

# 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+



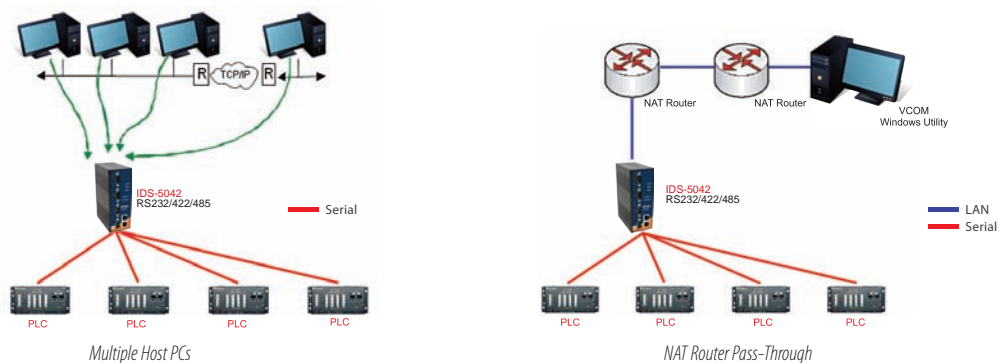
### Introduction

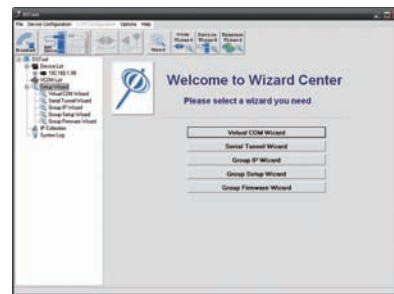
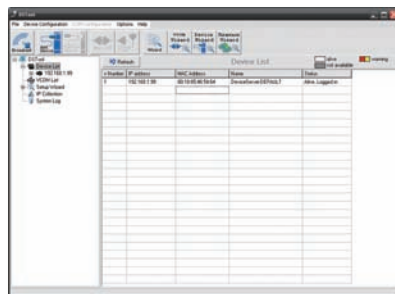
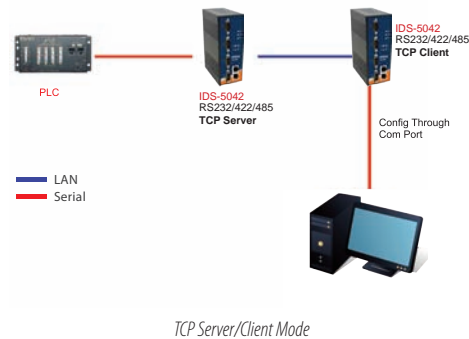
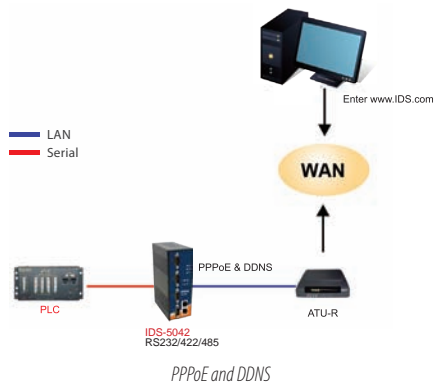
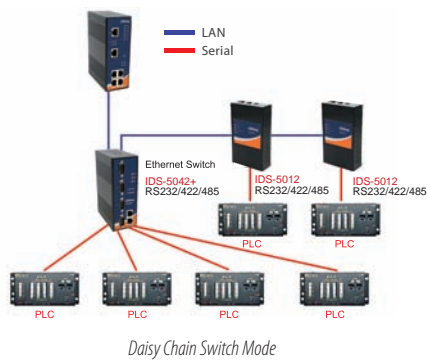
IDS-5042 series is an innovative secure 4-port RS-232/422/485 to 2 ports LAN secure device server featuring the standard features of device server, such like TCP/IP interface and versatile operation modes: Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP. In addition, the Windows utility, DS-Tool, 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 avoid 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, -10~60°C, 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

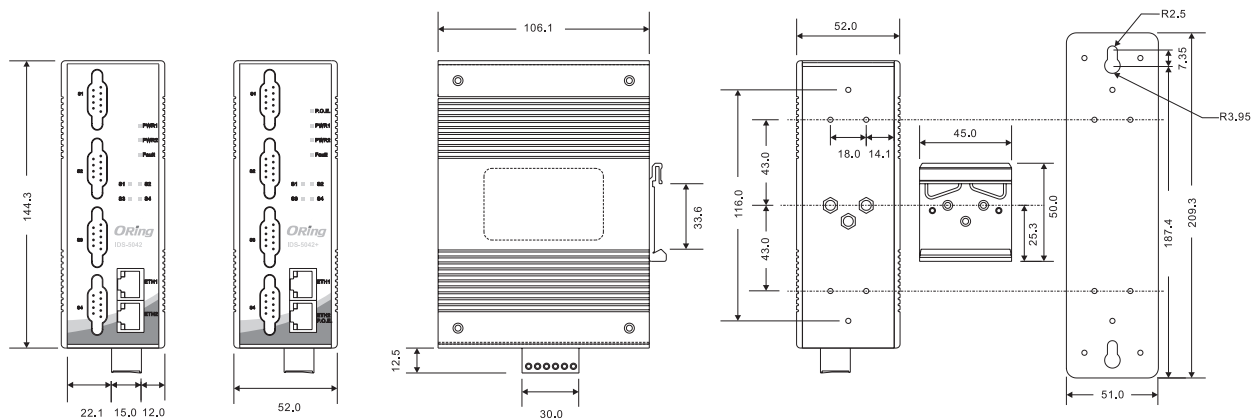
In practical operation of serial device servers, Windows utility (DS-Tool) is supported. This utility is very helpful for you to manage and monitor all of industrial device servers in the industrial network.



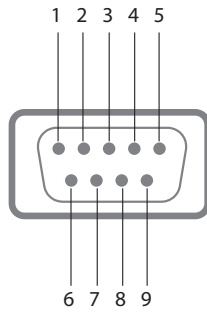


Monitoring and Configuration interface

## Dimensions



## 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 <sup>9</sup> 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 60°C (14 to 140°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
<b>Option</b>	<b>- 4:</b> 4 ports	<b>- 2:</b> 2 ports	<b>- "+":</b> 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.
<b>Packing List</b> <ul style="list-style-type: none"> <li>IDS-5042 / 5042+</li> <li>DIN-Rail Kit</li> <li>Wall-mount Kit</li> <li>ORing Tool CD</li> <li>Quick Installation Guide</li> </ul>		<b>Optional Accessories (Can be purchased separately)</b> <ul style="list-style-type: none"> <li>DR-45 series, 45W DIN-Rail power supply</li> <li>DR-75 series, 75W DIN-Rail power supply</li> <li>DR-120 series, 120W DIN-Rail power supply</li> </ul>