

# Power SG<sup>®</sup>

## CENTRYwcc™ 5000



Power SG<sup>®</sup> CENTRYwcc™ 5000 is a smart grid communications device that supports distributed intelligence and enables real-time connectivity with a wide array of intelligent devices. It is designed for interoperability using an open architecture to work with applications that perform equipment monitoring, management and control with precision and verification. It features a powerful computing engine to manage data preprocessing and communication. It supports simultaneous communications with multiple local devices, data aggregation and pre-processing, supervisory control functions, and operation as a local to wide area communications hub.

### Key Features:

- protocol conversions to interface with a wide array of assets
- designed as a secure communications hub (two-way, real-time)
- 8 discrete inputs with pulse counting
- 8 individually addressable discrete outputs
- supports embedded smart grid & building efficiency applications

## Product Specifications

### Input Power Requirements

- Power Input 9 ~ 36 VDC (e.g +24 V @ 1 A) (Min. 24 W), AT
- Power Consumption (Typical) 15 W

### System

- CPU AMD Geode GX533 (400 MHz)
- Memory Onboard 256 MB DDR SDRAM
- Indicators LEDs for Power, IDE, Diagnosis (programmable)  
LED for LAN (Active, Status)  
Buzzer for Diagnosis (programmable)
- Keyboard/Mouse 1 x PS/2
- Storage SSD: 1 x internal type I/II CompactFlash® slot  
HDD: expansion kit for 2.5" IDE HDD (Optional)
- Display DB15 VGA connector, 1024 x 768 @ 60 Hz
- Watchdog Timer Programmable from 1 to 255 sec

### Environmental Specifications

- Humidity 95% @ 40° C (non-condensing)
- Operating Temperature -10 ~ 55 °C (14 ~ 131 °F)
- Shock Protection IEC 68 2-27  
CompactFlash: 20 G @ DIN, half sine, 11 ms,  
50 G @ Wall/Panel, half sine, 11 ms
- Vibration Protection IEC 68 2-6  
CompactFlash: 2 Grms @ sine, 5 ~ 500 Hz, 1 Oct./min, 1hr/axis.  
HDD: 1 Grms @ sine, 12 ~ 300 Hz, 1 Oct./min, 1hr/axis.

### Physical Specifications

- Dimensions (HxWxD) 35.5 x 188.8 x 106.5 mm  
(1.4" x 7.5" x 4.2")
- Enclosure Aluminum
- Mounting Wall mount, Din rail, panel
- Weight 0.8 kg

### Software

- OS Support Windows XP Embedded, Windows 2000 & XP,  
Windows CE 5.0 & 6.0, Linux
- Application Embedded Power SG<sup>®</sup> smart grid firmware  
Embedded Power SG<sup>®</sup> building efficiency firmware
- Protocols DNP3, Modbus/TCP, Modbus/RTU, BACnet,  
others considered upon request

### Certifications/Standards

- Certifications (Advantech UNO-2050E) CE, FCC class A, UL, CCC

### Communications

- Counter/Timer 2 x 16-bit: counter source: DI6 & DI7, Pulse output: DO6 & DO7. Can be cascaded as one 32-bit counter/ timer, Down counting, preset counting value, interrupt handling, Timer time base: 100/10/1 kHz, 100 Hz
- Digital Inputs 8 ch. wet contact 2,000 VDC isolation, 2,000 VDC ESD protection, 70 VDC over-voltage protection 0 ~ 50 VDC input range and 10 kHz speed; Interrupt handling
- Digital Outputs 8 ch. 2,000 VDC isolation and 200 mA max/channel sink current. Keeps output status after system hot reset. 5 ~ 40 VDC output range and 10 kHz speed.
- LAN 2 x 10/100 Base-T with RJ-45 port
- Serial Ports 2 x standard RS-232 (COM1/COM2)  
2 x isolated RS-232/422/485 (COM3/COM4)  
Automatic RS-485 data flow control  
RS-232/422/485 (COM3/COM4) with 2,000 VDC (EFT) surge protection & 2,000 VDC isolation
- Serial Port Speed RS-232: 50 ~ 115.2 kbps (COM1/COM2)  
50 ~ 230.4 kbps (COM3/COM4)  
RS-422/485: 50 ~ 921.6 kbps (Max.)