



Methods to Differentiate Sun Fire™ X4100 and X4200 from Sun Fire X4100 M2 and X4200 M2 Servers

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Introduction

Purpose of This Document

Sun's new M2 models of the Sun Fire™ X4100 and Sun Fire™ X4200 Servers appear almost identical to the previous models, posing a challenge for the systems manager to differentiate them. This Sun BluePrints™ article explains how to quickly and correctly identify them, either physically or remotely.

The M2 Designation

The Sun Fire X4100 and the Sun Fire X4200 servers are 1 to 4-way x64 rack-optimized servers powered by AMD Opteron™ processors. The Sun Fire X4100 M2 and X4200 M2 servers are the newest members in Sun x64 server lineup. Based on the Sun Fire X4100 and X4200 servers, the new Sun Fire X4100 M2 and X4200 M2 servers utilize the Next-Generation AMD Opteron processors (also known as “Rev F”), they also include faster DDR2 memory, faster PCI-Express expansion slots and USB 2.0 ports. The Next-Generation AMD Opteron processors will allow seamless migration to Quad-Core AMD Opteron processors using the same socket design and power envelop. The M2 designated servers are planned to be easily upgradable to Quad-Core with just processor and BIOS changes, thus reducing data center churn and acquisition costs.

The M2 suffix stands for “Model 2” and is used to designate Sun systems utilizing the Next-Generation Advanced Micro Devices (AMD) Opteron processors.

Is this a Sun Fire X4100 or a X4100 M2 server?



Is this a Sun Fire X4200 or a X4200 M2 server?



Specs Comparison

Sun Fire X4100 and Sun Fire X4100 M2 Servers

	Sun Fire X4100 M2	Sun Fire X4100
CPU type	Next-Generation AMD Opteron 2000 Series processors (dual-core only) aka Rev F	AMD Opteron 200 Series (Single or dual-core) aka Rev E
CPU speed	Dual-core: 2220 SE (2.8 GHz), 2218 (2.6 GHz), 2216 (2.4 GHz), 2210 (1.8 GHz)	Dual-core: 285 (2.6 GHz), 280 (2.4 GHz), 275 (2.2 GHz) Single-core: 256 (3.0 GHz), 254 (2.8 GHz), 252 (2.6 GHz), 248 (2.2 GHz)
Level 2 cache	1 MB per core	1 MB per core
System interconnect	Three 8.0 GB/sec. HyperTransport links per processor and 10.7 GB/sec. access between each processor and memory	Three 8.0 GB/sec. HyperTransport link with 6.4 GB/sec. access between processor and memory
Maximum memory	32 GB of DDR2/667 ECC registered DIMMs	32 GB of DDR1/400 ECC registered DIMMs
Graphics Controller	ATI Rage XL	ATI Rage XL
Internal HDDs	Up to two (w/ DVD) or four (w/o DVD) Hot-swappable, 2.5-inch SAS HDDs	Up to two (w/ DVD) or four (w/o DVD) Hot-swappable, 2.5-inch SAS HDDs
Disk Drive Capacity	73 GB 10,000 RPM SAS	36 GB or 73 GB 10,000 RPM SAS
On-board RAID	Striping, Mirroring (RAID 0, 1) (LSI SAS 1064)	Striping, Mirroring (RAID 0, 1) (LSI SAS 1064)
Network connections	Four Integrated 10/100/1000Base-T Ethernet ports	Four Integrated 10/100/1000Base-T Ethernet ports
Removable media	DVD-ROM/CD-RW	DVD-ROM/CD-RW
Expansion Slots	Two internal PCI-Express 8-lane low-profile slots	Two internal MD2 low-profile 64-bit PCI-X slots (one at 133 MHz, one at 100 MHz)
Service Processor	Sun Integrated Lights Out Manager (ILOM)	Sun Integrated Lights Out Manager (ILOM)
In-band management	IPMI v2.0 via KCS driver SNMP OS-resident agent	IPMI v2.0 via KCS driver SNMP OS-resident agent
Out-of-band management	IPMI v2.0;DMTF CLI over SSH; SNMP- v1, v2c, v3; Web GUI over SSL	IPMI v2.0;DMTF CLI over SSH; SNMP- v1, v2c, v3; Web GUI over SSL
Remote management features	Remote Keyboard, Video, Mouse (KVM), and remote media (Floppy/CD/DVD) capability, Remote power control, remote access to BIOS, remote FRU status	Remote Keyboard, Video, Mouse (KVM), and remote media (Floppy/CD/DVD) capability, Remote power control, remote access to BIOS, remote FRU status
System management paths	Dedicated 10/100Base-T Ethernet port and system serial port	Dedicated 10/100Base-T Ethernet port and system serial port
Rack unit height	1 RU	1 RU
Depth	24.8 in. 632 mm	24.8 in. 632 mm
Power supply	Redundant, Hot-swappable, 550W each	Redundant, Hot-swappable, 550W each

Sun Fire X4200 and Sun Fire X4200 M2 Servers

	Sun Fire X4200 M2	Sun Fire X4200
CPU type	Next-Generation AMD Opteron 2000 Series processors (dual-core only)	AMD Opteron 200 Series (Single or dual-core)
CPU speed	Dual-core: 2220 SE (2.8 GHz), 2218 (2.6 GHz), 2216 (2.4 GHz), 2210 (1.8 GHz)	Dual-core: 285 (2.6 GHz), 280 (2.4 GHz), 275 (2.2 GHz) Single-core: 256 (3.0 GHz), 254 (2.8 GHz), 252 (2.6 GHz), 248 (2.2 GHz)
Level 2 cache	1 MB per core	1 MB per core
System interconnect	Three 8.0 GB/sec. HyperTransport links per processor and 10.7 GB/sec. access between each processor and memory	Three 8.0 GB/sec. HyperTransport link with 6.4 GB/sec. access between processor and memory
Maximum memory	32 GB of DDR2/667 ECC registered DIMMs	32 GB of DDR1/400 ECC registered DIMMs
Graphics Controller	ATI Rage XL	ATI Rage XL
Internal HDDs	Up to four Hot-swappable, 2.5-inch SAS HDDs	Up to four Hot-swappable, 2.5-inch SAS HDDs
Disk Drive Capacity	73 GB 10,000 RPM SAS	36 GB or 73 GB 10,000 RPM SAS
On-board RAID	Striping, Mirroring (RAID 0, 1) (LSI SAS 1064)	Striping, Mirroring (RAID 0, 1) (LSI SAS 1064)
Network connections	Four Integrated 10/100/1000Base-T Ethernet ports	Four Integrated 10/100/1000Base-T Ethernet ports
Removable media	DVD-ROM/CD-RW	DVD-ROM/CD-RW
Expansion Slots	Four internal PCI-Express 8-lane low-profile slots One internal MD2 low-profile 64-bit PCI-X slot at 133 MHz	Five internal MD2 low-profile 64-bit PCI-X slots (one at 133 MHz, one at 100 MHz, three at 66 MHz)
Service Processor	Sun Integrated Lights Out Manager (ILOM)	Sun Integrated Lights Out Manager (ILOM)
In-band management	IPMI v2.0 via KCS driver SNMP OS-resident agent	IPMI v2.0 via KCS driver SNMP OS-resident agent
Out-of-band management	IPMI v2.0;DMTF CLI over SSH; SNMP- v1, v2c, v3; Web GUI over SSL	IPMI v2.0;DMTF CLI over SSH; SNMP- v1, v2c, v3; Web GUI over SSL
Remote management features	Remote Keyboard, Video, Mouse (KVM), and remote media (Floppy/CD/DVD) capability, Remote power control, remote access to BIOS, remote FRU status	Remote Keyboard, Video, Mouse (KVM), and remote media (Floppy/CD/DVD) capability, Remote power control, remote access to BIOS, remote FRU status
System management paths	Dedicated 10/100Base-T Ethernet port and system serial port	Dedicated 10/100Base-T Ethernet port and system serial port
Rack unit height	2 RU	2 RU
Depth	24.8 in. 632 mm	24.8 in. 632 mm
Power supply	Redundant, Hot-swappable, 550W each	Redundant, Hot-swappable, 550W each

External Identification

The Sun Fire X4100 / X4200 servers and their M2 variants share identical packaging and chassis design. However a number of noticeable differences can be used to tell them apart.

Outside the Box

Yellow Customer Information Sheet

Attached to the outside of the system shipping box is a yellow Customer Information sheet. This document provides information such as system and components part numbers and serial numbers.

Product Code

At the top of the first page of the Customer Information sheet, in very large and bold characters, is a product code starting with either A64, A65, A86 or A87. This product code can be decoded as follows:

Product Code starting with	Corresponding Product
A64	Sun Fire X4100
A65	Sun Fire X4200
A86	Sun Fire X4100 M2
A87	Sun Fire X4200 M2

Origin of the System

The system origin country is printed below the part number.

Country	Corresponding Product
USA or Ireland	Sun Fire X4100/X4100
Mexico or Czech Republic	Sun Fire X4100M2 / X4200M2

CPU Description

The FIELD REPLACEABLE UNIT (FRU) LIST table is the third table on the Customer Information sheet and lists the Field Replaceable Units (FRUs) with Slot, Part Number, Serial Number and Description. Search for a component containing “CPU” in the description column. The CPU description will have the CPU model and frequency.

Sun Fire X4100 / X4200 have CPUs with a 3-digit name (i.e. 254) and “E” next to it.

For example:

ASSY,AMD OPT 254 E CPU, 2.8GHZ

Sun Fire X4100M2 / X4200M2 have CPUs with a 4-digit name (i.e. 2220) that is followed by “CPU,F”.

For example:

ASSY,OPT 2220SE CPU,F,2.8,120

Inside the Box

Accessory Kit

The Sun Fire X4100 / X4200 and the M2 versions come with a different Accessory Kit. The Accessory Kit is a plastic bag located inside the main corrugated box that contains documentation, CD/DVDs and a serial DB-9 to RJ-45 adaptor. On the outside of the bag is a sticker with bar codes and a Part Number.

Part Number	Corresponding Product
565-1782-xx or 565-1783-xx	Sun Fire X4100 / X4200
565-1901-xx	Sun Fire X4100 M2 / X4200 M2

Chassis Identification

Outside the Chassis

The Sun Fire X4100 / X4200 servers and their M2 equivalents share the same chassis and look identical from both the front and the rear of the system. However the top of the system shows differences, particularly the service label located on the main top cover.

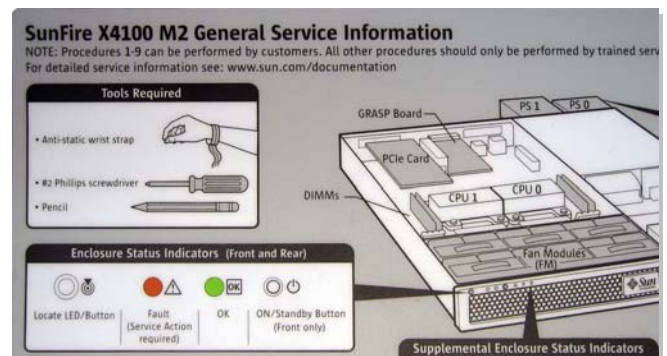
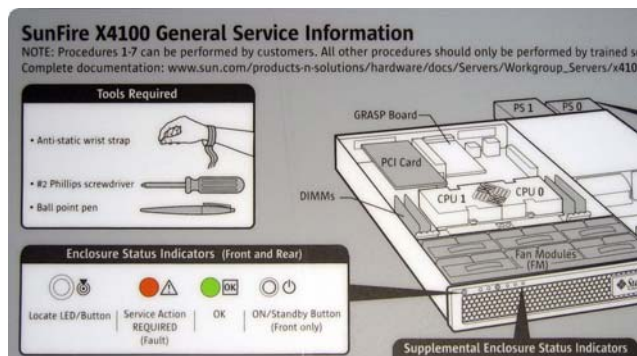
Service Labels

Pull the system out on the slide rails if installed in a rack. The system name is printed at the top left of the main service label “General Service Information” and allows quick identification of the system.

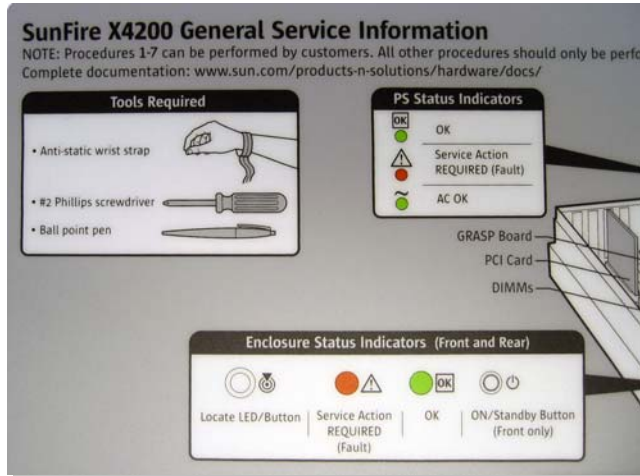
Label Title	Corresponding System
SunFire X4100 General Service Information	Sun Fire X4100
SunFire X4100 M2 General Service Information	Sun Fire X4100 M2
SunFire X4200 General Service Information	Sun Fire X4200
SunFire X4200 M2 General Service Information	Sun Fire X4200 M2

Sun Fire X4100 Service Label

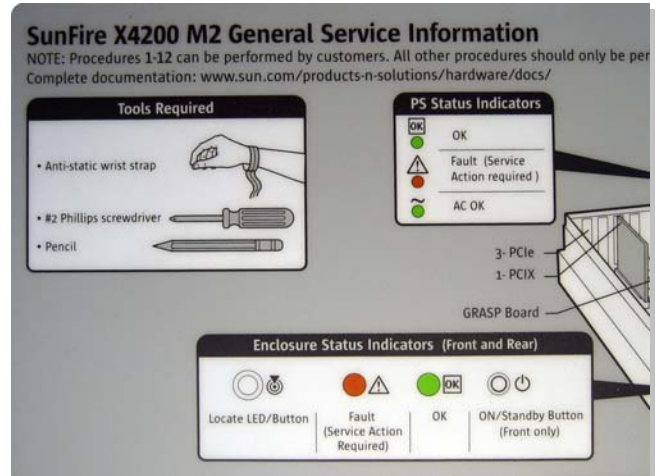
Sun Fire X4100 M2 Service Label



Sun Fire X4200 Service Label



Sun Fire X4200 M2 Service Label



Inside the Chassis

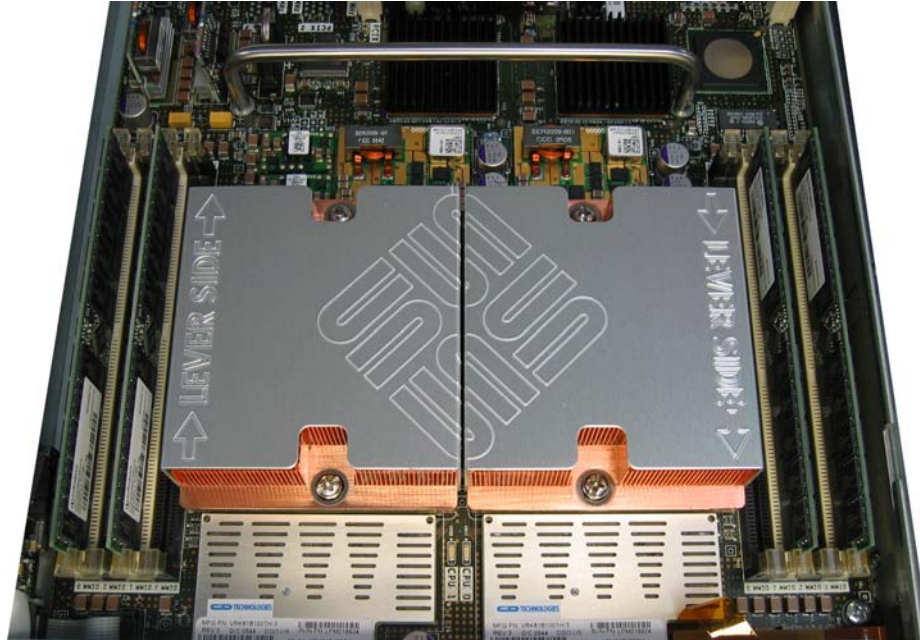
CPU Heatsinks and VRMs

The CPU heatsinks are one of the most noticeable components on the motherboard. The X4100 / X4200 and M2 systems have very different CPU heatsinks and they are one of the quickest ways to identify systems that are not running.

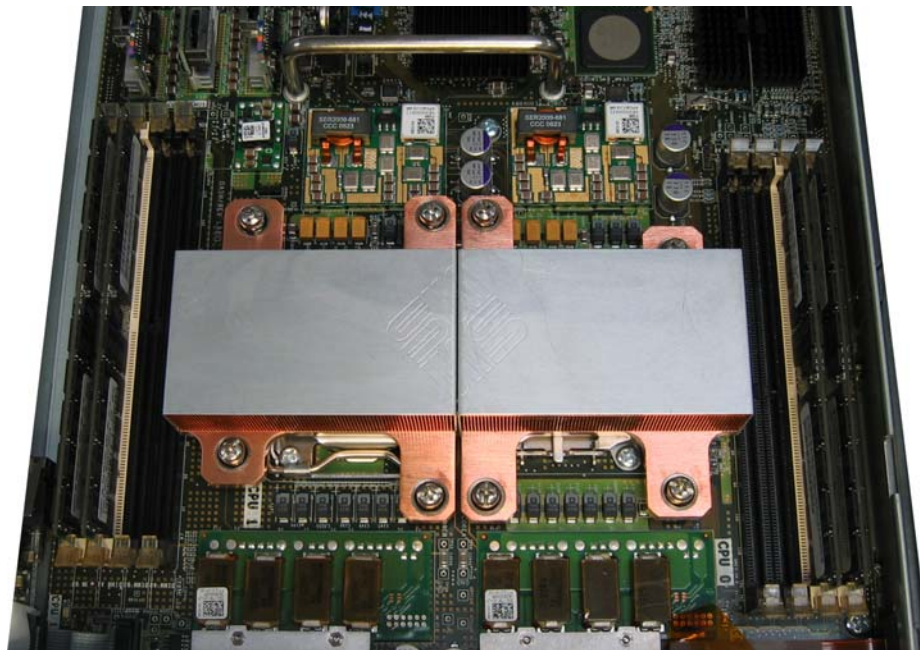
The Sun Fire X4100 / X4200 servers have fairly large square heatsinks, attached to the system board using 2 screws per heatsink. They each have half of the Sun logo and the “Lever Side” notation engraved with two arrows pointing towards the socket lever. In front of the heatsinks are the CPU VRMs (Voltage Regulator Modules) covered with a metal shield.

The Sun Fire X4100M2 / X4200M2 servers have smaller rectangular heatsinks attached to the system board using 4 screws per heatsink. They have one half of the Sun logo each without any additional notation. In front of the heatsinks are the CPU VRMs (Voltage Regulator Modules) with exposed components (no metal shield).

Sun Fire X4100 / X4200 Heatsinks and VRMs



Sun Fire X4100 M2 / X4200 M2 Heatsinks and VRMs



System Memory

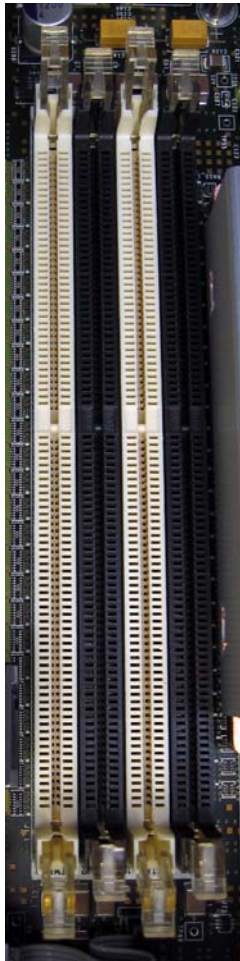
Next to the CPU sockets are located the DIMM slots, four per socket. Two DIMMs are white, the other two are black. The black and white respective locations are different on X4100 / X4200 and X4100 M2 / X4200 M2 motherboards.

The Sun Fire X4100 / X4200 have alternated slot colors: white, black, white and black, starting the further away from the CPU socket.

The X4100M2/X4200M2 have the 2 white DIMMs slots next to each other, the further away from the CPU socket, and the 2 black DIMMs slots closest to the CPU socket.

Note: With both designs, if only one pair of DIMMs is populated per socket, it must be inserted in the white slots.

Sun Fire X4100 / X4200 DIMM Slots



Sun Fire X4100 M2 / X4200 M2 DIMM Slots



The Sun Fire X4100 / X4200 use DDR1 memory and the X4100 M2 / X4200 M2 DDR2 memory therefore the DIMM slots are keyed differently. It is not possible to use memory from a Sun Fire X4100 / X4200 in a M2 system and vice versa. The DDR2 modules say “PC2-5300” or “DDR2” on the label.

The next picture shows a DDR2 module placed on top of a DDR1 module. Notice the different location of the key on the connectors. DDR2 modules also have a higher pin count on the connector: 240 vs. 184 pins.



PCI Expansion Slots

Sun Fire X4100 and X4100 M2

The Sun Fire X4100 has two 64-bit PCI-X slots. The PCI-X slots are white and about 127 mm (5 inches) long.

The Sun Fire X4100 M2 has two 8-lane PCI-E slots. The PCI-E slots are black and about 55 mm (2.2 inches) long.

X4100 has 2 PCI-X slots (White)



X4100 M2 has 2 PCI-E slots (Black)



Sun Fire X4200 and X4200 M2

The Sun Fire X4200 has five white 64-bit PCI-X slots.

The Sun Fire X4100 M2 has four 8-lane PCI-E slots and one 64-bit PCI-X slot.

The PCI-X slots are white and 5 inches (127 mm) long. The PCI-E slots are black and 2 3/8 inches (55 mm) long.

X4200 has 5 PCI-X slots (White)



X4200 M2 has 1 PCI-X (White) and P4 CI-E slots (Black)



Other Components

Due to the different motherboard design, many other components are either in different locations or new when comparing a X4100 / X4200 motherboard and a M2 version. Here are the most noticeable examples:

Fault Remind Button

The Sun Fire X4100 M2 and X4200 M2 have a Fault Remind button on the motherboard. It is a blue round plastic button located between the PCI area and the motherboard handle, next to the NVRAM battery. The Sun Fire X4100 and X4200 do not have this button.

Motherboard Handle

The motherboard handle in the Sun Fire X4100 / X4200 servers is about 160 mm (6.3 inches) long and about 90 mm (3.5 inches) long in the X4100 M2 / X4200 M2.

BIOS Identification

BIOS Boot Screen

During POST the BIOS displays information about the system components that can be seen by connecting a VGA monitor to the server, or over the serial console port or over the ILOM Service Processor by opening a console or using the Video redirection over IP.

The very first BIOS POST screen displays CPU information and Product Name.

Sun Fire X4100 and X4200 Servers

The Sun Fire X4100 / X4200 use 200 Series AMD Opteron processors. The product name “Sun Fire X4100 Server” is also displayed on top of the second paragraph.

In the following screenshot, the BIOS Boot screen informs that the system is a Sun Fire X4100 Server with 8 GB of memory and two Single-Core AMD Opteron 254 stepping E4 running at 2.8 GHz.



```
www.ami.com
American Megatrends
Sun Microsystems®

AMIBIOS (C) 2003 American Megatrends, Inc.
BIOS Date: 01/31/06 18:26:29 Ver: 08.00.10
CPU : AMD Opteron(tm) Processor 254, Speed : 2.8 GHz
Count : 2, CPU Revision, CPU0 : E4, CPU1 : E4
Microcode Revision, CPU0 : 0, CPU1 : 0
DRAM Clocking CPU0 = 400 MHz, CPU1 = 400 MHz

Sun Fire X4100 Server, 2 AMD North Bridges, Rev E4
1 AMD 8111 I/O Hub, Rev C2
2 AMD 8131 PCI-X Controllers, Rev B2
System Serial Number : 0551AM1360
BMC Firmware Revision : 1.00
Checking NURAM..
Initializing USB Controllers .. Done.
Press F2 to run Setup (CTRL+E on Remote Keyboard)
Press F12 to boot from the network (CTRL+N on Remote Keyboard)
Press F8 for BBS POPUP (CTRL+P on Remote Keyboard)
System Memory : 7.875 GB

(C) American Megatrends, Inc.
64-0100-000001-00101111-013106-0PTERON-0ABGA031-Y2KC 0060
```

Sun Fire X4100 M2 and X4200 M2 Servers

The Sun Fire X4100 M2 / X4200 M2 use 2000 Series AMD Opteron processors. The product name “Sun Fire X4100 M2” is also displayed on top of the second paragraph.

In the following screenshot, the BIOS Boot screen informs that the system is a Sun Fire X4100 M2 Server with 8 GB of memory and two Dual-Core AMD Opteron 2220 SE stepping F2 running at 2.8 GHz.



```
www.ami.com
American Megatrends
Sun
microsystems®

AMIBIOS (C) 2006 American Megatrends, Inc.
BIOS Date: 09/08/06 14:54:49 Ver: 08.00.12
CPU : Dual-Core AMD Opteron(tm) Processor 2220 SE
Speed : 2.80 GHz    Count : 4
DRAM Clocking CPU0 Core0/1 = 667 MHz, CPU1 Core0/1 = 667 MHz

Sun Fire X4100 M2, 2 AMD North Bridges, Rev F2
1 AMD 8132 PCI-X 2.0 Controller, Rev B2
1 NVidia CK8-04 PRO SB, 1 NVidia IO-4 Slave Bridge(s)
Board Serial Number   : 1005LCB-0634GA003G
BMC Firmware Revision : 1.00.07
CPLD Revision : 3.0
Initializing USB Controllers .. Done.
Press F2 to run Setup (CTRL+E on Remote Keyboard)
Press F8 for BBS POPUP (CTRL+P on Remote Keyboard)
Press F12 to boot from the network (CTRL+N on Remote Keyboard)
System Memory : 7.5 GB

(C) American Megatrends, Inc.
64-0100-000001-00101111-090806-CK8-04-0ABJX024-Y2KC

0060
```

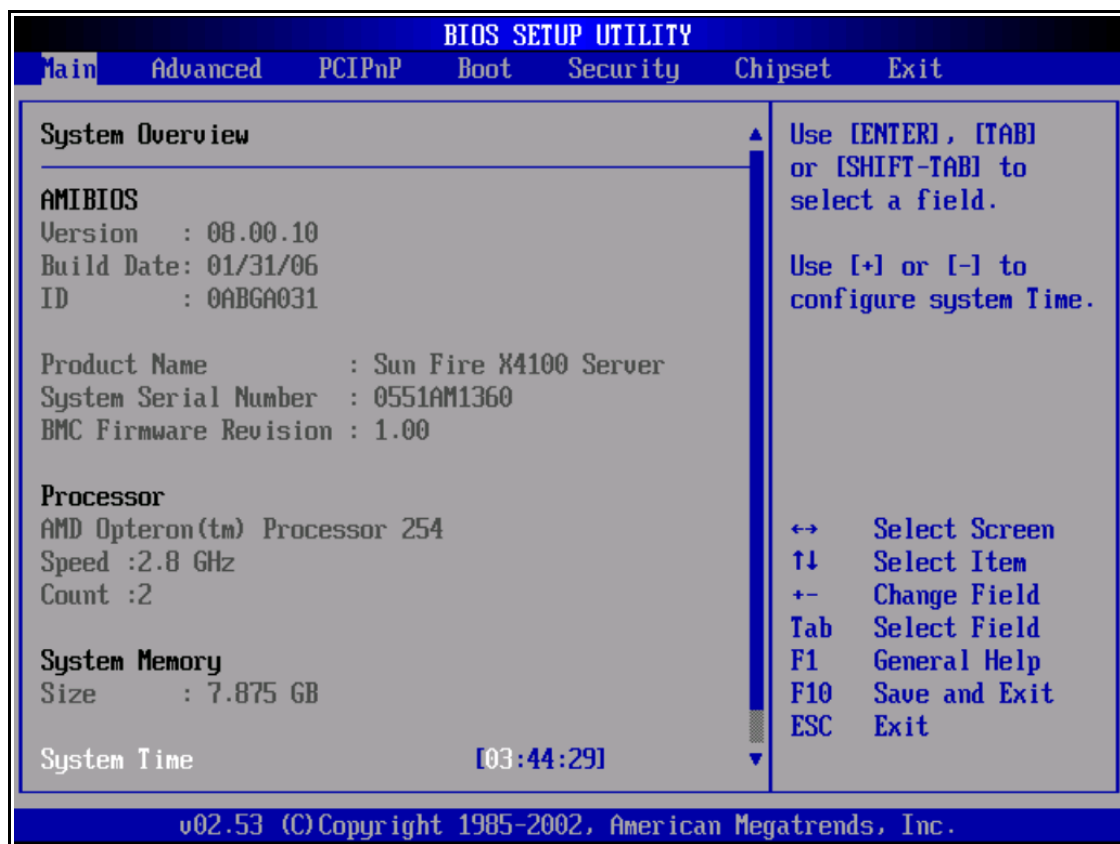

BIOS Setup Utility

To enter the BIOS Setup Utility, press F2 on the local keyboard (or CTRL-E on the remote keyboard using ILOM's KVM over IP) while the initial BIOS POST screen is displayed. Once POST is completed, the BIOS will then stop the booting process and enter the Setup Utility. The BIOS Setup Utility initial screen displays information similar to the first boot screen with general system component information such as Product Name, CPU type, Firmware revisions or amount of memory.

Sun Fire X4100 and X4200 Servers

The Sun Fire X4100 / X4200 use 200 Series AMD Opteron processors. The product name “Sun Fire X4100 Server” is also displayed.

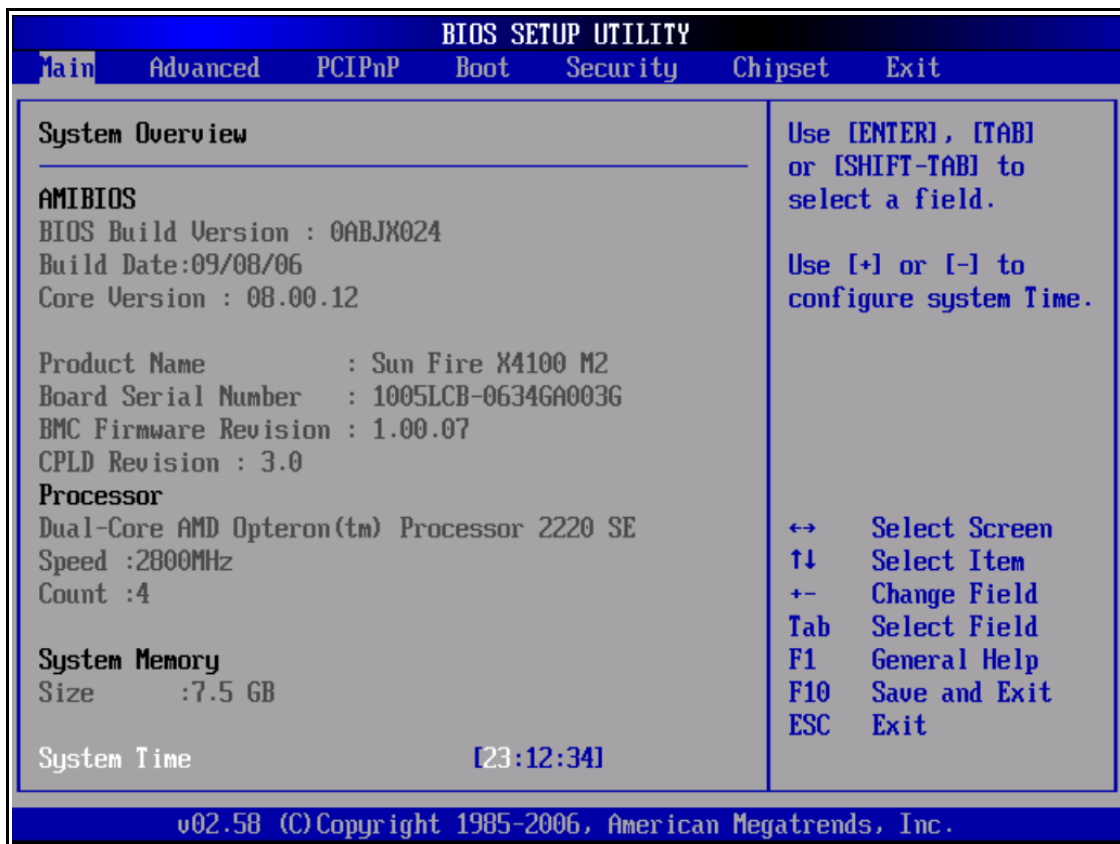
In the next screenshot, the BIOS Setup Utility screen informs that the system is a Sun Fire X4100 Server with 8 GB of memory and two Single-Core AMD Opteron 254 running at 2.8 GHz.



Sun Fire X4100 M2 and X4200 M2 Servers

The Sun Fire X4100 M2 / X4200 M2 use 2000 Series AMD Opteron processors. The product name “Sun Fire X4100 M2” is also displayed.

In the next screenshot, the BIOS Setup Utility screen informs that the system is a Sun Fire X4100 M2 Server with 8 GB of memory and two Dual-Core AMD Opteron 2220 SE running at 2.8 GHz.



Remote Management Identification

Using the ILOM CLI

The ILOM Service Processor offers a Command Line Interface (CLI) that can be accessed by SSH to the Service Processor IP address or physically connecting a console to the Serial Port on the rear of the system. Once logged in, enter the command “show /SYS/MB” at the prompt.

Sun Fire X4100 and X4200 Servers

The “product name” property under “/SYS/MB” will show “Sun Fire X4100” or “Sun Fire X4200”.

```
/SYS/MB
Targets:
  BAT
  NET0
  NET1
  P0
  P1

Properties:
  SEEPROM =
    Product Information:
      manufacturer name = SUN MICROSYSTEMS
      product name = Sun Fire X4100
      version = (no information)
      serial number = 0551AM1360
      part number = 602-3099-01
  T_AMB = 20.000000 degrees C
  V0_+1V25 = No reading available
  V0_+1V5 = No reading available
  V0_+2V5 = No reading available
  V1_+1V25 = No reading available
  V1_+1V5 = No reading available
  V1_+2V5 = No reading available
  V_+12V = No reading available
  V_+1V2 = No reading available
  V_+1V8 = No reading available
  V_+2V5 = No reading available
  V_+3V3MAIN = No reading available
  V_+3V3STBY = 3.269700 Volts
  V_+5V = No reading available
  V_-12V = No reading available

Commands:
  cd
  show

->
```

Sun Fire X4100 M2 and X4200 M2 Servers

The “product name” property under “/SYS/MB” will show “Sun Fire X4100 M2” or “Sun Fire X4200 M2”.

```
-> show /SYS/MB

/SYS/MB
Targets:
  BAT
  NET0
  NET1
  P0
  P1

Properties:
  SEEPROM =
    Product Information:
      manufacturer name = SUN MICROSYSTEMS
      product name = Sun Fire X4100 M2
      version = (no information)
      serial number = 0640BD0152
      part number = 602-3482-01
  T_AMB = 21.000000 degrees C
  V0_VDD = No reading available
  V0_VDDIO = No reading available
  V0_VTT = No reading available
  V1_VDD = No reading available
  V1_VDDIO = No reading available
  V1_VTT = No reading available
  V_+12V = No reading available
  V_+1V2 = No reading available
  V_+1V5 = No reading available
  V_+2V5 = No reading available
  V_+3V3MAIN = No reading available
  V_+3V3STBY = 3.252400 Volts
  V_+5V = No reading available
  V_-12V = No reading available

Commands:
  cd
  show

->
```

Using the ILOM Web UI

By selecting “mb.fru” in the section “System Information / Components”, the ILOM Web Interface will display the Product Name as shown in the screenshots below.

Sun Fire X4100 and X4200 Servers

The “product name” will show “Sun Fire X4100” or “Sun Fire X4200”.

Chassis Information:

Type	:	Rack Mount Chassis
Part Number	:	541-0250-04
Serial Number	:	0226-0545LHF4977

Board Information:

Product Name	:	ASSY,MOTHERBOARD,G1
Serial Number	:	1762TH1-0548000348
Part Number	:	500-7261-02

Product Information:

Manufacturer Name	:	SUN MICROSYSTEMS
Product Name	:	SUN FIRE X4100
Serial Number	:	0551AM1360
Part Number	:	602-3099-01

Sun Fire X4100 M2 and X4200 M2 Servers

The “product name” will show “Sun Fire X4100 M2” or “Sun Fire X4200 M2”.

The screenshot shows a web browser window titled "Sun(TM) Integrated Lights Out Manager - Web Browser". The address bar contains "https://10.6.163.119/Pages/suntab.asp". The page header includes "User: root (Administrator) Server: SUNSP00144F3A034D" and "Sun™ Integrated Lights Out Manager". The navigation menu includes "System Information", "System Monitoring", "Configuration", "User Management", "Remote Control", and "Maintenance". Under "System Information", the "Components" sub-tab is selected.

The main content area is titled "Replaceable Component Information" and contains the following information:

View component part numbers, serial numbers and manufacturing information.
Select a device:
mb.fru

Chassis Information:	
Type	: Rack Mount Chassis
Part Number	: 541-0250-04
Serial Number	: 1762TH2-0629010037
Board Information:	
Product Name	: ASSY,MOTHERBOARD,X4100 M2
Serial Number	: 1005LCB-0634GA003G
Part Number	: 501-7668-01
Product Information:	
Manufacturer Name	: SUN MICROSYSTEMS
Product Name	: SUN FIRE X4100 M2
Serial Number	: 0640BD0152
Part Number	: 602-3482-01

The status bar at the bottom indicates "Transferring data from 10.6.163.119..."

Using IPMItool

IPMItool is a simple command-line interface that is useful for managing IPMI-enabled devices. You can use this utility to perform IPMI functions with a kernel device driver or over a LAN interface. IPMItool enables you to manage system field-replaceable units (FRUs), monitor system health, and monitor and manage system environments, independent of the operating system.

You can download IPMItool from <http://ipmitool.sourceforge.net/>, or locate IPMItool and its related documentation on the server Resource CD.

After you have downloaded and installed IPMItool, you can use it to get the FRU information. The FRU ID 4 (mb.fru) contains product name and code.

Product Name	Board Extra
Sun Fire X4100	G1_MB
Sun Fire X4200	G2_MB
Sun Fire X4100 M2	G1F_MB
Sun Fire X4200 M2	G2F_MB

Sun Fire X4100 Server

```
ipmitool -H <ILOM_IP_ADDRESS> -U <ILOM_USER> fru
```

```
<...>
```

```
FRU Device Description : mb.fru (ID 4)
Chassis Type           : Rack Mount Chassis
Chassis Part Number    : 541-0250-04
Chassis Serial         : 0226-0545LHF4977
Board Product          : ASSY,MOTHERBOARD,G1
Board Serial           : 1762TH1-0548000348
Board Part Number      : 500-7261-02
Board Extra            : 03
Board Extra            : G1_MB
Product Manufacturer   : SUN MICROSYSTEMS
Product Name           : Sun Fire X4100
Product Part Number    : 602-3099-01
Product Serial         : 0551AM1360
```

Sun Fire X4100 M2 Server

```
ipmitool -H <ILOM_IP_ADDRESS> -U <ILOM_USER> fru
```

```
<...>
```

```
FRU Device Description : mb.fru (ID 4)
Chassis Type          : Rack Mount Chassis
Chassis Part Number   : 541-0250-04
Chassis Serial        : 1762TH2-0629010037
Board Product         : ASSY,MOTHERBOARD,X4100 M2
Board Serial          : 1005LCB-0634GA003G
Board Part Number     : 501-7668-01
Board Extra           : 50
Board Extra           : GIF_MB
Product Manufacturer  : SUN MICROSYSTEMS
Product Name          : Sun Fire X4100 M2
Product Part Number   : 602-3482-01
Product Serial        : 0640BD0152
```


Operating Environment Identification

From the Operating System level, Sun Fire X4100 / X4200 and Sun Fire X4100 M2 / X4200 M2 servers can be differentiated by getting the CPU information. Sun Fire X4100 / X4200 servers use 200 Series AMD Opteron processors and the Sun Fire X4100 M2 / X4200 M2 servers use 2000 Series AMD Opteron processors.

Solaris

Use the command “psrinfo -pv” with Solaris 10.

Sun Fire X4100 and X4200 Servers

```
# psrinfo -pv
The physical processor has 2 virtual processors (0, 1)
  x86 (chipid 0x0 AuthenticAMD family 15 model 1 step 2 clock 2393 MHz)
    Dual-Core AMD Opteron(tm) Processor 280
The physical processor has 2 virtual processors (2, 3)
  x86 (chipid 0x1 AuthenticAMD family 15 model 1 step 2 clock 2393 MHz)
    Dual-Core AMD Opteron(tm) Processor 280
```

Sun Fire X4100 M2 and X4200 M2 Servers

```
# psrinfo -pv
The physical processor has 2 virtual processors (0, 1)
  x86 (chipid 0x0 AuthenticAMD family 15 model 65 step 2 clock 2793 MHz)
    Dual-Core AMD Opteron(tm) Processor 2220 SE
The physical processor has 2 virtual processors (2, 3)
  x86 (chipid 0x1 AuthenticAMD family 15 model 65 step 2 clock 2793 MHz)
    Dual-Core AMD Opteron(tm) Processor 2220 SE
```

Linux

The command "cat /proc/cpuinfo" returns detailed information about each processor. The model name will show an AMD Opteron 200 Series (i.e. AMD Opteron(tm) Processor 254) if the system is a Sun Fire X4100 or X4200 and an AMD Opteron 2000 Series (i.e. AMD Opteron(tm) Processor 2220 SE) if the system is a Sun Fire X4100 M2 or X4200 M2.

Windows

In Windows Server 2003 the processor can be identified using the Device Manager. To launch the Device Manager, from the Start menu select “Run...”. In the Run dialog, enter <devmgmt.msc>. Once in the Device Manager, click on the + sign next to “Processors” in the device type list. The Sun Fire X4100 / 4200 servers will display AMD Opteron 200 Series processors and the Sun Fire X4100 M2 / X4200 M2 servers will display AMD Opteron 2000 Series processors.

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