

RF SAW Resonator R30911



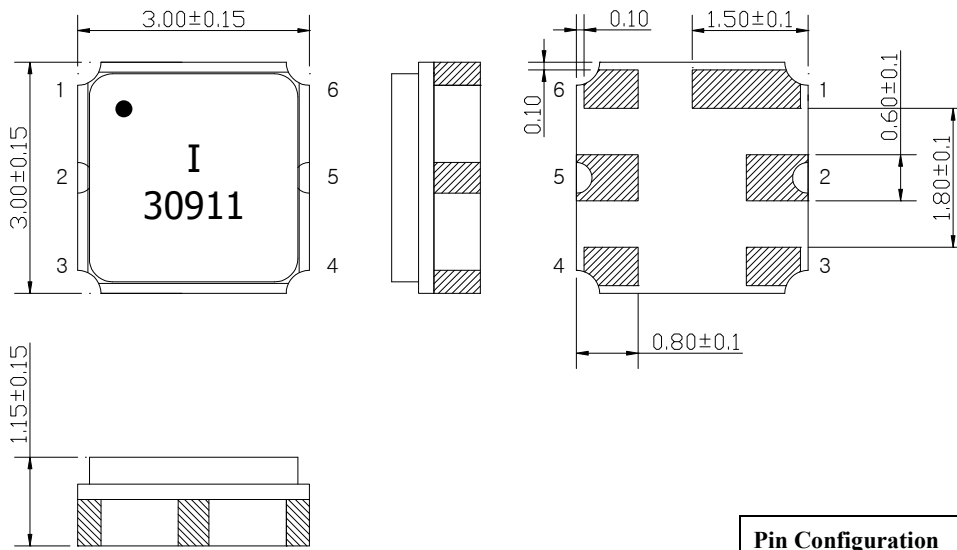
RoHS Compliant

Tested by SGS Testing Korea

Features

- RF SAW Resonator
- Ceramic Surface Mounted Device (SMD) Package
- RoHS Compliant

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 | ground |

Maximum Ratings

| Parameter | Unit | Minimum | Typical | Maximum |
|-----------------------------|------|---------|---------|---------|
| Operating Temperature Range | °C | -30 | 25 | 85 |
| Storage Temperature Range | °C | -40 | - | 85 |
| Power Handling Capability | dBm | | 11 | |

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. | R30911 | |
| | | Rev. Date | 2018-06-21 | |
| | | Rev. | AS01 | 1/6 |

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Specifications

$F_c = 309.925\text{MHz}$

| | | Minimum | Typical | Maximum |
|--------------------------------------|---------------------------|---------|---------|---------|
| Resonance Frequency (F_R) | MHz | 309.910 | 309.925 | 309.940 |
| Insertion Loss (at F_R) | dB | - | -1.5 | -2.0 |
| Equivalent Element | | | | |
| Motional Resistance (R_1) | Ω | - | 23 | - |
| Motional Inductance (L_1) | μH | - | 146 | - |
| Motional Capacitance (C_1) | fF | - | 1.8 | - |
| Static Capacitance (C_0) | pF | - | 2.1 | - |
| Temperature Coefficient of Frequency | ppm/ $^{\circ}\text{C}^2$ | - | -0.03 | - |
| Turnover Temperature | $^{\circ}\text{C}$ | - | 25 | - |
| Operating Temperature Range | $^{\circ}\text{C}$ | -40 | - | +85 |
| Storage Temperature Range | $^{\circ}\text{C}$ | -45 | - | +85 |
| Maximum DC Voltage | V | - | - | 10 |
| Maximum Input Power | dBm | - | - | 0 |

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

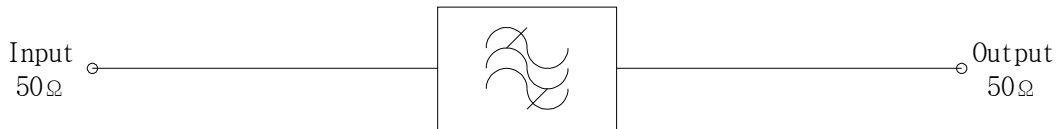
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Matching Schematic

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



Marking Configuration

- ¹⁾
I ²⁾
30911 ³⁾

1) Pad Number 1 Index

2) Manufacturer name

3) Marking Number

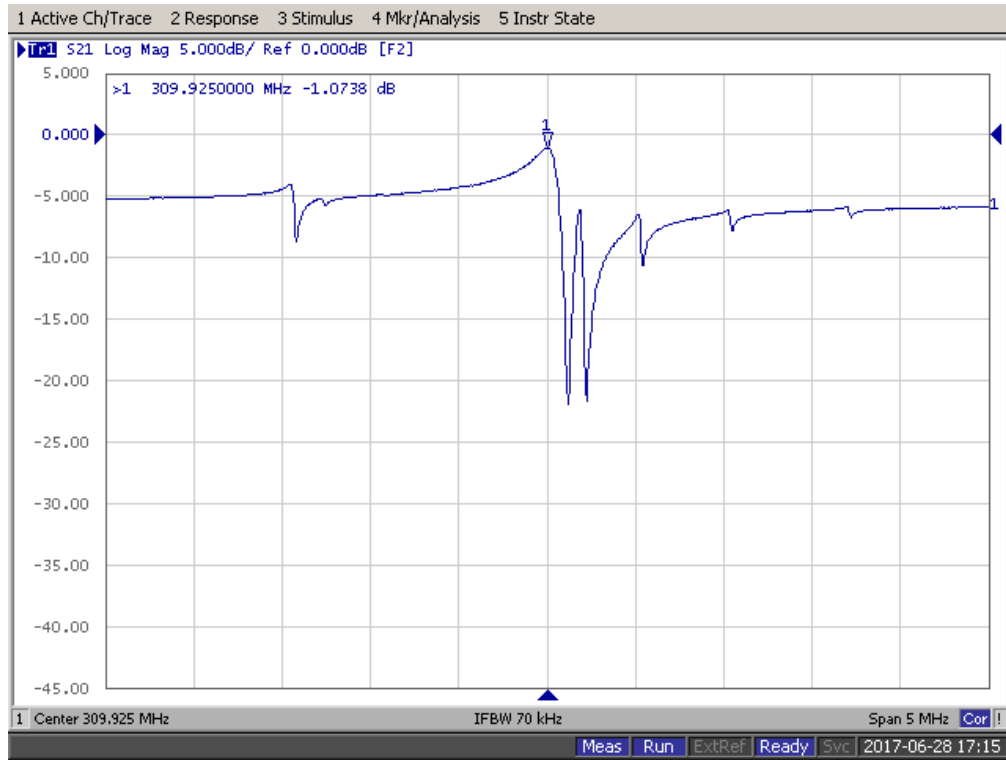
* Ink or Laser Marking available


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



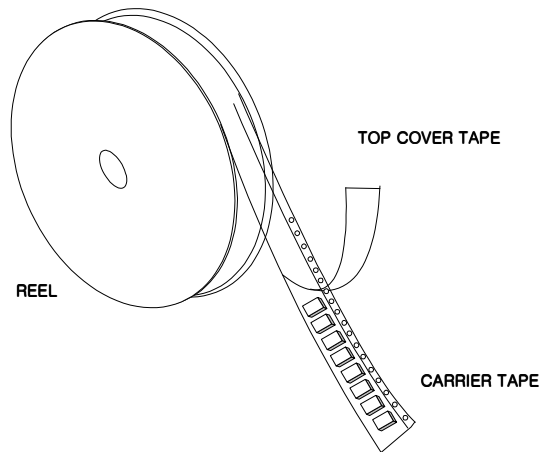
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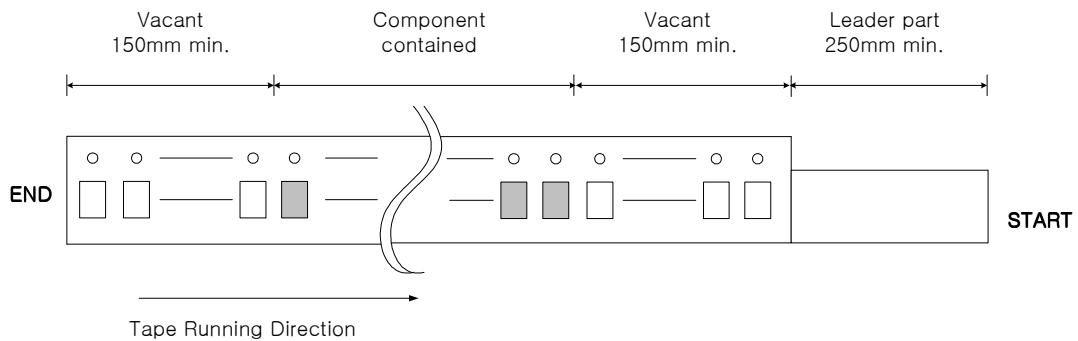
Packing Specification

1. Reeling Quantity : 3000 pcs / 13" reel (or 1000 pcs / 7" 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

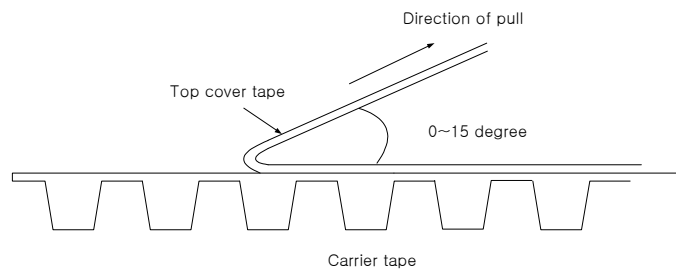


2. Tensile strength of carrier tape

4.4N/mm width

3. Top cover tape adhesion

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

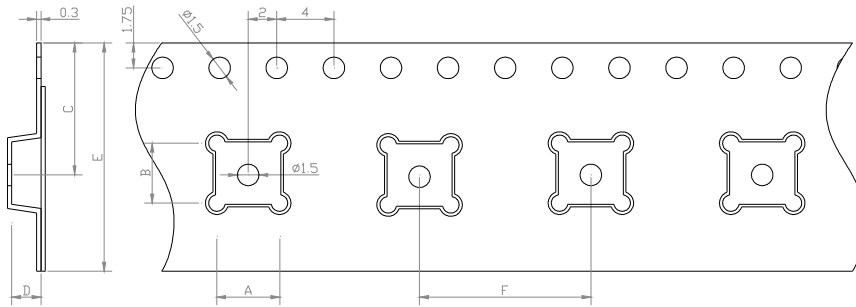


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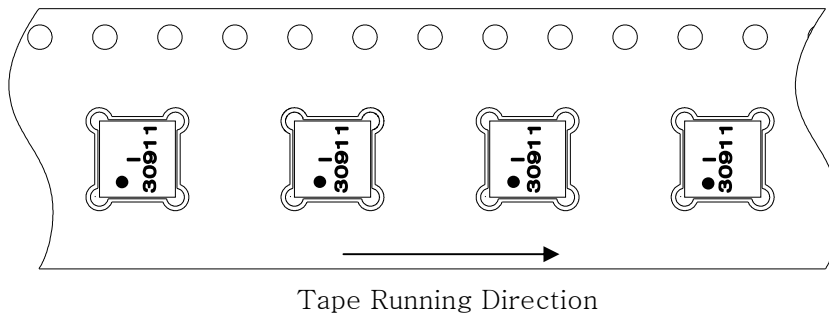


Carrier Tape Dimensions [unit : mm]

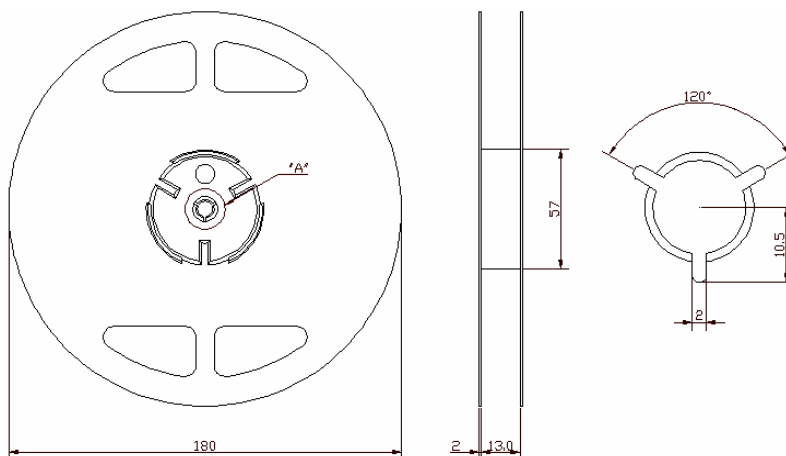


| | |
|---|-------------|
| A | 3.40 ± 0.1 |
| B | 3.40 ± 0.1 |
| C | 7.25 ± 0.1 |
| D | 1.70 ± 0.1 |
| E | 12.00 ± 0.1 |
| F | 8.00 ± 0.1 |

Part Direction



Reel Dimensions [unit : mm]



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