

**NEW**



**G-4500(D)-3GWA  
G-4500P(D)-3GWA**

Tri-band 3G WCDMA M2M Mini-PAC

**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)
- Support SD storage card
- Tri-band 850/1900/2100 MHz WCDMA supporting UMTS/HSDPA/HSUPA
- Quad-band 850/900/1800/1900 MHz GSM supporting GPRS
- Support TCP server, TCP client, UDP client connection stack
- GPS : 32 channels with All-In-View tracking (option)
- 128 x 64 dots LCM display (only for G-4500D-3GWA and G-4500PD-3GWA)
- Support Virtual COM technology
- Support Modbus Protocol
- High reliability in harsh environment
- Free easy-to-use software development toolkits

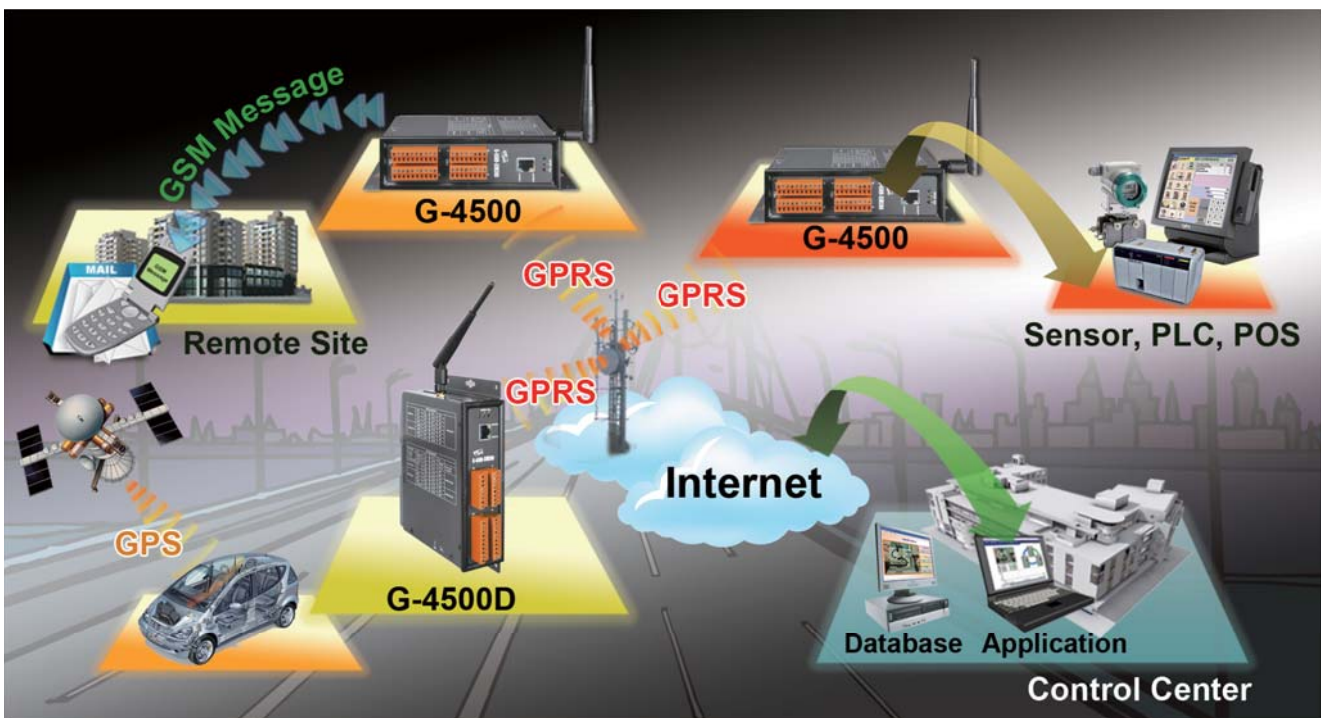


**Introduction**

The G-4500 series provided by ICP DAS are M2M (Machine to Machine) mini programmable controllers with a cellular transceiver can monitor 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 suit for the harsh industrial environment. The G-4500-3GWA series features 3G/GSM module, Ethernet interface, optional GPS module, 3 digital inputs, 3 digital outputs, 8 analog inputs, 2 RS-232 and 1 RS-485 port.

**Applications**

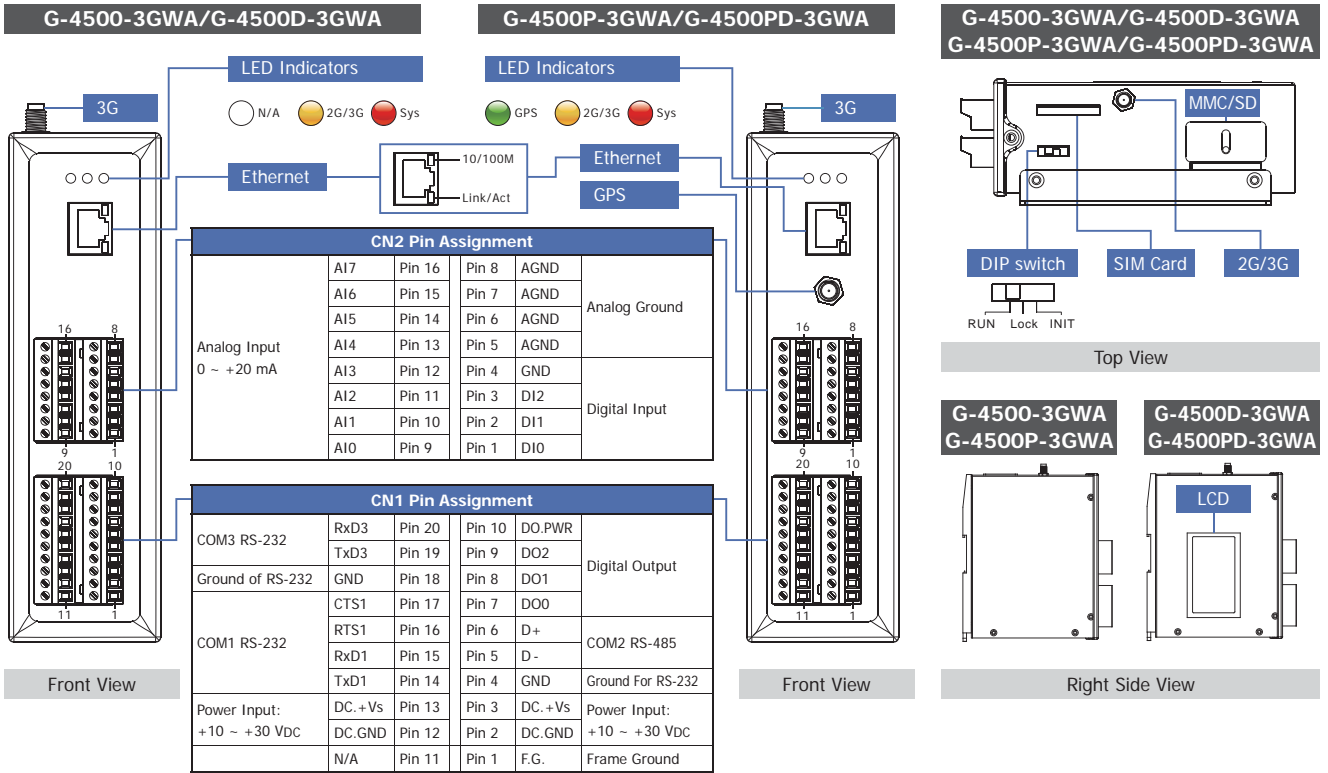
- Remote Control/Monitoring Systems
- Car Monitor Systems
- GIS Systems
- Redundant Communication Systems



## Specifications

Models	G-4500-3GWA	G-4500D-3GWA	G-4500P-3GWA	G-4500PD-3GWA	
<b>System</b>					
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				
<b>2G/3G System</b>					
Frequency Band	3G UMTS/HSDPA/HSUPA: Tri-band 850/1900/2100 MHz, 2G GSM/GPRS: Quad-band 850/900/1800/1900 MHz				
3G Data Transmission	Downlink: Max. 7.2 Mbps; Uplink: Max. 5.76 Mbps				
2G Data Transmission	Downlink: Max. 85.6 kbps; Uplink: Max. 42.8 kbps				
2G Connectivity	GPRS class 12/10; GPRS station class B				
<b>Serial Port</b>					
COM1	RS-232 (CTS, TRS, RxD, TxD, GND)				
COM2	RS-485 (D+, D-)				
COM3	RS-232 (RxD, TxD, GND)				
Ethernet	10/100 Base-TX Ethernet controller				
<b>LCD Interface</b>					
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
<b>GPS Interface</b>					
Support Channels	-		32		
Acquisition Time	-		Hot Start (Open Sky) = 2s (typical) Cold Start (Open Sky) = 36s (typical)		
Protocol	-		NMEA 0183 version 3.01		
<b>Digital Input</b>					
Input Channels	3				
Input Type	Source (Dry Type), Common Ground				
On Voltage Level	+1 V Max.				
Off Voltage Level	+3.5 Vdc ~ +30 Vdc				
<b>Digital Output</b>					
Output Channels	3				
Output Type	Open Collector (Sink/NPN)				
Load Voltage	+30 Vdc Max.				
Load Current	100 mA Max.				
<b>Analog Input</b>					
Input Channel	8 (Single-ended)				
Resolution	12 bit				
Input Range/Type	0 ~ 20 mA				
Sample Rate	1 KHz Max. (read one channel)				
<b>Power</b>					
Protection	Power reverse polarity protection				
Frame Ground Protection	ESD, Surge, EFT, Hi-Pot				
Required Supply Voltage	15 W; Unregulated +10 Vdc ~ +30 Vdc				
Power Consumption	Idle: 75 mA @ 24 Vdc; Data Link: 150 ~ 400 mA (peak) @ 24 Vdc				
<b>Mechanical</b>					
Casing	Metal				
Dimensions (W x L x H)	47mm x 142 mm x 168mm				
Installation	DIN-Rail and Wall mounting				
<b>Environment</b>					
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

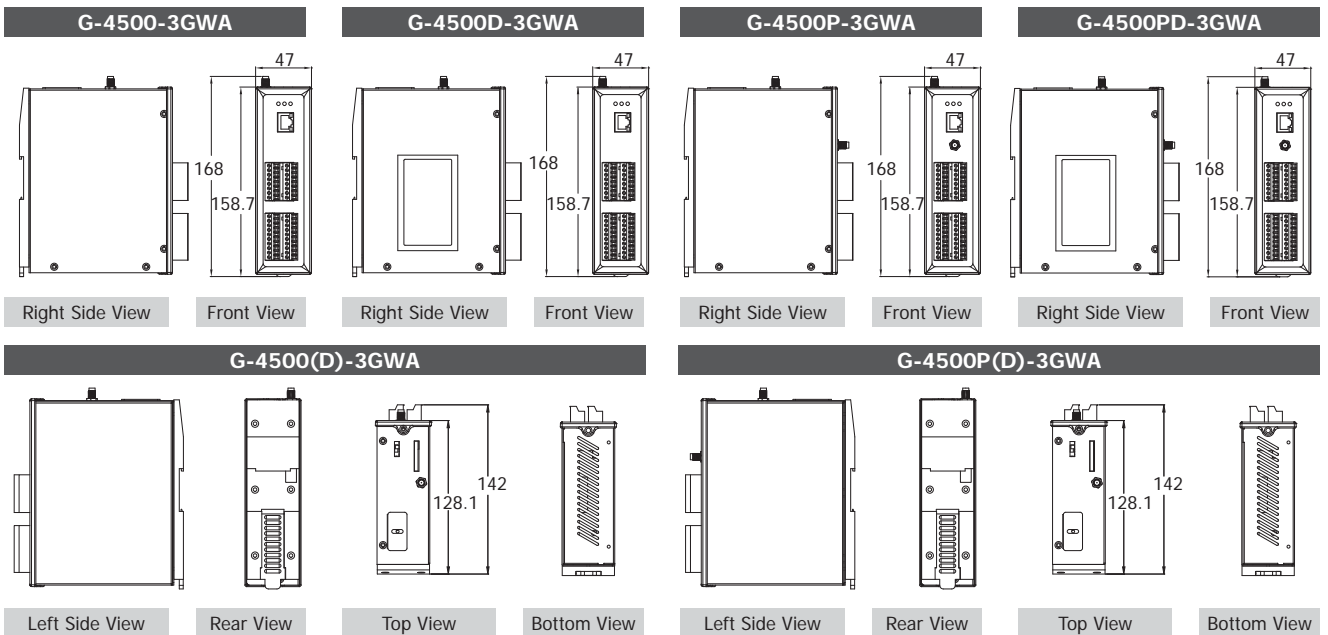


4

4

2G/3G Products

## Dimensions (Units: mm)



## Ordering Information

<b>G-4500-3GWA CR</b>	Tri-band 3G WCDMA M2M Mini-Programmable Automation Controller (RoHS)
<b>G-4500D-3GWA CR</b>	Tri-band 3G WCDMA M2M Mini-Programmable Automation Controller with LCD display (RoHS)
<b>G-4500P-3GWA CR</b>	Tri-band 3G WCDMA M2M Mini-Programmable Automation Controller with GPS function (RoHS)
<b>G-4500PD-3GWA CR</b>	Tri-band 3G WCDMA M2M Mini-Programmable Automation Controller with LCD display and GPS function (RoHS)

## Accessories

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