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

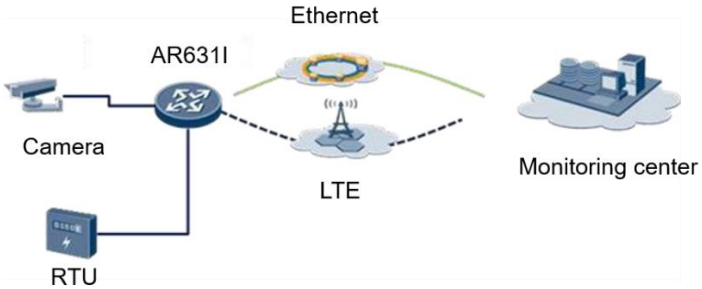
Product Name	Overview	Application Scenario
 **AR631I-LTE4EA**	AR631I-LTE4EA router: • Industrial-grade routing gateway • Fan-free and dual-power supply redundancy design • 2 GB memory, 1 GB flash	Industrial gateway scenarios

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

<table>
<tr><th>Specification</th><th colspan="3">AR631I-LTE4EA</th></tr>
<tr><td colspan="4">Hardware Parameters</td></tr>
<tr><td>Case</td><td colspan="3">Die-casting</td></tr>
<tr><td>DDR</td><td colspan="3">2 GB, DDR4</td></tr>
<tr><td>Flash</td><td colspan="3">1 GB, SLC NAND</td></tr>
<tr><td>Fixed Ethernet port</td><td colspan="3">• 3 x GE electrical ports, 10/100/1000 Mbit/s auto-sensing
• 2 x GE combo ports</td></tr>
<tr><td>Fixed serial port</td><td colspan="3">2 x RS485 or RS232 ports (isolated, switching between RS485 and RS232 through software)</td></tr>
<tr><td>Alarm port</td><td colspan="3">• One DI port (passive contact input)
• One DO port (industrial terminal, supporting normally open and normally closed)</td></tr>
<tr><td>USB 3.0 port</td><td colspan="3">1</td></tr>
<tr><td>Console port</td><td colspan="3">1</td></tr>
<tr><td>SIM card</td><td colspan="3">Micro-SIM</td></tr>
<tr><td>RTC/Overtemperature alarm</td><td colspan="3">Supported</td></tr>
<tr><td>Reset/Configuration</td><td colspan="3">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).</td></tr>
<tr><td rowspan="6">LED indicators</td><td colspan="3">2 x PWR, 1 x SIM, 1 x GPS, 1 x 2G, 1 x 3G</td></tr>
<tr><td></td><td>2G LED</td><td>3G LED</td></tr>
<tr><td>2G</td><td>√</td><td>-</td></tr>
<tr><td>3G</td><td>-</td><td>√</td></tr>
<tr><td>4G/LTE</td><td>√</td><td>√</td></tr>
<tr><td colspan="3">1 x SYS, 3 x RSSI</td></tr>
</table>

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 • L2TP/L2TPv3 VPN • Ethernet over GRE • SD-WAN

Specification	AR631I-LTE4EA
MPLS	• LDP • 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

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