# 深圳市金洛电子有限公司。 SHENZHEN JINLUO ELECTRONICS CS CO.,LTD

# 产品承认书

# 产品名称: 声表面谐振器

产品型号: R(''"-&M

产品体积: TO-39-DIP

# SAMPLE APPROVAL SHEET

Product Name: _	SAW		
	·····D /           ON A		
Product Model:	K( - &W		

Product volume: TO-39-DIP

# 承认后请回传一份 PLS SEND BACK ONE COPY TO US AFTER YOUR APPROVAL

承认结果 CONCLUSION	客户签名 SIGNATURE	客户承认章 STAMP	日期 DATE	备注 REMARK
合格 ACCEPT				
不合格 REJECT				

制表:	<b>童娟</b>	审核:	
			(公章)

尊敬的客户:请您抽取一点时间,在7-10个工作日内将承认书回签,若未回签,已视默认.谢谢合作!!!

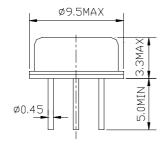
# 1. Package Dimension

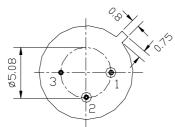
(TO-39/3A)



mm







#### Pin No. Function

- 1. Input
- 2. Output
- 3. Ground

## 2. Marking

L U O R433.92

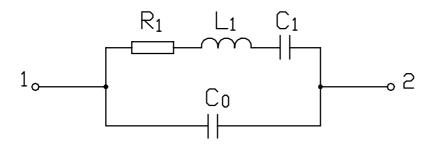
1. Color: Black or Blue

2. D: Manufacture's logo

3. R1: One-port SAW Resonator

4. 433.92: Center Frequency (MHz)

## 3. Equivalent LC Model



# 4. Performance

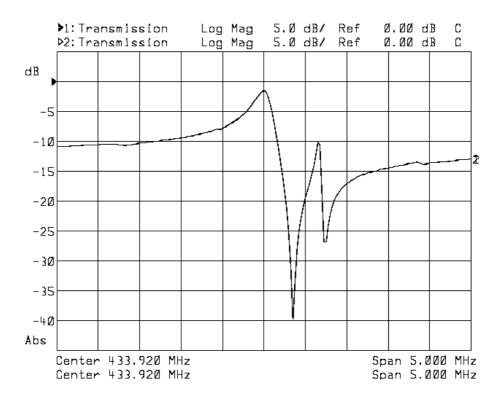
## 4.1 Maximum Rating

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

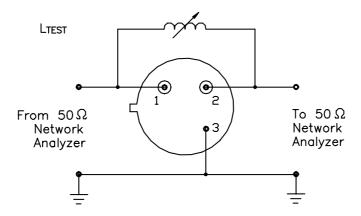
## 4.2 Electronic Characteristics

I tem		Units	Minimum	Typical	Maximum
Center Frequency		MHz	433.845	433.920	433.995
Insertion Loss		dB	_	1.2	2.5
Quality Factor	Unloaded Q		_	11,000	_
	50 Ω Loaded Q	_	_	2,000	
Temperature	Turnover Temperature	$^{\circ}$		25	_
Stability	Turnover Frequency	KHz	_	fo	
	Freq. Temp. Coefficient	ppm/°C²	_	0.032	_
Frequency Aging		ppm/yr	_	< <u>±</u> 10	
DC Insulation Resistance		ΜΩ	1.0	_	_
	Motional Resistance R <sub>1</sub>	Ω		18	26
RF Equivalent	Motional Inductance L <sub>1</sub>	μН		86	
RLC Model	Motional Capacitance C <sub>1</sub>	fF	_	1.56	
	Shunt Static Capacitance Co	pF	1.7	2.0	2.3

### 4.3 Frequency Characteristics



#### 4.4 Test Circuit



Note: Reference temperature shall be  $25\pm2^{\circ}$ C. However, the measurement may be carried out at  $5^{\circ}$ C to  $35^{\circ}$ 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<sup>2</sup>, 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 → 25°C for 5 minutes→-25°C for 30 minutes) than kept at room temperature for 2 hours.
- 5.7 Humidity Test: The components shall remain within the electrical specifications after being kept at the condition of ambient temperature  $40\pm2^{\circ}$ C, and  $90\sim95\%$  RH for 48 hours, then kept at room temperature and normal humidity for 2 hours.
- 5.8 Solder-heat Resistance: The components shall remain within the electrical specifications after dipped in the solder at 260 °C for  $10\pm1$  seconds, then kept at room temperature for 2 hours. (Terminal must be dipped leaving 1.5 mm from the case).
- 5.9 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  $5\pm 1$  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.