

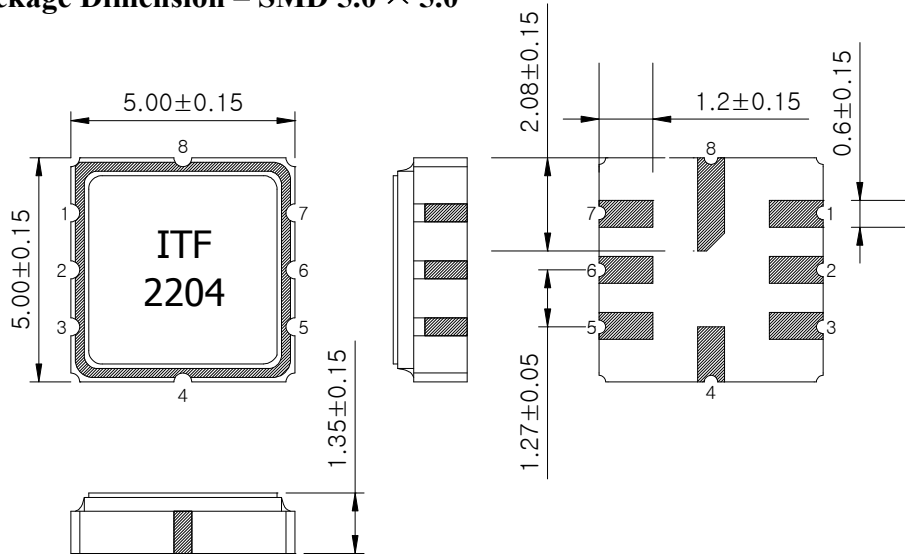
SAW Bandpass Filter F2204



Features

- RF bandpass filter
- High attenuation
- No matching 50Ω single-ended operation
- Ceramic Surface Mounted Device (SMD) Package (5.0 mm * 5.0 mm)
- RoHS Compliant

Package Dimension – SMD 5.0 × 5.0



Dimensions shown are nominal in millimeters

Body : Al₂O₃ 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 |
| 6 | Output |
| 1, 3, 4, 5, 7, 8 | Case ground |

Maximum Ratings

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

Electrostatics Sensitive Device (ESD)

| | | | | |
|--|---|-----------|--------------|-----|
| | ITF Co., Ltd. 102-901, Bucheon Technopark 364, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Gyeonggi-Do, Korea 421-809 | Part No. | NSME01-F2204 | |
| | | Rev. Date | 2011-05-04 | |
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Specifications

Fc = 220 MHz


Terminating source impedance : 50Ω

Terminating load impedance : 50Ω

| | Minimum | Typical | Maximum | Unit |
|--|----------|----------|---------|-------|
| Center Frequency (Fc) | - | 220 | - | MHz |
| Insertion Loss (In Fc +/- 1.5 MHz) | - | 3.5 | 4.0 | dB |
| Amplitude Ripple (In Fc +/- 1.5 MHz) | - | 1.2 | 2.0 | dBp-p |
| VSWR (In Fc +/- 1.5 MHz) | - | 1.8 | 2.5 | |
| Relative Attenuation 120.0 ~ 177.5 MHz 259.5 ~ 320.0 MHz | 50 50 | 55 55 | - - | dB |
| Temperature Range (Operational) | -40 | 25 | 85 | °C |
| 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 ¹⁾

2204 ²⁾

1) Manufacturer name

2) Marking Number

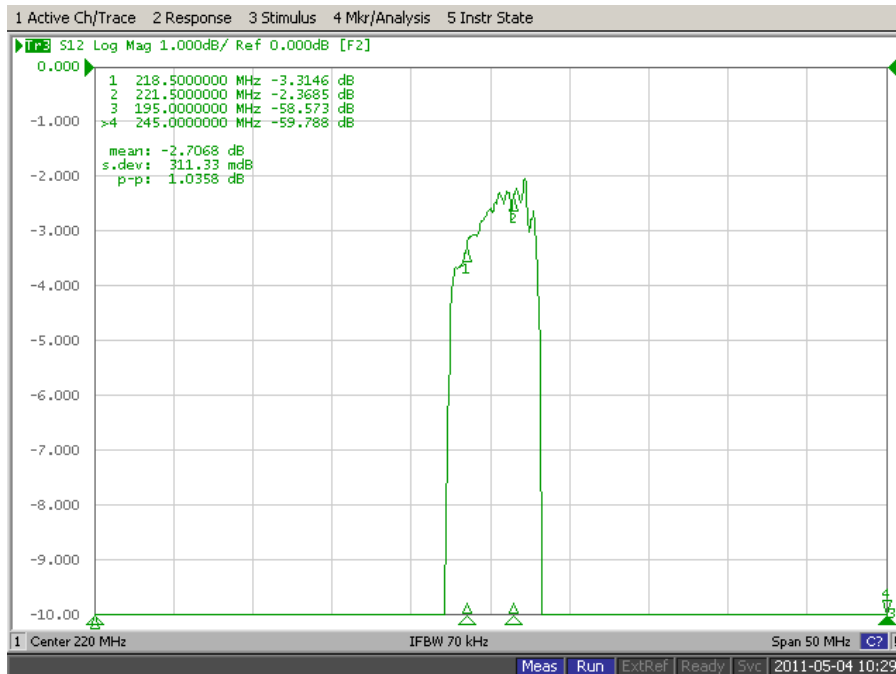
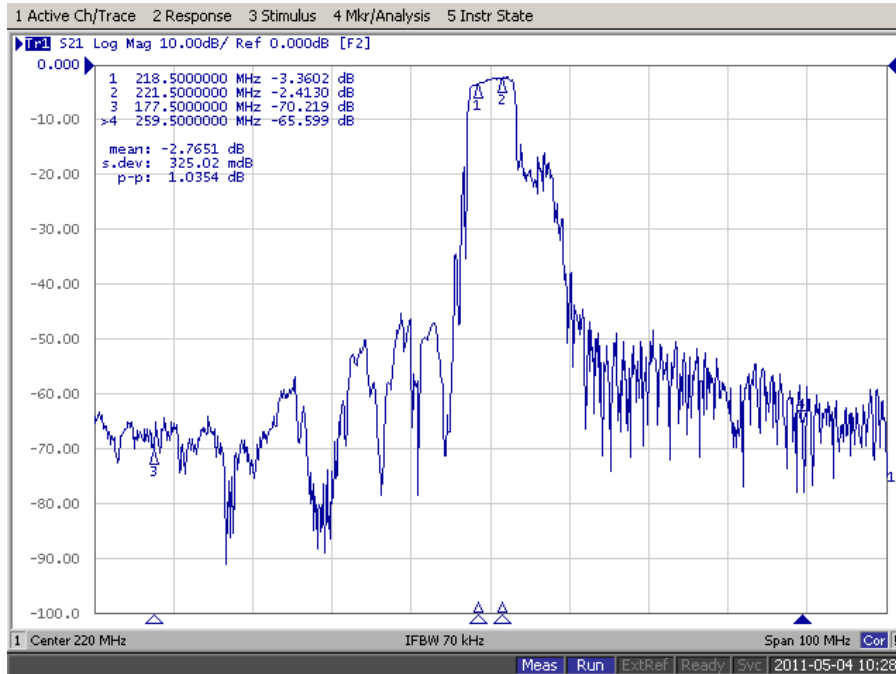
* Ink or Laser Marking available

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

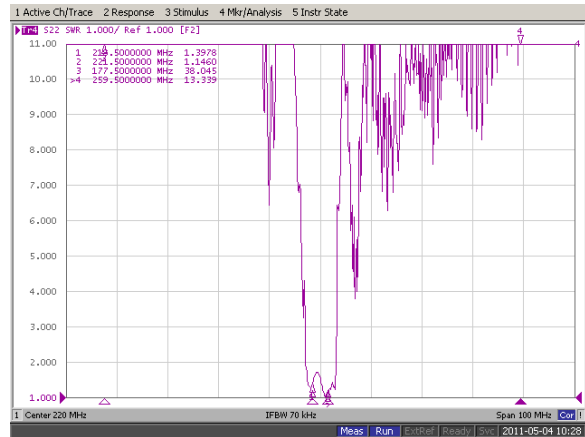
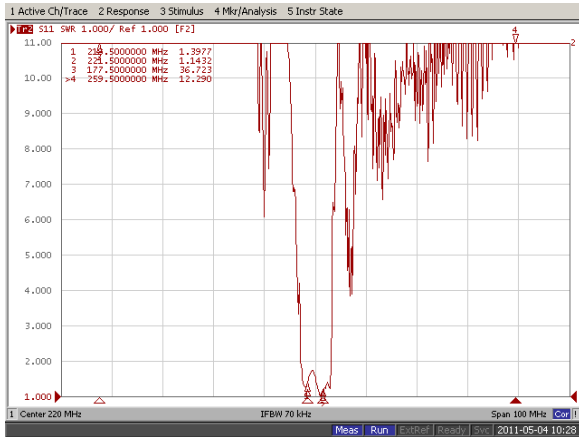


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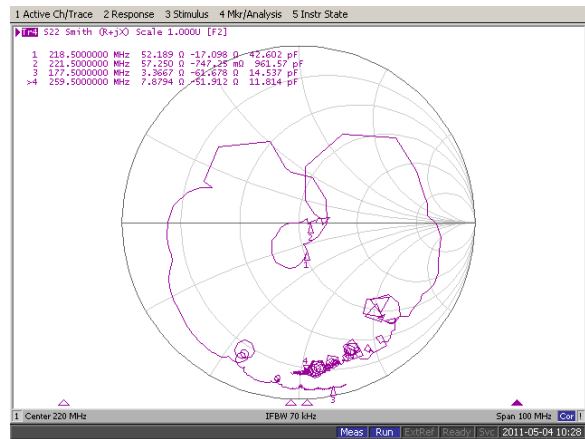
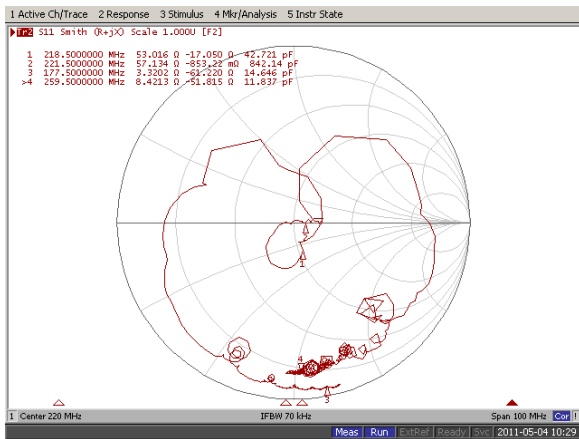
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Input / Output VSWR Charts



Input / Output Smith Charts



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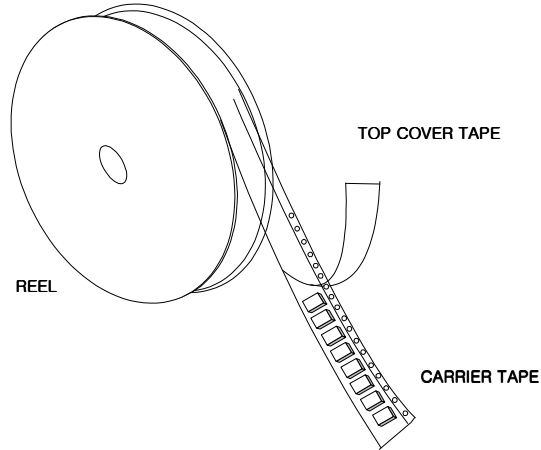
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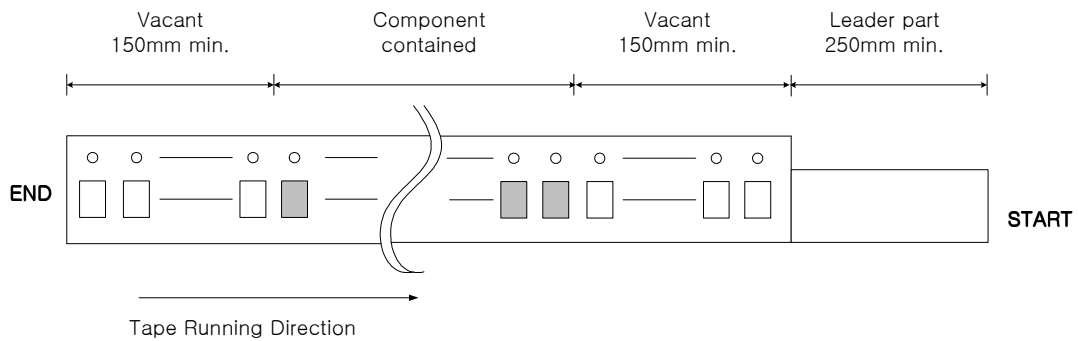
Packing Specification

1. Reeling Quantity : 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

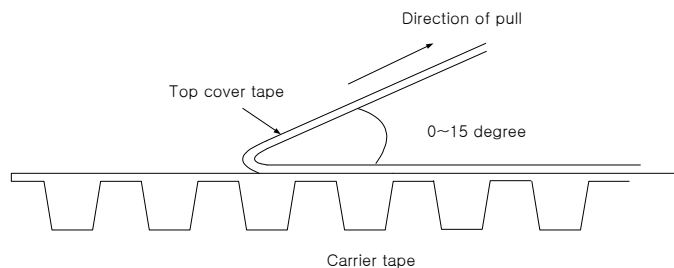


2. Tensile strength of carrier tape

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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