

ERC6W21

**WiFi serial device server
Modbus TCP Gateway**

**ERC6WX1 series
2xRS232 + 1xRS485**



Specifications

- ◆ Serial device server(WiFi)
- ◆ Modbus RTU/TCP conversion(WiFi)
- ◆ IEEE 802.11 b/g/n WiFi
- ◆ Access point(AP) / Station(STA) mode
- ◆ 2.4 GHz WiFi frequency
- ◆ 10/100 Base-T Ethernet(setup&upgrade)
- ◆ Active connection monitoring
- ◆ Two RS232 and one RS485 ports
- ◆ RS232 port ± 15 kV electrostatic protection (IEC6100-4-2 Air Gap Discharge, HBM)
- ◆ RS485 over voltage protection
- ◆ 1/8 RS485 unit load (max. 256 units)
- ◆ 300 bps-230400 bps adjustable serial port baudrate(RS485 max:115200bps)
- ◆ ViCom Virtual serial port software
- ◆ ERCManager application for setup
- ◆ Firmware update over Ethernet
- ◆ DC 6.5-30V supply
- ◆ TCP/IP, DHCP, UDP, ARP, ICMP(ping), DNS protocols
- ◆ 3 leds for indication
- ◆ 126,1x90,6x56,6 mm (width,length,height)

Benefits

- ◆ Used for communication of serial devices over WiFi networks.
- ◆ When used in device server mode, data transferred transparently so there is no restriction for any protocol.
- ◆ When used in protocol converter mode, any Modbus RTU device connected to any serial port, controlled and monitored via Modbus TCP protocol over WiFi interface.
- ◆ Any TCP connection is monitored for inactivity and in such case, connection is restored.
- ◆ With free virtual com port software, old applications with COM only communication feature can be used.
- ◆ Any PC without serial port becomes capable of using in monitoring/SCADA applications.

Applications

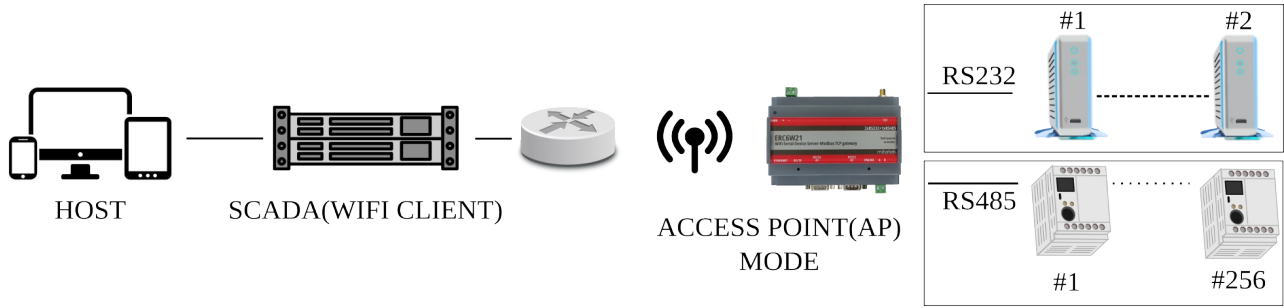
- ◆ IoT
- ◆ Remote monitoring
- ◆ Protocol conversion

Technical info

32 bit 100 MHz CISC controller
-40- +85°C operating temperature
DC 6.5-30V supply
EN60950, EN55022, EN55024
5.08 mm screw terminal



Block diagram



Serial port pinout(DTE)

Pin	Description	Pin	Description
1	DCD	6	DSR
2	RX	7	RTS
3	TX	8	CTS
4	DTR	9	RI
5	GND		

Electrical values and operating conditions

Value	Min	Max	Notes/description
Supply	6.5	30	V(DC)
Temperature	-40	85	°C
Current	30	100	mA (@ 5V supply)
Ethernet	10Base-T	100Base-T	-
Baud	300	230400	bps (RS485 max:115200bps)
Ethernet overvoltage protection	-	2250	VDC
Serial protocol	7-8 Databit, None-Even-Odd Parity, 1-2 Stop Bit		
WiFi	2.4 GHz, 802.11 b/g/n, 20 MHz bandwidth, 13 channels		
WiFi Security	WPA/WPA2-Enterprise/Personal, WPA2 SI, WPA3 SAE, OWE		
Maximum client connection in AP mode	10		
Controller type	32 bit CISC		
Controller speed	100 MHz		
Modbus TCP simultaneous connection	5		

Documents

Value	Name
ERC6WX1 series user manual	MT_ERC6WX1_KK_01

Order code

ERC6W21	2xRS232 + 1xRS485 Serial device server/Modbus TCP gateway
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