

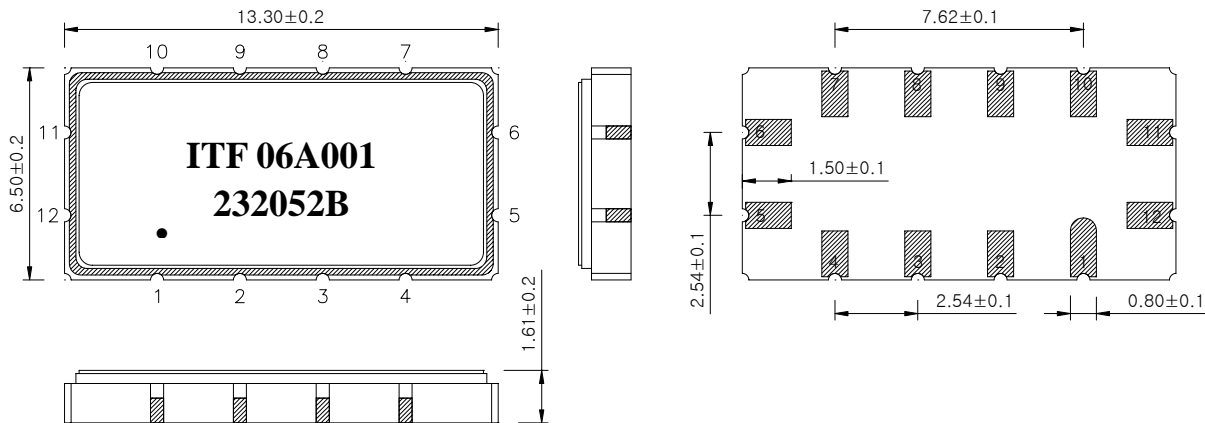
# Bandpass Filter 232052B



## 1. Features

- IF bandpass filter
- Low-Loss Filter
- Single-ended operation
- Ceramic Surface Mount Device(SMD) Package
- Maximum Storage Temperature Range : -40℃ ~ 85℃
- 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 |

|  |   |           |             |     |
|--|---|-----------|-------------|-----|
|  | <b>ITF Co., Ltd.</b><br>102-901, Bucheon Technopark 364,<br>Samjeong-Dong, Ojeong-Gu, Bucheon-City,<br>Gyeonggi-Do, Korea 421-809 | Part No.  | 232052B     |     |
|  |   | Rev. Date | 2007-01-04  |     |
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# Bandpass Filter 232052B



## 3. Specifications


Fo = 75.0 MHz

Terminating source impedance : 50Ω and matching network

Terminating load impedance : 50Ω and matching network

| Operating temperature range : -30℃ ~ +80℃  |        | Minimum | Typical | Maximum |
|--|--------|---------|---------|---------|
| Center Frequency (Fc)                      | MHz    | -       | 75.0    | -       |
| Insertion Loss                             | dB     | -       | 12.1    | 14.0    |
| 1dB Bandwidth                              | MHz    | 20.1    | 20.25   | -       |
| 3dB Bandwidth                              | MHz    | -       | 20.95   | -       |
| 40dB Bandwidth                             | MHz    | -       | 24.2    | 24.5    |
| Amplitude Ripple (Fo +/- 9.32 MHz)         | dB     | -       | 0.35    | 1.0     |
| Group Delay Variation (Fo +/- 9.32 MHz)    | nsec   | -       | 30      | 60      |
| Absolute Delay                             | usec   | -       | 1.07    | -       |
| Ultimate Rejection                         | dB     | 40      | 45      | -       |
| Temperature Coefficient of Frequency (TCF) | ppm/°C | -       | - 72    | -       |

| Room temperature : + 25℃                |      | Minimum | Typical | Maximum |
|---|------|---------|---------|---------|
| Center Frequency                        | MHz  | -       | 75.0    | -       |
| Insertion Loss                          | dB   | -       | 12.1    | 13.5    |
| Amplitude Ripple (Fo +/- 9.67 MHz)      | dB   | -       | 0.35    | 1.0     |
| Group Delay Variation (Fo +/- 9.67 MHz) | nsec | -       | 30      | 60      |

|   |   |           |             |     |
|---|---|-----------|-------------|-----|
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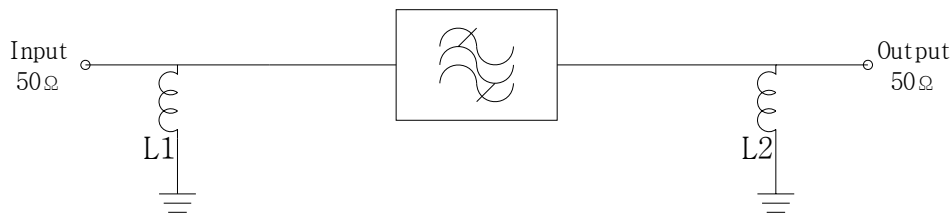


## Notes :

- 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 )



$$L1 = 120 \text{ nH}, \quad L2 = 56 \text{ nH}$$


## 5. Marking Configuration

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

232052B<sup>3)</sup>

●<sup>4)</sup>

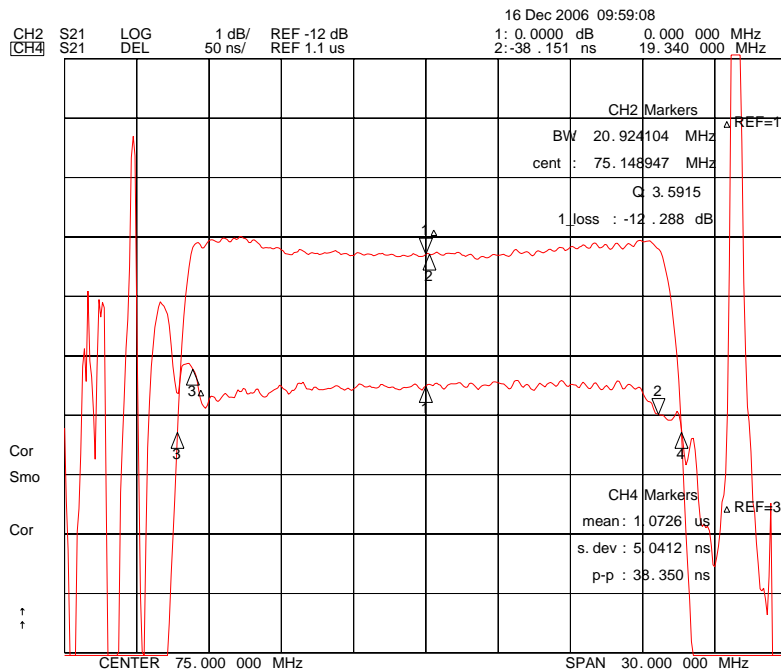
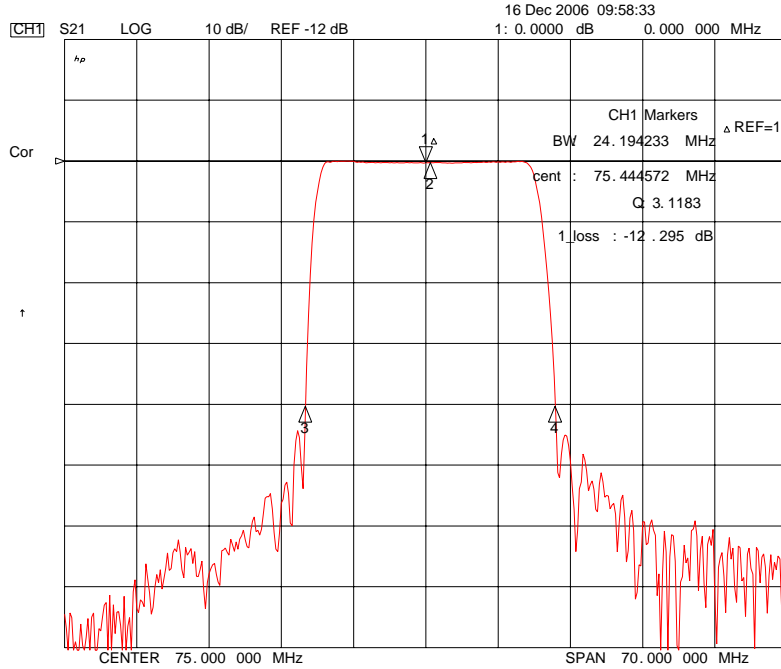
- 1) Manufacturer name
- 2) Lot Number
- 3) Part Number
- 4) Pad Number 1 Index

|   |   |           |             |     |
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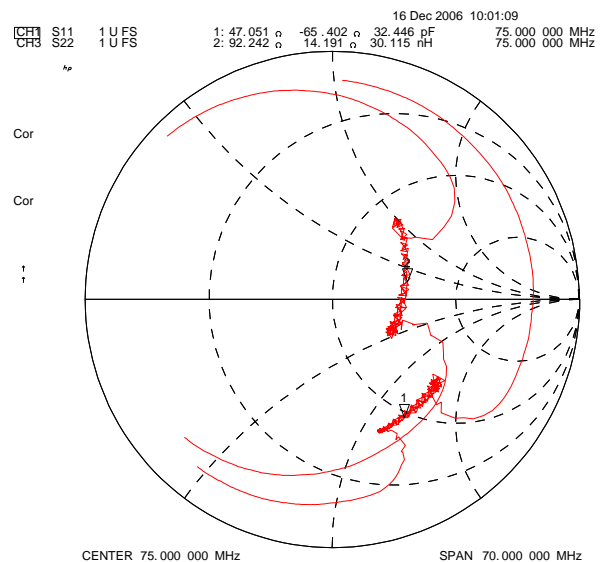
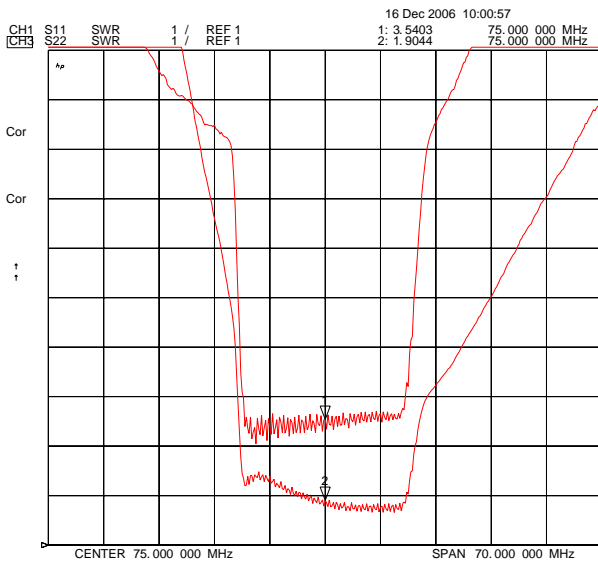
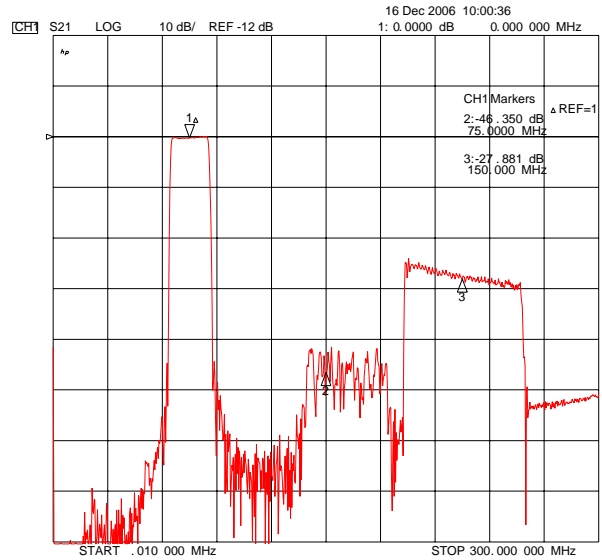
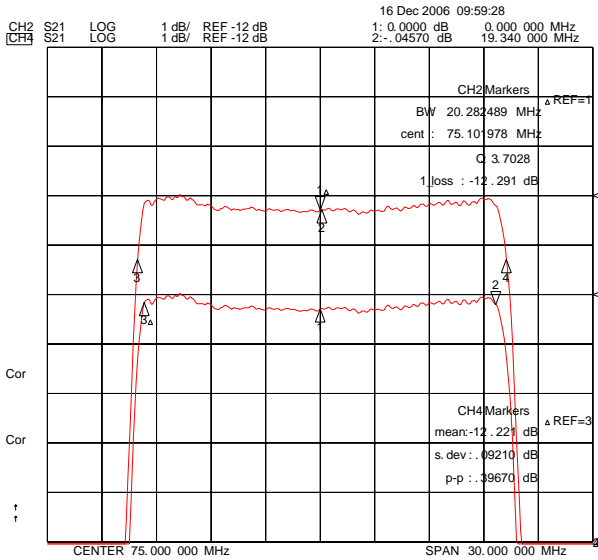


## 6. Typical Performance ( at +25°C )



|  |   |           |             |     |
|--|---|-----------|-------------|-----|
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