

# KBox C-103-CFL-x

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## High-End Industrial Computer Platform for Control Cabinet Applications

- ▶ Based on 8th/9th Gen Intel® Core™ or Xeon® E-2276ME for demanding control applications
- ▶ Highest system availability: Fanless up to 65 °C, Goldcap backup, redundant PSU option, recovery button
- ▶ Optimized for control and Soft-PLC applications: Fieldbus and NVRAM option
- ▶ High flexibility and expandability

POSSIBILITIES START HERE



## ▶ TECHNICAL INFORMATION

	KBox C-103-CFL-4	KBox C-103-CFL-2	KBox C-103-CFL-1	KBox C-103-CFL-0
<b>PROCESSORS</b>	8th/9th Generation Intel® processor via COM Express® type 6: - Xeon® E-2276ME: 6x 2.8 GHz, 12 MByte cache - Core™ i7-9850HE: 6x 2.7 GHz, 9 MByte cache - Core™ i5-8400H: 4x 2.5 GHz, 8 MByte cache - Core™ i3-9100HL: 4x 1.6 GHz, 6 MByte cache - Celeron® G4930E: 2x 2.4 GHz, 2 MByte cache			
<b>PLATFORM CONTROLLER HUB</b>	Intel® CM246 (Xeon®) or QM370			
<b>MEMORY</b>	Up to 64 GByte DDR4 RAM, non-ECC/ECC			
<b>NON-VOLATILE RAM (NVRAM)</b>	1 MByte FRAM for static values, available on project request			
<b>RTC</b>	High-precision RTC with gold-cap backup			
<b>INTERFACES</b>	4x 10/100/1000 MBIT/s Ethernet with IEEE1588 support, WOL 3x USB 3.0, 3x USB 2.0 2x DisplayPort 1x RS232/RS422/RS485 8x LEDs 2x Buttons: Power/Reset & Recovery			
<b>OPTIONAL INTERFACES</b>	CAN module for layer 2 CAN (SJA1000) 2nd COM port RS232/RS422 3rd DisplayPort or Kontron Widelink option via adapter module 2nd 24 VDC power input, hot standby functionality			
<b>STORAGE DRIVES</b>	1x M.2 2280 B-Key and 1x M.2 2280 M-Key, 2x 2.5" SATA SSD/HDD internal, optional accessible via removable drive assemblies	1x M.2 2280 B-Key and 1x M.2 2280 M-Key, 2x 2.5" SATA SSD/HDD internal, optional accessible via removable drive assemblies	1x M.2 2280 B-Key and 1x M.2 2280 M-Key, 1x 2.5" SATA SSD/HDD internal, optional accessible via removable drive assembly	1x M.2 2280 B-Key and 1x M.2 2280 M-Key, 1x 2.5" SATA SSD/HDD internal
<b>EXPANSIONS</b>	2x PCIe x4 + 2x PCIe x1, 1x mPCIe for Fieldbus or WIFI expansion 1x M.2 2242 B-Key for LTE expansion, SIM card socket	2x PCIe x4 or 1x PCIe x8, 1x mPCIe for Fieldbus or WIFI expansion 1x M.2 2242 B-Key for LTE expansion, SIM card socket	1x PCIe x4 or 1x PCIe x8, 1x mPCIe for Fieldbus or WIFI expansion 1x M.2 2242 B-Key for LTE expansion, SIM card socket	1x mPCIe for Fieldbus or WIFI expansion 1x M.2 2242 B-Key for LTE expansion, SIM card socket
<b>POWER SUPPLY</b>	24 VDC (17-36 VDC), up to 20 ms hold-up			
<b>DIMENSION (H X W X D)</b>	290 x 195 x 210 mm (11.42" x 7.68" x 8.27")	290 x 155 x 210 mm (11.42" x 6.1" x 8.27")	290 x 130 x 210 mm (11.42" x 5.12" x 8.27")	290 x 117 x 210 mm (11.42" x 4.61" x 8.27")
<b>MOUNTING</b>	Control cabinet key holes, book size format			
<b>COOLING</b>	Fan less, optional with FAN			
<b>ENVIRONMENTAL</b>				
<b>OPERATING TEMPERATURE</b>	with Intel® Core™ i3/i5 and Celeron®: 0 °C to +65 °C (32 °F to 149 °F) with Intel® Core™ i7: 0 °C to +60 °C (32 °F to 140 °F)			
<b>STORAGE TEMPERATURE</b>	-40 °C to +75 °C (-40 °F to 167 °F)			
<b>CLIMATIC HUMIDITY</b>	93 % RH at 40 °C, non-condensing (acc. to IEC 60068-2-78)			
<b>APPROVALS</b>	CE, CB, UL, FCC			
<b>SOFTWARE SUPPORT</b>	Windows® 10, Windows® Server 2019, Ubuntu Linux®			
<b>SECURITY FEATURES</b>	TPM 2.0 controller and Kontron APPROTECT security solution based on Wibu-Systems CodeMeter®			
<b>WEIGHT</b>	6 kg (13.22 lbs.)	4.75 kg (10.47 lbs.)	4.6 kg (10.14 lbs.)	3.8 kg (8.37 lbs.)

## ▶ GLOBAL HEADQUARTERS

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