

# BT-ARES-1980

## Fanless rugged controller with 11<sup>th</sup> Gen. Intel® Core™ i Processor

### Features

- Intel® Core™ i Processor (Tiger Lake UP3)
- 2 x 260-pin DDR4 SO-DIMM sockets support
- 5G module, M.2 NVMe SSD Gen3x4, USB 3.2 Gen 2 and 2.5 GbE Lan support
- 4x COM, 3x LAN, 4x USB 3.2. Gen 2, Remote PWR
- Triple display support (DVI-D/HDMI/DP)

### System

<b>CPU</b>	Soldered onboard Intel® i7/ i5/ i3 processor (Default: i5 CPU Tiger Lake-U)
<b>Chipset</b>	SoC
<b>Memory</b>	2x 260-pin DDR4 SO-DIMM sockets, supporting 3200MHz SDRAM up to 64GB
<b>Graphics</b>	Intel® Iris® Xe Graphics
<b>LAN chipset</b>	2x Intel® i211AT PCIe controller 1x Intel® 225LM PCIe controller (iAMT support w/ i5/i7 skus)
<b>Watchdog timer</b>	1~255 levels reset
<b>Storage</b>	1x M.2 M-Key 2242/2280 (PCIe Gen III x4 + SATAIII) 1x 2.5" HDD/SSD tray (SATA III + SATA PWR connector)
<b>OS support</b>	Windows 10 IoT Ubuntu 20.04

### I/O

<b>Serial Port</b>	2x RS232 (DB-9 male connector) 2x RS232(Default)/422/485 (RI/5V/12V) (DB-9 male connector/ Switch via BIOS)
<b>USB</b>	4x USB 3.2 Gen2 (2 w/ independent full speed) 1x USB 2.0 onboard for encryption dongle (Type A)
<b>LAN</b>	3x RJ-45 ports for GbE
<b>Video</b>	1x HDMI 2.0b connector, supporting 4K/2K resolution 1x DisplayPort 1.4 connector, supporting 4K/2K resolution 1x DVI-D connector, supporting Full HD resolution
<b>Digital I/O</b>	8x DI & 8 x DO w/ 1.5KV isolation
<b>Multi-Serial Bus</b>	I2C/SPI/UART/GPIO (w/ 3.3 or 5V) via DB-26
<b>Other</b>	10x antenna holes are reserved
<b>Expansion Bus</b>	1x full mPCIe slot (PCIe x1+ USB2.0, Full size) w/ 1x SIM card slot 1x M.2 B-Key 2242/3042/3052 (PCIe x2 + USB3.0) w/ 2x SIM card slots

### Environmental

<b>Operating Temp.</b>	-20 ~ 60°C ambient w/ air flow
<b>Storage Temp.</b>	-40 ~ 70°C
<b>Humidity</b>	10 ~ 95% @ 60°C, non-condensing

Front



Rear

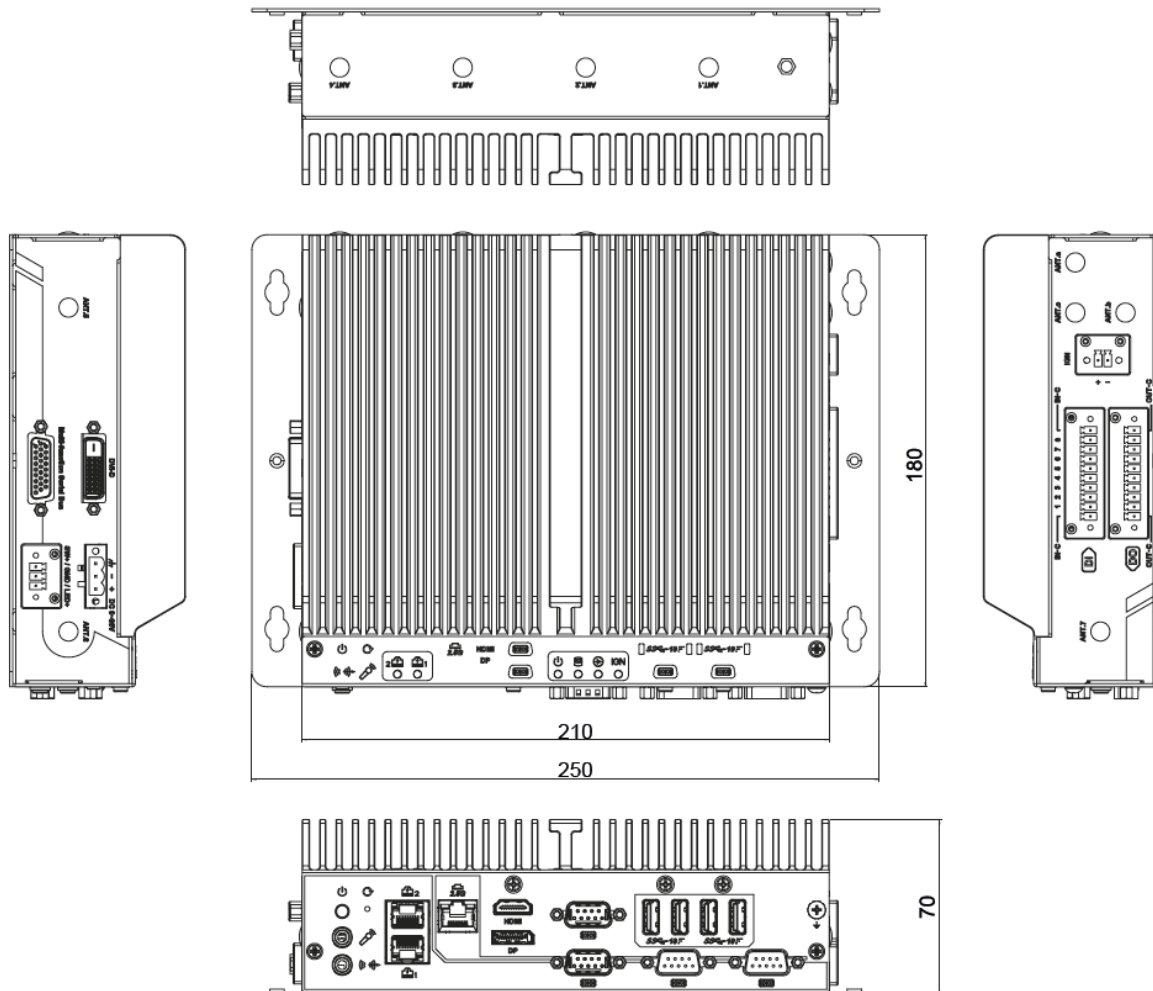


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Environmental	
Vibration	5~500Hz 3 Grms X,Y,Z axis w/ SSD, according to IEC 60068-2-64
Shock	40G peak acceleration (11 m sec. duration), operation w/ SSD 80G peak acceleration (11 m sec. duration), nonoperation w/ SSD According to IEC 60068-2-27
Mechanical	
Power Input	DC 9~36V (3-pin terminal block: V+, V-, GND)
Max. Power consumption	120W
Remote Control	1x3-pin terminal block for remote control and PWR LED output
Power Ignition	IGN +/-
Construction	Sheet Metal + Aluminum Alloy
Mounting	Wall-mount (standard) DIN-rail or VESA mount (optional w/ CTOS bracket)
Dimensions	210 x 180 x 70mm
Weight	3.7kg
Certification	CE/FCC Class A







## Technical drawing



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## Optional configuration (\*CTOS Kit)

<b>PAC-120W6B-FSP-ES</b>	19V/6.3A, 120W AC/DC adapter kit	
<b>WIFI-AT4550</b>	Atheros QCNFA324 Wi-Fi module w/ 2*30cm internal wiring	
<b>ANT-D11</b>	1 x WiFi dual-band 2.4G/5G antenna	
<b>ANT H11</b>	1 x 2dBi HSUPA antenna	
<b>LTE-1450</b>	LTE Quectel EC25-E Cat 4 Mini-PCle Wireless Kit(excluded North of America/ Euro)	
<b>MM-4C-4G/8G DIMM Memory</b>	2G/4G/8G DDR4 Memory	

## Order information

<b>BT-ARES-1980-1155G4E (BTO)</b>	BT-ARES-1980 w/ i3-1115G4E, 2*DDR4, 4*COM, 4*USB3.2 Gen2, 1*onboard USB2.0, 2*PoE, 1*2.5GbE LAN, 1*HDMI, 1*DVI-D, 1*DP, 1*mPCIe slot, 1*M.2 B-Key, 1*M.2 M-Key, 1*2.5" SSD/HDD tray, 1*M.2 E-Key, 2*SIM, 1*Multi Serial BUS, 8*DI/DO, 1*MIC-in, and 1*Line-out
<b>BT-ARES-1980-1145G7E</b>	BT-ARES-1980 w/ i5-1145G7E, 2*DDR4, 4*COM, 4*USB3.2 Gen2, 1*onboard USB2.0, 2*PoE, 1*2.5GbE LAN, 1*HDMI, 1*DVI-D, 1*DP, 1*mPCIe slot, 1*M.2 B-Key, 1*M.2 M-Key, 1*2.5" SSD/HDD tray, 1*M.2 E-Key, 2*SIM, 1*Multi Serial BUS, 8*DI/DO, 1*MIC-in, and 1*Line-out
<b>BT-ARES-1980-1185G7E</b>	BT-ARES-1980 w/ i7-1185G7E, 2*DDR4, 4*COM, 4*USB3.2 Gen2, 1*onboard USB2.0, 2*PoE, 1*2.5GbE LAN, 1*HDMI, 1*DVI-D, 1*DP, 1*mPCIe slot, 1*M.2 B-Key, 1*M.2 M-Key, 1*2.5" SSD/HDD tray, 1*M.2 E-Key, 2*SIM, 1*Multi Serial BUS, 8*DI/DO, 1*MIC-in, and 1*Line-out