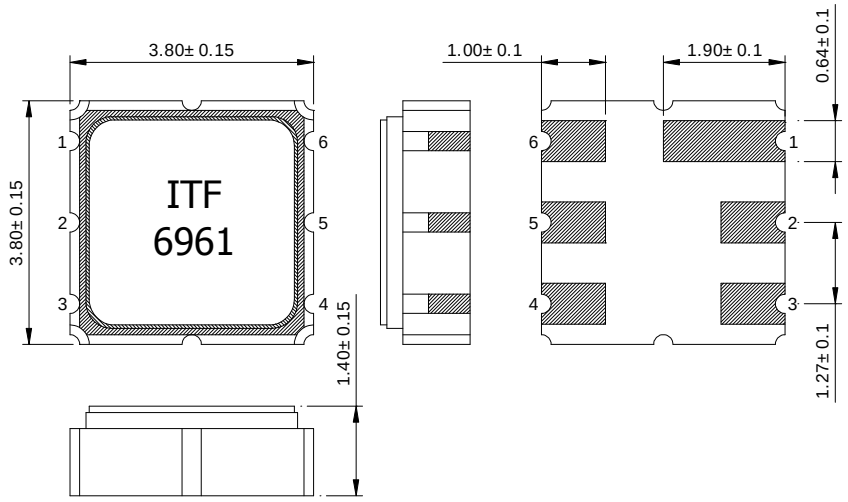
# SAW Bandpass Filter F6961

## Features

- RF bandpass filter
- High attenuation
- No matching 50Ω single-ended operation
- Ceramic Surface Mounted Device (SMD) Package
- RoHS Compliant

## Package Dimensions




Dimensions shown are nominal in millimeters

Body : $Al_2O_3$ 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 | ℃ | -40 | 25 | 85 |
| Storage Temperature Range | ℃ | -40 | 25 | 85 |
| Power Handling Capability | dBm | - | - | 10 |

Electrostatics Sensitive Device (**ESD**)

# SAW Bandpass Filter F6961

## Specifications

Fc = 696 MHz

| | Minimum | Typical | Maximum | Unit |
|---|---|---|---|---|
| Center Frequency ( Fc ) | - | 696 | - | MHz |
| Insertion Loss (694 ~ 698 MHz) | - | 2.5 | 4.0 | dB |
| Amplitude Ripple (694 ~ 698 MHz) | - | 0.5 | 1.0 | dBp-p |
| Absolute Group Delay (Fc) | - | 100 | - | nsec |
| Group Delay Variation (694 ~ 698 MHz) | - | 50 | - | nsec |
| VSWR (694 ~ 698 MHz) | - | 1.5 | 2.0 | |
| Relative Attenuation<br>0.3 ~ 672 MHz<br>715 ~ 1100 MHz<br>1100 ~ 1500 MHz<br>1500 ~ 2500 MHz | <br>40<br>40<br>35<br>30 | <br>50<br>50<br>45<br>40 | <br>-<br>-<br>-<br>- | dB |
| Input/Output Impedance | | 50 | | Ohms |

**Notes :**

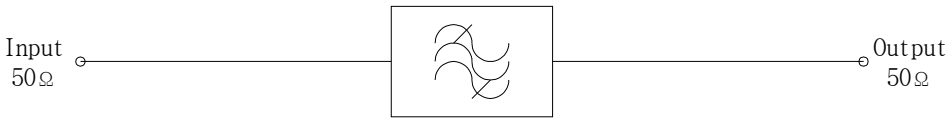
1) All specifications are based on the matching schematic shown below, measured by Agilent Network analyzer and full 2 port calibration.

2) Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances

3) All attenuation measurements are measured relative to insertion loss

## Matching Schematic

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




## Marking Configuration

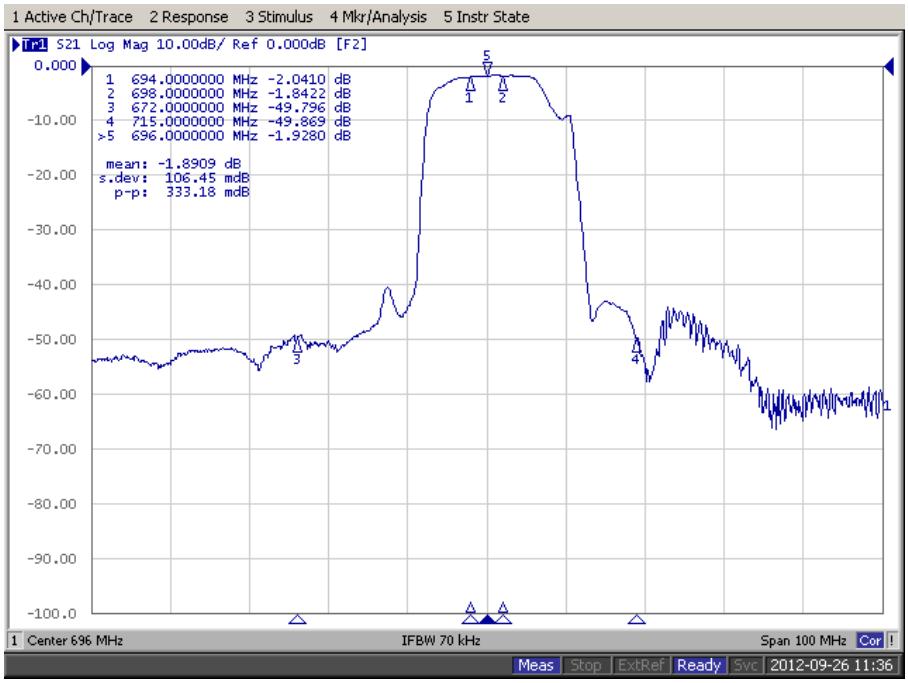
ITF[1)]

6961[2)]

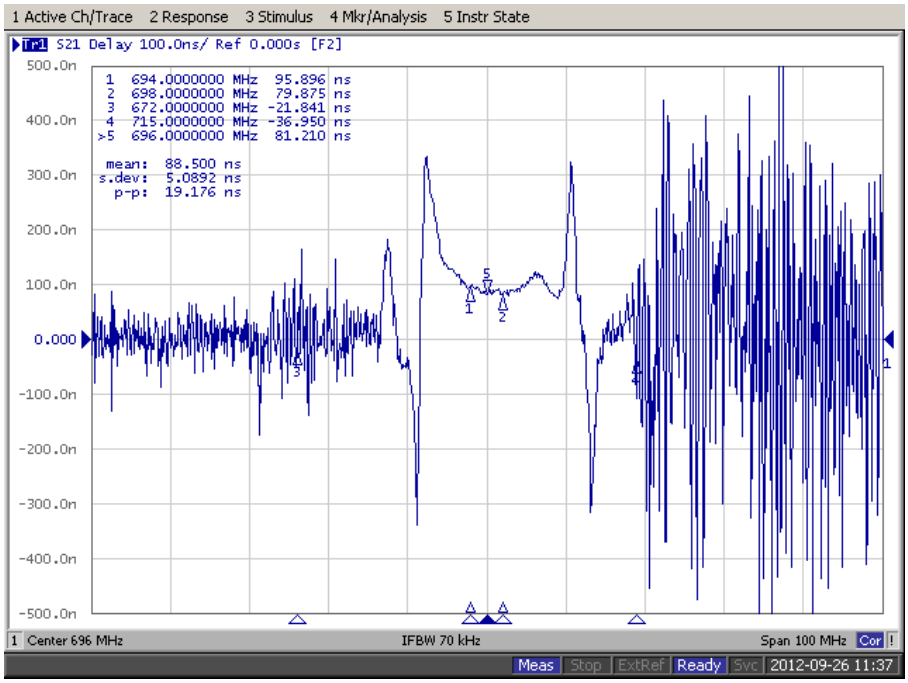
1) Manufacturer name

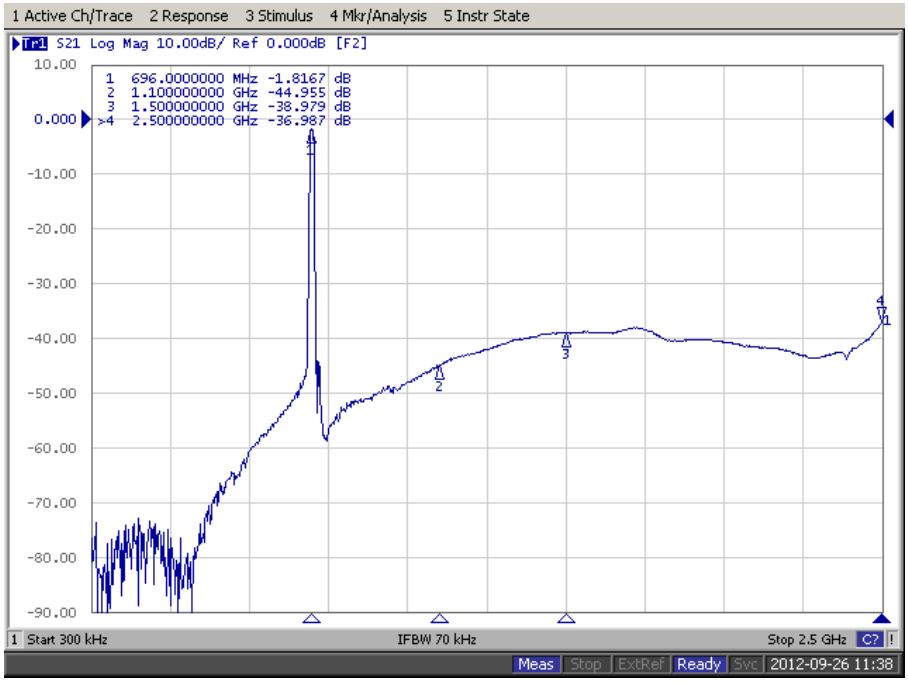
2) Marking Number

## Typical Performance ( at 25℃ )

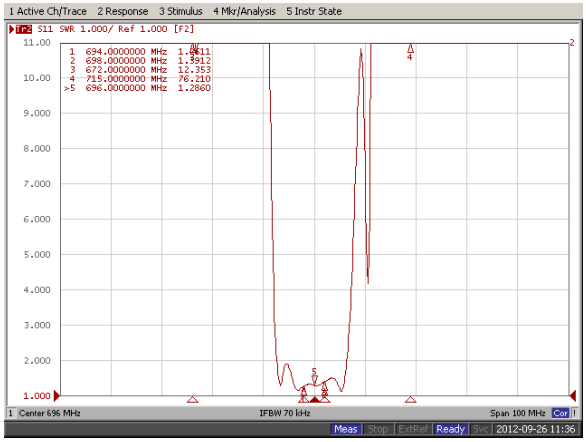


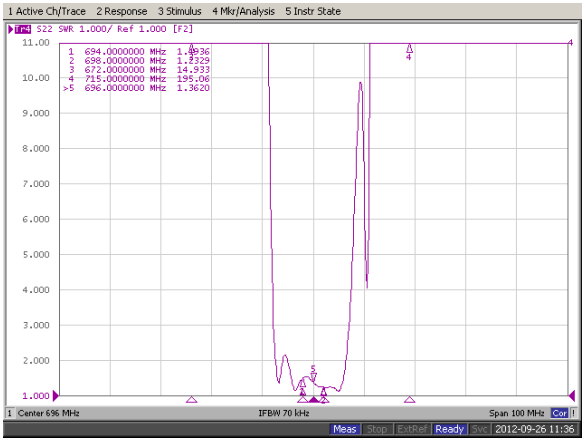

## Typical Performance ( at 25℃ )



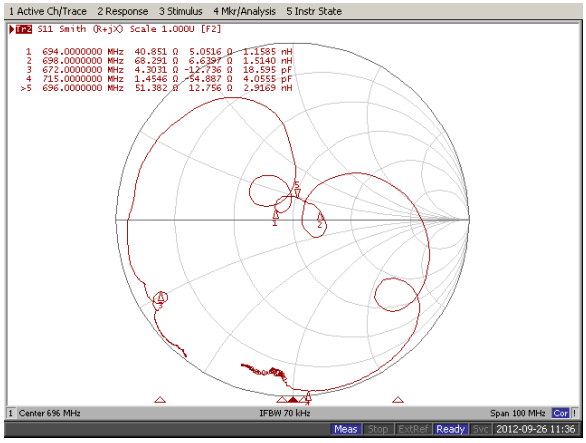



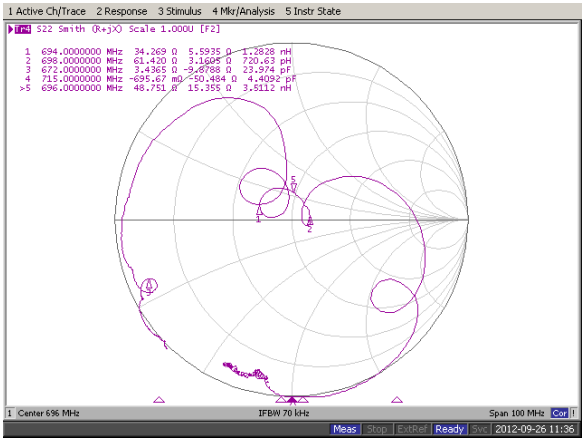
## Input / Output VSWR Charts




## Input / Output Smith Charts

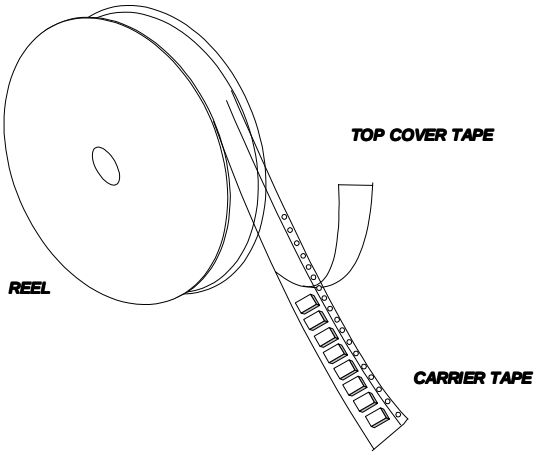


## Packing Specification

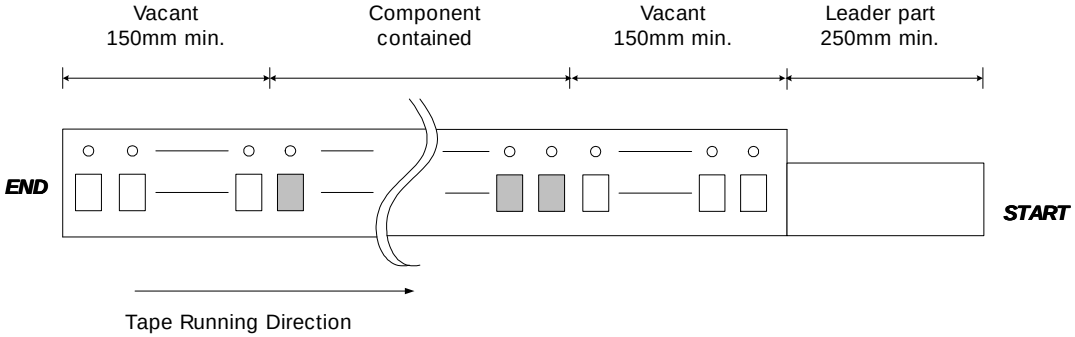
1. Reeling Quantity : 1000 pcs / reel

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

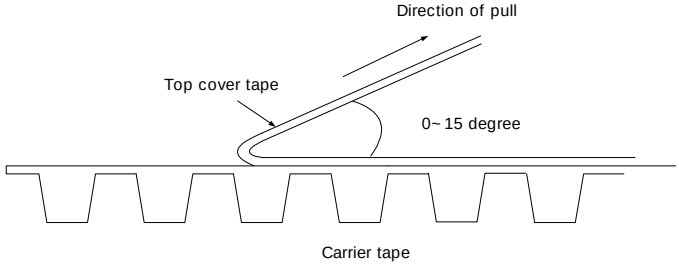
4.4N/mm width

3. Top cover tape adhesion

1) pull off angle : 0~15°

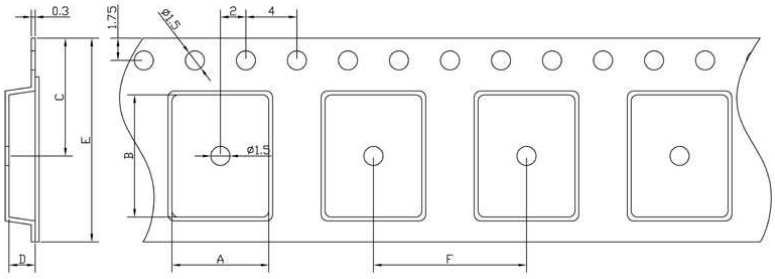
2) speed : 300mm/min

3) force : 20~70g



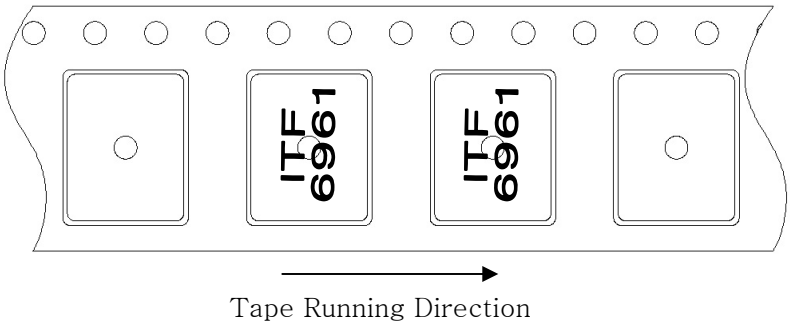
# SAW Bandpass Filter F6961

## 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]