IDS-5042-WG/5042-IWG

❯ *Industrial 4-port secure serial to IEEE 802.11 b/g wireless device server*

Features

- High Speed Air Connectivity: WLAN interface support up to 54Mbps 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 : the user can manage IDS-5042-WG/IDS-5042-IWG through NAT router

- High Security Capability : SSL data encryption; secured management by HTTPS and SSH ; IP Access : IP White List ; wireless : WEP/WPA/WPA2/802.1X/TKIP

- 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)

Introduction

IDS-5042-WG is an innovative secure 4-port RS232/422/485 (IDS-5042-IWG is with 4-port RS-422/485 on 5-pin terminal block) to 802.11b/g WLAN, up to 54Mbps, and 2 port LAN 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-WG and IDS-5042-IWG can simultaneously transfer data up to 5 redundant host PCs to aovid Ethernet connection breakdown or any host PC fails. Further, IDS-5042-WG and IDS-5042-IWG feature HTTPS, SSH, SSL encryption, and 802.1X to assure the security of critical data transmission.

IDS-5042-WG and IDS-5042-IWG provide dual redundant power inputs, 12~48 VDC, on terminal block to guarantee a non-stop operation. With wide operating temperature, -10~70℃, and rugged IP-30 housing design, IDS-5042-WG and IDS-5042-IWG could operate in the harsh industrial environment. Therefore, IDS-5011-WG is the best solution to the high demand of secure serial to WLAN 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.
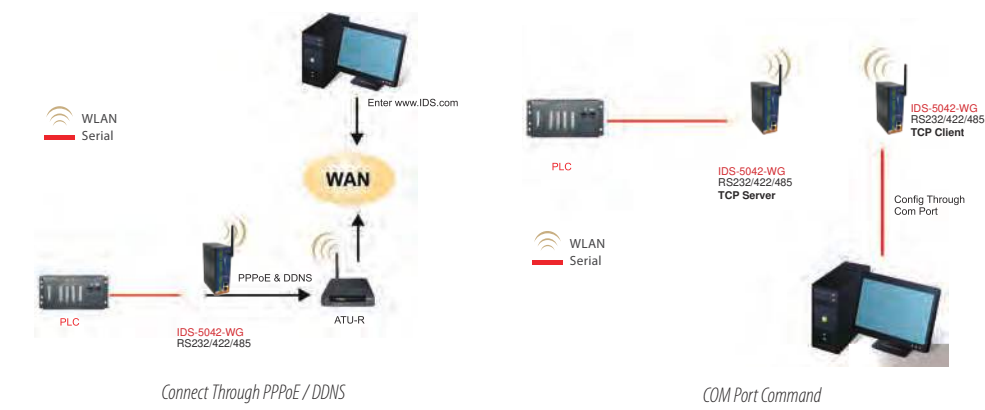

Redundancy 5 Host Devices

Dual Ethernet Redundancy Mode

Wireless LAN Client Mode
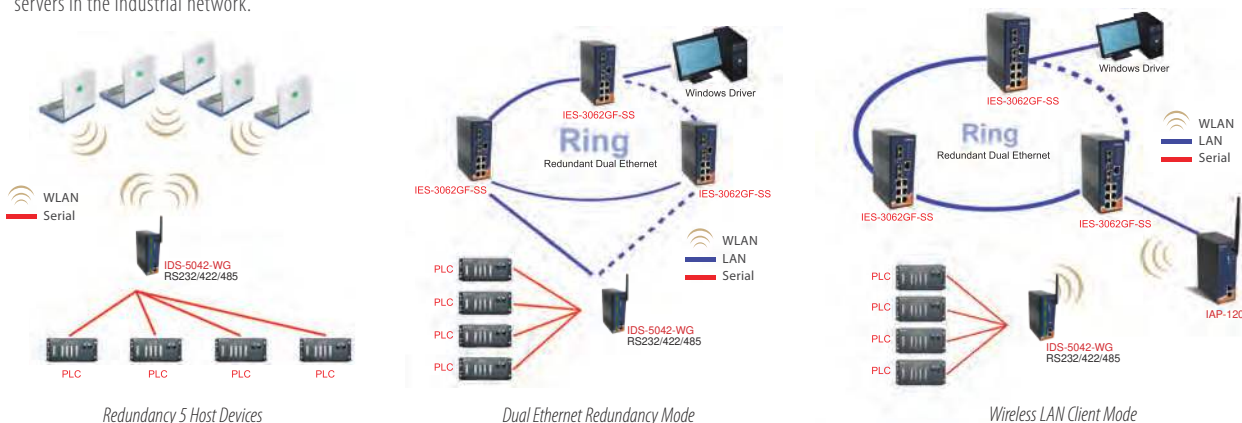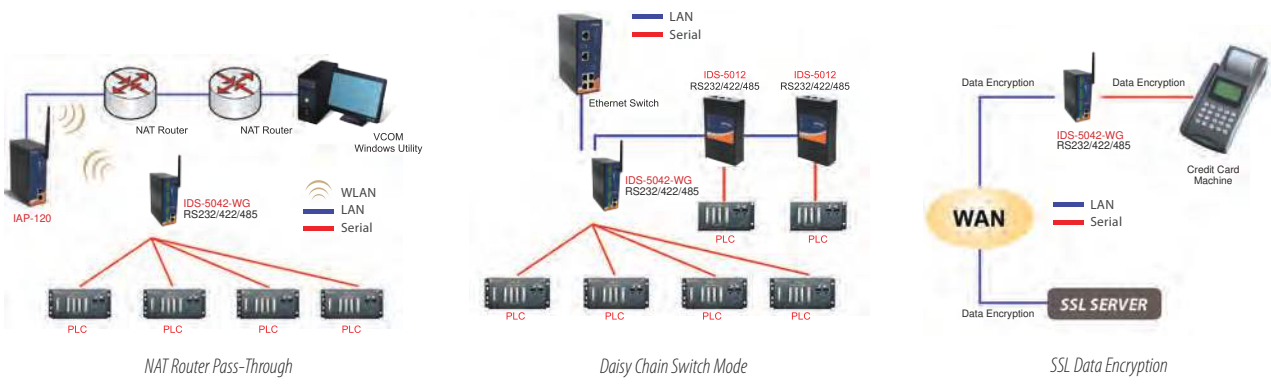
NAT Router Pass-Through

Daisy Chain Switch Mode

SSL Data Encryption

Connect Through PPPoE / DDNS

COM Port Command
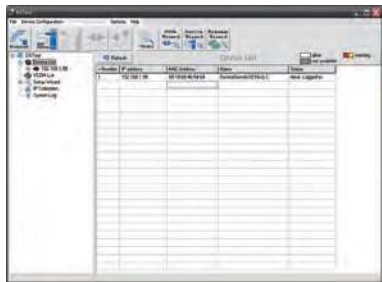
Monitoring and Configuration interface

Dimensions

Unit=mm

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

3

Pin Assignment

DB9 connector
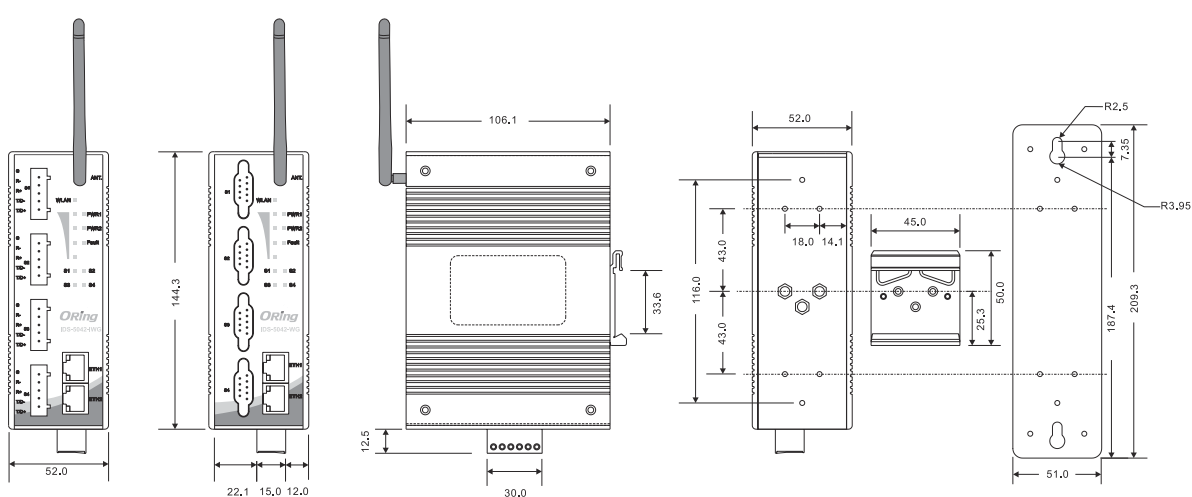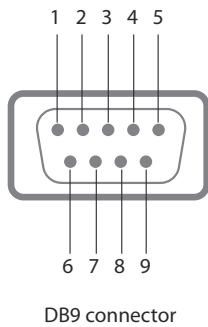
Pin #	RS-232	RS-422	RS-485 (4 wire)	RS-485 (2 wire)
1	DCD	RXD -	RXD -	-
2	RXD	RXD +	RXD +	-
3	TXD	TXD +	TXD +	DATA +
4	DTR	TXD -	TXD -	DATA -
5	GND	GND	GND	GND
6	DSR	-	-	-
7	RTS	-	-	-
8	CTS	-	-	-
9	RI	-	-	-
RS-232 mode act as DTE				

IDS-5042-WG Connector

5-Pin Terminal block connector
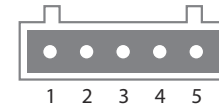
Pin #	RS-422	RS-485 (4 wire)	RS-485 (2 wire)
1	GND	GND	GND
2	RXD -	RXD -	-
3	RXD +	RXD +	-
4	TXD -	TXD -	DATA -
5	TXD +	TXD +	DATA +

IDS-5042-IWG Connector

Specifications

ORing Device Server Model	IDS-5042-WG	IDS-5042-IWG
Physical Ports		
10/100Base-T(X) Ports in RJ45 Auto MDI/MDIX	2	
WLAN Feature		
Operating Mode	Client mode	
Antenna and Connector	2dBi antenna on reversed SMA connector	
Radio Frequency Type	DSSS, OFDM	
Modulation	IEEE802.11b : CCK, DQPSK, DBPSK IEEE802.11g : 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	IEEE802.11b : 1/ 2/ 5.5/ 11 Mbps IEEE802.11g : 6/ 9/ 12/ 18/ 24/ 36/ 48/ 54 Mbps	
Transmit Power	IEEE802.11b/g : 18dBm	
Receiver Sensitivity	-81dBm @ 11Mbps, PER< 8%; -64dBm @ 54Mbps, PER< 10%	
Encryption Security	WEP : (64-bit ,128-bit key supported) WPA /WPA2 : IEEE802.11i(WEP and AES encryption) WPA-PSK (256-bit key pre-shared key supported) TKIP encryption 802.1x Authentication supported	
Serial Ports		
Connector	DB9(male) x 4	5-pin terminal block x 4
Operation Mode	RS-232 / RS-422 / 4(2)-Wire RS-485. Which can be configured by DS-Tool	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	
Isolation	-	2 KV
Flow Control	XON/XOFF, RTS/CTS, DTR/DSR	XON/XOFF
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.
WLAN Indicator	WLAN Link /ACT : Green WLAN Strength : 1<25%, 2<50%, 3<75%, 4<100%
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 6-pin terminal block	
Power Consumption (Typ.)	6.5 Watts	6.5 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)	691 g	675 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
Warranty	3 years

Ordering Information

IDS-50 A B - C DD

Code Definition	Serial Port Number	Ethernet Port Number	Serial Port Identification	WLAN Interface
Option	- 4: 4 ports	- 2: 2 ports	- I: Serial port are isolated RS-422/485 - "": Serial port are non-isolated RS-232/422/485	- WG: IEEE802.11 b/g mode

	Model Name	Description
Available Model	IDS-5042-WG	Industrial 4-port secure serial to IEEE 802.11 b/g wireless device server with 4xRS-232/422/485 and 2x10/100Base-T(X)
	IDS-5042-IWG	Industrial 4-port secure serial to IEEE 802.11 b/g wireless device server with 4xRS-422/485 (2KV isolation) and 2x10/100Base-T(X)

Packing List
- IDS-5042-WG/5042-IWG
- DIN-Rail Kit
- Wall-mount Kit
- 2dBi Antenna
- 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
- WLAN RF Antenna Series
- RF Antenna Base Series
- RF Surge Protector Series
- RF Cable Series

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