

# Smart 360° Patrolling for Factories

## ASRock Industrial's iEP-7020E Series elevates smart 360° patrolling in factories



Safety and security are mission-critical objectives within industrial manufacturing factories but pose challenges to manage effectively. ASRock Industrial iEP-7020E Series Industrial IoT Controller powers Smart 360° patrolling in factories, enabling factories to reduce the cost of security monitoring and increase operational efficiency with AI remote management.

The controller is powered by 13<sup>th</sup> Gen Intel® Core™ mobile processors which optimize performance, efficiency, and flexibility on a hybrid architecture. ASRock Industrial also leverages Intel® Edge Insights for Vision and the Intel® Distribution of OpenVINO™ toolkit to optimize AI inference and enable real-time image analysis. By connecting ASPEED Cupola360 cameras through PoE LAN, this intelligent system can capture comprehensive on-site images and ensure employees safety, with instant playback on HMI and remote manageability via NavCore V-SCADA Smart Monitoring Solution.

### About ASRock Industrial

ASRock Industrial is a leading provider of edge computers and industrial motherboards. Our vision is to co-create an intelligent world with vertical applications in CARES (Commerce, Automation Robot, Entertainment, Security) industries. ASRock Industrial works with systems integrators and independent software vendors to provide high-performance and flexible total solutions.

### Smart 360° solution partners



### Streamlined, AI-based security monitoring and management

The iEP-7020E Series Industrial IoT Controller is ideally suited to enable AI-based security monitoring across smart manufacturing, smart city, and more.

**Real-Time Monitoring:** The iEP-7020E Series elevates monitoring solutions by connecting ASPEED Cupola360 cameras through PoE LAN to capture real-time images, with remote management through NavCore V-SCADA Smart Monitoring Solution.

**AI Vision and Control:** The controller is also capable of powering real-time robotic control with integration of AI vision and control capabilities, instantly displaying robot status to the control center for remote management.

## iEP-7020E Series key features unlock business value

**Achieves optimized performance and scalability** by leveraging 13<sup>th</sup> Gen Intel<sup>®</sup> Core™ Processors.

**Ensures intelligent and reliable control at the edge** with Intel<sup>®</sup> Iris<sup>®</sup> Xe graphics and In-Band ECC support.

**Enables rich I/O flexibility and real-time computing** with Intel<sup>®</sup> TCC and TSN, connecting edge devices seamlessly.

**Real-time AI computing capability** utilizing Intel<sup>®</sup> Edge Insights for Vision or the Intel<sup>®</sup> Distribution of OpenVINO™ toolkit to perform AI inference for accurate object detection.

**Captures comprehensive on-site images** by connecting ASPEED Cupola360 cameras through PoE LAN.

**Remote control management** with NavCore V-SCADA Smart Monitoring Solution via 4G/5G/Wi-Fi 6E connections.

**Enables real-time robotic control** through EtherCAT-connected robotic arms with Intel<sup>®</sup> Edge Controls for Industrial.

**Rugged design for Industrial usages** with its fan-less, wide range operating temperature (-40°C to 70°C) and robust power design of 9-36VDC power inputs.

### Intel Ingredients

 **13<sup>th</sup> Gen Intel<sup>®</sup> Core™ Processors**

Powerful computing power with performance hybrid architecture, Intel<sup>®</sup> Iris<sup>®</sup> Xe Graphics for fast AI, real-time computing with TSN, TCC.

 **Intel<sup>®</sup> Distribution of OpenVINO™ toolkit**

Supports 13<sup>th</sup> Gen Intel<sup>®</sup> Core™ processors with optimized AI performance and deep learning for applications like Machine Vision and AI Process Control.

 **Edge Computing Software**

Flexible, open edge software optimized for Intel hardware, including [Intel<sup>®</sup> Edge Controls for Industrial](#), [Edge Insights for Vision](#), and [Intel<sup>®</sup> Robotics SDK](#).

### Learn More

- [Intel<sup>®</sup> Foundational Developer Kits for IoT](#)
- [ASRock Industrial - iEP-7020E Series](#)
- [Smart 360° Patrolling & Surveillance in Factory](#)

**Intel<sup>®</sup> Foundational Developer Kits** allow you to get started on your targeted application development with a superior out-of-the-box experience. Deploy your application at scale by building customized systems via Intel ecosystem partners.



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