

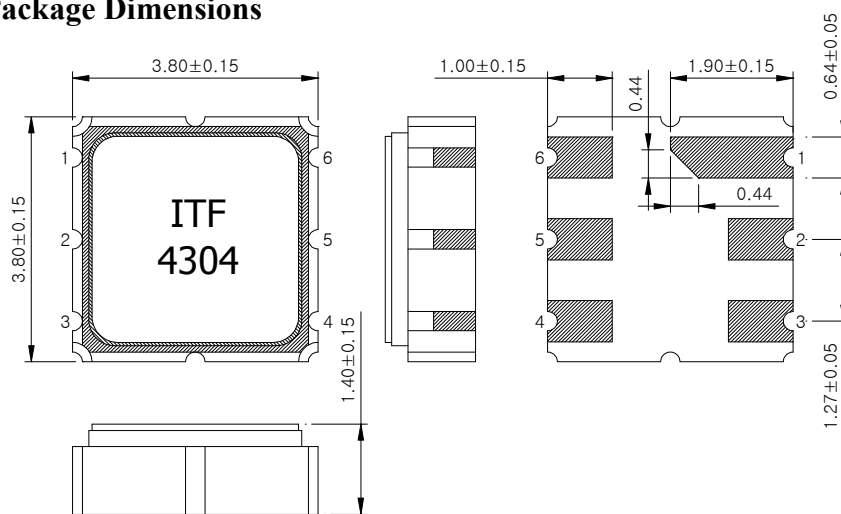
SAW Bandpass Filter F4304



Features

- RF bandpass filter
- High attenuation
- Usable bandwidth 4MHz
- No matching 50Ω single-ended operation
- Ceramic Surface Mounted Device (SMD) Package

Package Dimensions



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 |
| 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)

| | | | | |
|---|---|-----------|-------------|-----|
|  | ITF Co., Ltd. 102-901, Bucheon Technopark 364, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Gyeonggi-Do, Korea 421-809 | Part No. | F4304 | |
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Specifications

Fc = 430.0MHz

Terminating source impedance : 50Ω

Terminating load impedance : 50Ω

| | | Minimum | Typical | Maximum |
|---|--------|----------|----------|---------|
| Center Frequency (Fc) | MHz | - | 430.0 | - |
| Insertion Loss (Fc +/- 2.0 MHz) | dB | - | 3.0 | 4.0 |
| Amplitude Ripple (Fc +/- 2.0 MHz) | dB | - | 1.0 | 2.0 |
| Absolute Group Delay at Fc | nsec | - | 120 | - |
| Group Delay Variation (Fc +/- 2.0 MHz) | nsec | - | 50 | - |
| VSWR (Fc +/- 2.0 MHz) | | - | 1.5 | 2.0 |
| Attenuation 380.0 MHz ~ 415.0 MHz 455.0 MHz ~ 480.0 MHz | dB | 45 40 | 50 45 | - |
| 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

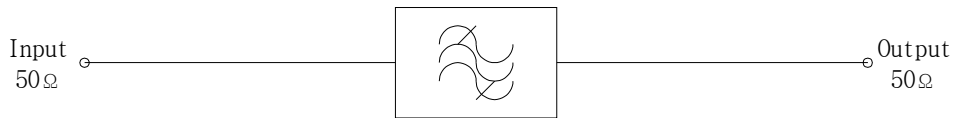
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Matching Schematic

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




Marking Configuration

ITF¹⁾
4304²⁾

1) Manufacturer name

2) Marking Number

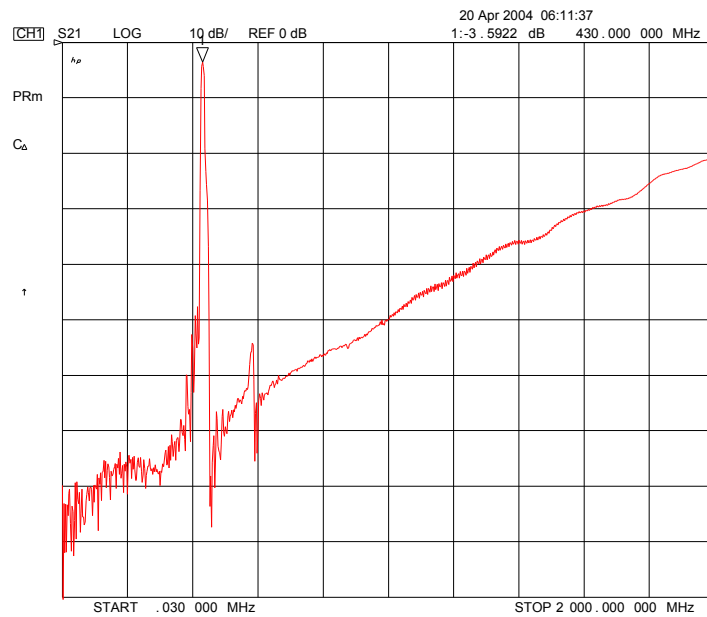
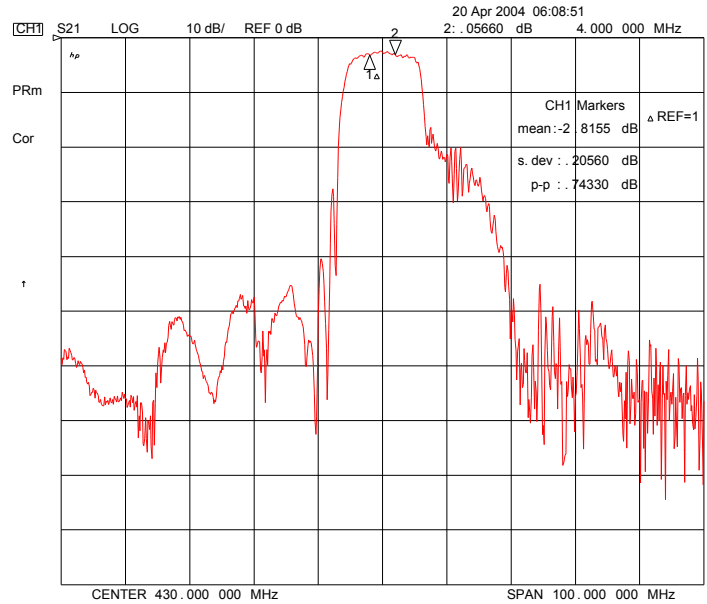
* Ink or Laser Marking available

| | | | | |
|---|---|-----------|-------------|-----|
|  Integrated Technology Future | ITF Co., Ltd. 102-901, Bucheon Technopark 364, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Gyeonggi-Do, Korea 421-809 | Part No. | F4304 | |
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Typical Performance (at 25°C)

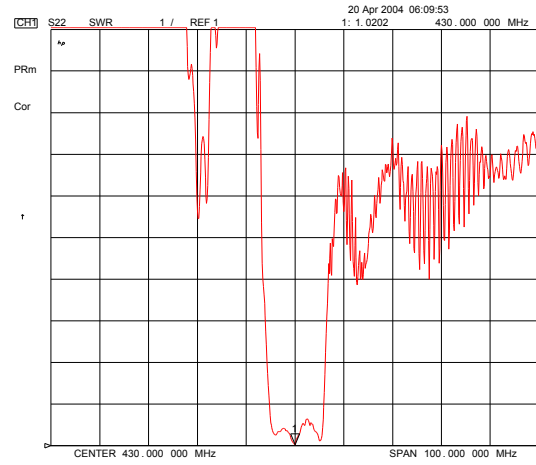
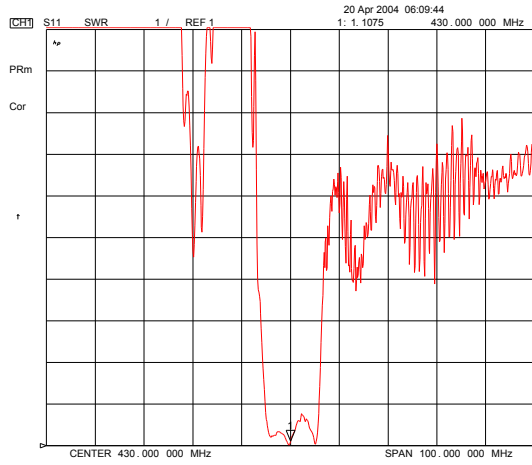


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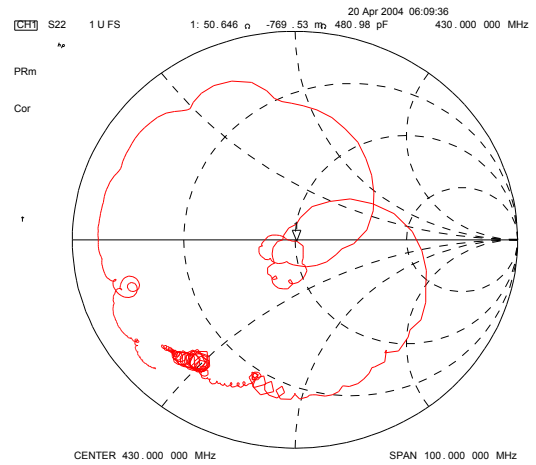
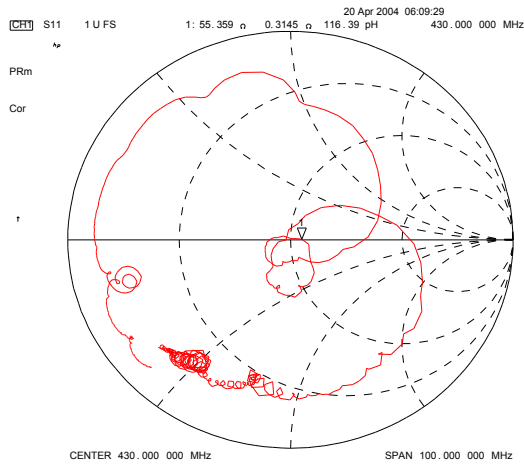
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Input / Output VSWR Charts



Input / Output Smith Charts



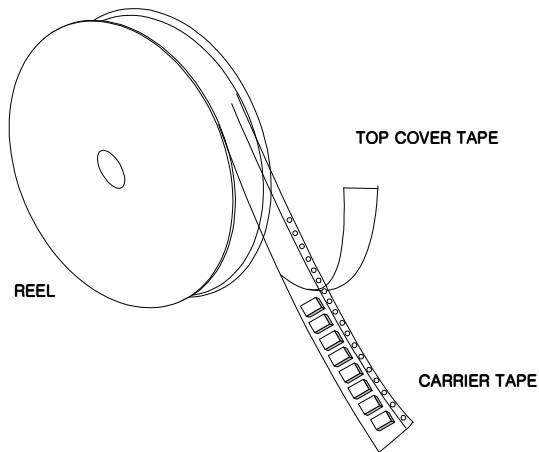
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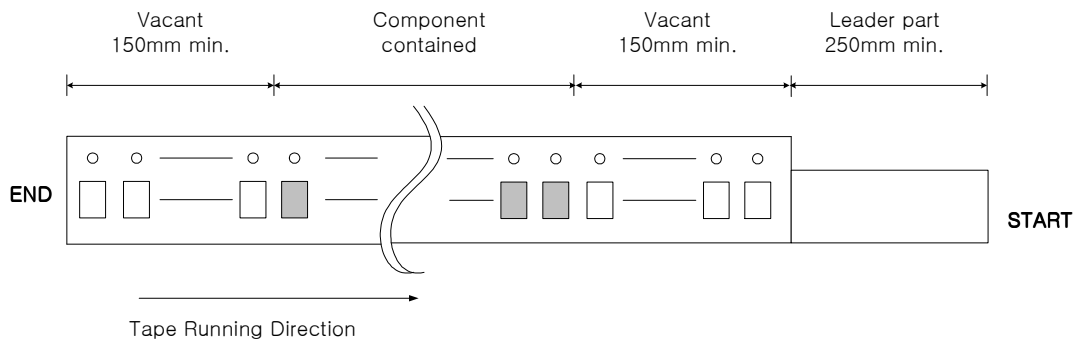
Packing Specification

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

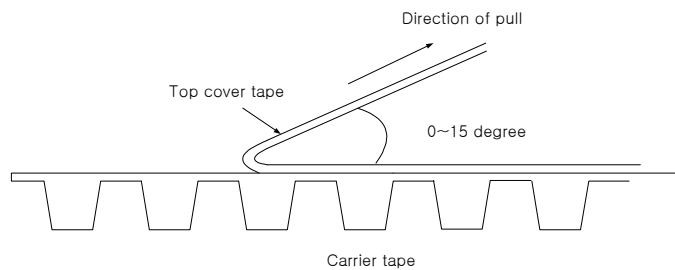


2. Tensile strength of carrier tape

4.4N/mm width

3. Top cover tape adhesion

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

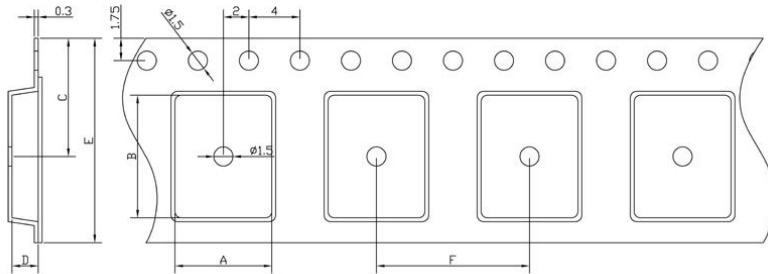


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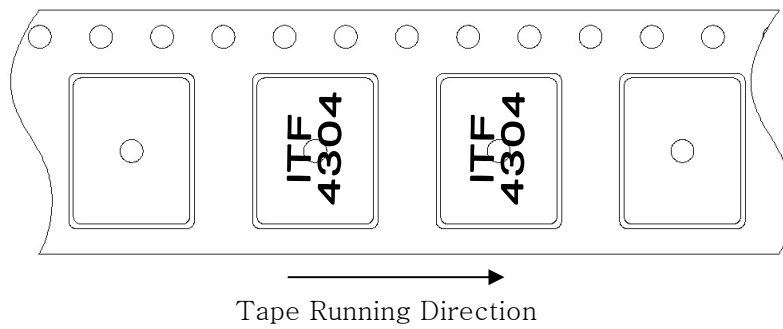


Carrier Tape Dimensions [unit : mm]

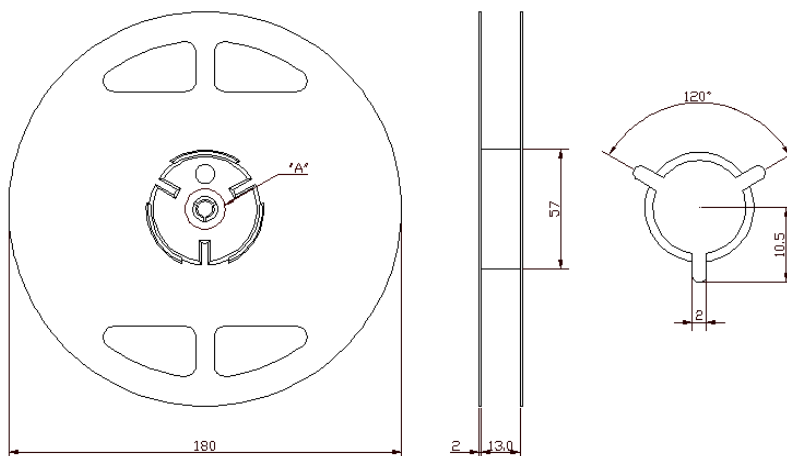


| | |
|---|-------------|
| A | 4.30 ± 0.1 |
| B | 4.30 ± 0.1 |
| C | 7.25 ± 0.1 |
| D | 1.70 ± 0.1 |
| E | 12.00 ± 0.1 |
| F | 8.00 ± 0.1 |

Part Direction



Reel Dimensions [unit : mm]



| | | | | |
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