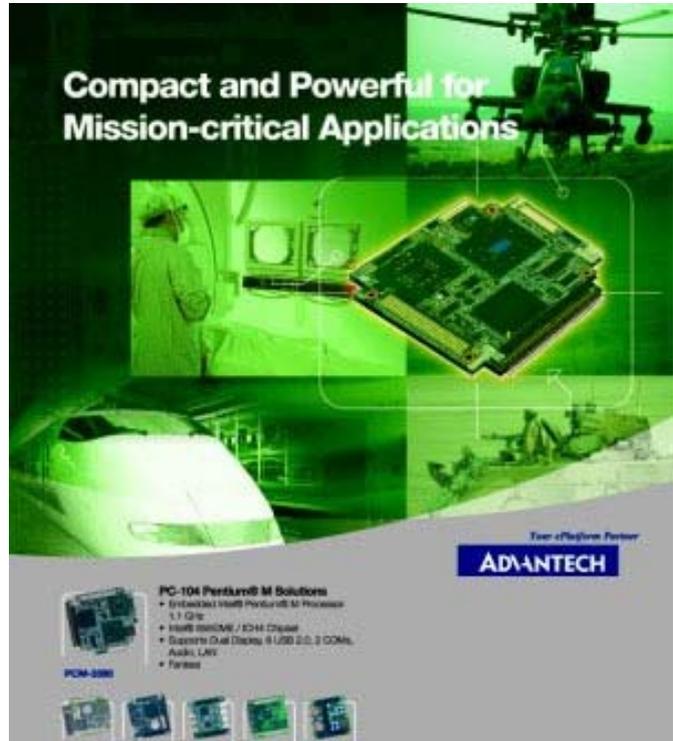


## Total PCI-104 Module Solution

PC/104 is an embedded computer standard which defines both a form factor and computer bus. The PC/104 form factor was originally devised by Ampro Computers in 1987, and later standardized by the PC/104 Consortium in 1992. By standardizing the hardware, embedded system designers can substantially reduce development costs, risks, and time. This means faster time-to-market and the ability to hit critical market windows with timely product introductions.

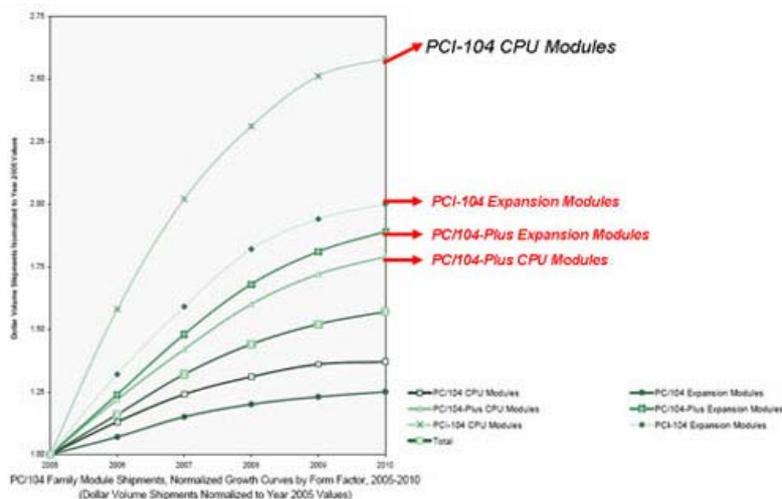
### Choices, Choices

The two most common form factors defined by this standard include the PC/104 and the PCI-104. The PCI-104 form factor includes the PCI connector, but not the ISA connector, in order to increase the available board real estate. Based upon market research provided by VDC, 25% of the market currently uses PC/104, while 40% uses PCI-104. Each form factor will keep the same ratio share until at least 2010.



### PC/104 vs. PCI-104

While similar, these two form factors are actually competing with each other. PCI-104 is considered the next generation of PC/104, and though the PCI-104 has a much higher throughput, many users do not feel an urgent need to upgrade. If their systems are meeting the need for their applications, after all, there may be no need. One limitation of PCI-104 of course is that it only permits four PCI cards along a bus segment without a bridge. In contrast, the ISA-based PC/104 has no specific limit to slot count, although typically no more than six cards are stacked together. However, the common ideology is that the march of technology is inevitable, and PCI-104 is believed to be the future trend.



Source: VDC, Feb 2007

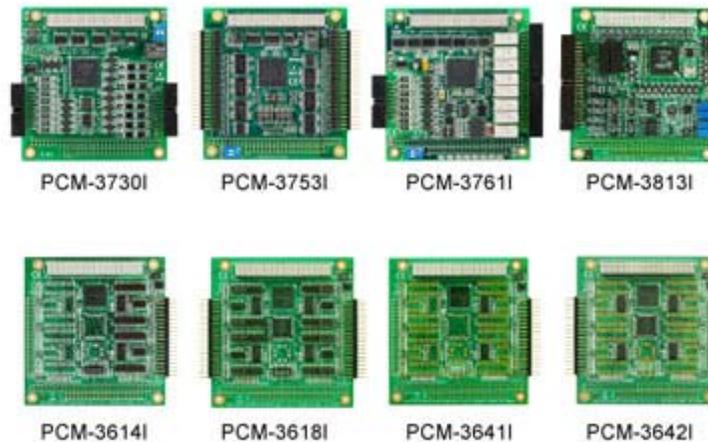
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## Looking Ahead

Like PC/104, PCI-104 is an open standard. The new features of PCI-104 compared to PC/104 include more I/O's, higher resolution, and a higher base clock speed.



AMC – your Certified Advantech Channel Partner - introduces a complete line of PCI-104 modules, covering both data acquisition and industrial communication applications. These new modules include the PCM-3753I, PCM-3614I, PCM-3618I, PCM-3641I, PCM-3642I, PCM-3761I\*, PCM-3730I\* and PCM-3813I\*. PCI-104 is the newest variation of the PC/104 standard, and removes the old PC XT / AT bus from the specification leaving only the PCI bus. The elimination of the J1 and J2 connectors allows for additional board space for other components. PCI-104 is intended for specialized embedded computing environments where applications depend on reliable data acquisition despite an often extreme environment.

These high throughput PCI-104 models also support multiple operating systems, such as Windows 2000 and XP, which could be easily integrated into machine automation, field automation, environment surveillance, or traffic signal applications. For more information, please contact your regional Advantech sales representative or an Advantech authorized dealer.

Function	Module Name	Description
<b>Data Acquisition</b>	PCM-3753I	96-ch Digital I/O PCI-104 Module
	PCM-3761I*	8-ch Relay and 8-ch Isolated Digital Input PCI-104 Module
	PCM-3730I*	32-ch Isolated Digital I/O PCI-104 Module
	PCM-3813I*	100 kS/s, 12-bit, 32-ch Isolated Analog Input PCI-104 Module
<b>Industrial Communication</b>	PCM-3614I	4-port RS-232/422/485 Module
	PCM-3618I	8-port RS-422/485 High-speed Module
	PCM-3641I	4-port RS-232 Module
	PCM-3642I	8-port RS-232 Module

\* These modules will be available by the end of 2008.

The new PCI-104 modules PCM-3614I, PCM-3618I, PCM-3641I, PCM-3642I, PCM-3730I, PCM-3753I, PCM-3761I and PCM-3813I meet the demand of fast-growing embedded applications.

The PCM-3600I series offers a choice of 4 or 8 asynchronous RS-232/RS-422/RS-485 serial ports for a PCI-104 bus. It enables embedded system or thin client with the ability to communicate to RS-232 or RS-232/422/485 serial peripherals. The plug and play ability of this PCI-104 solution is perfect for instrumentation and point-of-sale applications. Serial port connections are made via included cables, providing DB-9 female connectors. This PCI plug and play function allows easy serial port expansion that requires no IRQ, DMA, or I/O address resources. Users are no longer to set the jumpers and switches and could also save on setup time and cost considerably.



PCM-3730I features 32-ch isolated digital I/O (16 inputs and 16 outputs) with high voltage isolation up to 2,500 VDC. PCM-3753I includes 96-ch bi-directional 5V/TTL digital I/O for high density usage. PCM-3761I has 8 Form C type relays and 8 isolated digital input channels. PCM-3813I is an isolated analog input module with 100 kS/s (sampling rate), 12-bit (resolution), and 32-ch (channel). They are ideal for embedded automation applications

