

ARES-5310

Fanless DIN-Rail Embedded System with Intel® Atom™ x7 / Celeron® Processor



Features

- Intel® Atom™ x7-E3950 / Celeron® N3350 Processor
- 2CH GbE PoE (Power over Ethernet), IEEE 802.3af connectivity
- 4 x USB 3.0/2.0 combo ports
- 32 bit Digital I/O with 2kV Isolation
- DIN-rail mount & Wall mount compatibility
- Wide-range operating temperature from -40 °C to 70 °C
- Power on/off delay control / configurable ignition power control

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|----------------------|--|
| System | |
| CPU | Soldered onboard Intel® Atom™ x7-E3950 / Celeron® N3350 Processor, Max.12W TDP |
| Memory | 1 x 204-pin DDR3L SO-DIMM sockets, supporting 1866MHz SDRAM up to 8GB |
| Chipset | SoC |
| Graphics | Intel® HD Graphic 505 |
| LAN Chipset | 3 x Intel® i211AT PCIe controller (Co-Layout i210-IT) |
| Watchdog Timer | 1~255 levels reset |
| I/O | |
| Serial Port | 4 x RS232 (Default)/422/485 (DB-9 male connector) (Switch via BIOS) |
| USB Port | 4 x USB 3.0/2.0 (Type A connector) |
| LAN | 3 x RJ-45 ports for GbE LAN (For -E3950A & -N3350A) 2 x RJ-45 ports for PoE IEEE802.3af + 1 x GbE LAN (For -E3950P & -N3350P) |
| Video Port | 1 x HDMI connector (Up to 3840 x 2160@30Hz) 1 x VGA connector (Up to 1920 x 1080@60Hz) |
| Digital I/O | 4 x DI, 4 x DO (For -E3950A & -N3350A) 16 x DI, 16 x DO w/ 2kV isolation (For -E3950P & -N3350P) |
| Expansion Bus | 1 x Mini PCIe slot (PCIe x1+ USB2.0, Full size) 1 x Mini PCIe slot (USB2.0, Full size) |
| SIM | 1 x internal on-board nano SIM slot |
| Storage | |
| Type | 64GB eMMC on-board 1 x 2.5" HDD/SSD tray (For -E3950A & -N3350A) 1 x M.2 M-Key, 2242, SATA3.0 (For -E3950P & -N3350P) |
| Environmental | |
| Operating Temp. | -40 ~ 70 °C (-40 ~ 158°F), ambient w/ air flow |
| Storage Temp. | -40 ~ 80 °C (-40 ~ 176°F) |
| Operating Humidity | 10-95% @ 70°C (non-condensing) |

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| Vibration | 5~500Hz 3 Grms X,Y,Z axis w/ eMMC, according to IEC 68-2-64 10G peak acceleration (11 m sec. duration), operation |
| Shock & Crash | 30G peak acceleration (11 m sec. duration), nonoperation According to IEC 68-2-27 |

Qualification

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| Certification | CE, FCC Class A, E13 |
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Power Requirement

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| Power Input | DC 9~36V (4 pin DCin terminal block: V+, V-, SW-, SW+) |
| Ignition Switch | 2-pin terminal block: IGN & GND |
| Power Consumption | Max. 65W |

Mechanical

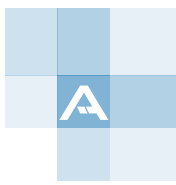
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|------------------------|--|
| Construction | Metal + Aluminum Alloy |
| Mounting | DIN-rail / Wall Mount |
| Weight | 1.7Kg |
| Dimensions (W x D x H) | 180 x 125 x 70 mm (7.07" x 4.9" x 2.75") |

OS Support

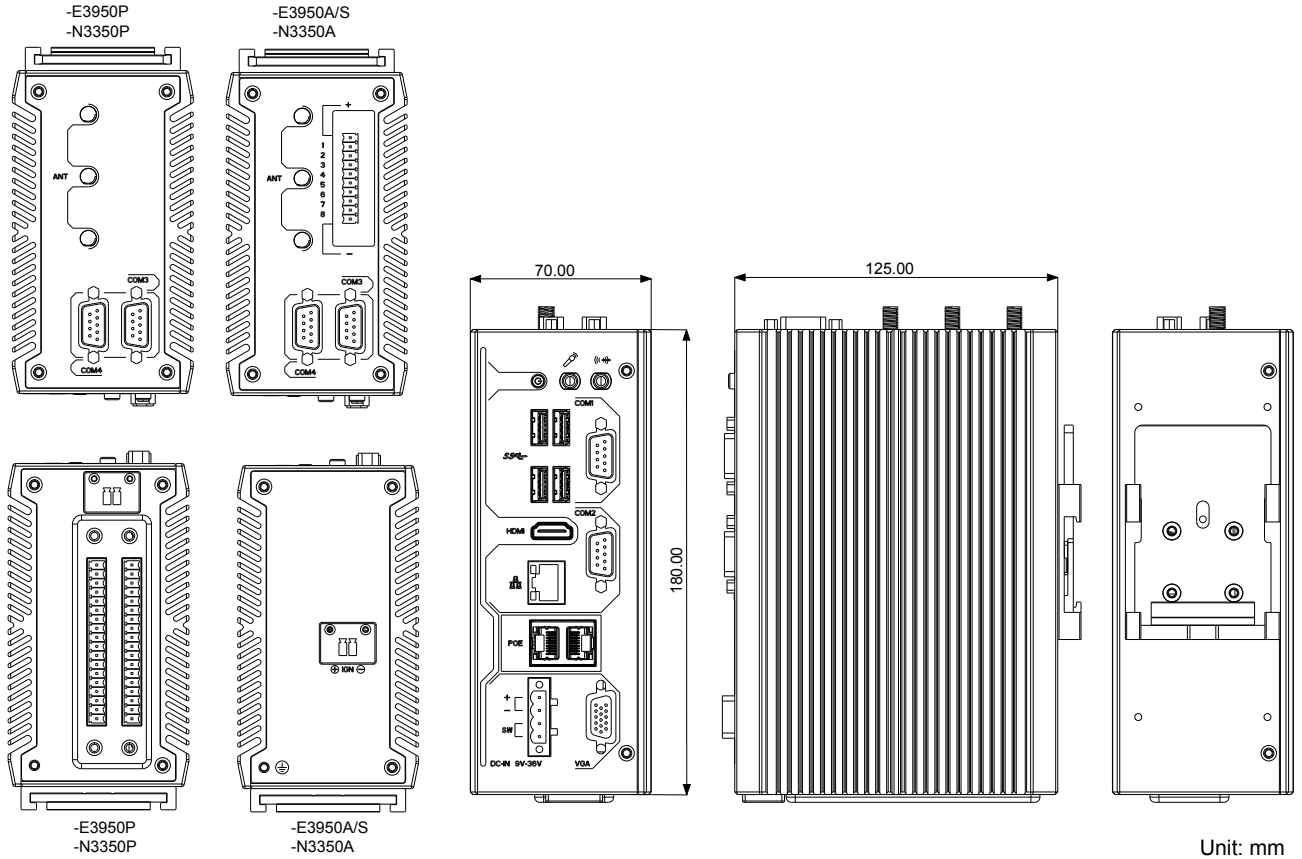
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|------------------------------|--|
| Windows 10 IoT | |
| Linux: Ubuntu (Kernel: 3.1X) | |

Ordering Information


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|------------------------|--|
| ARES-5310-E3950A | ARES-5310 w/ E3950, 1 x HDMI, 1 x VGA, 4 x COM, 4 x DI/DO, 3 x GbE LAN, 4 x USB3.0, 1 x 64GB eMMC, and 1 x 2.5" HDD/SSD tray |
| ARES-5310-E3950P | ARES-5310 w/ E3950, 1 x HDMI, 1 x VGA, 4 x COM, 16 x DI/DO, 2 x PoE, 1 x GbE LAN, 4 x USB3.0, 1 x 64GB eMMC, and 1 x M.2 M Key storage |
| ARES-5310-N3350A (BTO) | ARES-5310 w/ N3350, 1 x HDMI, 1 x VGA, 4 x COM, 4 x DI/DO, 3 x GbE LAN, 4 x USB3.0, 1 x 64GB eMMC, and 1 x 2.5" HDD/SSD tray |
| ARES-5310-N3350P (BTO) | ARES-5310 w/ N3350, 1 x HDMI, 1 x VGA, 4 x COM, 16 x DI/DO, 2 x PoE, 1 x GbE LAN, 4 x USB3.0, 1 x 64GB eMMC, and 1 x M.2 M Key storage |











Dimensions



Standard Accessories

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|-------------------------------------|------------------------|---|
| DRK-002 | Al6063 |  |
| DIN Rail mounting kit for ARES-5300 | DIN Rail 84 x 60 x 9mm | |

Optional Configuration (*CTOS Kit)

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|-----------------------------|--|---|
| PAC-120W6B-FSP | 19V/6.3A, 120W AC/DC adapter kit (For -E3950P & -N3350P) |  |
| PAC-P060W-02 | 12V/5A, 60W AC/DC adapter kit (For -E3950A & -N3350A) |  |
| WIFI-AT4550 | Atheros QCNFA324 Wi-Fi module w/ 2*30cm internal wiring |  |
| ANT-D11 | 1 x Wi-Fi Dual-band 2.4G/5G antenna |  |
| ANT-H11 | 2dBi HSUPA ANTENNA KIT |  |
| LTE-1450 | LTE Quectel EC25-E Cat 4 Mini-PCIe Wireless Kit(excluded North of America/ Euro) |  |
| MK-3CL-2G/4G/8G DIMM Memory | 2G/4G/8G DDR3L Memory with heat sink kit |  |
| WMK-1973 | Wall mounting kit for ARES-1973/5310 |  |

*CTOS means Configure-to-Order Service.