# UPC-F12M1-RPLP

## **IEI Heavy Industrial Panel PC**

Powered by Intel® Raptor Lake-P platform



#### 13th Gen Intel®Raptor Lake-P Platform

Powered by 13th generation Intel® Raptor Lake-P Series processors add more thread processing can increase computing power, making product performance even better.



### Support WiFi 6E and Bluetooth 5.2 and RFID

Strong Wi-Fi 6E wireless network capability provides more bandwidth, and the low latency Bluetooth 5.2 connection is more stable and consumes less power.



#### Anti-glare and Anti-UV PCAP

With anti-glare and anti-UV coating, the 10-point touchscreen can display clearly without reflection for a long time use in sunlight readable and bright light environment.



#### Corrosion-Resistant Full Die-Cast Aluminum Housing for Efficient Heat Dissipation

The aluminum die-cast housing provides durability, corrosion resistance, and thermal conductivity, ideal for industrial use, outperforming plastic. The structure is more standard and the whole is compact.



#### | Freely selected I/O interface

The panel PC is small, but comes with abundant I/O for a variety of application scenarios. Customers can freely lead out the required interface according to their own needs



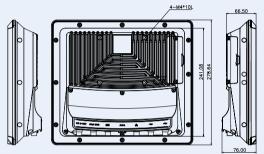
#### Full body IP66 protection rating

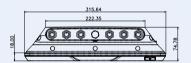
The full body IP66 protection level not only provides more robust and reliable performance, but also meets the specific needs of professional users and users in special environments.



#### Dimensions (Unit: mm)









Standard I/O cover Not ready



M12 I/O cover

#### **Specifications**

		UPC-F12M1-RPLP-i3/PC/8G-R10
	Size	12.1" (4:3)
	Resolution (WxH)	1024 x 768
	Brightness (cd/m²)	600
	LCD Color	16.7M
LCD	Pixel Pitch (mm)	0.24 x 0.24
	Contrast Ratio	1000 : 1
	Viewing Angle (H-V)	178°/178°
	Backlight MTBF	50,000 hours
	Touch Screen	PCAP with USB interface (anti-UV/AG coating)
Touch	Touch Controller	ILITEK: ILI2520
	SOC	
	RAM	Intel® Raptor Lake-P Core™ i3-1315URE SoC Processor (15W)  Dual channel 8GB LPDDR4x on board
	RAW	
	Ethernet	LAN1: Intel® I226IT 2.5GbE controller LAN2: Intel® I226IT 2.5GbE controller
	Storage	
	Storage	1 x M.2 M key 2280 (PCIe Gen3 x4) 1 x M.2 B key 3042/3052/2280 (SATA & PCIe Gen3 x1 & USB 3.0)
	Expansion	1 x M.2 M key 2280 (PCIe Gen3 x4)
	Expansion	1 x M.2 2230 E key Slot (PCIe + USB signal)
Motherboard		1 x HDMI
		2 x LAN (RJ45)
	Internal I/O Ports	2 x CAN Bus (RJ45)
		1 x RS-232 (RJ45)
		1 x RS-232/422/485 (RJ45)
		2 x USB3.2 Gen2
		1 x USB3.0 1 x DIN 4pin DC jack (9~36V DC)
		1 x DC-in terminal block (9~36V DC)
		1 x 5pin M12A MALE connector for DC Jack / Terminal
		(9V~36V DC)
External I/O	External I/O Ports	1 x 8pin M12A MALE connector for CANBUS
Ports		1 x 8pin M12A MALE connector for COM (RS-232/422/485)
		1 x 8pin M12X MALE connector for GbE LAN (2.5G)
		2 x 8pin M12A MALE connector for USB 2.0
Connectivity	RFID	Mifare RFID reader, 13.56M Hz (optional)
Connectivity	Wireless & Bluetooth	IEEE 000 44 a/b/a/a/ay Blustooth VE 2 (antional)
	Wireless & Bluetooth	IEEE 802.11 a/b/g/n/ax, Bluetooth V5.2 (optional)
	Construction	Aluminum die-casting
Physical		
Physical	Construction	Aluminum die-casting
Physical	Construction Mounting	Aluminum die-casting VESA 100mm x 100mm
Physical	Construction  Mounting  Net Weight	Aluminum die-casting VESA 100mm x 100mm 5kg 316 x 279 x 67
Physical	Construction  Mounting  Net Weight  Dimensions (W x L x D) (mm)	Aluminum die-casting VESA 100mm x 100mm 5kg
Physical	Construction Mounting Net Weight Dimensions (W x L x D) (mm) Operating Temperature	Aluminum die-casting VESA 100mm x 100mm 5kg 316 x 279 x 67
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	Construction Mounting Net Weight Dimensions (W x L x D) (mm) Operating Temperature (Ambient with air flow) Storage Temperature	Aluminum die-casting  VESA 100mm x 100mm  5kg  316 x 279 x 67  -20°C ~ 60°C  -20°C ~ 70°C
Physical  Environment	Construction Mounting Net Weight Dimensions (W x L x D) (mm) Operating Temperature (Ambient with air flow) Storage Temperature Humidity	Aluminum die-casting  VESA 100mm x 100mm  5kg  316 x 279 x 67  -20°C ~ 60°C  -20°C ~ 70°C  10% to 95%@40°C (non-condensing)
	Construction Mounting Net Weight Dimensions (W x L x D) (mm) Operating Temperature (Ambient with air flow) Storage Temperature Humidity Operating Shock	Aluminum die-casting VESA 100mm x 100mm  5kg 316 x 279 x 67  -20°C ~ 60°C  -20°C ~ 70°C 10% to 95%@40°C (non-condensing)  Half-sine wave shock 5G; 11ms; 100 shocks per axis
	Construction Mounting Net Weight Dimensions (W x L x D) (mm) Operating Temperature (Ambient with air flow) Storage Temperature Humidity Operating Shock Operating Vibration	Aluminum die-casting  VESA 100mm x 100mm  5kg  316 x 279 x 67  -20°C ~ 60°C  -20°C ~ 70°C  10% to 95%@40°C (non-condensing)  Half-sine wave shock 5G; 11ms; 100 shocks per axis  MIL-STD-810F 514.5G-1 (with SSD)
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	Construction Mounting Net Weight Dimensions (W x L x D) (mm) Operating Temperature (Ambient with air flow) Storage Temperature Humidity Operating Shock Operating Vibration IP Level Safety&EMC Termal Solution	Aluminum die-casting  VESA 100mm x 100mm  5kg  316 x 279 x 67  -20°C ~ 60°C  -20°C ~ 70°C  10% to 95%@40°C (non-condensing)  Half-sine wave shock 5G; 11ms; 100 shocks per axis  MIL-STD-810F 514.5G-1 (with SSD)  6 side IP66  CE/FCC/UKCA
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Environment	Construction Mounting Net Weight Dimensions (W x L x D) (mm) Operating Temperature (Ambient with air flow) Storage Temperature Humidity Operating Shock Operating Vibration IP Level Safety&EMC Termal Solution	Aluminum die-casting  VESA 100mm x 100mm  5kg  316 x 279 x 67  -20°C ~ 60°C  -20°C ~ 70°C  10% to 95%@40°C (non-condensing)  Half-sine wave shock 5G; 11ms; 100 shocks per axis  MIL-STD-810F 514.5G-1 (with SSD)  6 side IP66  CE/FCC/UKCA  Fanless  9 ~ 36V DC-in terminal block support ACC mode  ErP 2009/125/EC
Environment  ErP  OS	Construction Mounting Net Weight Dimensions (W x L x D) (mm) Operating Temperature (Ambient with air flow) Storage Temperature Humidity Operating Shock Operating Vibration IP Level Safety&EMC Termal Solution	Aluminum die-casting  VESA 100mm x 100mm  5kg  316 x 279 x 67  -20°C ~ 60°C  -20°C ~ 70°C  10% to 95%@40°C (non-condensing)  Half-sine wave shock 5G; 11ms; 100 shocks per axis  MIL-STD-810F 514.5G-1 (with SSD)  6 side IP66  CE/FCC/UKCA  Fanless  9 ~ 36V DC-in terminal block support ACC mode  ErP 2009/125/EC  Windows 10/11 IoT
Environment  ErP  OS	Construction Mounting Net Weight Dimensions (W x L x D) (mm) Operating Temperature (Ambient with air flow) Storage Temperature Humidity Operating Shock Operating Vibration IP Level Safety&EMC Termal Solution Power	Aluminum die-casting  VESA 100mm x 100mm  5kg  316 x 279 x 67  -20°C ~ 60°C  -20°C ~ 70°C  10% to 95%@40°C (non-condensing)  Half-sine wave shock 5G; 11ms; 100 shocks per axis  MIL-STD-810F 514.5G-1 (with SSD)  6 side IP66  CE/FCC/UKCA  Fanless  9 ~ 36V DC-in terminal block support ACC mode  ErP 2009/125/EC  Windows 10/11 IoT  Linux  2 meter power cable with 5 pin M12A female
Environment  ErP  OS	Construction Mounting Net Weight Dimensions (W x L x D) (mm) Operating Temperature (Ambient with air flow) Storage Temperature Humidity Operating Shock Operating Vibration IP Level Safety&EMC Termal Solution Power	Aluminum die-casting  VESA 100mm x 100mm  5kg  316 x 279 x 67  -20°C ~ 60°C  -20°C ~ 70°C  10% to 95%@40°C (non-condensing)  Half-sine wave shock 5G; 11ms; 100 shocks per axis  MIL-STD-810F 514.5G-1 (with SSD)  6 side IP66  CE/FCC/UKCA  Fanless  9 ~ 36V DC-in terminal block support ACC mode  ErP 2009/125/EC  Windows 10/11 IoT  Linux  2 meter power cable with 5 pin M12A female
Environment  ErP  OS	Construction Mounting Net Weight Dimensions (W x L x D) (mm) Operating Temperature (Ambient with air flow) Storage Temperature Humidity Operating Shock Operating Vibration IP Level Safety&EMC Termal Solution Power  Power Cable x1 USB Cable x1 32005-006600-100-RS	Aluminum die-casting  VESA 100mm x 100mm  5kg  316 x 279 x 67  -20°C ~ 60°C  -20°C ~ 70°C  10% to 95%@40°C (non-condensing)  Half-sine wave shock 5G; 11ms; 100 shocks per axis  MIL-STD-810F 514.5G-1 (with SSD)  6 side IP66  CE/FCC/UKCA  Fanless  9 ~ 36V DC-in terminal block support ACC mode  ErP 2009/125/EC  Windows 10/11 IoT  Linux  2 meter power cable with 5 pin M12A female  3 meter USB cable with 8pin M12A female to USB type A female x2  3 meter CANBUS cable 8pin M12A female
Environment	Construction Mounting Net Weight Dimensions (W x L x D) (mm) Operating Temperature (Ambient with air flow) Storage Temperature Humidity Operating Shock Operating Vibration IP Level Safety&EMC Termal Solution Power  Power Cable x1 USB Cable x1 32005-006600-100-RS 32005-006500-100-RS	Aluminum die-casting  VESA 100mm x 100mm  5kg  316 x 279 x 67  -20°C ~ 60°C  -20°C ~ 70°C  10% to 95%@40°C (non-condensing)  Half-sine wave shock 5G; 11ms; 100 shocks per axis  MIL-STD-810F 514.5G-1 (with SSD)  6 side IP66  CE/FCC/UKCA  Fanless  9 ~ 36V DC-in terminal block support ACC mode  ErP 2009/125/EC  Windows 10/11 IoT  Linux  2 meter power cable with 5 pin M12A female  3 meter USB cable with 8pin M12A female to USB type A female x2  3 meter CANBUS cable 8pin M12A female  3 meter COM cable 8pin M12A female
Environment  ErP  OS  Packing List	Construction Mounting Net Weight Dimensions (W x L x D) (mm) Operating Temperature (Ambient with air flow) Storage Temperature Humidity Operating Shock Operating Vibration IP Level Safety&EMC Termal Solution Power  Power Cable x1 USB Cable x1 32005-006600-100-RS 32013-007400-100-RS	Aluminum die-casting  VESA 100mm x 100mm  5kg  316 x 279 x 67  -20°C ~ 60°C  -20°C ~ 70°C  10% to 95%@40°C (non-condensing)  Half-sine wave shock 5G; 11ms; 100 shocks per axis  MIL-STD-810F 514.5G-1 (with SSD)  6 side IP66  CE/FCC/UKCA  Fanless 9 ~ 36V DC-in terminal block support ACC mode  ErP 2009/125/EC  Windows 10/11 IoT  Linux 2 meter power cable with 5 pin M12A female 3 meter USB cable with 8pin M12A female to USB type A female x2 3 meter CANBUS cable 8pin M12A female 3 meter COM cable 8pin M12A female to DB9 male 3 meter LAN cable 8pin M12A female to RJ45 female
Environment  ErP  OS	Construction Mounting Net Weight Dimensions (W x L x D) (mm) Operating Temperature (Ambient with air flow) Storage Temperature Humidity Operating Shock Operating Vibration IP Level Safety&EMC Termal Solution Power  Power Cable x1 USB Cable x1 32005-006600-100-RS 32013-007400-100-RS UPC-F-WIFI-KIT01-R10	Aluminum die-casting  VESA 100mm x 100mm  5kg  316 x 279 x 67  -20°C ~ 60°C  -20°C ~ 70°C  10% to 95%@40°C (non-condensing)  Half-sine wave shock 5G; 11ms; 100 shocks per axis  MIL-STD-810F 514.5G-1 (with SSD)  6 side IP66  CE/FCC/UKCA  Fanless  9 ~ 36V DC-in terminal block support ACC mode  ErP 2009/125/EC  Windows 10/11 IoT  Linux  2 meter power cable with 5 pin M12A female  3 meter USB cable with 8pin M12A female to USB type A female x2  3 meter CANBUS cable 8pin M12A female to DB9 male  3 meter COM cable 8pin M12A female to DB9 male  3 meter LAN cable 8pin M12A female to RJ45 female  Wireless Lan Module: Bluetooth 5.2,Wi-Fi 6E (ATO only)
ErP OS Packing List	Construction Mounting Net Weight Dimensions (W x L x D) (mm) Operating Temperature (Ambient with air flow) Storage Temperature Humidity Operating Shock Operating Vibration IP Level Safety&EMC Termal Solution Power  Power Cable x1 USB Cable x1 32005-006600-100-RS 32013-007400-100-RS	Aluminum die-casting  VESA 100mm x 100mm  5kg  316 x 279 x 67  -20°C ~ 60°C  -20°C ~ 70°C  10% to 95%@40°C (non-condensing)  Half-sine wave shock 5G; 11ms; 100 shocks per axis  MIL-STD-810F 514.5G-1 (with SSD)  6 side IP66  CE/FCC/UKCA  Fanless 9 ~ 36V DC-in terminal block support ACC mode  ErP 2009/125/EC  Windows 10/11 IoT  Linux 2 meter power cable with 5 pin M12A female 3 meter USB cable with 8pin M12A female to USB type A female x2 3 meter CANBUS cable 8pin M12A female 3 meter COM cable 8pin M12A female to DB9 male 3 meter LAN cable 8pin M12A female to RJ45 female

#### Ordering Information

Part No	Description
	12.1" 600cd/m² XGA fanless panel PC with Intel® Raptor Lake-P Core™ i3-1315 URE Processor, TDP 15W, 8GB LPDDR4x RAM, PCAP touch, M12 I/O, R10