AD2000 IP Modem Specification

Support 2G/3G/4G Data Transfer Unit



Xiamen Alotcer Communication Technology Co., Ltd.
Tel:+86 592-6195619
Fax:+86 592-6195620
Web:en.alotcer.com
E-mail:anne@alotcer.com
Add:NO.146-148, 2nd XingBei Road, JiMei District,
XiaMen,China.

Applicable Models：

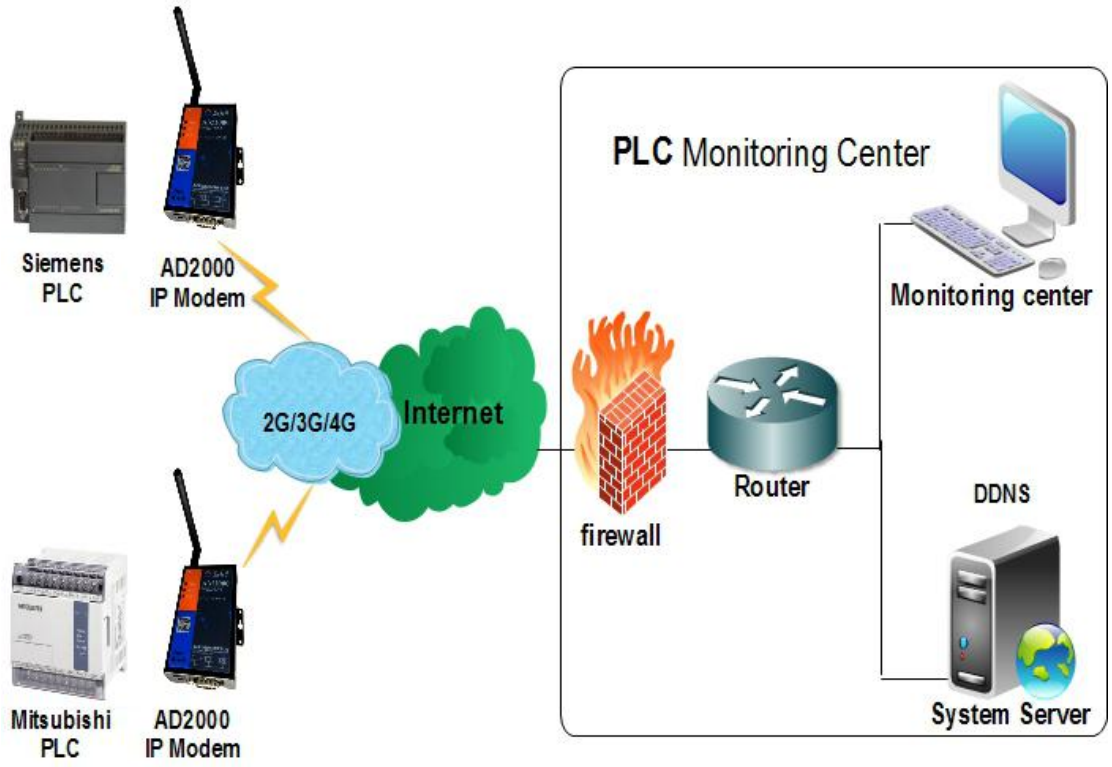
Product Type	Model	Product Name
Standard	AD2000-G	GPRS IP MODEM
	AD2000-C	CDMA IP MODEM
	AD2000-W	WCDMA IP MODEM
	AD2000-E	EVDO IP MODEM
	AD2000-D	TDD/FDD-LTE IP MODEM
	AD2000-GP	GPS+GPRS IP MODEM
	AD2000-CP	GPS+CDMA IP MODEM
	AD2000-WP	GPS+WCDMA IP MODEM
	AD2000-EP	GPS+EVDO IP MODEM
	AD2000-DP	GPS+TDD/FDD-LTE IP MODEM

General

AD2000 IP MODEM is a kind of cellular terminal device that developed based on 2G/3G/4G technology.It adopts high-powered industrial 32 bits CPU and embedded real time operating system. It supports RS232 and RS485 (or RS422) port that can conveniently and transparently connect one device to a cellular network, allowing o connect to existing serial devices with only basic configuration.

It has been widely used on M2M fields, such as intelligent transportation, smart grid, industrial automation, telemetry, finance, POS, water supply, environment protection, post, weather, and so on.

Application Topology



Product Feature

Items	Contents
Industrial Design	High-powered industrial cellular module
	High-powered industrial 32bits CPU
	Low power consumption design, support multi-sleep and trigger modes
	Housing: iron, providing IP30 protection
	Power range: DC 5~35V
High Reliability	Support hardware and software WDT
	Support auto recovery mechanism, including online detect, auto redial when offline to make it always online
	RS232/RS485/RS422 ports:15KV ESD protection
	SIM/UIM port: 15KV ESD protection
	Power port: reverse-voltage and overvoltage protection
	Antenna port: lightning protection(optional)
Standard and Convenience	Support standard RS232/RS485 ports that can connect to serial devices directly
	Support intellectual mode, enter into communication state

	automatically when powered
	Support several work modes
	Convenient configuration and maintenance interface
High-performance and Security	Support TCP server
	Support double data centers, one main and another backup
	Support multi data centers and it can support 5 data centers at the same time
	Support multi online trigger ways, including SMS, ring and data. Support link disconnection when timeout
	Support dynamic domain name(DDNS) and IP access to data center
	Design with standard TCP/IP protocol stack
	Support APN/VPDN

Product Specification

Items		Contents
Hardware System	CPU	Industrial 32 bits CPU
	FLASH	1MB (Extendable to 8MB)
	SDRAM	256KB(Extendable to 1MB)
Interface	Serial	1 RS232 port and 1 RS485(or RS422) port, 15KV ESD protection Data bits: 5, 6 ,7, 8 Stop bits: 1, 1.5(optional), 2 Parity: none, even, odd, space, mark Baud rate: 110~230400 bps
	Antenna	Cellular: Standard SMA female interface, 50 ohm GPS(optional):Standard SMA female interface, 50 ohm
	SIM/UIM	Standard 3V/1.8V user card interface, 15KV ESD protection
	Power	Standard 3-PIN power jack, reverse-voltage and over voltage protection
	Indicator	“PWR”、”RUN”、”Online”、”GPS”(optional)
Network	Wireless Network	GSM/GPRS/EDGE: 850/900/1800/1900MHz CDMA: 800/1900MHz WCDMA/HSUPA/HSPA+: 850/900/1900/2100MHz CDMA2000 1x/ EVDO Rev. A: 800/1900MHz TD-SCDMA: 1880-1920/2010-2025MHz(A/F)

		TDD-LTE: Band 38/39/40/41& Band 61/62 FDD-LTE: Band 1/2/3/4/5/7/8/13/17/20/25/28
	PPP Protocol	Support PPP Protocol
	PPP Heartbeat	Maintaining links with the cellular network to prevent forced sleep, to ensure the stability of dial-up link.
	Network Authentication	Support CHAP/PAP Authentication
	TCP Heartbeat	Monitor the server connection
GPS (optional)	Receiver Type	50-channle GPS L1（1575.42MHz）C/A code SBAS: WAAS,EGNOS,MSAS,GAGAN
	Max. update rate	5 Hz
	Accuracy	Position: 2.5m CPE SBAS: 2.0m CPE
	Acquisition	Cold starts: 32S Warm starts: 32S Aided starts: <1S Hot starts: <3S
	Sensitivity	Tracking: -160dBm Reacquisition: -160dBm Cold starts: -146dBm
	Timing accuracy	RMS: 30ns 99%: <60ns Granularity: 21ns
	Time pulse	Configurable, 0.25 to 1000Hz
Power supply	Standard Power	DC 12V/1.5A
	Power range	DC 5~35V
	Communication Current	<100mA (@12VDC)
	Standby Current	<20mA（@12VDC）
	Sleep current	<10mA（@12VDC）
Physical	Dimensions	91x59x23mm
	Weight	175g
Environmental Limits	Operating Temperature	-35~+75ºC (-31~+167℉)
	Storage	-40~+85ºC (-40~+185℉)

	Temperature	
	Operating Humidity	95% (unfreezing)