

# Sun Fire™ V490/V890 Servers with UltraSPARC IV+ 2100MHz CPU/Memory Modules Supplement

Sun Fire V490/V890 servers shipped with 2100 MHz CPU/Memory modules are factory upgraded to support the additional power of the 2100 MHz UltraSPARC IV+ processors. This document describes the differences between the Sun Fire V490/V890 servers designed to support the 2100 MHz CPU/Memory modules, and previous Sun Fire V490/V890 servers. It includes the following sections:

- “Software and Firmware Requirements”
- “Additional Hardware Requirements”
- “Electrical Specifications”
- “ASHRAE Class 3 Compliance”

For a complete set of online documentation supporting the Sun Fire V490/V890 servers, see:

<http://www.sun.com/products-n-solutions/hardware/docs/Servers>

Check this site periodically for the latest revisions of Sun Fire V490/V890 product documentation, including the latest version of Product Notes.

## Software and Firmware Requirements

TABLE 1 lists the minimum software and firmware versions required by the Sun Fire V490/V890 servers with 2100 MHz UltraSPARC IV+ CPU/Memory modules.

TABLE 1 Minimum Software and Firmware Versions

CPU/Memory Module	Operating System	OBP Version	RSC Version
2100 MHz	Solaris 9/05	4.22.24	2.2.3 Patch 06
	Solaris 10 3/5 HW1	4.22.24	2.2.3 Patch 06

**Caution** – Use OpenBoot™ PROM (OBP) version 4.22.24 or greater on servers equipped with 2100 MHz CPU/Memory modules. Loading an earlier version of OBP on these servers makes them unbootable.

Patches are available at <http://www.sun.com/sunsolve>.

## Additional Hardware Requirements

The Sun Fire V490/V890 servers shipping with 2100MHz CPU/Memory modules require factory upgraded hardware components to adequately power and cool the new processors.

Because of the additional requirements of the 2100 MHz CPU/Memory module, it does not work in previous V490/V890 servers. It is physically keyed to fit *only* in upgraded V490/V890 servers. 2100 MHz CPU/Memory modules cannot be mixed with other speed CPU/Memory modules, and can be differentiated from other earlier modules by the silver ejector levers (other speed modules have green ejector levers).

[TABLE 2](#) lists the details of upgraded components for the Sun Fire V490 server and [TABLE 3](#) lists the details of upgraded components for the Sun Fire V890 server.

**TABLE 2** Sun Fire V490 Server Upgraded Hardware Components

Component	Part Number	Backward Compatible in Earlier V490 Servers
2100 MHz CPU/Memory module	501-7713	NO
Power Supply	300-2016	NO
CPU Fan Tray	541-2145	NO
Centerplane	501-7703	YES
Riser Board	501-7705	YES
Power Distribution Board	375-3479	YES

**TABLE 3** Sun Fire V890 Upgraded Hardware Components

Component	Part Number	Backward Compatible in Earlier V890 Servers
2100 MHz CPU/Memory module	501-7713	NO
Power Supply	300-2017	NO
Power Distribution Board	375-3480	YES

## Electrical Specifications

The following electrical specifications apply to fully configured servers.

### Sun Fire V490 Server With 2100 MHz CPU/Memory Modules

The following table provides electrical specifications for the Sun Fire V490 server with 2100 MHz CPU/Memory modules.

Parameter	Value
Input	
Nominal Frequencies	50 or 60 Hz
Nominal Voltage Range	Auto Ranging 200-240 VAC
Maximum Current AC RMS	8 A @ 200-240 VAC
Maximum AC Power Consumption	1750 W
Maximum Heat Dissipation	5972 BTU/hr

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## Sun Fire V890 Server With 2100 MHz CPU/Memory Modules

The following table provides electrical specifications for the Sun Fire V890 server with 2100 MHz CPU/Memory modules.

Parameter	Value
Input	
Nominal Frequencies	50 or 60 Hz nominal
Nominal Voltage Range	Auto Ranging 200-240 VAC
Maximum Current AC RMS	8 A @ 200 VAC (each power cord for two power supplies per system)
AC Operating Range	190 to 264 Vrms, 47 - 63 Hz
Output	
+3.3 VDC	3 to 72 A
+5 VDC	3 to 56 A
+12 VDC	1 to 30 A
+54 VDC	0 to 50 A
Maximum DC Power Output	3560 W
Maximum System AC Power Consumption	4843 W
Maximum System Heat Dissipation	16531 BTU/hr

## ASHRAE Class 3 Compliance

2100 MHz servers are compliant for operation in Class 3 data center environments as defined by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE).

## Accessing Sun Documentation

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<http://www.sun.com/documentation>

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<http://www.sun.com/service/contacting>

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