

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)



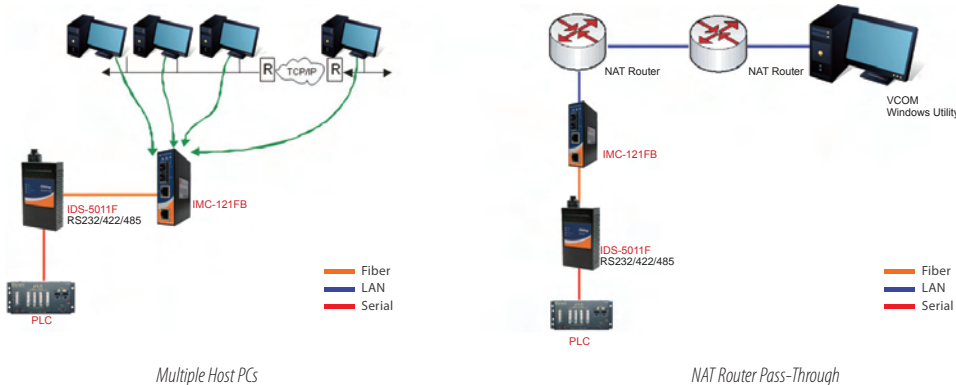
Introduction

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, -40~70°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

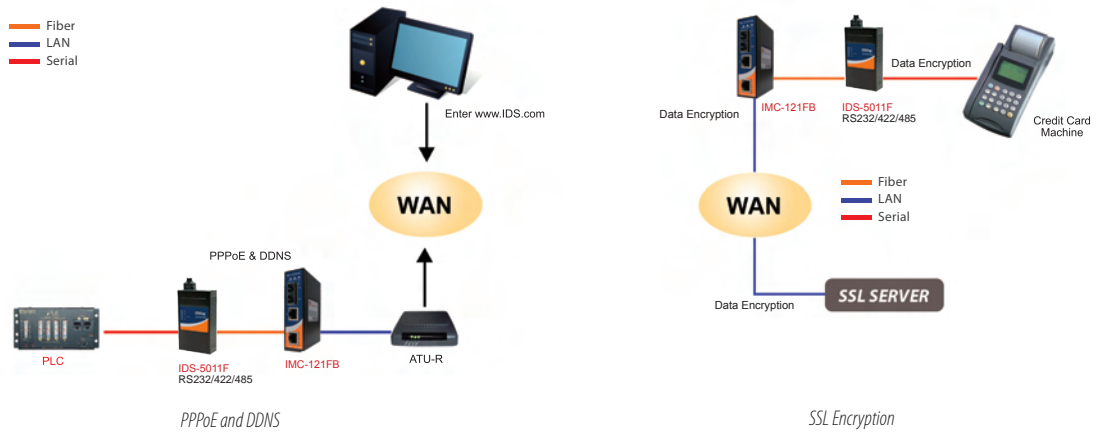
In practical operation of serial device servers, Windows utility (DS-Tool) is supported. This utility is very helpful for you to manage and monitor all of industrial device servers in the industrial network.



Multiple Host PCs

NAT Router Pass-Through

Industrial Ethernet Switch
Industrial Media Converter
Industrial Device Server
Industrial Wireless Access Point
Industrial Cellular VPN Router
Industrial M2M Gateway
Accessories
Network Management Software

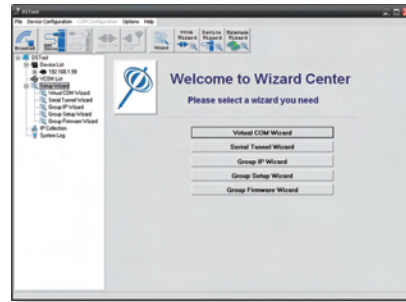
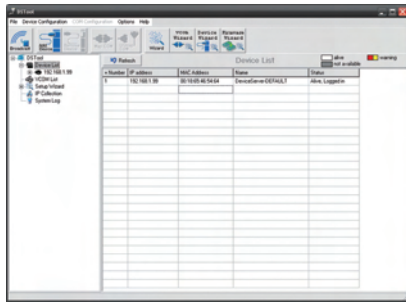


PPPoE and DDNS

SSL Encryption

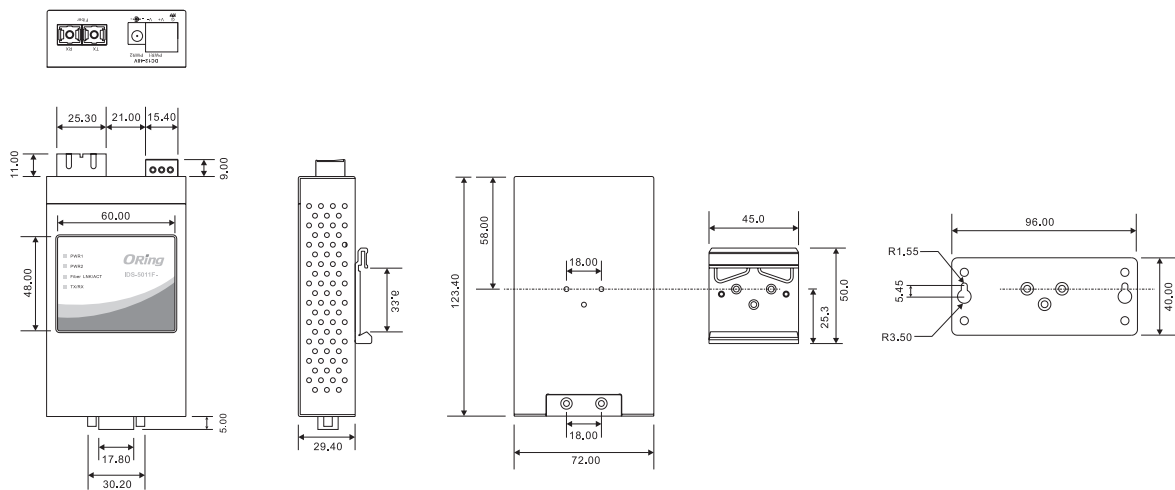


TCP Server/Client Mode



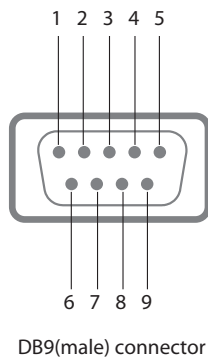
DS-Tool (Windows Utility): Monitoring and Configuration interface

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
Fiber Ports		
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 nm
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
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 / 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	
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	

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
Power	
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
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)	325 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
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)	1,068,579
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
Option	- 1 : 1 port	- 1 : 1 port	- F : 100Base-FX - T : 10/100Base-T(X)	- MM : Multi-mode Fiber - SS : Single-mode Fiber

	Model Name	Description
Available Model	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
- SDR-240-48, 240W DIN-Rail power supply
- SDR-480-48, 480W DIN-Rail power supply
- PAA-121000, 12VDC/1000mA 12W Power Adapter, US plug
- PAE-121000, 12VDC/1000mA 12W Power Adapter, EU plug