

AP510-H1

4x PoE + Strobe + DIO Expansion - Machine Vision Industrial PC

Part of the AP510 family — also available: AP510-8POE, AP510-CAN2, AP510-H1B, AP510-H1BP, AP510-H7, AP510-JH2, AP510-JH2B, AP510-JH3, AP510-JH5, AP510-L2

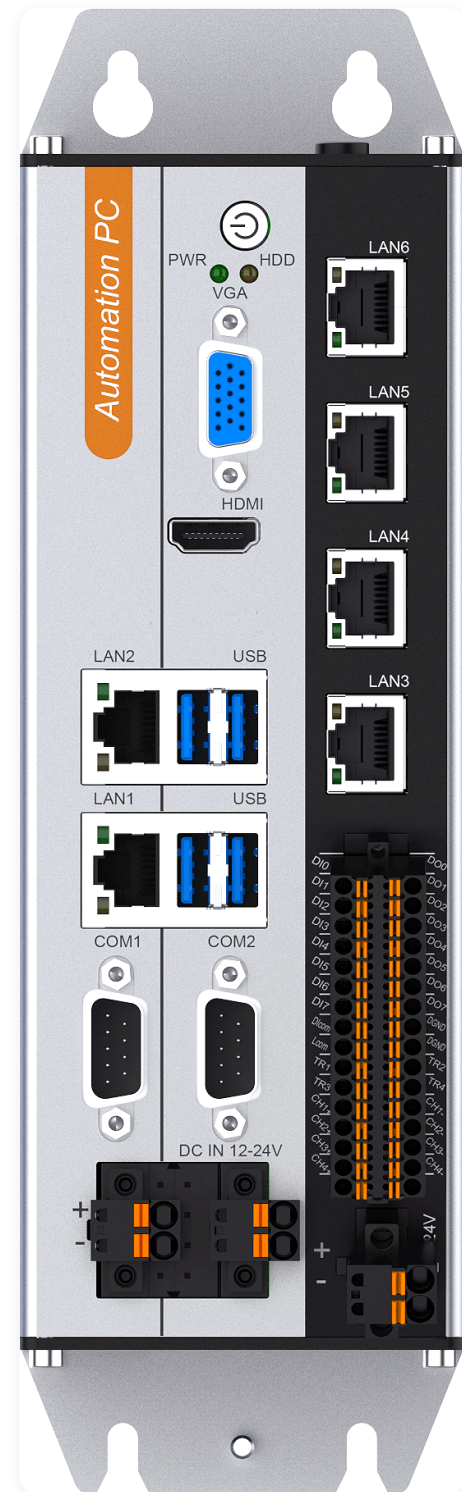
Product Overview

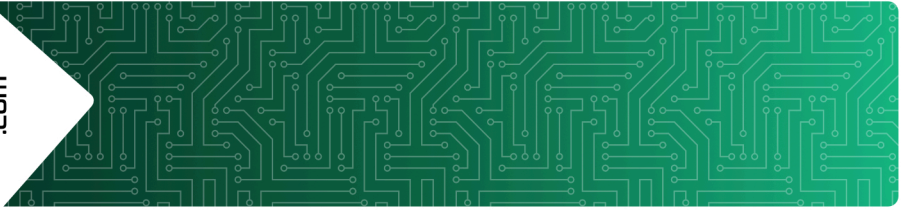
The AP510-H1 is a factory-configured AP510 with the 4x PoE + Strobe + DIO expansion card fitted. It powers up to four GigE Vision cameras directly over PoE, synchronises strobe lighting via PWM outputs, and provides isolated digital I/O for reject systems and conveyor control - all from a single unit.

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
- 4x PWM strobe output with 4x trigger input
- 8x DI + 8x 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 (DC24V required for light control), active cooling, -20 to 60°C
- Wall mount or DIN rail - 200 x 154.5 x 74.6 mm





Applications

Multi-Camera Inspection

Defect Detection

Label Verification

Print Quality

Dimensional Measurement

PCB Inspection

Sorting & Grading

Technical Specifications

Expansion Card I/O

PoE Ethernet 4x Intel GbE PoE, 15W per port

PWM Strobe Output 4x PWM light output, I_{max} 1A per channel

Trigger Input 4x trigger input (one per strobe channel)

Digital Inputs 8x DI, isolated

Digital Outputs 8x 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

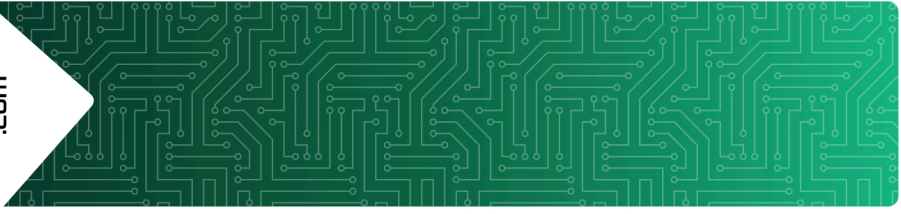
System

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 \pm 10%, overcurrent, overvoltage and polarity protection (must be DC24V when using light control)

Power Consumption Max. 300W

Cooling Active cooling - embedded fan

Operating Temperature -20°C to 60°C (-4°F to 140°F) with airflow

Vibration / Shock 1.5 Grms (IEC 60068-2-64) / 20G, 11ms (IEC 60068-2-27)

EMC CE / FCC Class A

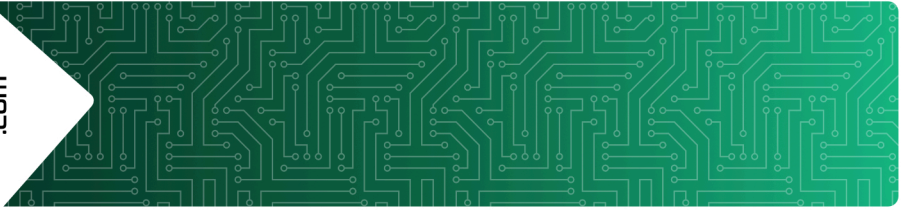
Chassis

Dimensions 200 mm (L) x 154.5 mm (W) x 74.6 mm (H)

Weight Approx. 2.4 kg

Mounting Wall mount or DIN rail

Construction Aluminium-magnesium alloy



Model Numbers

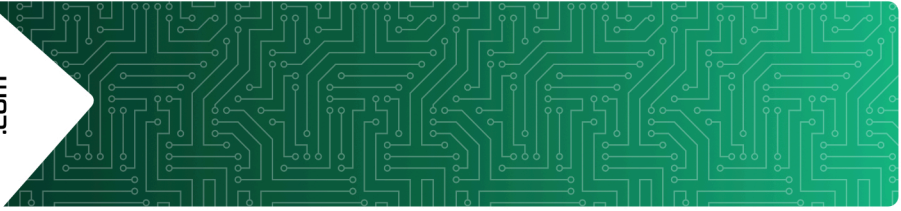
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Code	Meaning
5	Modular platform (active cooling, expansion bay)
1	First generation
X	CPU class (3 = i3, 5 = i5, 7 = i7, 9 = i9)
H1	4x PoE + Strobe + DIO expansion card

Example: AP515-H1 = Gen 1, Core i5, 4x PoE + Strobe + DIO

Ordering Information

Part Number	Description
AP513-H1	Intel Core i3 - 4x PoE + Strobe + DIO - 4-camera machine vision
AP515-H1	Intel Core i5 - 4x PoE + Strobe + DIO - 4-camera machine vision
AP517-H1	Intel Core i7 - 4x PoE + Strobe + DIO - 4-camera machine vision



Ordering Information (cont.)

Part Number	Description
AP519-H1	Intel Core i9 - 4x PoE + Strobe + DIO - 4-camera machine vision

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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