RAM™
ROSA Accessory Module

RAD an AITX company

WARNING

AUTONOMOUS SECURITY

TURN EXISTING CAMERAS INTO AI-DRIVEN DEVICES WITH DETECTION, LED ALERTS, AUDIO DETERRENCE, AND AUTONOMOUS ESCALATION.

MANUFACTURED IN AMERICA

Security That's Smarter, Faster, And Always On Duty.

Growing Security Challenges

Organizations are facing rising threats inside facilities, including unauthorized access, after-hours movement, and internal theft. Traditional indoor camera systems record activity but rarely intervene in real time.

RAM is designed to change that. Built by Robotic Assistance Devices, Inc. (RAD), RAM transforms existing fixed indoor cameras into active security devices that detect, deter, and escalate without requiring hardware replacement.

By adding edge-based intelligence, two-way audio, and autonomous response, RAM strengthens indoor security operations and enhances the value of existing infrastructure.

Autonomous Deterrence

RAM brings ROSA-style capabilities to indoor environments by adding AI-driven awareness, voice deterrence, and real-time alerting to nearly any IP camera.

AI-powered autonomous response instantly identifies unwanted behavior and triggers intervention.

- Immediate audio warnings delivered through the integrated speaker
- Dynamic LED messaging for clear on-site deterrence
- Two-way audio for engagement when intervention is required
- Operates with existing camera views and VMS infrastructure
- Self-diagnostics maintain performance and uptime

RAM doesn't just document incidents. It acts, delivering real-time voice and visual deterrents so responses begin the moment an anomaly occurs.

Autonomous Escalation

SARA Agentic AI takes over when deterrence isn't enough. Built to manage escalation workflows, SARA autonomously notifies security teams, activates additional responses, and accelerates incident resolution.

This includes initiating outbound calls, contacting security personnel, or coordinating next-step actions when every second counts.

Inline Intelligence

RAM adds intelligence directly into existing camera deployments, enabling real-time detection, deterrence, and escalation without requiring new IP cameras or additional infrastructure.

Its onboard processing supports fast decision-making at the edge, allowing RAM to deliver autonomous responses the moment an event occurs.

This reduces load on monitoring teams, enhances security coverage, and upgrades legacy systems with modern AI capability.

Seriously Powerful

AI-Driven Surveillance
Enhances fixed indoor cameras with real-time detection and security awareness.

Intelligent Detection
Identifies human presence and high-risk behavior with rapid response triggers.

Autonomous Intelligent Response
Automatically reacts to unwanted activities such as unauthorized access and loitering.

Real-Time Audio Deterrent
Activates spoken warnings and supports two-way engagement.

Real-Time Visual Deterrent
Customizable digital LED messaging provides clear alerts and visual intervention.

Command and Control
Delivers real-time alerts and integrates with multi-unit indoor deployments.

SARA™ Agentic AI
Removes reliance on manual monitoring by autonomously detecting and responding to threats.

AI-Driven Detection

RAM uses RAD AI analytics to understand activity inside your facility in real time so it can deliver the right response when your rules are met. Each analytic focuses on people, behaviors, and potential threats, processed at the edge on RAM and managed through RADSOC.

Human Detection

RAM detects people entering monitored indoor zones, moving through restricted spaces, or remaining longer than allowed. It's tuned for scenarios such as unauthorized access, after-hours activity, and sensitive-area monitoring.

Zones and schedules are set in RADSOC. When conditions are met, RAM triggers audio warnings, LED messaging, and alerts with video context.

Perimeter Intrusion (Indoor Zones)

RAM monitors defined boundaries such as employee-only areas, secure rooms, doors, and corridors. It detects when a person crosses a virtual boundary or enters a restricted area without authorization.

This strengthens access control and reduces reliance on manual monitoring. When an intrusion occurs, RAM provides visual and audio deterrents and notifies security through RADSOC.

Loitering Detection

RAM detects when someone remains in a monitored zone beyond your set threshold. This helps identify suspicious behavior or potential theft before it escalates.

When loitering criteria are met, RAM triggers autonomous deterrence and alerts operators with video context for quick assessment.

Firearm Detection

RAM supports object-focused analytics for enhanced safety and threat escalation. If a firearm is detected within a camera's field of view, RAM immediately escalates the event to SARA for prioritized handling.

Events are logged with time, location, and video to support both immediate response and post-incident review.
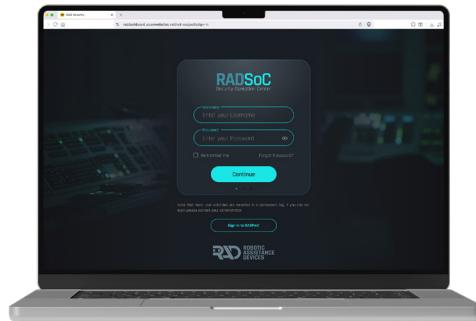
RADSOC *Management Software*

Edge AI + RADSOC Management

RAM detects events and triggers first response at the edge, ensuring fast action even when network conditions vary. RADSOC connects RAM, SARA, and other RAD devices into a unified workspace for monitoring and control.

Inside RADSOC, operators can:
- Tune detection rules and schedules
- Adjust deterrent actions and LED messages
- Monitor device health and connectivity
- Review event clips and logs
- Coordinate multi-device escalation with SARA

When SARA Agentic AI is enabled, RAM becomes part of a larger incident-orchestration workflow. If a situation escalates, SARA initiates notifications and outbound calls without delay.

Communication & Deterrence

RAM includes an integrated speaker and LED display that turn indoor cameras into active communication points. During events, RAM can speak, warn, or display clear visual alerts.

LED messaging is optimized for visibility inside hallways, lobbies, storage rooms, and controlled spaces. Operators manage and update message libraries in RADSOC and can push updates to individual devices or entire sites in seconds.

When RAM's detection rules are met, it triggers voice prompts and on-screen messaging to influence behavior and deter unauthorized activity. Operators can also step in from RADSOC to coordinate responses or issue custom instructions.

FRONT VIEW

WARNING

Customizable LED Messaging
Clear Text Alerts Triggered by Analytics

Integrated Speaker
Real-Time Voice Prompts and Warnings

TOP VIEW

Built-In Microphone
Two-Way Audio for Paging and Intercom

PoE Powered Unit
Ethernet (RJ45)
PoE Power + Network to RAM

PoE Camera Input
Ethernet (RJ45)
ONVIF Profile S IP Camera Ingest
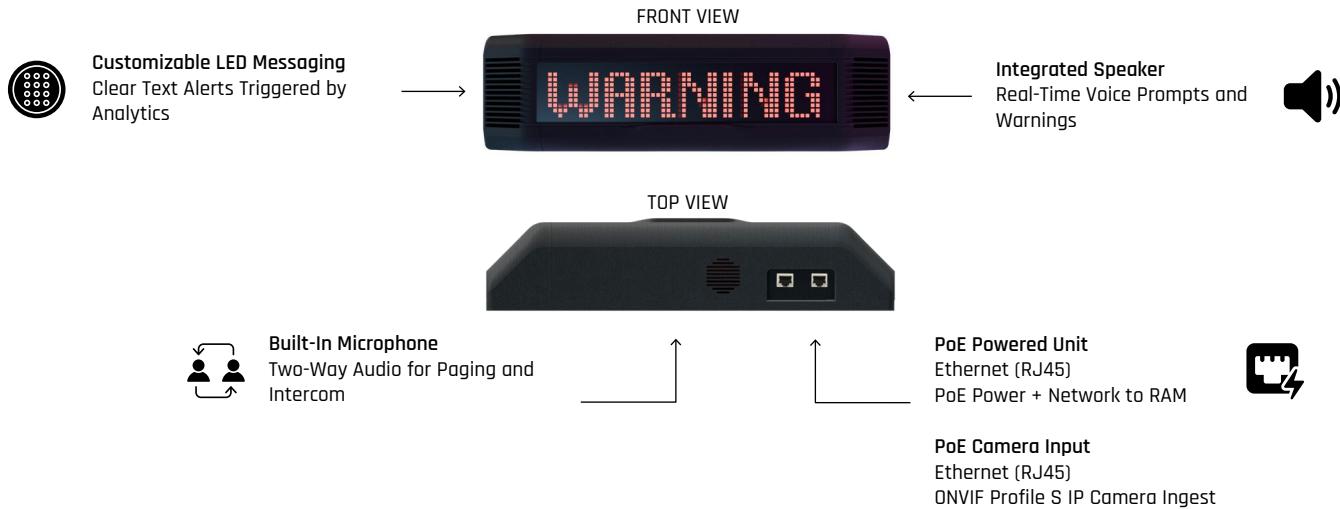
RAM Technical Specifications

Model	RAM (ROSA Accessory Module)
	Inline module for IP cameras
Horizontal FOV	Camera Dependent

Environmental

Operating Temperature	Indoor Use Only
Humidity	0% to 90% (Non-Condensing)

Audio Communication

Speaker	60–65 dB at 3 ft (0.9 m) Voice Prompts for Deterrence
Microphone	10 ft Range (3 m), Noise Reduced Optimized for Two-Way Audio

Mechanical

Weight	4.5 lb (2.04 kg)	
Dimensions	Width 17.72 in (450 mm)	
	Height 5.02 in (127.5 mm)	
	Depth 3.20 in (81.2 mm)	

Display

Panel FOV	12.97 × 3.06 in (329.5 × 77.8 mm)
Main Display	Dynamic LED Messaging
Ribbon Lights	Not Applicable

Electrical

Auxiliary Power	48–53 V PoE (60 W Required)
Current	Max 2.4 A
Battery	Approx. 3 Hours Runtime

System

Main Processing Unit	Raspberry Pi, Model B
Video Processing Unit	Dependent on Camera
Detections Storage	Cloud via RADSOC 1 Year

Connectivity

Type	PoE Network Connection
Speed	Network Dependent

SARA Agentic AI
Security Incident Response Orchestration
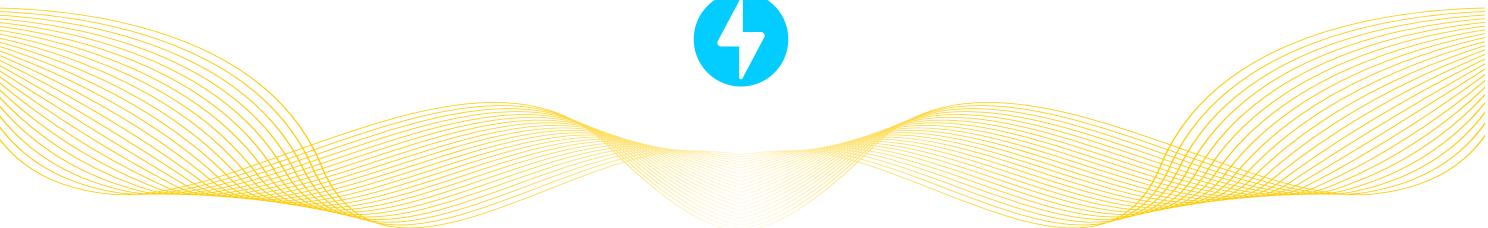
Detection	Verification	Deterrence	Escalation	Response	Resolution
Immediate threat detection, through AI-driven analytics.	SARA Agentic AI verifies alerts in real-time.	Autonomous audio and visual pushback to deter intruders.	SARA Agentic AI escalates incidents to responders.	Responders receive scene updates and direction.	Incident reports are generated instantly.
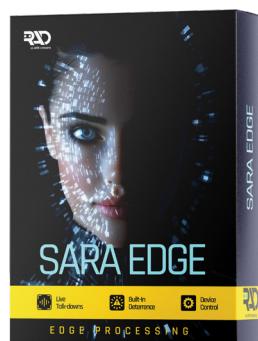
Real-Time Security, Orchestrated By SARA

SARA works with RAM to deliver fast, consistent incident response using the cameras already on site. RAM provides on-device detection and deterrence, while SARA manages verification, escalation, and communication across your environment.

By connecting RAM and other RAD devices into one orchestration layer, SARA reduces noise alerts and speeds up decision-making so every incident is handled quickly and consistently.

Full Incident Management

RAM extends SARA's orchestration to existing camera systems by adding detection, deterrence, and communication at the edge. SARA verifies events in real time, initiates voice-downs or outbound calls, and routes notifications to the right responders.

RAM's LED messaging, audio prompts, and camera-integrated analytics allow SARA to manage incidents from detection through documentation without requiring new surveillance hardware. Every event is time-stamped and recorded so teams can see exactly what happened and how it was resolved.

This integration can be enabled across a single site or scaled to many, giving organizations a simple path to modern, autonomous incident response.

See RAM And SARA In Action

Watch how RAM transforms passive cameras into active responders while SARA drives escalation, notification, and incident documentation in real time.

ROBOTIC ASSISTANCE DEVICES
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