

Welcome to EMAC Email, a newsletter from EMAC, Inc., provider of single board computers, peripherals, and custom engineering to meet your embedded systems needs.

This month's product highlight is our new **Firewall-In-A-Box (FIB)**.

FEATURES

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TRADE SHOW NEWS

Look for us at these trade shows.

National Design Engineering (National Manufacturing Week)

- McCormick Place, Chicago
- March 5 – 8
- Booth # 7970

Meet our new partner company in Anna Technology, J. Gordon Electronic Design, in the adjacent Booth, # 7971.

Embedded Systems Conference

- San Francisco
- July 10 – 11
- Booth # 2118

EMAC will be sharing a booth with parent company, Anna Technology.

Coming up – look for EMAC and J. Gordon Electronic Design at the Embedded Systems Conference at Navy Pier in Chicago – July 10-11.

PRODUCT HIGHLIGHT

Promotion: Firewall-In-A-Box

As servers become more common, information security is a top priority. For customers who require access control in a small package, EMAC now offers the Firewall-in-a-Box. The acronym may be FIB, but the price is no lie.

10% INTRODUCTORY DISCOUNT – Standard Firewall-in-a-Box

The FIB includes a low-voltage 200MHz CPU, dual 10/100 Ethernet ports, and 32MB RAM. In addition, the small footprint of the chassis (6.5 x 4.5 x 3.25 in.) allows the FIB to be mounted on either a wall or a rack.

TECHNICAL FORUM

What is a firewall?

A firewall is a software program or hardware device or a combination of both. Firewalls are designed to protect a single computer or a series of networked computers from unwanted user access using an outside connection. These unwanted users may corrupt data or compromise confidentiality. Anyone who is connected to an outside network should have a firewall. Even dial-up connections are susceptible to unwanted users.

A firewall has two network interfaces, one for the protected computer or network, and one for the network that it is exposed to. The junction point or gateway between the protected computer or network and the outside network is where the firewall resides. There are two methods in which a firewall can protect the network. One is to allow all data to pass through the firewall unless it meets certain criteria. The other is to deny all data to pass through the firewall unless it meets certain criteria. Packet filtering firewalls work at the network level of the OSI model, or the IP layer of TCP/IP. In a packet filtering firewall each packet is compared to a set of criteria before it is forwarded. Depending on the packet and the criteria, the firewall can drop the packet or forward it. The advantage of packet filtering firewalls is their low cost and low impact on network performance.

For information on implementing a firewall visit:

White Papers - http://www.emacinc.com/white_papers.htm.

TRENDS IN TECHNOLOGY

Wireless Communication Trends

Adailio Sanchez, general manager for manufacturing operations and business transformation at IBM Corp.'s Personal Systems Group, addressed the trend towards wireless communications, and the impact of PCs. Sanchez noted that the number of subscribers to wireless data services will explode to 1.3 billion in 2004 from 170 million today. In fact, he said more than half of those on the Internet will use a wireless device by 2004, and two-thirds of all transactions will take place on a wireless network. "The fixed,

wired PC — connected to stable, reliable broadband networks — will become richer in functionality," he noted.

He also predicted that unit sales growth of the fixed, wired PCs will remain healthy — growing in the mid-teens over the next several years. "The mobile PC will grow faster — probably in the mid-20% range — especially as higher-speed wireless technologies come on line. Mobile PCs will also morph into a host of new device categories all across the end-user spectrum," he said. Sanchez said he expected to see numerous advances in the deployment and use of personal and local-area networks — PANs and LANs. These include the new wireless standard Bluetooth, with an operating range of about 30 ft between similarly-enabled devices. He pointed out that Bluetooth supports data rates 80 times faster than what's now available to a wireless handheld device. "Wireless is no longer a novelty, but a way to do business," emphasized Sanchez. Sanchez said PC and device makers should start deploying Bluetooth products in volume this year. But he told attendees that the chips used to power these devices must become more energy efficient because they consume up to 30% of a laptop's battery power.

EMAC EXTRAS

EMAC Specials

All the items on this page are either discontinued or must leave our inventory. However, these specials are NEW and have a full two-year warranty. As always these products have EMACs service and reliability to back them.

These items could serve as a prototype for a new product without the cost of newer more expensive boards. At the same time they could serve as an inexpensive alternative to the one time application or to the basement tinkering. So don't be the last to pick up these great specials as they are of limited quantities.

EMAC Specials – http://www.emacinc.com/emac_specials.htm



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