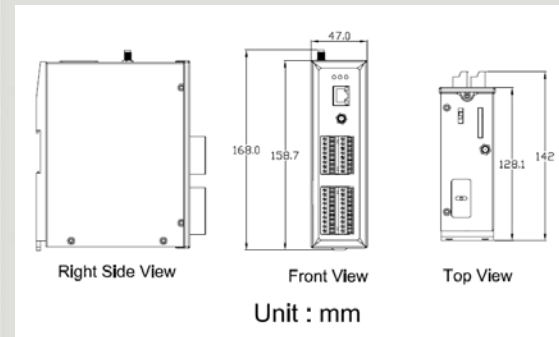


Quad-band M2M Mini-Programmable Automation Controller & Data Logger



G-4500 series



Dimensions

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

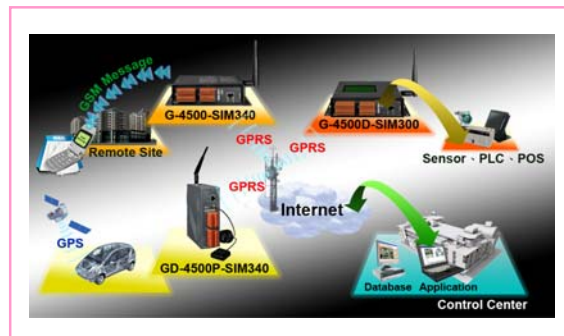
Features

- Embedded MiniOS7, anti-virus
- Supports a variety of TCP/IP features, including TCP, UDP, IP, ICMP, ARP
- 10/100 Base-TX 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 channels DI, 3 channels DO, 8 channels AI
- Support SD storage card
- GPRS/GSM: Quad-band 850/900/1800/1900 MHz
- GPS : 32 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-SIM340 and G-4500PD-SIM340)
- 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 Specifications

Digital Output	
Output Channel	3
Output Type	Open Collector (Sink/NPN)
Load Voltage	+30 V _{DC} max.
Load Current	100 mA max.
Isolated Voltage	Non-isolated
Digital Input	
Input Channel	3
Input Type	Source(Dry Type), Common Ground
Off Voltage Level	+1 V max.
On Voltage Level	+3.5 ~ +30 V
Isolated Voltage	Non-isolated
Analog Input	
Input Channel	8
Resolution	12 - bit
Input Range/Type	0 ~ 20 mA
Sample Rate	1 KHz max. (Read one channel)
Accuracy	+/- 2LSB (+/- 0.0097 mA)

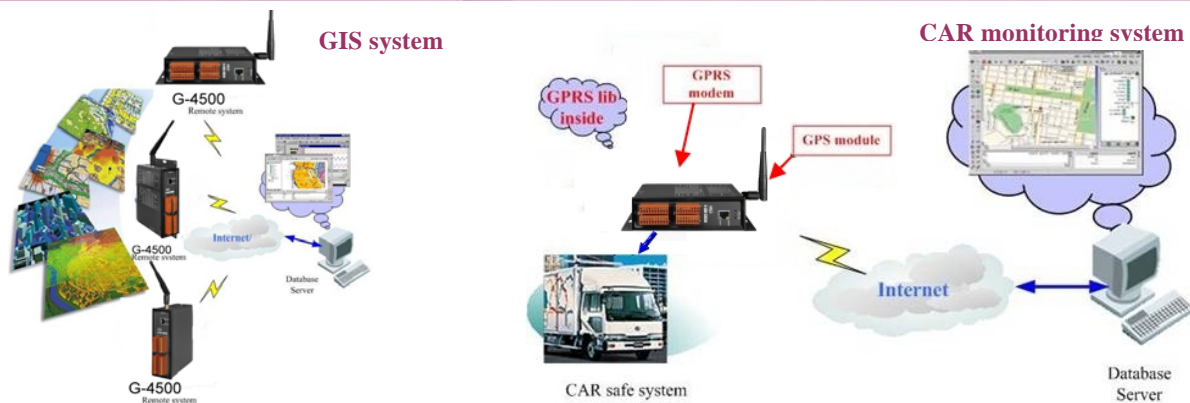
Remote Monitoring System



Hardware Specifications

Item		G-4500-SIM340	G-4500D-SIM340	G-4500P-SIM340	G-4500PD-SIM340
CPU		80 MHz internal microprocessor			
SRAM/Flash		512K/512K , real time clock, watchdog timer			
NVRAM		31 bytes, battery backup, data valid up to 10 years			
EEPROM		16 KB, retention > 40 years. 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 Ethernet controller			
GPRS Interface					
Frequency Band		Quad-band 850/900/1800/1900 MHz			
GPRS connectivity		GPRS class 10/8; GPRS station class B			
DATA GPRS		Downlink transfer: Max. 85.6 kbps; Uplink transfer: Max 42.8kbps			
SMS		MT, MO, CB, Text and PDU mode			
GPS Interface					
Support Channels		-	-	-	32
Sensitivity		-	-	-	Tracking = up to -159 dBm (with external LNA) Cold start = up to -146 dBm (with external LNA)
Acquisition Time		-	-	-	Hot start (Open Sky) = 2 s(typical) Cold start (Open Sky) = 36 s(typical)
Protocol Support		-	-	-	NMEA 0183 version 3.01
LCD Interface					
General	Effective display area	-	80.61 mm x 14.37 mm (W x H)	-	80.61 mm x 14.37 mm (W x H)
	Module Dimension	-	93 mm x 70 mm x 1.6 mm (W x H x T)	-	93 mm x 70 mm x 1.6 mm (W x H x T)
Life Time		-	Expected life is more than 100,000 hours under normal operation	-	Expected life is more than 100,000 hours under normal operation
Power					
Protection		Power reverse polarity protection			
Frame Ground Protection		ESD, Surge, EFT, Hi-Pot			
Power Requirement		15W; Unregulated +10 V _{DC} ~ +30 V _{DC}			
Power Consumption		Idle: 75 mA @ 24 V _{DC} ; Data Link: 150 ~ 400 mA (peak) @ 24 V _{DC}			
LED Indicators					
System		Red			
GPRS		Yellow			
GPS		Green		Yes	
Mechanical					
Casing		Metal			
Dimensions		47 mm x 142 mm x 168 mm (W x L x H)			
Installation		DIN-Rail and Wall mount			
Environment					
Operating Temperature		-20 ~ +70 °C	-15 ~ +55 °C	-20 ~ +70 °C	-15 ~ +55 °C
Storage Temperature		-40 ~ +80 °C	-20 ~ +70 °C	-40 ~ +80 °C	-20 ~ +70 °C
Humidity		5~90% RH, non-condensing			

Applications



Ordering Information

G-4500-SIM340 CR	Quad-band M2M Mini-Programmable Automation Controller (RoHS)
G-4500D-SIM340 CR	Quad-band M2M Mini-Programmable Automation Controller with LCD display (RoHS)
G-4500P-SIM340 CR	Quad-band M2M Mini-Programmable Automation Controller with GPS function (RoHS)
G-4500PD-SIM340 CR	Quad-band M2M Mini-Programmable Automation Controller with LCD display and GPS function (RoHS)