KUBE-809B

Fanless Digital Signage Player with Intel® Ivy Bridge Platform

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 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 KUBE-809B has the following voltage ratings:

■ Input: 100-240 VAC, 50-60 Hz

■ Output: 75Watt, +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

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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.

■ Warranty Policy

Limited Warranty

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 your manufacturer or its authorized agent; or if the failure is caused by accident, acts of God, or other causes beyond the control of your dealer 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. Your manufacturer 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 with your dealer.

All product(s) returned to your dealer 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 shipping container. If the original container has been lost or damaged, new shipping containers may be obtained from your dealer's Customer Service at a nominal cost.

We own all parts removed from repaired products. We use new and reconditioned parts made by various manufacturers in performing warranty repairs and building replacement products. If your dealer 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 us.

Limitation of Liability

In no event shall your dealer 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. Our 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 us 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.

■ 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 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

The KUBE-809B is a fanless digital signage player ideal for space critical applications. This embedded hardware platform features 3rd Generation Intel® Core™ i5/i7 Processors, Intel® HM76 Express chipset, and DDR3 1066/1333/1600 SO-DIMM. It comes with a 2.5" SATA hard drive or SSD, Compact Flash slot, HDMI, DVI, 1x USB 2.0, 4x USB 3.0, eSATA, COM, and HD Audio. The KUBE-809B 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 and Surveillance.

Checklist
- KUBE-809B
- Power Adapter
- Power Cord
- Driver CD
- Quick installation Guide
- Optional WiFi or 3G

Features

- Intel® Ivy Bridge Platform with HM76 Express chipset
- 2x DDR3 1066/1333/1600 SO-DIMM up to 16 GB
- 1x DVI-I, 1x HDMI, 1x DP, 2x GbE and 5.1 channel audio output
- SATA HDD or SSD, 1x eSATA ,1x CF Slot, 1x USB 2.0 and 4 x USB 3.0
- Optional WiFi or 3G

■ Product Specifications

Dimensions	279.75 x 68.7 x 153.2 mm (WxHxD)
Weight	2.2 Kg (Net)/4.5 Kg (Gross)
CPU/ Chipset	Intel® Ivy Bridge Platform 3rd Generation Intel® Core™ i5/i7 Processors Intel® HM76 Express Chipset
RAM	2x DDR3 1066/1333/1600 SO-DIMM up to 16 GB
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 4x USB 3.0 1x USB 2.0 1x CF Slot 1x Power LED 1x Storage status LED (HDD) 1x WiFi status LED
Rear IO	1x DC JACK 1x DVI-I 1x HDMI 1x DP 2x RJ-45 GbE ports 2x COM Ports (supports RS-232/422/485) 2x Wifi external antenna 1x 3G 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 7 /Windows 8 / Linux
Cooling	Fanless and Internal Heat Pipes
Power Unit	Input: 100-240 VAC Output: 75 Watt, +19VDC, 3.95A

Temperature / Humidity	Operating: HDD : 0°C to 50°C 0%-90%, non-condensing
	SSD: 0°C to 60°C 0%-90%, non-condensing
	Storage: -20°C to 80°C, 0%-90%, non-condensing
Mounting	Optional VESA-mount and Wall-Mount
Certifications	CE, FCC Class A

Table 1 KUBE-809B Specification

■ System tour

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

■ Front Panel
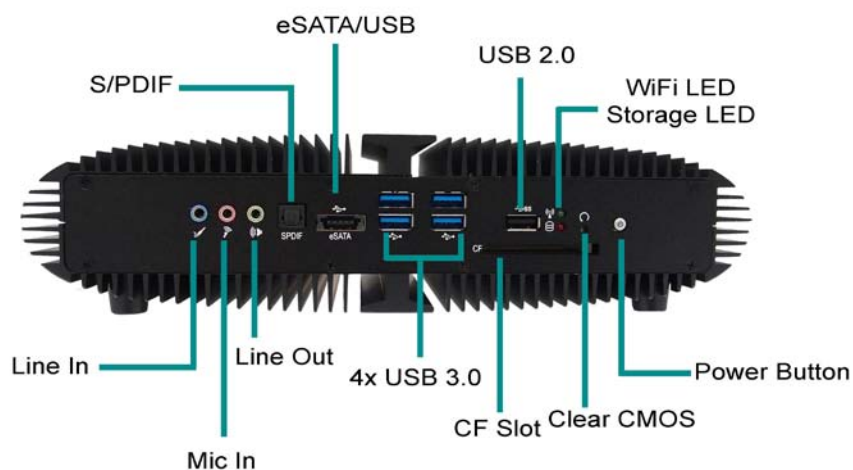
Figure 1 Front Panel

Power Switch

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).

Power LED (Blue)

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

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

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.

Card Reader

3-in-1 SD/MCC/MS Card Reader

Combo Connector

1x eSATA and USB combo connector (Power eSATA)

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 devices from PC when the system is working.

■ Rear Panel
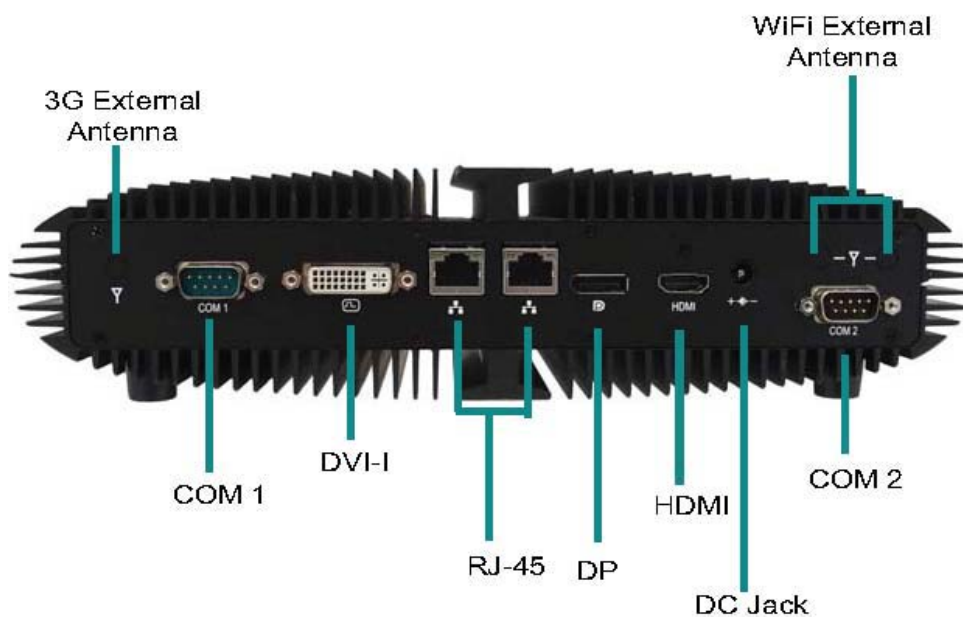
Figure 2 Rear Panel

COM

COM 1/COM 2 - 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.

DP

DP is a display interface used to connect a video source to a display device such as a computer monitor or a television set.

WiFi External Antenna

Spared hole on the casing for connecting WiFi external antenna

3G External Antenna

Spared hole on the casing for connecting 3G external antenna

■ Mechanical Dimensions
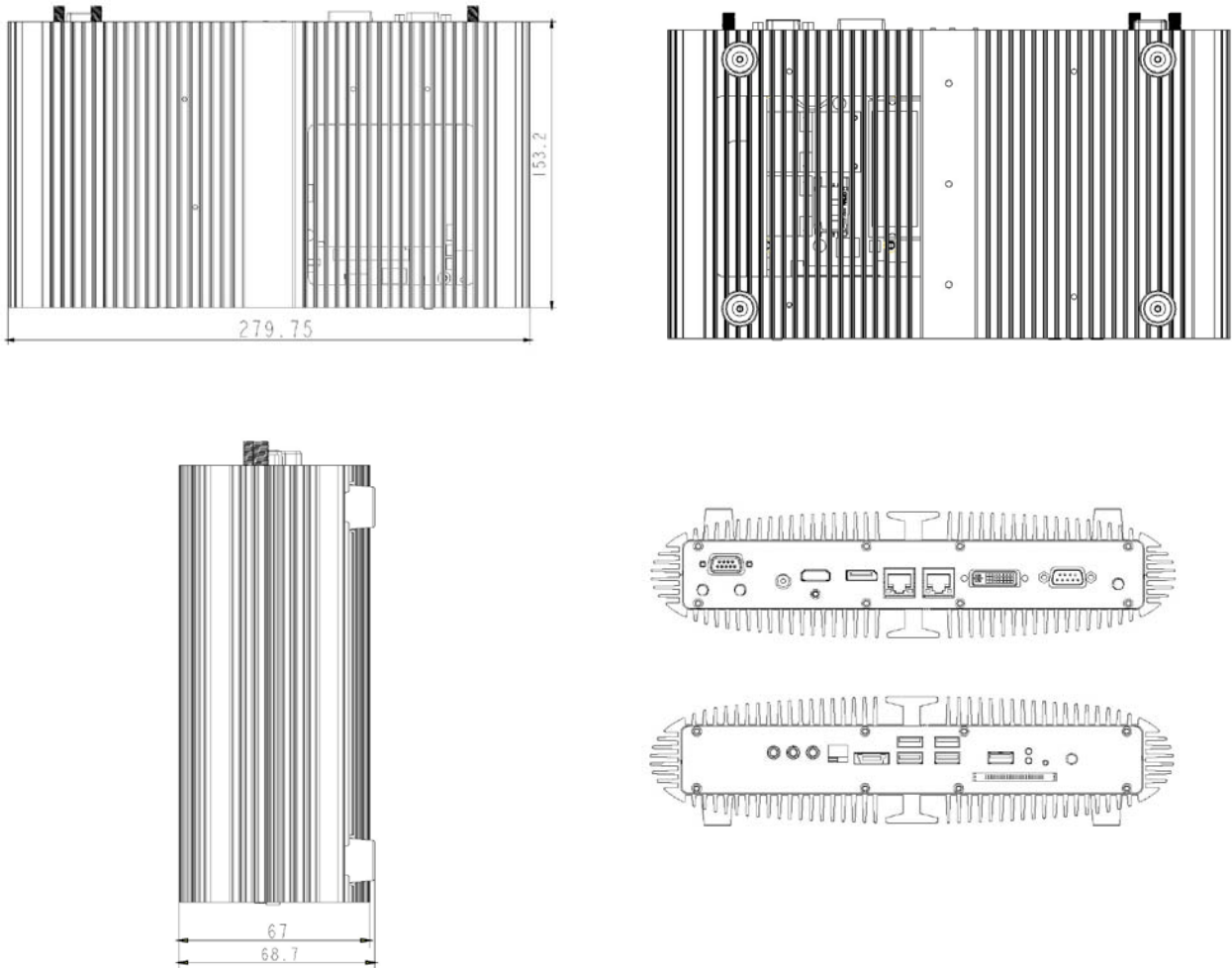
Dimension: 279.75 x 68.7 x 153.2 mm (W x H x D)

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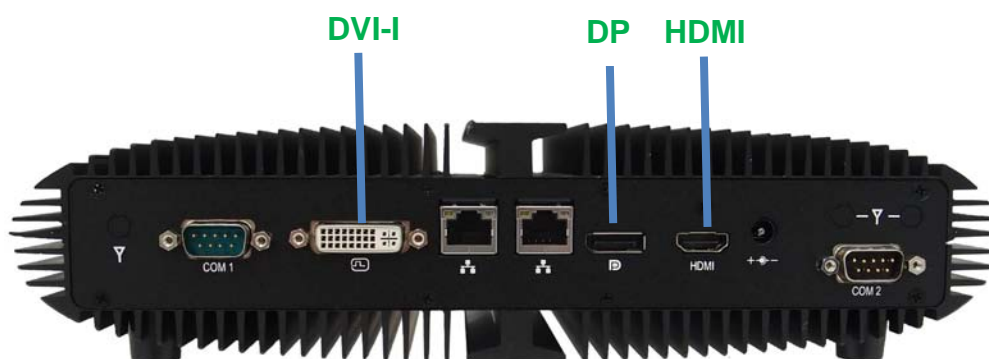
Figure 4 Connect the DP/DVI-I /HDMI cable

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 KUBE-809B does not come with a keyboard and mouse, but you can use any USB keyboard or mouse with your computer.

eSATA/USB2.0   4xUSB 3.0   USB 2.0
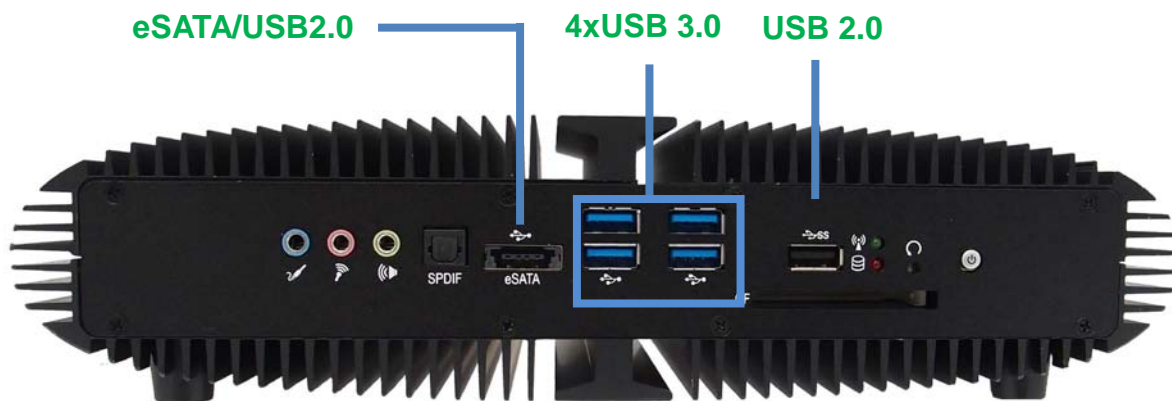
Figure 5 Connecting USB mouse & keyboard

NOTE

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

■ **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.

LAN
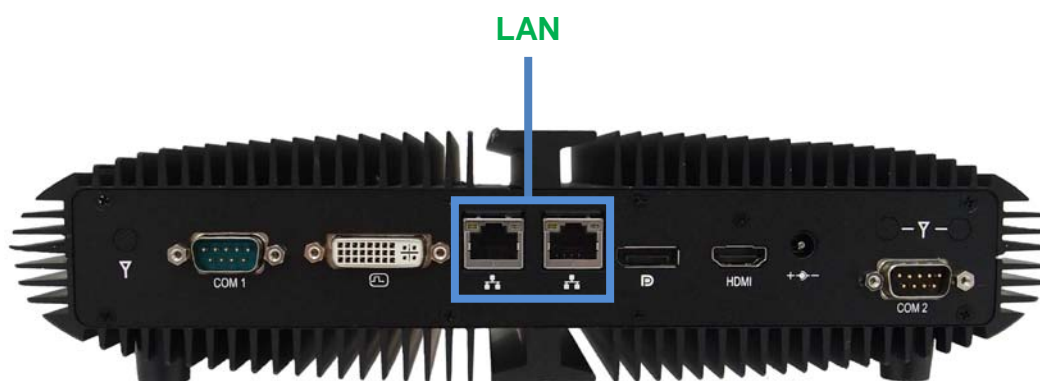
Figure 6 Network cable with RJ45 connector

■ COM ports

COM ports with the pin definitions.

COM 1   **COM 2**

Figure 7 COM Ports

COM1 RS-232 / 422 / 485 Port DB-9

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*

COM2 RS-232 / 422 / 485 Port DB-9

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

■ Turning on the system

1. Connect the power adapter cable to the DC jack (DC IN) of the KUBE-809B
2. Connect the power cable to the power adapter
3. Connect the power cable to a power outlet
4. Press the power button on the front panel to turn on the system

Power button

DC Jack
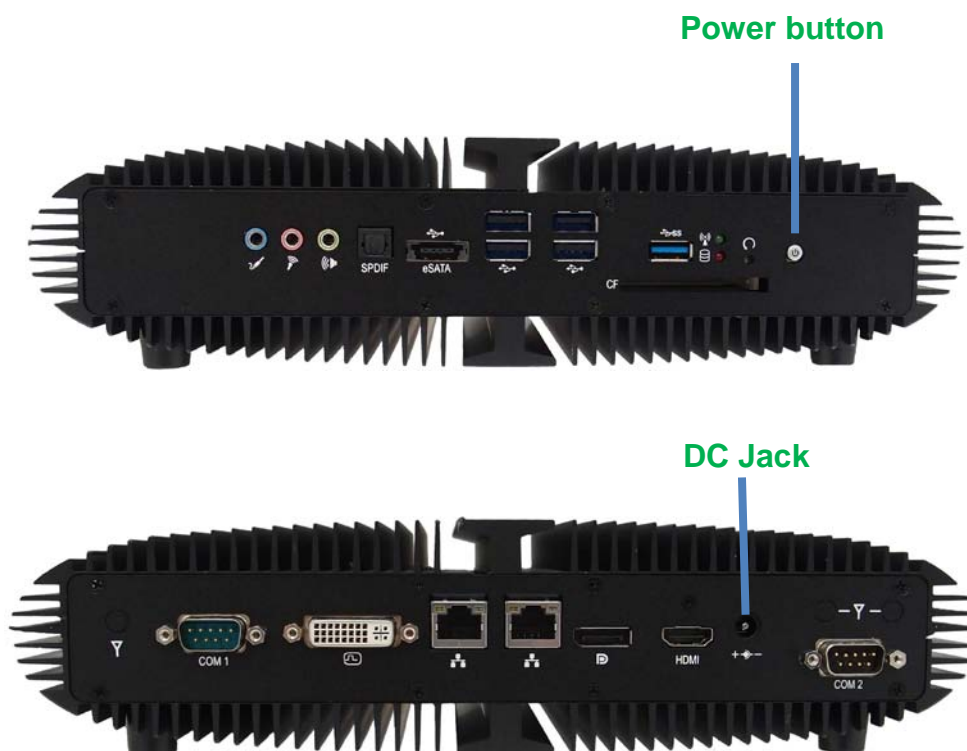
Figure 8 Turning on the system

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	KUBE-809B	
BIOS Version	1.01	
BIOS Build Date	08/28/2012	
ME FW Version	8.0.13.1502	
CPU Information		
Intel® Core ™ i7-3610QE CPU @ 2.30GHz		
Microcode Revision	12	→ ← Select Screen
Processor Cores	4	↑↓ Select Item
		Enter: Select
Memory Information		+- Change Opt.
		F1: General Help
Total Size	1024 MB (DDR3)	F2: Previous Values
Frequency	1333 MHz	F3: Optimized Defaults
System date	[Wed 08/29/2012]	F4 Save & Exit
System time	[09:43:19]	ESC Exit

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◼ 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]
Audio Controller	[Enabled]

> Display Configuration
> Power Management Configuration
> CPU Advanced Configuration
> Trusted Computing
> SATA Configuration
> Intel(R) Rapid Start Technology
>Intel TXT(LT) Configuration

> AMT Configuration
>USB Configuration
>Super IO Configuration
>H/W Monitor

>Intel(R) Smart Connect Technology

→ ← 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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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					
Main	**Advanced**	Boot	Security	Server Mgmt	Save & Exit

Display Configuration

Aperture Size   [256 MB]

DVMT Pre-Allocated   [64M]
DVMT Total Gfx Mem   [256 M]

IGFX – Boot Type   [VBIOS Default]

→ ← 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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Aperture 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

IGFX – Boot Type

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

Table 5 Advanced Menu –Power Management 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

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

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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 6 Advanced Menu –CPU Advanced 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 Advanced 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 7 Advanced Menu –Trusted Computing

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

Configuration Security Device Support [Disable] Current Status Information SUPPORT TURNED OFF		→ ← 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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Security Device Support

Options: Disabled, Enabled

Table 8 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	[Gen 3]		Enter: Select	
			+- Change Opt.	
Serial ATA Port 1	Empty		F1: General Help	
Software Preserve	Unknown		F2: Previous Values	
Port	[Enabled]		F3: Optimized Defaults	
SATA Device Type	[Hard Disk Driver]		F4 Save & Exit	
SATA Port to CF	Empty		ESC Exit	
Software Preserve	Unknown			
Port	[Enabled]			
Hot Plug	[Disabled]			
SATA Port to ESATA	Empty			
Software Preserve	Unknown			
Port	[Enabled]			
External SATA	[Enabled]			
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SATA Controller(s)

Options: Disabled, Enabled

SATA Mode Selection

Options: IDE, AHCI

SATA Controller Speed

Options: Gen 1, Gen 2, Gen 3
Port
Options: Disabled, Enabled

SATA Device Type

Options: Hard Disk Driver, Solid State Driver

Hot Plug

Options: Disabled, Enabled

External SATA

Options: Disabled, Enabled

Table 9 Advanced Menu – Intel Rapid Start Technology

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	

Intel® Rapid Start Technology	[Disabled]	→ ← 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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Intel® Rapid Start Technology

Options: Disabled, Enabled

Table 10 Advanced Menu –Intel TXT (LT) 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 Trusted Execution technology Configuration		→ ← Select Screen ↑↓ Select Item Enter: Select +- Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4 Save & Exit ESC Exit
Intel TXT support only can be enabled / disabled if SMX is enabled. VT and VT-d support must also be enabled prior to TXT.		
Secure Mode Extensions (SMX)	[Enabled]	
Intel TXT (LT) Support	[Disabled]	
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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
BIOS HotKey Pressed		[Disabled]		↑↓ Select Item
MEBx Selection Screen		[Disabled]		Enter: Select
Hide Un-Configure ME Confirmation		[Disabled]		+- Change Opt.
MEBx Debug Message Output		[Disabled]		F1: General Help
Un-Configure ME		[Disabled]		F2: Previous Values
AMT Wait Timer		0		F3: Optimized Defaults
Disable ME		[Disabled]		F4 Save & Exit
ASF		[Enabled]		ESC Exit
Activate Remote Assistance Process		[Disabled]		
USB Configure		[Enabled]		
PET Progress		[Enabled]		
AMT CIRA Timeout		0		
Watchdog		[Disabled]		
OS Timer		0		
BIOS Timer		0		
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Intel AMT

Options: Disabled, Enabled

BIOS Hotkey Pressed

Options: Disabled, Enabled

MEBx Selection Screen

Options: Disabled, Enabled

Hide Un-Configure ME Confirmation

Options: Disabled, Enabled

MEBx Debug Message Output

Options: Disabled, Enabled

Un-Configure ME

Options: Disabled, Enabled

AMT Wait Timer

Options: 0

Disable ME

Options: Disabled, Enabled

ASF

Options: Disabled, Enabled

Activate Remote Assistance Process

Options: Disabled, Enabled

USB Configure

Options: Disabled, Enabled

PET Progress

Options: Disabled, Enabled

Watchdog

Options: Disabled, Enabled

Table 12 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

XHCI Pre-Boot Driver            [Enabled]
XHCI Mode                     [ Smart Auto]
```

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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

XHCI Pre-Boot Driver

Options: Disabled, Enabled

XHCI Mode

Options: ,Auto, Smart Auto, Disabled, Enabled

Table 13 Advanced Menu – Super IO 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	
Super IO Configuration >Serial Port 1 Configuration >Serial Port 2 Configuration						
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Table 14 Advanced Menu –Super IO Configuration – Serial Port 1 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 1 Configuration Serial Port Device Settings Change Settings Serial Port 1 Type COM1 Pin9 Definition		[Enabled] IO=3F8h; IRQ=4 [Auto] [RS232] [RI]		→ ← 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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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 Port1 Type

Options: RS232, RS422, RS485

COM1 Pin9 Definition

Options: RI, +5V

Table 15 Advanced Menu –Super IO Configuration – Serial Port 2 Configuration

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

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
Device Mode	[Standard Serial Port...]	F3: Optimized Defaults
Serial Port 2 Type	[RS232]	F4 Save & Exit
COM2 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, 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;

Device Mode

Options: Standard Serial Port Mode,

IrDA functions, active pulse is 1.6us,

IrDA function, active pulse is 3/16 bit time.

Serial Port 2 Type

Options: RS232, RS422, RS485

COM2 Pin9 Definition

Options: RI, +5V

Table 16 Advanced Menu –Super IO Configuration – Serial Port 1 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 1 Configuration		→ ← Select Screen
		↑↓ Select Item
Serial Port	[Enabled]	Enter: Select
		+- Change Opt.
Device Settings	IO=3F8h; IRQ=4	F1: General Help
Change Settings	[Auto]	F2: Previous Values
Serial Port 1 Type	[RS232]	F3: Optimized Defaults
COM1 Pin9 Definition	[RI]	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, 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

Table 17 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
                                                        →  ← Select Screen
 CPU Warning Temperature              [Disabled]        ↑↓ Select Item
                                                        Enter: Select
CPU Temperature                      : +47 C           +- Change Opt.
Bottom Side System Temperature       : +31 C           F1: General Help
Top Side System Temperature          : +29 C           F2: Previous Values
                                                        F3: Optimized Defaults
                                                        F4 Save & Exit
+3.3V                                : +3.360 V         ESC Exit
+VCORE                               : +0.864 V
+1.05V                               : +1.056 V
+1.5V                                : +1.546 V
+5VDUAL                              : +5.120 V
+VIN                                 : +11.880 V
+3.3VSB                              : +3.376
```

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CPU Warning Temperature

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

Table 18 Advanced Menu –Intel ® Smart Connect

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

```
ISCT Configuration                   [Disabled]
```

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ISCT Configuration

Options: Disabled, Enabled

■ Boot Menu

Table 19 Boot Menu

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

Boot Configuration	
Full Screen LOGO Display [Disabled]	→ ← Select Screen
	↑↓ Select Item
Setup Prompt Timeout 1	Enter: Select
Bootup NumLock State [On]	+- Change Opt.
	F1: General Help
Boot Option Priorities	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

■ Security Menu

Table 20 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 21 Save & Exit Menu

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**
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 KUBE-809B 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 with your nearest Quanmax Sale.