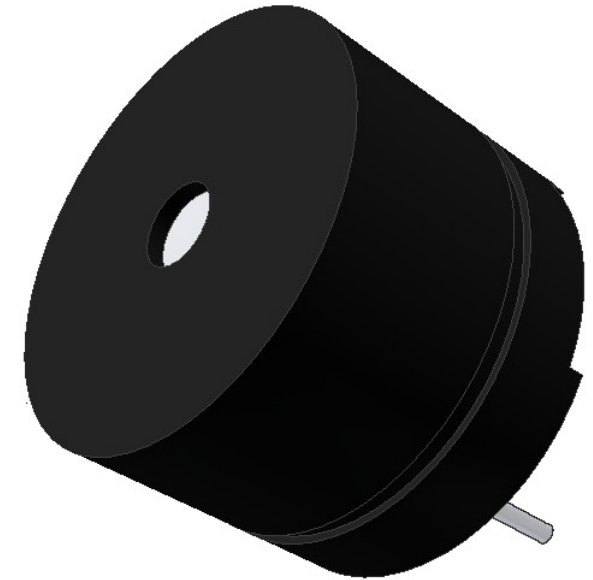




**pui**  
**audio**™ inc  
a projects unlimited company

## AT-1220-TT-R 12mm Transducer

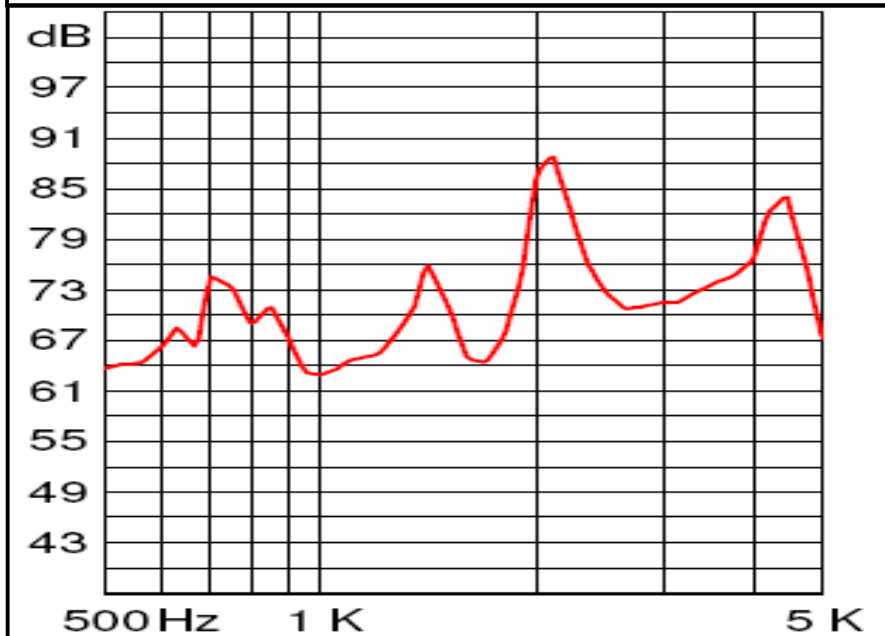


3541 Stop Eight Road • Dayton, Ohio 45414

### Product Overview

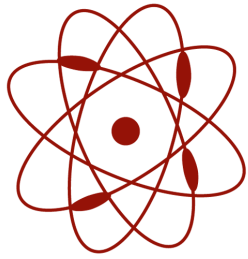
- 12mm diameter electro-mechanical transducer with low 10 mA current draw
- 82 dBA minimum output (1.5 Vp-p @ 10 cm) and 2,048 Hz resonant frequency
- Noryl™ housing withstands Wave soldering temperatures
- Removable wash tag preserves performance

Frequency Response (1.5 Vp-p @ 0.1 meters)



RoHS Compliant





**pui  
audio**™ inc  
a projects unlimited company

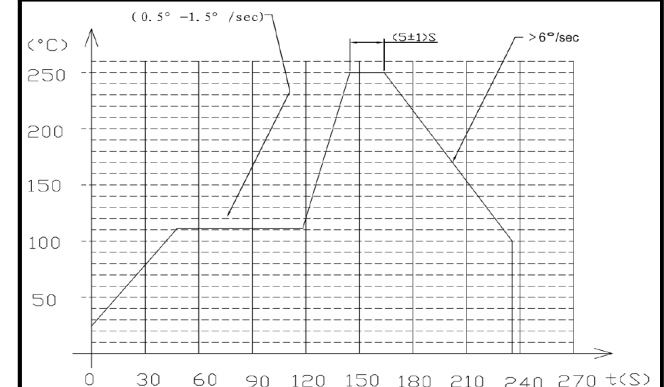
## AT-1220-TT-R 12mm Transducer

### Mechanical and Environment Testing

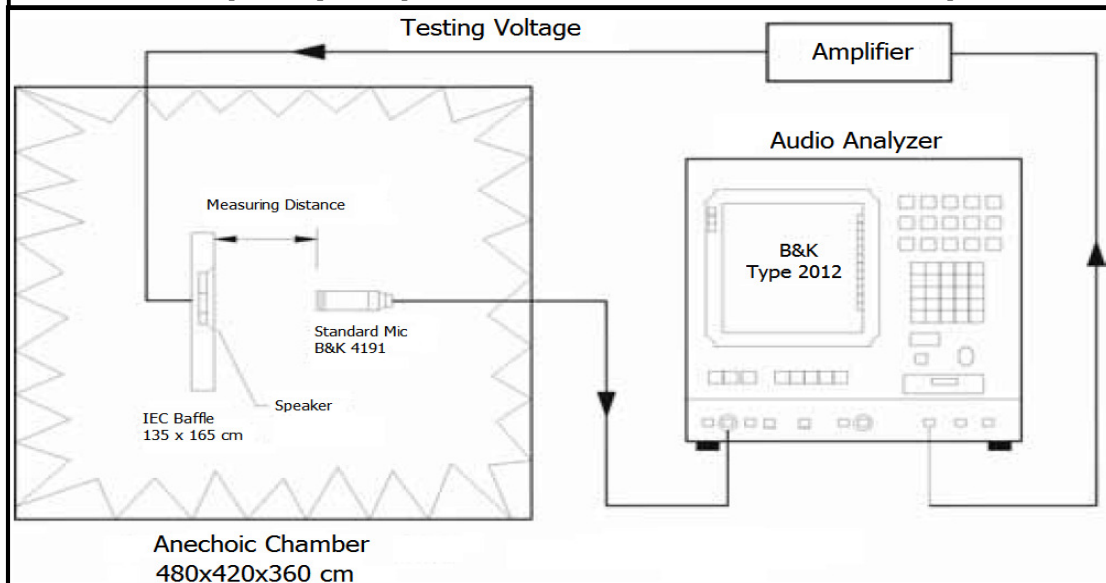
Test Description	Test Condition
High Temperature	80°C (±2°C) with random humidity for 96 hours
Low Temperature	-30°C (±2°C) with random humidity for 96 hours
Humidity	40°C (±2°C) with 90% to 95% relative humidity
Vibration	0.75 mm movement modulated at 10-55 Hz for 2
Drop Test	100 cm free fall onto 40 mm wood board, 3 axis, 2 cycles per axis
Temperature Cycle Test	-30°C to 80°C, 100 cycles

After tests, part shall rest for 2 hours. Parts are then tested for clean, pure tones.

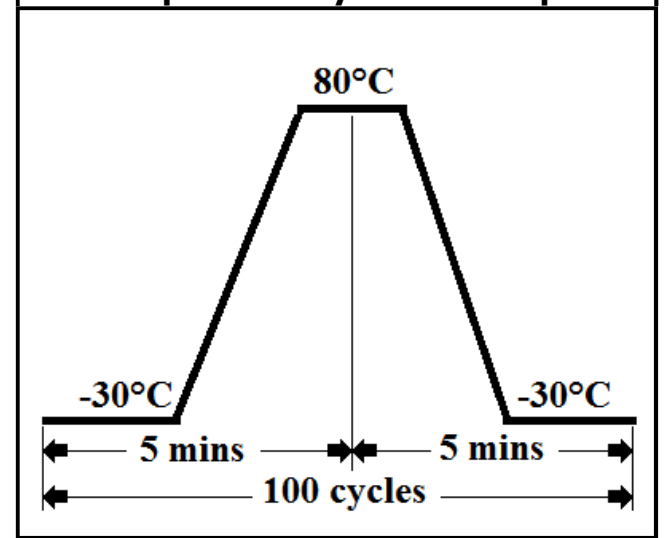
### Wave Solder Profile



### Frequency Response and SPL Measurement Setup



### Temperature Cycle Test Graph



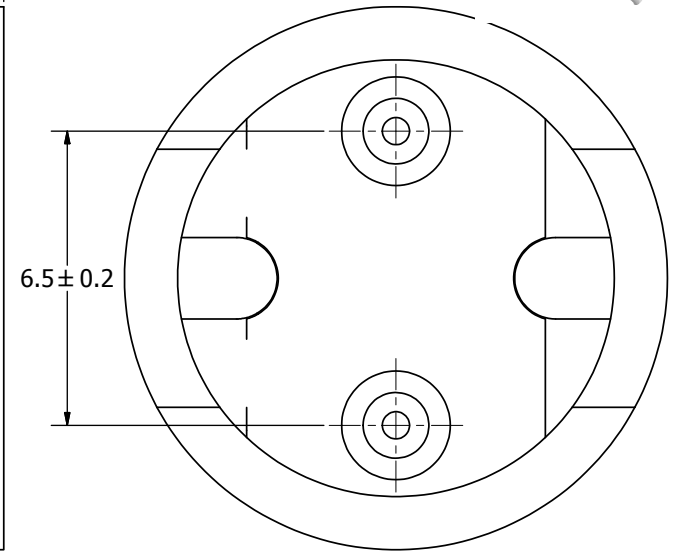
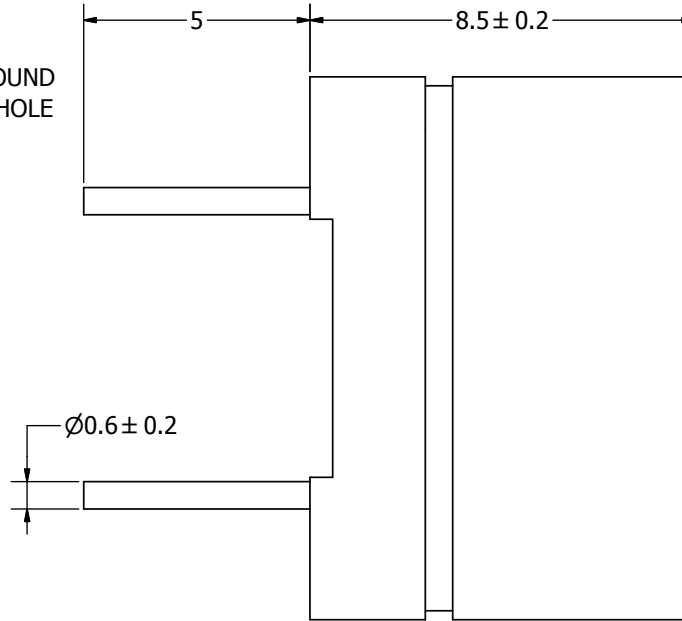
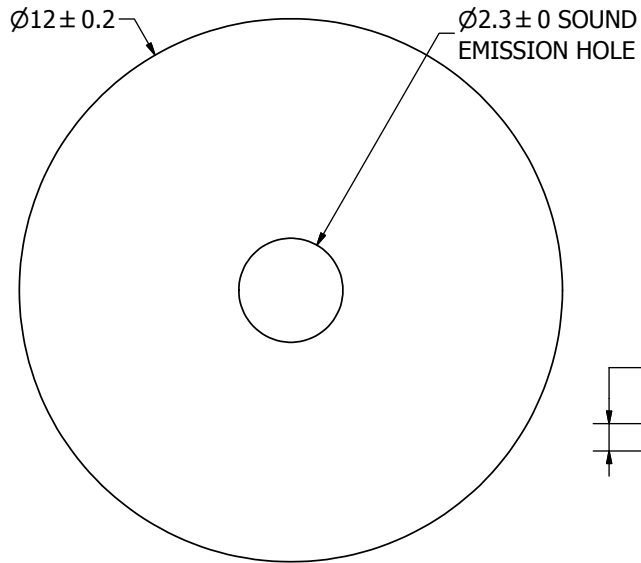
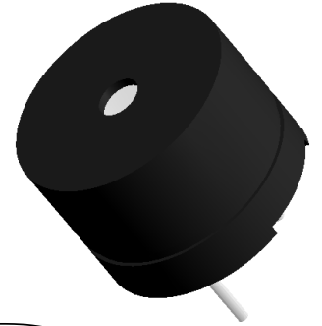
# SPECIFICATIONS

PARAMETERS	VALUES	UNITS
RATED VOLTAGE	1.5	Vp-p
OPERATING VOLTAGE RANGE	1 ~ 3	Vp-p
RATED CURRENT (MAX)	10	mA
COIL RESISTANCE	42 ± 6	OHM
MINIMUM SPL @ 10 CM	82	dBA
RESONANT FREQUENCY	2,048 ± 500	Hz
OPERATING TEMPERATURE	-20 ~ +70	°C
STORAGE TEMPERATURE	-30 ~ +80	°C
HOUSING MATERIAL	NORYL	-
TERMINAL MATERIAL	Sn PLATED RED COPPER	-
WEIGHT	2	grams

THIS DOCUMENT CONTAINS DATA PROPRIETARY TO PROJECTS UNLIMITED, INC. ANY USE OR REPRODUCTION, IN ANY FORM, WITHOUT PRIOR WRITTEN PERMISSION OF PROJECTS UNLIMITED, INC. IS PROHIBITED.  
©2003, Projects Unlimited Inc.

# REVISION HISTORY

LTR	DESCRIPTION	DATE	APPROVED
-	RELEASED FROM ENGINEERING	9/2/2004	
A	REMOVED LEAD FREE ADDED RoHS NOTE	8/10/2005	
B	REVISED MINIMUM SPL	11/29/2007	R.W.
C	REVISED TO INVENTOR 3-D DRAWING TEMPLATE	4/7/2008	B.R.



### NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. SPECIFICATIONS SUBJECT TO CHANGE OR WITHDRAWL WITHOUT NOTICE.
3. THIS PART IS RoHS 2002/95/EC COMPLIANT.

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS, TOLERANCES ARE ±0.5 AND ANGLES ARE ±3°.	SIZE <b>A3</b>	Designed by	Date	Checked by	Date	Approved by	Date	Drawn Date
		R.A.C.	9/2/2004			R.W.	9/2/2004	4/7/2008
AT-1220-TT-R.idw						<b>AT-1220-TT-R</b> Transducer (Electro-Mech)		
						Edition	Sheet	
						-	1 / 1	