5G Industrial Router ZX5206

Product specification

Overview

Summary

This router is an industrial IoT communication device, fully compatible with 5G/4G/3.5G/3G/2.5G networks, with industrial-grade protection, wide-temperature and wide-voltage design, it can easily set up high-speed and stable wireless transmission network. Utilizing public NR, LTE network (or VPDN proprietary network) to provide users with wireless long-distance data transmission services.

This router adopts high-performance industrial-grade 32-bit dual-core communication processor and industrial-grade communication module, with embedded real-time operating system as the software support platform, and at the same time, it provides two RS232/485, one Ethernet LAN, and one Ethernet WAN interfaces, which can connect serial devices and Ethernet devices at the same time, and realize the functions of transparent data transmission and routing.

Field of application

Industrial control, electric power, petroleum, coal mine, finance, communication, public security, heat, meteorology, water conservancy, transportation, municipal and other industries that require remote data transmission.

Product Characteristics

Adopting high-performance industrial-grade communication module, dual-core 880MHz CPU, 128MB/256MB memory, 16MB flash.
Supports 3G (WCDMA/EVDO/TD-SCDMA), 4G (FDD-LTE/TD-LTE), 5G NR
Metal housing with protection class IP30
Standard RJ45 (1000M Ethernet) interface with built-in lightning protection
Wide voltage and current input: DC5-40V/1A; automatic power-off protection for ultra-high voltage
Anti-reverse power supply protection, anti-surge protection; ESD anti-static protection
Hardware and software watchdog anti-deadline design, after the router is disconnected from the network, it will automatically power off and restart, to ensure stable and reliable operation of the equipment
Network disconnection automatic detection, dialing failure automatic restart, timed restart and other features
Serial port pass-through function, through the serial port can enter the command and control mode, control the router and ancillary equipment
Supports multiple DDNS dynamic domain name services
Port mapping, DMZ hosting and other features
Support VPN Server PPTP Server,L2TP Server,OpenVPN Server
Support VPN Client PPTP Client, L2TP Client, OpenVPN Client
Supports socket server and client modes
Supports cloud intranet penetration and other features
BTS localization function

front	rear
Side view	Side view

Software functionality

Web interconnection

Grid Entry	3G/4G/5G dial-up network with APN, VPDN support, built-in information of hundreds of APNs around the world, the router can be used after inserting a SIM card. Auto Match Upper Grid
Reception Authentication	Supports CHAP/PAP/MS-CHAP/MS-CHAPV2/none.
grid system	Support NR/LTE/WCDMA(HSPA+)/TD-SCDMA/EVDO/EDGE/GPRS
LAN protocol	Supports ARP, Ethernet, STP
WAN protocol	Supports static IP, DHCP, PPPoE, PPTP,L2TP
Number of Supporting Users	Cable: 253

web protocol

IP Usage	Supports tcping,ping, traceroute, DHCP server/wireless relay/client, dynamic domain name DDNS, telnet, SSH, HTTP, HTTPS, TFTP, FTP, SFTP, IPv6
IP routing	Supports static routes, IGMP Proxy
TTL	Custom Client Host TTL Values

Web Security

Firewalls	Supports full stateful packet inspection (SPI) to protect against denial of service (DDoS) attacks
	Supports filtering of multicast/ping packets, Access Control Lists (ACLs)
	DMZ, MAC Filtering, White List/Black List Access Control
	Supports NAT, PAT, DMZ, port mapping, and virtual servers.
AAA	Supports local authentication, Radius
data security	Supports L2TP, PPTP, OpenVPN, CA

dependability

backup function	Port Backup, 4G/5G, Wired Grid Backup
Link in-line inspection	4G/5G status detection for automatic redialing in case of disconnection or bad signal
	VPN disconnect redial interval definition, with dialing count control
	The WAN side sends a heartbeat detection packet to detect, disconnect and connect automatically.
	reset
Grid Bridge Multi-Gate	Supports multi-LAN setup, the router has two gateways (two inside grids)

IoT Grid

DTU	Supports TCP, UDP Transparent Transfer Mode, TCP Server Mode, and Command Mode.

Second Development

shell script	Self-defining scripts for customized management of the router and related functions
System Connectors	The router provides a second development parameter interface (http), such as getting the router status, setting the router related functions and so on. Cell phone for convenience

	APP, Wheelchair, Cloud Server Development
Web Management	
Configuration	Supports local or remote HTTP, HTTPS, Telnet, SSH, and internal grid penetration.
Upgrade Method	Supports local or remote WEB, TFTP, FTP, SFTP server, and internal web pass-through remote.
Date function	Supports local system date and remote date. Important dates are saved when power is turned off.
	Supports date power-down preservation

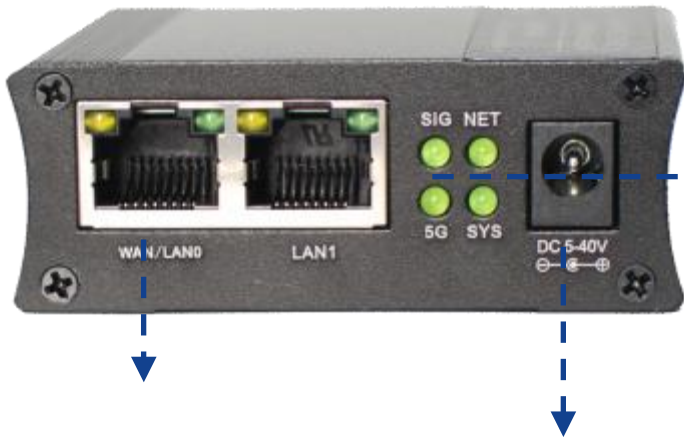# Description of hardware parameters

connector	
Ethernet interface	2* 10/100/1000Mbps Fast Ethernet interfaces, WAN/LAN adaptive (2 LAN in 4G/5G mode)
PIN Terminal	Industrial Serial Interface
SIM card holder	Drawer mount x 1
Antenna connectors	SMA externally rotated bore: 3G/4G/5G network: SMA x 4
reset button	1
mechanical property	
Installation	Guide rail, wall mounted
Overall dimensions	Length, width and height: 70*80*26mm (without antenna connector)
housings	aluminum
protection class	IP30
Cooling method	Thermally Conductive Wool Shell Heat Dissipation
Weight (g)	145g

For the PIN Terminal row, the right-side cell contains:

RS232/RS485 x 2 industrial terminals
RS232 signal: TXD, RXD, GND
RS485 signal: A, B

electric power source	
Power connector	DC2.1 header
Power Input	DC 5-40V, anti-reverse connection protection
Reverse polarity protection	be in favor of
Ambient temperature and humidity	
Environmental humidity	5 ~ 95% (no frosting)
Storage temperature	-40 ~ 85°C
operating temperature	-20°C ~ +75°C
(sth. or sb) else	
LED light	SYS system operation indicator: Blinks 1 time per second to indicate normal system operation A fast flash indicates that the firmware is being upgraded, or the reset button is being pressed to reset the
	NET extranet connection indicator: When in 4G/5G mode, a fast flash indicates that 4G/5G is being dialed Long light, indicates successful WAN port internet access Long off, indicates WAN port internet access failure
	SIG 5G signal strength indicator: SIG light is on long when 5G is above 90% signal strength 5G at 45% - 90% signal strength, SIG light blinks once a second SIG light blinks fast when 5G is below 45% signal strength
	Mode 4G/5G mode signal indicator: When the resident network is 5G long light Blinks 1 time per second when the resident network is 4G Long extinction when the resident network fails
physical property	
shockproof	IEC 60068-2-27
vibratory	IEC 60068-2-6
fall	IEC 60068-2-32

Frequency Comparison Table

Network	Router Model	Supported Frequency Bands
5G	(Full Netcom)	5G NR: n1*/n28*/n41/n77/n78/n79 LTE-FDD: B1/B3/B5/B7/B8/ LTE-TDD: B34/B38/B39/B40/B41 UMTS: B1/B2/B5/B8

Hardware Interface Description

①SYS system operation indicator:
Blinks 1 time per second to indicate normal system operation
A fast flash indicates that the firmware is being upgraded, or the reset button is being pressed to reset the

② NET extranet connection indicator:
When in 5G mode, a fast flash indicates that 5G is being dialed
Long light, indicates that the WAN port is successfully connected to the Internet Long off, the WAN end of the connection failure
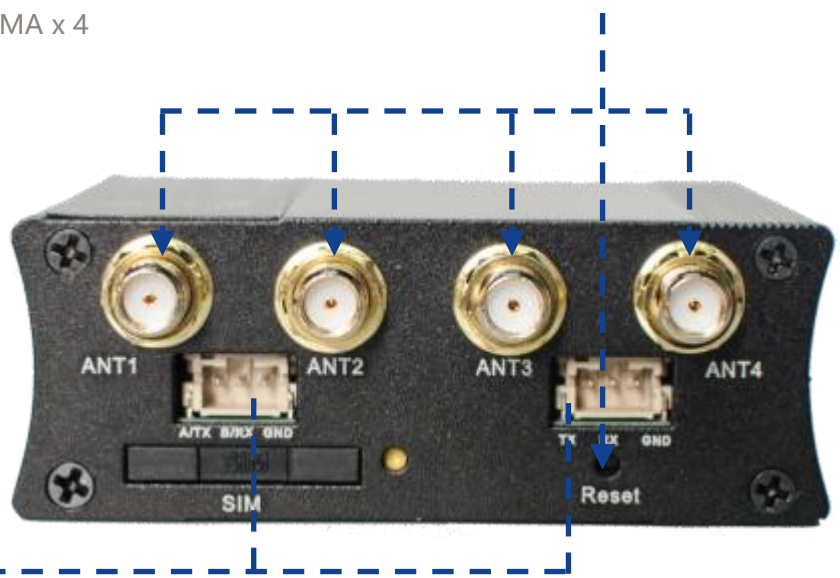
③SIG 5G signal strength indicator:
SIG light is on long when 5G is above 90% signal strength
5G at 45% - 90% signal strength, SIG light blinks 1 second 1 substandard
SIG light blinks fast when 5G is below 45% signal strength

④ 5G resident network indicator:
Long light: registered in SA/NSA 5G 1 second flash: registered in LTE
Long off: failed to register network

Wide voltage design: using 2.1mm round head power connector, internal positive and external negative, voltage input for 5-40V, recommended input power greater than 5W

Standard RJ45 connector with light; in standard router mode, LAN0 can be used as WAN port

Long press the device to reset

SMA outer rotating bore: 3G/4G/5G network: SMA x 4

RS232/RS485 x 2 industrial terminals
RS232 signal: TXD, RXD, GND
RS485 signal: A, B