

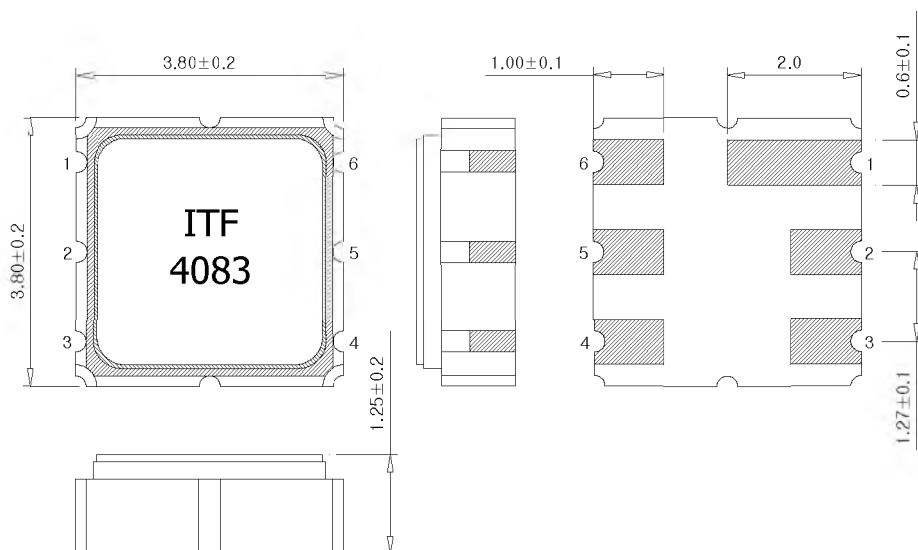
# SAW Bandpass Filter F4083



## Features

- RF bandpass filter
- No matching  $50\Omega$  single-ended operation
- Ceramic Surface Mounted Device Package ( 3.8 mm  $\times$  3.8 mm )
- RoHS Compliant

## 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 | Ground |

## Maximum Ratings

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

Electrostatics Sensitive Device (ESD)

# SAW Bandpass Filter F4083



## Specifications

$F_c = 408 \text{ MHz}$

|                                                                          | Minimum        | Typical        | Maximum     | Unit |
|--------------------------------------------------------------------------|----------------|----------------|-------------|------|
| Center Frequency ( $F_c$ )                                               | -              | 408            | -           | MHz  |
| Insertion Loss ( $F_c \pm 6 \text{ MHz}$ )                               | -              | 3.3            | 4.0         | dB   |
| Amplitude Ripple ( $F_c \pm 6 \text{ MHz}$ )                             | -              | 2.0            | 2.5         | dB   |
| Relative Attenuation<br>0.3 ~ 392 MHz<br>417 ~ 418 MHz<br>418 ~ 1500 MHz | 30<br>10<br>25 | 33<br>15<br>30 | -<br>-<br>- | dB   |
| 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

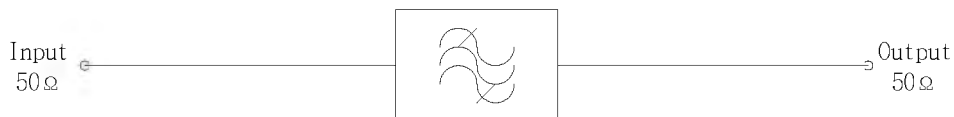
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## Matching Schematic

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



## Marking Configuration

ITF <sup>1)</sup>

4083 <sup>2)</sup>

1) Manufacturer name

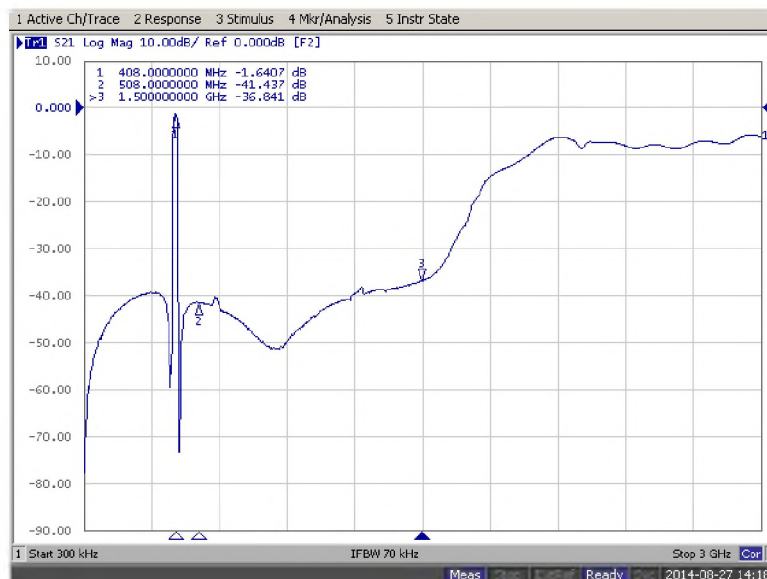
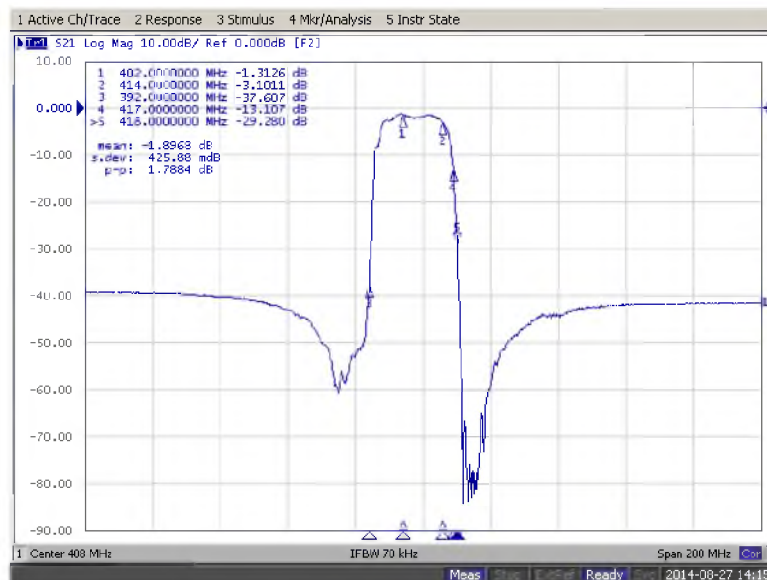
2) Marking Number

\* Ink or Laser Marking available

# SAW Bandpass Filter F4083



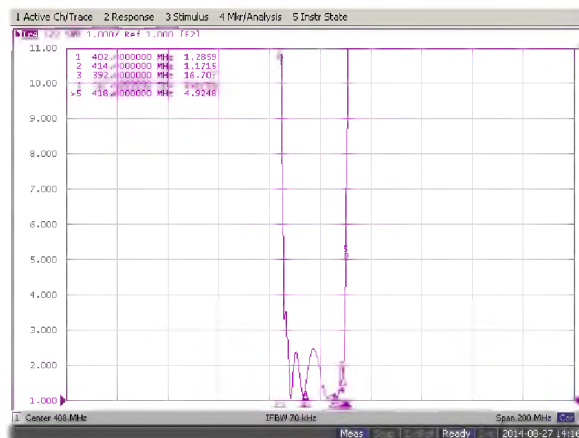
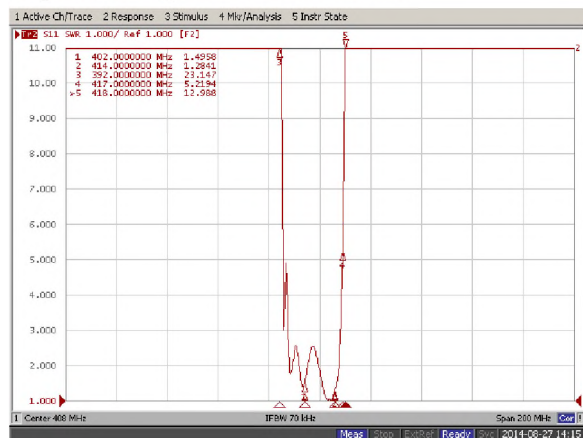
## Typical Performance ( at 25°C )



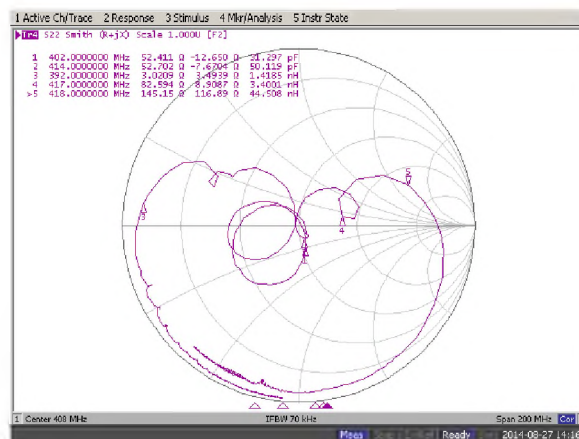
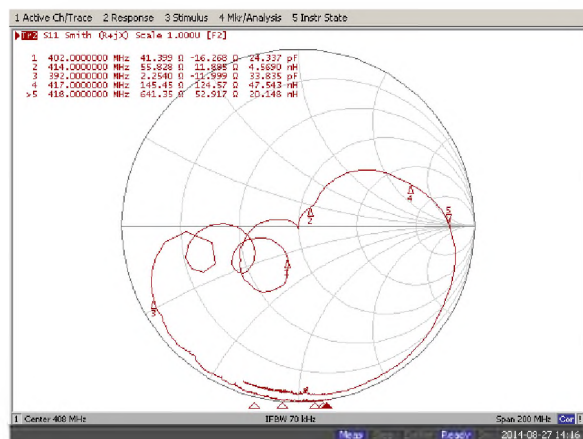
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## Input / Output VSWR Charts



## Input / Output Smith Charts

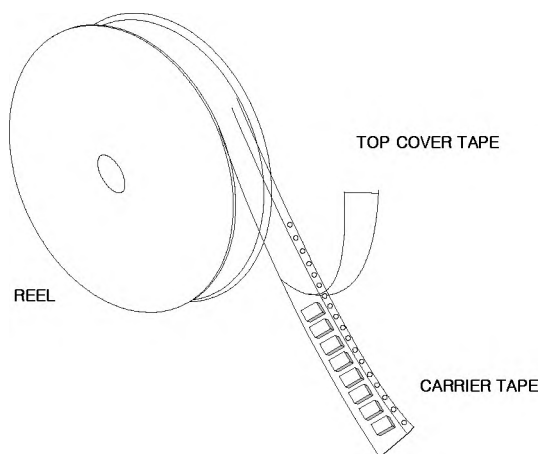


# SAW Bandpass Filter F4083



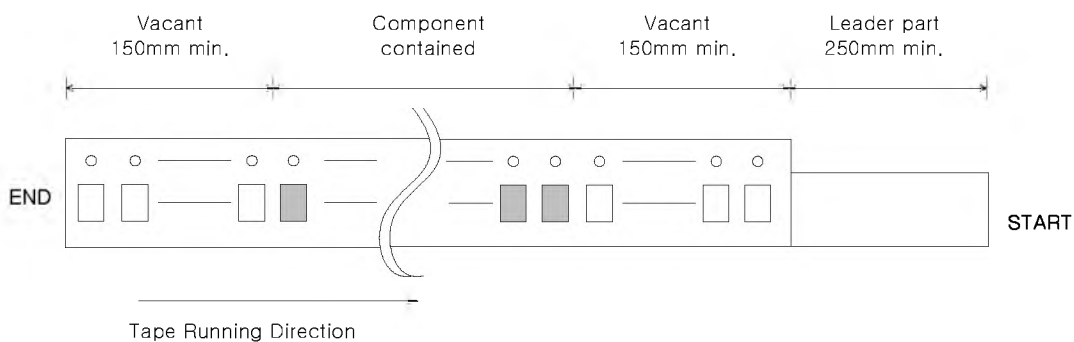
## Packing Specification

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

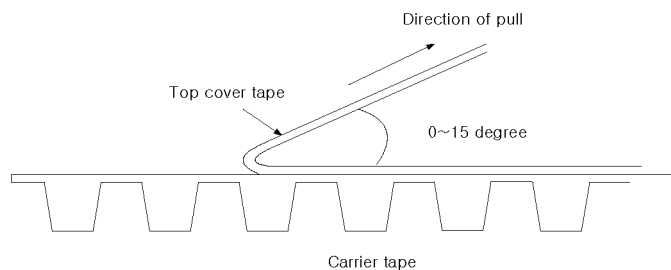


2. Tensile strength of carrier tape

4.4N/mm width

3. Top cover tape adhesion

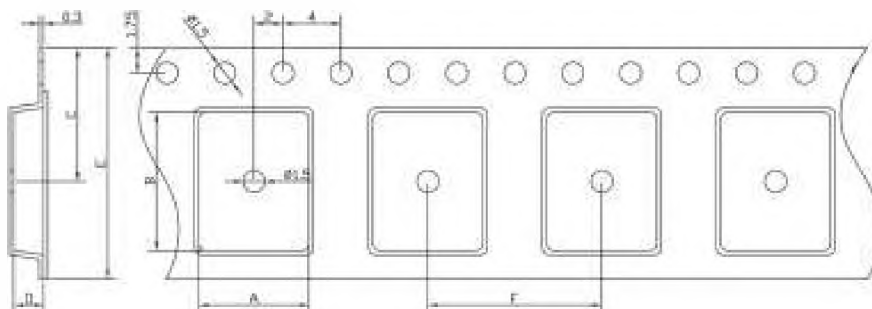
- 1) pull off angle : 0~15°
- 2) speed : 300mm/min
- 3) force : 20~70g



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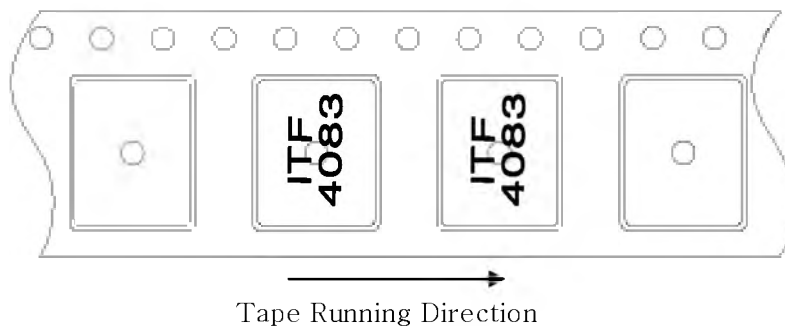


## Carrier Tape Dimensions [unit : mm]

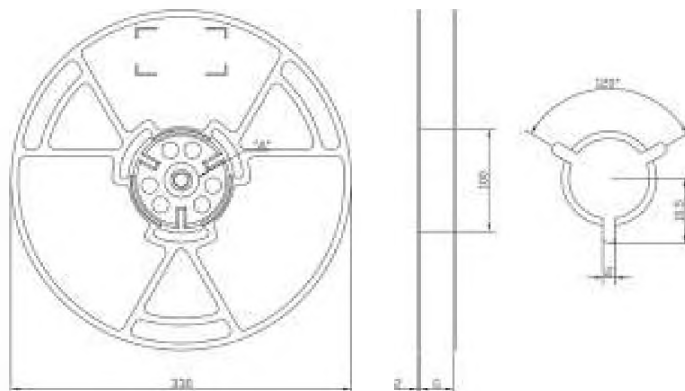


|   |             |
|---|-------------|
| A | 4.30 ± 0.1  |
| B | 4.30 ± 0.1  |
| C | 7.25 ± 0.1  |
| D | 1.70 ± 0.1  |
| E | 12.00 ± 0.1 |
| F | 8.00 ± 0.1  |

## Part Direction



## Reel Dimensions [unit : mm]



G = 12.40 mm