

Embedded Box PC

The KBox E-Series embedded box PCs provide rugged, fanless, fully enclosed and compact design for being easily embedded into a custom housing or as a stand-alone device, to fulfill requirements for fog computing, edge analytics and real time control in a variety of industrial applications. With latest processors and advanced technology components, they are designed for continuous operation (24/7) under harsh operating conditions and on high system load.

The KBox E-Series embedded box PCs ensure an extended long-term availability of up to 10 years from the release date, based on embedded key components. Furthermore, Kontron offers many value-added services like detailed documentation, a professional life-cycle management and customizing tools.



Compact Size
Easy adaptation to any space



Fanless Design
Reliable & quiet operation



Cooling Fins
Efficient heat dissipation



Alumium Housing
Elegant & robust



Anti-Corrosion
Anodized finish on surface



Fully Enclosed
High dustproof performance



About Kontron

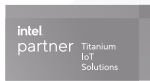
Kontron is a global leader in IoT/Embedded Computing Technology (ECT) and offers individual solutions in the areas of Internet of Things (IoT) and Industry 4.0 through a combined portfolio of hardware, software and services. With its standard and customized products based on highly reliable state-of-the-art technologies, Kontron provides secure and innovative applications for a wide variety of industries. As a result, customers benefit from accelerated time-to-market, lower total cost of ownership, extended product lifecycles and the best fully integrated applications.

For more information, please visit: www.kontron.com

About the Intel® Partner Alliance

From modular components to market-ready systems, Intel and the over 1,000+ global member companies of the Intel® Partner Alliance provide scalable, interoperable solutions that accelerate deployment of intelligent devices and end-to-end analytics. Close collaboration with Intel and each other enables Alliance members to innovate with the latest IoT technologies, helping developers deliver first-in-market solutions.

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Embedded Box PC

KBox E-Series



- **Low-power Computing Platform**
Intel® Core™ U-Series, Atom® Series or other low-power processors
- **Compact Size**
Easy adaptation to any space
- **Rugged Design**
High system availability against harsh environmental conditions



KBox E-Series

Embedded Box PC



KBox E-430-RPL



KBox E-430-TGL



KBox E-310-AMH/ADH



KBox E-430-AML/ADN



KBox E-250-AML/ADN



KBox E-430-EKL



KBox E-120-EKL

System	Processor	Intel® Core™ i7-1365UE/URE (10C, 12M, 17/4.9 GHz, 15 W) i5-1345UE/URE (10C, 12M, 14/4.6 GHz, 15 W) i3-1315UE/URE (6C, 10M, 1.2/4.5 GHz, 15 W) Intel® U300E (5C, 8M, 1.1/4.3 GHz, 15 W)
	Memory	2x DDR5 5200 SO-DIMM
	Graphics Controller	Intel® Iris® X ^e Graphics
	Ethernet Controller	Intel® I226-LM/IT
Peripheral Connection	2.5 GbE / GbE	2 (TSN support ⁽¹⁾ , Configuration 1) / 0 4 (TSN support ⁽¹⁾ , Configuration 2) / 0
	DP / HDMI	2 (8K@60Hz, Configuration 1) / 0 4 (8K@60Hz, Configuration 2) / 0
	DP over USB Type-C	0
	USB 3.2 Gen 2 / USB 2.0	4 / 2 (Configuration 1) 4 / 0 (Configuration 2)
	RS232/422/485 / RS232 / DIO / CAN	0 / 2 ⁽²⁾ / 1 (Bbit) / 0 (Configuration 1) 0 / 0 / 0 / 0 (Configuration 2)
	Line-Out / Mic-In	0 / 0
Storage & Expansion	eMMC	0
	2.5" SATA 3.0 HDD or SSD	1
	M2. Key B	1 (PCIe x1 / USB 2.0 / SATA 3.0 / UIM)
	M.2 Key E	1 (PCIe x1 / USB 2.0 / CNV)
	M.2 Key M	1 (PCIe x4)
Power	Input Voltage	DC 9 V ~ 36 V (Configuration 1) DC 11 V ~ 32 V (Configuration 2)
Security	TPM	dTPM 2.0
Cooling	Cooling Method	Passive
Software	OS Support	Windows 11, Windows 10, Linux
Mechanical	Construction	Aluminum Metal Chassis
	Dimension - W	205 mm / 8.07"
	Dimension - D	126.6 mm / 4.98"
	Dimension - H	65.5 mm / 2.58"
	Mounting	DIN Rail Mount Wall Mount VESA Mount (75x75 mm) Desktop
Environmental	Operating Temperature	0 ~ 50 °C / 32 ~ 122 °F (standard) -40 ~ 65 °C / -40 ~ 149 °F (extended)
Compliance	EMC & Safety	CE, FCC, ICES, UKCA Class B

⁽¹⁾ TSN support only for Core™
⁽²⁾ w/o hardware flow control on RS232

System	Processor	Intel® Core™ i7-1185G7E (4C, 12M, 1.8/4.4 GHz, 15 W) i5-1145G7E (4C, 8M, 1.5/4.1 GHz, 15 W) i3-1115G4E (2C, 6M, 2.2/3.9 GHz, 15 W) Intel® Celeron® 6305E (2C, 4M, 1.8 GHz, 15 W)
	Memory	2x DDR4 3200 SO-DIMM
	Graphics Controller	Intel® Iris® X ^e Graphics (Core™ i7 / i5) Intel® UHD Graphics (Core™ i3 / Celeron®)
	Ethernet Controller	Intel® I225-LM & Intel® I210-AT
Peripheral Connection	2.5 GbE / GbE	1 (Configuration 1) / 1 3 (Configuration 2) / 1
	DP / HDMI	2 (8K@60Hz ⁽¹⁾ , Configuration 1) / 0 4 (8K@60Hz ⁽¹⁾ , Configuration 2) / 0
	DP over USB Type-C	0
	USB 3.2 Gen 2 / USB 2.0	4 / 0
	RS232/422/485 / RS232 / DIO / CAN	2 / 0 / 0 / 0 (Configuration 1) 0 / 0 / 0 / 0 (Configuration 2)
	Line-Out / Mic-In	0 / 0
Storage & Expansion	eMMC	0
	2.5" SATA 3.0 HDD or SSD	1
	M2. Key B	1 (PCIe x1 / USB 2.0 / SATA 3.0 / UIM)
	M.2 Key E	1 (PCIe x1 / USB 2.0 / CNV)
	M.2 Key M	1 (PCIe x4)
Power	Input Voltage	DC 9 V ~ 32 V (Configuration 1) DC 11 V ~ 32 V (Configuration 2)
Security	TPM	dTPM 2.0
Cooling	Cooling Method	Passive
Software	OS Support	Windows 10, Linux
Mechanical	Construction	Aluminum Metal Chassis
	Dimension - W	205 mm / 8.07"
	Dimension - D	126.6 mm / 4.98"
	Dimension - H	65.5 mm / 2.58"
	Mounting	DIN Rail Mount Wall Mount VESA Mount (75x75 mm) Desktop
Environmental	Operating Temperature	0 ~ 50 °C / 32 ~ 122 °F (standard)
Compliance	EMC & Safety	CE, FCC, ICES Class B

⁽¹⁾ 2x 8K for Core™ i7 / i5, 1x 8K for Core™ i3 / Celeron®

System	Processor	Intel® Atom® x7211RE (2C, 6M, 1.0/3.2 GHz, 6 W) x7433RE (4C, 6M, 1.5/3.4 GHz, 9 W) x7835RE (8C, 6M, 1.3/3.6 GHz, 12 W) Intel® N97 (4C, 6M, 2.0/3.6 GHz, 12 W) Intel® Core™ N97 (4C, 6M, 2.0/3.6 GHz, 12 W) Intel® Core™ i3-N305 (8C, 6M, 1.8/3.8 GHz, 15 W)
	Memory	1x DDR5 4800 SO-DIMM
	Graphics Controller	Intel® UHD Graphics Gen12
	Ethernet Controller	Intel® I226-V/IT
Peripheral Connection	2.5 GbE / GbE	2 (TSN support ⁽¹⁾) / 0
	DP / HDMI	2 (4K@60Hz) / 1 (v2.0, 4K@60Hz)
	DP over USB Type-C	1 (USB 3.2 Gen 2 ⁽²⁾ w/ PD 5 V / 3 A)
	USB 3.2 Gen 2 / USB 2.0	2 / 2
	RS232/422/485 / RS232 / DIO / CAN	4 ⁽³⁾ / 0 / 0 / 0
	Line-Out / Mic-In	1 / 1
Storage & Expansion	eMMC	0
	2.5" SATA 3.0 HDD or SSD	1
	M2. Key B	1 (PCIe x1 / USB 2.0 / UIM)
	M.2 Key E	1 (PCIe x1 / USB 2.0 / CNV ⁽⁴⁾)
	M.2 Key M	1 (SATA 3.0)
Power	Input Voltage	DC 9 V ~ 36 V
Security	TPM	dTPM 2.0
Cooling	Cooling Method	Passive
Software	OS Support	Windows 11, Windows 10, Linux
Mechanical	Construction	Aluminum Metal Chassis
	Dimension - W	275 mm / 10.83"
	Dimension - D	140 mm / 5.51"
	Dimension - H	48 mm / 1.89"
	Mounting	VESA Mount (100x100 mm) Desktop Mounting on Kontron Display Module
Environmental	Operating Temperature	0 °C ~ 50 °C / 32 °F ~ 122 °F (Standard) -30 °C ~ 60 °C / -22 °F ~ 140 °F (Extended)
Compliance	EMC & Safety	CE, FCC, ICES, UKCA Class B

⁽¹⁾ TSN support only for Atom® RE Series
⁽²⁾ Only USB 3.2 Gen 1 support for Atom® RE Series
⁽³⁾ x2 w/o hardware flow control on RS232
⁽⁴⁾ Atom® RE Series does not support CNV

System	Processor	Intel® Atom® x7211RE (2C, 6M, 1.0/3.2 GHz, 6 W) x7433RE (4C, 6M, 1.5/3.4 GHz, 9 W) Intel® N97 (4C, 6M, 2.0/3.6 GHz, 12 W) Intel® Core™ i3-N305 (8C, 6M, 1.8/3.8 GHz, 15 W)
	Memory	4 / 8 / 16 GByte LPDDR5 4800 RAM
	Graphics Controller	Intel® UHD Graphics Gen12
	Ethernet Controller	Intel® I226-V/IT
Peripheral Connection	2.5 GbE / GbE	2 (TSN support ⁽¹⁾) / 0
	DP / HDMI	1 (4K@60Hz) / 0
	DP over USB Type-C	1 (USB 3.2 Gen 2 ⁽²⁾ w/ PD 5 V / 3 A)
	USB 3.2 Gen 2 / USB 2.0	2 / 2
	RS232/422/485 / RS232 / DIO / CAN	0 / 2 ⁽³⁾ / 1 (Bbit) / 0
	Line-Out / Mic-In	0 / 0
Storage & Expansion	eMMC	32 / 64 / 128 GByte eMMC
	2.5" SATA 3.0 HDD or SSD	0
	M2. Key B	1 (PCIe x2 / USB 2.0 / SATA 3.0 / UIM)
	M.2 Key E	1 (PCIe x1 / USB 2.0 / CNV ⁽⁴⁾)
	M.2 Key M	0
Power	Input Voltage	DC 12 V
Security	TPM	dTPM 2.0
Cooling	Cooling Method	Passive
Software	OS Support	Windows 11, Windows 10, Linux
Mechanical	Construction	Aluminum Metal Chassis
	Dimension - W	130 mm / 5.12"
	Dimension - D	109.3 mm / 4.30"
	Dimension - H	40 mm / 1.57"
	Mounting	DIN Rail Mount VESA Mount (75x75 / 100x100, adapter required) Desktop
Environmental	Operating Temperature	0 °C ~ 50 °C / 32 °F ~ 122 °F (Standard) -30 °C ~ 60 °C / -22 °F ~ 140 °F (Extended)
Compliance	EMC & Safety	CE, FCC, ICES, UKCA Class B

⁽¹⁾ TSN support only for Atom® RE Series
⁽²⁾ Only USB 3.2 Gen 1 support for Atom® RE Series
⁽³⁾ x2 w/o hardware flow control on RS232
⁽⁴⁾ Atom® RE Series does not support CNV

System	Processor	Intel® Atom® x6211E (2C, 1.5M, 1.3/3.0 GHz, 6 W) x6212RE (2C, 1.5M, 1.2 GHz, 6 W) x6425RE (4C, 1.5M, 1.9 GHz, 12 W) Intel® Celeron® J6413 (4C, 1.5M, 1.8/3.0 GHz, 10 W)
	Memory	2x DDR4 3200 SO-DIMM
	Graphics Controller	Intel® UHD Graphics Gen11
	Ethernet Controller	Intel® I226-LM/IT
Peripheral Connection	2.5 GbE / GbE	2 (TSN support ⁽¹⁾ , Configuration 1/3) / 0 4 (TSN support ⁽¹⁾ , Configuration 2) / 0
	DP / HDMI	2 (4K@60Hz) / 0
	DP over USB Type-C	0
	USB 3.2 Gen 2 / USB 2.0	2 / 2 (Configuration 1/3) 2 / 3 (Configuration 2)
	RS232/422/485 / RS232 / DIO / CAN	2 / 0 / 1 (Bbit) / 0 (Configuration 1) 0 / 0 / 0 / 0 (Configuration 2) 2 / 0 / 0 / 1 (Configuration 3)
	Line-Out / Mic-In	0 / 0
Storage & Expansion	eMMC	0
	2.5" SATA 3.0 HDD or SSD	1
	M2. Key B	1 (PCIe x1 / USB 2.0 / UIM)
	M.2 Key E	1 (PCIe x1 / USB 2.0 / SDIO / UART / I ² C)
	M.2 Key M	1 (SATA 3.0)
Power	Input Voltage	DC 9 V ~ 32 V (Configuration 1/3) DC 11 V ~ 32 V (Configuration 2)
Security	TPM	dTPM 2.0
Cooling	Cooling Method	Passive
Software	OS Support	Windows 10, Linux
Mechanical	Construction	Aluminum Metal Chassis
	Dimension - W	205 mm / 8.07"
	Dimension - D	126.6 mm / 4.98"
	Dimension - H	65.5 mm / 2.58"
	Mounting	DIN Rail Mount Wall Mount VESA Mount (75x75 mm) Desktop
Environmental	Operating Temperature	0 ~ 50 °C / 32 ~ 122 °F (Standard) -20 ~ 50 °C / -4 ~ 122 °F (Extd., Config. 1/3) -20 ~ 70 °C / -4 ~ 158 °F (Extended, Config. 2)
Compliance	EMC & Safety	CE, FCC, ICES, UKCA Class B

⁽¹⁾ TSN support only for Atom® RE Series

System	Processor	Intel® Atom® x6211E (2C, 1.5M, 1.3/3.0 GHz, 6 W) x6212RE (2C, 1.5M, 1.2 GHz, 6 W) x6425RE (4C, 1.5M, 1.9 GHz, 12 W) Intel® Celeron® J6413 (4C, 1.5M, 1.8/3.0 GHz, 10 W)
	Memory	2x DDR4 3200 SO-DIMM
	Graphics Controller	Intel® UHD Graphics Gen11
	Ethernet Controller	Intel® I226-LM/IT
Peripheral Connection	2.5 GbE / GbE	2 (TSN support ⁽¹⁾) / 0
	DP / HDMI	2 (4K@60Hz) / 0
	DP over USB Type-C	0
	USB 3.2 Gen 2 / USB 2.0	2 / 3
	RS232/422/485 / RS232 / DIO / CAN	2 / 0 / 1 (Bbit) / 0 (Configuration 1) 2 / 0 / 0 / 1 (Configuration 2)
	Line-Out / Mic-In	0 / 0
Storage & Expansion	eMMC	0
	2.5" SATA 3.0 HDD or SSD	1
	M2. Key B	1 (PCIe x1 / USB 2.0 / UIM)
	M.2 Key E	1 (PCIe x1 / USB 2.0 / SDIO / UART / I ² C)
	M.2 Key M	1 (SATA 3.0)
Power	Input Voltage	DC 12 V
Security	TPM	dTPM 2.0
Cooling	Cooling Method	Passive
Software	OS Support	Windows 10, Linux
Mechanical	Construction	Aluminum Metal Chassis
	Dimension - W	210 mm / 8.27"
	Dimension - D	137.2 mm / 5.40"
	Dimension - H	35 mm / 1.38"
	Mounting	DIN Rail Mount Wall Mount VESA Mount (100x100 mm) Desktop
Environmental	Operating Temperature	0 ~ 50 °C / 32 ~ 122 °F (Standard) -20 ~ 70 °C / -4 ~ 158 °F (Extended)
Compliance	EMC & Safety	CE, FCC, ICES, UKCA Class B

⁽¹⁾ TSN support only for Atom® RE Series