ORing

RDS-P3000

Industrial IEC 61850-3 modular rack mount Device Server with

4 Serial slots and 1 Ethernet slot

Features

➤ Designed for power substation / Railway application and fully compliant with the requirement of IEC 61850-3 and IEEE 1613

➤ Modular serial port design makes planning easy

➤ 19 inches rack mountable design

➤ Operating Modes: Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP, Modbus Gateway

➤ Support RS-232/422/485 - DB9 or RJ48 connectors

➤ Supports application based QoS management

➤ Support Modbus Gateway : Modbus TCP, Modbus RTU, Modbus SCII.

➤ Supports SNMP v1/v2

➤ Event Warning by Syslog, Email and SNMP trap

➤ Configurable by Web-based and Windows utility (DS-Tool)

➤ Various Windows O.S. supported:

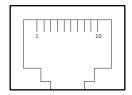➤ Windows NT/2000/ XP/ 2003/VISTA(32/64bit)/ Windows 7(32/64bit)

Introduction

RDS-P3000 is modular Serial Device Server with 4 serial slots and 1 Ethernet slot. The Device Server is designed for power substation application and rolling stock application, fully compliant with the requirement of IEC 61850-3 and IEEE 1613. RDS-P3000 is with modular design which can support up to 16 serial ports and 6 LAN ports with standard features of device server, such like TCP/IP interface and versatile operation modes: Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP and Modbus Gateway. With modular design, RDS-P3000 is able to communicate with many types of serial devices via different communication methods (RJ48 or DB9). In addition, the Windows untility, DS-Tool, could configure multiple devices and set up the mappings of Virtual Com.
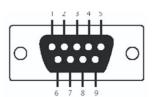
RDS-P3000, which is compliant with the IEC 61850-3 standard, supports wide operating temperature, -40~70ºC, RDS-P3000 series could operate in the harsh industrial environment. Therefore, RDS-P3000 is the best solution to the high demand of secure serial to Ethernet critical data communication.
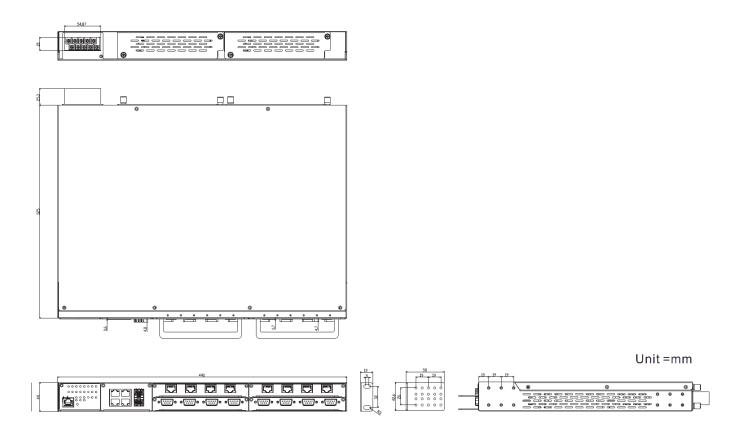
Pin Definition

10-pin RJ48 connector

Pin #	RS-232	RS-422	RS-485 (4 wire)	RS-485 (2 wire)
1	NC	NC	NC	NC
2	DCD	TXD -	TXD -	DATA-
3	RXD	TXD +	TXD +	DATA+
4	TXD	RXD +	RXD +	
5	DTR	RXD -	RXD -	
6	GND	GND	GND	
7	DSR			
8	RTS			
9	CTS			
10	RI			

DB9 connector

Pin #	RS-232	RS-422	RS-485 (4 wire)	RS-485 (2 wire)
1	DCD	TXD-	TXD-	
2	RXD	TXD+	TXD+	
3	TXD	RXD+	RXD+	DATA+
4	DTR	RXD-	RXD-	DATA-
5	GND	GND	GND	GND
6	DSR			
7	RTS			
8	CTS			
9	RI			

Dimension

Unit =mm

Specifications

ORing Device Server Model	RDS-P3000-LV	RDS-P3000-HV
Physical Ports		
10/100/1000 Base-T(X) in RJ45	**4**	
100/1000Base-X SFP	**2**	
Serial Ports		
Connector (10-pin RJ48)	16 ports in DB9 or 10-pin RJ48 (4 slots, 4 DB9 or RJ48 ports in one slot)	
Operation Mode	RS-232/422/485	
Serial Baud Rate	50 bps to 921.6 Kbps	
Data Bits	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	
Flow Control	XON/XOFF, RTS/CTS, DTR/DSR	
Protocol		
Network Protocol	ICMP, IP, TCP, UDP, DHCP, BOOTP, DNS, SNMP V1/V2c, HTTPS, SMTP, Modbus TCP	
Serial Protocol	Modbus RTU	
LED indicators		

Power indicator	PWR / Ready:
	    Green On: Power is on
	    Green Blinking: Located by Administrator.	

Fault Indicator (Fault)	Amber : Indicate unexpected event occurred	
10/100/1000Base-T(X) LAN indicator	Green for port Link/Act	
Serial TX / RX LEDs:	Amber: Serial port is receiving data Green: Serial port is transmitting data	
Power		
Power Input	Dual 24/48VDC (24~72VDC) power inputs at terminal block	Dual 100~240VAC / 100~370VDC power inputs at terminal block
Power consumption (Typ.)	15.6 W	
Overload current protection	Present	
Physical Characteristic		
Dimension (W x D x H)	360(W) x 440(D) x 43(H) mm	
Weight (g)	6436 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		
Power Automation	IEC 61850-3, IEEE 1613	
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	
Warranty	5 years	

Ordering Information

Available Model	Model Name	Description
	RDS-P3000-HV_US	Industrial IEC 61850-3 modular rack mount Serial Device Server with 4 serial slots, 1 Ethernet slot, low-voltage power input, US power cord
	RDS-P3000-HV_EU	Industrial IEC 61850-3 modular rack mount Serial Device Server with 4 serial slots, 1 Ethernet slot, low-voltage power input, EU power cord
	RDS-P3000-HV_AU	Industrial IEC 61850-3 modular rack mount Serial Device Server with 4 serial slots, 1 Ethernet slot, low-voltage power input, AU power cord
	RDS-P3000-HV_UK	Industrial IEC 61850-3 modular rack mount Serial Device Server with 4 serial slots, 1 Ethernet slot, low-voltage power input, UK power cord
	RDS-P3000-LV	Industrial IEC 61850-3 modular rack mount Serial Device Server with 4 serial slots, 1 Ethernet slot, low-voltage power input

Packing List

- **RDS-P3000 x 1**
- **Rack-mount kit x 2**
- **CD x 1**
- **Power Cable**
- **Quick Installation Guide x 1**

* All specifications are subject to change without notice.

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