Edge Video Analytics-Face Recognition

ITE-EVA-FR

AI-Based Face Recognition & System



The **EVA-FR** (Edge Video Analytics - Face Recognition) is an industrial-grade smart AI terminal engineered for high-performance multi-camera video analytics, face recognition, and real-time occupancy monitoring. Designed with an autonomous **edge-first processing engine,** the unit matches incoming camera feeds locally against a local database without transmitting sensitive video streams across external servers—delivering zero-latency verification, complete data privacy, and uncompromised continuous operation.

Capable of processing up to **8 simultaneous camera streams,** EVA-FR bridges local real-time edge intelligence with optional cloud/local server database synchronization for automated time-and-attendance, corporate access, multi-location campus tracking, and HSE emergency headcounts

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Key Features

- **Industrial Edge Device:** Ruggedized, ultra-compact hardware engineered for continuous 24/7 edge analytics and heavy-duty deployments.
- **Real-Time AI Processing:** Up to 8 camera channels; instant local multi-stream facial matching and vector extraction directly on the hardware.
- **Up to 8 Camera Channels:** Multi-channel architecture supporting up to 8 IP cameras across diverse monitoring zones.
- **Local-First Database:** Performs autonomous local matching with onboard SD card storage for offline event logging.
- **Optional Cloud / Server Sync:** Syncs transaction history and real-time attendance status to connected servers and live dashboards.
- **HSE Headcount & Status:** Tracks inside/outside occupancy levels and active headcount during emergency evacuations.
- **Live Analytics & Reports:** Centralized dashboard interface providing historical recognition logs, movement tracking, and attendance analytics

Functional Description

- Cameras at designated campus locations capture student facial images and movement.
- The Edge Video Analytics-Face Recognition performs face recognition against registered student records.
- Successful recognition records the corresponding student entry or exit event.
- Attendance and movement status are updated based on recognized events.
- The dashboard displays attendance records, student monitoring information, and recognition history.
- Historical recognition and attendance information supports operational review and reporting.

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Product Specifications

Parameter	Specification
AI Performance Engine	• 6-Core ARM Cortex-A78AE CPU • 1024 CUDA cores • 67 TOPS AI Performance
System Memory	8 GB 128-bit LPDDR5 (Up to 102 GB/s Bandwidth)
Video & Vision Analytics	Decode 2x 4K30 and 8 x 1080p30 ,H.265 video streams
Communication Protocol	RTSP
Networking	1* Rj45 Gigabit Ethernet
Power Supply Input	Input 110 /230 VAC, Output DC Power Jack (12-19v)
Thermal Management	Input 110 /230 VAC, Output DC Power Jack (12-19v) Integrated Industrial Heatsink with Active PWM Fan Control
Enclosure Type	Metal/ Aluminium

Product Selection

MODEL	COMMUNICATION	DESCRIPTION	DIMENSIONS (W*H*L)mm
ITE-EVA-FR	Ethernet	Edge Video Analytics-Face Recognition	W103xH50XL145

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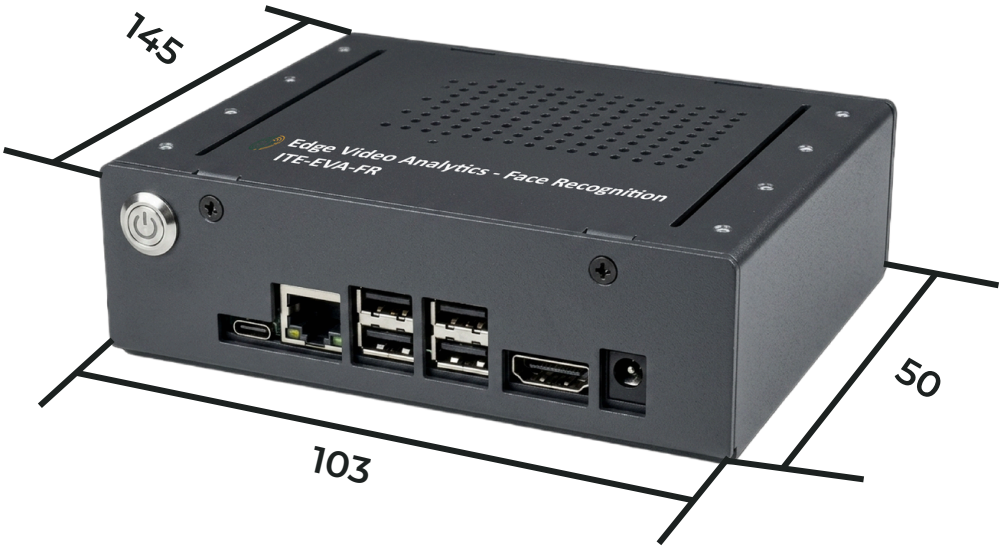
Product Dimensions



Architecture Diagram



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Applications

Corporate & Industrial Attendance

- **Touchless Multi-Stream Clocking:** Monitors employee movement across key access entry points simultaneously without requiring single-file queuing.
- **Local-to-Cloud HR Push:** Stores logs locally on the device during network drops and automatically syncs timestamped entry/exit events to central enterprise systems upon reconnection.

Schools, Colleges & Campuses

- **Automated Multi-Location Roll Call:** Registers student entry/exit across entrance gates, classroom blocks, libraries, and laboratories automatically.
- **Hostel & Access Point Monitoring:** Monitors perimeter gates and hostel access zones to ensure complete visibility over authorized access.
- **Live Student Inside/Outside Status:** Monitors perimeter gates and hostel access zones to ensure complete visibility over authorized access.

HSE (Health, Safety, & Environment) & Emergency Evacuation

- **Real-Time "People Left-Out" Count:** Continuously monitors zone activity and calculates live occupancy numbers to identify missing or unaccounted personnel during emergency evacuations.
- **Mustering Point Verification:** Confirms individuals who have safely arrived at assembly zones and generates precise missing-person logs for emergency teams

Calibration

This product is factory calibrated.

Warranty

1 Year warranty

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Revision History

REV NO.	DATE	NO. OF PAGES	PREPARED BY	REVIEWED BY	APPROVED BY
00	04-08-26	06	RK	CT	AX

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