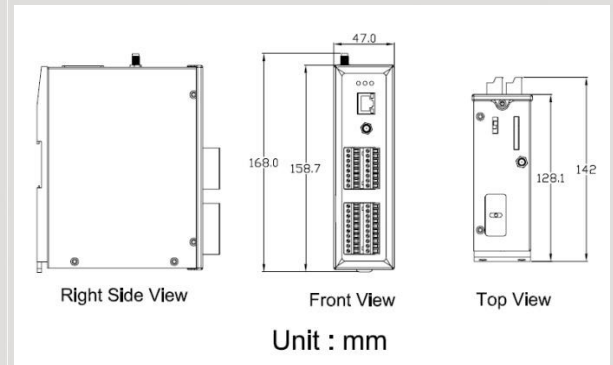




4G Power Saving PAC with Solar Charger



G-4514 Series



Dimensions

The G-4514 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-4514 can also be a GPS tracking system for vehicle management or maritime system. The features of G-4514 series: Solar charger, 4G module, Ethernet interface, optional GPS module, 3 digital inputs, 3 digital outputs, 8 analog inputs, 1 relay output.

Features

- Embedded MiniOS7, anti-virus
- Support 4G LTE
- Support WCDMA
- Support GSM
- 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 4G
- High reliability in harsh environments
- DIN-Rail mountable

Application





Hardware Specifications

Item	G-4514-4GAU	G-4514D-4GAU	G-4514P-4GAU	G-4514PD-4GAU
SMS	MT, MO, CB, Text and PDU mode			
GSM Interface				
Frequency Band	GSM 850/900/1800/1900 MHz			
GPRS connectivity	GPRS class 10/8; GPRS station class B			
3G Interface				
Frequency Band	WCDMA 850/900/1900/2100 MHz			
Power Class	Class 3 (24dBm+1/-3dB) for WCDMA			
4G Interface				
Frequency Band	FDD LTE: B1/B2/B3/B4/B5/B7/B8/B28 TDD LTE: B40			
Power Class	Class 3 (23dBm±2dB) for LTE			

Item	G-4514-4GC	G-4514D-4GC	G-4514P-4GC	G-4514PD-4GC
SMS	MT, MO, CB, Text and PDU mode			
GSM Interface				
Frequency Band	GSM 900/1800 MHz			
GPRS connectivity	GPRS class 10/8; GPRS station class B			
3G Interface				
Frequency Band	WCDMA 900/2100 MHz TD-SCDMA 1900/2100 CDMA2000 (BC0) 800			
Power Class	Class 3 (24dBm+1/-3dB) for WCDMA			
4G Interface				
Frequency Band	FDD LTE: B1/B3/B8 TDD LTE: B38/B39/B40/B41			
Power Class	Class 3 (23dBm±2dB) for LTE			



Hardware Specifications

Item	G-4514 Series	G-4514D Series	G-4514P Series	G-4514PD Series	
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				
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		
Protocol Support	-		NMEA 0183		
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)
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: 90 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				