



Product Overview

EZAIRO 8300: High-End Audio DSP for Wireless-Enabled Hearing-Aids and Hearables

For complete documentation, see the data sheet.



Ezairo 8300 is an advanced audio processor with 6 programmable or semi-programmable processing cores, providing a high degree of parallelism and flexibility. Its high fidelity operation at ultra-low power consumption, along with its multiple interfaces, flexibility to maximize performance against power consumption, and support for Bluetooth® Low Energy connectivity make Ezairo 8300 an excellent choice for high-end wireless-enabled audio applications.

Development Tools

The Open-Programmable Evaluation & Development Kit (EDK) for Ezairo 8300 is available on a subscription basis with options for 2, 5 or 10 seats.

Please contact your Sales Representative or Authorized distributor for more information.

Features

- 6 programmable and configurable processing cores
- Ultra-low power consumption of <0.7 mA @ 15.24 MHz system clock
- High fidelity audio system with 108 dB system dynamic range and up to 48 kHz of sampling frequency
- Dynamically selectable system clock speeds from 1.28 MHz to 61.44 MHz
- Versatile memory architecture for the 1433 kB of memory

Benefits

- High degree of parallelism and flexibility
- Extended battery life
- High quality audio
- Maximum flexibility to optimize computing performance against power consumption
- Flexible sharing between the 6 cores for maximum system efficiency

Applications

- High-resolution stereo audio streaming
- Intensive audio processing
- ULP companion chip for Bluetooth Audio

End Products

- Wireless-Enabled Hearing Aids
- Earbuds / Hearables
- Personal Sound Amplification Products (PSAPs)
- Over-the-Counter (OTC) Hearing Aids
- Headsets / Headphones

| Part Electrical Specifications | | | | | | | | | | | |
|--------------------------------|-------------------|--|--------|--------------|------------------|---------------|---------------------|---------------------|----------------|-----------------------|----------------------------|
| Product | Pricing (\$/Unit) | Compliance | Status | WDR Channels | Graphic EQ Bands | Program Modes | Advanced Algorithms | Acoustic Indicators | Other Features | Wireless Standards | Package Type |
| E8300-101B78-ABG | | Pb-free Halide free non AEC-Q and PPAP | NEW | | | | | | | Bluetooth® Low Energy | VFBGA78 5x5 |
| E8300-101WC78-ABG | | Pb-free Halide free non AEC-Q and PPAP | NEW | | | | | | | Bluetooth® Low Energy | WLCSP87 2.643x3.0 53x0.354 |

For more information please contact your local sales support at www.onsemi.com.

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