KBox F-420-WLU
BIG PERFORMANCE IN A SMALL BOX

MINI BOX PC WITH
8TH GEN INTEL® CORE™ / CELERON® U-SERIES PROCESSORS

- 1x DP++, 1x HDMI 2.0 for display output
- 1x GbE LAN for Ethernet
- 4x USB 3.1, 1x RS232/422/485 for peripherals
- 1x M.2 Key B, 1x M.2 Key E, 1x M.2 Key M for SSD storage & wireless expansion
- Palm-sized compact volume

Ordered & Served at
Kontron Asia

POSSIBILITIES START HERE
KBox F-420-WLU
MINI BOX PC WITH 8TH GENERATION INTEL® CORE™ / CELERON® U-SERIES PROCESSORS

KBox F-420-WLU is a box PC enclosed within a palm-sized aluminum chassis. It can easily fit into any space environment. Powered by 8th Generation Intel® Core™ / Celeron® U-Series processors, it delivers excellent processing and graphics performance to applications requiring intense data throughput, especially for video/image data.

Besides most demanding I/O ports, including one GbE LAN, one DP++, one HDMI 2.0, four USB 3.1 and one RS232/422/485, KBox F-420-WLU integrates three next-generation M.2 expansion sockets, allowing users to expand storage media and wireless connection without sacrificing small form factor.

PRODUCT HIGHLIGHTS

- 8th Gen Intel® Core™ / Celeron® U-Series Processors (up to 25 W TDP)
- 2x DDR4 SO-DIMM memory socket
- 1x DP++, 1x HDMI 2.0 for display output
- 1x GbE LAN for Ethernet
- 4x USB 3.1 for USB device connection
- 1x RS232/422/485 for serial device connection
- 1x M.2 Key B for SSD / WWAN expansion
- 1x M.2 Key E for WLAN / Bluetooth expansion (CNVi support)
- 1x M.2 Key M for SSD storage
- 0.5-liter palm-sized volume

MECHANICAL DIMENSIONS

Model with DC Jack

Model with Phoenix Connector
## TECHNICAL INFORMATION

### SYSTEM

| Processor | Intel® Core™ i7-8665UE (Quad Core, 8M Cache, up to 4.4 GHz, FCBGA1528, 15 W TDP)  
| Memory | Intel® Core™ i5-8365UE (Quad Core, 6M Cache, up to 4.1 GHz, FCBGA1528, 15 W TDP)  
| | Intel® Core™ i3-8145UE (Dual Core, 4M Cache, up to 3.9 GHz, FCBGA1528, 15 W TDP)  
| | Intel® Celeron® 4305UE (Dual Core, 2M Cache, 2.0 GHz, FCBGA1528, 15 W TDP)  

### VIDEO

| Graphics | Intel® UHD Graphics 620 (Core™ i models)  
| Display Interface | Intel® UHD Graphics 610 (Celeron® models)  
| Multiple Display | 1x DP++ (on rear, 4096 x 2304 @ 60 Hz)  
| | 1x HDMI 2.0 (on rear, 4096 x 2160 @ 60 Hz)  
| | Dual  

### AUDIO

| Codec | Realtek ALC662  
| Interface | 1x Line-out / Line-in / Mic-in (on front)  

### NETWORK CONNECTION

| Ethernet | 1x GbE LAN (RJ45 on rear, Intel® i219)  

### PERIPHERAL CONNECTION

| USB | 4x USB 3.1 (Type A on front)  
| | 1x RS232/422/485 (DB9 on rear)  

### STORAGE & EXPANSION

| M.2 Key B (Type 2242 / 2280 / 3042, w/ SATA / PCIe x1 / USB 3.1)  
| M.2 Key E (Type 2230 / 3030, w/ PCIe x1 / USB 2.0, CNVi support)  
| M.2 Key M (Type 2280, w/ PCIe x4 / SATA)  
| SIM Cage (Micro type, connected to M.2 Key B)  

### POWER

| Input Voltage & Connector | DC 12 V (Lockable DC jack on rear, configuration 1)  
| | DC 19 V ~ 24 V (Phoenix connector on rear, configuration 2)  
| | AC 100 V ~ 240 V to DC 12 V 60 W (supplied accessory for configuration 1)  
| | AC 100 V ~ 240 V to DC 24 V 60 W (optional accessory for configuration 2)  

### FIRMWARE

| BIOS | AMI uEFI BIOS w/ 256 Mb SPI Flash  
| Watchdog | Programmable WDT to generate system reset event  
| H/W Monitor | Input & Core Voltages, CPU & System Temperatures  
| Real Time Clock | Processor integrated RTC  
| vPRO | Supported for Core™ i7 / i5 model  
| TPM | Optional (Infineon SLB 9665 TPM 2.0)  

### SYSTEM CONTROL & MONITORING

| BUTTON, SWITCH & INDICATOR | 1x Power Button w/ LED (on front)  
| | 1x External Power Button (on rear)  
| | 1x Reset Button (on rear)  
| | 1x Storage LED (on front)  
| | 1x Wireless LED (on front)  

### COOLING

| Fan | 1x CPU Smart Fan  

### SOFTWARE

| OS Support | Windows 10, Linux  

### MECHANICAL

| Construction Dimensions (W x D x H) | 130 mm x 111 mm x 35 mm / 5.12” x 4.37” x 1.38”  
| Weight | TBD  
| Mounting | VESA Mount  
| Security | 1x Kensington Lock  

### ENVIRONMENTAL

| Operation Temperature | 0 °C ~ 50 °C / 32 °F ~ 122 °F  
| Storage Temperature | -20 °C ~ 80 °C / -4 °F ~ 176 °F  
| Humidity | 0 % ~ 90 %  

### CERTIFICATION

| EMC & Safety | CE, FCC Class B  

www.kontron.com
## ORDERING INFORMATION

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<thead>
<tr>
<th>ARTICLE</th>
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<tbody>
<tr>
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### OPTIONAL ACCESSORIES

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<tr>
<td>AC 100 V ~ 240 V to DC 24 V 60 W with open wire, for model w/ Phoenix connector</td>
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(ordered at Kontron Asia and all technical support, RMA and warranty will be provided by Kontron Asia)

## PRODUCT CONTACT POINT

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