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## AT-1620-TWT-R 16mm Transducer

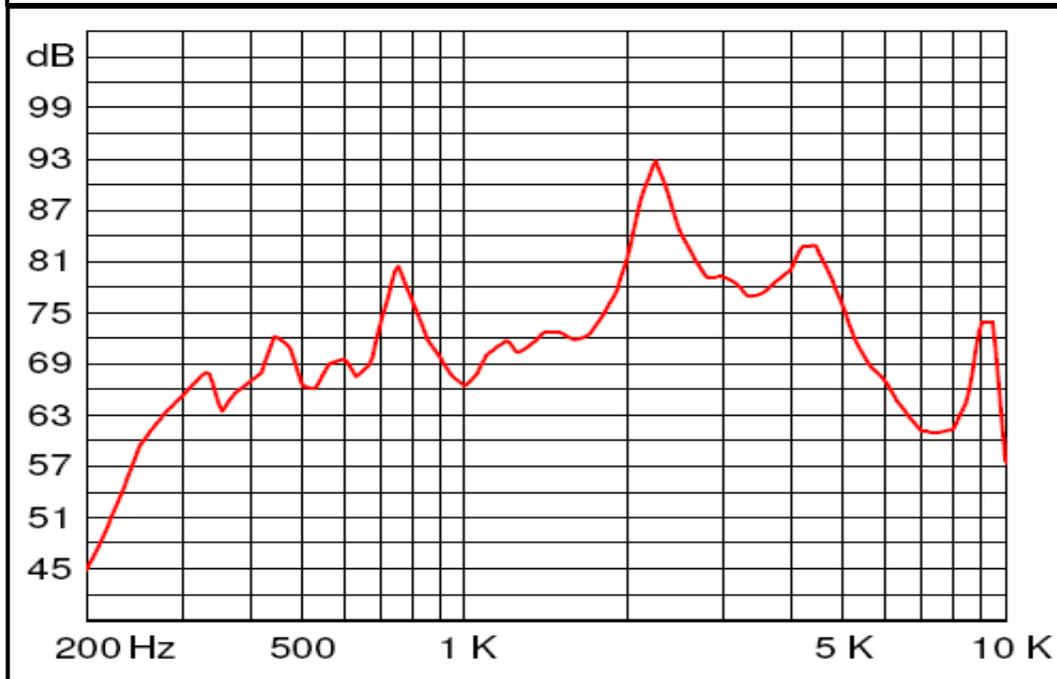
3541 Stop Eight Road • Dayton, Ohio 45414

### Product Overview

- 16mm diameter electro-mechanical transducer
- 80 dBA minimum output (5 Vp-p @ 10 cm) and 2,048 Hz resonant frequency
- Noryl™ housing withstands Wave soldering temperatures
- Removable wash tag preserves performance

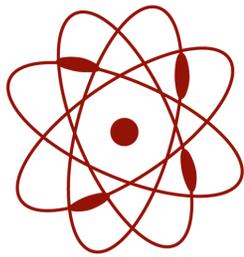


Frequency Response (6Vp-p @ 0.1 meters)



RoHS Compliant





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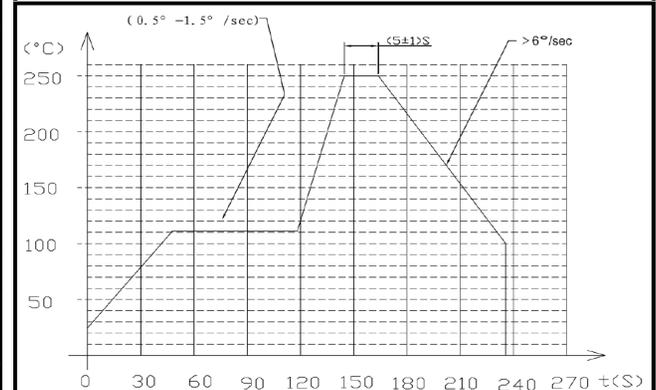
# AT-1620-TWT-R 16mm Transducer

## Mechanical and Environment Testing

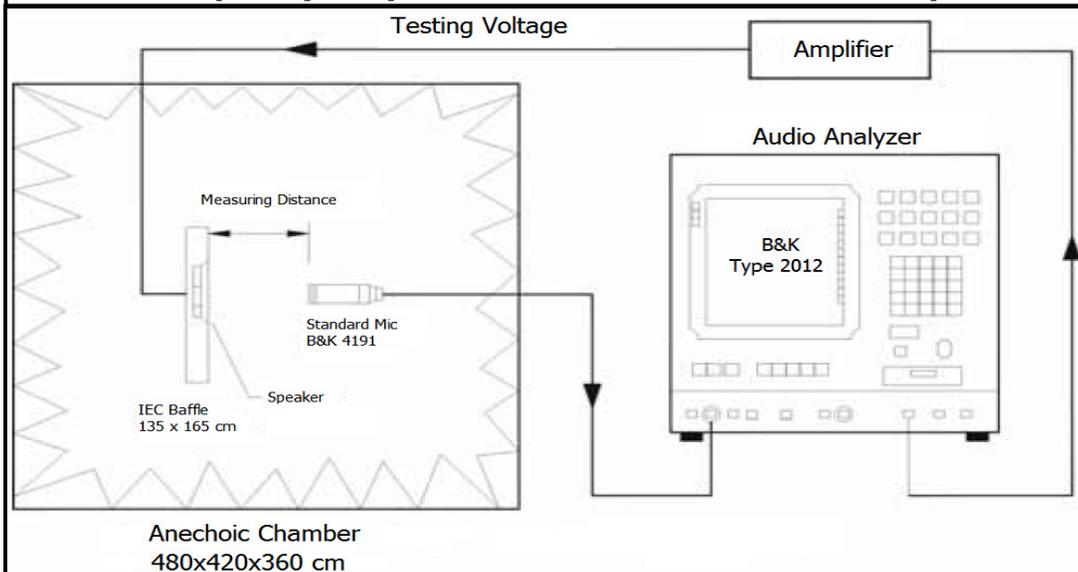
Test Description	Test Condition
High Temperature	80°C (±2°C) with random humidity for 96 hours
Low Temperature	-30°C (±2°C) with random humidity for 96 hours
Humidity	40°C (±2°C) with 90% to 95% relative humidity for 96 hours
Vibration	0.75 mm movement modulated at 10-55 Hz for 3 hours
Drop Test	100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

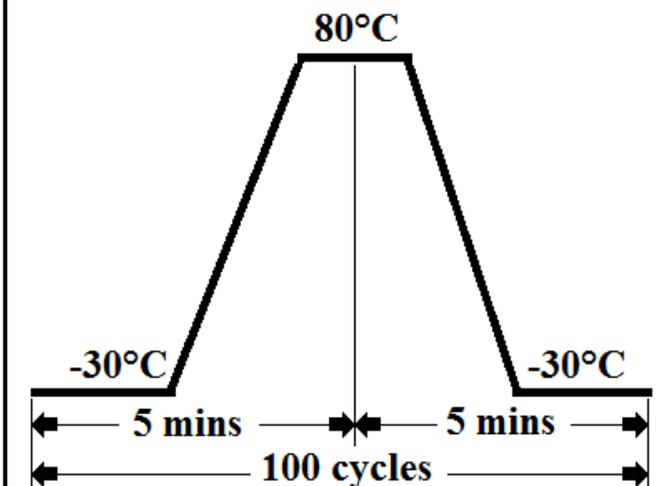
## Wave Solder Profile



## Frequency Response and SPL Measurement Setup



## Temperature Cycle Test Graph



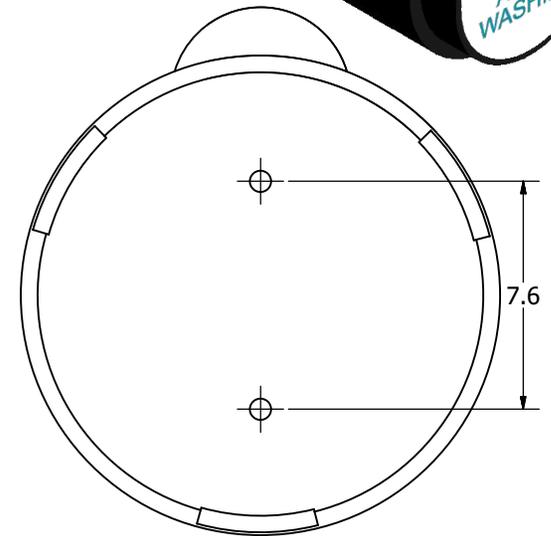
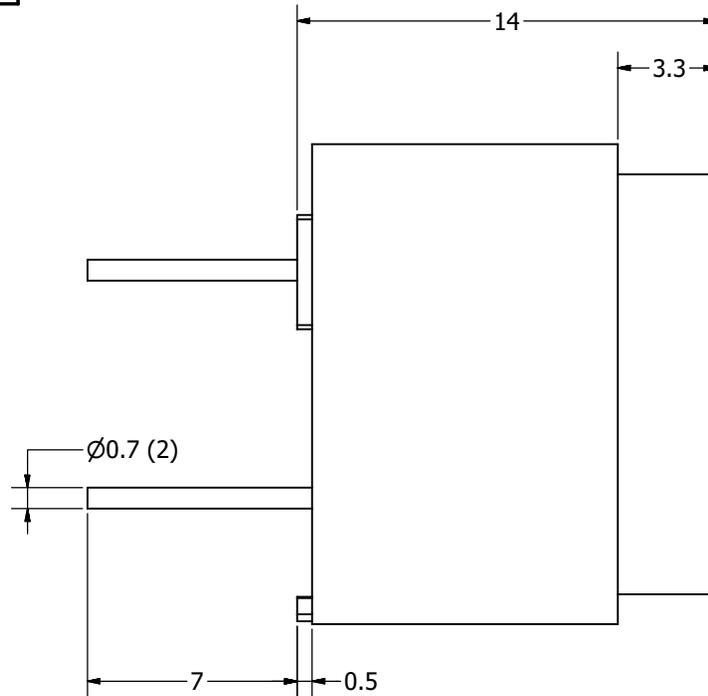
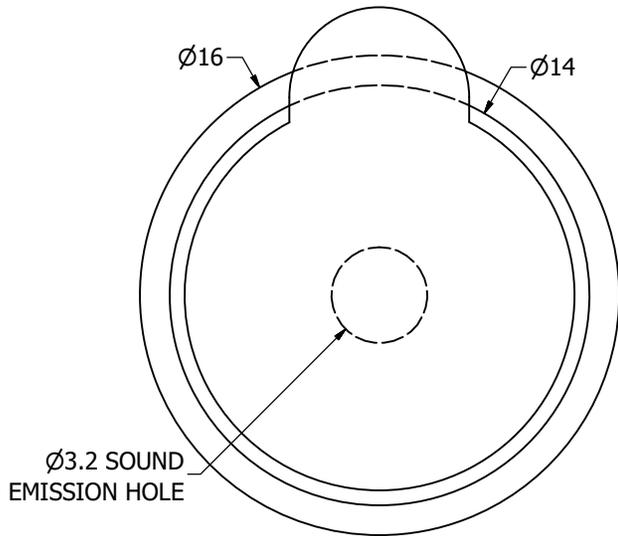
# SPECIFICATIONS

PARAMETERS	VALUES	UNITS
RATED VOLTAGE (SQUARE WAVE)	6	Vp-p
OPERATING VOLTAGE RANGE	4 ~ 8	Vp-p
RATED CURRENT (MAX)	40	mA
COIL RESISTANCE	50 ± 5	OHM
MINIMUM SPL @ 10 CM	90	dBA
RESONANT FREQUENCY	2,048 ± 500	Hz
OPERATING TEMPERATURE	-20 ~ +70	°C
STORAGE TEMPERATURE	-30 ~ +80	°C
HOUSING MATERIAL	NORYL	-
TERMINAL MATERIAL	Sn PLATED COPPER	-
WEIGHT	7	grams

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# REVISION HISTORY

LTR	DESCRIPTION	DATE	APPROVED
-	RELEASED FROM ENGINEERING	9/24/2004	
A	REMOVED LEAD FREE ADDED RoHS NOTE	8/10/2005	
B	REVISED TERMINAL MATERIAL	3/21/2006	
C	REVISED TO INVENTOR 3-D DRAWING TEMPLATE	10/15/2007	B.R.
D	REVISED MIN SPL LEVEL	2/24/14	B.R.



### NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. SPECIFICATIONS SUBJECT TO CHANGE OR WITHDRAWAL 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.	9/24/2004			R.W.	9/24/2004	10/15/2007		
AT-1620-TWT-R.idw				<b>AT-1620-TWT-R</b>			Transducer (Electro-Mech)		Edition -	Sheet 1 / 1