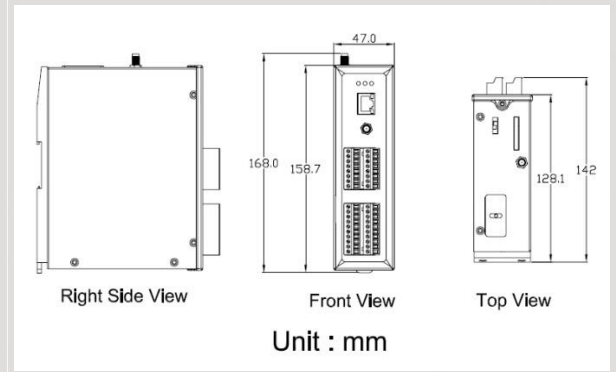




3G Power Saving PAC with Solar Charger



G-4513 Series



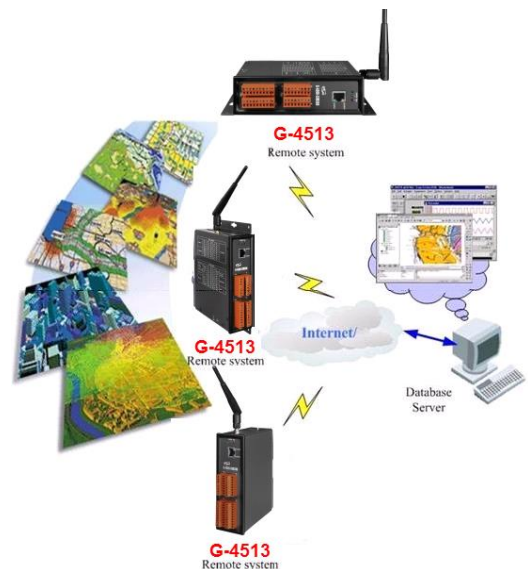
Dimensions

The G-4513 series are M2M (Machine to Machine) Power Saving PAC with a cellular transceiver and a solar charger. It can be used in hydrologic monitoring or mudslide monitoring system. With optional GPS model, the G-4513 can also be a GPS tracking system for vehicle management or maritime system. The features of G-4513 series: Solar charger, 3G module, Ethernet interface, optional GPS module, 3 digital inputs, 3 digital outputs, 8 analog inputs, 1 relay output.

Features

- Embedded MiniOS7, anti-virus
- Support GSM 850 / 900 / 1800 / 1900 MHz.
- Support WCDMA 850 / 900 / 1900 / 2100 MHz
- Solar charger for Lead acid battery
- 10/100 Base-TX compatible Ethernet controller
- COM port: COM1 (5-wire RS232), COM2 (RS-485)
- I/O: 3 DI, 3 DO, 8 AI, 1 relay DO
- Support SD card.
- Built-in RTC, NVRAM, EEPROM
- 128*64 dots LCM display (option)
- GPS : 32 channels with All-In-View tracking (option)
- Support TCP,UDP client connection over 3G
- High reliability in harsh environments
- DIN-Rail mountable

Application





Hardware Specifications

Item		G-4513-3GWA	G-4513D-3GWA	G-4513P-3GWA	G-4513PD-3GWA
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			
Ethernet		10/100 Base-TX Ethernet controller			
GSM Interface					
Frequency Band		GSM 850/900/1800/1900 MHz			
GPRS connectivity		GPRS class 10/8; GPRS station class B			
SMS		MT, MO, CB, Text and PDU mode			
3G Interface					
Frequency Band		WCDMA 850/900/1900/2100 MHz			
Power Class		Class 3 (250mW @ WCDMA/HSPA)			
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			
Digital Output					
Output Channel		3			
Output Type		Open Collector (Sink/NPN)			
Load Voltage		+30 VDC max.			
Load Current		100 mA max.			
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		+/- 2 LSB (+/- 0.0097 mA)			
Isolated Voltage		2500Vrms 3000Dc to DC			
Relay					
Output Channel / Type		1 / Form C			
Input Range		2A@30 Vdc ; 0.25 A @250 Vac			
Mechanical endurance		typ. 10 ⁸ operations			
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 (Solar Input)					
Protection		Power reverse polarity protection			
Frame Ground Protection		ESD, Surge, EFT, Hi-Pot			
Power Requirement		+10 V _{DC} ~ +30 V _{DC} . (Max. Voltage of Solar Panel must less +30V)			
Power Consumption		Sleep: < 10 mA@12V; Idle: 77 mA @ 24 V _{DC} ; Data Link: 150 ~ 400 mA (peak) @ 24 V _{DC}			
Lead Acid Battery					
Battery		12V Lead-Acid Battery			
Charging Voltage		Voltage of Power Input must be over +16V			
Low Voltage Protect		Low Voltage disconnect = 11.1V / Low Voltage reconnect = 12.6V			
LED Indicators					
System		Red			
3G		Yellow			
GPS		-		Green	
Charging / Fault		Green / Red			
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			