

USR-K Port Specification

Embedded Super Port Module



Introduction

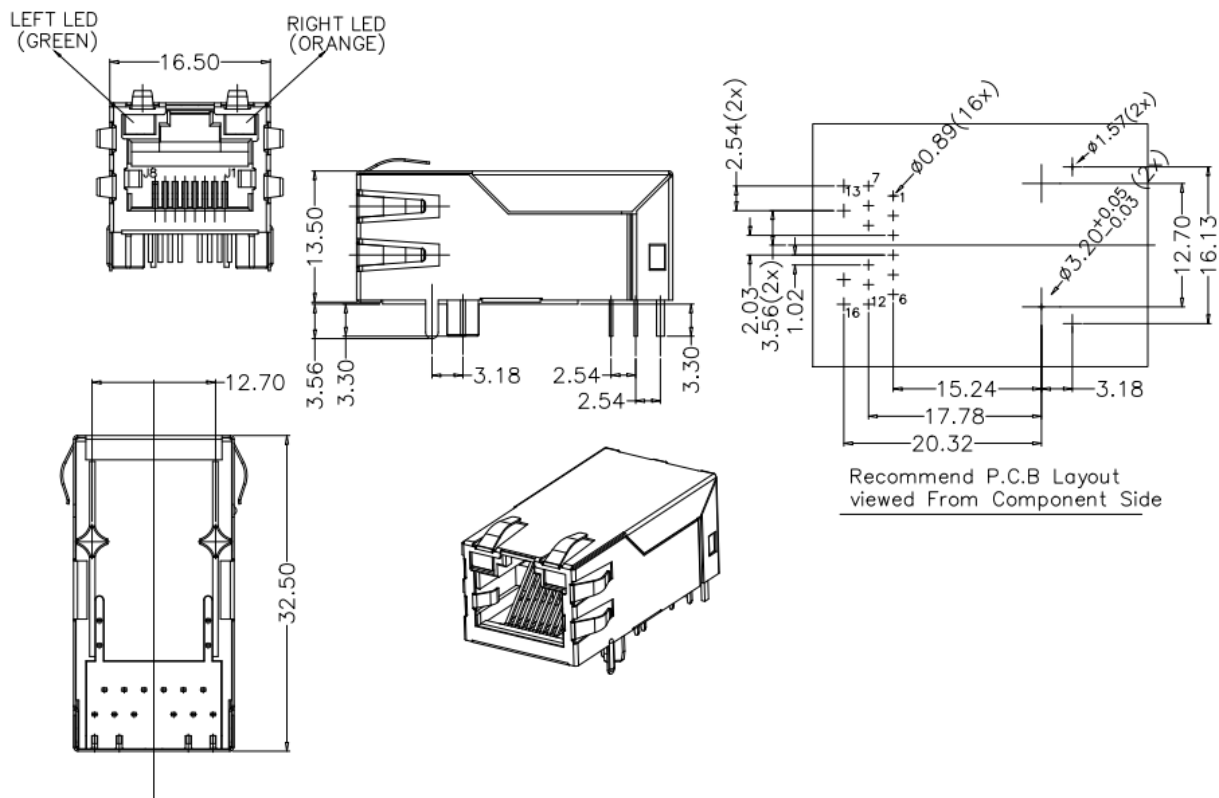
USR-K3 is an embedded TCP/IP modules that integrates the TI Cortex-M4 processor which can provide improved performance and high stability. This module has a high frequency of up to 120 Mbps. It is also a highly integrated module that includes TTL, Ethernet port, built-in network transformer, all these can easily achieve data transmission between TTL and Ethernet port and greatly reduce user's development time and improve their development progress.

USR-K2 adopts Cortex-M0 processor with a main frequency of up to 48MHz. It has the exact same appearance as K3. Users can switch between the two models without any change in hardware.

Product Features

- 10/100 Mbps Ethernet port, auto MDI/MDX and auto Negotiation.
- Link/Data LEDs can indicate the module's work status.
- 1.5 KV electromagnetic isolation and built-in network transformer for ethernet port.
- Supports hardware flow control: RTS/CTS.
- USB-VCOM is compatible with both the modules.
- Multiple parties are available, such as None, Odd, Even, Space, Mark.
- Customized webpage can help users to build brand influencers.
- Modbus gateway: protocol conversation between Modbus RTU and Modbus TCP, supports multiple hosts to poll slave.
- WebSocket function can achieve bidirectional data transmission between the serial port and webpage.
- Supports keepalive mechanism which can quickly detect abnormalities such as dead connections and reconnect quickly.

Dimensions(mm)



Specifications

Model	USR-K3	USR-K2
Processor	TI Cortex-M4	Atmel Cortex-M0
Frequency	120MHz	48MHz
Power		
Power Supply	DC: 3.0~3.6V (3.3V is recommended)	DC: 3.0~3.6V (3.3V is recommended)
Consumption	110mA (Aver)@3.3V	136mA (Aver)@3.3V
Ethernet		
Port Number	1 x RJ45	
Rate	10 /100 Mbps, auto MDI/MDX	
Protection	1.5KV electromagnetic isolation	
Serial Port		
Port Number	1 x TTL (3.3V TTL)	
Baud rate	600 bps~1 Mbps	600 bps~460.8 Kbps
Data Bits	5, 6, 7, 8	
Stop Bit(s)	1, 2	
Parity Bit	None, Even, Odd, Space, Mark	
Flow Control	Hardware: RTS/CTS	None
Serial Packet Cache	Send: 2K Bytes Receive: 2K Bytes	Receive: 800 Bytes
Physical Character		
Dimensions(mm)	33.0x19.0x19.2(L*W*H)	
Operating Temperature	-40 ~ 85°C	-25 ~ 75°C
Storage Temperature	-40~120°C	-40 ~ 90°C
Operating Humidity	5% ~ 95% (non-condensing)	
Storage Humidity	5% ~ 95% (non-condensing)	
Basic Features		
IP protocol	Static/DHCP	
DNS	√	
User-defined DNS	√	
Built-in Webpage	√	
Config Method	Built-in Webpage, Config Software, Open Config Protocol, AT Command	
Work Mode	TCP Server/TCP client/UDP Server/UDP Client	
HTTPD client	√	
Modbus Gateway	Modbus RTU to Modbus TCP Multi-host Modbus polling	
WebSocket	√	x
Max No. of Clients in TCPS	8	16
User-defined Webpage	√	
RF2217 Similar	√	
Registration Packet	√	
Heartbeat Packet	√	
Others		
Certificate	*CE, FCC, *RoHS, *WEEE	*CE, FCC, RoHS, *WEEE
Warranty	1 year	



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