EQIO

KX-610

PRODUCT MANUAL

4U 19-inch Rack-Mount Industrial Chassis

Industrial chassis · Industrial control · Communications network



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

Measurement and control, made easy.

Easy · Quick · Input · Output

EQIO.COM

01 OVERVIEW

4U 19-inch Rack-Mount Industrial Chassis

Industrial chassis · Industrial control · Communications network · Equipment system integration

KX-610 uses 4U rack structure, provides drive bay, can removal air filter unit and fan installation space, supports industrial backplane or microATX, ATX main board solution. Main board I/O and expansion slot quantity with specific installation solution configured with.
3 5.25-inch external bay and 2 3.5-inch bay facilitates arrangement storage and external equipment, front door integrates USB, indicator and power control. Chassis can around main board, function card and storage solution organize industrial host, suited to control cabinet and test system installation.



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

Key features

- 4U 19-inch rack structure
- Supports industrial backplane, microATX and ATX
- 3 5.25-inch external bay
- Can removal air filter unit
- Standard 120mm ball-bearing fan

02 FUNCTIONS

Functions and engineering value

Multi main board installation basic

4U 19-inch chassis supports industrial backplane or microATX, ATX main board solution, suited to around compute, expansion card and storage requirement organize industrial host. Different solution slot and I/O not cannot combine and unified standard, should based on final main board and backplane configured with forms system parameters.

Drive bay and front door maintenance

3 5.25-inch external bay, 1 3.5-inch external bay and 1 internal bay used for arrangement compatible drive or equipment. Front door integrates 2 USB, status indicator and control switch, can removal air filter unit facilitates clean maintenance, equipment dimensions and installation bracket required in advance check.

Cabinet power and cooling organize

Chassis equipped with 300W AC power and 120mm ball-bearing fan, can increase 80mm fan, uses anti-shock structure design. Installation when per main board, function card, drive and each voltage rail load check power margin, and according to airflow and filter unit maintenance conditions arrangement cabinet space.

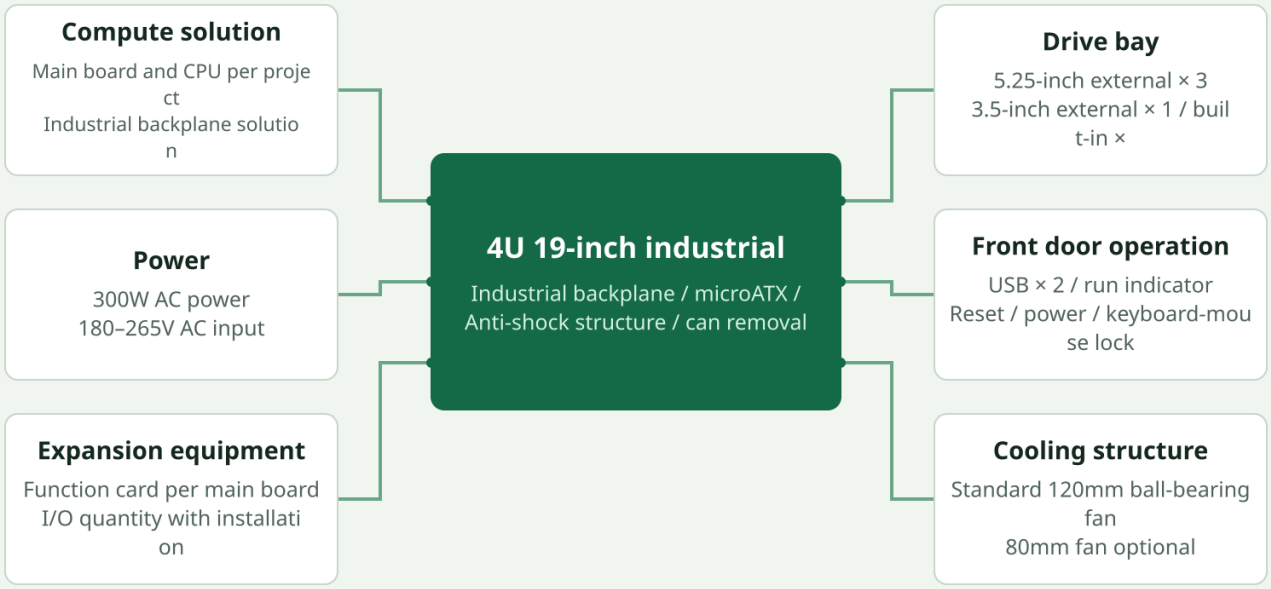
The functional notes explain the product’s role from published configuration. Optional functions, software and peripherals follow the project definition. Chip capability is not the same as implemented I/O.

03 ARCHITECTURE

Product functional architecture

FUNCTIONAL BLOCK DIAGRAM

KX-610



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. Chassis architecture not represent fixed main board I/O or CPU configured with, slot capability per installation list confirm.

Platform and I/O

This product 4U industrial chassis, not specified unified CPU. Industrial backplane, microATX or ATX main board respectively forms different installation solution, CPU, memory, PCIe channel, Ethernet port and display capability all follow selected main board; catalogue in example I/O not can directly as chassis itself fixed configured with.

> **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

Standard	EIARS-310C 19-inch rack standard
Structure	Anti-shock chassis design, front door can removal air filter unit front door with 2 USB port, run LED, reset / power / keyboard-mouse lock switch
Driver bay	3 5.25-inch external position, 1 3.5-inch external position, 1 3.5-inch internal driver position
Cooling system	Standard 1 120mm × 120mm × 25mm ball-bearing infer type fan; optional configured 80mm × 80mm × 25mm fan
Base plate and main board	14 slot industrial backplane RK-610A; supports microATX/ATX main board

I/O and expansion

PCIe/PCI extend slot	PCI: 32-bit / 33MHz × 2 PCIe x1: Gen2, 2 slot PCIe × 4: Gen3, 1 slot (limit PCIe × 2); Gen2, 1 slot (PCIe × 4) PCIe × 16:Gen3, 1 slot (limit PCIe × 8)
USB I/O	2×USB3.1 Gen1、2×USB3.1 Gen 2、4×USB2.0
Audio video output	1 group audio (Line-out+MIC-in); multi-channel display output (VGA × 1, DVI × 1, DP × 1)
Data communications	Dual Gigabit Ethernet port (2 × 10/100/1000Mbps), 2-ch RS-232/422/485 industrial serial
Peripherals and storage	Built-in PS2 keyboard and mouse I/O; 4-ch SATA600MB/s high-speed storage interfaces

04 SPECIFICATIONS

Technical specifications (continued)

Mechanical specifications and system requirements

Dimensions / weight	Housing long 451mm × wide 426.5mm × high 177mm; shipping carton 630mm × 330mm × 555mm
Environmental ratings	Operating temperature: 0°C ~ 60°C, storage temperature: -40°C ~ 85°C, 10% ~ 90%, non-condensing
Power	Input range: 180V-265V AC electrical, power 300W multi-channel maximum output: +5V 8A, +3.3V 7.5A, +12V1 7A, +12V2 12A, -12V 0.2A, -5V 0.1A, +5VBS 1A

05 APPLICATIONS

From product capability to applications

Industrial control host assembly

Optional selection suited industrial backplane or ATX type main board, again configured with control, communications and storage component, consists of cabinet internal industrial host. Product catalogue lists network, serial, display and PCIe I/O belongs to specific installation solution capability, final quantity should selected main board and expansion card confirm.

Communications and test system integration

Chassis space and drive bay can used for arrangement project required main board, I/O card and storage devices, front USB facilitates maintenance peripherals attach. PCI or PCIe card compatible must check electrical channel, length and cooling conditions, not cannot only per appearance slot long determine can used bandwidth.

Facilitates maintenance fixed workstation

Front door filter unit, run indicator and control switch facilitates arrangement daily inspection, external bay can used for compatible media equipment or other project component. 300W power and fan configured with required match actual host load, equipment long-term run when should also planning filter network clean and cables compiled.

Integration checks

Installation solution	Industrial backplane and microATX/ATX different solution, confirm main board, CPU and shipped with the unit range.
I/O belongs to	Network, serial, display, PCIe/PCI and SATA all final main board and expansion card confirm.
Power load	Power input 180–265V AC, total power 300W, each voltage rail must separately check.
Structure cooling	Check drive dimensions, card length, 120mm fan airflow and optional 80mm fan location.

06 CONFIGURATION

Configuration, options and selection

Configuration

Equipped with 300W AC power, can increase 80mm fan; system I/O with main board and expansion card solution 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

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