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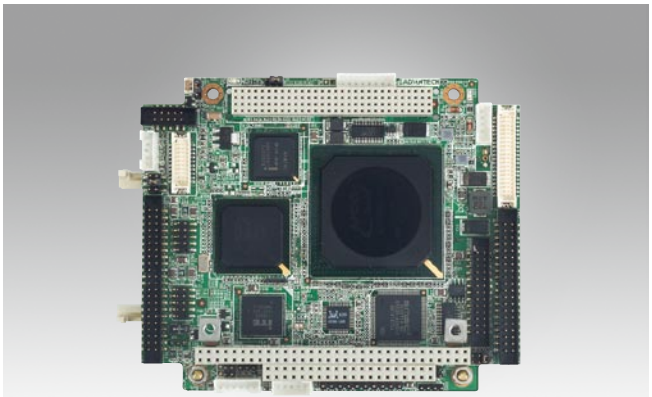
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PCM-3353 A2

AMD LX800/LX600 PC/104-Plus SBC, CRT, LVDS, TTL, LAN, USB, COM, CFC



Features

- AMD low power LX800 500 MHz/LX600 366 MHz processor
- 24-bit TFT LCD interface, 18-bit LVDS LCD display (supports 24-bit JEIDA LVDS)
- PC/104-plus Expansion
- Supports up to 4 COM ports, 4 USB ports
- Supports Embedded Software API and Utility

Software APIs: SMBus, H/W Monitor, Watchdog, GPIO, Backlight On/Off, Brightness

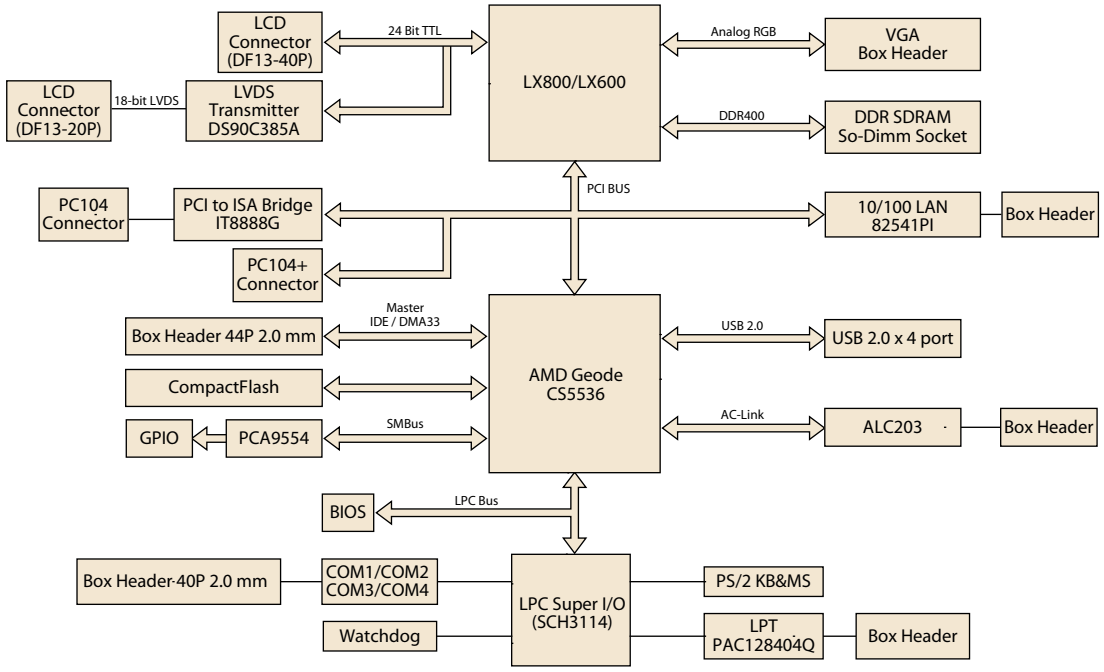
Utilities: BIOS flash, Monitoring

Specifications

Processor System	CPU	AMD Geode™ LX800 500MHz/AMD Geode™ LX600 366 MHz
	Frequency	500MHz / 366 MHz
	L2 Cache	128 KB
	System Chipset	AMD Geode™ LX800/LX600 + AMD CS5536
	BIOS	Award 4-Mbit
Memory	Technology	DDR 333/400 MHz
	Max. Capacity	1 GB
	Socket	1 x 200-pin SODIMM
Display	Chipset	AMD Geode™ LX800 / LX600
	VRAM	Optimized Shared Memory Architecture up to 64 MB system memory
	LVDS	Supports up to 1600 x 1200 x 32 bpp at 60 Hz 18-bit LVDS Panel
	CRT	Supports up to 1920 x 1440 x 32 bpp at 85 Hz Supports up to 1600 x 1200 x 32 bpp at 100 Hz
	TTL LCD	Supports up to 1600 x 1200 x 32 bpp at 60 Hz for 24-bit TFT
	Dual Display	CRT+TTL, CRT+LVDS
Ethernet	Speed	10/100 Mbps
	Controller	Intel 82541PI
	Connector	Box header
Audio	Chipset	Realtek ALC203
Watchdog Timer		Output System reset Programmable 1 ~ 255 sec
Storage	CompactFlash	Compact Flash socket (Type I)
	IDE	1
Internal I/O	USB	4 x USB 2.0
	Serial	3 RS-232, 1 RS-232/422/485
	IDE	1
	Parallel(LPT)	1
	SMBUS	1
	KB/Mouse	1
	GPIO	8-bit general purpose input/output
Expansion	PC/104-Plus slot	1
Power	Power Type	AT
	Power Supply Voltage	5V only to boot up (12 V is optional for LCD inverter and add on card)
	Power Consumption (Typical)	+5 V @ 1.35 A, +12 V @ 0.1 A
	Power Consumption (Max, test in HCT)	+5 V @ 1.51 A, +12 V @ 0.1 A
	Power Management	APM1.2
	Battery	Lithium 3 V / 196 mAH
Environment	Operation	0 ~ 60° C (32 ~ 140° F) (operation humidity: 40° C @ 85% RH non-condensing)
	Non-Operation	-40° C ~ 85° C and 60° C @ 95% RH non-condensing
Physical Characteristics	Dimensions (L x W)	96 x 115 mm (3.8" x 4.5")
	Weight	0.162 kg (0.357 lb) (with heat-sink)

All product specifications are subject to change without notice

Board Diagram



Ordering Information

Part No.	CPU	Memory	Chipset	CRT	LVDS	TTL	LAN	USB 2.0	RS-232	RS-232/ 422/485	LPT/FDD	Audio	PC/104+	Thermal Solution	Operation Temp.	Embedded OS
PCM03353F-L0A2E	AMD LX800	SO-DIMM	CS5536	yes	18 bit	24-bit	FE	4	3	1	yes	yes	yes	Passive	0 ~ 60° C	Optional
PCM03353F-J0A2E	AMD LX600	SO-DIMM	CS5536	yes	18 bit	24-bit	FE	4	3	1	yes	yes	yes	Passive	0 ~ 60° C	Optional
PCM-3353Z-512A2E	AMD LX800	512 MB Bundle	CS5536	yes	18 bit	24-bit	FE	4	3	1	yes	yes	yes	Passive	-20 ~ 80° C	Optional
PCM-3353Z2-512A2E	AMD LX800	512 MB Bundle	CS5536	yes	18 bit	24-bit	FE	4	3	1	yes	yes	yes	Passive	-40 ~ 85° C	Optional

Note: Wide temp version has been bundled with Industrial grade memory module (Default 512 MB DDR)

Packing List

Part No.	Description	Quantity
	PCM-3353 SBC	
	Startup Manual	
	Utility CD	
1700000898	VGA cable D-SUB 15P(F)/12P-1.25 mm 15 cm	x 1
1700000918	Audio cable 10 cm	x 1
1700003491	AT power cable 1 x 8P-2.0/B4P-5.08 x 2 15 cm	x 1
1700060202	Cable 6P-6P-6P PS/2 KB & Mouse 20 cm	x 1
1700260250	LPT Port cable 25P to 26P 2.0 mm 25 cm	x 1
1701100202	LAN FLAT CABLE IDC10P 2.0 mm/RJ-45 20 cm	x 1
1701400181	COM 4 ports FLAT CABLE 18 cm IDC40P 2.0 mm	x 1
1701440350	IDE cable 44P/44P/44P 35CM	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
1703100121	USB 2Ports cable 10P 12 cm IDC 2.0 mm	x 1
9660104000	PC/104 screw and copper post package	x 1

Optional Accessories

Part No.	Description
TBD	Apacer Wide Temp Memory -40° C ~ 85° C
1653130421	PCI-104 connector 120pin (Long pin)
165313222B	PC/104 connector 64pin (Long pin)
165312022B	PC/104 connector 40pin (Long pin)
1960037701N000	CF retainer for anti-vibration

Embedded OS/API

Embedded OS/API	Part No.	Description
WinCE 5.0	2070000729	Image PCM-3353 CE 5.0 Pro Plus Eng
WinCE 6.0	2070001612	CE6.0 Pro GX3 4 Com V1.0 ENG
	2070005769	CE6.0 Pro GX3 2 COM V1.1 JPN
Win XPE	2070001576	XPE FP2007 GX3 (LX800) V3.0 ENG
	2070003216	XPE FP2007 GX3 Group V3.1 ENG (717.22 MB)
	2070003557	XPE FP2007 GX3 Group V3.0 CHS (641.41 MB)
	2070005811	XPE FP2007 PCM-3353 V3.5.0 JPN/ENG
	2070009905	Image XPE WES2009 PCM-3353 A2 V4.0 ENG
	2070009906	Image XPE WES2009 PCM-3353 A2 V4.0 24MUI
QNX	QNX 6.3.2 QNX 6.4.1	
Software API	205E000019	SUSI 3.0 SW API for ESBC B: 20091116 XP
Linux Ubuntu	Ubuntu9.10	

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



GPIO

General Purpose Input/Output is a flexible parallel interface that allows a variety of custom connections. It 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.



SMBus

SMBus is the System Management Bus defined by Intel® Corporation in 1995. It is used in personal computers and servers for low-speed system management communications. 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.



I²C

I²C is a bi-directional two wire bus that was developed by Philips for use in their televisions in the 1980s. 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.

Monitor



Watchdog

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



Hardware Monitor

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



Hardware Control

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.

Display



Brightness Control

The Brightness Control API allows a developer to interface with an embedded device to easily control brightness.



Backlight

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

Power Saving



CPU Speed

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



System Throttling

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%.

Software Utilities



BIOS Flash

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.



Embedded Security ID

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.



Monitoring

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.



eSOS

The eSOS 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

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.

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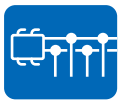
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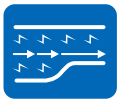
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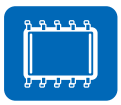
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