## Memory/Storage/External I/O

| Model Name | PCM-2300MR | PCM-2300TP | PCM-23C1CF | PCM-23U1DG |
|---|---|---|---|---|
| Description | MR4A16B, MRAM, 2MByte | TPM Compliant with TCG 1.2 | CFast, Ejection Type I, CFast x 1 | Locked USB Slot for USB Dongle, USB x 1 |
| Spec | • 2MB MRAM Storage<br>• Speed 6 MB/Sec | • TPM compliant with TCG 1.2 | • 1 port CFast I/O card<br>• CFast 3.0, Type I/II | • 1 port USB I/O card<br>• USB A type w/lock |

## Communication

| Model Name | PCM-24D2R4 | PCM-24D2R2 | PCM-24D4R4 | PCM-24D4R2 | PCM-24R2PE | PCM-24R2GL |
|---|---|---|---|---|---|---|
| Description | OXPCIe-952 UART, Isolated 422/485, DB9 x 2 | OXPCIe-952 UART, Isolated RS-232, DB9 x 2 | OXPCIe-954 UART, Non-Isolated 422/485, DB37 x 1 | OXPCIe-954 UART, Non-Isoted RS-232, DB37 x 1 | Intel i350, GbE, PoE IEEE 802.3af, PD, RJ45 x 2 | Intel i350 PCIe, GbE, LAN Mini Card, RJ45 x 2 |
| Spec | • Iso.2-ports, 2KVDC<br>• RS-232/422/485 | • Non-Iso. 4-ports<br>• 50 bps ~ 921.6 kbps(RS-422/485) | | | • Intel i350<br>• 2 port 802.3af | • Intel i350<br>• 2 port 10/100/1000 LAN |

| 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 Mini Card, USB x 2 | 802.11 a/b/g/n 2T2R w/ BT4.0, Atheros AR9462, SMA x 2 | 6-band HSPA Cellular Module, SIM Holder+GPS, SMA x 2 | LTE Bands, UMTS/HSPA Bands, GPS/GPRS Bands, SMA x 2 |
| Spec | • Intel 82574L chip<br>• 9k jumbo frames, 802.1AS | • 2 port USB 3.0<br>• USB A type | • Atheros AR9462<br>• 802.11 a/b/g/n 2T2R w/ BT4.0 | • 3.75G HSPA+GPS<br>• 2-in-1, Full-size mPCIe Card w/SIM Card | • LTE bands<br>• UMTS/HSPA GPS/GPRS bands |

## Fieldbus Protocol

| Model Name | PCM-26D2CA | PCM-26D1PB |
|---|---|---|
| Description | SJA1000 CANBus, CANOpen, DB9 x 2 | Hilscher netX100 FieldBus, ProfiBus, DB9 x 1 |
| Spec | • CAN 2.0 A/B<br>• 1Mbps, 16MHz | • Hilscher netX100<br>• 9.6kbps~12Mbps |

## Digital/Analog I/O

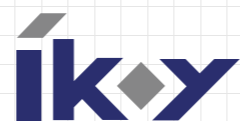| Model Name | PCM-27D24DI |
|---|---|
| Description | Digital I/O, 16 DI / 8 DO, Isolation, DB37 x 1 |
| Spec | • Iso.16DI, 8DO<br>• Iso. Protection 2.5KVDC |

## Naming Convention

**PCM-** 2 6 D 2 C A

| Category | Connector | Port |
|---|---|---|
| 23-Memory / Storage / External I/O | R-RJ45    C-CFast | 0-No Connector |
| 24-Communication | D-DB9    S-SMA/DFP/SD | 1-one connector |
| 25-Display | U-USB    H-HDMI/DP | 2-two connectors |
| 26-Fieldbus | | |
| 27-Digital/Analog I/O | | |

| Function | | | | |
|---|---|---|---|---|
| PB-ProfiBus | PL-PowerLink | OF-Optical Fiber | DI-Digital I/O | U3-USB 3.0 |
| PN-ProfiNet | PB-ProfiBus | PE-PoE | AI-Analog I/O | HD-HDMI |
| EI-Eithernet/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 |
| CA-CANOpen | | | | |

## 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.*

**iKey**

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.

**iDoor**

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.

**iLink**

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

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

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

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

**Poland**
Warsaw
48-22-33-23-740/ 741

**USA/ Canada**
Milpitas, CA
1-408-519-3898

## Worldwide Offices

### Greater China

**China**
| 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 |

**Taiwan**
| Toll Free | 0800-777-111 |
| Neihu | 886-2-2792-7818 |
| Xindian | 886-2-2218-4567 |
| Taichung | 886-4-2378-6250 |
| Kaohsiung | 886-7-229-3600 |

### Asia Pacific

**Japan**
| Toll Free | 0800-500-1055 |
| Tokyo | 81-3-6802-1021 |
| Osaka | 81-6-6267-1887 |

**Korea**
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| Seoul | 82-2-3663-9494 |

**Singapore**
| Singapore | 65-6442-1000 |

**Malaysia**
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| Kuala Lumpur | 60-3-7725-4188 |
| Penang | 60-4-537-9188 |

**Indonesia**
| Jakarta | 62-21-769-0525 |

**Thailand**
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**India**
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| Pune | 91-20-39482075 |
| Bangalore | 91-80-2545-0206 |

**Australia**
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| Melbourne | 61-3-9797-0100 |
| Sydney | 61-2-9476-9300 |

### Europe

| Toll Free | 00800-2426-8080 |

**Germany**
| Münich | 49-89-12599-0 |
| Hilden / D'dorf | 49-2103-97-885-0 |

**France**
| Paris | 33-1-4119-4666 |

**Italy**
| Milano | 39-02-9544-961 |

**Benelux & Nordics**
| Breda | 31-76-5233-100 |

**UK**
| Reading | 44-0118-929-4540 |

**Poland**
| Warsaw | 48-22-33-23-740/41 |

**Russia**
| Toll Free | 8-800-550-01-50 |
| Moscow | 7-495-232-1692 |

### Americas

**North America**
| Toll Free | 1-888-576-9668 |
| Cincinnati | 1-513-742-8895 |
| Milpitas | 1-408-519-3898 |
| Irvine | 1-949-420-2500 |

**Brazil**
| Toll Free | 0800-770-5355 |
| Saude-São Paulo | 55-11-5592-5355 |

**Mexico**
| Toll Free | 1-800-467-2415 |
| Mexico City | 52-55-6275-2777 |

**ADVANTECH**
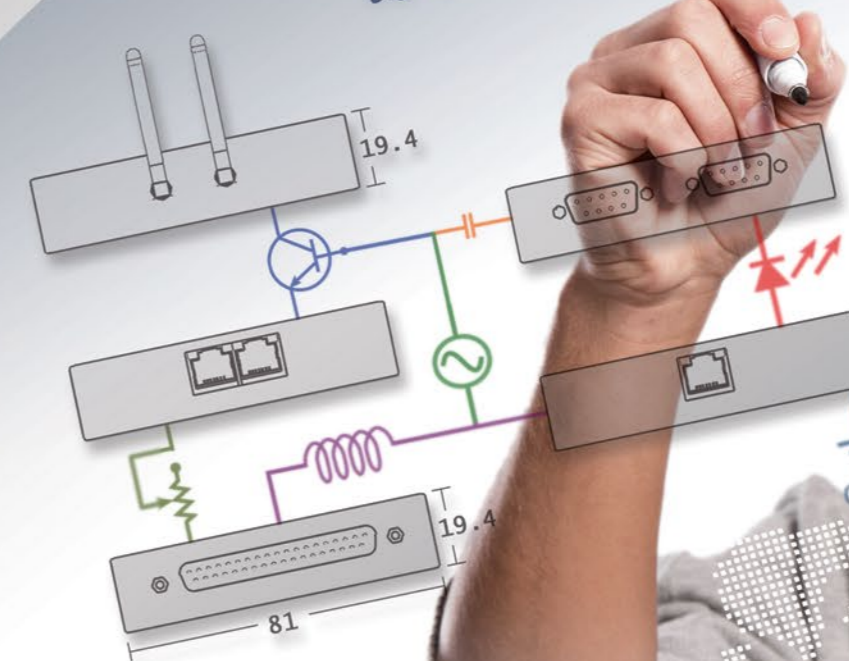*Enabling an Intelligent Planet*

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**ISOTRON SYSTEMS**

# Advantech iDoor Technology

Standardized interface which offers flexible expansion to system functions via a variety of modular I/Os

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

iDoor Technology

4G

**ADVANTECH**
*Enabling an Intelligent Planet*

www.isotron.eu

# Advantech iDoor Technology

## Leading Industrial PC Trends

Advantech's innovative iDoor technology is a new modular way of adding flexible functionality to a wide range of devices. iDoor Technology gives system integrators the flexibility to choose functions they need without purchasing costly extra devices with functions they'll never use. By using standardized components and interfaces integrators can leverage current state-of-the-art technologies as well as up and coming IPC trends. For instance, as embedded operating systems improve and higher performance storage methods become widely available, the IPC supplier is able to seamlessly integrate them into the product line for their customers.

### 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 flexibilityfor any configuration. With Advantech's rugged and strict design and comprehensive testing, iDoor provides a reliable offering.
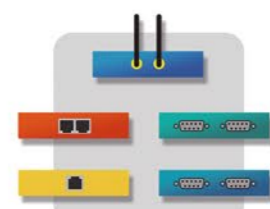
### Easy Maintenance

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 a 81 x 19.4mm I/O plate with mPCIe interface supports the following models:
• Embedded Automation Computers UNO-2200/2300/2400 series
• Embedded DIN-Rail Controller UNO-1200/1300/1400 series
• Embedded BOX IPC UNO-3000 series
• Embedded Automation Panel Computers TPC-xx82/xx72/xx80 series
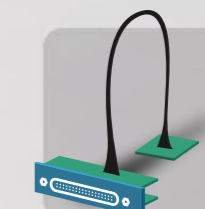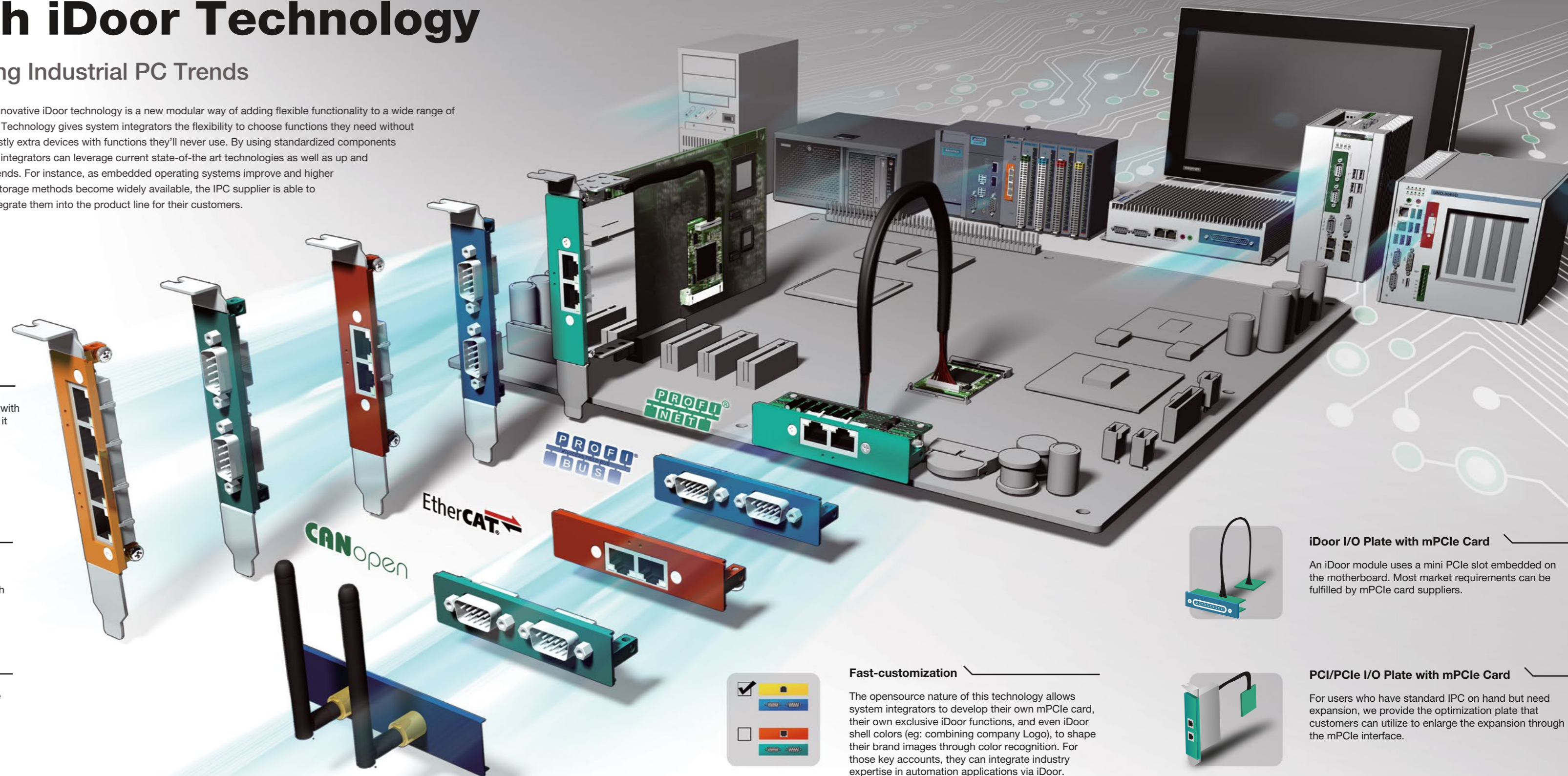
### Versatile Color Identification

For easy identification, iDoor has opted to use a color convention that represents the primary colors of their logos. For Example, the red is the most obvious color for EtherCAT logo, so the I/O plate color is defined as PANTONE 1795C and the black is the representative color of the POWERLINK logo, consequently, we used a black a plate.
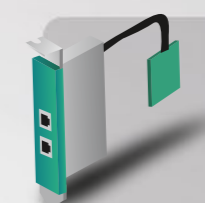
### Integration of Multiple Functions

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.

### 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.

### 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 suitable for the IPC platform. The flexible design will make iDoor fulfill any other 3rd party uses.

### 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.

### 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.

### 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.