Integrated AI Face Recognition Smart Access Terminal AE138

A versatile hardware platform for building new generation of automated physical access controller, mini self-service kiosk and interactive IoT front-ends.



Features

Powerful quad-core SoC for running sophisticated applications like dynamic generated QR-code and multiple-factor authentication access control.

Large 8" display with touch screen for user interaction. Audio support with microphone and speaker enables voice assist interaction and inter-comm application.

Equipped with hardware QR-code scanner and standard compliant NFC / wireless card reader for implementing physical access control system, supporting both new and legacy forms for access token. UWB support for key-less door access with iPhones.

Built-in NPU to support range of face recognition algorithms on the edge device for standalone operation. High performance HDR sensor for capturing facial images and binocular (RGB and IR) camera to support living-body detection.

Wi-Fi and Ethernet connectivity to allow remote administration and centralized management of multiple devices. System watchdog timer to recover from system hangup caused by software failure.

Multiple IO interfaces for door lock control and system integration. Suitable for smart door access or mini-kiosk applications.



Specification

Processor	Rockchip RK3568 - Quad-core Cortex-A55 2GB LPDDR4 memory 32GB eMMC storage
GPU	Mali-G52 GPU Support OpenGL ES 1.1/2.0/3.2,OpenCL 2.0,Vulkan 1.1
NPU	NPU RK NN 1TOPS @INT8 Conversion tools RKNN-Toolkit to support mainstream model formats like Caffe, TensorFlow, ONNX, PyTorch
Display	8" 800x1200 IPS LCD Display G+G Capacitive Touch Screen Sensor
Camera	RGB+IR Binocular camera module - GC2053(IR)+GC2093(RGB) 1920x1080 2M pixel
Illumination	PWM controlled white light and IR LED for low-light environment
QR code reader	High speed hardware scanning engine Support common 1D, 2D barcode and QR code Support both on printing and code displayed on mobile phone screen
Contactless Card Reader	ISO/IEC 14443 Type A/B compliant Support NFC, Mifare, DESFire, Felica, Javacard, FM1208
Wiegand Input Port	For connection to Weigand card reader
Door Lock Controller Interface	Wiegand 26 / 34 Dry Contact (relay isolated) RS485
GPIO	Input port for push-button, door sensor or external alarm system Output port for alert to external alarm system
Network Connectivity	2.4G/5G Wi-Fi, 100/1000 Ethernet (on RJ45 port)
Other IO	Bluetooth 5.0, 2x USB 2.0, UWB
Audio	Built-in speaker and Microphone
Others	RTC with super-cap to maintain system time Watchdog Timer Chassis intrusion detector
OS	Debian Linux or Android 11
Power	12V 1A
Dimension	134mm (W) x 260mm (H) x 24mm (D) [excludes mounting kit]
Enclosure	Aluminum and ABS Plastics
Certification	CE, FCC



Installation Scenario







Mounting Kit





Ordering Information

Parts No.	Description
AE138	AE138 - Rockchip RK3568 – 2GB DDR 32GB eMMC – 8" IPS display
AS110	Standard mounting kit
AS111	Raised mounting kit
AS112	Angled mounting kit
S531	7-pin cable RS485 and USB OTG – 30cm
S532	24-pin cable full IO – 30cm
S533	10-pin cable – USB host (x2) and audio line out – 20cm
S534	2.5mm DC cable – 15cm

