PCM-3364

Intel® Atom™ Queensbay PCI-104 SBC, LVDS, LAN, mini-PCIe, Cfast, CANbus, USB Client,On board memory



Specifications

	СРИ	Intel Tunnel creek 0.6 GHz/1.0 GHz/1.3 GHz
Processor System	Frequency	0.6 GHz/1.0 GHz/1.3 GHz
	L2 Cache	512 KB
,	System Chipset	Tunnel creek + IOH TopCliff
	BIOS	AMI 16 Mbit
	Technology	DDR2 800 MHz SDRAM on board
Memory	Max. Capacity	1 GB
	On board memory	On board 512 MB/1 GB
	Chipset	Intel Tunnel creek
	VRAM	Optimized shared memory architecture up to 64 MB system memory
	Cranhia Engina	Integrated 2D/3D graphics engine up to 400 MHz. Supports OpenGL* ES2.0, OpenVG* 1.0, DirectX9.0c*
Display	Graphic Engine	Encode format: MPEG4, H.263, H.264
		Decode format: MPEG2, MPEG4, VC1, WMV9, H.264
	LVDS	Supports up to 24-bit LVDS up to 1280 x 768 @ 60 Hz.
	VGA	Supports up to 1280 x 1024 @ 85 Hz.
	Dual Display	CRT + LVDS
	Interface	10/100/1000Mbps
Ethernet	Controller	LAN1:Intel 82583V
	Connector	Pin header
WatchDog Timer		Output system reset
		Programmable 1 ~ 255 sec
Audio	Chipset	Realtek ALC892, High Definition Audio (HD), Line-in, Line out, Mic-in
Storage	Clast	1
	SAIA	
	USB	3 x USB 2.0 host, 1 x USB Client
	Seriel	I RS-232, I RS-232/422/485
Internal I/O	KB/MOUSe	l O hit second surgers insul/subsut
	GPIU 120	8-bit general purpose input/output
	PU CMbus	1
	SIVIDUS DOL 104 alat	1
Expansion	PUI-TU4 SIUL Mini DCI Evergen	l 1 (bolf pize)
		I (IIdII-5125)
	DAIN DUS	
Power	Power Supply Voltage	5 V only
	Power Consumption (Typical)	
	Power Consumption (Max, test in HCT)	TBD
	Power Management	ΔΡΜ ΔΩΡΙ
	Rattery Lithium	3 V/220 mAH
	Oneration	$0 \sim 60^{\circ}$ C (32 ~ 140° E) (operation humidity: 40° C @ 85% RH non-condension)
Environment	Non-Operation	-40° C $\sim 85^{\circ}$ C and 60° C @ 95% RH non-condensing
	Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")
Physical Characteristics	Weight	0.097 kg (0.214lb)
	~	

AD\ANTECH PC/104 CPU Modules



Ordering Information

Part Number	CPU	Memory	CRT	LVDS	RS-232	RS-422/485	LAN	USB2.0 host	USB client	Thermal Solution	Operating Temp.	Embedded OS
PCM-3364-512M0A1E	Tunnel creek 0.6 GHz	512 MB on board	1	24-bit	2	1	1 GbE	3	1	passive	0 ~ 60° C	Optional
PCM-3364-1GS0A1E	Tunnel creek 1.0 GHz	1 GB on board	1	24-bit	2	1	1 GbE	3	1	passive	0 ~ 60° C	Optional
PCM-3364-1GS3A1E	Tunnel creek 1.3 GHz	1 GB on board	1	24-bit	2	1	1 GbE	3	1	passive	0 ~ 60° C	Optional
PCM-3364Z2-1GS3A1E	Tunnel creek 1.3 GHz	1 GB on board	1	24-bit	2	1	1 GbE	3	1	passive	-40 ~ 85° C	Optional

Packing List

Part No.	Description	Quantity
	PCM-3364 SBC	
	Startup Manual	
	Utility CD	
1700000898	VGA cable D-SUB 15P(F)/12P-1.25MM 15 cm	x 1
1700060202	Cable 6P-6P-6P PS/2 KB & mouse 20cm	x 1
1703040157	RS-422/485 W/D-SUB COM 4P 15 cm	x 1
1703060053	PS2 cable 6P (MINI-DIN)-6P (wafer 2.0 mm) 6 cm	x 1
1703100260	USB cable 2port 2.0mm pitch w/ bracket 26 cm	x 1
1700071000	SATA data cable 7p 100 cm	x 1
1703150102	SATA power cable B4P-5.08/SATA 15P 10 cm	x 1
1701200220	RS232 x 2 ports 2.0 mm 22 cm	x 1
1700017863	LAN cable RJ45/2*5P-2.0 15 cm	x 1
9660104000	PC/104 screw and copper post package	x 1

Optional Accessories

Part No.	Description
TDB	Heat spreader (79.66 x 77.98 x 10.32 mm)
1653130421	PCI-104 connector 120pin (Long pin)

Embedded OS/API

Embedded OS/API	Part No.
WinCE 6.0	TBD
Win XPE	TBD
WES7	TBD
Software API	TBD
Linux	TBD

Value-Added Software Services

Software API: An interface that defines the ways by which an application program may request services from libraries and/or operating systems. Provides not only the underlying drivers required but also a rich set of user-friendly, intelligent and integrated interfaces, which speeds development, enhances security and offers add-on value for Advantech platforms. It plays the role of catalyst between developer and solution, and makes Advantech embedded platforms easier and simpler to adopt and operate with customer applications.

Software APIs

Control



General Purpose Input/Output allows users to monitor the level of signal input or set the output status to switch on/off a device. Our API also provides Programmable GPIO, which allows developers to dynamically set the GPIO input or output status.



The SMBus API allows a developer to interface a embedded system environment and transfer serial messages using the SMBus protocols, allowing multiple simultaneous device control.



The I²C API allows a developer to interface with an embedded system environment and transfer serial messages using the I²C protocols, allowing multiple simultaneous device control.

Display



Control

The Brightness Control API allows a developer to interface with an embedded device to control brightness depending on ambient light conditions.



The Backlight API allows a developer to control the backlight (screen) on/off in an embedded device depending on usage.

Software Utilities



The BIOS Flash utility allows customers to update the flash ROM BIOS version, or use it to back up current BIOS by copying it from the flash chip to a file on customers' disk. The BIOS Flash utility also provides a command line version and API for fast implementation into customized applications.



The embedded application is the most important property of a system integrator. It contains valuable intellectual property, design knowledge and innovation, but it is easily copied! The Embedded Security ID utility provides reliable security functions for customers to secure their application data within embedded BIOS



The Monitoring utility allows the customer to monitor system health, including voltage, CPU and system temperature and fan speed. These items are important to a device; if critical errors happen and are not solved immediately, permanent damage may be caused.

Monitor



A watchdog timer (WDT) performs a reset after a certain period of time if something goes wrong and the system does not recover on its own. The watchdog timer can be programmed to perform a warm boot (restarting the system) after a certain number of seconds.



The Hardware Monitor (HWM) API is a system health supervision API that inspects certain condition indexes, such as fan speed, temperature and voltage.



The Hardware Control API allows developers to set the PWM (Pulse Width Modulation) value to adjust fan speed or other devices; it can also be used to adjust the LCD brightness.

CONTO

Power Saving



Make use of Intel SpeedStep technology to reduce power power consumption. The system will automatically adjust the CPU Speed depending on system loading.



Refers to a series of methods for reducing power consumption in computers by lowering the clock frequency. These APIs allow the user to lower the clock from 87.5% to 12.5%.



The eSOS utility is a small OS stored in BIOS ROM. It will boot up in case of a main OS crash. It will diagnose the hardware status, and then send an e-mail to a designated administrator. The eSOS also provides remote connection: Telnet server and FTP server, allowing the administrator to rescue the system.



Flash Lock is a mechanism that binds the board and CF card (SQFlash) together. The user can "Lock" SQFlash via the Flash Lock function and "Unlock" it via BIOS while booting. A locked SQFlash cannot be read by any card reader or boot from other platforms without a BIOS with the "Unlock" feature.

AD\ANTECH PC/104 CPU Modules

All product specifications are subject to change without notice