



ALL-A300-4G / ALL-A301-4G

Industrial 4G LTE Cellular Router

- Highly reliable and secure for mission-critical cellular communications
- Support multi-band connectivity with FDD LTE/ TDD LTE/ WCDMA/ GSM/ LTE Cat4
- Built-in dual SIM for network redundancy
- Integrated dual detachable antenna against radio interference
- Equipped with GPS for quickly and easily deploying your devices
- LED indicators for connection and data transmission status
- Industrial rated from -20 to +70°C for use in harsh environments
- Metal Housing with IP40 industrial grade protection
- IPv6/IPv4 dual stack and all applications are IPv6 ready
- Support various serial communication protocols for rich connectivity
- Enhance security and encryption for authentication and transmission



Introduction

ALLNET Industrial-grade ALL-A300-4G/ALL-A301-4G 4G LTE Cellular Routers are highly reliable and secure wireless communications gateway designed for Industrial IoT and M2M applications. Featuring the flexible LAN/WAN Ethernet options, the **ALL-A300-4G** provides 1-port 10/100 Base-TX Ethernet interface and the **ALL-A301-4G** have 3-port 10/100 Base-TX Ethernet interfaces. With GPS function, the **ALL-A300-4G/ALL-A301-4G** series can track accurately the router location and display sync time for quickly managing existing devices. It is equipped with dual SIM that support failover and roaming over to ensure uninterrupted connectivity.

Supporting **RS232**, **RS485** and **DI/DO**, the **ALL-A300-4G/ALL-A301-4G** series allow you to customize your professional applications in diverse environments. The device is administrated via web GUI, Telnet, SSH v2 and HTTP/HTTPS. It also provides enterprise-grade software features, such as Modbus for SCADA system or M2M connectivity, and MQTT for M2M application. The critical VPN security supports IPSec, OpenVPN, and GRE, etc. to enhance encryption for authentication and transmission for a wide range of applications and vertical machine-to-machine (M2M) markets.

Built for secure and uninterrupted operation in harsh environments, the **ALL-A300-4G** and the **ALL-A301-4G** offer operating temperature from **-20 to 70°C** and a flexible input voltage range of 10-32V DC. Having trusted industrial-grade certificates, **ALLNET ALL-A300-4G/ALL-A301-4G** are best choices for mission-critical cellular communications.

Product Specifications

Item	Specification
Cellular Interface	FDD LTE: B1/B3/B5/B7/B8/B20 TDD LTE: B38/B40/B41 WCDMA: B1/B5/B8 GSM: 900/1800 MHz LTE Cat4
Processor & I/O Interface	High performance 528 MHz CPU with 512 Mbytes of DDR3 memory 2 x SIM Card Slots 1 x LAN 10/100 Mbps Ethernet port (Model: ALL-A300-4G) 3 x LAN 10/100 Mbps Ethernet ports (Model: ALL-A301-4G) 1 x WAN 10/100 Mbps Ethernet port Reset Button Console: 1 x RS232 (9-pin Sub-D)



	2 x SMA connectors for detachable LTE antenna 1 x GPS detachable antenna (Optional) 1 x RS485 (D+/D-) 1 x RS232 (TXD/RXD) 2 x DI, 1 x DO (Alarm +/-)
Software	<p>Network Protocols:</p> IPv4, IPv6, IPv4/IPv6 dual stack, DHCP server and client, PPPoE, Static IP, SNTP, GPS sync time, DNS Proxy, Modbus, VRRP, OSPF, Message Queue Telemetry Transport (MQTT Broker), BGP
	<p>Routing/Firewall:</p> NAT, Virtual Server, DMZ, MAC Filter, URL Filter, IP Filter, VLAN, Static Routing and RIP-1/2
	<p>VPN:</p> OpenVPN, IPSec (3DES, AES128, AES196, AES256, MD5, SHA-1, SHA256), GRE, PPTP, L2TP
	<p>Wireless Connectivity:</p> Two SIM for failover/ roaming over/ back up Two SIM data usage control Seamless multi WAN connections switch
	<p>Others:</p> DDNS, QoS, Virtual COM, UPnP
	<p>Alarm:</p> DI, DO, SMS, VPN/WAN Disconnect, SNMP Trap, E-mail
Management Software	Web GUI for remote and local management, CLI Dual Image firmware upgrade by Web GUI Syslog monitor SNMP, TR069 Remote management via SSH v2, HTTPS Local management via Telnet, SSH v2, HTTP/HTTPS
LED Display	1 x System status LED (Green) 1 x VPN status LED (Green) 1 x SIM1 status LED (Green) 1 x SIM2 status LED (Green) Ethernet status LEDs (Green for LINK/ACT, Yellow for SPEED) 2 x Mobile connection strength LEDs (Green)



Power Supply	Power Consumption: 7 Watts(Max) Power Input: 10 ~ 32V DC
MTBF (mean time between failures)	ALL-A300-4G: 155,899 hrs (MIL-HDBK-217-FN2) ALL-A301-4G: 148,930 hrs (MIL-HDBK-217-FN2)
Physical Characteristics	Enclosure: Metal Shell Housing: IP40 Protection Dimensions (W x H x D): 60 x 110 x 106 mm Weight: 451 g (0.9943 lb) (Model:ALL-A300-4G) 452 g (0.9965 lb) (Model:ALL-A301-4G)
Environment	Operating Temperature: -20 ~ +70°C Storage Temperature: -40 ~ +85°C Ambient Relative Humidity: 10 ~ 95% (non-condensing) Humidity: 0 ~ 95% (non-condensing)
Standards and Certifications	EMC: CE, FCC EMI: EN 55032 Class A, FCC Part 15 Subpart B Class A EMS: EN 55024 / EN 61000-4-2 (ESD) Level 3 / EN 61000-4-3 (RS) Level 3 / EN 61000-4-4 (EFT) Level 4 / EN 61000-4-5 (Surge) Level 3 / EN 61000-4-6 (CS) Level 3 / EN 61000-4-8 (PFMF) Level 4 / EN 61000-4-11 / EN 61000-6-2 (Industrial) / EN 61000-6-4 (Industrial) Rail Traffic: EN50121-4 Vibration: IEC60068-2-6 Safety: EN60950-1 Highly Accelerated Life Test (HALT)



Dimensions

