

# 1. ELECTRICAL AND ACOUSTICAL SPECIFICATION

PART NO:L-KLS3-LPT-13x2.5

| Item | Unit                              | Specifications  |
|------|-----------------------------------|-----------------|
| 1-1  | Rated Voltage (Square Wave)       | Vp-p<br>10      |
| 1-2  | Operating Voltage                 | Vp-p<br>1-30    |
| 1-3  | * Rated Current (Max)             | mA<br>5         |
| 1-4  | * Min Sound Output at 4.8kHz/10cm | dB<br>80        |
| 1-5  | * Resonant Frequency              | Hz<br>4800±500  |
| 1-6  | Capacitance at 120Hz              | pF<br>15000±30% |
| 1-7  | Operating Temperature             | °C<br>-20~+60   |
| 1-8  | Storage Temperature               | °C<br>-30~+70   |
| 1-9  | Weight                            | g<br>1          |
| 1-10 | Housing Material                  | Black ABS       |
| 1-11 | Lead Wire                         | UL1571 AWG30    |
| 1-12 | Tone Nature                       | Single          |

\* Value Applying at Rated Voltage (resonant frequency, 1/2 duty, square wave)

## 2. ENVIRONMENTAL TEST

| Item | Specifications                                                                                                                                      |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| 2-1  | Storage in High temp.<br>Storage in +70°C±2°C test box for 240 hours, then expose to the room temperature for 2 hours without applying power.       |
| 2-2  | Storage in Lower temp.<br>Storage in -30°C±2°C test box for 240 hours, then expose to the room temperature for 2 hours without applying power.      |
| 2-3  | Storage in Humidity<br>Storage in +40°C±2°C 90-95%RH test box for 96 hours, then expose to the room temperature for 2 hours without applying power. |
| 2-4  | Thermal cycle test.<br><p>Make this test for 5 cycles without applying power, then expose to the room temperature for 2 hours.</p>                  |
| 2-5  | Vibration test<br><p>Amplitude: 1.5mm<br/>Time : 1min/axis<br/>Make this test for the directions of X,Y, Z for 2 hours each (total 6 hours).</p>    |
| 2-6  | Drop test<br>Free drop a unit from the height 100cm to the surface of 10mm thick board ,three directions(X,Y,Z).                                    |
| 2-7  | Solderability test<br>Soldering temp.: 260±5°C<br>Heat applying time: 3±0.5sec.                                                                     |

PASS CRITERION :

After these tests , the change of S.P.L shall be within ±5 dB .



NingBo KLS ELECTRONIC CO., LTD.

### 3.MEASURING METHOD(BUZZER MODE)

#### 3-1 .Test Condition

##### 3-1-1.STANDARD

Temperature :  $25 \pm 3^{\circ}\text{C}$

Relative humidity : 60% ~ 70%,

Atmospheric pressure : 860mbar to 1060mbar

##### 3-1-2.JUDGEMENT

Temperature :  $15 \sim 35^{\circ}\text{C}$

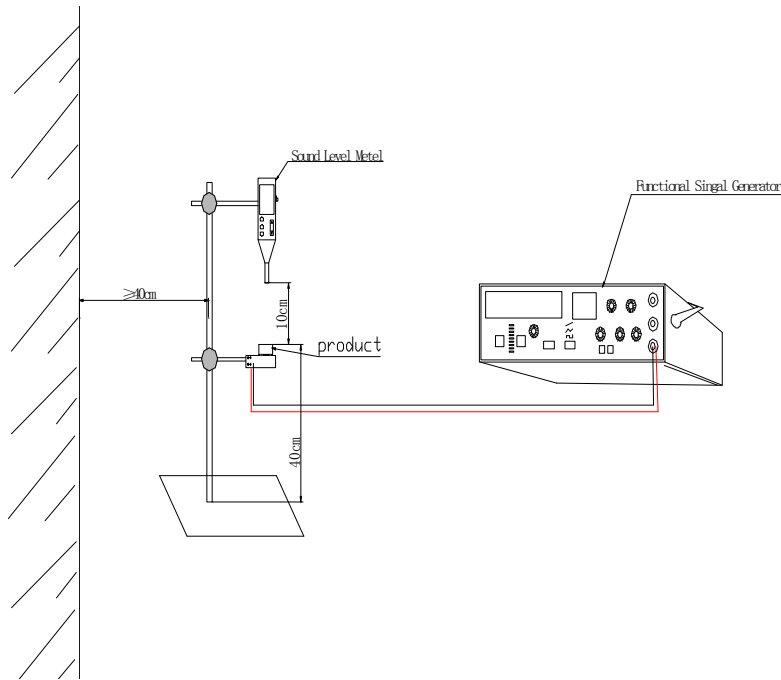
Relative humidity : 45% ~ 85%,

Atmospheric pressure : 860mbar to 1060mbar.

#### 3-2 . Standard Test Fixture

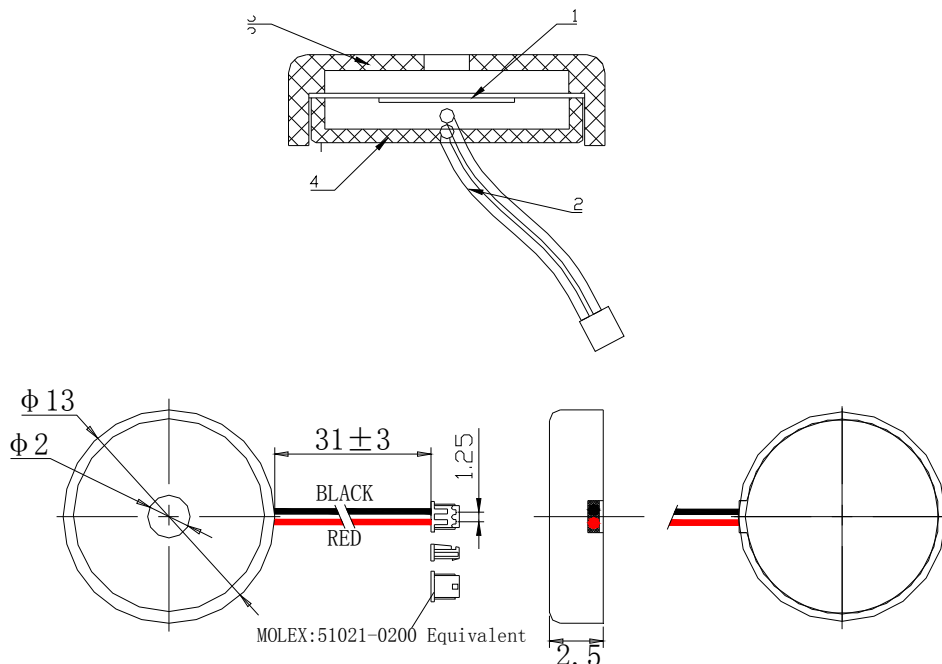
1.rated Voltage(Square wave):10V

2.Resonant Frequency:4800Hz



### 4.DIMENSIONS

Unless otherwise specified,tolerance:  $\pm 0.5$ (unit:mm)



- 1) All parts must be meet to ROHS.
- 2) Wave solder and wash not allowed.

|          |               |      |                                                       |        |
|----------|---------------|------|-------------------------------------------------------|--------|
| 5        | Double Glue   | 1    |                                                       |        |
| 4        | Cover         | 1    | Black ABS                                             |        |
| 3        | Housing       | 1    | Black ABS                                             |        |
| 2        | Lead wire     | 2    | Black&Red (UL1571 30#)<br>Molex:51021-0200 Equivalent |        |
| 1        | Piezo element | 1    | Brass                                                 |        |
| Part No. | Part Name     | Q'TY | Material                                              | Remark |

## 6.PACKING

