MULTI-FUNCTIONAL TRANSDUCER (2 MODES: RECEIVER & SPEAKER)

CUSTOMER: ____________________________

MODEL NUMBER: M2850-8B-0L03R (Ф28mm 8Ω 0.5W)

CUSTOMER PART NUMBER: ________________________

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CUSTOMER CONFIRMATION

SIGNATURE: _________

DATE: _________

SCOPE  This specification cover our product of mylar speaker unit for use in DVD, telephone, alarm system and calling system.

ELECTRICAL AND ACOUSTICAL CHARACTERISTIC
1. **SOUND PRESSURE LEVEL (S.P.L)**
   Sound pressure level shall be indicated by the mean value of those measured at the specified frequency range. $93\pm 3$ dB at **1200**, **1500**, **1800**, **2000** Hz in average.
   **Measure Condition:** sine swept measurement at **0.1W** on axis at **0.1M**
   **Measurement Circuit:** shown in Fig. 2.

2. **RESONANCE FREQUENCY (FO):** $680\pm 20\%$ Hz at 1V, (NO Baffle)
   **Measure Condition:** shown in Fig. 2.

3. **RATED IMPEDANCE:** $8\pm 20\% \Omega$ (at 1KHz, 1V)
   **Measure Condition:** the impedance response is measured with Mylar speaker.
   **Measurement Circuit:** shown in Fig. 2.

4. **FREQUENCY RANGE:** Fo~10KHz  (Deviation 10dB from average S.P.L.)
   **Measure Condition:** shown in Fig. 3. With IEC Baffle plate.
   **Frequency Response Curve:** shown in Fig. 2.

5. **RATED INPUT POWER (CONTINUUM):** **0.25W**

6. **MAX INPUT POWER (SHORT-TERM):** **0.5W**
   Testing will be done using IEC filter with white noise source for 1 minute with no degradation in performance.

7. **TOTAL HARMONIC DISTORTION:** Less than 5% at 1KHz, **0.25W**
   **Measurement Circuit:** shown in Fig. 2.

8. **OPERATION:** Must be normal at sine wave and program source **0.5W**

9. **POLARITY:** When a positive DC current is applied to the terminal marked (+), Diaphragm shall move forward. Marking: **8Ω 0.5W**

10. **PURE SOUND DETECTION:**
    Buzz, Rattle, etc should not be audible at **2.8 VRMS** sine wave from **Fo ~ 7KHz**.

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**SPECIFICATION**

**P3/5**

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**3. DIMENSIONS (Fig.1)**

Unless otherwise specified, tolerance: ±0.3 (unit: mm)
4. FREQUENCY MEASURING CIRCUIT (SPEAKER MODE) (Fig. 2)

5. FREQUENCY RESPONSE MASK & TYPICAL FREQUENCY RESPONSE CURVE (SPEAKER MODE) (Fig. 3)
7. RELIABILITY TESTS
   The sound pressure as specified shall neither deviate more than ±3dB from the initial value, nor any significant damage after any of following testing.

7.1 HIGH TEMPERATURE TEST
High temperature:  +55±2°C
Duration:  96 hours

7.2 LOW TEMPERATURE TEST
Low temperature :  -20±2°C
Duration:  24 hours

7.3 HEAT SHOCK TEST (See in Fig.6)
High temperature:  +55±2°C
Low temperature:  -20±2°C
Changeover time:  < 30 seconds
Duration:  45 minutes
Cycle:  10

7.4 HUMIDITY TEST
Temperature:  +20±2°C
Relative humidity:  90 ~ 95%
Duration:  24 hours

7.5 TEMPERATURE CYCLE TEST
Temperature:  -20°C  +55°C
Duration:  45 minutes  45 minutes
Temperature gradient:  1~3°C/min.
Cycle:  10

7.6 DROP TEST
Height:  1.0 m
Cycle:  6 (1 each plain) onto the concrete board

7.7 LOAD TEST
Speaker mode: White noise (EIA filter) for 96 hours @ 1.0W input power @20-20KHz.