

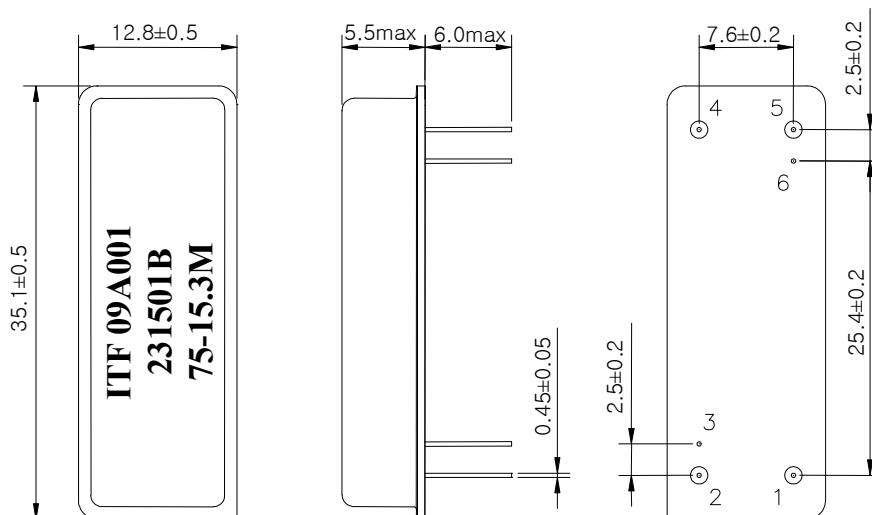
# SAW Bandpass Filter 231501B



## 1. Features

- IF Bandpass Filter
- High Attenuation
- Single-Ended Operation
- DIP Package
- Maximum Storage Temperature Range : -40°C ~ 85°C
- Electrostatics Sensitive Device (ESD)


## 2. Package Dimension



### Package : D3512

Dimensions shown are nominal in millimeters  
 Base : Fe(SPCC), Au plating over Ni plated  
 Cap : Cu & Cr Alloy, Ni Plated  
 Termination : Kovar, Au Plated

| Pin Configuration |             |
|-------------------|-------------|
| 1                 | Input       |
| 5                 | Output      |
| 2, 4              | Ground      |
| 3, 6              | Case ground |

|   |   |           |             |     |
|---|---|-----------|-------------|-----|
| <br>Integrated Technology Future | <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.  | 231501B     |     |
|   |   | Rev. Date | 2009-07-15  |     |
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## 3. Specifications

Fo = 75.0 MHz


Terminating source impedance : 50Ω and matching network

Terminating load impedance : 50Ω and matching network

|                                       |        | Minimum | Typical | Maximum |
|---------------------------------------|--------|---------|---------|---------|
| Center Frequency                      | MHz    | -       | 75.0    | -       |
| Insertion Loss                        | dB     | -       | 24.0    | 26.0    |
| 1dB Bandwidth                         | MHz    | 15.2    | 15.36   | -       |
| 3dB Bandwidth                         | MHz    | -       | 15.54   | -       |
| 50dB Bandwidth                        | MHz    | -       | 16.36   | 16.5    |
| Amplitude Ripple (fo ± 7.56 MHz)      | dB     | -       | 0.5     | 1.0     |
| Group Delay Variation (fo ± 7.56 MHz) | nsec   | -       | 60      | 120     |
| Absolute Delay                        | usec   | -       | 3.5     | -       |
| Ultimate Rejection                    | dB     | 55      | 60      | -       |
| Temperature Coefficient of Frequency  | ppm/°C | -       | -72     | -       |

### 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 at room temperature
- 3) All attenuation measurements are measured relative to insertion loss

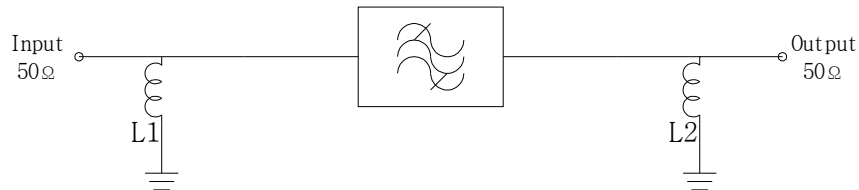
|   |   |           |             |     |
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## 4. Matching Schematic

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




$$L1 = L2 = 150\text{nH}$$

## 5. Marking Configuration

ITF<sup>1)</sup>09A001<sup>2)</sup>  
231501B<sup>3)</sup>  
75<sup>4)</sup>-15.3M<sup>5)</sup>

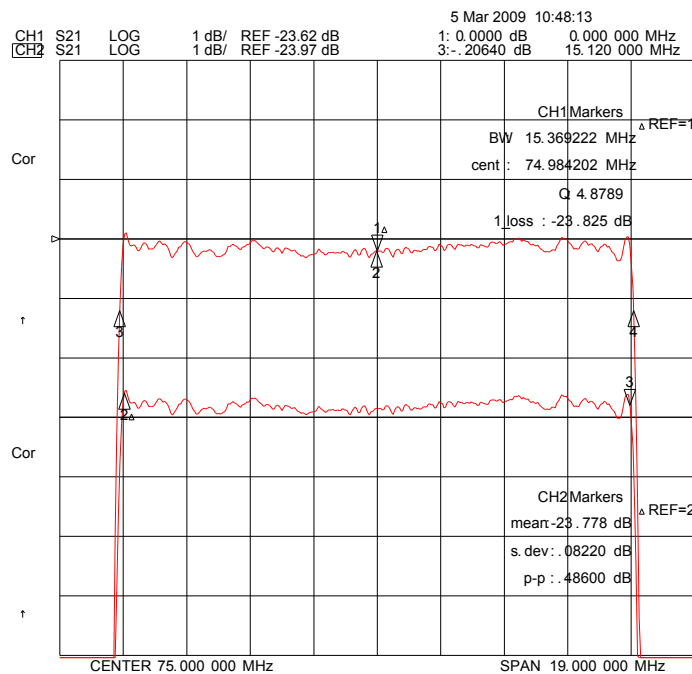
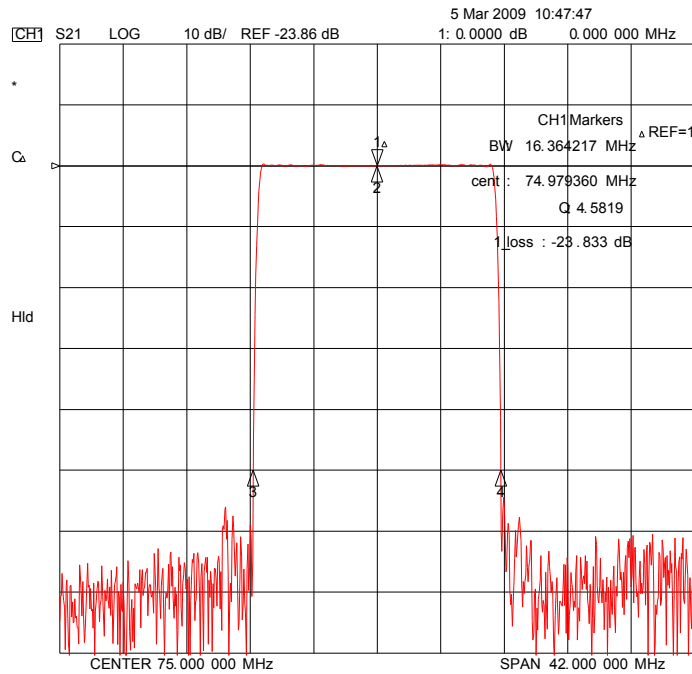
- 1) Manufacturer name
- 2) Lot Number
- 3) Part Number
- 4) Center frequency
- 5) 1dB-Bandwidth

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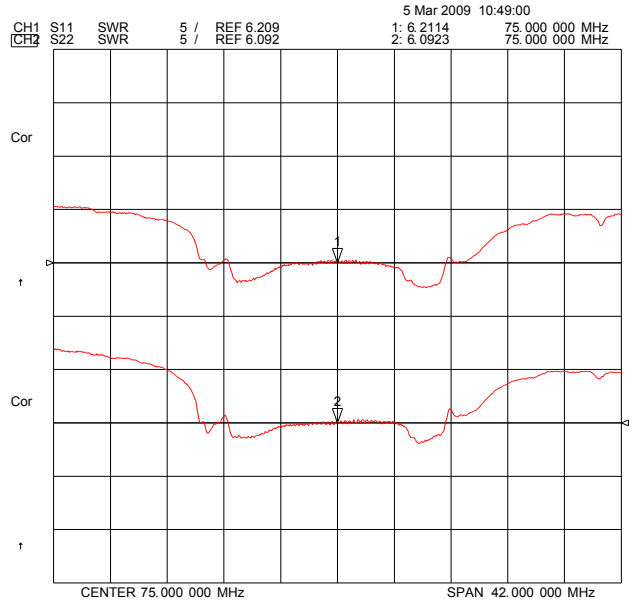
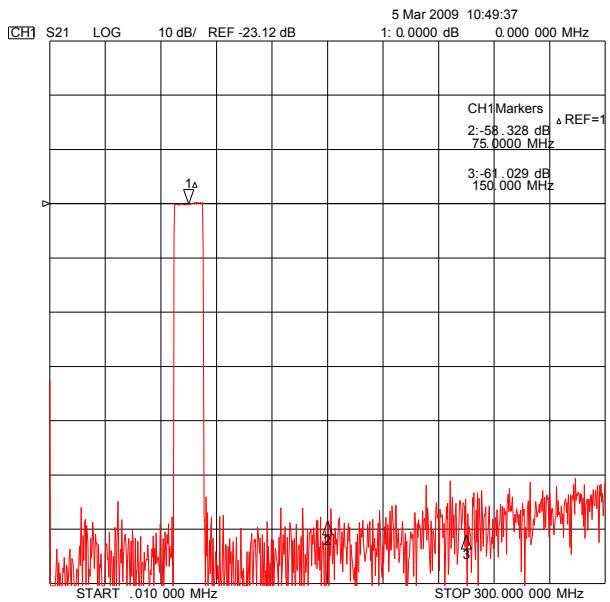
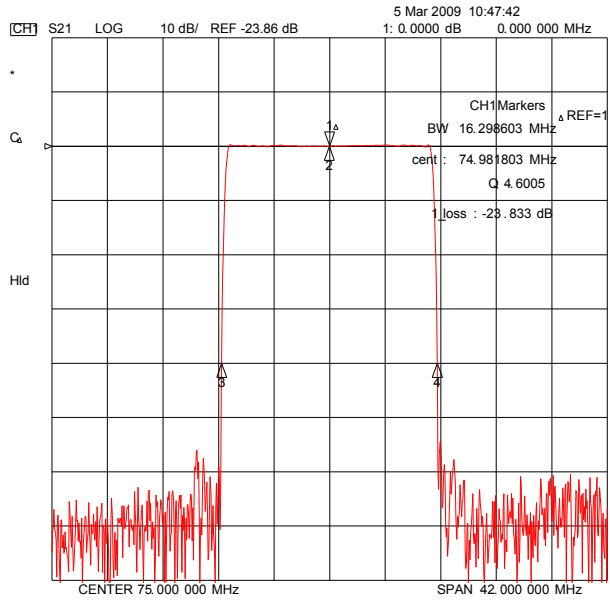
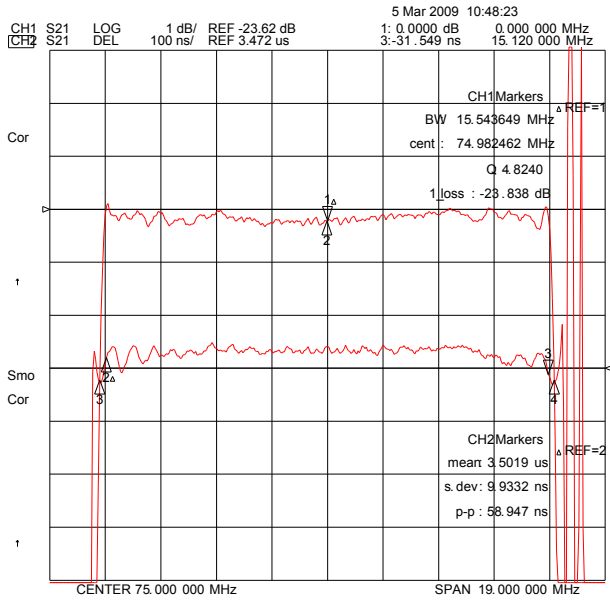


## 6. Typical Performance ( at +25°C )



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