

# PCM-3355 PC/104 SBC w/AMD LX800/LX600, VGA, LCD, LAN, USB 2.0 , SATA, and CF

## Startup Manual

### Packing List

Before you begin installing your card, please make sure that the following materials have been shipped:

- 1 x PCM-3355 SBC
- 1 x SATA cable (p/n: 1700008894)
- 1 x Keyboard/Mouse cable (p/n: 1703060053)
- 1 x Y cable for KB/MS extension (p/n: 1700060202)
- 1 x Ethernet RJ-45 Conn. conversion cable (p/n: 1700005158)
- 1 x LPT port cable (p/n: 1700260250)
- 1 x VGA cable (p/n: 1701160150)
- 1 x USB cable (bracket type with two USB ports) (p/n: 1703100121)
- 1 x RS-422/485 COM cable (p/n: 1703040157)
- 1 x RS-232 COM cable (p/n: 1701200220)
- 1 x Startup manual
- 1 x CD-ROM (Manual, Driver, Utility)

If any of these items are missing or damaged, please contact your distributor or sales representative immediately.

Note 1: Acrobat Reader is required to view any PDF file. Acrobat Reader can be downloaded at: [www.adobe.com/Prodindex/acrobat/read-step.html](http://www.adobe.com/Prodindex/acrobat/read-step.html) (Acrobat is a trademark of Adobe.)

For more information on this and other Advantech products, please visit our website at:

<http://www.advantech.com>

<http://www.advantech.com/eplatform>

For technical support and service, please visit our support website at:

<http://service.advantech.com/support>

This manual is for the PCM-3355 Series Rev. A1.

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### Specifications

#### Standard SBC functions

- **CPU:** AMD Geode® LX800/LX600 processor, up to 500/366 MHz
- **System Memory:** supports Double Data Rate (DDR) DDR333 SDRAM up to 1GB
- **2nd Cache Memory:** 128 KB on the processor
- **System Chipset:** AMD Geode LX800/LX600
- **BIOS:** AWARD 4Mbit Flash BIOS
- **Watchdog timer:** 255 levels timer interval
- **Expansion Interface:** PC/104 (ISA bus)
- **Battery:** Lithium 3V/196 mAh
- **Power management:** ACPI supported
- **Serial ATA:** One Serial ATA interface, Speed up to 100 MB/s (Transfer from IDE)

**Note:** Strongly suggest not to use CF card and SATA device together. Due to limitation of bottleneck of transmitted rate on ARC772, IDE to SATA bridge.

If you find your CF card cannot be detected when you use SATA device at the same time, please adjust CF card to Slave via SW2 and SATA to Master via SW3 that would have CF card and SATA device detected together, or you select suitable CF card which Advantech had confirmed.

- **Serial ports:** two serial RS-232 ports , one RS-422/485 ports
- **Parallel port:** One parallel port, supports SPP/EPP/ECP mode
- **Keyboard/mouse connector:** Supports one standard PC/AT keyboard and a PS/2 mouse
- **USB:** Two USB 2.0 ports compliant universal serial bus ports
- **CF:** Solid State Disk (SSD) supports one 50-pin socket for CFC type I (type II optional)

#### VGA/TTL Interface

- **Chipset:** AMD Geode LX800/LX600
- **Memory Size:** Optimized Shared Memory Architecture, supports 64 MB frame buffer using system memory
- **CRT resolutions supported:**
  - Supports up to 1920x1440x32 bpp at 85 Hz
  - Supports up to 1600x1200x32 bpp at 100 Hz
- **TFT resolutions supported:** Supports up to 1024 x 768 x 32 bpp at 60 Hz
- **LCD Interface:** Supports up to 24-bit TFT LCD (TTL signal)
- **Dual Simultaneous Display:** CRT + LCD

#### Ethernet Interface

- **Chipset supports:** 1 x 10/100 Mbps - Intel 82551QM
- **Interface:** 1 x internal box header
- Standard IEEE 802.3u (100 BASE-T) protocol compatible

OS support

- This board supports Win XP, Win CE and Win XPe.
- For further information about OS support in your PCM-3355, visit the following web resource Advantech: website: [www.advantech.com](http://www.advantech.com) or please contact technical support center

Mechanical and Environmental

- **Dimensions:** 96 x 90 mm (3.8" x 3.5")
- **Power Supply Type:** AT
- **Power Requirement:** +5 V  $\pm$  5%, +12 V  $\pm$  5% (Optional), (5V only, 12V optional for PC104 add on card and LCD inverter)
- **Power Consumption:** (Geode LX800, 512 MB DDR333)
  - **Power on Load:** +5 V@ 1.79 A, +12 V@ 0.02 A
  - **Max load:** +5 V@ 1.74 A, +12 V@ 0.02 A
  - **Idle mode:** +5 V@ 1.45 A, +12 V@ 0.02 A
- **Power Consumption Conditions:**
  - **Test software:** Hot CPU pro 4.22
  - **Power on - Boot:** Measure the maximum current value of between system power on and boot-up to O.S.
  - **Max. load:** Measure the maximum current value which system under maximum load (CPU: Top speed , RAM & Graphic: Full loading)
  - **Idle mode:** Measure the current value when system in windows mode and without running any program
- **Operating temperature:** 0 ~ 60° C (32 ~ 140° F) ( operation humidity: 40°C @ 85% RH Non-Condensing)
- **Weight:** 0.85 kg (reference weight of total package)

Jumpers and Connectors

The board has a number of jumpers that allow you to configure your system to suit your application.

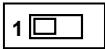
The table below lists the function of each of the jumpers

Setting Function and connectors.

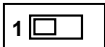
Jumpers	
Label	Function
SW1	COM3 RS422/485 switch
SW2	CF Master/Slave switch
SW3	SATA Master/Slave switch

Connectors	
Label	Function
CN1	TTL LCD connector
CN2	CRT connector
CN3	USB connector
CN4	Power IN connector
CN5	LPT connector
CN6	PC/104 connector
CN7	SATA connector
CN8	COM1/2 connector
CN9	LAN connector
CN10	ISA -5V connector
CN11	SMBUS connector
CN12	BATTERY connector
CN13	BUZZER connector
CN14	KB/MS connector
CN15	Power/HDD LED connector
CN16	Panel Inverter Power
CN17	COM3 RS422/485 connector
CN18	CF connector
CN19	DDR SODIMM connector

SW1: COM3 RS-422/485 switch	
Setting	Function
1-2	RS-485 (Default)
2-3	RS-422

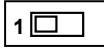


SW2: Compact Flash Master/Slave switch	
Setting	Function
1-2	Master
2-3	Slave (Default)



### SW3: SATA Master/Slave switch

Setting	Function
1-2	Slave
2-3	Master (Default)



## Software Installation

The CD disc contains a driver installer program that will guide you through the installation of various device drivers needed to take full advantage of your CPU card.

## Caution

The computer is provided with a battery-powered Real-time Clock circuit. There is a danger of explosion if the battery is incorrectly replaced. Replace only with same or equivalent type recommended by the manufacturer. Discard used batteries according to manufacturer's instructions.

## Safety Information

This device complies with the requirements in Part 15 of the FCC rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

## Locating Connectors and Jumpers

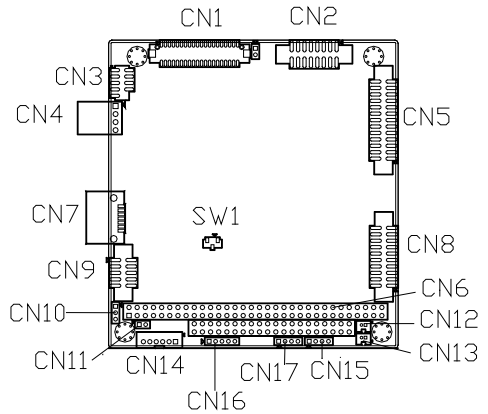


Figure1: PCM-3355 Location Connectors & Jumpers (component side)

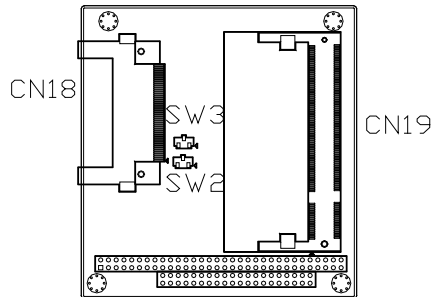


Figure2: PCM-3355 Location Connectors & Jumpers (solder side)

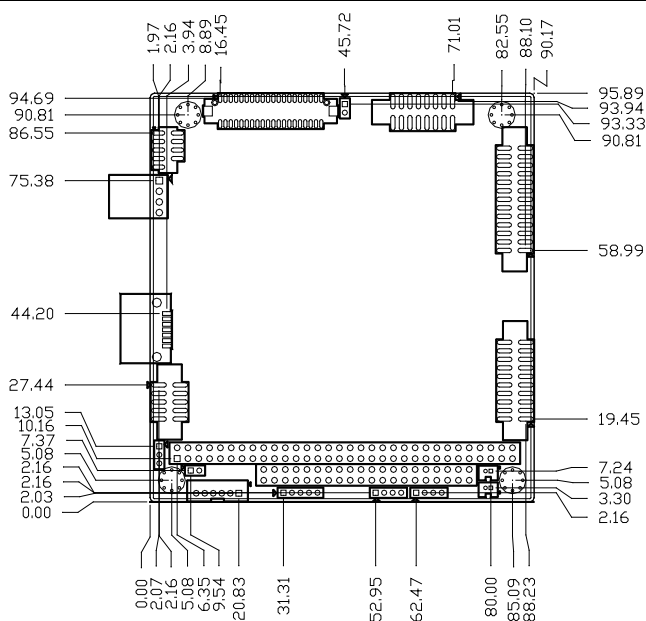


Figure 3: PCM-3355 Mechanical Drawing (component side)

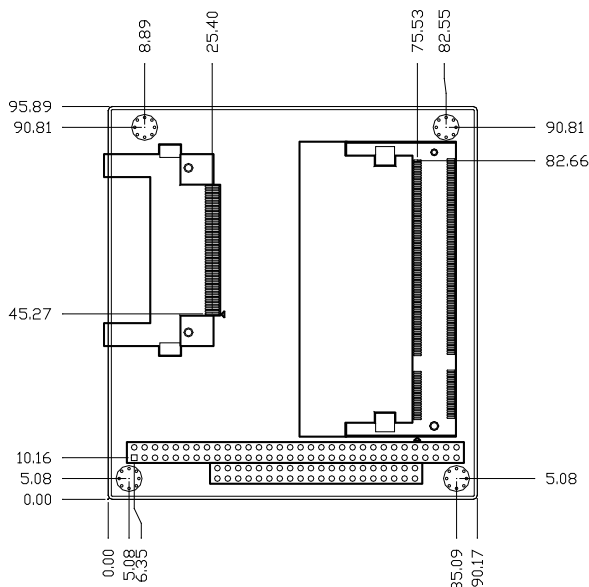


Figure 4: PCM-3355 Mechanical Drawing (solder side)