# Enhancing Productivity and Product Quality Through Advantech's Smart Camera Solution



# GEN**<i>**CAM

ADIANTECH

Advantech ICAM-7000 series is a fully integrated compact vision system that has been specifically designed for industrial automation. Packaged complete with application software (EzBuilder) embedded, ICAM-7000 provides an easy-to-use automated inspection system for the factory floor. ICAM-7000 vision systems are configured and monitored remotely using an Ethernet connection to a PC or factory network. An inspection can be quickly setup using a web browser. The software interface is fully equipped with a suite of vision tools and capabilities that satisfy a range of inspection needs, from positioning, identification and measuring, to verification and flaw detection.



#### Smart Camera ICAM-7000

- Up to 5.0MP resolution with advanced image preprocessing (e.g. white balance, color debayering, and denosing)
- IP67 rating ultra small form factor (93 x 63 x 40.5 mm)
  High performance multi-core processor and FPGA
- heterogeneous computing



#### Machine Vision Application Softwares WebAccess/EzBuilder

- Intuitive GUI that does not require programming skills
- Cross-platform support, compatible with embedded systems and smart cameras
- Complies with the GenlCam Standard, supports GigE Vision industrial cameras

#### **Advantech Headquarters**

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**Enabling an Intelligent Planet** 

## **Smart Camera ICAM-7000**



Hardware Specification			
Image Sensor	1.2MP@54fps, Global Shutter, C-mount , Monochrone/Color 2.0MP@60fps, Global Shutter, C-mount , Monochrone/Color 5.0MP@14fps, Global Shutter, C-mount , Monochrone/Color	Sensor Size	1.2MP (AR0134) : 1/3" 2.0MP (EV76C570) : 1/1.8" 5.0MP (MT9P031) : 1/2.5"
Processor	INTEL E3930, Cyclone V 5CGTD5	RAM/Storage	4GB LPDDR4 (Single Channel) /32G eMMC
Display	DP (USB Type C Connector)	LAN/Serial Port	1 x 1000BASE- , 1 x RS232/422/485
USB	USB 2.0 (USB Type C Connector)	Synchronization	Hardware Trigger / Software Trigger / Free-run
Digital I/O	2 x Isolated Inputs, 2 x Isolated Outputs	Lighting Control	PWM x 1
Power Input	12-24VDC	Dimensions	95mm (W) x 63mm (H) x 40.5mm (D)
Environment/ Certification	0-50° C, 5Grms, CE/FCC Class A /KCC, IP67	Software	OS: Windows 10 IoT APP: EzBuilder HTML 5

### **Machine Vision Application Softwares** WebAccess/EzBuilder



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#### **Intuitive GUI**

 Intuitive flowchart-based methodology that enables easily and quickly building and deploying machine vision applications without requiring any programming skills

#### **Optical Character Recognition**

• Full support for text rotation (360 degrees) can learn character databases from one or multiple TrueType font files

#### 1D and 2D Code

• Decodes 1D bar code, 2D data matrix code and, QR codes, all versions, all levels error detection and correction rotation and flipping invariant

#### EzBuilder





#### **Flexible Licensing Options**

 Application-oriented licensing options expedites time to market cost-effective solution

#### Alignment

 Convolution and morphology geometric transformation high dynamic range image fusion rotation and scaling support



#### **Order Information**

#### **Smart Camera**

- ICAM-7100 1.2MP Mono Smart Camera
- ICAM-7200 2.0MP Mono Smart Camera
- ICAM-7500 5.0MP Mono Smart Camera
- ICAM-7210 2.0MP Color Smart Camera
- ICAM-7510 5.0MP Color Smart Camera

• ICAM-7110 1.2MP Color Smart Camera

#### **Solution Ready Smart Camera**

- ICAM-7100-I 1.2MP Mono Smart Camera for Traceability Application
- ICAM-7100-A 1.2MP Mono Smart Camera for Vision Guidance and Pattern Match Application