RDS-3166G

Industrial 16 secure serial ports to Ethernet device server with 16xRS-232/422/485 and 4x10/100/1000Base-T(X) and 2x100/1000Base-X, SFP socket

Features

- Operating Modes: Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP, Modbus Gateway
- Support 16xRS-232/422/485 in RJ48 connector
- Provide 4 Gigabit Ethernet ports and 2 Gigabit Fiber ports in SFP socket
- Redundant multiple host devices:
  5 host devices: Virtual COM, TCP Server, TCP Client mode;
  4 IP ranges: UDP
- Support Modbus Gateway : Modbus TCP, Modbus RTU, Modbus ASCII
- Security: SSL data encryption; secured management by HTTPS and SSH
- Supports 9.6K Bytes Jumbo Frame
- Built-in 15 KV ESD protection for all serial signals
- Event Warning by Syslog, SNMP trap, Relay and Beeper
- Standard 1U rackmount size
- 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)

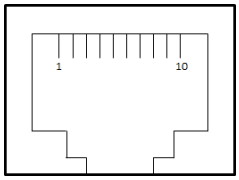
Introduction

RDS-3166G is an innovative secure 16 port RS-232/422/485 to 6 ports LAN secure device server 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. In addition, the Windows untility, DS-Tool, could configure multiple devices and set up the mappings of Virtual Com. RDS-3166G, is not only a traditional device server, it also includes the function of Modbus Gateway to convert Modbus TCP to Modbus RTU/ASCII which allows it to be installed in various different application field. On the other hand, RDS-3166G can simultaneously transfer data up to 5 redundant host PCs to aovid Ethernet connection breakdown or any host PC fails. Further, RDS-3166G features HTTPS, SSH, and SSL encryption to assure the security of critical data transmission.

RDS-3166G, the rackmount device which supports 4x10/100/1000Base-T(X) and 2x100/1000Base-X SFP ports. The two Gigabit fiber ports provide high bandwidth and long distance for the use of backbone connection. With wide operating

temperature, -40~70°C, RDS-3166G series could operate in the harsh industrial environment. Therefore, RDS-3166G is the best solution to the high demand of secure serial to Ethernet critical data communication.

Pin Definition

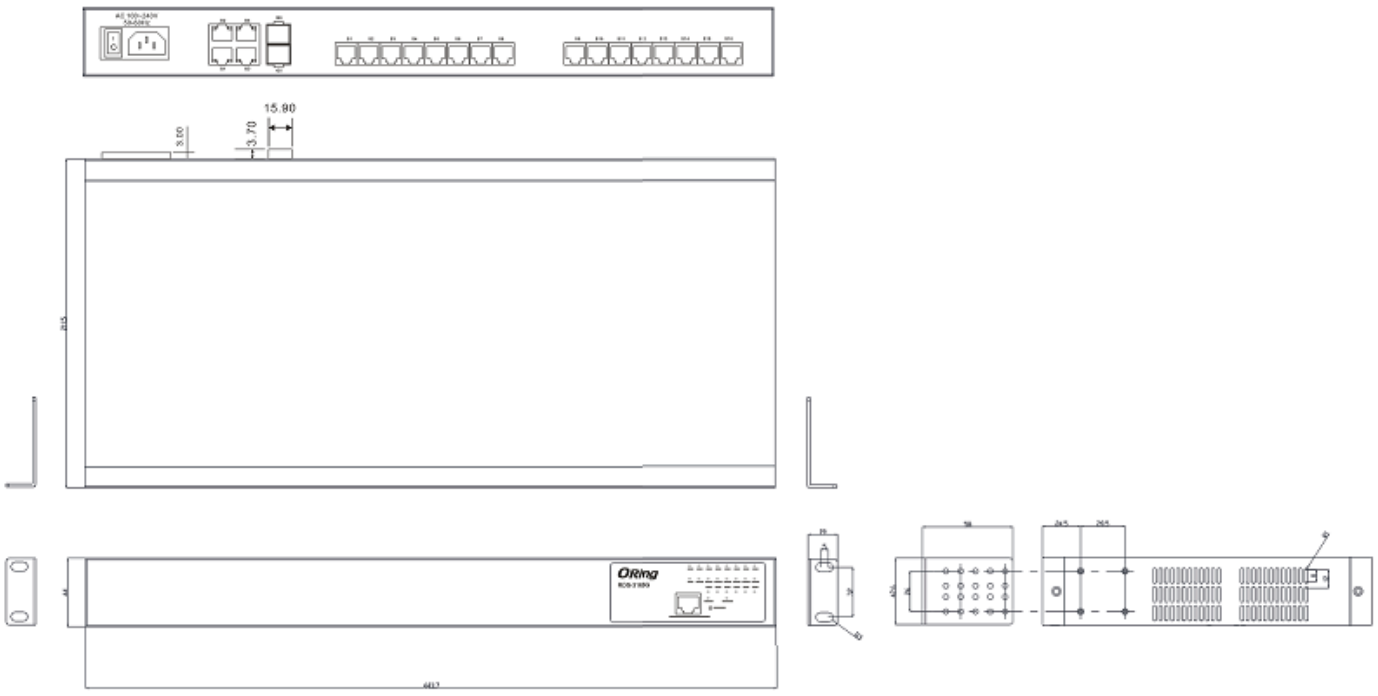


10-pin RJ48 connector

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			

Dimension

Dimension (Unit =mm)



Specifications

ORing Device Server Model	RDS-3166G
Physical Ports	
10/100/1000Base-T(X) Ports in RJ45 Auto MDI/MDIX	**4**
100/1000Base-X with SFP port	**2**
RS-232 Serial Console Port	RS-232 in RJ45 connector. 115200bps, 8, N, 1
Serial Ports	
Connector (10-pin RJ48)	RJ48 x 16
Serial Standard	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
Network Protocol	
Protocol	ICMP, IP, TCP, UDP, DHCP, BOOTP, SSH, DNS, SNMP V1/V2c, HTTPS
Jumbo frame	Up to 9.6K Bytes
LED indicators	
Power indicator	PWR : Green On: Power is on
10/100/1000Base-T(X) RJ45 port indicator	Green for Link/Act indicator. Dual color LED for speed indicator : Green for 1000Mbps, Amber for 100Mbps, Off for 10Mbps
LED Display System (Front panel)	Serial TX / RX LEDs: Green for Serial port transmitting data, Amber for Serial port receiving data G1~G6 : Green for port Link/Act Fault : indicate unexpected event occurred
Power	
Power Input	100-240VAC with power socket
Power consumption (Typ.)	14.4 Watts
Overload current protection	Present
Physical Characteristic	
Dimension (W x D x H)	443.7 (W) x 211.5 (D) x 44 (H) mm
Weight (g)	2891 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