Embedded PC WORLD online

Advantech Home | EPC Homepage | Online Store | Contact Us

September 15, 2000 Vol.32

New Product

3D Surround Sound Comes to Advantech PC/104 Line

Advantech's new PC/104 audio module brings the industry standard SoundBlaster Pro™ and Windows Sound System™ compatibility to embedded systems using a PC/104 ISA bus. The PCM-3201 is a cost effective, low-power/low-noise, ruggedized solution that can satisfy the most diverse audio needs.

Application Story

State-of-the-art Istanbul Traffic Control System Relies on Advantech

Advantech is currently working with an Istanbul system integrator as they implement an innovative traffic control system in Turkey's largest metropolitan area.this system integrator relied heavily on Advantech hardware and core business expertise to reach their current project milestones.

Tel: 886-2-2218-4567
Fax: 886-2-2218-3875
Contact the editor

Recent News

New Product

■ Advantech Forms New Software Department To Provide Total Solutions Embedded Platforms

Event

■ Advantech to Showcase Embedded Computing Solutions at ESC 2000

RECENT ISSUES

Sept 1, 2000
Aug 15, 2000
Aug 1, 2000
July 15, 2000
July 1, 2000

Problems, comments, suggestions? Please contact the editor

EPC World	Advantech Home	EPC Homepage	News Archive	Contact Us

Embedded PC WORLD online

September 15, 2000 Vol.32

Tel: 886-2-2218-4567
Fax: 886-2-2218-3875
Contact the editor
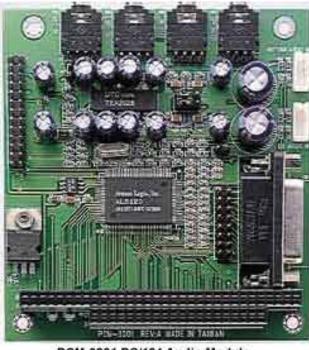
New Product

3D Surround Sound Comes to Advantech PC/104 Line

Advantech's new PC/104 audio module brings the industry standard SoundBlaster Pro™ and Windows Sound System™ compatibility to embedded systems using a PC/104 ISA bus. The PCM-3201 is a cost effective, low-power/low-noise, ruggedized solution that can satisfy the most diverse audio needs. Not only does it provide great sound, it also gives the flexibilty and expandibility system integrators need to function in the most challenging embedded applications.

The PCM-3201 employs the **ALS120 chip** that are industry standard music synthsizers found in most PC audio boards. The PCM-3201 brings cost-effective Wave Table Synthesis capability to the PC/104 form factor, a significant improvement over the traditional Frequency Modulation (FM) synthesis most commonly used (the PCM-3201 also has a D/A converter with Avance Logic proprietary FM synthesis support). The ALS120 chip integrates audio CODEC, DOS games capability and other features, plus, minimizes support and installation issues.

PCM-3201 PC/104 Audio Module

Other News

New Product

■ 3D Surround Sound Comes to Advantech PC/104 Line

Application Story

■ State-of-the-art Istanbul Traffic Control System Relies on Advantech

RECENT ISSUES

Features of the PCM-3201 PC/104 Sound Module

- Single, mixed-signal, high performance VLSI sound ASIC
- Three software selectable DMA lines
- Five software selectable interupt lines
- Supports 8-bit ISA Plug & Play bus interface
- Supports 16-bit CD-ROM interface
- DMA interface with FIFO fir full duplex
- Enhance Game Port support
- MIDI port with input and output FIFO
- 8-bit or 16-bit monaural/stereo digital audio from 4 kHz to 48 kHz
- Software master volume control
- 3D Sound Effect processor
- ALSFM Synthesizer
- IIS/EEPROM interface

● + 5 V power for digital and analog

Technical Specifications

Computer Bus	PC/104 (ISA) Standard
Bus width	16-bit
Wave Blaster	Input/Output
Game/MIDI port	Input/Output
Line out available	
Line In available	
Microphone In	
Speaker Output	
IDE CD-ROM Audio	
Mitsumi CD-ROM Audio	
PC In	
ALSFM Synthesizer	
Physical	Length: 3.6 inches
	Width: 3.8 inches

Environmental Specs

Operating Temperature	32 to 158° F (0 to 70° C)
Humidity	5% to 95% Non-condensing
Power requirements	+12 V ± 5% tolerance

Bring Sound to Embedded Applications

● **Embedded Multimedia**
Whether stacked together with a PC/104 SBC like the PCM-3346 or applied
to another ISA SBC, the PCM-3201 brings reliable, high quality sound to any
application.

● **Gaming Applications**
The compact size and Game/MIDI port Input/Output fits in perfectly with this
application category.

● **Information Kiosks**
The size and rugged durability makes the PCM-3201 a natural for heavy use
applications. Applications that have to stand up to the elements as well as be
compact in size and dependable.

Contact Advantech today to find out more about this new addition to our PC/104
line. Get in touch with your local Advantech representative or send us an e-mail at
epc@advantech.com.tw to find out more.

TOP

Problems, comments, suggestions? Please contact the editor

EPC World	Advantech Home	EPC Homepage	News Archive	Contact Us

EMBEDDED PC WORLD online

Advantech Home | EPC Homepage | Online Store | Contact Us

September 15, 2000 Vol.32

Tel: 886-2-2218-4567
Fax: 886-2-2218-3875
Contact the editor
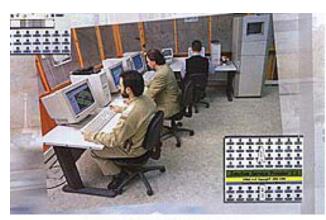
Application Story

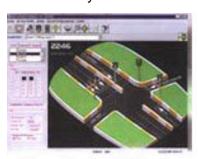## *State-of-the-art Istanbul Traffic Control System Relies on Advantech*

Advantech is currently working with an Istanbul system integrator as they implement an innovative traffic control system in Turkey's largest metropolitan area. As with every large (and increasingly small) city in the world, easing traffic congestion in Istanbul is a major concern. Using the latest technology for traffic management was the logical choice, and Advantech was there to help.

Contracted by the local government, this system integrator relied heavily on Advantech hardware and core business expertise to reach their current project milestones. Utilizing a network that consist of strategically-located, computer-controlled intersections throughout the metropolitan area, operators in the central office can control traffic signals and reroute traffic by simultaneously monitoring/controlling all networked traffic intersections.

Central Traffic Control Center

This information will also be forwarded on to news and traffic information services and eventually be utilized in a GPS system that can assist individual drivers in

Intersection Control Interface

choosing optimal routes to reach their specific locations. Advantech's PCM-5862 Pentium® MMX SBC is being used at these controlled intersections. The PCM-5862 had the right combination of features for the application and Advantech's engineers provided the support to effectively address the technical issues involved.

Going Beyond Customers' Needs

The needs for this particular project required both hardware and system integration experience. For the intersection control box the system integrator required the following hardware and services:

- Compact SBC size
  - to reduce overall size of box
  - to allow for better system heat dissipation
- Pentium® architecture
- Very reliable system (industrial strength preferred)
- Effectively deal with environmental issues (heat, weather, EMI/EMC, etc..)

Other News

New Product
■ 3D Surround Sound Comes to Advantech PC/104 Line

Application Story
■ State-of-the-art Istanbul Traffic Control System Relies on Advantech

RECENT ISSUES

- Device integration capability-modem, wireless etc.
- System integration advice
- Technical support/service
- Maintain budget considerations

Advantech worked hard to answer the needs of this project. Not only did we supply the compact PCM-5862 Pentium MMX 233 MHz SBC for the chassis, our experience with chassis systems allowed us to resolve the operating heat/environment considerations this chassis had to overcome. Advantech engineers also provided critical advice on device integration and EMI/EMC control. Although Advantech did not supply the chassis, our experience manufacturing our own systems and applying them in similar challenging environments, allowed us to better serve this customer.

Advantech is an ongoing partner with this project as it expands. For example, the next phase of the project will have more live video feeds integrated into the network. The PCM-5864 MMX SBC with Video is already being planned for use in this next phase of the project. Once again, providing the hardware is of course important, but sharing useful experience builds strong working relationships as well as saves time and money.

Providing Solutions

Let Advantech help you with your or your customer's next project. You can contact your local Advantech representative or e-mail us directly anytime at epc@advantech.com.tw. We look forward to hearing from you.

TOP

Problems, comments, suggestions? Please contact the editor

EPC World	Advantech Home	EPC Homepage	News Archive	Contact Us