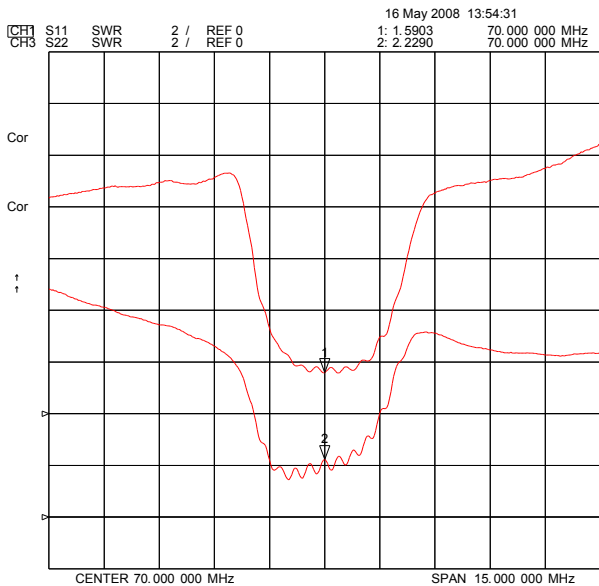
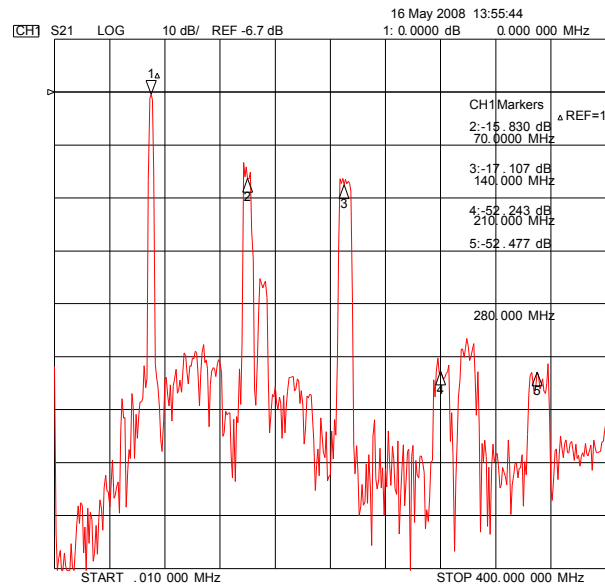
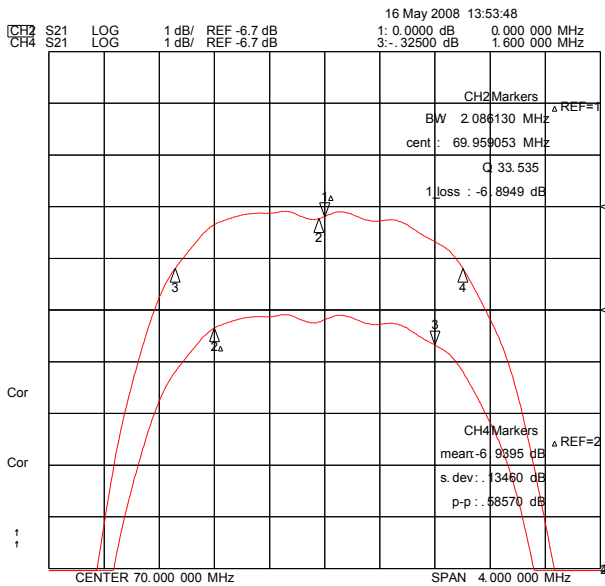


6. Typical Performance (at +25°C)



| | | | | |
|--|---|-----------|-------------|-----|
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| | | Rev. | NJ8007-AS01 | 4/5 |

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| Rev. Date | 2008-05-16 | |
| Rev. | NJ8007-AS01 | 5/5 |