

Intelligent Serial-to-Ethernet Device Servers

iDS-700

iDS-400

Intelligent Device Servers
Remotely Monitor and Control RS-232/RS-485
Devices via an Ethernet Network



iDS-718i-D

iDS-728iM-T

iDS-448iM-D

Features ▶▶▶▶

- Simple setup, factory floor devices can be connected to SCADA systems in minutes
- Serial Devices can be monitored and controlled via the Ethernet
- Supports 1/2/4-port RS-232, RS-422 and RS-485 communications
- Web-based configuration and PC Utility
- Serial ESD protection
- Provides Virtual COM (COM port redirection), TCP Server/Client (Max. 32 connections), UDP, Serial Tunnel (Pair connection), Modem Emulator, Modbus Gateway and RFC2217 application modes.
- Built-in Buzzer, RTC and Watchdog
- Wide operating temperature range: -25 to +75°C
- Supports SNMP V1, V2c, V3, Trap and MIB-II protocols for network management
- Built-in Hardware-selectable Pull High/Low resistors and Terminal resistors for RS-422/485 ports
- Supports RS-485 Data Direction Control with Self-Tuner Technology
- Supports IPv4 and IPv6
- Reset button for restoring the factory configuration
- RoHS Compliant

Serial Device Server

Introduction

Introducing the All-new Device Server
Cost, Performance and Reliability in Total Alignment



The iDS product range is the 3rd generation of Device Servers from ICPDAS. It is designed for rugged, industrial-level applications, and provides high performance, high reliability and high capacity.

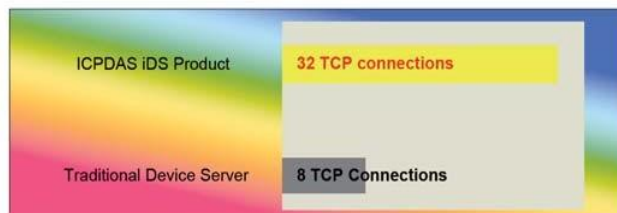
The iDS product range provides a complete Ethernet service, as well as 1-, 2-, and 4-port RS-232/RS-422/RS-485 interfaces that allow any existing serial devices to be connected to an Ethernet network.

Industry 4.0 is Coming

Serial-to-Ethernet services have become more critical than ever before



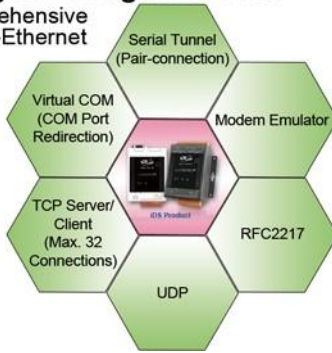
iDS Product



More connections mean greater connectivity for integration with the Internet of Things

Taking the Long-term View

A comprehensive serial-to-Ethernet Service



We Know Time is Everything

Quick and Easy Installation



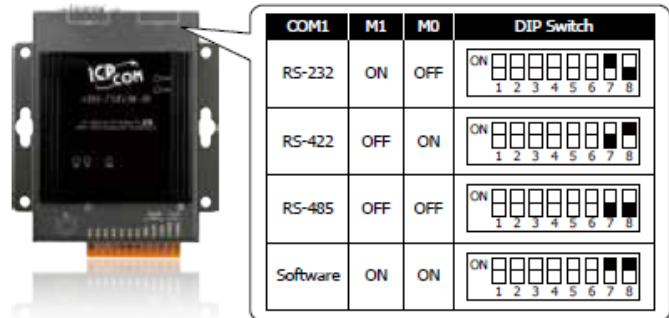
Powerful Data Transparent Solution: Zero Data Loss

The iDS product range is equipped with an ARM-based high-performance CPU and large capacity RAM in order to accomplish the goal of "Zero Data Loss" when attempting to transfer a critical data stream. If a failure occurs on the Ethernet connection, the serial data will be queued and will be resent once the Ethernet is reconnected. Each device port provides 32 TCP connections that can be used to share the same information across the network from a single serial device.

Industrial-grade Design

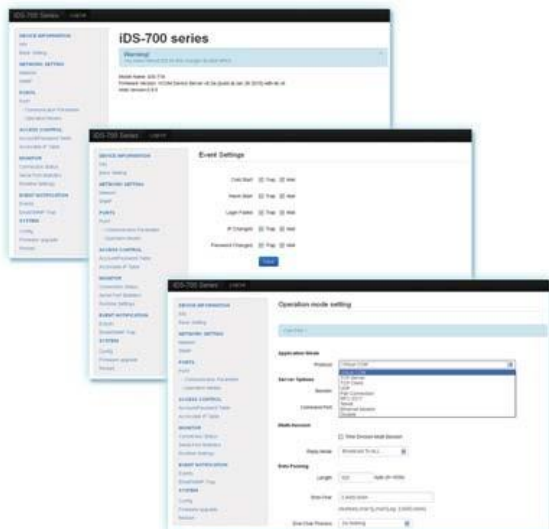
The iDS product range provides a wide range of built-in features designed for easy deployment of the device into existing operating environments.

1. Dual Power Supply: DC and PoE
2. DIN-Rail Mounting
3. Serial Port Surge Protection
4. Adjustable RS-485 Terminal Resistor and Pull High/Low Resistor
5. RS-485 Direction Control via the embedded ICPDAS Self-Tuner
6. Hardware/Software-selectable RS-232, RS-422 or RS-485 Interfaces
7. Hardware Reset button and LED Indicator
8. 64-bit Hardware Serial Number



Easy web-based Configuration

The built-in web server allows the iDS product to be accessed and configured using a standard web browser, such as Internet Explorer or Google Chrome. The configurations include parameters of serial ports, SNMP, the mode of Serial-To-Ethernet service. In addition, the onboard Flash memory provides the capacity for future software upgrades.



IT-friendly Management

All devices in the iDS product range support the SNMP protocol, which is a popular method within the IT industry for monitoring a device over the Ethernet. The iDS device can be configured to send SNMP-Trap alerts to the SNMP manager if user-defined errors or events are encountered. For example, alerts can be triggered by a warm/cold start events, or a password change, etc. An email alert and web-based event log page is also provided.

Perfect Harmony

Making the right decision leads to lazy days on the beach

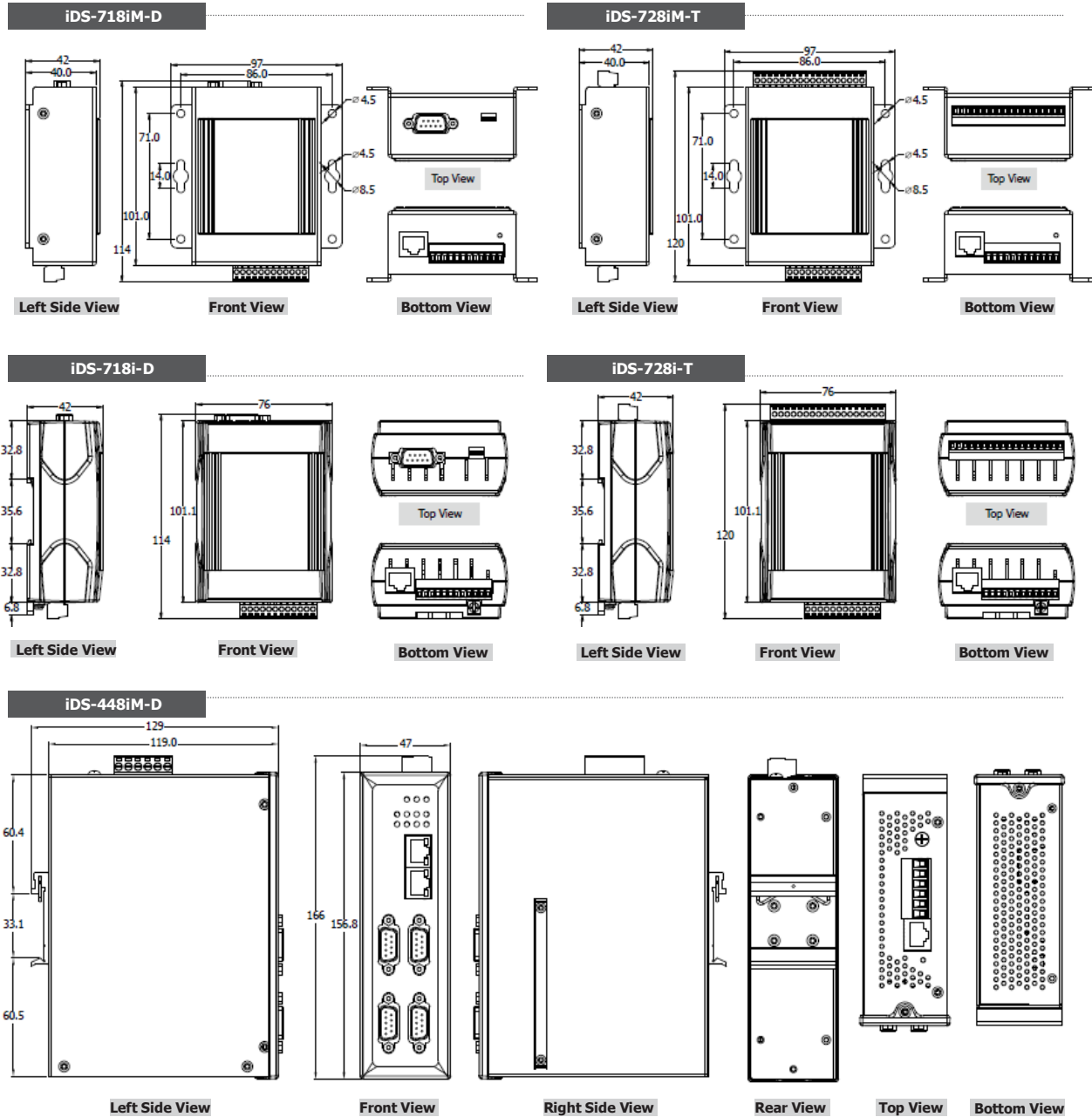


Specifications

Serial Device Server

Models	iDS-718i-D	iDS-728i-T	iDS-718iM-D	iDS-728iM-T	iDS-448iM-D
CPU Module					
CPU	32-bit High Performance Processor				
Peripheral	microSD, RTC, 64-bit Serial Number, Watchdog, Buzzer				
Communication Interface					
COM1	5-wire RS-232/422/485 (Isolated)			8-wire RS-232/422/485 (Isolated)	
COM2	-	5-wire RS-232/422/485 (Isolated)	-	5-wire RS-232/422/485 (Isolated)	8-wire RS-232/422/485 (Isolated)
COM3	-	-	-	-	8-wire RS-232/422/485 (Isolated)
COM4	-	-	-	-	8-wire RS-232/422/485 (Isolated)
Ethernet	10/100 Base-TX, RJ-45 port (Auto-negotiating, Auto MDI/MDI-X, LED indicators), PoE (IEEE 802.3af, Class 1)			2-port 10/100 Base-TX Ethernet Switch with LAN Bypass, RJ-45 port (Auto-negotiating, Auto MDI/MDI-X, LED indicators), PoE (IEEE 802.3af, Class 1)	
COM Port Signals					
3-wire RS-232	Rx, Tx and GND				
5-wire RS-232	Rx, Tx, CTS, RTS and GND				
8-wire RS-232	Rx, Tx, CTS, RTS, DCD, DSR, DTR, and GND				
RS-422/485	Tx+, Tx-, Rx+, Rx- and GND/Data+, Data- and GND				
RS-485	Data+, Data- and Iso.GND				
COM Port Formats					
Data Bits	5, 6, 7, 8				
Parity	None, Even, Odd, Mark, Space				
Stop Bits	1, 1.5, 2				
Baud Rate	921.6 kbps Max.				
Flow Control	RTS/CTS, XON/XOFF				
Pull High/Low Resistor	Switch-selectable (1 kΩ for RS-422/485, Non-Resistor for RS-232)				
Power					
ESD Protection	Yes (with Frame Ground)				
Protection	Power input reverse polarity protection				
Required Supply Voltage	+12 VDC ~ +48 VDC (non-regulated) or PoE (IEEE 802.3af, Class 1)				
Power Consumption	3.5 W				
Software					
Protocols	ICMP, IPv4, IPv6, TCP, UDP, DHCP, BOOTP, Telnet, SSH, FTP, SFTP, DNS, SNMP V1/V2c/V3, HTTP, SMTP, ARP				
Configuration Method	Web and eSearch Utility for Windows				
Virtual COM for Windows	Windows XP/2003/2008/7/8 x86/x64, 2012 x64, XP Embedded				
Virtual COM for Linux	Linux kernel 2.4.x, 2.6.x, 3.x				
SNMP Standards	RFC1213 MIB-II, RFC1317				
Application Modes	Virtual COM, TCP Server, TCP Client, UDP, Pair Connection, RFC2217, Terminal, Reverse Telnet, TCP Modem, Modbus Gateway				
Mechanical					
Dimensions (W x H x D)	76 mm x 114 mm x 42 mm (97 mm x 114 mm x 42 mm for "M" versions)	76 mm x 120 mm x 42 mm (97 mm x 120 mm x 42 mm for "M" versions)		129 mm x 166 mm x 47 mm	
Installation	DIN-Rail				
Casing	Plastic (Metal for "M" versions)				
Environment					
Operating Temperature	-25 °C ~ +75 °C				
Storage Temperature	-40 °C ~ +80 °C				
Humidity	5 ~ 90% RH, non-condensing				

Dimensions (Units: mm)



Ordering Information

iDS-718i-D CR	Intelligent Device Server with 1 RS-232/422/485 (Isolated, RoHS, DB9)
iDS-718iM-D CR	Intelligent Device Server with 1 RS-232/422/485 (Isolated, Metal Case, RoHS, DB9)
iDS-728i-T CR	Intelligent Device Server with 2 RS-232/422/485 (RoHS, Terminal block)
iDS-728iM-T CR	Intelligent Device Server with 2 RS-232/422/485 (Metal Case, RoHS, Terminal block)
iDS-448iM-D CR	Intelligent Device Server with 4 RS-232/422/485 (Metal Case, RoHS, DB9)

Accessories

GPSU06U-6 CR	24 VDC/0.25 A, 6 W Power Supply
MDR-20-24 CR	24 VDC/1 A, 24 W Power Supply with DIN-R
DIN-KA52F-48 CR	48V/0.52A, 25 W Power Supply with DIN-Rail Mounting (RoHS, for NS-205PSE)
CA-0903	9-Pin Female D-Sub and RS-232 Connector Cable, 30 cm Cable
CA-0910	9-Pin Female D-Sub and 3-wire RS-232 Cable, 1 m Cable
NS-205 CR	Unmanaged 5-port Industrial Ethernet Switch (RoHS)
NS-205PSE CR	Unmanaged Ethernet Switch with 4 PoE Ports and 1 RJ-45 Uplink (RoHS)