ARES-5310

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

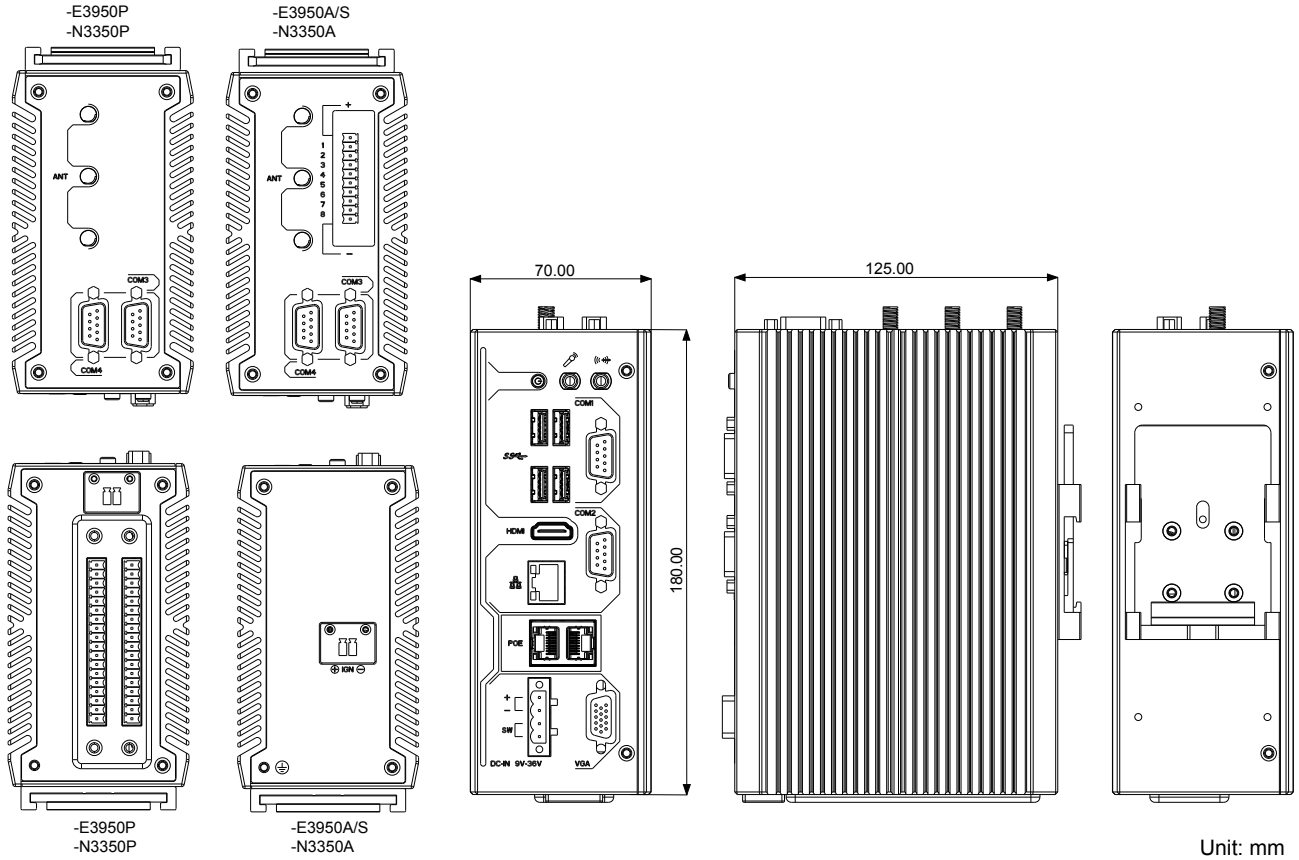
Features

- 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 -20 °C to 70 °C
- Power on/off delay control / configurable ignition power control

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/S & -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/S & -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/S & -N3350P)
Environmental	
Operating Temp.	-20 ~ 70 °C (-4 ~ 158°F), ambient w/ air flow
Storage Temp.	-40 ~ 80°C (-40 ~ 176°F)
Operating Humidity	10-95% @ 70°C (non-condensing)
Vibration	5~500Hz 3 Grms X,Y,Z axis w/ eMMC, according to IEC 68-2-64
Shock & Crash	10G peak acceleration (11 m sec. duration), operation
	30G peak acceleration (11 m sec. duration), nonoperation
	According to IEC 68-2-27
Qualification	
Certification	CE, FCC Class A
Power Requirement	
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	
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	
Windows 10 IoT Linux: Ubuntu (Kernel: 3.1X)	
Ordering Information	
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-E3950S	ARES-5310 w/ E3950, 1 x HDMI, 1 x VGA, 4 x COM, 4 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

All specifications are subject to change without notice.

Dimensions



Unit: mm

Standard Accessories

DRK-002 DIN Rail mounting kit for ARES-5300	AI6063 DIN Rail 84 x 60 x 9mm	

Optional Configuration (*CTOS Kit)

PAC-120W6B-FSP	19V/6.3A, 120W AC/DC adapter kit (For -E3950P/S & -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	
LTE-1450	LTE Quectel EC25-E Cat 4 Mini-PCIe Wireless Kit(excluded North of America/ Euro)	
ANT-H11	2dBi HSUPA ANTENNA KIT	
MK-3CL-2G/4G/8G DIMM Memory	2G/4G/8G DDR3L Memory with heat sink kit	
64GB M.2 SSD	M.2 M Key, 2242, 64GB, SATA3.0	
2.5” Storage Kit	2.5” SSD/HDD Bracket, cables, and M.2 to SATA III module card	
2.5” 32/64/128/256 GB SSD	2.5”, 32/64/128/256GB, MLC, SATA3, 7+15P	
WMK-1973	Wall-mount kit for ARES-1973	

**CTOS means Configure-to-Order Service.*