EQIO

CNB-3025

PRODUCT MANUAL

15.6-inch 3U CompactPCI Portable Card Cage

Portable card platform · Data acquisition · Electrical power test



Appearance reference (generated from product photos); shipped units may differ.

Measurement and control, made easy.

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Easy · Quick · Input · Output

01 OVERVIEW

15.6-inch 3U CompactPCI Portable Card Cage

Portable card platform · Data acquisition · Electrical power test · Industrial automation · CompactPCI · Intel

CNB-3025 uses display on flip structure and dual aluminium-alloy layer housing, provides 3U CompactPCI main card and expansion card installation space, integrates 15.6-inch display, keyboard and power unit, suited to portable data acquisition, electrical power test and field measurement and control system build.

1 main card location and 4 expansion slot occupancy facilitates combination compute, acquisition and communications function, USB, network and VGA can brought out to chassis external. External adapter and internal DC power module consists of power unit, facilitates field mobile deployment.



Multi-angle reference (generated from product photos); shipped units may differ.

Key features

- 15.6-inch on flip display
- 1 8HP main card position and 4 3U expansion position
- Dual aluminium-alloy layer housing
- USB, network and VGA brought out
- 19V adapter power

02 FUNCTIONS

Functions and engineering value

Portable 3U card-cage space

Platform provides 1 8HP system main card location and 4 3U expansion slot occupancy, integrates 15.6-inch on flip display and portable operation structure. System controller requires single independent configured with, can around acquisition, communications or control board card build system, card-cage resources not can etc.same to already fully fitted test function.

Display and external I/O brought out

Display resolution 1024 × 768, 2 USB2.0, 2 RJ45 and 1 VGA via J2 connector brought out to chassis external. Actual I/O can usability and electrical definition depends on to selected system controller and matching connect, selection when needed item by item check rear I/O I/O compatible.

Power and temperature solution

Platform uses 19V external adapter and 85W DC-DC module, dual aluminium-alloy layer structure organize board and operation area. Commercial and expansion temperature version respectively configured with, main card, function card and product power cooling all require meets target operating condition, avoid only per chassis metrics determine system capability.

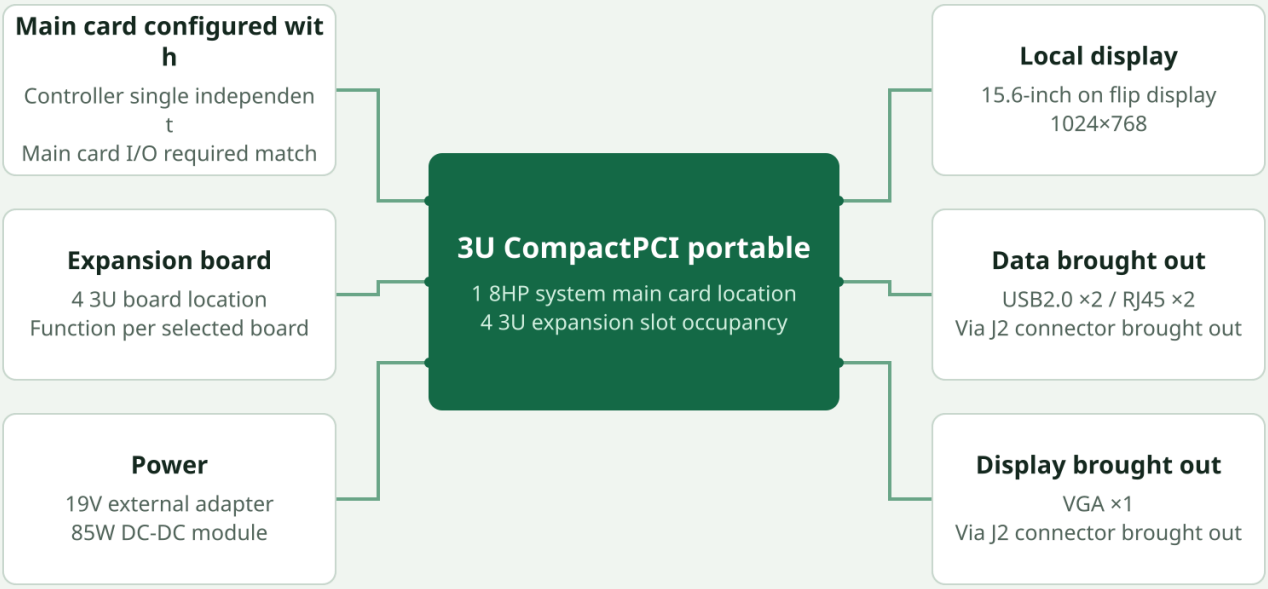
The functional notes explain the product’s role from published configuration. Optional functions, software and peripherals follow the project definition. Chip capability is not the same as implemented I/O.

03 ARCHITECTURE

Product functional architecture

FUNCTIONAL BLOCK DIAGRAM

CNB-3025



Functional relationships · lines do not show internal circuits, pins or dedicated bus topology

From published specification illustrative functional grouping, does not show internal circuits, on-board bus or signal routing; I/O direction actual protocol shall prevail. System main card and expansion board per project configured with, J2 I/O must and main card match.

Platform and I/O

This product is 3U CompactPCI portable card platform, system controller single independent configured with, not has can unified claim standard CPU. Data relationship i7-3517UE belongs to optional reference; CPU, memory, system and processing performance should main card solution determine rear complete.

> **Reading the diagram**
>
> Solid lines show published functional relationships, not on-board buses, bridge chips or connector pins. Optional controllers, radios, storage and software follow the configuration and interface files.

04 SPECIFICATIONS

Technical specifications

Compiled from published product data. Batch, I/O and environmental ratings follow the order confirmation.

Core system

Display	15.6-inch LCD display, resolution 1024 × 768
System controller configured with	System controller single independent configured with

Mechanical specifications and system requirements

Dimensions / weight	430mm (W) × 300mm (high) × 87mm (deep), weight≤6.5Kg
Material	Aluminium alloy material, inner layer: front rear bay layout, this colour brushed anodized, outer layer: one-piece housing, olive GY05 dual layer paint
Environmental ratings	Operating temperature: 0°C ~ 55°C (commercial grade), -30°C ~ 65°C (military-grade), storage temperature: -30°C ~ 65°C
Power	External adapter power, input voltage 19V; built-in 85W DC-DC power module

I/O and expansion

Circular connector I/O	Power I/O 4 core circular connector
Brought out I/O	2 USB2.0, 2 RJ45 Ethernet port, 1 VGA I/O, all via J2 connector brought out to chassis external
Slot layout	1 8HP system main card location + 4 3U expansion slot occupancy

05 COMPONENTS

Processor and device specifications

Device figures come from vendor publications and describe the chip or module. The implemented product follows the specification tables. Optional devices are supplied with the selected configuration.

Intel i7-3517UE (Optional)

Micro architecture codename	Ivy Bridge
Manufacturing process	22 nm
CPU core number	2
CPU threads number	4
Processor rated base frequency	1.70 GHz
Up to turbo	2.80 GHz
Shared cache	4 MB Intel® Smart Cache
Thermal design power consumption	17 W
CPU memory controller capacity upper limit	16 GB

Intel i7-3517UE (Optional) (continued)

CPU memory controller supports type	DDR3/DDR3L 1333/1600
Memory channel number	2
Memory controller maximum bandwidth	25.6 GB/s
CPU ECC supports	Supports
Integrates graphics unit	Intel® HD Graphics 4000
IGPU basic frequency	350 MHz
IGPU up to dynamic frequency	1.00 GHz
Chip supports display quantity upper limit	3

05 COMPONENTS

Processor and device specifications (continued)

Intel i7-3517UE (Optional) (continued)

Chip display output protocol	eDP/DP/HDMI/SDVO/CRT
CPU PCIe version	3.0
CPU PCIe channel configured with	1x16 2x8 1x8 2x4
CPU PCIe channel upper limit	16
Package	FCBGA1023
Package dimensions	31mm x 24mm
VT-x virtualization	Supports
VT-d directional I/O virtualization	Supports
Quick Sync video acceleration	Supports
Command width	64-bit

Sources: Intel, Intel i7-3517UE Processor Specifications.

06 GALLERY

Appearance and scene

Reference views



Product appearance reference; shipped units may differ.

Scene



Application illustration (not a product photo).

07 APPLICATIONS

From product capability to applications

Field data acquisition platform

System main card location configured with compatible controller, again per task installation acquisition card and communications card, uses built-in display and keyboard performs field operation. 4 expansion location channel combination provides space, sampling rate, accuracy and synchronous capability from selected board and software determines.

Portable electrical power test workstation

Can around electrical power equipment signal type selection test and isolation board card, compute, display and external connect centralized to portable chassis. 19V adapter power suited to fixed operation point deployment, input safety, insulation protection and DUT device connection method should be complete test solution stated.

Industrial equipment field bring-up

Controller and I/O card consists of can move workstation, via brought out network, USB or VGA and equipment and peripheral connection. On flip display structure facilitates equipment adjacent view data, deployment should first check main card J2 rear I/O definition, total power consumption and card-cage cooling, avoid I/O mapping not match.

Integration checks

Controller configured with	System controller single independent option, check 3U dimensions, 8HP location and backplane compatible.
Rear I/O I/O	Confirm J2 to USB, RJ45, VGA brought out definition and selected main card consistent.
Power consumption budget	All board, display and peripherals required meets 19V input and 85W module capability.
Temperature version	Commercial 0–55°C or expansion-30–65°C per product and system controller version confirm.

08 CONFIGURATION

Configuration, options and selection

Configuration

Built-in 85W DC-DC module, can paired with 3U CompactPCI controller and I/O board, provides different temperature version.

Temperature version	Commercial grade 0~55°C / other version-30~65°C; per product and selected system controller version configured with

Selection guide

Order confirmation	Batch, I/O and environmental ratings follow the order confirmation
Published data	Compiled from published product data; EQIO provides selection and system integration
Configuration talk	Share the application, I/O count, environment and software so a configuration can be proposed

Request a quotation and selection support

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EQIO

Easy · Quick · Input · Output

BRAND

Measurement and control, made easy.



EQIO product family · concept rendering

Brand story

EQIO builds measurement and control products and systems. The name stands for Easy Quick Input Output: Easy is a clear structure that is quick to learn, Quick is a direct path to efficient delivery, and Input / Output is every link between the device under test and the control system.
The soft single-cycle wave inside the Q links the brand to signals, acquisition and I/O. “Measurement and control, made easy” is our promise for every selection, integration and delivery.

What we do

Products

Data acquisition, test instruments, control and I/O, modular platforms, software, cables

Systems

Configured to the measurand, channels, accuracy and software, from design to commissioning

Support

Selection advice, training, maintenance and calibration

How we deliver

01
Requirements

02
Solution design

03
Build & integration

04
Factory test

05
Delivery & training

06
Ongoing support

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