

# Advantech iDoor Technology

Standardized Interface Which Offers Flexible Expansion to System Functions Via a Variety of Modular I/Os



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- Features & Functions
- Benefits & Advantages
- Selection Guide
- Naming Convention



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# Selection Guide

## Memory/Storage/ External I/O



Model Name	PCM-2300MR	PCM-2300TP	PCM-23C1CF	PCM-23U1DG
Description	MR4A16B, MRAM, 2MByte	Trusted Platform Module (TPM)	CFast, Ejection Type I, CFast x 1	Internal Locked USB Slot for USB Dongle, USB x 1
Spec	<ul style="list-style-type: none"> <li>• 2MB MRAM Storage</li> <li>• Speed 6 MB/Sec</li> </ul>	<ul style="list-style-type: none"> <li>• Compliant with TCG 1.2</li> <li>• Via LPC connector</li> </ul>	<ul style="list-style-type: none"> <li>• 1 port CFast I/O card</li> <li>• CFast 3.0, Type I/II</li> </ul>	<ul style="list-style-type: none"> <li>• 1 port USB I/O card</li> <li>• USB A type w/ lock</li> </ul>

## Communication



Model Name	PCM-24D2R4	PCM-24D2R2	PCM-24D4R4	PCM-24D4R2	PCM-24R2PE	PCM-24R2GL
Description	OXPCle952 UART, Isolated RS-422/485, DB9 x 2	OXPCle952 UART, Isolated RS-232, DB9 x 2	OXPCle954 UART, Non-Isolated RS-422/485, DB37 x 1	OXPCle954 UART, Non-Isolated RS-232, DB37 x 1	Intel i350, GbE, PoE IEEE 802.3af, PD, RJ45 x 2	Intel i350 PCIe, GbE, IEEE 802.3ab, RJ45 x 2
Spec	<ul style="list-style-type: none"> <li>• 2000Vdc isolation protection</li> <li>• RTS/CTS/Xon/Xoff flow control</li> </ul>		<ul style="list-style-type: none"> <li>• Non isolation 4 COM ports</li> <li>• 50 bps ~ 921.6 kbps serial speed(RS-422/485)</li> </ul>		<ul style="list-style-type: none"> <li>• 2 port PoE (Power Over Ethernet)</li> <li>• Singel port 15.4W of DC power</li> </ul>	<ul style="list-style-type: none"> <li>• 2 port GbE LAN</li> <li>• Intel i350</li> </ul>



Model Name	PCM-24R1TP	PCM-24U2U3	PCM-24S2WF	PCM-24S23G	PCM-24S24G
Description	Intel 82574L, GbE, IEEE 1588 PTP, RJ45 x 1	USB 3.0 mPCIe Express Card, USB x 2	Atheros AR9462, 802.11 a/b/g/n 2T2R w/ BT4.0, SMA x 2	6-band HSPA Cellular Module, GPS, SIM Holder, SMA x 2	LTE Bands, UMTS/HSPA Bands, GPS/GPRS Bands, SMA x 2
Spec	<ul style="list-style-type: none"> <li>• 1 port GbE LAN</li> <li>• IEEE 1588 precision time protocol ready</li> </ul>	<ul style="list-style-type: none"> <li>• 2 port USB 3.0</li> <li>• USB A type</li> </ul>	<ul style="list-style-type: none"> <li>• Atheros AR9462</li> <li>• 802.11 a/b/g/n 2T2R w/ Bluetooth 4.0</li> </ul>	<ul style="list-style-type: none"> <li>• 3.75G HSPA+GPS</li> <li>• 2 SIM holders with switch for redundancy</li> </ul>	<ul style="list-style-type: none"> <li>• LTE/UMTS/HSPA/GPS/GPRS bands</li> <li>• 2 SIM holders with switch for redundancy</li> </ul>

## Fieldbus Protocol



Model Name	PCM-26D2CA	PCM-26D1PB
Description	SJA1000 CANBus, CANOpen, DB9 x 2	Hilscher netX100 FieldBus, ProfiBus, DB9 x 1
Spec	<ul style="list-style-type: none"> <li>• CAN 2.0 A/B</li> <li>• 1Mbps, 16MHz</li> </ul>	<ul style="list-style-type: none"> <li>• Hilscher netX100</li> <li>• 9.6kbps~12Mbps</li> </ul>

## Digital/ Analog I/O



Model Name	PCM-27D24DI
Description	Digital I/O, 16 DI / 8 DO, Isolation, DB37 x 1
Spec	<ul style="list-style-type: none"> <li>• 16DI, 8DO</li> <li>• 2500Vdc isolation protection</li> </ul>

## Naming Convention

PCM - 2 6 D 2 C A

Category
23-Memory / Storage / External I/O
24-Communication
25-Display
26-Fieldbus
27-Digital/Analog I/O

Connector		Port
R-RJ45	C-CFast	0-No Connector
D-DB9	S-SMA/DFP/SD	1-One Connector
U-USB	H-HDMI/DP	2-Two Connectors

Function				
PB-ProfiBus	CA-CANOpen	OF-Optical Fiber	DI-Digital I/O	U3-USB 3.0
PN-ProfiNet	PL-PowerLink	PE-PoE	AI-Analog I/O	HD-HDMI
EI-Ethernet/IP	WF-WiFi/BT	TP-Precision Time Protocol	R4-Multi-drop RS-422/485	4G-4G/LTE
EC-EtherCAT	3G-3G/GPS	DC-Daisy-Chain	R2-Single-ended RS-232	DG-Dongle
AB-APAXBus	ZB-ZigBee	MR-MRAM	ID-Intelligent Displays	GL-Gigabit LAN



# Advantech

## Leading

Advantech's innovative devices. iDoor Technology provides a cost-effective solution with no costly extra devices with integrators can leverage. For instance, as embedded devices become widely available, iDoor provides a line for their customer

### Simple, Flexible, Reliable



The optimized mechanism design simplify iDoor with I/O plate, I/O module and mPCIe card. It makes it easier to assemble and install. Modular design makes iDoor high flexibility for any configuration. With Advantech's rugged and strict design and comprehensive testing, iDoor provides a reliable offering.

### Easy Maintenance



With Advantech's iDoor mechanical design, the user finds it easy to install iDoor into many kinds platform and fixes into the chassis. iDoor also provides a standard cable for internal cable routing and management. With the captive screw and locked USB which is easy for users to maintain.

### Standard Interface



The standard dimensions of the 81 x 19.4 mm I/O plate with mPCIe interface supports the following models:

- Embedded DIN-Rail Controller: UNO-1000 series
- Embedded Automation PC: UNO-2000 series
- Embedded BOX IPC: UNO-3000 series
- Embedded Automation Panel: TPC series

### Versatile Color Identification



For easy identification, iDoor has opted to use a color scheme that represents the primary colors of their logos. Blue is the most obvious color for EtherCAT logo, yellow is defined as PANTONE 1795C and the black is the representative color of the POWERLINK logo, components are used a black a plate.

# iDoor Technology

## Industrial PC Trends

iDoor Technology is a new modular way of adding flexible functionality to a wide range of industrial PCs. This technology gives system integrators the flexibility to choose functions they need without purchasing unnecessary components or functions they'll never use. By using standardized components and interfaces, iDoor technology integrates the current state-of-the-art technologies as well as up and coming IPC trends. For example, as operating systems improve and higher performance storage methods become available, the IPC supplier is able to seamlessly integrate them into the product.



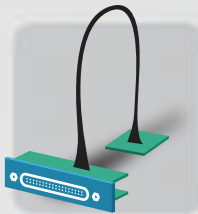
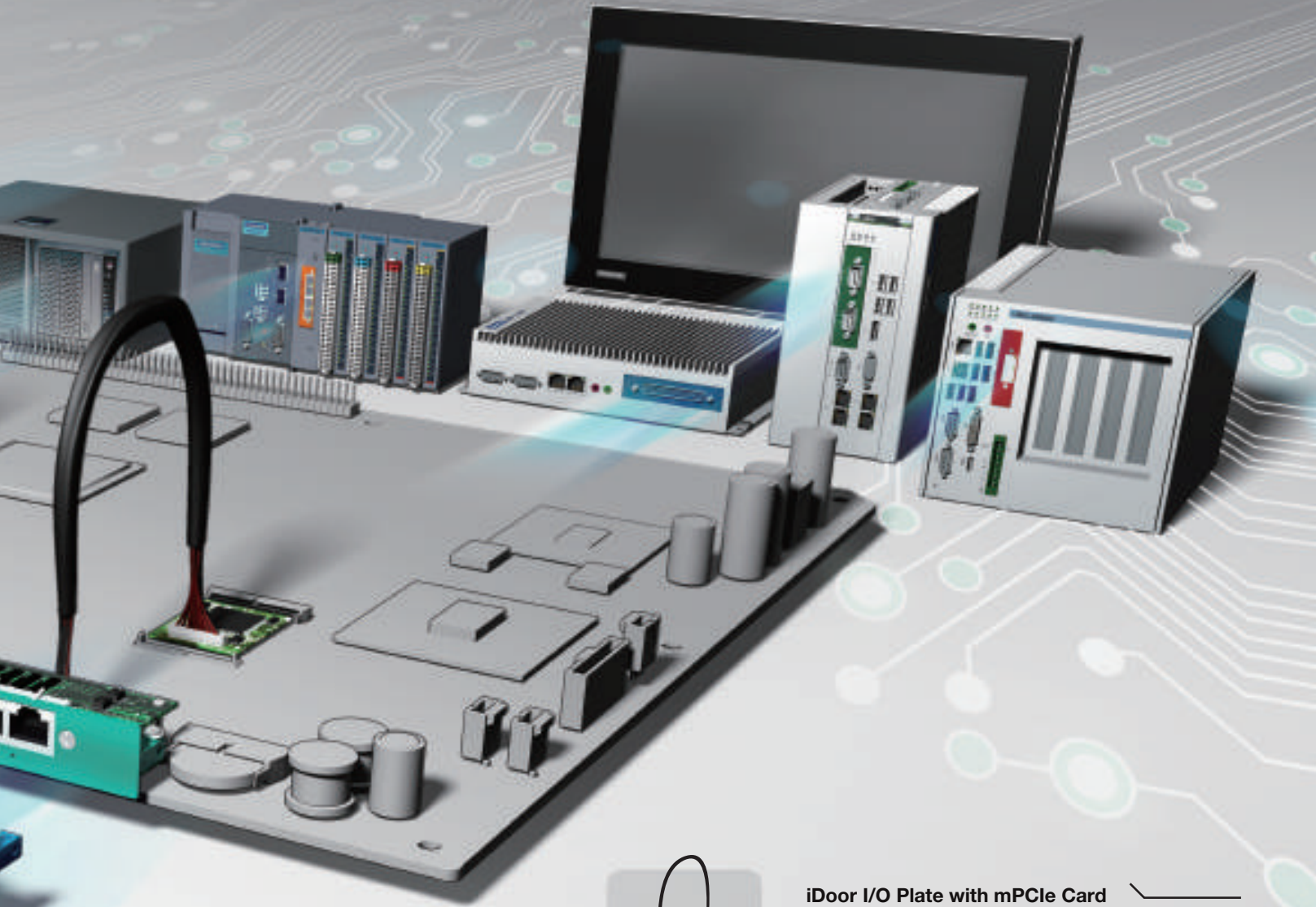
Color convention  
For Example, the  
to the I/O plate  
is the  
sequently, we



### Integration of Multiple Functions

With the versatile functionality of iDoor, the system is suitable for different vertical applications. iDoor application modules include memory/storage/external I/O, Fieldbus protocol (Ethernet/IP, Profibus, Profinet, EtherCAT, Powerlink, and so on), communications WAN / MAN / LAN and digital / analog I/O.





#### **iDoor I/O Plate with mPCIe Card**

An iDoor module uses a mini PCIe slot embedded on the motherboard. Most market requirements can be fulfilled by mPCIe card suppliers.

#### **Fast-customization**

The opensource nature of this technology allows system integrators to develop their own mPCIe card, their own exclusive iDoor functions, and even iDoor shell colors (eg: combining company Logo), to shape their brand images through color recognition. For those key accounts, they can integrate industry expertise in automation applications via iDoor.

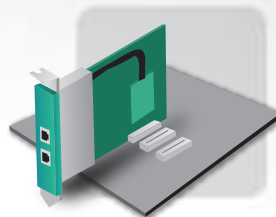


#### **PCI/PCIe I/O Plate with mPCIe Card**

For users who have standard IPC on hand but need expansion, we provide the optimization plate that customers can utilize to enlarge the expansion through the mPCIe interface.

#### **Supports Different Platforms**

iDoor Technology is not only designed to work exclusively with Advantech's products but also gives system integrators the ability to use iDoor modules on any industrial PC that has a spare PCIe slot. With the extended plate and adapter solution, it will be suitable for the IPC platform. The flexible design will make iDoor fulfill any other 3<sup>rd</sup> party uses.



#### **PCI/PCIe I/O Plate with mPCIe Card in PCIe Adapter Card**

Some customers need more expansion but are limited by the number of available mPCIe slots. We provide a PCIe adapter which gives an additional mPCIe slot which connects through an existing PCIe slot to maximize the expansion.

# Advantech Innovative Design Concept- Simple, Flexible, Reliable

As a leading provider of Industrial PC, Advantech devoted to innovation product/service development. To be the pioneer in intelligent automation technology, the i-concept represents the intelligent, integrated and intuitive design which covers the innovation of service model, user behavior and cutting-edge technology that opens a new era of industrial automation.



An integrated intelligent key brings simplified intuitive operation for configuring your automation panel. With a flexible software design, customized functions are easier to carry out.



A standardized modular Interface which offers flexible expansion to increase the number of applications and expand system functions through the variety of standardized modular I/Os.



A Reliable Long Distance Transmission Technology which transfers video signals and touch control over a single Ethernet cable which overcomes interference in harsh environments not only for data connections, but also for a cost effective multiple display solution.

## Regional Service & Customization Centers

<b>China</b> Kunshan 86-512-5777-5666	<b>Taiwan</b> Taipei 886-2-2792-7818	<b>Netherlands</b> Eindhoven 31-40-267-7000	<b>Poland</b> Warsaw 48-22-33-23-740 / 41	<b>USA/ Canada</b> Milpitas, CA 1-408-519-3898
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## Worldwide Offices

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Toll Free	800-810-0345
Beijing	86-10-6298-4346
Shanghai	86-21-3632-1616
Shenzhen	86-755-8212-4222
Chengdu	86-28-8545-0198
Hong Kong	852-2720-5118

<b>Taiwan</b>	
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Saude-São Paulo	55-11-5592-5355

<b>Mexico</b>	
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Mexico City	52-55-6275-2777

More Information



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