

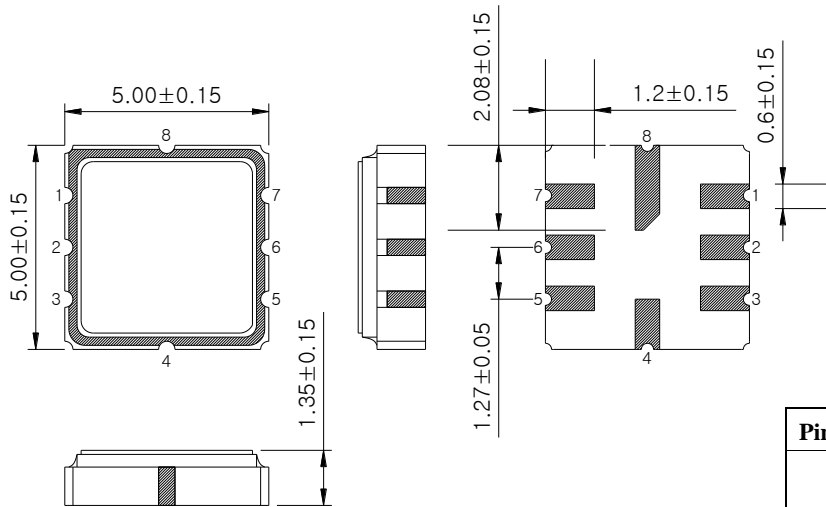
SAW Resonator R31001



Features

- 1-port Resonator
- Quartz Frequency Stabilization
- For transmitters or Local Oscillators

Package Dimension – S5050



| Pin Configuration | |
|-------------------|--------|
| 2 | Input |
| 6 | Output |
| 1, 3, 4, 5, 7, 8 | Ground |

Marking Configuration

ITF¹⁾
31001²⁾

1) Manufacturer name

2) Marking Number

* Ink or Laser Marking available

* Front 4 digits for S5050

| | | | | |
|--|---|-----------|-------------|-----|
| | ITF Co., Ltd. 102-901, Bucheon Technopark 364, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Gyeonggi-Do, Korea 421-809 | Part No. | R31001 | |
| | | Rev. Date | 2015-10-30 | |
| | | Rev. | NS3106-AS02 | 1/5 |

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Maximum Ratings

| Parameter | Unit | Minimum | Typical | Maximum |
|-----------------------------|------|---------|---------|---------|
| Operating Temperature Range | °C | -10 | 25 | 60 |
| Storage Temperature Range | °C | -40 | - | 85 |
| Power Handling Capability | dBm | - | 0 | - |

Electrostatics Sensitive Device (ESD)

Electrical Specification

$F_R = 310.0\text{MHz}$


Terminating source impedance : 50Ω and matching network

Terminating load impedance : 50Ω and matching network

| | | Minimum | Typical | Maximum |
|--------------------------------------|---------------------|---------|-----------------|---------|
| Resonance Frequency (F_R) | MHz | 309.925 | 310.000 | 310.075 |
| Insertion Loss | dB | - | 1.5 | 2.5 |
| 50 ohm Loaded Q Unloaded Q | | | 2,000 11,000 | |
| Trun-over Temperature | °C | 10 | 25 | 40 |
| Temperature Coefficient of Frequency | ppm/°C ² | - | -0.032 | - |

Notes :

- 1) All specifications are based on the matching schematic shown below
- 2) All specifications are measured by Agilent Network analyzer and full 2 port calibration at room temperature

| | | | | |
|---|---|-----------|-------------|-----|
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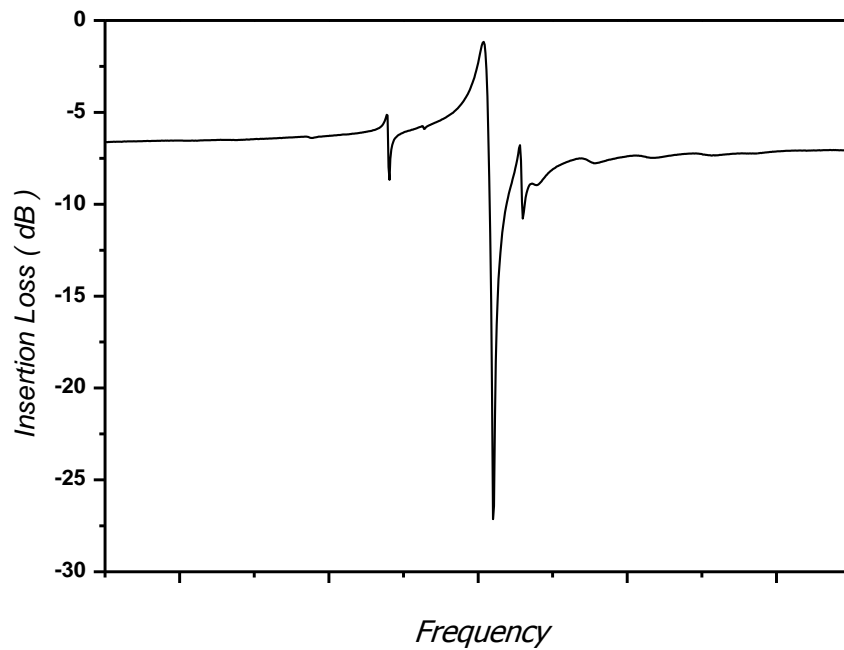



Matching Schematic

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



Frequency Response



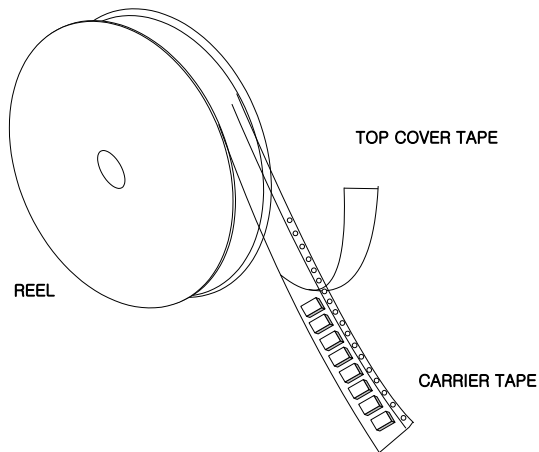
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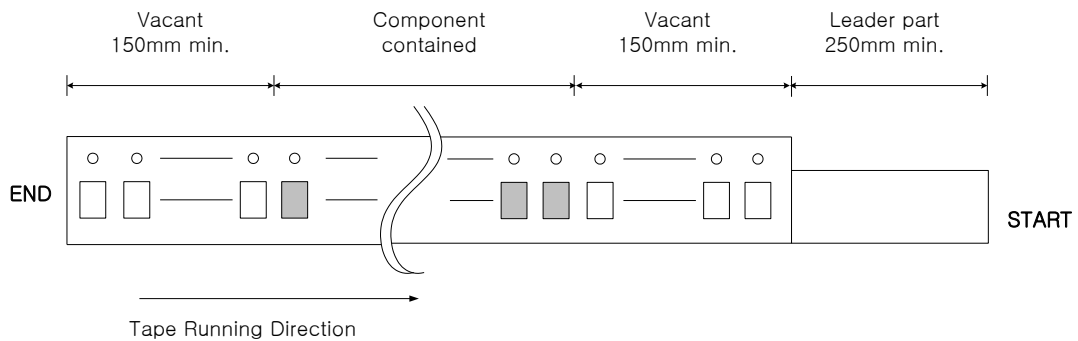
Packing Specification

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

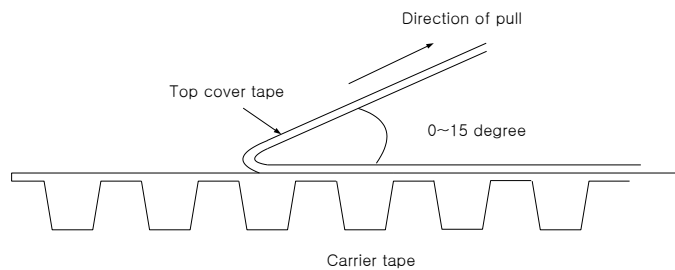



2. Tensile strength of carrier tape

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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