# Product Overview

## LC898302AXA: Linear Vibrator Driver

For complete documentation, see the data sheet.

LC898302AXA is a LRA (Linear Resonant Actuator) & ERM (Eccentric Rotating Mass) Driver IC dedicated to haptic feedback actuator and vibrator employed in mobile equipment. Due to the product superior technology, the drive frequency is automatically adjusted to the resonance frequency of the linear vibrator without the use of other external parts. As a result of this very effective drive, the vibration is as powerful as possible using very limited amount of energy compared to classical solutions The drive and brake are fully configurable through the PWM-IF
setting. Finally, the original driving waveform allows you to reduce power consumption and it is useful to maintain battery lifetime.

## Features

- Automatic adjustment to the resonance frequency for LRA
- Automatic braking (EN mode only)
- EN/PWM-IF driving mode available by automatic detection
- Low power consumption thanks to the highly effective drive
- Available to drive a LRA or ERM.
- Adjustable Drive voltage through PWM-IF setting
- Adjustable Brake voltage through PWM-IF setting
- low standby current
- Low driving noise (EMI, Audible band)
- Thermal shutdown protection

  For more features, see the data sheet

## Benefits

- Can ignore the deviation of resonance frequency thanks to Auto Tune function.
- Can get crisp vibration thanks to Automatic braking and Automatic over driving.
- Controled by 1pin (PWM or EN)
- Saving the battery life
- Saving the mounting space

## Applications

- Haptics function units

## End Products

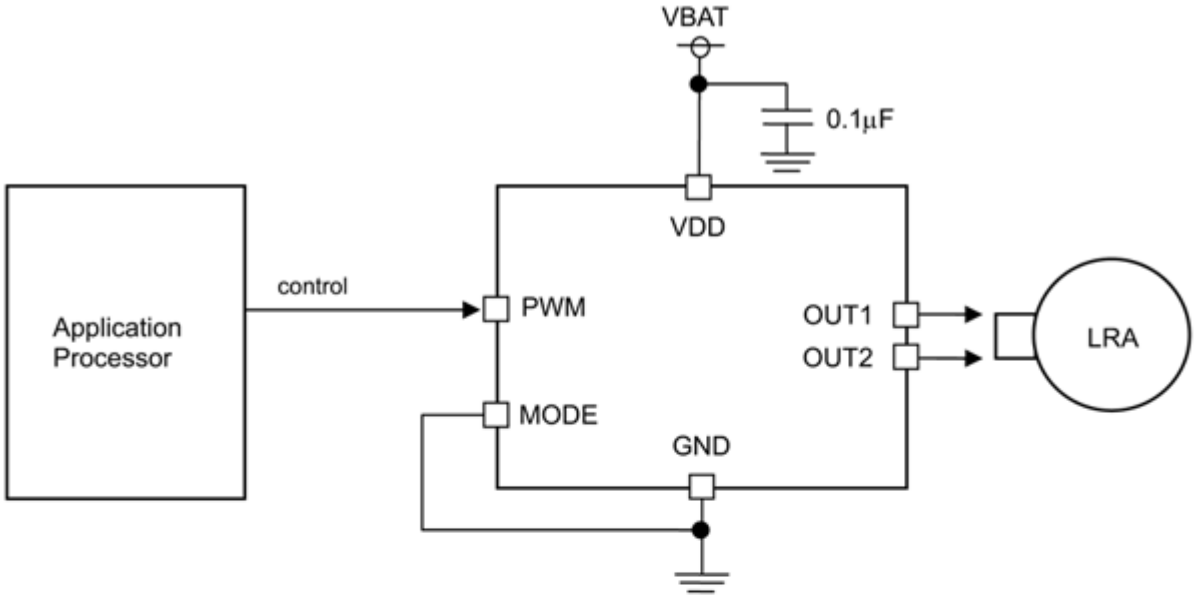
- Mobile Phone
- Portable Game
- Mobile equipment with haptics function

## Part Electrical Specifications

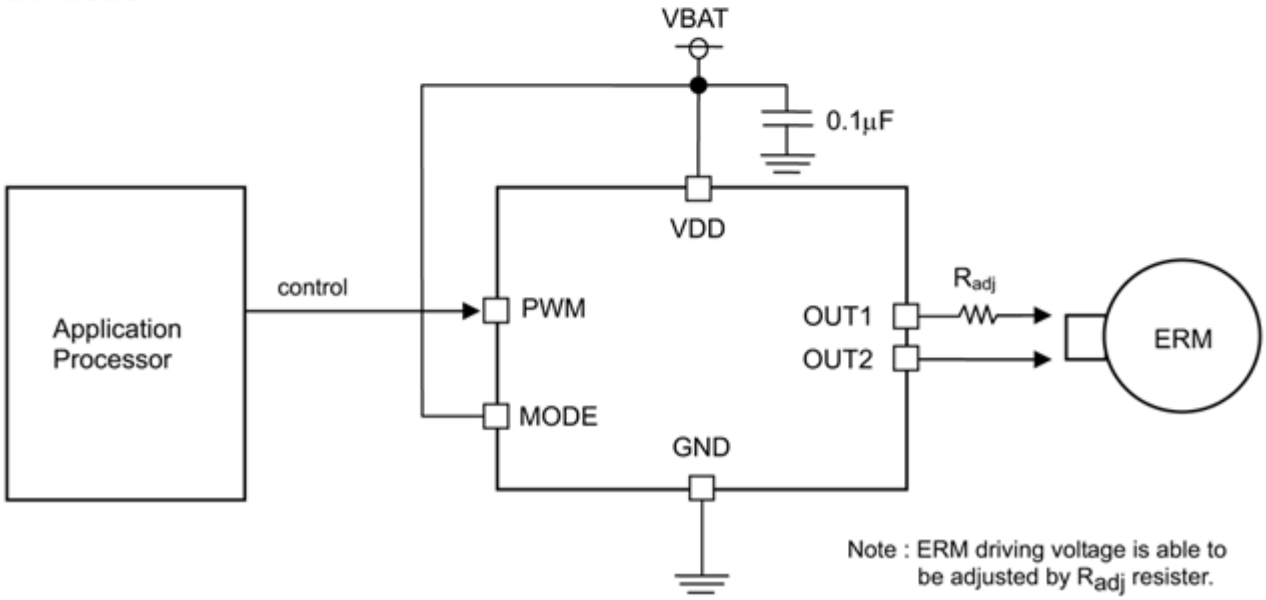
| Product | Compliance | Status | Phase | $V_M$ Min (V) | $V_M$ Max (V) | $V_{CC}$ Min (V) | $V_{CC}$ Max (V) | $I_O$ Max (A) | $I_O$ Peak Max (A) | Control Type | Package Type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LC898302AXA-MH | Pb-free<br>Halide free | Active | 1 | 2.7 | 4.5 | 2.7 | 4.5 | 0.2 | | PWM | WLCSP-6 |

## Application Diagram

**LRA mode**




**ERM mode**

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