

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 13.0, 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