

KBox B-202-CFL



High-end computing with expansion capabilities –
for noise sensitive environments

- ▶ High processing capability: 8th Gen Intel® Core™ i3/i5/i7
- ▶ Raid functionality with up to four storage devices
- ▶ Two PCIe expansion slots for graphics or network cards
- ▶ Low noise design
- ▶ Removable 2.5" SSD

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The KBox B-202-CFL offers high performance with maximum expandability and low noise level (maximum 34 dB(A)). Thanks to 8th Gen Intel® Core™ i3/i5/i7 processors and the Intel® Q370 or H310 Express Chipset, the KBox B-202-CFL handles CPU-intensive processes and large amounts of data effortlessly. Among the highlights are the expansion options, which include up to two PCIe x8 cards or one PCIe x16, so that graphics or network cards can be easily added. This makes the new KBox B-202-CFL ideal for demanding applications such as high-end image processing, SCADA/MES applications, artificial intelligence and machine learning.

In addition, it is EN55032 Class B certified, which means it meets stricter RFI limits than Class A. This makes it suitable not only for use in industrial environments, but also for use in residential and business areas or in their immediate vicinity. Along with its modern design this makes the KBox B-202-CFL the ideal computer for architecture and graphics offices as well as music studios.

The core of the KBox B-202-CFL is a motherboard in the Mini-ITX form factor (170x170 mm) with a CPU with up to six processor cores: Depending on requirements, three 8th Gen Intel® Core™ i3/i5/i7 processors can be selected.

► TECHNICAL INFORMATION

PROCESSOR SYSTEM	CPU	8th Gen Intel® Core™ i3/i5/i7 Socket LGA1151, max. 95 W TDP Intel® i3-8100 4x 3.6 GHz Intel® i5-8500 6x 3.0 GHz (Max. Turbo 4.1 GHz) Intel® i7-8700 6x 3.2 GHz (Max. Turbo 4.6 GHz) Intel® Q370 Express Chipset (Smart line) Intel® H310 Express Chipset (Value line) AMI® Aptio 5.x
MEMORY	TECHNOLOGY CAPACITY SOCKET	DDR4-2666 MHz non ECC 8/16/32 GByte 2x SODIMM
GRAPHICS	GRAPHICS CORE MAX. RESOLUTION	Internal Intel® UHD 630 Graphics, DX12 4096x2304 @60 Hz
FRONT I/O	POWER ON USB	Power Button with status LED 2x USB 3.0
REAR I/O	GRAPHICS PORTS AUDIO USB ETHERNET CONTROLLER FEATURES PS/2 SERIAL PORTS	1x DVI-D, 2x DisplayPort V1.2 1x Line in, 1x Line out Realtek ALC671, 5.1-channel, High Definition Audio Codec 4x USB 2.0, 2x USB 3.1 Gen 1, 2x USB 3.1 Gen 2 (Smart line) 3x USB 2.0, 2x USB 3.1 Gen1 (Value line) 2x LAN 10/100/1000 MBit/s Intel® i219LM & i210AT AMT 12.0* / vPro Support*, Wake-on-LAN, PXE Support, BIOS MAC Address Display, Teaming Support 1x PS/2 Mouse, 1x PS/2 Keyboard 1x Serial (COM1, RS232)
INTERNAL CONNECTORS	SATA M.2 MPCIE GPIO PORT GRAPHICS SERIAL USB	4x Serial ATA III 600 Interface (up to 6Gbit/s), NCQ, AHCI, RAID 0/1/5/10 1x M.2 Key-M for PCIe-based SSD NVME modules; 4x PCIe Gen3 lanes Mechanical support for 2280, 2260 or 2242 modules 1x Mini-Pcie supporting PCIe Gen3 & USB 2.0 (half-size / full size) 8 Bit GPIO (Input/Output); WLAN LED support, WLAN enable/disable support 3.3 V / 5 V / 12 V supply voltage output SMBus controller PCA9554A LVDS, LVDS Backlight (PWM controlled), Embedded DP COM2 (RS-232 / RS-422 / RS-485) 1x USB 2.0, 1x USB 3.1 (Gen1), 1x USB 3.1 (Gen2) Stick (Smart line) 1x USB 2.0, 1x USB 3.1 (Gen1) (Value line)
STORAGE	REMOVABLE DRIVE INTERNAL DRIVES	1x 2,5" SSD SATA III / SATA-600 Up to 2x M.2 SSD, up to 2x 2.5" SSD (RAID support*)
SOFTWARE SUPPORT	MICROSOFT WINDOWS®	Windows® 10 IoT Enterprise LTSC 2019
SECURITY	FEATURES KONTRON APPROTECT	Recovery BIOS, System and BIOS Password, Boot Sequence Control, Serial- / USB- Port Access Protection, Boot Sector Virus Warning, Write Protection for Flash BIOS, EraseDisk (BIOS Feature), TPM V2.0 (Infineon SLB96705PI; TCG compliant) Based on WIBU Systems on request
MIDDLEWARE	KEAPI	Kontron KEAPI
POWER SUPPLY (EXTERNAL)	INPUT VOLTAGE	90 to 264 VAC (external power supply) 24 VDC (on request)

► TECHNICAL INFORMATION

MECHANICAL	CONSTRUCTION FRONT COOLING DIMENSIONS (WXHxD) WEIGHT	Continuously hot-dip zinc coated mild steel sheet, according EN10215 Aluminum Internal silent fan 190 x 120 x 190 mm Approx. 3 kg
ENVIRONMENT	OPERATING TEMPERATURE STORAGE TEMPERATURE RELATIVE HUMIDITY OPERATING VIBRATION OPERATING SHOCK ALTITUDE NOISE LEVEL MTBF	0 °C to +45 °C (32 °F to 113 °F) -20 °C to +80 °C (-4 °F to 176 °F) 93 % @ 40 °C, non-condensing 5-500 Hz, 1G acc. IEC 60068-2-6 half sine, 15 g, 11 ms acc. IEC 60068-2-27 5000 m (16400 ft) <= 34 dB(A) at 25 °C, Sea level, 1 m, Full CPU/GPU load 62257h @40 °C
APPROVALS	CE, CB, NRTL	EMC: EN 55032:2012, class B, EN 61000-3-2:2014, EN 61000-3-3:2013, EN 55024:2010 NOTE: with external power supply provided by Kontron Safety: IEC 62368-1:2014, EN 62368-1:2014, UL 62-368-1:2014-12, CAN/CSA-C22.2 No. 62368-1:2014-12 NOTE: with external power supply provided by Kontron
POWER SUPPLY (EXTERNAL)	INPUT VOLTAGE RANGE	90 to 264 VAC (external power supply) 24 VDC (on request)

* Feature only supported by Smart Line (Q370 Chipset)

► ACCESSORIES

ARTICLE	PART NO.	DESCRIPTION
FEET	0-0067-0006	Rubber feet 10x3mm
WALL MOUNT	9-4700-0080	Wall mounting kit including bracket and screws
AC POWER SUPPLY	1064-8948	90 to 264 VAC, 150 W PSU
POWER CORD EU	0-0064-2173	Euro (Type A), 2.5 m
POWER CORD UK	0-0064-4173	UK (Type C), 2.5 m
POWER CORD US	0-0064-4317	US, 2 m

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