



LU520

LUCY Edge AI Box Powered by MTK Genio 520

Powered by **MEDIATEK**



Features

- Wide-Temp Fanless Design for cold-Chain Reliability
- Low-Power, Always-On Operation
- Wireless-Ready (Wi-Fi 6 / Bluetooth 5.3)
- AI Vision Optimized for Retail etc & Access Control
- Android SDK Integration for Rapid Deployment

System

Processor	MT8371 (2 x CA78(2.2GHz)+ 6 x CA55(2.0GHz))
Memory	8GB, LPDDR5
Storage	64GB
Optional Storage	microSD card slot

I/O

Indicator	LED x 2 (Power x 1, Reset x 1)
Wireless	Wi-Fi 6 / Bluetooth 5.3
Antenna Connector	SMA connector x 2
Display	DP 1.4a x 1
Ethernet	Ethernet (RGMII) LAN x 1
USB	USB 3.1 Type-C x 1 USB 2.0 Type-A x 2 USB 2.0 Type-C (ADB) x 1
CAN	CAN x 1
RS485	RS485 x 1
DIO	DIO x 6, GND x 2
Audio In/Out	3.5 mm earphone jack

Environmental

Operating Temp.	-10 ~ 60°C (14 ~ 140°F)
Operating Humidity	0 ~ 95% (at 60°C)
IP Rating	IP40 (TBD)

Qualification

Certification	BSMI, CE, FCC (TBD)
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Power Requirement

Power Input	DC in 12V/5A
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Mechanical

Button	Power Key x1, Reset Key x1 (Hidden)
Weight	TBD
Dimensions	Approx. 192 (L) x 128 (W) x 36 (H) mm

OS Support

Android 15, Yocto, Ubuntu 24.04 (TBD)

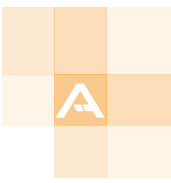
Highlights

AI performance & Low power/Fanless design	10 TOPs AI computing and low power consumption. High memory bandwidth and read/write speeds, Supports high-resolution video streams, pre-loaded AI models, edge LLM, and CNN computations.
Industrial communication interfaces	Supports industrial/automotive communication (CAN/RS485/USB...etc.), suitable for cross industry AI solutions.
Complete system and communication capabilities	Complete system (Android) and features Ethernet, WiFi, and BT connectivity.
Software highly integrated	Bundled with AI SDK and software tools to reduce customer development barriers.
High cost performance	Offers cost-effective solutions that do not require extreme computing power.

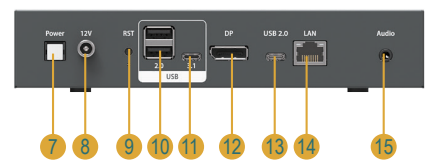
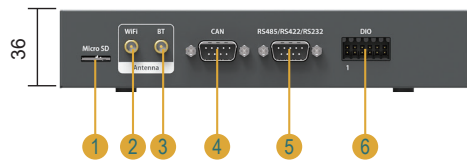
Application

Smart Guard Box	Identifies intrusion, fire, and fall incidents. Automatically generates alarm descriptions. Notifies homeowners/security personnel via natural voice. Home users can directly ask questions via voice, such as "Is my home safe now?"
Smart Retail Assistant	Automatically counts customer traffic and alerts customers to out-of-stock items. Automatically generates inventory lists and invoice records. Directly converts orders to "I want a bubble tea with less ice." Answers customers' questions like "What sizes are available for this dress?" Recommends products using a personalized voice.
AI Assistant	Automatically generates meeting minutes when speaking in meetings. Recognizes business card information. The assistant reminds customers of schedules using a gentle voice.
UAV (Drone)	Terrain Recognition, Path Planning, Obstacle Avoidance.

All specifications are subject to change without notice.



Dimension



Unit: mm

- | | | |
|---------------------|-------------------------|----------------------|
| 1 MicroSD Slot | 8 DC-IN (12V) | 15 3.5 mm Audio Jack |
| 2 Wi-Fi Antenna | 9 Reset (RST) | |
| 3 Bluetooth Antenna | 10 USB 2.0 Type-A | |
| 4 CAN Bus | 11 USB 3.1 Type-C | |
| 5 RS-485 | 12 DisplayPort (DP) | |
| 6 Digital I/O (DIO) | 13 USB 2.0 Type-C (ADB) | |
| 7 Power Switch | 14 Gigabit Ethernet | |