NVR-Q67

Network Video Recorder

3.5” HDD x 6, 2.5” HDD x 1

Gigabit Ethernet x 2

COM x 2, USB2.0 x 4

VGA x 1, DVI-D x 1

Display Port x 1

NVR-Q67 Manual 1st Ed.
July 2013

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Packing List

Before you begin installing your card, please make sure that the following materials have been shipped:

- 1 CD-ROM for 2-port SC300 driver
- 1 DVD-ROM for Manual (in PDF Format) and Drivers
- 1 NVR-Q67

If any of these items should be missing or damaged, please contact your distributor or sales representative immediately.

Contents

Below Table for China RoHS Requirements
产品中有毒有害物质或元素名称及含量

AAEON Boxer/ Industrial System

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
印刷电路板及其电子组件	×	○	○	○	○	○
外部信号连接器及线材	×	○	○	○	○	○
外壳	×	○	○	○	○	○
中央处理器与内存	×	○	○	○	○	○
硬盘	×	○	○	○	○	○
电源	×	○	○	○	○	○

O：表示该有毒有害物质在该部件所有均质材料中的含量均在 **SJ/T 11363-2006** 标准规定的限量要求以下。

X：表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 **SJ/T 11363-2006** 标准规定的限量要求。

备注：
一、此产品所标示之环保使用期限，系指在一般正常使用状况下。
二、上述部件物质中央处理器、内存、硬盘、电源为选购品。

Chapter

1

General Information

1.1 Introduction

NVR-Q67 adopts the Intel® Core™ i7/ i5 Processor and equips with Intel® Q67 chipset. Moreover, the system memory features 4GB or 8GB DDR3 1333/1066 Hz Non-ECC, Un-buffered DIMM Memory up to 32GB. It deploys two LAN ports that consist of 10/100/1000Base-TX Ethernet RJ-45 ports. NVR-Q67 features desktop and rackmount form factor for network appliance applications.

This NVR-Q67 supports up to six 3.5" Hard Disk Drive and one 2.5" internal System HDD bracket with 460W PSU. Moreover, the flexible expansion interfaces feature one PCI-E[x16], one PCI-E[x4], and two PCI slots. In addition, this model supports two COM ports, and four USB2.0 ports on the rear. Furthermore, the NVR-Q67 can support dual displays with one VGA, one DVI-D, and one DisplayPort™.

1.2 Features

- Intel® Socket 1155 with 2nd Generation Core™ i5/i7 Processors
- Intel® Q67 Chipset
- 4GB or 8GB DDR3 1333/1066 Hz Non-ECC, Un-buffered DIMM Memory Up To 32GB
- 10/100/1000Base-TX Ethernet x 2
- 3.5” SATA HDD Bay x 6 + 2.5” internal System HDD Bracket x 1 with 460W PSU
- Onboard COM x 2
- USB2.0 x 4
- VGA x 1,DVI-D x 1, Display Port x 1
- Audio Line-out, Line-in, Mic-in
- RAID 0/1/5/10 support
- Windows® 7 Embedded Standard (optional)

1.3 Specifications

System

● CPU	Intel® Socket 1155 with 2nd Generation Core™ i5/i7 Processors
● Chipset	Intel Q67
● System Memory	4GB (for i5) or 8GB (for i7) DDR3 1333/1066 Hz Non-ECC, Un-buffered Memory, support upto 32G
● LCD/CRT Controller	Integrated in Processor, shared memory up to 256MB
● Ethernet	10/100/1000Base-TX, RJ-45 x 2
● Rear I/O Port	USB2.0 x 4 Audio Line-out, Line-in, Mic-in x 1 VGA x 1 DVI x 1 Display Port x 1 PS/2 x 1(Keyboard + Mouse)
● Storage	6 x 3.5" internal SATA Hard Disk Bay + 1 x 2.5” internal System HDD bracket
● Expansion Slot	PCIe [x16] x 1, PCIe [x4] x 1, PCI x 2
● RAID Support	0/1/5/10

Mechanical

● Front Panel	Power Button x 1, Reset Button x 1, HDD light Indicator
● Dimension	19.4” x 16.61” x 3.46” (493mm x 422mm x 88mm)
● Gross Weight	24.2 lb (11 Kg)
● Net Weight	22 lb (10 Kg)

Environmental

● Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)
● Storage Temperature	-20°C ~ 60°C (-4°F ~ 140°F)
● Storage Humidity	10%~80% @40°C; non-condensing

Power Supply

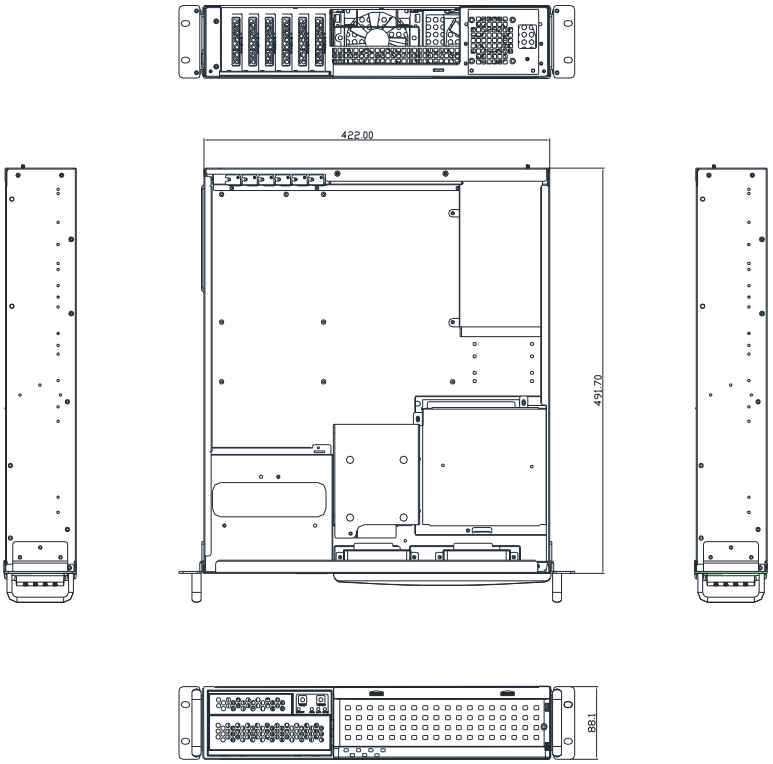
● DC Output	460W ATX PS2
● AC Input Voltage Range	100-240Vac, 50-60Hz, 8-4A

Chapter

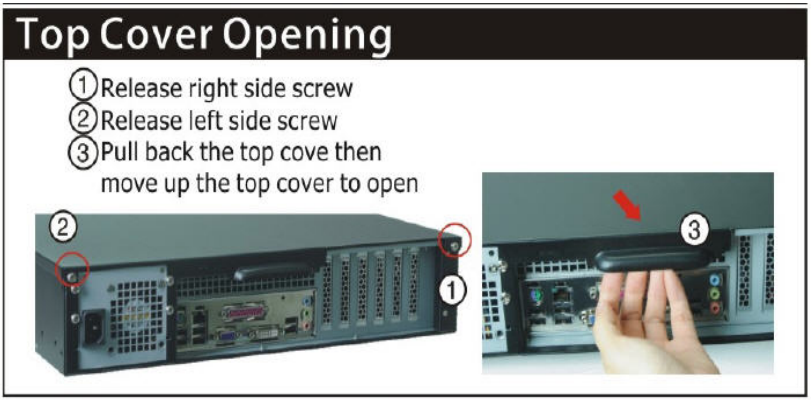
2

Hardware Installation

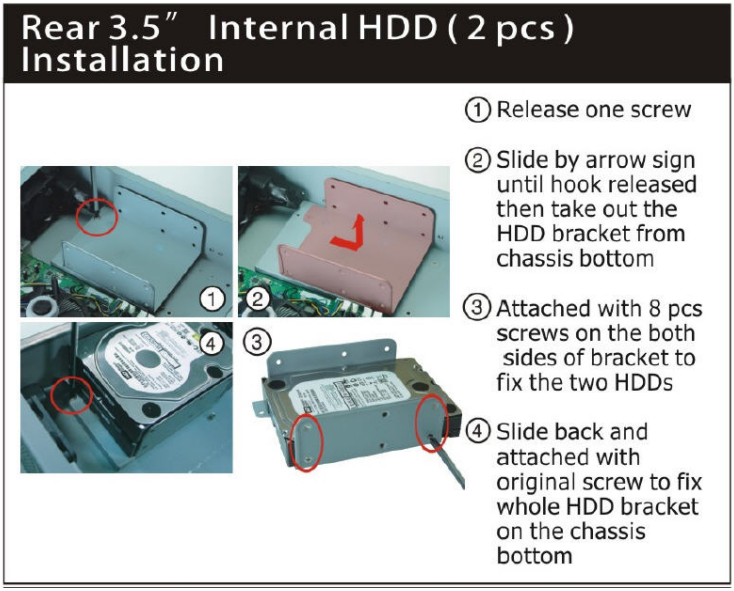
2.1 Mechanical Drawing



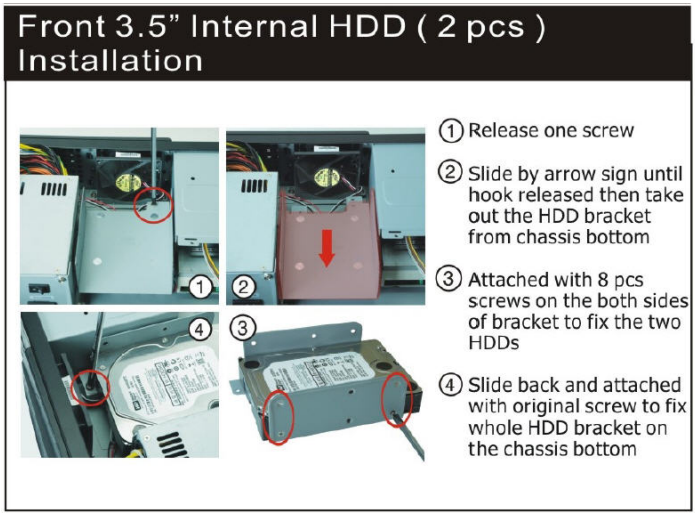
2.2 Open The Top Cover



2.3 Installing the Rear 3.5" Hard Disk Drive

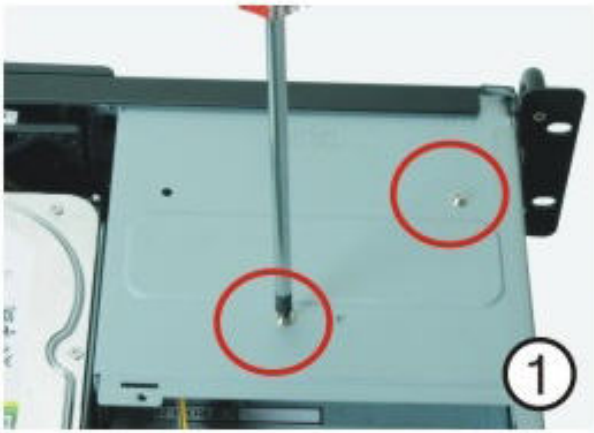


2.4 Installing the Front 3.5” Hard Disk Drive

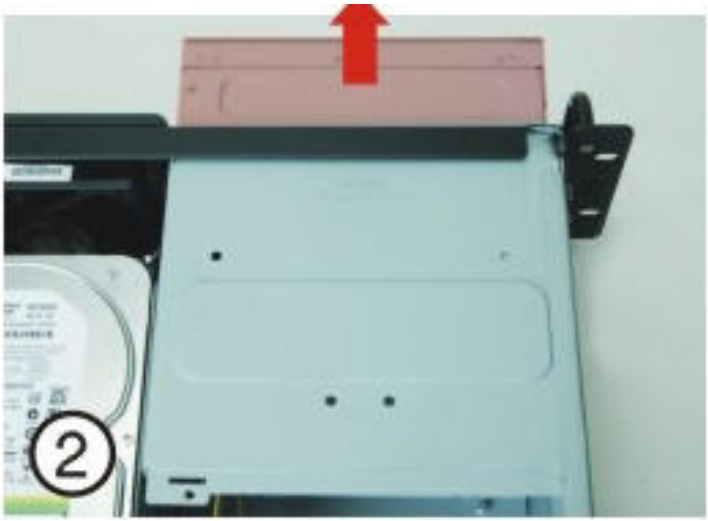


2.5 Installing the Front 3.5”& 2.5”HDD Disk Drive

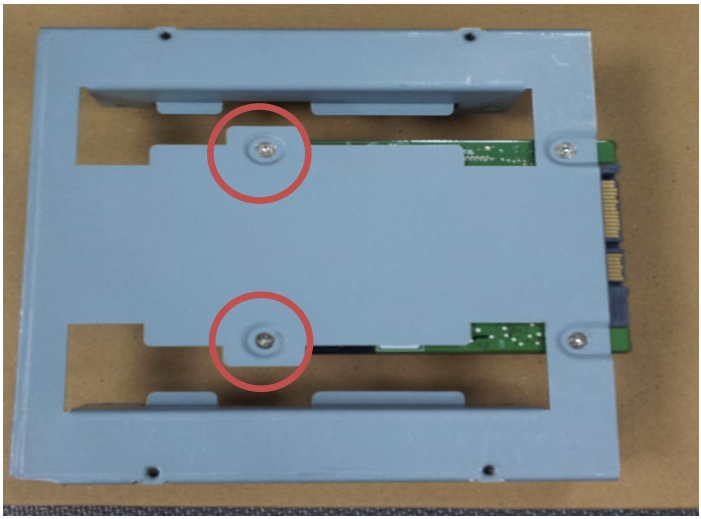
Step 1: Release two screws on the top side of drive bay



Step 2: Pull out the whole drive bay from the front side of the chassis



Step 3: Lock the HDD on the HDD bracket with two screws



Step 4: Fasten the two screws on the both sides of bracket to the HDD case

Step 5: Fasten six screws on the each side of bracket to 3.5” and 2.5” HDD cases (Upper one is 3.5”HDD and lower one is 2.5” HDD, total 12 screws)

Chapter

3

Driver Installation

The NVR-Q67 comes with an AutoRun DVD-ROM that contains all drivers and utilities that can help you to install the driver automatically.

Insert the driver DVD, the driver DVD-title will auto start and show the installation guide. If not, please follow the sequence below to install the drivers.

Follow the sequence below to install the drivers:

Step 1 – Install Chipset Driver

Step 2 – Install VGA Driver

Step 3 – Install LAN Driver

Step 4 – Install Audio Driver

Step 5 – Install TPM Driver

Step 7 – Install ME Driver

Step 8 – Install RAID Driver

Please read instructions below for further detailed installations.

3.1 Installation

Insert the NVR-Q67 DVD-ROM into the DVD -ROM drive and install the drivers from Step 1 to Step 8 in order.

Step 1 – Install Chipset Driver

1. Click on the ***Chipset*** folder and double click on the ***Setup.exe*** file
2. Follow the instructions that the window shows
3. The system will help you install the driver automatically

Step 2 – Install VGA Driver

1. Click on the ***VGA*** folder and select the OS your system is
2. Double click on the ***Setup.exe*** file located in each OS folder
3. Follow the instructions that the window shows
4. The system will help you install the driver automatically

Step 3 – Install LAN Driver

For Intel LAN Chip

1. Click on the ***LAN*** folder and select the ***Intel*** folder
2. Double click on the ***Autorun.exe*** file
3. Follow the instructions that the window shows
4. The system will help you install the driver automatically

For Realtek LAN Chip

1. Click on the ***LAN*** folder and select the ***Realtek*** folder
2. Select the OS folder your system is and double click on the ***setup.exe*** file located in each OS folder
3. Follow the instructions that the window shows
4. The system will help you install the driver automatically

Step 4 – Install Audio Driver

1. Click on the ***Audio*** folder and double click on the ***SETUP.exe*** file
2. Follow the instructions that the window shows
3. The system will help you install the driver automatically

Step 5 – Install TPM Driver

1. Click on the ***TPM*** folder and double click on the ***Setup.exe*** file
2. Follow the instructions that the window shows
3. The system will help you install the driver automatically

Step 6 – Install USB Driver

1. Click on the ***USB3*** folder and double click on the ***setup.exe*** file
2. Follow the instructions that the window shows
3. The system will help you install the driver automatically

Step 7 – Install ME Driver

1. Click on the ***ME*** folder and double click on the ***Setup.exe*** file
2. Follow the instructions that the window shows
3. The system will help you install the driver automatically

Step 8 – Install RAID Driver

When you install the RAID driver, you have to install ***asmedia*** and ***IRST*** drivers

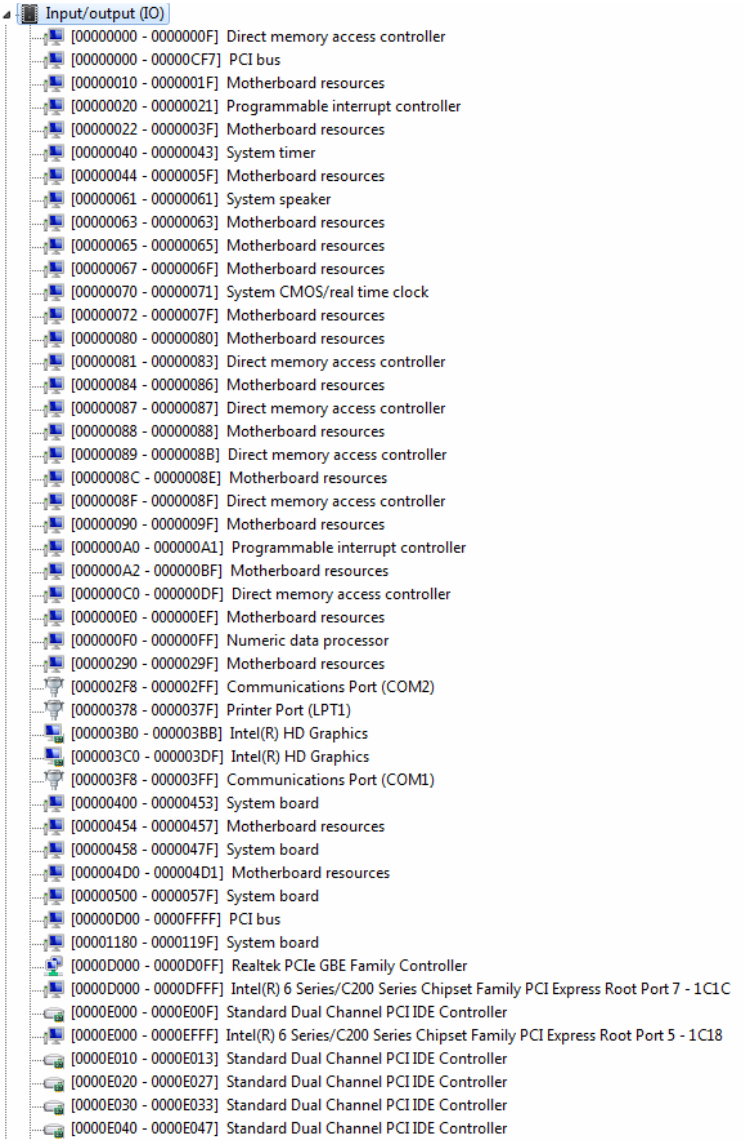
1. Click on the ***Raid*** folder and select the folder of ***Asmedia***
2. Double click on the ***setup.exe*** file
3. Follow the instructions that the window shows
4. The system will help you install the driver automatically
5. After installing Asmedia driver, and then click on the folder of ***IRST***
6. Select the folder of ***Driver*** folder
7. Double click on the ***setup.exe*** file
8. Follow the instructions that the window shows
9. The system will help you install the driver automatically

Chapter

4

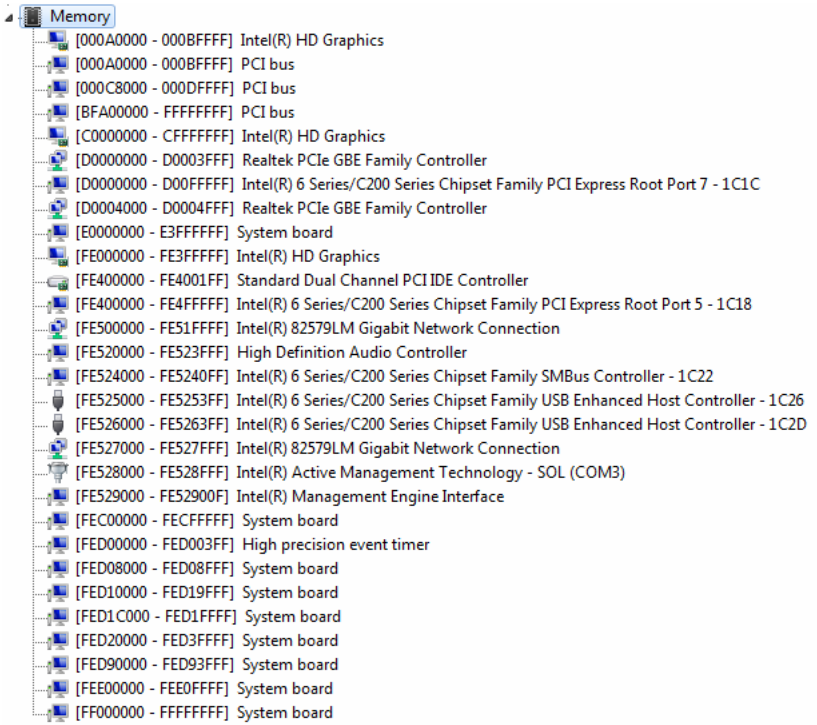
I/O Information

4.1 I/O Address Map

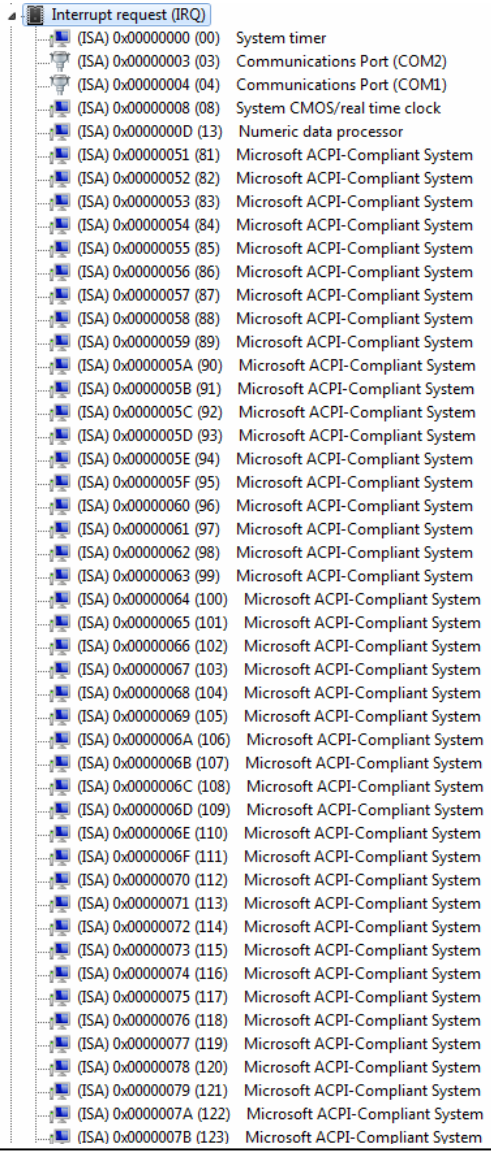


- [00000090 - 0000009F] Motherboard resources
- [000000A0 - 000000A1] Programmable interrupt controller
- [000000A2 - 000000BF] Motherboard resources
- [000000C0 - 000000DF] Direct memory access controller
- [000000E0 - 000000EF] Motherboard resources
- [000000F0 - 000000FF] Numeric data processor
- [00000290 - 0000029F] Motherboard resources
- [000002F8 - 000002FF] Communications Port (COM2)
- [00000378 - 0000037F] Printer Port (LPT1)
- [000003B0 - 000003BB] Intel(R) HD Graphics
- [000003C0 - 000003DF] Intel(R) HD Graphics
- [000003F8 - 000003FF] Communications Port (COM1)
- [00000400 - 00000453] System board
- [00000454 - 00000457] Motherboard resources
- [00000458 - 0000047F] System board
- [000004D0 - 000004D1] Motherboard resources
- [00000500 - 0000057F] System board
- [00000D00 - 0000FFFF] PCI bus
- [00001180 - 0000119F] System board
- [0000D000 - 0000D0FF] Realtek PCIe GBE Family Controller
- [0000D000 - 0000DFFF] Intel(R) 6 Series/C200 Series Chipset Family PCI Express Root Port 7 - 1C1C
- [0000E000 - 0000E00F] Standard Dual Channel PCI IDE Controller
- [0000E000 - 0000EFFF] Intel(R) 6 Series/C200 Series Chipset Family PCI Express Root Port 5 - 1C18
- [0000E010 - 0000E013] Standard Dual Channel PCI IDE Controller
- [0000E020 - 0000E027] Standard Dual Channel PCI IDE Controller
- [0000E030 - 0000E033] Standard Dual Channel PCI IDE Controller
- [0000E040 - 0000E047] Standard Dual Channel PCI IDE Controller
- [0000F000 - 0000F03F] Intel(R) HD Graphics
- [0000F040 - 0000F05F] Intel(R) 6 Series/C200 Series Chipset Family SMBus Controller - 1C22
- [0000F080 - 0000F08F] Intel(R) 6 Series/C200 Series Chipset Family 2 port Serial ATA Storage Controller - 1C08
- [0000F090 - 0000F09F] Intel(R) 6 Series/C200 Series Chipset Family 2 port Serial ATA Storage Controller - 1C08
- [0000F0A0 - 0000F0A3] Intel(R) 6 Series/C200 Series Chipset Family 2 port Serial ATA Storage Controller - 1C08
- [0000F0B0 - 0000F0B7] Intel(R) 6 Series/C200 Series Chipset Family 2 port Serial ATA Storage Controller - 1C08
- [0000F0C0 - 0000F0C3] Intel(R) 6 Series/C200 Series Chipset Family 2 port Serial ATA Storage Controller - 1C08
- [0000F0D0 - 0000F0D7] Intel(R) 6 Series/C200 Series Chipset Family 2 port Serial ATA Storage Controller - 1C08
- [0000F0E0 - 0000F0EF] Intel(R) 6 Series/C200 Series Chipset Family 4 port Serial ATA Storage Controller - 1C00
- [0000F0F0 - 0000F0FF] Intel(R) 6 Series/C200 Series Chipset Family 4 port Serial ATA Storage Controller - 1C00
- [0000F100 - 0000F103] Intel(R) 6 Series/C200 Series Chipset Family 4 port Serial ATA Storage Controller - 1C00
- [0000F110 - 0000F117] Intel(R) 6 Series/C200 Series Chipset Family 4 port Serial ATA Storage Controller - 1C00
- [0000F120 - 0000F123] Intel(R) 6 Series/C200 Series Chipset Family 4 port Serial ATA Storage Controller - 1C00
- [0000F130 - 0000F137] Intel(R) 6 Series/C200 Series Chipset Family 4 port Serial ATA Storage Controller - 1C00
- [0000F140 - 0000F147] Intel(R) Active Management Technology - SOL (COM3)
- [0000F150 - 0000F15F] Standard Dual Channel PCI IDE Controller
- [0000F160 - 0000F163] Standard Dual Channel PCI IDE Controller
- [0000F170 - 0000F177] Standard Dual Channel PCI IDE Controller
- [0000F180 - 0000F183] Standard Dual Channel PCI IDE Controller
- [0000F190 - 0000F197] Standard Dual Channel PCI IDE Controller

4.2 1st MB Memory Address Map



4.3 IRQ Mapping Chart



(ISA) 0x0000007C (124) Microsoft ACPI-Compliant System
(ISA) 0x0000007D (125) Microsoft ACPI-Compliant System
(ISA) 0x0000007E (126) Microsoft ACPI-Compliant System
(ISA) 0x0000007F (127) Microsoft ACPI-Compliant System
(ISA) 0x00000080 (128) Microsoft ACPI-Compliant System
(ISA) 0x00000081 (129) Microsoft ACPI-Compliant System
(ISA) 0x00000082 (130) Microsoft ACPI-Compliant System
(ISA) 0x00000083 (131) Microsoft ACPI-Compliant System
(ISA) 0x00000084 (132) Microsoft ACPI-Compliant System
(ISA) 0x00000085 (133) Microsoft ACPI-Compliant System
(ISA) 0x00000086 (134) Microsoft ACPI-Compliant System
(ISA) 0x00000087 (135) Microsoft ACPI-Compliant System
(ISA) 0x00000088 (136) Microsoft ACPI-Compliant System
(ISA) 0x00000089 (137) Microsoft ACPI-Compliant System
(ISA) 0x0000008A (138) Microsoft ACPI-Compliant System
(ISA) 0x0000008B (139) Microsoft ACPI-Compliant System
(ISA) 0x0000008C (140) Microsoft ACPI-Compliant System
(ISA) 0x0000008D (141) Microsoft ACPI-Compliant System
(ISA) 0x0000008E (142) Microsoft ACPI-Compliant System
(ISA) 0x0000008F (143) Microsoft ACPI-Compliant System
(ISA) 0x00000090 (144) Microsoft ACPI-Compliant System
(ISA) 0x00000091 (145) Microsoft ACPI-Compliant System
(ISA) 0x00000092 (146) Microsoft ACPI-Compliant System
(ISA) 0x00000093 (147) Microsoft ACPI-Compliant System
(ISA) 0x00000094 (148) Microsoft ACPI-Compliant System
(ISA) 0x00000095 (149) Microsoft ACPI-Compliant System
(ISA) 0x00000096 (150) Microsoft ACPI-Compliant System
(ISA) 0x00000097 (151) Microsoft ACPI-Compliant System
(ISA) 0x00000098 (152) Microsoft ACPI-Compliant System
(ISA) 0x00000099 (153) Microsoft ACPI-Compliant System
(ISA) 0x0000009A (154) Microsoft ACPI-Compliant System
(ISA) 0x0000009B (155) Microsoft ACPI-Compliant System
(ISA) 0x0000009C (156) Microsoft ACPI-Compliant System
(ISA) 0x0000009D (157) Microsoft ACPI-Compliant System
(ISA) 0x0000009E (158) Microsoft ACPI-Compliant System
(ISA) 0x0000009F (159) Microsoft ACPI-Compliant System
(ISA) 0x000000A0 (160) Microsoft ACPI-Compliant System
(ISA) 0x000000A1 (161) Microsoft ACPI-Compliant System
(ISA) 0x000000A2 (162) Microsoft ACPI-Compliant System
(ISA) 0x000000A3 (163) Microsoft ACPI-Compliant System
(ISA) 0x000000A4 (164) Microsoft ACPI-Compliant System
(ISA) 0x000000A5 (165) Microsoft ACPI-Compliant System
(ISA) 0x000000A6 (166) Microsoft ACPI-Compliant System
(ISA) 0x000000A7 (167) Microsoft ACPI-Compliant System
(ISA) 0x000000A8 (168) Microsoft ACPI-Compliant System
(ISA) 0x000000A9 (169) Microsoft ACPI-Compliant System
(ISA) 0x000000AA (170) Microsoft ACPI-Compliant System
(ISA) 0x000000AB (171) Microsoft ACPI-Compliant System

- (ISA) 0x000000AC (172) Microsoft ACPI-Compliant System
- (ISA) 0x000000AD (173) Microsoft ACPI-Compliant System
- (ISA) 0x000000AE (174) Microsoft ACPI-Compliant System
- (ISA) 0x000000AF (175) Microsoft ACPI-Compliant System
- (ISA) 0x000000B0 (176) Microsoft ACPI-Compliant System
- (ISA) 0x000000B1 (177) Microsoft ACPI-Compliant System
- (ISA) 0x000000B2 (178) Microsoft ACPI-Compliant System
- (ISA) 0x000000B3 (179) Microsoft ACPI-Compliant System
- (ISA) 0x000000B4 (180) Microsoft ACPI-Compliant System
- (ISA) 0x000000B5 (181) Microsoft ACPI-Compliant System
- (ISA) 0x000000B6 (182) Microsoft ACPI-Compliant System
- (ISA) 0x000000B7 (183) Microsoft ACPI-Compliant System
- (ISA) 0x000000B8 (184) Microsoft ACPI-Compliant System
- (ISA) 0x000000B9 (185) Microsoft ACPI-Compliant System
- (ISA) 0x000000BA (186) Microsoft ACPI-Compliant System
- (ISA) 0x000000BB (187) Microsoft ACPI-Compliant System
- (ISA) 0x000000BC (188) Microsoft ACPI-Compliant System
- (ISA) 0x000000BD (189) Microsoft ACPI-Compliant System
- (ISA) 0x000000BE (190) Microsoft ACPI-Compliant System
- (PCI) 0x0000000A (10) Intel(R) 6 Series/C200 Series Chipset Family SMBus Controller - 1C22
- (PCI) 0x00000010 (16) Standard Dual Channel PCI IDE Controller
- (PCI) 0x00000010 (16) Xeon E3-1200/2nd Generation Intel(R) Core(TM) Processor Family PCI Express Root Port - 0101
- (PCI) 0x00000011 (17) Intel(R) 6 Series/C200 Series Chipset Family PCI Express Root Port 1 - 1C10
- (PCI) 0x00000011 (17) Intel(R) 6 Series/C200 Series Chipset Family PCI Express Root Port 5 - 1C18
- (PCI) 0x00000011 (17) Intel(R) Active Management Technology - SOL (COM3)
- (PCI) 0x00000012 (18) Intel(R) 6 Series/C200 Series Chipset Family PCI Express Root Port 7 - 1C1C
- (PCI) 0x00000013 (19) Intel(R) 6 Series/C200 Series Chipset Family PCI Express Root Port 8 - 1C1E
- (PCI) 0x00000013 (19) Standard Dual Channel PCI IDE Controller
- (PCI) 0x00000014 (20) Intel(R) 6 Series/C200 Series Chipset Family 4 port Serial ATA Storage Controller - 1C00
- (PCI) 0x00000014 (20) Intel(R) 6 Series/C200 Series Chipset Family 2 port Serial ATA Storage Controller - 1C08
- (PCI) 0x00000015 (21) Intel(R) Management Engine Interface
- (PCI) 0x00000016 (22) High Definition Audio Controller
- (PCI) 0x00000017 (23) Intel(R) 6 Series/C200 Series Chipset Family USB Enhanced Host Controller - 1C2D
- (PCI) 0x00000017 (23) Intel(R) 6 Series/C200 Series Chipset Family USB Enhanced Host Controller - 1C26
- (PCI) 0xFFFFFFFC (-4) Realtek PCIe GBE Family Controller
- (PCI) 0xFFFFFFFD (-3) Intel(R) 82579LM Gigabit Network Connection
- (PCI) 0xFFFFFFFE (-2) Intel(R) HD Graphics

4.4 DMA Channel Assignments

- Direct memory access (DMA)
  - 4 Direct memory access controller