

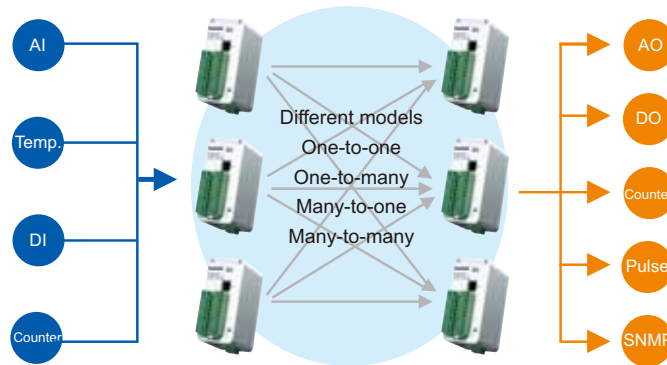
Jet/I/O Series Industrial Intelligent Ethernet I/O

Jet/I/O series are award winning Intelligent I/O Servers for distributive monitoring and control. Korenix's true Peer to Peer discrete Ethernet I/O devices are equipped with one Ethernet port and multiple Analog Input/Output, Digital Input/Output channels as well as temperature measurement (thermocouple, RTD) connectors. Users can easily perform I/O data collection, status modifications and automatically receive active events through the Ethernet network. Outstanding intelligent design of interoperable and cost-effective modules with IP31 grade protection makes them perfect solutions to address vast needs of severe industrial applications.

Peer to Peer IO – Efficient Solution to Extend IO Signals

Jet/I/O series support advanced peer-to-peer remote I/O function for extending IO signals over an Ethernet or IP network. With this enhancement, all Jet/I/O modules, including analog input, analog output, temperature detection, digital input/output models, can interact with one another in a flexible, effective manner by building a real-time network communication and thus allowing users to save energy and reduce network traffic.

The logic result of I/O channels from one Jet/I/O device can be sent to more than one peer Jet/I/O devices, without additional intermediate controller, for modifying their channel status. The communication is very flexible, including “one-to-one”, “one-to-many”, “many-to-one”, as well as “many-to-many” scenarios. With their flexible design, the AO/DO/Counter/Pulse channels can remotely react to the AI/Temperature/DI/Counter channels.



Outstanding Remote Peer-to-Peer I/O

While most Ethernet I/O products in the market support limited peer-to-peer function and communicate with one another only by broadcast, all Korenix Jet/I/O series support peer-to-peer function, thus communicating more effectively. Unlike broadcasting communication, where the broadcast packets are limited within a LAN segment,

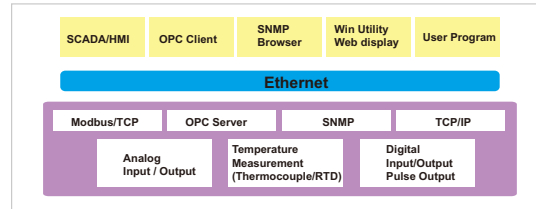
each Jet/I/O device with advanced peer-to-peer I/O function can configure up to 8 Unicast IP addresses of the peers. This greatly reduces network traffic, saves all devices' computing power, as well as makes peer-to-peer activity across a LAN segment easily.

- All product specifications are subject to change without further notice.
- Before applying to critical projects, please contact Korenix headquarter for up-to-date product specifications' consultancy.

Intelligent Ethernet I/O Server Architecture

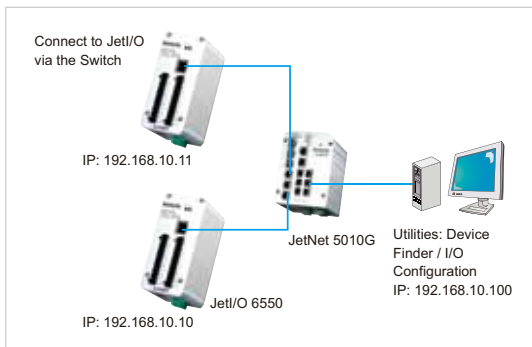
Besides the Peer to Peer functionality of JetI/O series, which allows the I/O devices to directly communicate with each other, the JetI/O Modules are built on RISC-based processors, integrate embedded OPC server and are developed also for operating through the Modbus/TCP protocol in LAN networks or via Internet.

JetI/O series incorporate an Intelligent Ethernet I/O Server Architecture (see the figure). The top level of the diagram shows the typical applications running in the remote I/O Environment. The middle level is the



Ethernet infrastructure. The bottom level blocks include the software agent and signal types of the JetI/O 6500 series intelligent Ethernet I/O Server.

Flexible Remote Management



JetI/O series Intelligent I/O Servers provide several types of remote management methods and allow users to integrate JetI/O within their existing system or applications. Administrators simply need to know the device's IP address, and they can remotely control or monitor the I/O channels' information.

Various remote management methods include Modbus/TCP and built-in OPC Server for easily integrating JetI/O devices with SCADA/HMI industrial applications. I/O Configuration and OPC Server Utilities, SNMP, SNMP Trap and Web browser display are available for convenient configurations.

Modbus/TCP

Developed by Gould-Modicon, the Modbus protocol is widely used in industrial communications to integrate PLCs, computers, terminals and various other I/O devices. The MODBUS messaging service provides a Client/Server communication between devices connected on an Ethernet TCP/IP network. The unit can act as client, server or simultaneously both. The client initiates Modbus requests, and then the server (one of the JetI/O) responds by supplying the requested data or exception when an error occurs. Modbus/TCP uses encoded

Protocol Data Unit:

The MODBUS protocol defines a simple protocol data unit (PDU) independent of the underlying communication layers.

Address: Indicate Modbus/RTU or TCP address

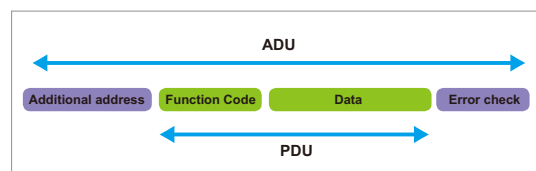
Function Code: The field tells the addressed server what function to perform.

Data: The field contains the requested or sent data.

Error Check: Contents of the Error Checking Field



binary data and TCP/IP's error detection mechanism to enable temperature and humidity measurement, then communicating the result between the connected devices.



- Industrial Intelligent NMS
- Rackmount PoE Plus Switch
- Industrial PoE Plus Switch
- Industrial 12-24V PoE Switch
- Industrial PoE Switch
- Rackmount L3/L2 Switch
- Gigabit Managed Switch
- Managed Ethernet Switch
- Entry-level Switch
- Wireless Outdoor AP
- Embedded PoE/Router Computer (LINUX)
- Industrial Communication Computer (WIN/LINUX)
- Ethernet/PoE/Serial Board
- Ethernet I/O Server
- Media Converter
- Serial Device Server
- SFP Module
- Din Rail Power Supply

Function Code:

The Intelligent Jet/I/O Server uses a subset of the standard Modbus/TCP function codes to access

device-dependent information. Modbus/TCP function code is defined as below.

FC	Name	Usage
01	Read Coils	Read the state of a digital output
02	Read Input Status	Read the state of a digital input
03	Read Holding Register	Read holding register in 16-bits register format
04	Read Input Registers	Read data in 16-bits register format
05	Write Coil	Write data to force a digital output ON/OFF
06	Write Single Register	Write data in 16-bits register format
15	Force Multiple Coils	Write data to force multiple consecutive coils

OPC Server



OPC stands for OLE for Process Control. In tradition, it's hard to interoperate among different systems and devices. The OPC Standard defines methods for exchanging data between the clients, using MS operating system. Thus, it makes a possible interoperability between the device providers and can easily be implemented by HMI, SCADA, Control and custom applications.

Why do you need the Jet/I/O OPC Server Utility?

- Easy to use: The utility pre-defines the tags for all the channels. The tags are the basic units to control or monitor the devices' configuration and status. It is easy to use by providing 3 Simple steps to create tags: Add New Device -> Configure Device Properties -> Generate Tag
- Saves development time: Using the "Generate Tags" feature, users can easily generate tags for all channels of each product. With the "Simulate I/O" feature, users can practice and develop projects without accessing the physical device.
- Cost-Effective: The utility is installed with the Block I/O Configuration utility. It is a free and convenient tool when you purchase Korenix Jet/I/O 6500 Series. The OPC Server utility can save the cost of buying 3rd party OPC Server development tool as well as save engineer time loading.
- Highly Compatible: Korenix Jet/I/O supports OPC Server for Modbus/TCP. The OPC Server driver can be called by different OPC Clients, HMI or SCADA.

Condition-&-Go: Simple Rule to Smarter IO Configuration

The "Condition & Go" logic rule provides one-time operation for Conditions and Actions of the same entry. The theory is the same as the "IF-Then" rule. The rules are easy to practice. Users don't need to acknowledge extra program script to configure it. Thus, when the "Conditions" are reached, the system automatically activates the "Actions".

The maximum number of "Condition & Go" logic rules that Jet/I/O 6500 series supports is 8. Each rule can support up to 4 different conditions and 4 different actions. The supported conditions and actions are listed here:

Condition		Action	
DI - Channel	ON, OFF, ON to OFF, OFF to ON	DI - Channel	ON, OFF
Event Counter - Channel	=, >, <, ≤, ≥	Event Counter - Channel	Reset
Counter Value	(number)	Counter Value	Start or Stop
Relation between Conditions	OR or AND	SNMP	(Trap Server IP)

Korenix Product Selection Guide – Industrial Intelligent Ethernet IO



Jet/O 6510



Jet/O 6511



Jet/O 6512



Jet/O 6520



Jet/O 6550

	Analog Input	Analog/Thermocouple Input	RTD Input	Analog Output	Digital Input/Output
Analog Input					
Channel	8	8	4		
Resolution	16 bits	16 bits	16 bits		
Input Range	±10V, ±5V, ±1V, ±500mV, ±150mV, ±20mA	K/J/N/C/E/B/T/R/S Thermocouple; ±2.5V, ±1V, ±500mV, ±100mV, ±50mV, ±15mV, ±20mA	RTD: PT100, NI 120		
Analog Output					
Channel				4	
Resolution				12 bits	
Output Range				0-10V, ±10V; 0-20mA	
Digital Input					
Channel					14
Input Mode					DI/Event Counter
Driving Capacity					Logic 1: 30Vmax / Logic 0: 0-4V
Digital Output					
Channel					8
Output Mode					DO/Pulse Output
Driving Capacity					5-40V range, 250mA max
Mechanical					
Dimension (mm)	120 (H) x 55 (W) x 75 (D)			120 (H) x 55 (W) x 75 (D)	
Mounting	Din Rail Mount			Din Rail Mount	
Case Protection	Rigid Aluminum with IP31 Protection			Rigid Aluminum with IP31 Protection	
Operating Temperature	-25 ~ 70°C			-25 ~ 70°C	
Feature					
Isolation	2500Vrms			2500Vrms	
Peer to Peer	●	●	●	●	●
Unicast	●	●	●	●	●
Modbus/TCP	●	●	●	●	●
OPC Server	Free	Free	Free	Free	Free
Window Utility	●	●	●	●	●
SNMP	●	●	●	●	●
Active I/O	●	●	●	●	●
Condition&Go Logic, P2P Mapping	●	●	●	●	●
SDK (VB, VB. NET, VC++, BCB, C#)	●	●	●	●	●
Others	Web Display, DHCP Client, BootP Upgrade, TCP/IP			Web Display, DHCP Client, BootP Upgrade, TCP/IP	
Certification					
Regulatory Approvals: CE / FCC	●	●	●	●	●
RoHS/WEEE	●	●	●	●	●

JetI/O 6500 Series

Intelligent I/O Server



Common Key Feature

- Intelligent Ethernet Block I/O Server
- Complete solution with multiple Analog Input/Output, Digital Input/Output and temperature measurement (Thermocouple, RTD) channels
- Accurate temperature measurements with cold junction compensation
- Supports PT100, Ni120 RTD Input
- Active alarm for High/Low Voltage/Current/Temperature through SNMP trap
- Intelligent Condition&Go (If-Then) logic rules for DI/DO
- Flexible peer-to-peer I/O through one-to-one, one-to-many, many-to-one, and many-to-many communication
- Support OPC Server Driver
- Windows Utility, OPC Server Utility, Modbus/TCP protocol, SNMP and Web display
- Built-in watchdog timer and real-time clock
- Din-Rail Mount, Robust Aluminum case with IP31 protection

Overview

JetI/O 6500 series are Intelligent I/O Servers for distributive monitoring and controls. The JetI/O 6500 series is equipped with one Ethernet port and multiple Analog Input/Output, Digital Input/Output and temperature measurement connector channels. Users can easily perform I/O data collection, status modifications and automatically activate events.

JetI/O 6500 series provides an I/O configuration utility, OPC Server utility, SNMP and web for configuration. JetI/O 6500 supports Modbus/TCP protocol which is used in most industrial environments. OPC Server driver for Modbus/TCP is also provided, allowing users to easily monitor and control the remote I/O devices and integrate the JetI/O with existed HMI/SCADA package.

Ethernet-based Intelligent I/O server

Jet/I/O 6500 series is the Standalone Ethernet based intelligent I/O server. Since Jet/I/O 6500 series is vertically Din-Rail mounted, users can easily install the Jet/I/O in a control box, and install cables within a limited space. Jet/I/O 6500 series supports multiple channels Analog Input, Analog Output, Digital Input, Digital Output

and Temperature measurement, like Thermal Couple Input and RTD Input channels. The RJ45 Ethernet port allows the user to configure the settings, provide system maintenance, poll the information/status, monitor I/O status, program logic rules and alarm events over network.

Modbus / TCP and OPC Server Compatibility

Jet/I/O 6500 series supports Modbus/TCP protocol, which is the most common protocol for communicating between the industrial electronic devices over TCP/IP. Modbus/TCP uses binary encoding of data and TCP/IP's error detection mechanism for connected devices.

Jet/I/O 6500 series also provides OPC Server for Modbus/TCP, so that users can easily generate tags for all channels. Thus the OPC client, HMI and SCADA applications can easily integrate the Jet/I/O devices.

Easy Configuration & Maintenance

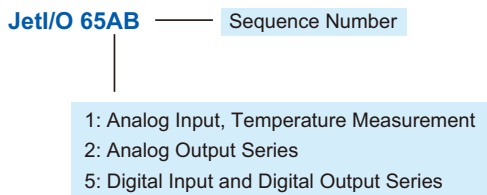
Jet/I/O 6500 series provides several Windows based management utilities, for Device and I/O interface management.

The I/O configuration utility allows user to discover the Jet/I/O in the same subnet, configure the I/O interface's settings, configure the alarm setting and SNMP Trap server and also monitor I/O status. The Device Finder allows user to upgrade firmware and view the device settings.

The built-in OPC Server for Modbus can help the

HMI/SCADA system to poll the information of the Jet/I/O devices. Users can also use the Modbus/TCP to configure and monitor the I/O devices. Traditionally, the periodical polling data brings down the network performance while most of the I/O information/status is not changed. The intelligent alarm notification allows users to configure the rules for pre-defined alarms and assign the target IP of the SNMP Traps servers, then the Jet/I/O automatically updates the changed info/status to the SNMP Trap server. This makes maintenance easy.

Naming Rule



- Industrial Intelligent NMS
- Rackmount PoE Plus Switch
- Industrial PoE Plus Switch
- Industrial 12-24V PoE Switch
- Industrial PoE Switch
- Rackmount L3/L2 Switch
- Gigabit Managed Switch
- Managed Ethernet Switch
- Entry-level Switch
- Wireless Outdoor AP
- Embedded PoE/Router Computer (LINUX)
- Industrial Communication Computer (WIN/LINUX)
- Ethernet/PoE/ Serial Board
- Ethernet I/O Server**
- Media Converter
- Serial Device Server
- SFP Module
- Din Rail Power Supply

Jet/O 6510

Intelligent 8-CH Analog Input Ethernet I/O Server



Best IO Modules of Automation-2009



- Ethernet Block I/O with 8 Channel Analog Input from 150mV to 10V, 20mA
- 16 bits resolution and high accuracy
- High/Low Voltage/Current active alarm
- Intelligent Condition&Go (IF-Then) logic rules
- Flexible peer-to-peer I/O through one-to-one, one-to-many, many-to-one, and many-to-many communication
- Unicast for network efficiency and true remote I/O
- Free OPC server and Modbus/TCP support
- Built-in watchdog timer and real-time clock
- SNMP / Web for easy configuration and management
- IP31 grade case protection
- -25~70°C operating temperature for hazardous environmental application

CE FC RoHS

8-CH Analog Input	P2P	SDK
Modbus/TCP	Free OPC	IP31

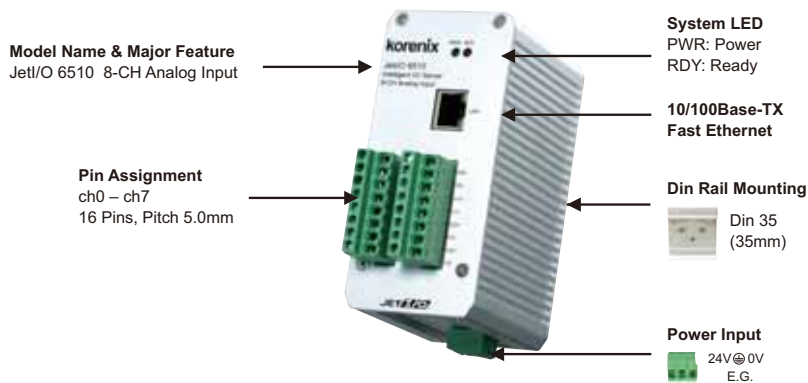
Overview

Jet/O 6510 is an intelligent I/O server equipped with one Ethernet port and 8 Analog Input channels.

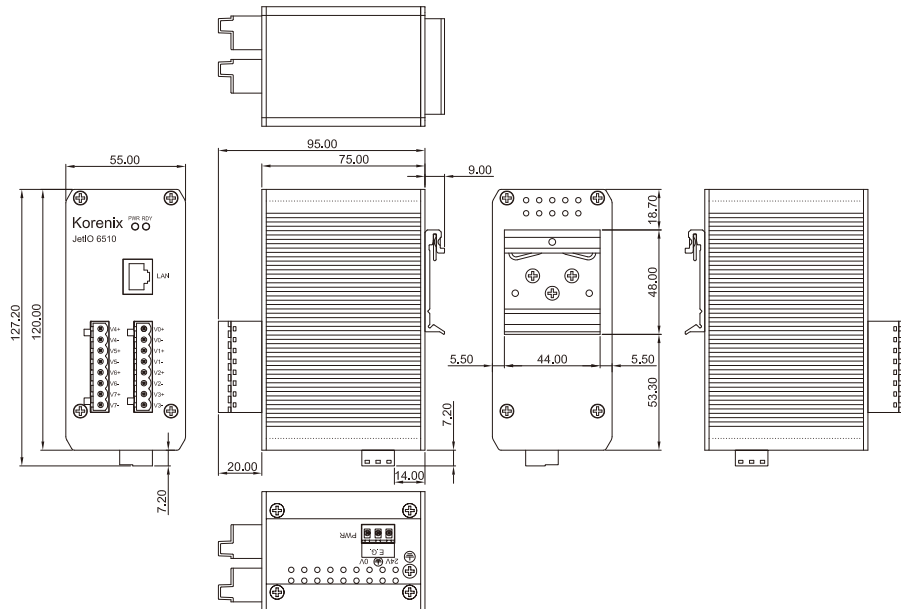
Jet/O 6510 provides 16 bits resolution and high accuracy for I/O data collecting. The analog input range can support from 150mV to 10V and 20mA. The values are most adopted in the industrial environment.

Jet/O 6510 provides Windows Utilities, SNMP and Web configuration, industrial Modbus/TCP protocol and OPC Server driver for integrating Jet/O with existing HMI/SCADA. It also features robust aluminum case with good heat dispersing and IP31 protection. With Jet/O, users can easily perform status monitoring and control of remote I/O devices.

Jet/O 6510 Appearance



Dimensions (Unit = mm)



Industrial Intelligent NMS
Rackmount PoE Plus Switch
Industrial PoE Plus Switch
Industrial 12-24V PoE Switch
Industrial PoE Switch
Rackmount L3/L2 Switch
Gigabit Managed Switch
Managed Ethernet Switch
Entry-level Switch
Wireless Outdoor AP
Embedded PoE/Router Computer (LINUX)
Industrial Communication Computer (WIN/LINUX)
Ethernet/PoE/Serial Board
Ethernet I/O Server
Media Converter
Serial Device Server
SFP Module
Din Rail Power Supply

Specifications

System

CPU: 100MHz, RISC-Based
SDRAM: 32K bytes
Flash ROM: 512K bytes
EEPROM: 256 bytes
Watchdog Timer: 1.0 sec H/W
LED:
 PWR: Power Input plugged and On (Green)
 RDY: System startup ready (Red)

Network Interface

Ethernet: IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX
Connector: 1 * RJ45, Auto MDI/MDI-X
Protection: Built-in 1.5 KV magnetic isolation protection
LED:
 Upper (LAN Activity): Orange On & Blinking
 Lower(10M/100M): 10M (Green Off) /100M(Green ON)

Analog Input

Channels: 8 Differential
Resolution: 16 bits
Input Range: Voltage: ±10V, ±5V, ±1V, ±500mV, ±150mV
Current: ±20mA with external 125Ω resistor
Accuracy: ±0.05% of FSR ±1LSB
Sampling Rate: 10 samples/sec (total)
Input Impedance: 10 MΩ
Calibration: On Board EEPROM
Isolation Voltage: 2500Vrms

Feature

Network Protocols: IP, TCP, UDP, SNMP, HTTP, BOOTP, DHCP, Modbus/TCP, OPC Server
Configuration: Windows Utility, SNMP, Web, DHCP Client, BootP for firmware update
Flexible peer-to-peer I/O: one-to-one, one-to-many, many-to-one, and many-to-many communication
Windows Utility: Block I/O Utility
OPC Server Utility: OPC Server for Modbus/TCP
SNMP: MIB-II: System, SNMP Trap and Private MIB
SNMP Trap Server: Up to 4 SNMP Trap Server
I/O Rules: High-/Low- Voltage/Current alarms
Logic Condition&Go Rules: Conditions of the AI values, Actions include the Trap

Power Requirement

System Power: external unregulated +24V (18-32V)

Power Consumption: Max. 3.2 W

Mechanical

Dimensions: 120 (H) x 55 (W) x 75 (D) mm

Mounting: Din-Rail

Material: Aluminum

Environmental

Regulatory Approvals: CE, FCC Class A

Operating Temperature: -25 ~ 70°C

Operating Humidity: 0 ~ 95% non-condensing

Storage Temperature: -40 ~ 80°C

Warranty: 3 years

Ordering Information

Jet/I/O 6510 Intelligent 8-CH Analog Input Ethernet I/O Server

JetI/O 6511

Intelligent 8-CH Thermocouple Input Ethernet I/O Server



Best IO Modules of Automation-2009



CE FC RoHS

- 8-CH Thermocouple
- P2P
- SDK
- Modbus/TCP
- Free OPC
- IP31

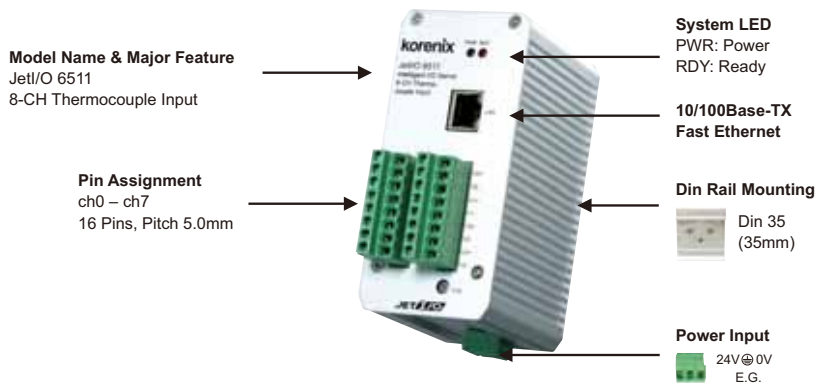
- Ethernet Block I/O with 8 Channel Thermocouple Input, low voltage and wide range current Analog Input
- 16 bits resolution and high accuracy
- Accurate measurements with cold junction compensation
- High/Low Temperature/Current/voltage active alarm
- Intelligent Condition&Go (IF-Then) logic rules
- Flexible peer-to-peer I/O through one-to-one, one-to-many, many-to-one, and many-to-many communication
- Unicast for network efficiency and true remote I/O
- Free OPC server and Modbus/TCP support
- Built-in watchdog timer and real-time clock
- SNMP / Web for easy configuration and management
- IP31 grade case protection
- -25~70°C operating temperature for hazardous environmental application

Overview

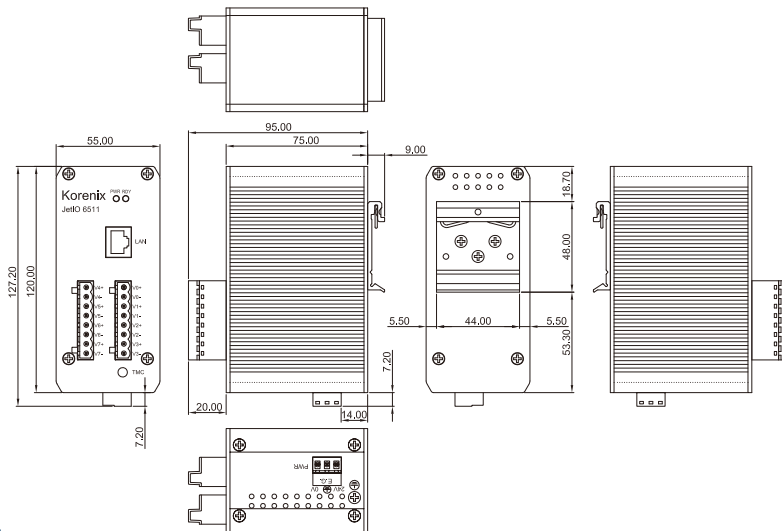
JetI/O 6511 is an intelligent I/O server equipped with 8 Thermocouple Input channels, low voltage and wide range current Analog Input. JetI/O 6511 provides 16 bits resolution and high accuracy for temperature measurement. To make accurate measurements, the temperature can be compensated by cold junction compensation (CJC).

JetI/O 6511 provides Windows Utilities, SNMP and Web configuration, industrial Modbus/TCP protocol and OPC Server driver for integrating JetI/O with existing HMI/SCADA. It also features robust aluminum case with good heat dispersing and IP31 protection. With JetI/O, users can easily perform status monitoring and control remote I/O devices.

JetI/O 6511 Appearance



Dimensions (Unit = mm)



Specifications

System

CPU: 100MHz, RISC-Based
SDRAM: 32K bytes
Flash ROM: 512K bytes
EEPROM: 256 bytes
Watchdog Timer: 1.0 sec H/W

LED:

PWR: Power Input plugged and On (Green)
RDY: System startup ready (Red)

Network Interface

Ethernet: IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX
Connector: 1 * RJ45, Auto MDI/MDI-X
Protection: Built-in 1.5 KV magnetic isolation protection

LED:

Upper (LAN Activity): Orange On & Blinking
Lower(10M/100M): 10M (Green Off) /100M(Green ON)

Thermocouple / Analog Input

Channels: 8 Differential

Resolution: 16 bits

Input Type: Thermocouple (T/C), mV, V, mA

Input Range: Voltage: ±2.5V, ±1V, ±500mV, ±100mV, ±50mV, ±15mV

Current: ±20mA with external 125Ω resistor

Temperature Input Range: K/J/N/C/E/B/T/R/S type T/C

Type	Range
K	-100°C ~ 1000°C
J	-100°C ~ 900°C
N	-270°C ~ 1300°C
C	10°C ~ 2310°C
E	-240°C ~ 2310°C
B	0°C ~ 1800°C
T	-270°C ~ 400°C
R	-50°C ~ 1530°C
S	-50°C ~ 1700°C

T/C Open Circuit Detection: Yes

Accuracy: ±0.01% of FSR ±1LSB

Sampling Rate: 10 samples/sec (total)

Input Impedance: 10 MΩ

Calibration: On Board EEPROM

Isolation Voltage: 2500Vrms

Feature

Network Protocols: IP, TCP, UDP, SNMP, HTTP, BOOTP, DHCP, Modbus/TCP, OPC Server

Configuration: Windows Utility, Web, SNMP, DHCP Client, BootP for firmware update

Flexible peer-to-peer I/O: one-to-one, one-to-many, many-to-one, and many-to-many communication

Windows Utility: Block I/O Utility

OPC Server Utility: OPC Server for Modbus/TCP

SNMP: MIB-II: System, SNMP Trap and Private MIB

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I/O Rules: High-/Low- Voltage/Current alarms

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Power Requirement

System Power: external unregulated +24V (18-32V)

Power Consumption: Max. 3.2 W

Mechanical

Dimensions: 120 (H) x 55 (W) x 75 (D) mm

Mounting: Din-Rail

Material: Aluminum

Environmental

Regulatory Approvals: CE, FCC Class A

Operating Temperature: -25 ~ 70°C

Operating Humidity: 0 ~ 95% non-condensing

Storage Temperature: -40 ~ 80°C

Warranty: 3 years

Ordering Information

Jet/I/O 6511 Intelligent 8-CH Thermocouple Input Ethernet I/O Server

Industrial Intelligent NMS

Rackmount PoE Plus Switch

Industrial PoE Plus Switch

Industrial 12-24V PoE Switch

Industrial PoE Switch

Rackmount L3/L2 Switch

Gigabit Managed Switch

Managed Ethernet Switch

Entry-level Switch

Wireless Outdoor AP

Embedded PoE/Router Computer (LINUX)

Industrial Communication Computer (WIN/LINUX)

Ethernet/PoE/ Serial Board

Ethernet I/O Server

Media Converter

Serial Device Server

SFP Module

Din Rail Power Supply

Jet/O 6512

Intelligent 4-CH RTD Input Ethernet I/O Server



Best IO Modules of Automation-2009



CE FC ~~RoHS~~ RoHS

- 4-CH RTD
- P2P
- SDK
- Modbus/TCP
- Free OPC
- IP31

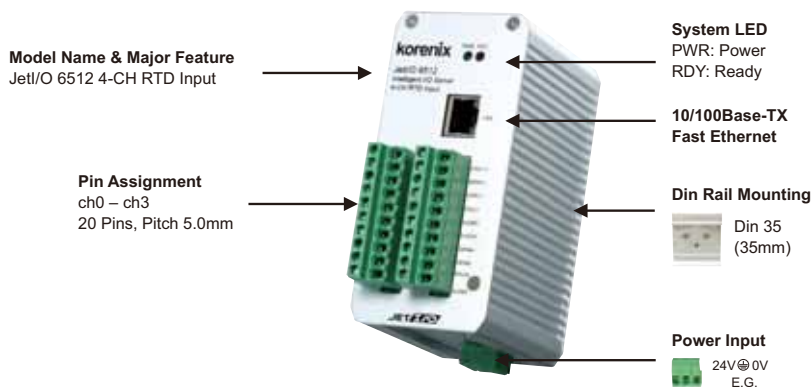
- Ethernet Block I/O with 4 Channel RTD Input
- 16 bits resolution and high accuracy
- Supports 3-/4-/5-wire PT100, Ni120 types RTD
- High/Low Temperature active alarm
- Intelligent Condition&Go (IF-Then) logic rules
- Flexible peer-to-peer I/O through one-to-one, one-to-many, many-to-one, and many-to-many communication
- Unicast for network efficiency and true remote I/O
- Free OPC server and Modbus/TCP support
- Built-in watchdog timer and real-time clock
- SNMP / Web for easy configuration and management
- IP31 grade case protection
- -25~70°C operating temperature for hazardous environmental application

Overview

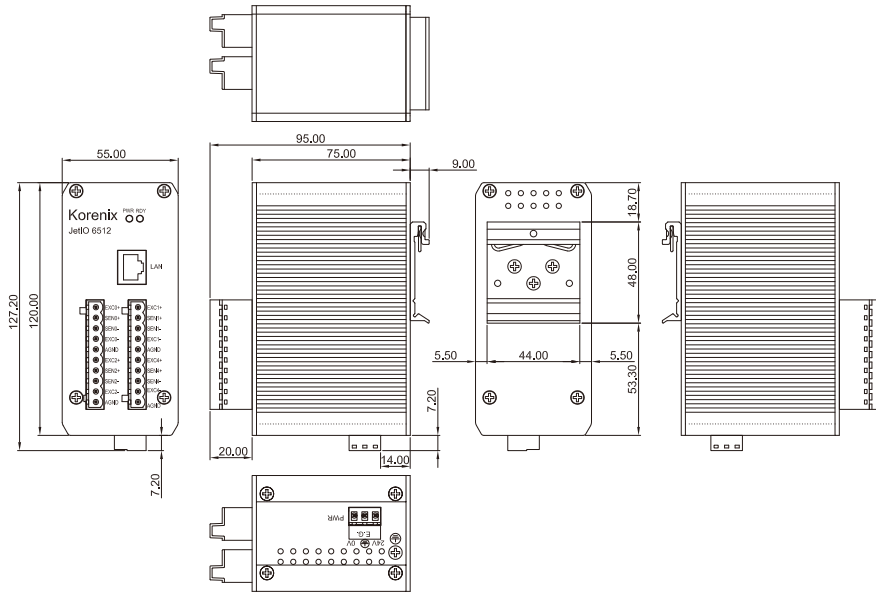
Jet/O 6512 is an intelligent I/O server equipped with 4 RTD Input channels. Jet/O 6512 provides 16 bit resolution and high accuracy for temperature measurement. The supported RTD types include PT100 and Ni120. The temperature range is from -100 to 600°C. Jet/O 6512 provides Windows Utilities, SNMP and

Web configuration, industrial Modbus/TCP protocol and OPC Server driver for integrating Jet/O with existing HMI/SCADA. It also features robust aluminum case with good heat dispersing and IP31 protection. With Jet/O users can easily perform status monitoring and control remote I/O devices.

Jet/O 6512 Appearance



Dimensions (Unit = mm)



Industrial Intelligent NMS
Rackmount PoE Plus Switch
Industrial PoE Plus Switch
Industrial 12-24V PoE Switch
Industrial PoE Switch
Rackmount L3/L2 Switch
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Entry-level Switch
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Specifications

System

CPU: 100MHz, RISC-Based
SDRAM: 32K bytes
Flash ROM: 512K bytes
EEPROM: 256 bytes
Watchdog Timer: 1.0 sec H/W
LED:
 PWR: Power Input plugged and On (Green)
 RDY: System startup ready (Red)

Network Interface

Ethernet: IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX
Connector: 1 * RJ45, Auto MDI/MDI-X
Protection: Built-in 1.5 KV magnetic isolation protection
LED:

Upper (LAN Activity): Orange On & Blinking
 Lower(10M/100M): 10M (Green Off) /100M(Green ON)

RTD Input

Channels: 4 channels RTD
Resolution: 16 bits
Input Type: Pt100 and Ni120 RTD
Input Connections: 3, 4 or 5 wire
Input Range:
 Pt100 (-100°C~100°C $\alpha=0.00385$)
 Pt100 (0°C~100°C $\alpha=0.00385$)
 Pt100 (0°C~200°C $\alpha=0.00385$)
 Pt100 (0°C~600°C $\alpha=0.00385$)
 Pt100 (-100°C~100°C $\alpha=0.00392$)
 Pt100 (0°C~100°C $\alpha=0.00392$)
 Pt100 (0°C~200°C $\alpha=0.00392$)
 Pt100 (0°C~600°C $\alpha=0.00392$)
 Nickel 120 Ω (-80°C ~ 260°C $\alpha=0.00672$)
Accuracy: $\pm 0.01\%$ of FSR ± 1 LSB
Sampling Rate: 10 samples/sec (total)

Input Impedance: 10 M Ω
Calibration: On Board EEPROM
Isolation Voltage: 2500Vrms

Feature

Network Protocols: IP, TCP, UDP, SNMP, Telnet, HTTP, BOOTP, DHCP, Modbus/TCP, OPC Server
Configuration: Windows Utility, Web, SNMP, DHCP Client, BootP for firmware update
Flexible peer-to-peer I/O: one-to-one, one-to-many, many-to-one, and many-to-many communication
Windows Utility: Block I/O Utility
OPC Server Utility: Built-in OPC Server for Modbus/TCP
SNMP: MIB-II: System, SNMP Trap and Private MIB
SNMP Trap Server: Up to 4 SNMP Trap Server
I/O Rules: High-/Low- Voltage/Current alarms
Logic Condition&Go Rules: Conditions of the temperature values, Actions include the Trap

Power Requirement

System Power: external unregulated +24V (18-32V)

Power Consumption: Max. 2.88 W

Mechanical

Dimensions: 120 (H) x 55 (W) x 75 (D) mm
Mounting: Din-Rail
Material: Aluminum

Environmental

Regulatory Approvals: CE, FCC Class A
Operating Temperature: -25 ~ 70°C
Operating Humidity: 0 ~ 95% non-condensing
Storage Temperature: -40 ~ 80°C
Warranty: 3 years

Ordering Information

Jet/I/O 6512 Intelligent 4-CH RTD Input Ethernet I/O Server

JetI/O 6520

Intelligent 4-CH Analog Output Ethernet I/O Server



Best IO Modules
of Automation-
2009



CE FC RoHS

- 4-CH Analog Output
- P2P
- SDK
- Modbus/TCP
- Free OPC
- IP31

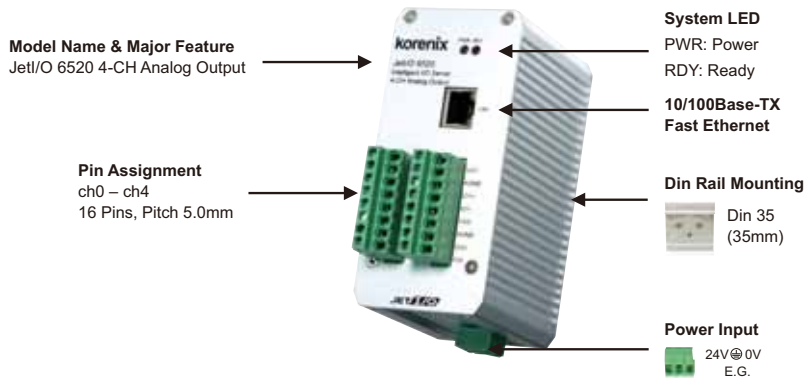
- Ethernet Block I/O with 4 Channel Analog Output
- 12 bit resolution and high accuracy
- Independent output operation with 0-10V, —10V, 0-20mA
- Programmable output slew rate
- Intelligent Condition&Go (IF-Then) logic rules
- Flexible peer-to-peer I/O through one-to-one, one-to-many, many-to-one, and many-to-many communication
- Unicast for network efficiency and true remote I/O
- Free OPC server and Modbus/TCP support
- Built-in watchdog timer and real-time clock
- SNMP / Web for easy configuration and management
- IP31 grade case protection
- -25~70°C operating temperature for hazardous environmental application

Overview

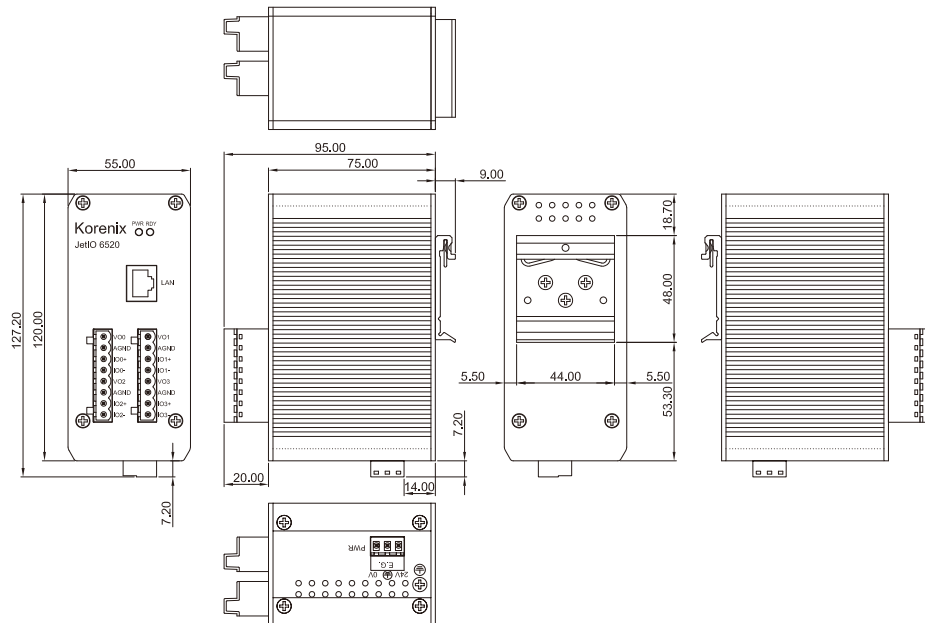
JetI/O 6520 is an intelligent I/O Server equipped with 4 Analog Output channels. It provides 12 bits resolution and high accuracy for voltage/current output. Each channel supports 2500Vms isolation, independent output operation with 0-10V and 0-20mA, and programmable output slew rate for most analog output applications.

JetI/O 6520 provides Windows Utilities, SNMP and Web configuration, industrial Modbus/TCP protocol and OPC Server driver for integrating JetI/O with existing HMI/SCADA. It also feature robust aluminum case with good heat dispersing and IP31 protection. With JetI/O users can easily perform status monitoring and control remote I/O devices.

JetI/O 6520 Appearance



Dimensions (Unit = mm)



- Industrial Intelligent NMS
- Rackmount PoE Plus Switch
- Industrial PoE Plus Switch
- Industrial 12-24V PoE Switch
- Industrial PoE Switch
- Rackmount L3/L2 Switch
- Gigabit Managed Switch
- Managed Ethernet Switch
- Entry-level Switch
- Wireless Outdoor AP
- Embedded PoE/Router Computer (LINUX)
- Industrial Communication Computer (WIN/LINUX)
- Ethernet/PoE/Serial Board
- Ethernet I/O Server**
- Media Converter
- Serial Device Server
- SFP Module
- Din Rail Power Supply

Specifications

System

CPU: 100MHz, RISC-Based
SDRAM: 32K bytes
Flash ROM: 512K bytes
EEPROM: 256 bytes
Watchdog Timer: 1.0 sec H/W
LED:
 PWR: Power Input plugged and On (Green)
 RDY: System startup ready (Red)

Network Interface

Ethernet: IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX
Connector: 1 * RJ45, Auto MDI/MDI-X
Protection: Built-in 1.5 KV magnetic isolation protection

LED:

Upper (LAN Activity): Orange On & Blinking
 Lower(10M/100M): 10M (Green Off) /100M(Green ON)

Analog Output

Channels: 4 Channels, differential
Resolution: 12 bits
Voltage Output Range: 0 ~ 10V, -10V ~ +10V
 Current Drive: +/- 5mA
Current Output Range: Sink Type, 0-20mA
 Excitation Voltage: 12-36V
Output Impedance: 0.5
Current Load Resistor: 0 to 500 (source)
Programmable Output Slope to Safety Value:
 0.125 to 128 mA/sec (Current)
 0.0625 to 64 V/sec (Voltage)
Accuracy: ±0.1% of FSR ±1LSB
Calibration: On Board EEPROM

Isolation Voltage: 2500Vrms

Feature

Network Protocols: IP, TCP, UDP, SNMP, HTTP, BOOTP, DHCP, Modbus/TCP, OPC Server
Configuration: Windows Utility, Web, SNMP, DHCP Client, BootP for firmware update
Flexible peer-to-peer I/O: one-to-one, one-to-many, many-to-one, and many-to-many communication
Windows Utility: Block I/O Utility
OPC Server Utility: OPC Server for Modbus/TCP
SNMP: MIB-II: System, SNMP Generic Trap and Private MIB
SNMP Trap Server: Up to 4 SNMP Trap Server
Logic Condition&Go Rules: Actions include AO and Trap

Power Requirement

System Power: external unregulated +24V

Power Consumption: Max. 3W

Mechanical

Dimensions: 120 (H) x 55 (W) x 75 (D)mm
Mounting: Din-Rail
Material: Aluminum

Environmental

Regulatory Approvals: CE, FCC Class A
Operating Temperature: -25 ~ 70°C
Operating Humidity: 0 ~ 95% non-condensing
Storage Temperature: -40 ~ 80°C
Warranty: 3 years

Ordering Information

JetIO 6520 Intelligent 4-CH Analog Output Ethernet I/O Server

Jet/O 6550

Intelligent 14-CH DI and 8-CH DO Etherent I/O Server



Best IO Modules
of Automation-
2009



- 14-Ch Digital Input with DI and Event Counter mode
- 8-Ch Digital Output with DO and Pulse Output mode
- Intelligent Condition&Go (IF-Then) logic rules
- Active events by logic rules or SNMP Trap
- Flexible peer-to-peer I/O through one-to-one, one-to-many, many-to-one, and many-to-many communication
- Unicast for network efficiency and true remote I/O
- Free OPC server and Modbus/TCP support
- Built-in watchdog timer and real-time clock
- SNMP / Web for easy configuration and management
- IP31 grade case protection
- -25~70°C operating temperature for hazardous environmental application

CE FC RoHS

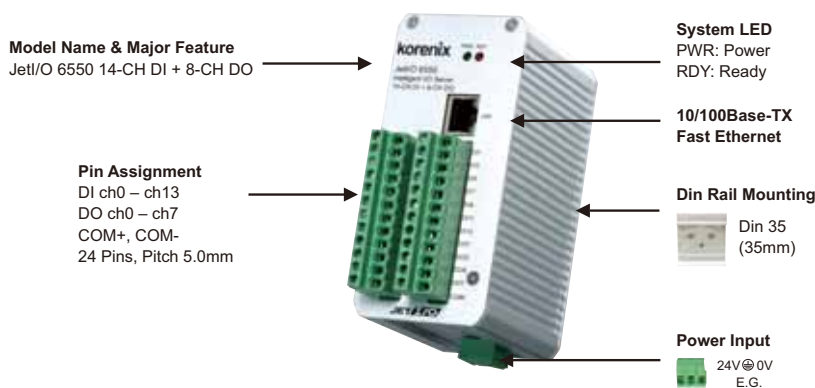
14DI+8DO	P2P	SDK
Modbus/ TCP	Free OPC	IP31

Overview

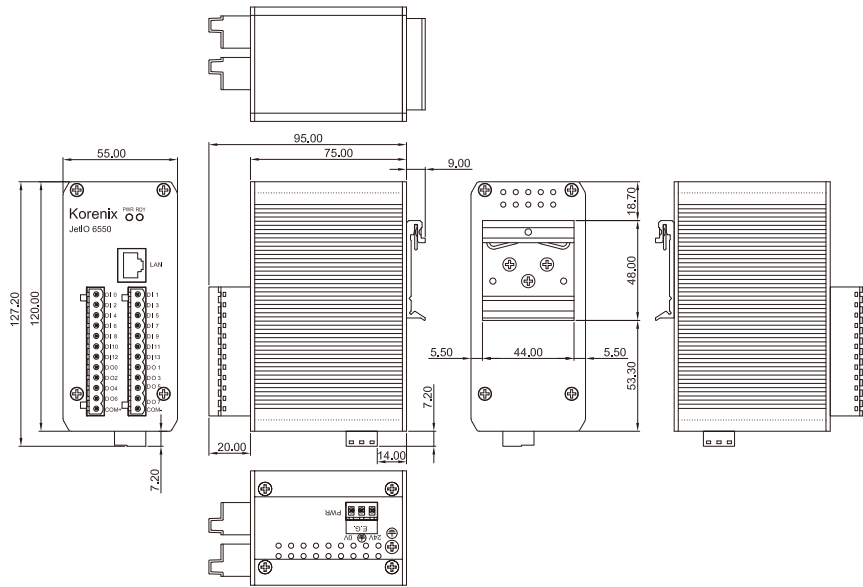
Jet/O 6550 is an intelligent I/O server equipped with 14 Digital Input, 8 Digital Output channels. Jet/O 6550 provides digital input and event counter for input mode, digital output and pulse output for output mode. The flexible Condition-&-Go (IF-Then) rules can help users to define intelligent logic rules for remote I/O control.

Jet/O 6550 provides Windows Utilities, SNMP and Web configuration, industrial Modbus/TCP protocol and OPC Server driver for integrating Jet/O with existing HMI/SCADA. It also features robust aluminum case with good heat dispersing and IP31 protection. With Jet/O users can easily perform status monitoring and control the remote I/O devices.

Jet/O 6550 Appearance



Dimensions (Unit = mm)



Industrial Intelligent NMS
Rackmount PoE Plus Switch
Industrial PoE Plus Switch
Industrial 12-24V PoE Switch
Industrial PoE Switch
Rackmount L3/L2 Switch
Gigabit Managed Switch
Managed Ethernet Switch
Entry-level Switch
Wireless Outdoor AP
Embedded PoE/Router Computer (LINUX)
Industrial Communication Computer (WIN/LINUX)
Ethernet/PoE/Serial Board
Ethernet I/O Server
Media Converter
Serial Device Server
SFP Module
Din Rail Power Supply

Specifications

System

CPU: 100MHz, RISC-Based
SDRAM: 32K bytes
Flash ROM: 512K bytes
EEPROM: 256 bytes
Watchdog Timer: 1.0 sec H/W
LED:
 PWR: Power Input plugged and On (Green)
 RDY: System startup ready (Red)

Network Interface

Ethernet: IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX
Connector: 1 * RJ45, Auto MDI/MDI-X
Protection: Built-in 1.5 KV magnetic isolation protection
LED:

Upper (LAN Activity): Orange On & Blinking
 Lower(10M/100M): 10M (Green Off) /100M(Green ON)

Digital Input

Input Channels: 14 Channels
Input Type: source type
Input Mode: D/I or event counting with input frequency of 100 Hz max
DC Input: 30V max
Threshold Voltage: 4V
Responding Time to Host PC Request: <2ms
Isolation Voltage: 2500Vrms

Digital Output

Output Channels: 8 Channels
Output Type: SSR output, sink type
Output Mode:
 Level output or pulse output with programmable pulse width
Working Range: 5-40VDC
Driving Capacity: 250mA max
Responding Time to Host PC Request: <2ms

Output Initial State: Programmable
Isolation Voltage: 2500Vrms

Feature

Network Protocols: IP, TCP, UDP, SNMP, HTTP, BOOTP, DHCP, Modbus/TCP, OPC Server
Configuration: Windows Utility, Web, SNMP, DHCP Client, BootP for firmware update
Flexible peer-to-peer I/O: one-to-one, one-to-many, many-to-one, and many-to-many communication
Windows Utility: Block I/O Utility
OPC Server Utility: OPC Server for Modbus/TCP
SNMP: MIB-II: System, SNMP Trap and Private MIB
SNMP Trap Server: Up to 3 SNMP Trap Server
Logic Condition&Go Rules: Conditions of the DI/Counter values, Actions include DO/Pulse, Counter Reset and Trap
Logic Rules Remote mirror mode: Single host to host, Condition of DI and Action of DO

Power Requirement

System Power: external unregulated +24V (18-32V)
Power Consumption: Max. 1.92W

Mechanical

Dimensions: 120 (H) x 55 (W) x 75 (D) mm
Mounting: Din-Rail
Material: Aluminum

Environmental

Regulatory Approvals: CE, FCC Class A
Operating Temperature: -25 ~ 70°C
Operating Humidity: 0 ~ 95% non-condensing
Storage Temperature: -40 ~ 80°C
Warranty: 3 years

Ordering Information

Jet/I/O 6550 Intelligent 14-CH DI and 8-CH DO Ethernet I/O Server