

# BT-810X Series

## Fanless Box PC with Intel® Core™ i9/i7/i5/i3 10th Gen.

### Features

- Intel® Core™ i9/i7/i5/i3 10th Gen.
- Intel® H420E chipset (W480E optional)
- DDR4 SODIMM up to 64GB
- 1x PCIe x16 & 1x PCI (BT-8101)
- 1x PCIe x16 & 1x PCIe x8 (BT-8102)
- 2x PCI (BT-8103)
- RAID 0,1 support (W480E optional)

### System

<b>CPU</b>	Intel® 10th generation Core™ i9/i7/i5/i3 processor in LGA1200 socket
<b>Chipset</b>	Intel® H420E / W480E (optional)
<b>Memory</b>	2x 260-pin DDR4 SO-DIMM sockets, supporting 2933 MHz SDRAM up to 64GB
<b>Graphics</b>	Integrated Intel® HD Graphics
<b>ATA</b>	2x Serial ATA ports with 600MB/s HDD transfer rate
<b>LAN chipset</b>	1x Intel® WGI225LM 2.5GigE LAN 1x Intel® WGI211AT GbE controller 1x Intel® WGI219LM GbE controller (w/o iAMT, H420E) (w/ iAMT, W480E)
<b>Watchdog timer</b>	1~255 levels reset

### I/O

<b>Serial Port</b>	2x RS-232/422/485 configurable via DB-9 connectors 4x RS-232 ports via DB-9 connectors
<b>USB</b>	6x USB 3.2 Gen1 / 2.0 ports, 2x USB 2.0 ports Internal USB dongle (optional)
<b>LAN</b>	3x RJ-45 ports for GbE
<b>Video</b>	1x HDMI 1x DB-15 female connector for Analog RGB 1x DVI-D female connector for digital video output *Support 2 independent displays *Support 3 independent displays (W480E only)
<b>Selectable port</b>	1x DB25 connector for DIO (8 in/8 out) port or LPT port (either one, default is DIO)
<b>Audio</b>	1x Audio Mic-in, Line-out
<b>Expansion Bus</b>	1x full-size Mini-card interconnected with SIM card for optional WiFi/3G/4G/GPS or I/O Expansion (PCIe x1+USB2.0) 1x M.2 E key (2230) with PCIe1+USB2.0 for Wireless 1x PCIe x16 slot +1 x PCI slot (BT-8101) 1x PCIe x16 slot +1 x PCIe x8 slot (via x1 lane) (BT-8102) 2 x PCI (BT-8103) *The above devices are with 55W power budget for expansion Bus

### Environmental

<b>Operating Temp.</b>	-20 ~ 70°C ambient w/ air flow, (w/ 35W TDP CPU, fanless) -20 ~ 55°C ambient w/ air flow (w/ 65W TDP CPU, fanless)
<b>Storage Temp.</b>	-40 ~ 85°C
<b>Humidity</b>	10 ~ 95% @ 70°C, non-condensing
<b>Vibration</b>	3 Grms/5~500Hz/random operation w/ SSD
<b>Shock</b>	Operating 40G (11ms), Non-operating 60G with SSD

Front



Rear

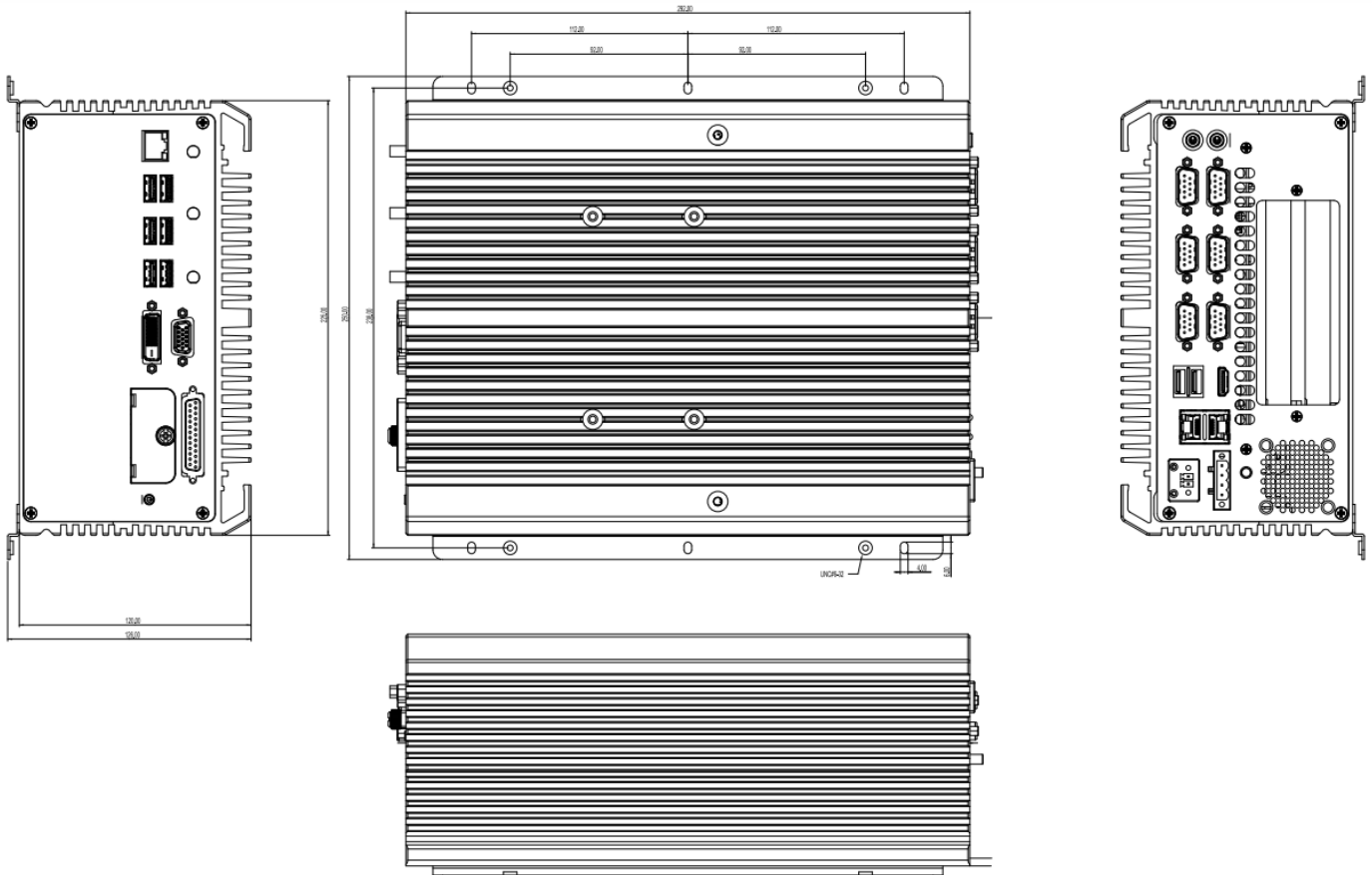


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Qualification	
Certification	CE, FFC Class A
Power Input	DC 9~36V input ( w/ 4-pin DC input terminal block,combining remote power on/off switch
Ignition Switch	2-pin teminal block : IGN, GND
Power Consumption	MAX 65W (w/35W TDP CPU, w/o I/O card) MAX 95W (w/65W TDP CPU, w/o I/O card)
Storage	
Type	2x 2.5" drive bays 1x CFast socket, can be outside accessible
Mechanical	
Construction	Aluminum alloy
Mounting	Wall-mount
Dimensions	255 x 292 x 120mm
Weight	7kg

## Technical drawing









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### Optional Accessories

<b>WMK-7000</b>	Wall-mount kit for BT-7XXX Series	
<b>PAC-120W6B-FSP</b>	120W AC/DC adapter kit w/ 2-pin/3-pin/4-pin block	
<b>PAC-180W6C-FSP</b>	180W AC/DC adapter kit w/ 2-pin/3-pin/4-pin block	

### Optional configuration

<b>240GB SSD</b>	Intel® 2.5" 240GB SATAIII SSD kit	
<b>WIFI-AT4550</b>	Atheros QCNFA324 Wi-Fi module w/ 20&30cm internal wires	
<b>ANT-H11</b>	1 x 2dBi HSUPA antenna	
<b>ANT-D11</b>	1 x WiFi dual-band 2.4G/5G antenna	
<b>Core™ i9-10900E</b>	Intel® 10th Gen. Core™ i9-10900E processor, L2/20M, 2.8G	
<b>Core™ i9-10900TE</b>	Intel® 10th Gen. Core™ i9-10900TE processor, L2/20M, 1.8G	
<b>Core™ i7-10700E</b>	Intel® 10th Gen. Core™ i7-10700E processor, L2/16M, 2.9G	
<b>Core™ i7-10700TE</b>	Intel® 10th Gen. Core™ i7-10700TE processor, L2/16M, 2.0G	
<b>Core™ i5-10500E</b>	Intel® 10th Gen. Core™ i5-10500E processor, L2/12M, 3.1G	
<b>Core™ i5-10500TE</b>	Intel® 10th Gen. Core™ i5-10500TE processor, L2/12M, 2.3G	
<b>Core™ i3-10100E</b>	Intel® 10th Gen. Core™ i3-10100E processor, L2/6M, 3.2G	
<b>Core™ i3-10100TE</b>	Intel® 10th Gen. Core™ i3-10100TE processor, L2/6M, 2.3G	
<b>MK-4C-4G/8G/16G</b>	DDR4-2400 4GB/8GB/16GB SDRAM DIMM kit	
<b>FAN-4020</b>	Fan kit (40 x 40 x 20 mm, L=250mm, 2P)	

### Order information

<b>BT-8101</b>	Fanless system, H420E, w/ 1 x PCIe x16 + 1 x PCI
<b>BT-8102</b>	Fanless system, H420E, w/ 1 x PCIe x16 + 1 x PCIe x8
<b>BT-8103</b>	Fanless system, H420E, w/ 2 x PCI