

AP510-H1BP

4x PoE + Encoder + PWM Expansion -
Motion-Synced Vision Industrial PC

Part of the AP510 family — also available: AP510-8POE,
AP510-CAN2, AP510-H1, AP510-H1B, AP510-H7, AP510-
JH2, AP510-JH2B, AP510-JH3, AP510-JH5, AP510-L2

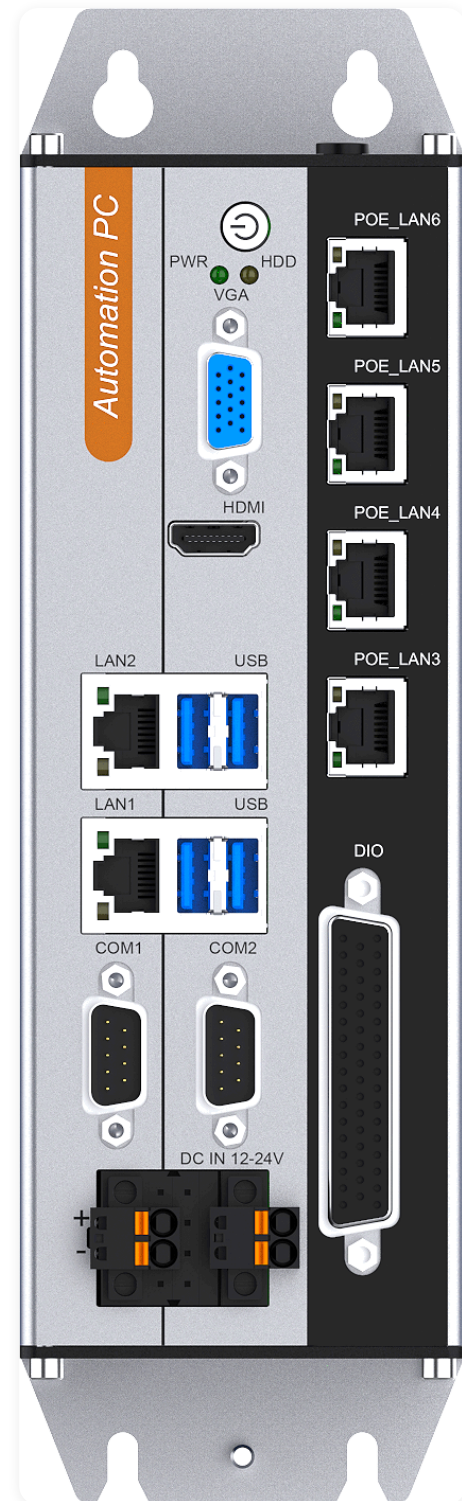
Product Overview

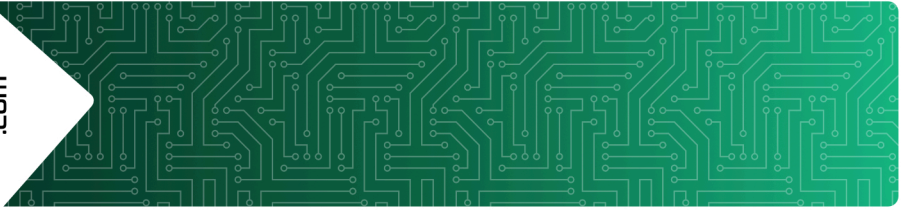
The AP510-H1BP is a factory-configured AP510 with the 4x PoE + Encoder + PWM expansion card fitted. It combines four PoE camera ports with quadrature encoder input and high-speed PWM digital outputs for motion-synchronised inspection on moving webs, conveyors, and printing lines.

Built on the AP510 platform with Intel 10th/11th Gen Core processors (i3 to i7), dual storage slots, and full base I/O. See the AP510 platform datasheet for complete base specifications, wireless options, and CPU compatibility.

Product Highlights

- 4x PoE GbE (15W/port) for GigE Vision cameras
- 16x DI
- 16x DO
- Quadrature encoder input for motion sync
- Plus all AP510 base I/O: 2x GbE, 4x USB 3.0, 2x RS232/RS485, VGA/HDMI
- Intel 10th/11th Gen Core i3/i5/i7, LGA1200, up to 65W TDP
- Up to 32 GB DDR4, mSATA + M.2 SATA storage
- DC 12-24V, active cooling, -20 to 60°C
- Wall mount or DIN rail - 200 x 154.5 x 74.6 mm





Applications

Print Inspection

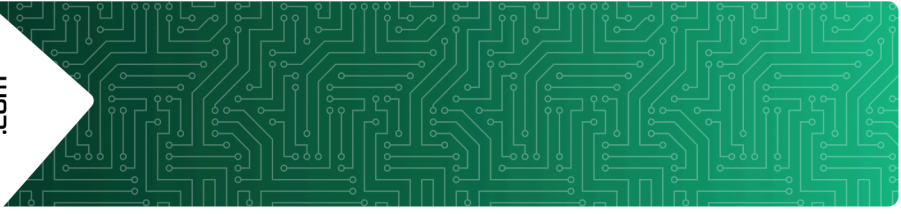
Web Inspection

Conveyor Sync

Label Printing QA

Continuous Web Monitoring

Packaging Lines



Technical Specifications

Expansion Card I/O

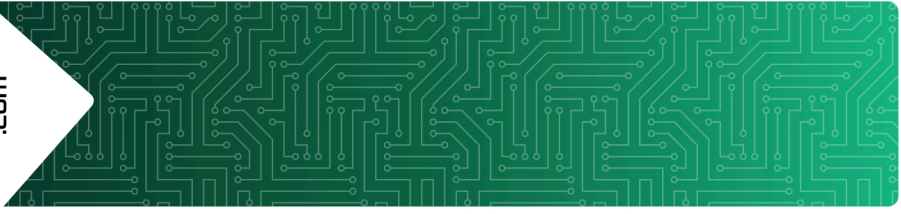
PoE Ethernet	4x Intel GbE PoE, 15W per port	Digital Outputs	16x DO
Digital Inputs	16x DI	Encoder	Quadrature encoder input for motion-synched capture

Base Unit I/O (included)

Ethernet	2x Intel GbE LAN (6 total GbE ports with expansion)	Display	HDMI (3840 x 2160 @ 60Hz) + VGA (1920 x 1200 @ 60Hz)
USB	4x USB 3.0, 1x USB 2.0 Type A (internal, for dongle)	Expansion Slot	1x miniPCIe with SIM holder (Wi-Fi 7 / 4G LTE optional)
Serial	2x COM (DB-9), RS232/RS485 selectable, ESD protected	Watchdog	1-255 levels programmable

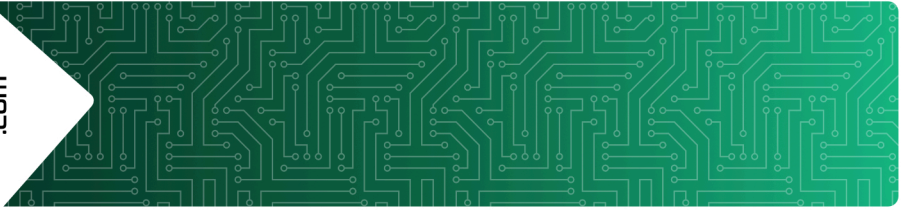
System

Processor	Intel Core 10th/11th Gen i3/i5/i7, LGA1200 socket, up to 65W TDP	Storage	1x mSATA + 1x M.2 (B Key, 2280) SATA
RAM	2x SO-DIMM DDR4, up to 32 GB	OS Support	Windows 10/11 (Pro, IoT, LTSC), Ubuntu, Debian



Technical Specifications (cont.)

Power & Environment			
Power Input	DC 12-24V ±10%, overcurrent, overvoltage and polarity protection	Operating Temperature	-20°C to 60°C (-4°F to 140°F) with airflow
Power Consumption	Max. 220W	Vibration / Shock	1.5 Grms (IEC 60068-2-64) / 20G, 11ms (IEC 60068-2-27)
Cooling	Active cooling - embedded fan	EMC	CE / FCC Class A
Chassis			
Dimensions	200 mm (L) x 154.5 mm (W) x 74.6 mm (H)	Mounting	Wall mount or DIN rail
Weight	Approx. 2.4 kg	Construction	Aluminium-magnesium alloy



Model Numbers

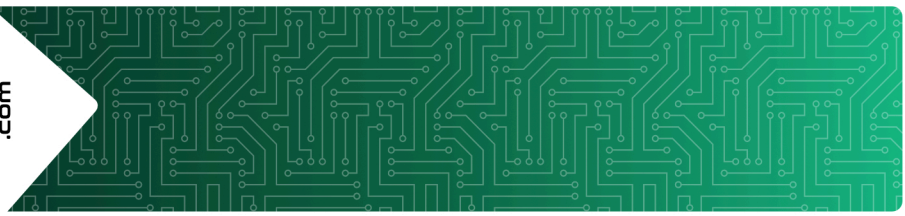
AP 5 1 X - H1BP

Code	Meaning
5	Modular platform (active cooling, expansion bay)
1	First generation
X	CPU class (3 = i3, 5 = i5, 7 = i7)
H1BP	4x PoE + Encoder + PWM expansion card

Example: AP515-H1BP = Gen 1, Core i5, 4x PoE + Encoder + PWM

Ordering Information

Part Number	Description
AP513-H1BP	Intel Core i3 - 4x PoE + Encoder + PWM - motion-synced vision, print/web inspection
AP515-H1BP	Intel Core i5 - 4x PoE + Encoder + PWM - motion-synced vision, print/web inspection



Ordering Information (cont.)

Part Number	Description
AP517-H1BP	Intel Core i7 - 4x PoE + Encoder + PWM - motion-synced vision, print/web inspection

Specifications are subject to change without notice. E&OE.

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For full base platform specifications, wireless options, and CPU compatibility, refer to the AP510 platform datasheet.

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