EQIO

RMC-6417

PRODUCT MANUAL

4U Seven-Slot CompactPCI Rack Computing Platform

Rack-mount CPCI platform · Multi-channel...



Application illustration (not a product photo); shipped units may differ.

Measurement and control, made easy.

Easy · Quick · Input · Output

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01 OVERVIEW

4U Seven-Slot CompactPCI Rack Computing Platform

Rack-mount CPCI platform · Multi-channel data acquisition · Multi board measurement and control · Industrial automation · CompactPCI

RMC-6417 uses 1 system slot and 6 expansion slot 6U CompactPCI backplane, configured with dual 250W AC power and hot-swap fans module, facilitates multi I/O board integrates and module maintenance.
Dual all-aluminium-alloy layer housing settings 2 independent power location, front panel provides USB, switch and run indicator. Can combination compute, acquisition and communications module, suited to rack-mount equipment bring-up and multi-channel test, modular card-cage facilitates adjust system function.



Application illustration (not a product photo); shipped units may differ.

Key features

- 4U dual all-aluminium-alloy layer chassis
- 1 system slot and 6 expansion slot
- Dual 250W AC power module
- Hot-swap fans and side airflow
- Front panel USB and run indicator

02 FUNCTIONS

Functions and engineering value

7-slot modular system space

4U dual all-aluminium-alloy layer chassis configured with 6U 7-slot backplane, 1 system slot and 6 expansion slot used for combination compute, acquisition and communications board card. Relatively multi expansion location facilitates per task arrangement module, but bus resources, board between coordination and performance still by selected controller and function card determine.

Dual power location and power configured with

Chassis provides 2 3U 8HP power slot and configured with 2 250W AC power, facilitates organize system power. Published data not stated all stream, redundant, hot-swap or can combined and output conditions, therefore power mode, each channel capacity and fault processing should per power solution single independent confirm.

Side cooling and maintenance operation

Left in, right out airflow together with hot-swap fans module, front panel provides USB, switch and power indicator, front rear handle auxiliary maintenance. Deployment when needed leave side ventilation and module removable space, and controller, rear I/O and external wiring harness one and include cabinet layout.

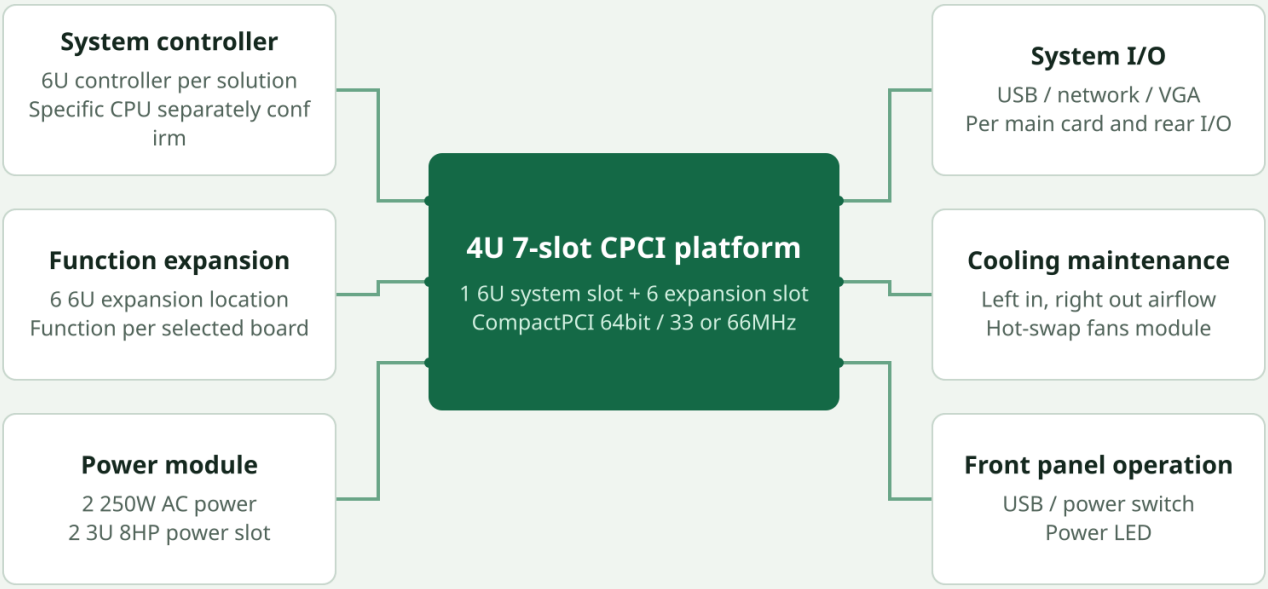
The functional notes explain the product’s role from published configuration. Optional functions, software and peripherals follow the project definition. Chip capability is not the same as implemented I/O.

03 ARCHITECTURE

Product functional architecture

FUNCTIONAL BLOCK DIAGRAM

RMC-6417



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. 2 power power mode delivery wiring shall prevail, not indicates already confirm redundant or hot-swap.

Platform and I/O

This product 6U 7-slot CompactPCI rack platform, compute resources from system slot in system controller provides. 3rd-generation Intel Core i7 only controller configured with reference, specific CPU, memory and operating system required confirm; dual 250W power also not can directly derive redundant or total can used 500W.

> **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.

Mechanics and system

Structure	All-aluminium dual layer chassis design
Front panel	Has power LED power switch, USB I/O
Handle	Front panel both sides chassis handle, rear panel fan module handle
Cooling	Left in, right out airflow design, hot-swap fans module (power 12W, fan noise≤60DB)
Process	Front rear aluminium alloy panel brushed anodized process, surface dual layer paint process

I/O and expansion

Backplane	6U 7C integrated backplane, 1 6U system slot and 6 6U expansion slot, 2 3U 8HP power slot
Backplane bus	CompactPCI®bus, 64bit/33MHz or 66MHz
Controller configuration	6U CompactPCI® 3rd-generation Intel®Core™i7 processor system controller
Standard interfaces	Main board provides USB, Ethernet port, VGA display etc.standard interfaces

Mechanical specifications and system requirements

Dimensions / weight	385.8mm × 482.6mm × 177mm (not including handle), weight≤13.0kg (not including main card)
Environmental ratings	Operating temperature: 0°C~60°C, -20°C~70°C (industrial grade), -40°C~80°C (military-grade), storage temperature: -20°C~85°C
Power configured with	250W AC power; 2 power module

05 APPLICATIONS

From product capability to applications

Multi-channel measurement and control rack

6 6U expansion location can combination acquisition, communications and control board card, system main card responsible for application run and data organize. Different module sampling, synchronous or trigger capability must separately check, 7-slot structure only provides hosts conditions, not represent pre-installed type measurement channel or instrument function.

Multi board equipment bring-up

Can target I/O required function card centralized to the same chassis, via main card and rear I/O connect external equipment, and uses front panel I/O completes maintenance. Relatively multi board together run when note bus bandwidth, power consumption and airflow assign, avoid only per single card metrics determine system behaviour.

Modular industrial control cabinet

4U rack structure suited to place fixed control cabinet, per task selection compute and I/O module, power and fan location facilitates service planning. Dual power whether handles redundant or branch power requires stated design, maintenance procedure must and actual power wiring and power-off requirements consistent.

Integration checks

Slot position planning	Confirm 1 system slot and 6 expansion slot main card, function card and rear I/O configured with.
Dual power method	2 250W not automatic represent 500W can used or redundant, confirm branch, all stream and fault.
Air stream and maintenance	Left in, right out airflow and fan removable direction required and cabinet layout match.
Version selection	Different operating temperature version respectively confirm, complete set main card and function card must meets the same target.

06 CONFIGURATION

Configuration, options and selection

Configuration

Can paired with 6U CompactPCI controller and rear I/O board, provides different operating temperature version.

Temperature version	0~60°C / -20~70°C / -40~80°C

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

Email lyping@eqio.com Phone +86 182 8191 2988
Web eqio.com

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

Email lyping@eqio.com Phone +86 182 8191 2988 Web EQIO.COM