IDS-5012

Industrial 1-port secure serial to Ethernet device server with 1xRS-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-5012 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, and Beeper
- Configurable by Web-based and Windows utility (DS-Tool)
- Various Windows O.S. supported : Windows NT/2000/ XP/ 2003/VISTA(32/64bit)/Windows 7(32/64bit)















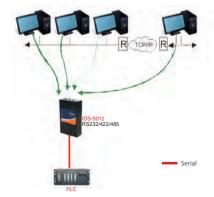
Introduction

IDS-5012 is an innovative secure 1-port RS-232/422/485 to 2 port LAN serial to Ethernet 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-5012 can simultaneously transfer data up to 5 redundant host PCs to aovid Ethernet connection breakdown or any host PC fails. Further, IDS-5012 features HTTPS, SSH, and SSL encryption to assure the security of critical data transmission.

IDS-5012 supports RS-232/422/485 and provides dual redundant power inputs, 12~48 VDC, on DC power jack and terminal block to quarantee a nonstop operation. With wide operating temperature, $-40 \sim 70^{\circ}$ C, and rugged IP-30 housing design, IDS-5012 could operate in the harsh industrial environment. Therefore, IDS-5012 is the best solution to the high demand of secure serial to Ethernet critical data communication.

Practical Operation

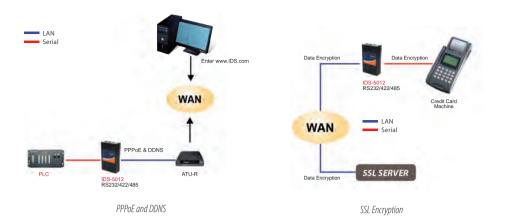
In practical operation of serial device servers, Windows utility (DS-Tool) is supported. This utility is very helpful for you to manage and monitor all of industrial device servers in the industrial network



Multiple Host PCs



NAT Router Pass-Through and Ethernet Switch Mode



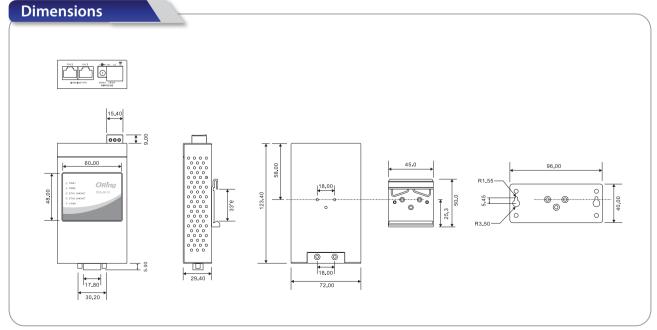


TCP Server/Client Mode



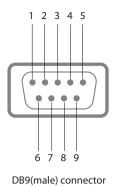


DS-Tool (Windows Utility): Monitoring and Configuration interface



Unit=mm

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-5012			
Physical Ports				
10/100Base-T(X) Ports in RJ45 Auto MDI/MDIX	2			
Serial Ports				
Connector	DB9(male) x 1			
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) / 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			
Power				
Redundant Input Power	Dual DC inputs. 12~48VDC on 3-pin terminal block and power jack			
Power Consumption (Typ.)	4 watts			

Overload Current Protection	Present	
Reverse Polarity Protection	Present on terminal block	
Physical Characteristics	Treserve on certained block	
Enclosure	IP-30	
Dimensions (W x D x H)	72(W) x 29.4(D) x 123.4(H) mm (2.83x1.16x4.86 inch.)	
Weight (g)	327 q	
Environmental	<i>321</i> g	
	10 0.00 (10 10.00)	
Storage Temperature	-40 to 85°C (-40 to 185°F)	
Operating Temperature	-40 to 70°C (-40 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)	533,615	
Warranty	5 years	

Ordering Information



Code Definition	Serial Port Number	Ethernet Port Number	
Option	- 1: 1 port	- 2: 2 ports	

Available Model	Model Name	Description
	IDS-5012	Industrial 1-port secure serial to Ethernet device server with 1xRS-232/422/485 and 2x10/100Base-T(X)
Packing List • IDS-5012 • 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 • PAA-121000, 12VDC/1000mA 12W Power Adapter, US plug • PAE-121000, 12VDC/1000mA 12W Power Adapter, EU plug