Z2
5G Industrial Gateway

Overview

Z2 5G Industrial Gateway is a new generation of 5G gateway with edge computing capability. Its built-in 4-core high-performance processor supports floating point computing and built-in embedded memory, external TF card interface support local storage and data processing. The open software architecture design provides fast and flexible customization, rich and diverse interfaces, local real-time data analysis and intelligent processing with strong temperature, electromagnetic resistant and is able to adapt to different industry scenarios.

Highlights

High Performance

With powerful data processing and computing capabilities
Supports local data storage and analysis decision

High Stability

With wide temperature and resistance to strong electromagnetic interference
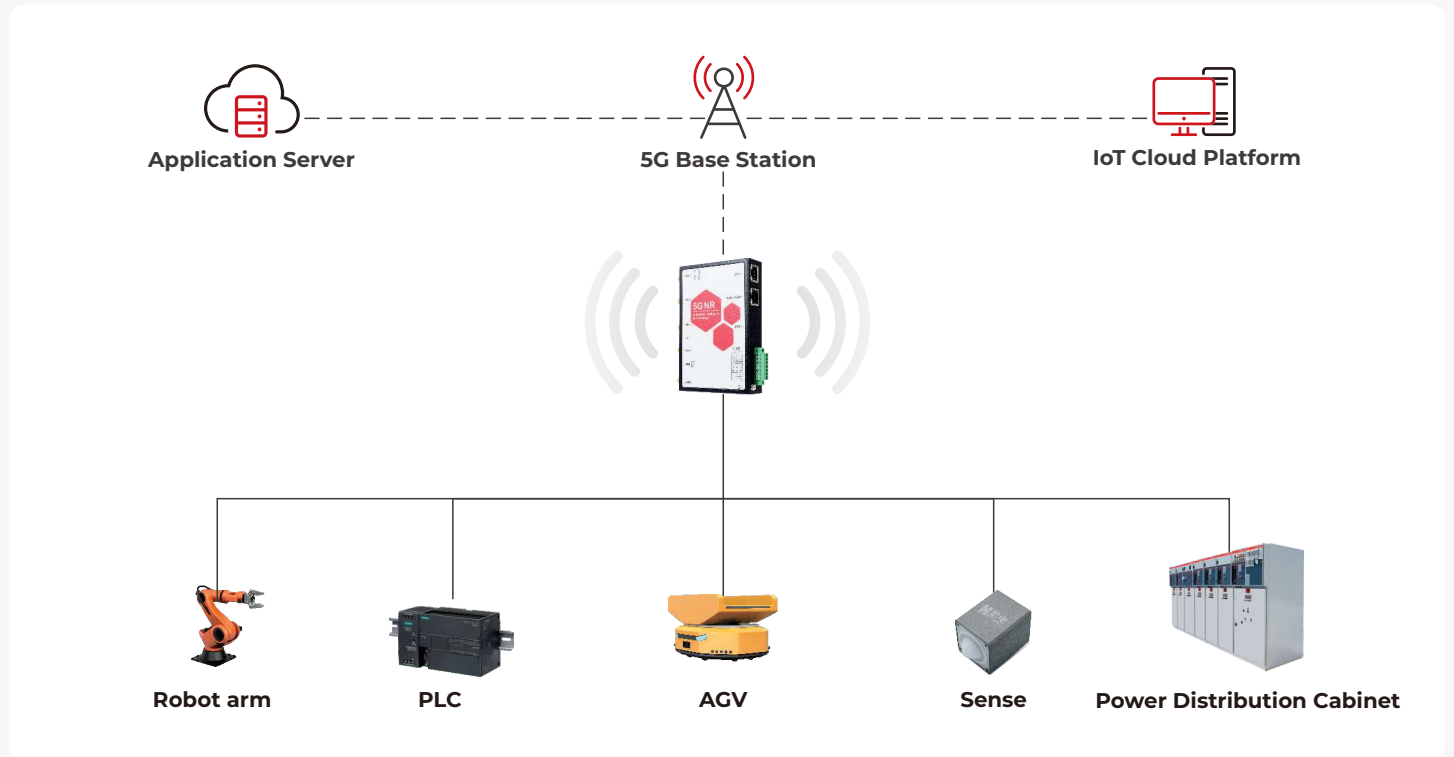
Efficient Operation and Maintenance

Support Hongdian Wedora platform

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

5G broadband with extreme low latency

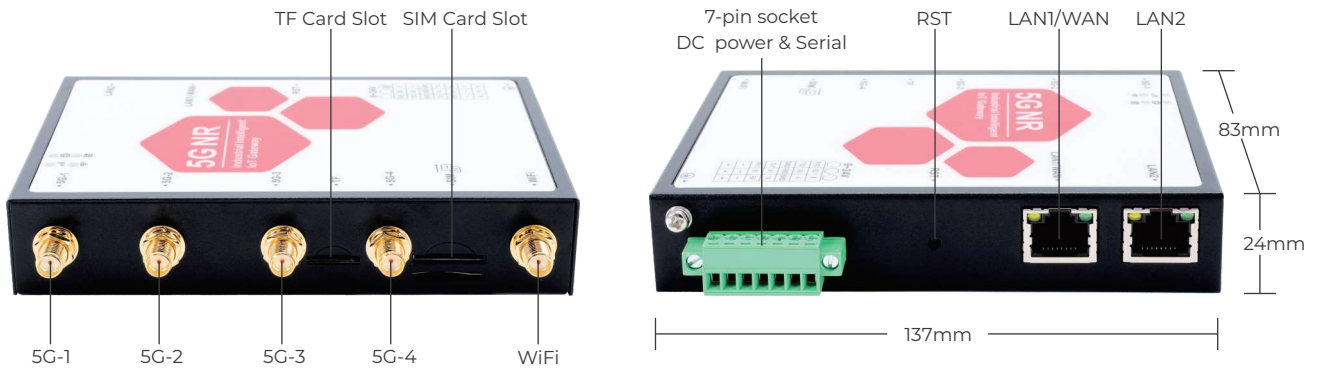**Data acquisition and edge processing**

Dividing VLAN, network isolation

With wide temperature and resistance to strong electromagnetic interference

Specification

Hardware

CPU	Quad-core ARM Cortex A7, 717MHz	**RAM**	512MB
FLASH	32MB+8GB eMMC	**SD Card**	TF Card Slot

Cellular Interface

Modem	1 × 5G NR SA/NSA	**Number of Antennas**	4
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 (only for WiFi version)
Connector	SMA-K		

GNSS Interface

Number of Antennas	1 (only for GPS version)	**Connector**	SMA-K with 50 ohms impedance

Peripheral Interface

Etehernet	1 × LAN 10/100/1000 Mbps + 1 × WAN/LAN 10/100/1000 Mbps, Gigabit Ethernet		
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, SMS, SNMP V1/V2/V3, SNMP TRAP, Hongdian Wedora Cloud Platform
Serial Ports Function	Transparent, Modbus RTU, etc

Power Supply and Consumption

Connector	2 pin socket	**Voltage Input**	+9V~+36V DC
Power Consumption	Idle: 350mA@12V DC, Data transceiving: 1.3A@12V DC		

Others

Reset Button	Yes	**Hardware Watchdog**	Yes
LED Indicators	4 indicators for WiFi, SIG, NET, SYS		

Physical Characteristics

Ingress Protection	IP43	**Housing & Weight**	Metal, 290g
Dimension	137.0×83.0×24.0(mm)	**Installations**	Desktop, wall mounting and DIN rail mounting
Operating Temperature	-30 ~ +70 °C	**Storage Temperature**	-40 ~ +85 °C
Relative Humidity	5 ~ 95%		

❚ Appearance

TF Card Slot   SIM Card Slot

5G-1   5G-2   5G-3   5G-4   WiFi

7-pin socket
DC power & Serial   RST   LAN1/WAN   LAN2

83mm
24mm
137mm

❚ Ordering info

Model	Bands	5G modem	WLAN	RJ45	RS232	RS485	Region
Z2-N005-W-2R-CS	**NSA/SA:** n1/n2/n3/n5/n7/n8/n12/n20/n25/n28/n38/n40/n41/n48*/n66/n71/n77/n78/n79 **LTE-FDD:** B1/B2/B3/B4/B5/B7/B8/B12(B17)/B13/B14/B18/B19/B20/B25/B26/B28/B29/B30/B32/B66/B71 **LTE-TDD:** B34/B38/B39/B40/B41/B42/B43/B48 **LTE DL 4×4 MIMO:** B1/B2/B3/B4/B7/B25/B30/B32/B34/B38/39/B40/B41/B42/B43/B48/B66 **LAA:** B46(only support 2×2 MIMO) **WCDMA:** B1/B2/B3/B4/B5/B6/B8/B19	1*modem	1*4G Antenna	2*RJ45 Cable	1*RS232	1*RS485	Global

❚ Packing list

Packing box

Z2 5G Industrial Gateway

4×NR antennas

1×WiFi antennas	1×Ethernet cable	Mounting kits