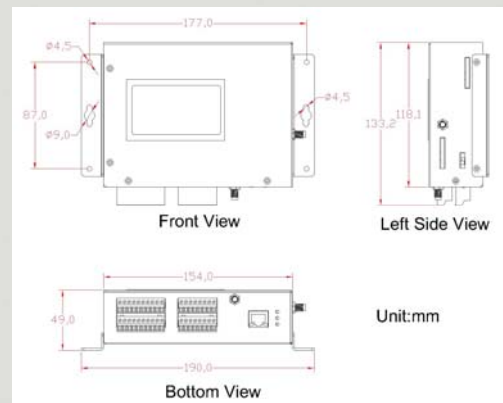


M2M Mini-Programmable Automation Controller



G-4500 series



Dimensions

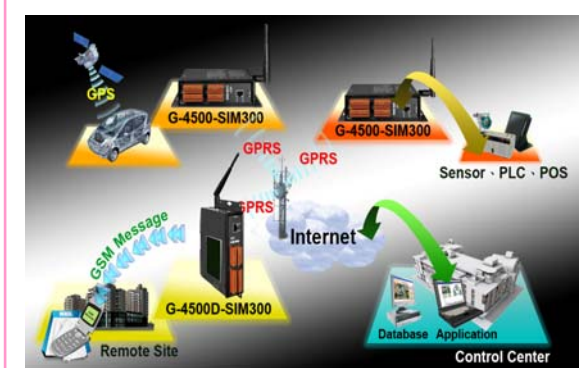
The G-4500 series provided by ICP DAS are M2M (Machine to Machine) mini programmable controller with a cellular transceiver can monitoring industrial equipment that sends live data to the monitoring system, providing real-time status. With optional GPS model, the G-4500 can also be a GPS tracking system. It can be used in vehicle management system or maritime system. Within the high performance CPU, the G-4500 series can handle a large of data and are suit for the hard industrial environment. The G-4500 series feature GPRS/GSM module, Ethernet interface, optional GPS module, 3 digital inputs, 3 digital outputs, 8 analog inputs, 2 RS-232 and 1 RS-485 port.

Features

- Embedded MiniOS7, anti-virus
- Supports a variety of TCP/IP features, including TCP, UDP, IP, ICMP, ARP
- 10/100 Base-TX NE2000 compatible ethernet controller
- COM port: COM1 (5-wire RS232), COM2 (RS-485), COM3 (3-wire RS232)
- Built-in self-tuner ASIC controller on RS-485 port
- I/O: 3 channel DI, 3 channel DO, 8 channel AI
- Support SD storage card
- GPRS/GSM: Tri-band 900/1800/1900 MHz, Quad-band 850/900/1800/1900 MHz (option)
- GPS : 16 channels with All-In-View tracking (option)
- Support TCP server, TCP client, UDP client connection from GPRS
- 128*64 dots LCM display (only for G-4500D-SIM300)
- Support Virtual COM technology
- Support Modbus Protocol
- Built-in RTC, NVRAM, EEPROM
- High reliability in harsh environment
- Free easy-to-use software development toolkits

I/O	Channel number	Specification
DO	3	Output type : Open Collector (NPN) Load Voltage : +30 V max. Load Current : 100 mA max.
DI	3	Input type : Sink On Voltage : +3.5 V ~ +30 V Off Voltage : +1 V max.
AI	8	Resolution : 12-bit Input Range/Type : 0 ~ 20 mA Sample Rate : 1 kHz max. (Read one channel)

Remote Monitoring System

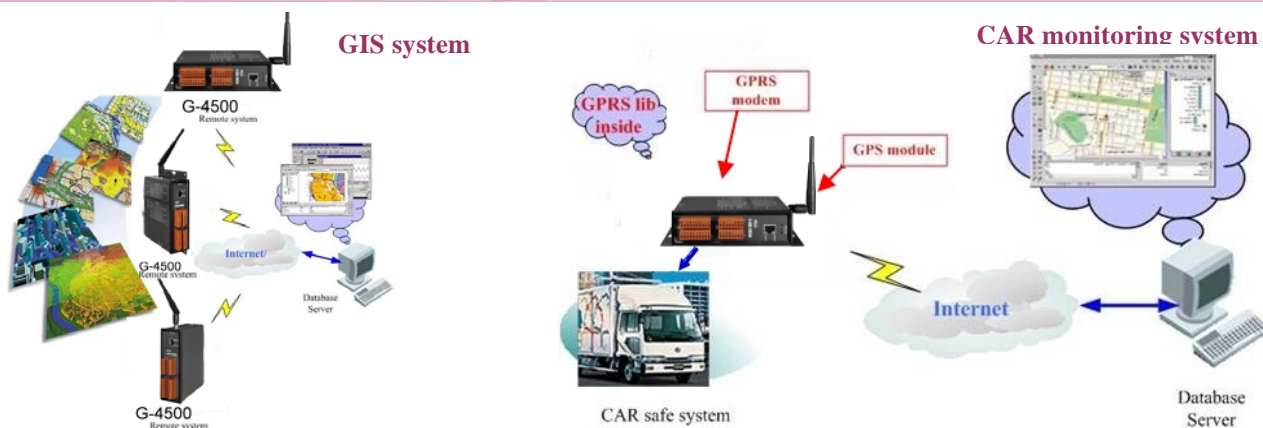


I/O Interface

Hardware Specifications

Item	G-4500-SIM300	G-4500D-SIM300
CPU	Microprocessor inside with 80 MHz	
SRAM/Flash	512/512 Kbytes, Real time clock, Watchdog timer	
NVRAM	31 bytes, battery backup, data valid up to 10 years	
EEPROM	16 Kbytes, data retention > 40 year. 1,000,000 erase/write cycles	
Comm. Interface		
COM ports	COM1:5-wire RS-232; COM2: RS-485; COM3:3-wire RS-232	
Ethernet	10/100 Base-TX NE2000 compatible ethernet eontroller	
GPRS Interface		
Frequency Band	Tri-band 900/1800/1900 MHz; GPRS multi-slot : class 10/8	
GPRS connectivity	GPRS class 10; GPRS station class B; GPRS class 10	
DATA GPRS	Downlink transfer:max 85.6 kbps; Uplink transfer : max 42.8kbps	
SMS	MT, MO, CB, Text and PDU mode	
GPS Interface		
General	16 channels with All-In-View tracking; Built-in high gain amplifier and bandpass filter; Extra high sensitivity: -159dBm	
Acquisition Time	Cold/Warm Time: 42/35 sec. at open sky and stationary	
Reacquisition Time	0.1 second	
LCD Interface	No	128*64 Dots
General	Effective display area (W x H): 80.61 x 14.37 mm; Module dimension (W x H x T): 93 x 70 x 1.6 mm; Operation Temp: -20 °C ~ 70 °C	
Life Time	Expected life is more than 100,000 hours under normal operation	
General		
Power Requirement	15W; Unregulated +10 V _{DC} ~ +30 V _{DC} .	
LEDs	3 indicator LEDs	
Environment		
Operation Temp.	Operation : -25 °C ~ 50 °C ; Storage Temp : -40 °C ~ 80 °C	
Humidity	5~95% RH, non-condensing	
Dimensions(W x L x H)	154 mm x 118 mm x 42 mm	

Applications



Ordering Information

G-4500-SIM300 CR	M2M Mini-Programmable Automation Controller (RoHS)
G-4500D-SIM300 CR	M2M Mini-Programmable Automation Controller with LCD display (RoHS)
G-4500P-SIM300 CR	M2M Mini-Programmable Automation Controller with GPS function (RoHS)
G-4500PD-SIM300 CR	M2M Mini-Programmable Automation Controller with LCD display and GPS function (RoHS)