

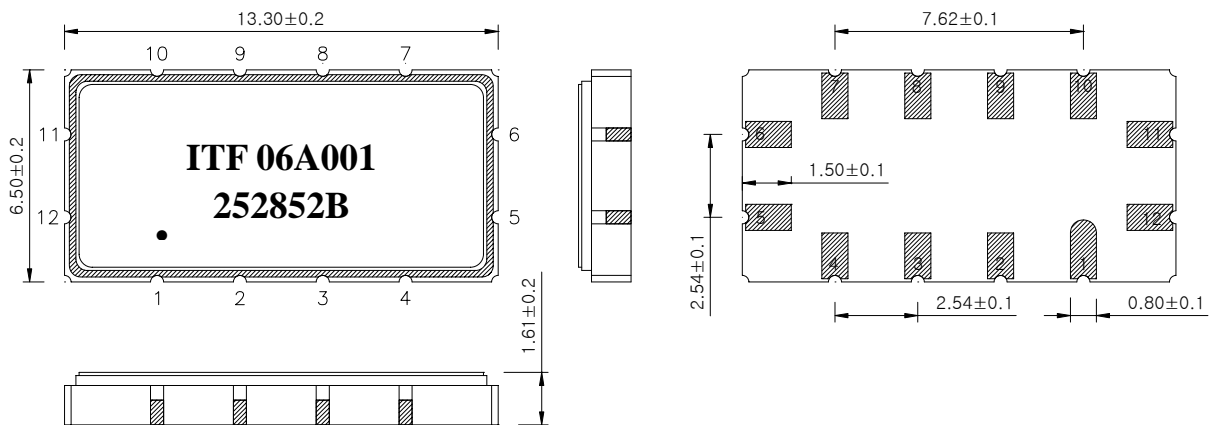
# Bandpass Filter 252852B



## 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 : Al<sub>2</sub>O<sub>3</sub>

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 |

|   |   |           |             |     |
|---|---|-----------|-------------|-----|
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|   |   | Rev. Date | 2006-07-11  |     |
|   |   | Rev.      | NJ6020-CS01 | 1/5 |

# Bandpass Filter 252852B



## 3. Specifications


Fo = 110.0 MHz

Terminating source impedance : 50Ω and matching network

Terminating load impedance : 50Ω and matching network

| Operating temperature range : -10℃ ~ +70℃  |       | Minimum | Typical | Maximum |
|--|-------|---------|---------|---------|
| Center Frequency (Fc)                      | MHz   | -       | 110.0   | -       |
| Insertion Loss                             | dB    | -       | 12.0    | 15.0    |
| 1dB Bandwidth                              | MHz   | 27.0    | 27.7    | -       |
| 3dB Bandwidth                              | MHz   | -       | 28.5    | -       |
| 40dB Bandwidth                             | MHz   | -       | 32.6    | 33.0    |
| Amplitude Ripple (Fo +/- 12.49 MHz)        | dB    | -       | 0.6     | 1.0     |
| Group Delay Variation (Fo +/- 12.49 MHz)   | nsec  | -       | 40      | 80      |
| Absolute Delay                             | usec  | -       | 0.82    | -       |
| Ultimate Rejection                         | dB    | 40      | 45      | -       |
| Temperature Coefficient of Frequency (TCF) | ppm/℃ | -       | - 86    | -       |

| Room temperature : + 25 ℃                |      | Minimum | Typical | Maximum |
|--|------|---------|---------|---------|
| Center Frequency                         | MHz  | -       | 110.0   | -       |
| Insertion Loss                           | dB   | -       | 12.0    | 14.5    |
| Amplitude Ripple (Fo +/- 12.95 MHz)      | dB   | -       | 0.6     | 1.0     |
| Group Delay Variation (Fo +/- 12.95 MHz) | nsec | -       | 40      | 80      |

|   |   |           |             |     |
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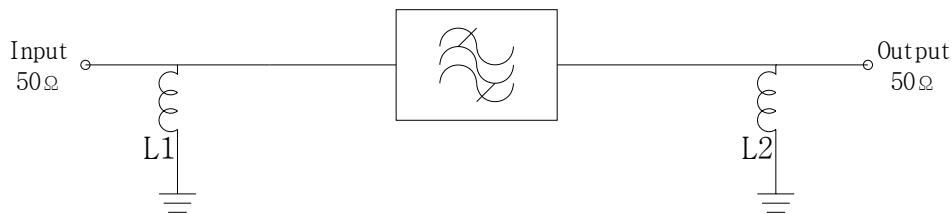


## Notes :

- 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 )



$$L1 = 39 \text{ nH}, \quad L2 = 47 \text{ nH}$$

## 5. Marking Configuration

ITF<sup>1)</sup> 06A001<sup>2)</sup>

252852B<sup>3)</sup>

● 4)

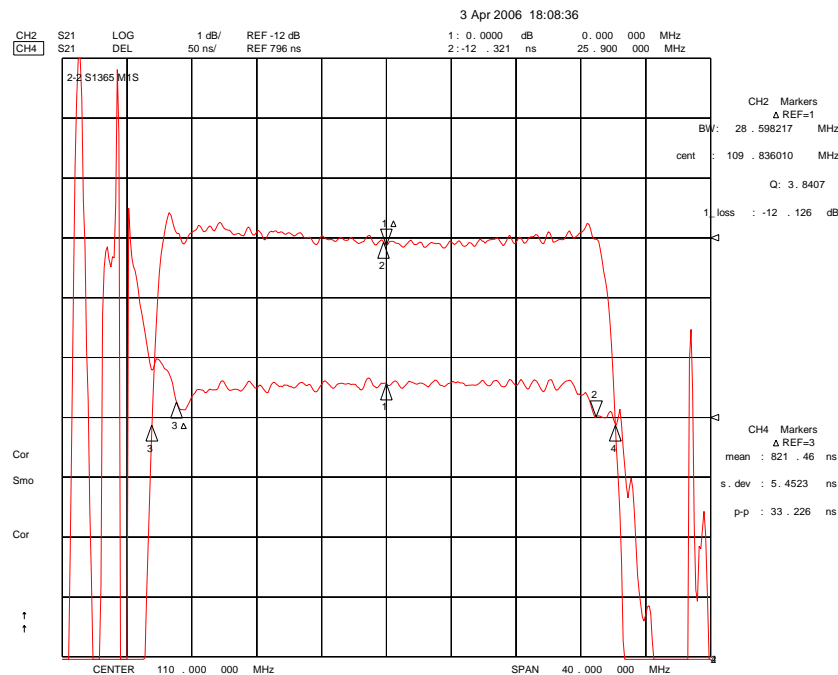
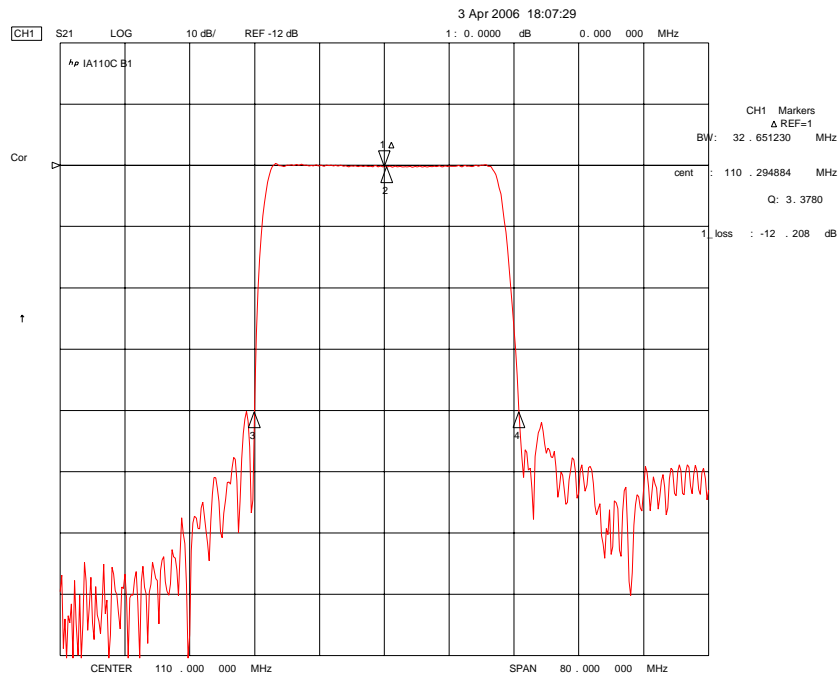
- 1) Manufacturer name
- 2) Lot Number
- 3) Part Number
- 4) Pad Number 1 Index

|  |   |           |             |     |
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|  |   | Rev. Date | 2006-07-11  |     |
|  |   | Rev.      | NJ6020-CS01 | 3/5 |

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



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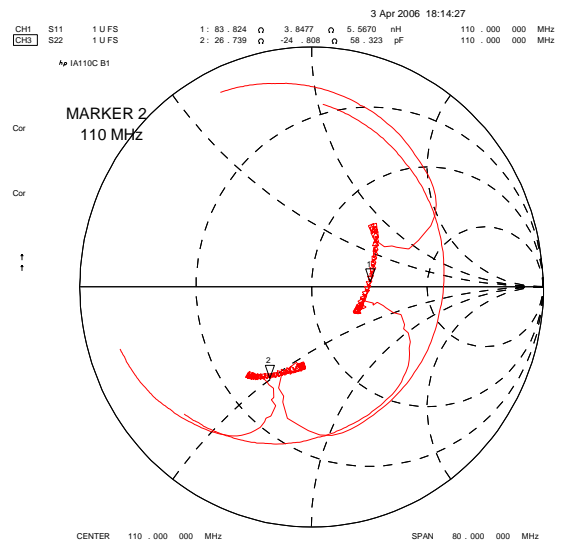
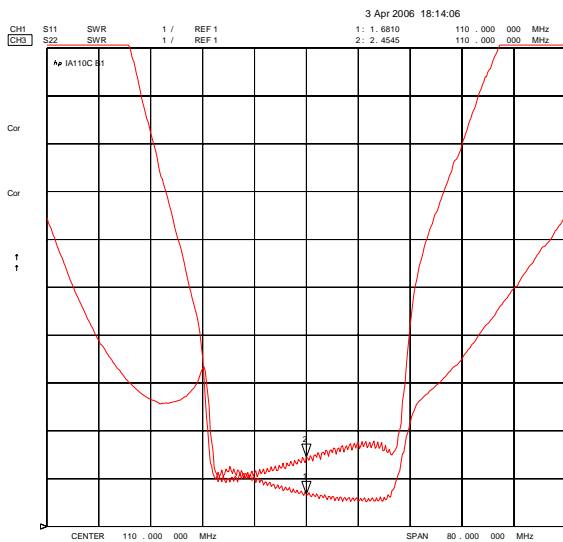
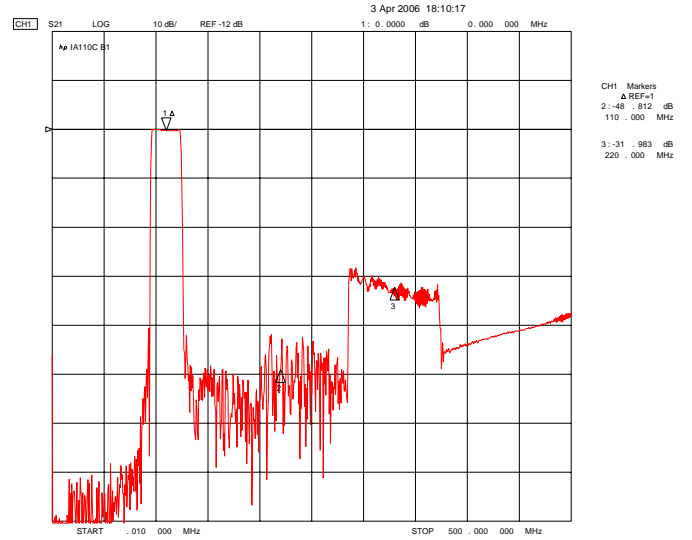
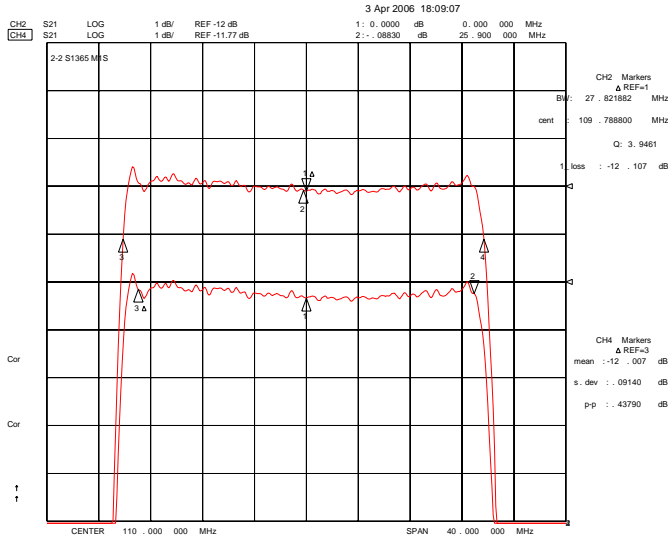
2006-07-11

Rev.

NJ6020-CS01

4/5

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| Rev. Date | 2006-07-11  |     |
| Rev.      | NJ6020-CS01 | 5/5 |