

# PPC-F-ULT5

## 15"/15.6" Panel PC Based on Intel® Whiskey Lake ULT Processor

### Features

- 15"~17" Panel PC with Intel® Whiskey Lake Core™ i5-8365UE, Intel® Celeron® 4305UE
- Low power consumption and fanless design
- IP66-rated front panel for water and dust resistance
- Modular architecture
- VESA 100 mm standard mounting holes for varied mounting demands
- Support PoE PD power
- Support NVMe SSD



### Specifications

Model		PPC-F15D-ULT5	PPC-FW15D-ULT5
TFT LCD	LCD Size	15"	15.6"
	Max. Resolution	1024 x 768	1366 x 768
	Brightness (cd/m <sup>2</sup> )	450	400
	Contrast Ratio	800:1	500:1
	LCD Color	16.2M	16.2M
	Pixel Pitch (mm)	0.29 x 0.29	0.252 x 0.252
	Viewing Angle (H/V)	160°/150°	170°/160°
	Backlight MTBF (Hrs)	70,000	50,000
Touch Screen	Touchscreen Type	Projected capacitive type with 10-point multitouch and anti-glare coating	
	Touch Controller	EETI EXC3000	
System	CPU	8th Generation Intel® Core™ i5-8365UE 4.10GHz 8th Generation Intel® Celeron® 4305UE 2.00GHz	
	Memory	2 x 260-pin 2400 MHz dual-channel DDR4 unbuffered SO-DIMM supporting up to 32GB	
	Graphics Engine	Intel® HD Graphics Gen 9 Engines with 16 low-power execution units, 4K codec decode	
	Ethernet	2 x Intel® I210, 1 x Intel® I219	
	TPM	On-board TPM2.0	
Storage	2.5" HDD/SSD SATA 6Gb/s bay		
I/O Ports and Switches	4 x USB 3.2 Gen 2 (10Gbps)		1 x 12V DC jack
	1 x HDMI output		1 x Power switch with LED indicator (blue)
	1 x RS-232/422/485		1 x AT/ATX switch
	1 x RS-232		1 x Line-out
	3 x GbE LAN (2 for PoE PD GbE LAN)		1 x Reset button
			1 x NGFF M.2 2230 A Key (PCIe x1, USB signal)
Expansion Slots	1 x NGFF M.2 2280 M Key (support PCIe 3.0 x4 NVMe) 2 x PoE PD module socket (by IEI pin definition)		
Thermal Solution	Fanless		
Watchdog Timer	Software Programmable support 1~255 sec. system reset		
Construction	Dimensions (mm) (W x H x D)	378.5 x 303 x 75	400.1 x 253.3 x 77.1
	Cutout Dimensions (W x H) (mm)	361.1 x 285.6	379.1 x 232.3
	Net Weight (kg)	6.1	7.1
	Color	PANTONE 296 C	
	Front Frame	Aluminum die-casting	
	Rear Cover	Sheet metal	
	Mounting	Wall mount, Panel mount, Rack mount	
Environmental	Operating Temp.	-10°C ~ 50°C (with air flow)	
	Storage Temp.	-20°C ~ 60°C	
	Humidity	10% ~ 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)	
	Safety & EMC	CE / FCC class A	
Power Input	12V DC input		

# PPC-F-ULT5

## 17"/18.5" Panel PC Based on Intel® Whiskey Lake ULT Processor

### Features

- 17"~18.5" Panel PC with Intel® Whiskey Lake Core™ i5-8365UE, Intel® Celeron® 4305UE
- Low power consumption and fanless design
- IP66-rated front panel for water and dust resistance
- Modular architecture
- VESA 100 mm standard mounting holes for varied mounting demands
- Support PoE PD power
- Support NVMe SSD



### Specifications

Model		PPC-F17D-ULT5	PPC-FW19D-ULT5
TFT LCD	LCD Size	17"	18.5"
	Max. Resolution	1280 x 1024	1366 x 768
	Brightness (cd/m <sup>2</sup> )	350	400
	Contrast Ratio	1000:1	1000:1
	LCD Color	16.7M	16.7M
	Pixel Pitch (mm)	0.26 x 0.26	0.3 x 0.3
	Viewing Angle (H/V)	170°/160°	170°/160°
	Backlight MTBF (Hrs)	50,000	50,000
Touch Screen	Touchscreen Type	Projected capacitive type with 10-point multitouch and anti-glare coating	
	Touch Controller	EETI EXC3000	
System	CPU	8th Generation Intel® Core™ i5-8365UE 4.10GHz 8th Generation Intel® Celeron® 4305UE 2.00GHz	
	Memory	2 x 260-pin 2400 MHz dual-channel DDR4 unbuffered SO-DIMM supporting up to 32GB	
	Graphics Engine	Intel® HD Graphics Gen 9 Engines with 16 low-power execution units, 4K codec decode	
	Ethernet	2 x Intel® I210, 1 x Intel® I219	
	TPM	On-board TPM2.0	
Storage	2.5" HDD/SSD SATA 6Gb/s bay		
I/O Ports and Switches		4 x USB 3.2 Gen 2 (10Gbps) 1 x HDMI output 1 x RS-232/422/485 1 x RS-232 3 x GbE LAN (2 for PoE PD GbE LAN)	1 x 12V DC jack 1 x Power switch with LED indicator (blue) 1 x AT/ATX switch 1 x Line-out 1 x Reset button
	Expansion Slots	1 x NGFF M.2 2230 A Key (PCIe x1, USB signal) 1 x NGFF M.2 2280 M Key (support PCIe 3.0 x4 NVMe) 2 x PoE PD module socket (by IEL pin definition)	
	Thermal Solution	Fanless	
Watchdog Timer	Software Programmable support 1~255 sec. system reset		
Construction	Dimensions (mm) (W x H x D)	408.4 x 341.4 x 75.6	469.8 x 289.2 x 76.9
	Cutout Dimensions (mm)	391 x 324	447.8 x 257.2
	Net Weight (kgs)	7.2	7.3
	Color	PANTONE 296 C	
	Front Frame	Aluminum die-casting	
	Rear Cover	Sheet metal	
	Mounting	Wall mount, Panel mount, Rack mount	
Environmental	Operating Temp.	-10°C ~ 50°C (with air flow)	
	Storage Temp.	-20°C ~ 60°C	
	Humidity	10% ~ 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)	
	Safety & EMC	CE / FCC class A	
Power Supply	12V DC input		

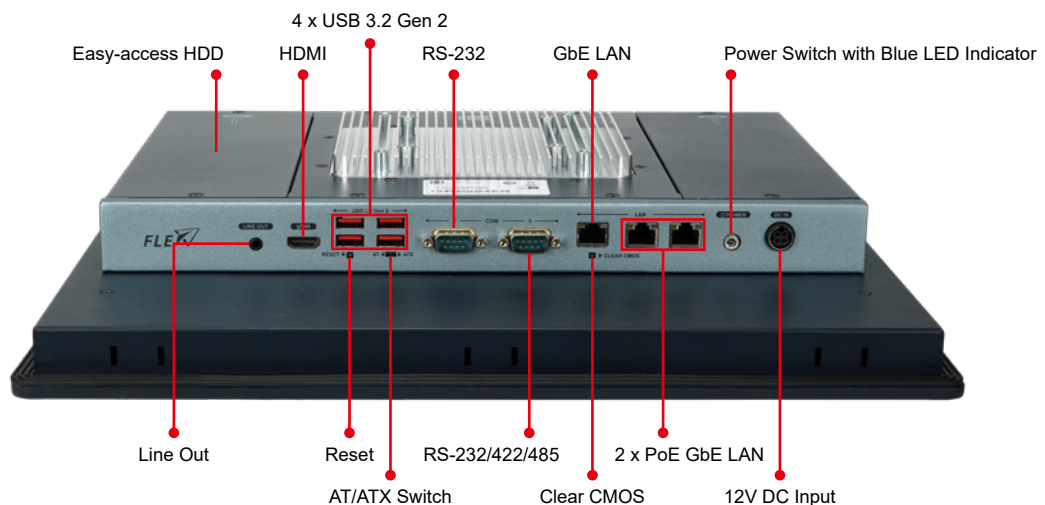
## Ordering Information

Part No.	Description
15"	<b>PPC-F15D-ULT5-i5/4G/PC-R10</b> 15" 450 cd/m <sup>2</sup> 1024 x 768 Panel PC with 14nm 8th gen. Intel® Whiskey Lake Core™ i5-8365UE TDP 15W on-board Processor (ULT), 4GB DDR4 RAM x1, 12VDC input, PCAP touch with AG, R10
	<b>PPC-F15D-ULT5-C/4G/PC-R10</b> 15" 450 cd/m <sup>2</sup> 1024 x 768 Panel PC with 14nm 8th gen. Intel® Whiskey Lake Celeron® 4305UE TDP 15W on-board Processor (ULT), 4GB DDR4 RAM x1, 12VDC input, PCAP touch with AG, R10
15.6"	<b>PPC-FW15D-ULT5-C/4G/PC-R10</b> 15.6" 400 cd/m <sup>2</sup> 1366 x 768 Panel PC with 14nm 8th gen. Intel® Whiskey Lake Celeron® 4305UE TDP 15W on-board Processor (ULT), 4GB DDR4 RAM x1, 12VDC input, PCAP touch with AG, R10
17"	<b>PPC-F17D-ULT5-i5/4G/PC-R11</b> 17" 350 cd/m <sup>2</sup> 1280 x 1024 Panel PC with Intel® 14nm 8th Whiskey Lake Core- i5-8365UE (6M Cache, up to 4.10 GHz) TDP 15W on-board Processor (ULT), 4GB DDR4 RAM x1, 12VDC input, Projective capacitive touch window with AG, R11
	<b>PPC-F17D-ULT5-C/4G/PC-R10</b> 17" 350 cd/m <sup>2</sup> 1280 x 1024 Panel PC with 14nm 8th gen. Intel® Whiskey Lake Celeron® 4305UE TDP 15W on-board Processor (ULT), 4GB DDR4 RAM x1, 12VDC input, PCAP touch with AG, R10
18.5"	<b>PPC-FW19D-ULT5-i5/4G/PC-R10</b> 18.5" 400 cd/m <sup>2</sup> 1366 x 768 Panel PC with 14nm 8th gen. Intel® Whiskey Lake Core™ i5-8365UE TDP 15W on-board Processor (ULT), 4GB DDR4 RAM x1, 12VDC input, PCAP touch with AG, R10
	<b>PPC-FW19D-ULT5-C/4G/PC-R10</b> 18.5" 400 cd/m <sup>2</sup> 1366 x 768 Panel PC with 14nm 8th gen. Intel® Whiskey Lake Celeron® 4305UE TDP 15W on-board Processor (ULT), 4GB DDR4 RAM x1, 12VDC input, PCAP touch with AG, R10

## Options

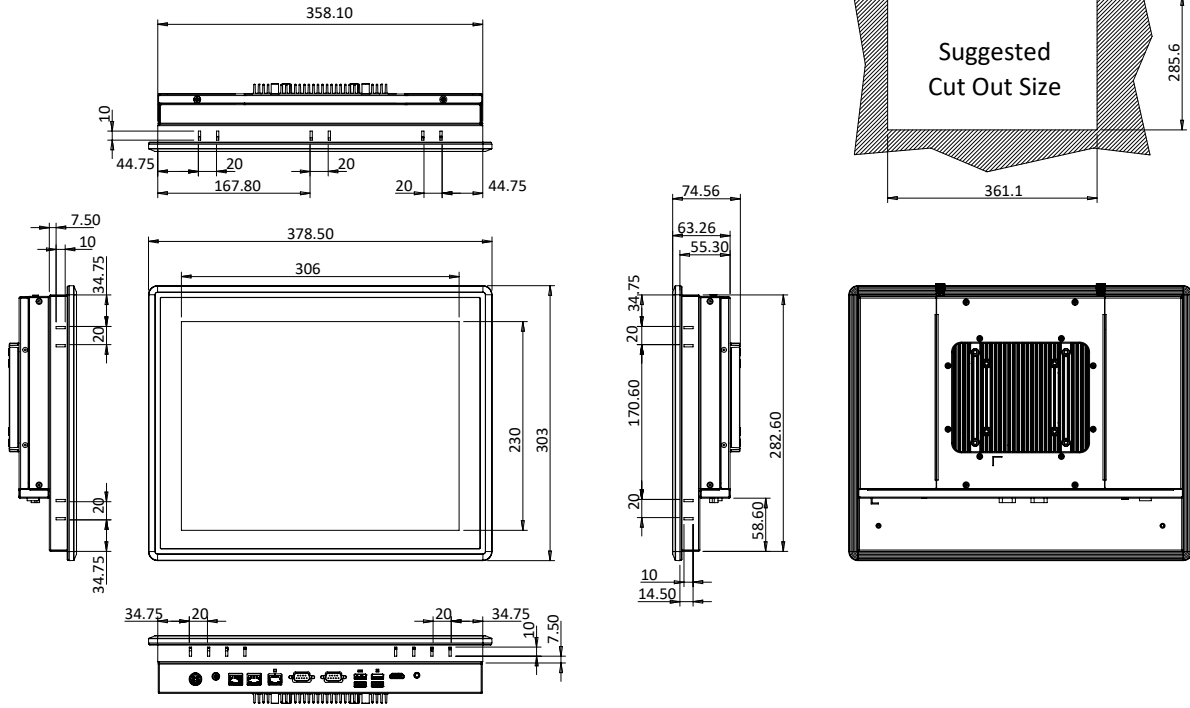
Item	PPC-F15D	PPC-FW15D	PPC-F17D	PPC-FW19D
Arm	ARM-31-RS			
Stand	STAND-A21-R10 STAND-C19-R10			
Wall Mount Kit	WK-190MS-R10			
Panel Mount Kit	FPK-12-R10	FPK-14-R10	FPK-13-R10	FPK-13-R10
Rack Mount Kit	-	FRKW15C-R10	-	FRKW19C-R10
PoE PD Kit	GPOE-PD-BT01-R10 (PoE IEEE802.3 af/at/bt, 71W)			

## Fully Integrated I/O



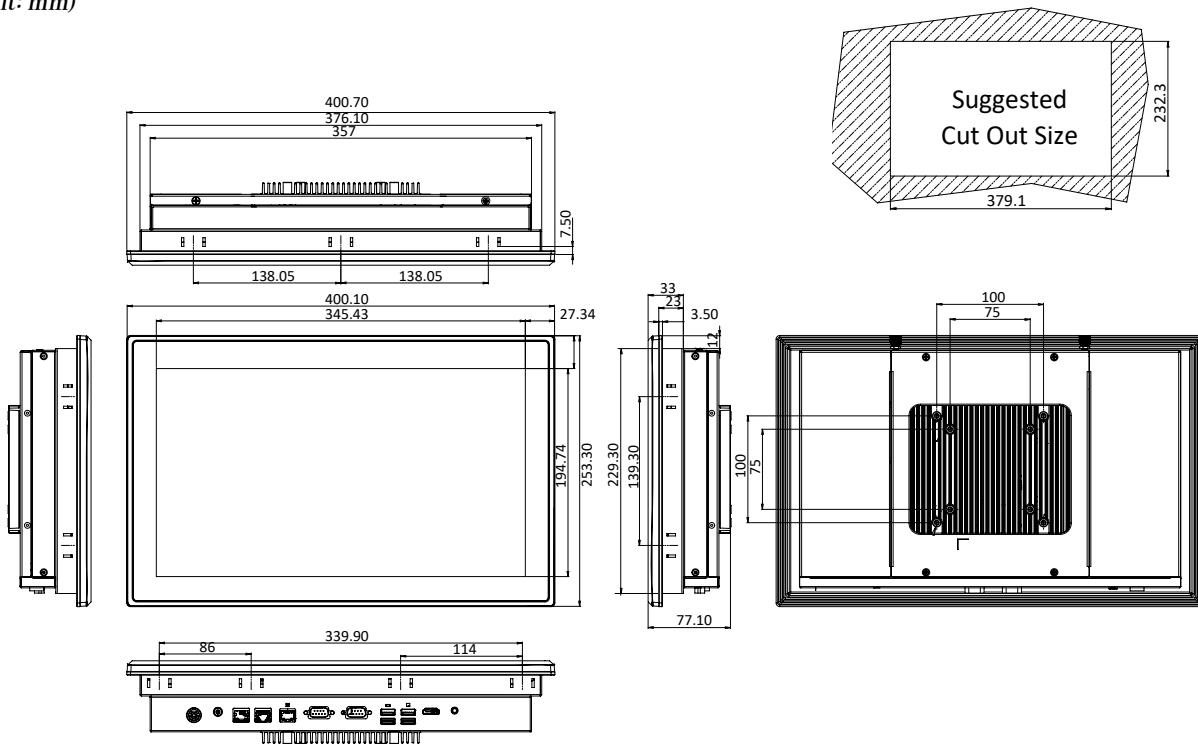
### PPC-F15D-ULT5 Dimensions

(Unit: mm)



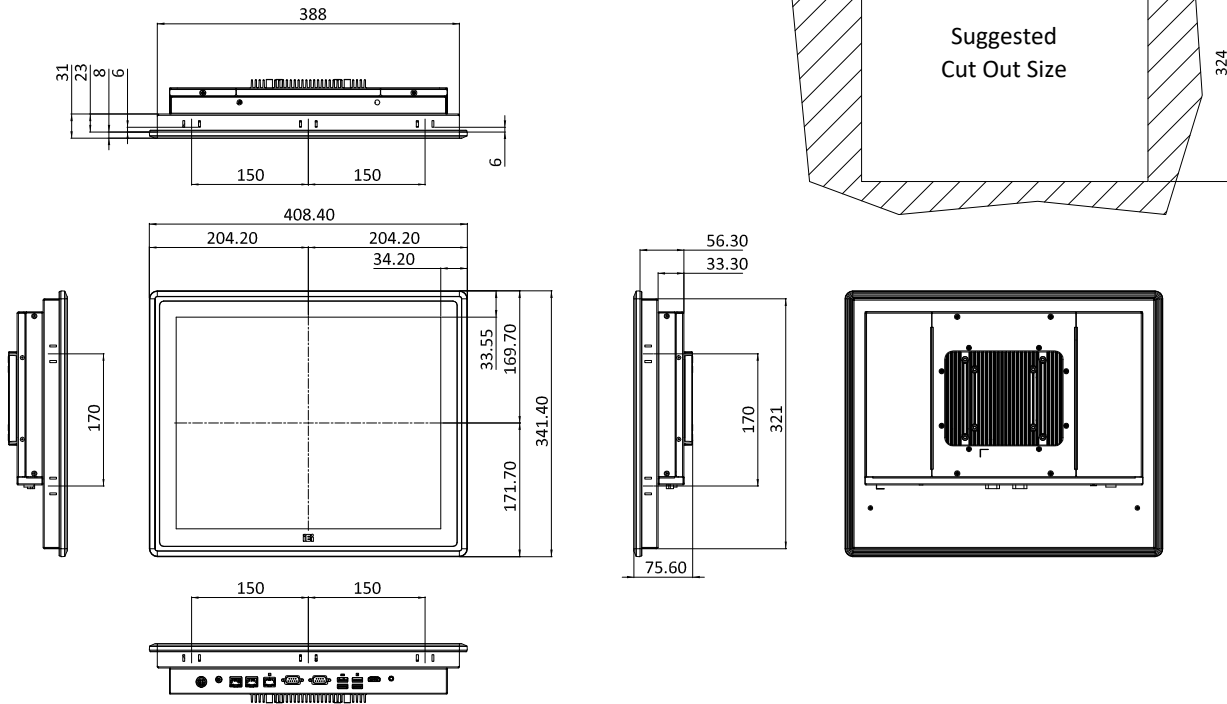
### PPC-FW15D-ULT5 Dimensions

(Unit: mm)



**PPC-F17D-ULT5 Dimensions**

(Unit: mm)



**PPC-FW19D-ULT5 Dimensions**

(Unit: mm)

