

KBox E-430-AML/ADN/AMH/ADH



Fanless Industrial Computer with Intel® Atom® x7000RE Series, Intel® Core™ i3 N-Series & Intel® N-Series Processors

- 4 COM ports and 8 digital I/O channels for industrial sensing and controlling
- Rugged design against environmental disturbances, such as dust, vibration & shock
- Hardware-based protection against malware and sophisticated cyberattacks
- Wide voltage input range to apply to different power supply conditions
- Multiple mounting options to accommodate to different application scenarios

Industrial PC with Intel® Atom® x7000RE Series, Intel® Core™ i3 N-Series & Intel® N-Series CPUs

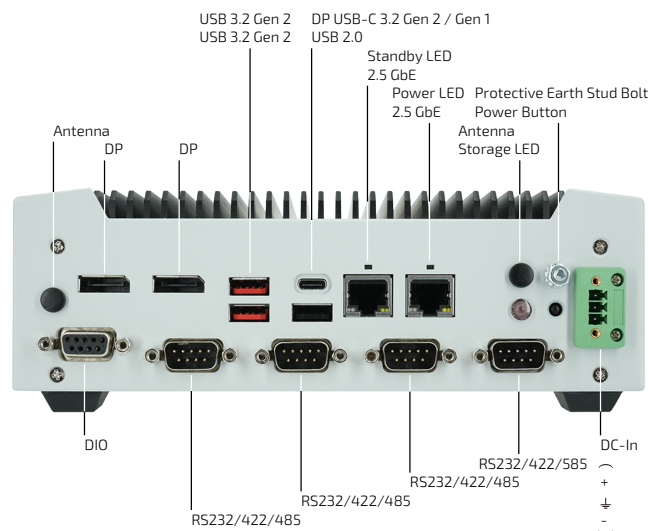
KBox E-430-AML/ADN/AMH/ADH is a fanless industrial computer platform powered by Intel® Atom® x7000RE Series (codenamed Amston Lake), Intel® Core™ i3 N-Series and Intel® N-Series Series (codenamed Alder Lake N) processors integrated with Intel® UHD Graphics Gen12 as well as support for a next-gen high-speed DDR5 memory. Thus, it can deliver upgraded performance, enhanced

media transcoding and faster AI inference for intelligent Industry 4.0, edge computing and Industrial IoT applications. In addition, the system supports two 2.5 GbE LAN ports as well as expansion possibilities for Wi-Fi and WWAN (3G, 4G or 5G) for optimized bandwidth utilization and flexible network integration.

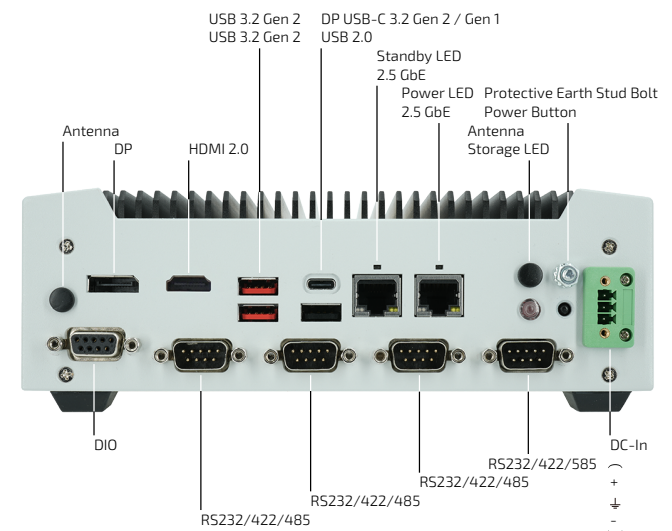
- Intel® Atom® x7000RE Series Processors
- Intel® Core™ i3 N-Series Processors
- Intel® N-Series Processors
- 1x DDR5 SO-DIMM memory socket
- 2x 2.5 GbE LAN with TSN for real-time Ethernet
- Two video I/O configurations for triple display support
 - 3x DP (2x full DP, 1x USB-C)
 - 2x DP (1x full DP, 1x USB-C), 1x HDMI 2.0
- 3x USB 3.2 Gen 2 / Gen 1 (2x Type A, 1x Type C), 1x USB 2.0
- 4x RS232/422/485 for serial device connection
- 1x 8-bit DIO (4x DI + 4x DO) for device / signal control
- 1x 2.5" SATA 3.0 HDD / SSD support

- 1x M.2 Key B for SSD, WWAN expansion
- 1x M.2 Key E for WLAN and Bluetooth expansion
- 1x M.2 Key M for SSD expansion
- dTPM 2.0 support
- Passive cooling design without fans nor vents
- Wide voltage input range: DC 9 V ~ 36 V
- Extended temperature model available: -40 °C ~ 65 °C
- Flexible mounting options
 - Vertical / horizontal DIN-rail mount
 - Vertical / horizontal wall mount
 - Vertical / horizontal VESA mount
 - Desktop

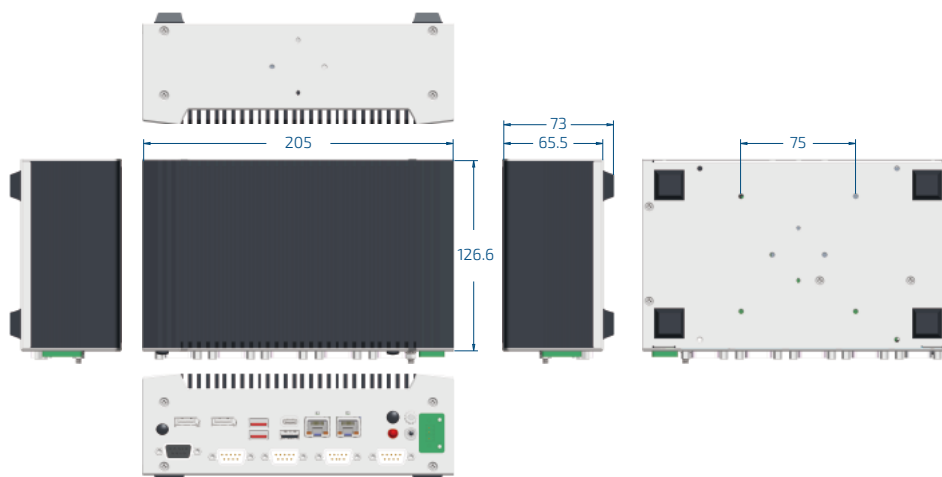
➤ KBox E-430-AML/ADN



➤ KBox E-430-AMH/ADH



Mechanical Dimensions



unit: mm

SYSTEM	PROCESSOR	Intel® Atom® x7211RE (Dual Core, 6M Cache, 1.0 / 3.2 GHz, 6 W TDP) Intel® Atom® x7433RE (Quad Core, 6M Cache, 1.5 / 3.4 GHz, 9 W TDP) Intel® Atom® x7835RE (Octa Core, 6M Cache, 1.3 / 3.6 GHz, 12 W TDP) Intel® Core™ i3-N305 (Octa Core, 6M Cache, 1.8 / 3.8 GHz, 15 W TDP) Intel® N97 (Quad Core, 6M Cache, 2.0 / 3.6 GHz, 12 W TDP) 1x DDR5 4800 SO-DIMM up to 16 GByte
	MEMORY	
VIDEO	GRAPHICS DISPLAY INTERFACE	Intel® UHD Graphics Gen12 3x DP (4096 x 2160 @ 60 Hz, 2x Full-size, 1x USB-C, KBox E-430-AML/ADN) 2x DP (4096 x 2160 @ 60 Hz, 1x Full-size, 1x USB-C, KBox E-430-AMH/ADH) 1x HDMI 2.0 (4096 x 2160 @ 60 Hz, KBox E-430-AMH/ADH) Triple Display
	MULTIPLE DISPLAY	
NETWORK CONNECTION	ETHERNET	2x 2.5 GbE LAN (RJ45, Intel® I226-V/IT, TSN support*)
PERIPHERAL CONNECTION	USB	2x USB 3.2 Gen 2 Type A 1x USB 3.2 Gen 2 Type C (w/ DP & PD 5 V / 3 A, except Atom® x7000RE) 1x USB 3.2 Gen 1 Type C (w/ DP & PD 5 V / 3 A, only Atom® x7000RE) 1x USB 2.0 Type A
	SERIAL PORT DIO	4x RS232/422/485 (2x Tx/Rx only in RS232, DB9) 1x 8-bit DIO (DB9 Female, 4x DI + 4x DO)
STORAGE & EXPANSION	SATA M.2	1x 2.5" SATA 3.0 HDD / SSD support 1x M.2 Key B (Type 2242 / 3042 / 3052 / 2280, w/ PCIe x1 / USB 2.0 / UIM) 1x M.2 Key E (Type 2230, w/ PCIe x1 / USB 2.0 / CNVi**) 1x M.2 Key M (Type 2280, w/ SATA 3.0 (default) / PCIe x1 (optional))
	SIM CARD HOLDER	1x SIM Card Holder (optional, by header)
POWER	INPUT VOLTAGE CONNECTOR	DC 9 V ~ 36 V 3-pin Terminal Block
FIRMWARE	BIOS WATCHDOG H/W MONITOR REAL TIME CLOCK SECURITY	AMI uEFI BIOS w/ 256 Mb SPI Flash Programmable WDT to generate system reset event Voltages, Temperatures Processor integrated RTC TPM 2.0 Support (Infineon SLB 9672)
SYSTEM CONTROL & MONITORING	BUTTON, SWITCH & INDICATOR	1x Power Button 1x Storage LED 1x Power LED 1x Standby LED
COOLING	COOLING METHOD	Passive
SOFTWARE	OS SUPPORT	Windows 11, Windows 10, Linux
MECHANICAL	CONSTRUCTION DIMENSION (W x D x H) WEIGHT MOUNTING	Aluminum Metal Chassis 205 mm x 126.6 mm x 65.5 mm / 8.07" x 4.98" x 2.58" 2,000 g / 4.41 lb Vertical / horizontal DIN-rail mount Vertical / horizontal wall mount Vertical / horizontal VESA mount (75 mm x 75 mm) Desktop
ENVIRONMENTAL	OPERATING TEMPERATURE	0 °C ~ 50 °C / 32 °F ~ 122 °F (Standard) -40 °C ~ 65 °C / -40 °F ~ 149 °F (Extended)
	STORAGE TEMPERATURE	-20 °C ~ 80 °C / -4 °F ~ 176 °F (Standard) -55 °C ~ 85 °C / -67 °F ~ 185 °F (Extended)
	HUMIDITY	0 % ~ 95 %
COMPLIANCE	EMC & SAFETY	CE Class B, FCC Class B, ICES Class B, UKCA

* TSN support for models with Atom® processors

** Atom® x7000RE Series processors do not support CNVi

Ordering Information

KBox E-430-AML/ADN/AMH/ADH

ARTICLE	PROCESSOR	LAN CHIP	TSN	USB-C 3.2	OPERATING TEMPERATURE
KBox E-430-AML-0-x7211RE-ET	Intel® Atom® x7211RE	Intel® I226-IT	Yes	1x Gen 1	-40 °C ~ 65 °C
KBox E-430-AML-1-x7433RE-ET	Intel® Atom® x7433RE	Intel® I226-IT	Yes	1x Gen 1	-40 °C ~ 65 °C
KBox E-430-AML-2-x7835RE-ET	Intel® Atom® x7835RE	Intel® I226-IT	Yes	1x Gen 1	-40 °C ~ 65 °C
KBox E-430-ADN-0-N97	Intel® N97	Intel® I226-V	No	1x Gen 2	0 °C ~ 50 °C
KBox E-430-ADN-3-i3-N305	Intel® Core™ i3-N305	Intel® I226-V	No	1x Gen 2	0 °C ~ 50 °C

(Variants of KBox E-430-AMH/ADH are on a per-request basis. Contact your account manager for details.)

Accessories

ARTICLE	DESCRIPTION
POWER ADAPTER*	AC 90 V ~ 264 V to DC 24 V @ 2.5 A max. 60 W, open wire
POWER CORD*	EU / US / UK / JP / CN / AU type depending on country
DIN RAIL KIT*	1x DIN rail clamp, 1x DIN rail clamp adapter, 5x screw
VESA MOUNT KIT*	2x bracket (hole pattern: 75 mm x 75 mm / 100 mm x 100 mm), 4x screw
VERTICAL WALL MOUNT PLATE*	1x bracket
HORIZONTAL WALL MOUNT KIT*	2x bracket, 4x screw
WI-FI + BLUETOOTH EXPANSION KIT*	Wi-Fi 2.4 GHz / 5 GHz + Bluetooth 4.0 Class I, M.2 Key-A/E interface, 2x antenna

The asterisk (*) means optional item.

Product Contact Point

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