

4.4. Mini PAC with 2G/3G Modem



Features

- Embedded MiniOS7, anti-virus
- Support a variety of TCP/IP features, including TCP, UDP, IP, ICMP, ARP
- 10/100Base-TX Ethernet Controller
- COM port: COM1 (5-wire RS-232), COM2 (RS-485), COM3 (3-wire RS-232)
- 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
- GSM/GPRS: Quad-band 850/900/1800/1900 MHz
- Support TCP server, TCP client, UDP client connection from GPRS
- GPS: 32 channels with All-In-View tracking (option)
- 128 x 64 dots LCM display (only for G-4500D-2G and G-4500PD-2G)
- Support Virtual COM technology
- Support Modbus Protocol
- High reliability in harsh environment
- Free easy-to-use software development toolkits

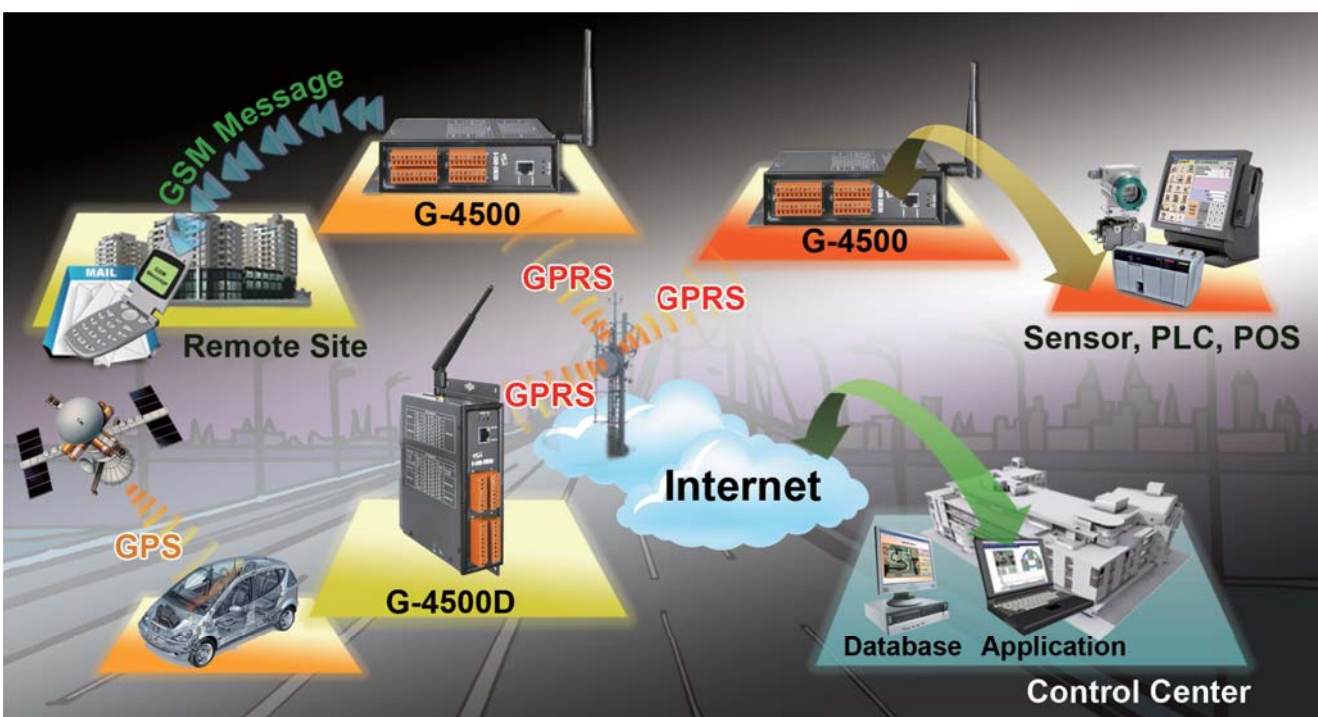


Introduction

The Quad-band G-4500 series provided by ICP DAS are M2M (Machine to Machine) mini programmable controllers which are widely recommended in the market. They are widely applied in various applications like hydrographic monitoring, intelligent power, flow meter report system and GPS car-tracking system. The G-4500-2G series also features GSM/GPRS module, Ethernet interface, optional GPS module, 3 digital inputs, 3 digital outputs, 8 analog inputs, 2 RS-232 and 1 RS-485 port which can be used in various application field to transfer data by GPRS, SMS, Ethernet or serial bus. By using G-4500 series, a machine can be installed virtually anywhere but still be connected to a support centre. M2M solution will improve the service quality and reduce operating costs. Many application areas can be improved by using G-4500-2G.

Applications

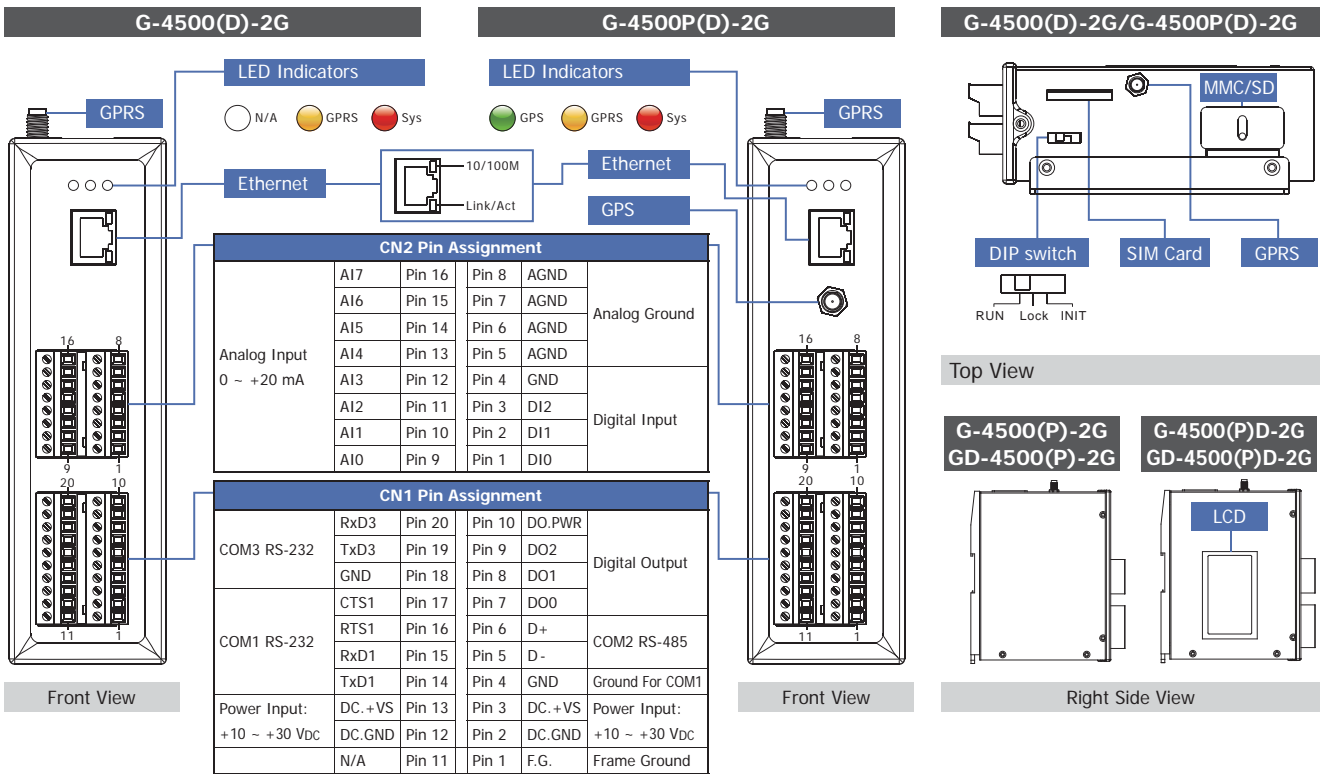
- Remote Control/Monitoring Systems
- Car Monitor Systems
- GIS Systems
- Redundant Communication Systems



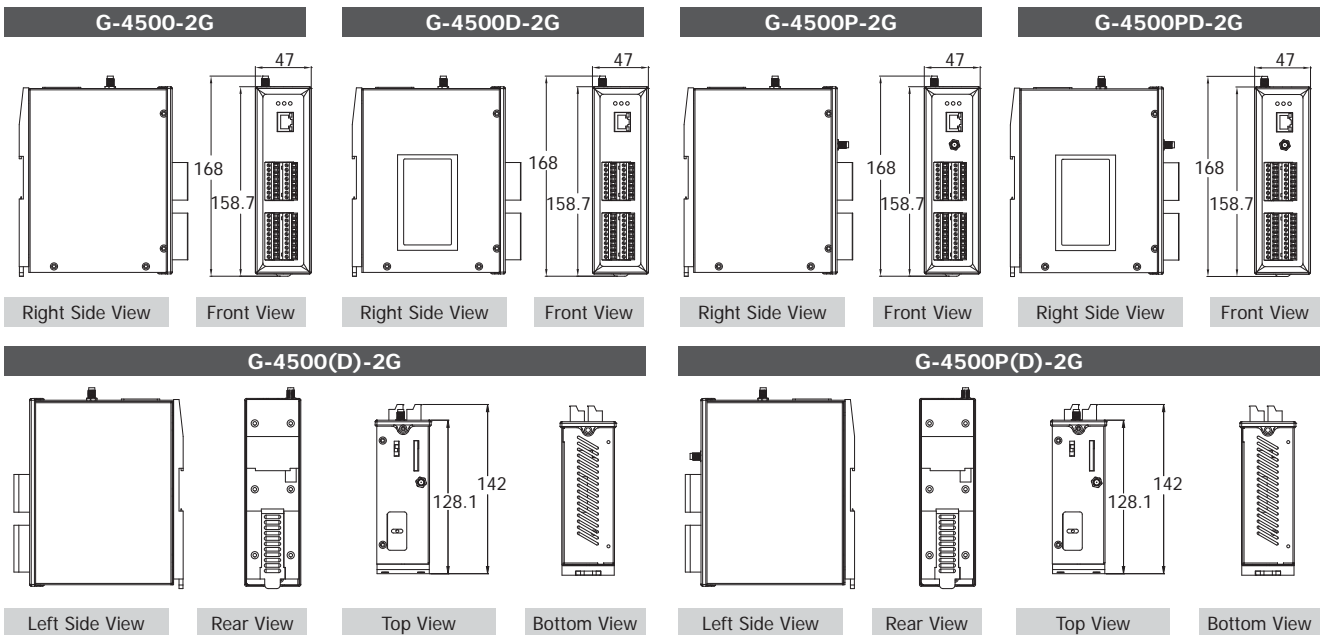
Specifications

Models	G-4500-2G	G-4500D-2G	G-4500P-2G	G-4500PD-2G	
System					
CPU	80 MHz				
SRAM	512 Kbytes				
Flash Memory	512 Kbytes				
NVRAM	31 bytes, battery backup, data valid up to 10 years				
EEPROM	16 KB, data retention >40 years. 1,000,000 erase/write cycles				
2G System					
Frequency Band	Quad-band GSM/GPRS: 850/900/1800/1900 MHz				
GPRS Multi-slot	Class 10/8				
GPRS Mobile Station	Class B				
GPRS Class 10	Up to 85.6 kbps download speed				
CSD	Up to 14.4 kbps				
Compliant with GSM Phase 2/2+	Class 4 (2 W @ 850/900 MHz); Class 1 (1 W @ 1800/1900 MHz)				
Coding Schemes	CS 1, CS 2, CS 3, CS 4				
SMS	MT, MO, CB, Text and PDU mode				
Serial Port					
COM1	RS-232 (Rx/D, Tx/D, CTS, RTS, GND)				
COM2	RS-485 (D+, D-)				
COM3	RS-232 (Rx/D, Tx/D, GND)				
Ethernet	10/100 Base-TX Ethernet controller				
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
GPS Interface					
Support Channels	-		32		
Acquisition Time	-		Hot Start (Open Sky) = 2s (typical) Cold Start (Open Sky) = 36s (typical)		
Protocol	-		MNEA 0183 version 3.01		
Digital Input					
Input Channels	3				
Input Type	Source (Dry Type), Common Ground				
Protocol	On: +1 V Max. Off: +3.5 ~ +30 V				
Digital Output					
Output Channels	3				
Output Type	Open Collector (Sink/NPN)				
Load Voltage	+30 Vdc Max.				
Load Current	100 mA Max.				
Analog Input					
Input Channel	8 (Single-ended)				
Resolution	12-bit				
Input Range/Type	0 ~ 20 mA				
Sample Rate	1 KHz Max. (read one channel)				
Power					
Protection	Power reverse polarity protection				
Frame Ground Protection	ESD, Surge, EFT, Hi-Pot				
Required Supply Voltage	15W; Unregulated +10 Vdc ~ +30 Vdc				
Power Consumption	Idle: 75 mA @ 24 Vdc; Data Link: 150 ~ 400 mA (peak) @ 24 Vdc				
Mechanical					
Casing	Metal				
Dimensions (W x L x H)	47mm x 142 mm x 168mm				
Installation	DIN-Rail and Wall Mounting				
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				

Appearance



Dimensions (Units: mm)



Ordering Information

G-4500-2G CR	Quad-band M2M Mini-Programmable Automation Controller (RoHS)
G-4500D-2G CR	Quad-band M2M Mini-Programmable Automation Controller with LCD display (RoHS)
G-4500P-2G CR	Quad-band M2M Mini-Programmable Automation Controller with GPS Function (RoHS)
G-4500PD-2G CR	Quad-band M2M Mini-Programmable Automation Controller with LCD display and GPS Function (RoHS)

Accessories

ANT-421-01	3 m External GPRS/GSM Antenna
ANT-115-03	5 m GPS Active External Antenna