



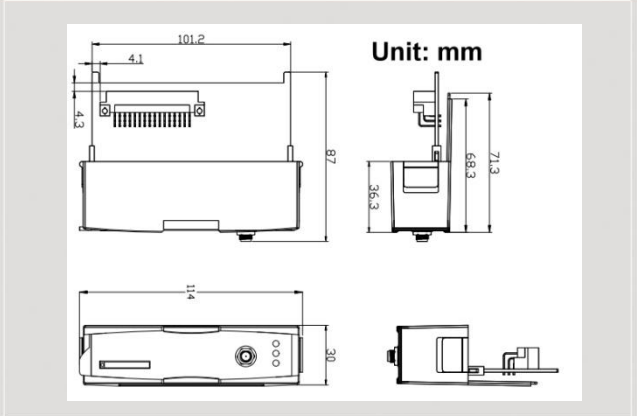
M2M Series Products



Industrial Tri-band 3G WCDMA module



I-8212W-3GWA/I-8213W-3GWA



Dimensions

The I-8212W-3GWA and I-8213W-3GWA are industrial Tri-band 3G WCDMA modules with GPS function (only I-8213W-3GWA) that work on frequencies of UMTS 2100 / 1900 / 850 MHz and GSM 850 MHz, EGSM 900 MHz, DCS 1800 MHz and PCS 1900 MHz. These modules utilize the 3G or GSM/GPRS network for convenient and inexpensive data transfer from remote instruments, meters, computers or control systems in either live data or packet data. Both the I-8212W-3GWA and I-8213W-3GWA have the integrated TCP/IP stack so that even simple controllers with serial communications ports can be connected to the modem without the need for special driver implementation. With the features of I-8212W-3GWA and I-8213W-3GWA, the systems can be SMS, GPRS and 3G connection applications with our PAC series like iPAC-8000, WinPAC-8000, LinPAC-8000 or XP-8000.

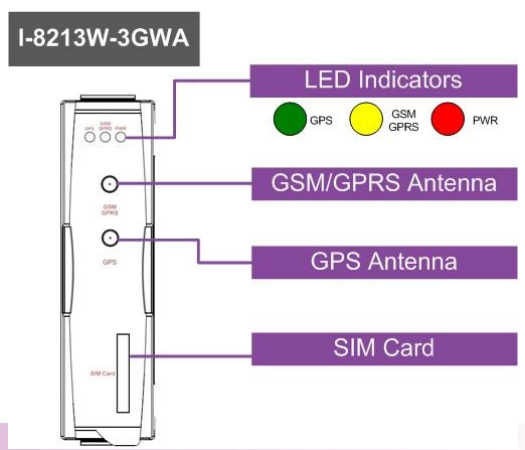
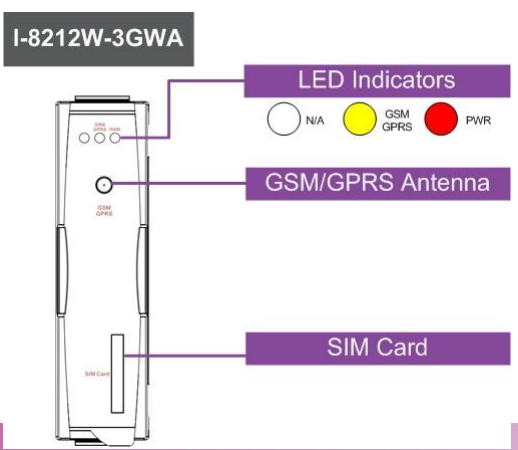
Features

- Supports Tri-band UMTS 2100/1900/850 MHz and Quad-band GSM 850/900/1800/1900 MHz
- 4 KV ESD Protection
- Designed for WCDMA, GPRS and SMS Applications
- Supports TCP Server, TCP Client, UDP Client Connection stack from 3G or GPRS
- Supports Standard AT Commands
- LED Indicators for Power, GSM and GPS(only I-8213W-3GWA) Indication
- High Reliability in Harsh Environment
- Supports 32-channels GPS and NMEA v0183 v3.01(only I-8213W-3GWA)
- PPS: 100 ms pulse output/sec for precise timekeeping and time measurement(only I-8213W-3GWA)
- Supports XP-8000, WinPAC-8000, LinPAC-8000, ViewPAC, iPAC-8000

Support PAC

Model	I-8212W-3GWA / I-8213W-3GWA
WinPAC-8000 (WinCE 5.0)	V
LinPAC-8000 (Linux kernel 2.6.19)	V
iPAC-8000 Compact PAC (MiniOS 7)	V
XP-8000 (Windows Embedded Standard 2009)	V

Pin Assignment

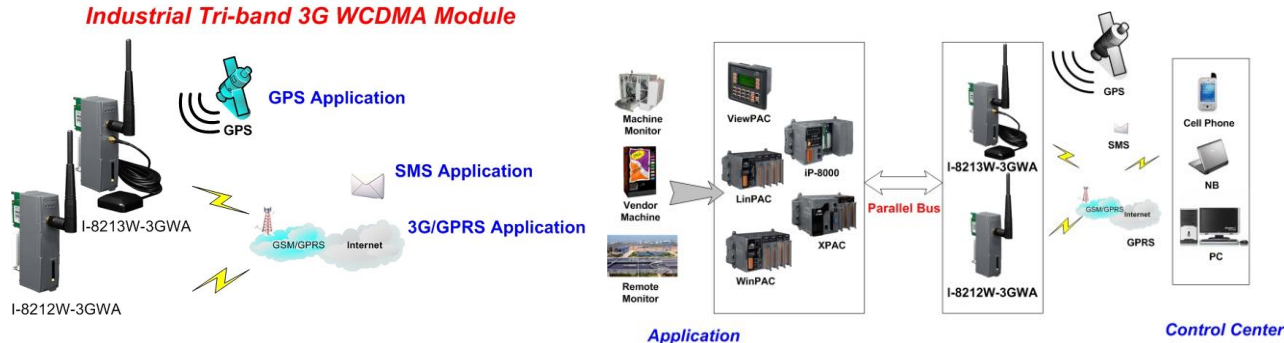


Hardware Specifications

Models	I-8212W-3GWA	I-8213W-3GWA
3G System		
Frequency Band	UMTS : 2100/1900/850 MHz	
GSM/GPRS System		
Frequency Band	GSM : 850/900/1800/1900 MHz	
GPRS connectivity	GPRS class 12/10; GPRS station class B	
Coding Schemes	CS 1, CS 2, CS 3, CS 4	
SMS		
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
LED Indicators		
Power	Red color	
GPRS	Yellow color	
GPS	-	Green color
Power		
Frame Ground Protection	ESD, Surge, EFT, Hi-Pot	
Power Consumption	Idle: 0.15 A @ 5 V _{DC} ; Data Link: 0.2 ~ 1.62 A (peak) @ 5 V _{DC}	
Mechanical		
Casing	Plastic	
Dimensions (W x L x H)	30mm x 85mm x 114mm	
Environment		
Operating Temperature	-25°C ~ +75 °C	
Storage Temperature	-30°C ~ +80 °C	
Humidity	5~95% RH, non-condensing	

Applications

Industrial Tri-band 3G WCDMA Module



Ordering Information

I-8212W-3GWA CR	Industrial Tri-band 3G WCDMA module (RoHS)
I-8213W-3GWA CR	Industrial Tri-band 3G WCDMA module with GPS function (RoHS)

Accessories

ANT-421-01	3m external GSM/GPRS antenna
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