

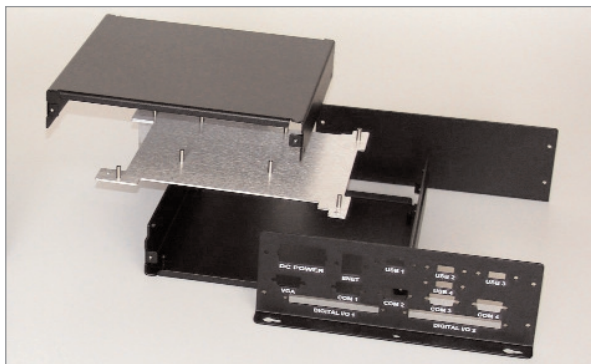
### FEATURES

- Low cost EBX single board computer enclosure
- Designed for easy assembly using two formed top and bottom "C" covers plus end plates
- Black powder coat exterior finish
- Heavy-duty 0.080" aluminum housing and end plates
- Standard I/O connector cutouts provided for the end plate
- Separate SBC mounting plate with standoffs
- Polyethylene grommet edging on mounting plate protects and insulates wires and cables from chafing
- Ethernet connector (keystone) mounting plate
- Stainless steel fastener hardware
- Custom end plates available in moderate volumes
- Custom labeling available in moderate volumes
- RoHS compliant

### FUNCTIONAL CAPABILITY

The ENC-EBC-G-1000 is a rugged enclosure designed to be used with EBX-compatible single board computers (SBCs) and PC/104 expansion I/O modules. Its simple design allows easy access to the electronics as well as ample routing areas for cable runs. The ENC-EBC-1000 is designed to mount in a variety of configurations. It is ideal for embedded applications requiring mounting inside NEMA boxes, OEM machinery, wiring closets, equipment rooms, and other areas where it is necessary to protect an EBX single board computer system with PC/104 expansion boards.

**Assembly** - The assembled enclosure measures 9.0" (W) x 9.5" (D) x 3.0" (H) and is made of five items: top and bottom outer covers, two end plates and an SBC module base plate. The enclosure allows a designer to package a variety of system configurations quickly and easily. It can attach vertically on a wall, on a table, under a counter or inside a larger piece of equipment.



The ENC-EBC-G-1000 has five structural elements.



**Outer cover** - The top cover can easily be removed to give good access for development, maintenance and upgrading. Both top and bottom covers fit together and are fastened with screws in the cover and the front plate. This structure forms a rigid box to protect the electronics inside.

There are no ventilation holes in this enclosure. Therefore a low power SBC should be used in this enclosure to prevent excessive self-heating.

**Base plate** - There are eight 0.42-in high standoffs on the 0.080" aluminum chassis base that allow an EBX-compatible SBC to be properly supported and attached with screws. It is bolted to the bottom cover by four screws. The chassis plate is designed for strength and flexibility with cable runs under the SBC or base plate to the end plates or for other special I/O cable issues. Certain metal edges have a slotted wall polyethylene smooth grommet which protects and insulates wires and cables from chafing against sharp edges.

Using the standard base plate, an EBX-compatible SBC and two additional PC/104 cards can fit inside the enclosure. Also, a user can design their own base plate if a special application is required. For example, you could mount an EPIC board, a PC/104 stack with a separate AC power supply, or even your own custom electronics in this enclosure.

**End plates** - Two end plates are attached at opposite sides of the outer covers. One of the two 0.080" thick end plates has cut-outs for all of the typical I/O connectors found on a WinSystems' EBC SBC while the other end plate is blank.

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Each end plate has a 5/8" bottom mounting flange with four slotted keyways to make installation and removal easy. The unit is easy to mount and only requires four #10 screws but can accommodate up to six if the center holes are used.

The standard end plates do not come with cables attached. A cable set is available for the applicable WinSystems' single board computer. See the ordering information or visit [www.winsystems.com](http://www.winsystems.com) for the latest information.



**ENC-EBC-G-1000 Standard End Plate**

If you do not use a WinSystems' SBC, we can offer custom end plates for customers needing 50 or more units. Also, a custom silk screen is available on custom end plates. There are some non-recurring engineering (NRE) charges involved to cover design, prototype, and other one-time costs. The lead-time would be approximately 6-8 weeks for the first order and 4-6 weeks on additional orders. Contact a WinSystems' applications engineer for a quote on cost and current lead-times.

WinSystems may offer additional standard end plates in the future. Contact an application engineer or visit our website for the most up-to-date status. As another alternative, a user can easily make their own end plates to match the complement of their SBC and I/O card connectors and cabling requirements. WinSystems can provide a CAD drawing template for a blank end plate to help you begin your design.

**Ethernet mounting plate** - An Ethernet keystone mounting plate is included with the enclosure. Female Ethernet keystone jacks are manufactured by numerous companies and consequently there can be slight differences between suppliers found on the market. WinSystems' Ethernet keystone mounting plate allows most keystones to work while presenting a consistent look on the outside of the connector mounting plate.

**Fasteners** - Each ENC-EBC-G-1000 ships with the appropriate stainless steel screws and lock washers to assemble the covers, end plates, and base plate plus a small tube (0.5ml/0.017 fl. oz.) of Loctite® 242. Also, eight stainless steel screws are included to fasten the SBC to the base plate.

WinSystems offers a spare hardware kit that includes all the screws, jackscrews, washers, and nuts needed to assemble the box and fasten the connectors to the end plates. The hardware spares are offered in case the original hardware that was shipped with the box and/or optional cable set hardware were lost or misplaced. This hardware kit is called the KIT-HW-327-ENC-2.

**Material** - The enclosure is made of lightweight, durable aluminum that will not rust. The exterior covers and end plates have a black powder coat that resists scratches and fingerprints. Powder coating is used to create a hard finish that is tougher than conventional paint.

Aluminum was chosen because it provides excellent shielding from light, RFI/EMI, or infrared radiation. It has a high strength-to-weight ratio making it rugged and durable. Aluminum will not rust like steel and is corrosion resistant. Aluminum is non-combustible, non-magnetic, non-sparking, non-toxic, and recyclable. It is also thermally conductive to dissipate component heat.

**Cables and Connectors** - WinSystems offers a cable set that matches the common I/O functions of its EBC-855-G single board computer. These cables are cut for the correct length and terminated so that the signals can be brought out to the end plate of the ENC-EBC-G-1000 enclosure.

The CBL-SET-327-G-ENC-2 includes the mounting hardware for each connector that is present on the standard end plate. It also includes an unterminated 18-inch power cable that can be wired to a power supply and then plugged into the power connector on the end plate. If you need a different configuration, contact a WinSystems' factory application engineer. The CBL-SET-327-G-ENC-2 cable set is purchased separately.

**Source** - WinSystems' enclosures are designed, engineered, manufactured, and assembled in the United States.

**RoHS** - The enclosure and fasteners from WinSystems are RoHS compliant.

**Standard Ordering Configurations** - The ENC-EBC-G-1000 is designed primarily for WinSystems' EBC-855-G <http://sbc.winsystems.com/products/ebc-855.cfm> and has standard end plates included. Similarly, cable sets for our EBX single board computers have been defined. For example, CBL-SET-327-G-ENC-2 specifies the appropriate cable set for the EBC-855-G. If you need a special configuration, please contact a WinSystems' factory application engineer with your requirements.

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## SPECIFICATIONS

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### Materials

Outer cover: 0.080" black powder coated aluminum  
End plates: 0.080" black powder coated aluminum  
Base plate: 0.080" clear coated aluminum

### Mechanical

Size: 9.0"W x 9.5"D x 3.0"H  
Weight: 2.4 pounds (excludes SBC, I/O boards, or cables)

## ORDERING INFORMATION

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ENC-EBC-G-1000 EBX SBC enclosure with fastening hardware  
KIT-HW-G-327-ENC-2 Hardware kit for ENC-EBC-G-1000 using the EBC-855-G  
CBL-SET-327-G-ENC-2 Cable set for EBC-855-G

### EBX Single Board Computers

EBC-855-G-1.8G-1 1.8GHz PentiumM™ SBC with fan  
EBC-855-G-1G-0 1GHz ZCD™ SBC without fan  
EBC-855-G-1G-1 1GHz ZCD™ SBC with fan

### Recommended cables for WinSystems' EBC-855-G

CBL-SET-327-G-ENC-2 ENC-EBC-1000's complete cable set for the EBC-855-G  
CBL-173-G-1-1.0 20-pin ribbon to two, 9-pin male D (COM3 and COM4) adapter cable  
CBL-226-G-1-0.75 Ethernet extension cable  
CBL-234-G-1-0.916 14-pin ribbon to 15-pin D-sub CRT adapter cable  
CBL-247-G-1-1.0 Multi-I/O adapter cable  
CBL-275-G-2-0.667 USB cable (2 each)  
CBL-317-G-2-1.5 External DC harness  
CBL-327-G-2-1.08 Digital I/O cable (2 each)  
CBL-341-G-1-0.437 Internal DC harness

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