

PCM-3356 AMD T16R PC/104 SBC, VGA, LVDS, LAN, USB, COM, SATA Startup Manual

Packing List

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

1. 1 x PCM-3356 SBC with heatsink
2. 1 x SATA data cable (p/n: 1700018799)
3. 1 x SATA power cable (p/n: 1703150102)
4. 1 x SATA power cable for 5V connector (p/n: 1700018259)
5. 1 x Audio cable (p/n: 1700020638-01)
6. 2 x Ethernet RJ-45 Conn. cable (p/n: 1700017863)
7. 1 x VGA cable (p/n: 1700000898)
8. 2 x 2 ports USB cable (with bracket) (p/n: 1703100121)
9. 1 x RS-232 COM cable (p/n: 1701200220)
10. 1 x RS-422/485 COM cable (p/n: 1700019414)
11. 1 x ATX/AT Power cabl (p/n: 1700003491)
12. 1 x mini jumper pack
13. 1 x PC/104 screws and cooper post package
14. 1 x Startup manual

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/Products/acrobat/readstep2.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.tw/support/>

This manual is for the PCM-3356 Series Rev. A1

Part No. 2006335600
Printed in China

1st Edition
Jan 2013

Specifications

Standard SBC functions

- **CPU:** AMD® G-Series™ Processor T16R 615MHz
- **System Memory:** Supports DDR3 1066MHz SDRAM up to 4GB
- **2nd Cache Memory:** 512 KB on the processor
- **System Chipset:** AMD® A55E
- **BIOS:** AMI 32Mbit Flash BIOS
- **Watchdog timer:** 255 levels timer interval
- **Expansion Interface:** PC/104 (ISA bus)
- **Battery:** Lithium 3V/210 mAH
- **Power management:** ACPI 4.0 supported
- **Serial ATA:** One Serial ATA2 interface, Speed up to 300MB/s
- **mSATA:** supports 1 half-size mSATA
- **Serial ports:** Three serial RS-232/422/485 ports
- **USB:** Four USB 2.0 ports compliant universal serial bus ports
- **High Definition Audio:** PCM-3356 can provide audio function

VGA/LVDS Interface

- **Controller:** AMD® G-Series™
- **VRAM:** up to 384 MB shared system memory
- **Output Interfaces:**
 - VGA: Supports up to 1920 x 1200 @ 85Hz
 - LVDS: Single channel 18-bit LVDS up to 1280 x 800
 - Dual Display: VGA + LVDS, support extended mode and clone mode

Ethernet Interface

- Supports Dual 10/100/1000 Mbps Ethernet networking
- **Controller:** Realtek® RTL8111E-VB-GR

OS support

- This board supports Win 8, Win 7, Win CE and Win XPe.
- For further information about OS support in your PCM-3356, please visit the Advantech website: www.advantech.com or contact your technical support center.

Specifications

Mechanical and Environmental

- **Dimensions:** 96 x 115 mm (3.8" x 4.5")
- **Power Supply Type:** AT/ATX
- **Power Requirement:** +5 V \pm 5%, +12 V \pm 5% (Optional), (12V optional for PC104 add on card and LCD inverter)
- **Power Consumption:**
 - **Max load:** +5 V@ 1.74 A, +12 V@ 10mA (8.82 Watt)
 - **Idle mode:** +5 V@ 1.18 A, +12 V@ 10mA (6.02 Watt)
- **Operating temperature:** 0 ~ 60° C (32 ~ 140° F) (operating humidity: 40° C @ 85% RH Non-Condensing)
- **Weight:** 0.205 kg (reference weight of total package)

Jumpers and Connectors

The table below lists the function of each of the jumpers and connectors.

Jumpers

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

Jumpers	
Label	Function
J1	LCD Power
J2	Auto Power On Setting
J3	Clear CMOS

Jumpers and Connectors

Connectors

Onboard connectors link the PCM-3356 to external devices such as hard disk drives, a keyboard, or floppy drives. The table below lists the function of each of the board's connectors.

Connectors	
Label	Function
CN1	Power Input
CN2	SODIMM Socket 204 Pin
CN3	BIOS Socket
CN5	VGA
CN6	Inverter Power Output
CN7	18-bit LVDS Panel
CN8	LAN1
CN9	LAN2
CN10	Audio
CN11	Buzzer
CN12	PC/104
CN13	ISA -5V & -12V Input
CN14	Internal USB
CN15	mSATA
CN16	SATA
CN17	SATA Power
CN18	Front Panel
CN19	Mini PCIe
CN20	COM1/COM2
CN21	SMBus
CN22	COM3
CN24	Internal USB
CN36	GPIO
CN38	LAN1 LED
CN39	LAN2 LED

Jumpers and Connectors

Jumper Setting (J1)

The PCM-3356 single board computer contains a jumper that can switch the AT/ATX Power Setting. Normally this jumper should be set with closed. It will send the power button signal to power on the system automatically. It also can keep open to power on the system by power button switch.

LCD Power (J1)



J1	LCD Power
Setting	Function
1-2	+5V
2-3	+3.3V

Auto Power On Setting (J2)



J2	Auto Power On Setting
Setting	Function
Open	Power Button for Power On
Close	Auto Power On

Clear CMOS (J3)



J3	Clear CMOS
Setting	Function
1-2	Normal
2-3	Clear CMOS

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

The 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.

Connector Locations

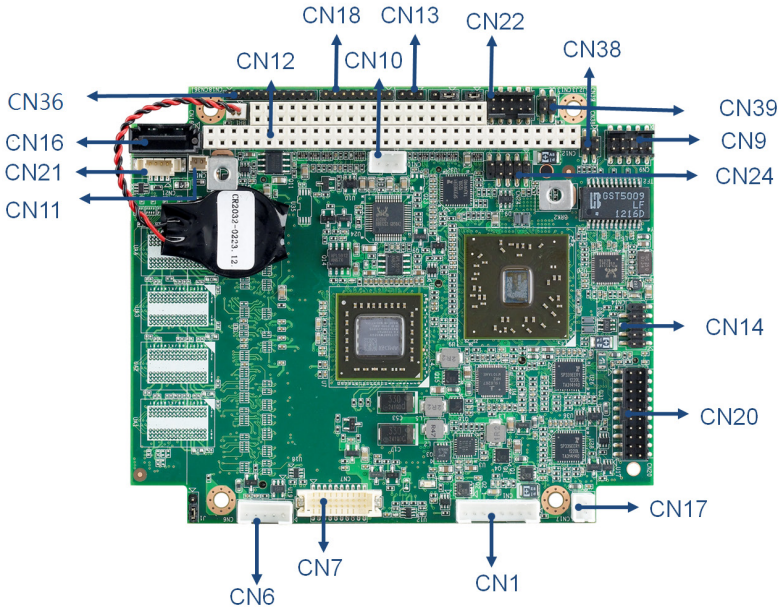


Figure 1: PCM-3356 Locations of Connectors & Jumpers (component side)

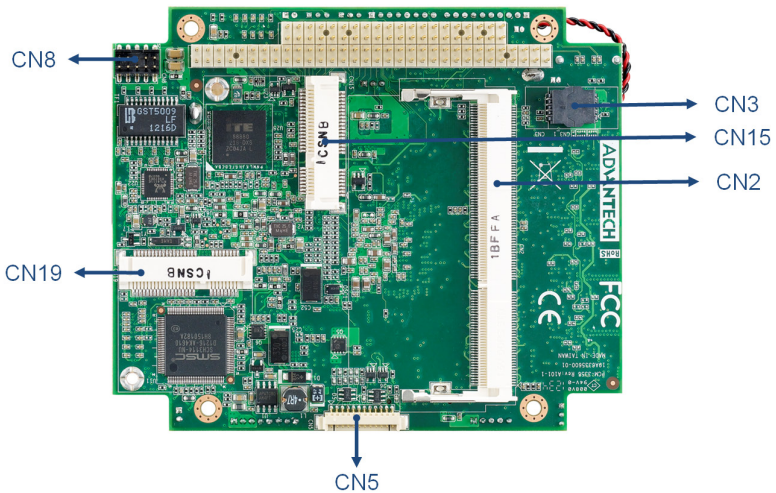


Figure 2: PCM-3356 Locations of Connectors & Jumpers (solder side)

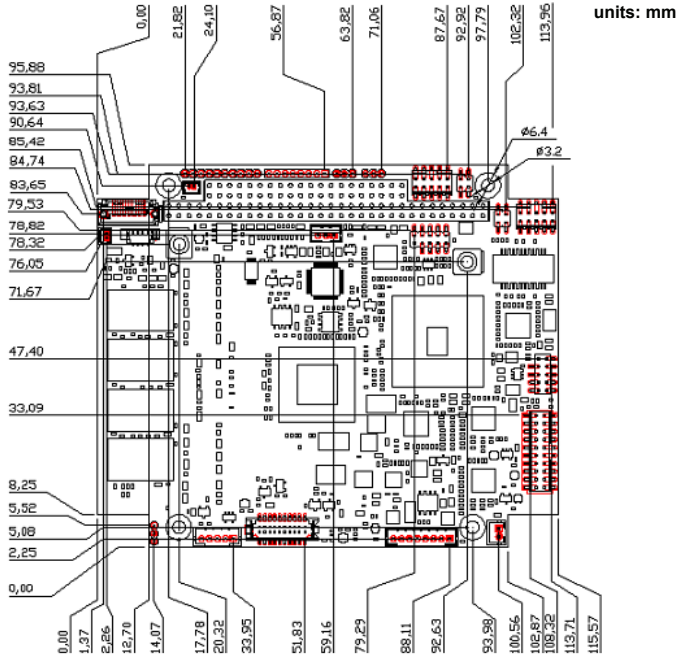


Figure 3: PCM-3356 Mechanical Drawing (component side)

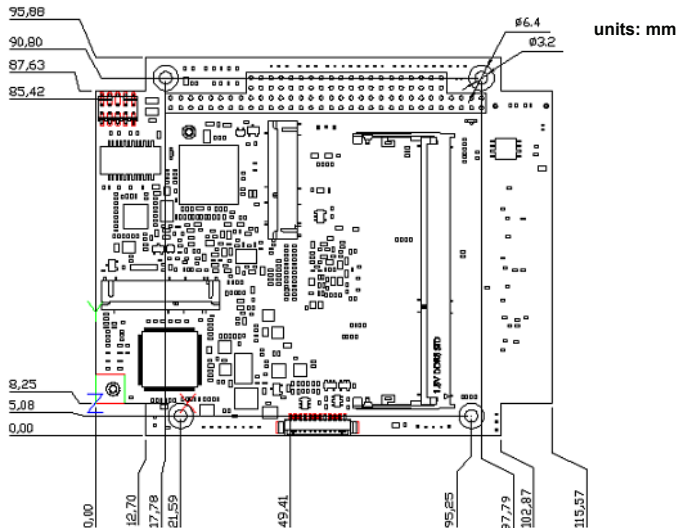


Figure 4: PCM-3356 Mechanical Drawing (solder side)