QDSP-2080

Digital Signage Player with Intel® Haswell Processor

User's Guide

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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 our 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. We 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)

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.

■ 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 our customer service immediately.
3. Inspect the product for damage. If there is damage, notify our 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 reasonable 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 your dealer 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.

■ 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.

■ Altitude

Operating a system at a high altitude (low pressure) can cause electrical problems related to arcing and corona effects. This condition can also cause sealed components with internal pressure, such as electrolytic capacitors, to fail or perform at reduced efficiency.

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 over voltage 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 units 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

The QDSP-2080 is a compact size Box PC ideal for space critical applications. This embedded hardware platform features 4th Generation Intel® Core™ i3/i5/i7 Processors, Intel® QM87 Express chipset, and DDR3/L1333/1600 MT/S SO-DIMM. It comes with a 2.5" SATA hard drive or SSD, 2 x HDMI, 2 x RJ-45, DVI-I, 6 x USB 3.0, COM, and HD Audio.

The QDSP-2080 provides high reliability for harsh environments, compact size, high performance and is highly suited to a wide range of industrial applications such as Digital Signage, Gaming, Transportation, Surveillance, and Thin Servers.

Checklist

- QDSP-2080
- Power Adapter
- Power Cord
- Driver CD
- Quick installation Guide
- VESA Mounting Kit
- Optional WiFi or 3G

Features

- Intel® Haswell Processor with QM87 Express chipset
- 2 x DDR3/L 1333/1600 MT/S SO-DIMM
- 1x DVI-I, 2 x HDMI, 2 x GbE and 5.1 channel audio output
- SATA HDD or SSD, 6x USB 3.0
- Intel® iAMT 9.0 supported
- Support 4K x 2K Resolution
- Optional Wireless Ethernet or 3G Module

■ Product Specifications

Construction	Metal Housing
System Board	Intel® Haswell Processor 4th Generation Intel® Core™ i3/i5/i7 Processors Intel® QM87 Express Chipset
Memory	2x DDR3/ L 1333/ 1600 MT/S SO-DIMM
Graphic	Intel® HD Graphics 4600 supports 4K x 2K Resolution

I/O Panel	Front I/O
	    3x 3.5mm Phone Jack, support 5.1 channel audio output
	    1x S/PDIF Output
	    6x USB 3.0
	    1x Power Button (With Power LED)
	    1x Storage status LED (HDD)
	    1x Wifi status LED
	    1x 3G external antenna
	    1x Reset Switch
	Rear I/O
	    1x DC JACK
	    1x DVI-I for DVI-D or VGA output
	    2x HDMI
	    2x RJ-45 GbE ports
	    1x COM Port support RS-232/422/485
	    2x Wifi external antennas

BIOS	AMI uEFI BIOS 1x 128Mb SPI flash ROM onboard
Storage	2.5" SATA HDD or SSD Up to 2x mSATA mixed with mini PCIe
Expansion	2 x mini PCIe slots (1x full size, 1x half size, Optional for 3G/WiFi/Bluetooth module) 1x SIM card slot (for 3G appliance) support user accessible
Power Supply	Input: 100-240 VAC Output: +19V DC

Cooling	System Fan with smart fan function
OS Support	Windows 7, Windows 8, Linux
Temperature / Humidity	Operating: 0°C to 40°C, 0%-90%, non-condensing Storage: -20°C to 80°C, 0%-90%, non-condensing
Dimensions	200 x 35 x 153.1 mm (WxHxD)
Weight	1 Kg
Mounting	VESA Mount
Certifications	CE, FCC Class A

Table 1 QDSP-2080 Specification

■ System tour

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

■ Front IO
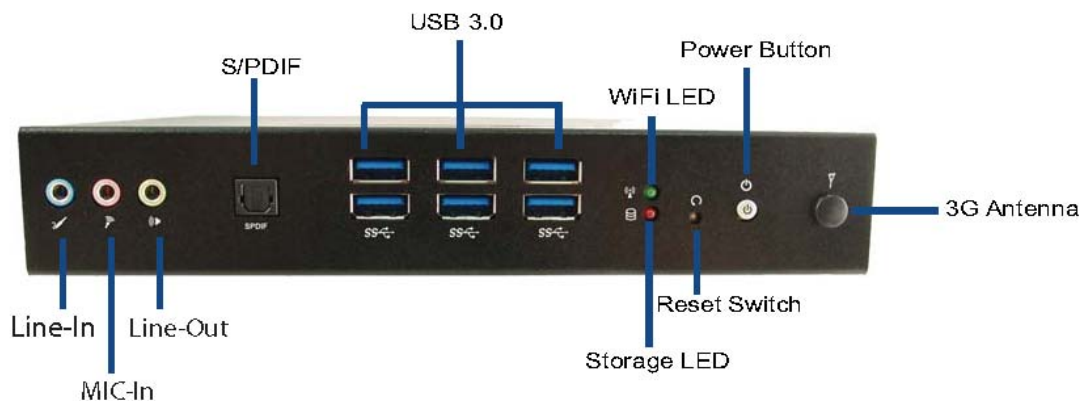
Figure 1 Front IO

Power Button (with Power LED (Blue))

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

The power LED will light when the PC is power-on.

Reset Switch

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

HDD LED (Red)

The hard disk LED blinks when data is being written into or read from the HDD.

WiFi LED (Green)

When the data is Transferring , the WiFi LED will blink.

USB 3.0

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.

Phone Jack

Line 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.

3G External Antenna

Spared hole on the casing for connecting 3G external antenna

■ **Rear Rear**
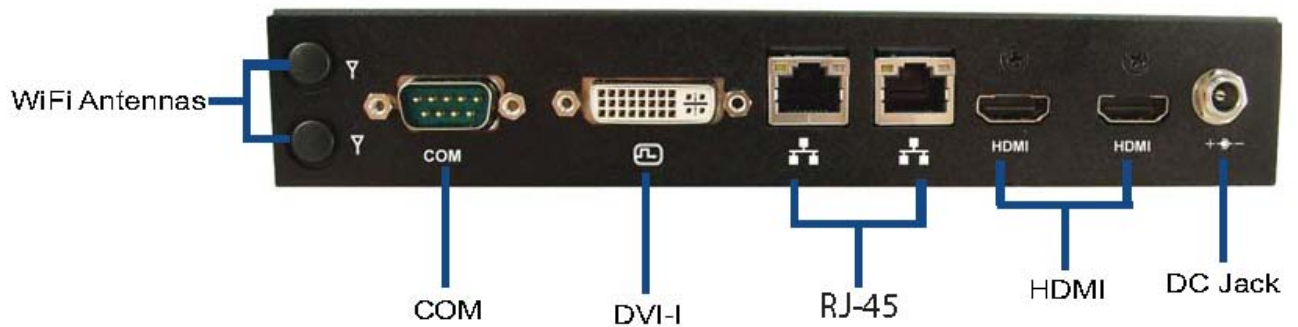
Figure 2 Rear IO

COM

D-Sub 9 pin connector for RS-232/422/485 connection

Ethernet

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

HDMI

HDMI connector for display output

DVI-I

DVI-I connector for DVI-D or VGA output

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.

WiFi External Antenna

Spared hole on the casing for connecting WiFi external antenna

■ Mechanical Dimensions
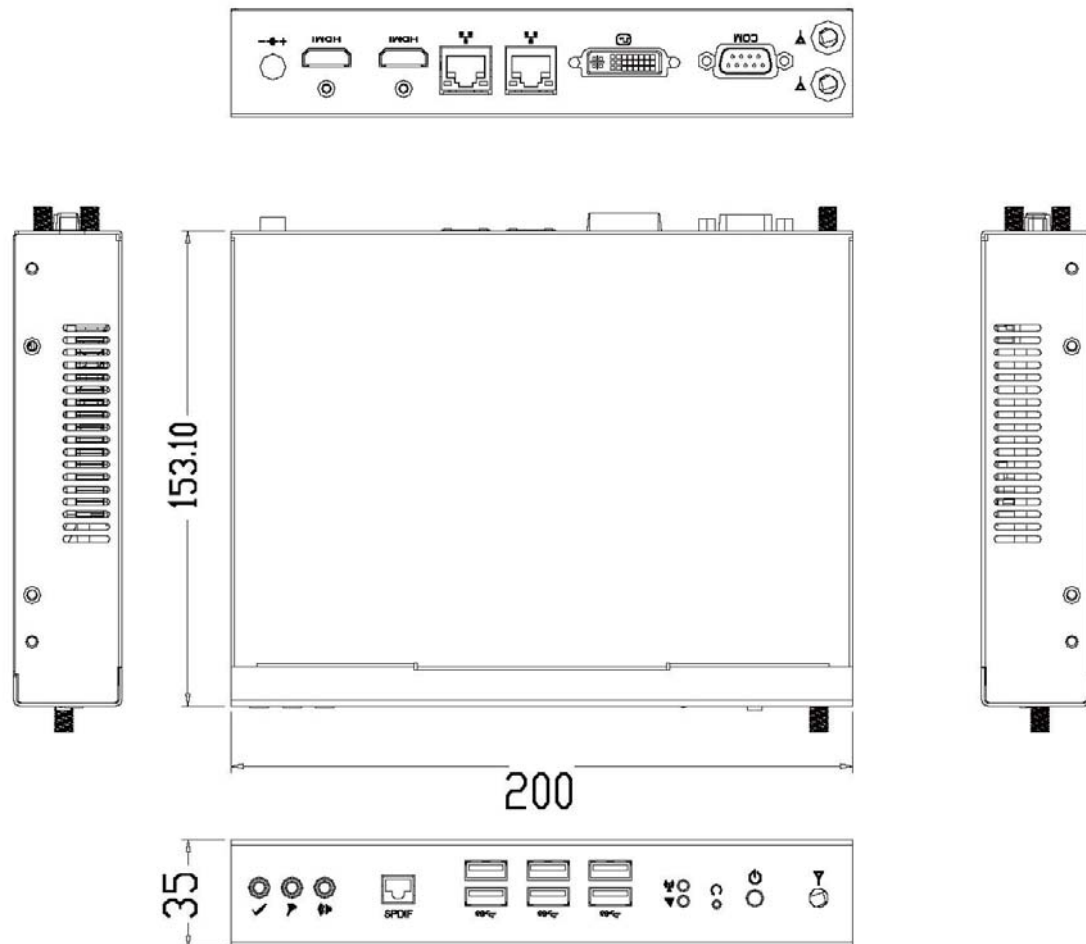
Dimension: 200 x 35 x 153.1 mm (W x H x D)

Figure 3 Mechanical Dimensions

Chapter 2

Getting Started

■ Setting up your PC

■ Connect the monitor, mouse and keyboard

Connecting the monitor

Connect the DVI-I / HDMI cable from your display to the DVI-I / HDMI port.
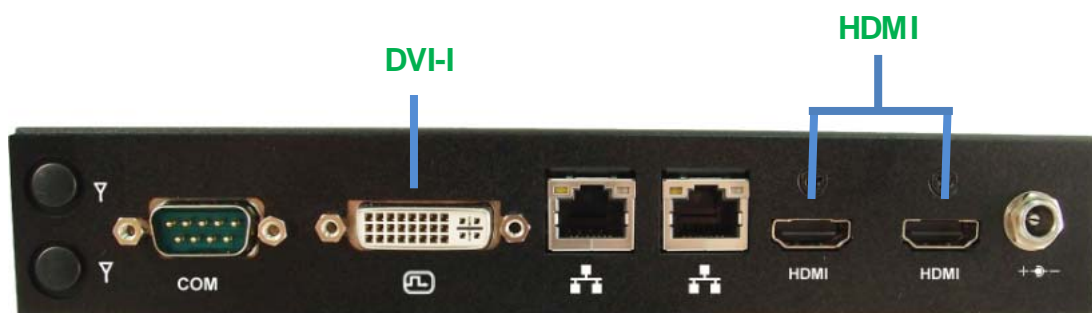
Figure 4 Connect the DVI-I / HDMI cable

Connecting USB mouse & keyboard

Your QDSP-2080 does not come with a keyboard and mouse, but you can use any USB keyboard or mouse with your computer.

6xUSB 3.0
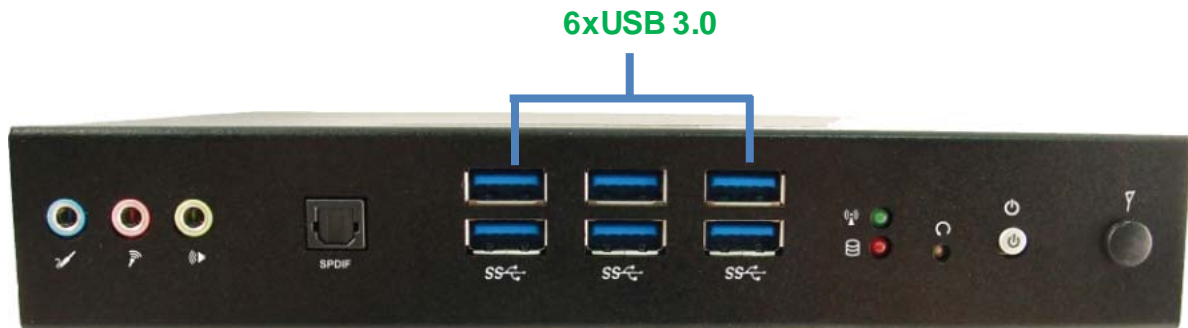
Figure 5 Connecting USB mouse & keyboard

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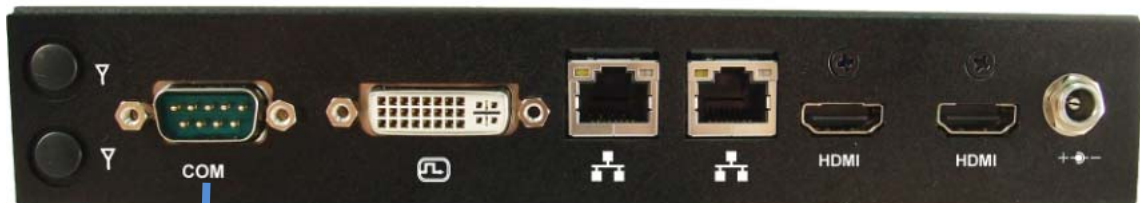
COM
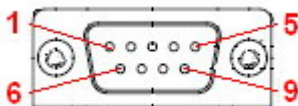
Pin	RS-232	RS-422	Half Duplex RS-485	Full Duplex RS-485
1	DCD	TX-	DATA-	TX-
2	RXD	RX+	NA	RX+
3	TXD	TX+	DATA+	TX+
4	DTR	RX-	NA	RX-
5	GND	GND	GND	GND
6	DSR	NA	NA	NA
7	RTS	NA	NA	NA
8	CTS	NA	NA	NA
9	RI / +5V*	NA / +5V*	NA / +5V*	NA / +5V*

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.

2x LAN
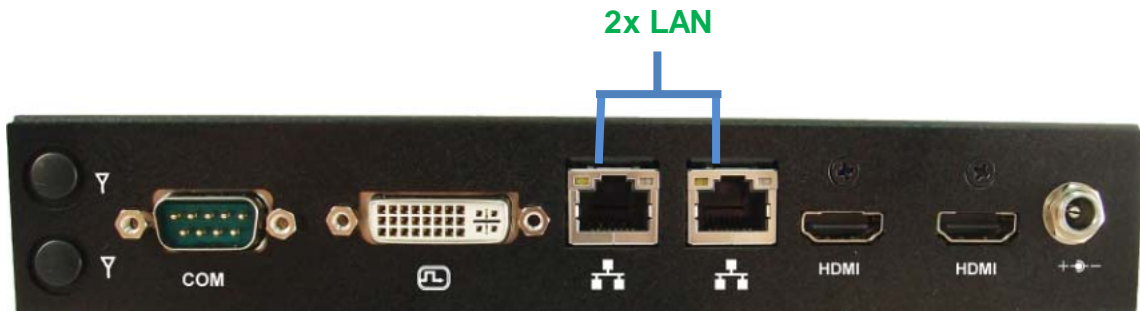
Figure 7 Network cable with RJ45 connector

■ **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

DC Jack

Power Button

Figure 8 Turning on the system

■ Connecting VESA Mount on QDSP-2080

1. Take out the VESA mounting kit form your package and facing it onto the bottom of QDSP-2080.
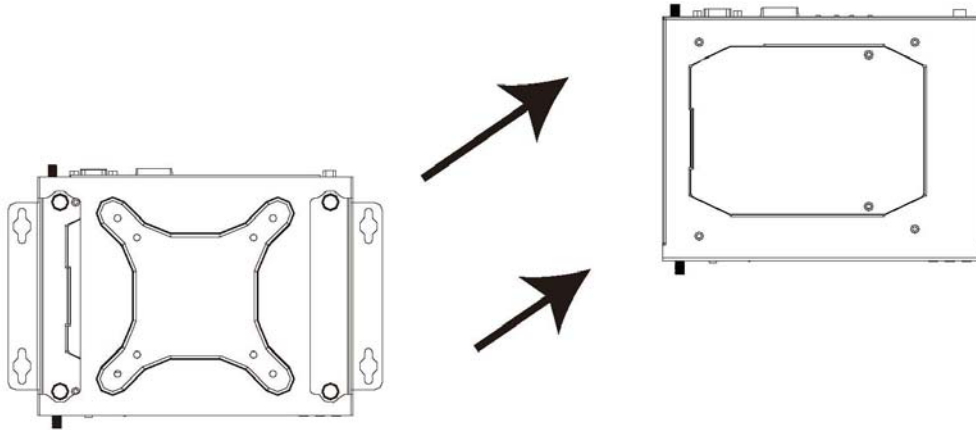
Figure 9 VESA Mount Assembly

2. Then tightening the screws on your QDSP-2080 as figures shown below. Following figures are the complete status when you done.
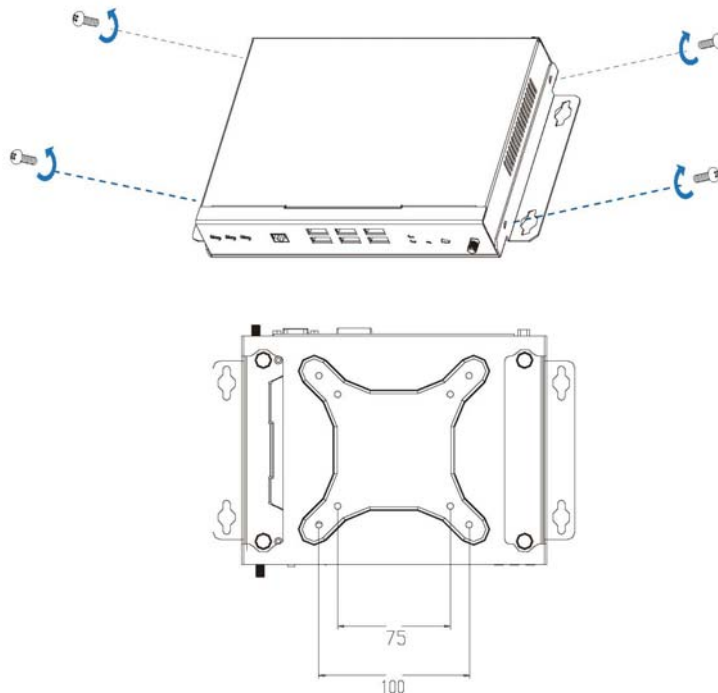
Figure 10 VESA Mount on QDSP-2080

■ 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-2080 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.
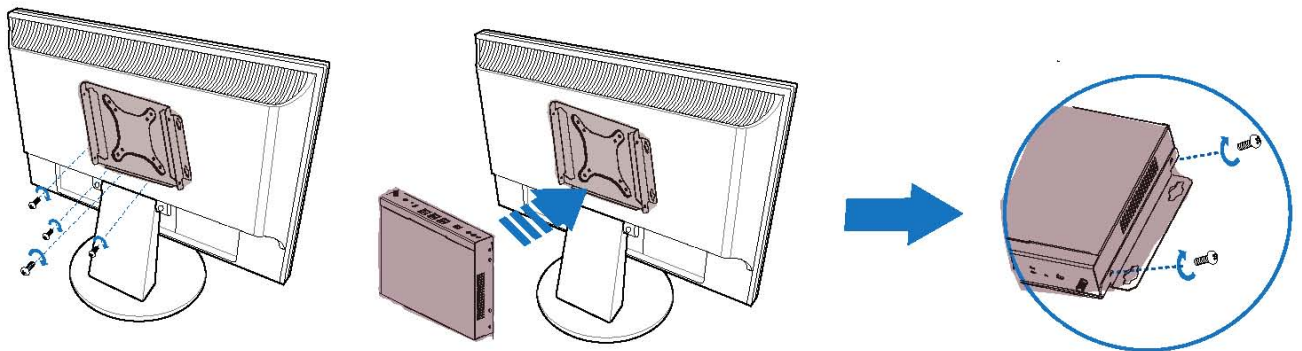
Figure 11 VESA mounting

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.

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 with your dealer.

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 with us.

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-2080		
BIOS Version		R0.07 (x64)		
BIOS Build Date		10/09/2013		
ME FW Version		9.0.20.1447		
CPU Information				
Intel® Core ™ i7-4800MQ CPU @ 2.70GHz				
Microcode Revision		12		→ ← Select Screen
Processor Cores		4		↑↓ Select Item
				Enter: Select
Memory Information				+- Change Opt.
				F1: General Help
Total Size		4096 MB (DDR3)		F2: Previous Values
Frequency		1333 MHz		F3: Optimized Defaults
System date		[Fri 10/11/2013]		F4 Save & Exit
System time		[13:43:19]		ESC Exit
Version 2.15.1236. Copyright (C) 2012, 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]	→ ← Select Screen
Onboard LAN2 Controller	[Enabled]	↑↓ Select Item
Onboard LAN2 Boot	[Disabled]	Enter: Select
Audio Controller	[Enabled]	+- Change Opt.
		F1: General Help
> Display Configuration		F2: Previous Values
> Super IO Configuration		F3: Optimized Defaults
> CPU Chipset Configuration		F4 Save & Exit
> SATA Configuration		ESC Exit
> USB Configuration		
> AMT Configuration		
>TPM Configuration		
>H/W Monitor		
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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

Table 4 Advanced Menu – Display Configuration

BIOS SETUP UTILITY					
M a i n **A d v a n ced**	**B o o t**	**S e c u r i t y**	**S e r v e r M g m t**	**S a v e & E xi t**	

Display Configuration		
		→ ← Select Screen
Primary Display	[Auto]	↑↓ Select Item
UMA Frame Buffer Size	[256 MB]	Enter: Select
DVMT Pre-Allocated	[64M]	+- Change Opt.
DVMT Total Gfx Mem	[256 M]	F1: General Help
		F2: Previous Values
Primary IGFX Boot Display	[VBIOS Default]	F3: Optimized Defaults
		F4 Save & Exit
		ESC Exit

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Primary Display

Options: Auto, IGFX, PEG, PCIE

UMA Frame Buffer Size

Options: 128MB, 256MB, 512MB

DVMT Pre-Allocated

Options: 32M, 64M, 96M, 128M, 160M, 192M, 224M, 256M, 288M, 320M, 352M, 384M, 416M, 448M, 480M, 512M, 1024M

DVMT Total Gfx Mem

Options: 128M, 256M, MAX

Primary IGFX Boot Display

Options: VBIOS Default, CRT, DVI, HDMI1, HDMI2

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
>Serial Port 2 Configuration

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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
		↑↓ Select Item
Device Settings	IO=3F8h; IRQ=4	Enter: Select
Change Settings	[Auto]	+- Change Opt.
Serial Port 1 Type	[RS232]	F1: General Help
Serial Port 1 Pin9 Definition	[RI]	F2: Previous Values

F3: Optimized Defaults
F4 Save & Exit
ESC Exit

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Serial Port

Options: Disabled, Enabled

Change Settings

Options: Auto,

IO=3F8h; IRQ=4;

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

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

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

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

Serial Port 1 Type

Options: RS232, RS422, RS485

Serial Port 1 Pin9 Definition

Options: RI, +5V

Table 7 Advanced Menu –Super IO Configuration – Serial Port 2 Configuration

BIOS SETUP UTILITY						
M a i n	**A d v a n c e d**	B o o t	S e c u r i t y	S e r v e r M g m t	S a v e & E x i t	

Serial Port 2 Configuration		→ ← Select Screen
		↑↓ Select Item
Serial Port	[Enabled]	Enter: Select
		+- Change Opt.
Device Settings	IO=2F8h; IRQ=3	F1: General Help
Change Settings	[Auto]	F2: Previous Values
		F3: Optimized Defaults
Serial Port 2 Type	[RS232]	F4 Save & Exit
Serial Port 2 Pin9 Definition	[RI]	ESC Exit

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Serial Port

Options: Disabled, Enabled

Change Settings

Options: Auto,

IO=2F8h; IRQ=3;

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

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

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

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

Serial Port 2 Type

Options: RS232, RS422, RS485

Serial Port 2 Pin9 Definition

Options: RI, +5V

Table 8 Advanced Menu –CPU Chipset Configuration

BIOS SETUP UTILITY				
M a i n	**A d v a n c e d**	**B o o t**	**S e c u r i t y**	**S a v e & E x i t**

CPU Chipset Configuration		
EIST	[Enabled]	→ ← Select Screen
Turbo Mode	[Enabled]	↑↓ Select Item
Hyper Treading	[Enabled]	Enter: Select
VT-d	[Enabled]	+- Change Opt.
		F1: General Help
Active Processor Cores	[All]	F2: Previous Values
		F3: Optimized Defaults
Limit CPUID Maximum	[Disabled]	F4 Save & Exit
		ESC Exit
Execute Disable Bit	[Enabled]	
Intel Virtualization Technology	[Disabled]	

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EIST

Options: Disabled, Enabled

Turbo Mode

Options: Disabled, Enabled

Hyper Threading

Options: Disabled, Enabled

VT-d

Options: Disabled, Enabled

Active Processor Cores

Options: All, 1, 2, 3

Limit CPUID Maximum

Options: Disabled, Enabled

Execute Disable Bit

Options: Disabled, Enabled

Intel ® Virtualization Tech

Options: Disabled, Enabled

Table 9 Advanced Menu –SATA Configuration

BIOS SETUP UTILITY				
M a i n	**A d v a n c e d**	B o o t	S e c u r i t y	S a v e & E x i t

SATA Controller(s)	[Enabled]	→ ← Select Screen
SATA Mode Selection	[AHCI]	↑↓ Select Item
SATA Controller Speed	[Default]	Enter: Select
Serial ATA Port 0	Empty	+- Change Opt.
Port 0	[Enabled]	F1: General Help
		F2: Previous Values
mSATA Port 1	Empty	F3: Optimized Defaults
Port 1	[Enabled]	F4 Save & Exit
		ESC Exit
mSATA Port 2	Empty	
Port 2	[Enabled]	

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SATA Controller(s)

Options: Disabled, Enabled

SATA Mode Selection

Options: IDE, AHCI, RAID

SATA Controller Speed

Options: Gen 1, Gen 2, Gen 3

Port 1, 1, 2

Options: Disabled, Enabled

Table 10 Advanced Menu –USB Configuration

BIOS SETUP UTILITY				
M a i n	**A d v a n c e d**	**B o o t**	**S e c u r i t y**	**S a v e & E x i t**

USB Configuration		→ ← Select Screen
		↑↓ Select Item
USB Devices:		Enter: Select
1 Keyboard, I Mouse, 2 Hubs		+- Change Opt.
		F1: General Help
Legacy USB Support	[Enabled]	F2: Previous Values
USB 3.0 Support	[Enabled]	F3: Optimized Defaults
XHCI hand-off	[Enabled]	F4 Save & Exit
EHCI Hand-off	[Disabled]	ESC Exit
USB Mass Storage Driver Support	[Enabled]	

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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 Mass Storage Driver Support

Options: Disabled, Enabled

Table 11 Advanced Menu –AMT Configuration

BIOS SETUP UTILITY				
M a i n **A d v a n c e d** **B o o t** **S e c u r i t y** **S a v e & E x i t**				
Intel AMT	[Enabled]	→ ← Select Screen		
Un-Configure ME	[Disabled]	↑↓ Select Item		
		Enter: Select		
		+- Change Opt.		
		F1: General Help		
		F2: Previous Values		
		F3: Optimized Defaults		
		F4 Save & Exit		
		ESC Exit		
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Intel AMT

Options: Disabled, Enabled

Un-Configure ME

Options: Disabled, Enabled

Table 12 Advanced Menu –TPM Configuration

BIOS SETUP UTILITY					
M a i n **A d v a n c e d** **B o o t** **S e c u r i t y** **S e r v e r M g m t** **S a v e & E x i t**					
TPM Configuration		→ ← Select Screen			
		↑↓ Select Item			
Security Device Support	[Disabled]	Enter: Select			
		+- Change Opt.			
Current Status Information		F1: General Help			
		F2: Previous Values			
		F3: Optimized Defaults			
		F4 Save & Exit			
		ESC Exit			
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Security Device Support

Options: Disabled, Enabled

Table 13 Advanced Menu –H/W Monitor

BIOS SETUP UTILITY				
M a i n	**A d v a n c e d**	B o o t	S e c u r i t y	S a v e & E x i t

PC Health Status

Smart FAN Configuration
CPU Temperature   : +90 C
Memory Temperature   : +40 C
System Temperature   : +34 C
CPU FAN Speed   + 5050RPM

+VCORE   : +1.800 V
+VIN   : +11.520 V
+5V   : +5.089 V
+3.3V   : +3.372 V

→ ← Select Screen
↑↓ Select Item
Enter: Select
+- Change Opt.
F1: General Help
F2: Previous Values
F3: Optimized Defaults
F4 Save & Exit
ESC Exit

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Smart FAN Configuration

CPU FAN Setting [Manual]

Options: Manual , Smart

Manual Duty   255

System FAN Setting [Manual Mode]

Options: Manual , Smart

Manual Duty   255

Table 14 Power Configuration

BIOS SETUP UTILITY					
M a i n	**A d v a n ce d**	B o o t	S e c u r i t y	S e r v e r M g m t	S a v e & E x i t

Power Management Configuration		
ACPI Sleep State	[S3 Only (Suspend to RAM)]	→ ← Select Screen
Restore AC Power Loss	[Power Off]	↑↓ Select Item
Power Saving Mode	[DeepSx in S3-S4-S5]	Enter: Select
		+- Change Opt.
Resume Event Control		F1: General Help
Resume By PCIE Device	[Disabled]	F2: Previous Values
Resume By RTC Alarm	[Disabled]	F3: Optimized Defaults
>Watchdog Timer Configuration		F4 Save & Exit
		ESC Exit

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ACPI Sleep State

Options: Suspend Disabled, S1 Only (CPU Stop Clock),

S3 Only (Suspend to RAM)

Restore AC Power Loss

Options: Power Off, Power On, Last State

Power Saving Mode

Options: Disabled, EUP Enabled, DeepSx in S5, DeepSx in S4-S5,

DeepSx in S3-S4-S5

Resume By PCIE Device

Options: Disabled, Enabled

Resume By RTC Alarm

Options: Disabled, Enabled

Watchdog Timer Configuration

■ **WDT Function**   [Disabled]

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]
UEFI Boot   [Disabled]
DIMM Voltage Warning   [Enabled]
Boot Option Priorities

→ ← Select Screen
↑↓ Select Item
Enter: Select
+- Change Opt.
F1: General Help
F2: Previous Values
F3: Optimized Defaults
F4 Save & Exit
ESC Exit

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Full Screen LOGO Display

Options: Disabled, Enabled

Bootup Numlock State

Options: On, Off

UEFI Boot

Options: Disabled, Enabled

DIMM Voltage Warning

Options: Disabled, Enabled

■ 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 length must be in the following range:
Minimum Length   3
Maximum length   20

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

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■ Save & Exit Menu

Table 17 Save & Exit Menu

BIOS SETUP UTILITY				
Main	**Advanced**	**Boot**	**Security**	**Save & Exit**

Discard Changes and Reset Discard Changes and Reset Save Options Save Changes Discard Changes Restore Defaults	→ ← Select Screen ↑↓ Select Item Enter: Select +- Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4 Save & Exit ESC Exit

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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-2080 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. For other operating systems, please contact us.