



PUIaudio



Data Sheet

AI-3232-TWF-LW160

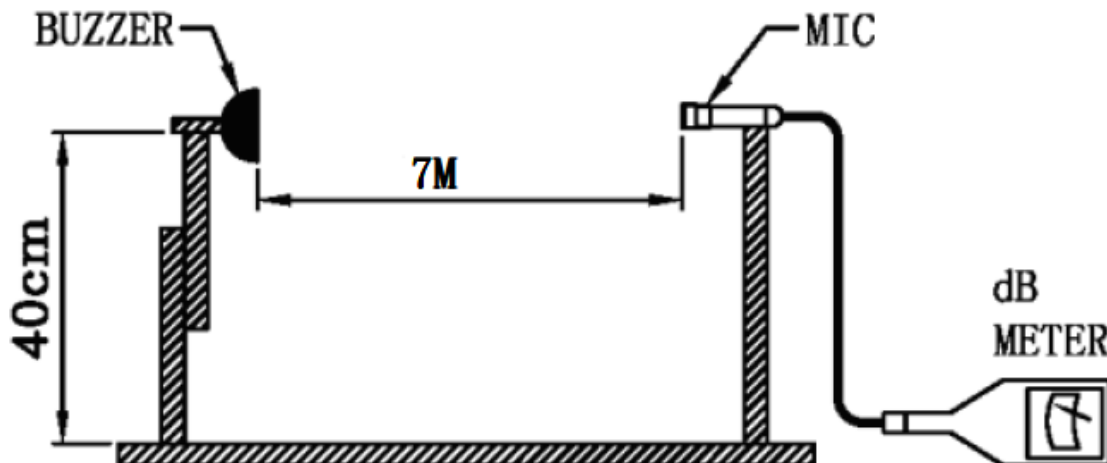
Features:

- 12Vdc rated voltage
- 116 dB SPL at 10 cm for use in loud environments
- Wide operating temperature range from -40°C to 85°C
- 160mm lead wires for ease of use

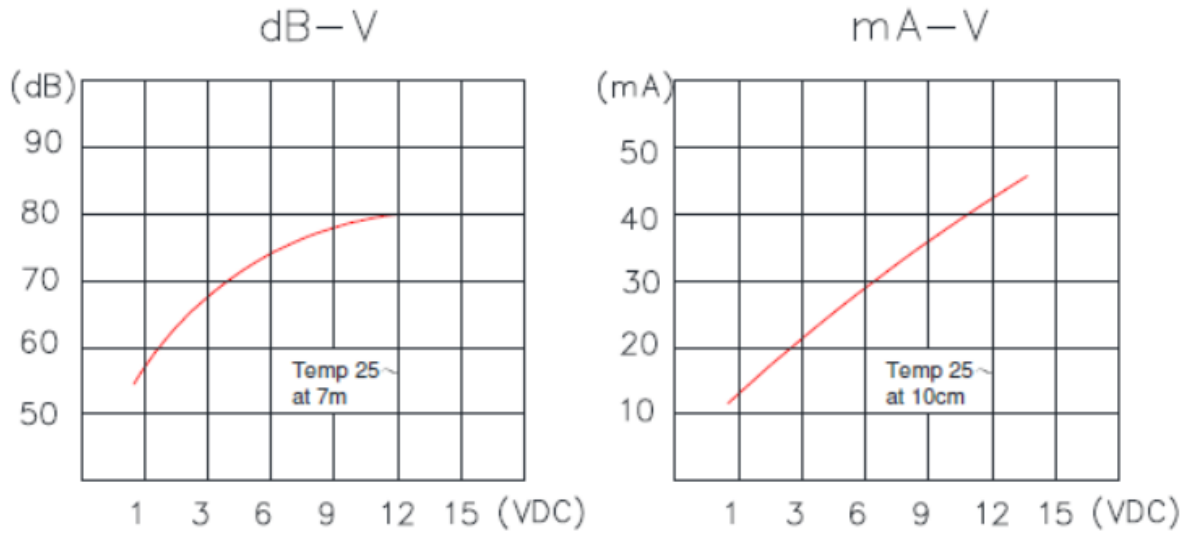
Specifications

Parameters	Values	Units
Rated Voltage	12	VDC
Operating Voltage Range	5 ~ 15	VDC
Current Draw at Rated Voltage	80 max.	mA
Minimum SPL @ 10cm	116	dBA
Minimum SPL @ 7m	80	dBA
Resonant Frequency	3,200 ± 300	Hz
Tone or Pulse Rate	Continuous	-
Housing Material	Black PBT	-
Terminal Material	Lead Wire	-
Weight	21	Grams
Ingress Protection Rating	IP65	-
Environmental Compliances	RoHS/REACH	Ex. 7c-1
Storage Temperature	-40 ~ 85	°C
Operating Temperature	-40 ~ 85	°C

Measurement Method (Power=12Vdc, Distance=7m)



Typical SPL/Current vs Input Voltage

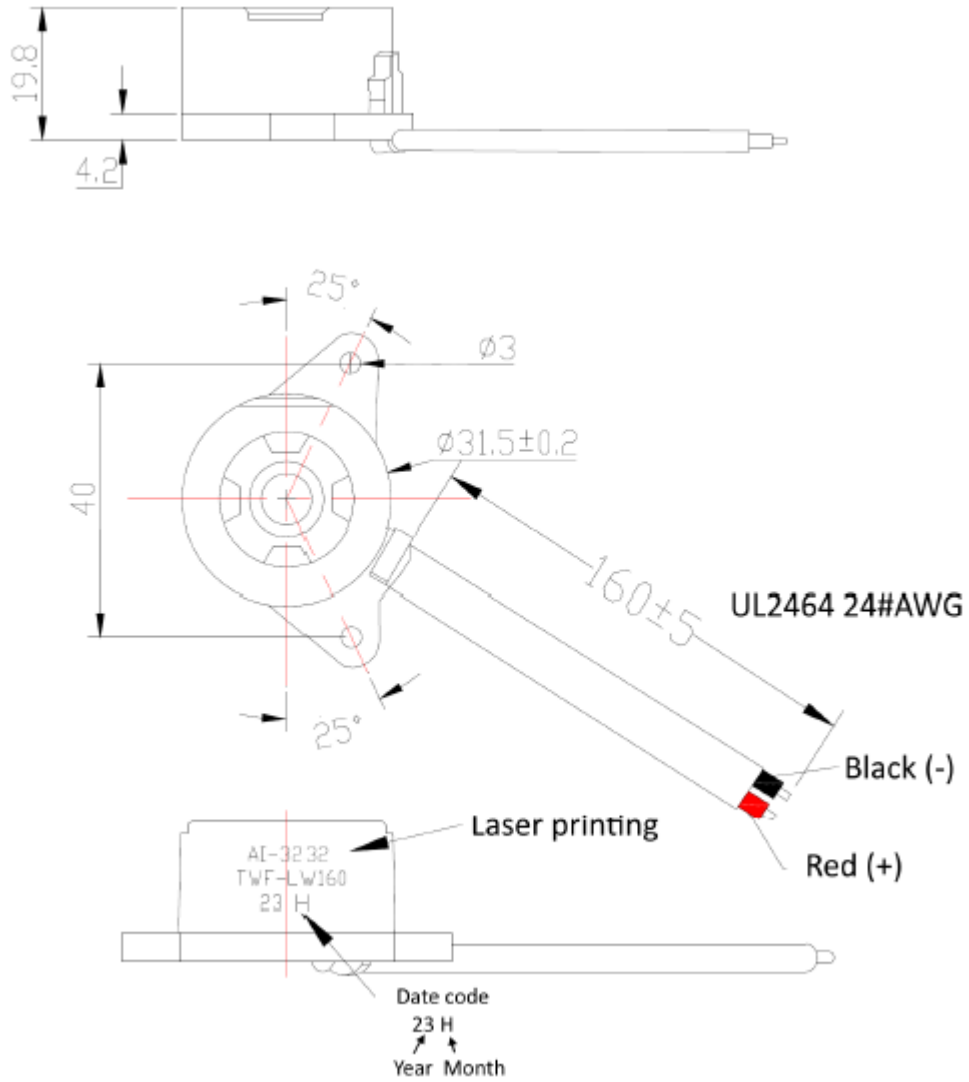


Reliability Testing

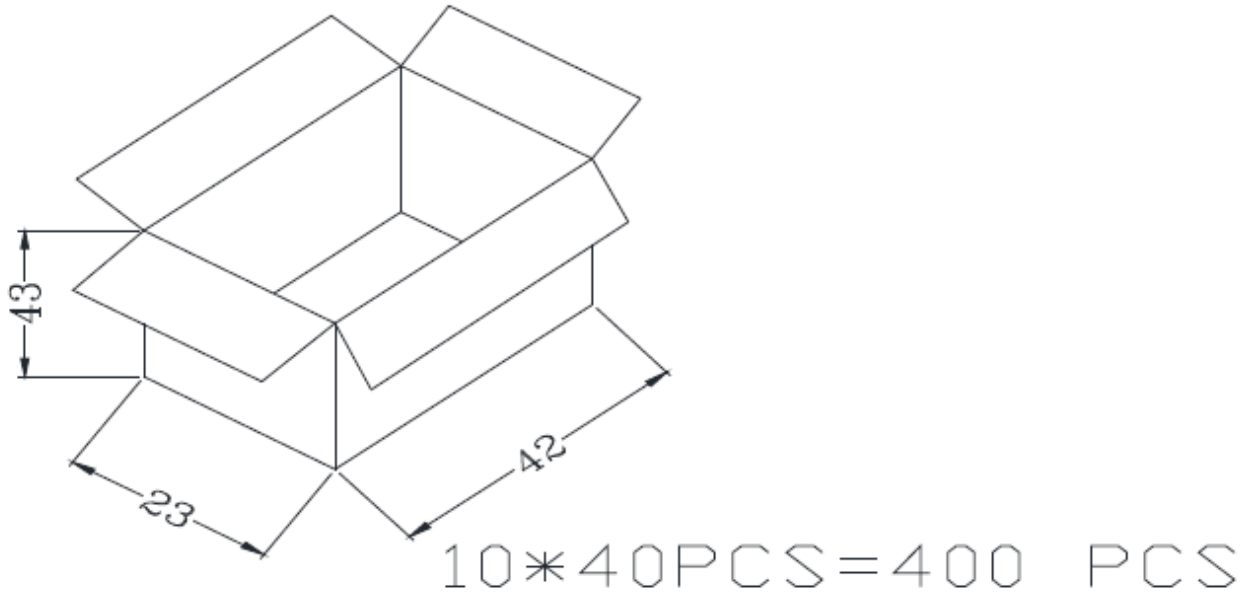
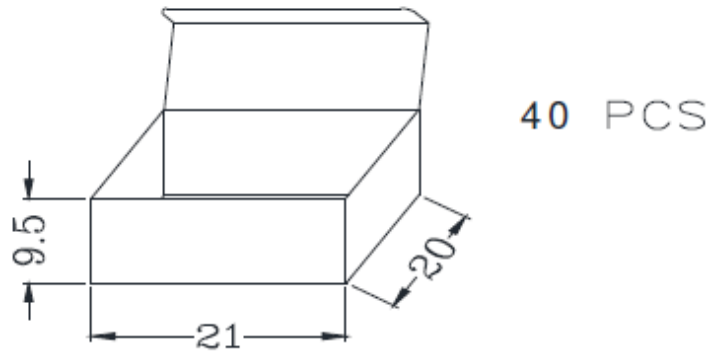
Type of Test	Test Specifications
High Temperature Test	96 hours at 85°C
Low Temperature Test	96 hours at -40°C
Humidity Test	96 hours at 40°C with relative humidity at 90~95%
Temperature Cycle Testing	Run for 5 cycles with each cycle consisting of: <p>The diagram shows a temperature cycle profile over a 3-hour period. It starts at -40°C for 0.5 hours, then ramps up to +25°C in 0.5 hours, holds at +25°C for 0.25 hours, ramps up to +85°C in 0.5 hours, holds at +85°C for 0.5 hours, ramps down to +25°C in 0.5 hours, holds at +25°C for 0.25 hours, and finally ramps down to -40°C in 0.5 hours. The total cycle time is 3 hours.</p>
Vibration Test	Frequency: 10 to 55 Hz; Amplitude: 1.5mm; X, Y, Z directions 2 hours each
Drop Test	Drop on a hard wood board 4 cm thick, any direction, 6 times from a height of 75 cm.

After each test, let rest for 6 hours, then the change in SPL shall be within ±10 dB

Dimensions



Packaging



Specifications Revisions

Revision	Description	Date	Approved
A	Released from Engineering	09/14/2023	-
B	Revised Operating Voltage Range	10/26/2023	-

Note:

1. Unless otherwise specified:
 - A. All dimensions are in millimeters.
 - B. Default tolerances are $\pm 0.5\text{mm}$ and angles are $\pm 3^\circ$.
2. Specifications subject to change or withdrawal without notice.