

# JET I/O

## Industrial Intelligent I/O Server

**Royal Flush. You Win!**



Jet I/O 6510

Jet I/O 6511

Jet I/O 6512

Jet I/O 6520

Jet I/O 6550

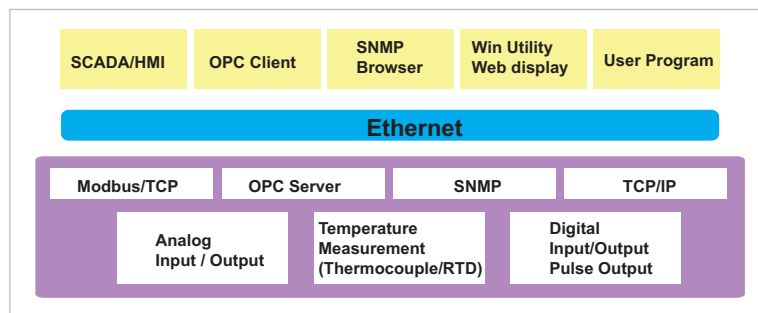
### Industrial Intelligent Ethernet I/O Server

- Aluminum Rugged Enclosure with IP-31 Grade Protection
- Support OPC Server, Modbus / TCP Compatible with SCADA/ HMI Systems
- Remotely Acquire Sensor and Control I/O Data Via Ethernet
- Direct I/O Signaling Without Additional Controller
- Real-time Event by SNMP Trap
- SNMP Control by NMS
- "Condition & Go" Local Rules
- Operation Temperature: -25 ~ 70 °C

# JetI/O Series Industrial Intelligent I/O Server

JetI/O is a series of Intelligent I/O Server for distributive monitoring and controls. The JetI/O series is equipped with one Ethernet port and multiple Analog Input/Output, Digital Input/Output and temperature measurement channels. Users can easily perform I/O data collecting, status modifications and receive active events through the Ethernet network.

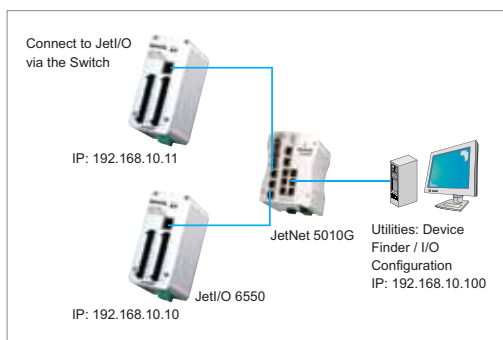
## Ethernet I/O Server Architecture



The above figure shows the JetI/O Intelligent I/O Server Architecture. On the top level, it shows the typical applications running in the remote I/O environment. The middle level is the Ethernet

infrastructure. On the bottom level, the gray block include the software agent and signal types of the JetI/O 6500 series intelligent I/O Server.

## Remote Management



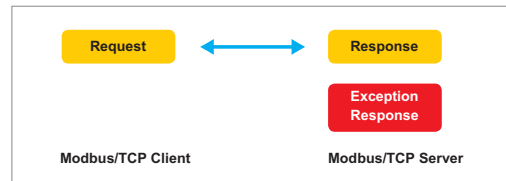
JetI/O series Intelligent I/O Server provides several types of remote management and allows you to integrate JetI/O within your existing system and applications. You simply need to know the device's IP address, and you can remotely control or monitor the I/O channels' information.

The types of remote management that JetI/O 6500 series supports are Modbus/TCP and OPC Server for SCADA/HMI industrial applications. I/O Configuration and OPC Server Utilities, SNMP, SNMP Trap and Web browser display are available for convenient configurations.

- Industrial PoE Switch
- IP67/68 Ethernet Switch
- Rackmount Managed Switch
- Gigabit Switch
- Redundant Switch
- Entry-Level Switch
- Networking Computer
- Communication Computer
- Ethernet I/O Server**
- Serial Device Server
- Media Converter
- Multiport Serial Card
- SFP Module
- Din Rail Power Supply

## Modbus/TCP

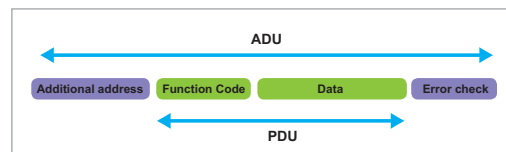
The Modbus protocol is developed by Gould-Modicon. It is widely used in industrial communications to integrate PLCs, computers, terminals and various other I/O devices. The MODBUS messaging service provides a Client/Server communication between devices connected on an Ethernet TCP/IP network. The unit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



### 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 send data.
- Error Check:** Contents of the Error Checking Field



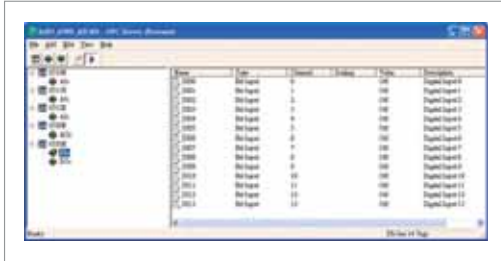
### Function Code:

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 the 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 JetI/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. Three Simple steps to create tags:  
Add New Device -> Configure Device  
Properties -> Generate Tag
- Save 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.
- Save cost: The utility is installed with the Block I/O Configuration utility. It is a free and convenient tool when you purchase Korenix JetI/O 6500 Series. The OPC Server utility can save the cost to buy 3rd party OPC Server development tool and save engineer time loading.
- Good Compatibility: Korenix JetI/O supports OPC Server for Modbus/TCP. The OPC Server driver can be called by different OPC Clients, HMI or SCADA.

- Industrial PoE Switch
- IP67/68 Ethernet Switch
- Rackmount Managed Switch
- Gigabit Switch
- Redundant Switch
- Entry-Level Switch
- Networking Computer
- Communication Computer
- Ethernet I/O Server**
- Serial Device Server
- Media Converter
- Multiport Serial Card
- SFP Module
- Din Rail Power Supply

## Condition-&-Go

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 met the system automatically activates the "Actions".

The maximum number "Condition & Go" logic rules that JetI/O 6550 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)

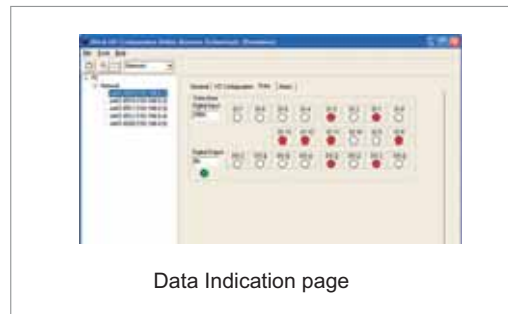
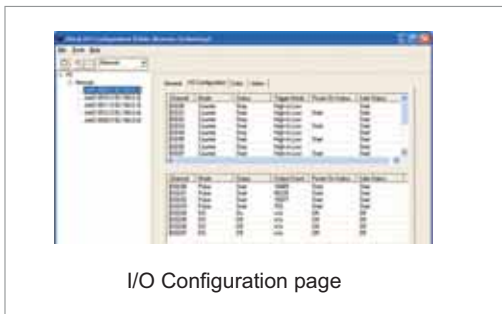
## Naming Rule

Jet 65AB — Sequence Number

- 1: Analog Input, Temperature Measurement
- 2: Analog Output Series
- 5: Digital Input and Digital Output Series

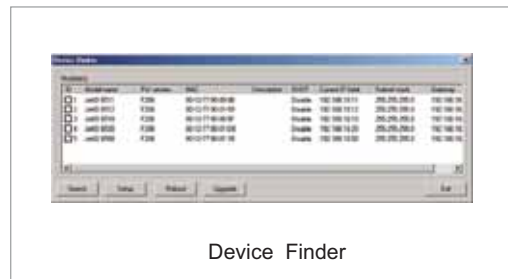
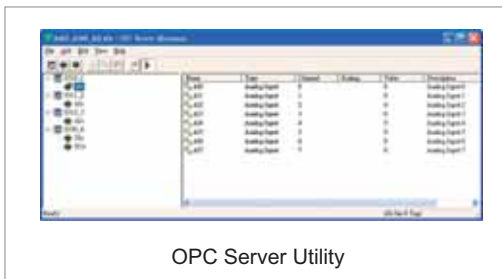
## Common Utilities

**Block I/O Configuration Utility:** This utility can scan the available devices. Then the users can configure network settings, input types, alarms, logic rules, I/O status and monitor the channels' data value and status.



**OPC Server Utility:** This utility provides the easiest way to generate the tags for all the I/O channels.

**Device Finder:** This utility allows users to scan devices, change system setting, read EEPROM values and run firmware upgrading feature.



## Industrial Intelligent I/O Server

### Korenix Industrial Product Selection Guide - Intelligent I/O Server



JetI/O 6510



JetI/O 6511



JetI/O 6512



JetI/O 6520



JetI/O 6550

	Analog Input	Thermocouple Input	RTD Input	Analog Output	Digital Input/Output
<b>Analog Input</b>					
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		
<b>Analog Output</b>					
Channel				4	
Resolution				12 bits	
Output Range				0-10V, ±10V; 0-20mA	
<b>Digital Input</b>					
Channel					14
Input Mode					DI/Event Counter
Driving Capacity					Logic 1: 30Vmax / Logic 0: 0-4V
<b>Digital Output</b>					
Channel					8
Output Mode					DO/Pulse Output
Driving Capacity					5-40V range, 250mA max
<b>Mechanical</b>					
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	
<b>Feature</b>					
Isolation	2500Vrms			2500Vrms	
Modbus/TCP	•	•	•	•	•
OPC Server	•	•	•	•	•
Window Utility	•	•	•	•	•
SNMP	•	•	•	•	•
Active Alarms	•	•	•	•	•
Condition&Go Logic					•
Others	Web Display, DHCP Client, BootP Upgrade, TCP/IP			Web Display, DHCP Client, BootP Upgrade, TCP/IP	
<b>Certification</b>					
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 Conditions&Go (If-Then) logic rules for DI/DO
- 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 is a series of Intelligent I/O Server 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 connectors channels. Users can easily perform I/O data collecting, status modifications and automatically activate events. Through the Ethernet network.

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 that user can 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

JetI/O 6500 series are the Standalone Ethernet based intelligent I/O server. Since JetI/O 6500 series is vertically Din-Rail mounted, users can easily install the JetI/O in a control box, and install cables within a limited space. JetI/O 6500 series support 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, system maintenance, poll the information/status, monitor I/O status, program logic rules and alarm events over network.

## Modbus / TCP and OPC Server Compatibility

JetI/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.

JetI/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 JetI/O devices.

## Ease Configuration & Maintenance

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

The I/O configuration utility allows user to discover the JetI/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

JetI/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 are 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 JetI/O automatically updates the changed info/status to the SNMP Trap server. This makes maintenance easy.

## Naming Rule

### JetI/O 65AB

#### A: Major Feature

- 1: Analog Input Series. Includes the RTD input, Thermocouple Input
- 2: Analog Output Series
- 3: Digital Input Series
- 4: Digital Output Series
- 5: Digital Input and Digital Output Series

- Industrial PoE Switch
- IP67/68 Ethernet Switch
- Rackmount Managed Switch
- Gigabit Switch
- Redundant Switch
- Entry-Level Switch
- Networking Computer
- Communication Computer
- Ethernet I/O Server**
- Serial Device Server
- Media Converter
- Multiport Serial Card
- SFP Module
- Din Rail Power Supply

# JetI/O 6510

## Intelligent 8-CH Analog Input Ethernet I/O Server



- Ethernet I/O server with 8 Channel Analog Input from 150mV to 10V, 20mA
- 16 bits resolution and high accuracy
- High/Low Voltage/Current active alarm
- 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

CE FC RoHS

### Overview

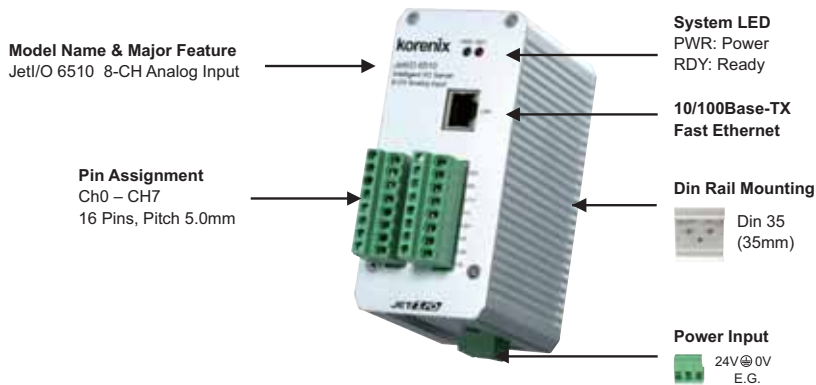
JetI/O 6510 is an intelligent I/O server equipped with one Ethernet port and 8 Analog Input channels.

JetI/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.

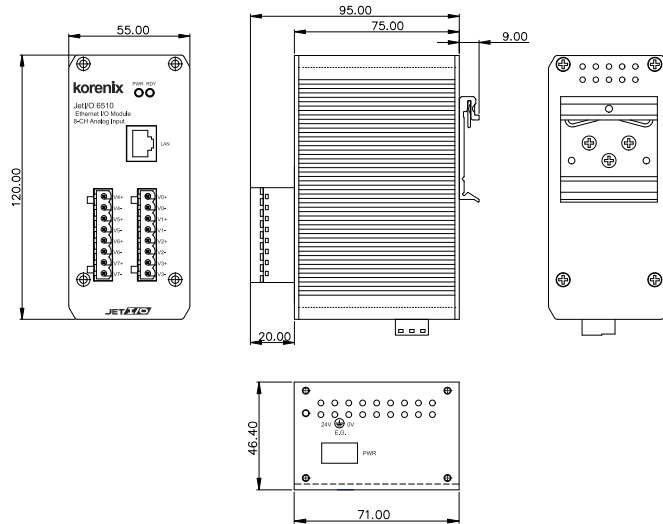
JetI/O 6510 provides Windows Utilities, SNMP and Web configuration. Industrial Modbus/TCP protocol and OPC Server driver for integrating JetI/O with existing HMI/SCADA. Robust aluminum case with good heat dispersing and IP31 protection.

With JetI/O, users can easily perform status monitoring and control of remote I/O devices.

### JetI/O 6510 Appearance



## Dimensions



- Industrial PoE Switch
- IP67/68 Ethernet Switch
- Rackmount Managed Switch
- Gigabit Switch
- Redundant Switch
- Entry-Level Switch
- Networking Computer
- Communication Computer
- Ethernet I/O Server
- Serial Device Server
- Media Converter
- Multiport Serial Card
- SFP Module
- Din Rail Power Supply

## Specification

### 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

**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

### 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 Infomation

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



- Ethernet I/O server 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
- 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

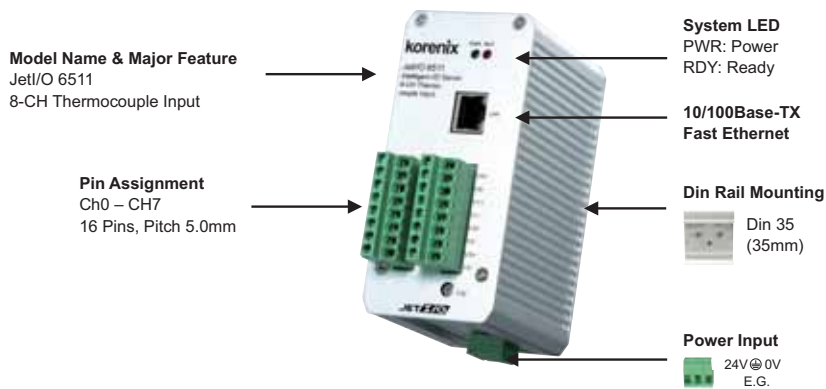


### Overview

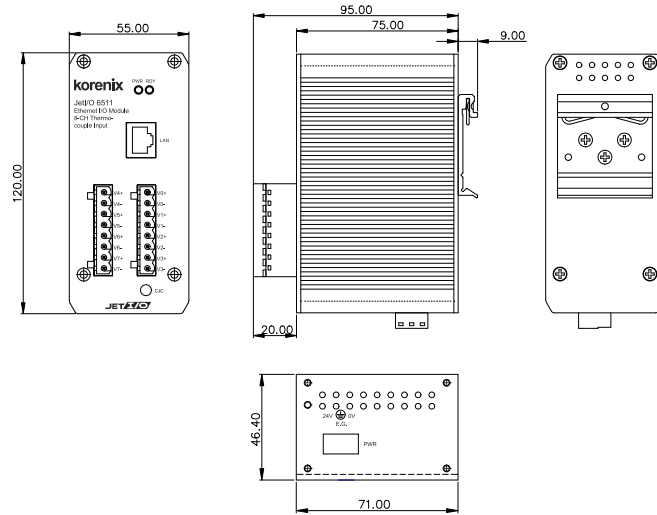
JetI/O 6511 is an intelligent I/O server equipped with 8 Thermocouple Input channels, low voltage and wide range current Analog Input. JetI/O 6511 provides 16 bits resolution and high accuracy for temperature measurement. To make accurate measurements, the temperature can be compensated by cold junction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



- Industrial PoE Switch
- IP67/68 Ethernet Switch
- Rackmount Managed Switch
- Gigabit Switch
- Redundant Switch
- Entry-Level Switch
- Networking Computer
- Communication Computer
- Ethernet I/O Server
- Serial Device Server
- Media Converter
- Multiport Serial Card
- SFP Module
- Din Rail Power Supply

## Specification

### 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

**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

### 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**

# JetI/O 6512

## Intelligent 4-CH RTD Input Ethernet I/O Server



- Ethernet I/O server with 4 Channel RTD Input
- 16 bits resolution and high accuracy
- Support 3-/4-/5-wire PT100, Ni120 types RTD
- High/Low Temperature active alarm
- 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 with Robust Aluminum case and IP31 protection

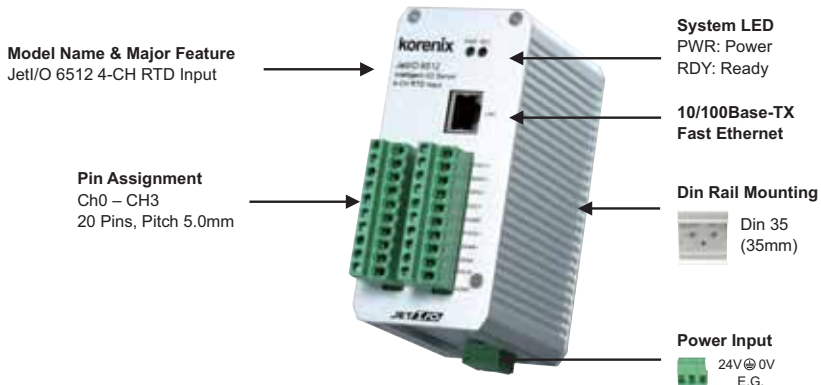


### Overview

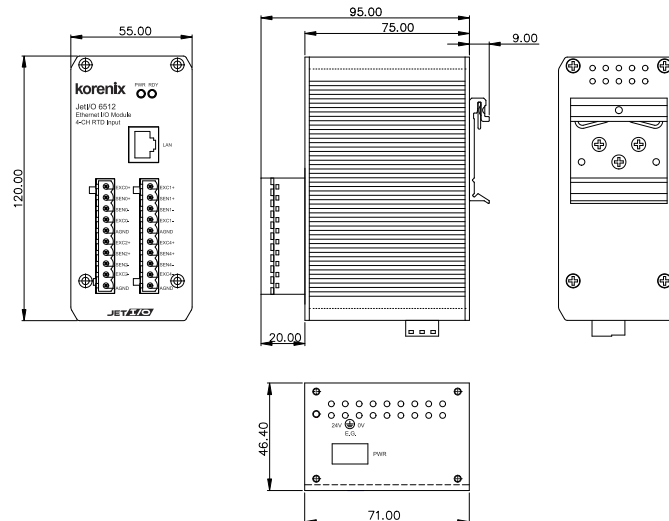
JetI/O 6512 is an intelligent I/O server equipped with 4 RTD Input channels. JetI/O 6512 provides 16 bit resolution and high accuracy for temperature measurement. The supported RTD types include PT100 and Ni120. The temperature range is from -100 to 600°C. JetI/O 6512 provides Windows Utilities, SNMP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

Web configuration. Industrial Modbus/TCP protocol and OPC Server driver for integrating JetI/O with existing HMI/SCADA. 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 6512 Appearance



## Dimensions



- Industrial PoE Switch
- IP67/68 Ethernet Switch
- Rackmount Managed Switch
- Gigabit Switch
- Redundant Switch
- Entry-Level Switch
- Networking Computer
- Communication Computer
- Ethernet I/O Server**
- Serial Device Server
- Media Converter
- Multiport Serial Card
- SFP Module
- Din Rail Power Supply

## Specification

### 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 120Ω (-80°C ~ 260°C  $\alpha=0.00672$ )

**Accuracy:**  $\pm 0.01\%$  of FSR  $\pm 1$ LSB

**Sampling Rate:** 10 samples/sec (total)

**Input Impedance:** 10 MΩ

**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  
**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

### 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



- Ethernet I/O server with 4 Channel Analog Output
- 12 bit resolution and high accuracy
- Independent output operation with 0-10V, ±10V, 0-20mA
- Programmable output slew rate
- 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

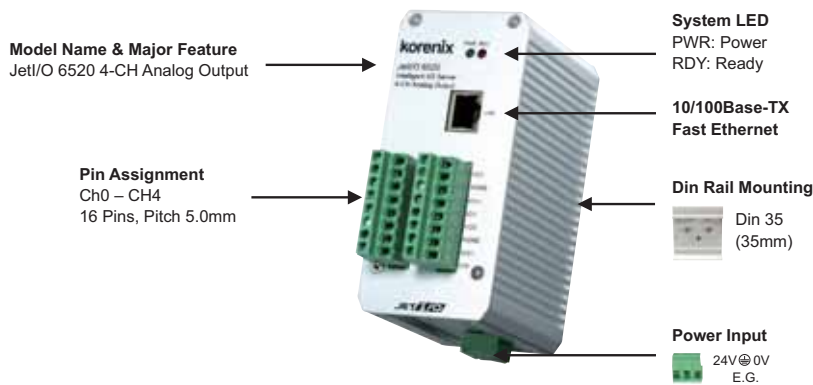


### Overview

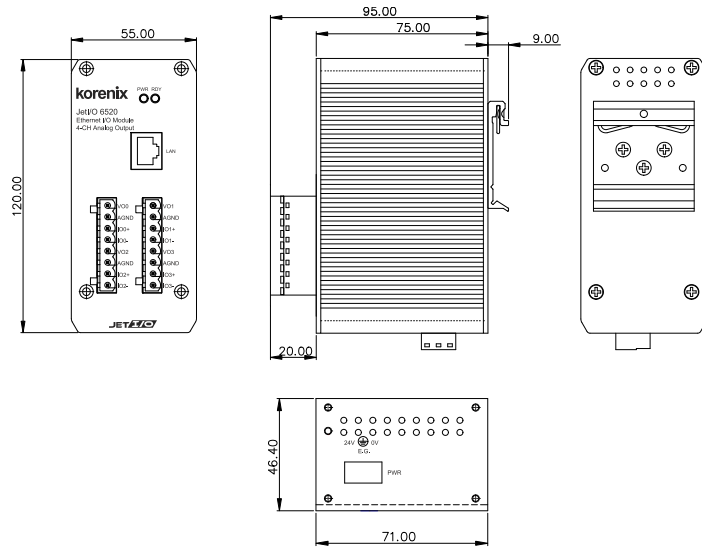
JetI/O 6520 is an intelligent I/O Server equipped with 4 Analog Output channels. It provides 12 bits resolution and high accuracy for voltage/current output. Each channel supports 2500Vrms isolation, independent output operation with 0-10V and 0-20mA, and programmable output slew rate for most analog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



- Industrial PoE Switch
- IP67/68 Ethernet Switch
- Rackmount Managed Switch
- Gigabit Switch
- Redundant Switch
- Entry-Level Switch
- Networking Computer
- Communication Computer
- Ethernet I/O Server**
- Serial Device Server
- Media Converter
- Multiport Serial Card
- SFP Module
- Din Rail Power Supply

## Specification

### 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

**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

### 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

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

# JetI/O 6550

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



- 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
- 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

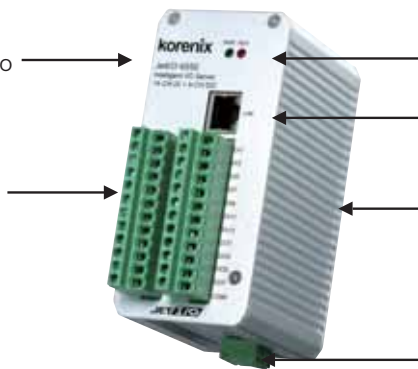
JetI/O 6550 is an intelligent I/O server equipped with 14 Digital Input, 8 Digital Output channels. JetI/O 6550 provides digital input and event counter for input mode, digital output and pulse output for output mode. The flexible Condition-&-Go (IF-Then) rules can help users to define intelligent logic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

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

### JetI/O 6550 Appearance

**Model Name & Major Feature**  
JetI/O 6550 14-CH DI + 8-CH DO

**Pin Assignment**  
DI Ch0 – CH13  
DO Ch0-CH7  
COM+, COM-  
24 Pins, Pitch 5.0mm



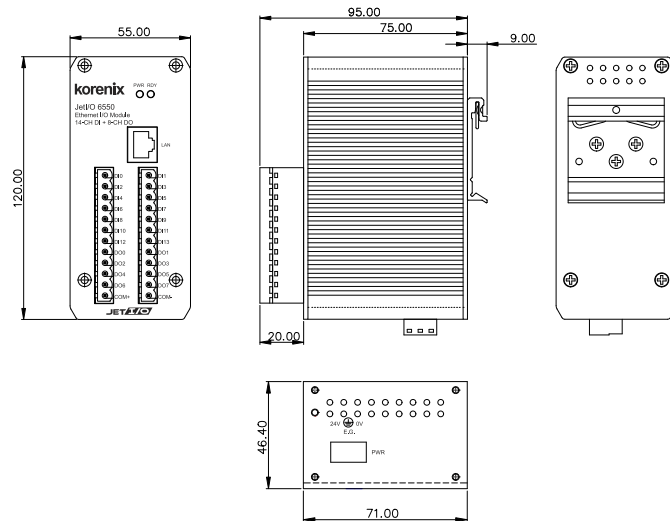
**System LED**  
PWR: Power  
RDY: Ready

**10/100Base-TX  
Fast Ethernet**

**Din Rail Mounting**  
Din 35  
(35mm)

**Power Input**  
24V ⊕ 0V  
E.G.

## Dimensions



- Industrial PoE Switch
- IP67/68 Ethernet Switch
- Rackmount Managed Switch
- Gigabit Switch
- Redundant Switch
- Entry-Level Switch
- Networking Computer
- Communication Computer
- Ethernet I/O Server**
- Serial Device Server
- Media Converter
- Multiport Serial Card
- SFP Module
- Din Rail Power Supply

## Specification

### 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

**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**