



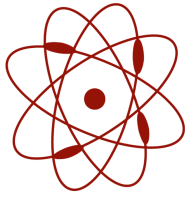
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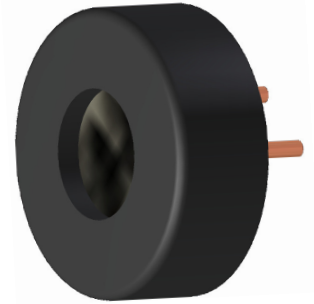
[PUI Audio, Inc.](#)  
[POW-1644P-B-R](#)

For any questions, you can email us directly:  
[sales@integrated-circuit.com](mailto:sales@integrated-circuit.com)



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

**POW-1644P-B-R  
 Omni-Directional  
 Waterproof Microphone**

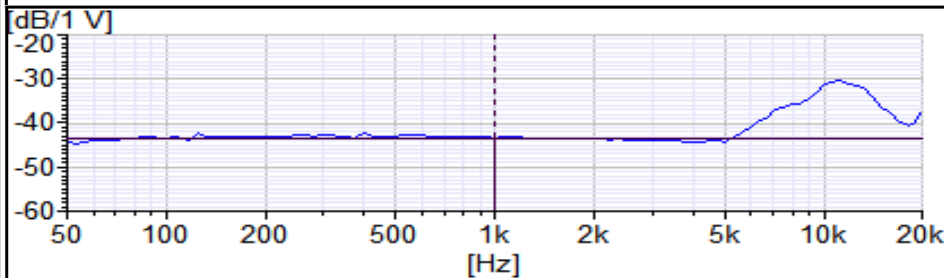


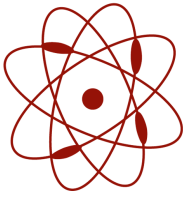
3541 Stop Eight Road • Dayton, Ohio 45414

**Product Overview**

- 7.1mm overall diameter and 2.6mm height with pin terminals
- -44 dB sensitivity for use in most environments
- Wide 2 to 10 VDC operating voltage and 50-16,000 Hz frequency response
- >60 dB signal-to-noise ratio and 2.2 kOhm impedance
- Omni-directional polar pattern for great off-axis response
- IP57 rated and built with a rubber boot for a superior seal

**Typical Frequency Response and Sensitivity**

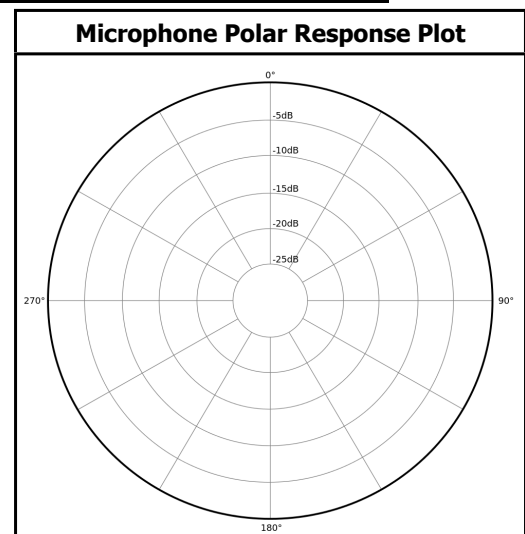
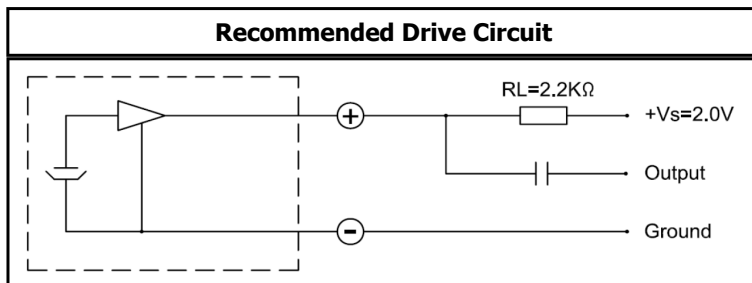




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# POW-1644P-B-R Omni-Directional Waterproof Microphone

Mechanical and Environment Testing	
Test Description	Test Condition
High Temperature	70°C with random humidity for 200 hours
Low Temperature	-40°C with random humidity for 200 hours
Humidity	40°C with 90% relative humidity for 200 hours
Vibration	3 mm movement for 3 minutes in each of 3 axis
Drop Test	70 cm free fall onto 20 mm thick board, two directions
Temperature Cycle Test	-40°C to 70°C, 5 cycles



**SPECIFICATIONS**

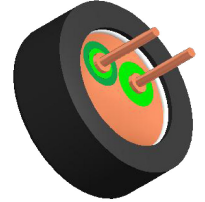
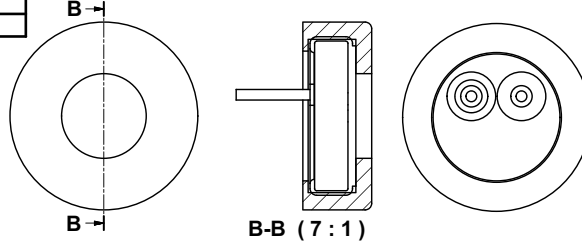
PARAMETERS	VALUES	UNITS
DIRECTIVITY	OMNI	-
SENSITIVITY	-44 ± 3	dB
STANDARD OPERATING VOLTAGE	2	Vdc
MAX OPERATING VOLTAGE	10	Vdc
CURRENT CONSUMPTION (MAX)	0.5	mA
IMPEDANCE	2.2	KOhm
SIGNAL TO NOISE RATIO (MIN.)	60	dB
OPERATING TEMPERATURE	-20 ~ +70	C°
STORAGE TEMPERATURE	-40 ~ +85	C°
TERMINAL	PIN	-
INTERNAL CAPACITOR	N/A	pF

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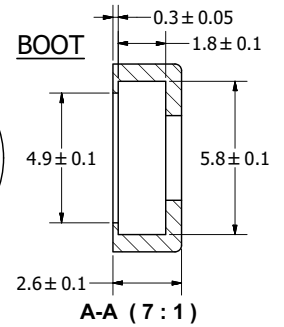
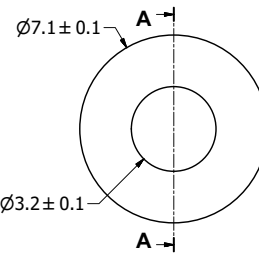
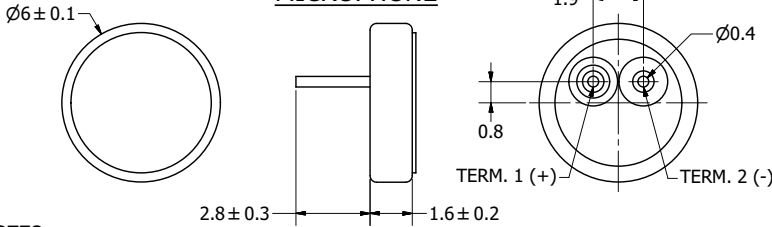
**REVISION HISTORY**

LTR	DESCRIPTION	DATE	APPROVED
-	RELEASED FROM ENGINEERING	10/19/2006	
A	DELETED MOLEX CONNECTOR NOTE	7/17/2007	D.F.
B	REVISED IP RATING	7/2/2008	B.R.
C	REVISED TO INVENTOR 3-D DRAWING TEMPLATE	8/30/2008	B.R.
D	ADDED TEMPERATURES AND PIN DIAMETER	1/29/2013	B.R.

**ASSEMBLY**




**MICROPHONE**



**NOTES:**

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. SPECIFICATIONS SUBJECT TO CHANGE OR WITHDRAWL WITHOUT NOTICE.
3. THIS PART IS RoHS 2011/65/EU COMPLIANT.
4. PART IS IP57 RATED.
5. ASSEMBLY IS WASHABLE WITH BOOT IN PLACE.

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.	10/19/2006	B.R.	10/20/2006	R.W.	10/20/2006	8/30/2008	
POW-1644P-B-R.idw				<p><b>POW-1644P-B-R</b></p>		<p>Microphone</p>		Edition -	Sheet 1 / 1