



IEI Technology Corp.



MODEL:
IOVU-752S

**RISC-Based Panel PC, 7" Touch Screen, 667 MHz Samsung
ARM11 S3C6410, PoE, USB, SD, RS-232/422/485,
IP 64 Compliant Front Panel, RoHS Compliant**

User Manual

Rev. 1.00 – 11 January, 2012





Revision

| Date | Version | Changes |
|------------------|---------|-----------------|
| 11 January, 2012 | 1.00 | Initial release |

Copyright

COPYRIGHT NOTICE

The information in this document is subject to change without prior notice in order to improve reliability, design and function and does not represent a commitment on the part of the manufacturer.

In no event will the manufacturer be liable for direct, indirect, special, incidental, or consequential damages arising out of the use or inability to use the product or documentation, even if advised of the possibility of such damages.

This document contains proprietary information protected by copyright. All rights are reserved. No part of this manual may be reproduced by any mechanical, electronic, or other means in any form without prior written permission of the manufacturer.

TRADEMARKS

All registered trademarks and product names mentioned herein are used for identification purposes only and may be trademarks and/or registered trademarks of their respective owners.

Table of Contents

| | |
|--|-----------|
| 1 INTRODUCTION..... | 1 |
| 1.1 OVERVIEW..... | 2 |
| 1.2 BENEFITS | 2 |
| 1.3 FEATURES..... | 3 |
| 1.4 FRONT PANEL..... | 3 |
| 1.5 CONNECTOR PANEL..... | 4 |
| 1.6 INTERNAL OVERVIEW..... | 4 |
| 1.7 DIMENSIONS..... | 5 |
| 1.8 TECHNICAL SPECIFICATIONS | 6 |
| 1.9 CERTIFICATIONS | 7 |
| 2 UNPACKING | 8 |
| 2.1 ANTI-STATIC PRECAUTIONS | 9 |
| 2.2 UNPACKING PRECAUTIONS..... | 9 |
| 2.3 UNPACKING CHECKLIST | 10 |
| 2.4 OPTIONAL ITEMS | 11 |
| 3 INSTALLATION | 12 |
| 3.1 INSTALLATION PRECAUTIONS | 13 |
| 3.2 SD CARD INSTALLATION | 14 |
| 3.3 EXTERNAL PERIPHERAL INTERFACE CONNECTORS..... | 15 |
| 3.3.1 <i>DC Power Interfaces</i> | 15 |
| 3.3.1.1 9 V~30 V DC Power Jack..... | 15 |
| 3.3.1.2 9 V~30 V DC Terminal Block | 16 |
| 3.3.2 <i>Ethernet Connector</i> | 16 |
| 3.3.3 <i>Serial Interfaces</i> | 18 |
| 3.3.3.1 RS-232 Serial Interface Pinouts..... | 18 |
| 3.3.3.2 RS-232/422/485 Serial Interface Pinouts..... | 19 |
| 3.3.3.3 Connecting the Serial Port | 20 |
| 3.3.4 <i>USB Connectors</i> | 21 |
| 3.4 MOUNTING THE SYSTEM | 22 |

IOVU-752S Panel PC

| | |
|---|-----------|
| 3.4.1 Wall Mounting..... | 22 |
| 3.4.2 Panel Mounting..... | 25 |
| 3.4.3 Arm Mounting | 27 |
| 3.4.4 Stand Mounting..... | 28 |
| 3.5 SOFTWARE..... | 29 |
| A CERTIFICATIONS | 30 |
| A.1 RoHS COMPLIANT | 31 |
| A.2 IP 64 COMPLIANT FRONT PANEL | 31 |
| B SAFETY PRECAUTIONS | 32 |
| B.1 SAFETY PRECAUTIONS..... | 33 |
| <i>B.1.1 General Safety Precautions</i> | <i>33</i> |
| <i>B.1.2 Anti-static Precautions</i> | <i>34</i> |
| <i>B.1.3 Product Disposal</i> | <i>35</i> |
| B.2 MAINTENANCE AND CLEANING PRECAUTIONS | 35 |
| <i>B.2.1 Maintenance and Cleaning.....</i> | <i>35</i> |
| <i>B.2.2 Cleaning Tools.....</i> | <i>36</i> |
| B.3 FCC PRECAUTIONS | 37 |
| C HAZARDOUS MATERIALS DISCLOSURE | 38 |
| C.1 HAZARDOUS MATERIALS DISCLOSURE TABLE FOR IPB PRODUCTS CERTIFIED AS ROHS COMPLIANT UNDER 2002/95/EC WITHOUT MERCURY | 39 |

List of Figures

| | |
|--|----|
| Figure 1-1: IOVU-752S..... | 2 |
| Figure 1-2: IOVU-752S Front Panel..... | 3 |
| Figure 1-3: IOVU-752S Peripheral Connectors..... | 4 |
| Figure 1-4: IOVU-752S Physical Dimensions (millimeters)..... | 5 |
| Figure 3-1: Rear Panel Retention Screws..... | 14 |
| Figure 3-2: SD Card Installation..... | 14 |
| Figure 3-3: IOVU-752S Peripheral Connectors..... | 15 |
| Figure 3-4: Power Terminal Block..... | 16 |
| Figure 3-5: LAN Connection..... | 17 |
| Figure 3-6: Ethernet Connector..... | 17 |
| Figure 3-7: Serial Port Pinouts..... | 19 |
| Figure 3-8: Serial Port Mode Setting..... | 20 |
| Figure 3-9: Serial Device Connector..... | 21 |
| Figure 3-10: USB Connector..... | 21 |
| Figure 3-11: Wall-mounting Bracket..... | 23 |
| Figure 3-12: Chassis Support Screws..... | 24 |
| Figure 3-13: Secure the IOVU-752S..... | 24 |
| Figure 3-14: IOVU-752S Panel Opening (mm)..... | 25 |
| Figure 3-15: Panel Mounting Clamps..... | 26 |
| Figure 3-16: Tighten the Panel Mounting Clamp Screws..... | 26 |
| Figure 3-17: Arm Mounting Retention Screw Holes..... | 27 |
| Figure 3-18: Arm Mounting Retention Screw Holes..... | 28 |
| Figure 3-19: Stand Mounting..... | 29 |

List of Tables

| | |
|--|----|
| Table 1-1: Technical Specifications..... | 7 |
| Table 2-1: Package List Contents | 10 |
| Table 2-2: Optional Items | 11 |
| Table 3-1: External Interface Connectors..... | 15 |
| Table 3-2: 9 V~30 V Power Connector Pinouts..... | 16 |
| Table 3-3: Ethernet Connector Pinouts | 17 |
| Table 3-4: Ethernet Connector LEDs | 18 |
| Table 3-5: RS-232 Pinouts | 18 |
| Table 3-6: Serial Port Pinouts..... | 19 |
| Table 3-7: USB Connector Pinouts | 22 |

Chapter

1

Introduction

1.1 Overview



Figure 1-1: IOVU-752S

The IOVU-752S is an RISC-based panel PC that features a 667 MHz Samsung ARM11 S3C6410 processor and has 256 MB DDR2 memory. The IOVU-752S provides rich input capabilities utilizing the touch screen. Output capabilities are provided through RS-232/422/485 ports, network port and USB ports.

The IOVU-752S is an extremely low power Panel PC. The system is fanless, which allows quiet and reliable operation. The IOVU-752S is preinstalled with Windows® CE 6.0 OS to provide rich application development support and connectivity to network and I/O devices.

1.2 Benefits

Some of the IOVU-752S benefits include:

- Rugged, compact, operates over wide temperature variations, and low power consumption embedded hardware design without failure-prone hard disk and fan.
- Easy installation with a wide range of input voltages supported
- Standard peripheral connectors including Ethernet port, serial ports, USB ports, Secure Digital memory, and touch input.
- Open architecture to run third party application software.
- PoE (Power over Ethernet) capability reduces communications and power supply to a single CAT5e cable.

IOVU-752S Panel PC

1.3 Features

The IOVU-752S features are listed below:

- Embedded 667 MHz Samsung ARM11 S3C6410 processor
- 128 MB Nand Flash
- On-board 256 MB DDR2 memory
- Supports MPEG 1, MPEG 2, MPEG 4 and WMV 9 video file formats
- 7" color active matrix TFT display
- 4-wire resistive touch panel
- One high performance 10/100 Mb/s Ethernet connector with PoE (Power over Ethernet) capability
- Preinstalled with Windows® CE 6.0 OS
- Two USB 2.0 ports
- One RS-232 serial communication connection
- One RS-232/422/485 serial communication connection
- One SD card socket
- Two 1.5 Watt speakers
- 9V~30V DC input
- IP 64 compliant front panel
- RoHS compliant

1.4 Front Panel

The IOVU-752S front panel (**Figure 1-2**) comprises a 7" TFT WVGA color touch screen LCD.



Figure 1-2: IOVU-752S Front Panel

1.5 Connector Panel

The external peripheral interface connectors are located on the bottom panel of the IOVU-752S. The peripheral interface connectors are shown in **Figure 1-3**.

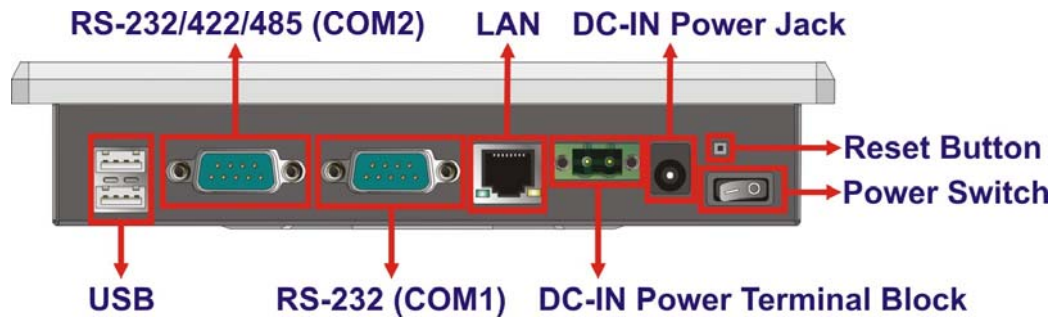


Figure 1-3: IOVU-752S Peripheral Connectors

External peripheral interface connectors on the IOVU-752S include:

- 1 x DC-IN power jack
- 1 x DC-IN power terminal block
- 1 x Power switch
- 1 x Reset button
- 1 x RJ-45 LAN connector (supports PoE)
- 1 x RS-232 connector
- 1 x RS-232/422/485 connector
- 2 x USB connectors

1.6 Internal Overview

Internally the IOVU-752S contains a motherboard, connected to the external interface connectors. The motherboard is also connected to the LCD panel and touch screen. For full motherboard specifications and details, please refer to the motherboard user manual.

IOVU-752S Panel PC

1.7 Dimensions

The physical dimensions of the IOVU-752S are shown in **Figure 1-4**:

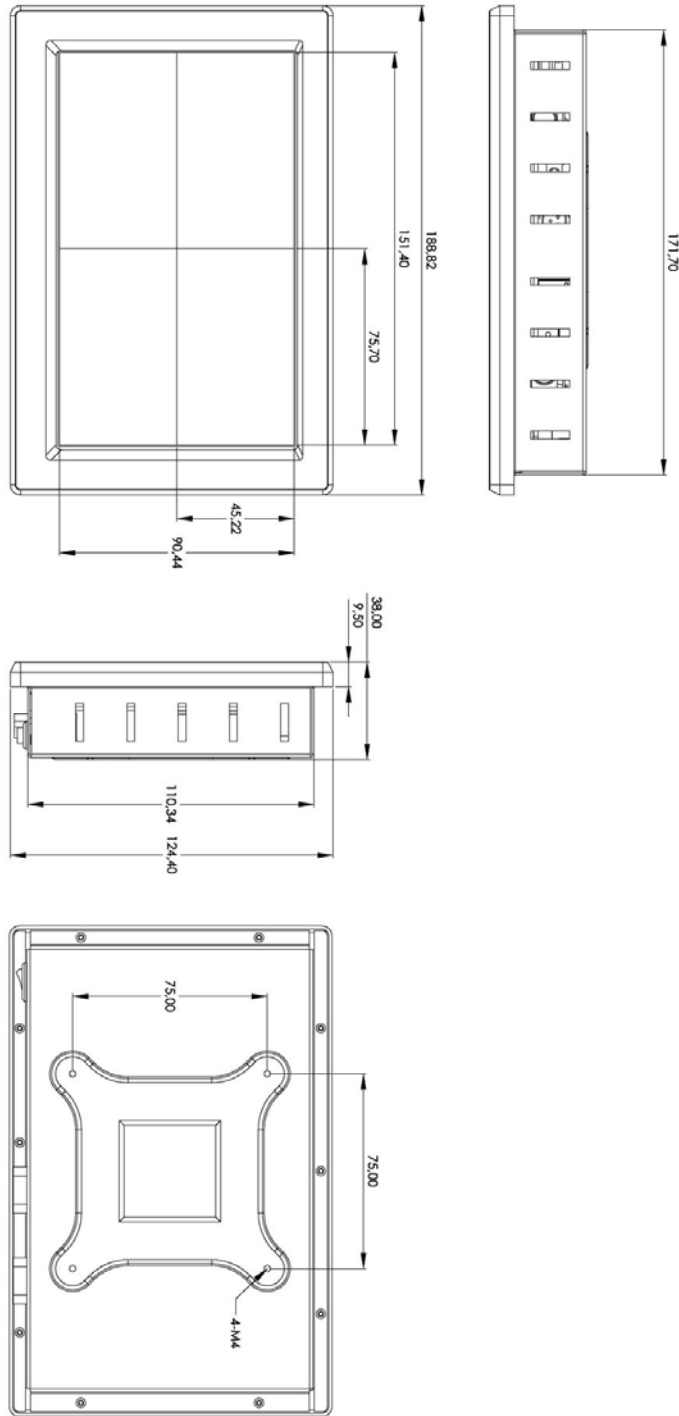


Figure 1-4: IOVU-752S Physical Dimensions (millimeters)

1.8 Technical Specifications

The IOVU-752S technical specifications are listed in **Table 1-1**.

| Specifications | |
|-------------------------------|--|
| System | |
| CPU | 667 MHz Samsung ARM11 S3C6410 processor |
| Memory | 128 MB Nand Flash 256 MB DDR2 |
| Operating System | Windows® CE 6.0 preinstalled |
| Real-time Clock | Battery backup RTC |
| Watchdog Timer | Software programmable supports 1~255 sec. system reset |
| Reset | Reset button |
| PIC | Controls software programmable LCD backlight |
| Display | |
| Display Type | Color active matrix TFT |
| Display Size | 7" |
| Resolution | 800 x 480, 262K color graphics |
| Video Support | MPEG1, MPEG2, MPEG4 and WMV9 |
| Brightness | 500 nits |
| Touch Panel | 4-wired resistive touch screen |
| I/O and Communications | |
| Audio | 2 x 1.5 Watt speakers |
| Ethernet | 1 x 10/100 Mbps (supports PoE) |
| SD | 1 x SD card slot (internal) |
| Serial Ports | 1 x RS-232 (COM1) 1 x RS-232/422/485 (COM2) |
| USB Interfaces | 2 x USB 2.0 |

IOVU-752S Panel PC

| Specifications | |
|-------------------------------------|---|
| Power | |
| Power Supply | 9 V~30 V DC input by power jack and terminal block |
| Power Consumption | 14 W |
| Environmental and Mechanical | |
| Operating Temperature | 0°C~ 50°C |
| Humidity | 5%RH to 90%RH (non-condensing) |
| Vibration | Operating Random Vibration Mode (MIL-STD-810F 514.5C-3) 1.Axes: 3 axes (Vertical / Transverse / Longitudinal). 2.10-500 Hz, 60min/axis. 3.Equivalent to Z:2.18 Grms X:1.6 Grms Y:1.96 Grms |
| Physical Dimensions | 92 mm x 62 mm x 40 mm |
| Ingress Protection | IP 64 compliant front panel |

Table 1-1: Technical Specifications

1.9 Certifications

The IOVU-752S complies with the following international standards:

- RoHS
- IP 64

For a more detailed description of these standards, please refer to **Appendix A**.

Chapter

2

Unpacking

IOVU-752S Panel PC

2.1 Anti-static Precautions



WARNING:

Failure to take ESD precautions during installation may result in permanent damage to the IOVU-752S and severe injury to the user.

Electrostatic discharge (ESD) can cause serious damage to electronic components, including the IOVU-752S. Dry climates are especially susceptible to ESD. It is therefore critical that whenever the IOVU-752S or any other electrical component is handled, the following anti-static precautions are strictly adhered to.

- **Wear an anti-static wristband:** Wearing a simple anti-static wristband can help to prevent ESD from damaging the board.
- **Self-grounding:** Before handling the board, touch any grounded conducting material. During the time the board is handled, frequently touch any conducting materials that are connected to the ground.
- **Use an anti-static pad:** When configuring the IOVU-752S, place it on an anti-static pad. This reduces the possibility of ESD damaging the IOVU-752S.

2.2 Unpacking Precautions

When the IOVU-752S is unpacked, please do the following:

- Follow the anti-static precautions outlined in **Section 2.1**.
- Make sure the packing box is facing upwards so the IOVU-752S does not fall out of the box.
- Make sure all the components shown in **Section 2.3** are present.

2.3 Unpacking Checklist


NOTE:

If some of the components listed in the checklist below are missing, please do not proceed with the installation. Contact the IEI reseller or vendor you purchased the IOVU-752S from or contact an IEI sales representative directly. To contact an IEI sales representative, please send an email to sales@iei.com.tw.

The IOVU-752S is shipped with the following components:





| Quantity | Item and Part Number | Image |
|----------|--|--|
| 1 | IOVU-752S |  |
| 1 | Utility CD including SDK, utilities, and technical documentation |  |
| 1 | Null modem cable |  |
| 1 | Touch pen |  |

Table 2-1: Package List Contents

IOVU-752S Panel PC

2.4 Optional Items

| Item and Part Number | Image |
|--|--|
| Panel mount kit (P/N: ALFPK-08) |  |
| VESA 75 wall mount kit (P/N: AFLWK-07) |  |
| LCD monitor/PPC arm kit, load capacity of 3kg~7kg (P/N: ARM-11-RS) |  |
| LCD monitor/PPC stand kit for VESA 75, up to 5kg (P/N: STAND-A08-RS) |  |
| LCD monitor/PPC stand V type for VESA 75, 0~90 degree adjustable hinge and up to 2.5kg capacity (P/N: VSTAND-A07) |  |
| 90V~264V and 12V/36W DC power adapter (P/N: 63000-FSP060DBAB1553-RS) |  |

Table 2-2: Optional Items

Chapter

3

Installation

3.1 Installation Precautions

During installation, be aware of the precautions below:

- **Read the user manual:** The user manual provides a complete description of the IOVU-752S, installation instructions and configuration options.
- **DANGER! Disconnect Power:** Power to the IOVU-752S must be disconnected during the installation process, or before any attempt is made to access the rear panel. Electric shock and personal injury might occur if the rear panel of the IOVU-752S is opened while the power cord is still connected to an electrical outlet.
- **Qualified Personnel:** The IOVU-752S must be installed and operated only by trained and qualified personnel. Maintenance, upgrades, or repairs may only be carried out by qualified personnel who are familiar with the associated dangers.
- **Mounting:** It is advisable at least two people assist with mounting the IOVU-752S.
- **Grounding:** The IOVU-752S should be properly grounded. The voltage feeds must not be overloaded. Adjust the cabling and provide external overcharge protection per the electrical values indicated on the label attached to the back of the IOVU-752S.

3.2 SD Card Installation

The IOVU-752S supports an SD card. Follow the steps below to install an SD card.

Step 1: Remove the rear panel by removing the 10 retention screws from the rear panel (Figure 3-1).

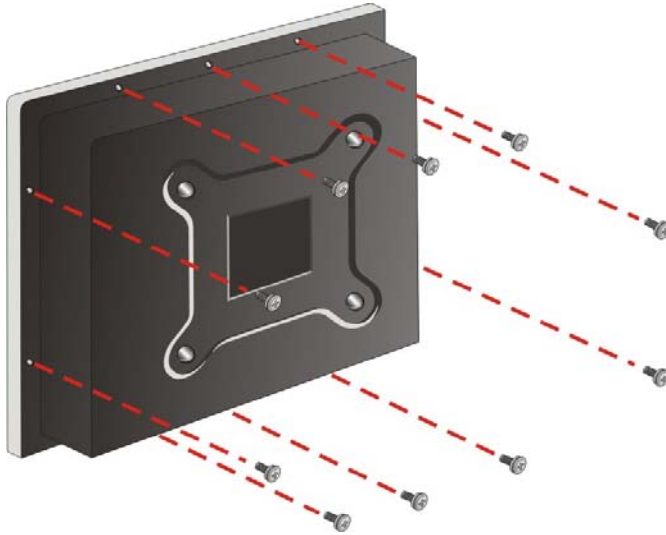


Figure 3-1: Rear Panel Retention Screws

Step 2: Locate the SD card slot on the motherboard (Figure 3-2).

Step 3: Slide the SD card into the slot (Figure 3-2).

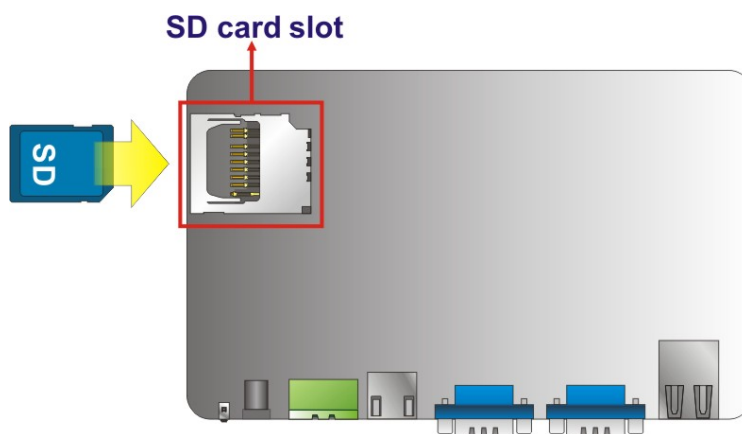


Figure 3-2: SD Card Installation

Step 4: Reinstall the rear panel.

3.3 External Peripheral Interface Connectors

Table 3-1 lists the external interface connectors on the IOVU-752S. Detailed descriptions of the connectors can be found following the table.

| Connector | Type |
|---------------------------------|------------------------|
| 9V~30V DC power jack | DC jack |
| 9V~30V DC power terminal block | Terminal block |
| Ethernet connector | RJ-45 jack connector |
| Power switch | On/off switch |
| RS-232 serial connector | D-sub 9 male connector |
| RS-232/422/485 serial connector | D-sub 9 male connector |
| USB connectors | Dual USB port |

Table 3-1: External Interface Connectors

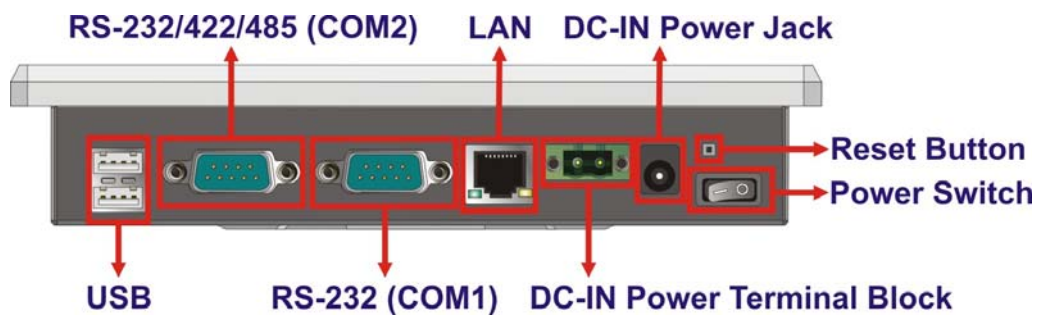


Figure 3-3: IOVU-752S Peripheral Connectors

3.3.1 DC Power Interfaces

3.3.1.1 9 V~30 V DC Power Jack

Use the DC power jack to connect the system to a power source.

- CN Label:** 9-30V DC
- CN Type:** DC jack
- CN Location:** See **Figure 3-3**

3.3.1.2 9 V~30 V DC Terminal Block

The power terminal block connects to a 9 V~30 V DC power source.

CN Label: 9-30V DC

CN Type: Terminal block

CN Location: See **Figure 3-3**

CN Pinouts: See **Table 3-2** and **Figure 3-4**

| Pin | Description |
|-----|----------------------|
| 1 | 9 V~30 V DC Power in |
| 2 | GND |

Table 3-2: 9 V~30 V Power Connector Pinouts

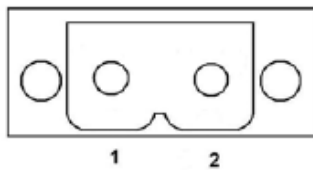


Figure 3-4: Power Terminal Block

3.3.2 Ethernet Connector

There is one external RJ-45 LAN connector. The RJ-45 connectors enable connection to an external network. To connect a LAN cable with an RJ-45 connector, please follow the instructions below.

Step 1: Align the connectors. Align the RJ-45 connector on the LAN cable with one of the RJ-45 connectors on the IOVU-752S. See **Figure 3-5**.

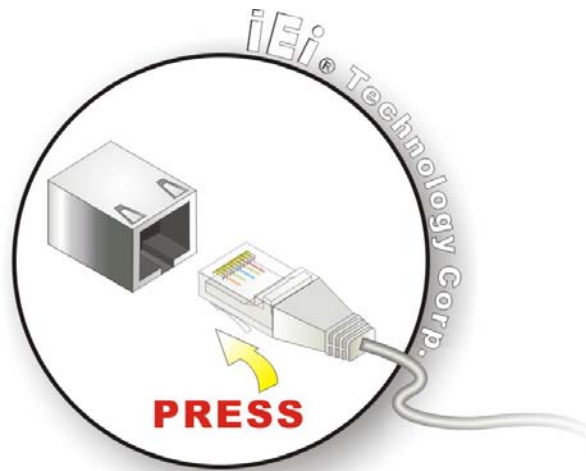


Figure 3-5: LAN Connection

Step 2: Insert the LAN cable RJ-45 connector. Once aligned, gently insert the LAN cable RJ-45 connector into the on-board RJ-45 connector.

The Ethernet connector pinouts are shown below.

| PIN | DESCRIPTION |
|-----|-------------|
| 1 | TPT+ |
| 2 | TPT- |
| 3 | TPR+ |
| 4 | LAN_GND |
| 5 | LAN_GND |
| 6 | TPR- |
| 7 | LAN_GND |
| 8 | LAN_GND |

Table 3-3: Ethernet Connector Pinouts

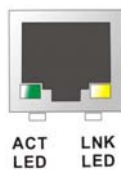


Figure 3-6: Ethernet Connector

The RJ-45 Ethernet connector has two status LEDs, one green and one yellow. The green LED indicates activity on the port and the yellow LED indicates the port is linked (Table 3-4).

| SPEED LED | | LINK LED | |
|-----------|--------------------------|----------|----------------------------------|
| Status | Description | Status | Description |
| GREEN | ON: 100 MB OFF: 10 MB | YELLOW | ON: Linked Flashing: Activity |

Table 3-4: Ethernet Connector LEDs

3.3.3 Serial Interfaces

The system has both a RS-232 and a RS-232/422/485 serial port connector.

3.3.3.1 RS-232 Serial Interface Pinouts

Pinouts for the RS-232 serial port are shown below.

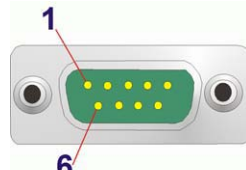
| Pin Arrangement | Pin No | Signal Name | Direction | Description |
|---|--------|-------------|-----------|----------------------------------|
|  | 1 | DCD | Input | Carrier Detect |
| | 2 | RX | Input | Receive Data |
| | 3 | TX | Output | Send Data |
| | 4 | DTR | Output | Data Terminal Ready |
| | 5 | GND | N/A | Ground |
| | 6 | DSR | Input | Data Set Ready |
| | 7 | RTS | Output | Request to Send |
| | 8 | CTS | Input | Send Possible |
| | 9 | RI | Input | Called Status Display |
| | Shell | FG | N/A | Frame Ground (Common with SG) |

Table 3-5: RS-232 Pinouts

3.3.3.2 RS-232/422/485 Serial Interface Pinouts

Pinouts for the RS-232/422/485 serial port are shown below.

| Pin | RS-232 | RS-422 | RS-485 |
|-----|--------|--------|--------|
| 1 | | RX- | DATA- |
| 2 | RX | RX+ | DATA+ |
| 3 | TX | TX- | |
| 4 | | | |
| 5 | GND | GND | GND |
| 6 | | | |
| 7 | | TX+ | |
| 8 | | | |
| 9 | | | |

Table 3-6: Serial Port Pinouts

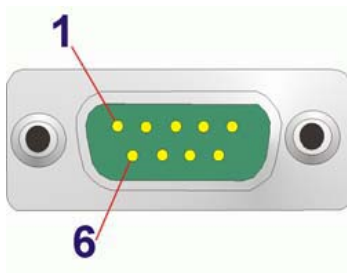


Figure 3-7: Serial Port Pinouts

To select RS-232, RS-422, or RS-485 mode, please follow the directions below.

- Step 1:** Select "Start > Programs > IEI > IEI CEUTILITY.exe" to run IEI_CEUTILITY.exe.

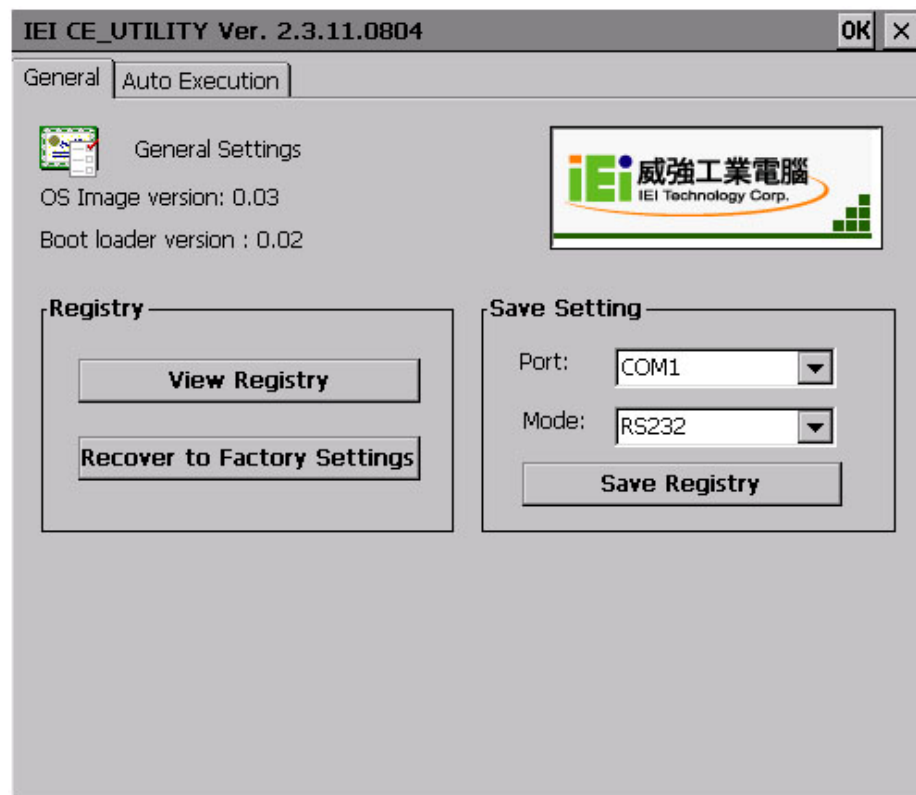


Figure 3-8: Serial Port Mode Setting

Step 2: Change serial port mode setting. Change the value in **Figure 3-8** to the desired mode setting.

Step 3: Click "Save Registry" to save the changes.

3.3.3.3 Connecting the Serial Port

Follow the steps below to connect a serial device to the IOVU-752S.

Step 1: Insert the serial connector. Insert the DB-9 connector of a serial device into the DB-9 connector on the external peripheral interface. See **Figure 3-9**.

IOVU-752S Panel PC

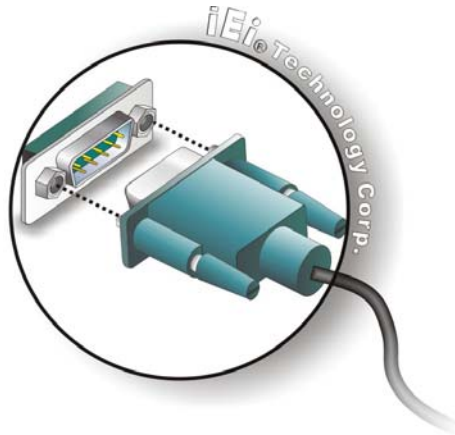


Figure 3-9: Serial Device Connector

Step 2: Secure the connector. Secure the serial device connector to the external interface by tightening the two retention screws on either side of the connector.

3.3.4 USB Connectors

The external USB Series "A" receptacle connector provides easier and quicker access to external USB devices. Follow the steps below to connect USB devices to the IOVU-752S.

Step 1: Insert a USB Series "A" plug. Insert the USB Series "A" plug of a device into the USB Series "A" receptacle on the external peripheral interface. See **Figure 3-10**.

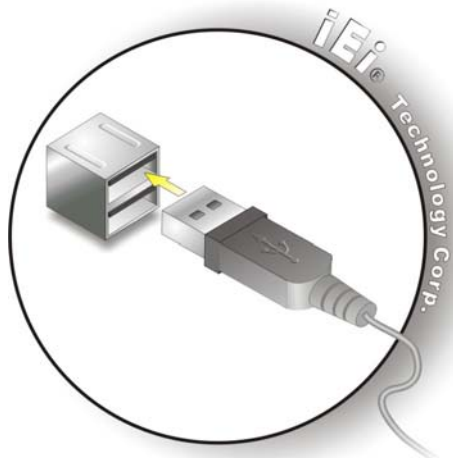


Figure 3-10: USB Connector

USB devices connect directly to the USB connector on the external peripheral connector panel.

| Pin | Description | Pin | Description |
|-----|-------------|-----|-------------|
| 1 | VCC | 5 | VCC |
| 2 | D1- | 6 | D2- |
| 3 | D1+ | 7 | D2+ |
| 4 | GND | 8 | GND |

Table 3-7: USB Connector Pinouts

3.4 Mounting the System



WARNING!

When mounting the panel PC, it is better to have more than one person to help with the installation to make sure the panel PC does not fall down and get damaged.

Four methods of mounting the IOVU-752S are listed below.

- Wall mounting
- Panel mounting
- Arm mounting
- Stand mounting

The four mounting methods are described below.

3.4.1 Wall Mounting

To mount the IOVU-752S onto the wall, please follow the steps below.

Step 1: Select the location on the wall for the wall-mounting bracket.

Step 2: Carefully mark the locations of the four screw holes in the bracket on the wall.

Step 3: Drill four pilot holes at the marked locations on the wall for the bracket retention screws.

IOVU-752S Panel PC

- Step 4:** Align the wall-mounting bracket screw holes with the pilot holes.
- Step 5:** Secure the mounting-bracket to the wall by inserting the retention screws into the four pilot holes and tightening them (**Figure 3-11**).

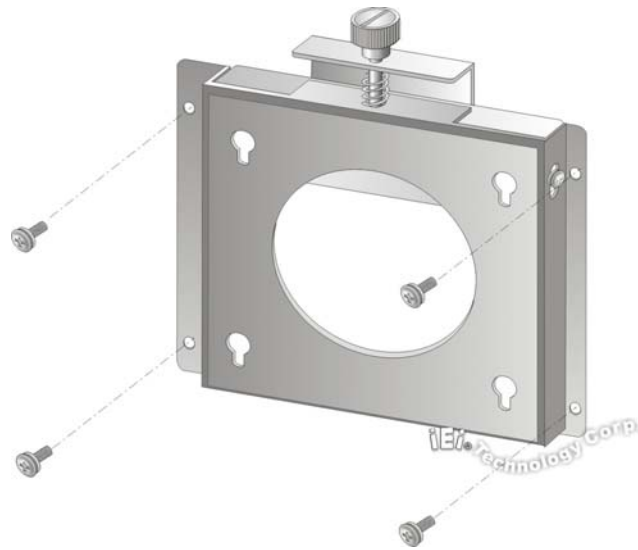


Figure 3-11: Wall-mounting Bracket

- Step 6:** Insert the four monitor mounting screws provided in the wall mounting kit into the four screw holes on the rear panel of the IOVU-752S and tighten until the screw shank is secured against the rear panel (**Figure 3-12**).
- Step 7:** Align the mounting screws on the monitor rear panel with the mounting holes on the bracket.
- Step 8:** Carefully insert the screws through the holes and gently pull the monitor downwards until the monitor rests securely in the slotted holes (**Figure 3-12**). Ensure that all four of the mounting screws fit snugly into their respective slotted holes.



NOTE:

In the diagram below the bracket is already installed on the wall.

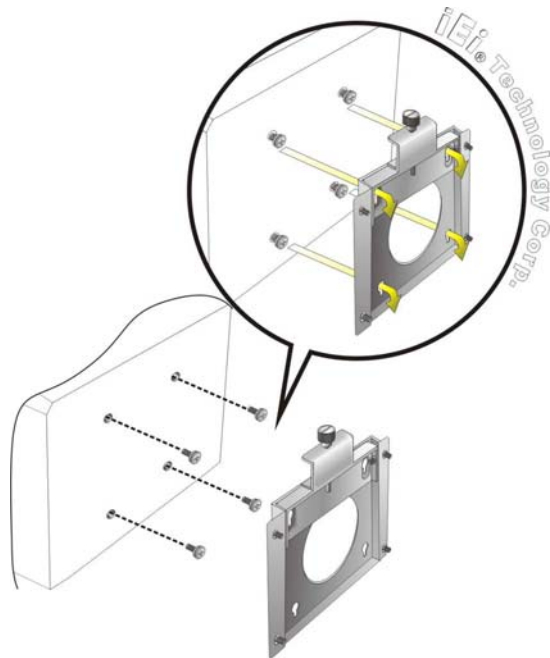


Figure 3-12: Chassis Support Screws

Step 9: Secure the panel PC by fastening the retention screw of the wall-mounting bracket (**Figure 3-13**).

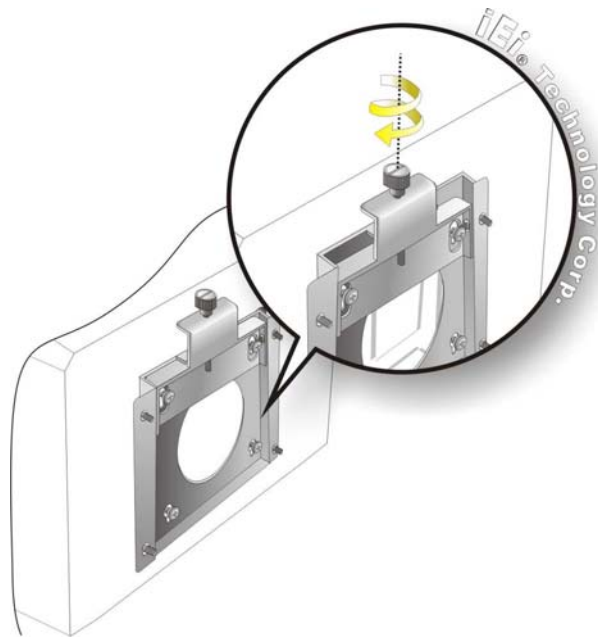


Figure 3-13: Secure the IOVU-752S

IOVU-752S Panel PC

3.4.2 Panel Mounting

The IOVU-752S can be mounted in a panel.



CAUTION:

When mounting the IOVU-752S, take care to tighten the retention screws or bolts until fully secure, but do not over tighten. Over tightening the retention screws or bolts may cause them to become stripped, rendering them useless.

To mount the IOVU-752S into a panel, please follow the steps below.

- Step 1:** Select the position on the panel to mount the IOVU-752S.
- Step 2:** Cut out a section from the panel that corresponds to the rear panel dimensions of the IOVU-752S. Take care that the panel section that is cut out is smaller than the overall size of the frame that surrounds the IOVU-752S but just large enough for the rear panel of the IOVU-752S to fit through (see **Figure 3-14**).

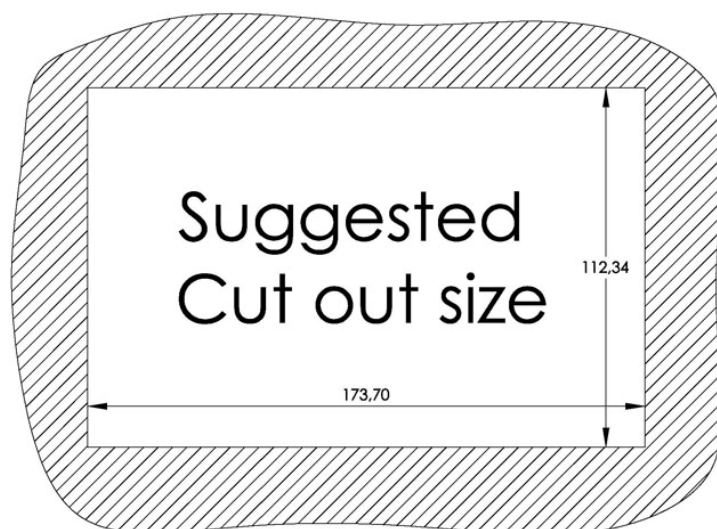


Figure 3-14: IOVU-752S Panel Opening (mm)

- Step 3:** Slide the IOVU-752S through the hole until the frame is flush against the panel.

Step 4: Insert the panel mounting clamps into the pre-formed holes along the edges of the chassis, behind the frame.



Figure 3-15: Panel Mounting Clamps

Step 5: Tighten the screws that pass through the panel mounting clamps until the plastic caps at the front of all the screws are firmly secured to the panel (**Figure 3-16**).

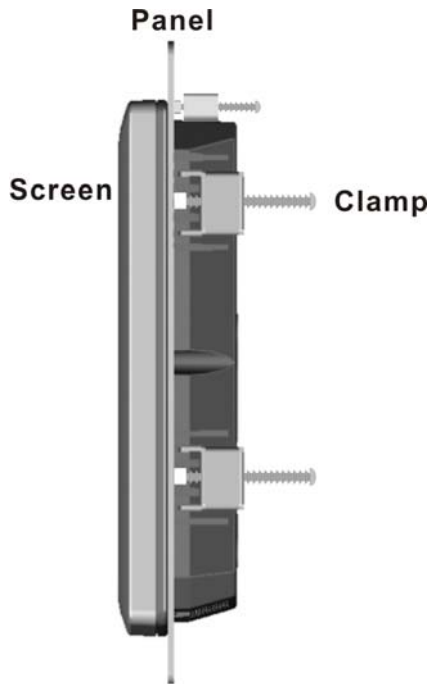


Figure 3-16: Tighten the Panel Mounting Clamp Screws

IOVU-752S Panel PC

3.4.3 Arm Mounting

The IOVU-752S is VESA (Video Electronics Standards Association) compliant and can be mounted on an arm with a 75 mm interface pad. To mount the IOVU-752S on an arm, please follow the steps below.

Step 1: The arm is a separately purchased item. Please correctly mount the arm onto the surface it uses as a base. To do this, refer to the installation documentation that came with the mounting arm.



NOTE:

When purchasing the arm, please ensure that it is VESA compliant and that the arm has a 75 mm interface pad. If the mounting arm is not VESA compliant, it cannot be used to support the IOVU-752S.

Step 2: Once the mounting arm has been firmly attached to the surface, lift the IOVU-752S onto the interface pad of the mounting arm.

Step 3: Align the retention screw holes on the mounting arm interface with those in the IOVU-752S, as shown in **Figure 3-17**.

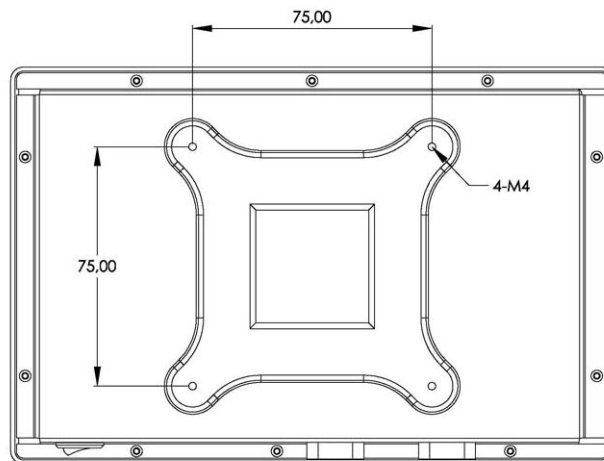


Figure 3-17: Arm Mounting Retention Screw Holes

- Step 4:** Secure the IOVU-752S to the interface pad by inserting four retention screws through the bottom of the mounting arm interface pad and into the IOVU-752S.

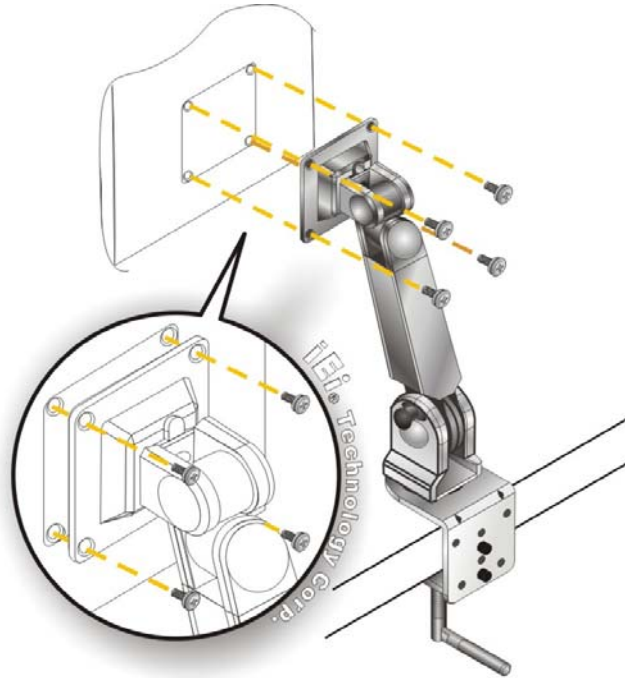


Figure 3-18: Arm Mounting Retention Screw Holes

3.4.4 Stand Mounting

The IOVU-752S has Video Electronics Standards Association (VESA) standard mounting holes tapped into the rear panel. The monitor stand mounting plate has a matching VESA hole pattern. To mount the IOVU-752S onto a stand, please follow the steps below.

- Step 1:** Line up the threaded holes on the system rear panel with the screw holes on the monitor stand mounting plate.
- Step 2:** Secure the system to the stand with the supplied retention screws (**Figure 3-19**).

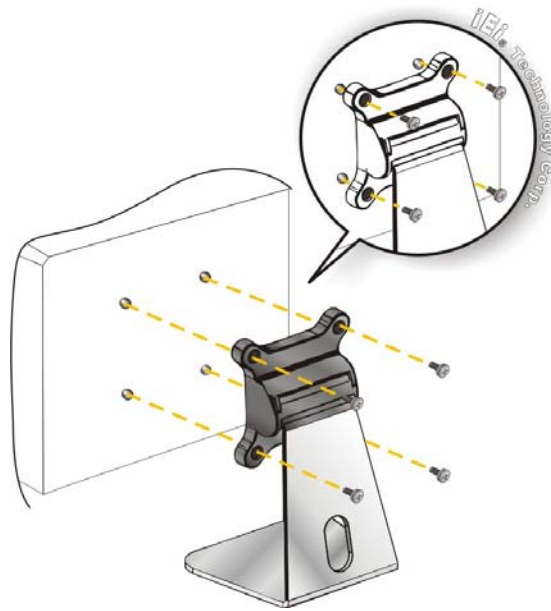


Figure 3-19: Stand Mounting

3.5 Software

The IOVU-752S comes with a pre-installed Windows® CE 6.0 operating system and a rich software application development kit. For information about configuring the operating system, adding remote management tools or additional software and drivers, refer to the user manuals on IEI IOVU Utility CD that came with the IOVU-752S. The IOVU includes the following software:

- Standard Windows® CE 6.0 professional version license.
- Optional Board Support Package (BSP) for customers to customize their own OS image.
- Attached Software Development Kit (SDK) for embedded Visual C++ to program Windows CE application.
- Built-in .NET Compact Framework support with related SDK
- Thin Client Technology, Microsoft RDP (Remote Desktop Protocol), to enable IOVU-752S to access Microsoft Windows® based applications installed on Microsoft Terminal Service server.
- Free pre-installed utilities for configuring and diagnosing your IOVU-752S.
- Free remote management tools installed in laptop for remotely configuring, monitoring, and managing your IOVU-752S.

Appendix

A

Certifications

IOVU-752S Panel PC

A.1 RoHS Compliant

All models in the IOVU series comply with the Restriction of Hazardous Materials (RoHS) Directive. This means that all components used to build the industrial workstations and the workstation itself are RoHS compliant.

The RoHS Directive bans the placing on the EU market of new electrical and electronic equipment containing more than agreed levels of lead, cadmium, mercury, hexavalent chromium, polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) flame retardants.

A.2 IP 64 Compliant Front Panel

The front panels on the IOVU-752S models in the IOVU series have an ingress protection rating (IP) of 64, IP 64 or greater. The front panels are protected from dust particles and splashed water.

Appendix

B

Safety Precautions

IOVU-752S Panel PC

B.1 Safety Precautions



WARNING:

The precautions outlined in this appendix should be strictly followed. Failure to follow these precautions may result in permanent damage to the IOVU-752S.

Please follow the safety precautions outlined in the sections that follow:

B.1.1 General Safety Precautions

Please ensure the following safety precautions are adhered to at all times.

- ***Make sure the power is turned off and the power cord is disconnected*** whenever the IOVU-752S is being installed, moved or modified.
- ***Do not apply voltage levels that exceed the specified voltage range.*** Doing so may cause fire and/or an electrical shock.
- ***Electric shocks can occur*** if the IOVU-752S chassis is opened when the IOVU-752S is running.
- ***Do not drop or insert any objects*** into the ventilation openings of the IOVU-752S.
- ***If considerable amounts of dust, water, or fluids enter the IOVU-752S,*** turn off the power supply immediately, unplug the power cord, and contact the IOVU-752S vendor.
- **DO NOT:**
 - Drop the IOVU-752S against a hard surface.
 - Strike or exert excessive force onto the LCD panel.
 - Touch any of the LCD panels with a sharp object
 - In a site where the ambient temperature exceeds the rated temperature

B.1.2 Anti-static Precautions



WARNING:

Failure to take ESD precautions during the installation of the IOVU-752S may result in permanent damage to the IOVU-752S and severe injury to the user.

Electrostatic discharge (ESD) can cause serious damage to electronic components, including the IOVU-752S. Dry climates are especially susceptible to ESD. It is therefore critical that whenever the IOVU-752S is opened and any of the electrical components are handled, the following anti-static precautions are strictly adhered to.

- ***Wear an anti-static wristband:*** Wearing a simple anti-static wristband can help to prevent ESD from damaging any electrical component.
- ***Self-grounding:*** Before handling any electrical component, touch any grounded conducting material. During the time the electrical component is handled, frequently touch any conducting materials that are connected to the ground.
- ***Use an anti-static pad:*** When configuring or working with an electrical component, place it on an anti-static pad. This reduces the possibility of ESD damage.
- ***Only handle the edges of the electrical component:*** When handling the electrical component, hold the electrical component by its edges.

IOVU-752S Panel PC

B.1.3 Product Disposal

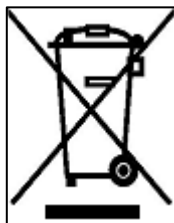


CAUTION:

Risk of explosion if battery is replaced by and incorrect type. Only certified engineers should replace the on-board battery.

Dispose of used batteries according to instructions and local regulations.

- Outside the European Union - If you wish to dispose of used electrical and electronic products outside the European Union, please contact your local authority so as to comply with the correct disposal method.
- Within the European Union:



EU-wide legislation, as implemented in each Member State, requires that waste electrical and electronic products carrying the mark (left) must be disposed of separately from normal household waste. This includes monitors and electrical accessories, such as signal cables or power cords.

When you need to dispose of your display products, please follow the guidance of your local authority, or ask the shop where you purchased the product. The mark on electrical and electronic products only applies to the current European Union Member States.

Please follow the national guidelines for electrical and electronic product disposal.

B.2 Maintenance and Cleaning Precautions

When maintaining or cleaning the IOVU-752S, please follow the guidelines below.

B.2.1 Maintenance and Cleaning

Prior to cleaning any part or component of the IOVU-752S please read the details below.

- Except for the LCD panel, never spray or squirt liquids directly onto any other components. To clean the LCD panel, gently wipe it with a piece of soft dry cloth or a slightly moistened cloth.
- The interior of the IOVU-752S does not require cleaning. Keep fluids away from the IOVU-752S interior.
- Be cautious of all small removable components when vacuuming the IOVU-752S.
- Turn the IOVU-752S off before cleaning the IOVU-752S.
- Never drop any objects or liquids through the openings of the IOVU-752S.
- Be cautious of any possible allergic reactions to solvents or chemicals used when cleaning the IOVU-752S.
- Avoid eating, drinking and smoking within vicinity of the IOVU-752S.

B.2.2 Cleaning Tools

Some components in the IOVU-752S may only be cleaned using a product specifically designed for the purpose. In such case, the product will be explicitly mentioned in the cleaning tips. Below is a list of items to use when cleaning the IOVU-752S.

- **Cloth** – Although paper towels or tissues can be used, a soft, clean piece of cloth is recommended when cleaning the IOVU-752S.
- **Water or rubbing alcohol** – A cloth moistened with water or rubbing alcohol can be used to clean the IOVU-752S.
- **Using solvents** – The use of solvents is not recommended when cleaning the IOVU-752S as they may damage the plastic parts.
- **Vacuum cleaner** – Using a vacuum specifically designed for computers is one of the best methods of cleaning the IOVU-752S. Dust and dirt can restrict the airflow in the IOVU-752S and cause its circuitry to corrode.
- **Cotton swabs** - Cotton swaps moistened with rubbing alcohol or water are excellent tools for wiping hard to reach areas.
- **Foam swabs** - Whenever possible, it is best to use lint free swabs such as foam swabs for cleaning.

B.3 FCC Precautions



WARNING:

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 against harmful interference in a residential installation. This equipment generates, uses and can radiate 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.

You are cautioned that any change or modifications to the equipment not expressly approve by the party responsible for compliance could void your authority to operate such equipment.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Appendix

C

Hazardous Materials Disclosure

C.1 Hazardous Materials Disclosure Table for IPB Products Certified as RoHS Compliant Under 2002/95/EC Without Mercury

The details provided in this appendix are to ensure that the product is compliant with the Peoples Republic of China (China) RoHS standards. The table below acknowledges the presences of small quantities of certain materials in the product, and is applicable to China RoHS only.

A label will be placed on each product to indicate the estimated “Environmentally Friendly Use Period” (EFUP). This is an estimate of the number of years that these substances would “not leak out or undergo abrupt change.” This product may contain replaceable sub-assemblies/components which have a shorter EFUP such as batteries and lamps. These components will be separately marked.

Please refer to the table on the next page.

| Part Name | Toxic or Hazardous Substances and Elements | | | | | |
|-------------------------|--|--------------|--------------|------------------------------|--------------------------------|---------------------------------------|
| | Lead (Pb) | Mercury (Hg) | Cadmium (Cd) | Hexavalent Chromium (CR(VI)) | Polybrominated Biphenyls (PBB) | Polybrominated Diphenyl Ethers (PBDE) |
| Housing | X | O | O | O | O | X |
| Display | X | O | O | O | O | X |
| Printed Circuit Board | X | O | O | O | O | X |
| Metal Fasteners | X | O | O | O | O | O |
| Cable Assembly | X | O | O | O | O | X |
| Fan Assembly | X | O | O | O | O | X |
| Power Supply Assemblies | X | O | O | O | O | X |
| Battery | O | O | O | O | O | O |

O: This toxic or hazardous substance is contained in all of the homogeneous materials for the part is below the limit requirement in SJ/T11363-2006

X: This toxic or hazardous substance is contained in at least one of the homogeneous materials for this part is above the limit requirement in SJ/T11363-2006

IOVU-752S Panel PC

此附件旨在确保本产品符合中国 RoHS 标准。以下表格标示此产品中某有毒物质的含量符合中国 RoHS 标准规定的限量要求。

本产品上会附有“环境友好使用期限”的标签，此期限是估算这些物质“不会有泄漏或突变”的年限。本产品可能包含有较短的环境友好使用期限的可替换元件，像是电池或灯管，这些元件将会单独标示出来。

| 部件名称 | 有毒有害物质或元素 | | | | | |
|--------|-----------|-----------|-----------|-----------------|---------------|---------------------|
| | 铅 (Pb) | 汞 (Hg) | 镉 (Cd) | 六价铬 (CR(VI)) | 多溴联苯 (PBB) | 多溴二苯 醚 (PBDE) |
| 壳体 | X | O | O | O | O | X |
| 显示 | X | O | O | O | O | X |
| 印刷电路板 | X | O | O | O | O | X |
| 金属螺帽 | X | O | O | O | O | O |
| 电缆组装 | X | O | O | O | O | X |
| 风扇组装 | X | O | O | O | O | X |
| 电力供应组装 | X | O | O | O | O | X |
| 电池 | O | O | O | O | O | O |

O: 表示该有毒有害物质在该部件所有物质材料中的含量均在 SJ/T11363-2006 标准规定的限量要求以下。
X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T11363-2006 标准规定的限量要求。