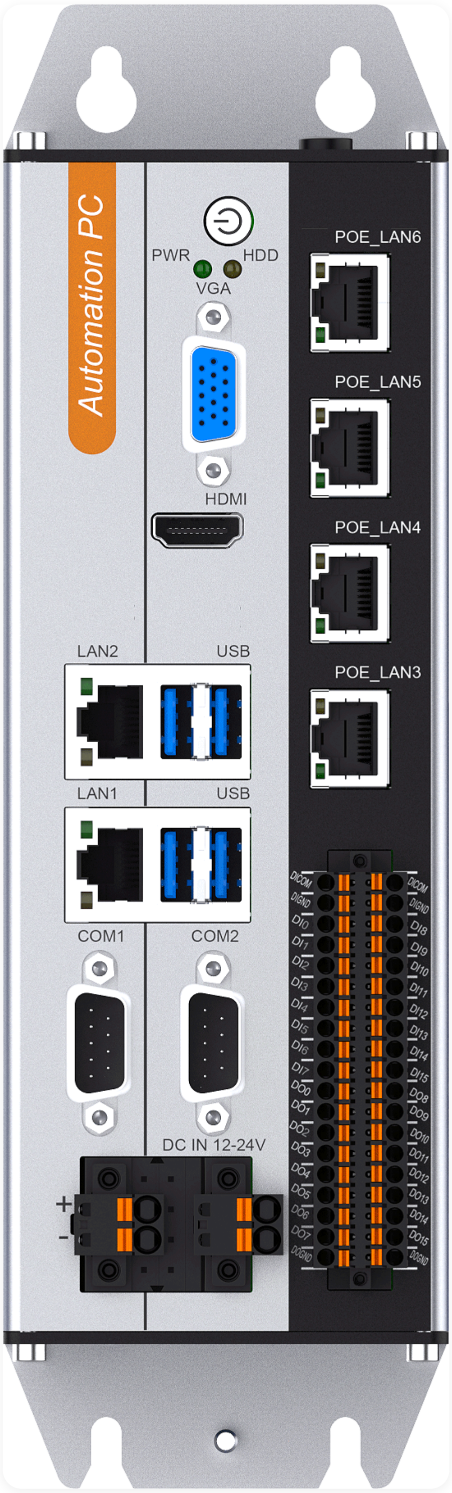
AP510-H1B

4x PoE + 32 DIO Expansion - Vision + DIO Industrial PC

Part of the AP510 family — also available: AP510-8POE, AP510-CAN2, AP510-H1, AP510-H1BP, AP510-H7, AP510-JH2, AP510-JH2B, AP510-JH3, AP510-JH5, AP510-L2



Product Overview

The AP510-H1B is a factory-configured AP510 with the 4x PoE + 32 DIO expansion card fitted. Four PoE camera ports for multi-angle machine vision, plus 32 channels of isolated digital I/O for extensive field control. Vision and automation in one DIN rail unit.

Built on the AP510 platform with Intel 10th/11th Gen Core processors (i3 to i9), 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 (isolated)
- 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/i9, 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

- Multi-Camera Vision + DIO
- Conveyor Control
- Multi-Station I/O
- Production Line Control
- Automated Assembly
- Quality Gates

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Technical Specifications

Expansion Card I/O

PoE Ethernet	4x Intel GbE PoE, 15W per port
Digital Inputs	16x DI, isolated
Digital Outputs	16x DO, isolated

Base Unit I/O (included)

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

System

Processor	Intel Core 10th/11th Gen i3/i5/i7/i9, LGA1200 socket, up to 65W TDP
RAM	2x SO-DIMM DDR4, up to 32 GB
Storage	1x mSATA + 1x M.2 (B Key, 2280) SATA
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. 180W	**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

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AP 5 1 X - H1B
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Code	Meaning
5	Modular platform (active cooling, expansion bay)
1	First generation
X	CPU class (3 = i3, 5 = i5, 7 = i7, 9 = i9)
H1B	4x PoE + 32 DIO expansion card

Example: AP515-H1B = Gen 1, Core i5, 4x PoE + 32 DIO

Ordering Information

Part Number	Description
AP513-H1B	Intel Core i3 - 4x PoE + 32 DIO - multi-camera vision with extensive field I/O
AP515-H1B	Intel Core i5 - 4x PoE + 32 DIO - multi-camera vision with extensive field I/O
AP517-H1B	Intel Core i7 - 4x PoE + 32 DIO - multi-camera vision with extensive field I/O

Ordering Information (cont.)

Part Number	Description
`AP519-H1B`	Intel Core i9 - 4x PoE + 32 DIO - multi-camera vision with extensive field I/O

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