

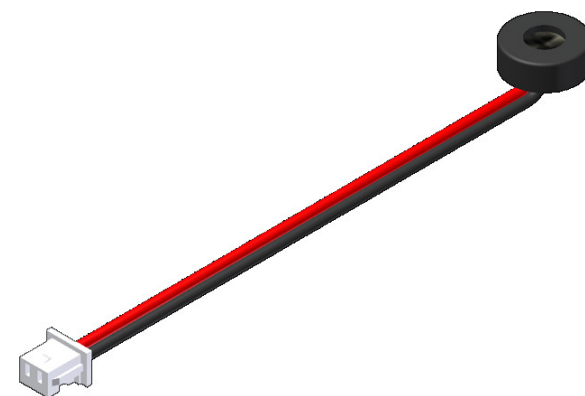
# POW-1644L-LWC50-B-R

## Omni-Directional Waterproof Microphone

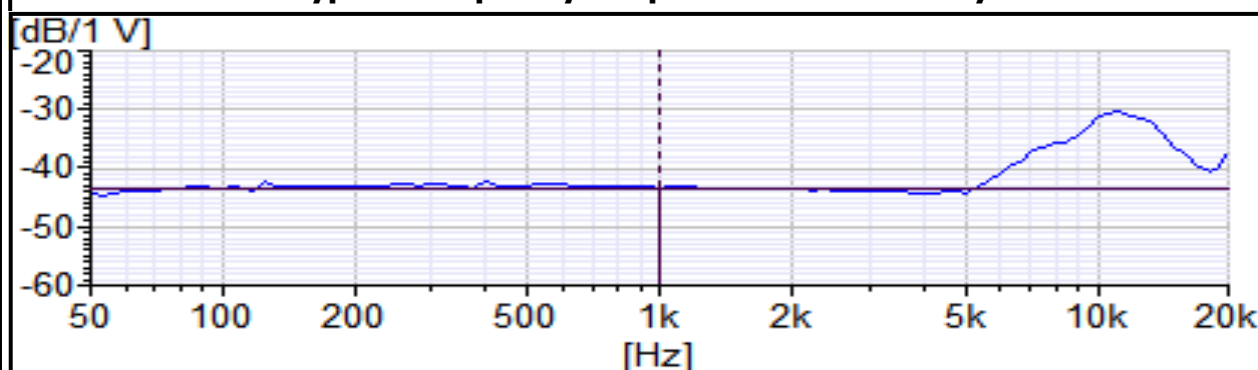
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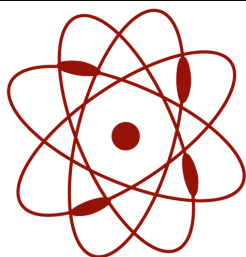
### Product Overview

- 7.1mm overall diameter and 2.6mm height
- -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
- 50mm lead wires and a Molex® 51021-0200 connector



### Typical Frequency Response and Sensitivity



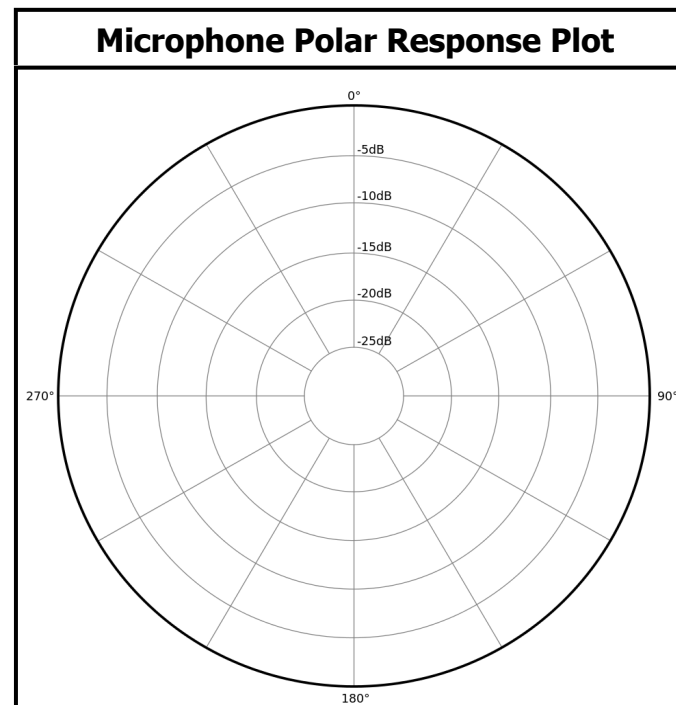
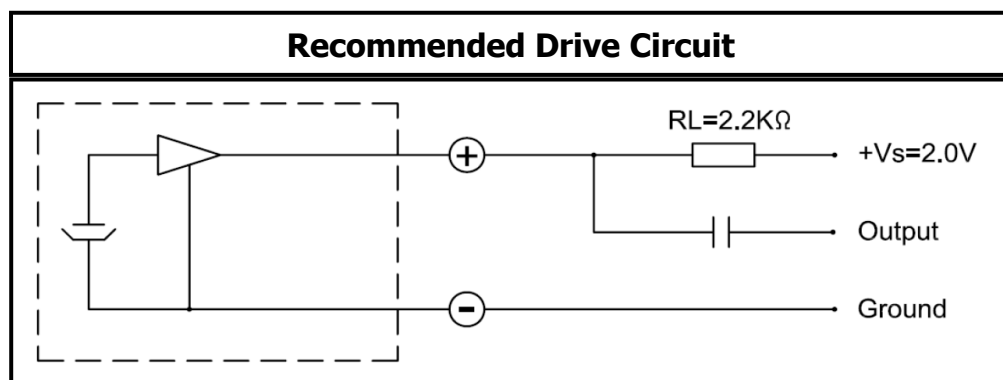


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## Omni-Directional Waterproof Microphone

Mechanical and Environment Testing	
Test Description	Test Condition
High Temperature	70°C with random humidity for 200 hours
Low Temperature	-25°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	-10°C to 50°C, 5 cycles



## SPECIFICATIONS

PARAMETERS	VALUES	UNITS
DIRECTIVITY	OMNI	-
SENSITIVITY	$-44 \pm 3$	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	$-20 \sim +70$	°C
TERMINAL	LEAD WIRE	-
INTERNAL CAPACITOR	N/A	pF

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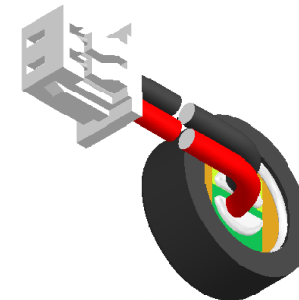
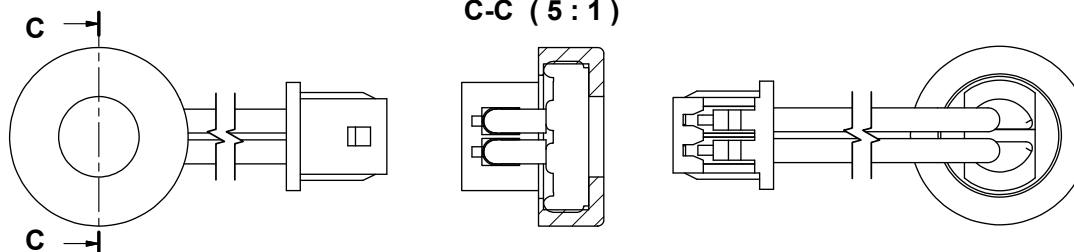
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## REVISION HISTORY

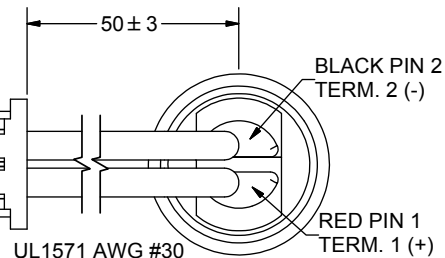
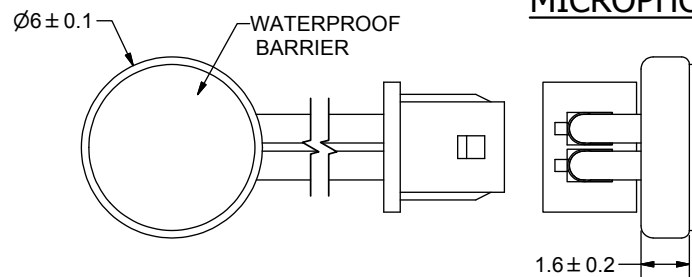
LTR	DESCRIPTION	DATE	APPROVED
-	RELEASED FROM ENGINEERING	10/10/2006	
A	REVISED OPERATING TEMPERATURE AND IP RATING	6/9/2008	B.R.
B	REVISED TO INVENTOR 3-D DRAWING TEMPLATE	9/4/2008	B.R.
C	ADDED PIN LOCATION	7/14/2010	B.R.

## ASSEMBLY

C-C (5 : 1)

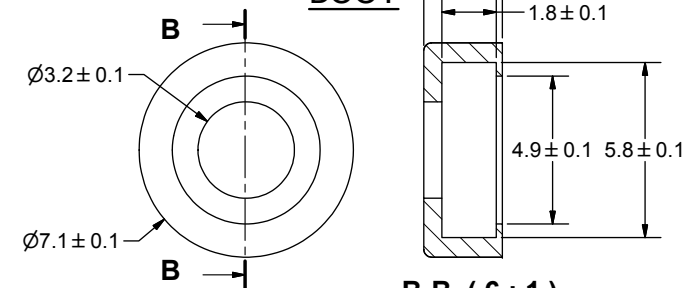


## MICROPHONE



UL1571 AWG #30

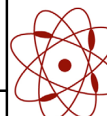
## BOOT



B-B (6 : 1)

## 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. MOLEX CONNECTOR P/N: 51021-0200
5. PART IS IP57 RATED.
6. ASSEMBLY IS WASHABLE WITH BOOT IN PLACE.

UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN MILLIMETERS,  TOLERANCES ARE ±0.5 AND ANGLES ARE ±3°.	SIZE  A3	Designed by	Date	Checked by	Date	Approved by	Date	Drawn Date		
		J.D.	10/10/2006	B.R.	10/11/2006	R.W.	10/11/2006	9/4/2008		
	POW-1644L-LWC50-B-R.idw	 <b>pui audio</b> a projects unlimited company			<b>POW-1644L-LWC50-B-R</b>			Microphone		Edition -

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