PCA-6763 AMD T16R ISA Half-size SBC with Dual Independent Display/SATA/ USB/ m-SATA/ COM/ LPT Startup Manual

Packing List

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

1.	1 PCA-6763 PICMG 1.0 Single Board Computer	
2.	1 PCA-6763 startup manual	P/N: 2006A67600
3.	1 CD with utility	P/N: 2066A67600
4.	1 Serial ATA HDD data cables	P/N: 1700003194
5.	1 Serial ATA HDD power cables	P/N: 1703150102
6.	LPT cable (G2)	P/N: 1700002223
7.	COM cable (G2)	P/N: 1700008762
8.	COM+LPT cable (VG)	P/N: 1700008954
9.	USB 2.0 cable	P/N: 1700014398
10.	ATX feature cable	P/N: 1700002343
11.	PS/2 Y cable	P/N: 1700060202
12.	1 warranty card	P/N: 2190000902

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

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://support.advantech.com.tw/support/default.aspx

This manual is for the PCA-6763 Series Rev. A1.

Part No. 2006A67600 1st Edition,
Printed in China April 2014

Specifications

General

- AMD G-series APU T16R
  BIOS: AMI-EFI 32 Mbit SPI
- **Chipset:** AMD fusion controller hub A55E
- **System memory:** DDR3 1066 1GB onboard+ DDR3 1066 up to 4GB on 1x204-pin SO-DIMM socket
- **SATA interface:** SATA 3.0 x4 (600MB/sec)
- **Serial ports:** 2 RS-232, supports extra 4 RS-232 or RS-422/485 with optional COM module: PCA-COM232-00A1E or PCA-COM485-00A1E
- **Parallel port:** 1, supports SPP/EPP/ECP mode
- **Keyboard/mouse connector:** Supports 1 external 6-pin header
- **Watchdog timer:** Programmable 1~255 sec/min
- **USB:**
  - G2: USB 2.0 x7 (1 on bracket, 6 onboard)
  - VG: USB 2.0 x6 (6 onboard)
- **GPIO:** 1 programmable 8-bit GPIO pin-header
- **Operating system:** Win XP (32/64), Win7, Linux, DOS, XPE, WinCE 6.0

VGA/DVI Interface

- **Dual display:**
  - G2: Choosing 2 interfaces from VGA(Default), LVDS, and DVI
  - VG: VGA(Default)+LVDS
- **VGA:** Up to 1920x1200 @60Hz
- **DVI:** Up to 1920x1200 @60Hz
- **LVDS:**
  - G2: 48 bit LVDS (Dual channel 24 bit) up to 1920 x 1200@60Hz
  - VG: 18 bit LVDS up to 1024 x 768@60Hz

Ethernet Interface

- **Chipset supports:**
  - LAN1: Realtek RTL8111E-VL-CG
  - LAN2 (G2 only): Realtek RTL8111E-VL-CG
- **Connection:** 2 on-board RJ-45 connector with LED indicators

Specifications (Cont.)

Mechanical and Enviromental

- **Dimensions:** (L x W): 185 mm x 122 mm (7.3" x 4.8")
- **Power supply voltage:** +3.3 V, +5 V, +12 V, 5VSB
- **Power requirements:**

AMD G-series T16R (615MHz), DDR3 1066 5GB (1GB onboard and 4 GB with DIMM)						
Voltage	12V	5V	3.3V	5VSB	-12V	-5V
Current (A)	0.17	1.87				
Total (W)	11.39					

- **Operating temperature:** 0 ~ 60° C (depending on CPU)
- **Weight:** 0.33 kg (weight of board)

Suggested Backplane

P/N	ISA slot Q'ty	Chassis
PCA-6106-0B2E	5	IPC-3026/IPC-6806S
PCA-6108E-0B2E	7	IPC-619S/IPC-6908

Jumpers and Connectors

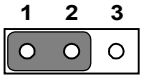
The board has a number of jumpers that allow you to configure your system to suit your application. The table below lists the function of each of the jumpers and connectors.

Connectors	
Label	**Function**
LPT1	Parallel port, supports SPP/EPP/ECP mode
LAN1, LAN2 (G2)	Realtek 8111E-VL-CG
VGA1	VGA connector
KBMS1~ KBMS2	External keyboard/mouse connector
COM12 (G2)	Box header for RS-232*2
COM1 (VG) COMD2 (VG)	Box header and rear I/O connector for RS-232
JFP1	Power switch / Reset connector
JCASE1	Case open
LANLED1	LAN1/2 LED connector
HDAUD1	HD audio extension module connector
USB12~ USB56	USB port 1-6 (USB 2.0)
USB7 (G2)	USB7 (USB 2.0)
FDD1	FDD connector
SMBUS1	SMBUS connector
PC-104	PC/104 connector
INV1	LCD inverter connector

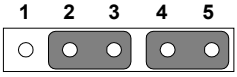
Jumpers and Connectors

SATA1~ SATA4	Serial ATA1-4 (SATA 3.0)
DIMMA1	Memory connector channel A1
GPIO1	GPIO pin header
LPC1	Low pin count module expansion pin-header
PWR1	12 V, 5 V power connector
DVI1	DVI connector
LVDS1	LVDS connector
MINIPCIE1_ MSATA1	m-SATA(default) and mini-PCIe socket (Optional)
IR	IR connector

Jumpers	
Label	**Function**
JCMOS1	CMOS clear
ATXF1	AT/ATX mode selection
JWDT1+JOBS1	Hardware monitor alarm+watchdog timer output selection
BZ1	Buzzer setting
KL1	Keyboard lock
JLVDS1	LVDS panel voltage selection
JVBR1	LVDS backlight setting

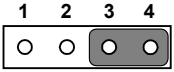


JCMOS1: Clear CMOS	
Closed Pins	**Result**
1-2 (Default)	Keep CMOS
2-3	Clear CMOS

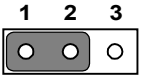


JOBS1+JWDT1: Hardware monitor alarm+watchdog timer output selection	
Function	**Jumper Setting**
2-3 (Default)	Enable watchdog timer
4-5 (Default)	Enable Hardware monitor alarm

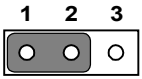
Jumpers and Connectors (Cont.)



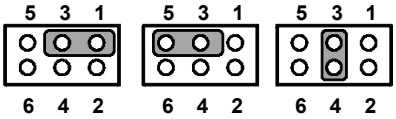
BZ1: Buzzer setting	
Closed Pins	**Result**
3-4 (Default)	Enable buzzer
Connect 1 & 4	Connecting to external speaker



ATXF1: AT/ATX mode selection	
Closed Pins	**Result**
1-2 (Default)	AT mode
Connect to backplane with 1700002343	ATX mode



JVBR: LVDS backlight setting	
Closed Pins	**Result**
1-2 closed (Default)	Linear way to control brightness
2-3 closed	PWM to control brightness



JLVDS1: LVDS panel voltage selection	
Closed Pins	**Result**
1-3 closed (Default)	3.3V
3-5 closed	5V
3-4 closed	12V

Jumpers and Connectors (Cont.)

KL1: Keyboard lock	
Closed Pins	**Result**
Open (Default)	Disable keyboard lock
Closed	Enable keyboard lock

Software Installation

The drivers for the PCA-6763 are located on the software installation CD. Please click through the folder and follow the on screen instructions to install them.

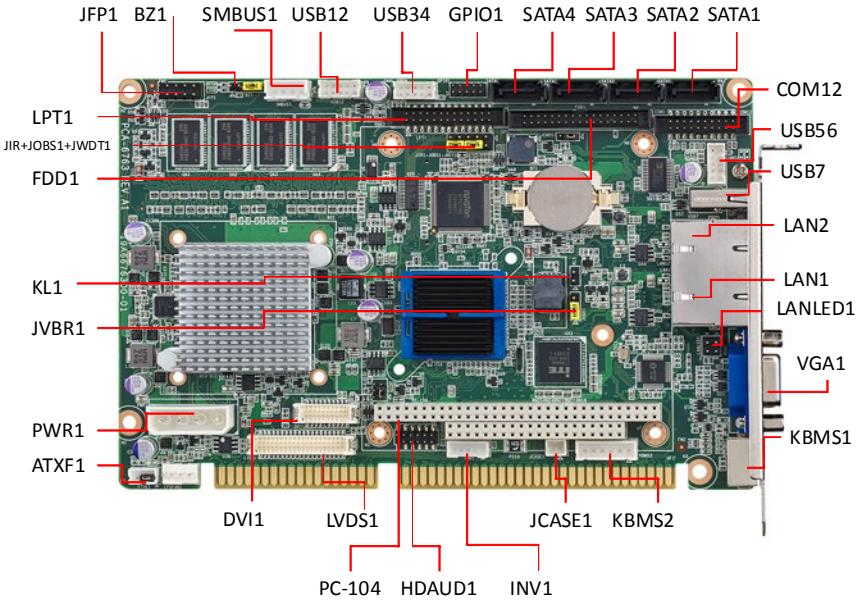
Caution! The computer is supplied with a battery-powered realtime clock circuit. There is a danger of explosion if battery is incorrectly replaced. Replace only with same or equivalent type recommended by the manufacturer. Discard used batteries according to manufacturer's instructions.

Declaration of Conformity

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

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

Board Layout



PCA-6763 Board Layout