

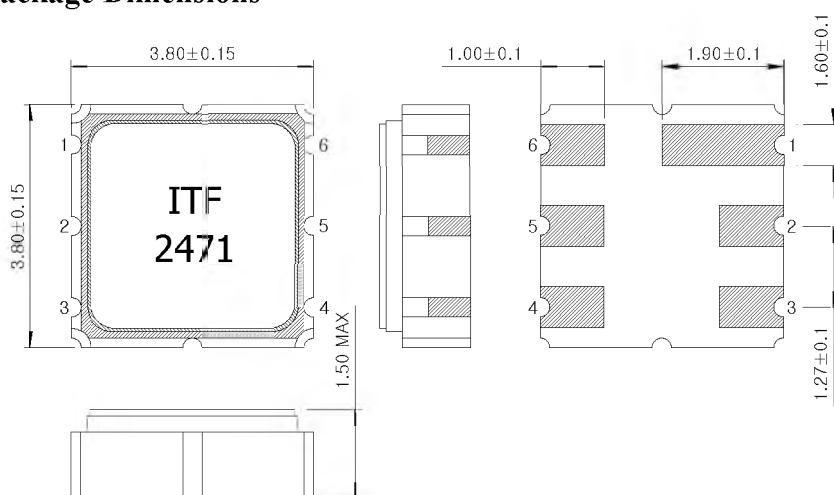
# SAW Bandpass Filter F2471



## Features

- Narrow bandpass filter
- High attenuation
- Matching 50Ω single-ended operation
- Ceramic Surface Mounted Device (SMD) Package ( 3.8 mm \* 3.8 mm )
- RoHS Compliant

## Package Dimensions



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

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

## Maximum Ratings

| Parameter                   | Unit | Minimum | Typical | Maximum |
|-----------------------------|------|---------|---------|---------|
| Operating Temperature Range | °C   | -40     | 25      | 85      |
| Storage Temperature Range   | °C   | -45     | 25      | 85      |
| Power Handling Capability   | dBm  | -       | 10      | -       |

Electrostatics Sensitive Device (ESD)

# SAW Bandpass Filter F2471



## Specifications

$F_c = 247.45\text{MHz}$

Terminating source impedance :  $50\Omega$  and matching network

Terminating load impedance :  $50\Omega$  and matching network

|                               |      | Minimum | Typical | Maximum |
|-------------------------------|------|---------|---------|---------|
| Center Frequency ( $F_c$ )    | MHz  | -       | 247.45  | -       |
| Insertion Loss                | dB   | -       | -       | 5.0     |
| 3dB Bandwidth                 | kHz  | -       | 600     | -       |
| Absolute Group Delay at $F_c$ | usec | -       | 1.4     | -       |
| Attenuation                   |      |         |         |         |
| $F_c \pm 600\text{ kHz}$      | dB   | 20      | -       | -       |
| $F_c \pm 1.2\text{ MHz}$      |      | 34      | -       | -       |
| $F_c \pm 21.6\text{ MHz}$     |      | 45      | -       | -       |
| Input/Output Impedance        | Ohms | -       | 50      | -       |

### Notes :

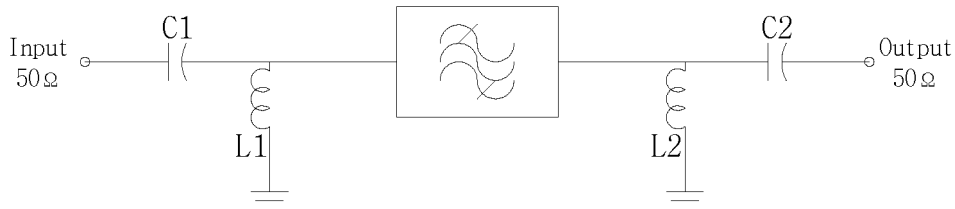
- 1) All specifications are based on the matching schematic shown below, measured by Agilent Network analyzer and full 2 port calibration.
- 2) Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances

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## Matching Schematic

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



$$C1 = C2 = 3.9\text{pF}, \quad L1 = L2 = 68\text{nH}$$

## Marking Configuration

ITF<sup>1)</sup>

2471<sup>2)</sup>

1) Manufacturer name

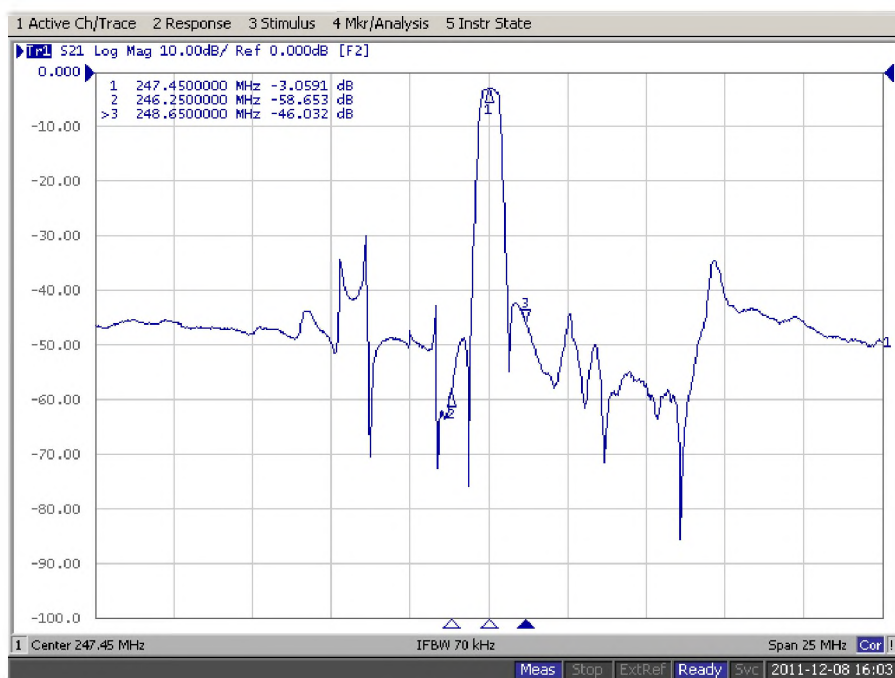
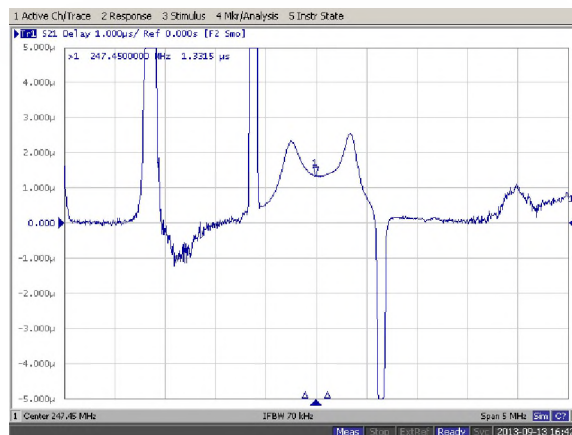
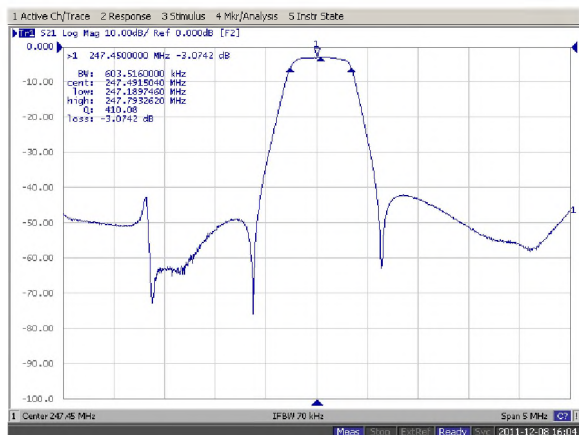
2) Marking Number

Ink or Laser Marking available

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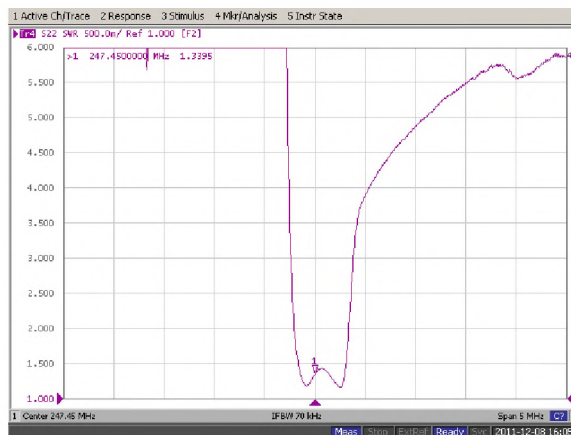
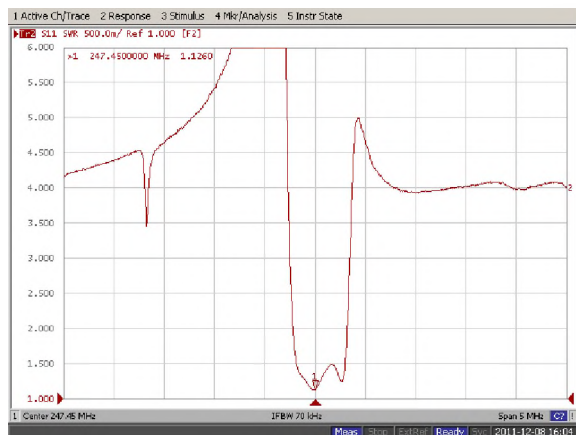
## Typical Performance ( at 25°C )



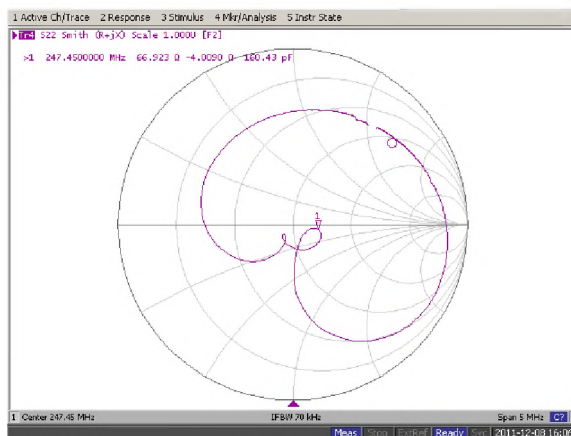
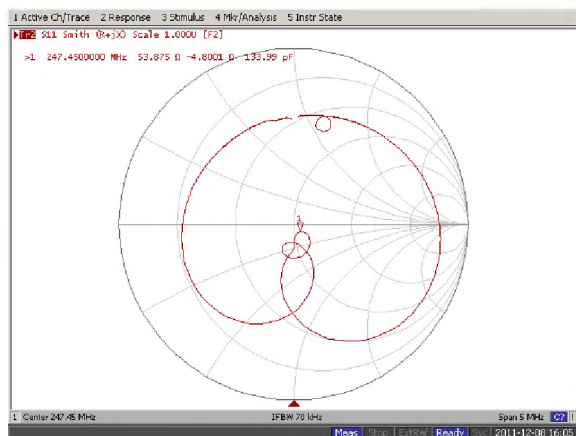
# SAW Bandpass Filter F2471



## Input / Output VSWR Charts



## Input / Output Smith Charts

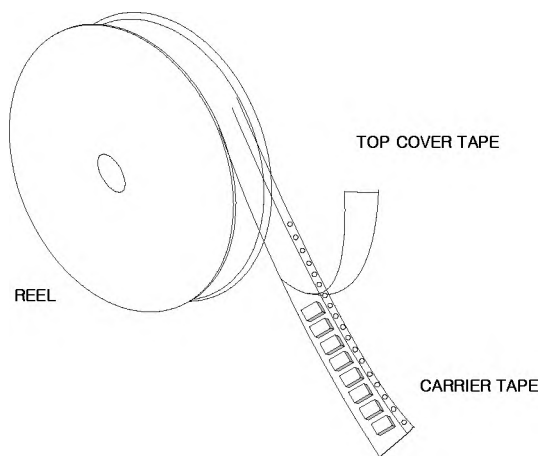


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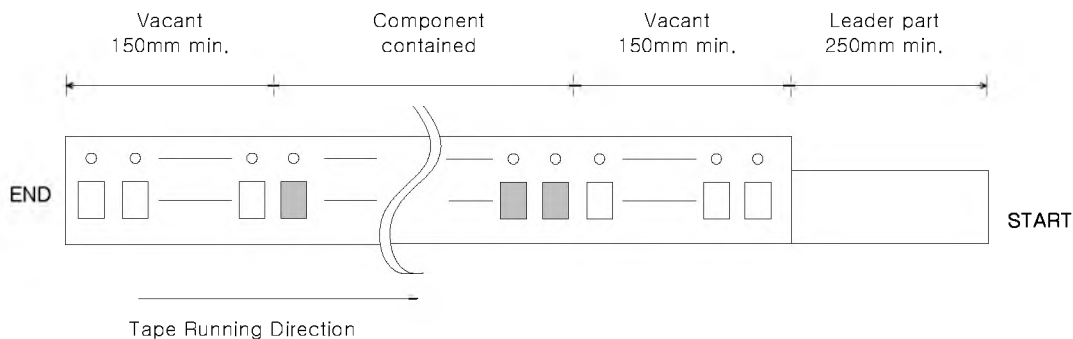
## Packing Specification

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

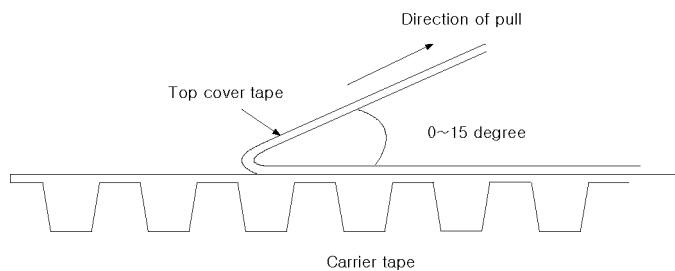
4.4N/mm width

3. Top cover tape adhesion

1) pull off angle : 0~15°

2) speed : 300mm/min

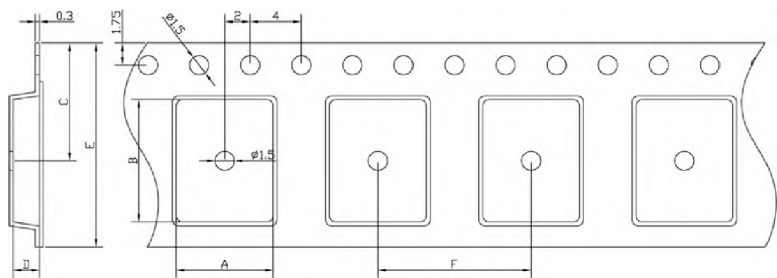
3) force : 20~70g



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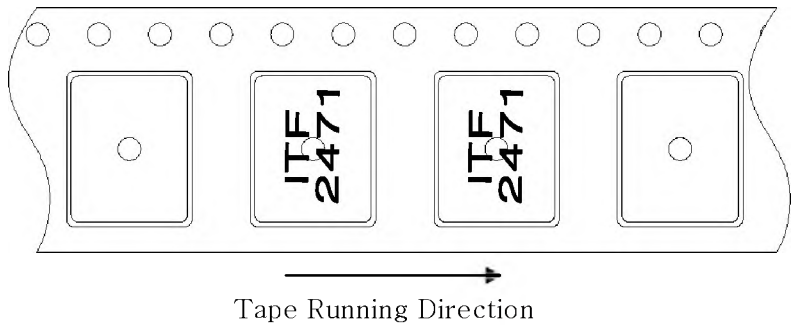


## Carrier Tape Dimensions [unit : mm]



|   |             |
|---|-------------|
| A | 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]

