

FPC-8101/02/03

Robust Box PC with Intel® 10th Generation Core™ i9/i7/i5/i3 Processor



Features

- **Fanless design**
- Wide range DC power input (9~36V)
- Two independent displays support (HDMI x1 + VGA x 1 and DVI-D x 1)
- Power on/off delay control / configurable ignition power control
- TPM2.0 support
- 1 x mPCIe for optional WiFi/3G/4G/GPS or I/O expansion supported
- 1 x M.2 E Key (2230) for WiFi/ BT
- Front-accessible I/O support
- Intel® Wi-Fi 6 AX200 support
- RAID 0,1 support (W480E optional)

System	
CPU	Intel® 10 th generation Core™ i9/i7/i5/i3 processor in LGA1200 socket
Memory	2 x 260-pin DDR4 SO-DIMM sockets, supporting 2933 MHz SDRAM up to 64GB
Chipset	Intel® H420E / W480E (Optional)
Graphics	Integrated Intel® HD Graphics
ATA	2 x Serial ATA ports with 600MB/s HDD transfer rate
LAN Chipset	1x Intel® WGI225LM 2.5GigE LAN 1 x Intel® WGI211AT GbE controller 1 x Intel® WGI219LM GbE controller (w/o iAMT, H420E) (w/ iAMT, W480E)
Watchdog Timer	1~255 levels reset
I/O	
Serial Port	2 x RS-232/422/485 configurable via DB-9 connectors 4 x RS-232 ports via DB-9 connectors
USB Port	6 x USB 3.2 Gen1 / 2.0 ports 2 x USB 2.0 ports Internal USB dongle (Optional)
LAN	3 x RJ-45 ports for GbE 1 x HDMI 1 x DB-15 female connector for Analog RGB 1 x DVI-D female connector for digital video output * Support 2 independent displays * Support 3 independent displays (W480E, only)
Selectable Port	1 x DB25 connector for DIO (8 in/8 out) port or LPT port (either one, default is DIO)
Audio	Mic-in/Line-out
Expansion Bus	1 full-size Mini-card interconnected with SIM card for optional WiFi/3G/4G/GPS or I/O Expansion (PCIe x 1+USB2.0) 1 x M.2 E key (2230) with PCIe x1+USB2.0, for Wireless 1 x PCIe x16 slot +1 x PCI slot (FPC-8101) 1 x PCIe x16 slot +1 x PCIe x8 slot (via x 1 lane) (FPC-8102) 2 x PCI (FPC-8103)

Environmental	
Operating Temp.	-20 ~ 70°C (-4 ~ 158°F), ambient w/ air flow, (w/ 35W TDP CPU, fanless) -20 ~ 55°C (-4 ~ 131°F), ambient w/ air flow (w/ 65W TDP CPU, fanless)
Storage Temp.	-40 ~ 85°C (-40 ~ 185°F)
Operating Humidity	10 ~ 95% @ 70°C (non-condensing)
Vibration	3 Grms/5~500Hz/random operation w/ SSD
Shock	Operating 40G (11ms), Non-operating 60G with SSD
Qualification	
Certification	CE, FCC Class A
Power Requirement	
Power Input	DC 9~36V input (w/ 4-pin DC input terminal block, combining remote power on/off switch
Ignition Switch	2-pin terminal 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	2 x 2.5" drive bays 1 x CFast socket, can be outside accessible
Mechanical	
Construction	Aluminum alloy
Mounting	Wall-mount
Weight	7kg (15.43lb)
Dimensions (W x H x D)	225 x 292 x 120mm (8.86" x 11.50" x 4.72")
OS Support	
Windows 10 IOT Enterprise 64-bit Linux (Kernel: 4.9)	
Ordering Information	
FPC-8101	Fanless system, H420E, w/ 1 x PCIe x16 + 1 x PCI
FPC-8102	Fanless system, H420E, w/ 1 x PCIe x16 + 1 x PCIe x8
FPC-8103	Fanless system, H420E, w/ 2 x PCI

