

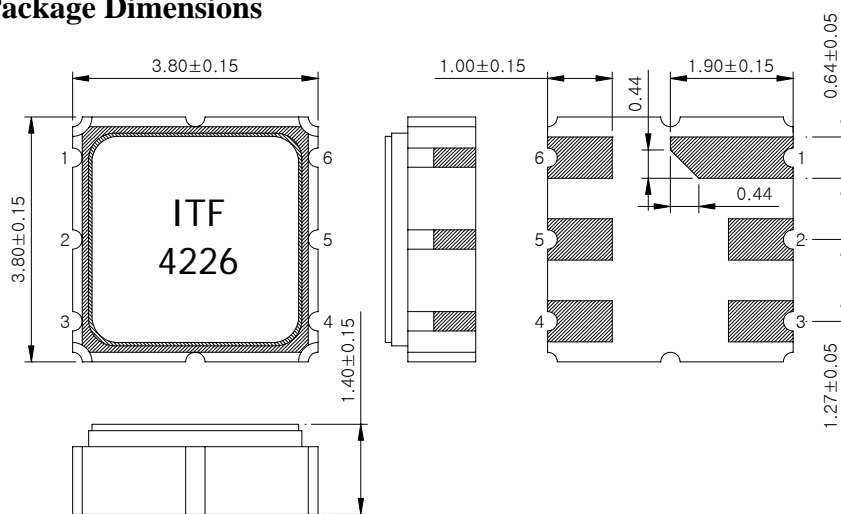
# SAW Bandpass Filter F4226



## Features

- RF bandpass filter
- High attenuation
- Usable bandwidth 6MHz
- No matching 50Ω single-ended operation
- Ceramic Surface Mounted Device (SMD) Package

## Package Dimensions



Dimensions shown are nominal in millimeters

Body :  $\text{Al}_2\text{O}_3$  Ceramic

Lid : Kovar, Ni Plated

Terminations : Au plating 0.3 ~ 1.0  $\mu\text{m}$ , Over a 1.27 ~ 8.89  $\mu\text{m}$  Ni Plating

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

## Maximum Ratings

| Parameter                   | Unit               | Minimum | Typical | Maximum |
|-----------------------------|--------------------|---------|---------|---------|
| Operating Temperature Range | $^{\circ}\text{C}$ | -10     | 25      | 60      |
| Storage Temperature Range   | $^{\circ}\text{C}$ | -40     | -       | 85      |
| Power Handling Capability   | dBm                | -       | -       | -       |

Electrostatics Sensitive Device (ESD)

|  |   |           |             |     |
|--|---|-----------|-------------|-----|
|  | <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.  | F4226       |     |
|  |   | Rev. Date | 2004-11-01  |     |
|  |   | Rev.      | NS3007-AS02 | 1/7 |

# SAW Bandpass Filter F4226



## Specifications

$F_c = 422.0\text{MHz}$

Terminating source impedance :  $50\Omega$

Terminating load impedance :  $50\Omega$

|  |                         | Minimum  | Typical  | Maximum |
|--|-------------------------|----------|----------|---------|
| Center Frequency ( $F_c$ )   | MHz                     | -        | 422.0    | -       |
| Insertion Loss ( $F_c \pm 3.0$ MHz)                                  | dB                      | -        | 3.0      | 4.0     |
| Amplitude Ripple ( $F_c \pm 3.0$ MHz)                                | dB                      | -        | 1.0      | 2.0     |
| Absolute Group Delay at $F_c$  | nsec                    | -        | 120      | -       |
| Group Delay Variation ( $F_c \pm 3.0$ MHz)                           | nsec                    | -        | 50       | -       |
| VSWR ( $F_c \pm 3.0$ MHz)  |                         | -        | 1.5      | 2.0     |
| Relative Attenuation<br>... ~ $F_c - 15$ MHz<br>$F_c + 25$ MHz ~ ... | dB                      | 45<br>45 | 50<br>50 | -       |
| Temperature Coefficient of Frequency                                 | ppm/ $^{\circ}\text{C}$ | -        | -32      | -       |

### Notes :

- 1) All specifications are based on the matching schematic shown below, measured by Agilent Network analyzer and full 2 port calibration.
- 2) Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances
- 3) All attenuation measurements are measured relative to insertion loss

|  |   |           |             |     |
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## Matching Schematic

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



## Marking Configuration

ITF<sup>1)</sup>  
4226<sup>2)</sup>

1) Manufacturer name

2) Marking Number

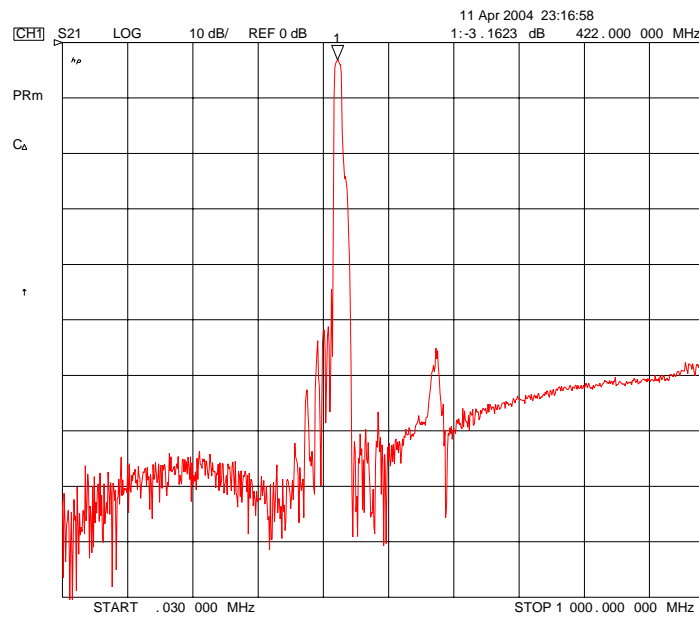
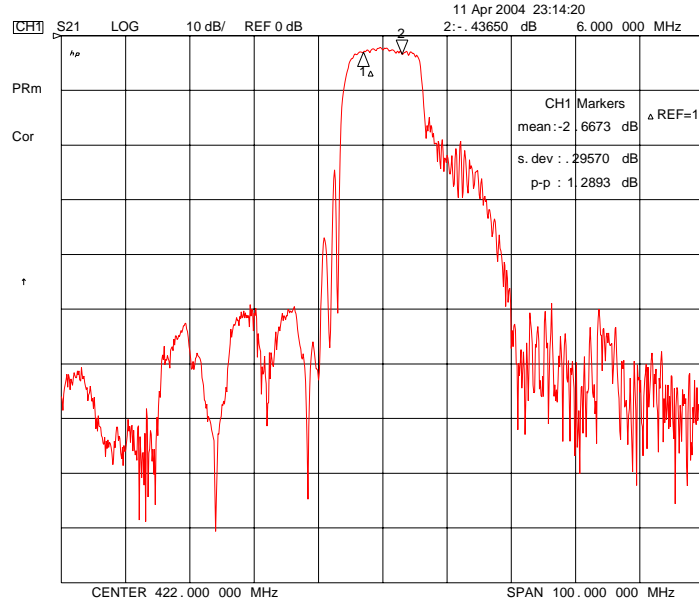
\* Ink or Laser Marking available

|  |   |           |             |     |
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## Typical Performance ( at 25°C )

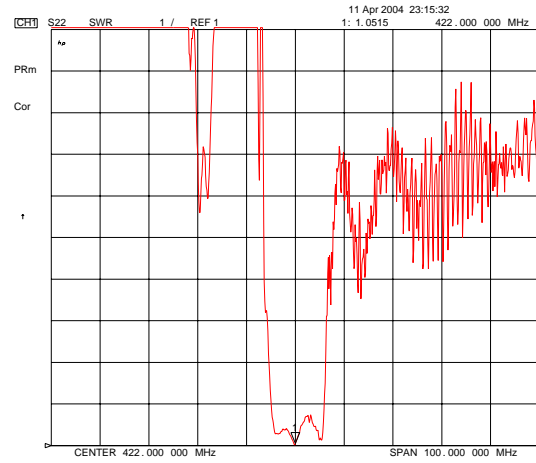
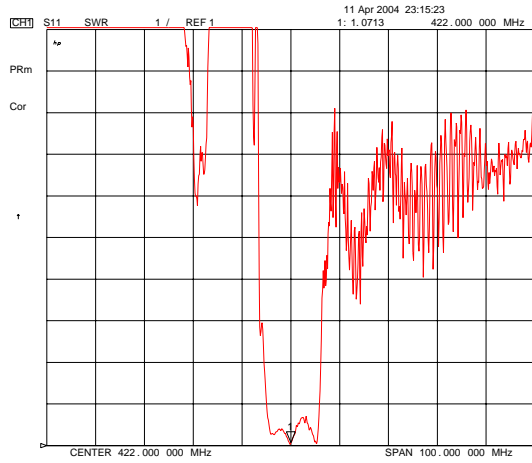


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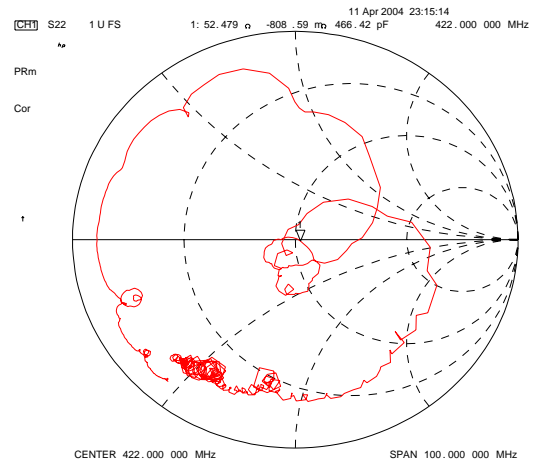
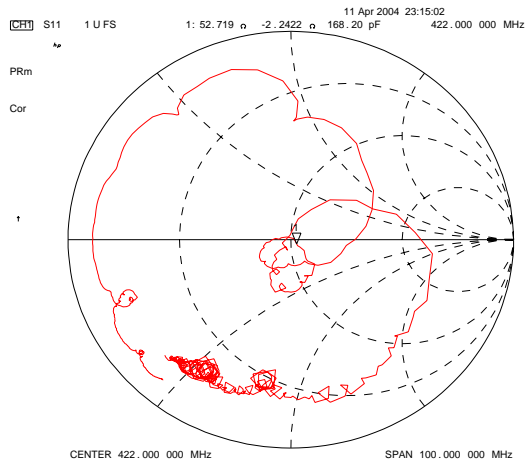
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## Input / Output VSWR Charts



## Input / Output Smith Charts



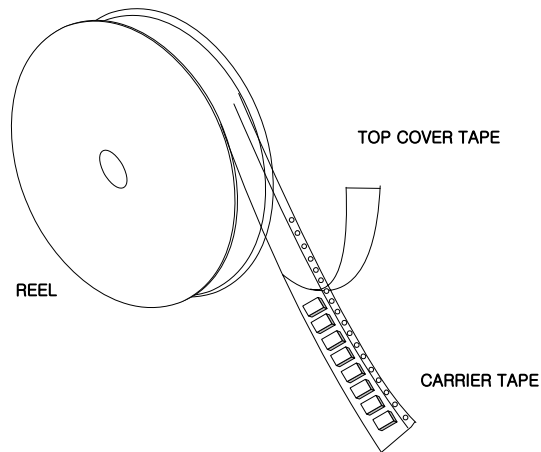
|  |   |           |             |     |
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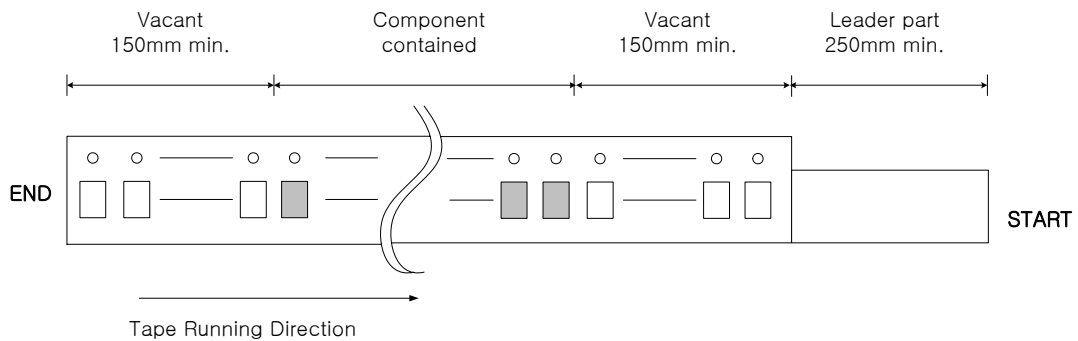
## Packing Specification

1. Reeling Quantity : 1000 pcs / reel
2. Taping Structure : The tape shall be wound around the reel in the direction shown below.



## Tape Specification

1. Leader part and vacant position specification

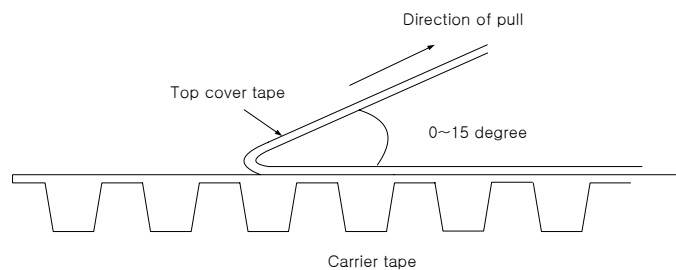


2. Tensile strength of carrier tape

4.4N/mm width

3. Top cover tape adhesion

- 1) pull off angle : 0~15°
- 2) speed : 300mm/min
- 3) force : 20~70g

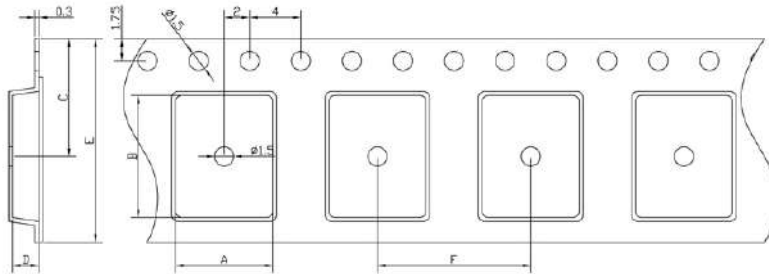


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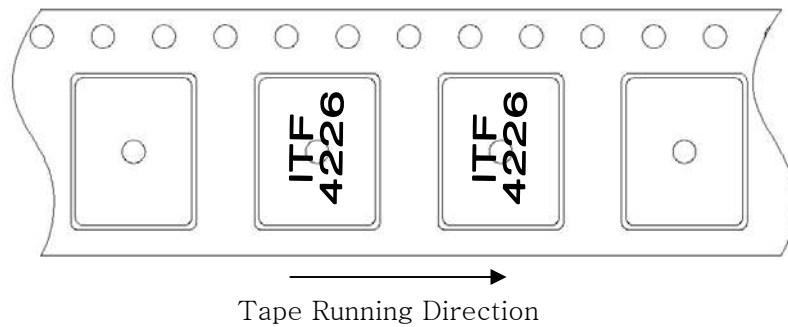


## Carrier Tape Dimensions [unit : mm]

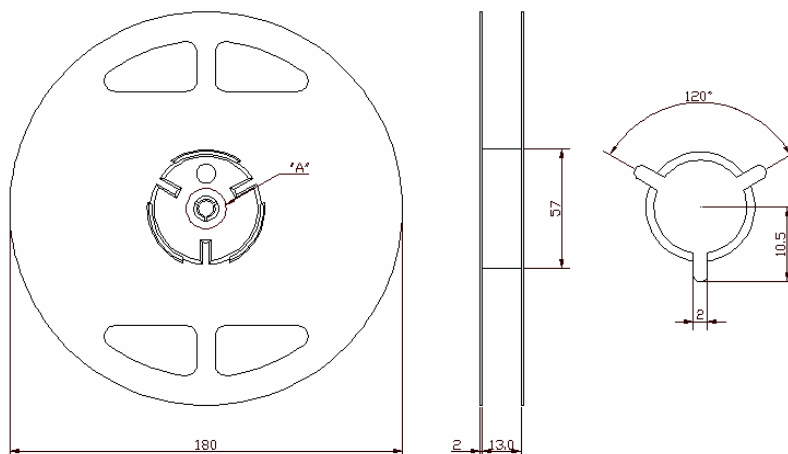


|   |             |
|---|-------------|
| A | 4.30 ± 0.1  |
| B | 4.30 ± 0.1  |
| C | 7.25 ± 0.1  |
| D | 1.70 ± 0.1  |
| E | 12.00 ± 0.1 |
| F | 8.00 ± 0.1  |

## Part Direction



## Reel Dimensions [unit : mm]



|  |   |           |             |     |
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