

RF SAW Resonator R31461



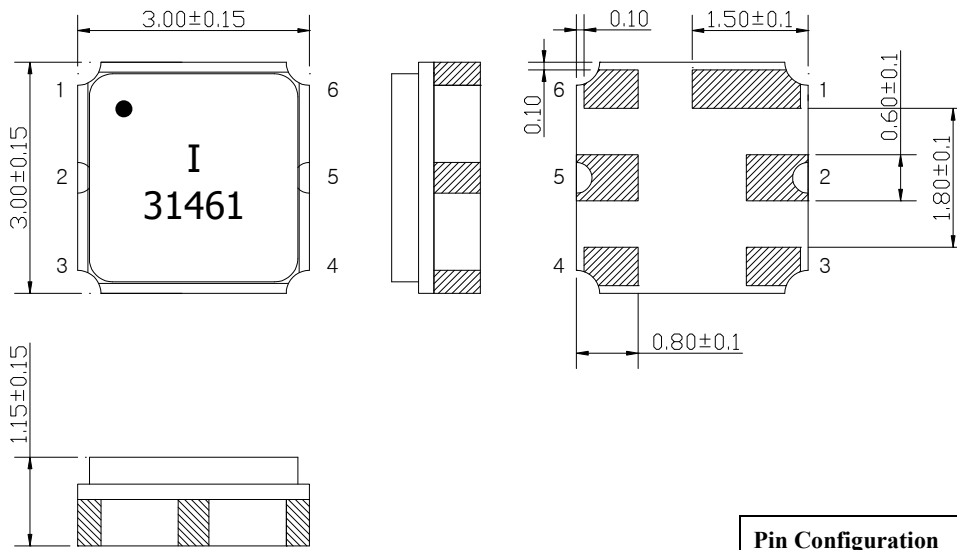
RoHS Compliant

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.	R31461	
		Rev. Date	2018-06-21	
		Rev.	AS01	1/6

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Specifications

$F_c = 314.285\text{MHz}$

		Minimum	Typical	Maximum
Resonance Frequency (F_R)	MHz	314.270	314.285	314.300
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

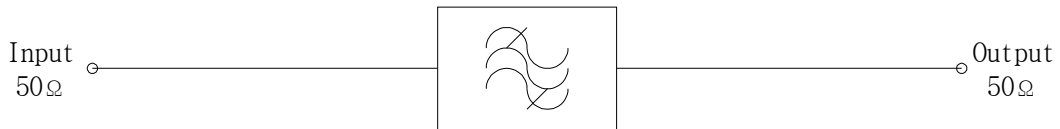
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Matching Schematic

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



Marking Configuration

- ¹⁾
I ²⁾
31461 ³⁾

1) Pad Number 1 Index

2) Manufacturer name

3) Marking Number

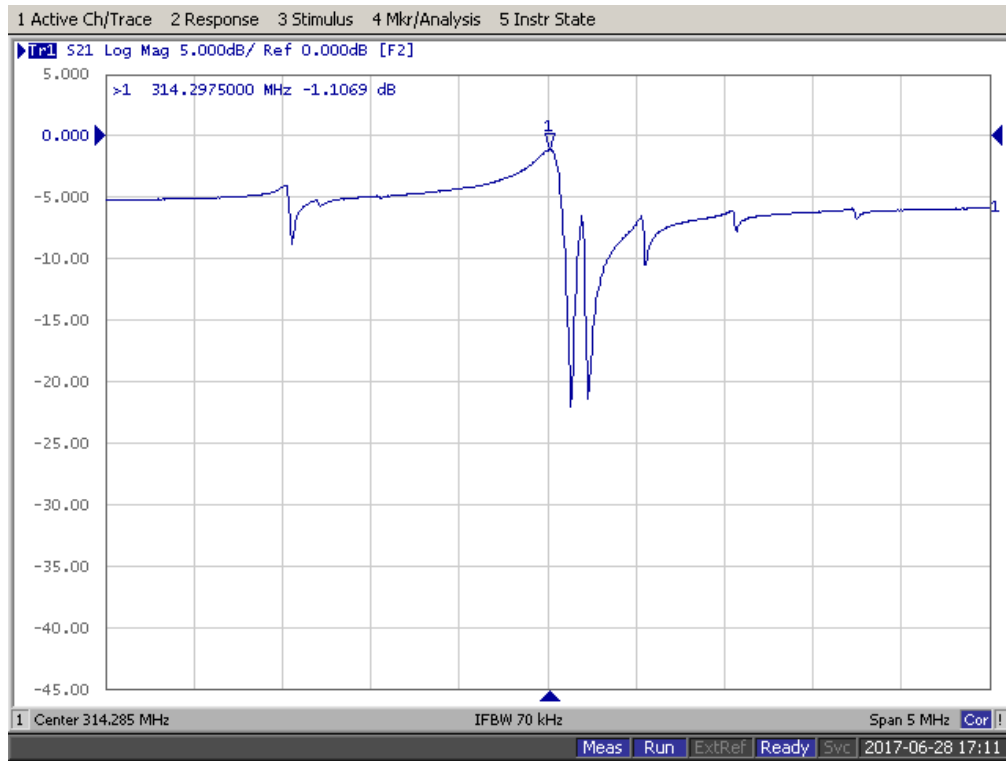
* Ink or Laser Marking available

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Typical Performance (at 25°C)



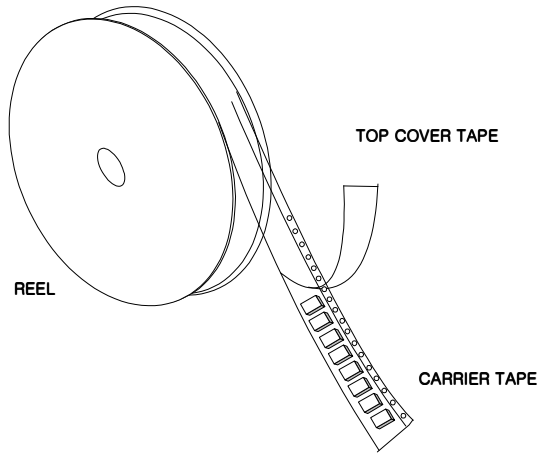
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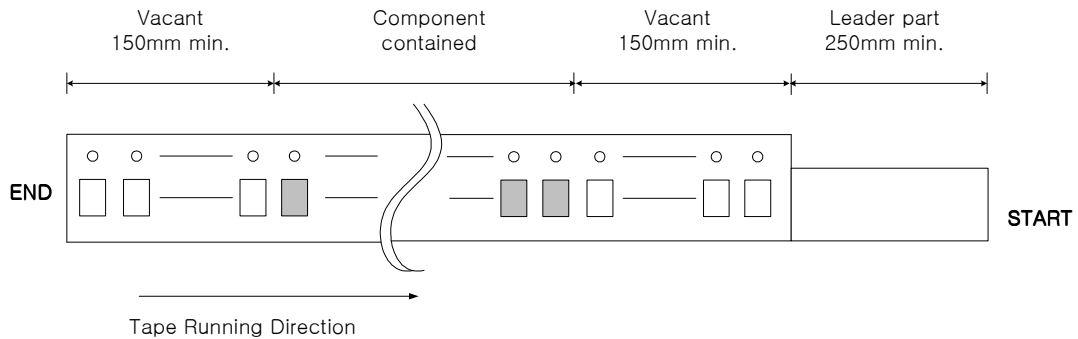
Packing Specification

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

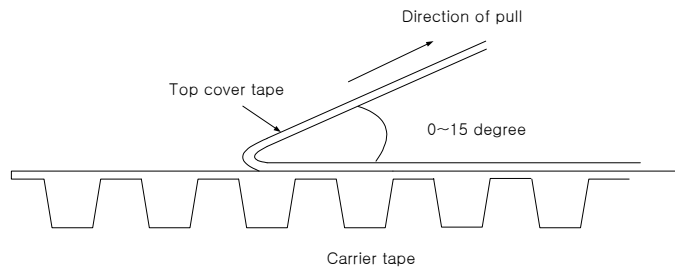


2. Tensile strength of carrier tape

4.4N/mm width

3. Top cover tape adhesion

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

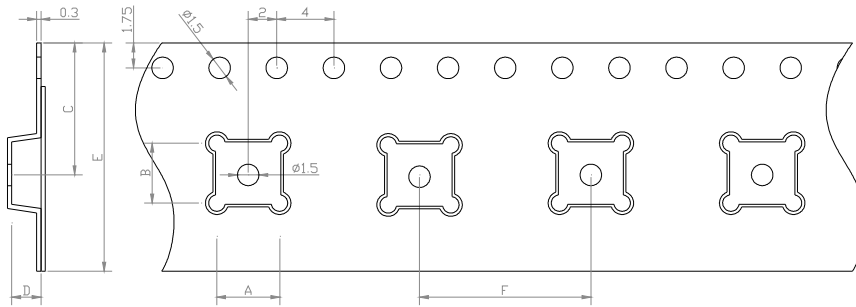


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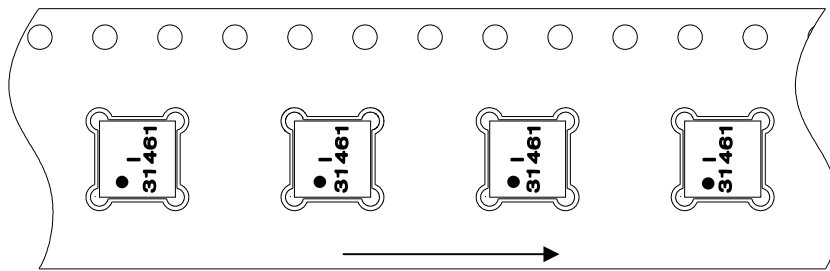


Carrier Tape Dimensions [unit : mm]



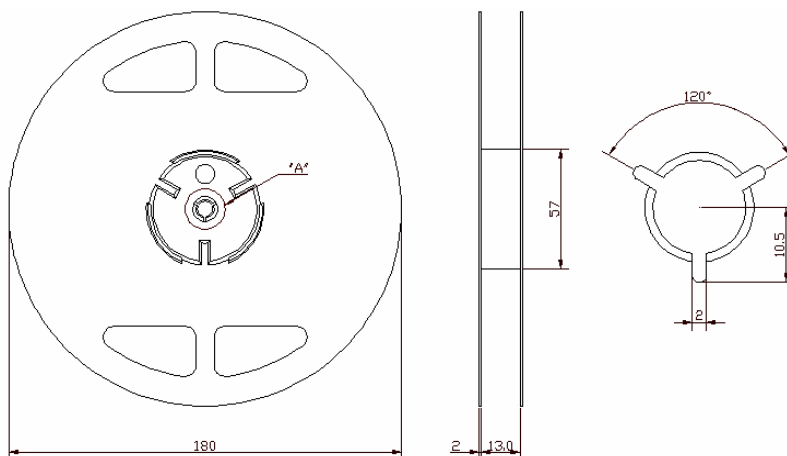
A	3.40 ± 0.1
B	3.40 ± 0.1
C	7.25 ± 0.1
D	1.70 ± 0.1
E	12.00 ± 0.1
F	8.00 ± 0.1

Part Direction



Tape Running Direction

Reel Dimensions [unit : mm]



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