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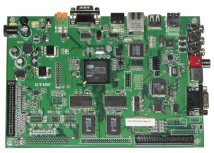
Tiny Computers to Get a New Standard

Embedded systems and small form factors are concerned



An embedded computer
The Web

Embedded systems and computers that come in small form factors are not something new nowadays as the industry always has one or more tasks better suited to a smaller, quieter and less energy intensive hardware platform. Lately, more and more such miniaturized computer systems largely made of x86 compatible hardware parts, are flooding the market, ranging from embedded solutions to barebone systems that are used for multimedia applications.At the Embedded Systems Conference in Boston a number of hardware manufacturing companies that are active on the embedded systems and small form factor markets created new standard groups whose aim is to develop, adopt and promote hardware designs and specifications related to that particular field. The Small Form Factor Special Interest Group (SFF-SIG for short) currently has only five permanent members, but they are the most important companies in that field.Among the SFF-SIG members there are: Octagon Systems, a designer and manufacturer of small printed circuit boards and rugged embedded systems for industrial applications, Samtec, a company focused on manufacturing specialized connectors for such small form factor computers, Tri-M, a producer of embedded solutions, VIA Technologies which is manufacturing and shipping x86 compatible hardware parts like CPUs and chipsets. Apart from producing central processing units and chipsets, VIA also designs and manufactures a number of small form factor motherboards like mini-ITX, nano-ITX, pico-ITX and mobile-ITX.According to the group's Web page the main goal is to "embrace the latest technologies, as well as maintain legacy compatibility and enable transition solutions to next-generation interfaces". This group aims to create and manufacture lower power consumption devices and highly integrated processing units, chipsets and memory modules based on the 90nm and 65nm fabrication processes while at the same time developing and promoting the use of the new and fast data transferring interfaces like Serial ATA, PCI Express and USB 2.0.The SFF-SIG group is made of three working groups which are pursuing a number of separate goals. The SBC Working Group is more interested in the development of new small form factor and single board computer systems, while the Modules Working Group is aimed at creating new specifications for the computer-on-module (COM) format and finally, the Stackables Working Group is dedicated to developing a stackable interconnect technology compatible with many existing platforms.