Hongdian
Connecting things

X1
4G Industrial Gateway

▌Overview

X1 4G Industrial Gateway is a 4G gateway with edge computing capability for IIoT. It adopts a fully industrial-grade hardware platform with powerful data collection, storage, analysis and processing capabilities. 4G wireless network and multiple bandwidth services provide stable and reliable internet access everywhere. With its excellent product quality and comprehensive security, it realizes equipment networking and provides solutions for true equipment informatization, manufacturing intelligence, edge computing and maintenance industrial internetization.

▌Highlights

Internet failover
4G/WiFi/Ethernet can be configured as backup mode for auto failover between different links

Edge computing
Local real-time data analysis and intelligent processing
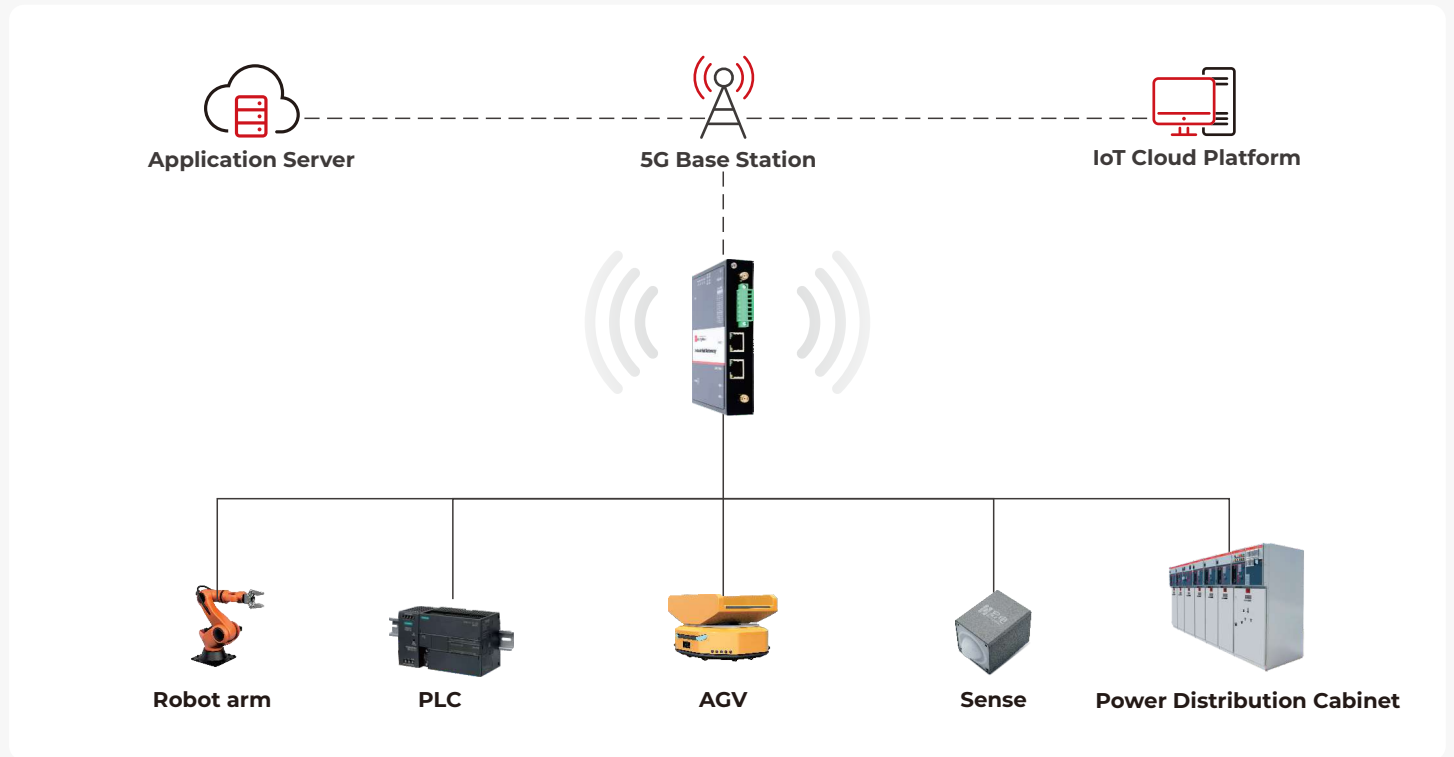
Rich interface
Supports RS485 ports, RS232 ports, RJ45 ports, and TF Card ports for different applications

Industrial Standard Design
Wide temperature and input voltage range, IP40 protection level

Topology diagram

Application Server

5G Base Station

IoT Cloud Platform

Robot arm

PLC

AGV

Sense

Power Distribution Cabinet

Smart Manufacturing

Smart Factory

Smart Water

Smart Energy

Features

LTE Cat1/Cat4 with industrial CPU

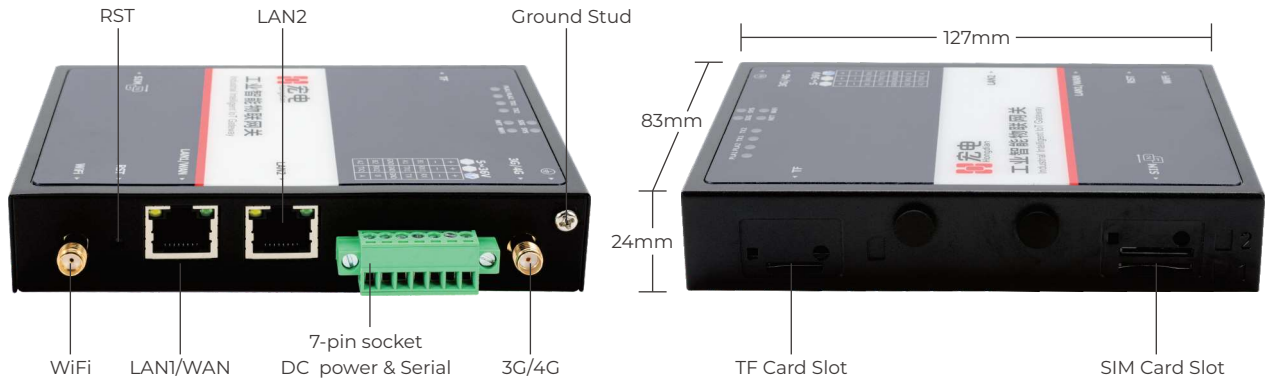**Data acquisition and edge processing**

Support various industrial protocols

Programable with C and python

▌ *Specification*

Hardware

CPU	ARM Cortex-A7, 900MHz		
RAM	512MB	**FLASH**	8GB eMMC

Cellular Interface

Modem	1 × LTE Cat1/ Cat4	**Number of Antennas**	2
SIM	2 × Mini SIM (2FF)	**Connector**	SMA-K

Wireless Interface

Standards	802.11b/g/n, AP or station modes	**Frequency Bands**	2.4 GHz
Speed	150Mbps	**Security**	WEP, WPA, WPA2
Encryption	64/128 AES, TKIP	**Antennas**	1
Connector	SMA-K		

Peripheral Interface

Ethernet	1 × LAN 10/100Mbps + 1 × WAN/LAN10/100Mbp，Ethernet		
Serial Type	1 × RS-232 + 1 × RS-485 serial port	**Socket Form**	1 × 7-pin 3.5 mm female socket
Signal Definition	RX, TX, GND (RS-232) , A+, B-, GND (RS-485)	**SD Card**	TF Card Slot
Baudrate	RS-232 (300-115200bps), RS-485 (300-115200bps)		

Software

Auto Fail-over	Between: Cellular and WAN, Cellular and Wi-Fi (station mode), WAN and Wi-Fi (station mode)
Network Protocols	PPP, PPPoE, TCP, UDP, IPv4, IPv6, SSL, DHCP, ICMP, NAT, HTTP, HTTPs, DNS, ARP, NTP, Telnet, SSH, DDNS, etc.
Routing	Static Routing, Policy routing, RIP, OSPF and BGP, etc
Firewall	NAT, PAT, DMZ, Port Forword IP/Domain/MAC Filter, Access Control List
VPN	PPTP/L2TP/GRE/IPSec/OpenVPN/DMVPN
Remote Management	HTTP, Telnet, SSH, Hongdian Wedora Cloud Platform
Serial Ports Function	Transparent, Modbus RTU, etc

Power Supply and Consumption

Connector	2 pin socket	**Voltage Input**	+5V~+36V DC
Power Consumption	Idle: 180mA@12V DC, Data transceiving: 300mA@12V DC		

Others

Reset Button	Yes	**Hardware Watchdog**	Yes
LED Indicators	4 × indicators for SIG, SYS, NET, WiFi, 4 × indicators for PLA1, PLA2, TX1, Tx2		

Physical Characteristics

Ingress Protection	IP43	**Housing & Weight**	Metal, 285g
Dimension	127 × 83.0 × 24(mm)	**Installations**	Desktop, wall mounting and DIN rail mounting
Operating Temperature	-30 ~ +70 °C	**Storage Temperature**	-40 ~ +85 °C
Relative Humidity	5 ~ 95%		

Appearance

RST | LAN2 | Ground Stud

127mm

83mm

24mm

WiFi | LAN1/WAN | 7-pin socket DC power & Serial | 3G/4G

TF Card Slot | SIM Card Slot

Ordering info

Model	Bands	5G modem	WLAN	RJ45	RS232	RS485	Region
X1-L100-W-2R-CS	**4G(LTE-FDD):** B1/B3/B5/B7/B8/B20 **4G(LTE-TDD):** B38/B40/B41 **3G:** B1/B5/B8 **2G:** B3/B8	1*modem	1*4G Antenna	2*RJ45 Cable	1*RS232	1*RS485	Europe, the Middle East, Africa, Korea, Thailand, India, Malaysia
X1-L100-W-2R-2S					-	2*RS485	
X1-L108-W-2R-CS	**4G(FDD-LTE):** B1/B2/B3/B4/B5/B7/B8/B28 **4G(LTE-TDD):** B40 **3G:** B2/B3/B5/B8	1*modem	1*4G Antenna	2*RJ45 Cable	1*RS232	1*RS485	Oceania, South America
X1-L108-W-2R-2S					-	2*RS485	

Packing list

Packing box

X1 4G Industrial Gateway

1×4G antennas

1×WiFi antennas	1×Ethernet cable	Mounting kits