

H8821

5G Edge Router



Overview

The H8821 router is a lightweight 5G Wi-Fi 6 router. It supports 5G Sub-6 GHz SA/NSA network for mission-critical industrial and commercial IoT applications, which often require a mass data throughput and lower network latency. It features dual-band Wi-Fi 6 technology, and ensuring ultra-high cellular speeds of up to 3.4 Gbps. This 5G router is also equipped with dual SIM with auto-failover, two Gigabit Ethernet ports, external TF card interface support local storage and data processing. It is dedicated for massive data such as high-definition video stream backhaul and remote equipment maintenance and it is suitable for smart factories, medical equipment, robot vision, video surveillance, smart energy and other industrial fields.

Highlights



High Performance

Support local data storage and analysis, with powerful real-time data processing and computing capabilities



Rich industrial protocols

Multiple industrial protocols, such as Modbus, OPC UA, BACNet/IP, IEC101/104, IEC61850, etc



Efficient Operation and Maintenance

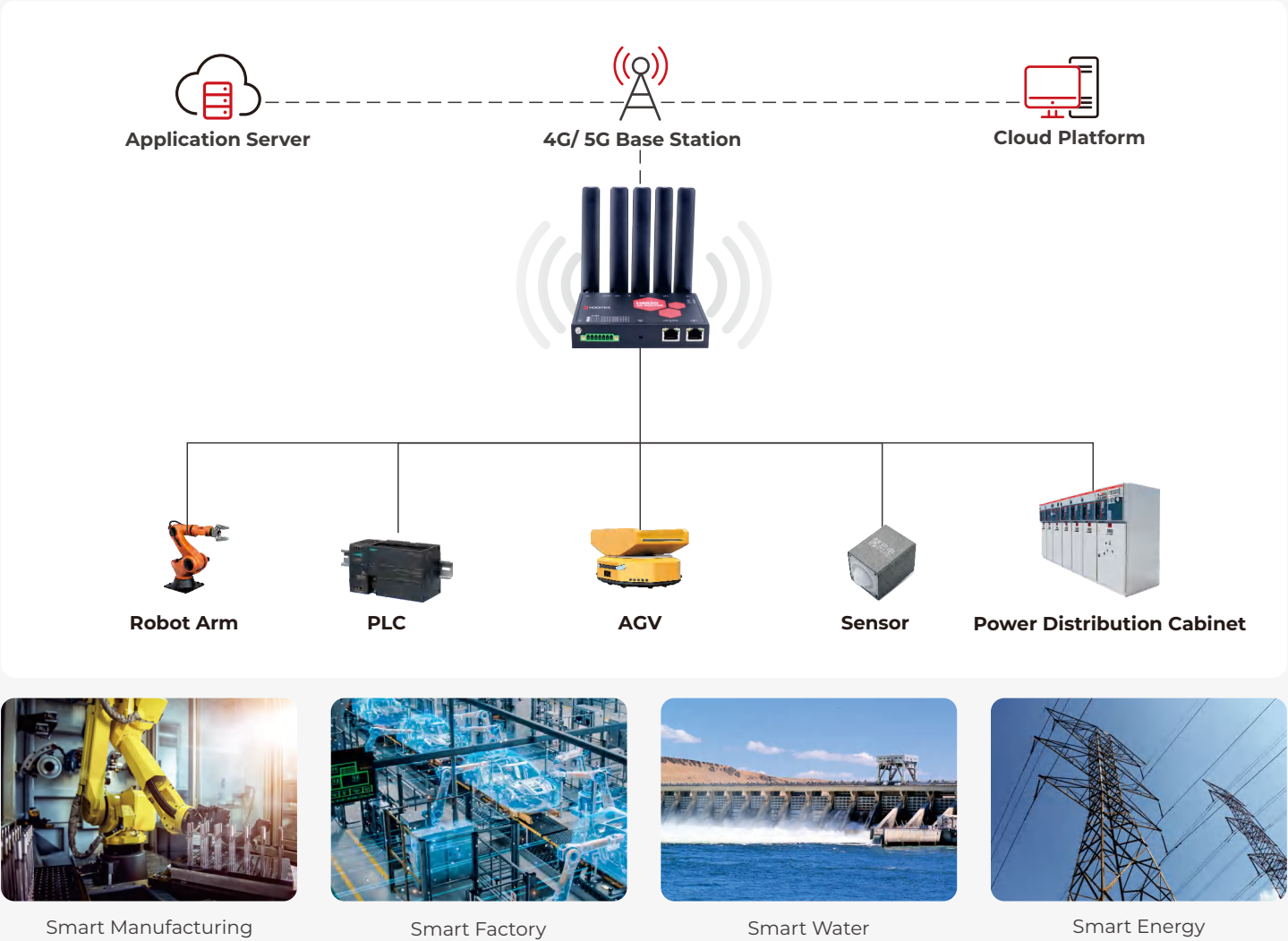
Support remote maintenance and SDLAN



Wi-Fi 6

2.4G&5G dual band Wi-Fi 6 for up to 32 users

Topology diagram



Specification

Hardware			
CPU	Dual-core, 1.35GHz, ARM Cortex A53	RAM	512MB
FLASH	32MB (64MB Optional)	SD Card	TF Card Slot
Cellular Interface			
Modem	1 × 5G NR or 1 × 5G Redcap or 1 × LTE	Number of Antennas	4
SIM	2 × Mini SIM (2FF)	Connector	SMA-K
Wireless Interface			
Standards	802.11b/g/n/ac/ax, AP or station modes	Frequency Bands	2.4 GHz & 5.8GHz
Speed	1200Mbps on 5.8GHz, 288Mbps on 2.4GHz	Security	WEP, WPA, WPA2, WPA3
Encryption	64/128 AES, TKIP	Antennas	1
Connector	RP-SMA-K		
Ethernet Interface			
Number of Ports	4 × LAN 10/100/1000Mbps, Gigabit Ethernet	Socket Form	2 × LAN or 1 × LAN + 1 × WAN

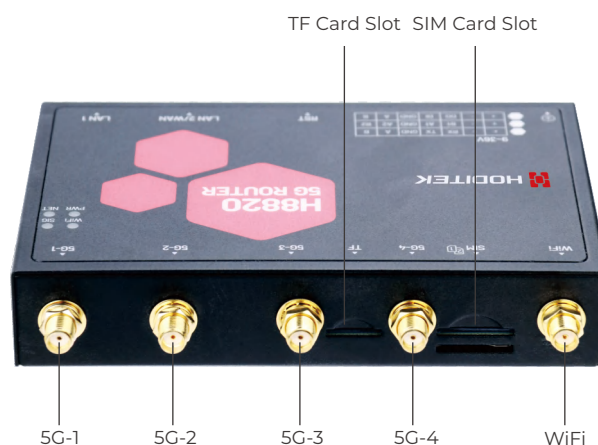
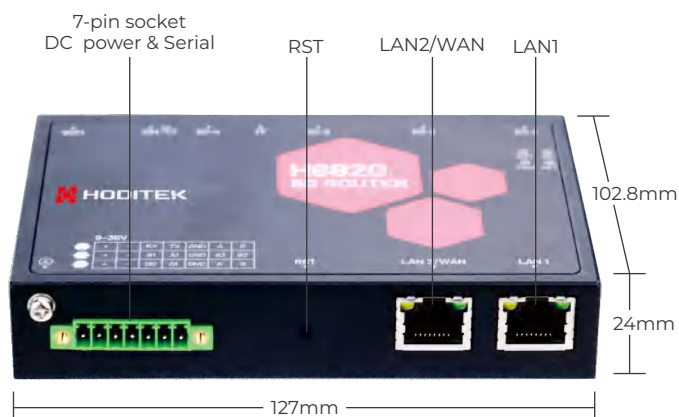
Serial Interface			
Type	1 × RS-232 + 1 × RS-485 or 2 × RS-485 or 1 × DIDO + 1 × RS-485		
Socket Form	1 × 7-pin 3.5 mm female socket		
Signal Definition	RX, TX, GND (RS-232) , A+, B-, GND (RS-485), DI, DO(IO)		
Baudrate	RS-232 (300-115200bps), RS-485 (300-115200bps)		
GNSS Interface			
Number of Antennas	1 (only for GPS Version)	Connector	SMA-K with 50ohms impedance
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.		
Network	APN, VPDN, VLAN, QoS		
Routing	Static Routing, Policy routing, RIP, OSPF and BGP, etc		
Firewall	NAT, PAT, DMZ, Port Forward IP/Domain/MAC Filter, Access Control List		
VPN	PPTP/L2TP/GRE/IPSec/OpenVPN/WireGuard		
Remote Management	HTTP, Telnet, SSH, SMS, SNMP V1/V2/V3, SNMP TRAP, Hoditek Sandora Platform, SD-LAN, SD-WAN		
Serial Ports Function	Transparent, Modbus RTU, etc		
Industrial Protocol			
Common Protocols	OPC-UA Client&Server, BACnet/IP Client&Server, Modbus RTU/TCP/ASCII, Modbus Master, BACnet/IP, Ethernet/IP, IEC101/104, IEC61850-modbus, etc.		
PLC Support	Siemens, Mitsubishi, Omron, Allen-Bradley, Delta, Shineider, etc 200+ PLCs & Meters		
Cloud Integration	MQTT, HTTPS, TCP/UDP, etc.	Configuration Tool	GatewayManager
Power Supply and Consumption			
Connector	2 pin socket	Voltage Input	+9V~+36V DC
Power Consumption	Idle: 400mA@12V DC, Data transceiving: 2A@12V DC		
Others			
Reset Button	Yes	Hardware Watchdog	Yes
LED Indicators	4 indicators for Wi-Fi, SIG, NET, PWR		
Physical Characteristics			
Ingress Protection	IP30	Housing & Weight	Metal, 360g
Dimension(mm)	127 × 102.8 × 24 mm		
Operating Temperature	-40 ~ +65 °C	Storage Temperature	-40 ~ +85 °C
Relative Humidity	5 ~ 95%	Installations	Desktop, 35 mm DIN rail mounting

Ordering info

Part No.	Modem	Band	Region*	RS-232	RS-485	DIDO	Wi-Fi	Ethernet
H8821-L4EU-CS-W6	Single LTE Cat4	LTE FDD: B1/3/5/7/8/20/28 LTE TDD: B38/40/41 WCDMA: B1/5/8 GPRS/EDGE: B3/8 LTE TDD (B38/B40/B41) LTE FDD (B1/B3/B5/B7/B8/B20/B28) WCDMA (B1/B8) GSM/GPRS/EDGE (900/1800MHz)	EU	1	1	—	PR-SMA 802.11ax	2
H8821-L4GL-2S-W6	Single LTE Cat4	LTE FDD: B1/2/3/4/5/7/8/12/13/18/19/20/25/26/28 LTE-TDD: B38/39/40/41 UMTS: B1/2/4/5/6/8/19 GSM: B2/3/5/8	GL	—	2	—	PR-SMA 802.11ax	2
H8820-NREU-CS-W6	Single 5G NR	NSA/SA: n1/3/5/7/8/20/28/38/40/41/71/75/76/77/78 LTE FDD: B1/3/5/7/8/20/28/32/71 LTE TDD: B38/40/41/42/43 WCDMA: B1/5/8	EU	1	1	—	PR-SMA 802.11ax	2
H8821-NREU-2S-W6	Single 5G NR	NSA/SA: n1/3/5/7/8/20/28/38/40/41/71/75/76/77/78 LTE FDD: B1/3/5/7/8/20/28/32/71 LTE TDD: B38/40/41/42/43 WCDMA: B1/5/8	EU	—	2	—	PR-SMA 802.11ax	2
H8821-NRGL-CS-W6	Single 5G NR	NSA/SA: n1/2/3/5/7/8/12/13/14/18/20/25/26/28/29/30/38/40/41/48/66/70/71/75/76/77/78/79 LTE FDD: B1/2/3/4/5/7/8/12/13/14/17/18/19/20/25/26/28/29/30/32/66/71 LTE TDD: B34/38/39/40/41/42/43/48 LAA: B46 WCDMA: B1/2/4/5/8/19	GL	1	1	—	PR-SMA 802.11ax	2
H8821-NRGL-2S-W6	Single 5G NR	NSA/SA: n1/2/3/5/7/8/12/13/14/18/20/25/26/28/29/30/38/40/41/48/66/70/71/75/76/77/78/79 LTE FDD: B1/2/3/4/5/7/8/12/13/14/17/18/19/20/25/26/28/29/30/32/66/71 LTE TDD: B34/38/39/40/41/42/43/48 LAA: B46 WCDMA: B1/2/4/5/8/19	GL	—	2	—	PR-SMA 802.11ax	2
H8821-NRGL-S-IO-W6	Single 5G NR	NSA/SA: n1/2/3/5/7/8/12/13/14/18/20/25/26/28/29/30/38/40/41/48/66/70/71/75/76/77/78/79 LTE FDD: B1/2/3/4/5/7/8/12/13/14/17/18/19/20/25/26/28/29/30/32/66/71 LTE TDD: B34/38/39/40/41/42/43/48 LAA: B46 WCDMA: B1/2/4/5/8/19	GL	—	1	1	PR-SMA 802.11ax	2

* GL-Global, EU-EMEA(Europe, the Middle East, Africa)/APAC(Non-CN/JP)/Brazil.

Appearance



Packing list



Packing Box



H8821 5G edge router



4×NR antennas



Wi-Fi antennas



Power Adaptor



Ethernet cable



Mounting kits