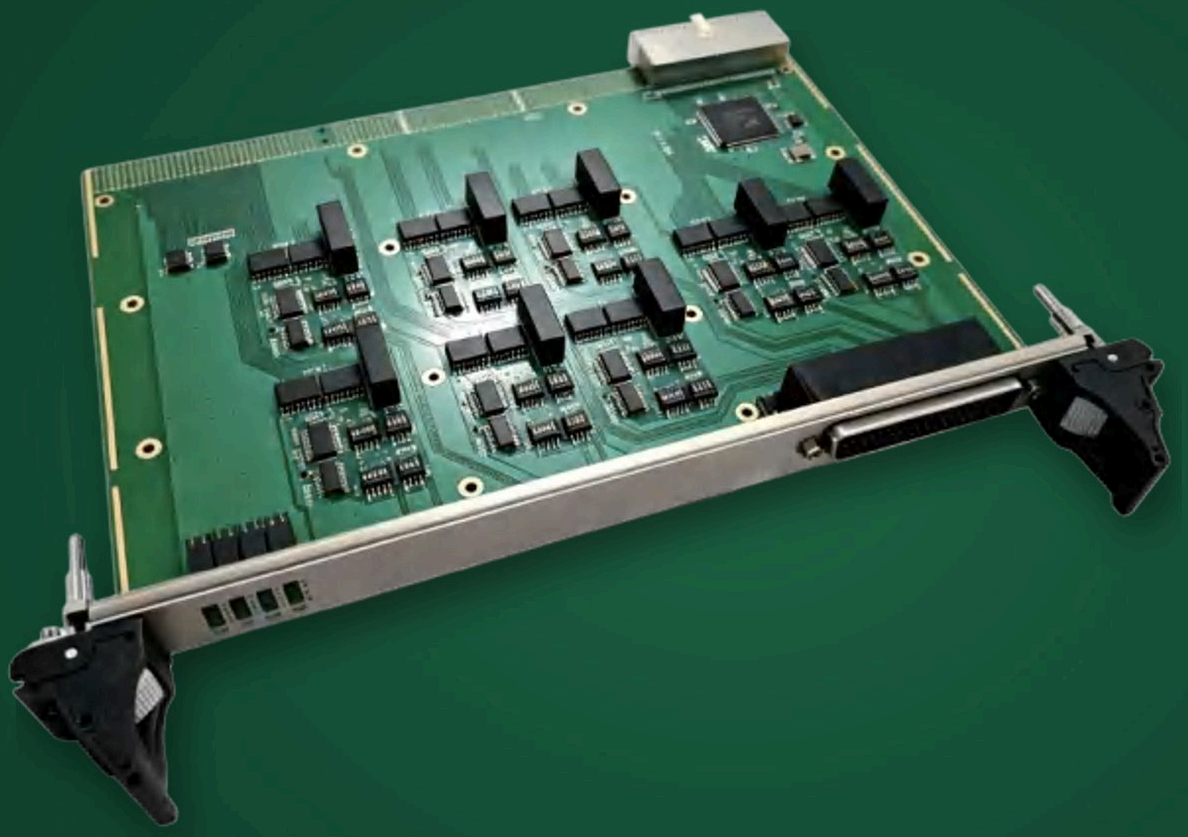
EQIO

CPCI-6038

PRODUCT MANUAL

6U CompactPCI Eight-Channel Isolated Serial Card

CPCI serial card · Industrial measuremen...



Measurement and control, made easy.

EQIO.COM

Easy · Quick · Input · Output

01 OVERVIEW

6U CompactPCI Eight-Channel Isolated Serial Card

CPCI serial card · Industrial measurement and control · Automation equipment · Serial expansion · CompactPCI

CPCI-6038 expansion 8-ch RS-232/422/485 serial, provides DB44 connect, transceiver status indicator, 1500Vrms isolated and TVS surge protection, used for multi equipment serial communications attach.
Each channel independent performs signal and power isolated, switch code optional select communications mode, facilitates connect different standard instrument and controller. Front panel provides transceiver indicator, can multi equipment attach when view link status, suited to industrial measurement and control and serial data acquisition system.



Product appearance reference; shipped units may differ.

Key features

- 8-ch independent RS-232/RS-422/RS-485
- DB44 external connector
- Single channel signal and power full isolated
- Isolated isolation voltage 1500Vrms
- TVS protection and transceiver status indicator

02 FUNCTIONS

Functions and engineering value

8-channel serial expansion

8-ch independent serial can per RS-232, RS-422 or RS-485 mode attach different industrial equipment, switch code used for selection operation method, up to rate 115.2kbps. Channel quantity provides equipment wiring basic, protocol conversion, polling and application data management still by host software implements, should each channel verification communications parameters.

Power and signal isolation

Each channel signal and power uses full isolated, rated isolated isolation voltage 1500Vrms, together with TVS device suppress transient dry interfere. Isolated and surge protection not can replace product grounding and electrical design, attach long cable or different power domain equipment when, should check signal level, display shield and terminal conditions, avoid error connect.

Centralized connect and status observe

DB44 connector centralized brought out external serial, front panel TX and RX indicator facilitates observe transceiver active, 6U 4HP/8HP form suited to match CPCI chassis. Commercial temperature, ET2 and ET4 belongs to different temperature version, driver supports should also should actual Windows or Linux system version confirm.

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

Signal and functional relationships

FUNCTIONAL BLOCK DIAGRAM

CPCI-6038



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

Only indicates functional relationship, not inferred internal controller or signal direction; DB44 wiring, switch code mode, isolated conditions and driver per delivery configured with check.

Platform and I/O

This board 8-ch serial expansion, channel isolated and host driver management forms communications function platform, not published CPU or serial controller model. External equipment via DB44 connect, operation mode by switch code selected, CPCI and operating system compatible must per delivery driver confirm, not cannot from same type VPX card inferred I/O and software same.

> **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.

Technical data

Connector type	DB44 pin type connector
Up to rate	115.2kbps adaptive
Surge protection	Built-in TVS TVS diode SMBJ7.0CA
Isolated method	Single channel signal and power full isolated; voltage isolated 1500Vrms
LED indicator	Front panel has TX, RX LED status LED
Operation method	RS-232/422/485 switch code switch switch
Operating system	Microsoft Windows®7、Red Hat Enterprise Linux

Environmental conditions

Operating temperature	Operating temperature: 0~60°C (commercial grade), -20°C~70°C (industrial grade ET2 version), -40°C~80°C (military-grade ET4 version) storage temperature: -40°C ~ 85°C
Humidity	95%non-condensing

Mechanical specifications and system requirements

Specification	6U 4HP/8HP CompactPCI®, dimensions 233.3mm × 160mm

05 APPLICATIONS

From product capability to applications

Industrial instrument serial aggregation

Multi unit serial instrument can respectively attach independent channel, from host per respective protocol send command and read data, suited to equipment centralized monitoring and log. Test when needed distinguish physical layer communications, packet format and instrument response time, transceiver indicator only note link active, not can replace data complete check.

Automation device communications expansion

To serial quantity not enough CPCI control host, can used this card expansion complies with RS-232/422/485 standard device connection. Should per actual mode make DB44 transfer wiring and log channel mapping, at the same time check RS-485 terminal and grounding configured with, driver and application software required product in bring-up.

Multi equipment bring-up and maintenance

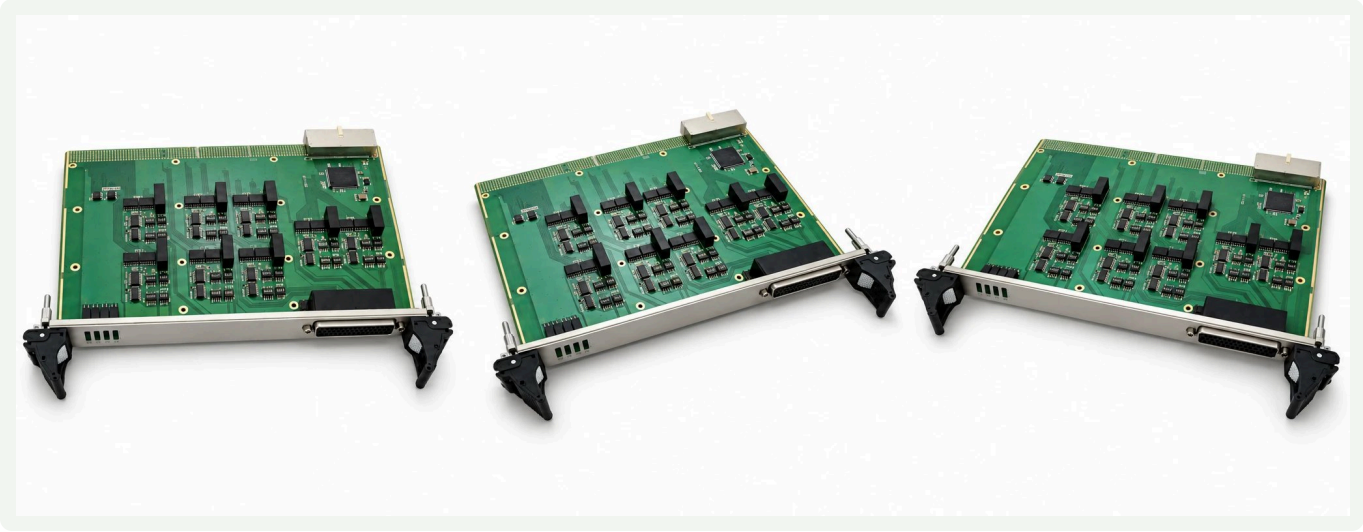
8-ch serial can used for multi device communications test bench, together with front panel transceiver indicator positioning wiring, mode or protocol issue. Project can per environment selection should temperature version, but board name in etc.grade describe not represent product already via corresponding certification, actual requirements required combined with delivery and test file confirm.

Integration checks

DB44 wiring	Check connector pinout, channel number and RS-232/422/485 operation mode, transfer wiring must and switch code settings consistent.
Communications parameters	Each channel confirm baud rate, protocol and terminal requirements, 115.2kbps up to rate, not etc.same equipment has effect data rate.
Isolated protection	Rated 1500Vrms isolated and TVS not replace system protection, check each equipment signal level, reference and cables display shield.
Version and software	Commercial temperature 0–60°C, ET2 −20–70°C, ET4 −40–80°Crespectively selection, confirm Windows7 or RHEL matching driver.

06 CONFIGURATION

Appearance, configuration and selection



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

Configuration

Up to communications rate 115.2kbps, provides commercial temperature, ET2 and ET4 temperature version, uses 6U board outline.

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

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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