Huawei AR631I-LTE4EA Data Sheet

Huawei AR631I-LTE4EA is a fixed-form-factor gateway designed for network communication in challenging industrial environments with extreme temperature, humidity, and electromagnetic interference. With stand-out routing features, AR631I-LTE4EA best suits industrial routing scenarios.

Overview

Huawei AR631I-LTE4EA is purpose-built for industrial gateway scenarios. By using ARM-based multi-core processors and a non-blocking switching architecture, the AR631I-LTE4EA integrates diverse functions such as routing, switching, VPN, and security. This makes it an ideal choice for enterprises looking for high-performance network devices in industrial scenarios.

Appearance of Huawei AR631I-LTE4EA

Product Name	Overview	Application Scenario
AR631I-LTE4EA	AR631I-LTE4EA router: • Industrial-grade routing gateway • Fan-free and dual-power supply redundancy design • 2 GB memory, 1 GB flash	Industrial gateway scenarios

Features and Highlights

Service Requirement	Features and Benefits
High performance	- ARM-based multi-core processors and non-blocking switching architecture - Industry-leading performance, offering low latency for mission-critical services
High reliability	- Link backup for enterprise services, enhancing service access reliability - Fault detection and determination in milliseconds, minimizing the service interruption time
Industrial-grade design	- Fan-free design, wide operating temperature range from –40°C to +70°C - Resilient to strong magnetic interference - IEC 61850-3/IEEE 1613 compliant - Dual power supplies for redundancy
Easy O&M	- Multiple management methods such as SNMP and web, simplifying network deployment and reducing OPEX - USB-based deployment
Multi-service convergence	Integration of extensive functions such as routing, switching, VPN, and security, enabling diversified enterprise services, saving space, and reducing TCO
High security	Built-in firewall and multiple VPN technologies, providing comprehensive security protection capabilities

Typical Application Scenarios

Industrial Backhaul
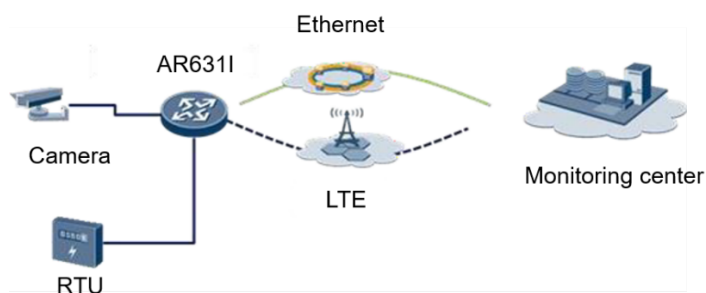
Huawei AR631I-LTE4EA can be deployed to provide 4G/3G wireless backhaul for cameras in areas where conventional wired coverage is difficult. It can also offer 4G backhaul in industrial manufacturing scenarios. Due to highly reliable industrial design, AR631I-LTE4EA ensures secure and reliable network communication in challenging environments with extreme temperature, humidity, and electromagnetic interference.

Product Specifications

Specification	AR631I-LTE4EA
Hardware Parameters	3
Case	Die-casting
DDR	2 GB, DDR4
Flash	1 GB, SLC NAND
Fixed Ethernet port	• 3 x GE electrical ports, 10/100/1000 Mbit/s auto-sensing • 2 x GE combo ports
Fixed serial port	2 x RS485 or RS232 ports (isolated, switching between RS485 and RS232 through software)
Alarm port	• One DI port (passive contact input) • One DO port (industrial terminal, supporting normally open and normally closed)
USB 3.0 port	1
Console port	1
SIM card	Micro-SIM
RTC/Overtemperature alarm	Supported
Reset/Configuration	Reset/Configuration button: used to manually restore factory default settings (hold down for at least 5 seconds) or to reset the router (hold down for less than 5 seconds).
LED indicators	2 x PWR, 2 x SIM, 1 x GPS, 1 x 2G, 1 x 3G |	2G LED	3G LED
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2G	√	-
3G	-	√
4G/LTE	√	√	 1 x SYS, 3 x RSSI

Specification	AR631I-LTE4EA
Power supply	Dual DC power supplies: 9.6 V to 60 V (industrial terminal)
Dimensions (H x W x D)	44 mm x 150 mm x 133 mm
Net weight	1.1 kg
Typical power consumption	< 8.5 W (excluding optical modules)
Installation mode	DIN/Wall-mounted
Storage temperature	–40°C to +85°C
Operating temperature	–40°C to +70°C
Operating humidity	5% to 95% (non-condensing)
IP rating	IP40
EMC standards compliance	• IEEE 1613 • IEC 61850-3 • EN 61000-6-5 (2009 + 2013)
Safety regulations	• IEC 60950-1 • IEC 61850-3
Certification mark	CE
Software Parameters	
Basic features	• TCP, UDP, ICMP, IPv4, and IPv6 • DHCP server/client/relay, DNS client, dynamic DNS • NAT, and NAT ALG
LAN	• IEEE 802.1p, IEEE 802.1Q, and IEEE 802.3 • VLAN management and MAC address management • STP
Unicast routing	• Routing policy and static routing • RIP, IS-IS, OSPF, and BGP • RIPng, IS-ISv6, OSPFv3, and BGP4+
VPN	• MCE • GRE tunneling • IPsec tunneling • DSVPN

Specification	AR631I-LTE4EA
	- L2TP/L2TPv3 VPN - Ethernet over GRE - SD-WAN
MPLS	- LDP - MPLS L2 VPN, MPLS L3 VPN, MPLS TE - VLL - PWE3 - Static LSP, Dynamic LSP - LDP FRR, TE FRR
QoS	- MQC - Traffic policing (CAR) - Traffic shaping - PQ, WFQ, and PQ+WFQ scheduling - WRED and tail drop for congestion avoidance
Security	- AAA authentication, RADIUS authentication, HWTACACS authentication, 802.1X authentication, MAC address authentication, MAC bypass authentication, certificate authentication, and PKI management - ACL - IPS, AV, URL, Firewall, packet filtering, and firewall logging - Defense against DoS attacks, TCP SYN flood attacks, UDP flood attacks, heavy-traffic attacks to prevent CPU attacks - Ping and tracert
WAN failover/failback	- Interface backup: achieving instantaneous failover/failback of 4G/3G links, ensuring service continuity on the wired network - Dual fed and selective receiving: implemented by replicating data packets on the transmit end, preventing packet loss and ensuring high-reliability data communication
Configuration maintenance	- Web UI (HTTPS) - CLI, Telnet, and SSH (v1/v2) terminal - SNMPv1, SNMPv2c, and SNMPv3 - FTP and TFTP - BootROM upgrade and remote upgrade - User operation logs - Network Quality Analysis (NQA) - System status monitoring - Synchronization of the system clock time from the router to NTP clients
Firmware management	Firmware upgrade locally over a LAN or remotely through HTTPS or SNMP
Event alarm	- System logs - SNMP traps

Power Specifications

60 W Power Supply

Specification	Power Adapter
Power specifications	Power input (integrated high-voltage AC/DC): • 88 V DC to 300 V DC (industrial terminal) • 90 V AC to 264 V AC (industrial terminal) Power output: • 12 V DC (industrial terminal)
Power	60 W
Weight	0.9 kg
Dimensions	150 mm x 40 mm x 133 mm
Storage temperature	–40°C to +85°C
Installation	Installed on a DIN rail
Operating temperature	–40°C to +70°C
Operating humidity	5% to 95% (non-condensing)

Ordering Information

Model	Ordering Information
Device	
AR631I-LTE4EA	Router,AR631I-LTE4EA 2*RS485(or 2*RS232),1*DI/DO,3*GE (10/100/1000M RJ45),2*GE COMBO,1*LTE (dual SIM),1*USB,GPS/GLONASS/BDS,9.6-60VDC
Power Supply	
PAC-60WB	Function Module,AC Adapter,PAC-60WB,60W AC Power Module(No Fan) *Note: This power supply is not required when the iCUBE-PLC100 is configured.*
4G Antenna	
ASMAM0006	Omni-directional Antenna,698MHz-960MHz/1710MHz-2690MHz,1.0dBi(698MHz-960MHz)&3dBi(1710MHz-2690MHz),10W,SMA-J
Installation Materials	
DINRAIL002	Machining Small Parts,DKBA61542001.ASM,null,Cutting,mounting base

More Information

For more information, visit https://e.huawei.com/en/ or contact us in the following ways:

- Global service hotline: https://e.huawei.com/en/service-hotline-query
- Logging in to the Huawei enterprise technical support website: https://support.huawei.com/enterprise/en/index.html
- Sending an email to the customer service mailbox: Support_e@huawei.com