PUIaudio

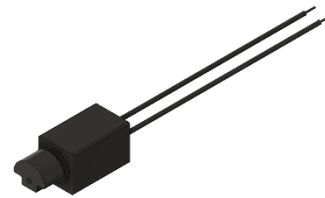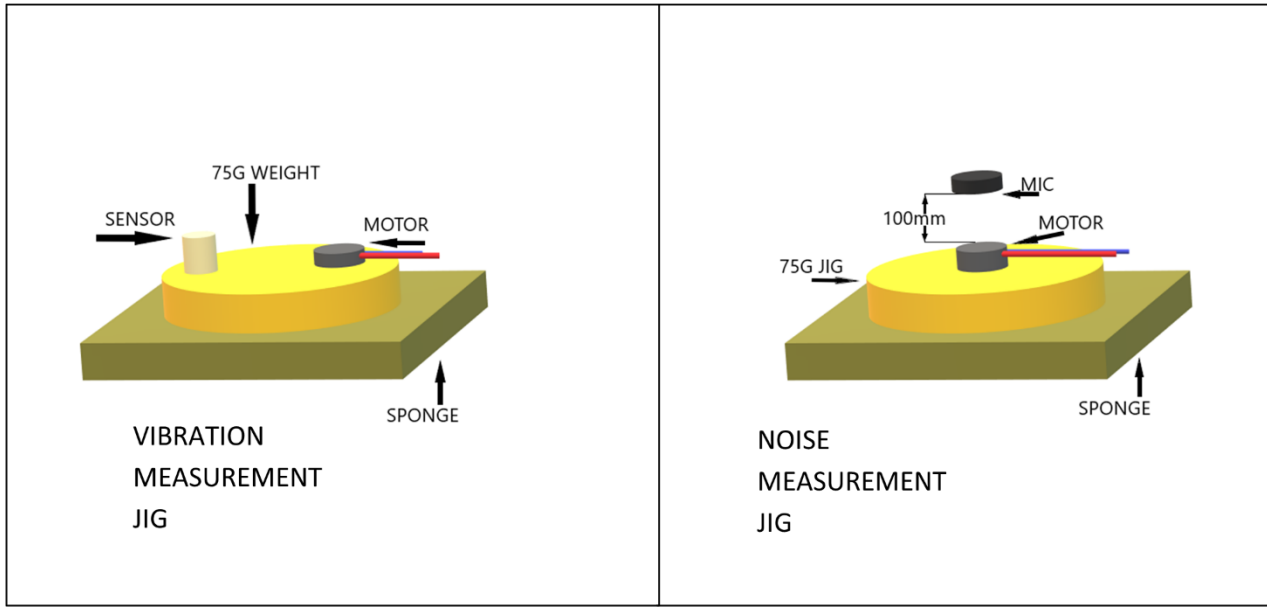| Data Sheet	HD-EMB1205-2-LW30-R

Features:

- Designed to be driven with a 3V DC signal
- Convenient 30mm lead wires for easy implementation
- Generates 13,000 rpm with less than 50dB mechanical noise

Specifications

Parameters	Values	Units
Input Voltage (DC)	3	V_{DC}
Starting Voltage (DC)	2.4	V_{DC}
Operating Voltage Range (DC)	2.5 ~ 3.7	V_{DC}
Direction of Rotation	CW/CCW	-
Rated Speed	13,000 ± 3,000	RPM
Rated Current (Max at 3.0 V_{DC})	90	mA
Starting Current (Max at 2.4 V_{DC})	130	mA
Terminal Resistance	30 ± 10%	Ohms
Shaft Pull Strength (Min)	3	Kg
Shaft End Play (Max)	0.3	mm
Mechanical Noise (Max)	50	dBA
Housing Material	SPC	-
Environmental Compliances	RoHS/REACH	-
Weight	0.8	Grams
Storage Temperature	-40 ~ +85	°C
Operating Temperature	-20 ~ +60	°C

Measurement Methods

VIBRATION MEASUREMENT JIG

NOISE MEASUREMENT JIG

Reliability Testing

Type of Test	Test Specifications
High Temperature Test	Temperature: +85±2°C Test Duration Time: 96 hours
Low Temperature Test	Temperature: -40±2°C Test Duration Time: 96 hours
Humidity Test	Temperature: 70°C Relative Humidity: 90% Test Duration Time: 96 hours
Thermal Shock Test	Temperature Cycle: -40 to +85°C Cycle Time: 1 hour Test Repetition: 24 cycles (24 hours total)
Temperature Cycle Testing	Drive motor for 2 seconds on, 2 seconds off Repeat cycle shown 2 times (8 hours total)
Vibration Test	Vibration: 3mm, 1000cpm Test Axis: XYZ Test Repetition: 10 minutes per axis (30 minutes total)
Drop Test	Drop Condition: 1.5m onto iron plate at weight 150g Test Repetition: 6 times per side (36 total)
Load Test	200,000 operating cycles at room temperature Test Cycle: 0.5 seconds on, 0.5 seconds off

Rated current, speed, starting voltage, and mechanical noise must meet specifications after allowing the device to rest for 12 hours after test.