

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

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Product News:

SBC's Go End of Life

EMAC has recently received news from our suppliers that will affect many of the products we currently offer. VIA has discontinued the series of processors used in many EMAC products, which means that all of the VIA processor based products that are currently offered by EMAC will go end of life. Last time buy for products using via processors will be February 28, 2006.

In addition to the discontinuation of currently offered VIA products, items using the AMD Geode GX-1 are also being discontinued. The GX-1 processor will be replaced by the AMD Geode GX or LX800 in most items. The GX will be faster and more efficient than the GX-1 and will operate at a lower temperature, making the products more useful in environments where heat dissipation is very important. Last time buy for products using the Geode processor will be February 28, 2006. The following chart shows the products that will be affected by this change, and lists immediate solutions as well as the suggested long term replacement products that will be available April 2006.

Product recently added to the EOL notification as of August 2006 are listed in **BOLD**.

Discontinued Product	Immediate Replacement	Long Term Solution
PCM-3350	PCM-3370F	PCM-3353
PCM-4896L	PCM-5893	PCM-5893
PCM-9575	PCM-9579F	PCM-9579F
PCM-5820	PCM-9371F	PCM-9375
PCM-5822	PCM-9375	PCM-9375
PCM-5823	PCM-9375	PCM-9375
PCM-5825	PCM-9375	PCM-9375
PCM-9373	PCM-9371F	PCM-9371F
PCA-6753	PCA-6773	PCA-6773
PCA-6772	PCA-6773	PCA-6773
SBC-657	HSB-660S	CALL

PCI-6871	CALL	CALL
PPC-105T	PPC-106T	PPC-105T
SOM-4472	SOM-4475	SOM-4475
SOM-4450	SOM-4455	SOM-4455
PCM-3347	PCM-9340	PCM-9340
PCM-3348	PCM-9340	PCM-9340
SBC-411	HSB-440I	HSB-440I
SBC-357	HSB-440I	HSB-440I
SBC-456	HSB-440I	HSB-440I
PCM-4823	PCM-9340	PCM-9375

Newsletter Promotion:

Low-Power Server In a Box (SIB)

The EMAC Low-Power Server-In-a-Box (LP-SIB) is an extremely rugged embedded multi-purpose Linux server. The LP-SIB does not require any fans, has no moving parts, and the Operating System is resident in a embedded flash disk that is separate from the data flash disk. The low power requirements of the LP-SIB also means low heat generation and lends itself ideal for battery operated or backed-up systems. Right out of the box, the LP-SIB is configured for Ethernet, serial IP, serial terminal, and raw serial connections. Other devices, including PPP modem links, may be added and configured by the user through an easy to use menuing system.

Right now, EMAC, Inc. is offering a free upgrade to a 128MB MMC/SD Card with the mention of this ad. For more information, please visit: http://www.emacinc.com/lp_sib.htm or contact the sales department at: info@emacinc.com.

Product Highlight:

Eclipse IDE for Linux

Up until now you had limited choices with regard to using Linux on an Embedded Single Board Computer (SBC), each with compromises. You could roll your own, although this is much more difficult for an embedded system than for a desktop. You could use a third party Linux distribution. This offers a very nice development package although getting it up a running on the Embedded SBC is not always easy and if there are driver issues, who's problem is it, the Linux company's or the SBC company's. You could utilize an SBC with Linux provided by the SBC company. Got to watch out here, lots of SBC companies contract their Linux builds out to another company and do not know much about the build or maintaining it. Even when you find a company that does their own Linux build you are usually on your own with regard to development tools and setup.

EMAC, has been manufacturing SBCs since 1985 and has been installing our own distribution of Linux in our SBCs since 1998. We know Linux and we know the problems customers have in utilizing Linux. To address this, EMAC has put together a rock solid Embedded Linux distribution and a Robust Eclipse Integrated Development (IDE) package. This IDE provides GCC Cross compiler, Libraries, GDB debugger, Editor, and Project Manager all integrated into the Eclipse framework which includes sample projects. With

EMAC's IDE library linking is made easy even when compiling against older libraries. Purchase a EMAC SBC with Linux or uClinux and you should be up, running and building applications the first day.

When you purchase an EMAC SBC with Linux, the board comes ready to boot, and all of the drivers have been setup for any standard peripherals that you may have purchased from EMAC. This allows you to focus on your application, instead of on time consuming configuration and testing. And if you do encounter problems, you can talk to someone experienced with Linux, and familiar with our distribution.

For more information about Eclipse IDE for Linux, please visit:
http://www.emacinc.com/operating_systems/linux_ide.htm or contact us at:
info@emacinc.com

Technical Forum:

Freescale Alliance Member

EMAC is now an official Freescale (www.freescale.com) Alliance Member. EMAC has been given the Freescale stamp of approval to provide its customers with custom Freescale product engineering. EMAC has been providing Motorola now Freescale processor based Single Board Computers (SBCs) for over Ten years. We know Freescale Processors.

In addition to Freescale based SBCs, EMAC offers a comprehensive, off-the-shelf product line of x86 SBCs, Single Board Servers/Firewalls, and peripherals. Our x86 Single Board Computers are 100% PC compatible and come pre-loaded with Linux, Windows, or any other popular Operating System. From PC/104 to Modems to Software, EMAC, Inc. is your Partner of choice for End-to-End Solutions.

Engineering Success Story:

McKesson APS

McKesson was looking for a way they could leverage the same code and tool-chain for several new products they intended to develop. EMAC recommended the SoM SODIMM line of processor modules. With an SoM approach the processor, memory, and core I/O are all present on a small module. This module then plugs into a Carrier board that provides the connectors and any additional I/O that may be required for the application. By using an SoM, McKesson can have different Carrier boards designed for their different products, while maintaining the processing core, their code base and tool-chain.

McKesson's first product consisted of a Robot that automatically counted and dispensed pills in order to fill prescriptions. While this may seem easy at first look it is actually a very complex task when you consider the thousands of different shape and size pills, in addition to the accuracy and speed at which they are to be counted.

The SoM-5282 was chosen for the task. Its advanced control capabilities coupled with the its uClinux operating system made it the clear choice. A custom Carrier was designed that had to interface to numerous sensors and actuators. Some of the I/O interfaces are as follows: servo motor, stepper motor, PWM drive, quadrature encoder, absolute encoder, temperature, pressure, vacuum, solenoid, serial, Ethernet, and MMC/SD Flash card. Much of the aforementioned I/O required Real-Time capability.

For a picture of this system go to: www.emacinc.com/som/som100es.htm#custom_carrier

EMAC, wrote Linux drivers to support all of the I/O functionality, while the customer actually wrote the application program including a nice browser-based user interface. This project was a solid win for McKesson fulfilling their product requirements and providing them with the framework for future products using their same code base and tools.

EMAC Extras:

EMAC Specials

This month's SPECIAL is the: PCM-6892E ... Pentium Socket 370, EBX SBC with Video, Audio, & dual Ethernet ... \$220.00.

PCM-6892E - ftp://ftp.emacinc.com/PCM-6892E_manual.pdf

All the items on the EMAC Specials page are either discontinued or must leave our inventory. However, these products are NEW and have a one-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/specials/emac_specials.htm

EMAC, Inc. Homepage:

<http://www.emacinc.com>

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