

4

Intelligent HMI and Monitors

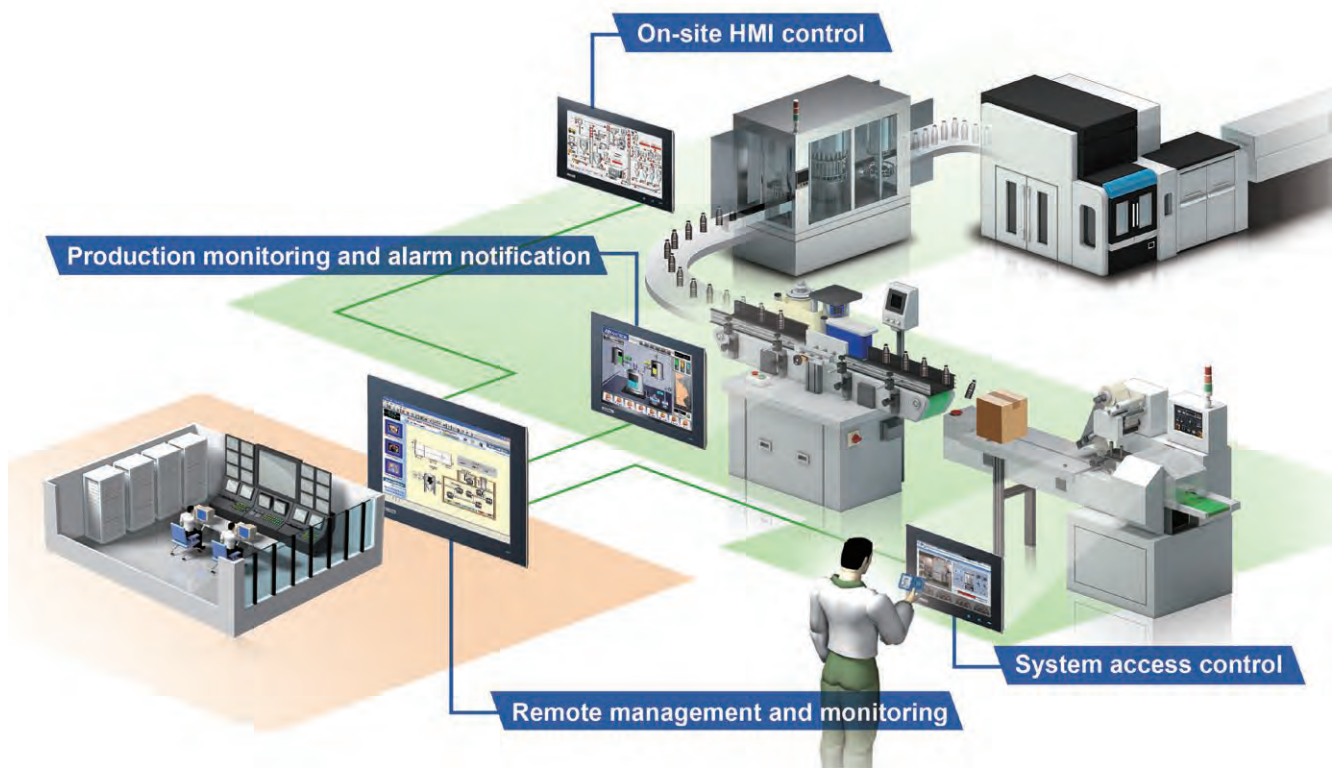
- 4-4 Modular Panel PC
- 4-5 High-Performance Control Panels
- 4-7 Thin-Client Terminals
- 4-9 Domain-Focused
- 4-10 Industrial Operator Panel
- 4-11 Industrial Monitors
- 4-14 General Panel PC



Introduction

To facilitate data visualization in Industry 4.0 applications, Advantech offers a diverse range of rugged and reliable HMI products of varying size (from 3.5" to 21.5") and screen ratio (4:3 and 16:9). Our HMI product categories include high-performance control panels that can be embedded into equipment and machines, low-power industrial thin clients for process monitoring, web terminals for next-generation smart factory applications, and standard industrial monitors. In addition to standard products, Advantech also provides customized domain-focused products to satisfy the needs of specific industries.

All Advantech HMI products are equipped with relevant software (WebAccess/HMI, WebAccess/SCADA or WISE-PaaS/RMM) as well as Advantech's iDOOR technology, making them suitable for various applications.



Product Categories

Modular Series

In response to ongoing advances in Industry 4.0, Advantech has created its new series of modular panel PC solutions based on three performance-segmented modules — a control panel, industrial thin-client, and industrial monitor. The modular design of our solutions allows the computing box modules to be interchangeably combined with our display modules to provide comprehensive platform solutions for specific field applications. This modularization offers many advantages, including flexible configuration, rapid integration and deployment, reduced system downtime and maintenance costs, and support for future expansion.

Control Panel

Advantech's control panel series of PC-based open control platforms feature a high-performance, fanless design and can be integrated with a wide variety of machines in diverse environments to support complex machine control tasks and data visualization applications. The optimized design includes three Gigabit LANs that support multiple fieldbus communication protocols, an IP66-rated front panel that protects against dust and water ingress, and support for flexible iDOOR and PCIe expansion, making these platforms particularly ideal for industrial automation control operations.

Thin Client Terminals

Advantech's thin client modules feature a compact, fanless, and low-power design that supports multiple aspect ratios (4:3 and 16:9) and allows the modules to be equipped with a range of display sizes (5.7" to 21.5"). These thin client modules are primarily deployed as manufacturing execution systems (MESs) or for work flow monitoring and production process visualization. Under the Industry 4.0 trend, thin clients are widely utilized in distributed control architectures because of their easy deployment and suitability for the centralized management of devices and information. This architecture allows the OS to be quickly dispatched from server to client following a hardware replacement while still ensuring data security.

Operator Panel

With SCADA software moving toward cloud-based applications, simple web-based terminals with HTML5 browser support have become an economical option for process monitoring. Advantech's WebOP series of operator panels feature a range of display sizes (7" to 12") and support multiple communication interfaces (e.g., RS-232/422/485, Ethernet, and USB). Bundled with WebAccess/HMI software, Advantech's WebOP series supports over 450 PLC communication protocols, ensuring convenient integration with equipment made by a comprehensive range of manufacturers.

Domain Focused

In addition to standard products, Advantech provides domain-focused systems with customizable features designed to satisfy specific requirements across various vertical markets. Verified with ATEX Class 1 Division 2/ EN 50155 certification, Advantech's domain-focused rugged HMIs are sufficiently robust for operation in extreme environments typical of the locomotive, food and beverage, oil and gas, and machine tool manufacturing industries. Ensuring system flexibility and compatibility are also major focus points for Advantech when designing domain-focused HMI products.

Industrial Monitors

Independent controllers and industrial PCs embedded in machines require an interface for data processing and visualization, for which Advantech produces industrial monitors in a range of sizes (6", 12.1", 15", 17", 18.5", to 21.5"). Featuring an industrial-grade LED LCD with a backlight lifetime of 50,000 hours, high IP-rated bezel, and wide temperature support, our industrial monitors are equipped to withstand operation in harsh environments. Versatile mounting options (panel, wall, desktop, rack, and VESA arm) are also supported to ensure easy installation for various usage scenarios.

1

Software and Industry Solutions

2

Industrial Server

3

Intelligent System

4

Intelligent HMI and Monitors

5

Automation Computers and Controllers

6

Industrial Communication

7

Remote I/O Modules

8

Industrial I/O and Video Solutions

Industrial monitors



| Model | FPM-7211W | FPM-7181W | FPM-7151W | FPM-7151T | FPM-7121T | FPM-7061T | |
|-------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|-----------|
| Display | Display Type | Full HD | WXGA | WXGA | XGA | XGA | VGA |
| | Display Size | 21.5" | 18.5" | 15.6" | 15" | 12.1" | 6.5" |
| | Max. Resolution | 1920 x 1080 | 1366 x 768 | 1366 x 768 | 1024 x 768 | 1024 x 768 | 640 x 480 |
| | Max.Colors | 16.7M | 16.7M | 16.7M | 16.7M | 16.2M | 16.2M |
| | Luminance cd/m ² | 300 | 300 | 300 | 400 | 600 | 800 |
| | Viewing Angle (H/V°) | 178/178 | 170/160 | 170/160 | 160/140 | 160/140 | 160/140 |
| | Backlight MTBF | 50,000 hr | 50,000 hr | 50,000 hr | 50,000 hr | 50,000 hr | 50,000 hr |
| Video Port | VGA/DVI-D | VGA/DVI-D | VGA/DVI-D | VGA/DP | VGA/DP | VGA/DP | |
| Touchscreen | Combo | Combo | Combo | Combo | Combo | USB | |
| OSD (onscreen display) | Rear panel control buttons, lockable | Rear panel control buttons, lockable | Rear panel control buttons, lockable | Rear panel control buttons, lockable | Rear panel control buttons, lockable | Rear panel control buttons, lockable | |
| Power Input Voltage | 100 ~ 240 V (Optional adapter) | 100 ~ 240 V (Optional adapter) | 100 ~ 240 V (Optional adapter) | 100 ~ 240 V (Optional adapter) | 100 ~ 240 V (Optional adapter) | 100 ~ 240 V (Optional adapter) | |
| DC Power Input(voltage) | 24 V | 24 V | 24 V | 24 V | 24 V | 24 V | |
| Operating Temperature | 0 ~ 55°C | 0 ~ 55°C | 0 ~ 55°C | -20 ~ 60°C | -20 ~ 60°C | -20 ~ 60°C | |
| Storage Temperature | -20 ~ 60°C | -20 ~ 60°C | -20 ~ 60°C | -30 ~ 70°C | -30 ~ 70°C | -30 ~ 70°C | |
| Dimensions | 558.4 x 349.8 x 47.7 mm | 488 x 309 x 47.7 mm | 419.7 x 269 x 47.7 mm | 383.2 x 307.3 x 48.2 mm | 311.8 x 238 x 44.5 mm | 199 x 152 x 46.1 mm | |
| Cut-out Dimensions | 550.3 x 341.8 mm | 479.3 x 300.3 mm | 412.4 x 261.7 mm | 374.5 x 298.5 mm | 303 x 229 mm | 189.1 x 142.1 mm | |
| Weight | 8 kg | 6 kg | 5 kg | 4.2 kg | 2.6 kg | 1.2 kg | |
| Certifications | BSMI, CCC, CE, FCC Class A, UL | BSMI, CCC, CE, FCC Class A, UL | BSMI, CCC, CE, FCC Class A, UL | BSMI, CCC, CE, FCC Class A, UL | BSMI, CCC, CE, FCC Class A, UL | BSMI, CCC, CE, FCC Class A, UL | |
| Operating System | Windows XP/ Vista/7/8/10/XPE, Linux | Windows XP/ Vista/7/8/10/XPE, Linux | Windows XP/ Vista/7/8/10/XPE, Linux | Windows XP/ Vista/7/8/10/XPE, Linux | Windows XP/ Vista/7/8/10/XPE, Linux | Windows XP/ Vista/7/8/10/XPE, Linux | |

- 1 Software and Industry Solutions
- 2 Industrial Server
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- 6 Industrial Communication
- 7 Remote I/O Modules
- 8 Industrial I/O and Video Solutions



| Model | | FPM-3191G | FPM-3171G | FPM-3151G | FPM-3121G |
|------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------|
| Display | Display Type | SXGA | SXGA | XGA | XGA |
| | Display Size | 19" | 17" | 15" | 12.1" |
| | Max. Resolution | 1280 x 1024 | 1280 x 1024 | 1024 x 768 | 1024 x 768 |
| | Max.Colors | 16.7M | 16.7M | 16.2M | 16.2M |
| | Luminance cd/m ² | 350 | 350 | 350 | 600 |
| | Viewing Angle (H/V°) | 170/160 | 160/140 | 160/140 | 160/140 |
| | Backlight MTBF | 50,000 hr | 50,000 hr | 50,000 hr | 50,000 hr |
| Video Port | VGA/DVI | VGA/DVI | VGA/DVI | VGA/DVI | |
| Touchscreen | Combo | Combo | Combo | Combo | |
| OSD (onscreen display) | Front panel control buttons | Front panel control buttons | Front panel control buttons | Front panel control buttons | |
| Power Input Voltage | 100 ~ 240 V (Optional adapter) | 100 ~ 240 V (Optional adapter) | 100 ~ 240 V (Optional adapter) | 100 ~ 240 V (Optional adapter) | |
| DC Power Input | 10 ~ 30 V | 10 ~ 30 V | 10 ~ 30 V | 10 ~ 30 V | |
| Operating Temperature | -20 ~ 60°C | -20 ~ 60°C | -20 ~ 60°C | -20 ~ 60°C | |
| Storage Temperature | -30 ~ 80°C | -30 ~ 80°C | -30 ~ 80°C | -30 ~ 80°C | |
| Dimensions | 482 x 399.2 x 67 mm | 482 x 354.8 x 63.5 mm | 312 x 224 x 60 mm | 312 x 224 x 60 mm | |
| Cut-out Dimensions | 441 x 376.4 mm | 447.2 x 329.2 mm | 303.5 x 229.5 mm | 303.5 x 229.5 mm | |
| Weight | 10.65 kg | 9.25 kg | 7.73 kg | 4.07 kg | |
| Certifications | CE, FCC Class A, BSMI, CCC, UL | CE, FCC Class A, BSMI, CCC, UL | CE, FCC Class A, BSMI, CCC, UL | CE, FCC Class A, BSMI, CCC, UL | |
| Operating System | Windows XP/Vista/7/8/10/XPE, Linux | Windows XP/Vista/7/8/10/XPE, Linux | Windows XP/Vista/7/8/10/XPE, Linux | Windows XP/Vista/7/8/10/XPE, Linux | |

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- 3 Intelligent System
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- 5 Automation Computers and Controllers
- 6 Industrial Communication
- 7 Remote I/O Modules
- 8 Industrial I/O and Video Solutions