

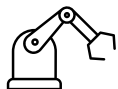
A complete edge AI development platform combining the Raspberry Pi 5 single-board computer with BrainChip's AKD1000 neuromorphic processor — enabling ultra-low-power AI inference, on-device learning, and hardware-level privacy for real-world edge deployments.

Key Capabilities

- Akida-enabled neuromorphic Edge AI on Raspberry Pi
- Integration with a widely adopted single-board computer
- Event-based, real-time inference with low, deterministic latency
- Efficient, low-power operation for embedded and IoT use cases
- On-device processing without cloud dependency
- Compatibility with BrainChip software tools for model development and deployment



Target Applications



Edge Robotics



Smart Home



Security & Surveillance



Industrial IoT



Smart Retail



Healthcare

Key Specs

SoC	Broadcom BCM2712 2.4GHz quad-core 64-bit ArmCortex-A76 CPU
GPU	Broadcom 800MHz VideoCore VII GPU, supporting OpenGL ES 3.1 and Vulkan 1.2
RAM	16GB LPDDR4 SDRAM
Networking	GB Ethernet, Bluetooth 5.0 and Dual-band 802.11ac Wi-Fi
AI Accelerator	1 x Akida AKD1000 M.2 Card
Interfaces	single-lane PCIe 2.0 interface, USB Ports: 2 x USB 3.0 ports
Display	Dual 4Kp60 HDMI display output with HDR support and a 4Kp60 HEVC decoder
Storage	External MicroSD Slot: Supports high-speed SDR104 mode; on-board 8GB/16GB/32GB eMMC (CM4)
Ports	Hirose U.FL antenna connector, 2x 100-pin high-density connectors
Dimension	20.06cm x 10.5cm x 3.7cm (exc. carrier board)
Operating Temperature	0-70° C

