

Company Profile

WHO WE ARE ?

Founded in 1997, we are a 5G+AIoT expert and global provider of IoT products & solutions. With rapidly growing technology, we've helped our customers create smarter connected products with high quality, reliability, and rock-solid stability performance. We developed a broad portfolio of products for the most complex areas of Industry 4.0, smart city, smart grid, smart vending, etc. We control every stage of the product development cycle, allowing us to respond quickly and efficiently to market demands.

WHAT WE DO ?

We focus on cellular routers, industrial gateways and modems, edge computing devices, 5G CPE, cloud software and end-to-end IoT solutions.



2026V2.0

5G

5G+AIoT Product Selection Brochure

Communication Terminal | Cloud Platform | IoT Solution

CORE COMPETENCE



NO.1 market share in China,
29 years of IoT brand pioneer



Invented China's 1st
GPRS DTU (Modem) in 2002



Self-built 2000m² labs especially
for EMC, reliability testing



30,000+ customer recognition
providing product quality



24/7 hours
technical support team



Self-built factory with 1,000,000+
annual production capacity

GLOBAL MARKET



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IOT ROUTER



H8952 4G Cellular Router



4G/Wi-Fi/Wired link-backup for Internet auto-failover



Multiple VPN tunnels can be configured as auto link switching mode for failover to ensure data always being protected



Supports RS-232/RS-485, and 2 Ethernet ports



Hongdian Sandora platform for SDWAN self-organizing network



H8959 4G Cellular Router



4G/Wi-Fi/Wired link-backup for Internet auto-failover



Multiple VPN tunnels can be configured as auto link switching mode for failover to ensure data always being protected



Supports zero-touch provisioning and SDLAN remote management



Hongdian Sandora platform for SDWAN self-organizing network



H8922S 4G Dual Module VPN Router



Dual LTE Dual SIM mutual backup for Internet auto-failover



Multiple VPN tunnels can be configured as auto link switching mode for failover to ensure data always being protected



Wi-Fi, RS-232, RS-485 and 5 Ethernet ports provide flexible ways of data connection



Supports remote management of the platform



H7960 4G POE+ Router



4G/Wi-Fi/Wired link-backup for Internet auto-failover



Support POE+ output on Ethernet and GPS Dead Reckoning



Wi-Fi, RS-232/RS-485 and 4 Ethernet ports provide flexible ways of data connection



Multiple VPN tunnels can be configured as auto link switching mode for failover to ensure data always being protected

SPECIFICATION COMPARISON

Product	H8952	H8959	H8922S	H7960
Hardware				
CPU	MIPS 24Kc 580 MHZ	MIPS 24Kc @580 MHZ	MIPS 24Kc 580 MHZ	MIPS 24Kc 580 MHZ
RAM	128MB	128MB	128MB	128MB
Flash	16MB	16MB	16MB	16MB
Cellular Interface				
Modem	1 × LTE Cat4 or 5G Redcap	1 × LTE Cat4	1 or 2 × LTE Cat4	1 × LTE Cat4
Number of Antennas	2	2	2	2
Connector	SMA-K	SMA-K	SMA-K	SMA-K
SIM	2 × Mini SIM (2FF)	1 × Mini SIM (2FF)	2 × Mini SIM (2FF)	2 × Mini SIM (2FF)
Ethernet Interface				
Number of Ports	2 × 10/100 Mbps, Ethernet	2 × 10/100 Mbps, Ethernet	5 × 10/100 Mbps, Ethernet	4 × 10/100 Mbps, Ethernet
Configuration	2 × LAN or 1 × LAN + 1 × WAN	2 × LAN or 1 × LAN + 1 × WAN	5 × LAN or 4 × LAN + 1 × WAN	4 × LAN or 3 × LAN + 1 × WAN
PoE Output	N/A	N/A	N/A	POE+ 30W output × 4
Wireless Interface				
Standards	802.11b/g/n, AP or station mode	802.11b/g/n, AP or station mode	802.11b/g/n, AP or station mode	802.11b/g/n, AP or station mode
Frequency Bands	2.4 GHz	2.4 GHz	2.4 GHz	2.4 GHz
Speed	150Mbps	150Mbps	150Mbps	150Mbps
Security	WEP, WPA, WPA2	WEP, WPA, WPA2	WEP, WPA, WPA2	WEP, WPA, WPA2
Encryption	64/128 AES, TKIP	64/128 AES, TKIP	64/128 AES, TKIP	64/128 AES, TKIP
Antennas	1	1	1	1
Connector	RPSMA-K	RPSMA-K	RPSMA-K	RPSMA-K
GNSS Interface				
Number of Antennas	N/A	N/A	1 (only for GPS version)	1 (only for GPS version)
Connector	N/A	N/A	SMA-K with 50 ohms impedance	SMA-K with 50 ohms impedance
Serial Interface				
Type	1 × RS-232 + 1 × RS-485 serial port	N/A	1 × RS-232 + 1 × RS-485 serial port	1 × RS-232 + 1 × RS-485 serial port
Socket Form	1 × 6-pin 3.5 mm female socket	N/A	1 × 6-pin 3.5 mm female socket	1 × 9-pin 3.5 mm female socket
Signal Definition	RX, TX, GND (RS-232), A+, B-, GND (RS-485)	N/A	RX, TX, GND (RS-232), A+, B-, GND (RS-485)	RX, TX, GND (RS-232), A+, B-, GND (RS-485)
Baudrate	RS-232 (300-115200bps), RS-485 (300-115200bps)	N/A	RS-232 (300-115200bps), RS-485 (300-115200bps)	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)	Between: Cellular and WAN Cellular and Wi-Fi (station mode), WAN and Wi-Fi (station mode)	Between: 2 Cellulars, Cellular and WAN, Cellular and Wi-Fi (station mode), WAN and Wi-Fi (station mode)	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.	PPP, PPPoE, TCP, UDP, IPv4, IPv6, SSL, DHCP, ICMP, NAT, HTTP, HTTPS, DNS, ARP, NTP, Telnet, SSH, DDNS, etc.	PPP, PPPoE, TCP, UDP, IPv4, IPv6, SSL, DHCP, ICMP, NAT, HTTP, HTTPS, DNS, ARP, NTP, Telnet, SSH, DDNS, etc.	PPP, PPPoE, TCP, UDP, IPv4, IPv6, SSL, DHCP, ICMP, NAT, HTTP, HTTPS, DNS, ARP, NTP, Telnet, SSH, DDNS, etc.
Network	APN, VPDN, VLAN, QoS	APN, VPDN, VLAN, QoS	APN, VPDN, VLAN, QoS	APN, VPDN, VLAN, QoS
Routing	Static Routing, Policy routing, RIP, OSPF and BGP, etc	Static Routing, Policy routing, RIP, OSPF and BGP, etc	Static Routing, Policy routing, RIP, OSPF and BGP, etc	Static Routing, Policy routing, RIP, OSPF and BGP, etc
Firewall	NAT, PAT, DMZ, Port Forward IP/Domain/MAC Filter, Access Control List	NAT, PAT, DMZ, Port Forward IP/Domain/MAC Filter, Access Control List	NAT, PAT, DMZ, Port Forward IP/Domain/MAC Filter, Access Control List	NAT, PAT, DMZ, Port Forward IP/Domain/MAC Filter, Access Control List
VPN	PPTP/L2TP/GRE/IPSec/OpenVPN/DMVPN/WireGuard	PPTP/L2TP/GRE/IPSec/OpenVPN/DMVPN/WireGuard	PPTP/L2TP/GRE/IPSec/OpenVPN/DMVPN/WireGuard	PPTP/L2TP/GRE/IPSec/OpenVPN/DMVPN/WireGuard
Remote Management	HTTP, Telnet, SSH, SMS, SNMP V1/V2/V3, SNMP TRAP, Hongdian Sandora Platform, SDLAN	HTTP, Telnet, SSH, SMS, SNMP V1/V2/V3, SNMP TRAP, Hongdian Sandora Platform, SDLAN	HTTP, Telnet, SSH, SMS, SNMP V1/V2/V3, SNMP TRAP, Hongdian Sandora Platform, SDLAN	HTTP, Telnet, SSH, SMS, SNMP V1/V2/V3, SNMP TRAP, Hongdian Sandora Platform, SDLAN
Serial Ports Function	Transparent, Modbus RTU, etc	N/A	Transparent, Modbus RTU, etc	Transparent, Modbus RTU, etc
Power Supply and Consumption				
Connector	2 pin socket	DC socket	DC socket	4 pin socket
Voltage Input	+5V~+36V DC	+9V~+12V DC	+5V~+36V DC	+9V~+54V DC
Power Consumption	Idle: 100mA@12V DC Data transceiving: 430mA@12V DC	Idle: 100mA@12V DC Data transceiving: 350mA@12V DC	Idle: 200mA@12V DC Data transceiving: 550mA@12V DC	Idle: 100mA@12V DC Data transceiving: 350mA@12V DC
Others				
Reset Button	Yes	Yes	Yes	Yes
LED Indicators	4 indicators for WIFI, RF, NET, SYS	8 indicators for Modem, Power, WLAN, Ether, Signal	10 indicators for PWR, SYS, WAN, LAN1-LAN4, RF, NET, WLAN	4 indicators for SYS, SIG, NEY, WIFI
Hardware Watchdog	Yes	Yes	Yes	Yes
Physical Characteristics				
Ingress Protection	IP30	IP30	IP30	IP30
Housing & Weight	Metal, 300g	Metal, 300g	Metal, 540g	Metal, 480g
Dimension	99.7 × 98.8 × 23.4 mm	99.7 × 98.8 × 23.4 mm	176 × 105 × 25 mm	147 × 98 × 36.6 mm
Installations	Desktop, wall mounting, 35 mm DIN rail mounting	Desktop, wall mounting, 35 mm DIN rail mounting	Desktop, wall mounting	Desktop, wall mounting, 35 mm DIN rail mounting
Operating Temperature	-30 ~ +70 °C	-30 ~ +70 °C	-30 ~ +70 °C	-30 ~ +70 °C
Storage Temperature	-40 ~ +85 °C	-40 ~ +85 °C	-40 ~ +85 °C	-40 ~ +85 °C
Relative Humidity	5 ~ 95%	5 ~ 95%	≤ 95%(no condensing)	≤ 95%(no condensing)
Certifications (*In progress)	CE, FCC*	CE, FCC, Verizon, Sprint, PTCRB, IC, VCCI, JATE+MIC, PTCRB, RCM	CE, FCC*	CE, FCC*

5G ROUTER

H8820 5G Edge Router



5G NR for Low-latency network services, is downward compatible with 4G



Wi-Fi 6, AX1500, dual band 2.4GHz & 5GHz



Advanced VPN protocols integrated, provide a secure and reliable communication network



Supports Hongdian Sandora platform for zero-touch deployment & SD-WAN self-organizing network

H8860 5G Edge Router



5G NR for Low-latency network services, is downward compatible with 4G



Wi-Fi 5, 2x2 MU-MIMO, extra Wi-Fi coverage of 200m



Advanced VPN protocols integrated, provide a secure and reliable communication network



Supports Hongdian Sandora platform for zero-touch deployment & SD-WAN self-organizing network

H8870 5G Wi-Fi Router



Supports 5G NR, 10 times faster download speed than LTE Cat 4



Enhanced Wi-Fi capacity and throughput by Wi-Fi 6 and MU-MIMO



Supports Hongdian Sandora platform for zero-touch deployment & SD-WAN self-organizing network



Data Protection with IPsec/OpenVPN/GRE/L2TP/PPTP/DMVPN/Wireguard

H8890 5G Outdoor Router



Supports 802.11ax and dual-band 2x2 MU-MIMO



Supports RS-485, RS-232 serial ports, RJ45 ports, and POE-in and POE-out



Supports Hongdian Sandora platform for zero-touch deployment & SD-WAN self-organizing network



Supports pole, ceiling-mounted, wall hanging, and other indoor-outdoor installation methods

SPECIFICATION COMPARISON

Product	H8820	H8860	H8870	H8890
Hardware				
CPU	Dual-core, 1.35 GHz, ARM Cortex A53	Quad-core ARM Cortex-A7@717MHz	Dual-core, 1.35 GHz, ARM Cortex A53	Dual-core, 1.35 GHz, ARM Cortex A53
RAM	512MB	512MB	512MB	512MB
Flash	32MB (64MB Optional)	32MB	32MB	32MB
Cellular Interface				
Modem	1 × 5G NR or 1 × 5G Redcap or 1 × LTE	1 × 5G NR or 1 × LTE or 2 × 5G NR	1 × 5G NR or 2 × LTE or 2 × 5G NR	1 × 5G NR or 2 × LTE or 2 × 5G NR
Number of Antennas	4	2 or 4	4	4
Connector	SMA-K	SMA-K	SMA-K	Internal
SIM	2 × Mini SIM (2FF)	2 × Mini SIM (2FF)	2 × Mini SIM (2FF) (eSIM Optional)	2 × Mini SIM (2FF) (eSIM Optional)
Ethernet Interface				
Number of Ports	4 × 10/100/1000 Mbps, Gigabit Ethernet	4 × 10/100/1000 Mbps, Gigabit Ethernet	5 × 10/100/1000 Mbps, Gigabit Ethernet	4 × 10/100/1000 Mbps, Gigabit Ethernet
Configuration	2 × LAN or 1 × LAN + 1 × WAN	4 × LAN or 3 × LAN + 1 × WAN	4 × LAN + 1 × WAN	3 × LAN + 1 × WAN/LAN
PoE	N/A	N/A	POE+ (802.3af) 15W output × 2, input×1	POE+ (802.3af) 15W output × 2, input×1
Wireless Interface				
Standards	802.11b/g/n/ac/ax, AP or station mode	802.11b/g/n/ac, AP or station mode	802.11b/g/n/ac/ax, AP or station mode	(Optional) 802.11b/g/n/ac/ax, AP or station mode
Frequency Bands	2.4 GHz & 5 GHz	2.4 GHz & 5 GHz	2.4 GHz & 5 GHz	2.4 GHz & 5 GHz
Speed	1200Mbps on 5GHz, 288Mbps on 2.4GHz	1167Mbps	2402Mbps on 5GHz, 576Mbps on 2.4GHz	2402Mbps on 5GHz, 576Mbps on 2.4GHz
Security	WEP, WPA, WPA2	WEP, WPA, WPA2	WEP, WPA, WPA2, WPA3	WEP, WPA, WPA2, WPA3
Encryption	64/128 AES, TKIP	64/128 AES, TKIP	64/128 AES, TKIP	64/128 AES, TKIP
Antennas	1	4	3	3
Connector	RP SMA-K	RP SMA-K	RP SMA-K	Internal
GNSS Interface				
Number of Antennas	1 (only for GPS version)	1 (only for GPS version)	1 (only for GPS version)	1 (only for GPS version)
Connector	SMA-K with 50 ohms impedance	SMA-K with 50 ohms impedance	SMA-K with 50 ohms impedance	Internal
Serial Interface				
Type	1 × RS-232 + 1 × RS-485 or 2 × RS-485 or 1 × DDO + 1 × RS-485	N/A	1 × RS-232 + 1 × RS-485 serial port	1 × RS-232 + 1 × RS-485 serial port
Socket Form	1 × 7-pin 3.5 mm female socket	N/A	1 × 5-pin 3.5 mm female socket	1 × 7-pin 3.5 mm female socket
Signal Definition	RX, TX, GND (RS-232), A+, B-, GND (RS-485), DI, DO (IO)	N/A	RX, TX, GND, A+, B-	RX, TX, GND (RS-232), A+, B-, GND (RS-485)
Baudrate	RS-232 (300-115200bps), RS-485 (300-115200bps)	N/A	RS-232 (300-115200bps), RS-485 (300-115200bps)	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)	Between: 2 Cellulare, Cellular and WAN, Cellular and Wi-Fi (station mode), WAN and Wi-Fi (station mode)	Between: 2 Cellulare, Cellular and WAN, Cellular and Wi-Fi (station mode), WAN and Wi-Fi (station mode)	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.	PPP, PPPoE, TCP, UDP, IPv4, IPv6, SSL, DHCP, ICMP, NAT, HTTP, HTTPS, DNS, ARP, NTP, Telnet, SSH, DDNS, etc.	PPP, PPPoE, TCP, UDP, IPv4, IPv6, SSL, DHCP, ICMP, NAT, HTTP, HTTPS, DNS, ARP, NTP, Telnet, SSH, DDNS, etc.	PPP, PPPoE, TCP, UDP, IPv4, IPv6, SSL, DHCP, ICMP, NAT, HTTP, HTTPS, DNS, ARP, NTP, Telnet, SSH, DDNS, etc.
Network	APN, VPDN, VLAN, QoS	APN, VPDN, VLAN, QoS	APN, VPDN, VLAN, QoS	APN, VLAN, VXLAN, QoS
Routing	Static Routing, Policy routing, RIP, OSPF and BGP, etc	Static Routing, Policy routing, RIP, OSPF and BGP, etc	Static Routing, Policy routing, RIP, OSPF and BGP, etc	Static Routing, Policy routing, RIP, OSPF and BGP, etc
Firewall	NAT, PAT, DMZ, Port Forward IP/Domain/MAC Filter, Access Control List	NAT, PAT, DMZ, Port Forward IP/Domain/MAC Filter, Access Control List	NAT, PAT, DMZ, Port Forward IP/Domain/MAC Filter, Access Control List	NAT, PAT, DMZ, Port Forward IP/Domain/MAC Filter, Access Control List
VPN	PPTP/L2TP/GRE/IPSec/OpenVPN/WireGuard	PPTP/L2TP/GRE/IPSec/OpenVPN/DMVPN	PPTP/L2TP/GRE/IPSec/OpenVPN/WireGuard	PPTP/L2TP/GRE/IPSec/OpenVPN/WireGuard
Remote Management	HTTP, Telnet, SSH, SMS, SNMP V1/V2/V3, SNMP TRAP, Hongdian Sandora Platform, SDLAN, SDWAN	HTTP, Telnet, SSH, SMS, SNMP V1/V2/V3, SNMP TRAP, Hongdian Sandora Platform, SDLAN	HTTP, Telnet, SSH, SMS, SNMP V1/V2/V3, SNMP TRAP, Hongdian Sandora Platform, SDLAN, SDWAN	HTTP, Telnet, SSH, SMS, SNMP V1/V2/V3, SNMP TRAP, Hongdian Sandora Platform, SDLAN
Serial Ports Function	Transparent, Modbus RTU, etc	N/A	Transparent, Modbus RTU, etc	Transparent, Modbus RTU, etc
Power Supply and Consumption				
Connector	2 pin socket	DC socket or 2 pin socket	DC socket or 2 pin socket	2 pin socket
Voltage Input	+9V~+36V DC	+9V~+48V DC	+9V~+48V DC	+9V~+48V DC
Power Consumption	Idle: 400mA@12V DC Data transceiving: 2A@12V DC	Idle: 400mA@12V DC Data transceiving: 2A@12V DC	Idle: 350mA@12V DC Data transceiving: 380mA@12V DC	Idle: 450mA@12V DC Data transceiving: 2.2A@12V DC
Others				
Reset Button	Yes	Yes	Yes	Yes
LED Indicators	4 indicators for WiFi, SIG, NET, SYS	4 indicators for WiFi, SIG, NET, SYS	4 indicators for PWR, WLAN, NET1, NET2/SIG	4 indicators for WiFi, SIG, NET, SYS
Hardware Watchdog	Yes	Yes	Yes	Yes
Physical Characteristics				
Ingress Protection	IP30	IP30	IP30	IP66
Housing & Weight	Metal, 900g	Metal, 900g	Metal, 782g	Metal, 1860g
Dimension	180 × 125 × 48 mm	180 × 125 × 48 mm	194.5 × 120 × 28.5 mm	216 × 216 × 51.5 mm
Installations	Desktop, 35 mm DIN rail mounting	Desktop, 35 mm DIN rail mounting	Desktop, wall mounting	Desktop, wall mounting and surface mounting
Operating Temperature	-30 ~ +75 °C	-30 ~ +75 °C	-30 ~ +75 °C	-30 ~ +75 °C
Storage Temperature	-40 ~ +85 °C	-40 ~ +85 °C	-40 ~ +85 °C	-40 ~ +85 °C
Relative Humidity	5 ~ 95%	5 ~ 95%	5 ~ 95%	5 ~ 95%
Certifications (*In progress)	CE*, FCC*	CE*, FCC*	CE*, FCC*	CE*, FCC*

IN-VEHICLE SERIES

H3960 5G Vehicle Gateway



Supports dual 5G FRER (Frame Replication and Elimination for Reliability), as well as dual-module hot backup



Supports 4 channels of 1080P HD video collection



Supports mainstream communication protocols such as Modbus TCP/RTU, MQTT, etc.



Supports DSM driving behavior detection, support safety driving alarms

H6700 5G Vehicle Gateway



Supports dual 5G module load balancing, aggregate bandwidth for significantly faster speeds



Supports GPS, BD, GLONASS, and Galileo satellite positioning systems, optional support inertial navigation for vehicle tracking



Supports rich interfaces and vehicle grade interface forms, such as M12 X-coded, BASE-T1 Ethernet ports for TSN, serial ports, DIO, CAN, etc



Support VXLAN technology to achieve layer 2 networking and SDWAN self-organizing network



Supports Hongdian Sandora platform for zero-touch deployment of gateway and SDLAN remote management, and third-party fleet management platform



Supports secondary development in C and Python, supports multiple industrial protocol plugins and serial plugins

SPECIFICATION COMPARISON

Product	H3960	H6700
		
Hardware		
CPU	Dual core ARM Cortex-A72 + Dual core ARM Cortex-A53 @2.0GHz	Quad-core ARM Cortex A7 @717MHz
Memory	2GB	512MB
Built-in storage	8GB	8GB eMMC
Cellular Interface		
Modem	1 or 2 × 5G NR SA/NSA or 1 × LTE Cat4 & 2 × 5G NR SA/NSA	1 or 2 × 5G NR SA/NSA or 1 or 2 × LTE
Number of Antennas	4 or 8 or 10	2 or 4 or 8
Connector	SMA-K	FAKRA D-coded
SIM	3 × Mini SIM (2FF)	2 × nano SIM (4FF), 2 × eSIM optional
Wireless Interface		
Standards	802.11b/g/n/ac, AP or station modes	802.11b/g/n/ac/ax, AP or station modes
Frequency Bands	2.4 GHz & 5 GHz	2.4 GHz & 5GHz
Speed	1775Mbps	1775Mbps
Security	WEP, WPA, WPA2	WEP, WPA, WPA2, WPA3
Encryption	64/128 AES, TKIP	64/128 AES, TKIP
Antennas	2	2
Connector	SMA-K	FAKRA I-coded
Location Tracking		
GNSS	GPS, GLONASS, BeiDou and Galileo	GPS, GLONASS, BeiDou and Galileo (GPS DR Optional)
Number of Antennas	1	1
Connector	SMA-K	FAKRA C-coded
Peripheral Interface		
Ethernet	3 × LAN 10/100/1000Mbps + 1 × WAN/LAN 10/100/1000Mbps + 4 × LAN 10/100Mbps	3 × LAN 10/100/1000Mbps + 1 × WAN/LAN 10/100/1000Mbps (M12 X-coded), 2 × LAN 100/1000Mbps + 4 × 100Mbps (BASE-T1)
Serial Type	2 × RS-232 (2 × RS-232 port can be configured as a RS-485 port), 2 × RS-485 serial port	4 × RS-485 serial port (2 × RS-485 port can be configured as RS-232 port)
USB	1 × USB2.0 Type A	1 × USB2.0 Type A
TF Card	2 × SD Card	1 × SD Card (Optional)
Can	1 (Optional)	2 × CAN 2.0 (2 pin)
IO	2 × DO, 4 × DI	1 × DO, 1 × DI
Audio	1 × AHD, 1 × MIC/SPK	N/A
Display	HDMI 2.0 × 1, LVDS × 1	N/A
Software		
Video code	H.265/H.264/VP9 4K@60fpsHD video decoding H.265/H.264/VP9 1080P@100fpsHD videoencoding	N/A
Image processing	BMP, JPG, PNG, GIF	N/A
AI algorithm	Support DSM driving behavior detection, support safety driving alarms such as speeding and fatigue	N/A
Network	Multi-DNN, APN, VPDN, QoS, 5G LAN	Multi-DNN, APN, VPDN, QoS, 5G LAN
Firewall	NAT, PAT, DMZ, Port Forward IP/Domain/MAC Filter, Access Control List	NAT, PAT, DMZ, Port Forward IP/Domain/MAC Filter, Access Control List
VPN	PPTP/L2TP/GRE/IPSec/OpenVPN/DMVPN	PPTP/IPIP/L2TP/GRE/IPSec/OpenVPN/DMVPN
Remote Management	HTTP, Telnet, SSH, SMS, MQTT, SNMP V1/V2/V3, SNMP TRAP, Hongdian Sandora Platform, SDLAN	HTTP, Telnet, SSH, MQTT,SNMP V1/V2/V3, SNMP TRAP, Hongdian Sandora Platform, SDLAN
Serial Ports Function	Transparent, Modbus RTU, etc	Transparent, Modbus RTU, etc
Power Supply and Consumption		
Connector	4 pin socket	M12 A-coded { V+, V-, IGT, NC (4 pins) }
Voltage Input	+12~+36V DC	+9~+36V DC
Power Consumption	Idle: 400mA@24V DC, Data transceiving: 1.5A@24V DC	Idle: 375mA@24V DC, Data transceiving: 530mA@24V DC
Others		
Reset Button	Yes	Yes
LED Indicators	6 indicators for PWR, WiFi, 4G, NET1, NET2, NET3,ONL	4 indicators for NET2/SIG1, NET1, WiFi, PWR
Hardware Watchdog	Yes	Yes
Physical Characteristics		
Ingress Protection	IP30	IP30
Housing & Weight	Metal, about 1200g (Dual 5G module)	Metal, about 1500g (Dual 5G module)
Dimension	235 × 164.3 × 55.5 mm	205 × 150 × 78mm
Installations	Wall-mounting	Wall-mounting
Operating Temperature	-30 ~ +75 °C	-40 ~ +75 °C
Storage Temperature	-40 ~ +80 °C	-40 ~ +80 °C
Relative Humidity	5 ~ 95%	5 ~ 95%

IIOT GATEWAY

X1 4G Industrial Gateway



Data acquisition and edge real-time analysis and processing



512M and 8G eMMC, external TF card extendable



Supports third-party platforms by means of embedded SDKs



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

H6100 4G Industrial Gateway



4G/Wi-Fi/Wired can be configured as link-backup mode for auto-failover



Supports expansion modules such as AIO, DIO, Serial, COM modules, etc

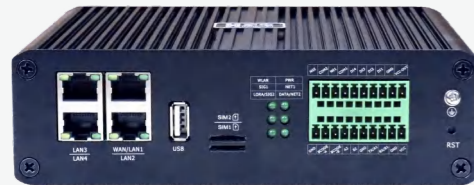


Supports secondary development in C and Python, support multiple industrial protocol plugins and serial plugins



Supports Hongdian Sandora platform for zero-touch deployment & SD-WAN self-organizing network

H6500 5G Industrial Gateway



Supports 4xRJ45, VCC-IN/OUT, 4 DI, 2 relays, 2 serial, USB2.0, TF card, and more interfaces with Z4-ex I/O modular product



Common industrial protocols & PLC drivers, 3rd party cloud integration






Supports docker for app deployment, supports SDKs and APIs



Supports Hongdian Sandora platform for zero-touch deployment & SD-WAN self-organizing network

SPECIFICATION COMPARISON

Product	X1	H6100	H6500
			
Hardware			
CPU	ARM Cortex-A7@900MHz	3 cores ARM Cortex-A7 @1.5GHz + 1 core ARM Cortex-M0 @200MHz	Dual core ARM Cortex-A72+Dual core ARM Cortex-A53 @2.0GHz
RAM	512MB	512MB	2GB
Flash	8GB eMMC	32GB eMMC	8GB
Cellular Interface			
Modem	1 x LTE Cat4	1 x LTE Cat4	1 or 2 x 5G NR SA/NSA or 1 or 2 x 4G LTE
Number of Antennas	2	4	4
Connector	SMA-K	SMA-K	SMA-K
SIM	2 x Mini SIM (2FF)	2 x Mini SIM (2FF) (eSIM optional)	2 x Mini SIM (2FF) (eSIM optional)
Wireless Interface			
Standards	802.11b/g/n, AP or station modes	802.11b/g/n/ac/ax, AP or station modes	802.11b/g/n/ac/ax, AP or station modes
Frequency Bands	2.4 GHz	2.4 GHz & 5GHz	2.4 GHz & 5 GHz
Speed	150Mbps	300Mbps	1300Mbps
Security	WEP, WPA, WPA2	WEP, WPA, WPA2	WEP, WPA, WPA2
Encryption	64/128 AES, TKIP	64/128 AES, TKIP	64/128 AES, TKIP
Antennas	1	2	2
Connector	RP SMA-K	RP SMA-K	RP SMA-K
GNSS Interface			
Number of Antennas	N/A	1 (only for GPS version, Share with WiFi)	1 (only for GPS version, Share with WiFi)
Connector	N/A	SMA-K with 50 ohms impedance	SMA-K with 50 ohms impedance
Peripheral Interface			
Ethernet	1 x LAN 10/100Mbps + 1 x WAN/LAN 10/100Mbps	1 x LAN 10/100 Mbps + 1 x WAN/LAN 10/100 Mbps	3 x LAN 10/100/1000 Mbps + 1 x WAN/LAN 10/100/1000 Mbps
Serial Type	1 x RS-232 + 1 x RS-485 serial port	1 x RS-485 + 1 x RS-232/CAN serial port	2 x RS-485 serial port
Socket Form	1 x 7-pin 3.5 mm female socket	1 x 7-pin 3.5 mm female socket	1 x 7-pin 3.5 mm female socket
Signal Definition	RX, TX, GND (RS-232), A+, B-, GND (RS-485)	RX, TX, GND (RS-232), A+, B-, GND (RS-485)	RX, TX, GND (RS-232), A+, B-, GND (RS-485)
Baudrate	RS-232 (300-115200bps), RS-485 (300-115200bps)	RS-232 (300-115200bps), RS-485 (300-115200bps)	RS-232 (300-115200bps), RS-485 (300-115200bps)
Relay	N/A	N/A	2 x Relay outputs(16A 250VAC)
GPIO	N/A	N/A	4 x DI
SD card	TF card slot	N/A	TF card slot
USB	N/A	USB2.0 Type C	USB2.0 Type A
Extension interface	N/A	Analog I/O Module: 4 x AI, 1 x AO Digital I/O Module: 8 x DI, 2 x DO Multi-Function Expansion Module: 3 x AI, 2 x RS-485, 2 x DI Serial Port Expansion Module: 3 x RS-485, 1 x RS-232, 2 x CAN	4 x DI, 2 x Relay outputs(3A 250VAC/30VDC), 6 x RS-485, 4 x AI, 1 x CAN, 4 x GPIO
Software			
Auto Fail-over	Between: Cellular and WAN, Cellular and Wi-Fi (station mode), WAN and Wi-Fi (station mode)	Between: Cellular and WAN, Cellular and Wi-Fi (station mode), WAN and Wi-Fi (station mode)	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.	PPP, PPPoE, TCP, UDP, IPv4, IPv6, SSL, DHCP, ICMP, NAT, HTTP, HTTPS, DNS, ARP, NTP, Telnet, SSH, DDNS, etc.	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	Static Routing, Policy routing, RIP, OSPF and BGP, etc	Static Routing, Policy routing, RIP, OSPF and BGP, etc
Firewall	NAT, PAT, DMZ, Port Forward IP/Domain/MAC Filter, Access Control List	NAT, PAT, DMZ, Port Forward IP/Domain/MAC Filter, Access Control List	NAT, PAT, DMZ, Port Forward IP/Domain/MAC Filter, Access Control List
VPN	PPTP/L2TP/GRE/IPSec/OpenVPN/DMVPN	PPTP/L2TP/GRE/IPSec/OpenVPN/DMVPN	PPTP/L2TP/GRE/IPSec/OpenVPN/DMVPN
Secondary Development	Secondary development in C and Python	Secondary development in C and Python	Secondary development in C and Python
Intelligent Plugins	N/A	Obtain APP plugins locally and plugin management	Obtain APP plugins locally and plugin management
Serial Ports Function	Transparent, Modbus RTU, Modbus TCP, etc	Transparent, Modbus RTU, Modbus TCP, etc	Transparent, Modbus RTU, etc
Industrial Protocols	Modbus, OPC UA, BACNet/IP, IEC101/104, IEC61850, etc	Modbus, OPC UA, BACNet/IP, IEC101/104, IEC61850, etc	Modbus, OPC UA, BACNet/IP, IEC101/104, IEC61850, etc
Remote Management	HTTP, Telnet, SSH, Hongdian Sandora Platform	HTTP, Telnet, SSH, Hongdian Sandora Platform	HTTP, Telnet, SSH, SMS, SNMP V1/V2/V3, SNMP TRAP, Hongdian Sandora Platform, SDLAN
Power Supply and Consumption			
Connector	2 pin socket	2 pin socket	2 pin socket
Voltage Input	+5V~+36V DC	+9V~+48V DC	+9V~+48V DC
Power Consumption	Idle: 180mA@12V DC, Data transceiving: 300mA@12V DC	Idle: 180mA@12V DC, Data transceiving: 350mA@12V DC	Idle: 400mA@12V DC, Data transceiving: 1.5A@12V DC
Others			
Reset Button	Yes	Yes	Yes
LED Indicators	4 indicators for SIG, SYS, NET, WIFI, 4 indicators for PLA1, PLA2, TX1, Tx2	6 indicators for PWR, WLAN, NET, SIG, DATA, RF	6 indicators for PWR, WLAN, NET1, SIG1, DATA/NET2, LORA/SIG2
Hardware Watchdog	Yes	Yes	Yes
Physical Characteristics			
Ingress Protection	IP30	IP30	IP30
Housing & Weight	Metal, 285g	Metal, 800g	Metal, 1060g
Dimension	127 x 83 x 24 mm	153.2 x 128 x 51.5 mm	170 x 136.2 x 51 mm
Installations	Desktop, wall mounting and DIN rail mounting	Desktop and DIN rail mounting	Desktop, wall mounting and DIN rail mounting
Operating Temperature	-30 ~ +70 °C	-40 ~ +75 °C	-35 ~ +75 °C
Storage Temperature	-40 ~ +85 °C	-40 ~ +85 °C	-40 ~ +85 °C
Relative Humidity	5 ~ 95%	5 ~ 95%	5 ~ 95%

AIOT GATEWAY

Smart2000 5G AIoT Gateway



Multiple self-developed AI algorithm models such as Facial recognition, object detection, object tracking, behavior detection, license plate recognition, etc



Supports switch function which can directly connect the camera and provides POE power supply



Supports mainstream industrial protocols, including Modbus RTU/TCP/ASCII, OPC UA, ISO on TCP, etc



Hongdian cloud management platform provides remote access services to achieve remote management of key equipment on site

Smart3000 5G AIoT Gateway



Multiple self-developed AI algorithm models such as Facial recognition, object detection, object tracking, behavior detection, license plate recognition, etc



6 Tops AI capability, docker feature enables existing AI deployments



Supports mainstream industrial protocols, including Modbus RTU/TCP/ASCII, OPC UA, ISO on TCP, etc




Hongdian cloud management platform provides remote access services to achieve remote management of key equipment on site

SPECIFICATION COMPARISON


Product	Smart 2000	Smart 3000
		
Hardware		
CPU	Dual core ARM Cortex-A72 + Quad core ARM Cortex-A53 @1.8GHz	8-core CPU, ARM Cortex-A76 + Cortex-A55 @1.8GHz
NPU	3Tops	6Tops
Memory	4GB	8GB/12GB
Built-in storage	8/32GB eMMC	32GB/64GB
Cellular Interface		
Modem	1 x LTE Cat4 or 1 x 5G NR SA/NSA	1 x LTE Cat4 or 1 x 5G NR SA/NSA
Number of Antennas	1	2 (LTE version) or 4 (NR version)
Connector	SMA-K	SMA-K
SIM	2 x Mini SIM (2FF)	2 x Mini SIM (2FF) (eSIM Optional)
Wireless Interface		
Standards	802.11b/g/n, AP or station modes	802.11b/g/n/ac/ax, AP or station modes
Frequency Bands	2.4 GHz	2.4 GHz & 5GHz
Speed	150Mbps	1350Mbps (LTE version) or 750Mbps (NR version)
Security	WEP, WPA, WPA2	WEP, WPA, WPA2
Encryption	64/128 AES, TKIP	64/128 AES, TKIP
Antennas	1	3 (LTE version) or 2 (NR version)
Connector	SMA-K	SMA-K
GNSS Interface		
Number of Antennas	1 (Optional)	1 (Optional)
Connector	SMA-K	SMA-K
Peripheral Interface		
Ethernet	5 x LAN 10/100/1000Mbps + 1 x WAN/LAN 10/100/1000Mbps, Gigabit Ethernet	2 x LAN 10/100/1000Mbps + 2 x WAN/LAN 10/100/1000Mbps, Gigabit Ethernet
Serial Type	2 x RS-232 + 4 x RS-485 serial port	2 x RS-232 + 4 x RS-485 serial port
USB	2 x USB2.0, 1 x USB3.0	2 x USB2.0, 2 x USB3.0
TF Card	2	1
Can	N/A	1
IO	2 x DO, 16 x DI	4 x DO, 4 x DI
SFP	2 x SFP	N/A
Audio	Audio 0/0U	Audio IN/0U
Display	1 x HDMI, maximum resolution 2K@30Hz, supports audio	1 x HDMI, maximum resolution 2K@30Hz, supports audio
Software		
Video code	H.265/H.264/VP9 4K@60fpsHD video decoding	H.265/H.264/VP9, 4K@60fpsHD video decoding
Image processing	BMP, JPG, PNG, GIF	BMP, JPG, PNG, GIF
Auto Fail-over	Between: Cellular and WAN	Between: Cellular and WAN, Cellular and Wi-Fi (station mode), WAN and Wi-Fi (station mode)
AI algorithm	Face recognition, personnel fatigue detection, fall recognition, safety hat recognition, work clothes recognition, smoking recognition, phone-call recognition, flame recognition, smoke recognition, water level detection, etc.	Face recognition, personnel fatigue detection, fall recognition, safety hat recognition, work clothes recognition, smoking recognition, phone-call recognition, flame recognition, smoke recognition, water level detection, etc.
Network	Multi-DNN, APN, VPDN, QoS	Multi-DNN, APN, VPDN, QoS, 5G LAN
Firewall	NAT, PAT, DMZ, Port Forward IP/Domain/MAC Filter, Access Control List	NAT, PAT, DMZ, Port Forward IP/Domain/MAC Filter, Access Control List
VPN	PPTP/L2TP/GRE/IPSec/OpenVPN/DMVPN	PPTP/L2TP/GRE/IPSec/OpenVPN/DMVPN
Remote Management	HTTP, Telnet, SSH, SMS, SNMP V1/V2/V3, SNMP TRAP, Hongdian Sandora Platform, SDLAN	HTTP, Telnet, SSH, SMS, SNMP V1/V2/V3, SNMP TRAP, Hongdian Sandora Platform, SDLAN
Serial Ports Function	Transparent, Modbus RTU, etc	Transparent, Modbus RTU, etc
Power Supply and Consumption		
Connector	2 pin socket	3 pin socket
Voltage Input	+9~+16V DC	+9~+36V DC, including ACC
Power Consumption	Idle: 400mA@12V DC, Data transceiving: 600mA@12V DC	Idle: 333mA@12V DC, Data transceiving: 598mA@12V DC
Others		
Reset Button	Yes	Yes
LED Indicators	6 indicators for SYS, WIFI, HDD, NET, SIG, LORA	4 indicators for SYS, WIFI, NET, PWR
Hardware Watchdog	Yes	Yes
Physical Characteristics		
Ingress Protection	IP43	IP30
Housing & Weight	Metal, about 3300g	Aluminum+ABS plastic, about 900g
Dimension	430 x 300 x 45 mm	145 x 144 x 64 mm
Installations	Wall-mounting	Wall-mounting
Operating Temperature	-30 ~ +75 °C	-20 ~ +70 °C
Storage Temperature	-40 ~ +80 °C	-40 ~ +80 °C
Relative Humidity	5 ~ 95%	5 ~ 95%

CONSUMER ROUTER




A500Q 5G Indoor CPE

- 5G speed rivals fiber broadband access
- Wi-Fi 6 brings 50% speed enhancement
- AX5400 Wi-Fi capacity for up to 128 clients
- VoLTE/ VoNR and Gigabit LAN connection




H510M 5G Indoor CPE

- 5G powered by MTK chipset
- Wi-Fi 6 brings 50% speed enhancement
- AX3000 Wi-Fi capacity for more than 32 users
- Gigabit LAN connection



H610M 5G Outdoor CPE



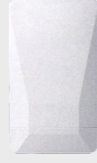

- 5G powered by MTK chipset
- IP65 protection design
- Multiple VPN tunnels for data encryption
- 2.5Gbps Ethernet with POE



H650Q 5G Outdoor CPE

- 3G/4G/5G Connection
- IP65 protection design
- 2.5Gbps Ethernet
- PoE Support

SPECIFICATION COMPARISON

Product	A5000	H510M	H610M	H650Q
				
Chipset	Dual-core Arm Cortex-A53 processor@1.0GHz	Quad-core ARM Cortex-A55 up to 2GHz	Quad-core ARM Cortex-A55 up to 2GHz	ARM Cortex-A7 up to 1.5GHz
Cellular				
Standard	3GPP Rel-16 NSA/SA	3GPP Rel-15 NSA/SA	3GPP Rel-15 NSA/SA	3GPP Rel-16 NSA/SA
Bands	A5000-EA 5G NSA & SA: n1/n3/n5/n7/n8/n20/n28/n38/n40/n41/n75/n76/n77/n78 LTE-FDD: B1/B3/B5/B7/B8/B20/B28/B32 LTE-TDD: B38/40/41/42/43 WCDMA: B1/B5/B8 A5000-NA 5G NSA & SA: n2/n5/n7/n12/n13/n14/n25/n26/n29/n30/n38/n41/n48/n66/n70/n71/n77/n78 LTE-FDD: B2/B4/B5/B7/B12/B13/B14/B17/B25/B26/B29/B30/B66/B71 LTE-TDD: B38/B41/B42/B43/B48	H510M-EU 5G Sub-6: n1/3/5/7/8/20/28/38/40/41/77/78 LTE FDD: B1/3/5/7/8/20/28 LTE TDD: B38/40/41/42/43 WCDMA: B1/5/8 H510M-NA 5G Sub-6: n2/5/7/12/14/25/30/41/48/66/71/77/78 LTE FDD: B2/4/5/7/12/13/14/17/25/26/29/30/66/71 LTE TDD: B41/48 LAA: B46 WCDMA: B2/4/5 H510M-LA 5G Sub-6: n5/7/8/20/28/38/40/41/71/77/78 LTE FDD: B2/4/5/7/8/20/25/28/66/71 LTE TDD: B38/40/41/42/43 WCDMA: B2/4/5/8	H610M-EU 5G Sub-6: n1/3/5/7/8/20/28/38/40/41/77/78 LTE FDD: B1/3/5/7/8/20/28 LTE TDD: B38/40/41/42/43 WCDMA: B1/5/8 H610M-NA 5G Sub-6: n2/5/7/12/14/25/30/41/48/66/71/77/78 LTE FDD: B2/4/5/7/12/13/14/17/25/26/29/30/66/71 LTE TDD: B41/48 LAA: B46 WCDMA: B2/4/5 H610M-LA 5G Sub-6: n5/7/8/20/28/38/40/41/71/77/78 LTE FDD: B2/4/5/7/8/20/25/28/66/71 LTE TDD: B38/40/41/42/43 WCDMA: B2/4/5/8	H650Q-EU 5G Sub-6: n1/3/5/7/8/20/28/38/40/41/75/76/77/78 LTE-FDD: B1/3/5/7/8/20/28/32 LTE-TDD: B38/40/41/42/43 WCDMA: B1/5/8 H650Q-NA 5G Sub-6: n2/5/7/12/13/14/25/26/29/30/38/41/48/66/70/71/77/78 LTE-FDD: B2/4/5/7/12/13/14/17/25/26/29/30/66/71 LTE TDD: B38/41/42/43/48 LAA: B46 H650Q-LA 5G Sub-6: n2/5/7/8/28/40/66/78 LTE-FDD: B2/4/5/7/8/26/28/66 LTE TDD: B40/42 WCDMA: B2/4/5
LTE Category	DL Cat 19/ UL Cat 18	DL Cat 19/ UL Cat 18	DL Cat 19/ UL Cat 18	DL Cat 19/ UL Cat 18
Built-in Antenna	4G/5G antenna x 4	4G/5G antenna x 8	4G/5G antenna x 8	4G/5G antenna x 4
Max Data Rates	5G NSA Sub-6: 3.2Gbps (DL)/600 Mbps (UL) 5G SA Sub-6: 2.4Gbps (DL)/900 Mbps (UL) LTE: 1.6 Gbps (DL)/200 Mbps (UL) WCDMA: 42 Mbps (DL)/5.76 Mbps (UL)	5G NSA: 3.74Gbps (DL)/738Mbps (UL) 5G SA: 4.67Gbps (DL)/1.25Gbps (UL) LTE: 1.6Gbps (DL)/211Mbps (UL) WCDMA: 42Mbps (DL)/11.5 Mbps (UL)	5G NSA: 3.74Gbps (DL)/738Mbps (UL) 5G SA: 4.67Gbps (DL)/1.25Gbps (UL) LTE: 1.6Gbps (DL)/211Mbps (UL) WCDMA: 42Mbps (DL)/11.5 Mbps (UL)	5G NSA: Max 3.4Gbps (DL)/550Mbps (UL) 5G SA: Max 2.4Gbps (DL)/900Mbps (UL) LTE: Max 1.6Gbps (DL)/200Mbps (UL) WCDMA: Max 42Mbps (DL)/5.76Mbps (UL)
Wireless				
Standard	Wi-Fi 6, 802.11 a/b/g/n/ac/ax, AX5400	Wi-Fi 6, 802.11 a/b/g/n/ac/ax, AX3000	N/A	N/A
2.4 GHz	2 x 2 MIMO, 576 Mbps	574 Mbps	N/A	N/A
5 GHz	4 x 4 MIMO, 4804 Mbps	2402 Mbps	N/A	N/A
Max User	128	More than 32	N/A	N/A
Built-in Antenna	Wi-Fi antenna x 6 (MU MIMO)	Wi-Fi antenna x 2 (MU MIMO)	N/A	N/A
Interface				
LED	Power, Wi-Fi, 4G, 5G	Power, Net, Wi-Fi	Power, Net	PWR, SYS, Net, LAN
SIM	Nano SIM	1 x SIM slots, eSIM (Optional)	1 x SIM slots, eSIM (Optional)	1 x SIM slots, eSIM (Optional)
Button	RESET, WPS, Power (Optional)	Reset, WPS or MESH	Reset	Reset
Ethernet	1 x GigE LAN, 1 x 2.5GigE WAN/LAN	1 x 2.5Gbps WAN/LAN, 1 x GE LAN	1 x 2.5Gbps LAN	1 x 2.5Gbps LAN
Tel Port	RJ11*1	1 x RJ11 VOLTE (Optional)	N/A	N/A
USB	N/A	USB2.0	USB2.0	USB2.0
Power Supply				
Power Input	Power adaptor, DC socket	DC socket	POE, DC socket	POE, DC socket
Voltage	12V/3A	12V/2.5A	24V/1A~48V/0.5A	12/1.5A~36V/0.5A
Others				
Ingress protection	IP30	IP30	IP65	IP65
Mount	Desk	N/A	Wall or pole mounted	Wall or pole mounted
Weight	Approx. 700g	Approx. 700g	Approx. 670g	Approx. 576g
Size	101 x 101 x 208.8 mm	110 x 112 x 195 mm	250 x 145 x 67.5 mm	250 x 145 x 67.5 mm
Operating Temperature	-10 ~ +45°C	0 ~ +50°C	-10 ~ +60°C	-10 ~ +60°C
Storage Temperature	-30 ~ +75°C	-10 ~ +55°C	-20 ~ +70°C	-20 ~ +70°C
Relative Humidity	5~95%	5~95%	5~95%	5~95%

SANDORA CLOUD SERVICE

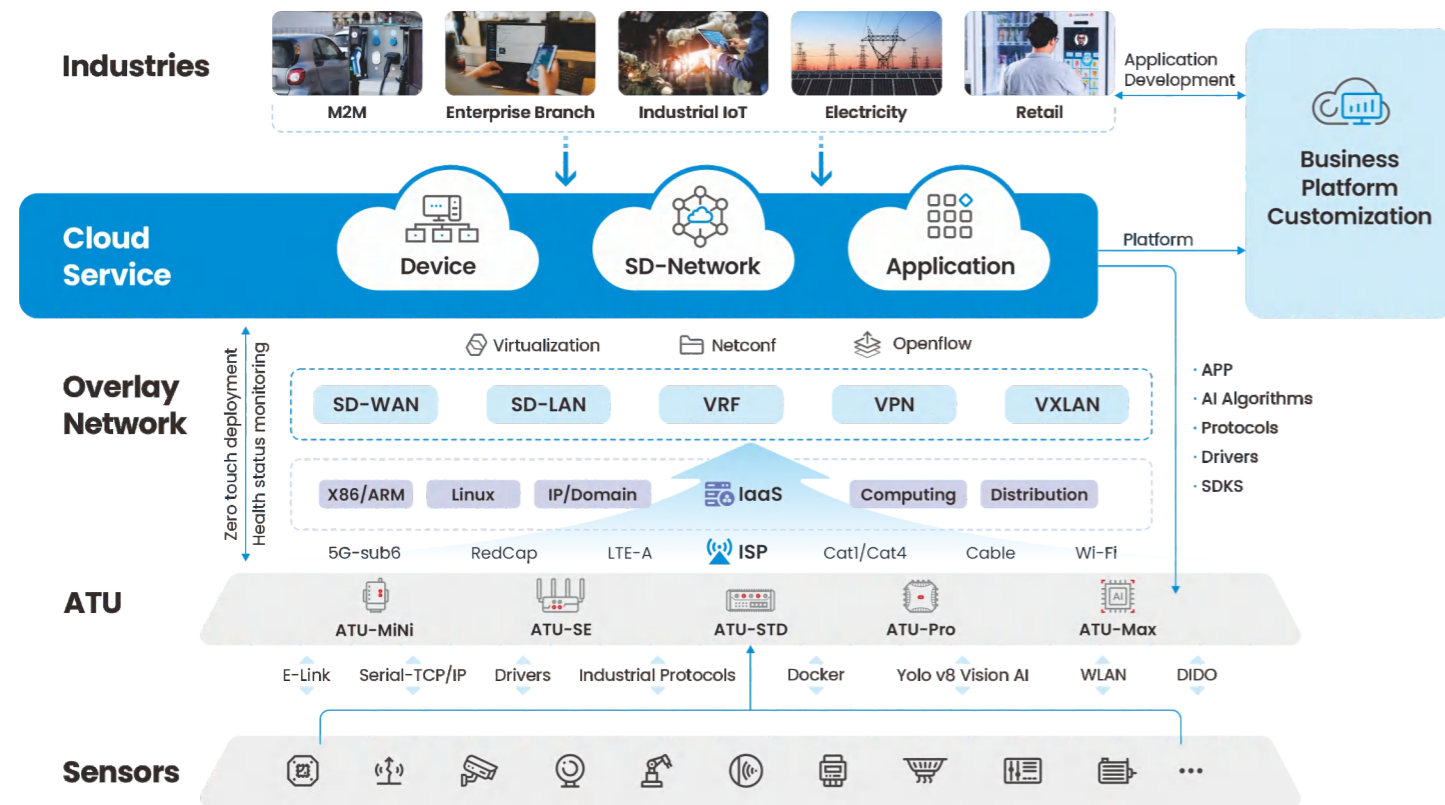
Effortless IoT Management, Anytime, Anywhere.



Overview

Sandora Cloud Platform is a value-added cloud service introduced by Hongdian to enhance the user experience of its IoT communication products, reduce user barriers to entry, and save on operational costs. It provides users with a dashboard easy manage web tool to monitor, control or upgrade the Hongdian devices in their hands, and drag & drop networking tools to quick establish secure connection to the remote site connected with Hongdian devices. This platform offers users faster, more secure, and reliable device management, remote access, and software-defined networking services.

Technical Architecture



Device Management

In control of your device fleet and IoT business network from a single location or anywhere in the world.

Zero-Touch Deployment

- Frictionless Aftercare: Replace & Resume, No Downtime
- Remote Control Without Limits
- Field-Proof Simplicity, Plug & Play
- Remote Control Without Limits



Data Insight Hub

- Device - HW diagnostics/state history
- Location - GPS or Cell-tower tracking
- Network - Traffic/VPN/SLA analytics
- Operations - Full device control via mobile app
- Integration - 3rd Party Platform data forward



Batch Device Management

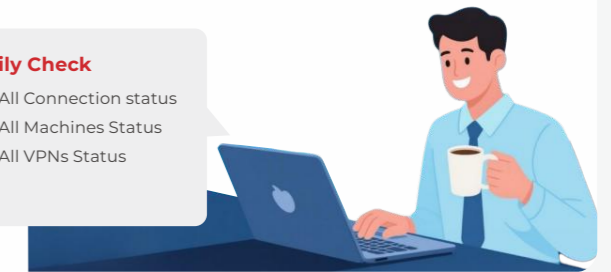
- Unified Orchestration: Group | Model | Tag-based device grouping
- Bulk Operations: Multi-device config push | FOTA updates | Batch reboot
- Policy-Driven Automation: Scheduled tasks with failure fallback



Real-time Notification

- Full-Stack Monitoring: Device/Cell/VPN status
- Real-Time Alerts: Web, E-mail and Mobile APP
- Open Integration: REST API with payload encryption

- Daily Check**
- ✓ All Connection status
 - ✓ All Machines Status
 - ✓ All VPNs Status



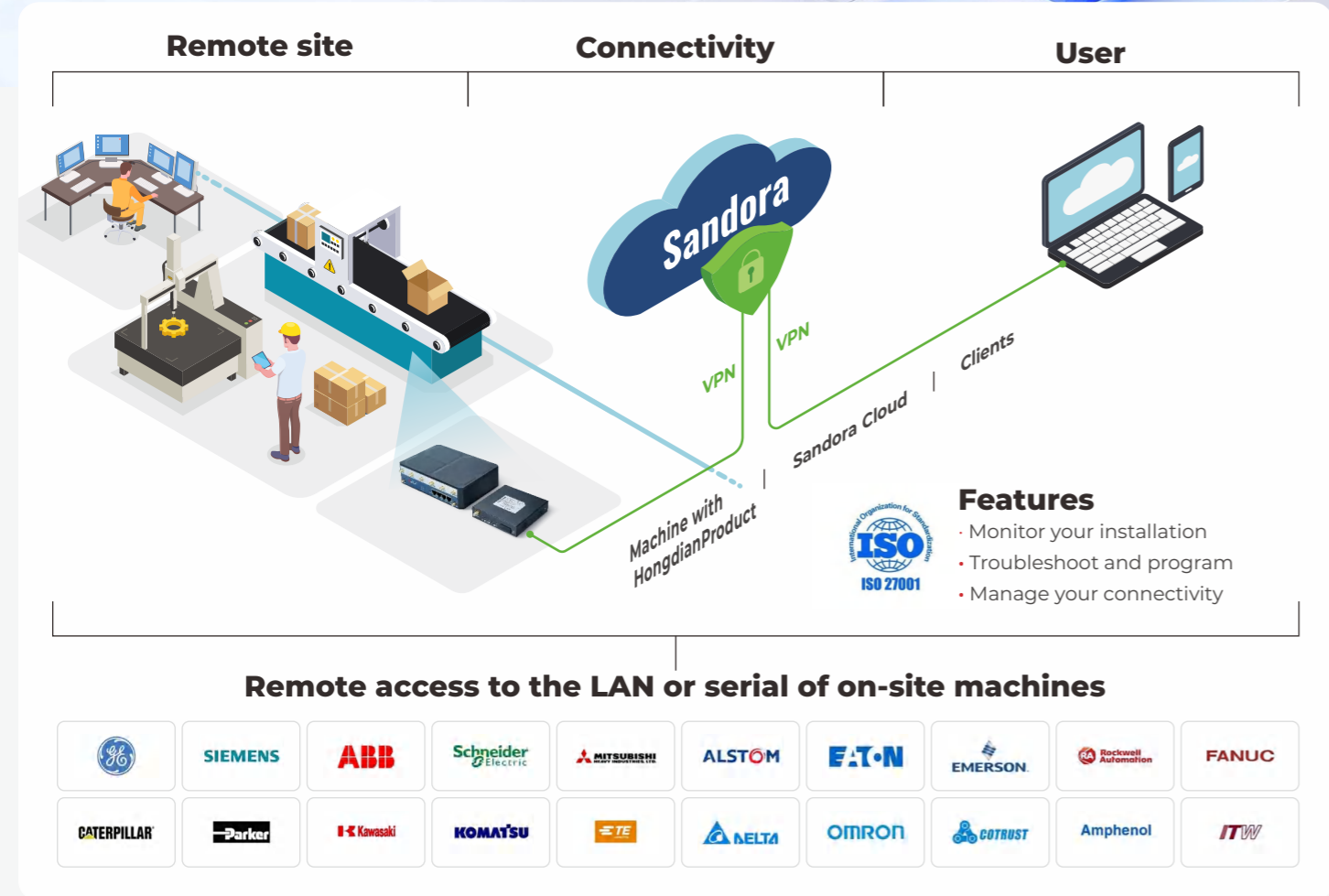
Grow your business with us!

	Less than 1000pcs	More than 1000pcs	Local deployment
Device management	Free management for 3yrs	Contact your sales representative for Distributor price!	Contact your sales representative

Register on: <https://sandora.hongdian.com>

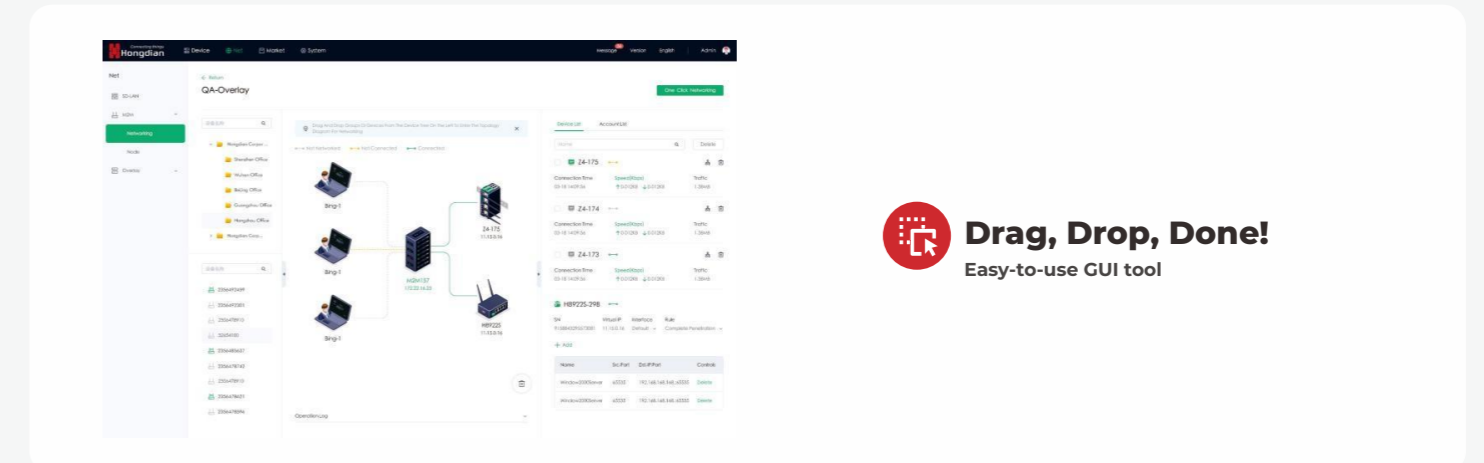
Remote Access

Secure cloud VPN to access to your machines for maintenance and troubleshooting via the LAN or Serial of Hongdian device.



Sandora SD-WAN

Easiest solution to establish End-to-End networks with Sandora sd-wan and Hongdian cellular products.



One-click Remote Access

- Global on-demand service with dedicated servers
- Advanced VPN protocol support with client
- Pooled data for unlimited devices

Data Security & Compliance

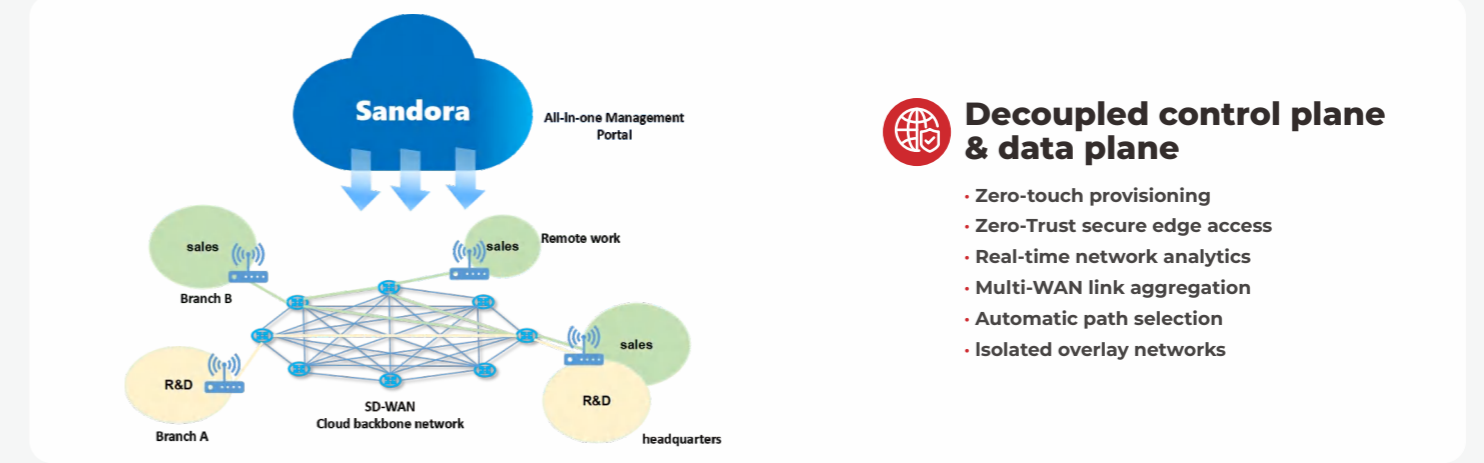
- End-to-end encryption for all communications
- Multi-factor authentication (MFA)
- ISO 27001 compliance

Out-of-band Maintenance

- Independent network for maintenance
- Plug and play setup
- Ethernet or serial port accessible

Minimizing Downtime

- Daily-check prevents downtime
- Remote diagnostics reduce on-site visits
- Seamless troubleshooting workflow as on-site



USE CASE



Automated Parcel Locker

- 👤 Amazon/HIVE BOX
- 📍 North America/Europe/Asia
- 🏢 H8951/H8952/H8959

Hongdian integrates third-party devices and supplies over 300,000 automated parcel lockers to some E-commercial companies and helps them lower their delivery cost and achieve contactless delivery.



ATM Networking

- 👤 Central Bank of Thailand/Bank Indonesia
- 📍 Thailand/Indonesia/Brazil
- 🏢 H8922S

About 80,000+ H8922S provides dual-channel 4G wireless connectivity with protection. Strict security certification at product & solutions level, IPSec tunnels to secure data transmission in the air.



Automatic Guided Vehicle Monitoring

- 👤 Foxconn
- 📍 China
- 🏢 H8820

H8820 provides stable and secure data transmission for the status of AGV, road condition and location to the cloud in real time. Real-time adjustment of AGV based on backend data processing.



Smart Transportation

- 👤 Bus Transport Group
- 📍 China
- 🏢 H6700

H6700 enables stable real-time HD video transmission to NVRs, remote vehicle diagnostics and early warnings, and reliable connectivity for automated ticketing machines and other onboard systems.



Smart Grids

- 👤 NARI
- 📍 China
- 🏢 H8951

Hongdian H8951 enables reliable 4G connectivity for RMUs. Its compact design fits easily into RMUs and distribution rooms, ensuring stable network performance and streamlined deployment, while supporting cost-efficient grid digitalization



5G Smart Factory

- 👤 Ericsson/BYD
- 📍 China
- 🏢 H8890

H8890 gateway with IP66 dustproof and waterproof ability, adapts to harsh environment. PLC protocol library and customized interface to connect to MES platform, realize real-time viewing of equipment data and remote maintenance operation.



Smart Harbor

- 👤 Ningbo/Shenzhen Port
- 📍 China
- 🏢 H8890

Together with partner, Hongdian involved in three large scale smart port projects in China. Hongdian H8890 helps to build a stable and reliable 5G network for connection of all the terminals.



5G Fixed Wireless Access

- 👤 Saudi Arabia, CSL, China Unicom
- 📍 Global operators
- 🏢 H8860

Hongdian H8860 have provided different solutions for many carriers, including Saudi Arabia, CSL, China Unicom, etc.