

NEWS RELEASE

## CIOE 2024: JBD Showcases Groundbreaking Hummingbird Series Projector, Ushering in a New Era of AR

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SHENZHEN, China, Sept. 11, 2024 /CNW/ -- At CIOE 2024 in Shenzhen, JBD captured attention with its latest innovations, including the high-brightness Hummingbird I optical module and the ultra-compact Hummingbird Mini II monochrome projector. These products, along with advanced AR smart glasses, highlight JBD's leadership in MicroLED technology and its applications in AR.

### New Hummingbird I Optical Module: Setting a New Standard for AR Displays

The Hummingbird I optical module is a transformative innovation in the AR industry, offering unprecedented in-eye brightness of over 6000 nits—far exceeding the typical range of 1000-2000 nits seen in waveguide AR glasses. This significant increase in brightness ensures clear and vivid visuals, even in challenging lighting conditions. In addition to higher brightness, the module benefits from JBD's proprietary ARTCs solution, which optimizes image quality by effectively eliminating graininess and color distortion. The result is a sharper, more immersive AR experience that provides consistent performance in both indoor and outdoor environments.

This leap in performance is backed by JBD's advancements in MicroLED technology, doubling the efficiency of the Hummingbird I color engine to deliver up to 6 lumens of luminous flux with a typical power consumption of just 150mW. This balance of high performance and low power consumption not only enhances the AR experience but also extends battery life, making the technology more practical for all-day use.

### Hummingbird Mini II: Redefining Compact Power for AR

The Hummingbird Mini II monochrome projector sets a new standard for lightweight AR design. Introduced earlier this year and now in mass production, the Mini II is about the size of a red bean and weighs only 0.3 grams, making it an ideal solution for slim, unobtrusive smart glasses. Despite its small size, it delivers 8 lumens of luminous flux, achieving over 8000 nits of brightness when paired with a waveguide. Its low power consumption of just 60mW ensures long battery life, making it perfect for all-day use.

As an upgrade from the original Hummingbird Mini, the Mini II is 50% smaller and lighter, with an 80% increase in brightness and a 25% reduction in power consumption. Its enhanced 8-bit color depth provides a smoother, more detailed display, making it a versatile tool for the next generation of AR devices.

## **Expanding the Hummingbird Series: Driving the AR Ecosystem Forward**

With the addition of the new Hummingbird I optical module and Hummingbird Mini II, JBD's Hummingbird now offers a comprehensive range of products designed to meet the diverse needs of AR applications. JBD's MicroLED solutions are already driving significant innovation in the consumer electronics market, particularly in AR glasses.

Currently, 26 AR glasses models on the market feature JBD technology, with cumulative shipments in the hundreds of thousands—far outpacing all other competing solutions combined. As AI continues to merge with AR, JBD's MicroLED solutions are positioned to become the core of these advanced smart devices. With strong production capabilities, JBD is ready to support the large-scale manufacturing of MicroLED displays, with plans to scale up to tens of millions of units in the next 3-5 years.

JBD is committed to continuous innovation, delivering reliable, high-performing AR display solutions to customers worldwide. As JBD leads in AR innovation, the Hummingbird series reflects our dedication to meeting the evolving AR market demands. We look forward to collaborating with industry partners to explore new possibilities drive the adoption of smart glasses as a platform for AI interaction. We invite you to experience the latest in MicroLED technology at our booth (No. 2B103) at CIOE 2024.

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