



Fanless Industrial Computer with Intel® Atom® X6000E Series Processors

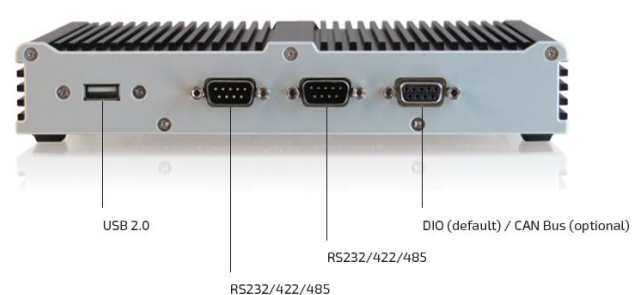
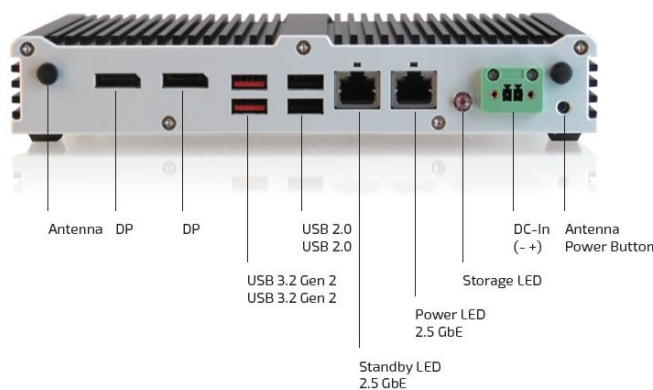
- 2x DP for dual display
- 2x 2.5 GbE LAN for Ethernet
- 2x USB 3.2 Gen 2, 3x USB 2.0 for USB device connection
- 2x RS232/422/485, 1x DIO / 1x CAN Bus for peripheral connection
- 1x SATA 3.0, 1x M.2 Key B, 1x M.2 Key E, 1x M.2 Key M for HDD, SSD, WLAN & WWAN

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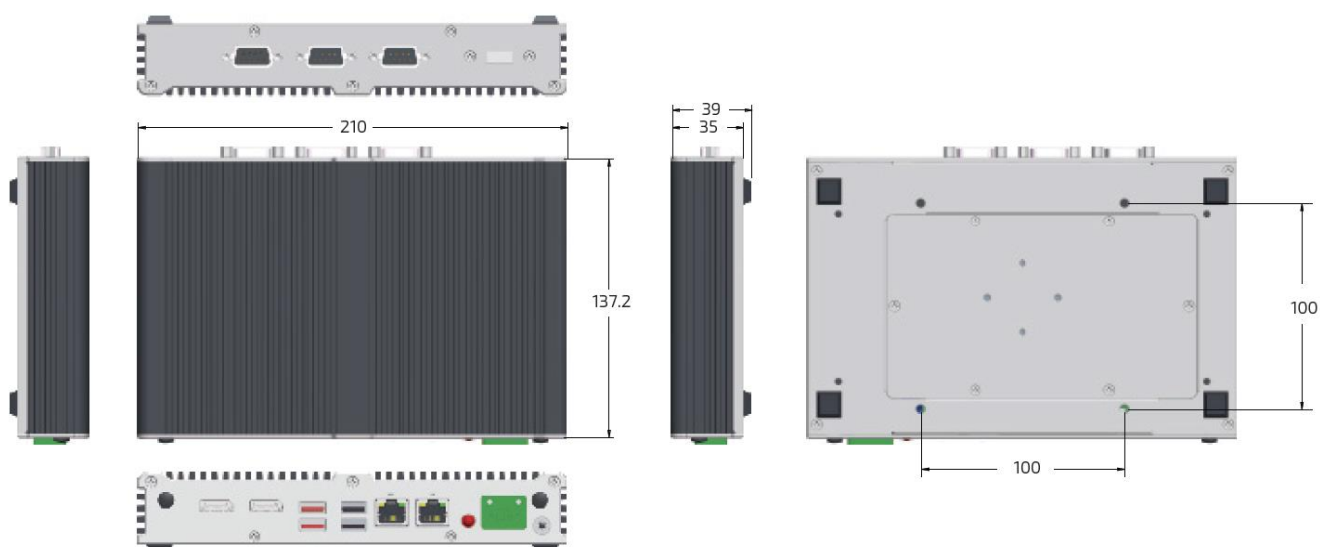
KBox E-120-EKL is a fanless industrial computer powered by Intel® Atom® x6000E Series, Celeron® J6000 / N6000 Series and Pentium® J6000 / N6000 Series processors which deliver great performance improvement in graphics. The system supports two

2.5 GbE LAN port with TSN (Time Sensitive Networking) capability. In addition, it reserves the expansion possibilities of WLAN and WWAN (3G, 4G or 5G). Thus, it can provide low-latency multi-connections for a variety of IoT applications.

- Intel® Atom® x6000E Series processors
- Intel® Celeron® J6000 / N6000 Series processors
- Intel® Pentium® J6000 / N6000 Series processors
- 2x DDR4 SO-DIMM memory support
- 2x DP for dual display support
- 2x 2.5 GbE LAN for Ethernet
- 2x USB 3.2 Gen 2, 3x USB 2.0 for USB device connection
- 2x RS232/422/485 for serial device connection
- 1x 8-bit DIO or 1x CAN Bus for device control or CAN communication
- 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
- TPM 2.0 support
- Passive cooling design without fans nor vents
- Flexible mounting options:
DIN-rail mount
Horizontal wall mount
VESA mount
Desktop



Dimensions



SYSTEM	PROCESSOR	Intel® Atom® x6211E (Dual Core, 1.5M Cache, 1.3 / 3.0 GHz, FCBGA1493, 6 W TDP) Intel® Atom® x6212RE (Dual Core, 1.5M Cache, 1.2 GHz, FCBGA1493, 6 W TDP) Intel® Atom® x6425RE (Quad Core, 1.5M Cache, 1.9 GHz, FCBGA1493, 12 W TDP) Intel® Celeron® J6413 (Quad Core, 1.5M Cache, 1.8 / 3.0 GHz, FCBGA1493, 10 W TDP)
	MEMORY	2x DDR4 3200 SO-DIMM up to 32 GByte
VIDEO	GRAPHICS	Intel® UHD Graphics for 10th Gen Intel® Processors
	DISPLAY INTERFACE	2x DP (4096 x 2160 @ 60 Hz, on front)
NETWORK CONNECTION	MULTIPLE DISPLAYS	Dual Display
	ETHERNET	2x 2.5 GbE LAN (RJ45 on front, Intel® I226-LM)
PERIPHERAL CONNECTION	USB	2x USB 3.2 Gen 2 (Type A on front) 3x USB 2.0 (2x Type A on front, 1x Type A on rear)
	SERIAL PORT	2x RS232/422/485 (DB9 on rear)
	DIO	1x 8-bit DIO (DB9 on rear, Configuration 1, default)
	CAN BUS	1x CAN Bus (DB9 on rear, Configuration 2, optional)
STORAGE & EXPANSION	SATA	1x 2.5" SATA 3.0 HDD / SSD
	M.2	1x M.2 Key B (Type 2242 / 2280, w/ PCIe x1 / USB 2.0 / UIM) 1x M.2 Key E (Type 2230, w/ PCIe x1 / USB 2.0 / SDIO / UART / I2C) 1x M.2 Key M (Type 2280, w/ SATA 3.0)
	SIM CARD HOLDER	1x SIM Card Holder (Micro type)
POWER	INPUT VOLTAGE	DC 12 V
	CONNECTOR	2-pin Terminal Block (on front)
FIRMWARE	BIOS	AMI uEFI BIOS w/ 256 Mb SPI Flash
	WATCHDOG	Programmable WDT to generate system reset event
	H/W MONITOR	Voltages, Temperatures
	REAL TIME CLOCK	SoC integrated RTC
	SECURITY	TPM 2.0 Support (Infineon SLB 9670)
SYSTEM CONTROL & MONITORING	BUTTON, SWITCH & INDICATOR	1x Power Button (on front) 1x Power LED (on front) 1x Standby LED (on front) 1x Storage LED (on front)
COOLING	COOLING METHOD	Passive
SOFTWARE	OS SUPPORT	Windows 10, Linux
MECHANICAL	CONSTRUCTION	Aluminum metal house
	DIMENSION (W x D x H)	210 mm x 137.2 mm x 35 mm / 8.27" x 5.40" x 1.38"
	WEIGHT	1,200 g / 2.65 lb
	MOUNTING	DIN-rail mount (bottom side) Horizontal wall mount VESA mount (100 mm x 100 mm) Desktop
ENVIRONMENTAL	OPERATING TEMPERATURE	0°C ~ 50°C / 32°F ~ 122°F
	STORAGE TEMPERATURE	-20°C ~ 80°C / -4°F ~ 176°F
	HUMIDITY	0 % ~ 95 %
COMPLIANCE	EMC & SAFETY	CE Class B, FCC Class B

Standard Services



**Integrated
Components**



**Revision
Controlled**



**Fully Tested &
Documented**



**Software
Installed**



**Full
Traceability**



**ISO
Certified**



**OEM
Customisation**

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