

# FPC-8101/8102/8103

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

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## Features

- Intel® Core™ i9/i7/i5/i3 10th Gen. CPU
- DDR4 2,999MHz SODIMM up to 64GB
- Intel® H420E chipset (W480E optional)
- 1 x mPCIe for optional Wi-Fi/ 3G/ 4G/ GPS or I/O expansion supported
- TPM 2.0 support



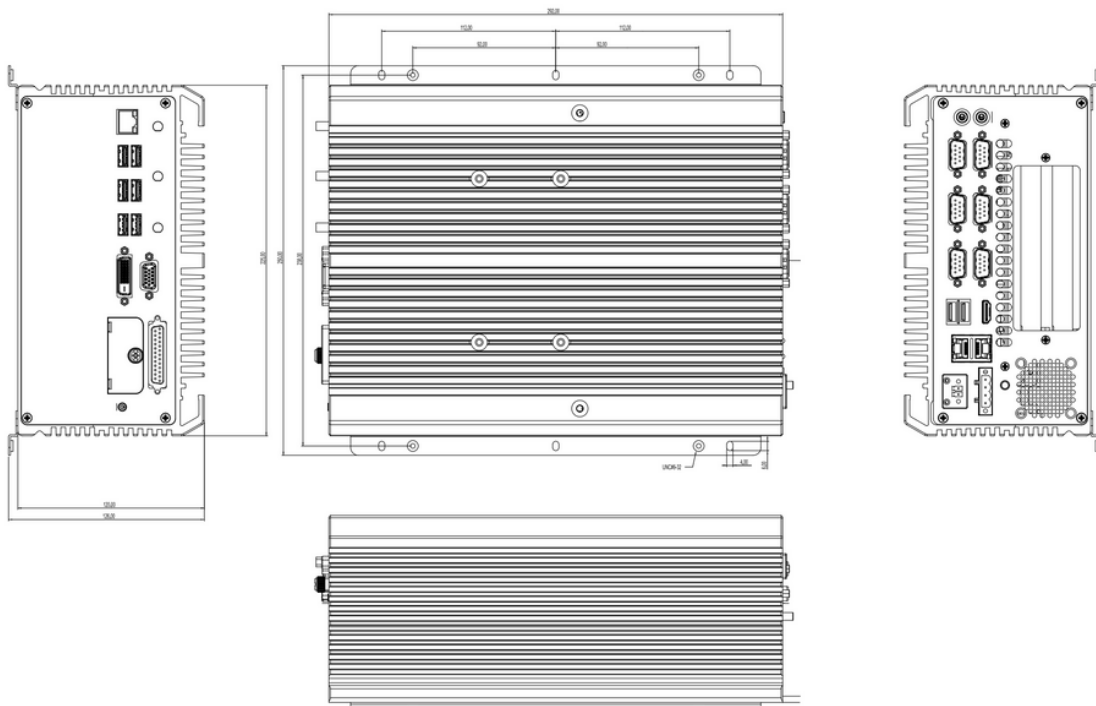
## FPC-8101/8102/8103: Extensive Connectivity Options for Industrial Applications

The Box PCs FPC-8101/8102/8103 combine outstanding performance with easy handling and extensive connectivity options. The robust housing allows for deployment in challenging conditions. With the use of a 10th generation Intel® Core™ i3, i5, i7, or i9 processor, the embedded computer prioritizes high performance with minimal power consumption. Alongside unique image and video processing and efficient remote monitoring, the FPC-810X series meets the requirements for use in critical applications with the highest demand for reliability. Proven applications in the industrial environment include Factory Automation, logistics, and vehicle deployment.

## Manage PCs via Remote Management

An Intel® H420E chipset (optional W480E is also possible) serves as the central control unit on the motherboard. The industrial computers withstand temperature fluctuations from -20 to +70 °C, as well as accelerations and vibrations (up to 40G with mechanical HDD and up to 60G with SSD) without issues. The series can be powered by power supplies with a voltage range of 9-36V, providing flexibility for various deployment scenarios. The optional LAN chipset W480E supports Intel® Active Management Technology (iAMT). Thus, the computer can be installed in locations with no direct access, and remote management via network connection is used to manage the respective PC. Three LAN ports are available as connection options, and optionally, a WLAN module or HSUPA module for a 4G mobile connection is also available.

## Drawing (mm)



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Specifications	FPC-8101/8102/8103
<b>SYSTEM</b>	
CPU	Intel® 10th generation Core™ i9/ i7/ i5/ i3 processor in LGA1200 socket
Chipset	Intel® H420E/ W480E (optional)
Graphics	Integrated Intel® HD Graphics
RAM	2 x 260-pin DDR4 SO-DIMM sockets, supporting 2,933 MHz SDRAM up to 64GB
Storage	2x 2.5" SATA drive bays (600MB/s HDD transferrate) Supports RAID 0,1 (W480E optional) 1x Type II CFast slot
TPM	TPM 2.0 support
Watchdog	1~255 levels reset
Expansion	1 Full-size Mini-card interconnected with SIM card for optional Wi-Fi / 3G / 4G / GPS or I/O expansion (PCIe x1 + 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))
Operating System	Windows 10 IoT Enterprise 64-bit Linux (Kernel: 4.9)
<b>INTERFACE</b>	
Ethernet	3x RJ-45 ports for Gigabit Ethernet 1x Intel® WGI225LM 2.5GigE LAN 1x Intel® WGI211AT GbE controller 1x Intel® WGI219LM GbE controller (w/o iAMT, H420E) (w/ iAMT, W480E)
USB	1x Internal USB dongle (optional) 6x USB 3.2 Gen1 2x USB 2.0
COM	4x RS232 2x RS232/422/485
Digital I/O	1x DB25 for DIO (8 in/8 out) port or 1 x LPT port
Video	1x HDMI 1x DVI-D 1x DB-15 for analog RGB * Support 2 independent displays * Support 3 independent displays (W480E, only)
Audio	1x Mic-in and 1x Line-out
Power	4-pin DC input
<b>ENVIRONMENTAL</b>	
Chassis	Aluminium alloy
Cooling	Fanless
Power Supply	9 ~ 36V DC Max. 65W (w/ 35W TDP CPU, w/o I/O card) Max. 95W (w/ 65W TDP CPU, w/o I/O card)
Remote Control & LED	2-pin terminal block: IGN & GND
Operating Temperature	-20 ~ 75°C with Air Flow (35W TDP CPU, fanless) -20 ~ 55°C with Air Flow (65W TDP CPU, fanless)
Storage Temperature	-40 ~ 85°C
Vibration / Shock Resistance	Vibration: 3 Grms / 5~500Hz / random operation w/ SSD Shock: Operating 40G (11ms), Non-operating 60G with SSD
Humidity	10 ~ 95% @ 70°C (non-condensing)
Dimensions	225 (W) x 292 (D) x 120 (H) mm
Weight	7 kg
Mounting	Wallmount
Certifications	CE, FCC Class A

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## Optional accessories

SKU	Accessories	
WMK-7000	Wall-mount kit for FPC-7XXX Series	
PAC-120W6B-FSP-ES	120W AC/DC adapter kit w/ 2-pin/3-pin/4-pin block	
PAC-180W6C-FSP-ES	180W AC/DC adapter kit w/ 2-pin/3-pin/4-pin block	

## Optional configuration (CTOS\* kit)

SKU	Configuration	
240GB SSD	Intel® 2.5" 240GB SATAIII SSD kit	
WIFI-IN2550	Intel AX200NGW M.2 Wi-Fi 6 module w/ 2 x 30cm internal wires	
ANT-H11	1x 2dBi HSUPA antenna	
ANT-D11	1 x WiFi dual-band 2.4G/5G antenna	
Core™ i9-10900E	Intel® 10th Gen. Core™ i9-10900E processor, L2/20M, 2.8G	
Core™ i9-10900TE	Intel® 10th Gen. Core™ i9-10900TE processor, L2/20M, 1.8G	
Core™ i7-10700E	Intel® 10th Gen. Core™ i7-10700E processor, L2/16M, 2.9G	
Core™ i7-10700TE	Intel® 10th Gen. Core™ i7-10700TE processor, L2/16M, 2.0G	
Core™ i5-10500E	Intel® 10th Gen. Core™ i5-10500E processor, L2/12M, 3.1G	
Core™ i5-10500TE	Intel® 10th Gen. Core™ i5-10500TE processor, L2/12M, 2.3G	
Core™ i3-10100E	Intel® 10th Gen. Core™ i3-10100E processor, L2/6M, 3.2G	
Core™ i3-10100TE	Intel® 10th Gen. Core™ i3-10100TE processor, L2/6M, 2.3G	
MK-4C-4G/8G/16G/32G	DDR4-2400 4GB/8GB/16GB/32G(DDR4-2933) SDRAM DIMM kit	
MK-4I-4G/8G/16G/32G	WT, DDR4-2400 4GB/8GB/16GB/32G(DDR4-2933) SDRAM DIMM kit	
FAN-4020	Fan kit (40 x 40 x 20 mm, L=250mm, 2P)	

\* CTOS means Configure-to-Order Service