

# USR-G806s Specification

## 4G industrial LTE VPN router



### Product Description

The USR-G806s is an IoT cellular router that integrates 4G LTE, Wi-Fi, and VPN technologies to provide an easy, reliable, secure Internet connectivity and high-speed data access for equipment networking. With technologies such as 4G wireless wide area network ,Dual Ethernet ports (LAN + WAN),Wi-Fi wireless local area network it provides uninterrupted multiple network access capabilities.

The G806s is a sister product of the G806 series offering a choice of (3-wire) RS485/232. This means that RS485/232 devices,such as electricity meters, programmable logic controllers including Modbus RTU equipment can connect to the internet directly through the router. The product adopts high-performance CPU, working frequency up to 580MHz, based on a variety of hardware interfaces and powerful software functions, users can quickly build their own application network.

The G806s occupies a very small footprint and supports industrial protocols and accessories to ease integration which is suitable for large-scale distributed industrial applications, such as smart express cabinets, charging piles, CCTV, ATM machines, ticket machines, traffic management,vending machines, medical device networking, tower monitoring,lifts monitoring, digital signage, electricity, water conservancy, environmental protection, etc.

## Product Features

### ■ Stable And Reliable

- Metal shell, IP30 protection. Ethernet ports support 1.5KV isolation transformer protection.
- Wide operating temperature. Wide voltage input, reverse polarity protection.
- ESD, Surge, EFT protection.
- Embedded hardware watchdog, self-recovers from malfunctions, maintaining high device availability.

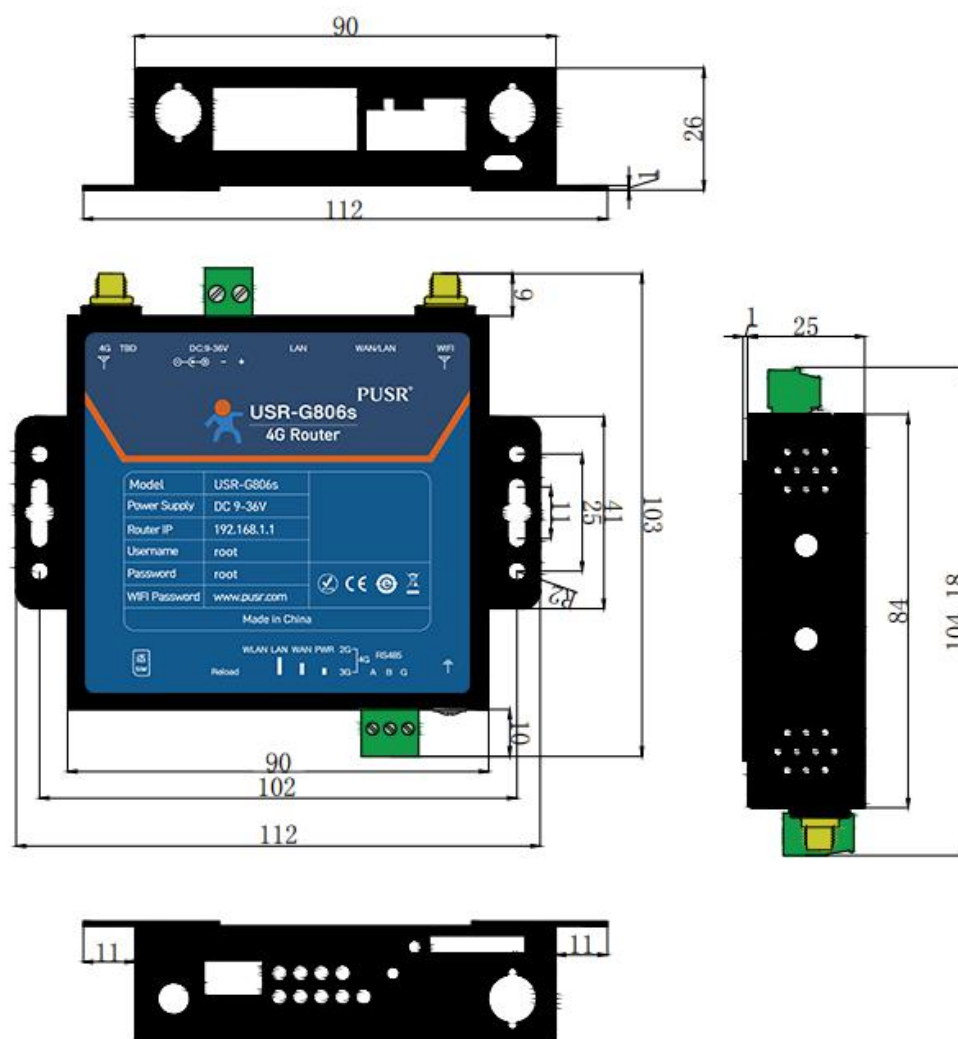
### ■ Uninterrupted network access

- Supports 2G/3G/4G network all over the world, supports APN/VPDN sim card.
- Failover between 4G and WAN, ensures automatic switch to alternative backup connection, effectively ensuring uninterrupted data transmission.
- VPN tunnel detection: maintains stable connection of the VPN tunnel, ensuring continuous transmission.
- Multi-layer link detection mechanism, automatic redial and recovery.

### ■ Rich functions

- Supports PUSR cloud platform to facilitate remote monitoring and central management of large-scale device networks.
- Supports remote monitoring, upgrade and parameter configuration, remote access to the built-in web pages.
- Supports email alarm, SMS alarm, abnormal alarm push in time.
- Dual Ethernet ports, WAN/LAN.
- Multiple VPN protocols.
- Wall-mounting and DIN-rail mounting options available, easy to install.
- Supports IPsec VPN, PPTP, L2TP, OPENVPN, GRE etc., ensuring secure data transmission.
- Supports firewall functions including NAT, access control, DDoS defense, IP-MAC binding, etc., protecting the network against external attacks.
- Supports WLAN, scaling more devices access.
- Supports APN automatic inspection, mode switch, SIM information display, supports private sim card.
- Supports DDNS, PPPOE, DHCP, Static IP.
- Allows multiple network management methods including SSH, WEB, TELNET and a network management platform.
- Provides wireless data communications between field serial devices and the central control system.
- Supports user-defined register & heartbeat packets, transparent TCP/UDP protocol, multi-center.

## Dimensions



**USR-G806s Dimensions**

- Unit: mm.
- Installation Method: 35mm DIN-rail mounting, Panel mounting
- Dimensions: 112 \* 84.0\* 25.0mm(L\*W\*H).Power terminal,serial terminal, antenna connector are not included.

## Specifications

Hardware Specifications		
Cellular Interface	Antenna	1 x SMA-K Note: North America models: 2 x SMA 4G antenna connectors.
	SIM card	1 x (3 V & 1.8 V) Standard 2FF SIM, drawer-type sim card slots
Ethernet	1 x WAN port (can be configured to LAN) 10/100 Mbps, compliance with IEEE 802.3, supports auto MDI/MDIX,1.5KV network isolation transformer protection	
	1 x LAN port, 10/100 Mbps, compliance with IEEE 802.3, IEEE 802.3u standards, supports auto MDI/MDIX,1.5KV network isolation transformer protection	
Indicators	LED	<p>PWR: always on after powered on</p> <p>WLAN: always solid on when WiFi is enabled and working properly</p> <p>WAN: solid when cable is connected, blinking when data is transmitting and receiving</p> <p>LAN: solid when cable is connected, blinking when data is transmitting and receiving</p> <p>2/3/4G mode indicator:</p> <p>2G led is on after connected to 2G network</p> <p>3G led is on after connected to 3G network</p> <p>Both leds is on after connected to 4G network</p> <p>Signal strength: 4 solid bars, strongest signal</p>
WiFi Interface	Standards & Frequency	IEEE 802.11b/g/n,2.4GHz, AP mode
	Data speed	IEEE 802.11b/g,maximum 54Mbps.IEEE 802.11n,maximum 150Mbps
	Antenna	1 x SMA-K
	Transmission distance	80 meters by line of sight.Actual transmission distance depends on environment of the site.
Power Supply	Adaptor	DC 12V/1A
	Connector	DC Power Jack Barrel Type Female 5.5*2.1mm Round socket or 2 PIN 5.08mm industrial terminal block,reverse polarity protection
	Input voltage	DC 9~36V
	Working power	Average 270mA/12V
Serial Interface	RS485/RS232(alternative)	3 PIN 3.81mm industrial terminal block. Note:RS485 default,RS232 please contact sales.
	Baud rate(bps)	1200,2400,4800,9600,19200,38400,57600,115200,230400
	Data bits	8
	Stop bits	1,2
	Parity	NONE,ODD,EVEN
Physical Characteristics	Housing	Metal shell,IP30
	Dimensions	112.0*84.0*25.0 mm(L*W*H)
	Installation method	Panel mounting, DIN-Rail mounting
	EMC	<p>Static IEC61000-4-2, level 2</p> <p>Pulsed Electric Field IEC61000-4-4, level 2</p> <p>Surge IEC61000-4-5, level 2</p>

	Operating temperature	-20℃~+70℃
	Storage temperature	-40℃~+125℃
	Operating humidity	5%~95%RH (non-condensing)
Others	Reload	Pinhole reset button
	TBD	Debug interface (TTL Level)
	Embedded Watchdog	Device runs self-detection, auto recovers from malfunctions
Certificate	CE,CCC	

### Software Specifications

Network Connection	WAN protocol	PPP, PPPoE, DHCP client
	LAN protocol	ARP, DHCP server, NAT
	4G network access	Auto APN/VPDN, private network Access authentication: CHAP/PAP
	WLAN security	Open system,WPA/WPA2 PSK TKIP/AES encryption
	IP routing	Static routing
	Network diagnosis	Ping,route trace,DNS
Serial modem	Work mode	NET,HTTPD
	Sockets	4 sockets,4 centers ,TCPS(SOCKA)/TCPC/UDPS/UDPC
	Modbus RTU toTCP	Support
Device management	Configuration	Web
	Remote management	Telnet, SSH, AT command,SNMP
	PUSR platform	Remote monitoring,remote upgrade,alarming,base station location,remote access to web pages of the router
Security	Failover backup	Failover between 4G and WAN, ensures automatic switch to alternative backup connection
	Firewall	DMZ, anti-DoS, Filtering (IP/Domain name/MAC address), Port Mapping, Access Control
	VPN	Supports PPTP, L2TP, GRE, IPSEC VPN (IKEv1), OPENVPN protocols
Service	DDNS	Remote access the device through domain name
	Alarm	Email,SMS
	Others	NTP client Timing task

## Ordering guide

USR-G806s Ordering Guide		
Model	<b>USR-G806s-EAU</b>	
Region	EMEA&Australia & Latin America & New Zealand	
Frequency	TDD-LTE	B38/B40/B41
	FDD-LTE	B1/B3/B5/B7/B8/B20/B28
	WCDMA	B1/B5/B8
	GSM/GPRS/EDGE	850/900/1800MHz
Model	<b>USR-G806s</b>	
Region	Part of APAC, please confirm the frequencies	
Frequency	TDD-LTE	B38/39/40/41
	FDD-LTE	B1/B3/B5/B8
	WCDMA	B1/B8
	TD-SCDMA	B34/B39
	EVDO/CDMA1X	CDMA1X/ 1xEV-DO rel.0/ 1xEV-DO rev. A: 800 MHz
	GSM/CPRS/EDGE	900/1800MHz

## Purchase & Support

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- Official website: <https://pusr.com>
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