

AMIT ELECTRIC

4G Industrial Router / RTU



Introduction

AE-23 is an intelligent cellular router designed for industrial applications requiring faultless connectivity. It provides a secure, reliable, real-time, remote connectivity for SCADA, distribution management systems, metering, etc. Software-defined, multi-carrier networking, dual SIM models, 802.11n and global 2.5G/3G/HSPA+/LTE options make it easy to get connected. With DIN-rail mounting, wide operating temperature range, and IP30 metal housing, The AE-23 have intelligence to perform redundancy in 2 LAN host (PLC redundancy).



Industrial-grade Design

- ▶ High-performance industrial-grade wireless module
- ▶ High-performance industrial-grade 32-bit communication processor
- ▶ Using metal shell, protection grade IP30.
- ▶ Wide power input range 5~36V



Stability & Reliability

- ▶ WDT Watchdog design
- ▶ Complete anti-dropping mechanism to ensure that the data terminal is always online
- ▶ Built-in 1.5KV electromagnetic isolation protection for Ethernet interface
- ▶ RS232/RS485 interface, power and data isolation with CSA, UL and IEC standards
- ▶ SIM/UIM card interface built-in 15KV ESD protection
- ▶ Built-in reverse phase protection and over voltage protection for power interface



Standard & Convenience

- ▶ Standard RS232 or RS485/RS422 (Optional), Ethernet and WIFI Interface
- ▶ Provide standard wired WAN port (support standard PPPOE protocol)
- ▶ Plug and Play
- ▶ Multiple working mode options
- ▶ Configuration and maintenance interface
- ▶ Support DIN rail
- ▶ Support local and remote WEB mode or CLI mode



4G Industrial Router / RTU



High Performance

- ▶ Multiple WAN connection methods, include Static IP/DHCP/PPPOE/DHCP-4G
- ▶ Support 3G/4G and wired WAN dual link backup (Optional)
- ▶ VPN Tunnel: PPTP/L2TP/IPSEC/OPENVPN/GRE
- ▶ Remote management SYSLOG/SNMP/TELNET/SSH/HTTPS
- ▶ Support local upgrade and remote upgrade
- ▶ Import and export configuration files
- ▶ NTP / Build-in RTC
- ▶ Support DDNS
- ▶ Support VLAN, MAC address clone
- ▶ WIFI Support 802.11b/g/n/ac. Support AP/AP Client/Bridge mode
- ▶ WIFI Support WEP, WPA, WPA2 and multiple SSID
- ▶ Support Private APN SIM card
- ▶ Support APN/VPDN
- ▶ Support DHCP server and DHCP client, NAT, DMZ, QOS
- ▶ Support TCP/IP, UDP, FTP (Optional), HTTP and other network protocols
- ▶ Support SPI firewall, VPN pass through, ACL, URL filter
- ▶ Support hardware encryption (Optional)
- ▶ Traffic statistics, real-time display of data transmission rate
- ▶ LAN Failover Provision. The Router is capable to switch the data request between working processor and hot standby processor. In case of working processor communication failure, the router will switch all the request to hot standby processor.

Product Specification

Cellular Specification

Items	Contents
Module	Industrial grade wireless module
Frequency	Support for FDD LTE: Band 1/3, Band 2/4/5/13/17/25 (Optional) Support CDMA 1XRTT/EVDO 800/1900MHz Support the whole network (Optional) : TDD-LTE, FDD-LTE, EVDO, WCDMA, TD-SCDMA, CDMA1X, GPRS/EDGE
Bandwidth	FDD LTE (Downlink 100Mbps, Uplink 50Mbps) TDD LTE (Downlink 61Mbps, Uplink 18Mbps) CDMA2000 1X EVDO Rev A (Downlink 3.1Mbps, Uplink 1.8Mbps) WCDMA (Downlink 42Mbps, Uplink 5.76Mbps) TD-SCDMA (Downlink 4.2Mbps, Uplink 2.2Mbps)
Power	< 23dBm
Sensitivity	<-93.3dBm



4G Industrial Router / RTU

WIFI Specification	
Items	Contents
Frequency	Support IEEE802.11b/g/n
Bandwidth	IEEE802.11b/g: 54Mbps IEEE802.11n: 150Mbps
Security	Support WEP, WPA, WPA2 and other encryption methods, WPS (Optional)
Power	20dBm (11n) , 24dBm (11g) , 26dBm (11b)
Sensitive	<-72dBm @ 54Mbps
Hardware System	
Items	Contents
CPU	Industrial-grade 32-bit communication processor
FLASH	16MB, Extensible to 32MB
DDR3	128MB
Interfaces	
Items	Contents
WAN	1 x 10/100M Ethernet (RJ45) Auto MDI/MDIX, Built-in 1.5KV electromagnetic isolation protection
LAN	4 x 10/100M Ethernet (RJ45) Auto MDI/MDIX, Built-in 1.5KV electromagnetic isolation protection 1 x RS232(RS422/RS485), Built-in 1.5KV electromagnetic isolation protection
Serial	Data bit: 5, 6, 7, 8 Stop bit: 1, 1.5(Optional), 2 Calibration: null, even, odd, SPACE(Optional) and MARK (Optional) Baud rate: 2400~115200bits/s
Indicators	"PWR", "SYS", "WIFI", "SIM", "Online", "Signal Strength"
I/O Port	6-pin 3.5mm wiring terminal, 2 inputs, 1 output, 1 relay; Controlled by Modbus protocol Input high level: 5 to 30 VDC Input low level: 0 to 3 VDC Load current: 50mA @ 30VDC Relay load 1A 250V AC/ 30V DC
Antenna	Cellular: 2 standard SMA female antenna interfaces, characteristic impedance 50 ohms WIFI: 1 standard SMA male antenna interfaces, characteristic impedance 50 ohms GPS: 1 calibrated SMA male antenna interface, characteristic impedance 50 ohms
SIM/UIM	Standard drawer type user card interface Support 1.8V/3V SIM/UIM card, built-in 15KV ESD protection
Power	Terminal power socket
Reset button	2 bins terminal power socket, built-in power reverse protection and overvoltage protection



4G Industrial Router / RTU

Power Supply	
Items	Contents
Standard	DC 12V/1.5A
Range	DC 5 ~36V
Consumption	<500mA (12V)
Physical Properties	
Items	Contents
Shell	Metal shell, protection grade IP30
Size	134.8 x 115.7 x 45mm (Does not include antenna and mounting parts)
Weight	520g
Others	
Items	Contents
Operating Temperature	-35~+75°C (-31~+167°F)
Storage Temperature	-40~+85°C (-40~+185°F)
Relative Humidity	95% (No condensation)

Dimension (mm)

