

FCC ID: NFZAEC-6710D30

EUT: SCSI CARD

ACARD TECHNOLOGY CORP.

USER'S MANUAL

Hardware installation

Introduction

AEC 6710D is a high performance PCI bus Ultra SCSI adapter. With full features of the PCI 32-bit bus transfer capability and PCI enhanced data transfer speeds (133MB/s) it offers really PCI Plug and Play, Scatter/Gather function to improve performance for tasking OS.

AEC 6710D supports peripheral devices that are compatible with SCSI-1, SCSI-2 and SCSI-3 including hard disk, removable hard drive, CD-ROM drive, tape drive, optical disk, WORM, Tape Drive, CD-R...etc.

Features

- PCI Bus master DMA SCSI-3
- Synchronous transfer rate up to 20MB/S for Ultra
- Synchronous transfer rate up to 7MB/S
- 3.4 GB per drive under DOS environment
- 2048GB per drive
- Supports multi-threaded and multi-tasking
- Scatter/Gather operation support
- Automatic FIFO threshold selection.
- Supports Hard disk, Removable hard disk, disk, CD-ROM, CD-R, Tape Drive, Printer on system supports:
- Windows 3.x, Windows 95, Windows NT, OS/2, SCO UNIX etc.

Specifications

- Required - Voltage : 5V +/- 5%
- Current : 1.8 A
- Ambient-Temperature
- Operating : 0° C to 60° C
- Storage : -65° C to 150° C
- -15% to 90%
- Size - Length: 12 cm
- Width: 6.4 cm
- 15 pins D-SUB external connector (MAC compatible)

4. Board layout

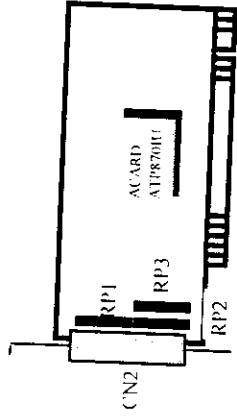


Figure 1.1
AEC 6710D Board Layout

5. Board description

- CN2: 25pins DSUB external connector
- RP1-3: Passive terminator

CN2: This connect to use the 25pins MAC compatible round cable to connect the SCSI devices.

RP1, RP2, and RP3: Passive terminator

Software installation

1. Introduction

The AEC 6710D supports 56 device drivers. You need to install device driver to support SCSI devices. The installation procedure is described as follows.

1. Utilities Description

INSTALL.EXE: DOS install program
Usage: type "install"

2. DOS environment

- ASP6710.SYS: ACARD SCSI-3 ASPI(Advanced SCSI Programming Interface) driver
- ASPICD.SYS: ACARD SCSI-3 ASPI CD-ROM driver
- ASPIUDD.SYS: Universal disk (Hard disk and Optical disk or removable disk) driver.
- ASPIFMT.EXE: Universal disk (Hard disk and Optical disk) format utility.
- ASPIDIR.EXE: Inquiry SCSI device config status for ASPI interface.
- INSTALL.EXE: DOS and Windows Install utility.

3. Windows 3.x environment

- AEC870U.386: AEC 6710D Windows 32bit program for HARDISK only.
- TOPINT13.386: AEC 6710D Windows INT13 manager
- WINASPI.DLL: AEC 6710D Windows ASPI program

4. Windows 95 environment

- ATP870U.MPD: For Windows 95 SCSI device driver
- ATP870U INF

5. Windows NT 3.x, 4.x environment

- ATP870U.SYS: For Windows NT 3.x, 4.x SCSI device driver
- EXTSSETUP.OEM
- OFMSSETUP INF
- ATP870U TAG

Installation

DOS Environment

16710.SYS : DOS driver used in config.sys
CD.SYS : DOS driver used in config.sys
HDD.SYS : DOS driver used in config.sys
EMMEXE : DOS command line utility
DIRXEXE : DOS command line utility
FALLXEXE : DOS command line utility.

CD-ROM, MO, HDD driver Installation

All Procedure :

the AEC6710D in the current PCI slot
er on your system
ir the DOS boot, please insert the AEC6710D
ce driver
ette in the driver "A."

g "install" in the A- driver path
screen will position the install procedure, please
w it.

on you meet the screen appears that follow message,
you can
ose the environment that you need.

Configuration
DOS Config status
[3] Config DOS ASPI driver
[3] Config CD-ROM driver
[3] Config MO/HDD
[3] Copy DOS Files
Windows Config status
[3] Copy Windows Files
Continue
About

can choose the any you need driver and files when
select by "Spacebar" to mark the "[3]"
r the install procedure, that will modify your
NFIG.SYS" and "AUTOEXEC.EXE" files.
you will restart your computer, and to start the
ee driver that you have been install in the
NFIG.SYS" and "AUTOEXEC.EXE" files.
u can access your SCSI device when the power on.
is you install the device driver successful

■ You can type the Config.sys and Autoexec.bat files in
the DOS prompt.
Config.sys will have the follows message:

device=c:\aec6710u\aspi6710.sys **
device=c:\aec6710u\aspi6710.sys /d mscd001 ***
device=c:\aec6710u\aspiudd.sys ****

■ ** For ASPI emulator
■ *** For CD-ROM driver
■ **** For the MO/HDD, Removable HDD driver

■ Autoexec.bat will have the follow message:

CDOS6.X\MSCDEX /D MSCD001 *

* For CD-ROM Low level driver

2.2 Windows 3.x Environment

- The AEC6710D WINASPI Driver supports protect
mode WINASPI interface to improve performance.
- Please do not enable 32-bit disk access driver at the
save time for AEC6710D. The config is as follows :
- The AEC6710D Windows Driver support 32-bit disk
access under Window environment. The driver
supports real 32 bits disk data transfer between host
and the SCSI adapter bus. Support up to 7 hard disk,
can coexist with Wdctrl 386. This driver can coexist
with DOS ASPI and WINASPI.

2.3 Windows 95 Environment

ATP870U MPD is designed for Microsoft Windows95
miniport drivers. This driver allows connection of SCSI
devices (which support by Microsoft)

Install Procedure

■ Without Windows 95 in your environment
At first you must from DOS to setup the CD-ROM
driver.

The AEC6710 DOS CD-ROM install procedure please
refer to the above section "DOS environment".

After CD-ROM work, to CD-ROM driver prompt type
Windows95 "SETUP". Then follow the Windows95
setup.

When the Windows 95 install complete, please select the
"Control Panel" And follows the step

- Control Panel
 - System icon
 - Device Manager
 - ? Other Device
 - ? PCI SCSI Controller
 - Change Driver
 - Have Disk Install from Disk(Insert A)
 - Select Disk(OK)
 - Select a:\win95\atp870u.inf
 - Copy the driver from the source a\WIN95
 - Restart your system (Y)
- After boot view SYSTEM-Device Manager whether have
this SCSI driver OK

Updating Windows 95 with driver

When install Windows95 complete, and the Windows 95
cannot auto install the PCI SCSI Controller driver or find
the "!" yellow exclamation mark in the SCSI controller.
Please select "Control Panel" to change driver. And
follows the step.

- Control Panel
- System icon
- Device Manager
- ? SCSI Controller
- Change Driver
- Have Disk Install from Disk(Insert A)
- Select Disk(OK)
- Select a:\win95\atp870u.inf
- Copy the driver from the source a\WIN95
- Restart your computer (Y)

Plug the SCSI card in Windows 95

If the Windows 95 exists, then you plug the AEC6710
SCSI card in the system. Then the Windows 95 will find
the new hardware, and please follows the add new
hardware wizard add the driver from A\WIN95
directory.

■ If the Windows 95 cannot determine whether is
the device, then will show the yellow question mark in
the "Other Device" not the SCSI Controller.
And follows, select the "Other Device" icon to change
the drivers. Please follows the Updating Windows
95 with driver.

2.4 Windows NT Environment

ATP870C.SYS is designed for Microsoft windows NT
miniport drivers. This driver allows connection of SCSI
devices (which support by Microsoft)

- (1) Insert Windows NT boot disk and boot from floppy
disk.
- (2) On the Setup Method screen, choose "Custom
Setup".
- (3) The installation program will then scan for SCSI
adapters.
- (4) A screen will display the SCSI adapters found.
Choose "S" to configure additional SCSI adapters
- (5) Move the highlight bar to "Other" and press
"Enter"
- (6) When prompted, insert the driver disk prepared by
step (1).
- (7) The ACARD Miniport driver should be highlighted.
Press Enter to proceed
- (8) NT should now recognize the ACARD Miniport driver
and the SCSI hardware. Then Please follow the
Microsoft Windows NT installation procedure.
- (9) Windows NT installed OK and system can boot from
SCSI hard disk.
- (10) Please ADD ACARD PCI SCSI driver to Win NT
system again then every thing will be OK.

2.5 Others OS

The OS/2 2.x, OS/2 Warp, Netware, SCO UNIX please
reference the readme of the diskette.

FEDERAL COMMUNICATIONS COMMISSION

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions : (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection. This equipment generates, uses and can radiated radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Shielded interface cables must be used in order to comply with emission limits.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.