

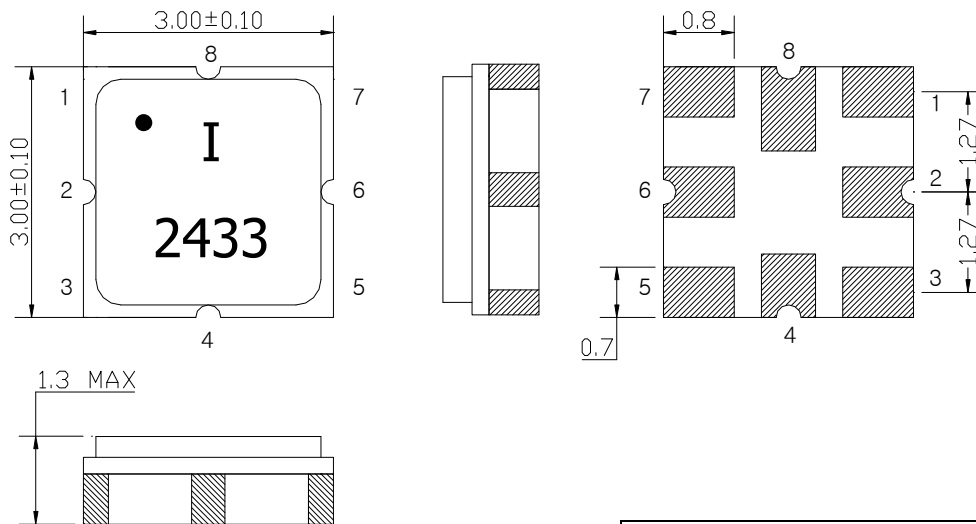
# SAW Bandpass Filter F2433



## Features

- RF bandpass filter
- High attenuation
- 3dB bandwidth 260kHz
- 50Ω single-ended operation
- Ceramic Surface Mounted Device (SMD) Package ( 3.0mm \* 3.0 mm )
- RoHS Compliant

## Package Dimension – SMD 3.0 × 3.0



Dimensions shown are nominal in millimeters

Body : Al<sub>2</sub>O<sub>3</sub> Ceramic

Lid : Kovar, Ni Plated

Terminations : Au plating 0.3 ~ 1.0 um, Over a 1.27 ~ 8.89 um Ni Plating


### Pin Configuration

|                  |             |
|------------------|-------------|
| 3                | Input       |
| 7                | Output      |
| 1, 2, 4, 5, 6, 8 | Case ground |

## Maximum Ratings

| Parameter                   | Unit | Minimum | Typical | Maximum |
|-----------------------------|------|---------|---------|---------|
| Operating Temperature Range | ℃    | -40     | 25      | 85      |
| Storage Temperature Range   | ℃    | -45     | 25      | 85      |
| Power Handling Capability   | dBm  | -       | 0       | -       |

Electrostatics Sensitive Device (ESD)

|   |   |           |              |     |
|---|---|-----------|--------------|-----|
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|   |   | Rev. Date | 2012-02-13   |     |
|   |   | Rev.      | AS 01        | 1/7 |

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## Specifications

Fc = 243.95 MHz


Terminating source impedance : 50Ω

Terminating load impedance : 50Ω

|                         | Minimum | Typical | Maximum | Unit |
|-------------------------|---------|---------|---------|------|
| Center Frequency ( Fc ) | -       | 243.95  | -       | MHz  |
| 3dB Band Width          | -       | 260     | -       | kHz  |
| Insertion Loss (At Fc)  | -       | 3.5     | 4.5     | dB   |
| Relative Attenuation    |         |         |         |      |
| Fc +/- 0.6MHz           | 20      | 25      | -       | dB   |
| Fc +/- 1.2MHz           | 35      | 40      | -       |      |
| Fc +/- 21.6MHz          | 50      | 55      | -       |      |
| Input/Output Impedance  |         | 50      |         | Ohms |

### 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

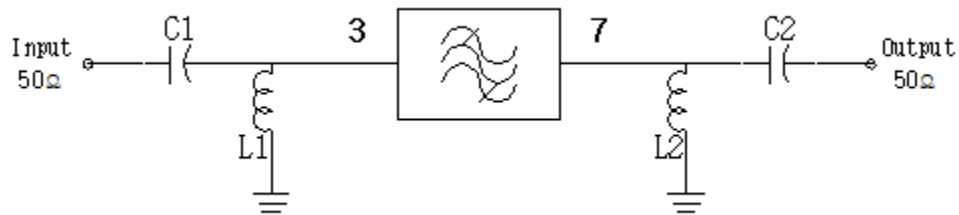
|   |   |           |              |     |
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| <br>Integrated Technology Future | <b>ITF Co., Ltd.</b><br>102-901, Bucheon Technopark 364,<br>Samjeong-Dong, Ojeong-Gu, Bucheon-City,<br>Gyeonggi-Do, Korea 421-809 | Part No.  | NSNB01-F2433 |     |
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## Matching Schematic

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



C1,C2 = 4.0 pF

L1,L2 = 68 nH

## Marking Configuration

●<sup>1)</sup>  
I<sup>2)</sup>  
2433<sup>3)</sup>

1) Pad Number 1 Index

2) Manufacturer name

3) Marking Number

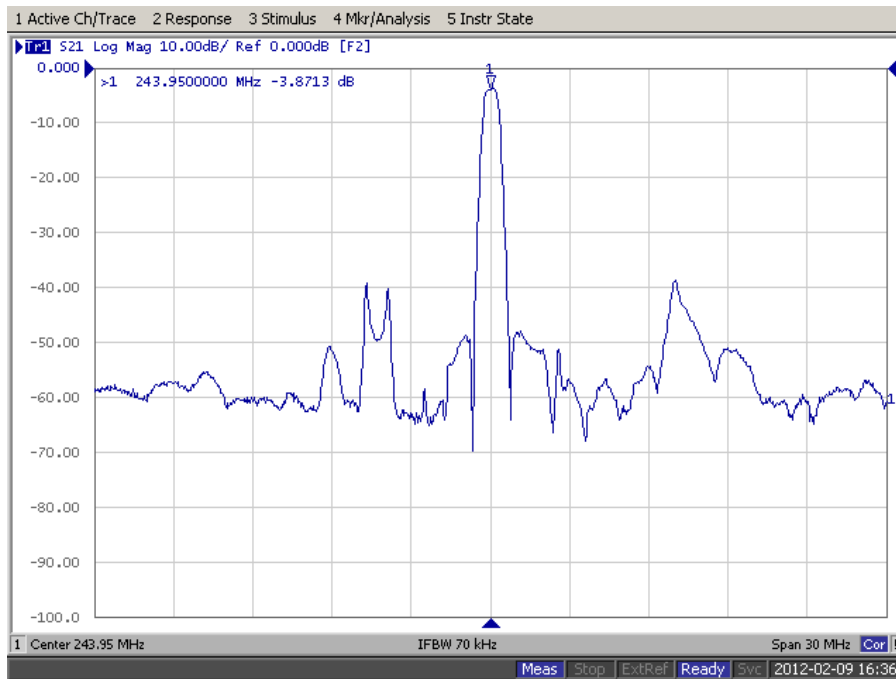
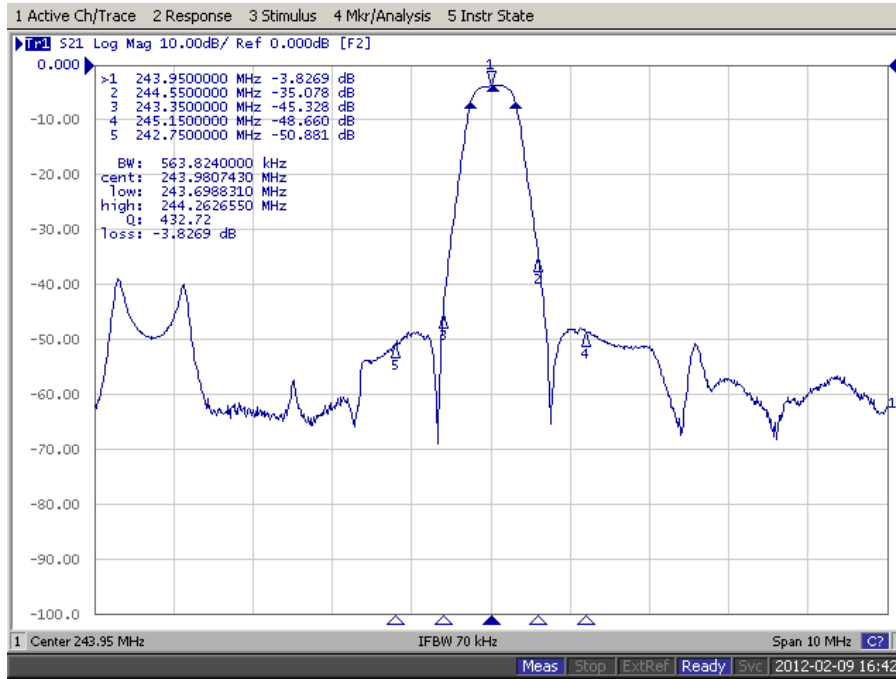
\* Ink or Laser Marking available

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

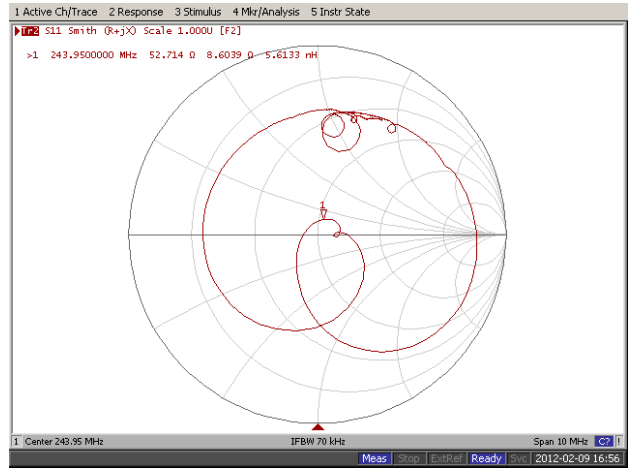


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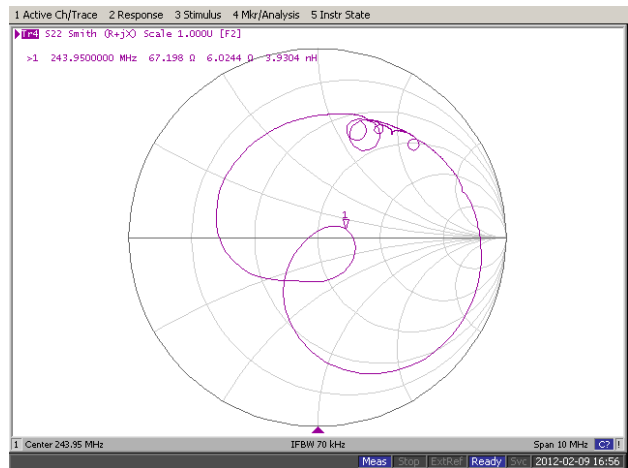
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## Input / Output VSWR Charts



## Input / Output Smith Charts



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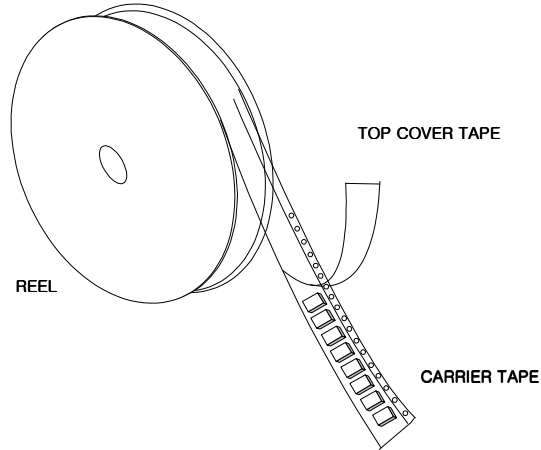
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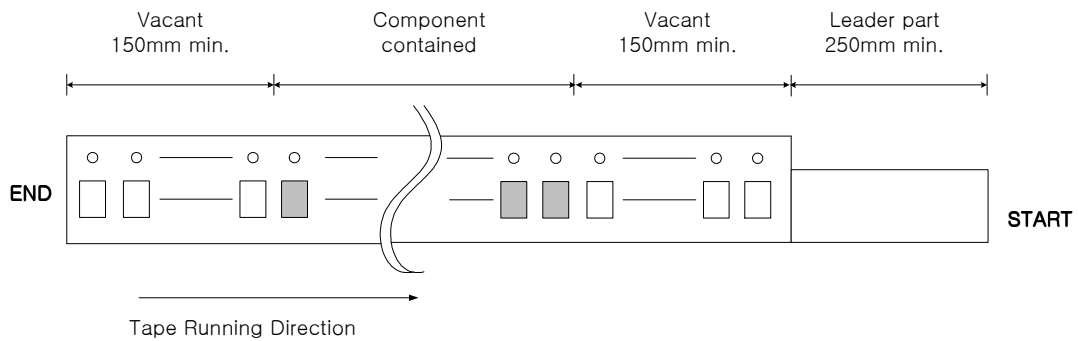
## Packing Specification

1. Reeling Quantity : 3000 pcs / 13" reel ( or 1000 pcs / 7" 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

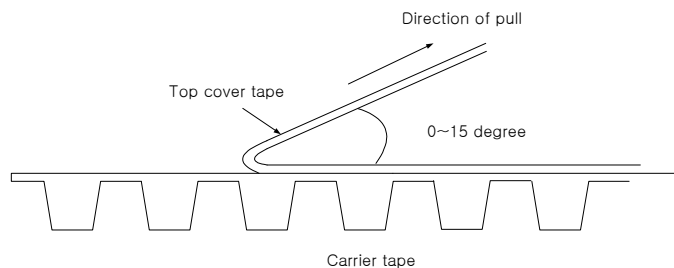


2. Tensile strength of carrier tape

4.4N/mm width

3. Top cover tape adhesion

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

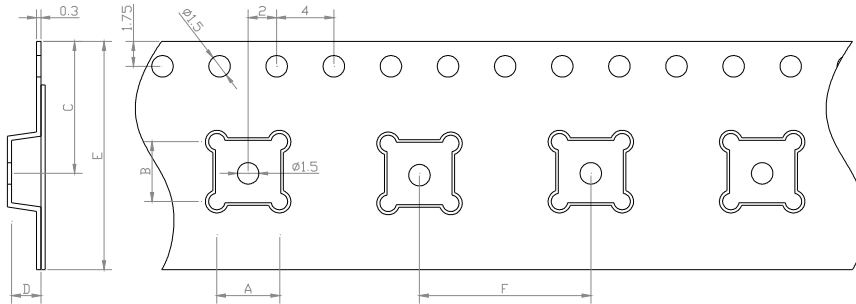


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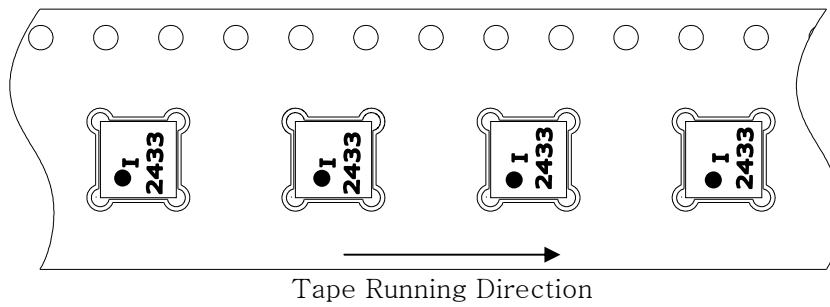


## Carrier Tape Dimensions [unit : mm]

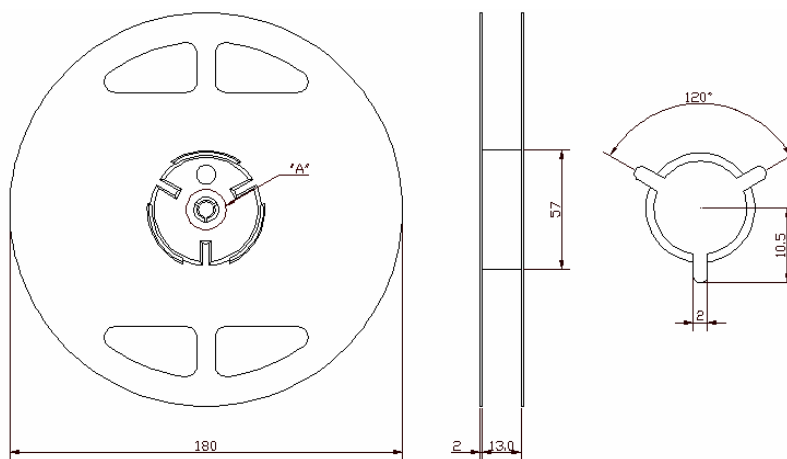


|   |             |
|---|-------------|
| A | 3.40 ± 0.1  |
| B | 3.40 ± 0.1  |
| C | 7.25 ± 0.1  |
| D | 1.70 ± 0.1  |
| E | 12.00 ± 0.1 |
| F | 8.00 ± 0.1  |

## Part Direction



## Reel Dimensions [unit : mm]



|  |   |           |              |     |
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