

# BEMG-4110

Energy Data Concentrator  
with 4 x COM, 1 x LAN

NEW



## Features

- 2 x RS-232/485, 2 x RS-232/422/485 with automatic flow control
- 1 x 10/100Base-T RJ-45 port and 2 x USB 2.0 ports
- Fanless design with no internal cabling
- Built-in Windows® CE with Advantech WinCE WebAccess Energy Data Concentrator
- Supports various protocol drivers to communicate with different devices
- Multi-thread communication, fast response time
- Configured through web browser
- Easy to diagnose and maintain, which helps to reduce maintenance costs

## Introduction

Advantech BEMG-4110 is a fanless Energy Data Concentrator featuring an AMD Geode LX800 500MHz and rich interfaces (such as serial, USB and LAN). Installed with Advantech WinCE WebAccess, BEMG-4110 is a browser-based Energy Data Concentrator, whose Web Server function increases flexibility and convenience, making it easy to configure and maintain the system via Internet. With built-in driver, BEMG-4110 can connect with a variety of automation equipment and devices, and get data from them.

## Specifications

### General

- **Certifications** CE, FCC Class A, CCC
- **Dimensions (W x D x H)** 188.8 x 106.5 x 35.5 mm (7.5" x 4.2" x 1.4")
- **Enclosure** Aluminum
- **Mounting** Wallmount, DIN-rail
- **Industrial Grounding** Isolation between chassis and power ground
- **Power Consumption** 15 W (typical)
- **Power Requirements** 10 ~ 48 V<sub>DC</sub> (e.g. +24 V @ 1 A) (Min. 24 W), AT
- **Weight** 0.8 kg
- **System Design** Fanless with no internal cabling
- **Remote Management** Built-in Advantech DiagAnywhere agent on Windows CE / XPe

### System Hardware

- **CPU** AMD Geode LX800 500MHz
- **Memory** Onboard 256 MB DDR SDRAM
- **Indicators** LEDs for power, IDE, diagnosis (programmable) and 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 (Option)
- **Display** DB15 VGA connector, 1024 x 768 @ 60 Hz
- **Watchdog Timer** Programmable 256 levels timer interval, from 1 to 255 sec

### I/O Interface

- **Serial Ports** 2 x RS-232/485, 2 x RS-232/422/485  
- Automatic RS-485 data flow control  
- RS-422/485 surge protection up to 2,000 V<sub>DC</sub>
- **Serial Port Speed** RS-232: 50 ~ 230.4 kbps;  
RS-422/485: 50 ~ 921.6 kbps (Max.)
- **USB Ports** 2 x USB ports, EHCI, Rev. 2.0 compliant
- **LAN** 1 x 10/100Base-T RJ-45 port

### Software Specifications

- **Operating System** Windows CE 5.0
- Advantech WinCE WebAccess Energy Data Concentrator:**

- **I/O Tag Number** 600
- **Internal Tag Number** 600
- **Web Client** 2
- **Number of I/O Devices** 64 (max)

### Environment

- **Humidity** 95 % @ 40° C (non-condensing)
- **Ingress Protection** IP40
- **Operating Temperature** (IEC 60068-2-2, 100% CPU/ I/O loading)  
-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,  
1 hr/axis.

## Ordering Information

- **BEMG-4110-AE** Energy Data Concentrator with 4 x COM, 1 x LAN

# BEMG-4220

Energy Data Concentrator  
with 4 x COM, 2 x LAN

NEW



## Features

- Onboard Celeron® M 600 MHz or Celeron M 1.0 GHz
- Two RS-232 and two RS-232/422/485 ports with automatic flow control
- Two 10/100Base-T RJ-45 ports
- Two USB ports and one type I/II PC card
- Built-in Windows® CE with Advantech WinCE WebAccess Energy Data Concentrator
- Supports various protocol drivers to communicate with different devices
- Multi-thread communication, fast response time
- Configured through web browser
- Easy to diagnose and maintain, which helps to reduce maintenance costs
- Point transfer between communication devices within one BEMG

## Introduction

Advantech's BEMG-4220 is fanless Energy Data Concentrator that supports serial communication ports and several networking interfaces. Installed with Advantech's WinCE WebAccess, BEMG-4220 is a browser-based Energy Data Concentrator, whose Web Server function increases flexibility and convenience, and makes it easy to configure and maintain the system via Internet. With a built-in driver, BEMG-4220 can connect with variety of automation equipment and devices, and get data from them.

## Specifications

### General

- **Certifications** CE, FCC Class A, UL, CCC
- **Dimensions (W x D x H)** 255 x 152 x 50 mm (10" x 6.0" x 2.0")
- **Enclosure** Aluminum
- **Mounting** Wallmount
- **Industrial Grounding** Isolation between chassis and power ground
- **Power Consumption** 24 W (Typical)
- **Power Requirements** 9 ~ 36 V<sub>DC</sub> (e.g. +24 V @ 2 A) (Min. 48 W), AT
- **Weight** 1.6 kg
- **System Design** Fanless with no internal cabling
- **Remote Management** Built-in Advantech DiagAnywhere agent on Windows CE / XPe

### System Hardware

- **CPU** Celeron M 600 MHz, Celeron M 1.0 GHz
- **Memory** 256 MB/512 MB DDR SDRAM built-in
- **Battery Backup SRAM** 512 KB
- **Indicators** LEDs for Power, IDE, Alarm for battery backup SRAM, LAN (Active, Status) and Serial (Tx, Rx)
- **Keyboard/Mouse** 1 x PS/2
- **PC Card** 1 x PC Card slot, supports CardBus (Card-32) Card and 16-bit (PCMCIA 2.1/JEIDA4.2) card  
Supports +5, +3.3 and +12 V @ 120 mA working power
- **PC/104 Slot** 2 x PC/104 slots (optional). Supports +5 V power
- **Printer Port** 1 x printer port
- **Storage** SSD: 1 x internal type I/II CompactFlash® slot  
HDD: Build-in one 2.5" SATA HDD bracket  
DB15 VGA connector, 1600 x 1200 @ 85 Hz
- **Display**
- **Watchdog Timer** Programmable 256 levels timer interval, from 1 to 255 sec

### I/O Interface

- **Serial Ports** 2 x RS-232, 2 x RS-232/422/485 with DB9 connectors  
Automatic RS-485 data flow control
- **Serial Port Speed** RS-232: 50 ~ 115.2 kbps  
RS-422/485: 50 ~ 921.6 kbps (Max.)
- **LAN** 2 x 10/100 Base-T RJ-45 ports (Built-in boot ROM in flash BIOS)
- **USB Ports** 2 x USB, EHCI, Rev. 2.0 compliant

### Software Specifications

- **Operating System** Windows CE 5.0
- Advantech WinCE WebAccess Energy Data Concentrator:**
- **I/O Tag Number** 600
  - **Internal Tag Number** 600
  - **Web Client** 2
  - **Number of I/O Devices** 128 (max)

### Environment

- **Humidity** 95% @ 40° C (non-condensing)
- **Operating Temperature** (IEC 60068-2-2, 100% CPU/ I/O loading)  
-20 ~ 50° C (-4 ~ 122° F) @ 5 ~ 85% RH.
- **Shock Protection** IEC 68 2-27  
CompactFlash: 50 G @ wall mount, half sine, 11 ms  
HDD: 20 G @ wall mount, half sine, 11 ms
- **Vibration Protection** IEC 68 2-64 (Random 1 Oct./min, 1hr/axis.)  
CompactFlash: 2 Grms @ 5 ~ 500 Hz,  
HDD: 0.5 Grms @ 5 ~ 500 Hz

## Ordering Information

- **BEMG-4220-AE** Energy Data Concentrator with 4 x COM, 2 x LAN