



Intelligent Gateway

*High Compatibility with a range of platform
High-performance industrial-grade wireless router
All-in-one architecture of WIFI/4G LTE/WAN*

The X300/600/600S series is an Internet of Things intelligent gateway that provides users with wireless remote data transmission capabilities by using a public LTE/WCDMA/TD-SCDMA/EVDO network. With high-performance industrial 32-bit communication processor and industrial-grade wireless module, they adopt an embedded real-time operating system platform. And it also integrates RS232, RS485, LANs, WAN, and WIFI interface to connect with serial device (like sensor), Ethernet, and WIFI devices for transparent data transmission and routing.

The main function of intelligent gateway is to process upstream and downstream data, complete the forwarding of different protocols, and connect to the Internet of Things platform by MQTT. Intelligent gateway can be customizable, and connect to different manufacturers' IoT platform. In addition, through RS232/RS485/Ethernet port, it can connect to diverse smart instruments, PLC and other smart devices.

Key Features and Benefits:

Industrial-grade architecture

- High-performance industrial-grade wireless modules
- High-performance, industrial-grade 32-bit communication processor
- All-in-one design of WIFI/4G/WAN to ensure the stability and reliability
- Metal shell, protection class IP30 and system safety isolation for industrial applications
- Wide power input (DC 7 to 36V)



User-Friendly

- Standard RS232 (or RS485), Ethernet and WIFI interfaces are available for connection to serial port, Ethernet and WIFI devices
- Provides standard wired WAN port (supports standard PPPOE protocol) and can be directly connected to ADSL devices
- As smart data terminal, X300/600/600S can be power-on on the data transmission state
- Multiple work modes, with high convenience and high flexibility
- Easy to use, flexible, a variety of working modes with convenient system configuration and maintenance interfaces (including local and remote WEB and CLI methods)
- Support for rail or wall mounts

High reliability and versatility

- WDT watchdog design to ensure system stability
- Adopt multiple line-off protection mechanism to make data terminal online 24x7
- Ethernet interface with built-in 1.5KV electromagnetic isolation protection
- RS232/RS485 interface with built-in 15KV ESD protection, CSA, UL and IEC compliant
- SIM/UIM card interface with built-in 15KV ESD protection
- Power interface with built-in inverted protection and overvoltage protection
- Antenna with lightning protection (optional)

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Powerful Functions

- Support intelligent switching backup among 4G module, WIFI and wired WAN functions
- Support diverse WAN connections, including static IP, DHCP, PPPoE, 3G/UMTS/4G/LTE, dhcp-4G, L2TP, PPTP
- Support VPN client (PPTP, L2TP, OPENVPN and GRE) (Note: VPN only)
- Support VPN sever (PPTP, L2TP, OPENVPN and GRE) (Note: VPN only)
- Support remote management, SYSLOG, SNMP, TELNET, SSHD, HTTPS and other functions
- Support local and remote online upgrade, import and export files
- NTP support, built-in RTC
- Support a variety of DDNS worldwide
- Support VLAN, MAC address cloning, PPPoE server (on-demand)
- WIFI supports 802.11b/g/n, WIFI AP, AP Client and other operational modes
- WIFI supports WEP, WPA, WPA2 and other encryption methods and MAC address filtering, etc., RADIUS authentication (optional)
- Supports a variety of online-and-offline trigger modes, including SMS, phone ringing, serial data, network data trigger mode (optional)
- Support APN/VPDN (optional)
- Support multiplex DHCP server and DHCP client, DHCP bundled MAC address, DDNS, firewall, NAT, DMZ host, QoS, traffic statistics, real-time display of data transfer rate and other functions
- Support IP v4, UDP/TCP, PPPoE, DHCP, FTP/TFTP, ARP, RARP, NTP, HTTP, Telnet and other network protocols
- Support for firewall, VPN crossing, access control, URL filtering and more
- Time-based online and offline function (optional)
- Support TCP/IP, UDP, FTP (optional), HTTP and other network protocols
- Support SPI firewalls, VPN traverse, access control, URL filtering
- Support USB 3.0 and USB 2.0
- Local storage: supports flash, TF cards or USB
- Access to Synway cloud services and cloud platform from web, and enable remote management
- Maintenance: Maintenance personnel can remotely maintain field equipments via PC clients
- Built-in multiple communication protocols (Modbus RTU/Modbus TCP, Siemens, etc. PLC private protocols, etc.), and allow a wide range of field equipments to connect IoT platforms via MQTT+SSL/TLS
- High-performance hardware architecture for access to third-party platforms

Product Specifications:

Product models:

X300: 1*SIM port, 1*WAN(LAN), 1*RS232 and 1*RS485

X600: 1*SIM port, 1*WAN, 4*LAN, 1*RS232 and 1*RS485

X600S: 2*SIM port, 1*WAN, 4*LAN, 1*RS232 and 1*RS485

Support TD-SCDMA 2010/1900MHz (A/F band, Band 34/39)

Support CDMA BC0

Support EDGE/GPRS/GSM:900/1800MHz

Wireless parameters

Adopt industrial-grade wireless modules

Support FDD-LTE 2600/2100/850/900MHz Band 1/3/5/8

Support TDD-LTE 2600/1900/2300/2496 MHz (Band 38/39/40/41)

Support DC-HSPA/HSPA/HSDPA/HSUPA/WCDMA/UMTS 2100/800MHz (Band 1/8)

Theoretical bandwidth

LTE features:

Maximum support non-CA CAT4, Support 14-20MHz RF bandwidth, Downlink support multi-user MIMO

FDD: Maximum uplink rate of 50Mbps, maximum downlink rate of 150Mbps.

TDD: Maximum uplink rate 35Mbps, maximum downlink rate of 130Mbps

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Product Specifications

WCDMA features:

Support 3GPP R8 DC-HSPA; Support 16-QAM, 64-QAM and QPSK modulation

3GPP R6 CAT6 HSUPA: Maximum upstream rate of 5.76Mbps

3GPP R8 CAT24 DC-HSPA: Maximum downlink rate 42Mbps

ID-SCDMA features:

Support CCSA Release 3

Maximum upstream rate 2.2Mbps, maximum downlink rate 4.2Mbps

CDMA features:

Support CDMA 1X Advanced, 1xEV-DO Rev. A

Maximum upstream rate 1.8Mbps, maximum downlink rate 3.1Mbps

GSM features:

R99: and CSD transfer rate: 9.6kbps, 14.4kbps

WiFi Parameters

Standard and band support IEEE802.11b/g/n standards.

Theoretical bandwidth IEEE802.11b/g: up to 54Mbps

IEEE802.11n: Up to 150Mbps

Secure encryptions include WPA, WPA2 and other encryption methods, with optional WPS functions

Transmitting power: 20dBm (11n), 24dBm (11g), 26dBm (11b)

Reception sensitivity, 72dBm@54Mbps

Hardware systems

CPU industrial 32-bit communication processor

FLASH 32MB (Expandable)

SDRAM 512MB

Physical Characteristics

Metal shell, protected by class IP30. Shell is isolated from and system, suitable for industrial on-field applications

Size: 176x134x45 (L x W x H, without antennas and mountings)

Net weight: approx. 0.75kg

Other parameters

Operating temperature: -20 to 70°C (-4 to 158 degrees F)

Storage temperature: -40 to 85°C (-40 to 185 degrees F)

Relative humidity: 8 to 95% (no condensation)

Storage humidity: 8 to 95% (no condensation)

Supply voltage range: 7 to 36V

About Synway

As a major manufacturer and supplier of communication products and solutions, Synway specializes in providing superior Multimedia Gateway, Integrated Multimedia Switch, Telephony Hardware in use for Telecom communications. www.synway.net

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