



IDS-4312 / IDS-4312+

Industrial 1 secure serial port to IEEE 802.11 b/g/n wireless device server

Features

- High Speed Air Connectivity: WLAN interface support up to 150 Mbps link speed
- 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: user can manage IDS-4312 through NAT router
- Security: SSL data encryption; secured management by HTTPS and SSH: IP Access: IP White List
- Internet Communication: PPPoE
- Update DNS Hostname: DDNS
- 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)/ Windows 7(32/64bit)
- Dual redundant Ethernet port support redundant mode (Recovery time < 10ms)
- Ethernet switch mode enable Daisy Chain
- 1KV isolation for PoE PD port (**IDS-4312+**)

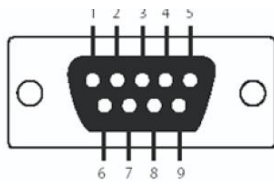


Introduction

IDS-4312 is an innovative secure 1 port RS-232/422/485 to 802.11 b/g/n WLAN, up to 150 Mbps, and 2 port LAN device server with standard features of device server, such like TCP/IP interface and versatile operation modes: Virtual Com, Serial Tunnel, TCP Server, TCP Client, and 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-4312 can simultaneously transfer data up to 5 redundant host PCs to avoid Ethernet connection breakdown or any host PC fails. Further, IDS-4312 features HTTPS, SSH, and SSL encryption to assure the security of critical data transmission.

IDS-4312 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-4312+ features PoE PD (Power Device) function, compliant with IEEE802.3af standard, with 1kv isolation on the PoE port. With wide operating temperature, -40~70°C, and rugged IP-30 housing design, IDS-4312 series could operate in the harsh industrial environment. Therefore, IDS-4312 is the best solution to the high demand of secure serial to Ethernet critical data communication.

Pin Definition



DB9 connector

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

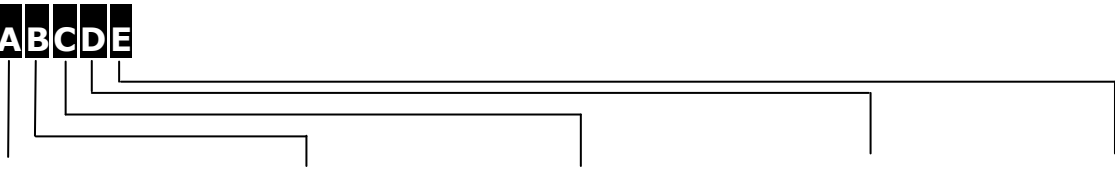
Specifications

ORing Device Server Model	IDS-4312	IDS-4312+
Physical Ports		
10/100 Base-T(X) Ports in RJ45 Auto MDI/MDIX	2	
P.O.E.		P.O.E.Present at ETH1 Power Device (IEEE 802.3af): IEEE 802.3af compliant input interface Over load & short circuit protection Isolation Voltage: 1000 VDC min. Isolation Resistance : 10 ⁸ ohms min
WLAN feature		
Operation Mode	Client	
Antenna and Connector	1 x External reverse SMA-type antenna connector	
Radio Frequency Type	DSSS, OFDM	
Modulation	IEEE802.11b: CCK, DQPSK, DBPSK IEEE802.11g/n: OFDM with BPSK, QPSK, 16QAM, 64QAM	
Frequency Band	America / FCC: 2.412~2.462 GHz (11 channels) Europe CE / ETSI: 2.412~2.472 GHz (13 channels)	
Transmission Rate	802.11b: 1/2/5.5/11 Mbps 802.11g: 6/9/12/18/24/36/48/54 Mbps	

	802.11n(40MHz): UP to 150 Mbps	
Transmit Power	802.11b: 13.5dBm ± 1.5dBm 802.11g: 13.5dBm ± 1.5dBm 802.11n(2.4G@20MHz): 13.5dBm ± 1.5dBm 802.11n(2.4G@40MHz): 13.5dBm ± 1.5dBm	
Receive Sensitivity	802.11b: -90dBm ± 2dBm@1Mbps 802.11g: -72dBm ± 2dBm@54Mbps 802.11n(2.4G@40MHz,MCS7): -68dBm ± 2dBm	
Encryption Security	WEP: (64-bit, 128-bit key supported) WPA/WPA2:802.11i (WEP and AES encryption) WPA-PSK (256-bit key pre-shared key supported) 802.1X Authentication supported TKIP encryption	
Serial Ports		
Connector	DB9 x 1	
Operation Mode	RS-232/422/485	
Serial Baud Rate	110 bps to 460.8 Kbps	
Data Bits	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	
Flow Control	XON/XOFF, RTS/CTS, DTR/DSR	
Network Protocol		
Protocol	ICMP, IP, TCP, UDP, DHCP, BOOTP, SSH, DNS, SNMP V1/V2c, HTTPS, SMTP, DDNS, PPPoE	
LED indicators		
Power indicator	3 x LEDs, PWR 1(2)(PoE): Green On: Power is on	
10/100TX RJ45 port indicator	Green for port Link/Act at 100Mbps.	
Serial TX / RX LEDs:	Red: Serial port is receiving data Green: Serial port is transmitting data	
WLAN LED	WLAN Link /ACT: Green: Blinking	
Power		
Redundant Input power	Dual DC inputs. 12-48VDC on 6-pin terminal block	
Power consumption (Typ.)	TBD	
Overload current protection	Present	
Reverse polarity protection	Present on terminal block	
Physical Characteristic		
Enclosure	IP-30	
Dimension (W x D x H)	45 (W) x 81 (D) x 95 (H) mm	
Weight (g)	TBD	TBD
Environmental		
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	
Warranty	5 years	

Ordering Information

IDS-ABCDE



Code Definition	Wireless Mode	Serial Port Type	Serial Port Number	Ethernet port Number	POE Identification
Option	- 1: 802.11 b/g - 2: 802.11 a - 3: 802.11 a/b/g - 4: 802.11 b/g/n - 5: 802.11 a/n - 6: 802.11 a/b/g/n	- 1: RS-232 - 2: RS-422/485 - 3: RS-232/422/485	- 1: 1 port	- 2: 2 ports	- "+": P.O.E. PD present at ETH1

Available Model	Model Name	Description
	IDS-4312	Industrial 1-port secure serial to IEEE 802.11 b/g/n wireless device server with 4xRS-232/422/485 and 2x10/100Base-T(X)
	IDS-4312+	Industrial 1-port secure serial to IEEE 802.11 b/g/n wireless device server with 4xRS-232/422/485 and 2x10/100Base-T(X), 1-port PoE P.D.

Packing List

- IDS-4312 / IDS-4312+ x 1
- CD x 1
- Quick Installation Guide x 1
- Din-Rail Kit x 1

Optional Accessories

- DR-45 series : 45 Watts power supply
- DR-75 series : 75 Watts power supply
- DR-120 series : 120 Watts power supply

* All specifications are subject to change without notice.