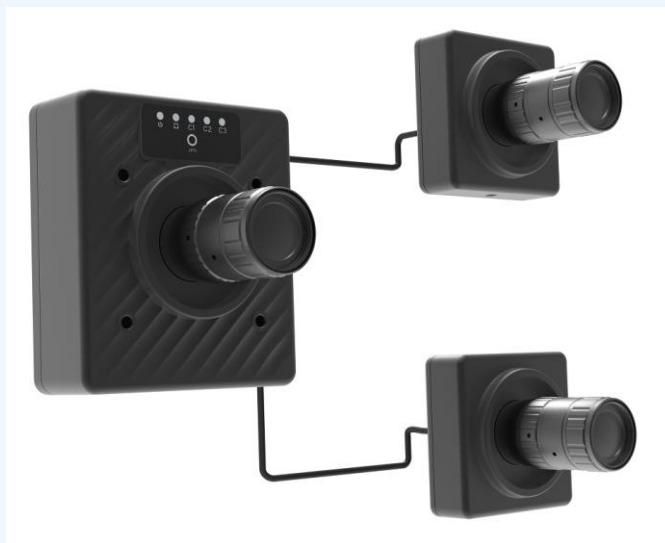


PERSPEC-2 : Industrial Vision Edge AI Solution



IMB-JM1008



Developed by JMO in collaboration with CODICO, PERSPEC-2 is powered by a Qualcomm Dragonwing SoC, and is fully compatible with end to end AI development platform from EDGE IMPULSE, It enables concurrent support for three high resolution cameras with support in our compute and AI module for AI processing capabilities, delivering a total of 12 TOPS of AI processing power in a cost-effective and rugged package.

Our solution has been developed to run multi-camera, multi-modal AI workloads in industrial settings such as automated product inspection, quality control, process monitoring and other use cases

2025.11.13 - sample shop

PERSPEC-2 Specification

Specification

Model		IMB-JM1008
Image Sensor	Sensor	SONY IMX577, 12MP@30fps
	Resolution	4056 x 3040
	Size, Shutter	1/2.3", Color
Processor System	CPU/GPU + NPU	CPU: Qualcomm® QCS6490, 8-core SoC 1 × Gold Plus @ 2.7 GHz + 3 × Gold @ 2.4 GHz + 4 × Silver @ 1.9 GHz GPU+NPU: FP1: A642L@315MHz (MH3.0 45-48fps) FP2.5: A642L@550MHz (MH3.0 65-70fps) AI(NSP): 12.15INT8 TOPS
	Memory/ Storage	8 GB /128 GB
Optical	Lens	12mm variable focus lens
Interface	IO	3 x Inputs, 3 x Outputs 1 x RS485, 1x LED Light Source, 1 x DC
	Camera	1x MIPI, 2 x GMSL
	Type-C	1x USB3.1 Type C
	HDMI	1 x HDMI 2.0
Wi-Fi		2.4G/5G
LAN		1 x 10/100/1000 Base-T
OS		Ubuntu 20.04
Voltage		9-36V DC
Operating Temperature		0°C~50°C
Storage Temperature		-30°C~70°C
IP Rating		IP67
Customized Configuration (According to application scenarios)		1 camera/2 cameras/3 cameras/ Lens dustproof and waterproof cover

PERSPEC Series - Typical use cases

Industrial Application



PCBA Soldering Inspection



Food Packaging Inspection



Auto Parts Inspection



Equipment Maintenance



- **Manufacturing** AI detects defects to boost quality
- **Monitoring** AI enables real-time production oversight
- **Maintenance** AI-driven predictive maintenance
- **Safety** AI ensures PPE compliance and hazard detection

Note: The number of cameras can be selected from 1 to 3 based on different application scenarios.

JMO



CPU: Qualcomm® QCS6490, 8-core SoC

1 × Gold Plus @ 2.7 GHz + 3 × Gold @ 2.4 GHz
+ 4 × Silver @ 1.9 GHz

GPU+ NPU: FP1: A642L@315MHz (MH3.0 45-48fps)

FP2.5: A642L@550MHz (MH3.0 65-70fps)

AI(NSP): 12.15INT8 TOPS

Image Sensor: SONY IMX577, 12MP@30fps

OS: Ubuntu 20.04

Interface: 3 x Inputs, 3 x Outputs, 1X RS485,

1 x LED Light Source, 1 x DC

1 x MIPI, 2 x GSML, 1x USB3.1 Type C

1*HDMI 2.0

Operation Temperature: 0°C~50°C

IP Rating: IP67

Competitor



CPU: 6-core Cortex A78AE ARM® v8.2 (64-bit)

2x clusters (4x 256KB L2 +2MB L3) + 4MB LLC

L3 Cache: 4 MB | Max. 2 GHz

GPU: 1024 cores | 32 Tensor

Image Sensor: SONY IMX334, 8MP@30fps

OS: Ubuntu 20.04, JetPack 5.1.1 or above

Interface: 1 x USB 3.0 Type C, 1 x USB 3.0 Type A

1x trigger in, 2 x Inputs, 1 x Outputs

1 x HDMI 2.0

Operation Temperature: 0°C~45°C

IP Rating: IP54

Adaptable setup

01

Core Architecture Design

- ✳️**Central Processing Host:**
Features a built-in 12MP high-performance camera and AI processing unit.
- ✳️**Expansion Capability:**
Supports connection of two additional 12MP external cameras.
- ✳️**Flexible Configuration:**
Allows free combination of 1 to 3 cameras for various operational needs.

02

The Power of Flexible Configuration

Users can easily switch between single-view inspection, multi-angle synchronization, and stereo vision applications through software configuration alone, eliminating the need for hardware changes.

This significantly enhances system flexibility and adaptability.

03

Optimized for Cost & Efficiency

One system replaces multiple traditional camera setups, significantly reducing procurement, installation, and maintenance costs.







Item	Remark
I/O Port	Connect the I/O cable for power supply and I/O control
HDMI	Can be used to connect an HDMI monitor
Type-C	Used to connect peripherals, such as a mouse, keyboard, USB flash drive, etc.
Camera Interface	Transmits the camera's image signal.
RJ45 Port	Gigabit Ethernet data transmission.

Accessories included



1m length

1*Ethernet Cable for
Network Transmission



2m length

2* Coaxial Cable for
SerDes SignalTransmission



1* Docking Station for
peripheral expansion



1*Type-C Cable
for programming,
upgrading, and debugging



3*Bracket
for securing the
host computer
and the camera



1m length

1*I/O Cable
for power supply
and I/O control



1*Power Adapter
for power supply

We offer a complete computer vision AI solution, we are committed to working closely with our clients to deliver customized automation solutions that enhance efficiency and drive growth.

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