



產品規格書

Market Requirement Document

CUSTOMER: _____

PRODUCT: _____

声表面谐振器

MODEL: _____

F11-R315M

PARAMETER: _____

R315

DATE: _____

ZR315M

承認後請寄回一份

PLEASE RETURN ONE COPY TO US SO THAT WE GET YOUR APPROVAL

| 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 _____

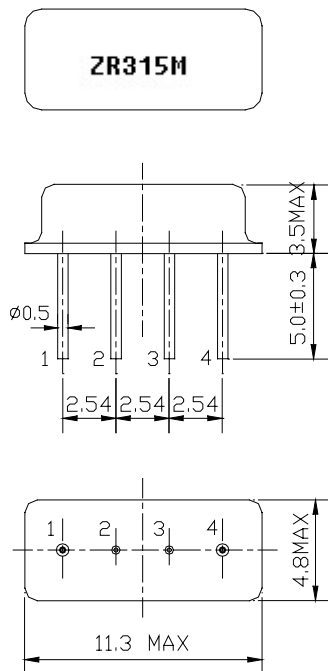
审核： _____

(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！

1. Package Dimension (F-11)

Unit: mm



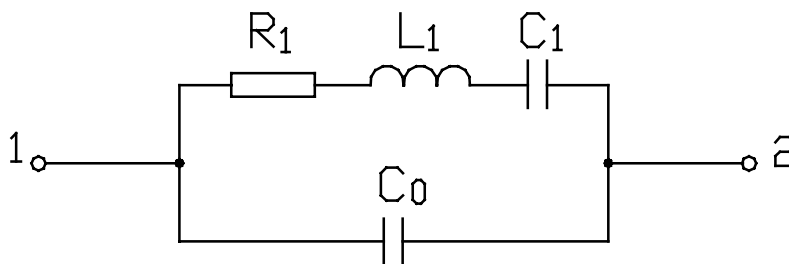
| Pin No. | Function |
|---------|----------|
| 1. | Input |
| 2. | Ground |
| 3. | Ground |
| 4. | Output |

2. Marking

.....\ Z 315.00

1. Color: Black or Blue
2. DR: Manufacture's logo
3. 1: One-port SAW Resonator
4. 315.00: Center Frequency (MHz)

3. Equivalent LC Model



4. Performance

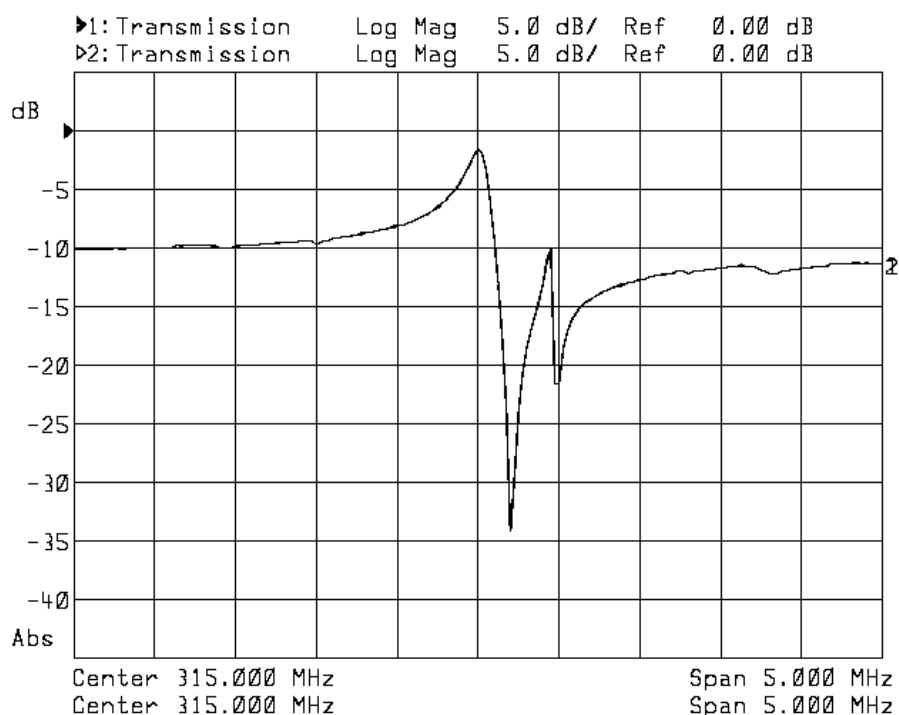
4.1 Maximum Rating

| | |
|-----------------------|-----------------|
| DC Voltage V_{DC} | 10V |
| AC Voltage V_{PP} | 10V (50Hz/60Hz) |
| Operation Temperature | -40 °C to +85°C |
| Storage Temperature | -45 °C to +85°C |
| RF Power Dissipation | 0dBm |

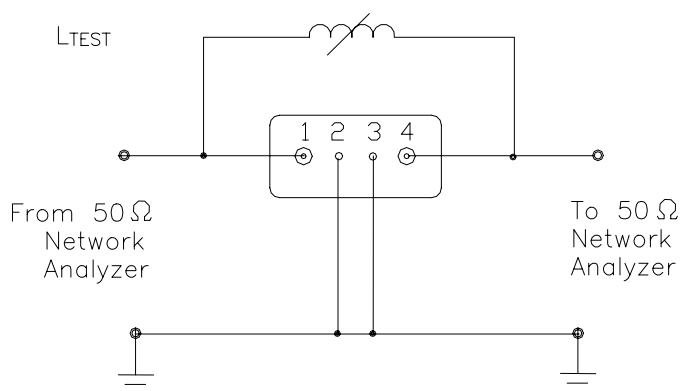
4.2 Electronic Characteristics

| Item | | Units | Minimum | Typical | Maximum |
|----------------------------|--------------------------------|---------------------|---------|------------|---------|
| Center Frequency f_0 | | MHz | 314.925 | 315 | 315.075 |
| Insertion Loss | | dB | — | 1.3 | 2.5 |
| Quality Factor | Unloaded Q | — | — | 12,000 | — |
| | 50 Ω Loaded Q | — | — | 1,900 | — |
| Temperature | Turnover Temperature | °C | 10 | 25 | 40 |
| Stability | Turnover Frequency | KHz | — | f_0 | — |
| | Freq.Temp.Coefficient | ppm/°C ² | — | 0.037 | — |
| Frequency Aging | | ppm/yr | — | < ± 10 | — |
| DC Insulation Resistance | | M Ω | 1.0 | — | — |
| RF Equivalent RLC Model | Motional Resistance R_1 | Ω | — | 23 | 29 |
| | Motional Inductance L_1 | μH | — | 115.2 | — |
| | Motional Capacitance C_1 | fF | — | 2.2 | — |
| | Shunt Static Capacitance C_0 | pF | 2.1 | 2.4 | 2.7 |

4.3 Frequency Characteristics



4.4 Test Circuit



Note: Reference temperature shall be $25 \pm 2^\circ\text{C}$. However, the measurement may be carried out at 5°C to 35°C unless there is a dispute.

5. Reliability

5.1 Mechanical Shock: The components shall remain within the electrical specifications after 1000 shocks, acceleration 392 m/s^2 , duration 6 milliseconds.

5.2 Vibration Fatigue: The components shall remain within the electrical specifications after loaded vibration at 20 Hz, amplitude 1.5 mm, for 2 hours.

5.3 Terminal Strength: The components shall remain within the electrical specifications after pulled 2 kgs weight for 10 seconds towards an axis of each terminal.

5.4 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 48 hours, then kept at room temperature for 2 hours.

5.5 Low Temperature Storage: The components shall remain within the electrical specifications after being kept at the $-25^\circ\text{C} \pm 2^\circ\text{C}$ for 48 hours, then kept at room temperature for 2 hours.

5.6 Temperature Cycle: The components shall remain within the electrical specifications after 5 cycles of high and low temperature testing (one cycle: 80°C for 30 minutes \rightarrow 25°C for 5 minutes \rightarrow -25°C for 30 minutes)than kept at room temperature for 2 hours.

5.7 Solder-heat Resistance: The components shall remain within the electrical specifications after dipped in the solder at 260°C for 10 ± 1 seconds, then kept at room temperature for 2 hours. (Terminal must be dipped leaving 1.5 mm from the case).

5.8 Solderability: Solderability of terminal shall be kept at more than 80% after dipped in the solder flux at $230^\circ\text{C} \pm 5^\circ\text{C}$ for 5 ± 1 seconds.

6. Remarks

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

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