

EDGE AI BOX

An Edge AI Box is a compact computing unit that runs AI models locally, without depending on the cloud. It combines a CPU with an onboard GPU/NPU to process video, sensor, and automation workloads in real time. It is used in factories, retail, logistics, and surveillance where low-latency decisions are critical.



FEATURES



Multi Camera Input Support



Parallel Video Stream Processing



Supports Multiple AI models at the Edge



Edge AI Inference Engine



Realtime AI Event & Alert Generation



HDMI Based Local Display & AI Visualization

Technical Specification

| | | | |
|-----------------------|--|-------------------------|--|
| SoC | QCS6490 | Video | Encode : Up to 4K @ 30 fps; H.264/ H.265 |
| CPU | 8-core Qualcomm® Kryo 670 CPU | | Decode : Up to 4K @ 60 fps; H.264/H.265/VP9 |
| | Kryo Gold prime: one high-performance core @2.7 GHz | USB | x1 Supports up to 4 USB 3.0 |
| | Kryo Gold: three high-performance cores @ 2.4 GHz | U-SIM | x1 supports 1.8/3V U-SIM card; supports U-SIM card |
| | Kryo Silver: four low-power cores @ 1.9 GHz | SD Card | x1, SD 3.0, supports 4-bit SDIO + M.2 2280 SSD NVMe |
| Memory | 4GB to 8GB of LPDDR5 RAM + 128GB UFS 3.1 | Audio | One Audio out – Headphone/Speaker |
| OS | Android 13 Linux Kernel V1.5 | | One Audio in – Microphone |
| Power Consumption | Max. 6.8W | Digital I/O Ports | 3 expansion connectors with GPIOs, I2Cs, and MIPI |
| Operating Temp. Range | -30 ~ +105 C | Communication protocols | Debug UART: 2-wire serial port, specialized for debug |
| LTE | B1/ 2/ 3/ 4/ 5/ 7/ 8/ 9/ 12/ 13/14/ 18/ 19/ 20/ 25/ 26/ 28 | | UART-03: 4-wire serial port – RS232 interfacing |
| WLAN | 2.4/ 5 / 6 GHz, IEEE 802.11a/b/g/n/ac/ax | | UART-04: 4-wire serial port – RS485 interfacing |
| Bluetooth | Bluetooth® 5.2 | | USB 3.1 Type C Flash programmer |
| GNSS | GPS/ GLONASS/ BDS/ Galileo | PWRKEY | External push-button, addition to internal automated logic |
| Display | HDMI 2.0, with 4 lanes of MIPI DSI, up to 2Gbps/lane | Antenna | × 6, Main, Diversity, GNSS antennas of LTE module |
| Camera | x2 D-PHY of 4-lane MIPI CSI, up to 2.1 Gbps per lane | Supply Voltage Range | 12V typ. |
| | x2 Gigabit multimedia serial link | Power Consumption (Max) | 25W |