IDS-5011-WG

Industrial 1-port secure serial to IEEE 802.11 b/g wireless device server with 1xRS-232/422/485 and 1x10/100Base-T(X)

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-5011-WG through NAT router
- High Security Capability : SSL data encryption ; secured management by HTTPS and SSH ; IP Access : IP White List ; wireless : WEP/WPA/PA2/802.1X/TKIP
- Internet Communication : PPPoE authentication
- Update DNS Hostname : DDNS
- 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-5011-WG is an innovative secure 1-port RS232/422/485 to 802.11b/g WLAN, up to 54Mbps, and 1-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-5011-WG can simultaneously transfer data up to 5 redundant host PCs to aovid Ethernet connection breakdown or any host PC fails. Further, IDS-5011-WG features HTTPS, SSH, SSL encryption, and 802.1X to assure the security of critical data transmission.

IDS-5011-WG supports RS-232/422/485 and provides dual redundant power inputs, 12~48 VDC, on DC power jack and terminal block to guarantee a non-stop operation. With wide operating temperature, -10~60℃, and rugged IP-30 housing design, IDS-5011-WG 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.

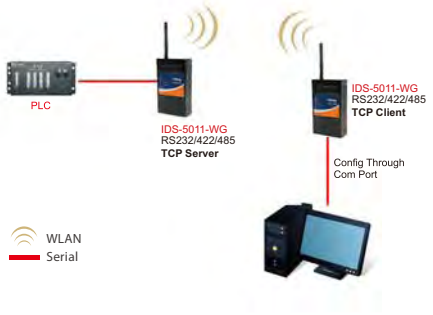
Multiple Host PCs

NAT Router Pass-Through

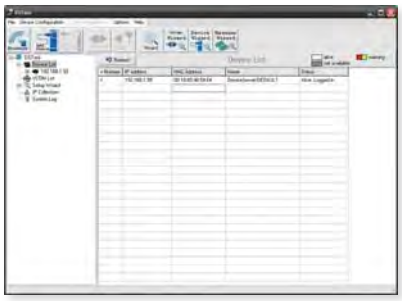
Wireless Client Mode

SSL Data Encryption

PPPoE and DDNS

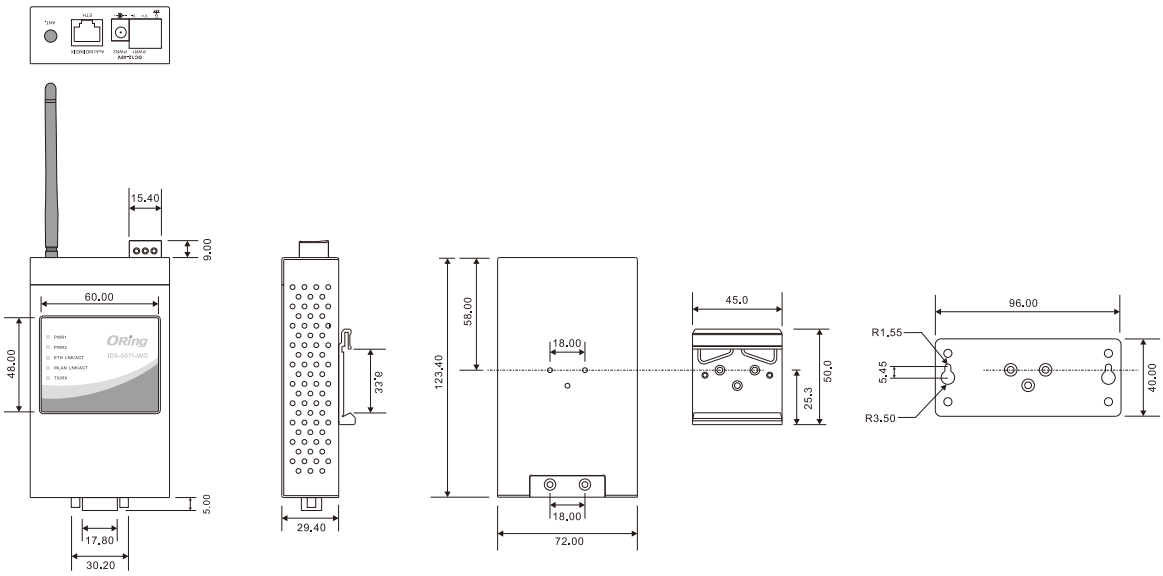


TCP Client / Server Modes



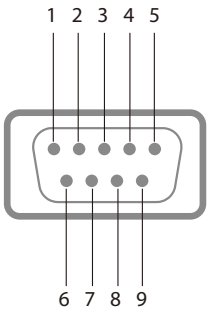
DS-Tool (Windows Utility) : Monitoring and Configuration interface

Dimensions



Unit=mm

Pin Assignment



DB9(male) 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				

Specifications

ORing Device Server Model	IDS-5011-WG
Physical Ports	
10/100Base-T(X) Ports in RJ45 Auto MDI/MDIX	1
WLAN Feature	
WLAN Standard	IEEE802.11b/g
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	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 : 16dBm
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 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 230.4 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.
WLAN Indicator	Green for WLAN Link /ACT
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.)	5 watts
Overload Current Protection	Present
Reverse Polarity Protection	Present on terminal block
Physical Characteristics	
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)	346 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	EN60950-1
Warranty	3 years

Ordering Information

IDS-50 A B - CC

Code Definition	Serial Port Number	Ethernet Port Number	WLAN Interface
Option	**- 1:** 1 port	**- 1:** 1 port	**- WG:** IEEE802.11b/g mode

Available Model	Model Name	Description
	IDS-5011-WG	Industrial 1-port secure serial to IEEE 802.11 b/g wireless device server with 1xRS-232/422/485 and 1x10/100Base-T(X)

Packing List

- IDS-5011-WG
- DIN-Rail Kit
- Wall-mount Kit
- 2dBi Antenna
- ORing Tool CD
- Quick Installation Guide

Art. No. 118028

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
- WLAN RF Antenna Series
- RF Antenna Base Series
- RF Surge Protector Series
- RF Cable Series