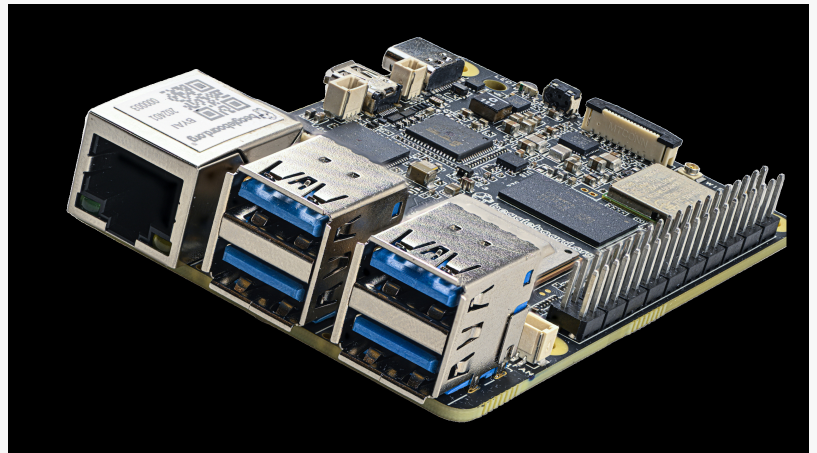


# BeagleY®-AI: Making Computers Open Again

*BeagleY-AI is a \$70, business-card size computer, works with many existing accessories and is certified open source hardware. Order today at [beagle-ai.org](https://beagle-ai.org).*

ROCHESTER, MI, USA, March 27, 2024  
/EINPresswire.com/ --

[BeagleBoard.org](https://beagleboard.org)® Foundation announces the new BeagleY®-AI. BeagleY®-AI is making learning, building, and deploying open-source AI hardware fun and accessible. Featuring a high-efficiency AM67A AI vision processor from Texas Instruments, BeagleY®-AI enables up to 4 TOPS of deep learning performance and simplifies the design of fan-less facial recognition, touchless HMIs, and real-time automation projects for makers, hobbyists, students, and professional developers alike.



BeagleY-AI opens up computer hardware

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This is an exciting step forward in BeagleBoard's mission to expand the open-source hardware ecosystem and encourage collaboration. BeagleY®-AI has the potential to change the computing landscape.”

*Christine Long, CEO of  
BeagleBoard.org Foundation*

BeagleY-AI® is based on the new AM67A AI vision processor from Texas Instruments. The processor features four 64-bit Arm®Cortex®-A53 CPU cores with clock speeds up to 1.4 GHz, two general-purpose C7x DSPs and two Matrix Accelerators (MMAs) that enable up to 4 TOPS of deep learning performance, a vision processing accelerator with ISP, GPU cores, and multiple Arm Cortex-R5 cores for low power, low-latency GPIO control. Users can maximize this compute via high-speed PCIe, USB3 interfaces and flexible multimedia I/Os to enable cost-effective multi-camera, multi-display system designs.

BeagleY-AI's 40-pin expansion header enables breadboard-

and solder-free system prototyping with countless compatible sensors, actuators, and connectivity add-ons. And as an open-source design, professional and advanced users are also free to modify the hardware to take control of the supply chain, manufacturing, and build derivatives that are cost-, size-, and use case-optimized.

Suitable for Numerous Industrial Applications

BeagleY®-AI users get started quickly and ramp AI performance to full throttle in applications such as:

- \* Robotics
- \* Factory and Building Automation
- \* Test & Measurement
- \* Medical
- \* Human-Machine Interfaces (HMIs)
- \* Intelligent Vision
  - Image Classification
  - Object Detection
  - Semantic Segmentation

### Full-featured Processor for Today's Embedded AI Workloads

- \* Texas Instruments AM67A Arm-based vision processor
  - Quad-core 64-bit Arm®Cortex®-A53 CPU subsystem at 1.4GHz
  - Dual general-purpose C7x DSP with Matrix Multiply Accelerator (MMA) capable of 4 TOPs
  - Arm Cortex-R5 subsystem for low-latency I/O and control
  - GPU, video and vision accelerators, and other specialized processing capability
- \* Memory
  - 4GB LPDDR4
  - microSD card socket
  - Board identifier EEPROM
- \* Networking
  - BeagleBoard.org BM3301 module
  - WiFi 6 (IEEE802.11ax)
  - Bluetooth® 5.4 with Bluetooth Low-Energy (BLE)
  - Gigabit Ethernet with power-over-Ethernet (PoE+) support via add-on
- \* 3 Simultaneous Displays
  - microHDMI
  - OLDI (LVDS) with touchscreen support
  - MIPI-DSI with touchscreen support (muxed with MIPI-CSI)
- \* Other I/O
  - PCI-Express® Gen3 x 1 interface (requires external adapter)
  - 4x USB3 (5Gbps) type-A host ports
  - 1x USB2 (480Mbps) type-C device port and power input
  - 40-pin expansion header
  - Fan power and control connector
- \* Debug
  - 3-pin JST-SH console UART
  - 10-pin TAG-CONNECT JTAG header

## Availability

BeagleY®-AI is available for order now at [beagle-y-ai.org](https://beagle-y-ai.org). Be one of the first to get the open source BeagleY-AI shipping late May and early June. Additional board documentation available at [beagle-y-ai.org/quick](https://beagle-y-ai.org/quick).

"We are excited to Launch Beagle®Y-AI as a community board. This is an exciting step forward in BeagleBoard's mission to expand the open-source hardware ecosystem. By providing a platform that encourages collaboration and learning, BeagleY®-AI has the potential to empower individuals to develop their own open designs and contribute to the broader community." stated Christine Long, CEO of BeagleBoard.org Foundation

## About BeagleBoard.org® Foundation

BeagleBoard.org® Foundation founded in 2007 is focused on developing open-source hardware platforms that foster innovation and collaboration. BeagleBoard.org® has a rich history of creating accessible, versatile, and powerful single board computers, enabling developers, hobbyists, and professionals to bring their ideas to life.

Christine Long

BeagleBoard.org Foundation

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