



KPS2204

6 Port Programmable
Serial Server

Overview

KPS2204 is a programmable serial server developed for the network applications of serial devices. KPS2204 combines Ethernet and serial data communication, and offers protocol transition between Ethernet and serial protocol.

KPS2204 is specially designed for harsh and dangerous industrial environments. It has solid and closed enclosure, fanless design with single rib heat dissipation surface, EMC protection properties for power supply over current or over voltage, EMC protection properties for RJ45 and RS232/422/485 data ports. Dual power inputs also ensure the reliability of device.

KPS2204 supports 2 10/100Base-TX RJ45 ports and 4 DB9 serial ports which can be RS232, RS422 or RS485. It is a managed device which supports TELNET, WEB and SNMP based management software. The serial device server inside the KPS2204 is based on ARM embedded platform.

Features

- 2 10/100Base-TX RJ45 ports and 4 RS232/422/485 serial ports
- Supports one-key recovery function
- Serial ports have 15KV ESD protection circuit
- Supports redevelopment function
- Interfaces and power cable offer surge protection
- Complies with EMC industrial level 4 requirements
- IP40 protection class
- Transmission protocol: support connection TCP and connection-less UDP protocols
- Network management and monitoring: supports Telnet, WEB login, SNMPv1/v2/v3, IP allocation and management by DHCP
- Network security: setting user name and password to prevent unauthorized user login
- Device management: support device upgrade by FTP/TFTP

Technical Specifications

Standard

IEEE802.3i
IEEE802.3u
IEEE802.3x

Protocol

ARP, FTP, TCP/IP, UDP, ICMP, DHCP, TCP, TFTP, Telnet, HTTP, SSL, SSH, SNMPv1/v2/v3

Switch Properties

Packet forwarding rate: 149Kpps

Interface

10/100Base-T(X) port: 2 10/100Base-T(X) RJ45 ports
Serial Port: 4 RS232/RS422/RS485 ports with DB9 connector
Bit error rate of data transmission: 0
Electrical characteristic: compliant with 3-wire RS232, 4-wire RS422 and 2-wire RS485 standards
Data bits: 5, 6, 7, 8 (Default: 8)
Stop bits: 1, 1.5, 2 (Default: 1)
Parity bit: None, Even, Odd, Space, Mark (Default: None)
Flow control: XON/XOFF (Default: XOFF)
Baud rate: 50bps-1000Kbps (Default: 9600)

LED and Button

Operation LED: Run1
Power LED: PWR1, PWR2
Interface LED: Link, ACT, TX, RX
Reset button: system reset function
Default button: system default configuration switch

Transmission Distance

Serial cable: RS232: 15m; RS422/485: 1200m
Twisted Pair: 0-100m (Standard CAT5, CAT5e network cable)

Power Requirements

Power input: 24VDC (18-36VDC), dual redundant power inputs
Power terminal: 5-Pin 5.08mm-spacing plug-in terminal block
Power consumption: <3W
Overload Protection: Support
Reverse Connection Protection: Support
Redundancy Protection: Support

Physical Characteristics

Housing: Ribbed aluminum case (fanless)
Protection class: IP40
Dimensions (WxHxD): 55.4x139x119.5 mm (2.18x5.47x4.70 in)
Weight: 0.5kg (1.102 pound)
Mounting: DIN-Rail or wall mounting

Environmental Limits

Operating Temperature: -40 to 85°C (-40 to 185°F)
Storage Temperature: -40 to 85°C (-40 to 185°F)
Ambient Relative Humidity: 5 to 95% (non-condensing)

MTBF

133,755 hrs

Warranty

5 years

Industrial Standard

EMI:
FCC Part 15 (Class A), CISPR (EN55022) Class A

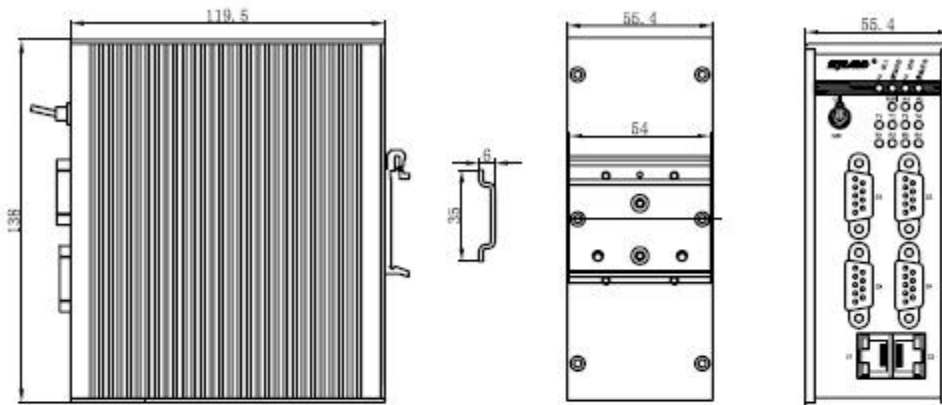
EMS:

IEC61000-4-2 (ESD): contact discharge $\pm 8KV$, air discharge $\pm 15KV$
IEC61000-4-3 (RS): 10V/m, 80MHz-2GHz
IEC61000-4-4 (EFT): power line $\pm 4KV$; data line $\pm 2KV$
IEC61000-4-5 (Surge): N-N: 2KV; N-G: 4KV (1.2/50us, 8/20us)
IEC61000-4-6 (CS): conduction 10V (0.15-80MHz)

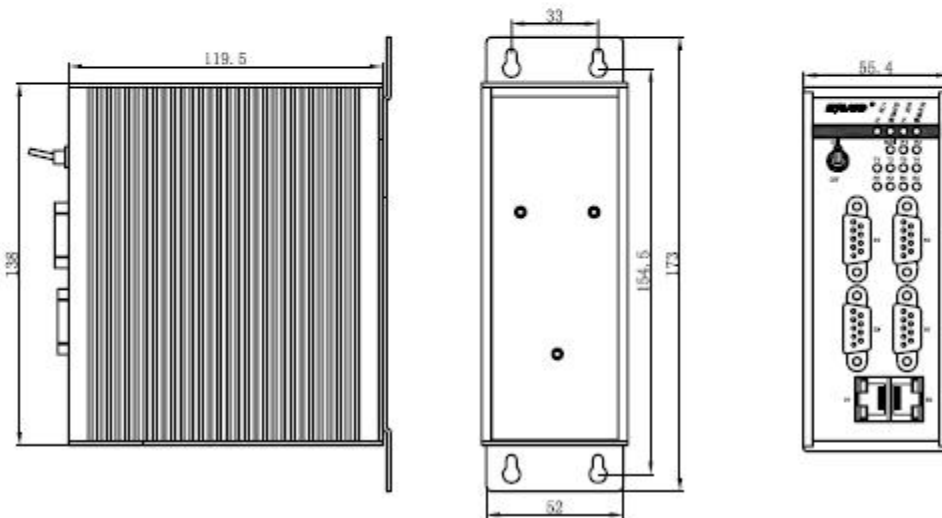
IEC61000-4-8 (Power frequency magnetic field): 100A/m cont. 1000A/m, 1s to 3s
 IEC61000-4-9 (Pulse magnetic field intensity): 1000A/m
 IEC61000-4-10 (Damped oscillation magnetic field): 100A/m
 IEC61000-4-12 Test voltage: common mode 2.5KV, differential mode 1KV; Test frequency: 1MHz
 IEC61000-4-16 (Common mode conduct interference immunity): 30V cont. 300V, 1s

Machinery:
 Shock: IEC68-2-27, duration of the half-sine pulse: 11ms, peak acceleration: 300m/s²
 Free Fall: IEC68-2-32, Mass<20Kg: 0.25m
 Vibration: IEC68-2-6, vibration amplitude: 7mm, acceleration amplitude: 20-15, frequency range: 2-9Hz 9-200Hz 200-500Hz

Mechanical Drawing



DIN-Rail



Wall Mounting

Ordering Information

Model	Description
KPS2204-2T-4D-232/422/485	2 10/100Base-TX RJ45 port and 4 RS232/422/485 serial ports, 24VDC (18-36VDC), dual redundant power inputs
KPS2204-2T-4D-232/422/485-Ping-pong switch	2 10/100Base-TX RJ45 port and 4 RS232/422/485 serial ports with Ping-pong switch, 24VDC (18-36VDC), dual redundant power inputs

Accessories

DT-BGAZ-A-02 Wall mounting panel
 DT-FCZ-RJ45-01 RJ45 dustproof cover

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