

# 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
- Support Modbus Gateway: Modbus TCP, Modbus RTU and Modbus ASCII
- Event Warning by Syslog, Email, SNMP trap
- 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)
- > 1KV isolation for PoE PD port (IDS-4312+)

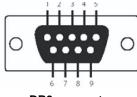


#### Introduction

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 untility, DS-Tool, could configure multiple devices and set up the mappings of Virtual Com. On the other hand, IDS-4312 can simultaneously transfer data up to 5 redundant host PCs to aovid Ethernet connection breakdown or any host PC fails.

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.

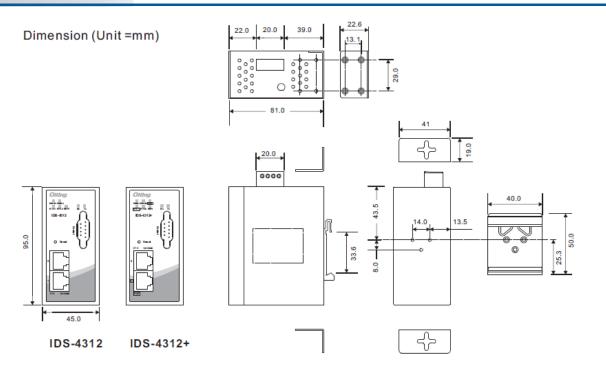
## Pin Definition



**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	GND
6	DSR			
7	RTS			
8	CTS			
9	RI			

### Dimension



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 <sup>8</sup> ohms min		
WLAN feature				
Operation Mode	Client			
Antenna and Connector	1 x External reverse SMA-type antenna connect	or		
Radio Frequency Type	DSSS, OFDM			
	IEEE802.11b: CCK, DQPSK, DBPSK			
Modulation	IEEE802.11g/n: OFDM with BPSK, QPSK, 16QAM, 64QAM			
Frequency Band	America / FCC: 2.412~2.462 GHz (11 channels			
Transmission Rate	Europe CE / ETSI: 2.412~2.472 GHz ( 13 channels ) 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			
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, G	ND		
Flow Control	XON/XOFF, RTS/CTS, DTR/DSR			
Network Protocol				
Protocol	ICMP, IP, TCP, UDP, DHCP, BOOTP, DNS, SN	NMP V1/V2c, HTTPS, SMTP		
LED indicators				
	3 x LEDs, PWR 1(2)(PoE):			
Power indicator	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 4-pin terminal block			
Power consumption (Typ.)	3.98 W			
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)	322 g 331 g				
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)				
	EN61000-4-2 (ESD)				
	EN61000-4-3 (RS)				
EMS	EN61000-4-4 (EFT) EN61000-4-5 (Surge)				
LHS	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

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Code Definition	Wireless Mode	Serial Port Type	Serial Port Number	Ethernet port Number	POE Identification	
Option	<ul> <li>- 1: 802.11 b/g</li> <li>- 2: 802.11 a</li> <li>- 3: 802.11 a/b/g</li> <li>- 4: 802.11 b/g/n</li> <li>- 5: 802.11 a/n</li> <li>- 6: 802.11 a/b/g/n</li> </ul>	- 1: RS-232 - 2: RS-422/485 - 3: RS-232/422/485	- <b>1:</b> 1 port	- <b>2</b> : 2 ports	-"+": P.O.E. PD present at ETH1	
Available	Model Name	Description				
Model	IDS-4312		Industrial 1-port secure serial to IEEE 802.11 b/g/n wireless device server with 1xRS-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 1xRS-232/422/485 and 2x10/100Base-T(X), 1-port PoE P.D.			

## **Packing List**

- IDS-4312 / IDS-4312+ x 1
- Din-Rail Kit x 1

Wall-Mount kit x 2

CD x 1

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- ٠ Quick Installation Guide x 1
- Antenna x 1

## **Optional Accessories**

- DR-45 series : 45 Watts power supply
- DR-75 series : 75 Watts power supply ٠
- DR-120 series : 120 Watts power supply

## **Mouser Electronics**

Authorized Distributor

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ORing: IDS-4312+ IDS-4312