



HTML5 HMI

Improve visualisation with Industrial 4.0 Touch Panels

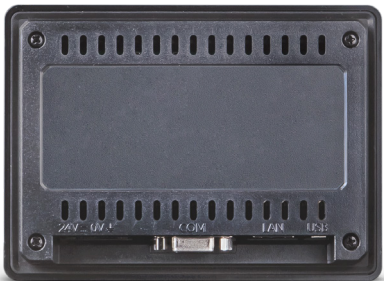
New HMI Generation of SBC

- ▶ Display sizes: 4.3", 7", 10.1", 15.6", 21.5"
- ▶ Touch technologies: resistive and capacitive (multi touch) versions
- ▶ Beautiful and robust design for control cabinet installation
- ▶ Modern HTML5 Browser based on Linux
- ▶ High Cyber Security level protects from unauthorized accesses
- ▶ High quality, industrial grade
- ▶ Long life cycle > 10 year
- ▶ PCD Controllers, HMI and tools are harmonized

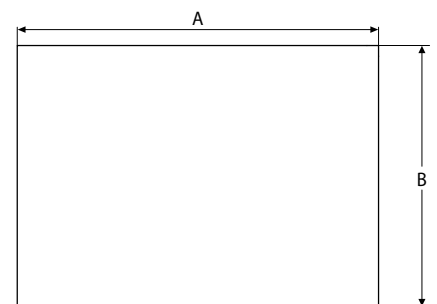
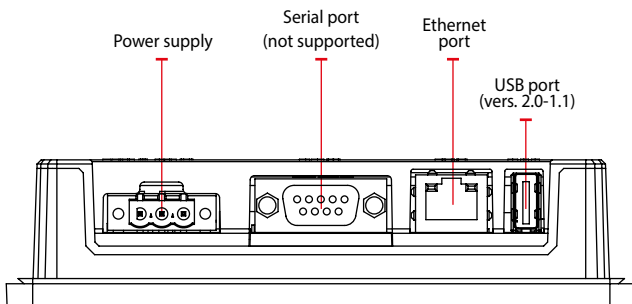
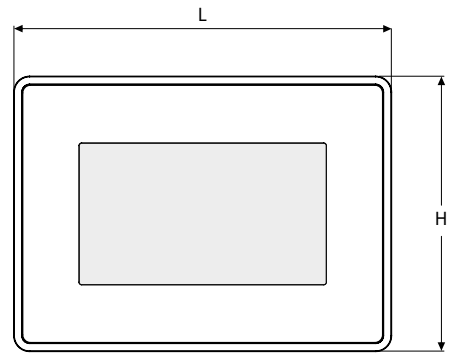
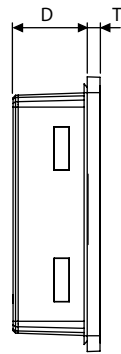
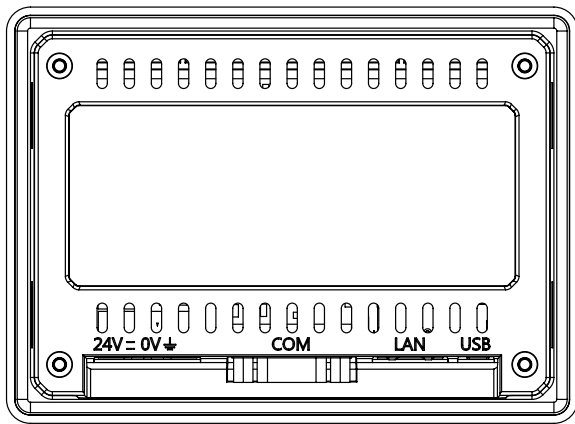
Specifications / Advantages

- ▶ Powerful and fast i.MX8M Mini Quad ARM Cortex-A53 Processor
- ▶ Interfaces: Ethernet, USB
- ▶ Power supply: 24 VDC
- ▶ HTML5 Chromium Browser to access PCD Web-Server or any other web-server
- ▶ Compatible with HTML5 Web-Editor projects
- ▶ Brilliant up to 2,100,000 pixel display
- ▶ Wide angle visibility
- ▶ Capacitive touch versions in total glass design. Resistant to scratches, UV and chemicals
- ▶ IP66 protection from the front
- ▶ Operating temperature -20°C to +60°C
- ▶ Certifications : IECEx, ATEX, DNV-GL, Lloyd's Register, UL

PCD7.D543RF | 4,3" HTML5 Web Panel, resistive touch



| System Resources | |
|--------------------------------------|---|
| Display - Colors | 4.3" TFT, 16:9, LED, 64 K |
| Resolution | 480 × 272 |
| Brightness | 200 Cd/m ² typ. |
| Dimming | Yes |
| Touchscreen | Resistive |
| CPU | ARM Cortex-A8, 1 GHz |
| Operating System | Linux |
| RAM | 512 MB |
| Flash | 4 GB |
| Real Time Clock, RTC Back-up, Buzzer | Yes, Yes, Yes |
| Interface | |
| Ethernet port | 1 (port 0 = 10/100) |
| USB port | 1 (Host v. 2.0, max. 500 mA) |
| Serial port | Not supported |
| SD card | No |
| Expansion | No |
| Ratings | |
| Power supply | 24 Vdc (10 ... 32 Vdc) |
| Current Consumption | 0.25 A max. at 24 Vdc |
| Input Protection | Automatic |
| Battery | Yes (With Supercapacitor) |
| Environment Conditions | |
| Operating Temp | 0 ... +50 °C (vertical installation) |
| Storage Temp | -20 ... +70 °C |
| Operating / Storage Humidity | 5 ... 85 % RH, non condensing |
| Protection Class | IP66 (front), IP20 (rear) |
| Dimensions and Weights | |
| Faceplate L × H | 147 × 107 mm (5.78 × 4.21") |
| Cutout A × B | 136 × 96 mm (5.35 × 3.78") |
| Depth D + T | 29 + 5 mm (1.14 + 0.19") |
| Weight | Approx 0.4 Kg |
| Approvals | |
| CE | Emission EN 61000-6-4, Immunity EN 61000-6-2 for installation in industrial environments Emission EN 61000-6-3, Immunity EN 61000-6-1 for installation in residential environments |
| UL | ANSI/UL 508 |



Cut-out

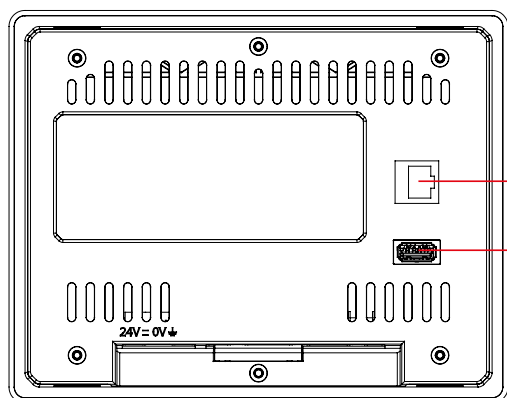
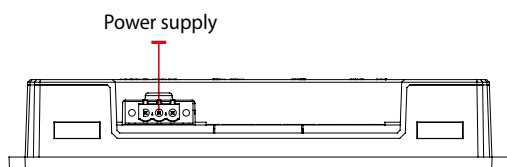
Ordering information

| Part Number | Type | Description |
|-------------|---------------------------------------|--|
| PCD7.D543RF | 4.3" HTML5 Web Panel, resistive touch | 4.3" HTML5 Web Panel, TFT color, 480 × 272 pixel, resistive touch screen, 1 Ethernet port, 1 USB host port |

PCD7.D570RF | 7" HTML5 Web Panel, resistive touch

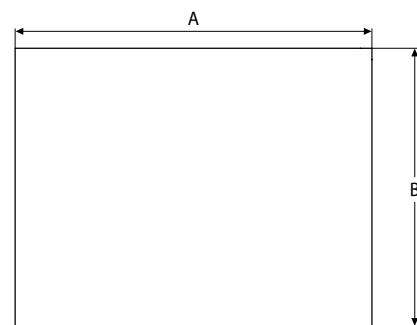
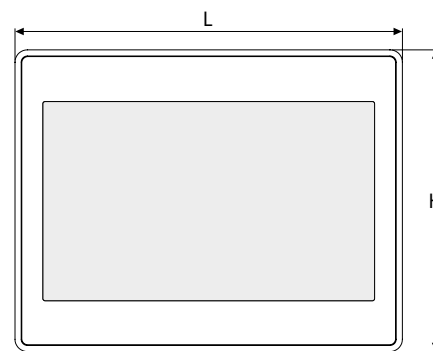
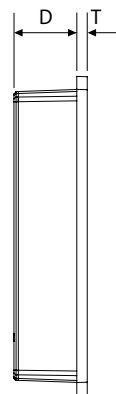


| System Resources | |
|--------------------------------------|---|
| Display - Colors | 7" TFT, 15:9, LED, 64 K |
| Resolution | 800 × 480, WVGA |
| Brightness | 200 Cd/m ² typ. |
| Dimming | to 0 % |
| Touchscreen | Resistive |
| CPU | ARM Cortex-A9, dual core, 800 MHz |
| Operating System | Linux |
| RAM | 1 GB |
| Flash | 4 GB |
| Real Time Clock, RTC Back-up, Buzzer | Yes, No, No |
| Interface | |
| Ethernet port | 1 (port 0 = 10/100/1000) |
| USB port | 1 (Host V2.0, max. 100 mA) |
| Ratings | |
| Power supply | 24 Vdc (10 ... 32 Vdc) |
| Current Consumption | 0.3 A at 24 Vdc (max.) |
| Input Protection | Electronic |
| Environment Conditions | |
| Operating Temp | 0 ... +50 °C (vertical installation) |
| Storage Temp | - 20 ... +70 °C |
| Operating / Storage Humidity | 5 ... 85 % RH, non condensing |
| Protection Class | IP66 (front); IP20 (rear) |
| Dimensions and Weights | |
| Faceplate L × H | 187 × 147 mm (7.36 × 5.79") |
| Cutout A × B | 176 × 136 mm (6.93 × 5.35") |
| Depth D + T | 29 + 5 mm (1.14 + 0.19") |
| Weight | 0.875 kg |
| Approvals | |
| CE | Emission EN 61000-6-4, Immunity EN 61000-6-2 for installation in industrial environments Emission EN 61000-6-3, Immunity EN 61000-6-1 for installation in residential environments |
| UL | ANSI/UL 508 |



Ethernet port 0
(10/100/1000 Mb)

USB port



Cut-out

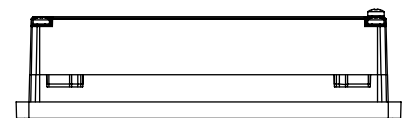
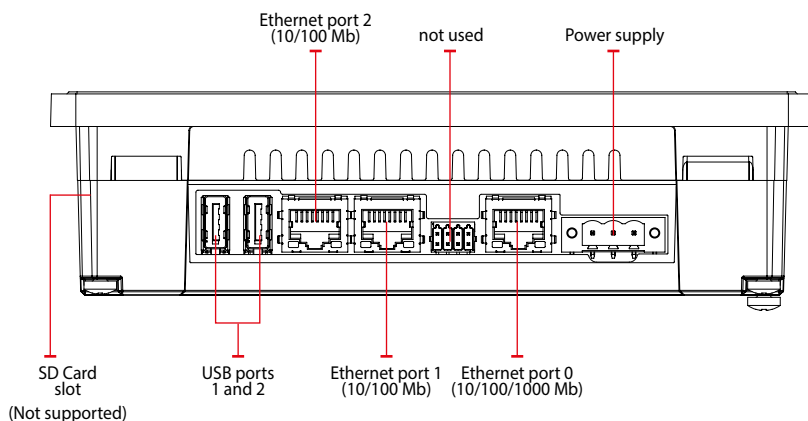
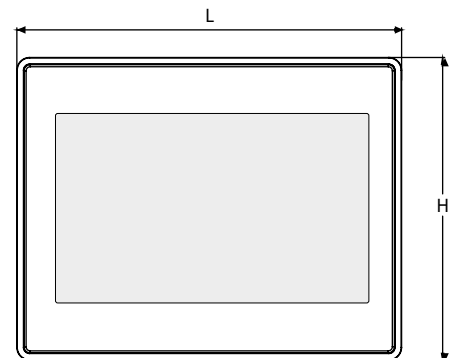
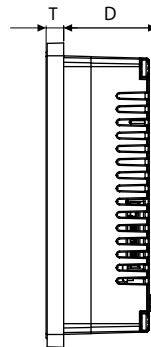
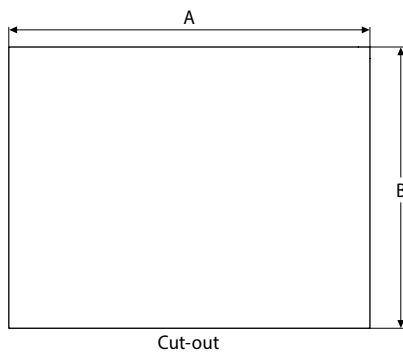
Ordering information

| Part Number | Type | Description |
|-------------|-------------------------------------|--|
| PCD7.D570RF | 7" HTML5 Web Panel, resistive touch | 7" HTML5 Web Panel, TFT color, 800x480 pixel, resistive touch screen, 1 Ethernet port, 1 USB host port |

PCD7.D570CF1 | 7" HTML5 Web Panel, capacitive touch



| System Resources | |
|--------------------------------------|---|
| Display - Colors | 7" TFT, 15:9, LED, 16 M |
| Resolution | 800 × 480, WVGA |
| Brightness | 500 Cd/m ² typ. |
| Dimming | to 0 % |
| Touchscreen | True Glass Projected Capacitive, Multitouch |
| CPU | i.MX8M Mini Quad ARM Cortex-A53 |
| Operating System | Linux |
| RAM | 2 GB |
| Flash | 4 GB |
| Real Time Clock, RTC Back-up, Buzzer | Yes, Yes, Yes |
| Interface | |
| Ethernet port | 3 (port 0 = 10/100/1000, port 1 = 10/100, port 2 = 10/100) |
| USB port | 2 (Host V2.0, max. 500 mA) |
| SD card | Not supported |
| Ratings | |
| Power supply | 24 Vdc (10 ... 32 Vdc) |
| Current Consumption | 0.7 A at 24 Vdc (max.) |
| Input Protection | Electronic |
| Battery | Rechargeable Lithium battery, not user-replaceable |
| Environment Conditions | |
| Operating Temp | -20 ... +60 °C (vertical installation) USB devices may limit max ambient temperature to +50 °C |
| Storage Temp | -20 ... +70 °C |
| Operating / Storage Humidity | 5 ... 85 % RH, non condensing |
| Protection Class | IP66 (front), IP20 (rear) |
| Dimensions and Weights | |
| Faceplate L × H | 187 × 147 mm (7.36 × 5.79") |
| Cutout A × B | 176 × 136 mm (6.93 × 5.35") |
| Depth D + T | 47 + 8 ... 8.5 mm (1.85 + 0.31 ... 0.33") |
| Weight | 1.5 kg |
| Approvals | |
| CE | Emission EN 61000-6-4, Immunity EN 61000-6-2 for installation in industrial environments |
| UL | UL 61010-1, 3rd Edition and UL 61010-2-201, 1st Edition |



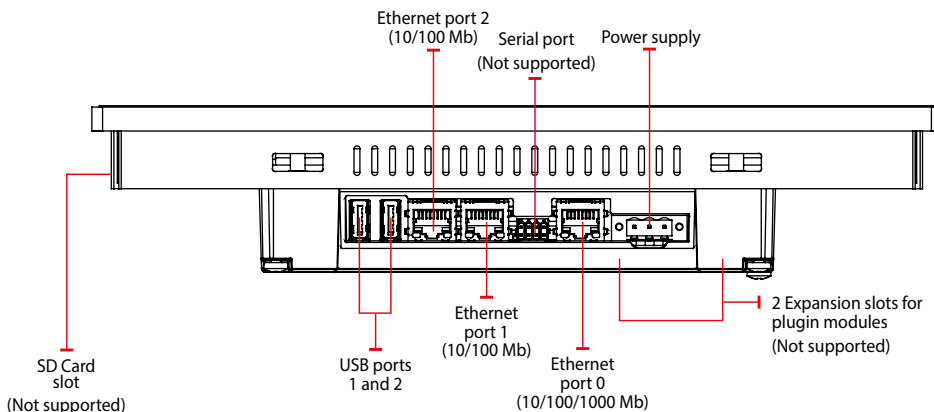
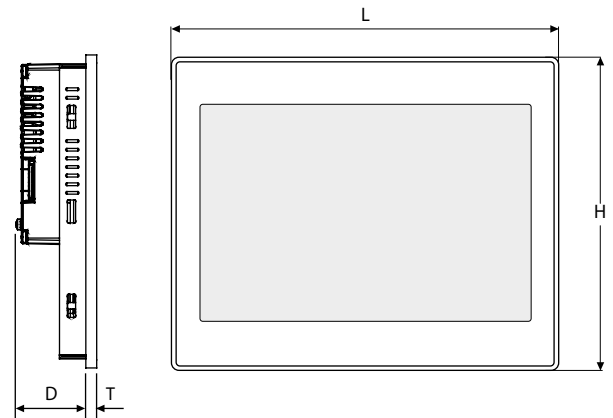
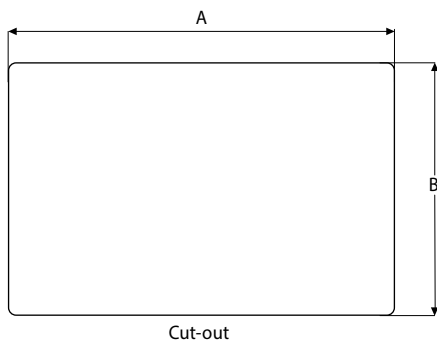
Ordering information

| Part Number | Type | Description |
|--------------|--------------------------------------|---|
| PCD7.D570CF1 | 7" HTML5 Web Panel, capacitive touch | 7" HTML5 Web Panel, TFT color, 800 × 480 pixel, capacitive multi touch screen, 3 Ethernet port, 2 USB host port |

PCD7.D510CF1 | 10,1" HTML5 Web Panel, capacitive touch



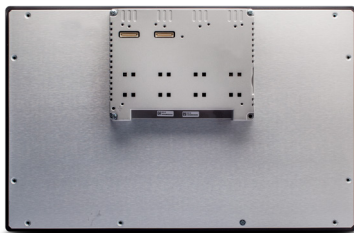
| System Resources | |
|--------------------------------------|--|
| Display - Colors | 10.1" TFT, 16:10, LED, 16 M |
| Resolution | 1280 × 800, WXGA |
| Brightness | 500 Cd/m ² typ. |
| Dimming | to 0 % |
| Touchscreen | True Glass Projected Capacitive, Multitouch |
| CPU | i.MX8M Mini Quad ARM Cortex-A53 |
| Operating System | Linux |
| RAM | 2 GB |
| Flash | 4 GB |
| Real Time Clock, RTC Back-up, Buzzer | Yes, Yes, Yes |
| Interface | |
| Ethernet port | 3 (port 0 = 10/100/1000, port 1 = 10/100, port 2 = 10/100) |
| USB port | 2 (Host V2.0, max. 500 mA) |
| Serial port | Not supported |
| SD card | Not supported |
| Expansion | Not supported |
| Ratings | |
| Power supply | 24 Vdc (10 ... 32 Vdc) |
| Current Consumption | 1.0 A at 24 Vdc (max.) |
| Input Protection | Electronic |
| Battery | Rechargeable Lithium battery, not user-replaceable |
| Environment Conditions | |
| Operating Temp | - 20 ... +60 °C (vertical installation) USB devices may limit max temperature to +50 °C |
| Storage Temp | - 20 ... +70 °C |
| Operating / Storage Humidity | 5 ... 85 % RH, non condensing |
| Protection Class | IP66 (front), IP20 (rear) |
| Dimensions and Weights | |
| Faceplate L × H | 282 × 197 mm (11.10 × 7.76") |
| Cutout A × B | 271 × 186 mm (10.67 × 7.32") |
| Depth D + T | 52 + 8 ... 8.5 mm (2.05 + 0.31 ... 0.33") |
| Weight | 2.5 kg |
| Approvals | |
| CE | Emission EN 61000-6-4, Immunity EN 61000-6-2 for installation in industrial environments |
| UL | UL 61010-1, 3rd Edition and UL 61010-2-201, 1st Edition |



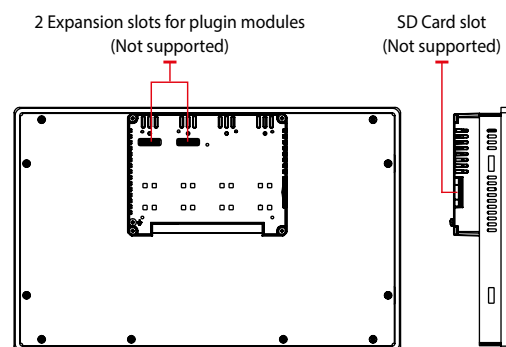
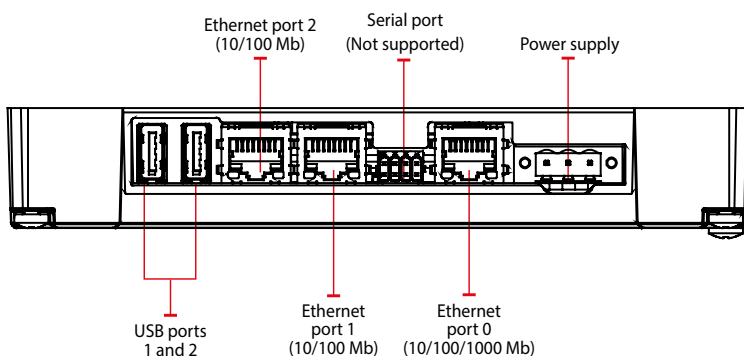
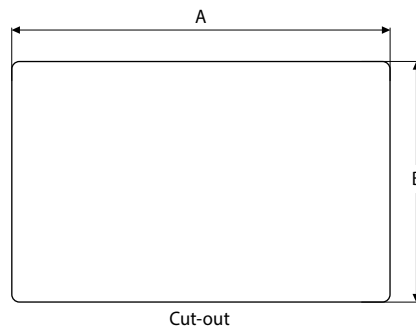
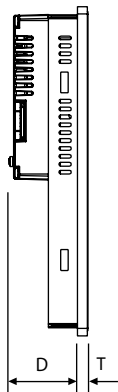
Ordering information

| Part Number | Type | Description |
|--------------|---|---|
| PCD7.D510CF1 | 10.1" HTML5 Web Panel, capacitive touch | 10.1" HTML5 Web Panel, TFT color, 1280 × 800 pixel, capacitive multi touch screen, 3 Ethernet port, 2 USB host port |

PCD7.D515CF1 | 15,6" HTML5 Web Panel, capacitive touch



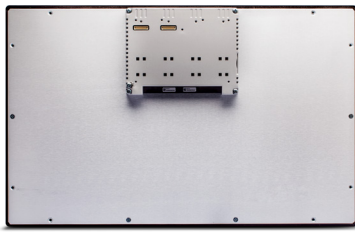
| System Resources | |
|--------------------------------------|--|
| Display - Colors | 15,6" TFT, LED, 16 M |
| Resolution | 1366 × 768, HD |
| Brightness | 400 Cd/m ² typ. |
| Dimming | to 0 % |
| Touchscreen | True Glass Projected Capacitive, Multitouch |
| CPU | i.MX8M Mini Quad ARM Cortex-A53 |
| Operating System | Linux |
| RAM | 2 GB |
| Flash | 4 GB |
| Real Time Clock, RTC Back-up, Buzzer | Yes, Yes, Yes |
| Interface | |
| Ethernet port | 3 (port 0 = 10/100/1000, port 1 = 10/100, port 2 = 10/100) |
| USB port | 2 (Host V2.0, max. 500 mA) |
| Serial port | Not supported |
| SD card | Not supported |
| Expansion | Not supported |
| Ratings | |
| Power supply | 24 Vdc (10 ... 32 Vdc) |
| Current Consumption | 1.2 A at 24 Vdc (max.) |
| Input Protection | Electronic |
| Battery | Rechargeable Lithium battery, not user-replaceable |
| Environment Conditions | |
| Operating Temp | - 20 ... +60 °C (vertical installation) Plug-in modules and USB devices may limit max temperature to +50 °C |
| Storage Temp | - 20 ... +70 °C |
| Operating / Storage Humidity | 5 ... 85 % RH, non condensing |
| Protection Class | IP66 (front), IP20 (rear) |
| Dimensions and Weights | |
| Faceplate L × H | 422 × 267 mm (16.6 × 10.5") |
| Cutout A × B | 411 × 256 mm (16.18 × 10") |
| Depth D + T | 56 + 8 ... 8.5 mm (2.20 + 0.31 ... 0.33") |
| Weight | 4.1 kg |
| Approvals | |
| CE | Emission EN 61000-6-4, Immunity EN 61000-6-2 for installation in industrial environments |
| UL | UL 61010-1, 3rd Edition and UL 61010-2-201, 1st Edition |



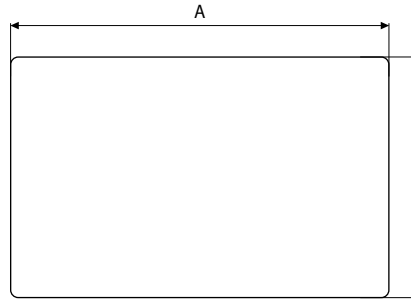
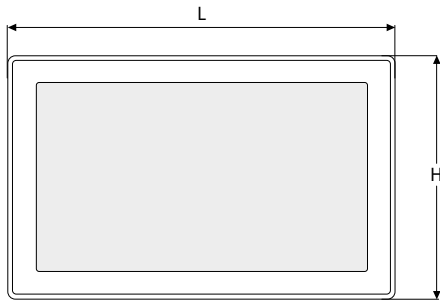
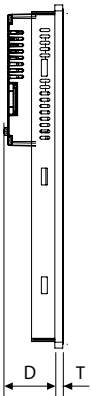
Ordering information

| Part Number | Type | Description |
|--------------|---|---|
| PCD7.D515CF1 | 15.6" HTML5 Web Panel, capacitive touch | 15.6" HTML5 Web Panel, TFT color, 1366 × 768 pixel, capacitive multi touch screen, 3 Ethernet port, 2 USB host port |

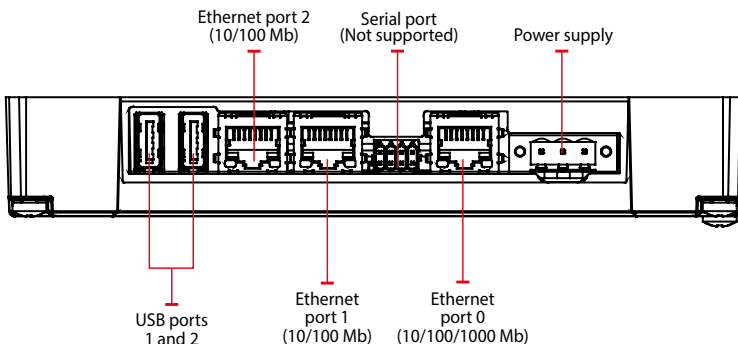
PCD7.D521CF1 | 21,5" HTML5 Web Panel, capacitive touch



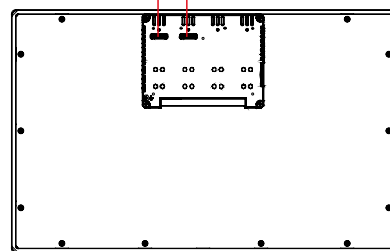
| Resources | |
|--------------------------------------|--|
| Display - Colors | 21,5" TFT, LED, 16 M |
| Resolution | 1920 × 1080, full HD |
| Brightness | 300 Cd/m ² typ. |
| Dimming | to 0 % |
| Touchscreen | True Glass Projected Capacitive, Multitouch |
| CPU | i.MX8M Mini Quad ARM Cortex-A53 |
| Operating System | Linux |
| RAM | 2 GB |
| Flash | 4 GB |
| Real Time Clock, RTC Back-up, Buzzer | Yes, Yes, Yes |
| Interface | |
| Ethernet port | 3 (port 0 = 10/100/1000, port 1 = 10/100, port 2 = 10/100) |
| USB port | 2 (Host V2.0, max. 500 mA) |
| Serial port | Not supported |
| SD card | Not supported |
| Expansion | Not supported |
| Ratings | |
| Power supply | 24 Vdc (10 ... 32 Vdc) |
| Current Consumption | 1.7 A at 24 Vdc (max.) |
| Input Protection | Electronic |
| Battery | Rechargeable Lithium battery, not user-replaceable |
| Environment Conditions | |
| Operating Temp | - 20 ... +60 °C (vertical installation) Plug-in modules and USB devices may limit max temperature to +50 °C |
| Storage Temp | - 20 ... +70 °C |
| Operating / Storage Humidity | 5 ... 85 % RH, non condensing |
| Protection Class | IP66 (front), IP20 (rear) |
| Dimensions and Weights | |
| Faceplate L × H | 552 × 347 mm (21,73 × 13,66") |
| Cutout A × B | 541 × 336 mm (21.30 + 13.23") |
| Depth D + T | 56 + 8 ... 8.5 mm (2.20 + 0.31 ... 0.33") |
| Weight | 6.1 kg |
| Approvals | |
| CE | Emission EN 61000-6-4, Immunity EN 61000-6-2 for installation in industrial environments |
| UL | UL 61010-1, 3rd Edition and UL 61010-2-201, 1st Edition |



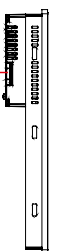
Cut-out



2 Expansion slots for plugin modules (Not supported)



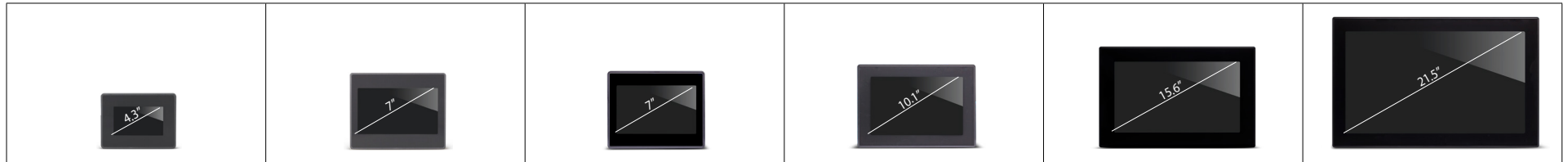
SD Card slot (Not supported)



Ordering information

| Part Number | Type | Description |
|--------------|---|--|
| PCD7.D521CF1 | 21.5" HTML5 Web Panel, capacitive touch | 21.5" HTML5 Web Panel, TFT color, 1920 × 1080 pixel, capacitive multi touch screen, 3 Ethernet port, 2 USB host port |

Product overview



| | | | | | |
|--------------------|--------------------|---------------------|---------------------|---------------------|---------------------|
| PCD7.D543RF | PCD7.D570RF | PCD7.D570CF1 | PCD7.D510CF1 | PCD7.D515CF1 | PCD7.D521CF1 |
|--------------------|--------------------|---------------------|---------------------|---------------------|---------------------|

| System Resources | | | | | | |
|---|--|--|---|---|---|---|
| Display - Colors | 4.3" TFT, 16:9, LED, 64 K | 7" TFT, 15:9, LED, 64 K | 7" TFT, 15:9, LED, 16 M | 10.1" TFT, 16:10, LED, 16 M | 15,6" TFT, LED, 16 M | 21,5" TFT, LED, 16 M |
| Resolution | 480 × 272 | 800 × 480, WVGA | 800 × 480, WVGA | 1280 × 800, WXGA | 1366 × 768, HD | 1920 × 1080, full HD |
| Brightness | 200 Cd/m ² typ. | 200 Cd/m ² typ. | 500 Cd/m ² typ. | 500 Cd/m ² typ. | 400 Cd/m ² typ. | 300 Cd/m ² typ. |
| Dimming | Yes | to 0 % | to 0 % | to 0 % | to 0 % | to 0 % |
| Touchscreen | Resistive | Resistive | True Glass Projected Capacitive, Multitouch | True Glass Projected Capacitive, Multitouch | True Glass Projected Capacitive, Multitouch | True Glass Projected Capacitive, Multitouch |
| CPU | ARM Cortex-A8, 1 GHz | ARM Cortex-A9, dual core, 800 MHz | i.MX8M Mini Quad ARM Cortex-A53 | i.MX8M Mini Quad ARM Cortex-A53 | i.MX8M Mini Quad ARM Cortex-A53 | i.MX8M Mini Quad ARM Cortex-A53 |
| Operating System | Linux | Linux | Linux | Linux | Linux | Linux |
| RAM | 512 MB | 1 GB | 2 GB | 2 GB | 2 GB | 2 GB |
| Flash | 4 GB | 4 GB | 4 GB | 4 GB | 4 GB | 4 GB |
| Real Time Clock | Yes | Yes | Yes | Yes | Yes | Yes |
| RTC Back-up | Yes | No | Yes | Yes | Yes | Yes |
| Buzzer | Yes | No | Yes | Yes | Yes | Yes |
| Interface | | | | | | |
| Ethernet port | 1 (port 0 = 10/100) | 1 (port 0 = 10/100/1000) | 3 (port 0 = 10/100/1000, port 1 = 10/100, port 2 = 10/100) | 3 (port 0 = 10/100/1000, port 1 = 10/100, port 2 = 10/100) | 3 (port 0 = 10/100/1000, port 1 = 10/100, port 2 = 10/100) | 3 (port 0 = 10/100/1000, port 1 = 10/100, port 2 = 10/100) |
| USB port | 1 (Host v. 2.0, max. 500 mA) | 1 (Host V2.0, max. 100 mA) | 2 (Host V2.0, max. 500 mA) | 2 (Host V2.0, max. 500 mA) | 2 (Host V2.0, max. 500 mA) | 2 (Host V2.0, max. 500 mA) |
| Serial port | Not supported | No | Not supported | Not supported | Not supported | Not supported |
| SD card | No | No | Not supported | Not supported | Not supported | Not supported |
| Expansion | No | No | Not supported | Not supported | Not supported | Not supported |
| Ratings | | | | | | |
| Power supply | 24 Vdc (10 ... 32 Vdc) | 24 Vdc (10 ... 32 Vdc) | 24 Vdc (10 ... 32 Vdc) | 24 Vdc (10 ... 32 Vdc) | 24 Vdc (10 ... 32 Vdc) | 24 Vdc (10 ... 32 Vdc) |
| Current Consumption | 0.25 A max. at 24 Vdc | 0.3 A at 24 Vdc (max.) | 0.7 A at 24 Vdc (max.) | 1.0 A at 24 Vdc (max.) | 1.2 A at 24 Vdc (max.) | 1.7 A at 24 Vdc (max.) |
| Input Protection | Automatic | Electronic | Electronic | Electronic | Electronic | Electronic |
| Battery | Yes (With Supercapacitor) | | Rechargeable Lithium battery, not user-replaceable | Rechargeable Lithium battery, not user-replaceable | Rechargeable Lithium battery, not user-replaceable | Rechargeable Lithium battery, not user-replaceable |
| Environment Conditions | | | | | | |
| Operating Temp | 0 ... +50 °C (vertical installation) | 0 ... +50 °C (vertical installation) | -20 ... +60 °C (vertical installation) Plug-in modules and USB devices may limit max temperature to +50 °C | -20 ... +60 °C (vertical installation) Plug-in modules and USB devices may limit max temperature to +50 °C | -20 ... +60 °C (vertical installation) Plug-in modules and USB devices may limit max temperature to +50 °C | -20 ... +60 °C (vertical installation) Plug-in modules and USB devices may limit max temperature to +50 °C |
| Storage Temp | -20 ... +70 °C | -20 ... +70 °C | -20 ... +70 °C | -20 ... +70 °C | -20 ... +70 °C | -20 ... +70 °C |
| Operating / Storage Humidity | 5 ... 85 % RH, non condensing | 5 ... 85 % RH, non condensing | 5 ... 85 % RH, non condensing | 5 ... 85 % RH, non condensing | 5 ... 85 % RH, non condensing | 5 ... 85 % RH, non condensing |
| Protection Class | IP66 (front), IP20 (rear) | IP66 (front), IP20 (rear) | IP66 (front), IP20 (rear) | IP66 (front), IP20 (rear) | IP66 (front), IP20 (rear) | IP66 (front), IP20 (rear) |
| Dimensions and Weights | | | | | | |
| Faceplate L × H | 147 × 107 mm (5.78 × 4.21") | 187 × 147 mm (7.36 × 5.79") | 187 × 147 mm (7.36 × 5.79") | 282 × 197 mm (11.10 × 7.76") | 422 × 267 mm (16.61 × 10.51") | 552 × 347 mm (21,73 × 13,66") |
| Cutout A × B | 136 × 96 mm (5.35 × 3.78") | 176 × 136 mm (6.93 × 5.35") | 176 × 136 mm (6.93 × 5.35") | 271 × 186 mm (10.67 × 7.32") | 411 × 256 mm (16.18 × 10.08") | 541 × 336 mm (21.30 × 13.23") |
| Depth | 29 + 5 mm (1.14 + 0.19") | 29 + 5 mm (1.14 + 0.19") | 47 + 8 ... 8.5 mm (1.85 + 0.31 ... 0.33") | 52 + 8 ... 8.5 mm (2.05 + 0.31 ... 0.33") | 56 + 8 ... 8.5 mm (2.20 + 0.31 ... 0.33") | 56 + 8 ... 8.5 mm (2.20 + 0.31 ... 0.33") |
| Weight | Approx 0.4 kg | 0.875 kg | 1.5 kg | 2.5 kg | 4.1 kg | 6.1 kg |
| Approvals | | | | | | |
| CE for installation in industrial environments | Emission EN 61000-6-4, Immunity EN 61000-6-2 | Emission EN 61000-6-4, Immunity EN 61000-6-2 | Emission EN 61000-6-4, Immunity EN 61000-6-2 | Emission EN 61000-6-4, Immunity EN 61000-6-2 | Emission EN 61000-6-4, Immunity EN 61000-6-2 | Emission EN 61000-6-4, Immunity EN 61000-6-2 |
| CE for installation in residential environments | Emission EN 61000-6-3, Immunity EN 61000-6-1 | Emission EN 61000-6-3, Immunity EN 61000-6-1 | - | - | - | - |
| UL | ANSI/UL 508 | ANSI/UL 508 | UL 61010-1, 3rd Edition and UL 61010-2-201, 1st Edition | UL 61010-1, 3rd Edition and UL 61010-2-201, 1st Edition | UL 61010-1, 3rd Edition and UL 61010-2-201, 1st Edition | UL 61010-1, 3rd Edition and UL 61010-2-201, 1st Edition |

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