

# Advantech Automation Panel

Modular Panel Platforms Accelerate Visualization for Industrial IoT

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# Visualizing Smart Factories to Enable

## Modular panel platforms for satisfying all industrial needs

When faced with the rapid market changes brought about by Industry 4.0, basic product provision is not enough; instead, solutions to specific problems must be developed. Stand-alone display modules and box modules can be easily integrated into versatile touch panel computers to serve as control panels, industrial thin clients, and industrial monitors and web terminals for diverse applications. Modular panel platforms benefit customers by enabling wide product offerings and supporting the flexible creation of new business models. Customers can assemble comprehensive portfolios that promptly address the needs of end users. Additionally, platforms with a modular design enable more easy, rapid, and comprehensive customization.

### Flexibility

Stand-alone display modules (available in 5 sizes) combined with box modules (3 types available) offer a range of flexible platforms (15 systems available) that can be adapted to diverse field applications.

### Rapid Customization

Platforms can be rapidly customized and configured according to usage requirements. The time and cost savings provided by Advantech platforms facilitate rapid development in keeping with market trends.

### Easy Maintenance

For system maintenance, the box modules can be removed and any defective modules detached and sent for repair. There is no need to unmount the entire platform.

### Upgradable

The modular platform design allows customers to more easily and economically conduct upgrades. Customers can simply detach and replace the existing module with a new advanced module.



# Industry 4.0



WebAccess/HMI

WebAccess/SCADA

WISE-PaaS/RMM



Industrial Web Terminal and Monitor



Industrial Thin Client



Control Panel



Control Panel

TPC-5000

- Optimized rugged housing design
- Latest generation Intel® Core™ i processor
- Supports expansion via iDOOR, PCIe, removable SSD, M.2, and antenna
- TPM, MRAM, 3x GbE, isolation power design for control software compatibility
- IEC 61010-2 and IEC 61131-2 complied
- Panel mount supported



WebAccess/HMI WISE-PaaS/RMM

## Innovative User-Friendly Design



### Modular Platform Design

Display and box modules are docked by a board-to-board connector that can be easily integrated into versatile touch panel computers to promptly satisfy end user requirements.



### IEC 61010-2 Certification

Robust industrial HMI certification ensures that Control Panel delivers premium control and monitoring capabilities.



### Wi-Fi/NFC Communication Technology

The Wi-Fi/NFC antenna built into the front panel eliminates the need to alter the original cabinet design. The platform offers direct support for wireless communication without additional wiring to ensure easy implementation.



### iDOOR Support

To expand the functionalities, systems can be equipped with Industrial Fieldbus, Smart I/O comm., Communication, and Multiple I/O peripheral iDOors to fulfill versatile applications.



### IP66-Rated True-Flat Front Panel

The IP66-rated true-flat front panel provides the system with not only a modern appearance but also protection from water and dust. This also allows the front panel to be wiped or washed clean.



### Wide Input Power Range (24V+/-20%)

Wide input power range ensures stable operation in unstable power environments.



### Intelligent Keys

Advantech's industrial monitors also feature intelligent keys for adjusting the on-screen display.



### 2.5" Removable HDD Bay

Removable storage facilitates rapid and convenient system maintenance and failure repair.



### Easy Installation

With its unique snap design, the system can be easily installed by one person, thereby accelerating installation. Compatible with various mounting kits, the system supports panel, wall, stand, and VESA mounting for diverse usage scenarios.



### Easy Customization

Systems can be tailored to align with your corporate brand using on-demand customization and iKey. Customization samples are delivered promptly.

## Industrial Thin Client

### TPC-2000

- Compact, slim, universal design
- Latest generation Intel® Atom™ processor
- Optional iDOOR communication module and removable M.2 storage
- Industrial-grade wide temperature range
- PXE boot ready
- Features WISE PaaS/RMM for asset management
- VESA mount supported



## Industrial Web Terminal and Monitor

### TPC-1000

- Compact, slim, modular design
- Easy fit iDOOR module in box
- Low-power RISC-based web terminal
- Optional smart I/O and communications module
- Configurable video interfaces with PiP functionality
- iLINK for long-distance transmissions (1 to 1 or 1 to 4)
- VESA mount supported



iDOOR THINMANAGER

WebAccess/SCADA WISE-PaaS/RMM

iLINK

## Selection Guide



Display Modules	Panel Size	12"	15"	17"	18.5"	21.5"
	Resolution	1024 x 768	1024 x 768	1280 x 1024	1366 x 768	1920 x 1080
	Touch	5-wire resistive touch	Projected capacitive touch	Projected capacitive touch	Projected capacitive touch	Projected capacitive touch
	Wi-Fi Antenna	No	Yes	Yes	Yes	Yes
	NFC Reader	No	Optional	Optional	Optional	Optional
	IP Rating	IP66-rated front panel	IP66-rated front panel	IP66-rated front panel	IP66-rated front panel	IP66-rated front panel
Control Panel	Part Number	TPC-5122T-633AE	TPC-5152T-633AE	TPC-5172T-633AE	TPC-5182W-633AE	TPC-5212W-633AE
	CPU	Intel® Core™ i3-6100U 2.30 GHz				
	Memory	8G DDR4 2133MHz SO Dimm				
	I/O	1 x RS-232, 1 x RS-232/422/485, 2 x USB 3.0, 2 x USB 2.0, 3 x GbE, 1 x Line Out, 1 x DP				
	Expansion	1 x Half-size PCIe, 2 x full-size mini PCIe				
	TPM	Supports TPM 2.0 (1.2 optional)				
	MRAM	by iDoor PCM-2300MR-AE				
	Power Input	24 VDC ± 20%				
	Operating System	Microsoft® Windows WES7 (32/64 bit)/Windows 7 (32/64 bit)/Windows 8 (64 bit)/Ubuntu 16.04/Windows 10 IoT Enterprise LTSB				
	Mount Options	Panel, stand, and VESA mount (with optional mounting kit)				
Industrial Thin Client	Part Number	TPC-2121T-E12AE	TPC-2151T-E12AE	TPC-2171T-E12AE	TPC-2181W-E12AE	TPC-2211W-E12AE
	CPU	Intel® Atom™ E3940 1.6 GHz				
	Memory	4G DDR3 1600MHz SO Dimm				
	I/O	1 x RS-232, 1 x RS-232/422/485, 2 x USB 3.0, 2 x USB 2.0, 2 x GbE, 1 x Line Out, 1 x DP				
	Expansion	1 x Full-size mini PCIe				
	Power Input	24 VDC ± 20%				
	Operating System	Microsoft® Windows 10 IoT Enterprise LTSB				
	Mount Options	Panel, stand, and VESA mount (with optional mounting kit)				
Web Terminal and Monitor	Part Number	TPC-1122T-HDAE	TPC-1152T-HDAE	TPC-1172T-HDAE	TPC-1182W-HDAE	TPC-1212W-HDAE
	Video Interface	HDMI (default), DP, DVI, VGA, iLink				
	Power Input	24 VDC ± 20%				
	Mount Options	Panel, stand, and VESA mount				
	iDoor Expansion	PCM-29D2HD-AE (HDMI), PCM-29D2DP-AE (DP), PCM-29D2DV-AE (DVI), PCM-29D2VG-AE (VGA), PCM-29D2TR-AE (iLINK TX+RX), PCM-29D1RX-AE (iLINK RX), PCM-29PCRI-AE (RISC module)				

## Advantech iDOOR Modules

Industrial Fieldbus	Smart I/O and Comms	Communication	Multiple I/O and Peripherals
 <p>CANopen, Profibus, Profinet, EtherCAT, EtherNet/IP, Powerlink, Sercos III</p> <ul style="list-style-type: none"> <li>■ PCM-26D2CA</li> <li>■ PCM-26R2PN</li> <li>■ PCM-26R2EC</li> <li>■ PCM-26R2S3</li> </ul>	 <p>RS-232, RS-422/485, Digital/Analog I/O, I/O Link</p> <ul style="list-style-type: none"> <li>■ PCM-27D24DI</li> <li>■ PCM-24D2R4</li> <li>■ PCM-24D2R2</li> <li>■ PCM-24D4R4</li> </ul>	 <p>Wi-Fi/Bluetooth, Zigbee, RFID/NFC, GSM/GPRS/3G, 4G LTE</p> <ul style="list-style-type: none"> <li>■ PCM-24S34G</li> <li>■ PCM-24S33G</li> <li>■ PCM-24S2WF</li> </ul>	 <p>NVRAM, USB, TPM, CFast, GigaLAN, PoE, VGA/DVI, DP, HDMI, Audio, PCIe adapter card</p> <ul style="list-style-type: none"> <li>■ PCM-2300MR</li> <li>■ PCM-24R1TP</li> <li>■ PCM-24U2U3</li> <li>■ PCM-24R2GL</li> </ul>

# Advantech's Innovative Design Concept - Simple, Flexible, and Reliable

As a leading provider of industrial PCs, Advantech is committed to continual product innovation and service development. Advantech's pioneering intelligent automation "i" technology concept emphasizes intelligent, integrated, and intuitive designs that innovate existing service models, user behaviors, and technology trends for the new era of industrial automation.



The integration of an intuitive and intelligent key simplifies automation panel configuration, while the flexible software design ensures easy and convenient customization.



This standardized modular interface enables flexible expansion by supporting numerous applications and extended system functions through a wide range of I/O.



This reliable long-distance transmission technology transfers video signals and touch control commands over a single Ethernet cable, overcoming the inherent interference of harsh environments to ensure connectivity and provide a cost effective multi-display solution.

## Regional Service & Customization Centers

**China** | Kunshan  
86-512-5777-5666

**Taiwan** | Taipei  
886-2-2792-7818

**Netherlands** | Eindhoven  
31-40-267-7000

**Poland** | Warsaw  
00800-2426-8080

**USA** | Milpitas, CA  
1-408-519-3898

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São Paulo 55-11-5592-5355

**Mexico**  
Toll Free 1-800-467-2415  
Mexico City 52-55-6275-2727

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