

PCI Bus Expansion Chassis
Short size, 2-Slots

ECH-PCI-DE2-H2B

Short size, 4-Slots

ECH-PCI-DE2-H4B

Long size, 4-Slots

ECH-PCI-DE2-F4B

PCI Express Expansion Chassis

Short size, 2-Slots

ECH-PE-DE2-H2B

ECH-PCI-DE2-H2B
ECH-PE-DE2-H2B



Features

PCI bus (5V/32bit 33MHz) slots can be added to your PC.

PCI bus slots (5V/32bit 33MHz) can be added to ECH-PCI-DE2-xxB.

- ECH-PCI-DE2-H2B can add two PCI bus slots.

- ECH-PCI-DE2-H4B and ECH-PCI-DE2-F4B can add four PCI bus slots.

ECH-PE-DE2-H2B can connect two PCI Express (x1) bus cards.

This expansion chassis is connected to a PC using an optional expansion adapter.

PCI bus cards can be connected.

You can connect short-type [176.5 (L) x 107 (H) mm] PCI bus cards.

ECH-PCI-DE2-H2B can connect two PCI bus cards.

ECH-PCI-DE2-H4B can connect four PCI bus cards.

You can connect long-type [313.8(L) x 107 (H) mm] PCI bus cards.

ECH-PCI-DE2-F4B can connect four PCI bus cards.

Short-type PCI bus cards can be connected.

(ECH-PE-DE2-H2B only)

You can connect short-type [176.5 (L) x 111.15 (H) mm] PCI Express bus cards.

ECH-PCI-DE2-H2B can connect two PCI Express bus cards.

Power-ON/OFF control of the expansion chassis can be linked to that of your PC.

As your PC is turned ON or OFF, the expansion chassis can also be turned ON or OFF, accordingly.

Steel chassis with cooling fan

Steel chassis with cooling fan suitable for use in fields.

The compact design of the cabinet with a built-in cooling fan enables space-saving system construction.

Since the cabinet contains a built-in cooling fan, which achieves a compact design, you can build a system even in a limited space next to your PC.

A wide range of power supplies (10.8 - 31.2VDC) supported

As the product supports a wide range of power supplies (10.8 - 31.2VDC), the chassis can be used in a variety of power environments.

This product is an expansion chassis that adds expansion slots to a PC. Connecting an optional expansion adaptor (EAD-DE-LPE) can add PCI bus slots onto the PC.

The installable card types are different depending on the chassis models, ECH-PCI-DE2-H2B, ECH-PCI-DE2-H4B are short-type [176.5 (L) x 107 (H) mm] PCI bus cards, ECH-PCI-DE2-F4B are long-type [313.8 (L) x 107 (H) mm] PCI bus cards, ECH-PE-DE2-H2B are short-type [176.5(L) x 111.15(H) mm] PCI Express bus cards.

As your PC is turned ON or OFF, the expansion chassis can also be turned ON or OFF, accordingly.

* Specifications, color and design of the products are subject to change without notice.

* The contents in this document are subject to change without notice.

* Visit the CONTEC website to check the latest details in the document.

* The information in the data sheets is as of September, 2023.

Specifications

Specifications of ECH-PCI-DE2-xxB

| Item | ECH-PCI-DE2-H2B | ECH-PCI-DE2-H4B | ECH-PCI-DE2-F4B |
|---|--|---|--|
| Compatible bus | PCI Local Bus Specification Rev2.2 (+5V type) | | |
| Address space | 32-bit memory address, I/O address | | |
| Interrupt level | INTA - INTD | | |
| Bus operating clock | 33MHz (Max) | | |
| Number of user-available slots | 2 slots (short size) | 4 slots (short size) | 4 slots (long size) |
| Acceptable card sizes (mm) | 176.5(L) x 107(H) | | 313.8(L) x 107(H) |
| Expansion slot supplied power (The output current must not exceed the value on the right.) | +5VDC 7A (Max) +3.3VDC 3A (Max) +12VDC 1.5A (Max) -12VDC 0.3A (Max) | +5VDC 11.3A (Max) +3.3VDC 6A (Max) +12VDC 2A (Max) -12VDC 0.5A (Max) | |
| Maximum total power capacity | 66.5W | 106.3W *1 *2 | |
| Power supply | | | |
| Rated input voltage | 12 - 24VDC | | |
| Range of input voltage | 10.8 - 31.2VDC | | |
| Current consumption *3 | 12VDC 8A (Max), 24VDC 4A (Max) | 12VDC 13A (Max), 24VDC 6A (Max) | |
| Physical dimensions (mm) | 88.0(W) x 144.0(H) x 248.0(L) (No protrusions) | 129.0(W) x 144.0(H) x 248.0(L) (No protrusions) | 129.0(W) x 144.0(H) x 358.0(L) (No protrusions) |
| Weight | 1.6 kg | 2.0 kg | 2.5 kg |

*1 When the input voltage is used at 12V, 0 - 25°C : 106.3W, 25 - 50°C : 83W.

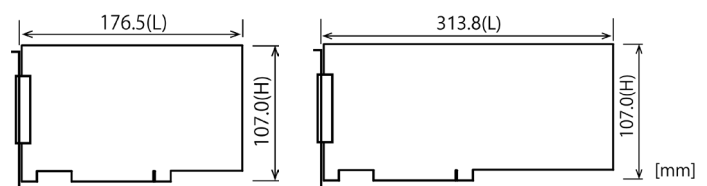
*2 When using the optional AC adaptor PWA-160AWD2, it is 0 - 40°C : 106.3W, 40 - 50°C : 98W.

*3 This is the amount of current consumed when supplying the expansion slots with the maximum total power capacity.

Physical Dimensions of Acceptable card (Max.)

< ECH-PCI-DE2-H2B/H4B >

< ECH-PCI-DE2-F4B >



Specifications of ECH-PE-DE2-H2B

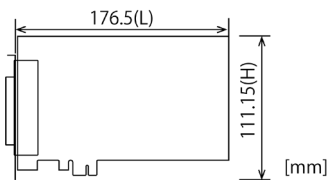
| Item | ECH-PE-DE2-H2B |
|---|--|
| Compatible bus | PCI Express Base Specification Rev.1.0a x1 *1 |
| Communication speed | 2.5G bps (Max) |
| Number of user-available slots | 2 slots (short size) |
| Acceptable card sizes (mm) | 176.5(L) x 111.15(H) |
| Expansion slot supplied power (The output current must not exceed the value on the right.) | +3.3VDC 6A (Max) +12VDC 2A (Max) |
| Maximum total power capacity | 43.8W |
| Power supply | |
| Rated input voltage | 12 - 24VDC |
| Range of input voltage | 10.8 - 31.2VDC |
| Current consumption *2 | 12VDC 5.0A (Max), 24VDC 2.5A (Max) |
| Physical dimensions (mm) | 88.0(W) x 144.0(H) x 248.0(L) (No protrusions) |
| Weight | 1.6 kg |

*1 Although x16 cards can be installed, they function the same as x1 cards.

*2 This is the amount of current consumed when the expansion slot is supplied with the maximum total power capacity.

Physical Dimensions of Acceptable card (Max.)

< ECH-PE-DE2-H2B >

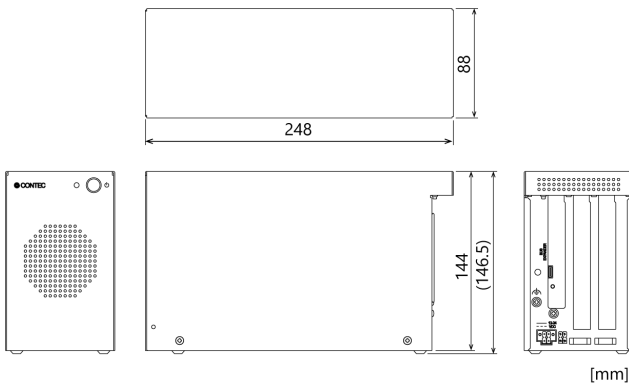


Environmental specifications

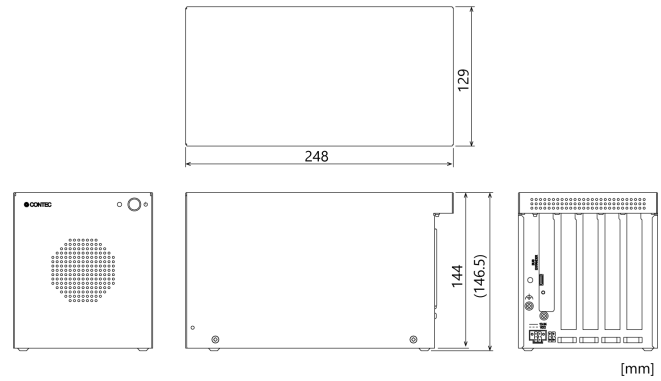
| Item | Specification |
|-------------------------|--|
| Operating temperature | 0 - 50°C |
| Operating humidity | 20 - 80%RH (No condensation) |
| Storage temperature | 0 - 60°C |
| Storage humidity | 10 - 90%RH (No condensation) |
| Floating dust particles | Not to be excessive |
| Corrosive gases | None |
| Line-noise resistance | Line noise AC line / ± 2 kV Signal line / ± 1 kV (IEC61000-4-4 Level 3, EN61000-4-4 Level 3) |
| | Static electricity resistance Contact discharge / ± 4 kV (IEC61000-4-2 Level 2, EN61000-4-2 Level 2) Atmospheric discharge / ± 8 kV (IEC61000-4-2 Level 3, EN61000-4-2 Level 3) |
| Grounding | Class D grounding (previous class 3 grounding) |
| Standard | VCCI Class A, FCC Class A, CE Marking (EMC Directive Class A, RoHS Directive), UKCA |

Physical Dimensions

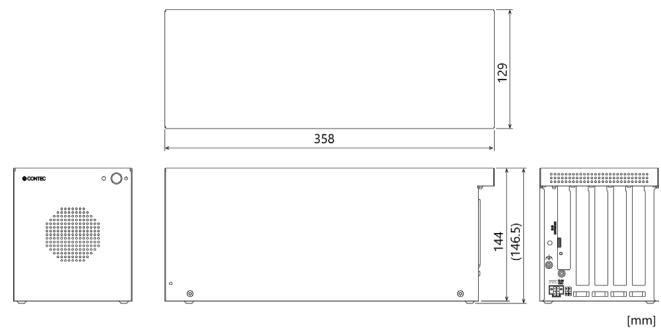
ECH-PCI-DE2-H2B/ECH-PE-DE2-H2B



ECH-PCI-DE2-H4B



ECH-PCI-DE2-F4B



CAUTION

When using this product, keep it at least 20mm away from any object such as the wall for cooling purposes.

Included Items

Product ...1
Slot Cover
ECH-xxx-DE2-x2B ... 2,
ECH-PCI-DE2-x4B ... 4
Card Fixed Screw
ECH-xxx-DE2-x2B ... 2,
ECH-PCI-DE2-x4B ... 4
Supply Connector ... 1
Please Read The Following ... 1

CAUTION

For operating this product, power supply (12 - 24VDC) is required separately.

Combinations of Expansion Adapters and Expansion Chassis

The expansion adapters and expansion chassis can be used in the following combinations:

| Expansion adapter | Expansion chassis ECH-PCI-DE | Expansion chassis ECH-PCI-DE2 | | | | Expansion chassis ECH-PE-DE2 |
|-------------------|------------------------------|-------------------------------|------|------|-------|------------------------------|
| | -H4D | -H2B | -H4B | -F4B | -H13A | -H2B |
| EAD-DE-LPE | Yes *1 | Yes | Yes | Yes | Yes | Yes |

*1 The ECH-PCI-DE-H4D has no linkage function with the PC power-ON/OFF.

Optional Products

| Product Name | Model type | Description |
|--|-------------|-------------|
| Expansion Adapter for PCI Express Slot | EAD-DE-LPE | |
| Switching AC Adapter 24VDC 6.6A | PWA-160AWD2 | |

* Visit the CONTEC website for the latest optional products.

Restrictions

This product is used in a combination with the optional expansion adapter. The following restrictions apply to the situation when the expansion adapter is connected to the expansion chassis. This product has restrictions on the types of PCs and cards that can be used. Be sure to check the following restrictions before use.

< Restrictions of PC >

This product uses the PCI-to-PCI Bridge to extend the bus. The PCI cards plugged in PCI slots in this product is recognized if the PCI-to-PCI bridge is recognized by the BIOS in the PC used. Ask the PC vendor for whether the BIOS recognizes the PCI-to-PCI bridge.

< Restrictions on transfer rate >

When the expansion chassis accommodates a card that performs high-speed transfer such as bus mastering, the overall transfer rate may be lower than that of PCI bus slots in the main unit of a desktop PC. This is caused by bus extension by the PCI-to-PCI Bridge. The transfer rate may vary with the system configuration and the type of the PC.

< Restrictions of PCI card >

None of the following cards can be plugged into any expansion slot in this product.

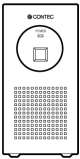
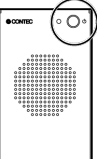

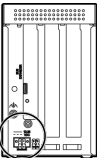
- Video display card (VGA card)
- Card to connect a PCI bus expansion chassis
- Card explicitly stated not to be used with the PCI-to-PCI Bridge

Differences from Conventional Products

Differences between the ECH-PCI-DE-H2B and ECH-PCI-DE-F2B

This product is the successor to the previous ECH-PCI-DE-H2B / F2B.

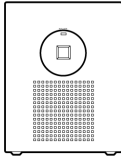

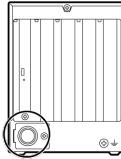
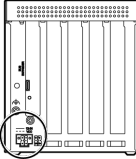
Therefore, it can be used in basically the same way.

| Item | ECH-PCI-DE-H2B / F2B | ECH-PCI-DE2-H2B |
|-------------------------------|--|---|
| Expansion slot supplied power | +5VDC 7A (Max) +3.3VDC 3A (Max) +12VDC 1.5A (Max) -12VDC 0.3A (Max) | +5VDC 7A (Max) +3.3VDC 3A (Max) +12VDC 1.5A (Max) -12VDC 0.3A (Max) |
| Rated input voltage | 100 - 240VAC | 12 - 24VDC |
| Power switch position |  |  |
| Power input position |  |  |
| Paint color | Black | Silver |
| Physical dimensions (mm) | ECH-PCI-DE-H2B 71.0(W) x 144.0(H) x 222.0(L) ECH-PCI-DE-F2B 71.0(W) x 144.0(H) x 360.0(L) | 88.0(W) x 144.0(H) x 248.0(L) |
| Weight | ECH-PCI-DE-H2B 1.2kg ECH-PCI-DE-F2B 1.6kg | 1.6kg |

Differences between the ECH-PCI-DE-H4B and ECH-PCI-DE-F4B

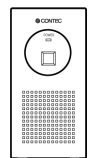
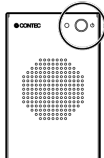
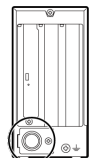
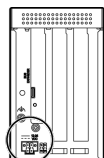
This product is the successor to the previous ECH-PCI-DE-H4B / F4B.

Therefore, it can be used in basically the same way.

| Item | ECH-PCI-DE-H4B / F4B | ECH-PCI-DE2-H4B / F4B |
|-------------------------------|--|--|
| Expansion slot supplied power | +5VDC 7A (Max) +3.3VDC 3A (Max) +12VDC 1.5A (Max) -12VDC 0.3A (Max) | +5VDC 11.3A (Max) +3.3VDC 6A (Max) +12VDC 2A (Max) -12VDC 0.5A (Max) |
| Rated input voltage | 100 - 240VAC | 12 - 24VDC |
| Power switch position |  |  |
| Power input position |  |  |
| Paint color | Black | Silver |
| Physical dimensions (mm) | ECH-PCI-DE-H4B 112.0(W) x 144.0(H) x 222.0(L) ECH-PCI-DE-F4B 112.0(W) x 144.0(H) x 360.0(L) | ECH-PCI-DE2-H4B 129.0(W) x 144.0(H) x 248.0(L) ECH-PCI-DE2-F4B 129.0(W) x 144.0(H) x 358.0(L) |
| Weight | ECH-PCI-DE-H4B 1.5kg ECH-PCI-DE-F4B 2.0kg | ECH-PCI-DE2-H4B 2.0kg ECH-PCI-DE2-F4B 2.5kg |

Differences between the ECH-PE-DE-H2B

This product is the successor to the previous ECH-PE-DE-H2B.

| Item | ECH-PE-DE-H2B | ECH-PE-DE2-H2B |
|-------------------------------|---|---|
| Expansion slot supplied power | +3.3VDC 6A (Max) +12VDC 1.5A (Max) | +3.3VDC 6A (Max) +12VDC 2A (Max) |
| Rated input voltage | 100 - 240VAC | 12 - 24VDC |
| Power switch position |  |  |
| Power input position |  |  |
| Fixing bracket | Yes | No |
| Paint color | Black | Silver |
| Physical dimensions (mm) | 71.0(W) x 144.0(H) x 222.0(L) | 88.0(W) x 144.0(H) x 248.0(L) |
| Weight | 1.2kg | 1.6kg |