

Smarter Surveillance. Safer Facilities. Proactive Worker Protection.

Factory Monitoring and Video Surveillance Solution with On-prem Edge AI

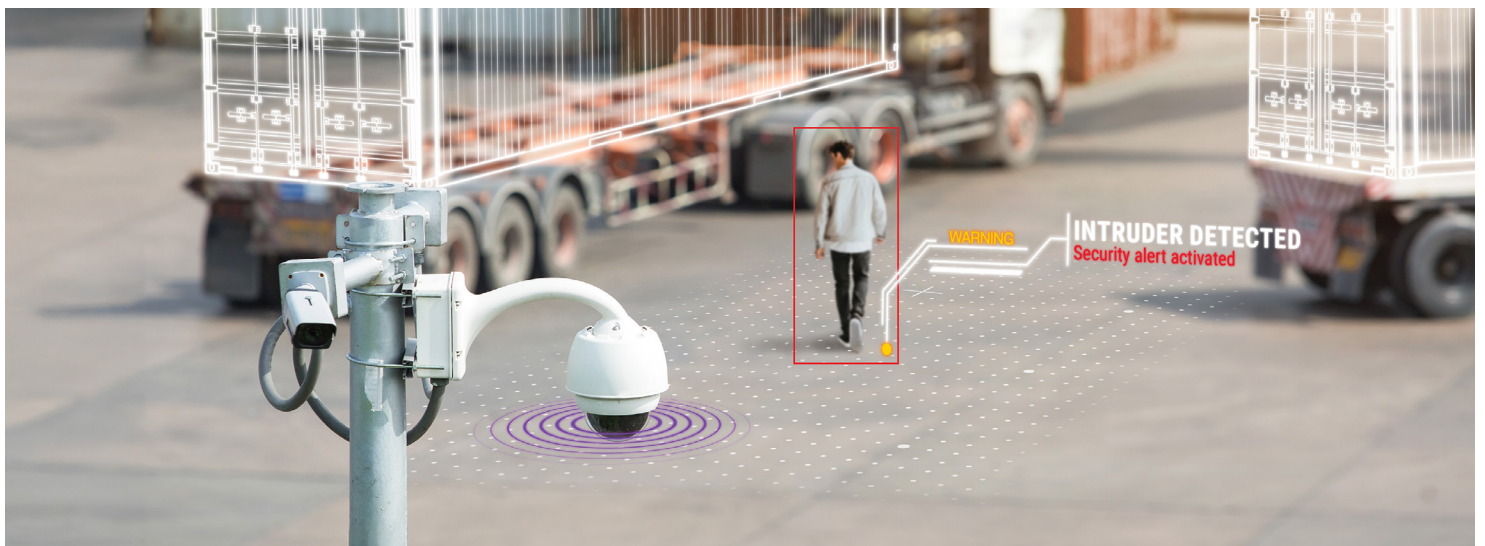
A safe and efficient factory environment requires constant visibility of the entire premises, real-time decision-making, and proactive measures to support worker safety. Any delay in detecting incidents or safety violations can critically jeopardize worker safety and lead to site damage, increasing downtime. Legacy surveillance systems have limited scope as they don't provide real-time alerts and are manually intensive.

Factories need more than just passive monitoring; they require a system that actively identifies safety issues, sending real-time alerts to enable rapid response.

AI-powered Worker Safety and Video Surveillance Solutions

Qualcomm Technologies' video surveillance solution enhances worker safety and efficiency with on-device generative AI, delivering real-time insights and predictive alerts. It uses Qualcomm® Edge AI Boxes with IP cameras or deploys AI-enabled cameras for intelligent event detection. The solution identifies PPE violations, proximity to hazardous equipment, zonal breaches, and weapon threats. The system triggers alarms, sends announcements, and alerts security or police instantly.

All AI processing happens on-device, ensuring low latency and faster response. The Qualcomm® Generative-AI command center supports natural language queries, retrieves snapshots or video footage, and generates reports, accelerating investigations and decision-making.



Benefits

- **Real-time Safety Alerts:** Low-latency, on-device AI instantly detects missing PPE, unsafe behavior, and restricted zone entry
- **Reduced Operational Costs:** Smart video surveillance system reduces manual monitoring and time searching for past incidents
- **Accident Prevention:** Early threat detection and reporting help identify weapons, crowding, or line crossing before they escalate
- **Faster Investigations:** Natural language and metadata-based search enable rapid identification of people, vehicles, or events
- **Security-focused:** On-premise processing ensures sensitive footage remains stored close to the source

Use Cases

- **Industrial Manufacturing:** Monitor worker compliance, detect hazards, and reduce downtime
- **Warehouses and Logistics:** Track people and vehicle movement with real-time alerts
- **Energy and Utility Sites:** Monitor perimeter access and safety violations in remote environments
- **Construction Zones:** Detect PPE breaches and track onsite personnel
- **High-security Facilities:** Identify threats and log entry/exit activity

Powered by Qualcomm® technology

At the heart of this solution are our advanced chipsets and AI frameworks:

- **Dragonwing Platform:** A family of low-power, high-performance system-on-chips (SoCs) designed specifically for edge AI inference in embedded and industrial environments
- **Edge Impulse Platform:** Easily connects developers to tools for training, deploying, and managing custom AI models at the edge, accelerating solution development and reducing complexity
- **Qualcomm® Intelligent Video Suite:** Supports real-time facial recognition, object detection, and behavior analytics for situational awareness

Ready to Transform Your Frontline?

Bring real-time intelligence to every camera and safety insight to every second.

Get in touch to learn more and get started

