OMTEC PPI1000ED Prime Cube Panel Performance Instruction Manual

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OMTEC PPI1000ED Prime Cube Panel Performance

Product Information

Specifications

- **Model Code**: PPI1000ED_156 (15.6″), PPI1000ED_185 (18.5″), PPI1000ED_215 (21.5″)
- **Dimensions (WxHxD)**: 406.5 x 256 x 128 mm (15.6″), 471.8 x 292.4 x 128 mm (18.5″), 538.6 x 330.1 x 128 mm (21.5″)
- **Weight**: 7.7 kg (15.6″), 9.05 kg (18.5″), 9.8 kg (21.5″)
- **Housing**: Aluminium front frame, powder-coated. Steel sheet rear panel, galvanized. Aluminium computer core with heat sink, anodized.
- **Mounting**: Designed for front installation by means of mounting brackets.
- **Protection Class**: IP65 acc. EN 60529, front side. IP20 acc. EN 60529, rear side.
- **Display**: FHD display, 1920 x 1080 px, **16**:9. Optional HD-resolution for 15.6″ and 18.5″.
- **Touch**: EMC-stable 4-finger operation, glove operation (cat. 1) reparametrized.
- **Lifetime Lighting**: 50,000 hours
- **Processor**: Not specified
- **Working Memory**: Not specified
- **Mass Storage**: **1x 2.5 SSD**: 64 GB – 512 GB, flash memory or 1 TB HDD. Further memory sizes and flash technologies available.
- **Extensions**: 1x m PCIE full-/half size, 1x PCIe Slot x16, 1x DSU B 9 pol, 1x C Fast holder. Optional incl. CF-card.
- **Interfaces (Mainboard)**: 1x USB 3.1 stick socket, 2x USB 3.1 Gen. 1, 2x USB 3.1 Gen. 2, 1x RS232, 2x PS/2, 1x line in, 1x line out, 2x DisplayPort, 1x DVI-D
- **Interfaces (extendable)**: 1x mobile radio, 1x USB 2.0

- **Battery**: Not specified
- **Voltage Supply**: Not specified
- **Operating System**: Not specified
- **Ambient Temperature***: Not specified
- **Storage Temperature**: Not specified
- **Humidity**: Not specified
- **EMC Immunity**: Not specified
- **EMC Emission**: Not specified
- **Shock**: Not specified
- **Vibration**: Not specified
- **Warranty**: 36 months
- **Approvals**: CE; UL in testing; acc. UL 61010-2-201 & CSA C22.2 no. 61010-2-201

Product Usage Instructions

Installation

To install the Prime Panel Performance Installation, follow these steps

1. Ensure that you have the necessary mounting brackets.
2. Position the panel in the desired location.
3. Attach the mounting brackets to the front of the panel.
4. Secure the panel to the desired surface using the mounting clamps.

Touch Operation

The Prime Panel Performance Installation supports touch operation. Follow these guidelines for optimal touch performance

- Operate the panel with clean and dry hands.
- Use up to four fingers for touch input.
- Glove operation (cat. 1) is reparametrized, allowing you to wear working gloves while operating the panel.
- For specific touch parameterization, such as palm suppression or working gloves in-house, refer to the user manual for instructions.

Cleaning

To clean the Prime Panel Performance Installation, follow these steps

1. Turn off the panel and unplug it from the power source.
2. Gently wipe the glass front with a soft, lint-free cloth.
3. If necessary, use a mild glass cleaner to remove stubborn stains.
4. Avoid using abrasive materials or harsh chemicals that may damage the panel's surface.

FAQ

- **Q: Can I customize the Prime Panel Performance Installation?**

  A: Yes, the Prime Panel Performance Installation is customizable with **three options**: BASE, STYLE, and

CUSTOM. You can choose from validated platforms and enjoy the advantages of standard products while also having the option to customize certain aspects of the panel.

- **Q: What is the warranty period for the Prime Panel Performance Installation?**
  A: The Prime Panel Performance Installation comes with a 36-month warranty, ensuring reliable operation in an industrial environment.
- **Q: What are the dimensions and weight of the Prime Panel Performance Installation?**
  A: The dimensions and weight vary depending on the model
    - **15.6″ model:** Dimensions of 406.5 x 256 x 128 mm and weight of 7.7 kg
    - **18.5″ model:** Dimensions of 471.8 x 292.4 x 128 mm and weight of 9.05 kg
    - **21.5″ model:** Dimensions of 538.6 x 330.1 x 128 mm and weight of 9.8 kg
- **Q: What is the IP rating of the Prime Panel Performance Installation?**
  A: The front side of the panel has an IP65 rating, providing protection against dust and water ingress. The rear side has an IP20 rating.
- **Q: Can I connect external devices to the Prime Panel Performance Installation?**
  A: Yes, the panel has various interfaces, including USB ports, RS232, PS/2, DisplayPort, DVI-D, and more. Additionally, it supports extensions such as mPCIE and PCIe slots for further connectivity options.

MODULARITY IS PRIME.

PRIME PANEL PERFORMANCE INSTALLATION 15.6″ / 18.5″ / 21.5″

MULTITOUCH PANEL PCS FOR DEMANDING TASKS

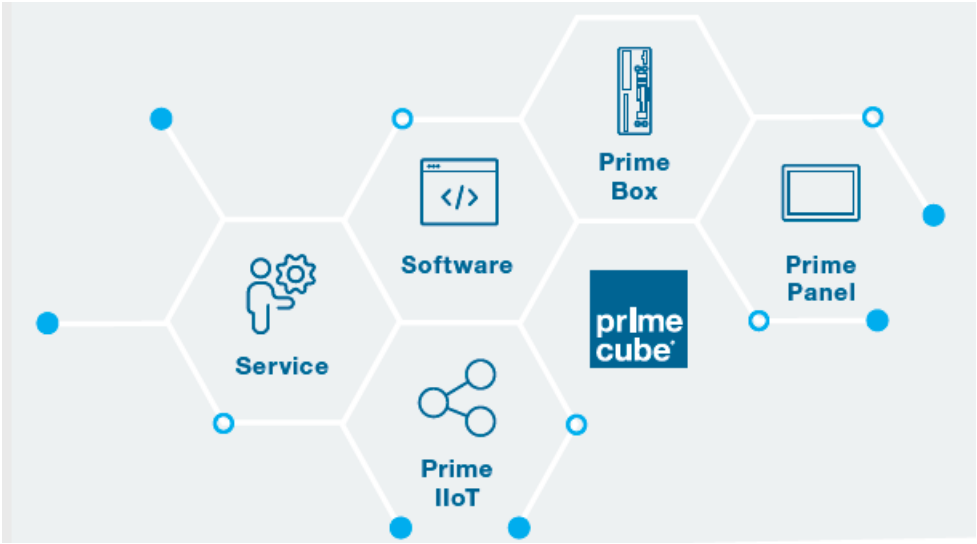
- IPC easy to configure in hardware and software
- Flexible and extensive connectivity
- High operational safety by robust system design and IP65

- **Housing**
    - Passive, fanless cooling.
    - Modern design, “form follows function”.
    - Optional with logo and color ident.
- **Glass Front**

- Optimum readability, low reflections.
- Scratch-resistant.
- Easy to clean.

- **Touch**
  - High operational safety – even under disturbing influence.
  - EMC-stable 4-finger operation, glove operation (cat. 1) pre-parameterized.
  - Specific parameterization such as palm suppression or working gloves inhouse.

THE MODULAR SYSTEM PRIME CUBE®



- **Modular**

  Customized solutions of industrial computer technology with all advantages of **standard products**: Validated platforms, short development process, optimum price-performance ratio.

- **High Quality**

For 24/7 operation in an industrial environment.

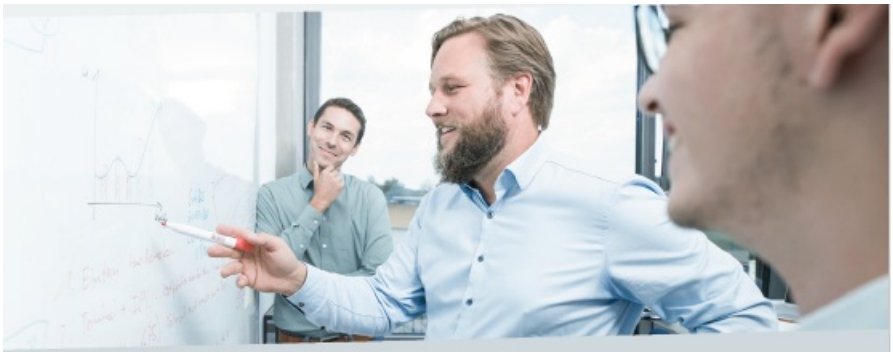
Reliable and robust.

Long-term available (10 years), with 36 months of warranty.

- **Application-oriented & Customizable**

  BASE / STYLE / CUSTOM

We are your partner in the complete solution process of industrial computer technology.
From sensor application to tool monitoring in the machine and from embedded computing systems to a future-oriented IoT gateway concept we represent all product steps with our product brands Prime Cube® and BK Mikro®. At our headquarters in Neuhausen ob Eck (Baden-Wurttemberg) our 170 employees develop and manufacture customized **computer systems**: from hardware and software to assemblies and complete systems – innovative force “Made in Germany”.



PRIME PANEL PERFORMANCE INSTALLATION 15.6″ / 18.5″ / 21.5″ TECHNICAL DATA

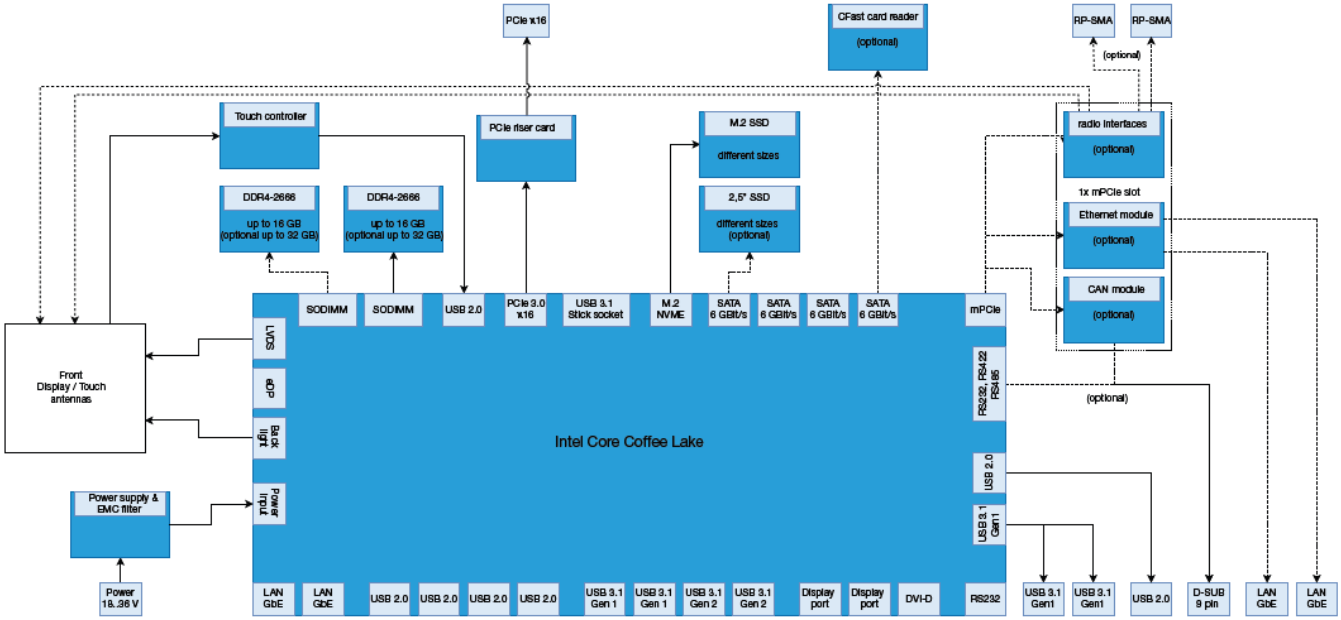
		15.6″	**18.5″**	**21.5″**
Model Code		PPI1000ED_156 000ED_215	PPI1000ED_185	PPI1
Dimensions (WxHxD)		406.5 x 256 x 128 mm 6 x 330.1 x 128 mm	471.8 x 292.4 x 128 mm	538.
Weight		7.7 kg	9.05 kg	9.8 kg
Housing		• Aluminium front frame, powder-coated. Steel sheet rear panel, galvanized. • Aluminium computer core with heat sink, anodized. • Hardened and AR-coated front glass. • Designed for front installation by means of mounting brackets.		
Mounting Clamps		10 pieces es	12 pieces	12 piec
Protection Class		• IP65 acc. EN 60529, front side. • IP20 acc. EN 60529, rear side.		
	Size	FHD display, 1920 x 1080 px, **16**:9. Optional HD-resolution for 15.6″ and 18.5″.		

Display	**Luminance** (typ.)	450 cd/m²	350 cd/m²	350 cd/m²
	Contrast Ratio (typ.)	800	1000	1000
	Viewing Angle (typ.)	85/85/85/85°	89/89/89/89°	89/89/89/89°
	Lifetime Lighting (min.)	50.000 h	50.000 h	50.000 h
Touch		• Projected Capacitive Touch (PCT), 4-finger operation, up to 10-finger operation optional. • Specific parameterization possible inhouse.		
Processor		Intel® CELERON™ G4900T		
		8th Gen Intel® Core™ i3-8100T; i5-8500T; i7-8700T; 9th Gen Intel® Core™ optional.		
Working Memory		Up to 2 x 16 GB DDR4-2666; 2 x 32 GB optional.		
		2x SODIMM, dual channel.		
Mass Storage		**1x M.2 Key-M**: 64 GB – 512 GB, flash memory		
		1x 2.5″ SSD: 64 GB – 512 GB, flash memory or 1 TB HDD Further memory sizes and flash technologies available.		
Extensions		1x mPCIE full-/half size		
		1x PCIe Slot x16		
		1x DSUB 9 pol		
Removable Storage (optional)		1x CFast holder. Optional incl. CF-card.		
Interfaces (Mainboard)		2x GbE LAN, separate controllers, Intel® I219-LM & I210-IT		
		4x USB 2.0		
		1x USB 3.1 stick socket		
		2x USB 3.1 Gen. 1		
		2x USB 3.1 Gen. 2		
		1x RS232		
		2x PS/2		
		1x line in; 1x line out		
		2x DisplayPort		
		1x DVI-D		
	DSUB 9 pol	1x RS232/422/485 (standard configuration)		

Interfaces (extendable)	**mPCIE**	2x GbE LAN, separate controllers, Intel® I210
		1x CAN, 2-fold DSUB 9 pol (Profibus, Profinet and further fieldbusses feasible)
		1x WLAN and BLUETOOTH (integrated at front side or external antennae)
		1x mobile radio
	PCIE-Slot Bracket	1x USB 2.0
		2x USB 3.1 Gen. 1
Battery		Buffer battery based
Voltage Supply		24 V DC (18…26 V DC), galvanically isolated
Operating System		Windows 10 IoT Enterprise LTSC 2021
		LINUX 64 bit: Debian 10 distribution
Ambient Temperature*		-10 °C … +45 °C with natural convection (up to +40 °C when using a HDD)
		-10 °C … +50 °C ** from 0.4 m/s air flow (up to +45 °C when using a HDD)
Storage Temperature		-20 °C … +60 °C
Humidity		10% … 90%, non-condensing
EMC Immunity		Industrial area acc. EN 55024 & EN 61000-6-2
EMC Emission		Industrial area acc. EN 55032 class A
Shock		**15 g**: 11 ms and **25 g**: 6 ms acc. DIN EN60068-2-27
Vibration		**2 … 9 Hz**: 3.5 mm amplitude, 9 … **200 Hz**: 1 g acc. EN 60068-2-6
Warranty		36 months

* Functional system test at maximum ambient temperature and the highest possible internal heat load. ** not evaluated by UL.

PRIME PANEL PERFORMANCE INSTALLATION 15.6″ / 18.5″ / 21.5″ CIRCUIT DIAGRAM



- Please find dimensional drawings as downloads on our website. 3D-models on request via e-mail to vertrieb@schubert-system-elektronik.de.
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Documents / Resources

	[OMTEC PPI1000ED Prime Cube Panel Performance] [pdf] Instruction Manual PPI1000ED_156, PPI1000ED_185, PPI1000ED_215, PPI1000ED Prime Cube Panel Performance, PPI1000ED, Prime Cube Panel Performance, Cube Panel Performance, Panel Performance, Performance

References

- System-Elektronik
- Industrielle Computertechnik "Made in Germany" | Schubert System Elektronik
- User Manual

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