PPC-F-Q370 SERIES

AI Ready Panel PC
Based on Intel® OpenVINO™ toolkit

15" 17" 15.6" 18.5" 21.5" 23.8"
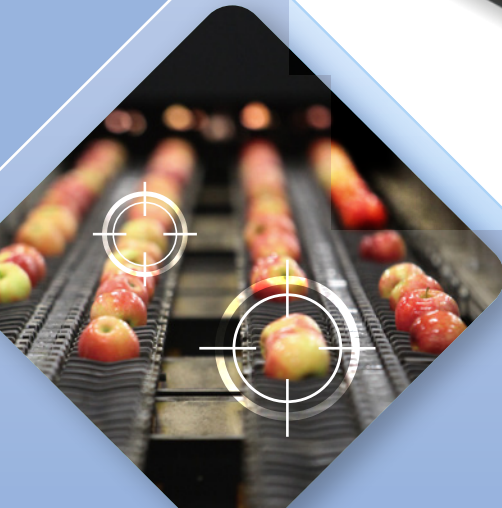
www.ieiworld.com

Modular Panel PC Provides Flexibility for AI Applications

The PPC-FxxC series featuring a modular design can be fitted with different sizes of panel kits to expand its capabilities.

- Cut-out dimensions is backward compatible to PPC-F series, easy to upgrade your existing project
- More than 12 SKUs by various monitor choices: 15"/17"/15.6"/18.5"/22"/24"
- PCAP touch screen
- 250W/350W DC power supply
- Easy assembly and maintenance
- One-stop shopping and building your own system to accelerate time to market

FLEX-BX200-Q370

+

FLEX-PLKIT → **PPC-FxxC**
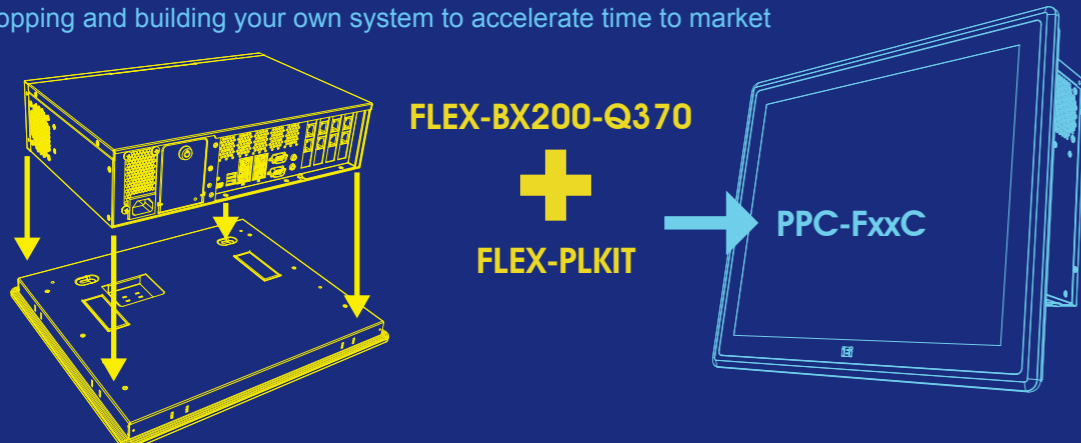
Compact 2U System
- Compatible to standard server rack cabinet
- Optional rack mount and wall mount kit

Smart Fan for Quiet Operation
CPU and system fan can be configured separately, which allows the PPC-F to be quieter during operation while extending the fan's lifespan, and enhances system stability and durability.
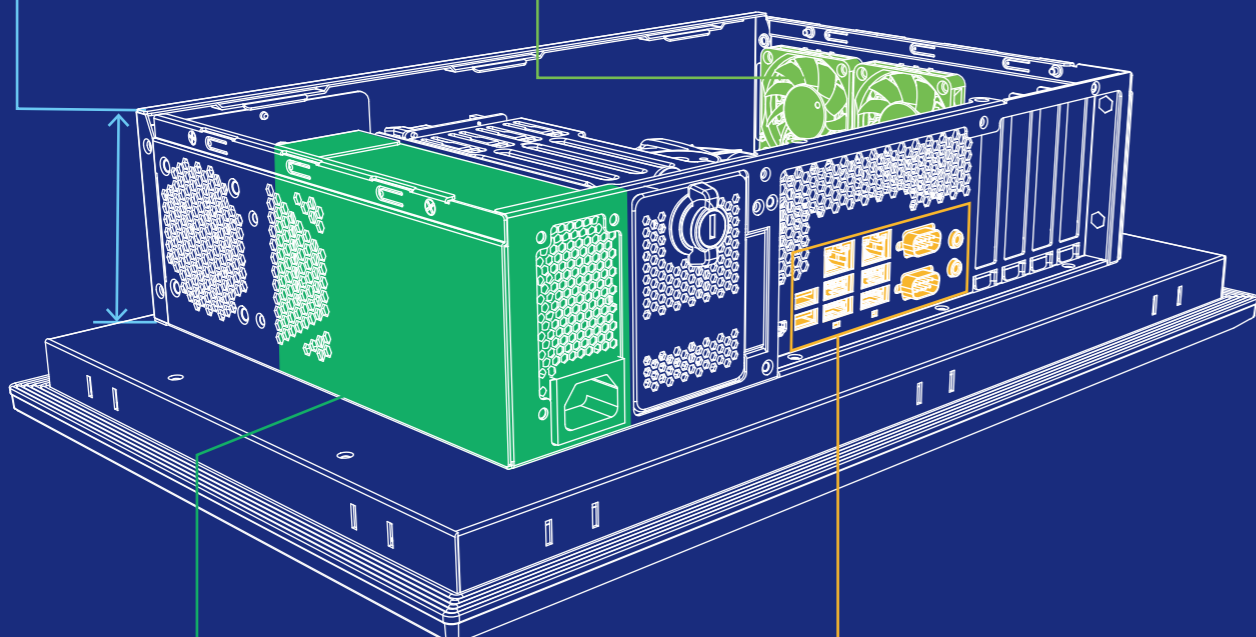
250W ATX Power Supply
- Active PFC (Power Factor Correction) circuit protection
- 80-Plus Gold high efficiency
- 350W PSU models are built to order

Rich I/O Interface
- HDMI output
- 6 USB 3.0 ports
- 2 GbE LAN ports
- 2 RS-232 COM ports
- Microphone in and Line-out ports
- AT/ATX switch
- Reset button

Up to 64GB DDR4 2133MHz Memory
DDR4 offers greater range of clock speeds, timing, low power consumption and reduced latency to optimize system performance.

8th Generation Intel® Core™ Desktop Processors
With architecture optimizing, 8th Generation Intel® Core™ Processors are with intensely powerful 6-core and 12-thread in high end models. The CPU cache size is also increased. It improves performance by 15% compared to the previous generation.
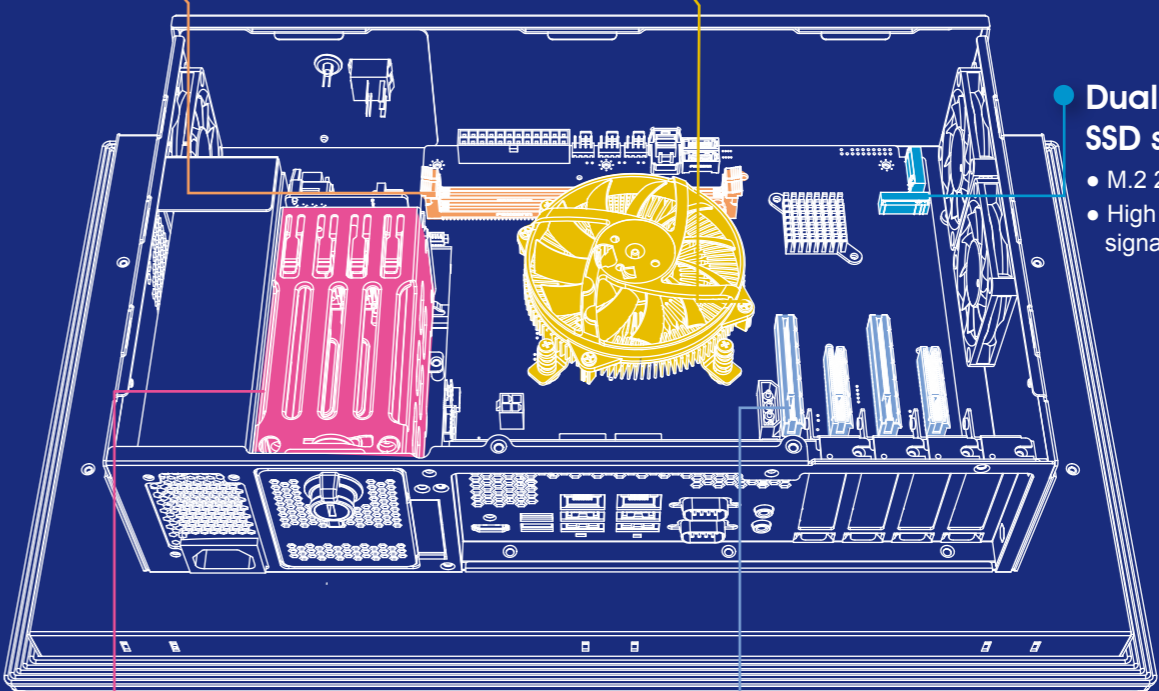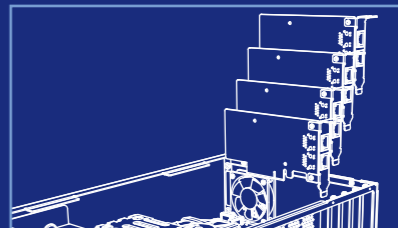
Dual M.2 PCIe NVMe SSD slots
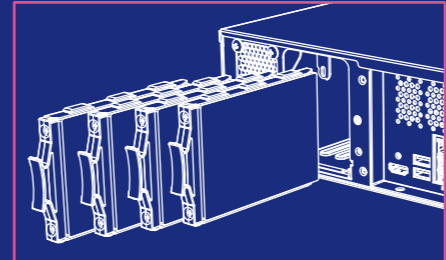- M.2 2280 form factor
- High speed PCIe 3.0 by 4 signal

Four Hot-swappable HDD Bays
- With security key lock
- Support RAID 0/1/5/10
- LEDs for drive activity

Four PCIe 3.0 Low Profile Expansion Slots
- Two PCIe by 4 and two PCIe by 8 with vertical heat dissipation, and the two PCIe by 8 provide zero latency
- Support AI accelerator cards, such as FPGA card, vision process card (VPU), etc.

Model		PPC-F15C-Q370	PPC-F17C-Q370	PPC-FW15C-Q370
TFT LCD	LCD Size	15"	17"	15.6"
	Max. Resolution	1024x768	1280x1024	1366x768
	Brightness (cd/m²)	450	350	400
	Contrast Ratio	800:1	1000:1	500:1
	LCD Color	16.2M	16.7M	16.2M
	Viewing Angle (H/V)	160°/150°	170°/160°	170°/160°
	Backlight MTBF (Hrs)	70,000	50,000	50,000
Touch Screen		PCAP touch with 10-point multitouch, anti-glare coating		
Mainboard	CPU	8th Generation Intel® Core™ i7/i5/i3 and Pentium® processor in the LGA 1151 package		
	Chipset	Intel® Q370 Chipset		
	Memory	2 x 288-pin 2666/2400 MHz dual-channel DDR4 unbuffered DIMM slot supporting up to 64GB		
	Graphics Engine	Intel® HD Graphics Gen 9 Engines with 16 low-power execution units, supports DX2015, OpenGL 5.X and OpenCL 2 x, ES 2.0		
	Ethernet	Intel® I211 controller		
Storage		(1) 4 x Accessible 2.5" SATA 6Gb/s HDD/SSD bay (RAID 0/1/5/10 support) with LED indicator (2) 2 x M.2 2280 PCIe Gen 3.0 x4 NVMe™ SSD socket		
I/O Ports and Switches		1 x HDMI output 1 x Line out 2 x GbE LAN 1 x AC power in Inlet 6 x USB 3.0 Type-A Power button with power LED (power on=Blue) 2 x RS-232 DB-9 type AT/ATX mode switch 1 x Mic in Reset button		
Expansion Slots		2 x PCIe 3.0 by 8 (by 16 slot) 2 x PCIe 3.0 by 4 (maximum card size supported: 68 mm x 167 mm)		
Thermal Solution		Smart Fan		
Power Supply		**AC input ATX power supply** 1. 250W power supply - Input: 115VAC~230VAC, 50/60Hz - Output (max.): 3.3V@12A, 5V@14A, 12V@25A, -12V@0.3A,+5Vsb@3A 2. 350W power supply (Build to Order) - Input: 115VAC~264VAC, 50/60Hz - Output (max.): 3.3V@14A, 5V@16A, 12V@29A, -12V@0.3A,+5Vsb@3A -Efficiency: Full load (100%) 87%, Typical load (50%) 90%, Light load (20%) 87%		
Watchdog Timer		Software Programmable support 1~255 sec. system reset		
Construction	IP Rating	IP66-rated front panel		
	Chassis Construction	Metal Housing		
	Mounting	Rack/Panel Mount		
	Color	Front Bezel : Cyan-blue (PSM 296C), Others: Black C		
	Cut-out dimensions (LxDxH) (mm)	361.1 x 285.6	391 x 324	379.1 x 232.3
	Dimensions (LxDxH) (mm)	378.5 x 303 x 118	408.4 x 341.4 x 119	400.1 x 253.3 x 121
Environmental	Operating Temperature	-20°C ~ 50°C (with SSD and up to TDP 65W processor) -20°C ~ 40°C (with HDD or add-on cards without fan)		
	Storage Temperature	-30°C ~ 60°C		
	Operating Humidity	5% ~95%, non-condensing		
	Vibration	5~17Hz, 0.1 double amplitude displacement 17~640Hz 1.5G acceleration peak to peak		
	Shock	10G acceleration part to part (11ms)		

PPC-FxxC Panel PC

Model		PPC-FW19C-Q370	PPC-FW22C-Q370	PPC-FW24C-Q370
TFT LCD	LCD Size	18.5"	21.5"	23.8"
	Max. Resolution	1366x768	1920x1080	1920x1080
	Brightness (cd/m²)	400	250	250
	Contrast Ratio	1000:1	1000:1	3000:1
	LCD Color	16.7M	16.7M	16.7M
	Viewing Angle (H/V)	170°/160°	170°/160°	178°/178°
	Backlight MTBF (Hrs)	50,000	30,000	30,000
Touch Screen		PCAP touch with 10-point multitouch, anti-glare coating		
Mainboard	CPU	8th Generation Intel® Core™ i7/i5/i3 and Pentium® processor in the LGA 1151 package		
	Chipset	Intel® Q370 Chipset		
	Memory	2 x 288-pin 2666/2400 MHz dual-channel DDR4 unbuffered DIMM slot supporting up to 64GB		
	Graphics Engine	Intel® HD Graphics Gen 9 Engines with 16 low-power execution units, supports DX2015, OpenGL 5.X and OpenCL 2 x, ES 2.0		
	Ethernet	Intel® I211 controller		
Storage		(1) 4 x Accessible 2.5" SATA 6Gb/s HDD/SSD bay (RAID 0/1/5/10 support) with LED indicator (2) 2 x M.2 2280 PCIe Gen 3.0 x4 NVMe™ SSD socket		
I/O Ports and Switches		1 x HDMI output 1 x Line out 2 x GbE LAN 1 x AC power in Inlet 6 x USB 3.0 Type-A Power button with power LED (power on=Blue) 2 x RS-232 DB-9 type AT/ATX mode switch 1 x Mic in Reset button		
Expansion Slots		2 x PCIe 3.0 by 8 (by 16 slot) 2 x PCIe 3.0 by 4 (maximum card size supported: 68 mm x 167 mm)		
Thermal Solution		Smart Fan		
Power Supply		**AC input ATX power supply** 1. 250W power supply - Input: 115VAC~230VAC, 50/60Hz - Output (max.): 3.3V@12A, 5V@14A, 12V@25A, -12V@0.3A,+5Vsb@3A 2. 350W power supply (Build to Order) - Input: 115VAC~264VAC, 50/60Hz - Output (max.): 3.3V@14A, 5V@16A, 12V@29A, -12V@0.3A,+5Vsb@3A -Efficiency: Full load (100%) 87%, Typical load (50%) 90%, Light load (20%) 87%		
Watchdog Timer		Software Programmable support 1~255 sec. system reset		
Construction	IP Rating	IP66-rated front panel		
	Chassis Construction	Metal Housing		
	Mounting	Rack/Panel Mount	Panel Mount	
	Color	Front Bezel : Cyan-blue (PSM 296C), Others: Black C		
	Cut-out dimensions (LxDxH) (mm)	447.8 x 267.2	533 x 341	577.6 x 359.6
	Dimensions (LxDxH) (mm)	469.8 x 289.2 x 120.8	550.4 x 358.4 x 117.8	600 x 356.6 x 119
Environmental	Operating Temperature	-20°C ~ 50°C (with SSD and up to TDP 65W processor) -20°C ~ 40°C (with HDD or add-on cards without fan)		
	Storage Temperature	-30°C ~ 60°C		
	Operating Humidity	5% ~95%, non-condensing		
	Vibration	5~17Hz, 0.1 double amplitude displacement 17~640Hz 1.5G acceleration peak to peak		
	Shock	10G acceleration part to part (11ms)		

PPC-FxxC Panel PC

Part No.	Description
PPC-F15C-Q370-P/PC/25-R10	15" 450cd/m² 1024 x768 AI modular Panel PC , Intel® Pentium® Gold G5400T Processor (2-core, 4-thread, 3.10 GHz) TDP 35W, two PCIe x4 and two PCIe x8 slots, four HDD bays, 250W PSU, R10"
PPC-F15C-Q370-i3/PC/25-R10	15" 450cd/m² 1024 x768 AI modular Panel PC, Intel® Core™ i3-8100T Processor (4-core, 4-thread, 3.10 GHz) TDP 35W, two PCIe x4 and two PCIe x8 slots, four HDD bays, 250W PSU, R10"
PPC-F15C-Q370-i5/PC/25-R10*	15" 450cd/m² 1024 x768 AI modular Panel PC, Intel® Core™ i5-8500T Processor (6-core, 6-thread, 2.1 GHz) TDP 35W, two PCIe x4 and two PCIe x8 slots, four HDD bays, 250W PSU, R10
PPC-F15C-Q370-i7/PC/25-R10*	15" 450cd/m² 1024 x768 AI modular Panel PC, Intel® Core™ i7-8700T Processor (6-core,12-thread,2.4 GHz) TDP 35W, two PCIe x4 and two PCIe x8 slots, four HDD bays, 250W PSU, R10"

Part No.	Description
PPC-F17C-Q370-P/PC/25-R10	17" 350cd/m² 1280 x 1024 AI modular Panel PC, Intel® Pentium® Gold G5400T Processor (2-core, 4-thread, 3.10 GHz) TDP 35W, two PCIe x4 and two PCIe x8 slots, four HDD bays, 250W PSU, R10"
PPC-F17C-Q370-i3/PC/25-R10	17" 350cd/m² 1280 x 1024 AI modular Panel PC, Intel® Core™ i3-8100T Processor (4-core, 4-thread, 3.10 GHz) TDP 35W, two PCIe x4 and two PCIe x8 slots, four HDD bays, 250W PSU, R10"
PPC-F17C-Q370-i5/PC/25-R10*	17" 350cd/m² 1280 x 1024 AI modular Panel PC, Intel® Core™ i5-8500T Processor (6-core, 6-thread, 2.1 GHz) TDP 35W, two PCIe x4 and two PCIe x8 slots, four HDD bays, 250W PSU, R10
PPC-F17C-Q370-i7/PC/25-R10*	17" 350cd/m² 1280 x 1024 AI modular Panel PC, Intel® Core™ i7-8700T Processor (6-core,12-thread,2.4 GHz) TDP 35W, two PCIe x4 and two PCIe x8 slots, four HDD bays, 250W PSU, R10"

Part No.	Description
PPC-FW15C-Q370-P/PC/25-R10	15.6" 400cd/m² 1366 x 768 AI modular Panel PC, Intel® Pentium® Gold G5400T Processor (2-core, 4-thread, 3.10 GHz) TDP 35W, two PCIe x4 and two PCIe x8 slots, four HDD bays, 250W PSU, R10"
PPC-FW15C-Q370-i3/PC/25-R10	15.6" 400cd/m² 1366 x 768 AI modular Panel PC, Intel® Core™ i3-8100T Processor (4-core, 4-thread, 3.10 GHz) TDP 35W, two PCIe x4 and two PCIe x8 slots, four HDD bays, 250W PSU, R10"
PPC-FW15C-Q370-i5/PC/25-R10*	15.6" 400cd/m² 1366 x 768 AI modular Panel PC, Intel® Core™ i5-8500T Processor (6-core, 6-thread, 2.1 GHz) TDP 35W, two PCIe x4 and two PCIe x8 slots, four HDD bays, 250W PSU, R10
PPC-FW15C-Q370-i7/PC/25-R10*	15.6" 400cd/m² 1366 x 768 AI modular Panel PC, Intel® Core™ i7-8700T Processor (6-core,12-thread,2.4 GHz) TDP 35W, two PCIe x4 and two PCIe x8 slots, four HDD bays, 250W PSU, R10"

Ordering Information

PPC-FxxC Panel PC

Part No.	Description
PPC-FW19C-Q370-P/PC/25-R10	18.5" 400cd/m² 1366 x 768 AI modular Panel PC, Intel® Pentium® Gold G5400T Processor (2-core, 4-thread, 3.10 GHz) TDP 35W, two PCIe x4 and two PCIe x8 slots, four HDD bays, 250W PSU, R10"
PPC-FW19C-Q370-i3/PC/25-R10	18.5" 400cd/m² 1366 x 768 AI modular Panel PC, Intel® Core™ i3-8100T Processor (4-core, 4-thread, 3.10 GHz) TDP 35W, two PCIe x4 and two PCIe x8 slots, four HDD bays, 250W PSU, R10"
PPC-FW19C-Q370-i5/PC/25-R10*	18.5" 400cd/m² 1366 x 768 AI modular Panel PC, Intel® Core™ i5-8500T Processor (6-core, 6-thread, 2.1 GHz) TDP 35W, two PCIe x4 and two PCIe x8 slots, four HDD bays, 250W PSU, R10
PPC-FW19C-Q370-i7/PC/25-R10*	18.5" 400cd/m² 1366 x 768 AI modular Panel PC, Intel® Core™ i7-8700T Processor (6-core,12-thread,2.4 GHz) TDP 35W, two PCIe x4 and two PCIe x8 slots, four HDD bays, 250W PSU, R10"

Part No.	Description
PPC-FW22C-Q370-P/PC/25-R10	21.5" 250cd/m² 1920 x 1080 AI modular Panel PC, Intel® Pentium® Gold G5400T Processor (2-core, 4-thread, 3.10 GHz) TDP 35W, two PCIe x4 and two PCIe x8 slots, four HDD bays, 250W PSU, R10"
PPC-FW22C-Q370-i3/PC/25-R10	21.5" 250cd/m² 1920 x 1080 AI modular Panel PC, Intel® Core™ i3-8100T Processor (4-core, 4-thread, 3.10 GHz) TDP 35W, two PCIe x4 and two PCIe x8 slots, four HDD bays, 250W PSU, R10"
PPC-FW22C-Q370-i5/PC/25-R10*	21.5" 250cd/m² 1920 x 1080 AI modular Panel PC, Intel® Core™ i5-8500T Processor (6-core, 6-thread, 2.1 GHz) TDP 35W, two PCIe x4 and two PCIe x8 slots, four HDD bays, 250W PSU, R10
PPC-FW22C-Q370-i7/PC/25-R10*	21.5" 250cd/m² 1920 x 1080 AI modular Panel PC, Intel® Core™ i7-8700T Processor (6-core,12-thread,2.4 GHz) TDP 35W, two PCIe x4 and two PCIe x8 slots, four HDD bays, 250W PSU, R10"

Part No.	Description
PPC-FW24C-Q370-P/PC/25-R10	23.8" 250cd/m² 1920 x 1080 AI modular Panel PC, Intel® Pentium® Gold G5400T Processor (2-core, 4-thread, 3.10 GHz) TDP 35W, two PCIe x4 and two PCIe x8 slots, four HDD bays, 250W PSU, R10"
PPC-FW24C-Q370-i3/PC/25-R10	23.8" 250cd/m² 1920 x 1080 AI modular Panel PC, Intel® Core™ i3-8100T Processor (4-core, 4-thread, 3.10 GHz) TDP 35W, two PCIe x4 and two PCIe x8 slots, four HDD bays, 250W PSU, R10"
PPC-FW24C-Q370-i5/PC/25-R10*	23.8" 250cd/m² 1920 x 1080 AI modular Panel PC, Intel® Core™ i5-8500T Processor (6-core, 6-thread, 2.1 GHz) TDP 35W, two PCIe x4 and two PCIe x8 slots, four HDD bays, 250W PSU, R10
PPC-FW24C-Q370-i7/PC/25-R10*	23.8" 250cd/m² 1920 x 1080 AI modular Panel PC, Intel® Core™ i7-8700T Processor (6-core,12-thread,2.4 GHz) TDP 35W, two PCIe x4 and two PCIe x8 slots, four HDD bays, 250W PSU, R10"
DDR4-LO-4GB	4GB DDR4 (288-pin)
DDR4-LO-8GB	8GB DDR4 (288-pin)
HDD-25-1TB	1TB 2.5" HDD

*Build to order
**350W AC PSU models are by build-to-order manufacturing

Packing List
PPC-FxxC Panel PC

Item	Q'ty	Description
44013-030041-RS	16	Flat head screws for HDD bracket, M3*4
32702-000200-100-RS	1	European power cord, 1830mm

Options
PPC-FxxC Panel PC

Item	PPC-F15C	PPC-FW15C	PPC-F17C	PPC-FW19C	PPC-FW22C	PPC-FW24C
Panel Mount Kit	FPK-12-R10	FPK-14-R10	FPK-13-R10	FPK-13-R10	FPK-13-R10	FPK-14-R10
Rack Mount Kit	FRK15C-R10	FRKW15C-R10	FRK17C-R10	FRKW19C-R10	N.A.	N.A.

▶ Flexible Deployment

▶ Rack Mount

The PPC-FxxC with rack mounting kit can easily fit the standard 19" cabinet for industrial applications.
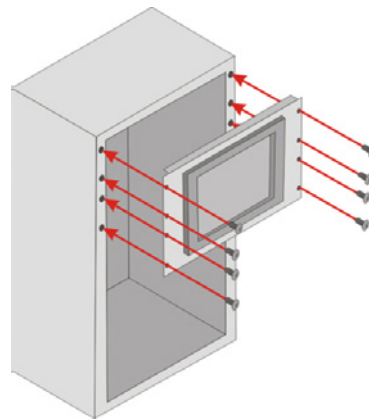
▶ Panel Mount

Panel mounting is the mounting way that mounts product into an opening of a customer's fixture from the front and secured from the rear. All user controls are located on the rear of the mechanism, making the panel mount displays a good choice for applications requiring a display with no external or exposed controls such as CNC equipment, gaming, casino system, ATM, and kiosk.
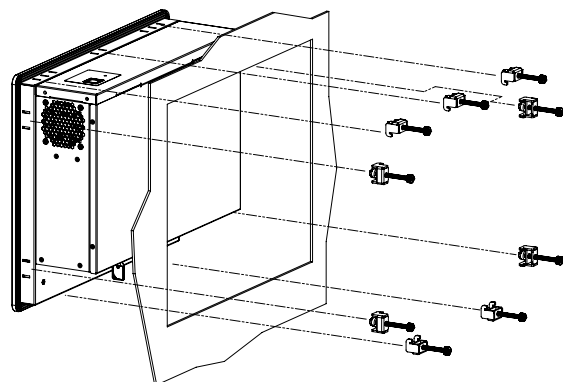
PPC-FxxC Panel PC

PPC-F15C-Q370 Dimensions (Unit: mm)

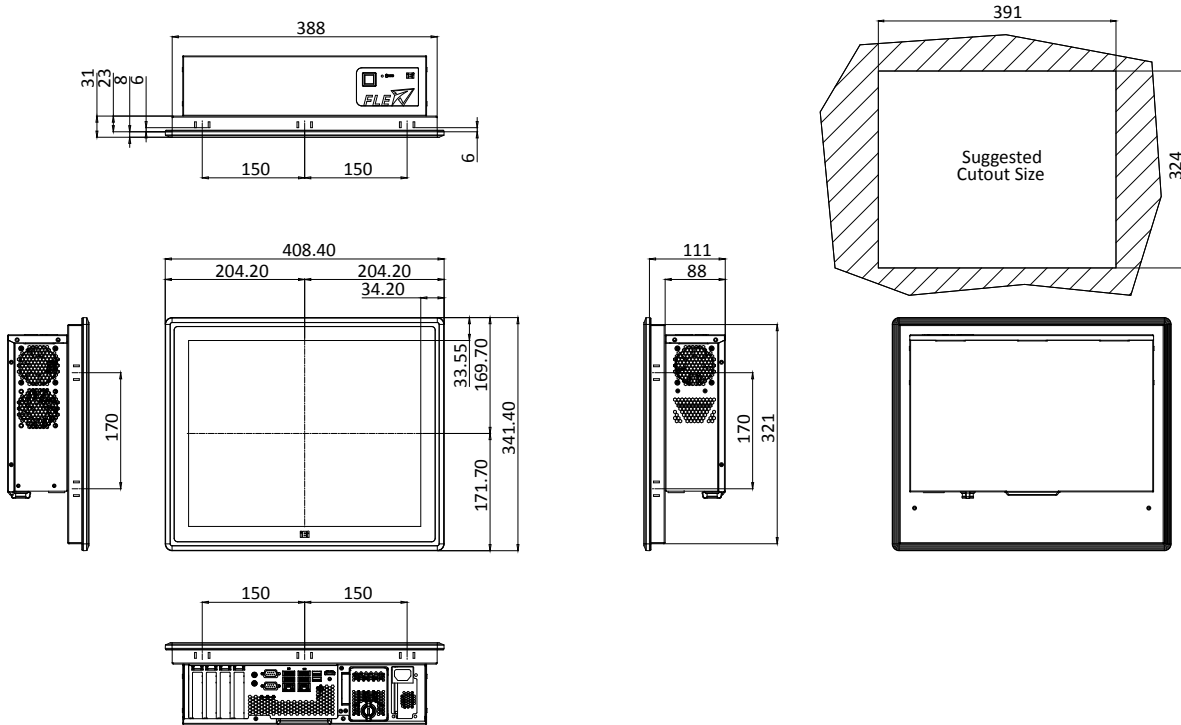Suggested cut out size

PPC-FW15C-Q370 Dimensions (Unit: mm)

Suggested Cut out Size
Scale 1:2
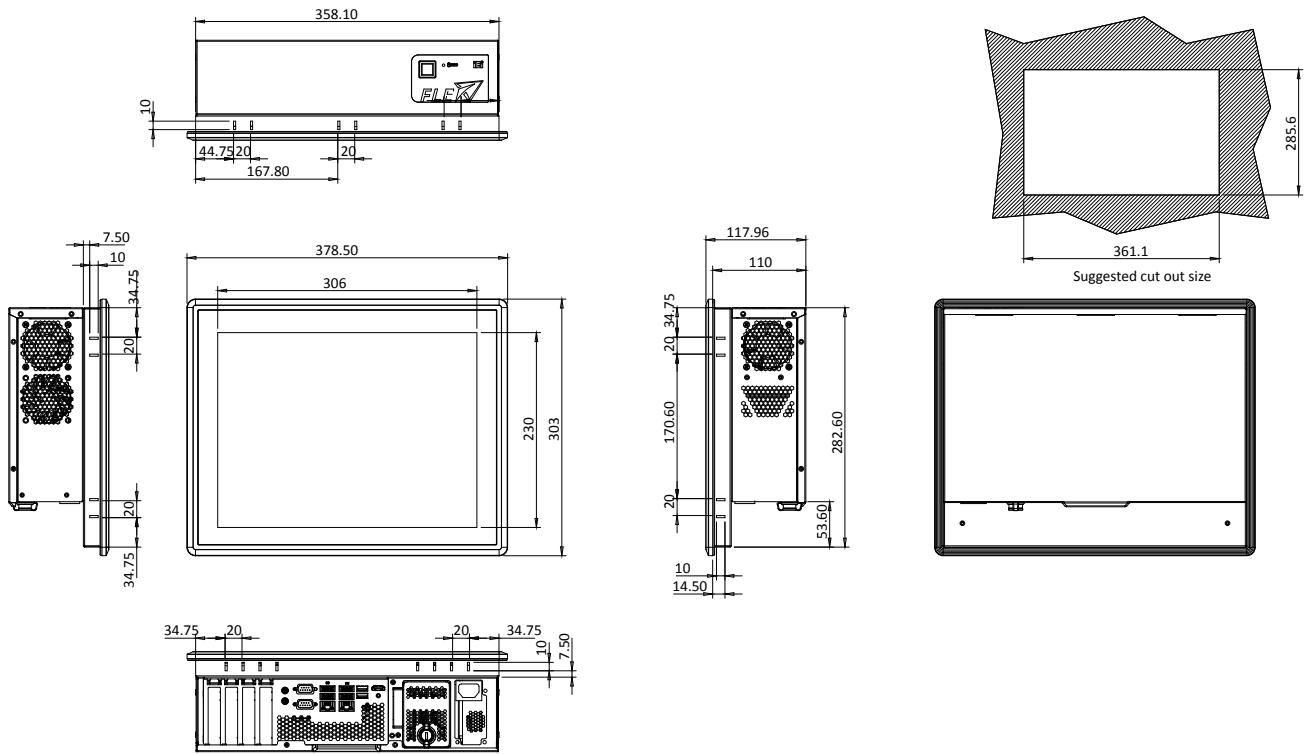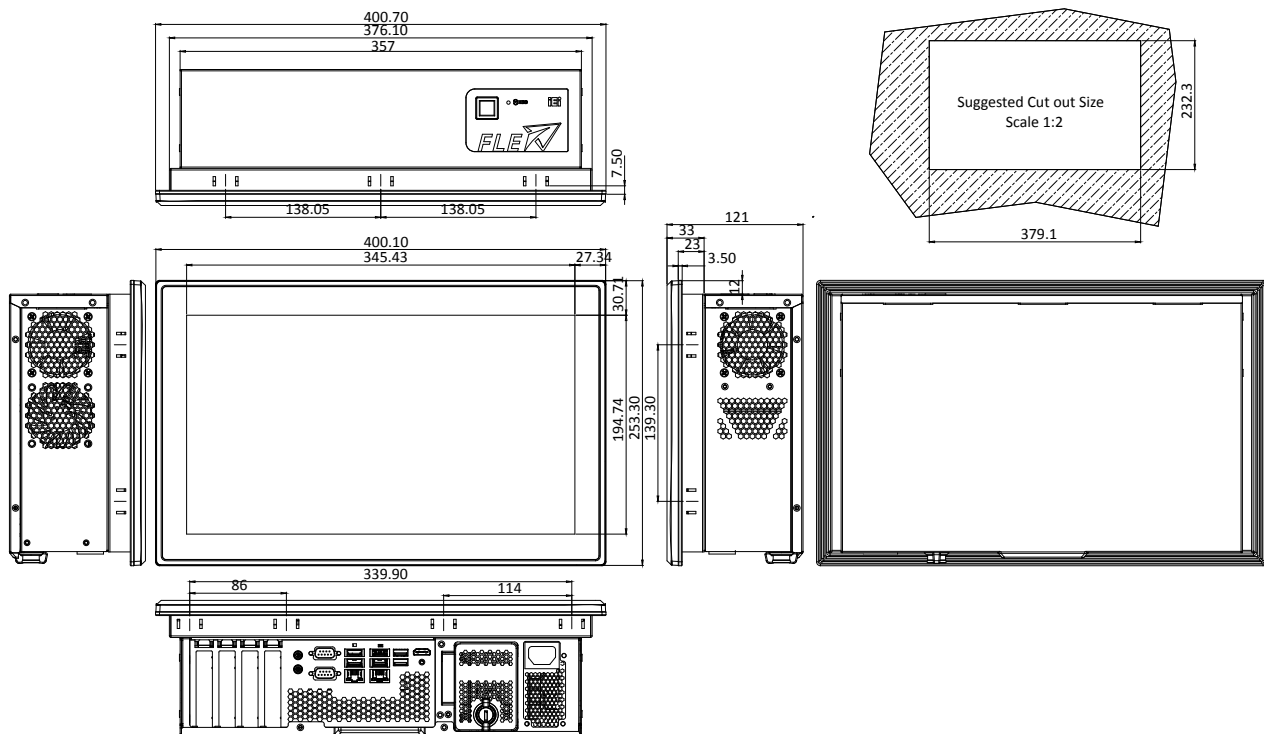
Dimensions (Unit: mm)

PPC-FxxC Panel PC

PPC-F17C-Q370 Dimensions (Unit: mm)

Suggested
Cutout Size

PPC-FW19C-Q370 Dimensions (Unit: mm)

Suggested
Cut Out Size
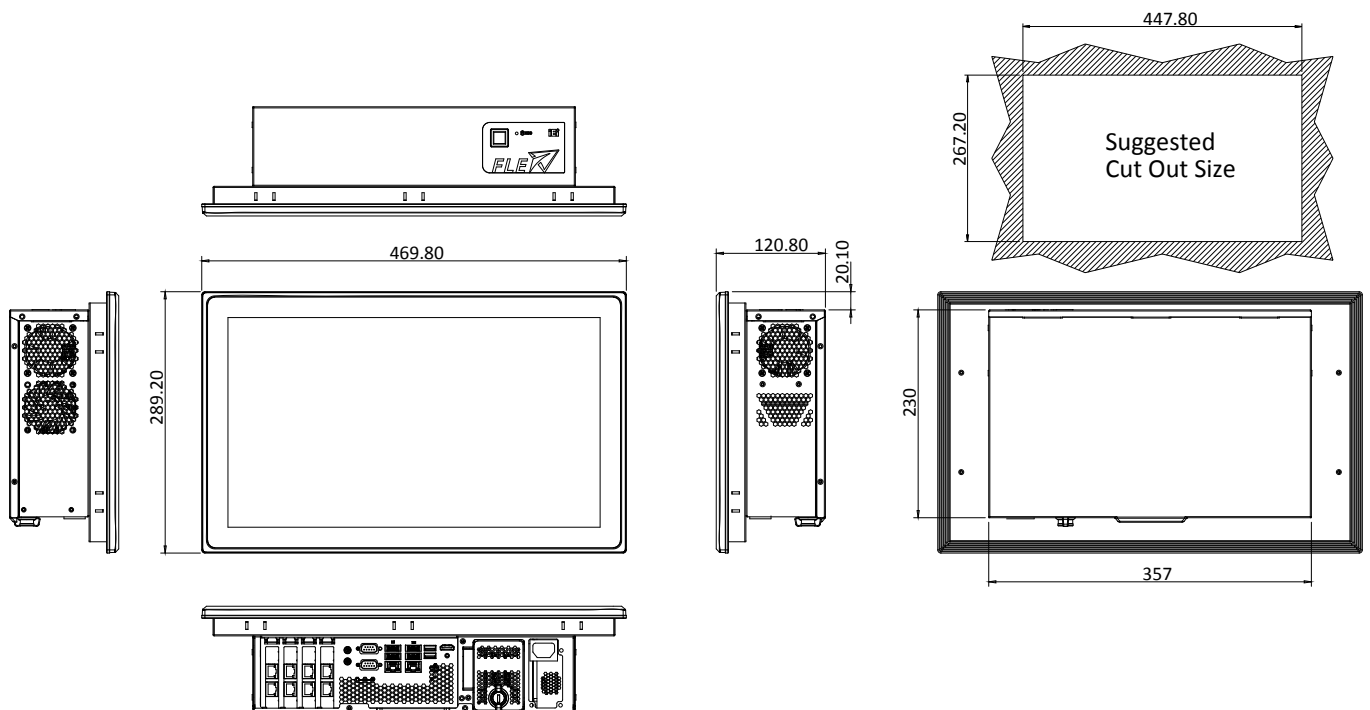
Dimensions (Unit: mm)

PPC-FxxC Panel PC

PPC-FW22C-Q370 Dimensions (Unit: mm)
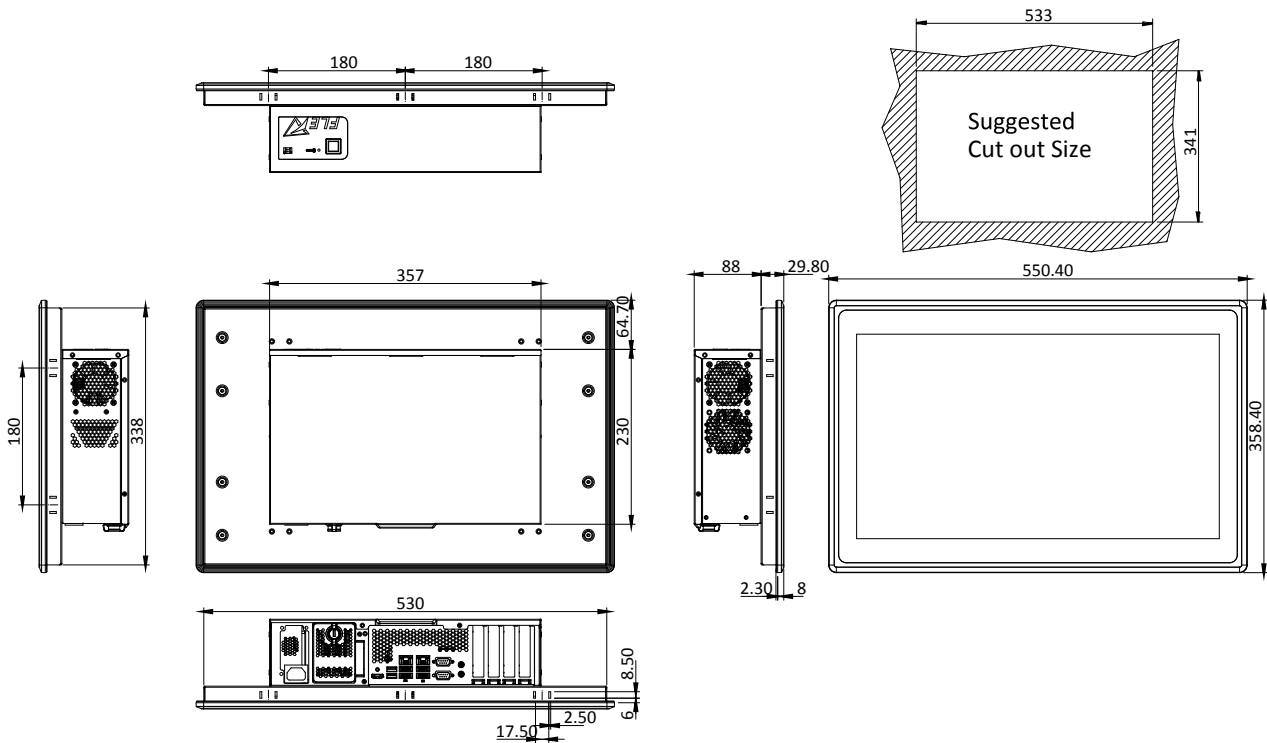
PPC-FW24C-Q370 Dimensions (Unit: mm)

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