

ARES-5320 Series

Fanless DIN-Rail Embedded System with Intel® Elkhart Lake Atom™ Processor



Features

- Intel® Atom™ x6425RE Processor
- Support 3 x 2.5 GbE (2 w/ PoE complies with IEEE 802.3af)
- Support 3 x USB 3.2 Gen1 + 1 x USB 2.0
- Support up to 8 x COM & 16bit Digital I/O
- Isolated DI/DO with 2KV Protection, DI supports Connection of Dry & Wet Contact Devices
- Wide-range Operating Temperature from -20°C to 70°C
- Power on & off Delay Control / Configurable Ignition Power Control
- Lockable mechanism for LAN & USB ports

System

CPU	Soldered onboard Intel® Atom™ x6425RE Processor
Memory	1 x 260-pin DDR4 SO-DIMM sockets, supporting 3200MHz SDRAM up to 32GB
Chipset	SoC
Graphics	Intel® UHD Graphic for 10 th Gen Intel® Processors
LAN Chipset	3 x Intel® i226LM
Watchdog Timer	1~255 levels reset
TPM	dTPM 2.0

I/O

Serial Port	2 x RS232 _(Default) /422/485 2 x RS232 4 x 2kV isolated RS232/422/485 (For -ISO ver.)
USB Port	3 x USB-A 3.2 Gen1 (5Gbps) 1 x USB-A 2.0
LAN Port	3 x 2.5GbE (For A & A-ISO ver.) 1 x 2.5GbE + 2 x 2.5GbE PoE (IEEE802.3af) (For P & P-ISO ver.)
Video Port	1 x DP++, up to 4096 x 2160@60Hz 1 x VGA, up to 1920 x 1200@60Hz
Audio Port	1 x Mic-in 1 x Line-out
Digital I/O	8 x DI/O (For A & P ver.) 8 x DI & 8 x DO both w/ 2kV isolation (For -ISO ver.)

Expansion Bus

Expansion Bus	1 x Full-size mPCIe slot (USB2.0, colay w/ mSATA) w/ 1 x nano SIM slot 1 x Full-size mPCIe slot (PCIe x1 + USB2.0) 1 x Half-size mPCIe slot (PCIe x1 + USB2.0)
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Storage

Type	1 x Onboard 64G eMMC 1 x Full-size mSATA slot (colay w/ mPCIe) 1 x 2.5" SSD/HDD tray (For A & P ver.)
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Power Requirement

Power Input	DC 9~36V (4 pin terminal block: V+, V-, SW+, SW-)
Power Ignition	1 x 2 pin terminal block (IGN+, IGN-)
Power Consumption	Max. 65W

Environmental

Operating Temp.	-20 ~ 70°C, ambient w/ air flow
Storage Temp.	-40 ~ 80°C
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 10G peak accel (11 m sec. duration), operation
Shock	30G peak accel (11 m sec. duration), nonoperation According to IEC 68-2-27

Qualification

Certification	CE, FCC (Class A) E-Mark
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Mechanical

Construction	Metal + Aluminum Alloy
Mounting	DIN-rail (standard) Wall mount (optional w/ CTOS BKT, but not supported for -ISO ver.)
Weight	1.9kg
Dimensions (W x D x H)	70 x 125 x 190 mm

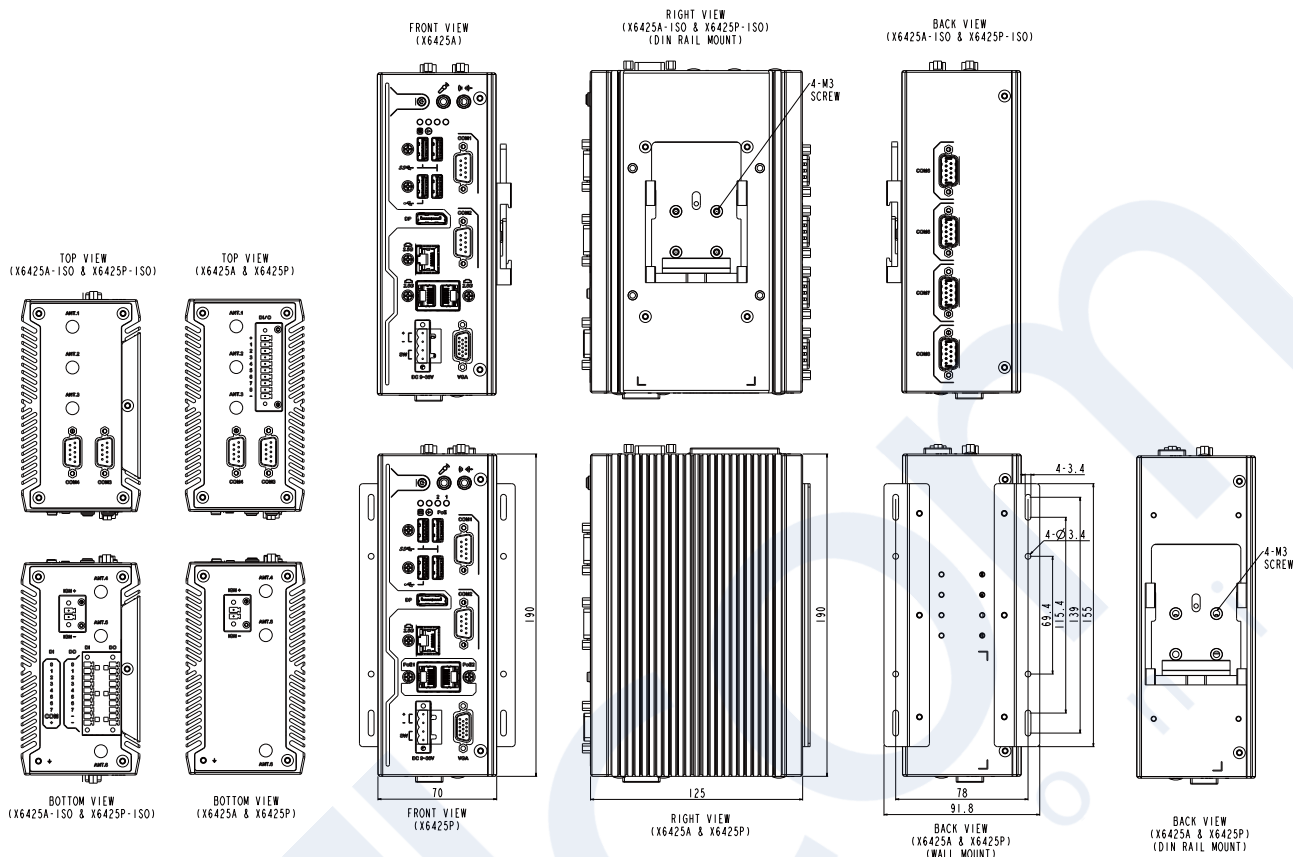
OS Support

OS Support	Windows 10 IoT / Windows 11 IoT / Ubuntu
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Ordering Information

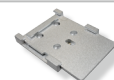
ARES-5320-x6425A	ARES-5320 w/ 3 x 2.5GbE, 4 x COM, 4 x USB, 1 x DP, 1 x VGA, 8 x DI/O, 64G eMMC & 1 x 2.5" SSD/HDD Tray
ARES-5320-x6425P	ARES-5320 w/ 2 x 2.5G PoE + 1 x 2.5GbE, 4 x COM, 4 x USB, 1 x DP, 1 x VGA, 8 x DI/O, 64G eMMC & 1 x 2.5" SSD/HDD Tray
ARES-5320-x6425A-ISO (BTO)	ARES-5320 w/ 3 x 2.5GbE, 8 x COM(4 x isolated), 4 x USB, 1 x DP, 1 x VGA, 8 x isolated DI, 8 x isolated DO & 64G eMMC
ARES-5320-x6425P-ISO (BTO)	ARES-5320 w/ 2 x 2.5G PoE + 1 x 2.5GbE, 8 x COM(4 x isolated), 4 x USB, 1 x DP, 1 x VGA, 8 x isolated DI, 8 x isolated DO & 64G eMMC

Dimensions



Standard Accessories

DRK-002 DIN Rail Mounting Kit for ARES Series



Optional Configuration (*CTOS Kit)

PAC-60W6A-FSP-ES	12V/5A, 60W AC/DC Adapter Kit (For A & A-ISO ver.)
PAC-120W6B-FSP-ES	19V/6.32A, 120W AC/DC Adapter Kit (For P & P-ISO ver.)
WIFI-AT4550	Atheros QCNFA324 mPCIe Wi-Fi+BT Module Kit (w/ 2 x 30cm RF Cable)
ANT-D11	1 x Wi-Fi Dual-band 2.4G/5G Antenna Kit
ANT-H11	1 x 2dBi HSUPA Antenna Kit
LTE-4450	Quectel EG25-G mPCIe LTE Cat 4 Module Kit (for Global, w/ 1 x 25cm RF Cable)
GPS-mPCIe w/ UDR	Antzer ANNA-F00U0 mPCIe GPS Module Kit (Untethered Dead Reckoning, w/ 1 x 15cm RF Cable)
ANT-G11	1 x 27dBi 3000mm Square Active GPS Antenna Kit
MK-4C-4G/8G/16G DIMM Memory	4G/8G/16G DDR4 Memory Kit (w/ Heatsink)
WMK-1973	Wall Mounting Bracket Kit for ARES Series



*CTOS means Configure-to-Order Service.