## Selection Guide

| Display Modules | | 12" | 15" | 17" | 18.5" | 21.5" |
|---|---|---|---|---|---|---|
| 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 | | | | |
| | Memroy | 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 |
|---|---|---|---|
| CANopen, Profibus, Profinet, EtherCAT, EtherNet/IP, Powerlink, Sercos III | RS-232, RS-422/485, Digital/Analog I/O, I/O Link | Wi-Fi/Bluetooth, Zigbee, RFID/NFC, GSM/GPRS/3G, 4G LTE | NVRAM, USB, TPM, CFast, GigaLAN, PoE, VGA/DVI, DP, HDMI, Audio, PCIe adapter card |
| ▪ PCM-26D2CA ▪ PCM-26R2PN<br>▪ PCM-26R2EC ▪ PCM-26R2S3 | ▪ PCM-27D24DI ▪ PCM-24D2R4<br>▪ PCM-24D2R2 ▪ PCM-24D4R4 | ▪ PCM-24S34G ▪ PCM-24S33G<br>▪ PCM-24S2WF | ▪ PCM-2300MR ▪ PCM-24R1TP<br>▪ PCM-24U2U3 ▪ PCM-24R2GL |

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## 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.*

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

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

### iLink
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.

**ADVANTECH**
*Enabling an Intelligent Planet*

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# Advantech Automation Panel

## Modular Panel Platforms Accelerate Visualization for Industrial IoT

- Introduction
- Benefits and Features
- Control Panel
- Industrial Thin Client
- Web Terminal and Monitor

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# Visualizing Smart Factories to Enable Industry 4.0

## 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.

CODESYS
WebAccess/HMI
WebAccess/SCADA
WISE-PaaS/RMM
THINMANAGER

Industrial Web Terminal and Monitor
Industrial Thin Client
Control Panel

## 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.

**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.

**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.

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

**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.

**IEC 61010-2 Certification** — Robust industrial HMI certification ensures that Control Panel delivers premium control and monitoring capabilities.

**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.

**Wide Input Power Range (24V+/-20%)** — Wide input power range ensures stable operation in unstable power environments.

**2.5" Removable HDD Bay** — Removable storage facilitates rapid and convenient system maintenance and failure repair.

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

## 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

iDOOR CODESYS
WebAccess/HMI WISE-PaaS/RMM

## 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

iDOOR THINMANAGER
WebAccess/SCADA WISE-PaaS/RMM

## 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

iLINK

Easy Upgrades — Rapid Customization — Flexible — Easy Maintenance