IDS-5042-WG

Industrial 4-port RS232/422/485 to 802.11 b/g WLAN and 2-port 10/100TX Device Server

Highlights

- Redundant Dual Ethernet Ports: Recovery time < 10ms
- Switch Mode Supported: Daisy Chain support to reduce usage of switch ports
- High Speed Air Connectivity: WLAN interface support up to 54Mbps link speed
- Highly Security Capability: WEP/WPA/WPA2/TKIP supported
- NAT-pass through: User can manage IDS-5042-WG/IWG through NAT router
- Redundant Power Inputs: 12~48VDC on terminal block
- Redundant multiple host devices: 5 simultaneous in Virtual COM, TCP Server, TCP Client mode, UDP
- Secured Management by HTTPS and SSH
- Versatile Modes: Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP
- Event Warning by Syslog, Email, SNMP trap, and Beeper
- Various Windows O.S. supported: Windows NT/2000/ XP/ 2003/VISTA 32-bit

Features

- Dual redundant Ethernet port support redundant mode (Recovery time < 10ms)
- Ethernet switch mode enable Daisy Chain
- High Speed with a maximum link speed of 54Mbps With IEEE802.11b/g dual mode capability
- High Security Capability with WEP, WPA, WPA2, and TKIP
- Redundant 5 multiple host devices supported to protect your industrial network
- Versatile modes & event alarm by e-mail
- HTTPs & SSH protocol supported for secured management

- NAT router pass through
- IP table to prevent access from unauthorized IP address
- Configurable by Web-based and Windows utility **(DS-Tool)**
- 2KV isolation for RS422/485 serial port of IDS-5042-IWG
- Dual redundant DC power inputs of terminal block
- Rigid IP-30 housing design
- DIN-Rail and panel mounting enabled

Introduction

   IDS-5042-WG is an innovative 4 ports RS232/422/485 and IDS-5042-IWG with 4 ports isolated RS422/485 to 802.11b/g WLAN and 2 ports LAN device server. Users are able to configure the Switch by DS-Tool via LAN port or WLAN interface, but not simultaneously. Once LAN port is activated, WLAN interface will enter standby mode to minimize power consumption. IDS-5042-WG /IDS-5042-IWG offers many powerful features for HW & SW redundant functions. When the connection between master-link and LAN fails, IDS-5042-WG/IDS-5042-IWG can automatically switch to another LAN port within 10mS, and still guarantees a non-stop connection. IDS-5042-WG/IDS-5042-IWG also supports switch mode; users can use Daisy Chain to reduce the usage of Ethernet switch ports. Secondly, IDS-5042-WG/IDS-5042-IWG can simultaneously transfer data into 5 host

PCs. This feature can assure all critical data that saved in different host PCs to avoid Ethernet break or host PCs failure. Thirdly, IDS-5042-WG /IDS-5042-IWG provides dual redundant power inputs on terminal block. IDS-5042-WG /IDS-5042-IWG also provides NAT pass through function so that users are able to manage IDS-5042-WG /IDS-5042-IWG inside or outside the NAT router. It is easy for different IP domain users to use IDS-5042-WG/IDS-5042-IWG. Therefore, IDS-5042-WG/IDS-5042-IWG is one of the best communication solutions for wireless application of quad-port serial devices
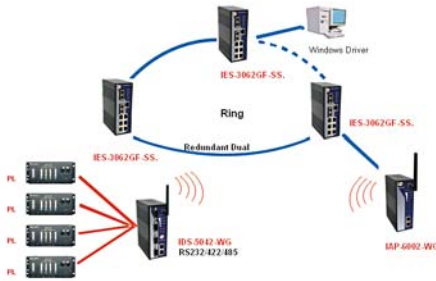
DS-Tool

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 on the industrial network.
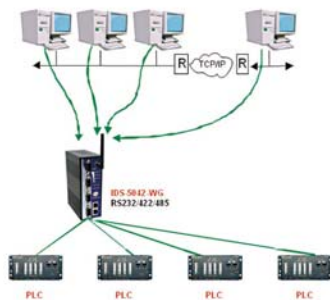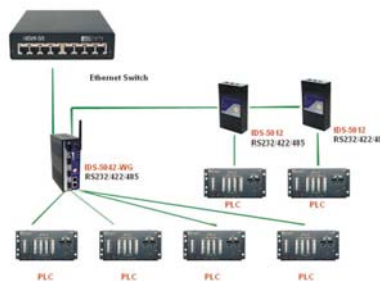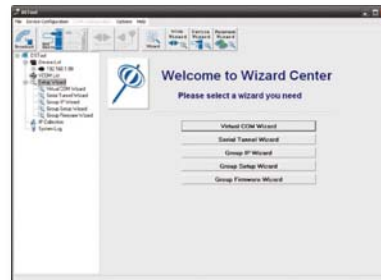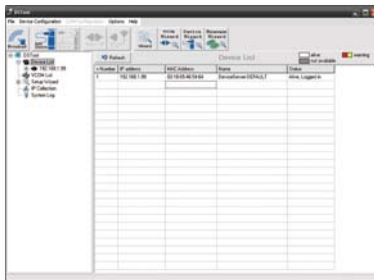

NAT router Pass Through
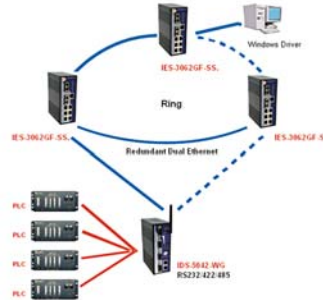
Dual Ethernet Redundancy mode
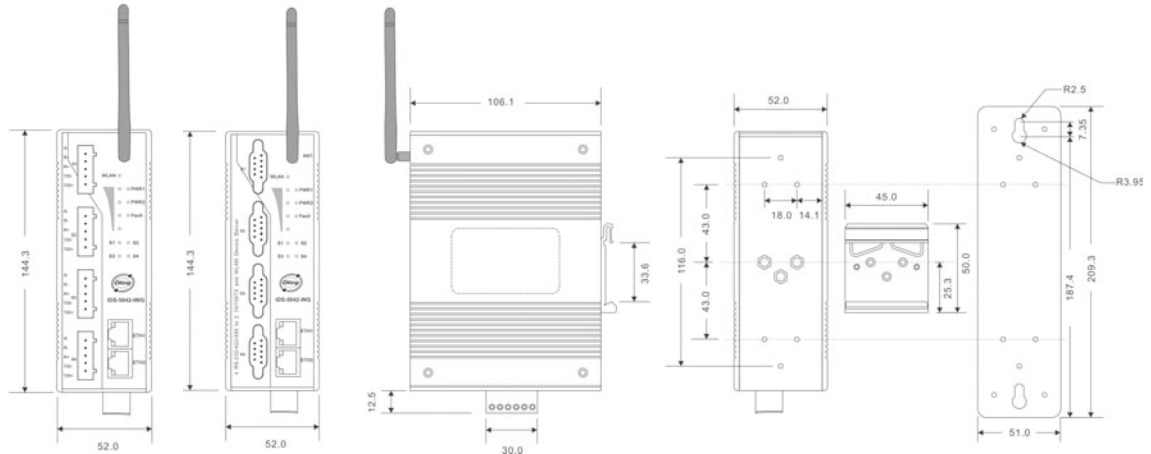

Wireless LAN Client mode

Daisy Chain Switch mode

Monitoring and Configuration interface

Dimension

(Unit=mm)

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 Connector	Reverse SMA	
Radio Frequency Type	DSSS	
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 : 802.11i(WEP and AES encryption)
	            PSK (256-bit key pre-shared key supported)
	            TKIP encryption	

Serial Ports		
Connector	DB9 x 4	5 pin terminal block x 4
Operation Mode	RS232 / RS422 / 4(2)-Wire RS485. Which can be configured by DS-Tool	RS422 / 4(2)-Wire RS485. 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	

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.
10/100TX RJ45 port indicator	Green for port Link/Act at 100Mbps. Yellow for port Link/Act at 10Mbps.
WLAN indicator	WLAN Link /ACT: Green: Link 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 on terminal block	

Physical Characteristic		
Enclosure	IP-30	
Dimension (W x D x H)	52(W)x106(D)x144(H) mm (2.05x4.17x5.67 inch.)	
Weight (g)	691 g	675 g

Environmental	
Storage Temperature	-40 to 85°C(-40 to 185°F)
Operating Temperature	-10 to 55°C (14 to 131°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
Warranty	3 years

Ordering Information

IDS-50 A B - D EE

Code Definition	Serial Port Number	Ethernet Port Number	Serial Port Identification	WLAN Identification
Option	- 4: 4 port	- 2: 2 port	- 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 RS232/422/485 to 802.11 b/g WLAN and 2-port 10/100TX Device Server
	IDS-5042-IWG	Industrial 4-port isolated RS422/485 to 802.11 b/g WLAN and 2-port 10/100TX Device Server