C-PCM-24S24G

iDoor Communication Module with a MultiTech Dragonfly™ embedded cellular modem, LTE/HSPA+ Support, Dual Antennas, and AT&T and Verizon Certification for US/Canadian Networks

NEW

Features

- Communication module with iDoor technology
- Ready-to-integrate MultiTech Dragonfly™ embedded cellular modem certified by AT&T and Verizon
- Supports B2/B4/B5/B12/B13 for LTE networks
- Supports B2/B4/B5 for UMTS/HSPA+ networks
- Operating Temperature: -40 ~ 85 °C/-40 ~ 185 °F
- Supports Windows 7/8.x/10 (64 bit) and Ubuntu 18.04 operating systems

iDoor FCC RoHS COMPLIANT 2002/95/EC

Introduction

The PCM-24 series are communication modules equipped with Advantech's iDoor technology. The C-PCM-24S24G communication modules features a MultiTech Dragonfly™ embedded cellular modem, which is a ready-to-integrate CAT 4/CAT 1/CAT M1 LTE end-device certified by AT&T and Verizon. This ensures that Advantech's system platforms satisfy U.S. and Canadian network carrier requirements as certified end-devices.

Specifications

C-PCM-24S24G-4AV-1

General	
Host Interface	PCIe mini card (USB 2.0)
Dimensions	Module: 26.8 x 30 x 12.4 mm (1.06 x 1.18 x 0.49 in) I/O plate: 81 x 19.4 x 41 mm (3.19 x 0.76 x 1.61 in)
Wireless Module	MultiTech Dragonfly™ MTQ-LNA7-B02
Category	Category 4
SIM Holder	1 x Micro SIM (3FF)
Certification	FCC, UL/cUL, PTCRB, Verizon, AT&T
Power Consumption	712mA max @ 5V$_{DC}$
Antenna	690 ~ 960 MHz, 1710 ~ 2700 MHz
Cable	2*5P-2.0/micro USB 5P(M) 25 cm 90D
GNSS	Available upon request

Communication	
Frequency Band	LTE-FDD: B2(1900)/B4(AWS1700)/B5(850)/ B12(700)/B13(700) WCDMA: B2(1900)/B4(AWS1700)/B5(850)
Data Throughput	LTE FDD data rate (Mbp): 150 (DL)/50 (UL) HSUPA data rate (Mbp): 5.7 (DL)//5.7 (UL) DC-HSDPA data rate: 42(DL) /42 (UL)

Software	
OS Support	Windows 7/8/10 and Ubuntu 18.04

Environment	
Operating Temperature	-40 ~ 85 °C (-40 ~ 185 °F)
Relative Humidity	95% RH @ 40 °C, non-condensing

C-PCM-24S24G-1A-1

General	
Host Interface	PCIe mini card (USB 2.0)
Dimensions	Module: 26.8 x 30 x 12.4 mm (1.06 x 1.18 x 0.49 in) I/O plate: 81 x 19.4 x 41 mm (3.19 x 0.76 x 1.61 in)
Wireless Module	MultiTech Dragonfly™ MTQ-LAT3-B02
Category	Category 1
SIM Holder	1 x Micro SIM (3FF)
Certification	FCC, UL/cUL, PTCRB, AT&T
Power Consumption	510mA max @ 5V$_{DC}$
Antenna	690 ~ 960 MHz, 1710 ~ 2700 MHz
Cable	2*5P-2.0/micro USB 5P(M) 25 cm 90D
GNSS	NA

Communication	
Frequency Band	LTE-FDD: B2(1900)/B4(AWS1700)/B5(850)/ B12(700)/B13(700) WCDMA: B2(1900)/B5(850)
Data Throughput	LTE FDD data rate (Mbp): 10 (DL)/5 (UL) HSPA+ data rate: 21(DL) /5.76(UL)

Software	
OS Support	Windows 7/8/10 and Ubuntu 18.04

Environment	
Operating Temperature	-40 ~ 85 °C (-40 ~ 185 °F)
Relative Humidity	95% RH @ 40 °C, non-condensing

C-PCM-24S24G-1V-1

General	
Host Interface	PCIe mini card (USB 2.0)
Dimensions	Module: 26.8 x 30 x 12.4 mm (1.06 x 1.18 x 0.49 in) I/O plate: 81 x 19.4 x 41 mm (3.19 x 0.76 x 1.61 in)
Wireless Module	MultiTech Dragonfly™ MTQ-LVW3-B02
Category	Category 1
SIM Holder	1 x Micro SIM (3FF)
Certification	FCC, UL/cUL, Verizon
Power Consumption	450mA max @ 5V$_{DC}$
Antenna	690 ~ 960 MHz, 1710 ~ 2700 MHz
Cable	2*5P-2.0/micro USB 5P(M) 25 cm 90D
GNSS	NA
Communication	
Frequency Band	LTE-FDD: B2(1900)/B4(AWS1700)/B13(700)
Data Throughput	LTE FDD (Mbp): 10 (DL)/5 (UL)
Software	
OS Support	Windows 7/8/10 and Ubuntu 18.04
Environment	
Operating Temperature	-40 ~ 85 °C (-40 ~ 185 °F)
Relative Humidity	95% RH @ 40 °C, non-condensing

C-PCM-24S24G-MAV-1

General	
Host Interface	PCIe mini card (USB 2.0)
Dimensions	Module: 26.8 x 30 x 12.4 mm (1.06 x 1.18 x 0.49 in) I/O plate: 81 x 19.4 x 41 mm (3.19 x 0.76 x 1.61 in)
Wireless Module	MultiTech Dragonfly™ MTQ-MNA1-B02
Category	Category M1
SIM Holder	1 x Micro SIM (3FF)
Certification	FCC, UL/cUL, PTCRB, Verizon, AT&T
Power Consumption	176mA max @ 5V$_{DC}$
Antenna	690 ~ 960 MHz, 1710 ~ 2700 MHz
Cable	2*5P-2.0/micro USB 5P(M) 25 cm 90D
GNSS	Available upon request
Communication	
Frequency Band	LTE-UE: B2(1900)/B4(AWS1700)/B12(700) (AT&T) LTE-UE: B4(AWS1700)/B13(700) (Verizon)
Data Throughput	LTE UE data rate (Kbp): 300 (DL)/375 (UL)
Software	
OS Support	Windows 7/8/10 and Ubuntu 18.04
Environment	
Operating Temperature	-40 ~ 85 °C (-40 ~ 185 °F)
Relative Humidity	95% RH @ 40 °C, non-condensing

C-PCM-24S24G-420-1

| General	
Host Interface	PCIe Mini Card (USB2.0)
Dimensions	UNO-420 Support Kit
Wireless Module	MultiTech Dragonfly™ MTQ-LNA7-B02
Category	Category 4
SIM Holder	1 x Micro SIM (3FF)
Certification	FCC, UL/cUL, PTCRB, Verizon, AT&T
Power Consumption	712mA max @5Vdc
Antenna	690-960 MHz, 1710-2700 MHz
Cable	2*5P-2.0/Micro USB 5P(M) 20cm
GNSS	Available upon request
Communication	
Frequency Band	LTE-FDD: B2(1900)/B4(AWS1700)/B5(850)/B12(700)/B13(700) WCDMA: B2(1900)/B4(AWS1700)/B5(850)
Data Throughput	LTE FDD Data Rate (Mbp): 150 (DL)/50 (UL) HSUPA Data Rate (Mbp): 5.7 (DL)//5.7 (UL) DC-HSDPA Data Rate: 42(DL) /42 (UL)
Software	
OS Support	Windows 7/8/10 and Ubuntu 18.04
Environment	
Operating Temperature	-40 ~ 85 °C (-40 ~ 185 °F)
Relative Humidity	95% RH @ 40 °C, non-condensing

C-PCM-24S24G-430-1

General	
Host Interface	USB2.0
Wireless Module	MultiTech Dragonfly™ MTQ-LNA7-B02
Category	Category 4
SIM Holder	1 x Micro SIM (3FF)
Certification	FCC, UL/cUL, PTCRB, Verizon, AT&T
Power Consumption	712mA max @5Vdc
Antenna	700~960 MHz , 1710~2700 MHz
Cable	micro USB 5P(M)/1*4P-1.25 10cm
GNSS	Available upon request
Communication	
Frequency Band	LTE-FDD: B2(1900)/B4(AWS1700)/B5(850)/B12(700)/B13(700) WCDMA: B2(1900)/B4(AWS1700)/B5(850)
Data Throughput	LTE FDD Data Rate (Mbp): 150 (DL)/50 (UL) HSUPA Data Rate (Mbp): 5.7 (DL)//5.7 (UL) DC-HSDPA Data Rate: 42(DL) /42 (UL)
Software	
OS Support	Windows 10 and Ubuntu 18.04
Environment	
Operating Temperature	-40 ~ 85 °C (-40 ~ 185 °F)
Relative Humidity	95% RH @ 40 °C, non-condensing

C-PCM-24S24G-227-1

General

Host Interface	PCIe Mini Card (USB2.0)
Dimensions	UNO-2271 Support Kit
Wireless Module	MTQ-LNA7-B02
Category	Category 4
Telecom Approvals	Verizon, AT&T, PTCRB
Power Consumption	712mA max @ 5V$_{DC}$
Antenna	690-960 MHz 1710-2700 MHz 1750008303-01 Antenna AN0727-64SP6BSM 1750006264 Antenna SMA(F)/MHF 15cm SMALFN8-3150A-00X00R
Cable	1700031030-01 A cable 2*5P-2.0/Micro USB 5P(M) 25cm 90D

Communication

Frequency Band	LTE-FDD: : B2/B4/B5/B12/B13 WCDMA: B2/ B4/B5
Data Throughput	LTE FDD Data Rate (Mbp): 150 (DL)/50 (UL) HSUPA Data Rate (Mbp): 5.7 (DL)//5.7 (UL) DC-HSDPA Data Rate: 42(DL) /42 (UL)

Software

OS Support	Windows 7, 8 and 10 Linux By project support

Environment

Operating Temperature	-40 ~ 85 °C (-40 ~ 185°F)
Relative Humidity	95% RH @ 40 °C, non-condensing

Regulations

C-PCM-24S24G is equipped with a MultiTech Dragonfly™ embedded cellular modem and complies with relevant regulations.

Dimensions
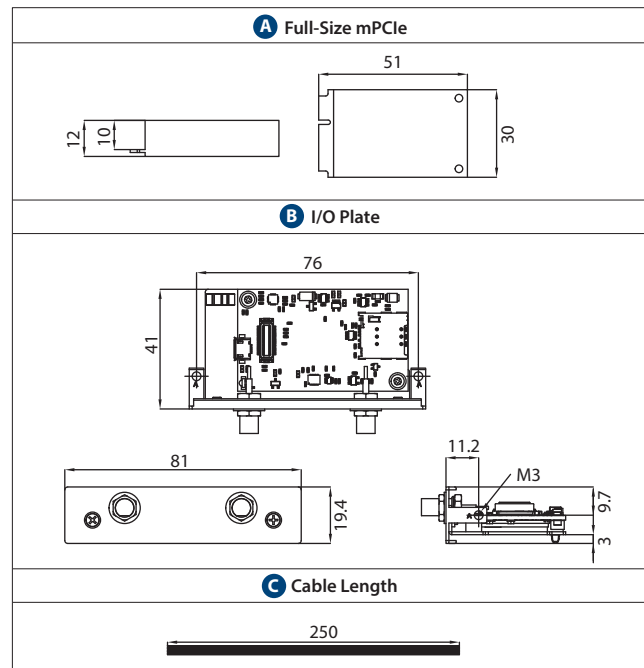
Ordering Information

- **C-PCM-24S24G-4AV-1**   MultiTech iDoor module, LTE Cat. 4 for AT&T/Verizon
- **C-PCM-24S24G-1A-1**   MultiTech iDoor module, LTE Cat. 1 for AT&T
- **C-PCM-24S24G-1V-1**   MultiTech iDoor module, LTE Cat. 1 for Verizon
- **C-PCM-24S24G-MAV-1**   MultiTech iDoor module, LTE Cat. M1 for AT&T/Verizon
- **C-PCM-24S24G-420-1**   MultiTech kit for UNO-420, LTE Cat. 4 for AT&T/Verizon
- **C-PCM-24S24G-430-1**   MultiTech kit for UNO-430, LTE Cat. 4 for AT&T/Verizon
- **C-PCM-24S24G-227-1**   MultiTech kit for UNO-2271, LTE Cat. 4 for AT&T/Verizon
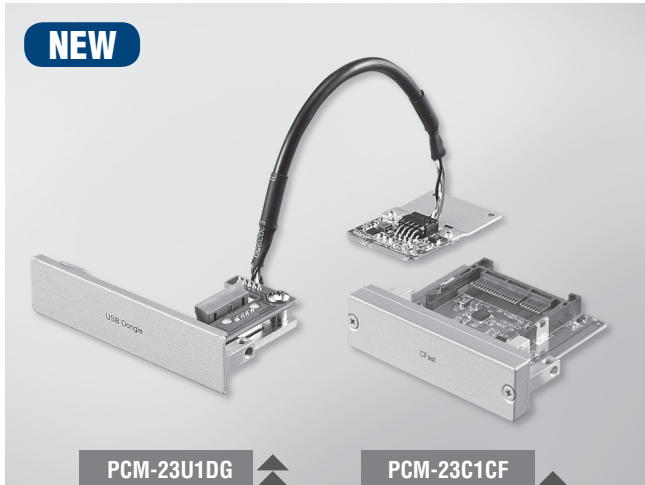
PCM-23C1CF
PCM-23U1DG

1 CFast Slot with Cover Protection

USB Slot w/ Lock for USB Dongle, Half-size mPCIe

NEW

PCM-23U1DG   PCM-23C1CF

iDoor RoHS COMPLIANT 2002/95/EC CE FCC

Features

- Meets Advantech iDoor technology standard
- PCM-23C1CF includes single CFast II slot which utilizes existing internal HDD cable
- PCM-23C1CF includes a captive screw type cover for CFast card protection
- PCM-23U1DG includes locked USB connector preventing disk from falling out
- Supports control DIN-Rail PC (UNO-1300/1400)
- Supports embedded Automation PC (UNO-2300/2400 series)
- Supports control cabinet PC (UNO-3200/3400 series)
- Supports embedded automation PC (UNO-2200 series (PCM-23U1DG))
- Supports control cabinet PC (UNO-3300 series (PCM-23U1DG))
- Supports control panel computers (TPC-xx81/xx82 series (PCM-23U1DG))
- Supports thin client panel computers (TPC-xx51 series (PCM-23U1DG))
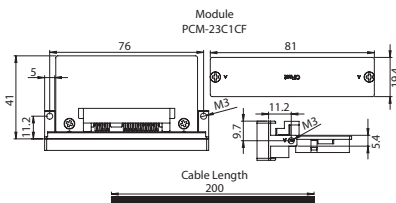
Introduction

The PCM-23 series are storage modules from Advantech iDoor Technology. They are compatible with the PCI Express® Mini Card Specification Revision 1.2. They include no-battery MRAM for automation machine memory backup, SATA to CFast on ThinClient terminals offering storage with longer MTB repairs and quick maintenance, locked USB dongle for software protection in SCADA systems, and TPM for quality system management. This is a flexible design that enables customers to customize their features with iDoor Technology.

PCM-23C1CF Specifications

General

- **Dimensions** 19.4 x 81 x 41 mm
- **Features** I/O plate to SATA connector
- **Form Factor** I/O Plate
- **Contents** I/O module, bracket
- **Operating Temperature** 0 ~ 60°C (32 ~ 140°F)
- **I/O Port** 1 slot with CFast Type II connector
- **Color** Silver

PCM-23C1CF Dimensions

Ordering Information

- **PCM-23C1CF-BE** SATAII 3G/Sec to CFast
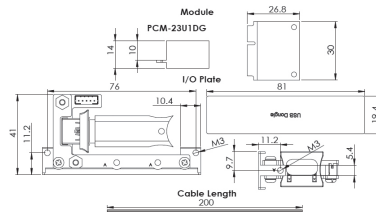
PCM-23C1CF User scenario

CFast Card

PCM-23U1DG Specifications

General

- **Dimensions** 19.4 x 81 x 41 mm (USB: L x W x H-max: 52 x 17 x 10)
- **Features** USB A-type, utilizing system USB signal, +5V supported
- **Contents** I/O module, cable, half-size mPCIe, Half/Full-size mPCIe adapter kit
- **Operating Temperature** 0 ~ 60°C (32 ~ 140°F)
- **I/O Port** 1 port internal USB 2.0
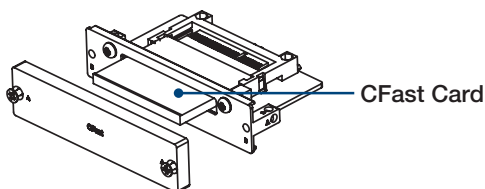- **Color** Silver

PCM-23U1DG Dimensions
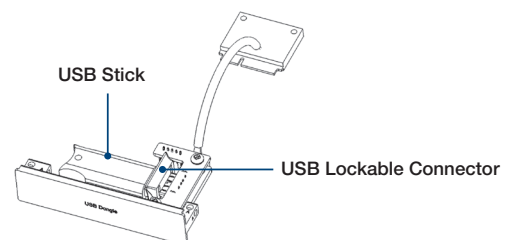

Ordering Information

- **PCM-23U1DG-BE** USB Slot w/ Lock for USB Dongle, Half-size mPCIe

PCM-23U1DG User scenario

USB Stick

USB Lockable Connector

ADVANTECH | **iDoor Technology Modules**

All product specifications are subject to change without notice.   Last updated: 27-Jun-2018

PCM-23C1CF
PCM-23U1DG

1 CFast Slot with Cover Protection

USB Slot w/ Lock for USB Dongle, Half-size mPCIe

NEW

PCM-23U1DG ▲   PCM-23C1CF ▲

iD**r**   RoHS COMPLIANT 2002/95/EC   CE   FCC

Features

- Meets Advantech iDoor technology standard
- PCM-23C1CF includes single CFast II slot which utilizes existing internal HDD cable
- PCM-23C1CF includes a captive screw type cover for CFast card protection
- PCM-23U1DG includes locked USB connector preventing disk from falling out
- Supports control DIN-Rail PC (UNO-1300/1400)
- Supports embedded Automation PC (UNO-2300/2400 series)
- Supports control cabinet PC (UNO-3200/3400 series)
- Supports embedded automation PC (UNO-2200 series (PCM-23U1DG))
- Supports control cabinet PC (UNO-3300 series (PCM-23U1DG))
- Supports control panel computers (TPC-xx81/xx82 series (PCM-23U1DG))
- Supports thin client panel computers (TPC-xx51 series (PCM-23U1DG))

Introduction

The PCM-23 series are storage modules from Advantech iDoor Technology. They are compatible with the PCI Express® Mini Card Specification Revision 2.0. They include no-battery MRAM for automation machine memory backup, SATA to CFast on ThinClient terminals offering storage with longer MTB repairs and quick maintenance, locked USB dongle for software protection in SCADA systems, and TPM for quality system management. This is a flexible design that enables customers to customize their features with iDoor Technology.
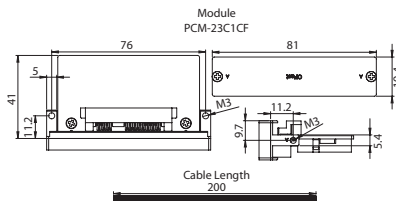
PCM-23C1CF Specifications

General

- **Dimensions**   19.4 x 81 x 41 mm
- **Features**   I/O plate to SATA connector
- **Form Factor**   I/O Plate
- **Contents**   I/O module, bracket
- **Operating Temperature** 0 ~ 60°C (32 ~ 140°F)
- **I/O Port**   1 slot with CFast Type II connector
- **Color**   Silver

PCM-23U1DG Specifications

### General

- **Dimensions**   19.4 x 81 x 41 mm
                            (USB: L x W x H-max: 52 x 15.5 x 10 mm)
- **Features**   USB A-type, utilizing system USB signal, +5V supported
- **Contents**   I/O module, cable, half-size mPCIe,Half/Full-size mPCIe adapter kit
- **Operating Temperature** 0 ~ 60°C (32 ~ 140°F)
- **I/O Port**   1 port internal USB 2.0
- **Color**   Silver

PCM-23C1CF Dimensions

Module PCM-23C1CF

Cable Length 200

PCM-23U1DG Dimensions

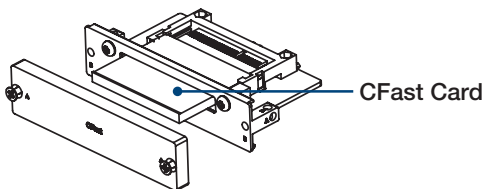Module PCM-23U1DG

I/O Plate

Cable Length 200
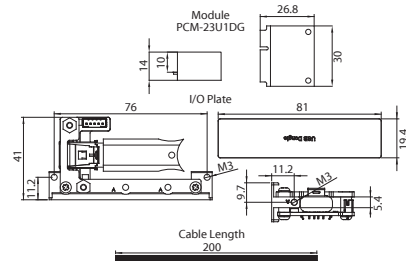
Ordering Information

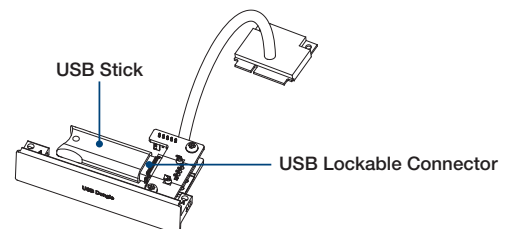- **PCM-23C1CF-BE**   SATAII 3G/Sec to CFast

Ordering Information

- **PCM-23U1DG-CE**   USB Slot w/ Lock for USB Dongle, Half-size mPCIe

PCM-23C1CF User scenario

CFast Card

PCM-23U1DG User scenario

USB Stick

USB Lockable Connector

ADVANTECH | **iDoor Technology Modules**

All product specifications are subject to change without notice.   Last updated: 10-Apr-2019

PCM-24BX4G

Modular iDoor Box with LTE-A/UMTS/ HSPA+, Antennas, and SIM Slot for EMEA/APAC

NEW

iDoor CE FCC RoHS COMPLIANT 2002/95/EC

Features

- Modular iDoor box design facilitates plug-and-play installation and upgrades
- Built-in wireless LTE module supports M.2 3042 industry-standard form factor connectors
- Compliant with relevant industry standards (CE RED, RCM, NCC, etc.) for safe and adaptable application

Introduction

The PCM-24BX4G iDoor box is a combination wireless module designed for convenient installation, repair, and upgrades in management and machine-level automation applications. The plug-and-play design supports LTE M.2 3042 form factor connectors. Utilizing Advantech's iFactory app, this multiple-band wireless solution supports Windows and Linux operating systems for flexible installation.

Specifications

Dimensions	81 x 19 x 50 mm (3.1 x .76 x 1.9 in)
Hardware Compatibility	Compatible with PCM-24BXBK-AE pre-installed system
Wireless Module	Quectel EM06 LTE-A Cat 6 M.2 3042 module
Bands	LTE-FDD: B1/B3/B5/B7/B8/B20/B28/B32[1] LTE-TDD: B38/B40/B41 2xCA: B1+B1/B5/B8/B20/B28;B3+B3/B5/B7/B8/ B20/B28;B7+B5/B7/B8/B20/B28; B20+B32(1); B38+B38; B40+B40; B41+B41 WCDMA: B1/B3/B5/B8
Data Rate	LTE-FDD data rate (Mbps) : 300 (DL)/50 (UL) LTE-TDD data rate (Mbps) : 226 (DL)/28 (UL) DC-HSPA data rate (Mbps) : 42 (DL)/5.76 (UL) WCDMA data rate (Kbps) : 384 (DL)/384 (UL)
GNSS	N/A (Antenna change upon request)
Antenna	700 ~ 960 MHz, 1710 ~ 2700 MHz
OS Support	Windows 7/8/8.1/10, Linux 2.6/3.x/4.1 ~ 4.14
Operating Temperature	-20 ~ 60 °C (-4 ~ 149 °F)
Relative Humidity	95% RH @40 °C, non-condensing

(1) LTE-FDD B29 and B32 support receipt transactions only, and are exclusively for secondary component carriers in 2xCA

Dimensions

Unit: mm

Regulation

PCM-24BX4G utilizes the Quectel EM06-E module and complies with relevant regulations.

Ordering Information

- **PCM-24BX4G-AE**   iDoor box with Cat. 6, LTE-A/UMTS/HSPA+, EM06-E, antennas for EMEA/APAC

Compatibility

Model	UNO-1372G-J	UNO-2372G-x022AE	UNO-2484G-67x2AE	UNO-3285C	TPC-B200	TPC-XX51T (A or B)	TPC-125H
iDoor Box	✓	✓	✓	✓	✓	✓	✓

Before installing iDoor box, ensure that the target system is compatible with PCM-24BXBK-AE.

PCM-24BX4G

Modular iDoor Box with LTE-A/UMTS/HSPA+, Antennas, and SIM Slot for EMEA/APAC

NEW

iDoor CE FCC RoHS COMPLIANT 2002/95/EC

Features

- Modular iDoor box design facilitates plug-and-play installation and upgrades
- Built-in wireless LTE module supports M.2 3042 industry-standard form factor connectors
- Compliant with relevant industry standards (CE RED, RCM, NCC, etc.) for safe and adaptable application

Introduction

The PCM-24BX4G iDoor box is a combination wireless module designed for convenient installation, repair, and upgrades in management and machine-level automation applications. The plug-and-play design supports LTE M.2 3042 form factor connectors. Utilizing Advantech's iFactory app, this multiple-band wireless solution supports Windows and Linux operating systems for flexible installation.

Specifications

Dimensions	81 x 19 x 50 mm (3.1 x .76 x 1.9 in)
Hardware Compatibility	Compatible with PCM-24BXBK-AE pre-installed system
Wireless Module	Quectel EM06 LTE-A Cat 6 M.2 3042 module
Bands	LTE-FDD: B1/B3/B5/B7/B8/B20/B28/B32[1] LTE-TDD: B38/B40/B41 2xCA: B1+B1/B5/B8/B20/B28;B3+B3/B5/B7/B8/B20/B28;B7+B5/B7/B8/B20/B28; B20+B32(1); B38+B38; B40+B40; B41+B41 WCDMA: B1/B3/B5/B8
Data Rate	LTE-FDD data rate (Mbps) : 300 (DL)/50 (UL) LTE-TDD data rate (Mbps) : 226 (DL)/28 (UL) DC-HSPA data rate (Mbps) : 42 (DL)/5.76 (UL) WCDMA data rate (Kbps) : 384 (DL)/384 (UL)
GNSS	N/A (Antenna change upon request)
Antenna	700 ~ 960 MHz, 1710 ~ 2700 MHz
OS Support	Windows 7/8/8.1/10, Linux 2.6/3.x/4.1 ~ 4.14
Operating Temperature	-20 ~ 60 °C (-4 ~ 149 °F)
Relative Humidity	95% RH @40 °C, non-condensing

(1) LTE-FDD B29 and B32 support receipt transactions only, and are exclusively for secondary component carriers in 2xCA

Dimensions

Unit: mm

Regulation

PCM-24BX4G utilizes the Quectel EM06-E module and complies with relevant regulations.

Ordering Information

- **PCM-24BX4G-AE** iDoor box with Cat. 6, LTE-A/UMTS/HSPA+, EM06-E, antennas for EMEA/APAC

Compatibility

Model	UNO-1372G-J	UNO-2372G-x022AE	UNO-2484G-67x2AE	UNO-3285C	TPC-B200	TPC-XX51T (A or B)	TPC-125H
iDoor Box	✓	✓	✓	✓	✓	✓	✓

Before installing iDoor box, ensure that the target system is compatible with PCM-24BXBK-AE.

PCM-24BXWF

Modular iDoor Box with Wi-Fi, Bluetooth, and Antennas

NEW

iDor CE FCC RoHS COMPLIANT 2002/95/EC

Features

- Modular iDoor box design facilitates plug-and-play installation and upgrades
- Built-in wireless Wi-Fi module supports M.2 2230 industry-standard connectors
- Compliant with relevant industry standards (CE RED, FCC ID, etc.) for safe and adaptable application

Introduction

The PCM-24BXWF iDoor box is a combination wireless module designed for convenient installation, repair, and upgrades in management and machine-level automation applications. The plug-and-play design supports Wi-Fi/BT M.2 2230 form factor connectors. Utilizing Advantech's iFactory app, this multiple-band wireless solution supports Windows and Linux operating systems for flexible installation.

Specifications

Dimensions	81 x 19 x 50 mm (3.1 x .76 x 1.9 in)
Hardware Compatibility	Compatible with PCM-24BXBK-AE pre-installed system
Wireless Module	Advantech EWM-W163M201E Wi-Fi/BT M.2 2230 module with Atheros QCA6174A-5
Standard Conformance	IEEE 802.11 ac/a/b/g/n + Bluetooth 4.2 HS standard
Data Rate	300 Mbps max.
Antenna	Wi-Fi 2.4 ~ 5GHz dipole antenna
OS Support	Windows 7/8/8.1/10 Linux drivers are available for download from third-party websites using an open source code (ath10K for Wi-Fi, ath3k for BT functionality)
Operating tTemperature	–20 ~ 60 °C (-4 ~ 149 °F)
Relative Humidity	95% RH @40 °C, non-condensing

Dimensions

Unit: mm
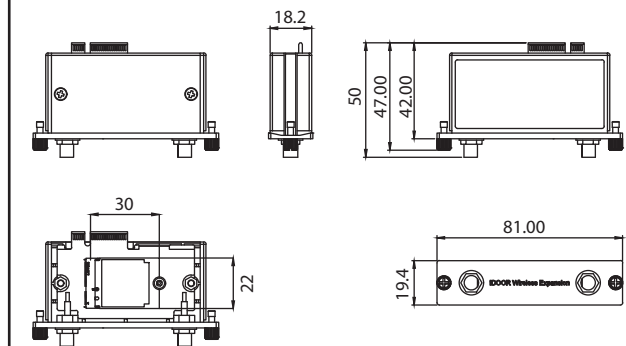
Regulation

PCM-24BXWF employs an Azurewave QCA6174A module and complies with relevant regulations.

Ordering Information

- **PCM-24BXWF-AE**　　iDoor box with 802.11 a/b/g/n/ac 2T2R w/BT4.1, QCA6174A, and antennas

Compatibility

Model	UNO-1372G-J	UNO-2372G-x022AE	UNO-2484G-67x2AE	UNO-3285C	TPC-B200	TPC-XX51T (A or B)	TPC-125H
iDoor Box	✓	✓	✓	✓	✓	✓	✓

Before installing iDoor box, ensure that the target system is compatible with PCM-24BXBK-AE.
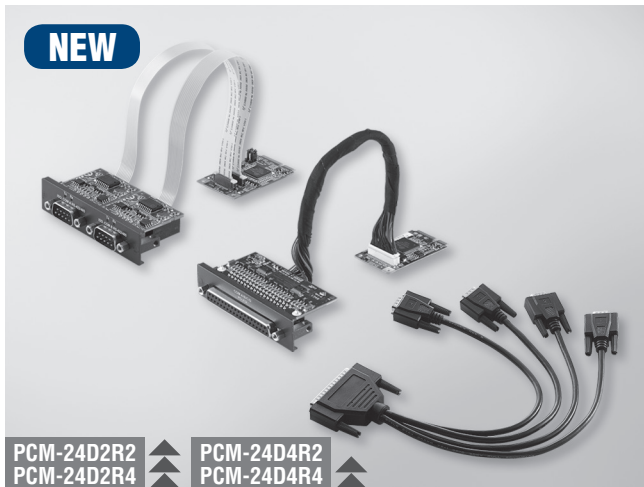
PCM-24D2R2-BE
PCM-24D2R4-BE
PCM-24D4R2-BE
PCM-24D4R4-BE

2-Port Isolated RS-232, mPCIe, DB9

2-Port Isolated RS-422/485, mPCIe, DB9

4-Port Non-Isolated RS-232, mPCIe, DB37 cable

4-Port Non-Isolated RS-422/485 mPCIe, DB37 cable

NEW

PCM-24D2R2
PCM-24D2R4
PCM-24D4R2
PCM-24D4R4

iDoor RoHS COMPLIANT 2002/95/EC CE FCC

Features

- Meets Advantech iDoor Technology Standard
- Speeds up to 921.6 kbps for extremely fast data transmission
- Supports any baud rate setting (200 bps ~ 921.6 kbps)
- The PCM-24D2Rx (2 ports RS233/422/485) supports Isolated Protection
- Supports Win7/Win10
- Supports Embedded Automation PC UNO-2200/2300/2400 series
- Supports Control DIN-Rail PC UNO-1200/1300/1400 series
- Supports Control Cabinet PC UNO-3200/3300/3400 series
- Supports Control Panel Computers TPC-xx81/xx82 series
- Supports Thin Client Panel Computers TPC-xx51 series

Introduction

The PCM-24 series are categorized as communication modules from Advantech iDoor Technology. It includes Isolated / Non-Isolated RS-232/422/485 communication cards for automation control, Wi-Fi/3G/GPS/GSM/LTE wireless communication modules for data exchange during the management and machine level of automation application and PoE function for smart camera in detect inspection application of production. The iDoor Technology increases the flexibility to configure the required features for different application.

Specifications

General

- **Bus Type** — mini PCIe
- **Host Interface** — USB2.0
- **Certification** — CE, FCC class A
- **Connectors** — 2 x Male DB9 for PCM-24D2xx
  1 x Female DB37 for PCM-24D4xx
- **Dimensions** — Module: 51 x 30 x 12.4 mm (2" x 1.18" x 0.49")
  I/O Plate: 81 x 19.4 x 41 mm (3.19" x 0.76" x 1.61")
- **Power Consumption** — 400 mA @ +3.3 V for PCM-24D2xx
  500 mA @ +3.3 V for PCM-24D4xx

Communications

- **Data Bits** — 5, 6, 7, 8
- **Data Signals** — RS-232: TX, RX, RTS, CTS, DTR, DSR, DCD, DI, GND
  RS-422: TX+, TX-, RX+, RX-, (PCM-24D4R4)
  TX+, TX-, RX+, RX-, CTS+, CTS-, RTS+, RTS-
  (PCM-24D2R4)
  RS-485: Data+, Data-
- **FIFO** — 4K bytes
- **Flow Control** — RTS/CTS (PCM-24D4R4 not supported)
- **Parity** — Odd/Even/Mark/Space/No Parity
- **Speed** — 200 bps ~ 921.6 kbps (PCM-24D2R4 & PCM-24D4R4)
  230.4 kbps (PCM-24D2R2 & PCM-24D4R2)
- **Stop Bits** — 1/2 stop bits

Protection

- **Isolation Protection** — 2,000 V_{DC} for PCM-24D2xx only
- **ESD Protection** — 15 KV
- **EFT Protection** — 2,500 V
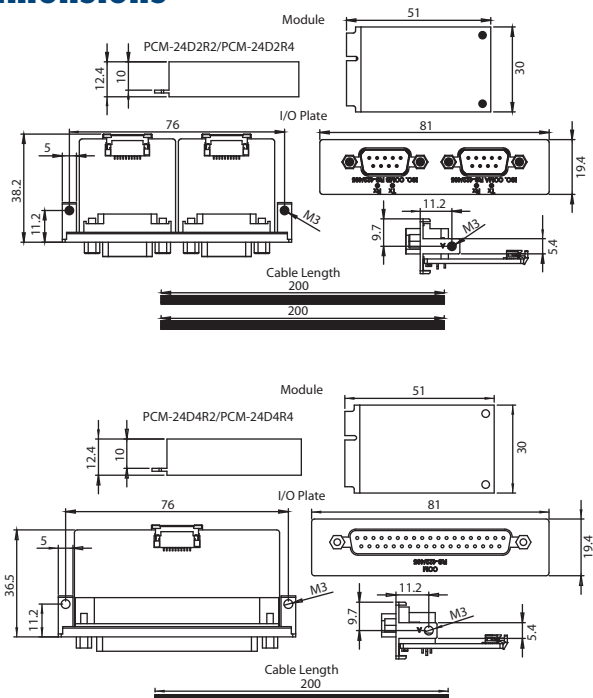- **Surge Protection** — 1,000 V_{DC}

Software

- **OS Support** — Microsoft® Windows® 7/10

Environment

- **Humidity (Operating)** — 5-95% RH, non-condensing
- **Operating Temperature** — -20 ~ 60°C (-4 ~ 140°F)
- **Storage Temperature** — -40 ~ 85°C (-40 ~ 185°F)

Dimensions

Ordering Information

- * **PCM-24D2R2-BE** — 2-Port Isolated RS-232 mPCIe, DB9 x 2
- * **PCM-24D2R4-BE** — 2-Port Isolated RS-422/485 mPCIe, DB9 x 2
- * **PCM-24D4R2-BE** — 4-Port Non-Isolated RS-232 mPCIe, DB37 x 1
- * **PCM-24D4R4-BE** — 4-Port Non-Isolated RS-422/485 mPCIe, DB37 x 1

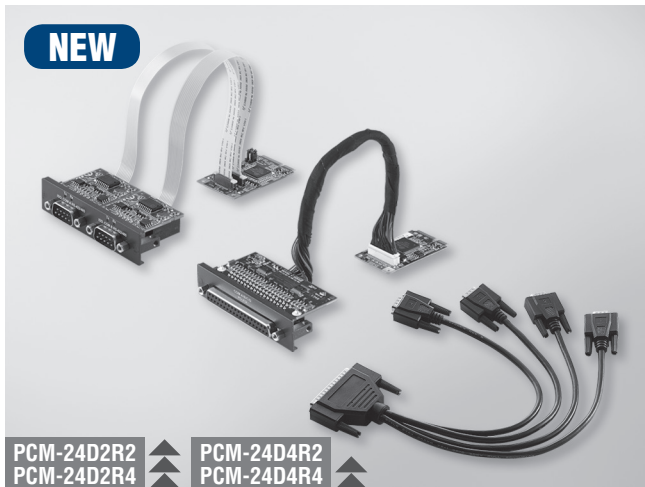Note: PCM-24D4R2-BE and PCM-24D4R4-BE include a "DB37(male) to 4 x DB9(male)" cable 1700021869-01

PCM-24D2R2-BE
PCM-24D2R4-BE
PCM-24D4R2-BE
PCM-24D4R4-BE

2-Port Isolated RS-232, mPCIe, DB9

2-Port Isolated RS-422/485, mPCIe, DB9

4-Port Non-Isolated RS-232, mPCIe, DB37 cable

4-Port Non-Isolated RS-422/485 mPCIe, DB37 cable

NEW

PCM-24D2R2
PCM-24D2R4
PCM-24D4R2
PCM-24D4R4

iDor RoHS COMPLIANT 2002/95/EC CE FCC

Features

- Meets Advantech iDoor Technology Standard
- Speeds up to 921.6 kbps for extremely fast data transmission
- Supports any baud rate setting (200 bps ~ 921.6 kbps)
- The PCM-24D2Rx (2 ports RS233/422/485) supports Isolated Protection
- Supports Win7/Win10
- Supports Embedded Automation PC UNO-2200/2300/2400 series
- Supports Control DIN-Rail PC UNO-1200/1300/1400 series
- Supports Control Cabinet PC UNO-3200/3300/3400 series
- Supports Control Panel Computers TPC-xx81/xx82 series
- Supports Thin Client Panel Computers TPC-xx51 series

Introduction

The PCM-24 series are categorized as communication modules from Advantech iDoor Technology. It includes Isolated / Non-Isolated RS-232/422/485 communication cards for automation control, Wi-Fi/3G/GPS/GSM/LTE wireless communication modules for data exchange during the management and machine level of automation application and PoE function for smart camera in detect inspection application of production. The iDoor Technology increases the flexibility to configure the required features for different application.

Specifications

General

- **Bus Type** — mini PCIe
- **Host Interface** — USB2.0
- **Certification** — CE, FCC class A
- **Connectors** — 2 x Male DB9 for PCM-24D2xx
  1 x Female DB37 for PCM-24D4xx
- **Dimensions** — Module: 51 x 30 x 12.4 mm (2" x 1.18" x 0.49")
  I/O Plate: 81 x 19.4 x 41 mm (3.19" x 0.76" x 1.61")
- **Power Consumption** — 400 mA @ +3.3 V for PCM-24D2xx
  500 mA @ +3.3 V for PCM-24D4xx

Communications

- **Data Bits** — 5, 6, 7, 8
- **Data Signals** — RS-232: TX, RX, RTS, CTS, DTR, DSR, DCD, DI, GND
  RS-422: TX+, TX-, RX+, RX-, (PCM-24D4R4)
  TX+, TX-, RX+, RX-, CTS+, CTS-, RTS+, RTS- (PCM-24D2R4)
  RS-485: Data+, Data-
- **FIFO** — 4K bytes
- **Flow Control** — RTS/CTS (PCM-24D4R4 not supported)
- **Parity** — Odd/Even/Mark/Space/No Parity
- **Speed** — 200 bps ~ 921.6 kbps (PCM-24D2R4 & PCM-24D4R4)
  230.4 kbps (PCM-24D2R2 & PCM-24D4R2)
- **Stop Bits** — 1/2 stop bits

Protection

- **Isolation Protection** — 2,000 V_{DC} for PCM-24D2xx only
- **ESD Protection** — 15 KV
- **EFT Protection** — 2,500 V
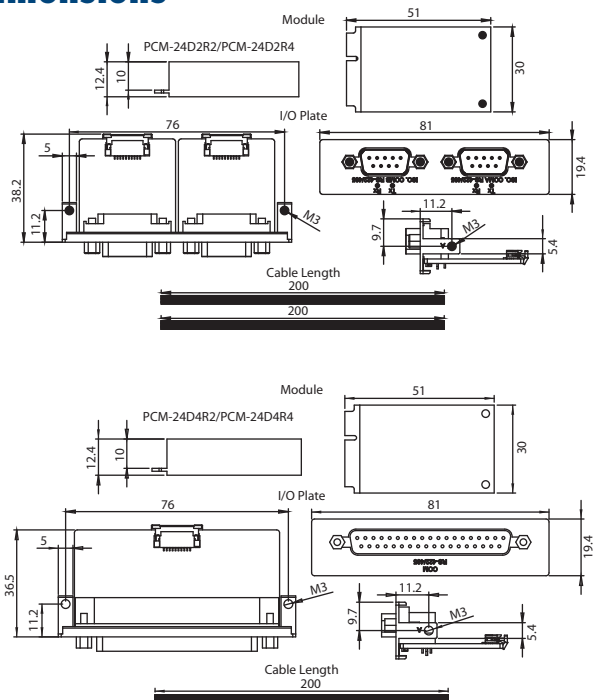- **Surge Protection** — 1,000 V_{DC}

Software

- **OS Support** — Microsoft® Windows® 7/10

Environment

- **Humidity (Operating)** — 5-95% RH, non-condensing
- **Operating Temperature** — -20 ~ 60°C (-4 ~ 140°F)
- **Storage Temperature** — -40 ~ 85°C (-40 ~ 185°F)

Dimensions

Module

PCM-24D2R2/PCM-24D2R4

I/O Plate

Cable Length 200

Module

PCM-24D4R2/PCM-24D4R4

I/O Plate

Cable Length 200

Ordering Information

- * **PCM-24D2R2-BE** — 2-Port Isolated RS-232 mPCIe, DB9 x 2
- * **PCM-24D2R4-BE** — 2-Port Isolated RS-422/485 mPCIe, DB9 x 2
- * **PCM-24D4R2-BE** — 4-Port Non-Isolated RS-232 mPCIe, DB37 x 1
- * **PCM-24D4R4-BE** — 4-Port Non-Isolated RS-422/485 mPCIe, DB37 x 1

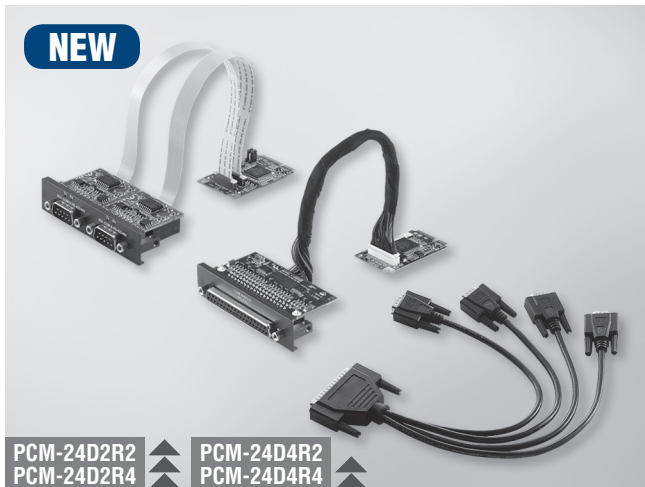Note: PCM-24D4R2-BE and PCM-24D4R4-BE include a "DB37(male) to 4 x DB9(male)" cable 1700021869-01

PCM-24D2R2-BE
PCM-24D2R4-BE
PCM-24D4R2-BE
PCM-24D4R4-BE

2-Port Isolated RS-232, mPCIe, DB9

2-Port Isolated RS-422/485, mPCIe, DB9

4-Port Non-Isolated RS-232, mPCIe, DB37 cable

4-Port Non-Isolated RS-422/485 mPCIe, DB37 cable

NEW

PCM-24D2R2 PCM-24D4R2
PCM-24D2R4 PCM-24D4R4

iDoor RoHS COMPLIANT 2002/95/EC CE FCC

Features

- Meets Advantech iDoor Technology Standard
- Speeds up to 921.6 kbps for extremely fast data transmission
- Supports any baud rate setting (200 bps ~ 921.6 kbps)
- The PCM-24D2Rx (2 ports RS233/422/485) supports Isolated Protection
- Supports Win7/Win10
- Supports Embedded Automation PC UNO-2200/2300/2400 series
- Supports Control DIN-Rail PC UNO-1200/1300/1400 series
- Supports Control Cabinet PC UNO-3200/3300/3400 series
- Supports Control Panel Computers TPC-xx81/xx82 series
- Supports Thin Client Panel Computers TPC-xx51 series

Introduction

The PCM-24 series are categorized as communication modules from Advantech iDoor Technology. It includes Isolated / Non-Isolated RS-232/422/485 communication cards for automation control, Wi-Fi/3G/GPS/GSM/LTE wireless communication modules for data exchange during the management and machine level of automation application and PoE function for smart camera in detect inspection application of production. The iDoor Technology increases the flexibility to configure the required features for different application.

Specifications

General

- **Bus Type** mini PCIe
- **Host Interface** USB2.0
- **Certification** CE, FCC class A
- **Connectors** 2 x Male DB9 for PCM-24D2xx
  1 x Female DB37 for PCM-24D4xx
- **Dimensions** Module: 51 x 30 x 12.4 mm (2" x 1.18" x 0.49")
  I/O Plate: 81 x 19.4 x 41 mm (3.19" x 0.76" x 1.61")
- **Power Consumption** 400 mA @ +3.3 V for PCM-24D2xx
  500 mA @ +3.3 V for PCM-24D4xx

Communications

- **Data Bits** 5, 6, 7, 8
- **Data Signals** RS-232: TX, RX, RTS, CTS, DTR, DSR, DCD, DI, GND
  RS-422: TX+, TX-, RX+, RX-, (PCM-24D4R4)
  TX+, TX-, RX+, RX-, CTS+, CTS-, RTS+, RTS-
  (PCM-24D2R4)
  RS-485: Data+, Data-
- **FIFO** 4K bytes
- **Flow Control** RTS/CTS (PCM-24D4R4 not supported)
- **Parity** Odd/Even/Mark/Space/No Parity
- **Speed** 200 bps ~ 921.6 kbps (PCM-24D2R4 & PCM-24D4R4)
  230.4 kbps (PCM-24D2R2 & PCM-24D4R2)
- **Stop Bits** 1/2 stop bits

Protection

- **Isolation Protection** 2,000 V$_{DC}$ for PCM-24D2xx only
- **ESD Protection** 15 KV
- **EFT Protection** 2,500 V
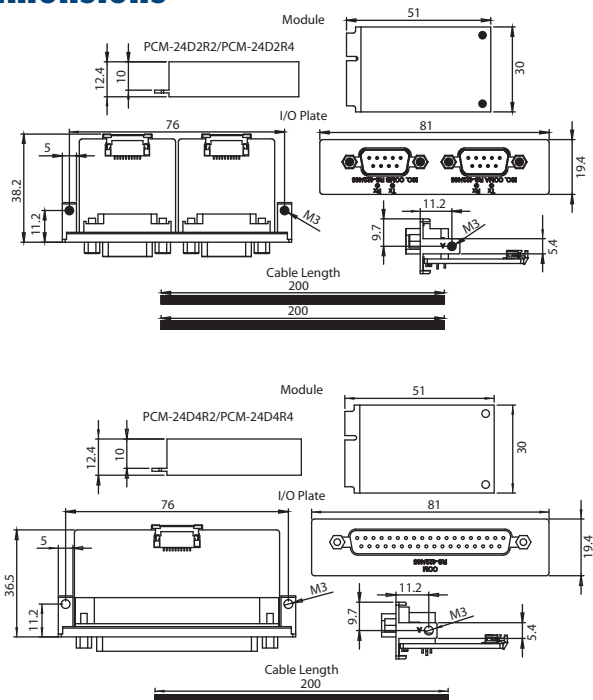- **Surge Protection** 1,000 V$_{DC}$

Software

- **OS Support** Microsoft® Windows® 7/10

Environment

- **Humidity (Operating)** 5-95% RH, non-condensing
- **Operating Temperature** -20 ~ 60°C (-4 ~ 140°F)
- **Storage Temperature** -40 ~ 85°C (-40 ~ 185°F)

Dimensions

Ordering Information

- * **PCM-24D2R2-BE** 2-Port Isolated RS-232 mPCIe, DB9 x 2
- * **PCM-24D2R4-BE** 2-Port Isolated RS-422/485 mPCIe, DB9 x 2
- * **PCM-24D4R2-BE** 4-Port Non-Isolated RS-232 mPCIe, DB37 x 1
- * **PCM-24D4R4-BE** 4-Port Non-Isolated RS-422/485 mPCIe, DB37 x 1

Note: PCM-24D4R2-BE and PCM-24D4R4-BE include a "DB37(male) to 4 x DB9(male)" cable 1700021869-01
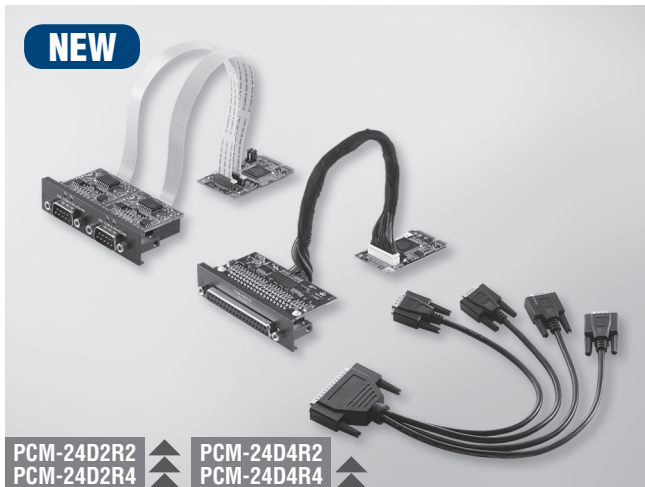
ADVANTECH iDoor Technology Modules

All product specifications are subject to change without notice.   Last updated: 6-Jul-2017

PCM-24D2R2-BE
PCM-24D2R4-BE
PCM-24D4R2-BE
PCM-24D4R4-BE

2-Port Isolated RS-232, mPCIe, DB9

2-Port Isolated RS-422/485, mPCIe, DB9

4-Port Non-Isolated RS-232, mPCIe, DB37 cable

4-Port Non-Isolated RS-422/485 mPCIe, DB37 cable

NEW

PCM-24D2R2
PCM-24D2R4
PCM-24D4R2
PCM-24D4R4

Features

- Meets Advantech iDoor Technology Standard
- Speeds up to 921.6 kbps for extremely fast data transmission
- Supports any baud rate setting (200 bps ~ 921.6 kbps)
- The PCM-24D2Rx (2 ports RS233/422/485) supports Isolated Protection
- Supports Win7/Win10
- Supports Embedded Automation PC UNO-2200/2300/2400 series
- Supports Control DIN-Rail PC UNO-1200/1300/1400 series
- Supports Control Cabinet PC UNO-3200/3300/3400 series
- Supports Control Panel Computers TPC-xx81/xx82 series
- Supports Thin Client Panel Computers TPC-xx51 series

Introduction

The PCM-24 series are categorized as communication modules from Advantech iDoor Technology. It includes Isolated / Non-Isolated RS-232/422/485 communication cards for automation control, Wi-Fi/3G/GPS/GSM/LTE wireless communication modules for data exchange during the management and machine level of automation application and PoE function for smart camera in detect inspection application of production. The iDoor Technology increases the flexibility to configure the required features for different application.

Specifications

General

- **Bus Type** — mini PCIe
- **Host Interface** — USB2.0
- **Certification** — CE, FCC class A
- **Connectors** — 2 x Male DB9 for PCM-24D2xx
  1 x Female DB37 for PCM-24D4xx
- **Dimensions** — Module: 51 x 30 x 12.4 mm (2" x 1.18" x 0.49")
  I/O Plate: 81 x 19.4 x 41 mm (3.19" x 0.76" x 1.61")
- **Power Consumption** — 400 mA @ +3.3 V for PCM-24D2xx
  500 mA @ +3.3 V for PCM-24D4xx

Communications

- **Data Bits** — 5, 6, 7, 8
- **Data Signals** — RS-232: TX, RX, RTS, CTS, DTR, DSR, DCD, DI, GND
  RS-422: TX+, TX-, RX+, RX-, (PCM-24D4R4)
  TX+, TX-, RX+, RX-, CTS+, CTS-, RTS+, RTS-
  (PCM-24D2R4)
  RS-485: Data+, Data-
- **FIFO** — 4K bytes
- **Flow Control** — RTS/CTS (PCM-24D4R4 not supported)
- **Parity** — Odd/Even/Mark/Space/No Parity
- **Speed** — 200 bps ~ 921.6 kbps (PCM-24D2R4 & PCM-24D4R4)
  230.4 kbps (PCM-24D2R2 & PCM-24D4R2)
- **Stop Bits** — 1/2 stop bits

Protection

- **Isolation Protection** — 2,000 V_{DC} for PCM-24D2xx only
- **ESD Protection** — 15 KV
- **EFT Protection** — 2,500 V
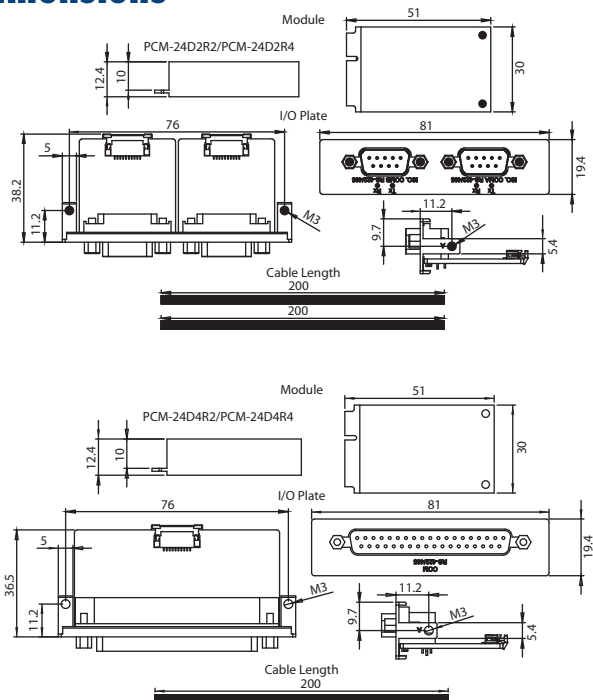- **Surge Protection** — 1,000 V_{DC}

Software

- **OS Support** — Microsoft® Windows® 7/10

Environment

- **Humidity (Operating)** — 5-95% RH, non-condensing
- **Operating Temperature** — -20 ~ 60°C (-4 ~ 140°F)
- **Storage Temperature** — -40 ~ 85°C (-40 ~ 185°F)

Dimensions

Ordering Information

- * **PCM-24D2R2-BE** — 2-Port Isolated RS-232 mPCIe, DB9 x 2
- * **PCM-24D2R4-BE** — 2-Port Isolated RS-422/485 mPCIe, DB9 x 2
- * **PCM-24D4R2-BE** — 4-Port Non-Isolated RS-232 mPCIe, DB37 x 1
- * **PCM-24D4R4-BE** — 4-Port Non-Isolated RS-422/485 mPCIe, DB37 x 1

Note: PCM-24D4R2-BE and PCM-24D4R4-BE include a "DB37(male) to 4 x DB9(male)" cable 1700021869-01

PCM-24R1TP

1-Port Gigabit Ethernet, Intel® 82574L, mPCIe, RJ45

NEW

Features

- Meets Advantech iDoor technology standard
- PCI Express® Mini card specification Revision 1.2 compliant
- Real-time Ethernet with hardware based precision time protocol
- Achieves time synchronization for device or system
- I/O address automatically assigned by PCIe plug & play
- Supports 32/64-bit Windows 7/8, Linux 2.4/2.6
- Supports embedded automation PC UNO-2200/2300/2400 series
- Supports control DIN-Rail PC UNO-1200/1300/1400 series
- Supports control cabinet PC UNO-3200/3300/3400 series
- Supports control panel computers TPC-xx81/xx82 series
- Supports thin client panel computers TPC-xx51 series

iDoor IEEE 1588 RoHS COMPLIANT 2002/95/EC CE FCC

Introduction

The PCM-24 series are communication modules from Advantech iDoor Technology. They are all compatible with PCI Express® Mini Card Specification Revision 1.2, including isolated / non-isolated RS-232/422/485 communication cards for automation control, Wi-Fi/3G/GPS/GSM/LTE wireless communication models for data exchange for management and machine level automation applications; ZigBee module serves as an IoT terminal or controller and PoE function for smart cameras in detection-inspection-production applications. This is a flexible design that enables customers to customize their features with iDoor Technology.

Specifications

General

- **Bus Type**   PCI Express Mini Card Revision 1.2
- **Certification**   CE, FCC class A
- **Connectors**   1 x RJ45 GbE Half-/Full-Duplex
- **Dimensions**   Module: 51 x 30 x 12.4 mm (2" x 1.18" x 0.49")
                        I/O Plate: 81 x 19.4 x 41 mm (3.19" x 0.76" x 1.61")
- **Power Consumption** Typical: +3.3V @ 9 W

Communications

- **LAN Controller**   Intel® 82574L Gigabit Ethernet Chip
- **Speed**   10/100/000BASE-TX, Auto-negotiation
- **Support**   9K jumbo frames, hardware-based support for precise time synchronization over Ethernet, wake-on-LAN

Protection

- **Isolation Protection** 1,500 V_{DC}
- **ESD Protection**   4KV (Contact), 8KV (Air)
- **EFT Protection**   1,000 V
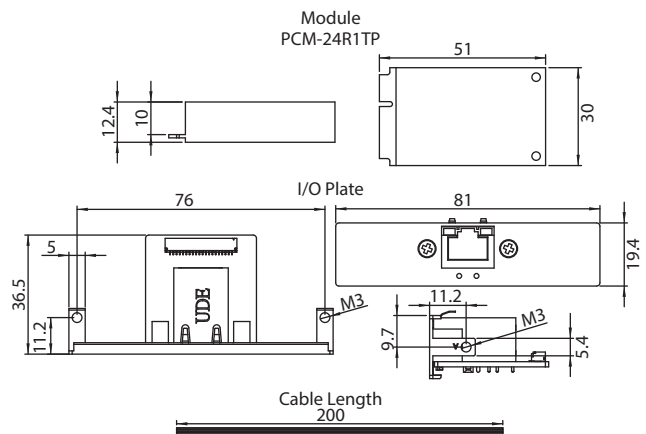- **Surge Protection**   1,000 V_{DC}

Software

- **OS Support**   Microsoft® Windows® XP/7/8, Linux Ubuntu 14.04

Environment

- **Humidity (Operating)**   5-95% RH, non-condensing
- **Operating Temperature** - 20 ~ 60°C (-4 ~ 140°F)
- **Storage Temperature**   - 40 ~ 85°C (-40 ~ 185°F)

Dimensions

Module
PCM-24R1TP

51

12.4 10

30

I/O Plate

76   81

5

36.5

UDE

11.2   M3   11.2

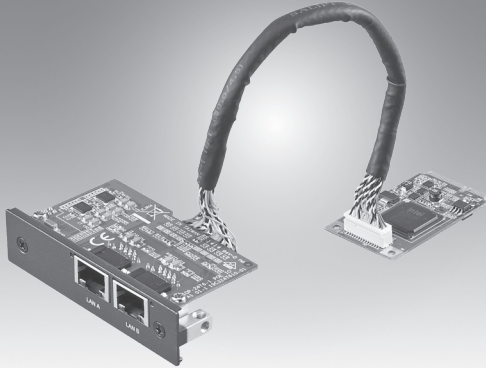9.7   M3   5.4

Cable Length
200

Ordering Information

- **PCM-24R1TP-AE**   1-Port Gigabit Ethernet, Intel® 82574L, mPCIe, RJ45

PCM-24R2GL

2-Port Gigabit Ethernet, Intel® I350, mPCIe, RJ45

NEW

Features

- Meets Advantech iDoor technology standard
- PCI Express® Mini card specification revision 1.2 compliant
- Supports 2 Gigabit Ethernet MAC controller and PHY ports
- Supports 32/64-bit Windows 7/8, Linux 2.4/2.6
- Supports embedded automation PC UNO-2200/2400 series
- Supports control DIN-Rail PC UNO-1200/1300/1400 series
- Supports control cabinet PC UNO-3200/3300/3400 series
- Supports control panel computers TPC-xx81/xx82 series
- Supports thin client panel computers TPC-xx51 series

iDoor RoHS COMPLIANT 2002/95/EC CE FCC

Introduction

The PCM-24 series are communication modules from Advantech iDoor Technology. They are all compatible with PCI Express® Mini Card Specification Revision 1.2, including isolated / non-isolated RS-232/422/485 communication cards for automation control, Wi-Fi/3G/GPS/GSM/LTE wireless communication models for data exchange for management and machine level automation applications; ZigBee module serves as an IoT terminal or controller and PoE function for smart cameras in detection-inspection-production applications. This is a flexible design that enables customers to customize their features with iDoor Technology.

Specifications

General

- **Bus Type**   PCI Express Mini Card Revision 1.2
- **Certification**   CE, FCC class A
- **Connectors**   2 x RJ45
- **Dimensions**   Module: 51 x 30 x 12.4 mm (2" x 1.18" x 0.49")
                      I/O Plate: 81 x 19.4 x 41 mm (3.19" x 0.76" x 1.61")

Communications

- **LAN Controller** Intel® I350-AM2 LAN Controller
- **Speed**   10/100/1000 Mbps
- **No. of Ports**   2 Gigabit Ethernet Media Access
                      Control (MAC) and physical layer (PHY) ports.

Power Requirements

- **Power Consumption** Typical: +3.3 V @ 9 W

Protection

- **Isolation Protection** 1,600 V$_{DC}$
- **ESD Protection**   4 KV (Contact),8 KV (Air)
- **EFT Protection**   1,000 V
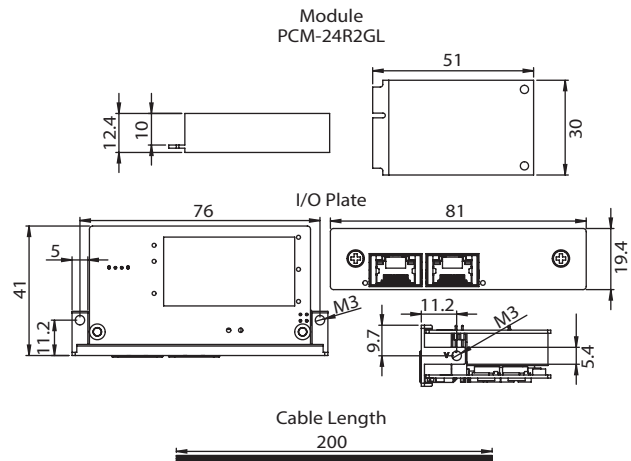
Software

- **OS Support**   Microsoft® Windows® XP/7/8, Linux 2.4/2.6

Environment

- **Operating Humidity**   5 ~ 95% RH
- **Operating Temperature** 0 ~ 60°C (32 ~ 140°F)
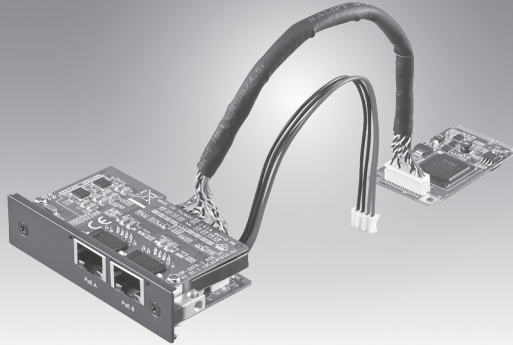- **Storage Temperature**   -20 ~ 80°C (-4 ~ 176°F)

Dimensions

Module
PCM-24R2GL

I/O Plate

Cable Length
200

Ordering Information

- **PCM-24R2GL-AE**   2-Port Gigabit Ethernet, Intel® I350, mPCIe, RJ45

Last updated: 27-Jun-2018

PCM-24R2PE

2-Port Gigabit Ethernet, IEEE 802.3af (PoE) Compliant, mPCIe, RJ45

NEW

Features

- Meets Advantech iDoor technology standard
- PCI Express® Mini card specification revision 1.2 compliant
- Supports 2 Gigabit Ethernet MAC controller and PHY ports
- Supports 24 VDC input power boost up to 15.4 W at 48 VDC per PoE port
- Supports PoE (Power over Ethernet), IEEE 802.3af compliant
- Powered device (PD) auto detection and classification
- Supports IEEE 802.3u auto-negotiation
- Supports 32/64-bit Windows 7/8, Linux 2.4/2.6
- Supports embedded automation PC UNO-2400 series
- Supports control DIN-Rail PC UNO-1300/1400 series
- Supports control cabinet PC UNO-3200/3300/3400 series

iDoor RoHS COMPLIANT 2002/95/EC CE FCC

Introduction

The PCM-24 series are communication modules from Advantech iDoor Technology. They are all compatible with PCI Express® Mini Card Specification Revision 1.2, including isolated / non-isolated RS-232/422/485 communication cards for automation control, Wi-Fi/3G/GPS/GSM/LTE wireless communication models for data exchange for management and machine level automation applications; ZigBee module serves as an IoT terminal or controller and PoE function for smart cameras in detection-inspection-production applications. This is a flexible design that enables customers to customize their features with iDoor Technology.

Specifications

General

- **Bus Type**   PCI Express Mini Card Revision 1.2
- **Certification**   CE, FCC class A
- **Connectors**   2 x RJ45 GbE Half-/Full-Duplex
- **Dimensions**   Module: 51 x 30 x 12.4 mm (2" x 1.18" x 0.49")
                      I/O Plate: 81 x 19.4 x 41 mm (3.19" x 0.76" x 1.61")

*Shielding ethernet cable is recommended for use in PoE applications.

Communications

- **PoE Controller**   MICROSEMI_PD69101ILQ-TR
- **Compatibility**   IEEE 802.3, IEEE 802.3u, IEEE802.3ab, IEEE802.3x, IEEE802.3af
- **Speed**   10/100/1000 Mbps
- **No. of Ports**   2 Gigabit Ethernet Media Access Control (MAC) and physical layer (PHY) ports.

Power Requirements

- **Input Voltage**   24 V_{DC}
- **Overload Current** Present Protection
- **Connection**   Internal 24 V_{DC}
                      External 24 V_{DC} Phoenix terminal block (Optional add-on)
- **Output PoE Power** 48 V_{DC} PoE Power output PCM-24R2PE
                      Supports 2 PoE ports up to 2 x 15.4 W at 48 V_{DC}

Protection

- **Isolation Protection**   1,600 V_{DC}
- **ESD Protection**   4KV (Contact), 8KV (Air)
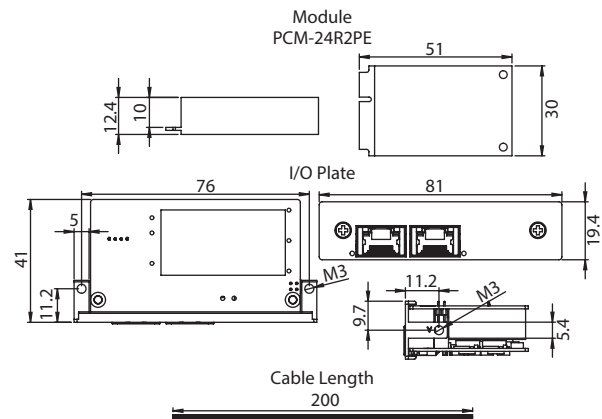- **EFT Protection**   1,000 V

Software

- **OS Support**   Microsoft® Windows® XP/7/8, Linux 2.4/2.6

Environment

- **Operating Humidity**   5 ~ 95% RH
- **Operating Temperature**   -20 ~ 50°C (-4 ~ 122°F)
- **Storage Temperature**   -25 ~ 80°C (-13 ~ 176°F)

Dimensions

Module
PCM-24R2PE

51
12.4
10
30

I/O Plate

76   81
5
41
19.4
11.2
M3   11.2
M3
9.7
5.4

Cable Length
200

Ordering Information

- **PCM-24R2PE-AE**   2-Port Gigabit Ethernet, IEEE 802.3af (PoE) Compliant, mPCIe, RJ45

PCM-24S2WF

WiFi 802.11 ac/a/b/g/n 2T2R w/Bluetooth 4.1, M.2/Full-size mPCIe, Antennas

NEW

Features

- Meets Advantech iDoor technology standard
- M.2 2230 (A-E Key) module with mPCIe adapter
- IEEE 802.11 ac/a/b/g/n + Bluetooth 4.1
- 2 SMA, 2Tx/ 2Rx ports
- 64/128 bit WEP, 802.1x, TKIP and AES
- Operating temperature: -20 ~ 65 °C (-4 ~ 149°F)
- Support embedded automation PC UNO series & Panel PC TPC series product

ANATEL iDoor RoHS COMPLIANT 2002/95/EC CE FCC

Introduction

The PCM-24 series are communication modules from Advantech iDoor Technology. They are all compatible with PCI Express® Mini Card Specification Revision 1.2, including isolated / non-isolated RS-232/422/485 communication cards for automation control, Wi-Fi/3G/GPS/GSM/LTE wireless communication models for data exchange for management and machine level automation applications and PoE function for smart cameras in detection-inspection-production applications. This is a flexible design that enables customers to customize their features with iDoor Technology.

Specifications

General

- **Bus Type** M.2 / mPCIe
- **Host Interface** WiFi: PCI-E, BT: USB
- **Certification** CE, FCC
- **Dimensions** M.2 module: 30 x 22 x 2.2mm (1.18" x 0.87"0.09")
  Module with mPCIe adapter: 54.5 x 30 x 5.7mm (2.15" x 1.18" x 0.22")
  I/O Plate: 81 x 19.4 x 41 mm (3.19" x 0.76" x 1.61")
- **Power Consumption** 3.3V, 537mA (Avg.)
  (Wi-Fi continue, BT is off, BW 80MHz)
- **Antenna** WiFi 2.4 GHz and 5 GHz dipole antenna
- **Cable** WiFi Coaxial Cable, SMA (F) to MHF4, 300 mm

Communications

- **Data throughput** 300 Mbps (Max.)
- **Security** 64/128-bit WEP

Software

- **OS Support** Microsoft® Windows® 7/8.X/10

Environment

- **Operating Temperature** -20 ~ 65 °C (-4 ~ 149°F)
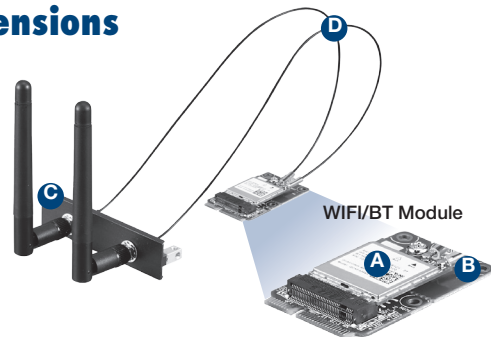- **Storage Temperature** -40 ~ 105°C (-40 ~ 221°F)

Regulation

The PCM-24S2WF-BE adopts QCA6174A single chip solution and corresponds to its regulations of module QCNFA364A.

Ordering Information

- **PCM-24S2WF-BE** WiFi 802.11 ac/a/b/g/n 2T2R w/Bluetooth 4.1, M.2/Full-size mPCIe, Antennas

Dimensions

WIFI/BT Module

WIFI/BT Module	
A M.2 module	**B** Module on mPCIe adapter
30 / 22 / 2.25	54.51 / 22 / 30 / 2.25 / 5.72
C I/O Plate	
76 / 5 / 11.2 / M3	81 / 19.4 / 11.2 / 9.7 / M3 / 5.4
D Cable Length	
300	

Last updated: 27-Jun-2018

PCM-24S33G

3.75G HSPA and GPS, Full-Size mPCIe, Front-Accessible Dual SIM Card Slots, 3G/GPS Antennas

NEW

Features

- Meets Advantech iDoor technology standard
- PCI Express® Mini card specification revision 1.2 compliant
- 6-bands, 800/850/900/1700/1900/2100 MHz for UMTS/HSPA network
- 850/900/1800/1900 MHz for EDGE/GPRS/GSM network
- With hardware standalone GPS, u-blox MAX-6
- With SIM card holder
- HSDPA 7.2 Mbps, HSUPA 5.76 Mbps
- Operating temperature: -40 ~ 85°C (-40 ~ 185°F)
- Supports 32/64-bit Windows XP/7/8/8.1/10, Linux 2.4/2.6
- Supports embedded automation PC UNO-2200/2300/2400 series
- Supports control DIN-Rail PC UNO-1200/1300/1400 series
- Supports control cabinet PC UNO-3200/3300/3400 series
- Supports control panel computers TPC-xx81/xx82 series

iD··r RoHS COMPLIANT 2002/95/EC CE FCC

Introduction

The PCM-24 series are communication modules from Advantech iDoor Technology. They are all compatible with PCI Express® Mini Card Specification Revision 1.2, including isolated / non-isolated RS-232/422/485 communication cards for automation control, Wi-Fi/3G/GPS/GSM/LTE wireless communication models for data exchange for management and machine level automation applications; and PoE function for smart cameras in detection-inspection-production applications. This is a flexible design that enables customers to customize their features with iDoor Technology.

Specifications

General

- **Form Factor** PCI Express Mini Card Revision 1.2
- **Interface** USB
- **Certification** CE, FCC class A
- **Dimensions** Module: 51 x 30 x 12.4 mm (2" x 1.18" x 0.49")
  I/O Plate: 81 x 19.4 x 41 mm (3.19" x 0.76" x 1.61")
- **Power Consumption** 3.3~3.6 V, <700 mA (HSPA connected mode)
- **Antenna** 824~960 MHz, 1710~2170 MHz dipole antenna, 109 mm
  GPS antenna 1575MHz, cubic antenna 45 x 35 x 14 mm, wire length 5000mm
- **Cable** Coaxial GSM/ GPS cable, 250 mm

Communications

- **Frequency Band** UMTS/HSPA: 800/850/900/1700/1900/2100 MHz
  EDGE/GPRS/GSM: 850/900/1800/1900 MHz
- **Data throughput** Downlink: 7.2 Mbps
  Uplink: 5.76 Mbps

Software

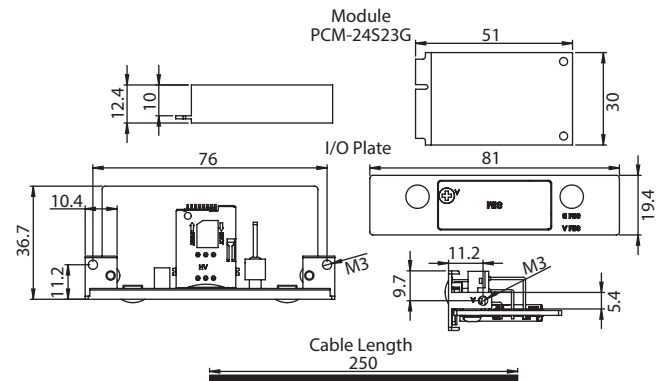- **OS Support** Microsoft® Windows® XP/7/8/8.1/10, Linux Ubuntu 14.04

Environment

- **Humidity (Operating)** 5-95% RH, non-condensing
- **Operating Temperature** -40 ~ 85°C (-40 ~ 185°F)
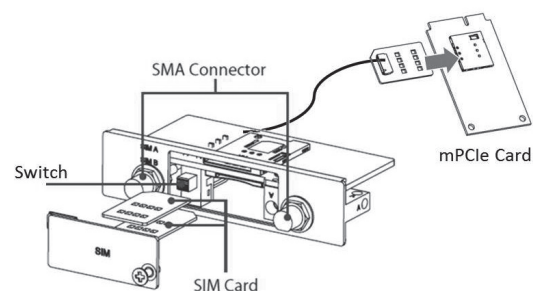
Regulation

PCM-24S33G-AE employs u-blox LISA

Dimensions

Module PCM-24S23G
51
12.4
10
30
I/O Plate
76
81
36.7
10.4
11.2
M3
19.4
11.2
M3
9.7
5.4
Cable Length 250

Ordering Information

- **PCM-24S33G-AE** 3.75G HSPA/GPS, Full-size mPCIe, Front-accessible dual SIM card slots, 3G/GPS antennas

User Scenario

SMA Connector
mPCIe Card
Switch
SIM Card

PCM-24S34G

LTE/HSPA+/GPRS, Full-size mPCIe,
w/ SIM Slot, 4G Antennas, for EMEA/
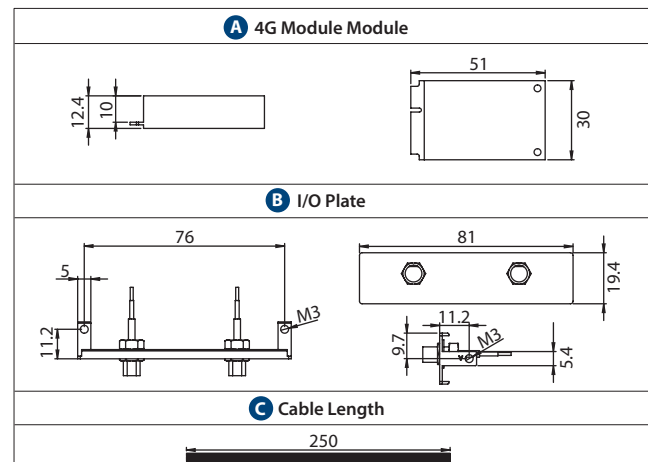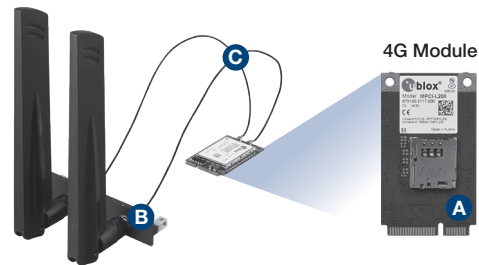APAC and Americas regions

NEW

Features

- Meets Advantech iDoor technology standard
- PCI Express® Mini card specification revision 1.2 compliant
- Supports B1, B2, B3, B4, B5, B7, B8, B17, B20 for LTE network
- Supports 850/900/1900/2100 MHz for UMTS/HSPA+ network
- Supports 850/900/1800/1900 MHz for EDGE/GPRS/GSM network
- Operating temperature: -40 ~ 85°C (-40 ~ 185°F)
- Supports 32/64-bit Windows 7/8/8.1/10, Linux Ubuntu 14.04

iDoor RoHS COMPLIANT 2002/95/EC (CE FCC

Introduction

The PCM-24 series are communication modules from Advantech iDoor Technology. They are all compatible with PCI Express® Mini Card Specification Revision 1.2, including isolated / non-isolated RS-232/422/485 communication cards for automation control, Wi-Fi/3G/GSM/LTE wireless communication models for data exchange for management and machine level automation applications; and PoE function for smart cameras in detection-inspection-production applications. This is a flexible design that enables customers to customize their features with iDoor Technology.

Specifications

General

- **Form Factor**   PCI Express Mini Card Revision 1.2
- **Interface**   USB
- **Certification**   PCM-24S34G-EBE: PTCRB, GCF, FCC, ISED, RED,
                                                        NCC, KCC, RCM
                           PCM-24S34G-ABE: PTCRB, GCF, FCC, ISED, RED
- **Dimensions**   Module: 51 x 30 x 6.2 mm (2" x 1.18" x 0.25")
                           I/O Plate: 81 x 19.4 x 41 mm (3.19" x 0.76" x 1.61")
- **Power Consumption**   < 900 mA (LTE connected Mode)
- **Operation Voltage**   3.3V ~ 3.6V
- **SMA Cable**   Coaxial GSM/ GPS cable, 250 mm

Communication

Model Name	PCM-24S34G-EBE	PCM-24S34G-ABE
Communication	Bands	
4G/LTE Cat. 4	Band 1 (2100 MHz) Band 3 (1800 MHz) Band 5 (850 MHz) Band 7 (2600 MHz) Band 8 (900 MHz) Band 20(850 MHz)	Band 2 (1900 MHz) Band 4 (1700 MHz) Band 5 (850 MHz) Band 7 (2600 MHz) Band 17(700 MHz)
3G UMTS/HSPA	Band 1 (2100 MHz) Band 2 (1900 MHz) Band 5 (850 MHz) Band 8 (900 MHz)	
2G GSM/GPRS/EDGE	850/900/1800/1900 MHz	
Data rates (LTE)	Maximum Downlink: 150 Mbps Maximum Uplink: 50 Mbps	

Antenna

- **4G Antenna Frequency**   700 ~ 960 MHz, 1710 ~ 2700 MHz
- **4G Antenna Length**   167 mm

Software

- **OS Support**   Supports 32/64-bit Windows 7/8/8.1/10, Linux Ubuntu 14.04

Environment

- **Humidity (Operating)**   10 ~ 95% RH, non-condensing
- **Operating Temperature**   -40 ~ 85°C (-40 ~ 185°F)

Regulation

PCM-24S34G employs U-blox wireless TOBY-L200/210 module and corresponds to its regulation.

Ordering Information

- **PCM-24S34G-EBE**   U-blox TOBY-L210 LTE/HSPA+/GPRS, mPCIe, antennas, for EMEA/APAC
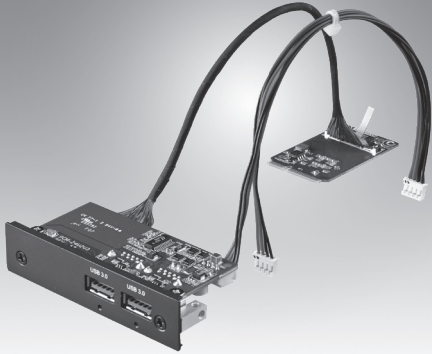- **PCM-24S34G-ABE**   U-blox TOBY-L200 LTE/HSPA+/GPRS, mPCIe, antennas, for America

Dimensions

4G Module

A 4G Module Module

B I/O Plate

C Cable Length

ADVANTECH   iDoor Technology Modules

All product specifications are subject to change without notice.   Last updated: 7-Mar-2019

PCM-24U2U3-BE

2-Port USB 3.0, mPCIe, USB-A type

NEW

Features

- Meets Advantech iDoor Technology Standard
- PCI Express® Mini Card Specification Revision TM 2.0 compliant
- Expands two external USB3.0 Super-Speed ports
- Complies with xHCI specification
- Supports hot-swapping function
- Supports lockable function for USB cable
- Supplies maximum +5 V/900 mA power output to USB device
- Supports 32/64-bit Microsoft® Windows® XP/Vista/7/8/10

*Additional power cable is required

iD••r RoHS COMPLIANT 2002/95/EC CE FCC

Introduction

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Specifications

General

- **Bus Type**   PCI Express Mini Card Revision TM 2.0
- **Certification**   CE, FCC class A
- **Connector**   2 x USB standard-A type
- **Dimensions**   Module: 51 x 30 x 12.4 mm (2" x 1.18" x 0.49")
                     I/O Plate: 81 x 19.4 x 41 mm (3.19" x 0.76" x 1.61")

Power Requirements

- **Input Voltage**   5~24 VDC
- **Connection**   20 cm wired cable with 4-pin pitch 2.0 connector
- **Power Consumption**   Maximum: +5V @ 900 mA per port

Communication

- **Protocol**   Universal Serial Bus 3.0 specification Rev. 1.0
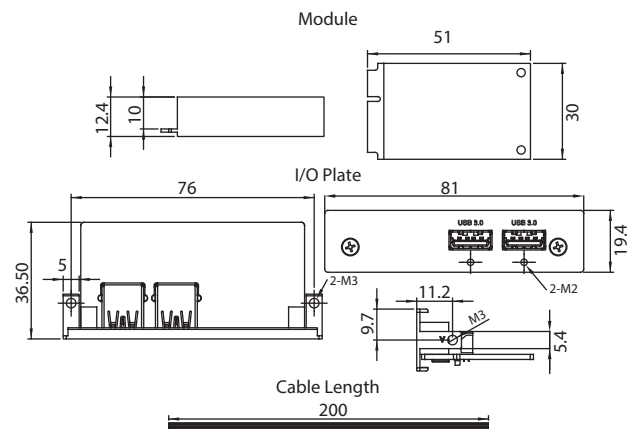- **Speed**   5 Gbps (Max.)

Software

- **OS Support**   Microsoft® Windows® XP/Vista/7/8/10

Environment

- **Humidity (Operating)**   10~95% RH @40°C, non-condensing
- **Operating Temperature**   - 20 ~ 60°C (- 4 ~ 140°F)
- **Storage Temperature**   - 40 ~ 85°C (- 40 ~ 185°F)

Dimensions

Module

51

12.4 / 10

30

I/O Plate

76

81

USB 3.0 USB 3.0

19.4

36.50

5

2-M3

11.2

2-M2

9.7

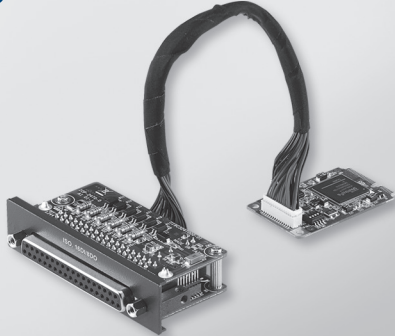M3

5.4

Cable Length

200

Ordering Information

- **PCM-24U2U3-BE**   USB 3.0, mPCIe, USB-A type x 2
- **1700028805-01**   Power cable 1*4P-2.0/1*4P-2.0*2 20cm
- **1700029307-01**   Signal cable 1*40P-0.5/1*40P-0.5 20cm
- **1700023725-01**   Power cable 4P/5P 20cm for TPC-xx51 series

Last updated: 10-Jul-2019

PCM-27D24DI

24-Channel Isolated Digital I/O w/ Counter mPCIe, DB37

NEW

Features

- Meets Advantech iDoor technology standard
- PCI Express® Mini card specification revision 1.2 compliant
- Supports wide-input/output voltage (10-30 V_{DC}/5-30 V_{DC})
- High over-voltage-protection (70 V_{DC}) and voltage isolation (2,500 V_{DC})
- Easy configuration & efficient programming by Advantech DAQNavi
- I/O address automatically assigned by PCIe plug & play
- Keeps the output settings and values after system hot reset
- Supports embedded automation PC UNO-2200/2300/2400 series
- Supports control DIN-Rail PC UNO-1300/1400 series
- Supports control cabinet PC UNO-3200/3300/3400 series
- Supports control panel computers TPC-xx81/xx82 series
- Supports thin client panel computers TPC-xx51 series

iD••r RoHS COMPLIANT 2002/95/EC CE FCC

Introduction

The PCM-27 series are digital input/output modules from Advantech iDoor Technology. They are all compatible with the PCI Express® Mini Card Specification Revision 1.2, including isolated / non-isolated RS-232/422/485 communication cards for automation control, Wi-Fi/3G/GPS/GSM/LTE wireless communication models for data exchange for management and machine level automation applications; the ZigBee module serves as an IoT terminal or controller, and PoE function for smart cameras in detection-inspection-production applications. This is a flexible design that enables customers to customize their features with iDoor Technology.

Specifications

General

- **Bus Type** — PCI Express Mini Card Revision 1.2
- **Certification** — CE, FCC class A
- **Connectors** — 1 x Female DB37
- **Dimensions** — Module: 51 x 30 x 12.4 mm (2" x 1.18" x 0.49")
  I/O Plate: 81 x 19.4 x 41 mm (3.19" x 0.76" x 1.61")
- **Power Consumption** — Typical: +3.3 V @ 400 mA
  Max.: +3.3V @ 520 mA

Isolated Digital Input

- **Input Channels** — 16
- **Input Voltage (Wet Contact)** — Logic 0: 0~3 V_{DC}
  Logic 1: 10~30 V_{DC}
- **Input Voltage (Dry Contact)** — Logic 0: Open
  Logic 1: Shorted to GND
- **Input Current** — 10 V_{DC} @ 2.97 mA
  20 V_{DC} @ 6.35 mA
  30 V_{DC} @ 9.73 mA
- **Input Resistance** — 5K Ohm
- **Interrupt Capable Channels** — 2 (IDI0, IDI8)
- **Isolation Protection** — 2,500 V_{DC}
- **Overvoltage Protection** — 70 V_{DC}
- **ESD Protection** — 4KV (Contact), 8KV (Air)
- **Opto-Isolator Response** — 50 µs

Isolated Digital Output

- **Output Channels** — 8
- **Output Type** — MOSFET
- **Isolation Protection** — 2,500 V_{DC}
- **Output Voltage** — 5 ~ 30 V_{DC}
- **Sink Current** — 100 mA max./channel
- **Opto-isolator** — Response 50 µs

Counter

- **Channels** — 2
- **Resolution** — 32 bits
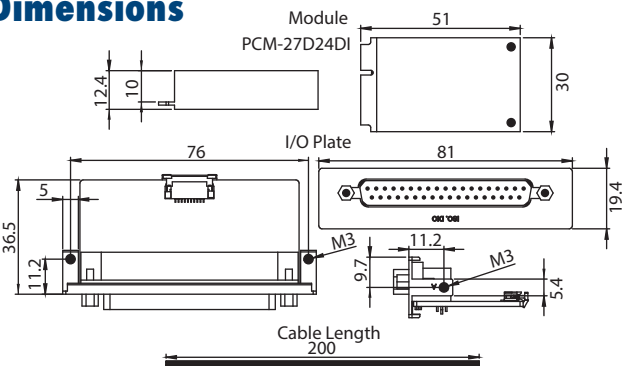- **Max. Input Frequency** — 1 kHz

Software

- **Tools & Drivers** — Advantech DAQNavi Tools & API Drivers
- **OS Support** — Microsoft® Windows® XP/7/8
  Linux Ubuntu 14.04, OpenSUSE 13.1, Fedora 20, Debian 6.08, Red Hat 6.5

Environment

- **Humidity (Operating)** — 5-95% RH, non-condensing
- **Operating Temperature** — -20 ~ 60°C (-4 ~ 140°F)
- **Storage Temperature** — -40 ~ 85°C (-40 ~ 185°F)

Dimensions

Module PCM-27D24DI
51
12.4
10
30

I/O Plate
76
81
5
36.5
11.2
19.4
M3
11.2
9.7
M3
5.4

Cable Length 200

Ordering Information

- **PCM-27D24DI-AE** — Iso. Digital I/O, 16DI/8DO, mPCIe, DB37 x 1
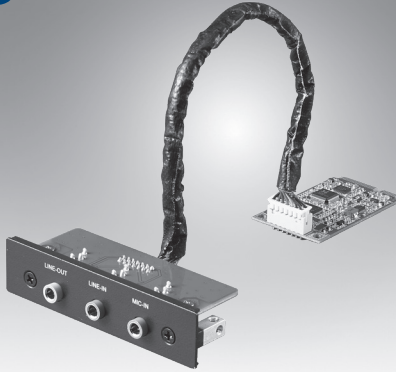
Accessories

- **PCL-10137-1E** — DB-37 Shielded Cable, 1m
- **PCL-10137-2E** — DB-37 Shielded Cable, 2m
- **PCL-10137-3E** — DB-37 Shielded Cable, 3m
- **ADAM-3937-BE** — DB-37 Wiring Terminal, DIN-rail Mount

PCM-27J3AU

3-Port Audio Stereo, mPCIe, 3.5 mm Jack

NEW

iDoor RoHS COMPLIANT 2002/95/EC CE FCC

Features

- Meets Advantech iDoor technology standard
- 3 x 3.5 mm jack (Line-in, Line-out, MIC-in)
- 102 dB signal-to-noise ratio (A-weighting) for DAC output
- 97 dB signal-to-noise ratio (A-weighting) for ADC input
- All DACs/ADCs support 44.1/48/96/192 kHz sample rate
- Supports two stereo digital microphone inputs
- S/PDIF-OUT supports 16/20/24-bit format and 44.1/48/96/192 kHz rate
- Supports embedded automation PC (UNO-2200/2300 series)
- Supports control DIN-Rail PC (UNO-1300/1400 series)
- Supports control cabinet PC (UNO-3200/3300/3400 series)
- Supports control panel computers (TPC-xx81/xx82 series)
- Supports thin client panel computers (TPC-xx51 series)

Introduction

The PCM-27 series are digital/analog input/output modules from Advantech iDoor Technology. They are all compatible with the PCI Express® Mini Card Specification Revision 1.2, including isolated / non-isolated RS-232/422/485 communication cards for automation control, Wi-Fi/3G/GPS/GSM/LTE wireless communication models for data exchange for management and machine level automation applications, ZigBee module as an IoT terminal or controller and PoE function for smart cameras in detection-inspection-production applications. This is a flexible design that enables customers to customize their features with iDoor Technology.

Specifications

General

- **Bus Type**   PCI Express Mini Card Revision TM 2.0 (USB differential)
- **Certification**   CE, FCC class A
- **Connector**   3 x 3.5 mm Jack (1/8") (Line-in, Line-out, MIC-in)
- **Dimensions**   Module: 51 x 30 x 12.4 mm (2" x 1.18" x 0.49")
- **I/O Plate:**   81 x 19.4 x 41 mm (3.19" x 0.76" x 1.61")
- **Power Consumption**   25 mW per channel @ 5 V$_{DC}$

Communication

- **Audio Chipset**   Realtek ALC286S-VC
- **Channels**   4-channels (supports independent 2 stereo channels for DAC/ADC)
- **Input/Output Full-Scale Voltage**   1.3/1.2 Vrms (input/output)
- **Analog Playback/Recording Sample Rate and Resolution**   44.1/48/96/192 kHz @ 24 bit
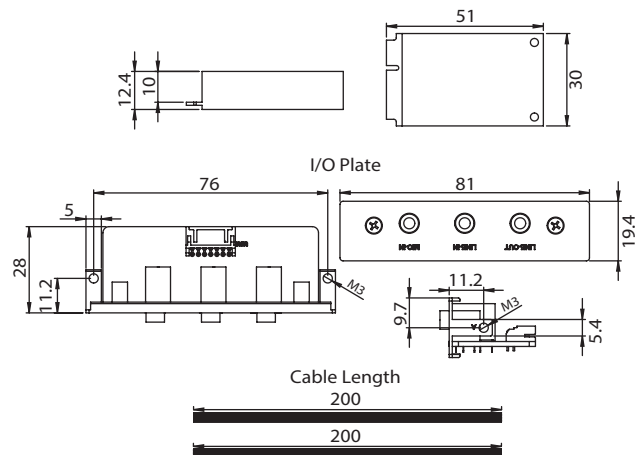- **Signal to Noise Ratio (SNR)**   120 dB for DAC output; 97 dB for ADC input

Software

- **OS Support**   Microsoft® Windows® XP/7/8

Environment

- **Humidity (Operating)**   5-95% RH, non-condensing
- **Operating Temperature**   - 20 ~ 60°C (- 4 ~ 140°F)
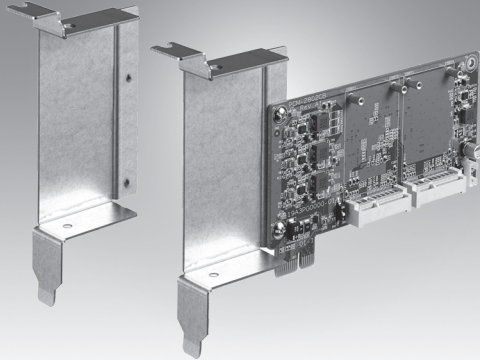- **Storage Temperature**   - 40 ~ 85°C (- 40 ~ 185°F)

Dimensions

I/O Plate

Cable Length
200

Ordering Information

- **PCM-27J3AU-AE**   3-Port Audio Stereo, mPCIe, 3.5 mm Jack

ADVANTECH   iDoor Technology Modules

All product specifications are subject to change without notice.   Last updated: 27-Jun-2018

PCM-28P1AD
PCM-28P1BK

PCIe to mPCIe, 2-Slots mPCIe, iDoor I/O plate expansion iDoor PCIe I/O Plate

NEW

PCM-28P1BK ▲   PCM-28P1AD ▲

iDoor RoHS COMPLIANT 2002/95/EC CE FCC

Features

- Meets Advantech iDoor technology standard
- PCI Express base SPEC 2.0 and backward compatible with SEPC 1.1 & 1.0a compliant
- PCI Express® Mini Card specification revision 1.2 compliant
- Expands two external full-size mPCIe slots from an existing PCIe slot
- Expands one external iDoor I/O module plate from existing PCIe plate
- Supports Microsoft® Windows® XP/7/8
- Supports control DIN-Rail PC UNO-1400 series
- Supports control cabinet PC UNO-3200/3300/3400 series

*Please visit Advantech's websites for the latest iDoor modules support information

Introduction

The PCM-28 series are expansion kits providing multi-application solutions using Advantech iDoor technology. They are all compatible with the PCI Express® Mini Card Specification Revision 1.2, including isolated / non-isolated RS-232/422/485 communication cards for automation control, Wi-Fi/3G/GPS/GSM/LTE wireless communication models for data exchange for management and machine level automation applications; the ZigBee module serves as an IoT terminal or controller, and PoE function for smart cameras in detection-inspection-production applications. This is a flexible design that enables customers to customize their features with iDoor Technology.

Specifications

General

- **Bus Type**   PCI Express® Rev. 2.0 compliant
- **Interface**   PCI Express® Mini Card Specification Revision 1.2 compliant
- **Certification**   CE, FCC class A
- **I/O Connectors**   1 x PCI Express Male, 2 x mPCIe Female
- **Dimensions**   173 x 120.8 x 21.6mm (6.8" x 4.8" x 0.9")
- **Power Consumption** Input: +12 V/2.1 A, +3.3 VSB/375 mA
                        Output: +3.3 V/1.1 A, +1.5 V/375 mA

Software

- **OS Support**   Windows® XP/7/8
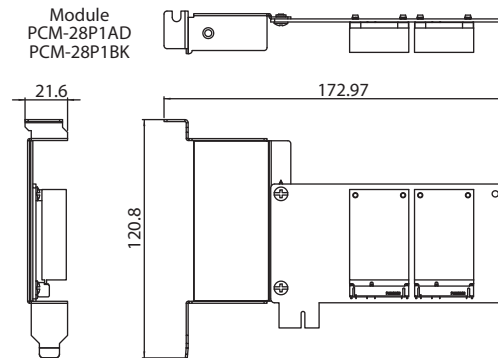
Environment

- **Humidity (Operating)**   5-95% RH, non-condensing
- **Operating Temperature**   -20 ~ 60°C (-4 ~ 140°F)
- **Storage Temperature**   -40 ~ 85°C (-40 ~ 185°F)

Supports iDoor Module

- **PCM-24D2R2-AE**   2-Port Isolated RS-232, mPCIe, DB9
- **PCM-24D2R4-AE**   2-Port Isolated RS-422/485, mPCIe, DB9
- **PCM-24D4R2-AE**   4-Port Non-Isolated RS-232, mPCIe, DB37 cable
- **PCM-24D4R4-AE**   4-Port Non-Isolated RS-422/485 mPCIe, DB37 cable
- **PCM-26D2CA-AE**   2-Port Isolated CANBus mPCIe, CANOpen, DB9
- **PCM-27D24DI-AE**   24-Channel Isolated Digital I/O w/ counter mPCIe, DB37
- **PCM-2300MR-AE**   MR4A16B, MRAM, 2 MByte, mPCIe
- **PCM-24S2WF-AE**   Wi-Fi 802.11 a/b/g/n 2T2R w/ Bluetooth4.0, Half-size mPCIe, 2-port SMA
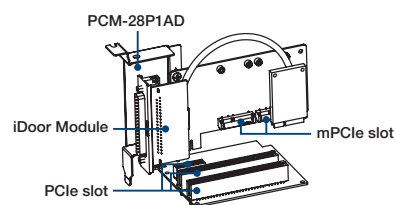- **PCM-24U2U3-AE**   2-Port USB 3.0, mPCIe, USB-A type

Dimensions

Module
PCM-28P1AD
PCM-28P1BK

21.6   172.97
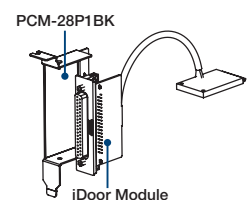
120.8

Ordering Information

- **PCM-28P1AD-AE**   PCIe to mPCIe, mPCIe Slot x2, iDoor PCIe I/O plate x1
- **PCM-28P1BK-AE**   iDoor PCIe I/O Plate
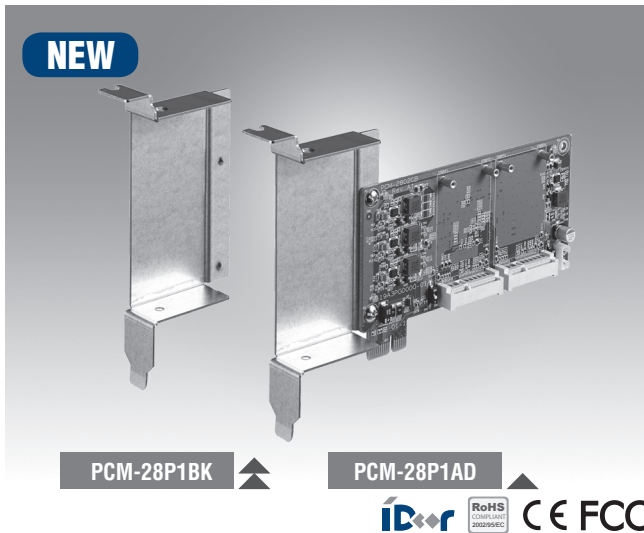
User scenario

2-Slots mPCIe expansion   **iDoor with PCIe I/O Plate**

PCM-28P1AD   PCM-28P1BK

iDoor Module   mPCIe slot

PCIe slot   iDoor Module

ADVANTECH | **iDoor Technology Modules**

All product specifications are subject to change without notice.   Last updated: 27-Jun-2018

PCM-28P1AD
PCM-28P1BK

PCIe to mPCIe, 2-Slots mPCIe, iDoor I/O plate expansion iDoor PCIe I/O Plate

NEW

PCM-28P1BK ▲   PCM-28P1AD ▲

iD••r RoHS COMPLIANT 2002/95/EC CE FCC

Features

- Meets Advantech iDoor technology standard
- PCI Express base SPEC 2.0 and backward compatible with SEPC 1.1 & 1.0a compliant
- PCI Express® Mini Card specification revision 1.2 compliant
- Expands two external full-size mPCIe slots from an existing PCIe slot
- Expands one external iDoor I/O module plate from existing PCIe plate
- Supports Microsoft® Windows® XP/7/8
- Supports control DIN-Rail PC UNO-1400 series
- Supports control cabinet PC UNO-3200/3300/3400 series

*Please visit Advantech's websites for the latest iDoor modules support information

Introduction

The PCM-28 series are expansion kits providing multi-application solutions using Advantech iDoor technology. They are all compatible with the PCI Express® Mini Card Specification Revision 1.2, including isolated / non-isolated RS-232/422/485 communication cards for automation control, Wi-Fi/3G/GPS/GSM/LTE wireless communication models for data exchange for management and machine level automation applications; the ZigBee module serves as an IoT terminal or controller, and PoE function for smart cameras in detection-inspection-production applications. This is a flexible design that enables customers to customize their features with iDoor Technology.

Specifications

General

- **Bus Type**   PCI Express® Rev. 2.0 compliant
- **Interface**   PCI Express® Mini Card Specification Revision 1.2 compliant
- **Certification**   CE, FCC class A
- **I/O Connectors**   1 x PCI Express Male, 2 x mPCIe Female
- **Dimensions**   173 x 120.8 x 21.6mm (6.8" x 4.8" x 0.9")
- **Power Consumption** Input: +12 V/2.1 A, +3.3 VSB/375 mA
                        Output: +3.3 V/1.1 A, +1.5 V/375 mA

Software

- **OS Support**   Windows® XP/7/8
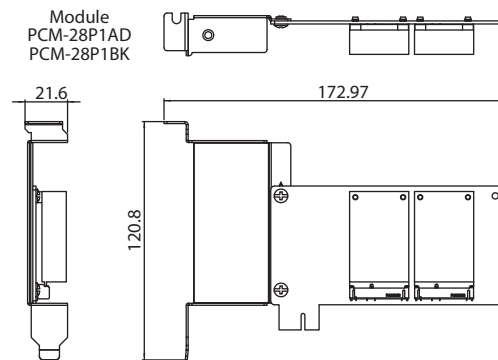
Environment

- **Humidity (Operating)**   5-95% RH, non-condensing
- **Operating Temperature**   -20 ~ 60°C (-4 ~ 140°F)
- **Storage Temperature**   -40 ~ 85°C (-40 ~ 185°F)

Supports iDoor Module

- **PCM-24D2R2-AE**   2-Port Isolated RS-232, mPCIe, DB9
- **PCM-24D2R4-AE**   2-Port Isolated RS-422/485, mPCIe, DB9
- **PCM-24D4R2-AE**   4-Port Non-Isolated RS-232, mPCIe, DB37 cable
- **PCM-24D4R4-AE**   4-Port Non-Isolated RS-422/485 mPCIe, DB37 cable
- **PCM-26D2CA-AE**   2-Port Isolated CANBus mPCIe, CANOpen, DB9
- **PCM-27D24DI-AE**   24-Channel Isolated Digital I/O w/ counter mPCIe, DB37
- **PCM-2300MR-AE**   MR4A16B, MRAM, 2 MByte, mPCIe
- **PCM-24S2WF-AE**   Wi-Fi 802.11 a/b/g/n 2T2R w/ Bluetooth4.0, Half-size mPCIe, 2-port SMA
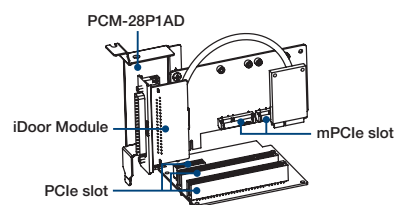- **PCM-24U2U3-AE**   2-Port USB 3.0, mPCIe, USB-A type

Dimensions

Module
PCM-28P1AD
PCM-28P1BK

21.6   172.97
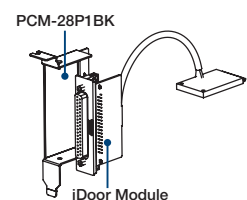
120.8

Ordering Information

- **PCM-28P1AD-AE**   PCIe to mPCIe, mPCIe Slot x2, iDoor PCIe I/O plate x1
- **PCM-28P1BK-AE**   iDoor PCIe I/O Plate
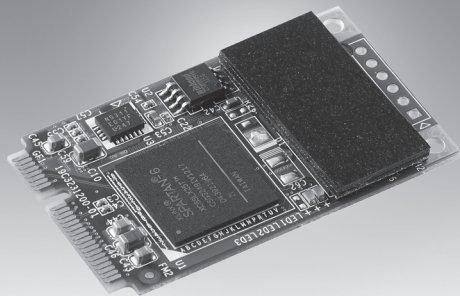
User scenario

2-Slots mPCIe expansion

PCM-28P1AD

iDoor Module

mPCIe slot

PCIe slot

iDoor with PCIe I/O Plate

PCM-28P1BK

iDoor Module

ADVANTECH | **iDoor Technology Modules**

All product specifications are subject to change without notice.   Last updated: 27-Jun-2018

PCM-2300MR

MR4A16B, MRAM, 2 MByte, mPCIe

NEW

Features

- Meets Advantech iDoor technology standard
- PCI Express® Mini card specification revision 1.2 compliant
- Data always non-volatile for >20-year at temperature
- Read / Write memory speed 6 MB/Sec
- 2MB MRAM Storage
- I/O address automatically assigned by PCIe plug & play
- Supports Microsoft® Windows CE5/CE6
- Supports Microsoft® Windows Enterprise Server 2008, Windows XP/7
- Supports Linux Intel® x86 hardware platform
- Supports embedded automation PC UNO-2200/2300/2400 series
- Supports control DIN-rail PC UNO-1200/1300/1400 series
- Supports control cabinet PC UNO-3200/3300/3400 series
- Supports control panel computers TPC-xx81/xx82 series
- Supports thin client panel computers TPC-xx51 series

iD••r RoHS COMPLIANT 2002/95/EC CE FCC

Introduction

The PCM-23 series are industrial storage or memory modules for the mPCIe interface which is able to extend connection to the connector through iDoor technology with different functions. They are all compatible with the PCI Express® Mini Card Specification Revision 1.2, including isolated / non-isolated RS-232/422/485 communication cards for automation control, Wi-Fi/3G/GPS/GSM/LTE wireless communication models for data exchange for management and machine level automation applications, ZigBee module as an IoT terminal or controller and PoE function for smart cameras in detection-inspection-production applications. This is a flexible design that enables customers to customize their features with iDoor Technology.

Specifications

General

- **Bus Type**   PCI Express Mini Card Revision 1.2
- **Certification**   CE, FCC class A
- **Dimensions**   Module: 51 x 30 x 12.4 mm (2" x 1.18" x 0.49")
- **Power Consumption** Typical : +3.3 V @ 150 mA

Memory

- **Memory Everspin**   MR4A16B
- **Size**   2 MB
- **Read/Write Speed**   6 MB/sec

Software

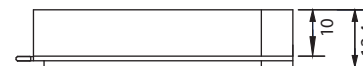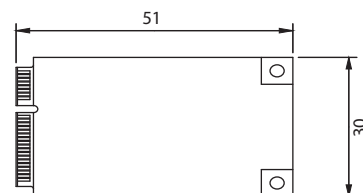- **Driver**   Microsoft® Windows CE5/CE6
                         Microsoft® Windows Enterprise Server 2008
                         Microsoft® Windows XP/7

Environment

- **Humidity (Operating)**   5-95% RH, non-condensing
- **Operating Temperature** -20 ~ 60°C (-4 ~ 140°F)
- **Storage Temperature**   -40 ~ 85°C (-40 ~ 185°F)
- **Maximum magnetic field immunity during write**   8000 A/m
- **Maximum magnetic field during reading or standby**   8000 A/m

Dimensions

Module
PCM-2300MR

51

30

10

12.4

Ordering Information

- **PCM-2300MR-AE**   MR4A16B, MRAM, 2MByte

ADVANTECH   iDoor Technology Modules

All product specifications are subject to change without notice.   Last updated: 27-Jun-2018

PCM-2300TM

TPM compliant with TCG 1.2 via LPC

NEW

iDoor · RoHS COMPLIANT 2002/95/EC · CE · FCC

Features

- Meets Advantech Standard iDoor Technology
- Trusted Platform Module Revision TCG 1.2 compliant
- Hardware-based data protection prevents encrypted data from illegal decrypting
- Connect to system via on-board LPC connector
- Supports 32/64-bit Microsoft® Windows® XP/7/8
- Supports Embedded Automation PC UNO-2400 series

Introduction

The PCM-23 series are storage modules from Advantech iDoor Technology. They are compatible with the PCI ExpressR Mini Card Specification Revision 1.2. including MRAM for automation machine memory back up which will no need battery, SATA to CFast on ThinClient terminal with storage for shorter maintenance and shorter MTB repair, Locked USB Dongle for Software protection in SCADA system, and TPM on Quality system management. This is a flexible design that enables customers to customize their features which meet iDoor Technology.

Specifications

General

- **Certification**   CE, FCC class A
- **Connector**   Low Pin Count connector (14 pin)
- **Dimensions**   81 x 19.4 x 41 mm (3.19" x 0.76" x 1.61")

Power Requirements

- **Input Voltage**   3.3 V_{DC}
- **Power Consumption**   Typical 3.3V @ 5 mA

Communication

- **Protocol**   Trusted Platform Module TCG 1.2
- **Connection**   20 cm wired cable to on-board LPC connector

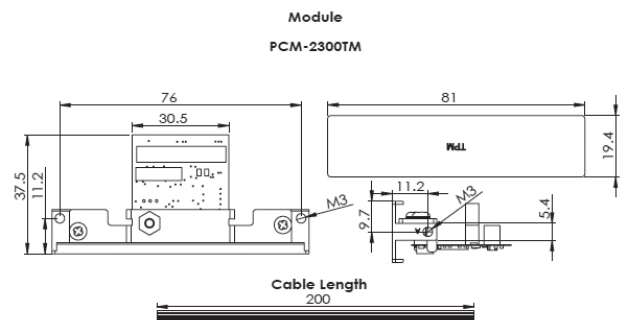### Software

- **OS Support**   Microsoft® Windows® XP Professional Edition
                        Microsoft® Windows® 7 Ultimate
                        Microsoft® Windows® 8

Environment

- **Humidity (Operating)**   40° C @ 85% RH, non-condensing
- **Operating Temperature**   0 ~ 60°C (32 ~ 140°F)
- **Storage Temperature**   - 40 ~ 85°C (- 40 ~ 185°F)

Dimensions

Module
PCM-2300TM

Ordering Information

- **PCM-2300TM-AE**   TPM compliant with TCG 1.2 via LPC