SPECIFICATION FOR APPROVAL

| Product | PIEZO BUZZER | | |
|----------|--------------|--|--|
| Part No. | AZ-1448E-W | | |
| Customer | | | |
| Approval | | | |

| Approved By | Checked By | Made By |
|-------------|------------|---------|
| | | |
| | | |



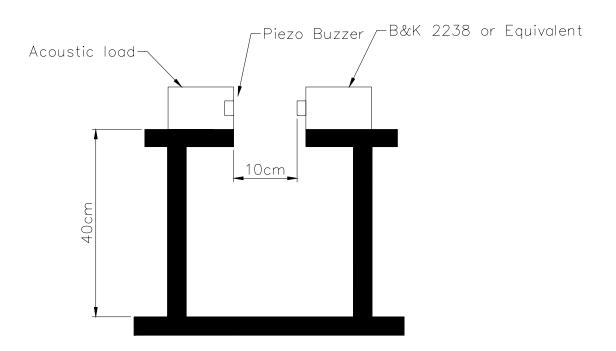
A & B Components

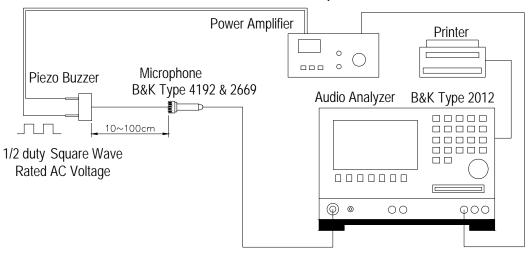
http://www.speaker-tw.com

AZ-1448E-W

| | Items | Units | Specifications | Conditions |
|----|----------------------|----------|----------------|------------------|
| 01 | Rated Voltage | Vp-р | 10 | (square wave) |
| 02 | Operating Voltage | Vp-р | 1~30 | |
| 03 | Rated Current | mA(Max) | 10 | At 10Vp-p |
| 04 | Sound Output At 10cm | dBA(Min) | 85 | At 4.8KHz / 10cm |
| 05 | Resonant Frequency | Hz | 4800±500 | |
| 06 | Capacitance | pF | 15000±30% | At 120Hz |
| 06 | Operating Temp. | °C | -20 ~ +70 | |
| 07 | Storage Temp. | °C | -30 ~ +80 | |
| 08 | Weight | g | 1 | |

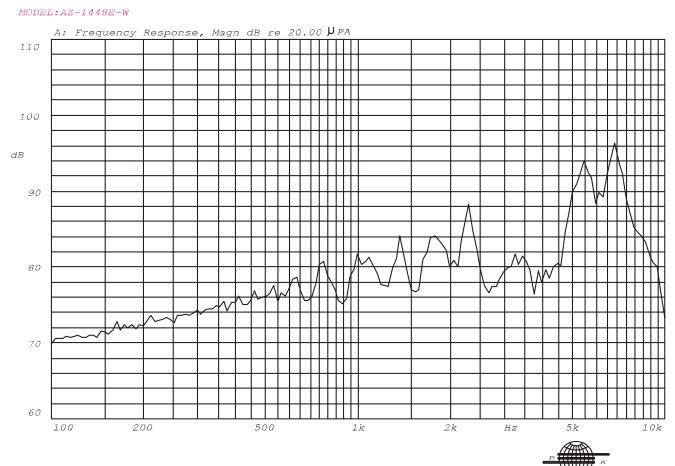
STANDARD TEST FIXTURE





Standard test condition of piezo buzzer

FREQUENCY RESPONSE CURVE



Mode: SSR

| REV NO. | | REVI, | SION NOTE | | | APPROVAL | DATE |
|-----------------|-----------|-------|-----------------------|---------|------------|--------------------------|-----------------------------------|
| | 90±5 | REVI | | | | | |
| TITLE: PIP | ZO BUZZER | | DRAWN: | Richard | 08/14/2001 | | SHEET: 1 : 1 |
| PART NO. $AZ-1$ | | | DESIGNED: | R & D | DEP. | UNITS: TOLERANCE | $\frac{mm}{t \pm 0.3}$ |
| DWG NO | | 1 | CHECKED: APPROVAL: | | | UNLESS OTH. ONE PLACE | ERWISE SPECIFIED: |
| D. | PT-1032 | REV | MATERIAL: | MPPC |) | | DECIMAL ± *** CE DECIMAL ± *** |
| | A & 1 | B C | 'omp | one | nts | | |

RELIABILITY TEST

| | Item | Conditions | Evaluation standard |
|-----|-----------------------------|---|----------------------------------|
| 01 | Low Temp. Storage Test | A°C±2°C ,240Hr | |
| 02 | High Temp.Storage Test | B°C±2°C RH50% ,240Hr | |
| 0.2 | Tomp /Uumidity Storage Test | 40°C ±2°C , RH90-95% | |
| 03 | Temp./Humidity Storage Test | 240Hr | |
| | | $A^{\circ}C \pm 2^{\circ}C (1Hr) \rightarrow ,20^{\circ}C \pm 2^{\circ}C$ | |
| 04 | Thermal Shock Test | (1Hr) | |
| 04 | | $B^{\circ}C \pm 2^{\circ}C (1Hr) \rightarrow ,20^{\circ}C \pm 2^{\circ}C$ | |
| | | (1Hr)10 cycle | (S.P.L)Test before numerical |
| | | 10-55Hz/1min | ±10dB *wrong |
| 05 | Vibration Test | amplitude1.5mm,X,Y,Z,3 | - Todd wrong |
| | | directions | (Frequency)Test before |
| 06 | Mechanical Shock Test | +100G,Sine wave, XYZ , 3 | numerical +10% |
| 00 | | impacts per axis | |
| | | The part shall be dropped | (Current)Test before numerical |
| 07 | Free Drop Test | freely from a height of 75 cm | ±10% |
| 07 | | onto concrete 1 time in 2 axes | |
| | | · · · | (No crake is allowed on the |
| | | The part shall be subjected to | · . · · · |
| 80 | Life Burning Test | 1000 hrs in the room temp with | |
| | | rated voltage applied | • After the test ,the part shall |
| | | The Part checking standard : | meet the specifications |
| | | Following supplier's Spec. | without any degradation in |
| | Lead Wire / Pin Pull Test | Finished–part checking | appearance and performance |
| | | Standard | |
| | | vertical Pull | |
| 09 | | i)100g MIN | |
| | | 0.05mm Thickness of ceramic | |
| | | ii)300g MIN | |
| | | $0.1 \text{mm} \leq \text{Thickness of ceramic}$ | |
| | | b: Horizontal Pull | |
| | | i)700g MIN | |

Remark : "A"means Storage low temp. "B"means Storage high temp