QDSP-2060

Small PC with 2nd Generation Intel® Core i3/i5/i7 Processors

User's Guide

Contact Info: **Quanmax Inc.**
5F, No. 415, Ti-Ding Blvd. Sec. 2, NeiHu District,
Taipei, Taiwan 114
Tel: +886-2-2799-2789
Fax: +886-2-2799-7399

Visit our site at: **www.quanmax.com**

The information in this user's guide is provided for reference only. Quanmax does not assume any liability arising out of the application or use of the information or products described herein. This user's guide may contain or reference information and products protected by copyrights or patents and does not convey any license under the patent rights of Quanmax, nor the rights of others.

Quanmax reserves the right to make changes without notice in product or component design as warranted by evolution in user needs or progress in engineering or manufacturing technology. Changes which affect the operation of the unit will be documented in the next revision of this user's guide.

Revision	Date	Edited by	Changes
1.0	2011/10/05	Zack	Initial Release

Content

Figures & Tables

Safety Instructions

■ Before You Begin

Before handling the product, read the instructions and safety guidelines on the following pages to prevent damage to the product and to ensure your own personal safety. Refer to the “Advisories” section in the Preface for advisory conventions used in this user’s guide, including the distinction between Warnings, Cautions, Important Notes, and Notes.

- Always use caution when handling/operating a computer. Only qualified, experienced, authorized electronics service personnel should access the interior of a computer. The power supplies produce high voltages and energy hazards, which can cause bodily harm.
- Use extreme caution when installing or removing components. Refer to the installation instructions in this user’s guide for precautions and procedures. If you have any questions, please contact Quanmax Post-Sales Technical Support.
- Access can only be gained by service persons or by users who have been instructed about the reasons for the restrictions applied to the location and about any precautions that shall be taken; and access is through the use of a tool or lock and key, or other means of security, and is controlled by authority responsible for the location.

WARNING

High voltages are present inside the chassis when the unit’s power cord is plugged into an electrical outlet. Turn off system power, turn off the power supply, and then disconnect the power cord from its source before removing the chassis cover. Turning off the system power switch does not remove power to components.

■ When Working Inside a Computer

Before taking covers off a computer, perform the following steps:

1. Turn off the computer and any peripherals.
2. Disconnect the computer and peripherals from their power sources or subsystems to prevent electric shock or system board damage. This does not apply when hot swapping parts.
3. Follow the guidelines provided in “Preventing Electrostatic Discharge” on the following page.
4. Disconnect any telephone or telecommunications lines from the computer.

In addition, take note of these safety guidelines when appropriate:

- To help avoid possible damage to system boards, wait five seconds after turning off the computer before removing a component, removing a system board, or disconnecting a peripheral device from the computer.
- When you disconnect a cable, pull on its connector or on its strain-relief loop, not on the cable itself. Some cables have a connector with locking tabs. If you are disconnecting this type of cable, press in on the locking tabs before disconnecting the cable. As you pull connectors apart, keep them evenly aligned to avoid bending any connector pins. Also, before connecting a cable, make sure both connectors are correctly oriented and aligned.

CAUTION

Do not attempt to service the system yourself except as explained in this user’s guide. Follow installation and troubleshooting instructions closely.

■ Preventing Electrostatic Discharge

Static electricity can harm system boards. Perform service at an ESD workstation and follow proper ESD procedure to reduce the risk of damage to components. Quanmax strongly encourages you to follow proper ESD procedure, which can include wrist straps and smocks, when servicing equipment.
You can also take the following steps to prevent damage from electrostatic discharge (ESD):

- When unpacking a static-sensitive component from its shipping carton, do not

remove the component's antistatic packing material until you are ready to install the component in a computer. Just before unwrapping the antistatic packaging, be sure you are at an ESD workstation or grounded. This will discharge any static electricity that may have built up in your body.

- When transporting a sensitive component, first place it in an antistatic container or packaging.
- Handle all sensitive components at an ESD workstation. If possible, use antistatic floor pads and workbench pads.
- Handle components and boards with care. Don't touch the components or contacts on a board. Hold a board by its edges or by its metal mounting bracket.
- Do not handle or store system boards near strong electrostatic, electromagnetic, magnetic, or radioactive fields.

Instructions for Lithium Battery

WARNING

Danger of explosion when battery is replaced with incorrect type. Only replace with the same or equivalent type recommended by the manufacturer.

Do not dispose of lithium batteries in domestic waste. Dispose of the battery according to the local regulations dealing with the disposal of these special materials (e.g. to the collecting points for disposal of batteries)

Voltage Ratings

The external power adaptor of the QDSP-2060 has the following voltage ratings:

- Input: 100-240 VAC, 50-60 Hz
- Output: 75W, +19Vdc, 3.95A

Preface

■ How to Use This Guide

This guide is designed to be used as step-by-step instructions for installation, and as a reference for operation, troubleshooting, and upgrades.

NOTE

Driver downloads and additional information are available under Downloads on our web site: www.quanmax.com.

■ Unpacking

When unpacking, follow these steps:

1. After opening the box, save it and the packing material for possible future shipment.
2. Remove all items from the box. If any items listed on the purchase order are missing, notify Quanmax customer service immediately.
3. Inspect the product for damage. If there is damage, notify Quanmax customer service immediately. Refer to “Warranty Policy” for the return procedure.

■ Regulatory Compliance Statements

This section provides the FCC compliance statement for Class A devices.

FCC Compliance Statement:

This equipment has been tested and found to comply with limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reason able protection against harmful interference in residential installations. This equipment generates, uses, and can radiate radiofrequency 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

interference to radio or television equipment 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 to 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.

Changes or modifications not expressly approved by Quanmax could void the user's authority to operate the equipment.

NOTE

The assembler of a personal computer system may be required to test the system and/or make necessary modifications if a system is found to cause harmful interference or to be noncompliant with the appropriate standards for its intended use.

■ Warranty Policy

Limited Warranty

Quanmax Inc.'s detailed Limited Warranty policy can be found under Support at www.quanmax.com. Please consult your distributor for warranty verification.
The limited warranty is void if the product has been subjected to alteration, neglect, misuse, or abuse; if any repairs have been attempted by anyone other than Quanmax or its authorized agent; or if the failure is caused by accident, acts of God, or other causes beyond the control of Quanmax or the manufacturer. Neglect, misuse, and abuse shall include any installation, operation, or maintenance of the product other than in accordance with the user's guide.
No agent, dealer, distributor, service company, or other party is authorized to change, modify, or extend the terms of this Limited Warranty in any manner whatsoever. Quanmax reserves the right to make changes or improvements in any product without incurring any obligation to similarly alter products previously purchased.

Return Procedure

For any Limited Warranty return, please contact Support at www.quanmax.com and login to obtain a Return Material Authorization (RMA) Number. If you do not have an

account, send an email to support@quanmax.com to apply for one.
All product(s) returned to Quanmax for service or credit must be accompanied by a Return Material Authorization (RMA) Number. Freight on all returned items must be prepaid by the customer who is responsible for any loss or damage caused by common carrier in transit. Returns for Warranty must include a Failure Report for each unit, by serial number(s), as well as a copy of the original invoice showing the date of purchase.
To reduce risk of damage, returns of product must be in a Quanmax shipping container. If the original container has been lost or damaged, new shipping containers may be obtained from Quanmax Customer Service at a nominal cost.
Quanmax owns all parts removed from repaired products. Quanmax uses new and reconditioned parts made by various manufacturers in performing warranty repairs and building replacement products. If Quanmax repairs or replaces a product, its warranty term is not extended.
Shipments not in compliance with this Limited Warranty Return Policy will not be accepted by Quanmax.

Limitation of Liability

In no event shall Quanmax be liable for any defect in hardware, software, loss, or inadequacy of data of any kind, or for any direct, indirect, incidental, or consequential damages in connection with or arising out of the performance or use of any product furnished hereunder. Quanmax's liability shall in no event exceed the purchase price of the product purchased hereunder. The foregoing limitation of liability shall be equally applicable to any service provided by Quanmax or its authorized agent.

■ Maintaining Your Computer

Environmental Factors

- **Temperature**

  The ambient temperature within an enclosure may be greater than room ambient temperature. Installation in an enclosure should be such that the amount of air flow required for safe operation is not compromised. Consideration should be given to the maximum rated ambient temperature. Overheating can cause a variety of problems, including premature aging and failure of chips or mechanical failure of devices.

  If the system has been exposed to abnormally cold temperatures, allow a two-hour warm-up period to bring it up to normal operating temperature before

turning it on. Failure to do so may cause damage to internal components, particularly the hard disk drive.

- **Humidity**
  High-humidity can cause moisture to enter and accumulate in the system. This moisture can cause corrosion of internal components and degrade such properties as electrical resistance and thermal conductivity. Extreme moisture buildup inside the system can result in electrical shorts, which can cause serious damage to the system.
  Buildings in which climate is controlled usually maintain an acceptable level of humidity for system equipment. However, if a system is located in an unusually humid location, a dehumidifier can be used to maintain the humidity within an acceptable range. Refer to the “Specifications” section of this user’s guide for the operating and storage humidity specifications.

Power Protection

The greatest threats to a system’s supply of power are power loss, power spikes, and power surges caused by electrical storms, which interrupt system operation and/or damage system components. To protect your system, always properly ground power cables and one of the following devices.

- **Surge Protector**
  Surge protectors are available in a variety of types and usually provide a level of protection proportional with the cost of the device. Surge protectors prevent voltage spikes from entering a system through the AC power cord. Surge protectors, however, do not offer protection against brownouts, which occur when the voltage drops more than 20 percent below the normal AC line voltage level.

- **Line Conditioner**
  Line conditioners go beyond the overvoltage protection of surge protectors. Line conditioners keep a system’s AC power source voltage at a fairly constant level and, therefore, can handle brownouts. Because of this added protection, line conditioners cost more than surge protectors. However, line conditioners cannot protect against a complete loss of power.

- **Uninterruptible Power Supply**
  Uninterruptible power supply (UPS) systems offer the most complete protection

against variations on power because they use battery power to keep the server running when AC power is lost. The battery is charged by the AC power while it is available, so when AC power is lost, the battery can provide power to the system for a limited amount of time, depending on the UPS system.
UPS systems range in price from a few hundred dollars to several thousand dollars, with the more expensive unit s allowing you to run larger systems for a longer period of time when AC power is lost. UPS systems that provide only 5 minutes of battery power let you conduct an orderly shutdown of the system, but are not intended to provide continued operation. Surge protectors should be used with all UPS systems, and the UPS system should be Underwriters Laboratories (UL) safety approved.

Chapter 1

Introduction

■ Overview

QDSP-2060 is a surprisingly affordable, space-saving system that will capably serve everyday computing needs and turn your living room into home theater with ease. Featuring the 2nd Generation Intel® Core i3/i5/i7 Processors with Intel® QM67 / HM65 chipset, it provides the powerful computing and graphic performance with the optimal energy efficiency.

Checklist

- QDSP-2060
- Power Adapter
- Power Cord
- Driver CD
- Quick installation Guide
- VESA Mounting Kit

Features

- 2nd Generation Intel® Core i3/i5/i7 Processors with Intel® QM67/HM65 chipset
- 2x DDR3 1066/1333 SO-DIMM, up to 16GB
- 1x DVI-I, 1x HDMI, 1x DP, 2x GbE and 5.1 channel audio output
- SATA HDD, 1x eSATA & USB Combo Connector, 1x CF
- 1x USB 3.0 and 4x USB 2.0, 1x COM
- TPM 1.2 and iAMT 7.0 supported
- 2x mini-PCIe for expansion

■ Product Specifications

Dimensions	200 x 35 x 153.1 mm (WxHxD)
Weight	1.1 Kg (Net)/2.5 Kg (Gross)
CPU/ Chipset	Intel® Huron River Platform 2nd Generation Intel® Core™ i3/i5/i7 Processors Intel® QM67 / HM65
RAM	2x DDR3 1066/1333 SO-DIMM up to 16GB
Storage	1 x 2.5” SATA HDD or SSD
Front IO	3x 3.5mm Phone Jack, support 5.1 channel audio output 1x S/PDIF Output 1x eSATA and USB 2.0 combo connector 4x USB 2.0 and 1x USB 3.0 1x CF Slot 1x Power LED, 1x Storage status LED and 1x WiFi status LED 1x 3G external antenna
Rear IO	1x DC JACK for DC19V single power input 1x DVI-I for DVI-D or VGA output 1x HDMI 1x DP 2x RJ-45 GbE ports 1x COM Port support RS-232/422/485 (Offer +5V selection) 2x Wifi external antenna
Expansion Slot	2 x mini PCIe slots (1x full size and 1x half size) (Optional for 3G/WiFi/Bluetooth module) 1x SIM card slot (for 3G appliance) support user accessible
OS Support	Windows Xp/XPe/Windows 7 / Windows 8 / Linux
Cooling	System Fan with Smart Fan Control
Power Unit	Input: 100-240 VAC Output: 75 Watt, +19V DC, 3.95A
Temperature / Humidity	Operating: 0°C to 45°C, 0%-90%, non-condensing Storage: -20°C to 80°C, 0%-90%, non-condensing
Mounting	VESA-mount
Certifications	CE, FCC Class A

Table 1 QDSP-2060 product specifications

■ System tour

Refer to the diagrams below to identify the components of the system.

■ Front I/Os

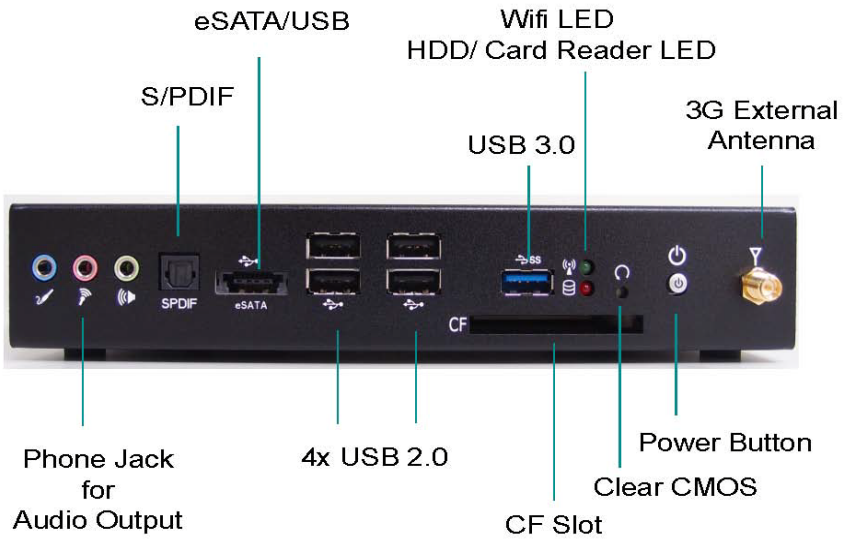


Figure 1 Front I/Os

Power Button

The power push button allows powering ON and OFF the system.

Clear CMOS Button

To clear the CMOS, use the tip of a pen to press the button briefly (for less than three seconds).

WiFi LED (Green)

The WiFi LED will light when the WiFi is on.

Storage LED (Red)

The hard disk/card reader LED blinks when data is being written into or read from the HDD/Card Reader.

USB

The USB (Universal Serial Bus) port is compatible with USB devices such as keyboards, mouse devices, cameras, and hard disk drives. USB allows many

devices to run simultaneously on a single computer, with some peripheral acting as additional plug-in sites or hubs.

S/PDIF

S/PDIF output for carrying digital audio signals out to the device.

eSATA/USB (combo)

This provides eSATA and USB connectivity as a combo connector.

3G External Antenna

Spared hole on the casing for connecting 3G external antenna

CF Slot

CompactFlash Card Slot

Phone Jack

Audio Out

The stereo headphone jack is used to connect the system's audio out signal to amplified speakers or headphones.

MIC-IN

The microphone jack is designed to connect the microphone used for video conferencing, voice narrations, or simple audio recordings.

Line-IN

The Line-in jack is designed to take input from a higher-powered sound source.

CAUTION

This connector do not support hot-swapping. Users should not connect or disconnect their eSATA/USB (combo) & CF devices from PC when the system is Working.

■ Rear I/Os

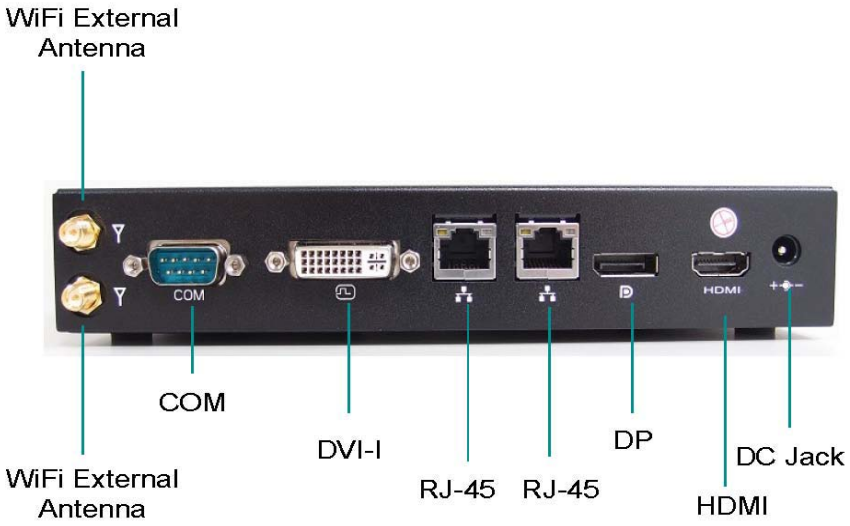


Figure 2 Rear I/Os

DC Jack

The supplied power adapter converts AC power to DC for use with this jack. Power supplied through this jack supplies power to the PC. To prevent damage to the PC, always use the supplied power adapter.

HDMI

HDMI connector for display output

DP

Display Port

Ethernet

The eight-pin RJ-45 LAN port supports a standard Ethernet cable for connection to a local network.

DVI-I

DVI-I connector for DVI-D or VGA output

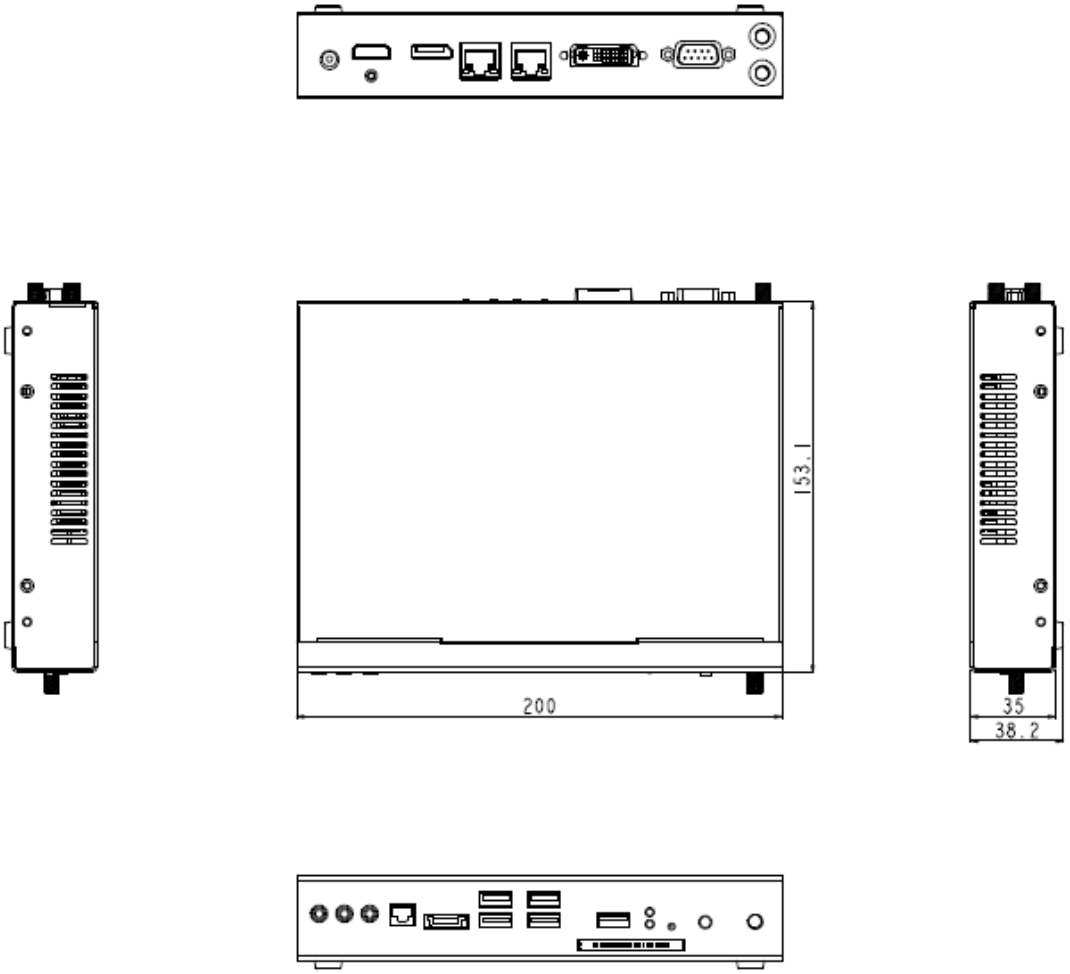
COM

D-Sub 9 pin connector for RS-232 connection

WiFi External Antenna

Spared hole on the casing for connecting WiFi external antenna

■ Mechanical Dimensions



200 x 35 x 153.1 mm (W x H x D)

Figure 3 Mechanical Dimensions

Chapter 2

Getting Started

■ Setting up your PC

■ Connect the DVI-I

Connecting the monitor

Connect the DVI-I cable from your display to the DVI-I port.

DVI-I

Figure 4 Connect the DVI cable

NOTE

When the system reboots without connecting the DVI, there might be no image on screen when you insert the DVI cable. Please pressing <**Ctrl>+<Alt>+<F4>** simultaneously to show the image on screen.

■ Connecting USB mouse & keyboard

Your QDSP-2060 does not come with a keyboard and mouse, but you can use any USB keyboard or mouse with your computer.

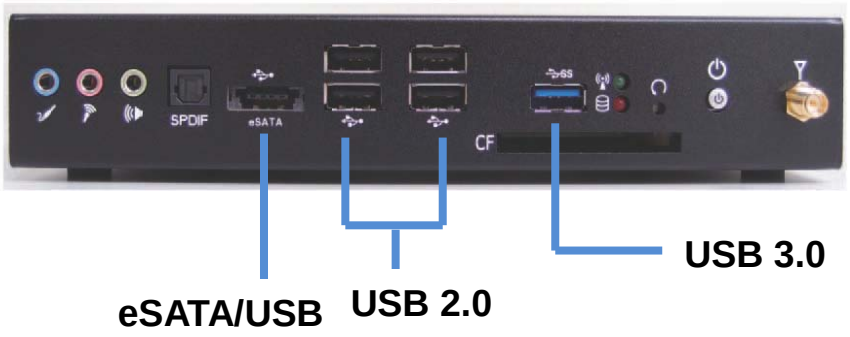


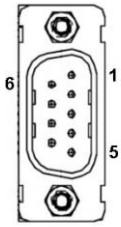
Figure 5 Connect USB mouse & keyboard

NOTE

Using a third-party USB mouse or keyboard may require software drivers. Check the manufacturer's website for the latest software drivers.

■ COM port

COM port with the pin definitions.



Pin	RS-232	RS-422	Half Duplex RS-485	Full Duplex RS-485
1	DCD	TX-	DATA-	TX-
2	RXD	RX+	NA	RX+
3	TXD	TX+	DATA+	TX+
4	DTR	RX-	NA	RX-
5	GND	GND	GND	GND
6	DSR	NA	NA	NA
7	RTS	NA	NA	NA
8	CTS	NA	NA	NA
9	RI / +5V*	NA / +5V*	NA / +5V*	NA / +5V*

Figure 6 COM port

■ Connecting to a network device

Connect one end of a network cable to the LAN port on the system rear panel and the other end to a hub or switch.

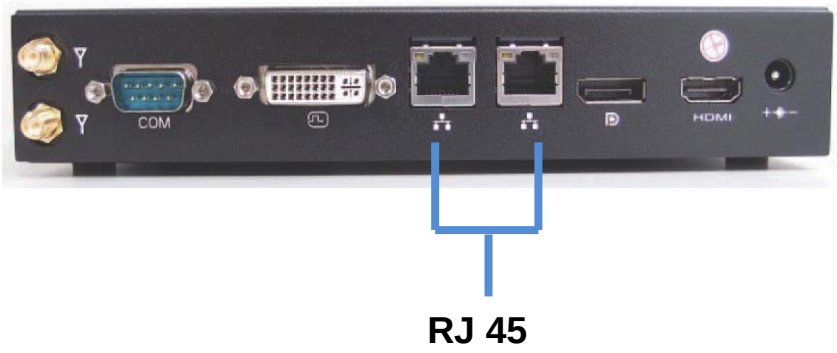


Figure 7 Network cable with RJ45 connector

■ Turning on the system

1. Connect the supplied AC power cord to the system AC power inlet on the I/O panel of the system.
2. Connect the other end of the AC power cord to a corresponding outlet.
3. Press the power switch to turn on the system

Figure 8 Turning on the system

■ Connecting VESA Mount on QDSP-2060

1. Take out the VESA mounting kit form your package and facing it onto the bottom of QDSP-2060; then tightening the screws on your QDSP-2060 as figures shown below.

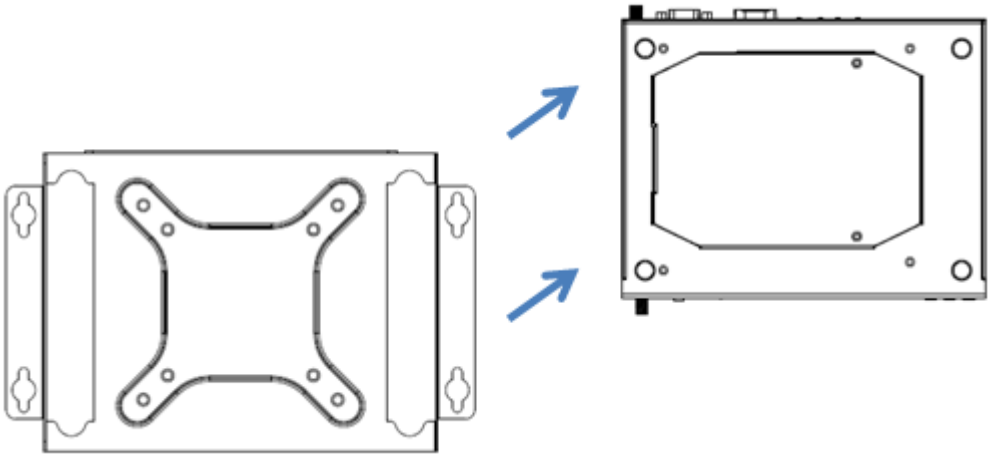


Figure 9 VESA Mount Assembly

2. Following figures are the complete status when you done.

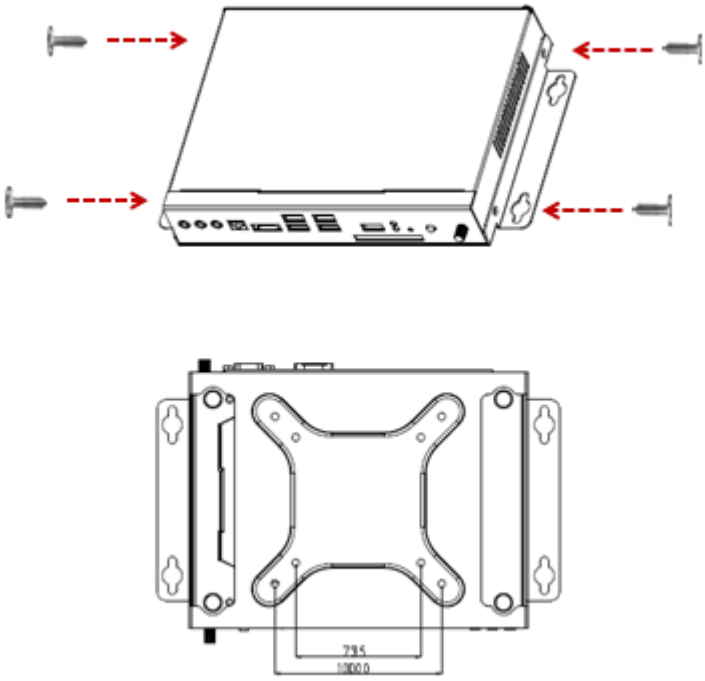


Figure 10 VESA Mount on QDSP-2060

■ Mounting your PC to a monitor

1. Firstly, mount your VESA kit on the backside of the monitor with four screws in the package.
2. Secondly, place the QDSP-2060 on the VESA mounting kit and then tightening the screws from the holes on both sides of the VESA bracket - make sure the computer is fitting well on the bracket.

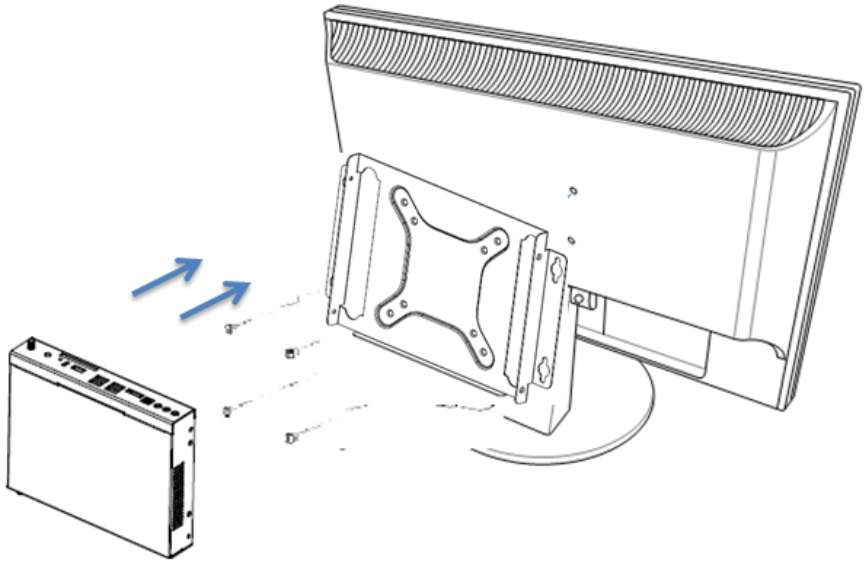


Figure 11 VESA mounting

NOTE

To fasten the metal shelf, your monitor must comply with VESA75 or VESA100 standard.

Remarks: VESA mounting kit could be used as wall mounting kit as well.

■ Changing Memory and mini-PCIe

Firstly, Opening the cover by loosening the two screws on the bottom of QDSP-2060 as shown below;

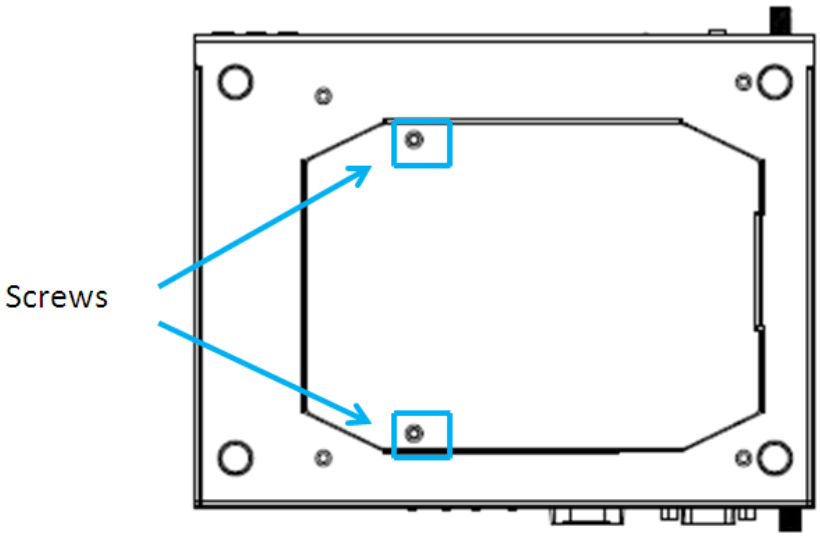


Figure 12 Opening the Cover on the Bottom

Then you may able to change the DDR SO-DIMM and/or mini-PCIe modules.

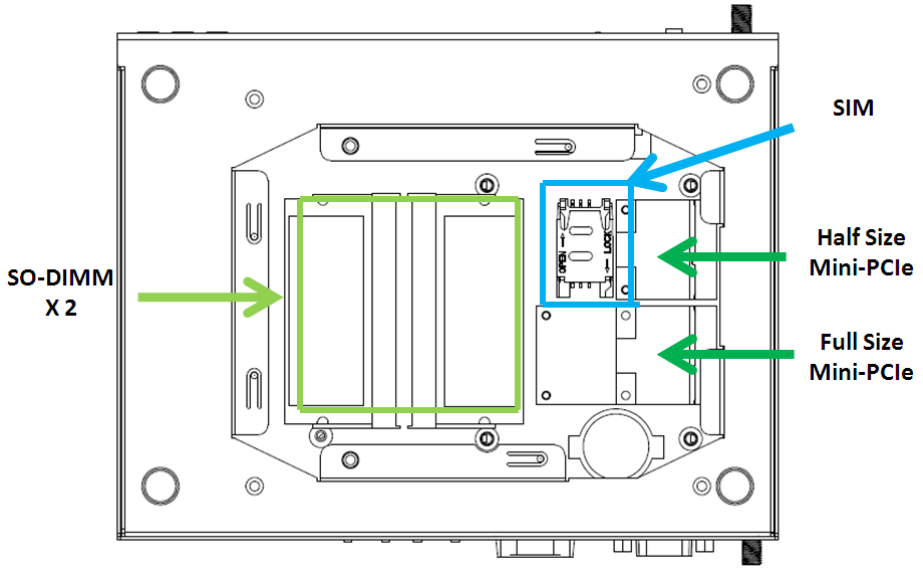


Figure 13 Bottom view of Main Board

Remarks: Please use Full Size Mini-PCIe slot for expansion if you are using 3G module.

Changing Memory

Carefully follow the steps below in order to install the SO-DIMMs:

1. To avoid generating static electricity and damaging the SO-DIMM, ground yourself by touching a grounded metal surface or use a ground strap before you touch the SO-DIMM.
2. Do not touch the connectors of the SO-DIMM. Dirt or other residue may cause a malfunction.
3. Hold the SO-DIMM with its notch aligned with the memory socket of the board and insert it at a 30-degree angle into the socket.

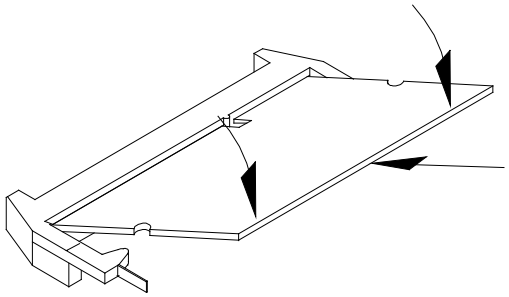


Figure 14 SO-DIMM Installation (1)

Align the SO-DIMM Memory Module with the onboard socket

4. Fully insert the module into the socket until a “click” is heard.
5. Press down on the SO-DIMM so that the tabs of the socket lock on both sides of the module

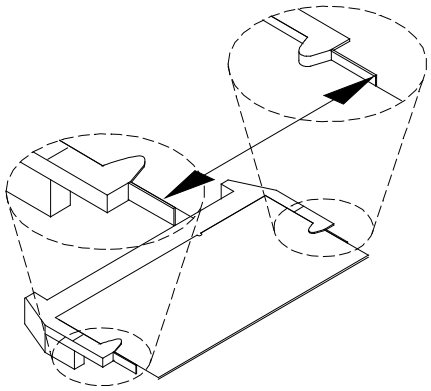


Figure 15 SO-DIMM Installation (2)

Press down on the SO-DIMM Memory Module to lock it in place

Removing a SO-DIMM:

To remove the SO-DIMM, use your fingers or a small screwdriver to carefully push away the tabs that secure either side of the SO-DIMM. Lift it out of the socket.
Make sure you store the SO-DIMM in an anti-static bag. The socket must be populated with memory modules of the same size and manufacturer.

Changing mini-PCIe

(1) Place your mini-PCIe module toward the mini-PCIe socket.

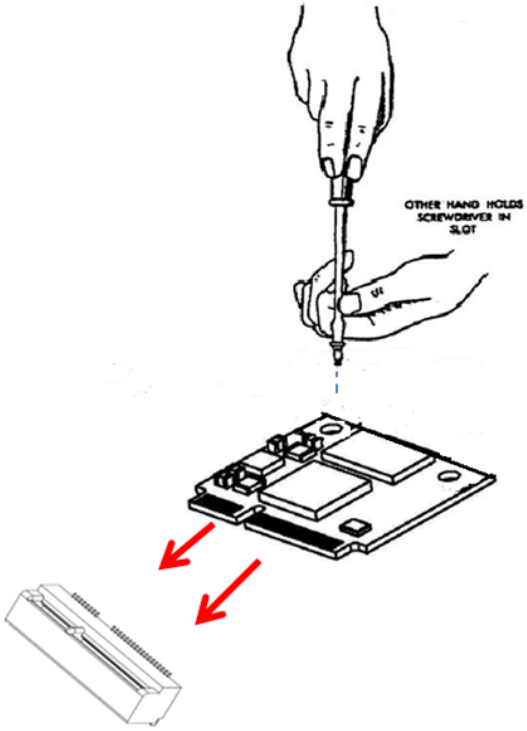


Figure 16 Mini-PCIe Installation

(2) Tightening the screw on the hole of the mini-PCIe module as shown above.

Chapter 3

AMI BIOS Setup

■ Overview

This chapter provides a description of the AMI BIOS. The BIOS setup menus and available selections may vary from those of your product. For specific information on the BIOS for your product, please contact Quanmax.

NOTE: The BIOS menus and selections for your product may vary from those in this chapter. For the BIOS manual specific to your product, please contact Quanmax

AMI's ROM BIOS provides a built-in Setup program, which allows the user to modify the basic system configuration and hardware parameters. The modified data will be stored in a battery-backed CMOS, so that data will be retained even when the power is turned off. In general, the information saved in the CMOS RAM will not need to be changed unless there is a configuration change in the system, such as a hard drive replacement or when a device is added.
It is possible for the CMOS battery to fail, which will cause data loss in the CMOS only. If this happens you will need to reconfigure your BIOS settings.

■ Main Menu

The BIOS Setup is accessed by pressing the DEL key after the Power-On Self-Test (POST) memory test begins and before the operating system boot begins. Once you enter the BIOS Setup Utility, the Main Menu will appear on the screen. The Main Menu provides System Overview information and allows you to set the System Time and Date. Use the “<” and “>” cursor keys to navigate between menu screens.

Table 2 BIOS Main Menu

BIOS SETUP UTILITY		
Main Advanced Boot Security Save & Exit		
Product Information		
Product Name	QDSP-2060	
BIOS Version	1.01	
BIOS Build Date	02/22/2012	
CPU Information Intel® Celeron ® CPU B810 @ 1.60GHz		
Microcode Revision	14	
Processor Cores	2	
Memory Information		→ ← Select Screen ↑↓ Select Item
Total Size	4096 MB (DDR3)	Enter: Select
Frequency	1333 MHz	+- Change Opt.
System date	[Wed 06/01/2012]	F1: General Help
System time	[14:13:19]	F2: Previous Values F3: Optimized Defaults F4 Save & Exit ESC Exit
Version 2.10.1208. Copyright (C) 2010, American Megatrends, Inc.		

■ Advanced Menu

Table 3 Advanced Menu

BIOS SETUP UTILITY		
Main **Advanced** Boot Security Server Mgmt Save & Exit		
Onboard LAN1 Controller	[Enabled]	
Onboard LAN1 Boot	[Disabled]	
Onboard LAN2 Controller	[Enabled]	
Onboard LAN2 Boot	[Disabled]	→ ← Select Screen
Audio Controller	[Enabled]	↑↓ Select Item
		Enter: Select
> Display Configuration		+- Change Opt.
> Super IO Configuration		F1: General Help
> Power Management Configuration		F2: Previous Values
> CPU Advanced Configuration		F3: Optimized Defaults
> Trusted Computing		F4 Save & Exit
>SATA Configuration		ESC Exit
>Intel TXT(LT) Configuration		
>AMT Configuration		
>USB Configuration		
>H/W Monitor		
Version 2.10.1208. Copyright (C) 2010, American Megatrends, Inc.		

Onboard LAN 1 Controller

Options: Disabled, Enabled

Onboard LAN 1 Boot

Options: Disabled, Enabled

Onboard LAN 2 Controller

Options: Disabled, Enabled

Onboard LAN 2 Boot

Options: Disabled, Enabled

Audio Controller

Options: Disabled, Enabled, Auto

Table 4 Advanced Menu – Display Configuration

BIOS SETUP UTILITY		
Main **Advanced** Boot Security Server Mgmt Save & Exit		
Display Configuration		
Primary Display	[IGFX]	
Internal Graphics	[Enabled]	
Aperture Size	[256 MB]	
DVMT Pre-Allocated	[64M]	→ ← Select Screen
DVMT Total Gfx Mem	[256 M]	↑↓ Select Item
IGFX – Boot Type	[VBIOS Default]	Enter: Select
IGFX – 2nd Boot Type	[Disabled]	+- Change Opt.
		F1: General Help
		F2: Previous Values
		F3: Optimized Defaults
		F4 Save & Exit
		ESC Exit
Version 2.10.1208. Copyright (C) 2010, American Megatrends, Inc.		

Aperture Size

Options: 128MB, 256MB, 512MB

DVMT Pre-Allocated

Options: 0M, 32M, 64M, 96M, 128M, 160M, 192M, 224M, 256M, 288M, 320M, 352M, 384M, 416M, 448M, 480M, 512M

DVMT Total Gfx Mem

Options: 128M, 256M, MAX

IGFX – Boot Type

Options: VBIOS Default, CRT, DVI, HDMI, DP

IGFX – 2nd Boot Type

Options: Disabled, CRT, DVI, HDMI, DP

Table 5 Advanced Menu – Super IO Configuration

BIOS SETUP UTILITY	
Main **Advanced** Boot Security Server Mgmt Save & Exit	
Super IO Configuration >Serial Port 1 Configuration	
Version 2.10.1208. Copyright (C) 2010, American Megatrends, Inc.	

Table 6 Advanced Menu –Super IO Configuration – Serial Port 1 Configuration

BIOS SETUP UTILITY		
Main **Advanced** Boot Security Server Mgmt Save & Exit		
Serial Port 1 Configuration		
Serial Port	[Enabled]	→ ← Select Screen
Device Settings	IO=3F8h; IRQ=4	↑↓ Select Item
Change Settings	[Auto]	Enter: Select
Serial Port 1 Type	[RS232]	+- Change Opt.
COM1 Pin9 Definition	[RI]	F1: General Help
		F2: Previous Values
		F3: Optimized Defaults
		F4 Save & Exit
		ESC Exit
Version 2.10.1208. Copyright (C) 2010, American Megatrends, Inc.		

Serial Port

Options: Disabled, Enabled

Change Settings

Options: Auto,

IO=3F8h; IRQ=4;

IO=3F8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12;

IO=2F8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12;

IO=3E8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12;

IO=2E8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12;

Serial Port Type

Options: RS232, RS422, RS485

COM1 Pin9 Definition

Options: RI, +5V

Table 7 Advanced Menu –Power Management Configuration

BIOS SETUP UTILITY		
Main **Advanced** Boot Security Server Mgmt Save & Exit		
Power Management Configuration		
ACPI Sleep State	[S3 (Suspend to RAM)]	
Restore AC Power Loss	[Power Off]	
Resume By PCIE Device	[Disabled]	
Resume By RTC Alarm	[Disabled]	
EUP Power Saving Mode	[Disabled]	
>Watchdog Timer Configuration		→ ← Select Screen
		↑↓ Select Item
		Enter: Select
		+- Change Opt.
		F1: General Help
		F2: Previous Values
		F3: Optimized Defaults
		F4 Save & Exit
		ESC Exit
Version 2.10.1208. Copyright (C) 2010, American Megatrends, Inc.		

ACPI Sleep State

Options: Suspend Disabled, S1 (CPU Stop Clock), S3 (Suspend to RAM)

Restore AC Power Loss

Options: Power Off, Power On, Last State

Resume By PCIE Device

Options: Disabled, Enabled

Resume By RTC Alarm

Options: Disabled, Enabled

EUP Power Saving Mode

Options: Disabled, Enabled

Watchdog Timer Configuration

- **WDT Function** [Disabled]

  Options: Disabled, Enabled

Table 8 Advanced Menu –CPU Advanced Configuration

BIOS SETUP UTILITY				
Main	**Advanced**	Boot	Security	Save & Exit
CPU Advanced Configuration				→ ← Select Screen
				↑↓ Select Item
EIST		[Enabled]		Enter: Select
Intel ® Virtualization Tech		[Disabled]		+- Change Opt.
Active Processor Cores		[All]		F1: General Help
Limit CPUID Maximum		[Disabled]		F2: Previous Values
Execute Disable Bit		[Enabled]		F3: Optimized Defaults
				F4 Save & Exit
				ESC Exit
Version 2.10.1208. Copyright (C) 2010, American Megatrends, Inc.				

EIST

Options: Disabled, Enabled

Intel ® Virtualization Tech

Options: Disabled, Enabled

Active Processor Cores

Options: All, 1

Limit CPUID Maximum

Options: Disabled, Enabled

Execute Disable Bit

Options: Disabled, Enabled

Table 9 Advanced Menu –Trusted Computing

BIOS SETUP UTILITY					
Main	**Advanced**	Boot	Security	Save & Exit	
TPM Configuration				→ ← Select Screen	
TPM SUPPORT		[Disable]		↑↓ Select Item	
Current TPM Status Information				Enter: Select	
TPM SUPPORT OFF				+- Change Opt.	
				F1: General Help	
				F2: Previous Values	
				F3: Optimized Defaults	
				F4 Save & Exit	
				ESC Exit	
Version 2.10.1208. Copyright (C) 2010, American Megatrends, Inc.					

TPM

Options: Disabled, Enabled

Table 10 Advanced Menu –SATA Configuration

BIOS SETUP UTILITY					
Main	**Advanced**	Boot	Security	Save & Exit	
SATA Controller(s)		[Enabled]		→ ← Select Screen	
SATA Mode Selection		[IDE]		↑↓ Select Item	
				Enter: Select	
Serial ATA Port 1		Empty		+- Change Opt.	
Software Preserve		Unknown		F1: General Help	
Serial ATA Port 2		Empty		F2: Previous Values	
Software Preserve		Unknown		F3: Optimized Defaults	
				F4 Save & Exit	
				ESC Exit	
Version 2.10.1208. Copyright (C) 2010, American Megatrends, Inc.					

SATA Controller(s)

Options: Disabled, Enabled

SATA Mode Selection

Options: IDE, AHCI

Table 11 Advanced Menu –Intel TXT (LT) Configuration

BIOS SETUP UTILITY					
Main	**Advanced**	Boot	Security	Save & Exit	
Intel Trusted Execution technology Configuration				→ ← Select Screen	
				↑↓ Select Item	
Intel TXT support only can be enabled / disabled if SMX enabled. And must enables the VT support prior to TXT.				Enter: Select	
				+- Change Opt.	
Secure Mode Extensions (SMX)		[Disabled]		F1: General Help	
Intel TXT (LT) Support		[Disabled]		F2: Previous Values	
				F3: Optimized Defaults	
				F4 Save & Exit	
				ESC Exit	
Version 2.10.1208. Copyright (C) 2010, American Megatrends, Inc.					

Table 12 Advanced Menu –AMT Configuration

BIOS SETUP UTILITY					
Main	**Advanced**	Boot	Security	Save & Exit	
				→ ← Select Screen	
Intel AMT		[Enabled]		↑↓ Select Item	
Intel AMT Setup Prompt		[Enabled]		Enter: Select	
BIOS Hotkey Pressed		[Disabled]		+- Change Opt.	
MEBx Selection Screen		[Disabled]		F1: General Help	
Verbose MEBx Output		[Enabled]		F2: Previous Values	
Hide Un-Configure ME Confirmation		[Disabled]		F3: Optimized Defaults	
MEBx Debug Message Output		[Disabled]		F4 Save & Exit	
Un-Configure ME		[Disabled]		ESC Exit	
Intel AMT Password Write Enabled		[Enabled]			
AMT Wait Timer		0			
ASF		[Enabled]			
Activate Remote Assistance Process		[Disabled]			
USB Configure		[Enabled]			
PET Progress		[Enabled]			
Intel AMT SPI Protected		[Disabled]			
AMT CIRA Timeout		0			
Watchdog		[Disabled]			
OS Timer		0			
BIOS Timer		0			
Version 2.10.1208. Copyright (C) 2010, American Megatrends, Inc.					

Intel AMT

Options: Disabled, Enabled

Intel AMT Setup Prompt

Options: Disabled, Enabled

BIOS Hotkey Pressed

Options: Disabled, Enabled

MEBx Selection Screen

Options: Disabled, Enabled

Verbose MEBx Output

Options: Disabled, Enabled

Hide Un-Configure ME Confirmation

Options: Disabled, Enabled

MEBx Debug Message Output

Options: Disabled, Enabled

Un-Configure ME

Options: Disabled, Enabled

Intel AMT Password Write Enabled

Options: Disabled, Enabled

AMT Wait Timer

Options: 0 only

ASF

Options: Disabled, Enabled

Activate Remote Assistance Process

Options: Disabled, Enabled

USB Configure

Options: Disabled, Enabled

PET Progress

Options: Disabled, Enabled

Intel AMT SPI Protected

Options: Disabled, Enabled

Watchdog

Options: Disabled, Enabled

Table 13 Advanced Menu –USB Configuration

BIOS SETUP UTILITY					
Main	**Advanced**	Boot	Security	Save & Exit	
USB Configuration				.	
USB Devices:					
1 Drive,1 Keyboard, 2 Hubs				→ ← Select Screen	
Legacy USB Support		[Enabled]		↑↓ Select Item	
USB 3.0 Support		[Enabled]		Enter: Select	
XHCI hand-off		[Enabled]		+- Change Opt.	
EHCI Hand-off		[Disabled]		F1: General Help	
USB hardware delays and time-out:				F2: Previous Values	
USB transfer time-out		[20 sec]		F3: Optimized Defaults	
Device reset time-out		[20 sec]		F4 Save & Exit	
Device power-up delay		[Auto]		ESC Exit	
Mass Storage Devices:					
San Disk		[Auto]			
Version 2.10.1208. Copyright (C) 2010, American Megatrends, Inc.					

Legacy USB Support

Options: Disabled, Enabled, Auto

USB 3.0 Support

Options: Disabled, Enabled

XHCI hand-off

Options: Disabled, Enabled

EHCI hand-off

Options: Disabled, Enabled

USB Transfer Time-Out

Options: 1, 5, 10, 20 sec.

Device Transfer Time-Out

Options: 10, 20, 30, 40 sec.

Device Power-Up Delay

Options: Auto, Manual

San Disk

Options: Auto, Floppy, Forced FDD, Hard Disk, CD-ROM

Table 14 Advanced Menu –H/W Monitor

BIOS SETUP UTILITY					
Main	**Advanced**	Boot	Security	Save & Exit	
PC Health Status					
CPU Warning Temperature		[Disabled]			
System Shutdown Temperature		[Disabled]			
CPU Smart FAN		[Enabled]			
CPU Smart FAN Temperature 1		70			
CPU Smart FAN Temperature 2		90		→ ← Select Screen	
CPU Smart FAN PWM 1		50		↑↓ Select Item	
CPU Smart FAN PWM 1		150		Enter: Select	
CPU Manual PWM		255		+- Change Opt.	
CPU Temperature		: +90 C		F1: General Help	
Top Side System Temperature		: +31 C		F2: Previous Values	
Bottom Side System Temperature		: +31 C		F3: Optimized Defaults	
CPU FAN Speed		+4792RPM		F4 Save & Exit	
+3.3V		: +3.328 V		ESC Exit	
+VCORE		: +1.136 V			
+VGFX		: +0.440 V			
+1.05V		: +1.056 V			
+1.5V		: +1.587 V			
+5VDUAL		: +5.160 V			
+VIN		: +19.008 V			
+3.3VSB		: +3.360			
Version 2.10.1208. Copyright (C) 2010, American Megatrends, Inc.					

CPU Warning Temperature

Options: Disabled, 80 C, 85 C, 90 C, 95 C

System Shutdown Temperature

Options: Disabled, 55 C, 60 C, 65 C, 70 C

CPU Smart FAN

Options: Disabled, Enabled

■ Boot Menu

Table 15 Boot Menu

BIOS SETUP UTILITY				
Main	Advanced	**Boot**	Security	Save & Exit
Boot Configuration				
Full Screen LOGO Display	[Disabled]			
Setup Prompt Timeout	1			
Bootup NumLock State	[On]			
Boot Option Priorities				→ ← Select Screen
Boot Option #1	[SanDisk]			↑↓ Select Item
Boot Option#2	[UEFI: USB USB Hard….]			Enter: Select
Hard Drive BBS Priorities				+- Change Opt.
				F1: General Help
				F2: Previous Values
				F3: Optimized Defaults
				F4 Save & Exit
				ESC Exit
Version 2.10.1208. Copyright (C) 2010, American Megatrends, Inc.				

Full Screen LOGO Display

Options: Disabled, Enabled

Bootup Numlock State

Options: On, Off

Boot Option #1

Options: San Disk, UEFI: USB USB Hard Drive, Disabled

Boot Option #2

Options: San Disk, UEFI: USB USB Hard Drive, Disabled

Hard Drive BBS Priorities

■ **Boot Option #1 【 San Disk 】**

Options: San Disk, Disabled

■ Security Menu

Table 16 Security Menu

BIOS SETUP UTILITY	
Main Advanced Boot **Security** Save & Exit	
Password Description If ONLY the Administrator's password is set, then this only limits access to Setup and is only asked for when entering Setup If ONLY the User's password is set, then this is a power on password and must be entered to boot or enter Setup. In Setup the User will have Administrator rights The password must be 3 to 20 characters long. Administrator Password User Password	→ ← Select Screen ↑↓ Select Item Enter: Select +- Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4 Save & Exit ESC Exit
Version 2.10.1208. Copyright (C) 2010, American Megatrends, Inc.	

■ Save & Exit Menu

Table 17 Save & Exit Menu

BIOS SETUP UTILITY	
Main Advanced Boot Security **Save & Exit**	
Save Changes and Exit	→ ← Select Screen
Discard Changes and Exit	↑↓ Select Item
Save Changes and Reset	Enter: Select
Discard Changes and Reset	+- Change Opt.
Save Options	F1: General Help
Save Changes	F2: Previous Values
Discard Changes	F3: Optimized Defaults
Restore Defaults	F4 Save & Exit
Save as User Defaults	ESC Exit
Restore User Defaults	
Boot Override	
San Disk	
UEFI : USB, USB Hard Drive	
Version 2.10.1208. Copyright (C) 2010, American Megatrends, Inc.	

Save Changes and Exit

Exit system setup after saving the changes. Once you are finished making your selections, choose this option from the Exit menu to ensure the values you selected are saved to the CMOS RAM. The CMOS RAM is sustained by an onboard backup battery and stays on even when the PC is turned off. When you select this option, a confirmation window appears. Select [Yes] to save changes and exit.

Discard Changes and Exit

Exit system setup without saving any changes. Select this option only if you do not want to save the changes that you made to the Setup program. If you made changes to fields other than system date, system time, and password, the BIOS asks for a confirmation before exiting.

Discard Changes

Discards changes done so far to any of the setup values. This option allows you to discard the selections you made and restore the previously saved values. After selecting this option, a confirmation appears. Select [Yes] to discard any changes and load the previously saved values.

Load Optimal Defaults

Load Optimal Default values for all the setup values. This option allows you to load optimal default values for each of the parameters on the Setup menus, which will provide the best performance settings for your system. The F9 key can be used for this operation.

Load Failsafe Defaults

Load Optimal Default values for all the setup values. This option allows you to load failsafe default values for each of the parameters on the Setup menus, which will provide the most stable performance settings. The F8 key can be used for this operation.

Chapter 4

Driver Installation

If your QDSP-2060 does not come with an operating system pre-installed, you will need to install an operating system and the necessary drivers to operate it. After you have finished assembling your system and connected the appropriate power source, power it up using the power supply and install the desired operating system.
You can download the drivers for the QDSP-2060 from the Quanmax website at www.quanmax.com and install as instructed there. For other operating systems, please contact Quanmax.