



## 2nd Edition: PC/104 & Small Form Factor Catalog

EMs, end users, and developers continue to rely on the PC/104 family of products for their embedded applications. The rich ecosystem of interoperable and nearly limitless I/O options from multiple vendors – the stackability, small footprint, and ease-of-use – continue to drive new growth opportunities for this inherently rugged platform.

In a move to accommodate end-user requests, new physical form factors' options have been developed and deployed. EBX and EPIC, both embracing PC/104 growth and proliferation, have been adopted by the PC/104 Consortium. The consortium is in the process of establishing a formal roadmap that will bring new technologies, such as PCI Express to the specification.

This second edition of the *PC/104 & Small Form Factor Catalog* provides product specification sheets from a wide range of PC/104 and other small form factor vendors. Information on processor boards, I/O cards, packaging, development, and more are included herein.

**Tom Barnum,**  
President  
PC/104 Consortium

## What is the PC/104 Embedded Consortium?

By Jeff Milde

The PC/104 Embedded Consortium is a non-profit, tax-exempt organization of about 100 companies. Established in 1992, our original objective was to provide member companies with an open standard that captured the power and flexibility of a desktop PC in a size ideally suited for embedded applications. The result was the PC/104 specification – a robust standard for embedded PCs that offers full hardware and software compatibility with the standard PC/XT and PC/AT architectures in an ultra-compact (3.6" x 3.8"), self-stacking, modular format.

### **Vision:**

Maximize the global use of PC architecture in embedded applications.

### **Mission:**

Create, maintain, and distribute standards to expand the use of PC technology in embedded products.

### **Five standards**

There are five standards supported by the consortium:

- PC/104
- PC/104-Plus
- PCI-104
- EBX
- EPIC

Through the years, the consortium has expanded the standards to meet end-user demand and incorporate new technologies.

PC/104 supports 8- and 16-bit cards, PC/104-Plus added 32-bit PCI functionality to the basic architecture, and PCI-104 defines a PCI-only version of PC/104. The EBX specification added a larger size footprint (measuring 5.75" x 8.00") while continuing to support PC/104, PC/104-Plus, and PCI-104 expansion modules. EPIC (approved in Fall 2004) allows additional

space to support advanced processors or complex I/O functions. Our focus will continue to broaden as we consider new technologies and explore alternative small form factors suited to our mission.

Please visit [www.pc104.org](http://www.pc104.org) to download any of the above specifications.

### Benefits of membership

Any interested company or individual can join the consortium. Manufacturers, suppliers, and end users of PC/104, EBX, or other small form factor products are encouraged to join the PC/104 Embedded Consortium and actively participate in charting our future. The consortium has maintained a flexible and accessible dues structure and offers several levels of membership. Participants help shape the future of embedded market standards, gain early access to new developments in the industry, and membership has proven an effective way to reach end users of embedded technology. In addition, members enjoy recognition as a major player in the embedded market by virtue of their participation.

### Organization structure

The consortium is based in San Francisco, California and is led by a group of directors appointed, by their participation at the Executive level. Beyond Executive, there are three membership levels with differing dues structures, thereby enabling participation from both small and large companies. The result is wide participation from a broad cross-section of the embedded marketplace. Our Technical sub-committee evaluates new developments impacting our specification, considers new form factors that might be appropriately governed by the consortium, and reviews the suitability of incorporating new technologies into platforms under our control.

Our PR committee is engaged in public relations activities on behalf of the consortium and promotes our technologies at trade shows, in press releases, through "Design Contests," via the Web, and by regular e-mail newsletters to members and end users.

### Embedded design contest

For the third year, the consortium held its design contest to allow users of the technology to showcase their applications and to recognize those who are designing creative products based on PC/104 or PC/104-Plus technology. Entries are submitted in three categories:

1. Commercial for Industrial/Medical/Transportation/Other
2. Commercial for Military/Aerospace
3. Research Project

The winners will be announced at the 2005 Embedded Systems Conference in San Francisco. Winning projects will be shown at the conference and presented to the press. The designers will be recognized at an Awards Ceremony held in their honor.

**Date:** Wednesday, March 9, 2005

**Time:** 10:00 am (PST)

**Location:** Moscone Convention Center,  
San Francisco, California

### Annual meeting

The Board of Directors holds a general membership meeting once a year, usually at the Embedded Systems Conference in San Francisco. The annual meeting of the membership is open to all members, press, and guests. The focus and the direction of the PC/104 Consortium are discussed at this meeting.

**Date:** Wednesday, March 9, 2005

**Time:** 11:00 am (PST)

**Location:** Moscone Convention Center,  
San Francisco, California

### Communications

There are three main communication tools that the consortium uses to keep in contact with members on a regular basis.

■ **E-News** – This is an electronic monthly publication that includes organizational updates and opportunities available to the members and non-members alike.

■ **Member-Only E-News** – This is an electronic publication that provides the latest announcements and opportunities available to members only.

■ **Website** – [www.pc104.org](http://www.pc104.org) serves as the portal of communication and knowledge for users.

### Contact us

To learn more about the PC/104 Embedded Consortium, please contact us.

### PC/104 Embedded Consortium

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