EIOT-ET0X (CPE) series industrial routing

Product specification

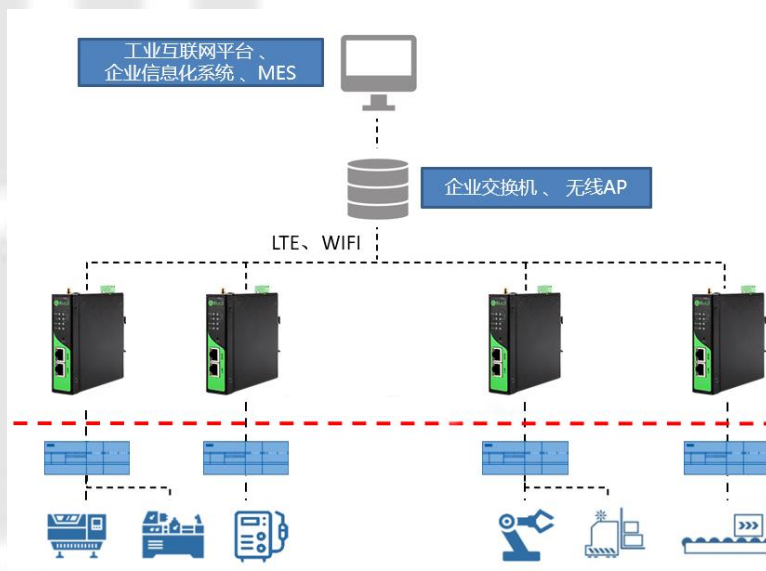| Version number	Revision time	Amendments	Revisions
V1.0	20230525	Herman	First written

Product description

EIoT-ET0X (CPE) series products are new industrial routing products with 4G/5G and WiFi functions, which are launched by Yike Company in the field of industrial internet and Internet of things. The product combines different versions to support main stream 4G wireless networks, 5G wireless networks, WIFI networking and a variety of broadband network connectivity services, ensure that the target device completes industrial Internet applications such as network access and data connectivity. Products with strong data trans mission security and wireless network management and coverage services to meet the typical industrial internet edge layer field equipment networking an d data aggregation needs, helping to bring collaborative and innovative applications to the "Edge Cloud".

The product comes complete with web-side configuration management software for managing and configuring networks. Support to view system status, including host name, model, architecture, firmware version, kernel version, local time, runtime, average load, memory usage, etc. It is equipped with network firewall and VPN by default, and it can enhance the security and stability of data transmission by TLS encryption technology.

Application Framework

EIOT-ET0X (CPE) series industrial routing products, for equipment remote operation and maintenance, data collection, network communication design, using embedded design, product security and stability, long-term work in customer sites, the equipment can be installed in the main PLC equipment, serial port support equipment, network port support equipment node, realize equipment networking, widely used in industrial internet, computer room air-conditioning control, energy consumption and other scenarios, it can realize on-line management of equipment and field situation, and satisfy various requirements of customers.

Product features

1. Hardware configuration

➢ Embedded design, product safety and stability, 7 * 24h uninterrupted work;

➢ Industrial style metal housing, support lug installation or guide rail installation, IP20 protection grade;

➢ The local host supports Reload reset button, the device is running, the network is abnormal

fast recovery;

- Support multiple status lights, including PWRR, Sys, Singal, 485T/R, 232T/R, WiFi, 4G/5g and so on, to feedback network communication status, serial communication status, power status and so on
- Support plug-and-pull iot card to meet the needs of field construction and easy maintenance;
- Configuration of 4G, 5G all-network modules, while supporting external 4G, 5G communication antenna, adjust signal gain to ensure the safety and stability of wireless communication network signals;
- 4G, 5G, WiFi, 4G + WiFi, 5G + WiFi versions are optional
- With WiFi module, support 2.4G and 5G antenna band SMA interface;
- 880mhz DURL Core processor with 256MB of RAM and 32mb of Flash
- With 5 Gigabit Ethernet port, support 1 WAN port, 4 Lan Port, industrial router function;
- Support for up to 128GB external TF card storage, increased field data storage;
- Support 1-way RS485,1-way RS232 interface;
- Supports Debug interface in the form of Mirco USB interface.

2.Gateway features
- Support for TLS wireless data transmission encryption
- Support NTP timing;
- Network firewall, NAT, port mapping
- Products embedded software and hardware watchdog to ensure the stable operation of equipment;
- WLAN Port Support Protocol standard: IEEE 802.11 ac/a/b/g/N, security features: open system, shared key, WPA/WPA2 authentication, WEP/TKIP/AES encryption, working mode: AP, STA working mode;
- Support network intelligent diagnosis function, confirm the current state of the network.

3.Supporting software
- With the web configuration management interface, you can achieve the management of industrial routing and configuration. Support to view host name, model, architecture, firmware version, kernel version, local time, runtime, average load, memory usage, etc.
- Wan Port Network with DHCP, static configuration;
- VLAN port has mark, Switch, DHCP, static configuration function
- With network diagnosis, firewall (port forwarding, communication rules: TCP + UDP, TCP, UDP, ICMP) functions;
- WiFi with AP and STA mode;
- VPN support for sever and client configuration
- Support parameter backup and local and remote upgrade;
- Support for recovery of factory settings, recovery of configuration settings, system restart;

4. Communication
- Optional 4G Wireless + Internet
- Optional 5G wireless communication + Internet communication;
- Optional wi-fi + Internet
- Optional 4G + WIFI wireless communication mode + Internet communication mode;
- 5G + WIFI + Internet

Product specifications

Hardware parameters	
VDD	DC10-30V, typical supply DC24V, support overcurrent and reverse protection
Operating temperature and humidity	-30 ° C ~ + 60 ° C/5 ~ 95% RH without dew
Storage temperature and humidity	-40 ° C ~ + 85 ° C/5 ~ 95% RH without dew
Product dimensions	L * W * H (mm) : 125X112X30
Protection level	IP20
Interface parameters	
Power interface	Terminal power supply
RS485 * 1	2 lines (A/B) Electrical isolation: supported Baud rate: 2,400-115,200 bps Data Bits: 7-8 bits Stop Bits: 1,2 bits Check Bits: None, Even, Odd Frame length: minimum 6byte, maximum 499byte
RS232 * 1	3 lines (RX/TX/GND) Electrical isolation: supported Baud rate: 2,400-115,200 bps Data Bits: 7-8 bits Stop Bits: 1,2 bits Check Bits: None, Even, Odd Frame length: minimum 6byte, maximum 499byte
Wan * 1	10/100/1000M adaptive support
LAN * 4	10/100/1000M adaptive support
SMA * 1 ~ 5	External spiral inner hole antenna terminal, impedance matching 50Ω
SIM card slot * 1	Standard MINI SIM slot
Mini USB port	Equipment debugging
Reload button	Press for about 5 seconds, the device to restore the default configuration, and the device restart
Lights	10 working status indicators, PWR, 4G/5G, RS232, RS485, Sys.
Network parameters	
Communication standards	4g
Communications	WCDMA, TD-SCDMA, CDMA EVDO/1x LTE-FDD, LTE-TDD, GSM
Standard frequency band	• GSM B 3, B 8 • CDMA1X CDMA EVDO 800M • WCDMA B1, B5, B8 • TD-SCDMA B34,39 • LTE FDD B1, b3, B5, B8 • LTE TDD B38, B39, B40, B41
Transmit Power	• LTE-TDD: 23 ± 2.7 dbm • LTE-FDD: 23 ± 2.7 dbm • WCDMA: 24 + 1/-3 dBm • TD-SCDMA: 24 + 1/-3 dBm • CDMA BC0:23 ~ 30 dBm • GSM BAND8:33 ± 2DBM • GSM BAND3:30 ± 2 dbm
Communication standards	5G
Communications	WCDMA/HSPA＋, LTE FDD, LTE TDD

	5G Nr (SA/NSA) , Nr	
Standard frequency band	- WCDMA/HSPA + : Band 1,2,5,8 - LTE FDD: Band 1,2,3,5,7,8 - LTE TDD: Band 34,38,39,40,41 5G NR supports SA/NSA - NR: N1, N281, N41, N78, N79	
Power rating	- Class 3(23.5 dbm ± 1.5 db) for WCDMA bands - Class 3(23dBm ± 1.5 db) for LTE bands - Class 3(23dBm ± 1.5 db) for NR SUB6 bands - Class 2(26 DBM ± 1.5.DB) for B41/N41/78/79 bands	

Indicator status description

Symbols	Functional definition	Indicates the status	Indicator color
Pwr	Power indication (Green)	Chang Liang	Work normally
		-	Not Normal
SIGNAL	Network status indicator	2 Chang Liang	Signal is good
		1 Chang Liang	The signal is average
		-	No signal
RS232	RS232 data indicator light	Twinkle	Sending and receiving data
		put out	Unsent
RS485	RS485 data indicator light	Twinkle	Sending and receiving data
		put out	Unsent
WiFi	Network signal strength indicator lamp	Chang Liang	Internet connection is normal
		put out	Not connected
Sys.	SYS status indicator	Chang Liang	System Normal
		put out	System failure

Product model

EIoT-ET0X industrial router (compatible with CPE)	
Hardware platform	
Models	Eiot-et05
CPU	880mhz Durl Core
Memory	256M DDR2
Flash	32M Flash
Interface	
Ethernet	5x Wan/Lan
	10/100/1000 Mbps RJ45
Serial port	RS-232 x 1,3 line terminal interface, baud rate 2400 ~ 115200 bps, ESD 15 kv
	RS-485 x 1,3 line terminal interface, baud rate 2400 ~ 115200bps, ESD 15KV
SIM card	1x standard SIM card
Reset function	Pin-hole reset key
Memory extension	1x TF slot, 128GB MAX
Antenna (SMA number)	five
Wireless	
WIFI	●

5G	●
4G	●
Machinery	
Installation	Wall-mounted/DIN rails
The shell	Sheet metal shell
Cooling	Natural wind cooling
IP protection level	IP20
The equipment is powered	
Power input	DC 10-30V (typical DC 24V/2A)
Power interface	Pluggable Terminal
Power protection	Overcurrent protection, short circuit protection, reverse polarity protection
Working Environment	
Operating temperature	-30-60 OC
Store temperature	-40-85

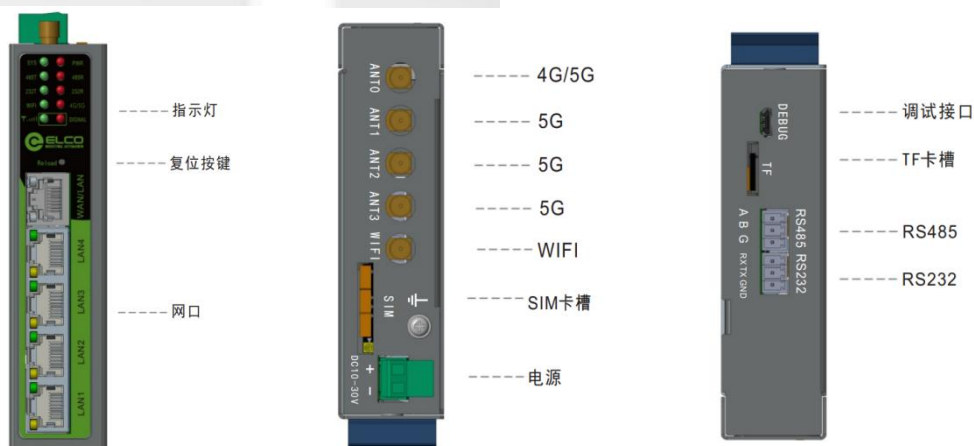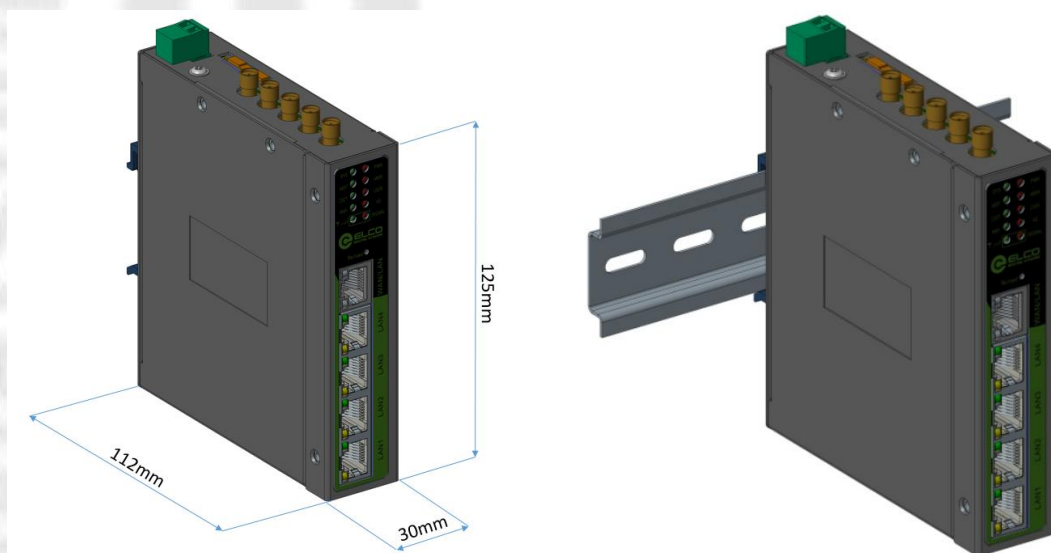|	
Ambient humidity	5-95% RH@40OC/104OF no condensation
Lights	
Led	Sys, PWR, WiFi, 4G/5G, 485,232, SIGNAL

Product interface and dimensions

Product interface

Product dimensions