

# IDS-5011F

## ➤ Industrial 1-port secure serial to Ethernet device server with 1xRS-232/422/485 and 1x100Base-FX

### Features

- 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-5011F through NAT router
- Security: SSL data encryption; secured management by HTTPS and SSH  
H: IP Access: IP White List
- Internet Communication: PPPoE
- 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 (32bit/64bit) /Windows 7(32bit/64bit)



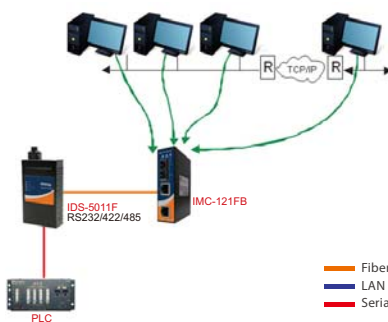
### Introduction

IDS-5011F is an innovative secure 1-port RS-232/422/485 to 1-port optic fiber Ethernet port secure serial to Ethernet 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-5011F can simultaneously transfer data up to 5 redundant host PCs to avoid Ethernet connection breakdown or any host PC fails. Further, IDS-5011F features HTTPS, SSH, and SSL encryption to assure the security of critical data transmission.

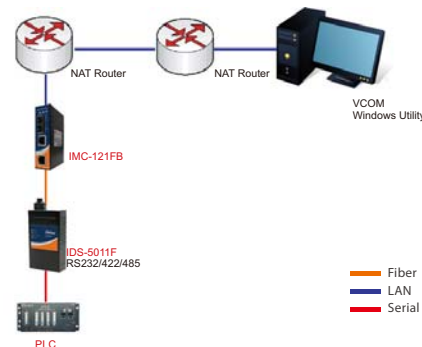
IDS-5011F provides dual redundant power inputs, 12~48 VDC, on DC power jack and terminal block to guarantee a non-stop operation. With wide operating temperature, -10~60°C, and rugged IP-30 housing design, IDS-5011F could operate in the harsh industrial environment. Therefore IDS-5011F is the best solution to the high demand of secure serial to Ethernet critical data communication.

### Practical Operation

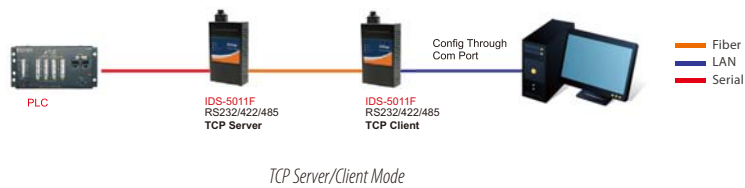
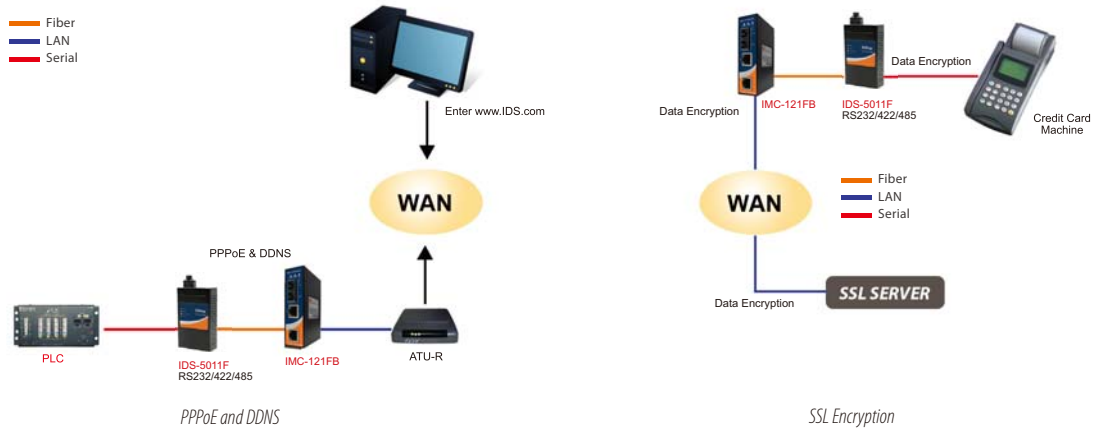
In practical operation of serial device servers, Windows utility (DS-Tool) is supported. This utility is very helpful for you to manage and monitor all of industrial device servers in the industrial network.



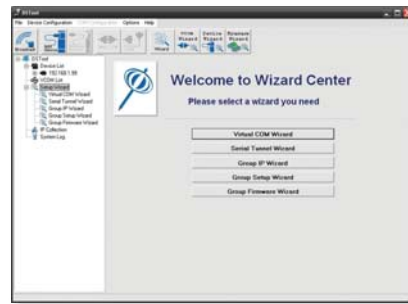
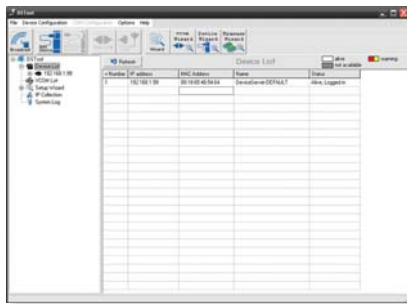
Multiple Host PCs



NAT Router Pass-Through

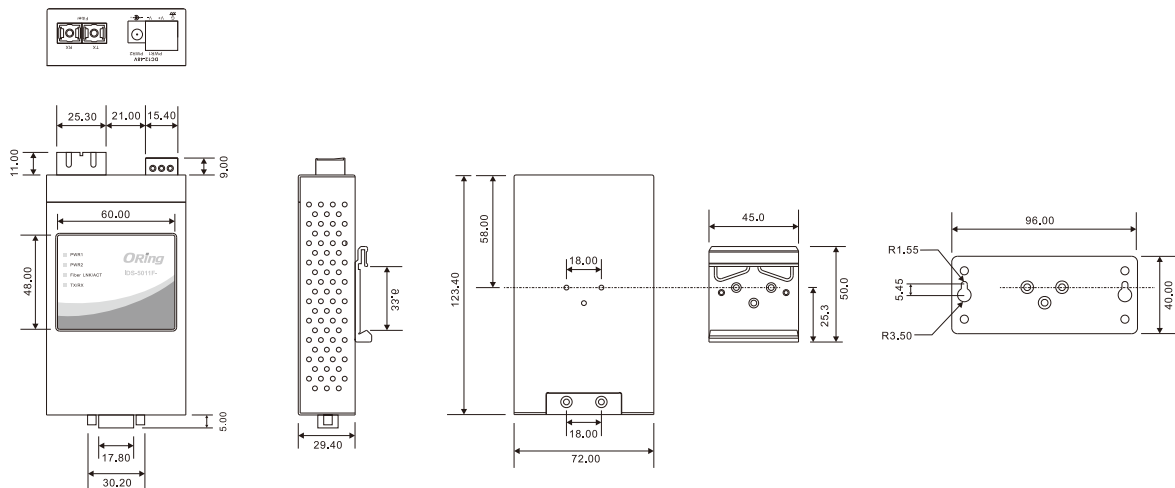


TCP Server/Client Mode



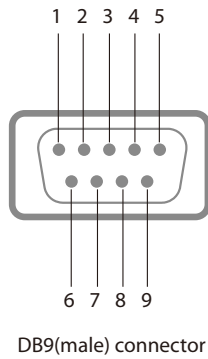
DS-Tool (Windows Utility): Monitoring and Configuration interface

## Dimensions



Unit=mm

## Pin Assignment



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-5011F-MM-SC	IDS-5011F-SS-SC
<b>Fiber Ports</b>		
Fiber Ports Number	1	1
Fiber Ports Standard	100Base - FX	100Base - FX
Fiber Mode	Multi-mode	Single-mode
Fiber Diameter (µm)	62.5/125 µm 50/125 µm	9/125 µm
Fiber Optical Connector	SC	SC
Typical Distance (km)	2 km	30 km
Wavelength (nm)	1310 nm	1310 km
Max. Output Optical Power (dBm)	-14 dBm	-8 dBm
Min. Output Optical Power (dBm)	-23.5 dBm	-15 km
Max. Input Optical Power (Saturation)	0 dBm	0 dBm
Min. Input Optical Power (Sensitivity)	-31 dBm	-34 dBm
Link Budget (dB)	7.5 dB	19 dB
<b>Serial Ports</b>		
Connector	DB9(male) x 1	
Operation Mode	RS-232 / RS-422 / 4(2)-Wire RS-485. Which can be configured by DS-Tool / web interface	
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	
<b>Network Features</b>		
Network Protocols	ICMP, IP, TCP, UDP, DHCP, BOOTP, SSH, DNS, SNMP V1/V2c, HTTPS, SMTP, SSL, PPPoE, DDNS	
<b>LED Indicators</b>		
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	

100Base-FX with SC Connector	Green for port Link/Act at 100Mbps
Serial TX / RX LEDs	Red : Serial port is receiving data Green : Serial port is transmitting data
<b>Power</b>	
Redundant Input Power	Dual DC inputs. 12~48VDC on 3-pin terminal block and power jack
Power Consumption (Typ.)	4 watts
Overload Current Protection	Present
Reverse Polarity Protection	Present on terminal block
<b>Physical Characteristics</b>	
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)	325 g
<b>Environmental</b>	
Storage Temperature	-40 to 85°C (-40 to 185°F)
Operating Temperature	-10 to 60°C (14 to 140°F)
Operating Humidity	5% to 95% Non-condensing
<b>Regulatory Approvals</b>	
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
MTBF (Hours) (MIL-HDBK-217F2, GB, GC, 25°C)	561,145
Warranty	5 years

## Ordering Information

**IDS-50 A B C - DD**

Code Definition	Serial Port Number	Ethernet Port Number	Fiber Port Identification	Fiber Optical Mode
<b>Option</b>	- <b>1</b> : 1 port	- <b>1</b> : 1 port	- <b>F</b> : 100Base-FX - <b>T</b> : 10/100Base-T(X)	- <b>MM</b> : Multi-mode Fiber - <b>SS</b> : Single-mode Fiber

Model Name	Description
IDS-5011F-MM-SC	Industrial 1-port secure serial to Ethernet device server with 1xRS-232/422/485 and 1x100Base-FX, multi-mode, 2km/1310nm, SC connector
IDS-5011F-SS-SC	Industrial 1-port secure serial to Ethernet device server with 1xRS-232/422/485 and 1x100Base-FX, single-mode, 30km/1310nm, SC connector

### Packing List

- IDS-5011F
- DIN-Rail Kit
- Wall-mount Kit
- 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
- PAA-121000, 12VDC/1000mA 12W Power Adapter, US plug
- PAE-121000, 12VDC/1000mA 12W Power Adapter, EU plug