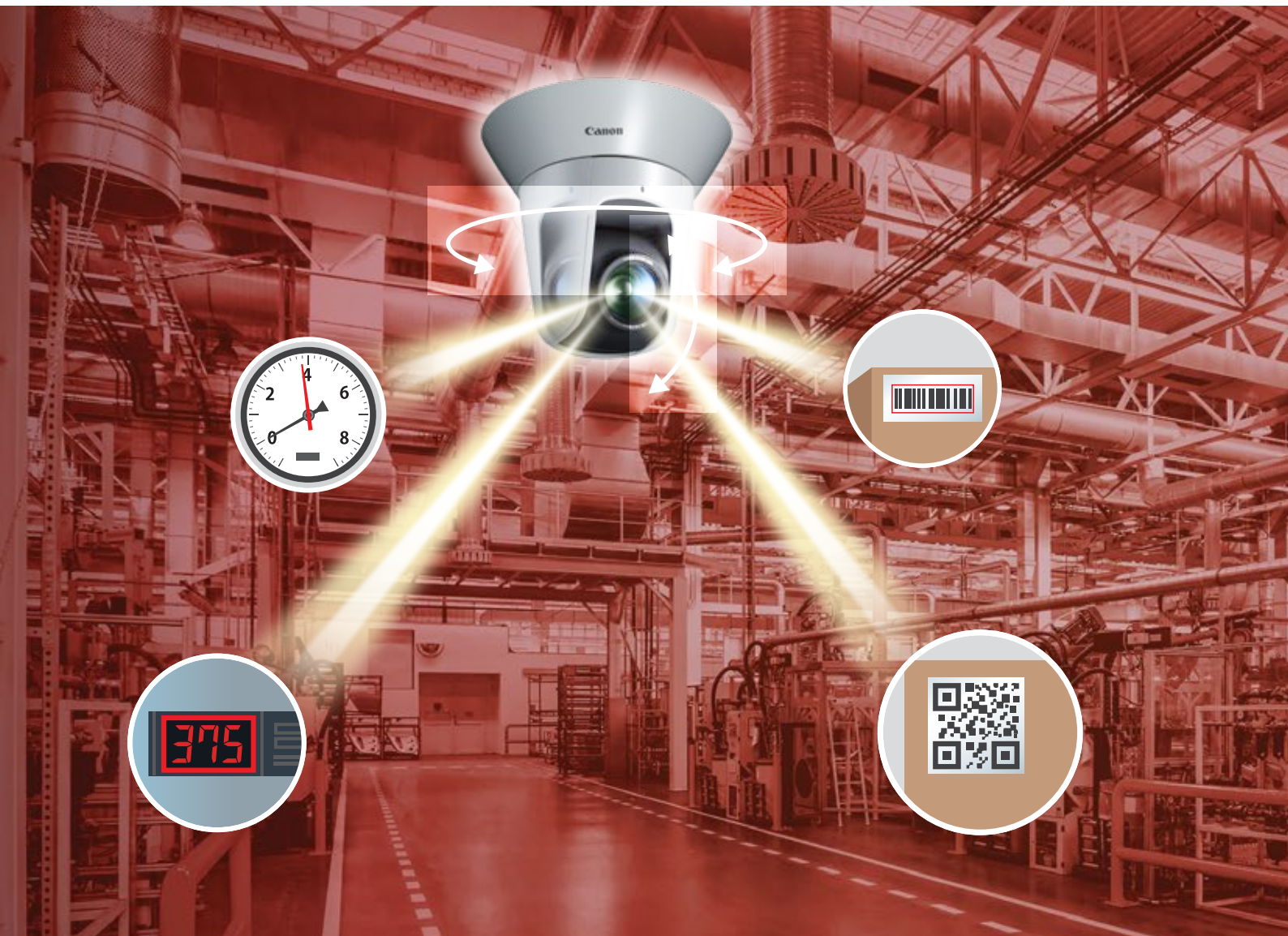


**CANON INDUSTRIAL IMAGING PLATFORM**

**Vision Edition**



**Canon's unsurpassed heritage in imaging technology provides visualisation in our new platform for industrial applications**

**Vision Edition Handles Routine Work For You**



**Automates Image Inspection**

Enables image inspection using network cameras

Multiple locations can be filmed with a single camera using the network camera's PTZ functionality. The mechanisation of visual inspection work offers benefits including lower defect rates, shortened working hours, and consistency in judgement criteria.

Lowers defect rates

Shortens work time

Standardises criteria

Detects

Free yourself from **SIMPLE TASKS**

+

Free yourself from **VISUAL INSPECTIONS**

=

**ALLOCATE PERSONNEL BETTER and VISUALIZE PROBLEMS**

Note: IPC is a product of Siemens AG



**Key Features of Vision Edition**

**1 Only require one time setting of camera position**

**Before**

Preparations required for camera and lighting settings for each subject.

- Camera positioning
- Lens selection
- Brightness selection/adjustment

➔

**With Vision Edition**

The fixed camera will capture images and adjust with its Auto-Focus (AF), Auto-Exposure (AE) and Pan-Tilt-Zoom (PTZ) functions.

- AF/AE
- ZOOM
- PTZ function integrated with lens
- Simplified lighting adjustment using AE

**2 User-friendly flowchart allows easy configuration for anyone**

**Before**

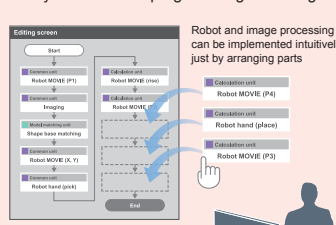
Additional skillset like special programming languages is needed to create the workflow process.

- Create robot program
- Create PLC program
- Create image processing program

➔

**With Vision Edition**

Embedded flowchart template can be set up easily even without programming knowledge.

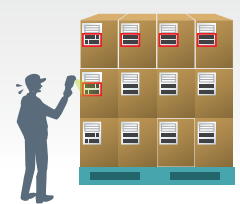


Robot and image processing can be implemented intuitively just by arranging parts

**3 Automate inspection process to minimise human error and streamline work process**

**Before**

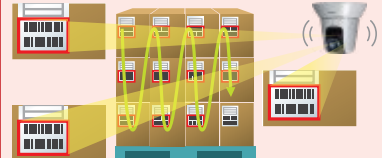
Inspection work is done manually (one by one) which is time consuming and increase possibility of human error.



➔

**With Vision Edition**

PTZ camera is able to detect the image automatically and read multiple images in an orderly manner with output values. Thus increases productivity and minimises error.

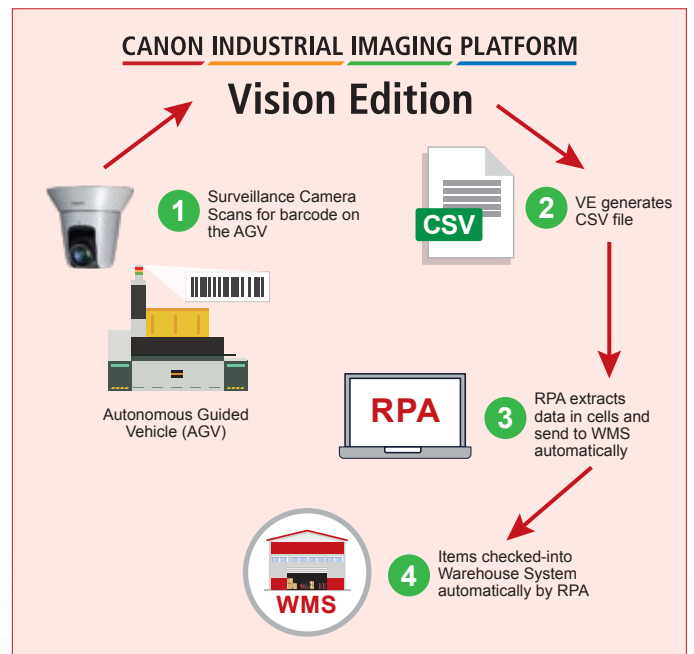


\*The automatic barcode detection and multiple reading functions are only available with network cameras that have the Canon PTZ function. AXIS cameras are not supported for these functions.

**4 Automate the data entry for better accuracy and increased productivity**

To provide an end-to-end platform for automation, data entry can be automated with Robotic Process Automation (RPA). RPA is the technology that allows anyone today to configure a "robot" to emulate and integrate the actions of a human interacting within digital systems to execute a business process.

In this instance, the final process of data entry is integrated with RPA Software to send raw data captured by network camera automatically into Warehouse Management System. This will reduce the mundane data entry process.



**RPA Capabilities**



**Automated Data Entry**



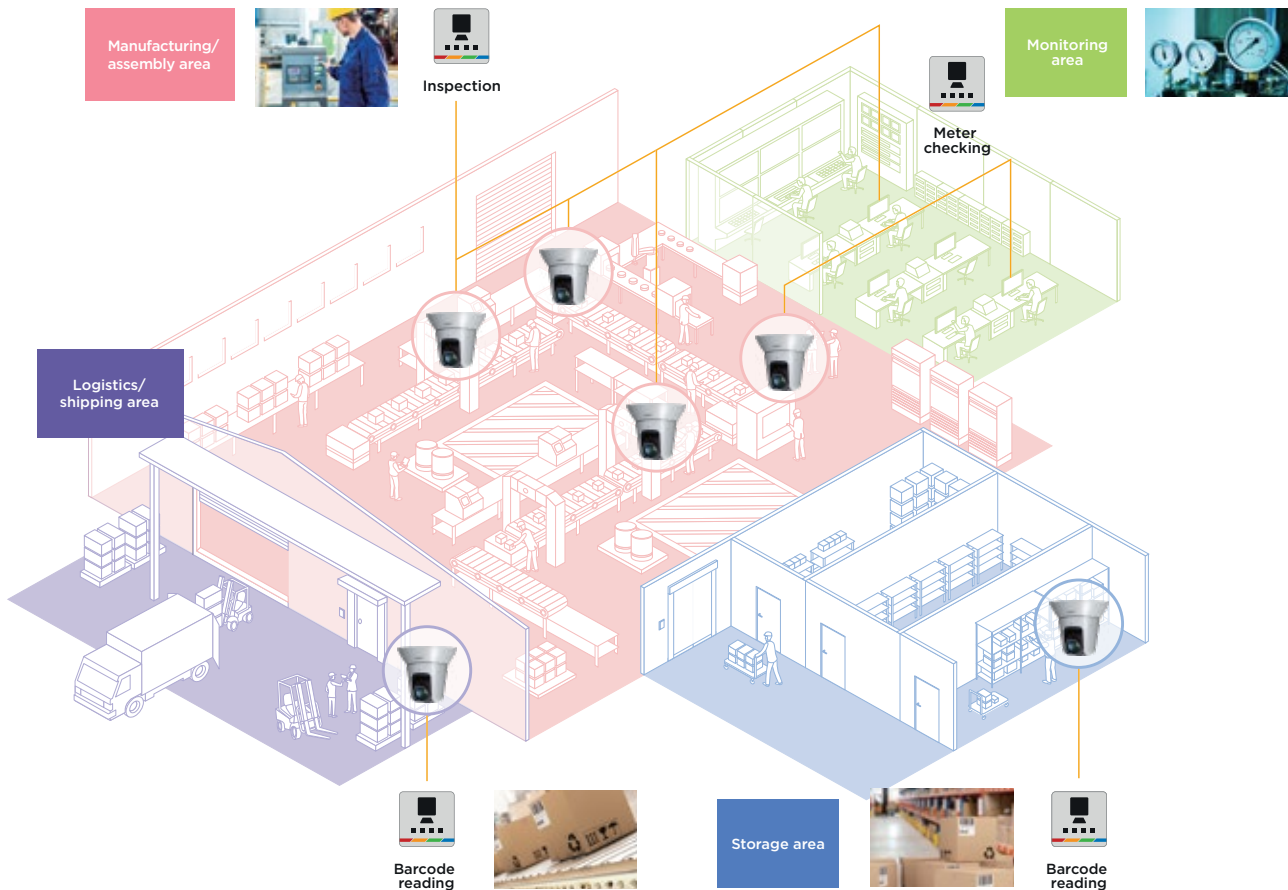
**Multi-system Integration**



**Repetitive Task**

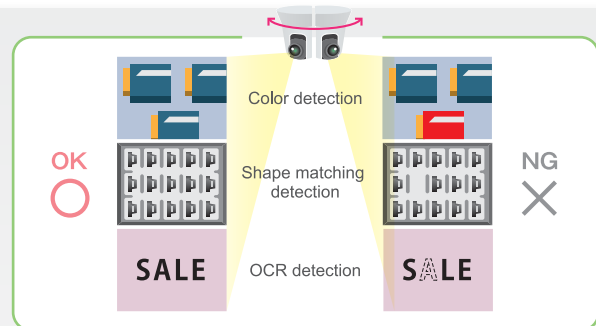


**Cameras and software are seamlessly integrated within various departments for total solution.**

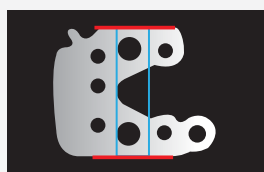


**Various Method of Detection**

Vision Edition features a variety of units including color discrimination, shape matching, and number identification. When detecting whether or not workpieces, printed logos, and other objects are present, it uses a variety of methods according to circumstances.



**18 Types of "Image Processing Units"**



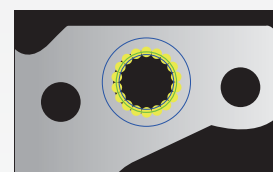
**Edge Detection**



**Blob Detection**



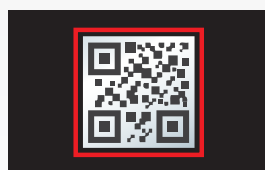
**Area Detection**



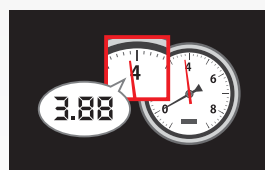
**Circle Detection**



**1D Code Reader**



**2D Code Reader**



**Analog Meter Readout**



**Number Recognition**

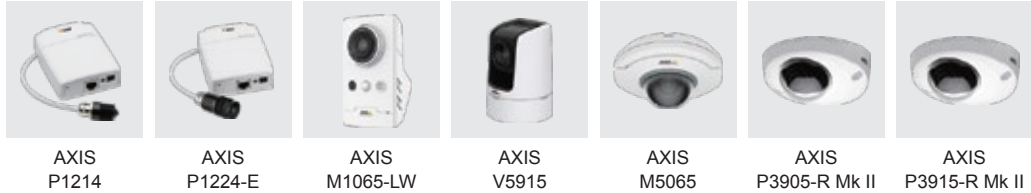
- Shading Test • Edge Position • Arc Edge • Approximate Straight Edge • Angle Detection • Oval Detection
- Color Detection • Text Recognition • Circular Text Recognition • 7-segment Number Recognition

# Network Cameras that support Vision Edition

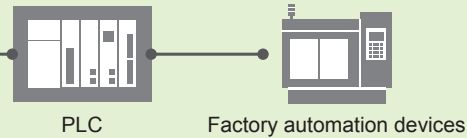
**Canon**



**AXIS COMMUNICATIONS**



**SIMATIC IPC427E**  
 Note: IPC is a product of Siemens.  
**CANON INDUSTRIAL IMAGING PLATFORM**  
**Vision Edition**



## TECHNICAL SPECIFICATIONS

Supported camera	Manufacturer	Camera	Type	Optical zoom	Pan/tilt	Resolution
Canon		N10-W02	—	none	none	1920×1080
		VB-S30D/VB-S30D Mk II	Indoor dome/micro	3.5x	350°/90°	1920×1080
		VB-S30VE	Outdoor dome/micro	3.5x	350°/90°	1920×1080
		VB-R13VE	Outdoor panning	30x	360°/180°	1920×1080
		VB-R13	Indoor panning	30x	360°/180°	1920×1080
		VB-H45	Indoor PTZ/standard	20x	340°/110°	1920×1080
		VB-S910F	Indoor box/micro	3.5x	none	1920×1080
Axis		P1214	Separate head/micro	none	none	1280×720
		P1224-E	Separate head/micro wide-angle	none	none	1280×720
		M1065-LW	Wireless/micro	none	none	1920×1080
		M5065	Outdoor dome/micro	5x	3580°/90°	1920×1080
		V5915	Indoor PTZ/standard	30x	340°/110°	1920×1080
		P3905-R Mk II	Outdoor dome/micro	none	none	1920×1080
		P3915-R Mk II	Outdoor dome/micro	none	none	1920×1080

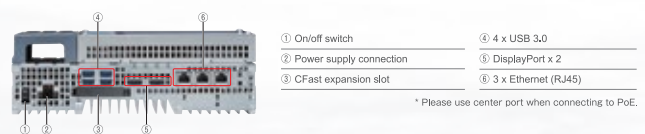
  

<b>Simultaneous camera connections</b>	Up to 4 cameras per flowchart
<b>Camera units</b>	Imaging, network camera position, network camera movement correction, grid PTZ
<b>Branch processing units</b>	Branch processing, multiple branching conditions
<b>Image processing units</b>	Density inspection, area, edge position, edge width, partial annular edge, approximate straight line edge, angle detection, circle detection, ellipse detection, blob detection, ID code reader, 2D code reader, number recognition, character recognition, analog meter reading, color discrimination
<b>Model matching unit</b>	NCC matching, Shape matching
<b>Robot operation units</b>	Robot movement, robot movement correction, robot palletizing, robot hand, robot I/O
<b>Calculation units</b>	Four basic calculations, angle calculations, multiple branching conditions calculation, maximum value/minimum value, numerical formula calculations, output value statistical, two straight line intersection, two point calculation
<b>Supported PLC</b>	PLC that supports SLMIP transmissions (OnA compatible 3E frame) (Mitsubishi Electric, etc.) PLC that supports Open User Communication transmissions (Siemens)

Note: Product specifications are subject to change without notice. For the newest information, please see the Canon website listed on the back of this catalog

## SIMATIC IPC427E

<b>Series</b>	IPC427E	
<b>Hardware</b>		
<b>CPU</b>	Intel Xeon E3-1505L v5 (4C/8T, 2.0 (2.8) GHz, 8 MB cache, iAMT)	
<b>Chipset</b>	Intel CM236	
<b>Main memory</b>	Supported chip	DDR4 SO-DIMM
	ECC	None (option available)
	Capacity	4 GB
<b>Internal drive</b>	SSD	128 GB SATA
<b>Expansion slot</b>	PCI	PCIe x4, 1 slot
	PCIe	PCIe x4, 1 slot
<b>Interface</b>	Network	Gigabit 3 x Ethernet (RJ45)
	USB port	4 x USB 3.0
	Audio	none
<b>Keyboard</b>	USB connection	
<b>Mouse</b>	USB connection	
<b>Graphics</b>	Port number/shape	DisplayPort x 2
	Graphic controller	Intel® HD Graphics P530
<b>Power supply</b>	DC 24 V	
<b>Maximum power consumption</b>	64.8W	
<b>Dimensions (B × H × T, mm)</b>	262 × 133 × 85.5	
<b>Weight</b>	Approx. 2.5 kg	
<b>Enclosure</b>	Corrosion resistant full metal enclosure	
<b>OS</b>	Windows Embedded Standard 7 E-SP1, English, 64bit	
<b>Climatic conditions</b>		
<b>Protection grade</b>	IP20, IEC60529	
<b>Protection class</b>	protection class I, IEC61140	
<b>Vibration resistance</b>	When operating	5 to 9 Hz: 3.5 mm, 9 to 500 Hz: 9.8 m/s <sup>2</sup>
	Storage/shipment	5 to 9 Hz: 3.5 mm, 9 to 500 Hz: 9.8 m/s <sup>2</sup>
<b>Shock resistance</b>	When operating	150 m/s <sup>2</sup> , 11 ms
	Storage/shipment	250 m/s <sup>2</sup> , 6 ms
<b>Temperature</b>	When operating	0 °C to +55 °C
	Storage/shipment	-40 °C ... +70 °C
<b>Humidity</b>	When operating	5~80%, 25 °C no condensation
	Storage/shipment	5~95%, 25 °C no condensation
<b>Noise emission</b>	< 40dB(A)	
<b>Voltage interruption</b>	Max. 15ms	
<b>ISO9001</b>	Supported	



Note: For product improvement purposes, product appearance and specifications are subject to change without notice.