



### **■** Features

- Cortex-A8, 1GHz CPU
- Windows CE 7.0 Professional
- 512 MB SDRAM and 256 MB Flash
- 64-bit Hardware Serial Number
- Hard Real-Time Capability
- I/O Expansion Bus
- 10/100/1000M Ethernet Ports
- 3 Serial Ports (RS-232/485)
- Operating Temperature: -25 ~ +75°C
- Industrial Tri-band 3G module
- 3G modem









#### Introduction

The WP-5231PM-3GWA-CE7 is equipped a Cortex-A8 CPU (1 GHz) and running a windows CE 7.0 operating system. The optional I/O expansion board, XV-board, provides high-protection I/O. Using the built-in Flash and microSD, the WP-5231PM-3GWA-CE7 can save application program, image file and data.

The 3G module work on frequencies of WCDMA 2100/1900/900/850 MHz and GSM 850/900/1800/1900 MHz. These modules utilize the 3G network for convenient and inexpensive data transfer from remote instruments, meters, computers or control systems in either live data or packet data. These modules has 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 theirs, the systems can be SMS and GPRS or 3G connection applications with our PAC.

### **■ Windows CE 7.0**



Windows CE 7.0 is a compact and real-time OS used to quickly create time critical and high performance applications. Using Windows CE 7.0 gives an ability to run PC-based control software such as Visual Basic .NET, Virtual C#.

- FTP Server
- Web Server
- SQL Compact Edition 3.5
- .NET Compact Framework 3.5
- Virtual CE Pro (VCEP)
- OPC Server (NAPOPC\_CE5 DA Server)

# **■** Specifications \_\_\_\_\_

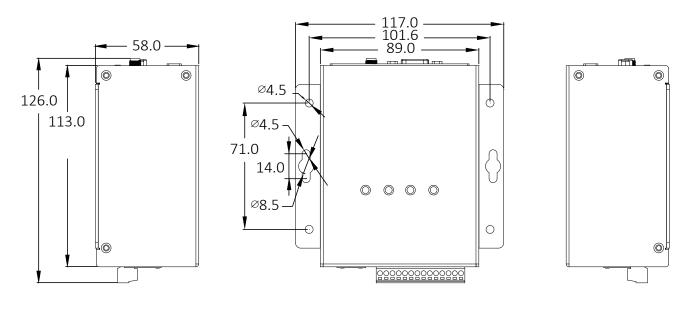
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|---------------------------------|--|
| Models                          | WP-5231PM-3GWA-CE7   |
| System Software                 |  |
| OS                              | Windows CE 7.0 Professional  |
| .Net Compact Framework          | 3.5  |
| Embedded Service                | FTP server, Web server   |
| SDK Provided                    | DII for Visual Studio.Net 2008   |
| Multilanguage Support           | English, German, French, Spanish, Russian, Italian, Korean, Simplified Chinese,<br>Traditional Chinese   |
| CPU Module                      |  |
| CPU                             | Cortex-A8, 1GHz  |
| DDR3 SDRAM                      | 512 MB   |
| Flash                           | 256 MB   |
| FRAM                            | 64 KB  |
| Expansion Flash Memory          | microSD socket with one microSD card (support up to 32 GB microSDHC card)  |
| RTC (Real Time Clock)           | Provide second, minute, hour, date, day of week, month, year   |
| 64-bit Hardware Serial Number   | Yes, for Software Copy Protection  |
| Dual Watchdog Timers            | Yes  |
| LED Indicators                  | 1 LED for Power and Running; 2 LED for user defined  |
| Rotary Switch                   | Yes (0 to 9)   |
| <b>VGA</b> and Communication Po | orts   |
| VGA Resolution                  | 640 × 480, 800 × 480, 800 × 600, 1024 × 768  |
| Ethernet                        | RJ-45 x 1, 10/100/1000 Based-TX ( Auto-negotiating, Auto MDI/MDI-X, LED indicators)  |
| USB 2.0 (host)                  | 1  |
| COM 1                           | Console Reserved for OS  |
| COM 2                           | RS-232 (RxD, TxD and GND); Non-isolated  |
| COM 3                           | RS-485 (Data+, Data-); Non-isolated  |
| COM 4                           | RS-485 (Data+, Data-); 2500 VDC isolated   |
| I/O Expansion                   | , , ,, ===   |
| I/O Expansion Bus               | Yes, one optional XV-board   |
| Mechanical                      |  |
| Casing                          | Metal  |
| Dimensions (W x L x H)          | 117 mm x 126 mm x 58 mm  |
| Installation                    | DIN-Rail Mounting /Wall Mounting   |
| Environmental                   | Dan tan Floatiang , train Floatiang  |
| Operating Temperature           | -25 to +75°C   |
| Storage Temperature             | -40 to +80°C   |
| Ambient Relative Humidity       | 10 to 90% RH (non-condensing)  |
| Power                           | 25 to 50 % (4.5.) condensing/  |
| Input Range                     | +12 to +48 VDC   |
| Consumption                     | 6.5 W  |
| GSM System                      | 0.5 11   |
| Frequency Band                  | GSM: 850/900/1800/1900 MHz   |
| GPRS Connectivity               | GPRS class 12/10; GPRS station class B   |
| Data GPRS                       | Downlink transfer: Max. 85.6 kbps; Uplink transfer: Max 42.8k bps  |
| 3G System                       | Domining denoted Francisco Ropey Opining definited flux 12:00 ope  |
| Frequency Band                  | WCDMA 850/900/1900/2100 MHz  |
| Data Transmission               | WCDMA / HSPA+, Download: Max. 14.4Mbps; Upload: Max 5.76Mbps   |
| GPS System (option)             | Tree in a morning of the more and the more a |
| Support Channels                | 32   |
| Protocol Support                | NMEA 0183  |
| 1 Totocor Support               | MULTY 0102   |



### Appearance



#### Dimension



## **■ Ordering Information**

WP-5231PM-3GWA-CE7 PAC with WinCE 7.0 and with GPS Function (RoHS)

## **■ Option Accessories**

| XV-Board Add-on I/O Expansion Board |  |
|-------------------------------------|--|
|-------------------------------------|--|