



User Manual

POC-S196

19" Slim Point-of-Care Terminal

Trusted ePlatform Services

ADVANTECH

Instructions for the User

The document combines text and illustrations, providing a comprehensive overview of the system. The information is presented as sequential steps of action, allowing the user to learn directly how to use the device.

The text provides explanations and instructs the user step-by-step in the practical use of the product, with short, clear instructions in easy-to-follow sequence.

Definitions

Warning! A *WARNING* statement provides important information about a potentially hazardous situation which, if not avoided, could result in death or serious injury.



Caution! A *CAUTION* statement provides important information about a potentially hazardous situation which, if not avoided, may result in minor or moderate injury to the user or patient or in damage to the equipment or other property.



Note! A *NOTE* provides additional information intended to avoid inconveniences during operation.



Safety Instructions

Strictly follow these instructions for use and please read them carefully. Keep this User's Manual for later reference. Any use of the product requires full understanding and strict observation of all portions of these instructions. Observe all WARNINGS and CAUTIONS as rendered throughout this manual and on labels on the equipment.

Repair of the device may only be carried out by trained service personnel. It is recommended that a service contract be obtained with Advantech and also that all repairs be carried out by them. Failure to do so may result in the incorrect functioning of the device.

Warning! *Due to the danger of electric shock, never remove the cover of a device while it is in operation or connected to a power outlet.*



If one of the following situations arises, have the equipment checked by service personnel:

- a. The power cord or plug is damaged.
- b. Liquid has penetrated the equipment.
- c. The equipment has been exposed to moisture.
- d. The equipment does not work well, or you cannot get it to work according to the user's manual.
- e. The equipment has been dropped and damaged.
- f. The equipment has obvious signs of breakage.

Disconnect this equipment from any AC outlet before cleaning. Use a damp cloth. Do not use liquid or spray detergents for cleaning and keep this equipment away from humidity.

Caution! *To avoid short-circuits and otherwise damaging the device, do not allow fluids to come in contact with the device. If fluids are accidentally spilled on the equipment, remove the affected unit from service as soon as possible and contact service personnel to verify that patient safety is not compromised.*



Put this equipment on a reliable surface during installation. Dropping it or letting it fall may cause damage. For plug-in equipment, the power outlet socket must be located near the equipment and must be easily accessible.

Caution! *To prevent overheating, it is recommended to install the unit in an upright position. Do not lie it flat on a table and do not cover the openings or place the device in direct sunlight or near radiant heaters.*



Make sure the voltage of the power source is correct before connecting the equipment to the power outlet. Position the power cord so that people cannot step on it. Do not place anything over the power cord. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient over voltage.

Caution! Do not leave this equipment in an uncontrolled environment where the storage temperature is below -20°C (-4°F) or above 60°C (140°F). This may damage the equipment.



If your computer clock is unable to keep accurate time or the BIOS configuration resets to default, please check the battery.

Caution! Do not replace the battery yourself. Please contact a qualified technician or your retailer.



The computer is provided with a battery-powered real-time 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 the manufacturer's instructions.

Improper installation of VESA mounting can result in serious personal injury! VESA mount installation should be completed by a professional technician, please contact the service technician or your retailer if you need this service. The detailed installation procedure is specified in Appendix A.

CLASSIFICATION:

- Supply Class I adapter
- No applied parts
- IPX1
- Continuous operation
- Not categorized as AP or APG

Warning! This device is not suitable for use in the presence of flammable anesthetic mixture with air, oxygen, nitrous oxide, or as a life support system.



Maintenance: To properly maintain and clean the surfaces, use only the approved products or clean with a dry applicator.

Caution! When servicing the device, always use replacement parts that meet Advantech standards. Advantech Medical cannot warrant or endorse the safe performance of third-party replacement parts for use with our medical device.



Make sure users do not come in contact with SIP/SOPs and the patient at the same time.

When connecting electrical devices, the operator is responsible for ensuring that the resulting system meets the requirements set forth by the following standards:

EN 60601-1 (IEC 60601-1)

Medical electrical equipment

Part 1: General requirements for safety

EN 60601-1-1 (IEC 60601-1-1)

Medical electrical equipment

Part 1-1: General requirements for safety

Collateral standard: Safety requirements for Medical electrical systems

EN 60601-1-2 (IEC 60601-1-2)

Medical electrical equipment

Part 1-2: General requirements for safety

Collateral standard: Electromagnetic compatibility; Requirements and tests

**Medical Equipment**

With Respect to Electric Shock,
Fire, and Mechanical Hazards Only,
In Accordance with UL 60601-1,
CAN/CSA C22.2 No. 601.1, and
IEC 60601-1

Accessory equipment connected to the analog and digital interfaces must be in compliance with the respective nationally harmonized IEC standards (i.e. IEC 60950 for data processing equipment, IEC 60065 for video equipment, IEC 61010-1 for laboratory equipment, and IEC 60601-1 for medical equipment). Furthermore all configuration should comply with the system standard IEC 60601-1-1. Anyone who connects additional equipment to the signal input or signal output is configuring a medical system, and is therefore responsible that the system complies with the requirements set forth in standard IEC 60601-1-1. The unit is for exclusive interconnection with IEC 60601-1 certified equipment in the patient environment and IEC 60XXX certified equipment outside of the patient environment. If in doubt, consult the technical services department or your local representative.

FCC Class B

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 against harmful interference when the equipment is operated in a residential environment. This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with this user's manual, it may cause harmful interference to radio communications.

Note that even when this equipment is installed and used in accordance with this user's manual, there is still no guarantee that interference will not occur. If this equipment is believed to be causing harmful interference to radio or television reception, this can be determined by turning the equipment on and off. If interference is occurring, 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 the receiver.
- Connect the equipment to a power outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Warning! *Any changes or modifications made to the equipment which are not expressly approved by the relevant standards authority could void your authority to operate the equipment.*



List of Accessories

Before installing your Point-of-Care Terminal, ensure that the following materials have been received:

- POC-S196 series Point-of-Care Terminal
- Accessories for POC-S196
 - CD-ROM disc-"Drivers, User's manual and Utilities"
 - Mounting kits and packet of screws
 - External DC adapter (Manufacturer: SINPRO Model no.: MPU100-107)

Warning! *No user serviceable parts inside, refer servicing to qualified personnel.*



Only the accessories indicated on the list of accessories above have been tested and approved to be used with the device. Accordingly It is strongly recommended that only these accessories be used in conjunction with the specific device. Otherwise the correct functioning of the device may be compromised.

Additional Information and Assistance

Contact your distributor, sales representative, or Advantech's customer service center for technical support if you need additional assistance. Please have the following information ready before you call:

- Product name and serial number
- Description of your peripheral attachments
- Description of your software (operating system, version, application software, etc.)
- A complete description of the problem
- The exact wording of any error messages
- This equipment is a source of electromagnetic waves. Before use please make sure that there are not EMI sensitive devices in its surrounding which may otherwise malfunction.

Manufacturer

Advantech Co., Ltd.

No.1, Alley 20, Lane 26, Reuiguang Road Neihu District, Taipei,

Taiwan 114, R.O.C.

TEL: (02)27927818

Distributed in Europe by:

Advantech Europe GmbH Kolberger Straße 7

D-40599 Düsseldorf, Germany

Tel: 49-211-97477350

Fax: 49-211-97477300

Visit the Advantech websites at www.advantech.com or www.advantech.com.tw if you need more information.

Contents

Chapter 1	General Information	1
1.1	Introduction	2
1.2	Specifications	2
	Table 1.1: Touchscreen Specification	4
1.3	LCD Specifications	5
1.4	Dimensions	5
	Figure 1.1 Dimensions of the POC-S196	5
Chapter 2	System Setup	7
2.1	A Quick Tour of the POC-S196	8
	Figure 2.1 Front view of the Point-of-care terminal	8
	Figure 2.2 Rear view of the Point-of-care terminal	9
2.2	Installation Procedures	10
2.2.1	Connecting the Power Cord	10
	Figure 2.3 Connecting the power cord	10
2.2.2	Switch on the Power	10
2.3	Running the BIOS Setup Program	11
2.4	Installing System Software	11
2.5	Installing the Drivers	12
	Figure 2.4 The file directory on the "Drivers and Utilities" CD-ROM	12
	12	
Chapter 3	Chipset and Graphics Setup	13
3.1	Introduction	14
3.1.1	Chipset	14
3.1.2	Display Memory	14
3.1.3	DVI Transmitter	14
3.1.4	Display Types	14
3.2	Installation of Chipset Driver	15
3.2.1	Installation for Windows XP	16
Chapter 4	Audio Interface	21
4.1	Introduction	22
4.2	Installation of Audio Driver	22
4.2.1	Installation for Windows 2000/XP	23
4.3	Further Information	24
Chapter 5	PCI Express Ethernet Interface	25
5.1	Introduction	26
5.2	Installation of the Ethernet Driver	26
5.2.1	Installation for Windows XP	26
5.3	Further Information	28
Chapter 6	Touch Panel Interface	29
6.1	Introduction	30

6.2	Installation of Touch Panel Driver	30
6.2.1	Installation for Windows XP	30
6.3	Further Information	34
Chapter 7	Utilities and Hot Fixes	35
7.1	Introduction	36
7.2	Wakeup by External USB Device at S3 Resume (Wakeup)	36
7.2.1	Installation for Windows XP	36
7.3	Window Audio Volume Application	36
7.3.1	Installation for Windows XP	36
Chapter 8	Operation Information	37
8.1	Plug in the Power Adapter	38
8.2	Thermal Information	38
8.3	Disconnect the Power	38
8.4	General Safety Guide	39
Appendix A	Description of Connectors	41
A.1	Description of Connectors	42
	Figure A.1 POC-S196 motherboard top side view showing all local connectors	42
	Figure A.2 POC-S196 motherboard bottom side view showing all local connectors	43
	Table A.1: Description of Connector	44
Appendix B	Windows Display Hot Key Function	45
B.1	Windows Display Hot Key Function	46

Chapter 1

General Information

Sections include:

- Introduction
- Specifications
- LCD Specifications
- Dimensions

1.1 Introduction

The POC-S196 is a multimedia Intel® Core™ Duo Mobility processor-based computer that is designed to serve as a Point-of-Care terminal (POC.) It is a PC-based system with 19" color TFT LCD display, Single DVI-I Port, Dual on-board 10/100/1000 Ethernet port, Single COM port, Quad USB 2.0 port and a 24-bit stereo audio controller. With a built-in 2.5" HDD drive, the POC-S196 is as slim and user-friendly as a notebook computer, and generates low audible noise. For system integrators, this silent, compact, mobile and highly integrated multimedia system lets you easily build a Point-of-Care Terminal into your applications. The low audible noise of the POC-S196 makes it an ideal and safe point-of-care solution for patients and hospital practitioners.

The POC-S196 is specially designed to resist spills and water damage, and ensures dust resistance with its protected LCD and sealed ports. The high contrast ratio (1300:1) of the POC-S196 makes it a perfect image terminal for PACS and DICOM applications. The POC-S196 is a reliable solution to your application's processing requirements.

1.2 Specifications

General

- **Dimensions (W x H x D):** 471.5 x 416.2 x 110.8 mm (18.56" x 16.38" x 4.36")
- **Weight:** 10 kg (22.0 lb.)
- **Power Supply:**
 - **DC model:** 100 watts max External DC Adapter- (Manufacturer: SINPRO Inc. Model no.: MPU100-107) used within POC-S196XXXXXXXX
 - **Input voltage:** 100-240 VAC, 47-63 Hz, 1.25-0.5 A
 - **Output voltage:** +18 VDC, 5.55 A max
- **Disk drive housing:** Space for one 2.5" SATA HDD
- **Entire system:** IPX1 compliant

Hardware

- **CPU:** Intel® Core Duo® processor low voltage L2400 1.66 GHz (uFC BGA479)
- **BIOS:** Award 512 KB Flash BIOS, supports Plug & Play, APM
- **Chipset:** 945 GME GMCH, (ICH7M)
- **Front side bus:** FSB 533/667 MHz
- **RAM:** 200-pin DDR2 SODIMM slots x 2, supports unbuffered 533/667 MHz DDR2-SDRAM (Non ECC), maximum capacity to 4 GB
- **IDE interface:** ATA/100 x 1. Supports one IDE device.
- **SATA interface:** SATA x 2. Supports one SATA device.
- **Serial ports:** RS-232 port x 1, all compatible with 16C550 UARTs. COM1 has optical isolation; COM1 supports +5V by jumper selection.
- **Universal serial bus (USB) port:** USB2.0 port x 6 (4 external, 2 internal)
- **Expansion slot:** Mini PCI/33MHz slot x 1, Mini PCI-E(2.5Gb/s) slot x 1
- **Watchdog timer:** supports Super I/O embedding watchdog function. Automatically generates system reset when the system stops due to a program error.
- **CMOS battery (BIOS):** 3.0 V @ 195 mA lithium battery

Display interface

- **SDVO interface:** Chrontel 7307C Single channel DVI transmitter to support External Single display
- **Display resolution:** Supports 24 bits digital output (DVI-I port) resolutions up to 1600 x 1200 at 60 Hz
- **Graphic chipset:** Intel® Graphics Media Accelerator 950 engine
- **Shared memory:** Dynamic Video Memory Technology (DVMT) 3.0 to dynamically allocate up to 224 MB of system memory for graphics usage.
- **Display type:** Simultaneously supports CRT

Audio function

- **Chipset:** Realtek ALC888, compliant with Intel HDA
- **Audio controller:** 24-bit codec, full-duplex stereo codec
- **Audio interface:** Microphone-in, Line-out

Ethernet interface

- **Chipset:** RTL8111B PCI express high performance Gigabit Ethernet controller
- **Ethernet interface:** Gigabit Ethernet port x 2, fully integrated Gigabit Ethernet Media Access Control (MAC) and Physical Layer (PHY) functions, and each provides a standard IEEE 803.3 Ethernet interface for 1000 BASE-T, 100 BASE-TX and 10 BASE-T application.

Optional modules

- **Memory:** 512 MB/1GB/2GB, DDR2-533/667 MHz SODIMM
- **HDD:** 2.5", 40 GB/80 GB, 5400 rpm, SATA HDD
- **Mini PCI WLAN module:** 802.11 b/g/n WLAN
- **Mini PCI-E WLAN module:** 802.11 a/b/g/n WLAN

Environment

- **Temperature:** 0 ~ 35°C (32 ~ 95 °F)
- **Relative humidity:**
 - 10 °C to 40 °C / 20% RH to 90% RH operating
 - -20 °C to 50 °C/ 10% RH to 95% RH Storage (Non-condensing)
- **Shock:** 20 G, half sine, 11 msec duration
- **Vibration:** 0.047 double amplitude displacement (5~32 Hz) 2G Peak (32 -500 Hz)
- **Power MTBF:** 100,000 hrs
- **Altitude:** Operational: 6,000 feet; Shipping: 40,000 feet
- **Certifications:**
 - EMC: CE, FCC approved
 - Safety: UL60601-1 and EN60601-1 approved

This device bears the CE label in accordance with the provisions of the EMC Directive 89/336/EMC and the Low Voltage Directive 73/23/EEC.

Touchscreen (optional)

Table 1.1: Touchscreen Specification

Type	Analog Resistive
Resolution	Continuous
Light Transmission	75%
Controller	RS-232 interface (uses COM3)
Power Consumption	+5V@200 Ma
Software Driver	Supports Windows 2000,Windows XP
Durability (touches in a lifetime)	30 million

Note! *The Point-of-Care Terminal with the optionally installed touchscreen will share COM3. Once the touchscreen is installed, COM3 cannot be used for other purposes.*



Optional modules

- Memory: 512 MB, 1 GB, 2 GB DDR2 533/667MHz DRAM
- HDD: 2.5" SATA HDD
- Touchscreen: Analog resistive

Cleaning/Disinfecting

During normal use, the POC-S196 may become soiled and should therefore, be cleaned regularly. Agents: Green tintured soap and Enzymatic detergents

Steps:

1. Wipe the POC-S196 with a clean cloth that has been moistened in the cleaning solution.
2. Prepare agent per manufacturer's instructions or hospital protocol.
3. Wipe thoroughly with a clean cloth.

Caution! *Do not immerse or rinse the POC-S196 or its peripherals. If you accidentally spill liquid on the device, disconnect the unit from the power source. Contact your Biomed department regarding the continued safety of the unit before placing it back in operation.*



Do not spray cleaning agent on the chassis.

Do not use disinfectants that contain phenol. Do not autoclave or clean the POC-S196 or its peripherals with strong aromatic, chlorinated, ketone, ether, or Esther solvents, sharp tools or abrasives. Never immerse electrical connectors in water or other liquids.

1.3 LCD Specifications

- **Display type:** 19" TFT LCD.
- **Resolution:** 1280 x 1024
- **Colors:** 16.7 M (8 bits/color)
- **Dot size (mm):** 0.294 x 0.294
- **Viewing angle:** 178° x 178°
- **Luminance:** 300 cd/m²
- **Contrast ratio:** 1300 : 1
- **LCD MTBF:** 50,000 hours
- **Backlight lifetime:** 50,000 hours

1.4 Dimensions

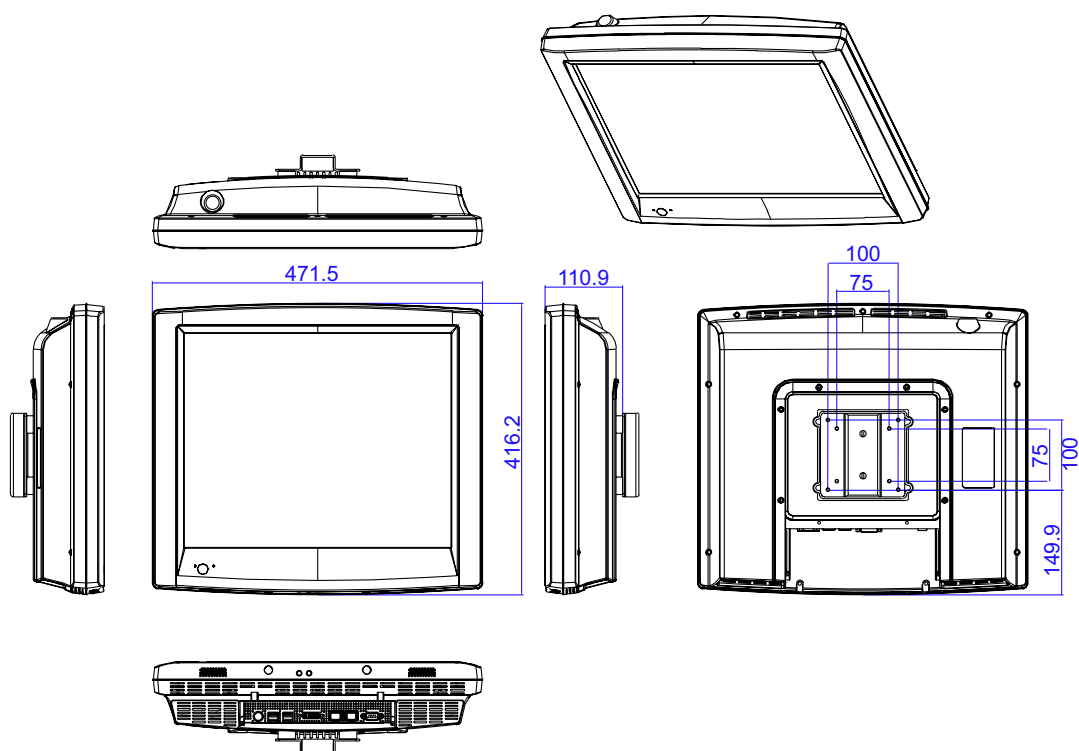


Figure 1.1 Dimensions of the POC-S196

Chapter 2

System Setup

Sections include:

- A Quick Tour of the POC-S196
- Installation Procedures
- Running the BIOS Setup Program
- Installing System Software
- Installing the Drivers

2.1 A Quick Tour of the POC-S196

Before you start to set up the POC-S196, take a moment to become familiar with the locations and purposes of the controls, drives, connections and ports, which are illustrated in the figures below.

When you place the POC-S196 upright on the desktop, its front panel appears as shown in Figure 2.1.

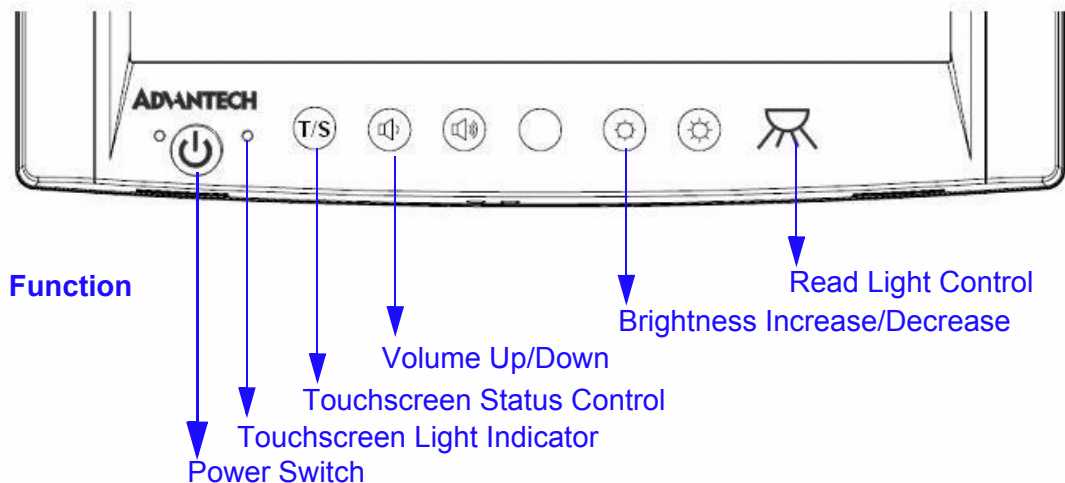


Figure 2.1 Front view of the Point-of-care terminal

Specifications

- **Read Light:** two at the bottom of the unit (Right, Left side)
- **Brightness Increase/Decrease:** meter controllers have 32/64 step output level
- **Volume Up/Down:** meter controllers have 32/64 steps output level
- **Touchscreen Status Control:** connect to touchscreen light indicator
- **Audio Codec to GPIO:** yes
- **Audio Codec:** mic-in, line-out
- **Trim Knob Option:** yes, USB interface
- **RoHS:** yes

Default

- **Read light:** disabled
- **Brightness:** middle high
- **Volume:** middle high
- **Touchscreen Status Control:** enabled

Turn the Point-of-Care Terminal around to look at its rear cover. The sunken I/O section is at the bottom of the panel PC, as shown in Figure 2.2. (The I/O section includes various I/O ports, including serial ports, DVI port, Ethernet port, USB ports, DC power adapter jack, and so on.)



Figure 2.2 Rear view of the Point-of-care terminal

2.2 Installation Procedures

2.2.1 Connecting the Power Cord

The POC-S196 can only be powered by a DC power adapter (SINPRO Model No MPU100-107). Always handle the power cords by holding the plug ends only.

Follow these procedures in order:

1. Connect the male end of the power adapter to the DC jack of the panel PC. (See Figure 2.3.)
2. Connect the female end of the power cord to the DC power adapter.
3. Connect the 3-pin male plug of the power cord to an electrical outlet.

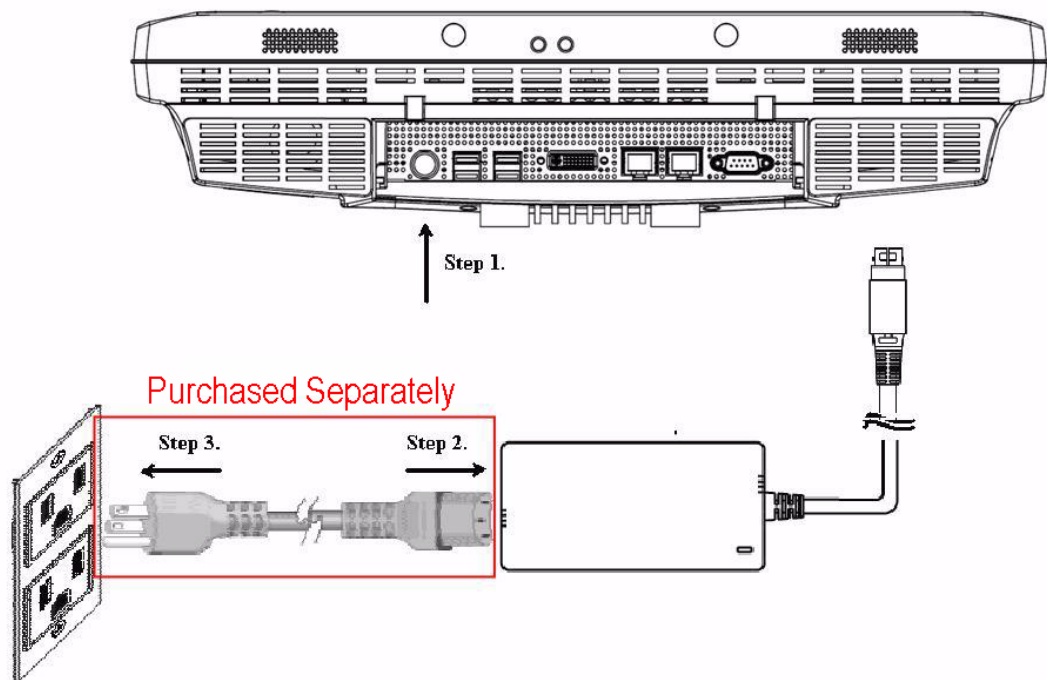


Figure 2.3 Connecting the power cord

2.2.2 Switch on the Power

Switch on the reset switch on the front cover (See Figure 2.1).

2.3 Running the BIOS Setup Program

The POC-S196 is likely to have been properly set up and configured by your dealer prior to delivery. It still may be necessary to use the BIOS (Basic Input-Output System) setup program to change system configuration information, such as the current date and time or type of hard drive. The setup program is stored in read-only memory. It can be accessed either by turning the unit on, or resetting the panel PC by pressing the "Ctrl+Alt+Del" key on the keyboard immediately after powering on the computer.

The settings specified with the setup program are recorded in a special area of memory called CMOS RAM. This memory is backed up by a battery so that it will not be erased when the unit is turned off or the system is reset. When power is turned on, the system reads the settings stored in CMOS RAM and compares them to the equipment check conducted during the power on self-test (POST). If an error occurs, an error message will be displayed on screen, and you will be prompted to run the setup program.

2.4 Installing System Software

Recent releases of operating systems from major vendors include setup programs which load automatically and guide the user through hard disk preparation and operating system installation. The guidelines below will help in determining the steps necessary to install the operating system on the panel PC hard drive.

Note! *Some distributors and system integrators may have already pre-installed system software prior to shipment of the panel PC.*



If required, insert the operating system's installation or setup diskette into the external diskette drive until the release button pops out.

The BIOS support system boots up directly from the CD-ROM drive. The system installation CD-ROM disk may also be inserted in the external CD-ROM drive.

Power on or reset the system by pressing the "Ctrl+Alt+Del" keys simultaneously. The Point-of-Care Terminal will automatically load the operating system from the diskette or CD-ROM.

If presented with the setup or installation program opening screen, follow the on-screen instructions. The setup program will guide you through preparation of the hard drive, and installation of the operating system.

2.5 Installing the Drivers

After installing the system software, you will be able to set up chipset, graphics, ethernet, audio and touchscreen functions from an external CD-ROM drive. All drivers except that for the CD-ROM drive are stored on a CD-ROM disc titled "Drivers and Utilities."

The standard procedures for installing the chipset, graphics, audio and ethernet drivers are described in Chapters 3, 4, 5, and 6 respectively.

The drivers and utilities on the CD-ROM disc have their own text files which help users install the drivers and document their functions. These files are a very useful supplement to the information in this manual.

For reference, the directory containing drivers on the "Drivers and Utilities" CD-ROM is:

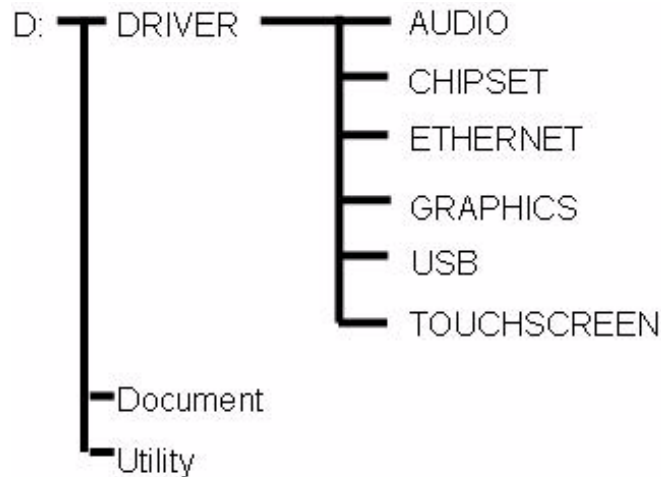


Figure 2.4 The file directory on the "Drivers and Utilities" CD-ROM

Note!



The drivers and utilities used for the POC-S196 panel PCs are subject to change without notice. If in doubt, check Advantech's website or contact our application engineers for the latest information regarding drivers and utilities.

Chapter 3

Chipset and Graphics Setup

Sections include:

- Introduction
- Installation of Chipset Driver

3.1 Introduction

The POC-S196 has an onboard display interface. The specifications and features are described below:

3.1.1 Chipset

The POC-S196 uses a Mobile Intel® 945GME Express chipset for its graphic controller. It supports an SDVO device, and CRT monitors. The Mobile Intel® 945GM Express Chipsets are designed for use with Intel's next generation mobile platforms: Intel® Centrino® Duo processor technology.

The Mobile Intel 945 Express Chipset Family come with a Generation 3.5 Intel Integrated Graphics Engine, and the Intel® Graphics Media Accelerator 950 (Intel® GMA 950), providing enhanced graphics support over the previous generation graphics and memory controller hubs (GMCH's).

3.1.2 Display Memory

The POC-S196 deploys Dynamic Video Memory Technology (DVMT) 3.0 to dynamically allocate up to 128 MB of system memory for graphics usage.

3.1.3 DVI Transmitter

The POC-S196 uses the Chrontel CH7307C for driving its DVI Ports. The CH7307C is a display controller device, which accepts digital graphics input signals, encodes and transmits data through a DVI link (DFP is also supported). The device accepts one channel of RGB data over three pairs of serial data ports.

The DVI processor includes a low jitter PLL for generation of the high frequency serialized clock, and all circuitry required to encode, serialize and transmit the data. The CH7307C is able to drive a DVI display at a pixel rate of up to 165MHz, supporting UXGA (1600x1200) resolution displays.

3.1.4 Display Types

The POC-S196 supports a single DVI-I jack for a single monitor.

The DVI-I jack supports both DVI Digital I/F and CRT RGB signal.

An analog CRT DAC interface supports a maximum DAC frequency up to 400 MHz, 24-bit RAMDAC, DDC2B compliant, and resolution up to QXGA 2048 x 1536.

3.2 Installation of Chipset Driver

Complete the following steps to install the Chipset driver. Follow the procedures in the flow chart that apply to the operating system that you are using with your POC-S196.

Note! *The following Windows illustrations are examples only. You must follow the flow chart instructions and pay attention to the instructions which appear on your screen.*



Note! *The CD-ROM drive is designated as “D” throughout this chapter.*



Note! *<Enter> means pressing the “Enter” key on the keyboard.*



Note! *Before installing the graphics driver of the POC-S196, please ensure you have installed the “Intel Chipset Software Installation Utility”. This can be found on the Utility CD-ROM.*



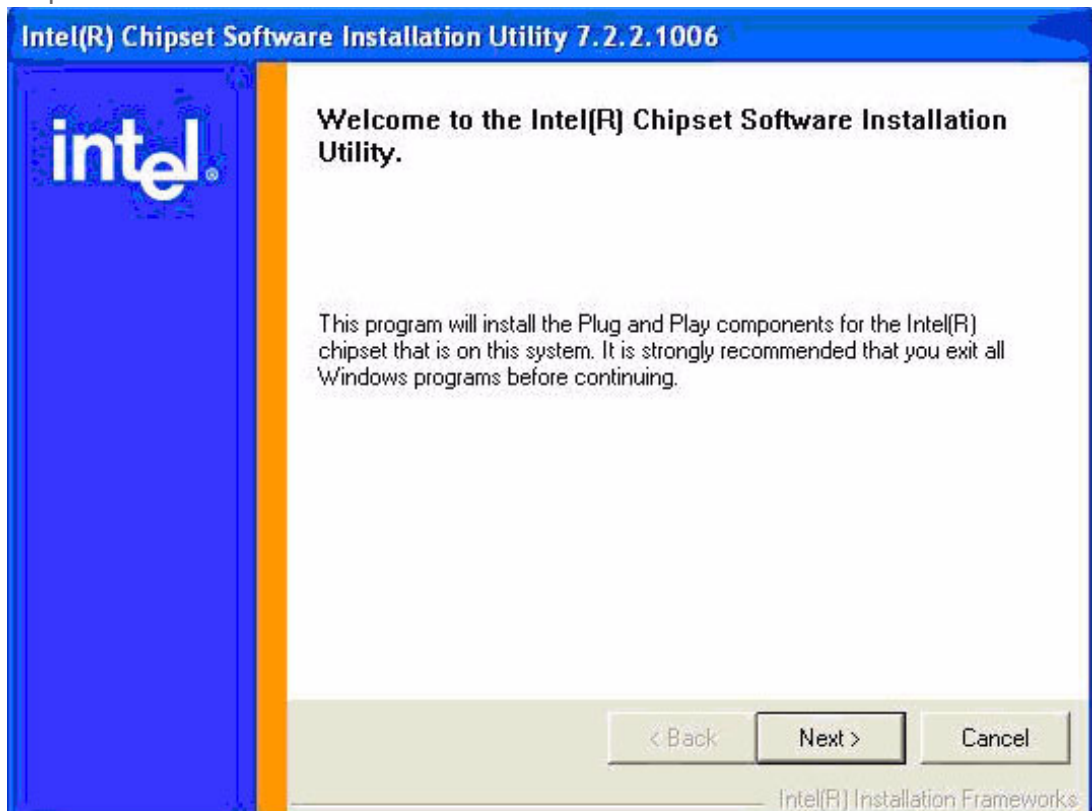
Note! *Resolution of the window display is set at 640 x 480 before installation of the graphics driver. The black area displayed by the monitor may vary depending on its native resolution.*



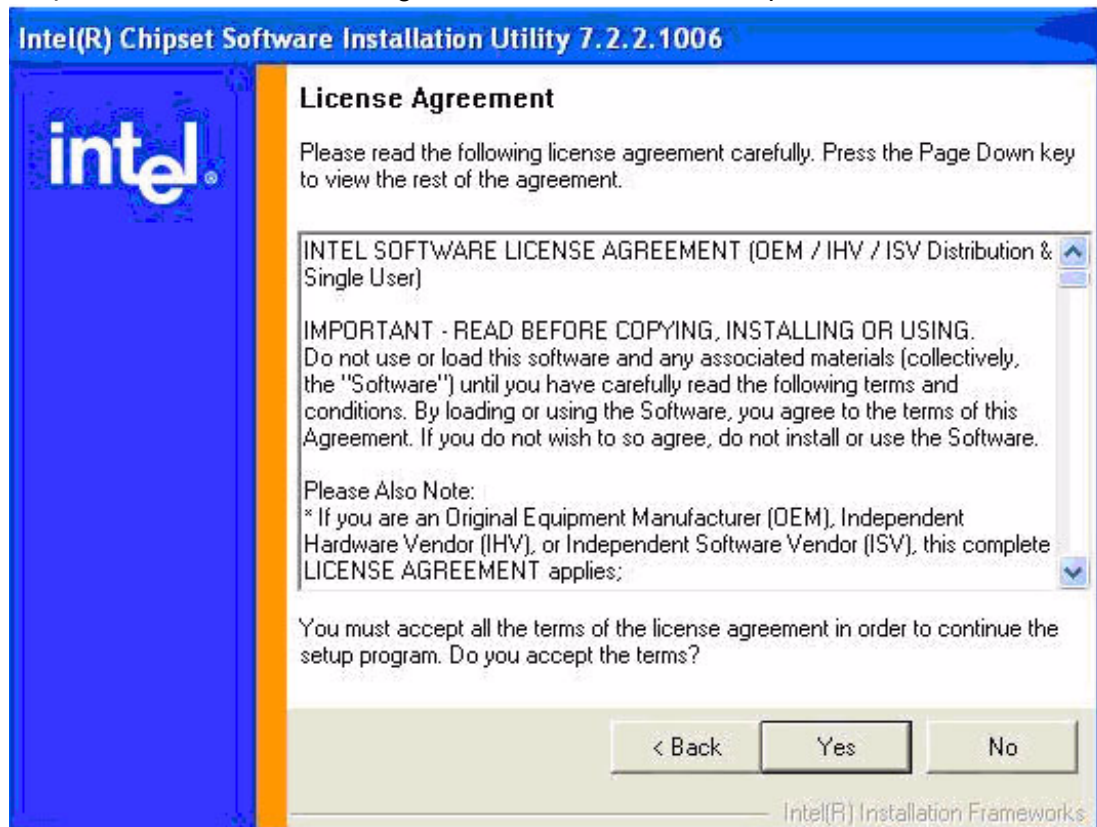
3.2.1 Installation for Windows XP

Step 1.1. Double Click "Setup.exe" in the D:\Driver\Chipset\ folder. The Install dialog will appear.

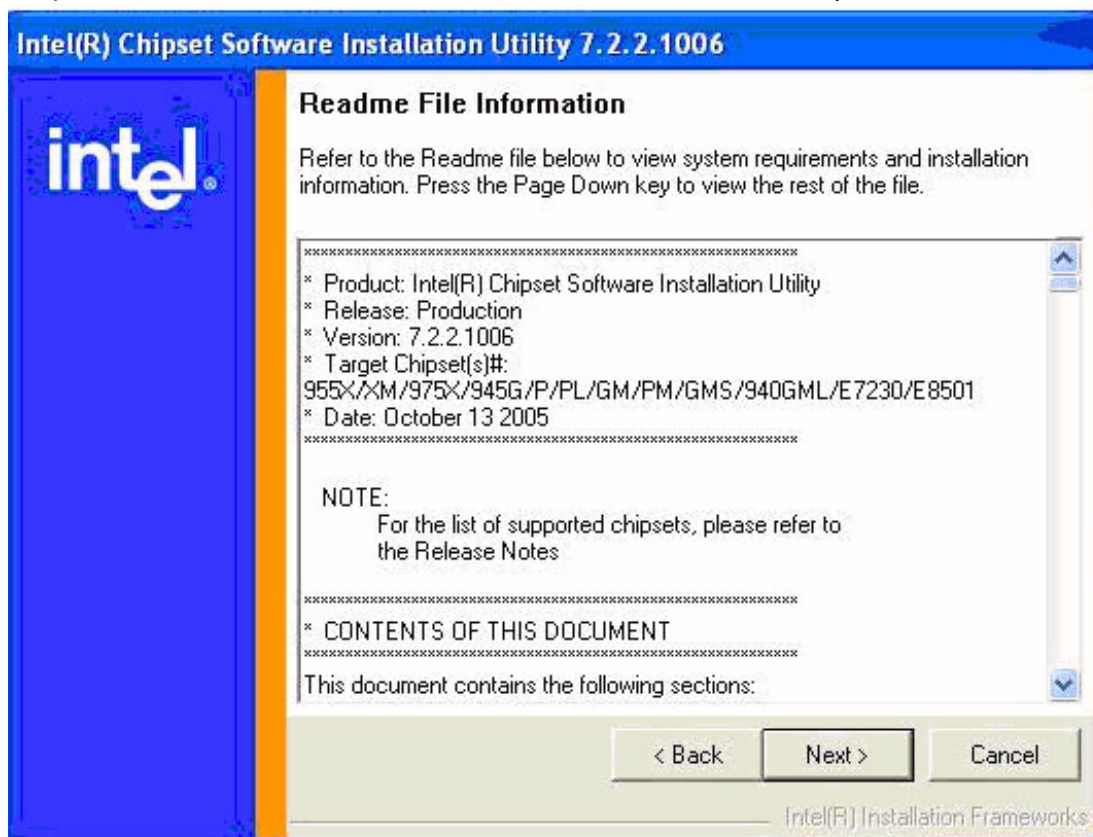
Step 1.2. Click "Next" to continue.



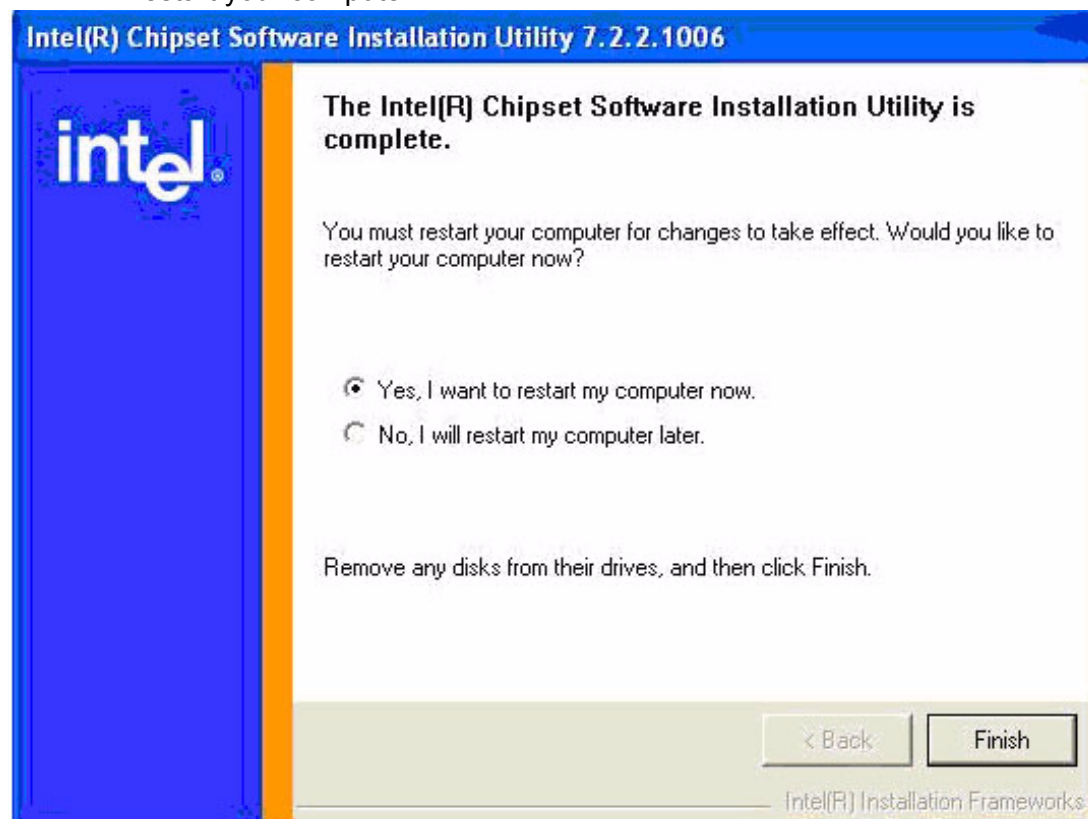
Step 1.3. Read the 'License Agreement' and click "Yes" to proceed.



Step 1.4. Read the 'Readme' file information and click "Next" to proceed.



Step 1.5. When the 'Installation is Complete' message appears, click 'Finish' to restart your computer.

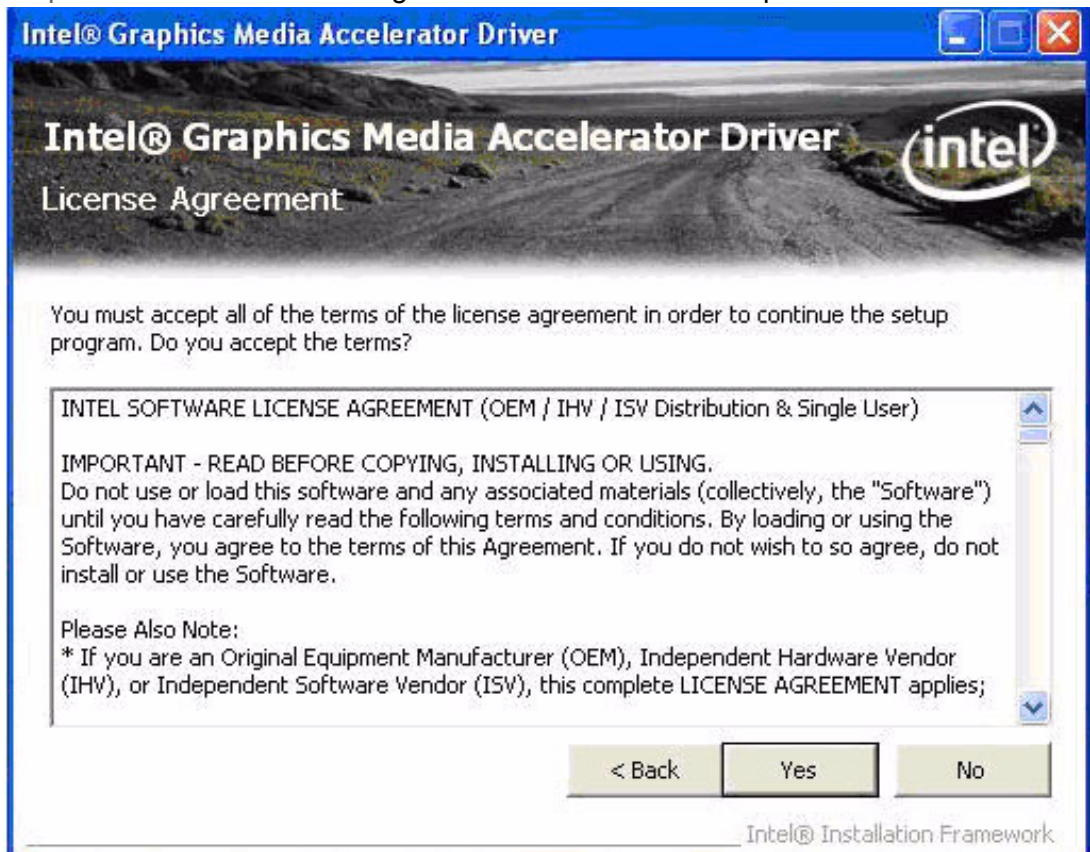


Step 2.1. Double Click “Setup.exe” in the D:\Driver\GRAPHICS folder. The Install dialog will appear.

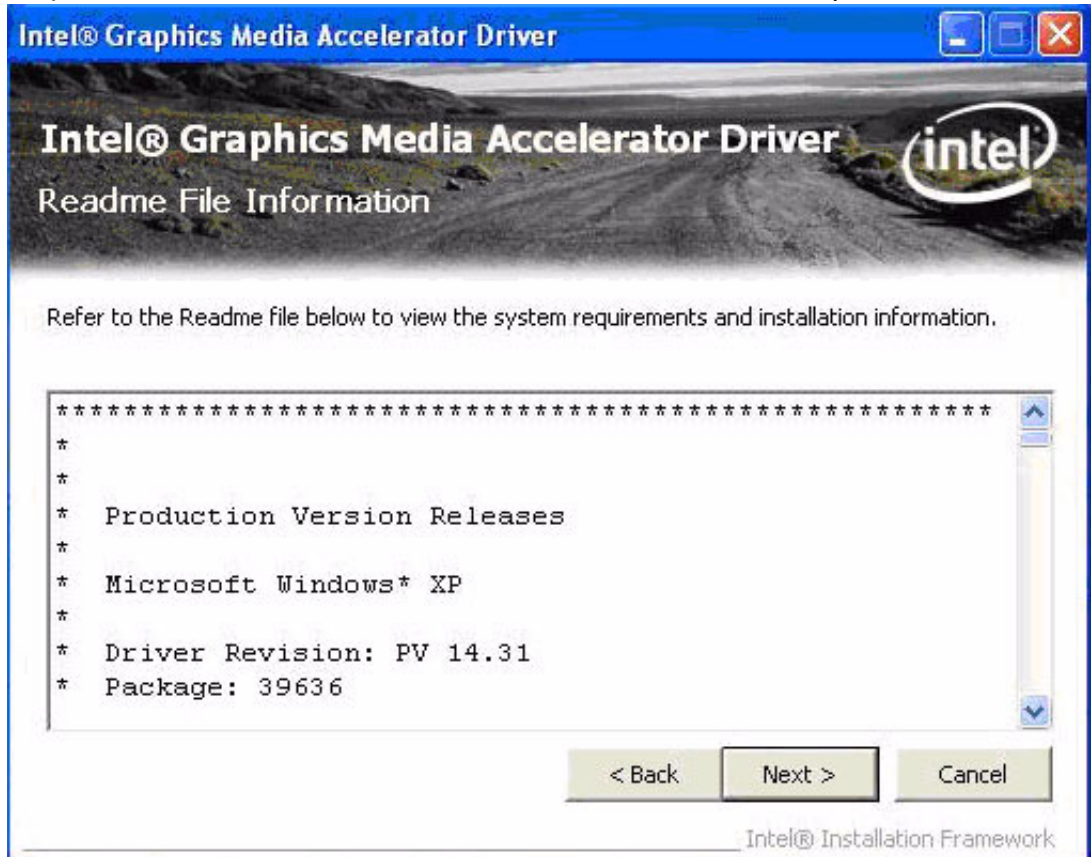
Step 2.2. Click “Next” to continue.



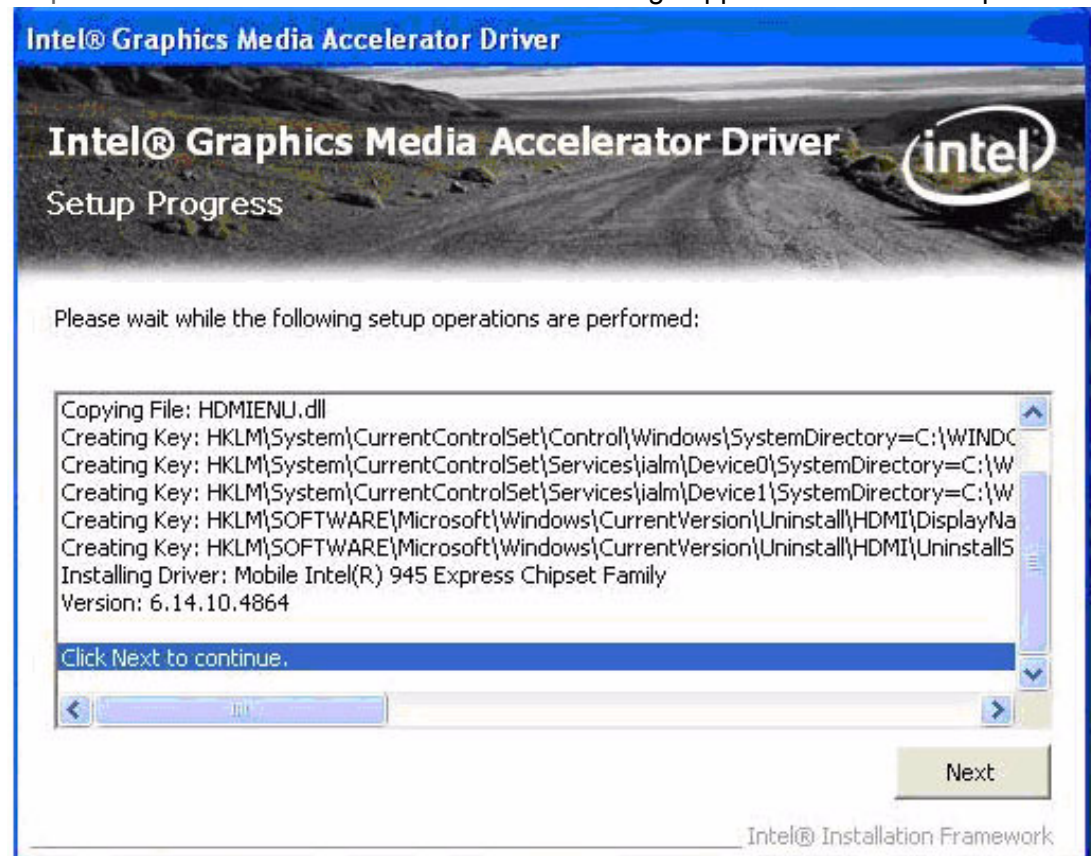
Step 2.3. Read the ‘License Agreement’ and click “Yes” to proceed.



Step 2.4. Read the 'Readme' file information and click "Next" to proceed.



Step 2.5. When the 'Click Next to continue' message appears click "Next" to proceed.



Step 2.6. When the 'Setup Is Complete' message appears click "Finish" to restart your computer.

Chapter 4

Audio Interface

Sections include:

- Introduction
- Installation of Audio Driver
- Further Information

4.1 Introduction

The POC-S196's onboard audio interface provides high-quality stereo sound by using the ALC888 audio controller from Realtek. The ALC888 series are high performance 7.1+2 channel High Definition Audio Codecs providing ten DAC channels that simultaneously support 7.1 sound playback, plus 2 channels of independent stereo sound output (multiple streaming) through the front panel stereo outputs.

All analog Jack is input and output capable, and the headphone amplifier is also integrated for each analog output. All analog I/Os can be re-tasked according to user definitions, or automatically switched depending on the connected device type.

4.2 Installation of Audio Driver

Before installing the audio driver, please take note of the procedures detailed below. You must know which operating system you are using with your POC-S196, and then refer to the corresponding installation flow chart. Following the steps in the flow chart you can quickly and successfully complete the installation, even if you are not familiar with Windows installation instructions.

This setup program will install the audio driver and Realtek utility on your system.

Note! *The following Windows illustrations are examples only. You must follow the flow chart instructions and pay attention to the instructions which appear on your screen.*



Note! *The CD-ROM drive is designated as "D" throughout this chapter.*



Note! *<Enter> means pressing the "Enter" key on the keyboard.*

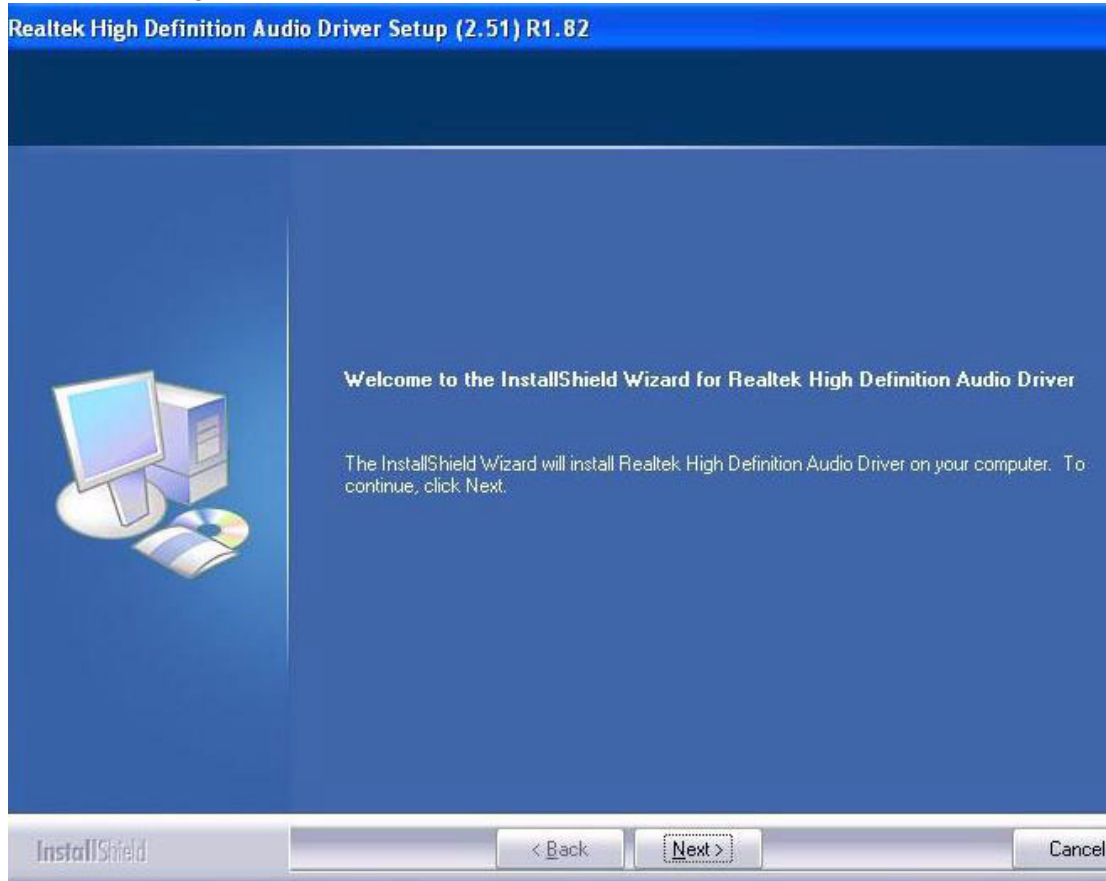


4.2.1 Installation for Windows 2000/XP

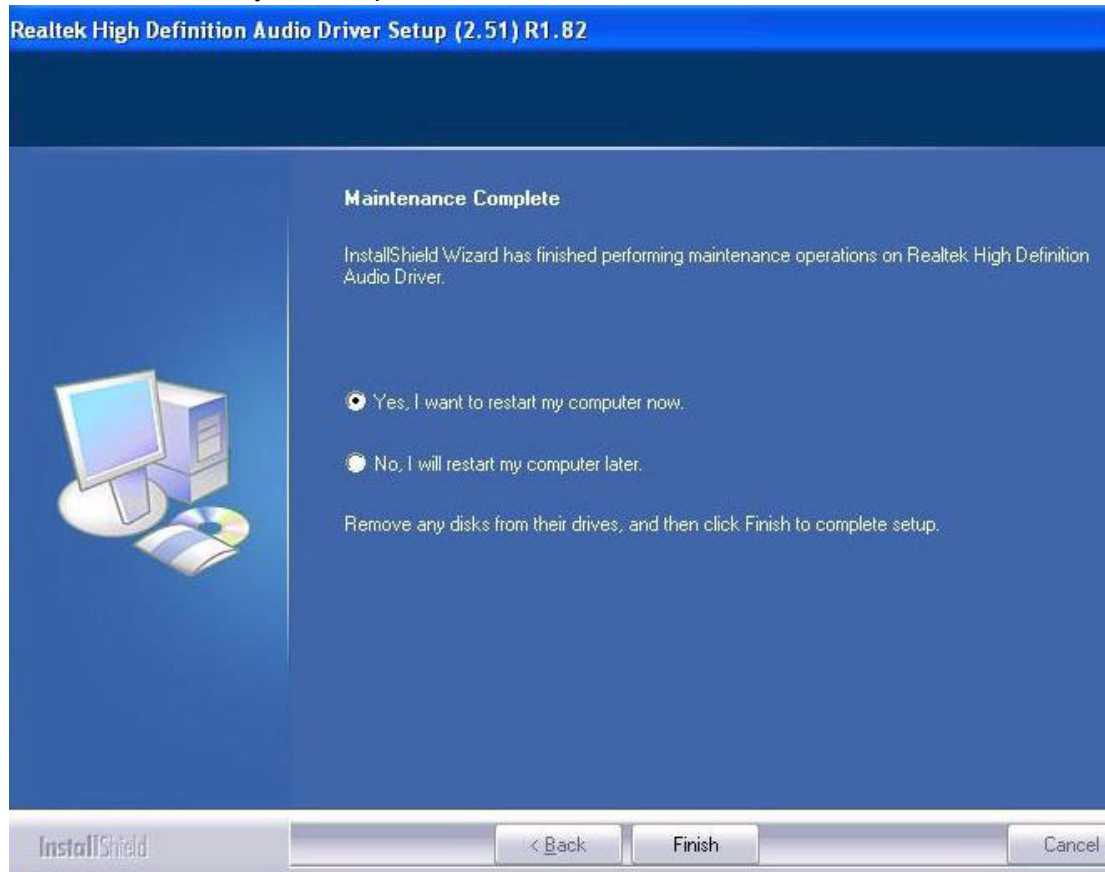
Step 1.1. Double Click "Setup.exe" in the D:\Driver\AUDIO folder. The Install dialog will appear.

Step 1.2. Click "Next" to continue.

The install program will install the driver and utilities. It will take some time to process.



Step 1.3. When the 'InstallShield Wizard Complete' message appears click "Finish" to restart your computer.



4.3 Further Information

For further information about the audio interface installation on your POC-S196, including driver updates, troubleshooting guides and FAQ lists please visit the following web resources:

Realtek website: www.realtek.com.tw

Advantech websites: www.advantech.com

www.advantech.com.tw

Chapter 5

PCI Express Ethernet Interface

Sections include:

- Introduction
- Installation of Ethernet Driver
- Further Information

5.1 Introduction

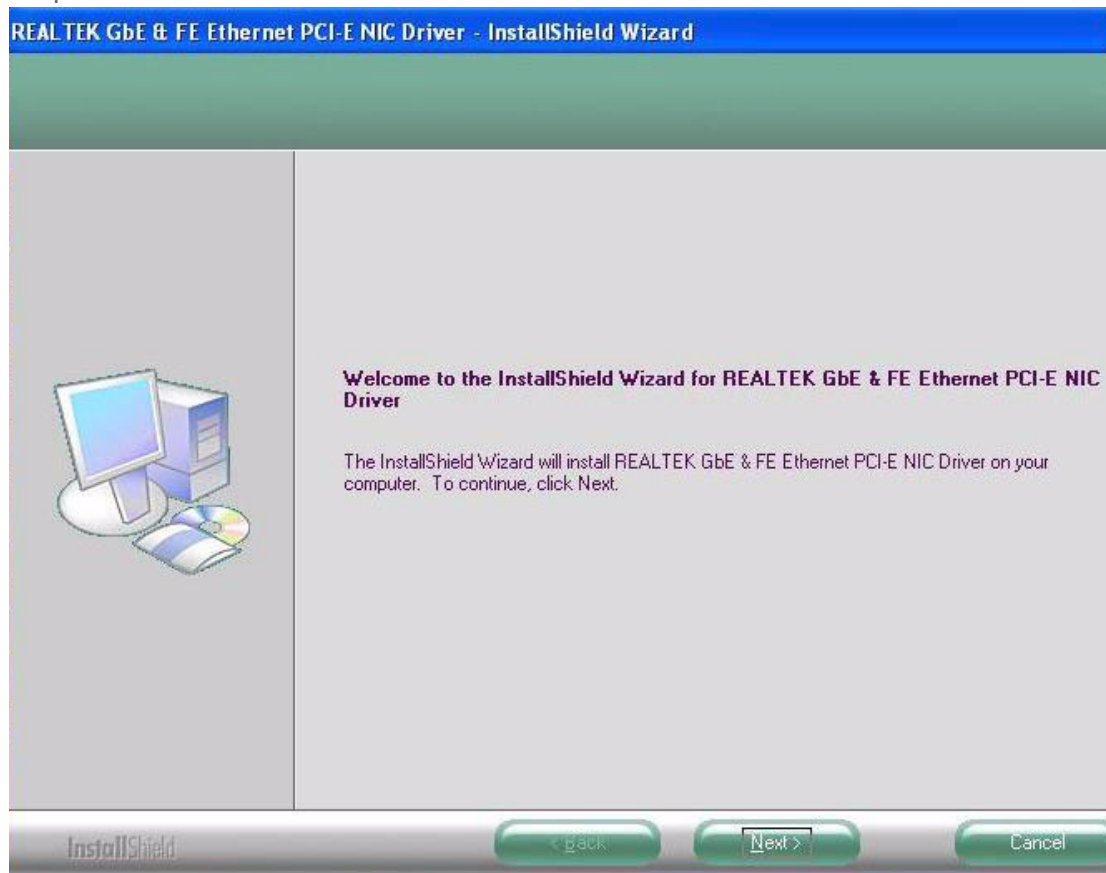
The POC-S196 is equipped with a high performance PCIe Ethernet chipset, the Realtek RTL8111B which is fully compliant with IEEE 802.3 10/100/1000 Mbps standards. The Ethernet port provides a standard RJ-45 jack.

5.2 Installation of the Ethernet Driver

5.2.1 Installation for Windows XP

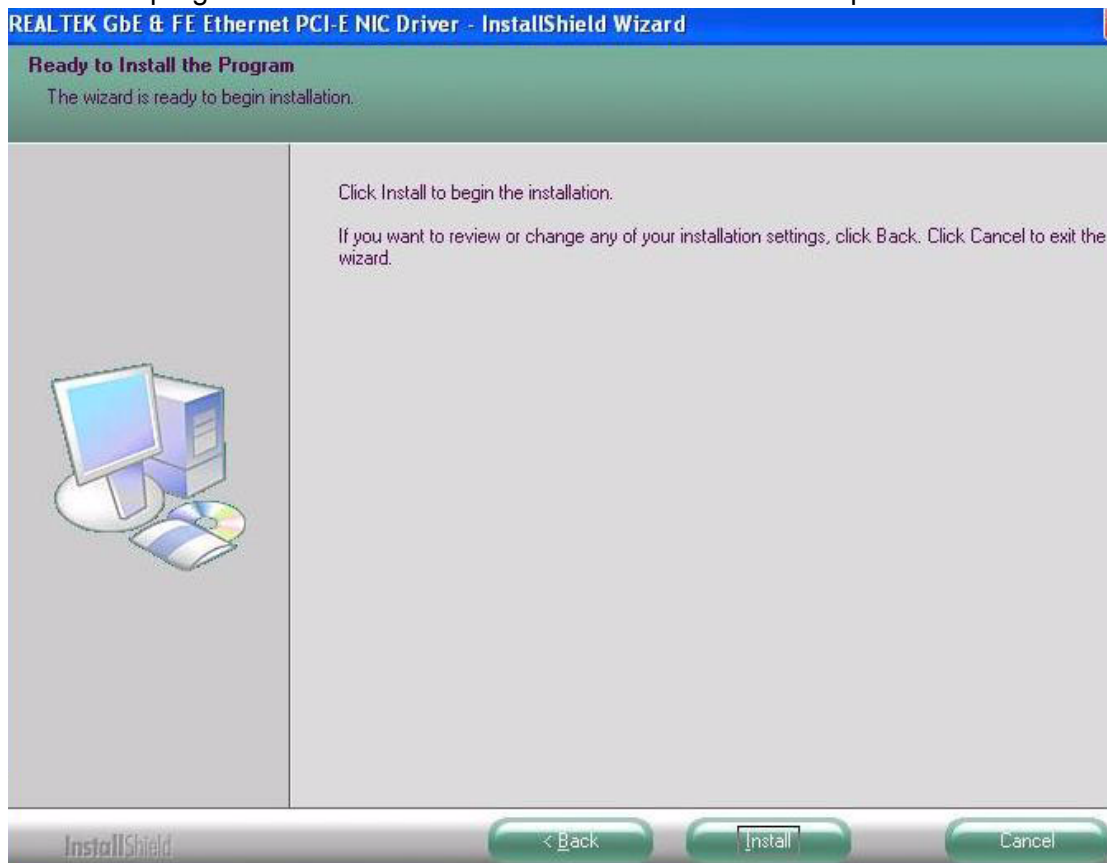
Step 1.1. Double Click “Setup.exe” in the D:\Driver\ETHERNET folder. The Install dialog will appear.

Step 1.2. Click “Next” to continue.

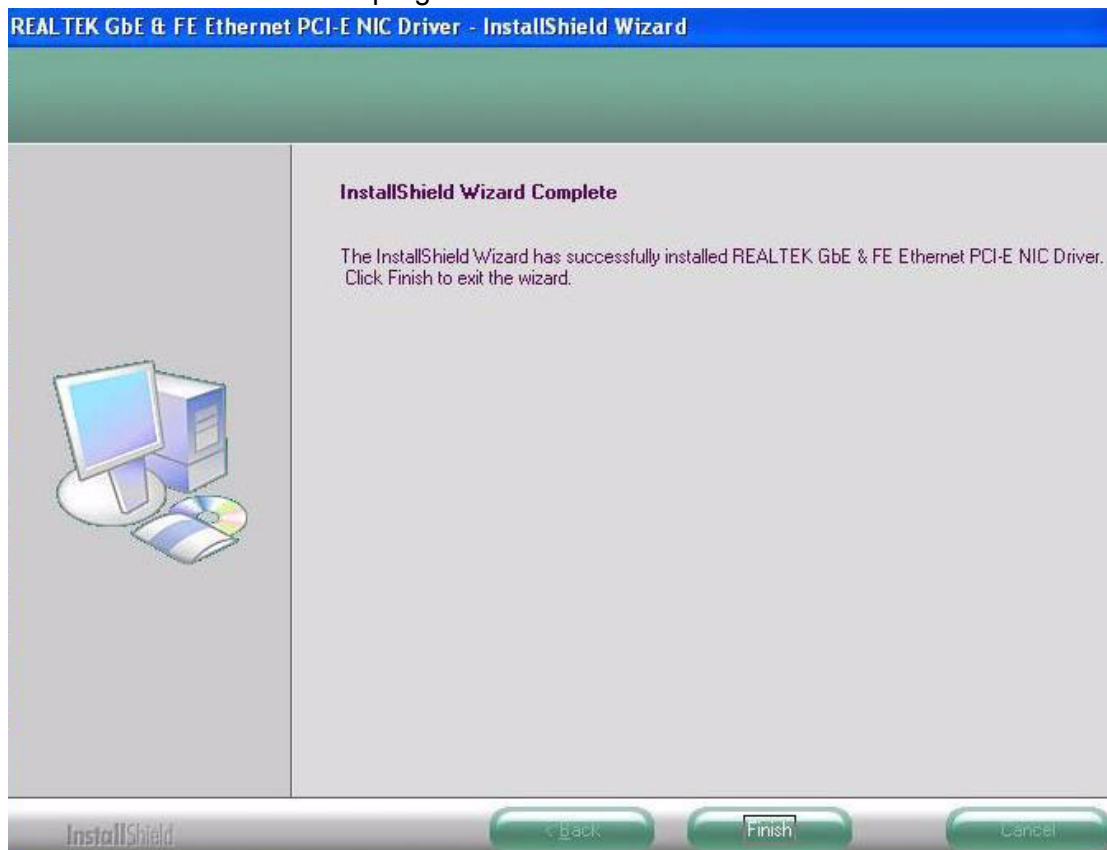


Step 1.3. Click “Install” to continue.

The install program will install the driver. It will take some time to process.



Step 1.4. When the 'InstallShield Wizard Complete' message appears click “Finish” to finish the install program.



5.3 Further Information

For further information about the installation on your POC-S196, including driver updates, troubleshooting guides and FAQ lists please visit the following web resources:

Realtek website: www.realtek.com.tw

Advantech websites: www.advantech.com

www.advantech.com.tw

Chapter 6

Touch Panel Interface

Sections include:

- Introduction
- Installation of Touch Panel Driver
- Further Information

6.1 Introduction

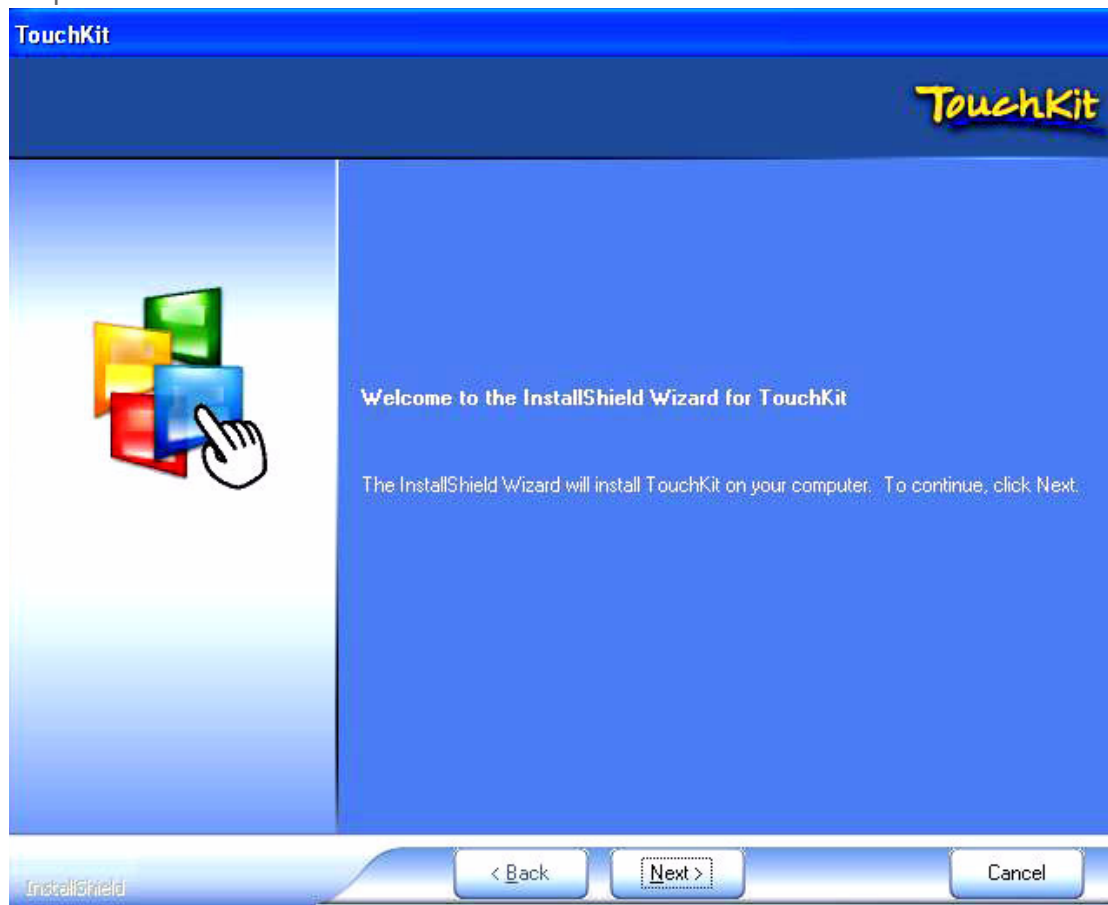
The POC-S196 is supported with a system-integrated touch panel. The touch panel controller is controlled by the COM3 interface.

6.2 Installation of Touch Panel Driver

6.2.1 Installation for Windows XP

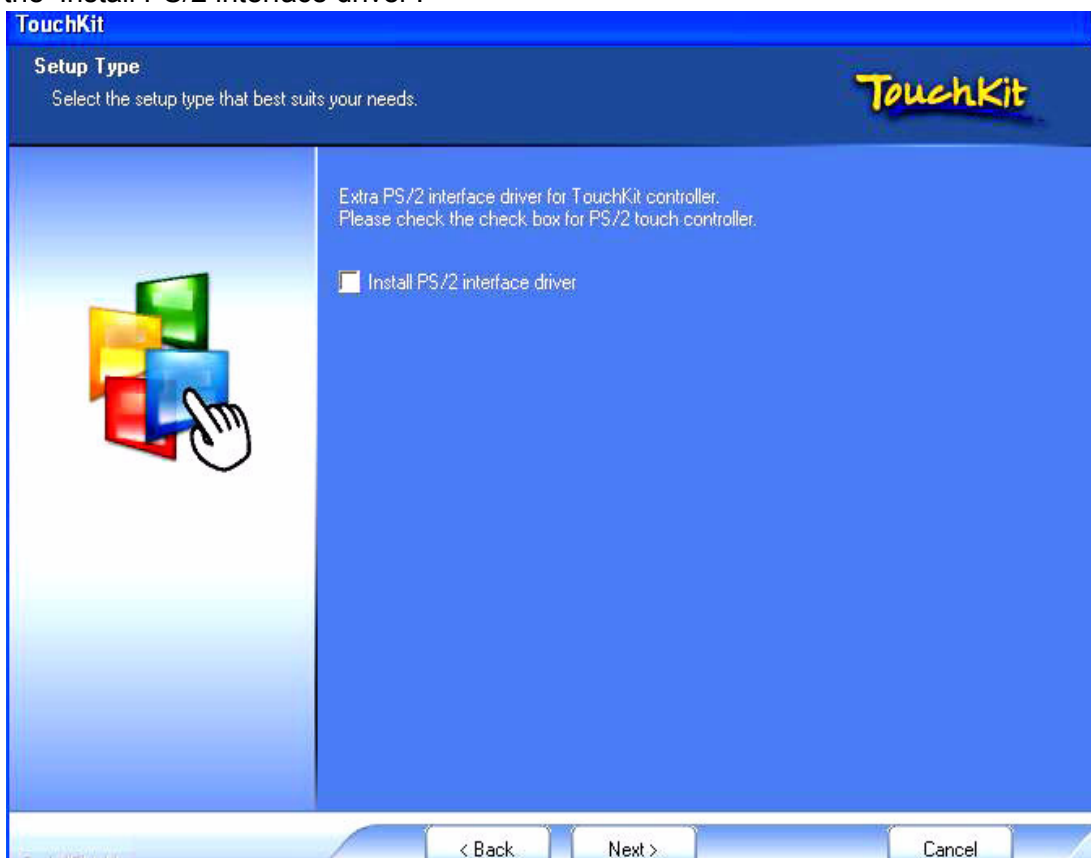
Step 1.1. Double click "Setup.exe" in the D:\Driver\TOUCHSCREEN folder. The Install dialog will appear.

Step 1.2. Click "Next" to continue.



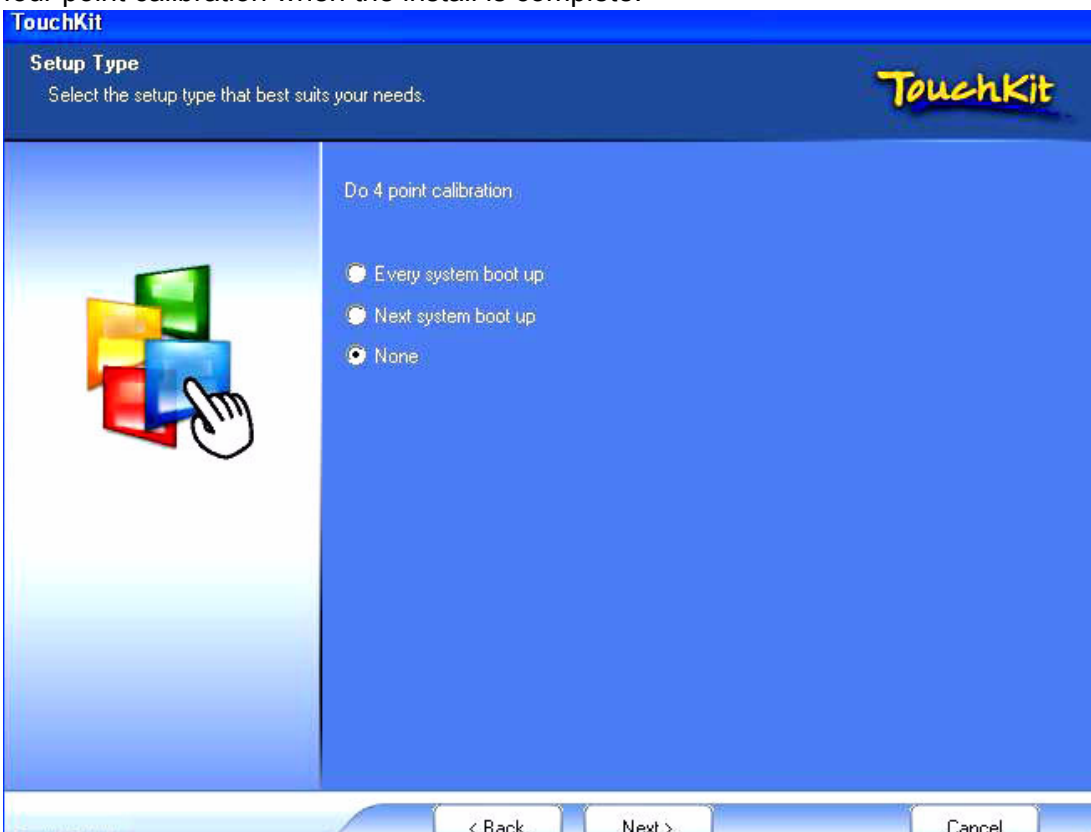
Step 1.3. Click “Next” to continue.

Since the POC-S196’s touch controller is controlled by COM3, please do not select the ‘Install PS/2 interface driver’.

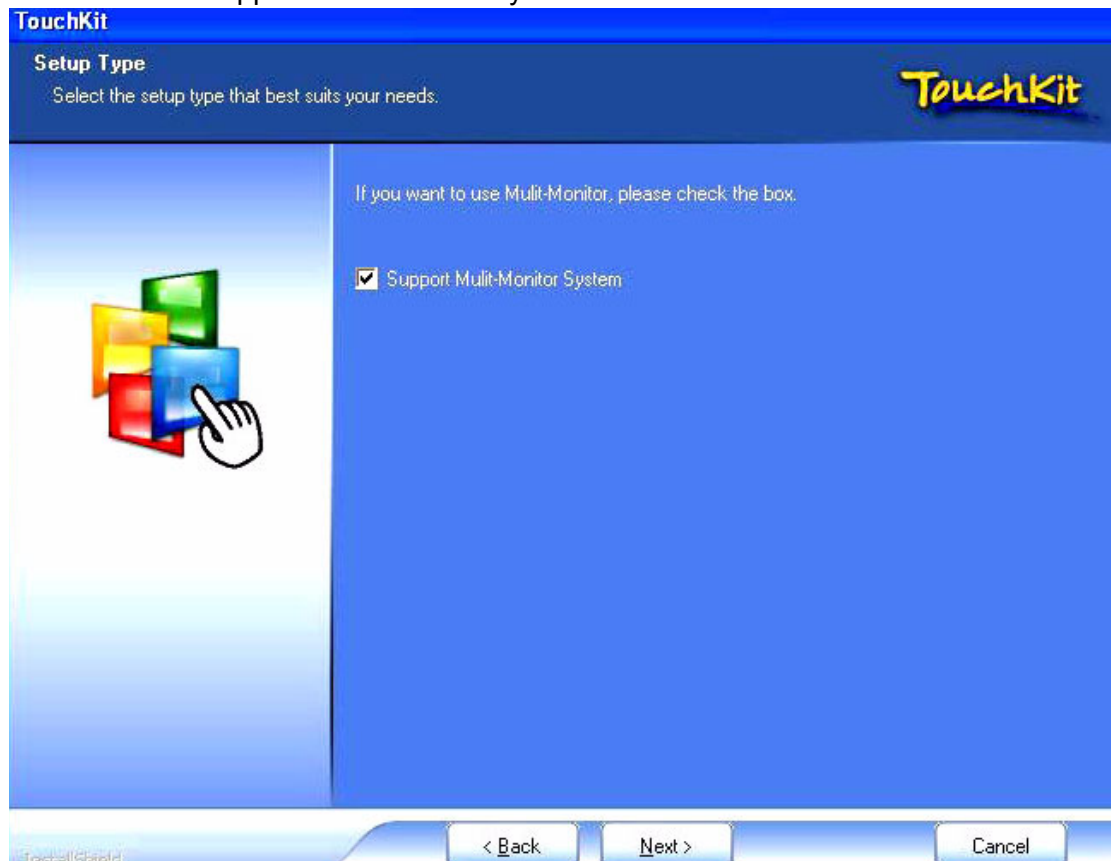


Step 1.4. Click “Next” to continue.

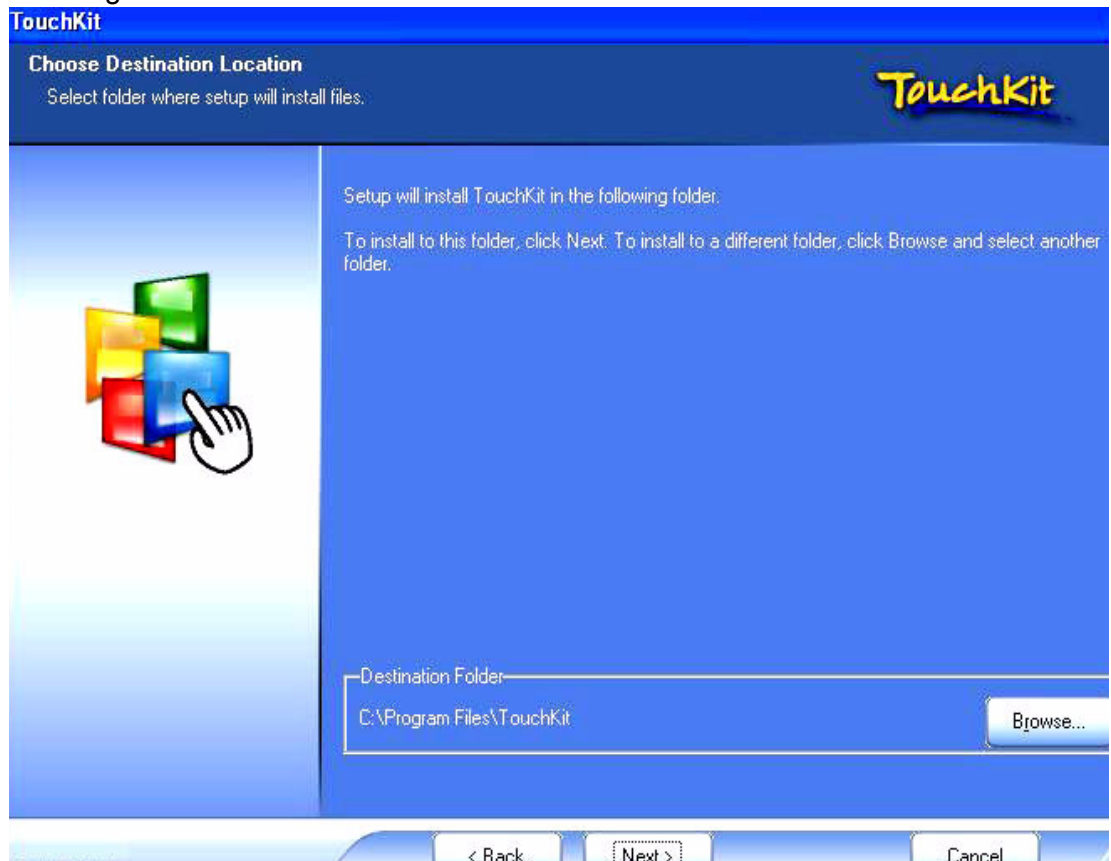
Please select “None” for ‘Do 4 point calibration’, the driver install program will do this four point calibration when the install is complete.



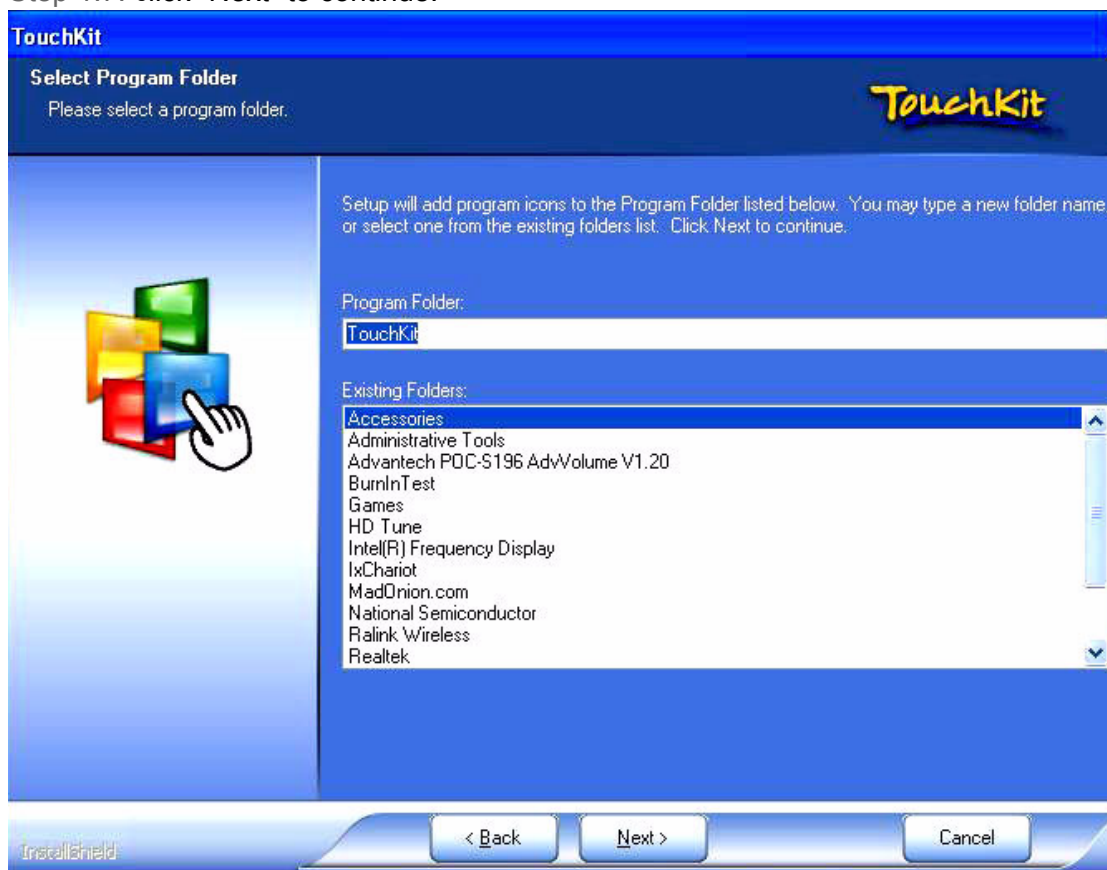
Step 1.5. Click “Next” to continue.
Please select “Support Multi-Monitor System”.



Step 1.6. Click “Next” to continue.
If you want to change the driver destination folder, you can click the “Browse” button to change the folder.

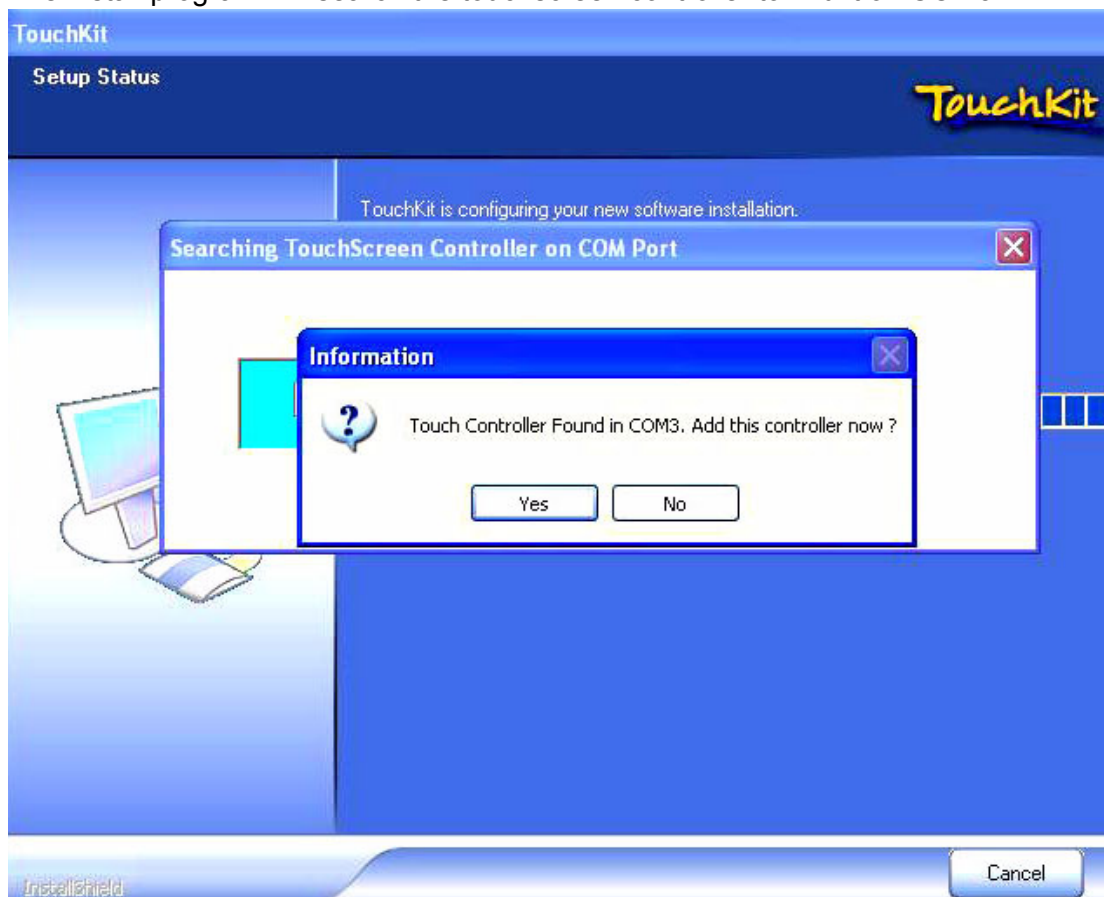


Step 1.7. Click “Next” to continue.

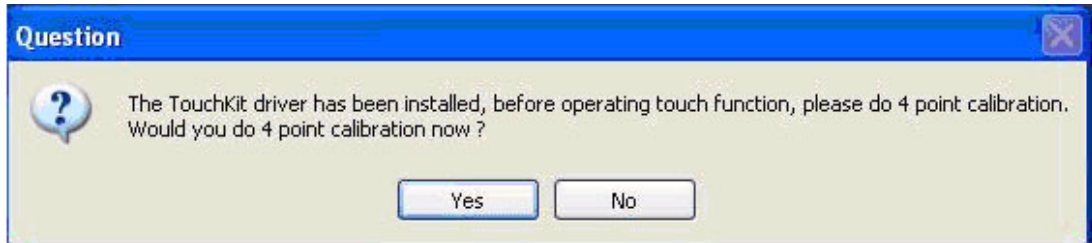


Step 1.8. Click “Yes” to continue.

The install program will search the touchscreen controller to find it on COM3.



Step 1.9. Click “Yes” to continue. Please do the four point calibration to calibrate the touch screen.



Step 1.10. Touch the “X” once at each of the four corners when it appears on the panel. Touch each “X” icon until the icon stops blinking.

Please touch each 'X' until it stops blinking.



6.3 Further Information

For further information about the installation on your POC-S196, including driver updates, troubleshooting guides and FAQ lists please visit the following web resources:

Advantech websites: www.advantech.com

www.advantech.com.tw

Chapter 7

Utilities and Hot Fixes

Sections include:

- Introduction
- Wakeup by External USB Device at S3 Resume (Wakeup)
- Window Audio Volume Application

7.1 Introduction

The POC-S196 system needs specific utilities or hot fixes to support special functions.

7.2 Wakeup by External USB Device at S3 Resume (Wakeup)

The POC-S196 supports three different sleep (suspend) modes; they are:

1. S1: Power On Suspend: The system will stop the clock, turn off the LCD backlight, but keep all power on. Users can press any key (by mouse or keyboard) to wakeup the system.
2. S3: Suspend to RAM: The system will stop the clock, turn off most power, not including memory, and save all necessary information to memory. In this sleep mode, the system needs a hot fix to be able to wakeup by USB mouse or keyboard.
3. S4: Suspend to Disk (Hibernation): The system will stop the clock, turn off most power, including memory power, and save all necessary information on to the hard disk. In this sleep mode, users need to press the power button to wake the system up.

7.2.1 Installation for Windows XP

Step 1. Double click "USBREG.REG" in the D:\Driver\USB folder.

Step 2. Click "Yes" to update the registry with this information.

Step 3. Click "OK" to close the window following successful installation.

7.3 Window Audio Volume Application

On the front panel of the POC-S196 system, there are two buttons to control the speaker volume.

This speaker volume is adjustable by pressing the button and it does not require any special software utility.

However, the speaker volume button cannot modify the Windows volume control if the user has not installed the Advantech Audio Volume application.

7.3.1 Installation for Windows XP

Step 1. Double click "SETUP.EXE" in the D:\Utility\Volume Control folder.

Step 2. Click the "Next" button

Step 3. Select "I accept the terms of the license agreement" and click the "Next" button.

Step 4. Click "Finish" to close the complete installation window.

Chapter 8

Operation Information

Sections include:

- Plug in the Power Adapter
- Thermal Information
- Disconnect the Power
- General Safety Guide

8.1 Plug in the Power Adapter

Always leave space around the power adapter. Do not use this equipment in a location where airflow around the power adapter or computer is confined. Always disconnect the power adapter before opening the computer to perform procedures such as installing memory or removing the hard disk.

Warning! Use only the power adapter that came with the POC-S196 system.



Adapters for other electronic devices may look similar, but they may damage your computer.

8.2 Thermal Information

When using the POC-S196 system, it is normal for the rear metal heatsink to get warm. The rear metal heatsink of the POC-S196 case functions as a cooling surface that transfers heat from inside the computer to the cooler air outside. Do not block this heatsink with any soft material.

Warning! Do not place your POC-S196 system on a pillow or other soft material when it is on, as the material may block the airflow and cause the computer to overheat. Never place anything on the system case before turning off the computer.



Never turn on the computer unless all of its internal and external parts are in place.

Operating the computer when it is open or missing parts can be dangerous and can damage the computer.

8.3 Disconnect the Power

The only way to disconnect the power completely is to unplug the power cord. Make sure at least one end of the power cord is within easy reach so that you can unplug the computer when you need to.

Warning! Your AC cord came equipped with a three-wire grounding plug (a plug that has a third grounding pin). This plug will fit only a grounded AC outlet. If you are unable to insert the plug into an outlet because the outlet is not grounded, contact a licensed electrician to replace the outlet with a properly grounded outlet. Do not circumvent the purpose of the grounding plug.



Warning! Never push objects of any kind into this product through the openings in the case. Doing so may be dangerous and result in fire or a dangerous electric shock.



8.4 General Safety Guide

For your own safety and that of the equipment, always take the following precautions. Disconnect the power plug (by pulling from the plug, not the cord) if any of the following conditions exists:

- You want to remove any parts
- The power cord or plug becomes frayed or otherwise damaged
- You spill something into the case
- Your computer has been dropped or the case has been otherwise damaged
- You suspect that your computer needs service or repair
- You want to clean the case

Appendix **A**

Description of
Connectors

A.1 Description of Connectors

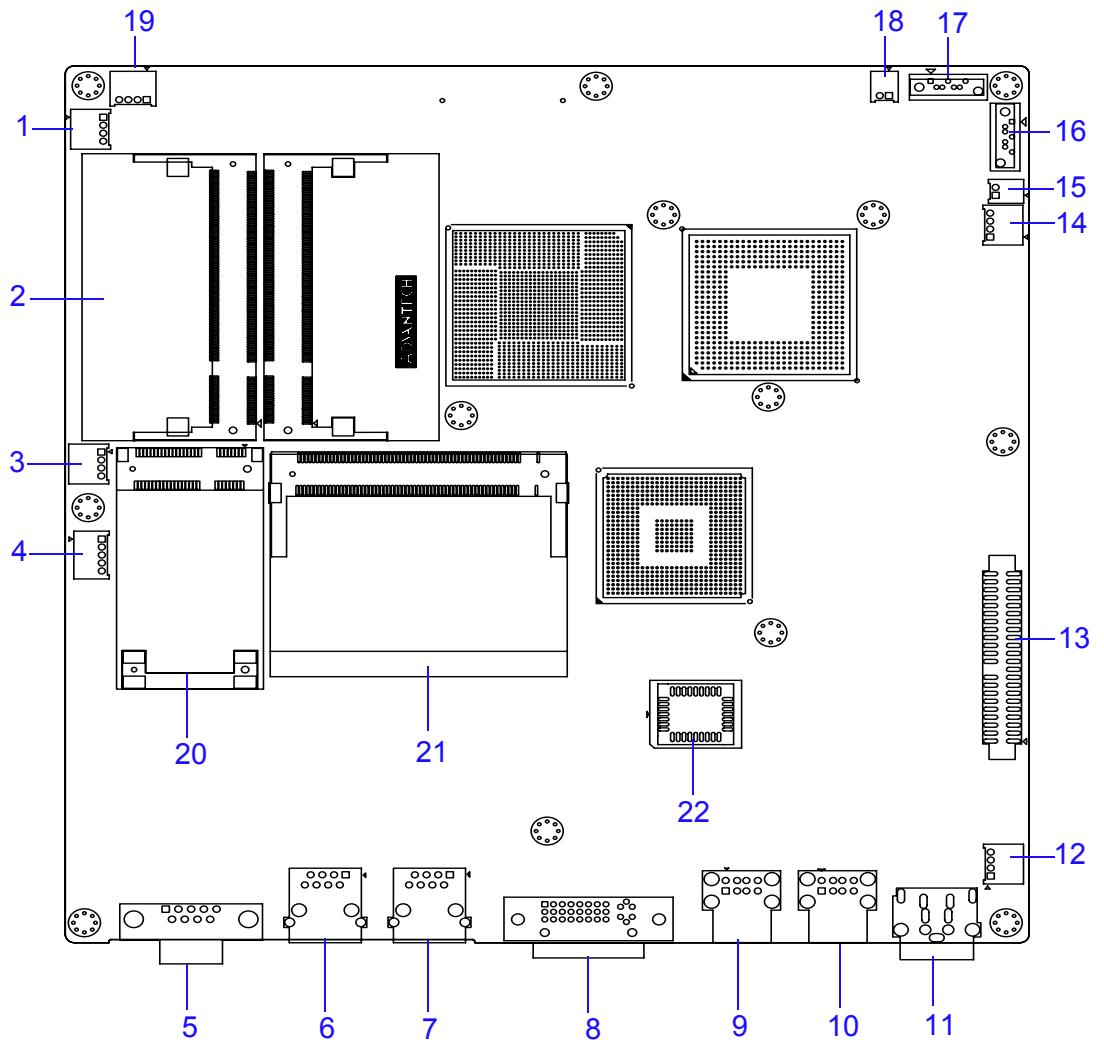


Figure A.1 POC-S196 motherboard top side view showing all local connectors

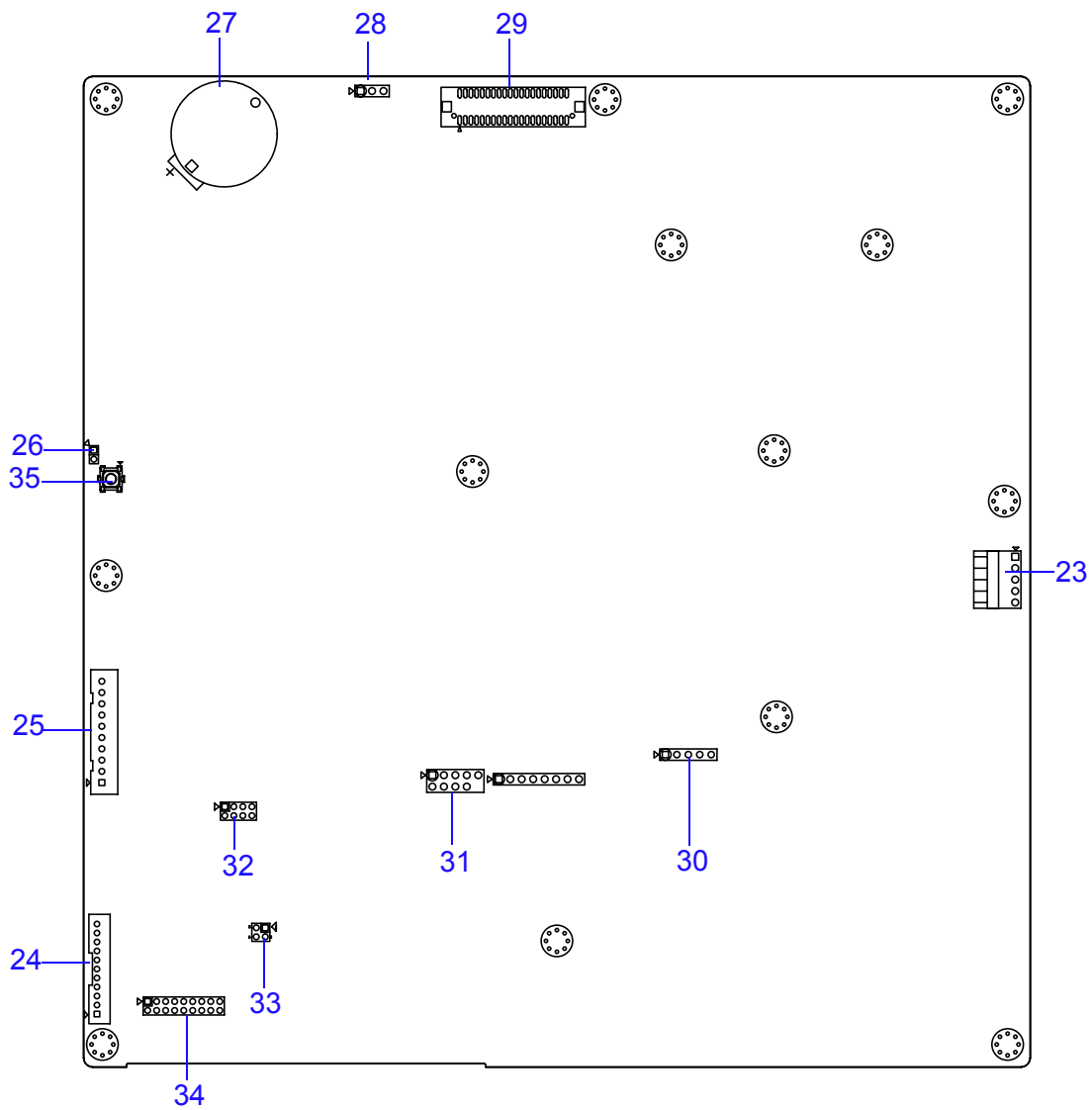


Figure A.2 POC-S196 motherboard bottom side view showing all local connectors

Table A.1: Description of Connector

No.	Description	No.	Description
1	CPU FAN (Reserved)	18	SATA Power Connector 2
2	DDR 2 S.O. DIMM Socket Connector* 2	19	System FAN (Reserved)
3	Touch Enable Volume Up/Down Switch Connector	20	Mini PCI-E Socket
4	Inverter Connector	21	Mini PCI Socket
5	COM1 Jack	22	BIOS Socket
6	RJ45 Jack (LAN 0)	23	Touch Screen I/F Connector
7	RJ45 Jack (LAN 1)	24	Internal Audio Connector (Line, HP Out& Line, MIC In & Speaker Out)
8	DVI Connector	25	Battery Connector
9	USB connector	26	Reset Switch
10	USB connector	27	RTC Battery Socket
11	DC-in Power Connector	28	LVDS power selection
12	Power Button LED Connector	29	LVDS connectors
13	PATA Connector	30	USB Header
14	USB Card Reader	31	COM4 Header
15	SATA Power Connector 0	32	GPIO Header
16	SATA Connector Channel 0	33	COM Port Pin 9 configuration
17	SATA Connector Channel 2	34	COM1 RS232/422/485 Selection Jumper (Default: RS232)
		35	Clear CMOS button

Appendix **B**

Windows Display Hot
Key Function

B.1 Windows Display Hot Key Function

If a user wants to switch the display content to a different display device, such as:

1. Internal LCD Panel (Notebook)
2. External CRT Monitor (Monitor)
3. External DVI Monitor (Digital Display)

the user can press the hot key defined below to switch the display device:.

Hot Key	Display Device
Ctrl+Alt+F1	External CRT Monitor
Ctrl+Alt+F3	Internal LCD Panel
Ctrl+Alt+F4	External DVI Monitor

The display content will be switched to the dedicated display device indicated.

Trusted ePlatform Services

ADVANTECH

www.advantech.com

Please verify specifications before quoting. This guide is intended for reference purposes only.

All product specifications are subject to change without notice.

No part of this publication may be reproduced in any form or by any means, electronic, photocopying, recording or otherwise, without prior written permission of the publisher.

All brand and product names are trademarks or registered trademarks of their respective companies.

© Advantech Co., Ltd. 2008