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## AS04008CO-2-WR-R 40 x 20mm Speaker

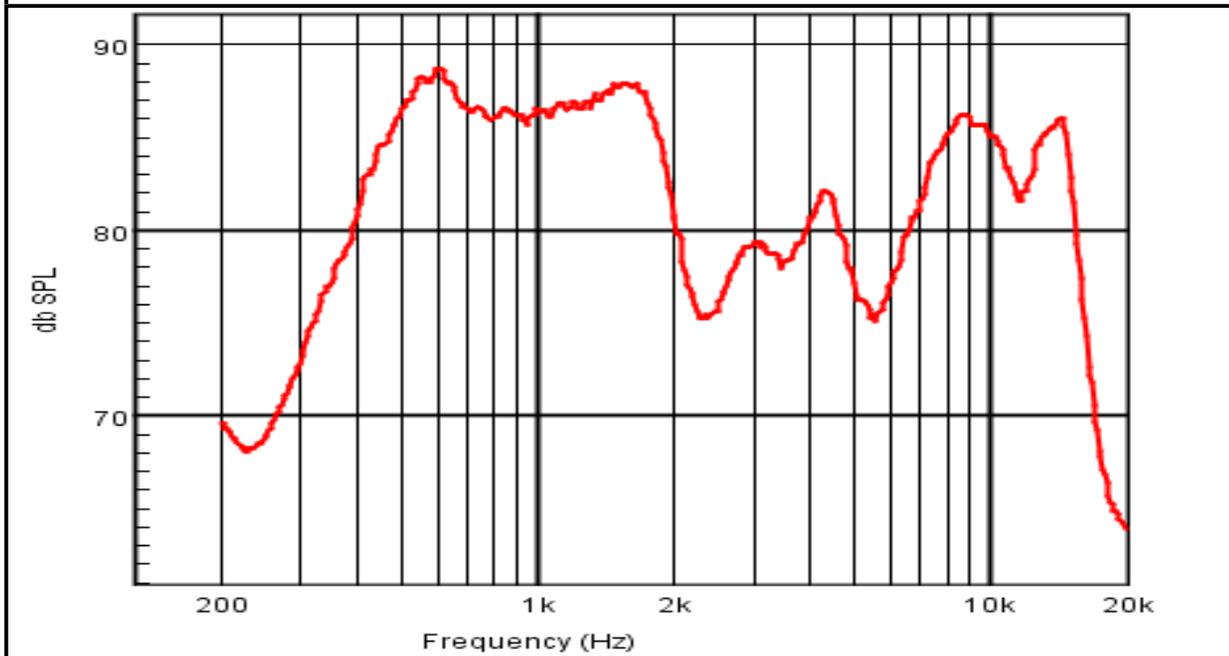
3541 Stop Eight Road • Dayton, Ohio 45414

### Product Overview

- 40 x 20mm oval speaker with Neodymium magnet
- 84 dB sensitivity (1W/0.5m)
- 1.5W continuous, 3W maximum power handling and 8Ω impedance
- Water-resistant cone and great for vocal reproduction

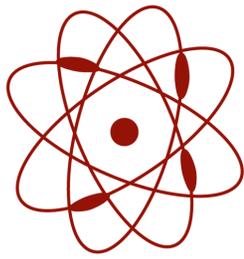


Frequency Response (1W @ 0.5 meters)



RoHS Compliant (100% lead-free)





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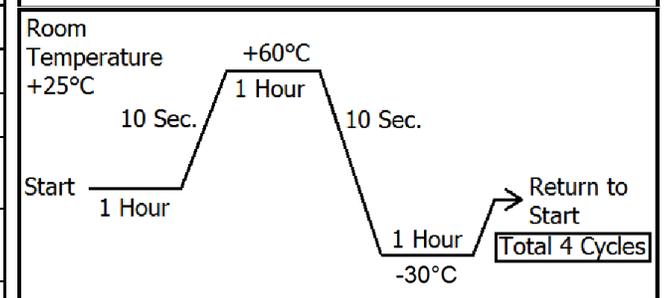
## AS04008CO-2-WR-R 40 x 20mm Speaker

### Mechanical and Environment Testing

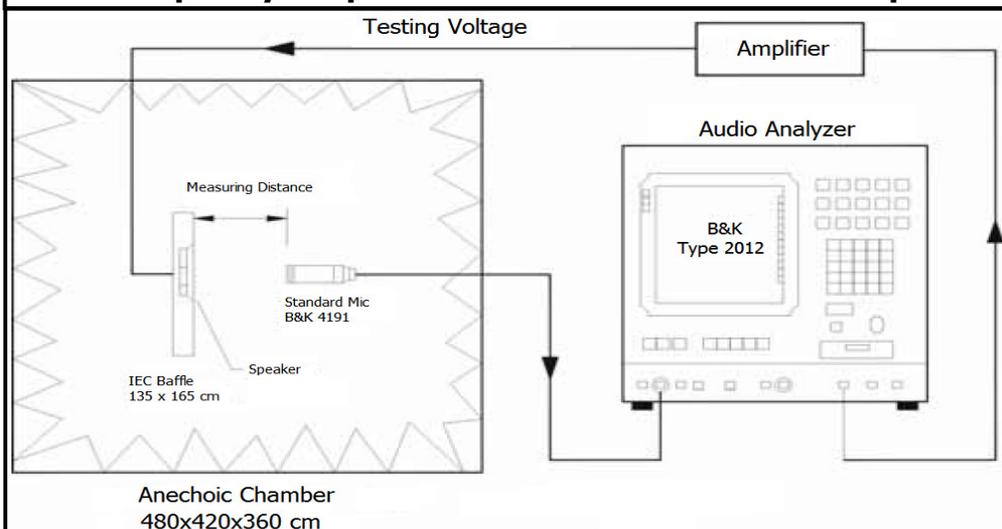
Test Description	Test Condition
High Temperature	60°C ±2°C with random humidity for 96 hours
Low Temperature	-30°C ±2°C with random humidity for 96 hours
Humidity	40°C with 90% to 95% relative humidity for 96 hours
Vibration	1.5 mm movement modulated at 10 to 55 Hz for 2 hours
Drop Test	75 cm free fall onto concrete floor, 10 cycles
Temperature Cycle Test	-30°C to 60°C, 4 cycles (refer to Temperature Cycle Test Graph)

After tests, speaker shall rest for 1 hours. SPL shall not deviate ±4 dB from pre-test measurement.

### Temperature Cycle Test Graph



### Frequency Response and SPL Measurement Setup



### Thiele-Small Parameters

Specification	Value
<b>Fo (Hz)</b>	550
<b>Qes</b>	5.68
<b>Qms</b>	3.46
<b>Qts</b>	2.15
<b>Vas (mm<sup>3</sup>)</b>	9.8k
<b>Sd (mm<sup>2</sup>)</b>	452
<b>Mms (g)</b>	0.226
<b>Re (ohm)</b>	7.4
<b>BL (T)</b>	0.96

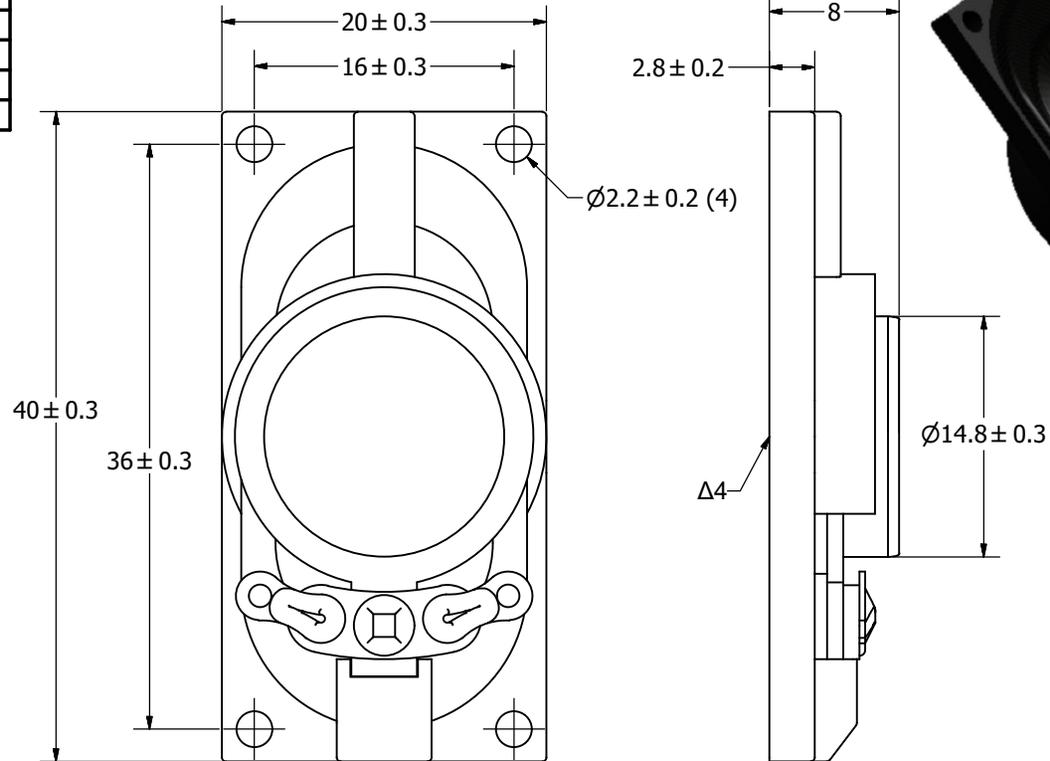
# SPECIFICATIONS

PARAMETERS	VALUES	UNITS
RATED INPUT POWER	1.5	W
MAX INPUT POWER	3	W
IMPEDANCE	8 ± 15%	OHM
OUTPUT SPL @ 1W/0.5M (AT 0.8, 1.0, 1.2, 1.5 kHz)	84 ± 3	dB
DISTORTION (MAX.)	5%	-
RESONANT FREQUENCY	550 ± 20%	Hz
FREQUENCY RANGE	200 ~ 20,000	Hz
HOUSING MATERIAL	ABS	-
CONE MATERIAL	TREATED CLOTH	-
MAGNET MATERIAL	Nd-Fe-B	-
OPERATING TEMPERATURE	-40 ~ +85	°C
WEIGHT	8	grams

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# REVISION HISTORY

LTR	DESCRIPTION	DATE	APPROVED
-	RELEASED FROM ENGINEERING	5/7/2006	
A	REVISED RESONANT FREQUENCY	3/11/2008	R.W.
B	REVISED OPERATING TEMPERATURE	8/8/2008	C.W.
C	REVISED TO INVENTOR 3-D DRAWING TEMPLATE	12/12/2008	B.R.
D	ADDED NOTE 5	8/11/2011	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.
- Δ4. CONE HAS BEEN TREATED FOR WATER RESISTANCE.
5. BASE SPEAKER PUI# AS04008CO-2-R.

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS, TOLERANCES ARE ±0.5 AND ANGLES ARE ±3°.	SIZE	Designed by	Date	Checked by	Date	Approved by	Date	Drawn Date
	A3	J.D.	5/7/2006	E.P.	5/7/2006	B.R.	5/7/2006	12/12/2008
AS04008CO-2-WR-R.idw						AS04008CO-2-WR-R		
						Speaker		
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