

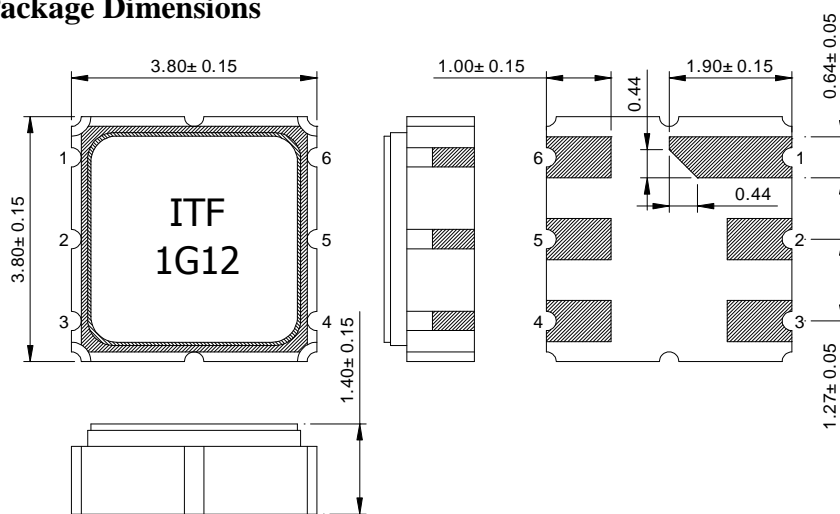
# SAW Bandpass Filter F1G12



## Features

- RF bandpass filter
- High attenuation
- Usable bandwidth 20MHz
- No matching 50Ω single-ended operation
- Ceramic Surface Mounted Device (SMD) Package

## 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   | -10     | 25      | 60      |
| Storage Temperature Range   | °C   | -40     | -       | 85      |
| Power Handling Capability   | dBm  | -       | -       | -       |

Electrostatics Sensitive Device (ESD)

|  |   |           |             |     |
|--|---|-----------|-------------|-----|
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|  |   | Rev. Date | 2012-06-07  |     |
|  |   | Rev.      | NR1008-AS03 | 1/7 |

# SAW Bandpass Filter F1G12



## Specifications

Fc = 1100.0MHz


Terminating source impedance : 50Ω and matching network

Terminating load impedance : 50Ω and matching network

|  |        | Minimum  | Typical  | Maximum |
|--|--------|----------|----------|---------|
| Center Frequency ( Fc )  | MHz    | -        | 1100.0   | -       |
| Insertion Loss (Fc +/- 10 MHz)                                 | dB     | -        | 4.0      | 5.0     |
| Amplitude Ripple (Fc +/- 10 MHz)                               | dB     | -        | 0.8      | 1.5     |
| Absolute Group Delay at Fc                                     | nsec   | -        | 40       | -       |
| Group Delay Variation (Fc +/- 10 MHz)                          | nsec   | -        | 20       | -       |
| VSWR (Fc +/- 10 MHz)   |        | -        | 1.5      | 2.0     |
| Relative Attenuation<br>... ~ Fc - 50 MHz<br>Fc + 50 MHz ~ ... | dB     | 30<br>30 | 40<br>40 | -       |
| Temperature Coefficient of Frequency                           | ppm/°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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# SAW Bandpass Filter F1G12



## Matching Schematic

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



L1 , L2 = 5.6nH

## Marking Configuration


ITF<sup>1)</sup>

1G12<sup>2)</sup>

1) Manufacturer name

2) Marking Number

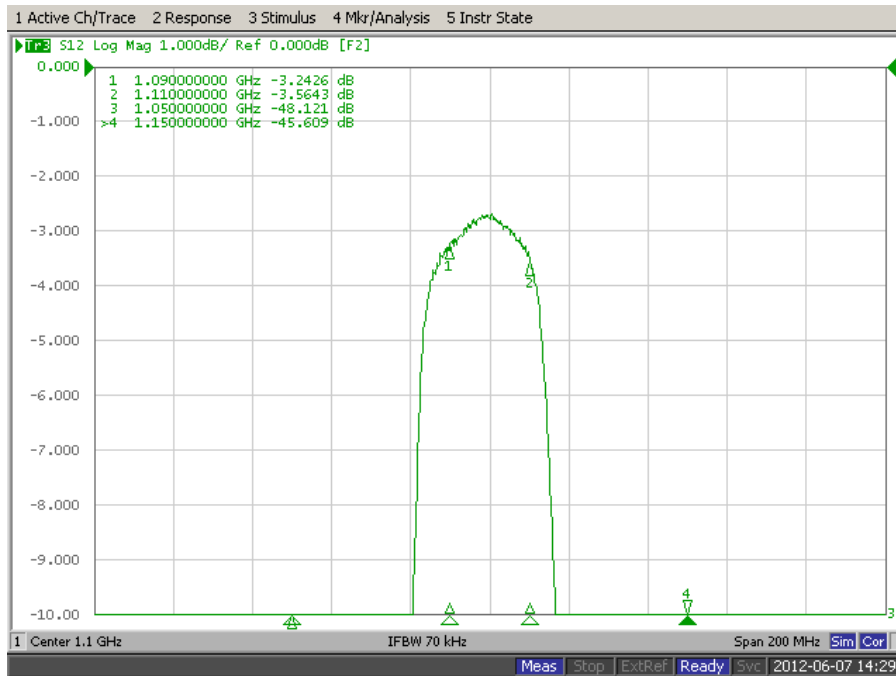
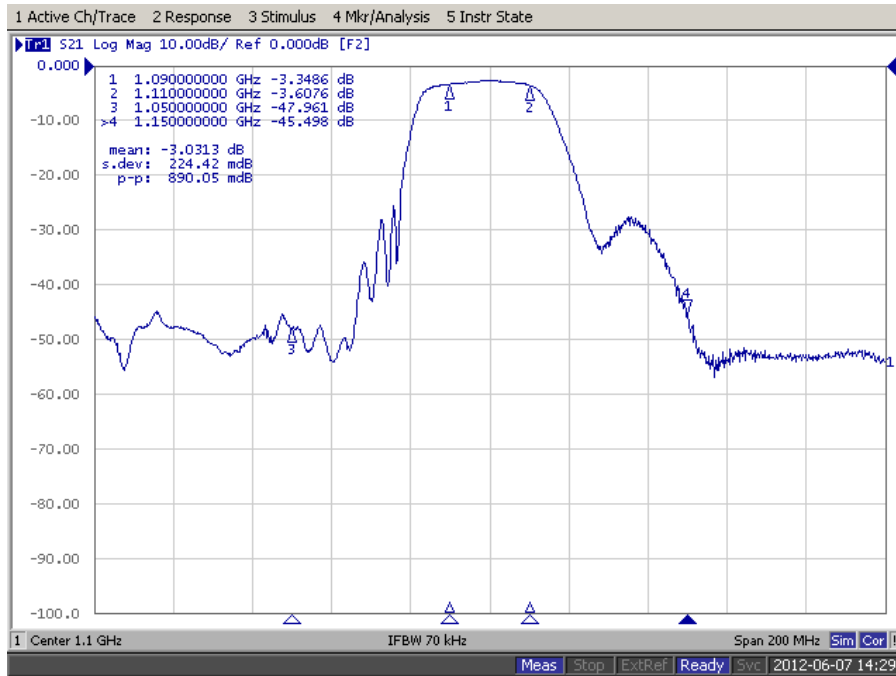
\* Ink or Laser Marking available


|   |   |           |             |     |
|---|---|-----------|-------------|-----|
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# SAW Bandpass Filter F1G12



## Typical Performance ( at 25°C )

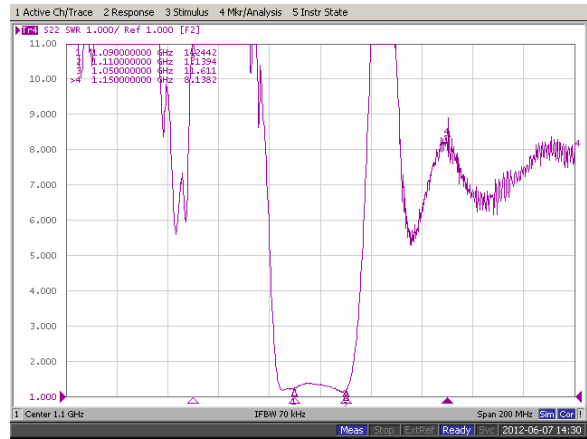
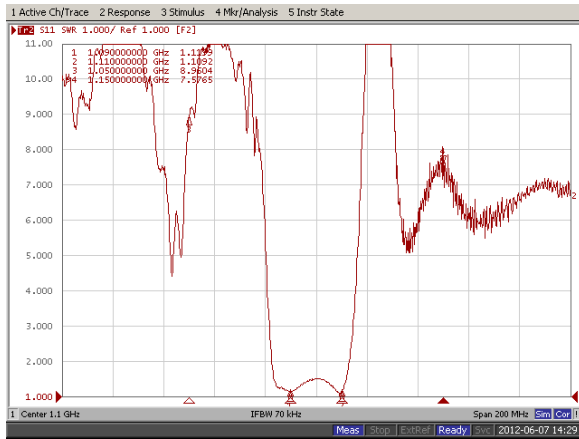


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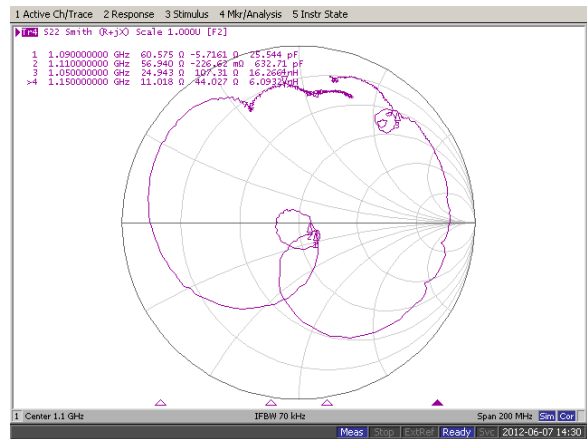
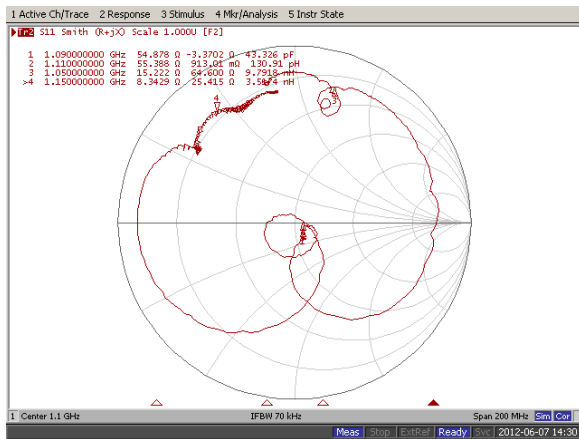
# SAW Bandpass Filter F1G12



## Input / Output VSWR Charts



## Input / Output Smith Charts



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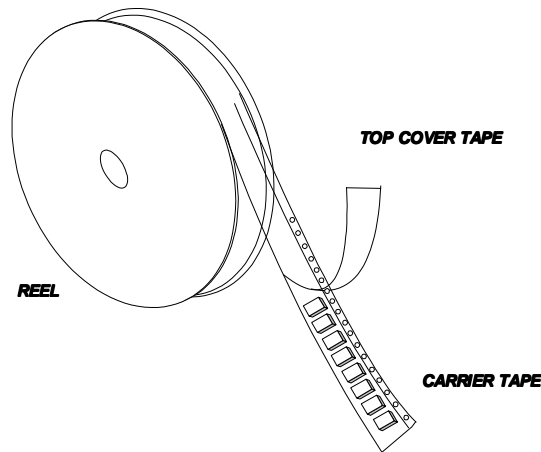
|           |             |     |
|-----------|-------------|-----|
| Part No.  | FIG12       |     |
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# SAW Bandpass Filter F1G12



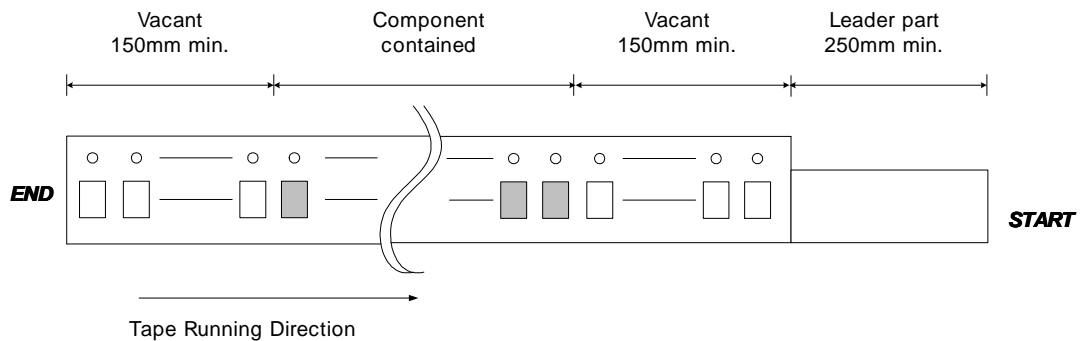
## Packing Specification

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

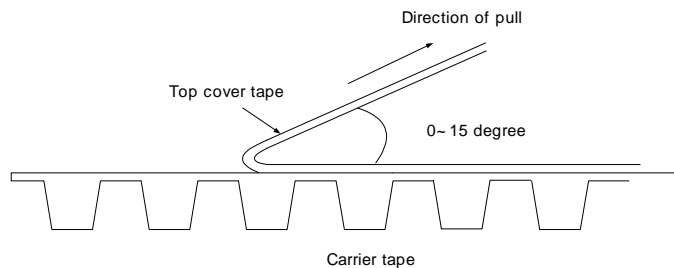


2. Tensile strength of carrier tape

4.4N/mm width

3. Top cover tape adhesion

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

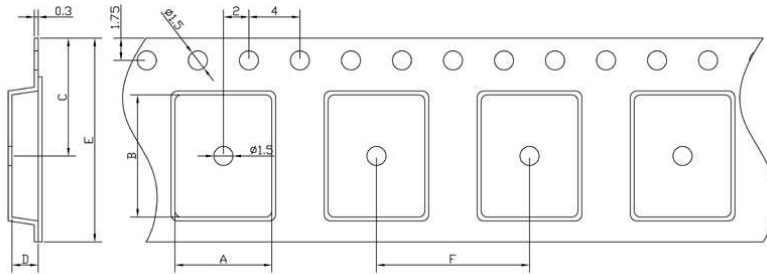


|  |   |           |             |     |
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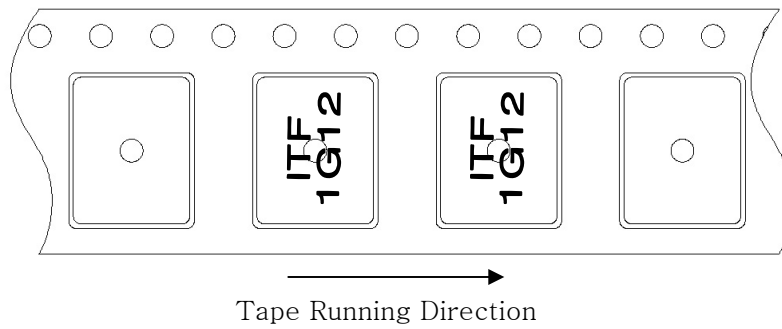


## Carrier Tape Dimensions [unit : mm]

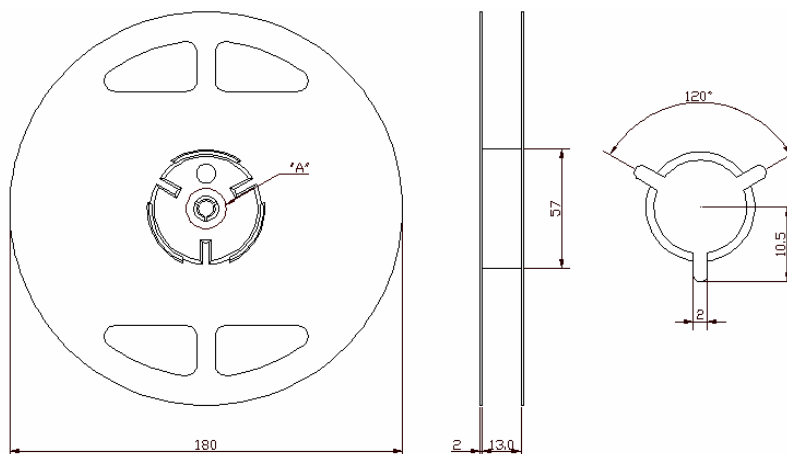


|   |             |
|---|-------------|
| A | 4.30 ± 0.1  |
| B | 4.30 ± 0.1  |
| C | 7.25 ± 0.1  |
| D | 1.70 ± 0.1  |
| E | 12.00 ± 0.1 |
| F | 8.00 ± 0.1  |

## Part Direction



## Reel Dimensions [unit : mm]



|  |   |           |             |     |
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