



產品規格書

Market Requirement Document

CUSTOMER: _____

PRODUCT :

声表面谐振器

MODEL:

R315M

PARAMETER:

SMD3030mm

DATE: _____

承認後請寄回一份

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承認結果 CONCLUSION	客戶簽名 SIGNATURE	客戶承認章 STAMP	日期 DATE	備注 REMARK
合格 ACCEPT				
不合格 REJECT				

制表： 钟先生 _____

审核： _____

(公章)

尊敬的客户：请您抽出一点时间，在7-10个工作日内将承认书回签，若未回签，以视默认。谢谢合作！

SAW RESONATOR

ZX315M SMD-3030mm

This specification shall cover the characteristics of 1-port SAW resonator with R315M used for remote-control security.

2. Electrical Specification

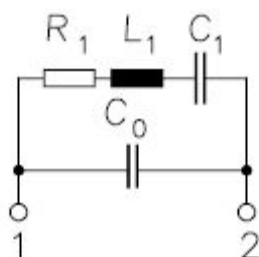
2.1 Maximum Rating

DC Voltage VDC	10V
AC Voltage Vpp	10V 50Hz/60Hz
Operation temperature	-40°C to +85°C
Storage temperature	-45°C to +85°C
Source Power	0dBm

2.2 Electronic Characteristics

Item	Unites	Minimum	Typical	Maximum	
Center Frequency	MHz	314.925	315.000	315.075	
Insertion Loss	dB		1.4	1.9	
Quality Factor	Unload Q	8000	12800		
	50Ω Loaded Q	1000	2000		
Temperature Stability	Turnover Temperature	°C	10	25	40
	Freq.temp.Coefficient	ppm/°C	0.032		
Frequency Aging		ppm/yr	<±10		
DC. Insulation Resistance	MΩ	1.0			
RF Equivalent RLC Model	Motional Resistance R1	Ω	17.6		
	Motional Inductance L1	μH	118		
	Motional Capacitance C1	fF	2.16		
Transducer Static Capacitance C0	pF		2.13		

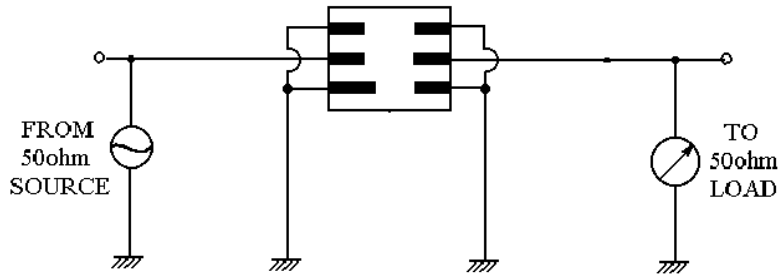
2.3 Equivalent LC Model



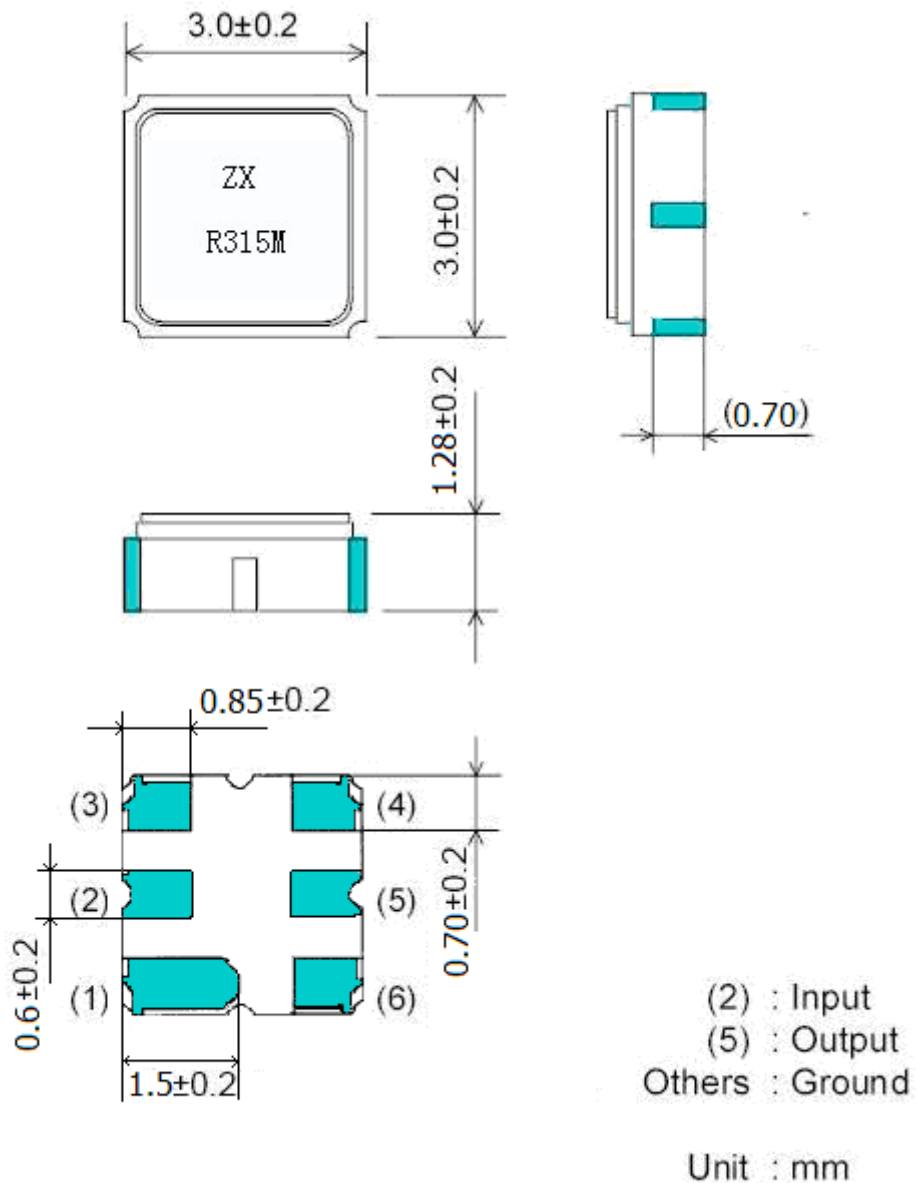
3. Test Circuit

SAW RESONATOR

ZX315M SMD-3030mm



4. Dimension



1. ZX: Manufacture's logo
2. R315M : Model code

5. Environment Characteristic

5-1 Thermal Shock:

The components shall remain within the electrical specifications after being kept at the condition of heat cycle conditions: $T_A = -40^{\circ}\text{C} \pm 3^{\circ}\text{C}$, $T_B = 85^{\circ}\text{C} \pm 2^{\circ}\text{C}$, $t_1 = t_2 = 30\text{min}$, switch time $\leq 3\text{min}$ & cycle time : 100 times, recovery time: $2\text{h} \pm 0.5\text{h}$.

5-2 Resistance to solder heat

Submerge the device terminals into the solder bath at $260^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 10 ± 1 sec. Then release the device into the room conditions for 4 hours. It shall meet the specifications in 2.2.

5-3 Solder ability

Submerge the device terminals into the solder bath at $245^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 5s, More than 95% area of the soldering pad must be covered with new solder. It shall meet the specifications in 2.2

5-4 The Temperature Storage:

5.3.1 High Temperature Storage: The components shall remain within the electrical specifications after being kept at the $85^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for $96\text{h} \pm 4\text{h}$, recovery time : $2\text{h} \pm 0.5\text{h}$.

5.3.2 Low Temperature Storage: The components shall remain within the electrical specifications after being kept at the $-40^{\circ}\text{C} \pm 3^{\circ}\text{C}$ for $96\text{h} \pm 4\text{h}$, recovery time : $2\text{h} \pm 0.5\text{h}$.

5-5 Humidity test:

The components shall remain within the electrical specifications after being kept at the condition of ambient temperature $60^{\circ}\text{C} \pm 2^{\circ}\text{C}$, and 90~96% RH for $96\text{h} \pm 4\text{h}$.

5-6 Mechanical shock

Drop the device randomly onto the concrete floor from the height of 1m for 3 times. The resonator shall fulfill the specifications in 2.2.

5-7 Vibration

Subject the device to the vibration for 2 hour each in X, Y and Z axes with the amplitude of 1.5 mm at 10 to 55 Hz. The resonator shall fulfill the specifications in 2.2.

6. Remark

6.1 Static voltage

Static voltage between signal load & ground may cause deterioration & destruction of the component. Please avoid static voltage.

6.2 Ultrasonic cleaning

Ultrasonic vibration may cause deterioration & destruction of the component. Please avoid ultrasonic cleaning

6.3 Soldering

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Only leads of component may be soldered. Please avoid soldering another part of component.

7. Packing

7.1 Dimensions

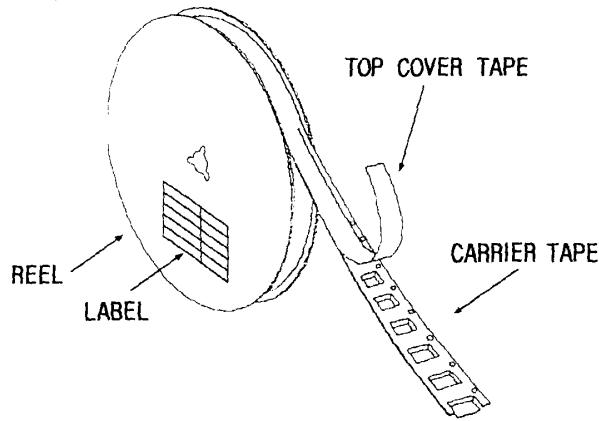
- (1) Carrier Tape: Figure 1
- (2) Reel: Figure 2
- (3) The product shall be packed properly not to be damaged during transportation and storage.

7.2 Reeling Quantity

- 1000 pcs/reel 7"
- 3000 pcs/reel 13"

7.3 Taping Structure

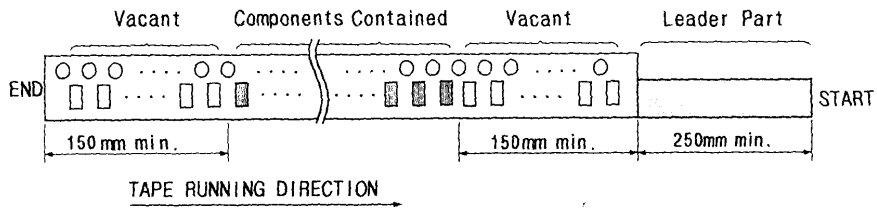
- (1) The tape shall be wound around the reel in the direction shown below.



- (2) Label

Device Name	
User Product Name	
Quantity	
Lot No.	

- (3) Leader part and vacant position specifications.



8. Tape Specifications

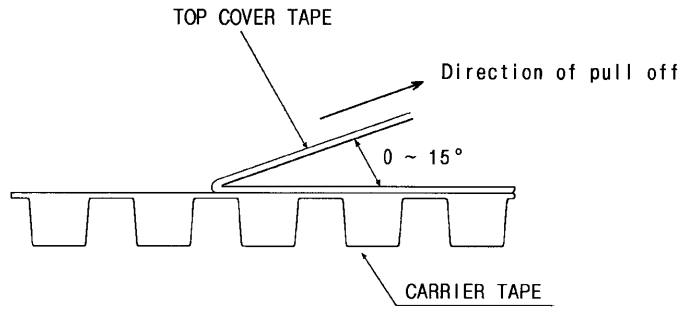
SAW RESONATOR

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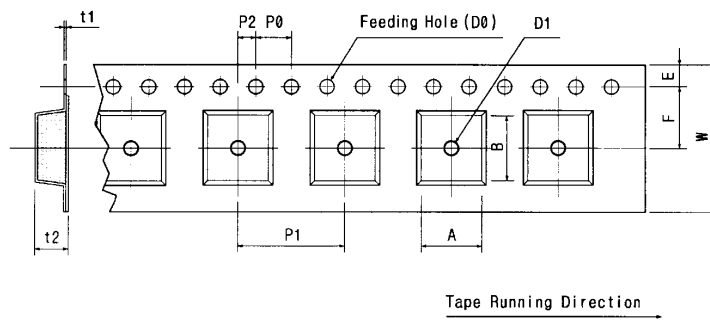
8.1 Tensile Strength of Carrier Tape: 4.4N/mm width

8.2 Top Cover Tape Adhesion (See the below figure)

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



[Figure 1] Carrier Tape Dimensions



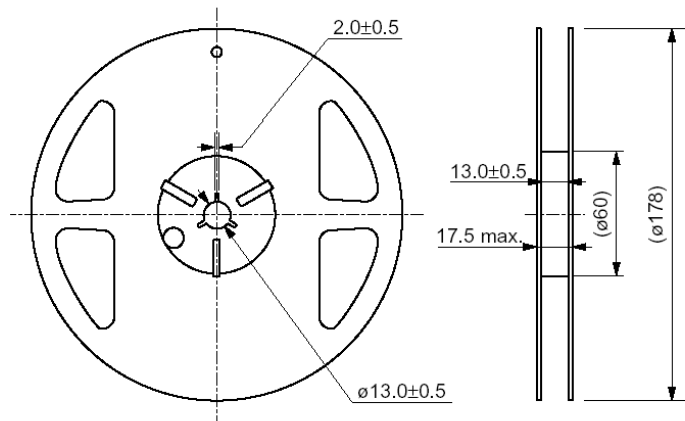
[Unit: mm]

W	F	E	P0	P1	P2	D0	D1	t1	t2	A	B
12.0	5.5	1.75	4.0	4.0	2.0	Ø1.5	Ø1.0	0.3	1.25	3.3±	3.3±
±0.3	±0.05	±0.1	±0.1	±0.1	±0.05	±0.1	±0.25	±0.05	±0.1	0.1	0.1

[Figure 2] Reel Dimensions

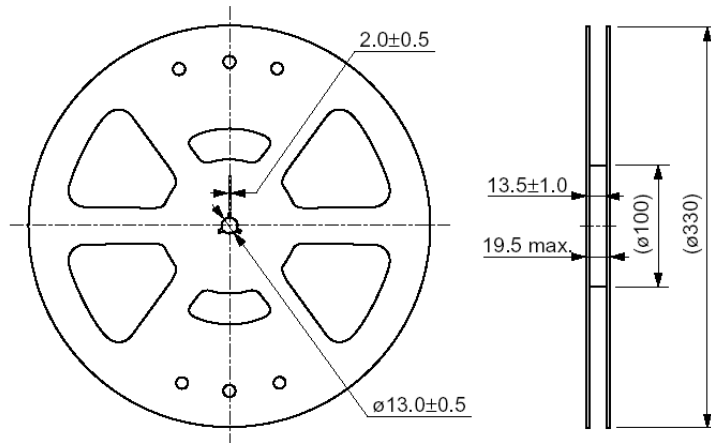
SAW RESONATOR

ZX315M SMD-3030mm



ø178 Reel Dimension

(in mm)



ø330 Reel Dimension

(in mm)