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Industrial Device Server

IDS-5042/5042+

≫ **Industrial 4-port secure serial to Ethernet device server with 4xRS-232/422/485 and 2x10/100Base-T(X)**

Features

- Operating Modes : Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP

- Redundant multiple host devices :
  5 host devices : Virtual COM, TCP Server, TCP Client mode
  4 IP ranges : UDP

- NAT Pass-Through: the user can manage IDS-5042/5042+ through NAT router

- Security : SSL data encryption; secured management by HTTPS and SSH
  IP Access : IP White List

- Internet Communication : PPPoE authentication

- Update DNS Hostname : DDNS

- Dual redundant Ethernet port support redundant mode
  (Recovery time < 10ms)

- Ethernet switch mode enable Daisy Chain

- Event Warning by Syslog, Email, SNMP trap, Relay and Beeper

- Configurable by Web-based and Windows utility (DS-Tool)

- Various Windows O.S. supported : Windows NT/2000/ XP/ 2003/
  VISTA(32/64bit)/Windows7(32/64bit)
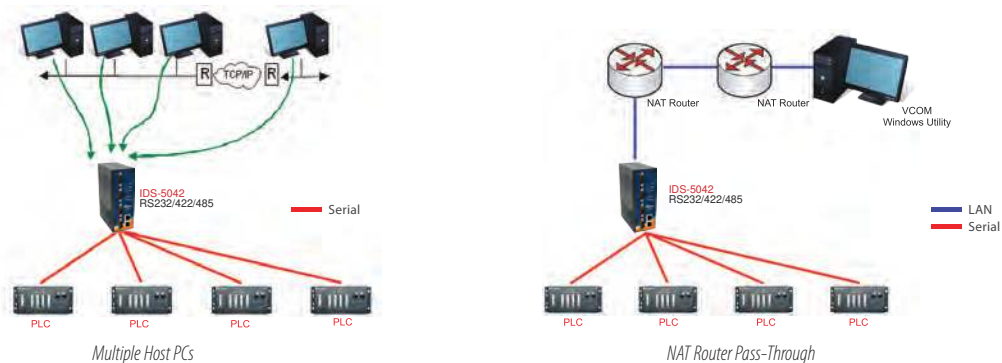
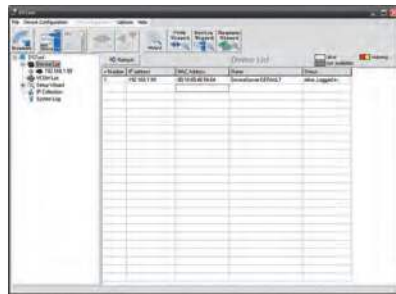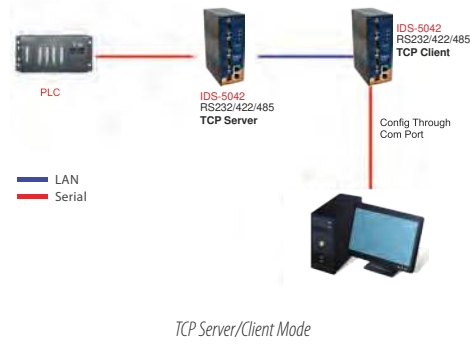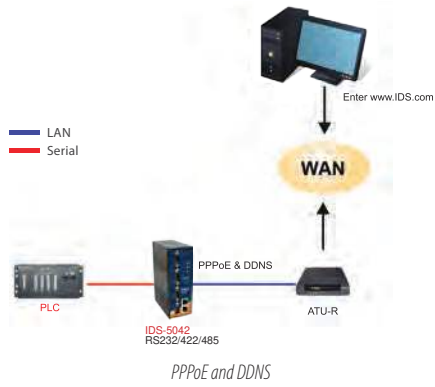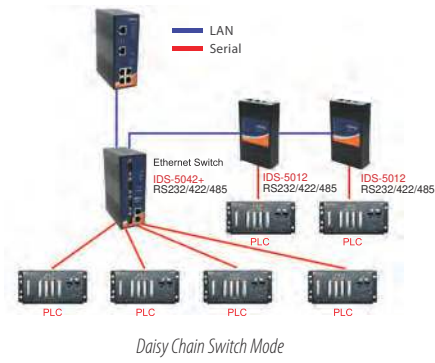- 1KV isolation for PoE P.D. port of IDS-5042+

Introduction

IDS-5042 series is an innovative secure 4-port RS-232/422/485 to 2 ports LAN secure device server featuring the standard features of device server, such like TCP/IP interface and versatile operation modes: Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP. In addition, the Windows utility, DS-Tool, could configure multiple devices and set up the mappings of Virtual Com. The features of NAT Router Pass-Through, DDNS, and PPPoE make it more convenient for administrators to configure ORing's device servers through NAT router from different IP domains or Internet via modem remotely. On the other hand, IDS-5042 series can simultaneously transfer data up to 5 redundant host PCs to aovid Ethernet connection breakdown or any host PC fails. Further, IDS-5042 series features HTTPS, SSH, and SSL encryption to assure the security of critical data transmission.

IDS-5042 series supports RS-232/422/485 and provides dual redundant power inputs 12~48 VDC on terminal block to guarantee a non-stop operation. Further, IDS-5042+ features PoE P.D. (Power Device) function with 1kv isolation on the PoE port. With wide operating temperature, -10~70℃, and rugged IP-30 housing design, IDS-5042 series could operate in the harsh industrial environment. Therefore, IDS-5042 series is the best solution to the high demand of secure serial to Ethernet critical data communication.

Practical Operation

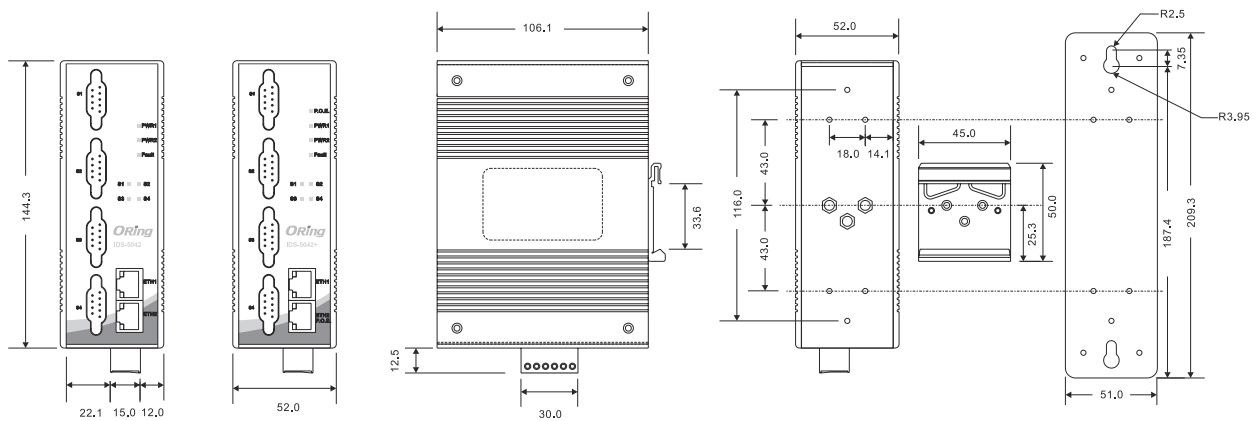In practical operation of serial device servers, Windows utility (DS-Tool) is supported. This utility is very helpful for you to manage and monitor all of industrial device servers in the industrial network.
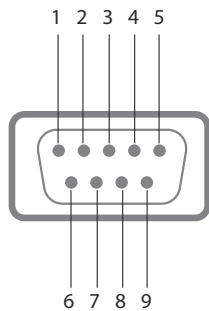
Multiple Host PCs

NAT Router Pass-Through

Daisy Chain Switch Mode

SSL Data Encryption

PPPoE and DDNS

TCP Server/Client Mode

Monitoring and Configuration interface

Dimensions

Unit=mm

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Pin Assignment

DB9(male) Pin Assignment

Pin #	RS-232	RS-422	RS-485 (4 wire)	RS-485 (2 wire)
1	DCD	RXD -	RXD -	-
2	RXD	RXD +	RXD +	-
3	TXD	TXD +	TXD +	DATA +
4	DTR	TXD -	TXD -	DATA -
5	GND	GND	GND	GND
6	DSR	-	-	-
7	RTS	-	-	-
8	CTS	-	-	-
9	RI	-	-	-
RS-232 mode act as DTE				

Specifications

ORing Device Server Model	IDS-5042	IDS-5042+
Physical Ports		
10/100Base-T(X) Ports in RJ45 Auto MDI/MDIX	2	
PoE Feature	-	PoE P.D. Present at ETH2 Power Device (IEEE 802.3af): IEEE 802.3af compliant input interface Power consumption: 8Watts max. Over load and short circuit protection Isolation Voltage: 1000 VDC min. Isolation Resistance : 10^8 ohms min
Serial Ports		
Connector	DB9(male) x 4	
Operation Mode	RS-232 / RS-422 / 4(2)-Wire RS-485. Which can be configured by DS-Tool	
Serial Baud Rate	110 bps to 460.8 Kbps	
Data Bits	5, 6, 7, 8	
Parity	odd, even, none, mark, space	
Stop Bits	1, 1.5, 2	
RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, RI, GND	
RS-422	Tx+,Tx-, Rx+, Rx-,GND	
RS-485 (4-wire)	Tx+,Tx-, Rx+, Rx-,GND	
RS-485 (2-wire)	Data+, Data-,GND	
Flow Control	XON/XOFF, RTS/CTS, DTR/DSR	
Network Features		
Network Protocols	ICMP, IP, TCP, UDP, DHCP, BOOTP, SSH, DNS, SNMP V1/V2c, HTTPS, SMTP, SSL, PPPoE, DDNS	
LED Indicators		
Power Indicator	PWR 1(2)(PoE) / Ready : Red On : Power is on and booting up. Red Blinking : Indicates an IP conflict, or DHCP or BOOTP server did not respond properly. Green On : Power is on and functioning Normally. Green Blinking : Located by Administrator.	
10/100Base-T(X) RJ45 Port Indicator	Green for port Link/Act at 100Mbps. Amber for port Link/Act at 10Mbps.	
Serial TX / RX LEDs	Red : Serial port is receiving data Green : Serial port is transmitting data	
Fault Indicator	Red : Indicate unexpected events occurred	

Fault Contact	
Relay	Relay output to carry capacity of 1A at 24VDC

Power		
Redundant Input Power	Dual 12~48VDC on 6-pin terminal block	Triple DC inputs, 48VDC from PoE and Dual 12~48VDC on 6-pin terminal block
Power Consumption (Typ.)	5.5 Watts	5.5 Watts
Overload Current Protection	Present	
Reverse Polarity Protection	Present	

Physical Characteristics		
Enclosure	IP-30	
Dimensions (W x D x H)	52(W) x 106.1(D) x 144.3(H) mm (2.05x4.18x5.68 inch.)	
Weight (g)	678 g	682 g

Environmental	
Storage Temperature	-40 to 85°C (-40 to 185°F)
Operating Temperature	-10 to 70°C (14 to 158°F)
Operating Humidity	5% to 95% Non-condensing

Regulatory Approvals	
EMI	FCC Part 15, CISPR (EN55022) class A
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11
Shock	IEC60068-2-27
Free Fall	IEC60068-2-32
Vibration	IEC60068-2-6
Safety	EN60950-1
MTBF (Hours) (MIL-HDBK-217F2, GB, GC, 25°C)	569,972
Warranty	5 years

Ordering Information

IDS-50 A B C

Code Definition	Serial Port Number	Ethernet Port Number	PoE Identification
Option	**- 4:** 4 ports	**- 2:** 2 ports	-**"+":** PoE P.D. present at ETH2

Available Model	Model Name	Description
	IDS-5042	Industrial 4-port secure serial to Ethernet device server with 4xRS-232/422/485 and 2x10/100Base-T(X)
	IDS-5042+	Industrial 4-port secure serial to Ethernet device server with 4xRS-232/422/485 and 2x10/100Base-T(X), 1-port PoE P.D.

Packing List
- IDS-5042 / 5042+
- DIN-Rail Kit
- Wall-mount Kit
- ORing Tool CD
- Quick Installation Guide

Optional Accessories (Can be purchased separately)
- DR-45 series, 45W DIN-Rail power supply
- DR-75 series, 75W DIN-Rail power supply
- DR-120 series, 120W DIN-Rail power supply

Company Information

2011 Product Overview

Vertical Market Applications

Industrial Ethernet Switch

Industrial Media Converter

Industrial Device Server

Industrial Wireless Access Point

Industrial Cellular VPN Router

Industrial USB-Over-IP Server

Accessories

Network Management Utility