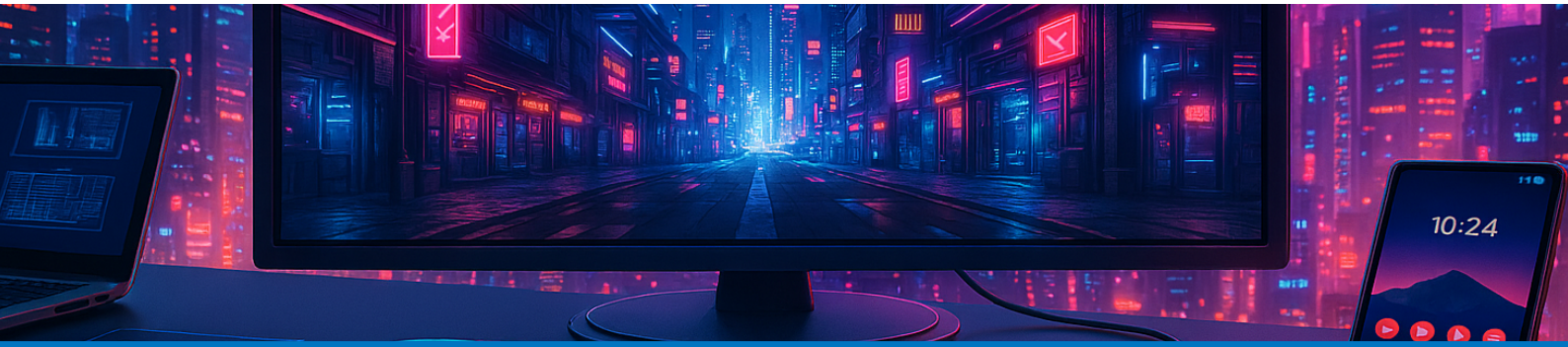


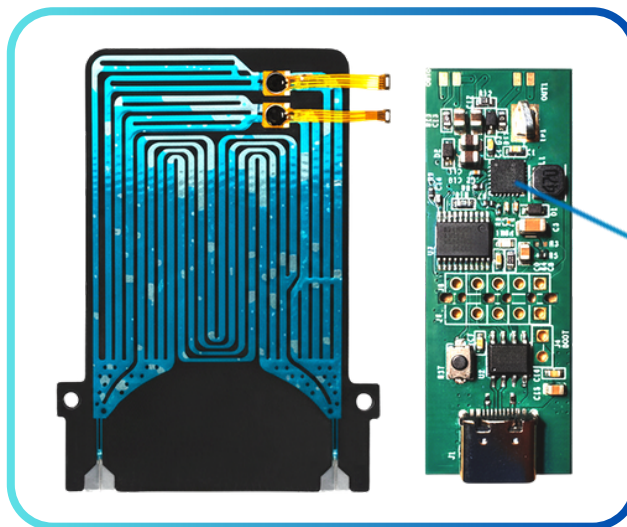
Ultra-Low-Power Piezo Pump Driver

PJ91921 | 190 Vpp differential piezo driver for liquid pump cooling



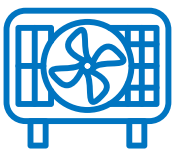
► Demo Board Specifications

- Differential output architecture
- High-voltage, low-power piezo driver
- Wide supply voltage range from 2.3 V to 5.5 V
- Supports capacitive loads up to 100 nF
- Output frequency controlled via I²C
- Output amplitude controlled via I²C



PJ91921

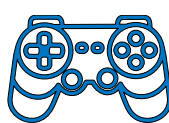
► Target Applications



Micro-pump cooling



Electronic panels



Gaming controllers



Mobile phones
Tablets



Notebooks
Keyboards & Mice



► PJ91921 Key Features

- Differential output
- I²C interface support
- 1024-sample FIFO buffer
- 190 Vpp bipolar piezo driver
- Fast startup time of < 200 µs
- 1.5 KB SRAM waveform memory
- Idle-mode current as low as 90 µA
- Available in QFN and WLCSP packages
- Supports capacitive loads up to 100 nF
- Drives 10 nF at 190 Vpp and 200 Hz with only 64 mW
- Low quiescent current with Shutdown, Sleep, and Idle modes
- Multiple operating modes: AutoPlay, SensePlay, DirectPlay, FIFOPlay, SRAMPlay, etc.

► Product Roadmap

Air Pump Driver

PJ91744

- Air Pump Driver
- > 20 kHz
- < 48 Vpp

Applications

- Fan cooling replacement

*Under development with engineering samples available March 2026

Cost-Effective Liquid Pump Driver

PJ91920

- Simple Liquid Pump Driver
- 200Hz
- ~190 Vpp

Applications

- Cost-sensitive consumer electronics

*Samples available, with mass production starting in March 2026

High-Performance Liquid Pump Driver

PJ91921

- Liquid Pump Driver
- 3.9 Hz–1000 Hz
- < 190 Vpp

Applications

- Compact consumer electronics (e.g., smartphones & tablets)

*In mass production