



ThinkSystem SR950 Memory Population Reference



Machine Types: 7X12, 7X11, and 7X13

Note



Before using this information and the product it supports, be sure to read and understand the safety information and the safety instructions, which are available at:

https://pubs.lenovo.com/safety_documentation/



This equipment is not suitable for use in locations where children are likely to be present.

In addition, be sure that you are familiar with the terms and conditions of the Lenovo warranty for your server, which can be found at:

<http://datacentersupport.lenovo.com/warrantylookup>

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Chapter 1. Memory guidelines

There are a number of criteria that must be followed when selecting and installing memory modules in your server.

The DIMM population sequences in this document show all memory population combinations that are supported by your server. Some of these combinations will perform better than others because they balance the distribution of memory across processors, memory controllers, and memory channels. Balanced memory configurations enable optimal interleaving across all populated memory channels of a processor to boost memory performance.

See the “[Install a memory module \(option\)](#)” in the *ThinkSystem SR950 Setup Guide* for important information about installing and removing memory. This guide will help with memory selection and planning. More information about optimizing memory performance and configuring memory is available at the Lenovo Press website:

<https://lenovopress.com/servers/options/memory>

In addition, you can take advantage of a memory configurator tool, which is available at the following site:

http://1config.lenovo.com/#/memory_configuration

Memory module selection

The following memory modules (DIMMs) are supported for use in the ThinkSystem SR950 server. See <https://serverproven.lenovo.com/> for specific memory module part numbers and ordering information.

A label on each DIMM identifies the DIMM type. This information is in the format **xxxxx nRxxx PC4-xxxx-xx-xx-xxx**. Where *n* indicates if the DIMM is single-rank (*n*=1) or dual-rank (*n*=2).

Notes:

- Installing or removing DIMMs changes the server configuration. When you restart the server, it displays a message that indicates that the memory configuration has changed. There are multiple ways to view the server configuration. See for a description of each management method and how each method applies to various deployment situations.
- When you replace a DIMM, the server provides automatic DIMM enablement capability without requiring you to use the Lenovo XClarity Provisioning Manager to enable the new DIMM manually.

Memory architecture

The relationship between memory controllers, channels, and connectors on each system board is shown in the following illustration and each memory channel has two DIMM slots (0, furthest from the processor, and 1, closest to the processor).

- Each processor in your server has two memory controllers: IMC1 and IMC2.
- Each memory controller has three memory channels:
 - Processor 1:
 - IMC1 has memory channels A, B, and C.
 - IMC2 has memory channels D, E, and F.
 - Processor 2:
 - IMC1 has memory channels G, H, and J.

- IMC2 has memory channels K, L, and M.
- Each memory channel has two DIMM slots: slot 0 (furthest from the processor) and slot 1 (closest to the processor).

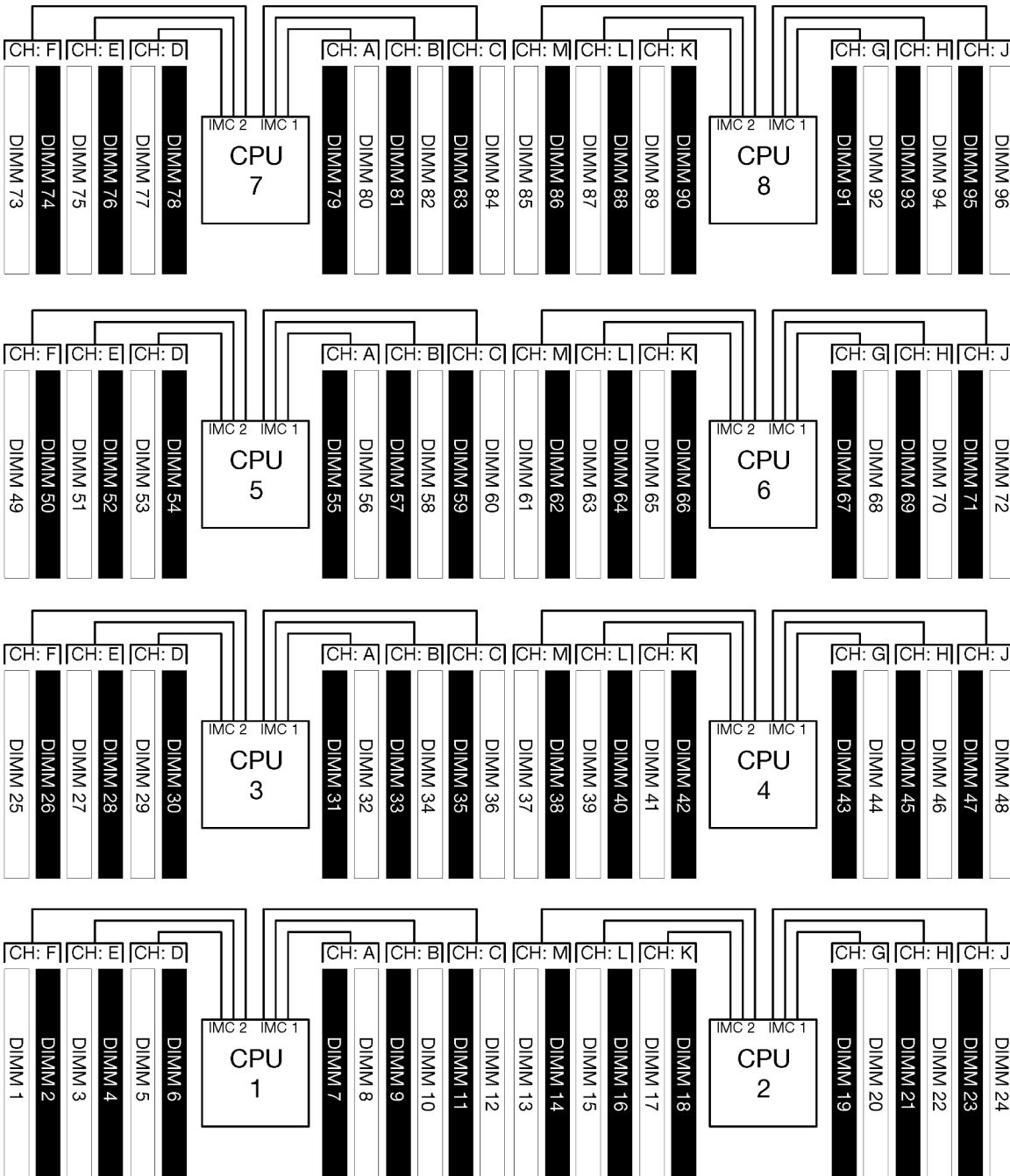


Figure 1. Memory architecture

Memory modules population requirements

Observe the following rules when populating memory modules for all memory modes.

Note: The following guidelines discuss the memory architecture related to system board processor 1. For system board processor 2, substitute memory channels G/H/J/K/L/M for processor 1 memory channels A/B/C/D/E/F in the discussion.

- Install memory modules following only the sequences shown in [Chapter 2 “Memory module installation rules and order” on page 5](#).
- Do not mix R-DIMMs, LR-DIMMs, and 3DS DIMMs in a server.
- At least one DIMM is required for each processor. Install at least six DIMMs per processor for good performance.
- An “M” SKU processor is required for processors with more than six 128GB DIMMs installed.
- Within a memory controller:
 - Populate channel A/D first. Channel B/E will be either empty or must be identically populated as channel A/D. Channel C/F will be either empty or must be identically populated as channel B/E.

Note: Five DIMM configurations is a supported exception to these population rules. Five DIMMs are populated so channels 0 and 1 each have two DIMMs and channel 2 has one DIMM.

- Populate the memory connector in each channel that is physically furthest from the processor (slot 0) first.
- If a memory channel has two DIMMs installed and these DIMMs have different numbers of ranks, populate the DIMM with higher number of ranks in the memory connector that is physically furthest from the processor (slot 0).
- If two DIMMs on a channel have identical ranks, populate the DIMM with higher capacity in the memory connector that is physically furthest from the processor (slot 0).

Populating memory modules for best system performance

To populate memory configurations for the best memory performance, observe the following general guidelines for all memory modes.

Note: The following guidelines discuss the memory architecture related to system board processor 1. For system board processor 2, substitute memory channels G/H/J/K/L/M for processor 1 memory channels A/B/C/D/E/F in the discussion.

- When multiple processors are installed, all processors within the server must have identical memory population.
- Populate all memory channels for optimal performance.
- If a processor has only three DIMMs that are identical (same Lenovo part number), populate all of them in memory controller 1 (IMC1).

Additional requirements for memory mirroring

The following rules apply for memory mirroring.

Note: The following guidelines discuss the memory architecture related to system board processor 1. For system board processor 2, substitute memory channels G/H/J/K/L/M for processor 1 memory channels A/B/C/D/E/F in the discussion.

- The server supports only two, three, four, or six DIMMs per memory controller (one or five DIMMs per memory controller is not supported).
- As with independent memory mode, equal DIMM sizes must be installed for the populated memory channels. DIMM slot population within a channel does not have to be identical; however, the same DIMM slot locations across channel A/B/C or channels D/E/F must be populated identically.
- If DIMMs are installed in only two memory channels, mirroring occurs across two DIMMs. Channels A/D and B/E hold the primary and secondary cache lines.

- If DIMMs are installed in all three memory channels, mirroring occurs across all three DIMM channels. Channels A/D and B/E, Channels B/E and C/F, and Channels C/F and A/D hold the primary and secondary cache lines.
- Do not mix 2-channel and 3-channel DDR mirroring in a memory controller.

Additional requirements for memory sparing

The following rules apply for memory sparing:

- As with independent memory mode, all memory channels must have at least two ranks.
- Every populated memory channel must have at least two ranks of DIMMs.
- If a memory channel has only single rank DIMMs, populate both single rank DIMMs on one channel.
- Single DIMM-per-channel systems do not support single-rank DIMMs in sparing mode.

Chapter 2. Memory module installation rules and order

Memory modules must be installed in a specific order based on the memory configuration that you implement and the number of processors and memory modules installed in the server.

Note: List of supported memory module is different for 1st generation (Skylake) and 2nd generation (Cascade Lake) Intel Xeon processors. Make sure to install compatible memory modules to avoid system error. For a list of supported DIMMs, see: <https://serverproven.lenovo.com/>.

The following memory configurations and population sequences are supported for the ThinkSystem SR950 server:

- “Independent memory mode” on page 6
 - “Installation order: independent memory mode with two processors” on page 7
 - “Installation order: independent memory mode with three processors” on page 8
 - “Installation order: independent memory mode with four processors” on page 12
 - “Installation order: independent memory mode with six processors” on page 16
 - “Installation order: independent memory mode with eight processors” on page 26
- “Memory mirroring” on page 43
 - “Installation order: memory mirroring with two processors” on page 44
 - “Installation order: memory mirroring with three processors” on page 45
 - “Installation order: memory mirroring with four processors” on page 49
 - “Installation order: memory mirroring with six processors” on page 53
 - “Installation order: memory mirroring with eight processors” on page 65
- “Memory sparing” on page 82
 - “Installation order: memory sparing with two processors” on page 83
 - “Installation order: memory sparing with three processors” on page 84
 - “Installation order: memory sparing with four processors” on page 88
 - “Installation order: memory sparing with six processors” on page 92
 - “Installation order: memory sparing with eight processors” on page 104

For information about criteria that must be followed when selecting and installing memory modules in your server, see [Chapter 1 “Memory guidelines” on page 1](#).

For information about configuring memory settings, see “Memory configuration” in the *ThinkSystem SR950 Setup Guide*.

Independent memory mode

Independent memory mode, the default memory configuration for your server, provides the highest level of memory performance, but lacks failover protection. The DIMM installation order for independent memory mode varies based on the number of processors and memory modules installed in the server.

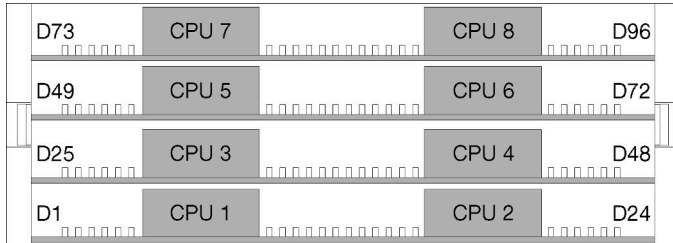


Figure 2. Processor and memory module layout

Independent memory mode guidelines:

- Individual memory channels can run at different DIMM timings, but all channels must run at the same interface frequency.
- Populate memory channel 0 first.
- Memory channel 1 is empty or identically populated as memory channel 0.
- Memory channel 2 is empty or identically populated as memory channel 1
- In each memory channel, populate slot 0 first.
- If a memory channel has two DIMMs installed, populate the DIMM with a higher number of ranks in slot 0.

The independent memory mode DIMM population sequences for each supported processor configuration are:

- [“Installation order: independent memory mode with two processors” on page 7](#)
- [“Installation order: independent memory mode with three processors” on page 8](#)
- [“Installation order: independent memory mode with four processors” on page 12](#)
- [“Installation order: independent memory mode with six processors” on page 16](#)
- [“Installation order: independent memory mode with eight processors” on page 26](#)

For information about configuring memory settings, including how to enable independent memory mode, see “Memory configuration” in the *ThinkSystem SR950 Setup Guide*.

Note: Independent memory mode is the default memory configuration of the ThinkSystem SR950 server.

Installation order: independent memory mode with two processors

Memory module installation order for independent (non-mirroring) memory mode with two processors installed in the server.

The following table shows the DIMM population sequence for independent memory mode when two processors are installed.

- Processors 1 and 2 are installed in the lower system board of the lower compute tray.

Note: When adding one or more DIMMs during a memory upgrade, you might need to move other DIMMs that are already installed to new locations.

Table 1. Independent mode with two processors, 2 to 24 total DIMMs installed in server

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
2							8												20					2	
3					5		8												20					3	
4					5		8									17			20					4	
5					5		8		10							17			20					5	
6					5		8		10							17			20		22			6	
7			3		5		8		10							17			20		22			7	
8			3		5		8		10						15	17			20		22			8	
9			3		5		8		10		12				15	17			20		22			9	
10			3		5		8		10		12				15	17			20		22		24	10	
11	1		3		5		8		10		12				15	17			20		22		24	11	
12	1		3		5		8		10		12		13		15	17			20		22		24	12	
13	1		3		5		7	8	9	10			13		15	17			20		22		24	13	
14	1		3		5		7	8	9	10			13		15	17		19	20	21	22			14	
15			3	4	5	6	7	8	9	10			13		15	17		19	20	21	22			15	
16			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			16
17	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			17
18	1		3		5		7	8	9	10	11	12	13		15	17		19	20	21	22	23	24		18
19			3	4	5	6	7	8	9	10	11	12	13		15	17		19	20	21	22	23	24		19
20			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	20
21	1	2	3	4	5	6	7	8	9	10	11	12	13		15	17		19	20	21	22	23	24		21
22	1		3	4	5	6	7	8	9	10	11	12	13		15	16	17	18	19	20	21	22	23	24	22
23	1	2	3	4	5	6	7	8	9	10	11	12	13		15	16	17	18	19	20	21	22	23	24	23
24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	24

Installation order: independent memory mode with three processors

Memory module installation order for independent (non-mirroring) memory mode with three processors installed in the server.

The following tables show the DIMM population sequence for independent memory mode when three processors are installed.

- Processors 1 and 2 are installed in the lower system board of the lower compute tray.
- Processor 3 is installed in the upper system board of the lower compute tray or in the upper compute tray.

Note: When adding one or more DIMMs during a memory upgrade, you might need to move other DIMMs that are already installed to new locations.

Table 2. Independent mode with three processors (Processors 1 and 2, 3 to 24 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
3							8												20					3	
4					5		8												20					4	
5					5		8									17			20					5	
6					5		8									17			20					6	
7					5		8		10							17			20					7	
8					5		8		10							17			20		22			8	
9					5		8		10							17			20		22			9	
10			3		5		8		10							17			20		22			10	
11			3		5		8		10						15	17			20		22			11	
12			3		5		8		10						15	17			20		22			12	
13			3		5		8		10		12				15	17			20		22			13	
14			3		5		8		10		12				15	17			20		22		24	14	
15			3		5		8		10		12				15	17			20		22		24	15	
16	1		3		5		8		10		12				15	17			20		22		24	16	
17	1		3		5		8		10		12		13		15	17			20		22		24	17	
18	1		3		5		8		10		12		13		15	17			20		22		24	18	
19	1		3		5		7	8	9	10				13		15	17		20		22		24	19	
20	1		3		5		7	8	9	10				13		15		17	19	20	21	22		20	
21	1		3		5		7	8	9	10				13		15		17	19	20	21	22		21	
22			3	4	5	6	7	8	9	10				13		15		17	19	20	21	22		22	
23			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22		23	
24			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22		24	

Related DIMM population sequences for three processor systems:

- Processor 1 and 2 DIMM population sequences for 25 to 36 DIMMs, see [Table 3 “Independent mode with three processors \(Processors 1 and 2, 25 to 36 total DIMMs installed in server\)” on page 9.](#)
- To continue populating processor 3 DIMMs for a system with 3 to 24 DIMMs, see [Table 4 “Independent mode with three processors \(Processor 3, 3 to 24 total DIMMs installed in server\)” on page 10.](#)

Table 3. Independent mode with three processors (Processors 1 and 2, 25 to 36 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
25	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			25
26	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	26
27	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	27
28			3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	28
29			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	29
30			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	30
31	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	31
32	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	32
33	1		3	4	5	6	7	8	9	10	11	12	13		15	16	17	18	19	20	21	22	23	24	33
34	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	34
35	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	35
36	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	36

Related DIMM population sequences for three processor systems:

- Processor 1 and 2 DIMM population sequences for 3 to 24 DIMMs, see [Table 2 “Independent mode with three processors \(Processors 1 and 2, 3 to 24 total DIMMs installed in server\)”](#) on page 8.
- To continue populating processor 3 DIMMs for a system with 25 to 36 DIMMs, see [Table 5 “Independent mode with three processors \(Processors 3, 25 to 36 total DIMMs installed in server\)”](#) on page 11.

Table 4. Independent mode with three processors (Processor 3, 3 to 24 total DIMMs installed in server)

Total DIMMs	Processor 3																								Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12													
3								8																3	
4								8																4	
5								8																5	
6					5			8																6	
7					5			8																7	
8					5			8																8	
9					5			8	10															9	
10					5			8	10															10	
11					5			8	10															11	
12			3		5			8	10															12	
13			3		5			8	10															13	
14			3		5			8	10															14	
15			3		5			8	10	12														15	
16			3		5			8	10	12														16	
17			3		5			8	10	12														17	
18	1		3		5			8	10	12														18	
19	1		3		5			8	10	12														19	
20	1		3		5			8	10	12														20	
21	1		3		5		7	8	9	10														21	
22	1		3		5		7	8	9	10														22	
23	1		3		5		7	8	9	10														23	
24			3	4	5	6	7	8	9	10														24	

Related DIMM population sequences for three processor systems:

- Processor 3 DIMM population sequence for systems with 25 to 36 DIMMs, see [Table 5 “Independent mode with three processors \(Processors 3, 25 to 36 total DIMMs installed in server\)”](#) on page 11.
- To continue populating processor 1 and 2 DIMMs for a system with 3 to 24 DIMMs, see [Table 2 “Independent mode with three processors \(Processors 1 and 2, 3 to 24 total DIMMs installed in server\)”](#) on page 8.

Table 5. Independent mode with three processors (Processors 3, 25 to 36 total DIMMs installed in server)

Total DIMMs	Processor 3																								Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12													
25			3	4	5	6	7	8	9	10															25
26			3	4	5	6	7	8	9	10															26
27	1		3		5		7	8	9	10	11	12													27
28	1		3		5		7	8	9	10	11	12													28
29	1		3		5		7	8	9	10	11	12													29
30			3	4	5	6	7	8	9	10	11	12													30
31	1		3		5		7	8	9	10	11	12													31
32			3	4	5	6	7	8	9	10	11	12													32
33	1		3	4	5	6	7	8	9	10	11	12													33
34			3	4	5	6	7	8	9	10	11	12													34
35	1		3	4	5	6	7	8	9	10	11	12													35
36	1	2	3	4	5	6	7	8	9	10	11	12													36

Related DIMM population sequences for three processor systems:

- Processor 3 DIMM population sequences for 3 to 24 DIMMs, see [Table 4 “Independent mode with three processors \(Processor 3, 3 to 24 total DIMMs installed in server\)”](#) on page 10.
- To continue populating processor 1 and 2 DIMMs for a system with 25 to 36 DIMMs, see [Table 3 “Independent mode with three processors \(Processors 1 and 2, 25 to 36 total DIMMs installed in server\)”](#) on page 9.

Installation order: independent memory mode with four processors

Memory module installation order for independent (non-mirroring) memory mode with four processors installed in the server.

The following tables show the DIMM population sequence for independent memory mode when four processors are installed.

- Processors 1 and 2 are installed in the lower system board of the lower compute tray.
- Processors 3 and 4 are installed in the upper system board of the lower compute tray or in the upper compute tray.

Note: When adding one or more DIMMs during a memory upgrade, you might need to move other DIMMs that are already installed to new locations.

Table 6. Independent mode with four processors (Processors 1 and 2, 4 to 24 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
4							8												20					4	
5					5		8												20					5	
6					5		8									17			20					6	
7					5		8									17			20					7	
8					5		8									17			20					8	
9					5		8		10							17			20					9	
10					5		8		10							17			20			22		10	
11					5		8		10							17			20			22		11	
12					5		8		10							17			20			22		12	
13			3		5		8		10							17			20			22		13	
14			3		5		8		10							15			20			22		14	
15			3		5		8		10							15			20			22		15	
16			3		5		8		10							15			20			22		16	
17			3		5		8		10		12					15			20			22		17	
18			3		5		8		10		12					15			20			22		18	
19			3		5		8		10		12					15			20			22		19	
20			3		5		8		10		12					15			20			22		20	
21	1		3		5		8		10		12					15			20			22		21	
22	1		3		5		8		10		12		13			15			20			22		22	
23	1		3		5		8		10		12		13			15			20			22		23	
24	1		3		5		8		10		12		13			15			20			22		24	

Related DIMM population sequences for four processor systems:

- Processor 1 and 2 DIMM population sequences for 25 to 48 DIMMs, see [Table 7 “Independent mode with four processors \(Processors 1 and 2, 25 to 48 total DIMMs installed in server\)” on page 13.](#)
- To continue populating processor 3 and 4 DIMMs for a system with 4 to 24 DIMMs, see [Table 8 “Independent mode with four processors \(Processors 3 and 4, 4 to 24 total DIMMs installed in server\)” on page 14.](#)

Table 7. Independent mode with four processors (Processors 1 and 2, 25 to 48 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
25	1		3		5		7	8	9	10			13		15		17			20		22		24	25
26	1		3		5		7	8	9	10			13		15		17		19	20	21	22			26
27	1		3		5		7	8	9	10			13		15		17		19	20	21	22			27
28	1		3		5		7	8	9	10			13		15		17		19	20	21	22			28
29			3	4	5	6	7	8	9	10			13		15		17		19	20	21	22			29
30			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			30
31			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			31
32			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			32
33	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			33
34	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	34
35	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	35
36	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	36
37			3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	37
38			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	38
39			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	39
40			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	40
41	1	2	3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	41
42	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	42
43	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	43
44	1		3	4	5	6	7	8	9	10	11	12	13		15	16	17	18	19	20	21	22	23	24	44
45	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	45
46	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	46
47	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	47
48	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	48

Related DIMM population sequences for four processor systems:

- Processor 1 and 2 DIMM population sequences for 4 to 24 DIMMs, see [Table 6 “Independent mode with four processors \(Processors 1 and 2, 4 to 24 total DIMMs installed in server\)”](#) on page 12.
- To continue populating processor 3 and 4 DIMMs for a system with 25 to 48 DIMMs, see [Table 9 “Independent mode with four processors \(Processors 3 and 4, 25 to 48 total DIMMs installed in server\)”](#) on page 15.

Table 8. Independent mode with four processors (Processors 3 and 4, 4 to 24 total DIMMs installed in server)

Total DIMMs	Processor 3												Processor 4												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
4							8												20					4	
5							8												20					5	
6							8												20					6	
7					5		8												20					7	
8					5		8									17			20					8	
9					5		8									17			20					9	
10					5		8									17			20					10	
11					5		8		10							17			20					11	
12					5		8		10							17			20		22			12	
13					5		8		10							17			20		22			13	
14					5		8		10							17			20		22			14	
15			3		5		8		10							17			20		22			15	
16			3		5		8		10						15	17			20		22			16	
17			3		5		8		10						15	17			20		22			17	
18			3		5		8		10						15	17			20		22			18	
19			3		5		8		10		12				15	17			20		22			19	
20			3		5		8		10		12				15	17			20		22		24	20	
21			3		5		8		10		12				15	17			20		22		24	21	
22			3		5		8		10		12				15	17			20		22		24	22	
23	1		3		5		8		10		12				15	17			20		22		24	23	
24	1		3		5		8		10		12	13		15		17			20		22		24	24	

Related DIMM population sequences for four processor systems:

- Processor 3 and 4 DIMM population sequences for systems with 25 to 48 DIMMs, see [Table 9](#) “Independent mode with four processors (Processors 3 and 4, 25 to 48 total DIMMs installed in server)” on page 15.
- To continue populating processor 1 and 2 DIMMs for a system with 4 to 24 DIMMs, see [Table 6](#) “Independent mode with four processors (Processors 1 and 2, 4 to 24 total DIMMs installed in server)” on page 12.

Table 9. Independent mode with four processors (Processors 3 and 4, 25 to 48 total DIMMs installed in server)

Total DIMMs	Processor 3												Processor 4												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
25	1		3		5			8		10		12	13		15		17			20		22		24	25
26	1		3		5			8		10		12	13		15		17			20		22		24	26
27	1		3		5		7	8	9	10			13		15		17			20		22		24	27
28	1		3		5		7	8	9	10			13		15		17		19	20	21	22			28
29	1		3		5		7	8	9	10			13		15		17		19	20	21	22			29
30	1		3		5		7	8	9	10			13		15		17		19	20	21	22			30
31			3	4	5	6	7	8	9	10			13		15		17		19	20	21	22			31
32			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			32
33			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			33
34			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			34
35	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			35
36	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	36
37	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	37
38	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	38
39			3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	39
40			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	40
41			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	41
42	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	42
43			3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	43
44	1		3	4	5	6	7	8	9	10	11	12	13		15	16	17	18	19	20	21	22	23	24	44
45	1	2	3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	45
46	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	46
47	1	2	3	4	5	6	7	8	9	10	11	12	13		15	16	17	18	19	20	21	22	23	24	47
48	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	48

Related DIMM population sequences for four processor systems:

- Processor 3 and 4 DIMM population sequences for 4 to 24 DIMMs, see [Table 8 “Independent mode with four processors \(Processors 3 and 4, 4 to 24 total DIMMs installed in server\)”](#) on page 14.
- To continue populating processor 1 and 2 DIMMs for a system with 25 to 48 DIMMs, see [Table 7 “Independent mode with four processors \(Processors 1 and 2, 25 to 48 total DIMMs installed in server\)”](#) on page 13.

Installation order: independent memory mode with six processors

Memory module installation order for independent (non-mirroring) memory mode with six processors installed in the server.

The following tables show the DIMM population sequence for independent memory mode when six processors are installed.

- Processors 1 and 2 are installed in the lower system board of the lower compute tray.
- Processors 3 and 4 are installed in the upper system board of the lower compute tray.
- Processors 5 and 6 are installed in the lower system board of the upper compute tray.

Note: When adding one or more DIMMs during a memory upgrade, you might need to move other DIMMs that are already installed to new locations.

Table 10. Independent mode with six processors (Processors 1 and 2, 6 to 24 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
6							8												20					6	
7					5		8												20					7	
8					5		8								17				20					8	
9					5		8								17				20					9	
10					5		8								17				20					10	
11					5		8								17				20					11	
12					5		8	10							17				20					12	
13					5		8	10							17				20		22			13	
14					5		8	10							17				20		22			14	
15					5		8	10							17				20		22			15	
16					5		8	10							17				20		22			16	
17					5		8	10							17				20		22			17	
18			3		5		8	10							17				20		22			18	
19			3		5		8	10						15	17				20		22			19	
20			3		5		8	10						15	17				20		22			20	
21			3		5		8	10						15	17				20		22			21	
22			3		5		8	10						15	17				20		22			22	
23			3		5		8	10						15	17				20		22			23	
24			3		5		8	10						15	17				20		22			24	

Related DIMM population sequences for six processor systems:

- Processor 1 and 2 DIMM population sequences:
 - [Table 10 “Independent mode with six processors \(Processors 1 and 2, 6 to 24 total DIMMs installed in server\)” on page 16](#)
 - [Table 11 “Independent mode with six processors \(Processors 1 and 2, 25 to 48 total DIMMs installed in server\)” on page 18](#)
 - [Table 12 “Independent mode with six processors \(Processors 1 and 2, 49 to 72 total DIMMs installed in server\)” on page 19](#)
- To continue populating DIMMs for a system with 6 to 24 DIMMs:

- Table 13 “Independent mode with six processors (Processors 3 and 4, 6 to 24 total DIMMs installed in server)” on page 20
- Table 16 “Independent mode with six processors (Processors 5 and 6, 6 to 24 total DIMMs installed in server)” on page 23

Table 11. Independent mode with six processors (Processors 1 and 2, 25 to 48 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
25			3		5			8		10		12			15		17			20		22			25
26			3		5			8		10		12			15		17			20		22		24	26
27			3		5			8		10		12			15		17			20		22		24	27
28			3		5			8		10		12			15		17			20		22		24	28
29			3		5			8		10		12			15		17			20		22		24	29
30			3		5			8		10		12			15		17			20		22		24	30
31	1		3		5			8		10		12			15		17			20		22		24	31
32	1		3		5			8		10		12	13		15		17			20		22		24	32
33	1		3		5			8		10		12	13		15		17			20		22		24	33
34	1		3		5			8		10		12	13		15		17			20		22		24	34
35	1		3		5			8		10		12	13		15		17			20		22		24	35
36	1		3		5			8		10		12	13		15		17			20		22		24	36
37	1		3		5		7	8	9	10			13		15		17			20		22		24	37
38	1		3		5		7	8	9	10			13		15		17		19	20	21	22			38
39	1		3		5		7	8	9	10			13		15		17		19	20	21	22			39
40	1		3		5		7	8	9	10			13		15		17		19	20	21	22			40
41	1		3		5		7	8	9	10			13		15		17		19	20	21	22			41
42	1		3		5		7	8	9	10			13		15		17		19	20	21	22			42
43			3	4	5	6	7	8	9	10			13		15		17		19	20	21	22			43
44			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			44
45			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			45
46			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			46
47			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			47
48			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			48

Related DIMM population sequences for six processor systems:

- Processor 1 and 2 DIMM population sequences:
 - [Table 10 “Independent mode with six processors \(Processors 1 and 2, 6 to 24 total DIMMs installed in server\)” on page 16](#)
 - [Table 11 “Independent mode with six processors \(Processors 1 and 2, 25 to 48 total DIMMs installed in server\)” on page 18](#)
 - [Table 12 “Independent mode with six processors \(Processors 1 and 2, 49 to 72 total DIMMs installed in server\)” on page 19](#)
- To continue populating DIMMs for a system with 25 to 48 DIMMs:
 - [Table 14 “Independent mode with six processors \(Processors 3 and 4, 25 to 48 total DIMMs installed in server\)” on page 21](#)
 - [Table 17 “Independent mode with six processors \(Processors 5 and 6, 25 to 48 total DIMMs installed in server\)” on page 24](#)

Table 12. Independent mode with six processors (Processors 1 and 2, 49 to 72 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
49	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			49
50	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	50
51	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	51
52	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	52
53	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	53
54	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	54
55			3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	55
56			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	56
57			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	57
58			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	58
59			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	59
60			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	60
61	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	61
62	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	62
63	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	63
64	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	64
65	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	65
66	1		3	4	5	6	7	8	9	10	11	12	13		15	16	17	18	19	20	21	22	23	24	66
67	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	67
68	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	68
69	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	69
70	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	70
71	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	71
72	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	72

Related DIMM population sequences for six processor systems:

- Processor 1 and 2 DIMM population sequences:
 - [Table 10 “Independent mode with six processors \(Processors 1 and 2, 6 to 24 total DIMMs installed in server\)” on page 16](#)
 - [Table 11 “Independent mode with six processors \(Processors 1 and 2, 25 to 48 total DIMMs installed in server\)” on page 18](#)
 - [Table 12 “Independent mode with six processors \(Processors 1 and 2, 49 to 72 total DIMMs installed in server\)” on page 19](#)
- To continue populating DIMMs for a system with 49 to 72 DIMMs:
 - [Table 15 “Independent mode with six processors \(Processors 3 and 4, 49 to 72 total DIMMs installed in server\)” on page 22](#)
 - [Table 18 “Independent mode with six processors \(Processors 5 and 6, 49 to 72 total DIMMs installed in server\)” on page 25](#)

Table 13. Independent mode with six processors (Processors 3 and 4, 6 to 24 total DIMMs installed in server)

Total DIMMs	Processor 3												Processor 4												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
6							8												20					6	
7							8												20					7	
8							8												20					8	
9					5		8												20					9	
10					5		8									17			20					10	
11					5		8									17			20					11	
12					5		8									17			20					12	
13					5		8									17			20					13	
14					5		8		10							17			20					14	
15					5		8		10							17			20		22			15	
16					5		8		10							17			20		22			16	
17					5		8		10							17			20		22			17	
18					5		8		10							17			20		22			18	
19					5		8		10							17			20		22			19	
20					5		8		10							17			20		22			20	
21			3		5		8		10							17			20		22			21	
22			3		5		8		10							15			17		20		22	22	
23			3		5		8		10							15			17		20		22	23	
24			3		5		8		10							15			17		20		22	24	

Related DIMM population sequences for six processor systems:

- Processor 3 and 4 DIMM population sequences:
 - [Table 13 “Independent mode with six processors \(Processors 3 and 4, 6 to 24 total DIMMs installed in server\)” on page 20](#)
 - [Table 14 “Independent mode with six processors \(Processors 3 and 4, 25 to 48 total DIMMs installed in server\)” on page 21](#)
 - [Table 15 “Independent mode with six processors \(Processors 3 and 4, 49 to 72 total DIMMs installed in server\)” on page 22](#)
- To continue populating DIMMs for a system with 6 to 24 DIMMs:
 - [Table 10 “Independent mode with six processors \(Processors 1 and 2, 6 to 24 total DIMMs installed in server\)” on page 16](#)
 - [Table 16 “Independent mode with six processors \(Processors 5 and 6, 6 to 24 total DIMMs installed in server\)” on page 23](#)

Table 14. Independent mode with six processors (Processors 3 and 4, 25 to 48 total DIMMs installed in server)

Total DIMMs	Processor 3												Processor 4												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
25			3		5			8		10					15		17			20		22			25
26			3		5			8		10					15		17			20		22			26
27			3		5			8		10		12			15		17			20		22			27
28			3		5			8		10		12			15		17			20		22		24	28
29			3		5			8		10		12			15		17			20		22		24	29
30			3		5			8		10		12			15		17			20		22		24	30
31			3		5			8		10		12			15		17			20		22		24	31
32			3		5			8		10		12			15		17			20		22		24	32
33	1		3		5			8		10		12			15		17			20		22		24	33
34	1		3		5			8		10		12	13		15		17			20		22		24	34
35	1		3		5			8		10		12	13		15		17			20		22		24	35
36	1		3		5			8		10		12	13		15		17			20		22		24	36
37	1		3		5			8		10		12	13		15		17			20		22		24	37
38	1		3		5			8		10		12	13		15		17			20		22		24	38
39	1		3		5		7	8	9	10			13		15		17			20		22		24	39
40	1		3		5		7	8	9	10			13		15		17		19	20	21	22			40
41	1		3		5		7	8	9	10			13		15		17		19	20	21	22			41
42	1		3		5		7	8	9	10			13		15		17		19	20	21	22			42
43	1		3		5		7	8	9	10			13		15		17		19	20	21	22			43
44	1		3		5		7	8	9	10			13		15		17		19	20	21	22			44
45			3	4	5	6	7	8	9	10			13		15		17		19	20	21	22			45
46			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			46
47			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			47
48			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			48

Related DIMM population sequences for six processor systems:

- Processor 3 and 4 DIMM population sequences:
 - [Table 13 “Independent mode with six processors \(Processors 3 and 4, 6 to 24 total DIMMs installed in server\)” on page 20](#)
 - [Table 14 “Independent mode with six processors \(Processors 3 and 4, 25 to 48 total DIMMs installed in server\)” on page 21](#)
 - [Table 15 “Independent mode with six processors \(Processors 3 and 4, 49 to 72 total DIMMs installed in server\)” on page 22](#)
- To continue populating DIMMs for a system with 25 to 48 DIMMs:
 - [Table 11 “Independent mode with six processors \(Processors 1 and 2, 25 to 48 total DIMMs installed in server\)” on page 18](#)
 - [Table 17 “Independent mode with six processors \(Processors 5 and 6, 25 to 48 total DIMMs installed in server\)” on page 24](#)

Table 15. Independent mode with six processors (Processors 3 and 4, 49 to 72 total DIMMs installed in server)

Total DIMMs	Processor 3												Processor 4												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
49			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			49
50			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			50
51	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			51
52	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	52
53	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	53
54	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	54
55	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	55
56	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	56
57			3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	57
58			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	58
59			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	59
60			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	60
61			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	61
62			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	62
63			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	63
64			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	64
65	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	65
66	1		3	4	5	6	7	8	9	10	11	12	13		15	16	17	18	19	20	21	22	23	24	66
67	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	67
68	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	68
69	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	69
70	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	70
71	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	71
72	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	72

Related DIMM population sequences for six processor systems:

- Processor 3 and 4 DIMM population sequences:
 - [Table 13 “Independent mode with six processors \(Processors 3 and 4, 6 to 24 total DIMMs installed in server\)” on page 20](#)
 - [Table 14 “Independent mode with six processors \(Processors 3 and 4, 25 to 48 total DIMMs installed in server\)” on page 21](#)
 - [Table 15 “Independent mode with six processors \(Processors 3 and 4, 49 to 72 total DIMMs installed in server\)” on page 22](#)
- To continue populating DIMMs for a system with 49 to 72 DIMMs:
 - [Table 12 “Independent mode with six processors \(Processors 1 and 2, 49 to 72 total DIMMs installed in server\)” on page 19](#)
 - [Table 18 “Independent mode with six processors \(Processors 5 and 6, 49 to 72 total DIMMs installed in server\)” on page 25](#)

Table 16. Independent mode with six processors (Processors 5 and 6, 6 to 24 total DIMMs installed in server)

Total DIMMs	Processor 5												Processor 6												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
6							8												20					6	
7							8												20					7	
8							8												20					8	
9							8												20					9	
10							8												20					10	
11					5		8												20					11	
12					5		8									17			20					12	
13					5		8									17			20					13	
14					5		8									17			20					14	
15					5		8									17			20					15	
16					5		8		10							17			20					16	
17					5		8		10							17			20		22			17	
18					5		8		10							17			20		22			18	
19					5		8		10							17			20		22			19	
20					5		8		10							17			20		22			20	
21					5		8		10							17			20		22			21	
22					5		8		10							17			20		22			22	
23			3		5		8		10							17			20		22			23	
24			3		5		8		10						15	17			20		22			24	

Related DIMM population sequences for six processor systems:

- Processor 5 and 6 DIMM population sequences:
 - [Table 17 “Independent mode with six processors \(Processors 5 and 6, 25 to 48 total DIMMs installed in server\)” on page 24](#)
 - [Table 18 “Independent mode with six processors \(Processors 5 and 6, 49 to 72 total DIMMs installed in server\)” on page 25](#)
- To continue populating DIMMs for a system with 6 to 24 DIMMs:
 - [Table 10 “Independent mode with six processors \(Processors 1 and 2, 6 to 24 total DIMMs installed in server\)” on page 16](#)
 - [Table 13 “Independent mode with six processors \(Processors 3 and 4, 6 to 24 total DIMMs installed in server\)” on page 20](#)

Table 17. Independent mode with six processors (Processors 5 and 6, 25 to 48 total DIMMs installed in server)

Total DIMMs	Processor 5												Processor 6												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
25			3		5			8		10					15		17			20		22			25
26			3		5			8		10					15		17			20		22			26
27			3		5			8		10					15		17			20		22			27
28			3		5			8		10					15		17			20		22			28
29			3		5			8		10		12			15		17			20		22			29
30			3		5			8		10		12			15		17			20		22		24	30
31			3		5			8		10		12			15		17			20		22		24	31
32			3		5			8		10		12			15		17			20		22		24	32
33			3		5			8		10		12			15		17			20		22		24	33
34			3		5			8		10		12			15		17			20		22		24	34
35	1		3		5			8		10		12			15		17			20		22		24	35
36	1		3		5			8		10		12	13		15		17			20		22		24	36
37	1		3		5			8		10		12	13		15		17			20		22		24	37
38	1		3		5			8		10		12	13		15		17			20		22		24	38
39	1		3		5			8		10		12	13		15		17			20		22		24	39
40	1		3		5			8		10		12	13		15		17			20		22		24	40
41	1		3		5		7	8	9	10			13		15		17			20		22		24	41
42	1		3		5		7	8	9	10			13		15		17		19	20	21	22			42
43	1		3		5		7	8	9	10			13		15		17		19	20	21	22			43
44	1		3		5		7	8	9	10			13		15		17		19	20	21	22			44
45	1		3		5		7	8	9	10			13		15		17		19	20	21	22			45
46	1		3		5		7	8	9	10			13		15		17		19	20	21	22			46
47			3	4	5	6	7	8	9	10			13		15		17		19	20	21	22			47
48			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			48

Related DIMM population sequences for six processor systems:

- Processor 5 and 6 DIMM population sequences:
 - [Table 16 “Independent mode with six processors \(Processors 5 and 6, 6 to 24 total DIMMs installed in server\)” on page 23](#)
 - [Table 18 “Independent mode with six processors \(Processors 5 and 6, 49 to 72 total DIMMs installed in server\)” on page 25](#)
- To continue populating DIMMs for a system with 25 to 48 DIMMs:
 - [Table 11 “Independent mode with six processors \(Processors 1 and 2, 25 to 48 total DIMMs installed in server\)” on page 18](#)
 - [Table 14 “Independent mode with six processors \(Processors 3 and 4, 25 to 48 total DIMMs installed in server\)” on page 21](#)

Table 18. Independent mode with six processors (Processors 5 and 6, 49 to 72 total DIMMs installed in server)

Total DIMMs	Processor 5												Processor 6												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
49			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			49
50			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			50
51			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			51
52			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			52
53	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			53
54	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	54
55	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	55
56	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	56
57	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	57
58	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	58
59			3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	59
60			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	60
61			3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	61
62			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	62
63			3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	63
64			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	64
65			3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	65
66	1		3	4	5	6	7	8	9	10	11	12	13		15	16	17	18	19	20	21	22	23	24	66
67			3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	67
68			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	68
69	1	2	3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	69
70	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	70
71	1	2	3	4	5	6	7	8	9	10	11	12	13		15	16	17	18	19	20	21	22	23	24	71
72	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	72

Related DIMM population sequences for six processor systems:

- Processor 5 and 6 DIMM population sequences:
 - [Table 16 “Independent mode with six processors \(Processors 5 and 6, 6 to 24 total DIMMs installed in server\)” on page 23](#)
 - [Table 17 “Independent mode with six processors \(Processors 5 and 6, 25 to 48 total DIMMs installed in server\)” on page 24](#)
 - [Table 18 “Independent mode with six processors \(Processors 5 and 6, 49 to 72 total DIMMs installed in server\)” on page 25](#)
- To continue populating DIMMs for a system with 49 to 72 DIMMs:
 - [Table 12 “Independent mode with six processors \(Processors 1 and 2, 49 to 72 total DIMMs installed in server\)” on page 19](#)
 - [Table 15 “Independent mode with six processors \(Processors 3 and 4, 49 to 72 total DIMMs installed in server\)” on page 22](#)

Installation order: independent memory mode with eight processors

Memory module installation order for independent (non-mirroring) memory mode with eight processors installed in the server.

The following tables show the DIMM population sequence for independent memory mode when eight processors are installed.

- Processors 1 and 2 are installed in the lower system board of the lower compute tray.
- Processors 3 and 4 are installed in the upper system board of the lower compute tray.
- Processors 5 and 6 are installed in the lower system board of the upper compute tray.
- Processors 7 and 8 are installed in the upper system board of the upper compute tray.

Note: When adding one or more DIMMs during a memory upgrade, you might need to move other DIMMs that are already installed to new locations.

Table 19. Independent mode with eight processors (Processors 1 and 2, 8 to 24 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
8							8												20					8	
9					5		8												20					9	
10					5		8								17				20					10	
11					5		8								17				20					11	
12					5		8								17				20					12	
13					5		8								17				20					13	
14					5		8								17				20					14	
15					5		8								17				20					15	
16					5		8								17				20					16	
17					5		8		10						17				20					17	
18					5		8		10						17				20		22			18	
19					5		8		10						17				20		22			19	
20					5		8		10						17				20		22			20	
21					5		8		10						17				20		22			21	
22					5		8		10						17				20		22			22	
23					5		8		10						17				20		22			23	
24					5		8		10						17				20		22			24	

Related DIMM population sequences for eight processor systems:

- Processor 1 and 2 DIMM population sequences:
 - [Table 20 “Independent mode with eight processors \(Processors 1 and 2, 25 to 48 total DIMMs installed in server\)” on page 28](#)
 - [Table 21 “Independent mode with eight processors \(Processors 1 and 2, 49 to 72 total DIMMs installed in server\)” on page 29](#)
 - [Table 22 “Independent mode with eight processors \(Processors 1 and 2, 73 to 96 total DIMMs installed in server\)” on page 30](#)
- To continue populating DIMMs for a system with 8 to 24 DIMMs:
 - [Table 23 “Independent mode with eight processors \(Processors 3 and 4, 8 to 24 total DIMMs installed in server\)” on page 31](#)

- Table 27 “Independent mode with eight processors (Processors 5 and 6, 8 to 24 total DIMMs installed in server)” on page 35
- Table 31 “Independent mode with eight processors (Processors 7 and 8, 8 to 24 total DIMMs installed in server)” on page 39

Table 20. Independent mode with eight processors (Processors 1 and 2, 25 to 48 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
25			3		5			8		10						17			20		22			25	
26			3		5			8		10					15		17			20		22			26
27			3		5			8		10					15		17			20		22			27
28			3		5			8		10					15		17			20		22			28
29			3		5			8		10					15		17			20		22			29
30			3		5			8		10					15		17			20		22			30
31			3		5			8		10					15		17			20		22			31
32			3		5			8		10					15		17			20		22			32
33			3		5			8		10		12			15		17			20		22			33
34			3		5			8		10		12			15		17			20		22		24	34
35			3		5			8		10		12			15		17			20		22		24	35
36			3		5			8		10		12			15		17			20		22		24	36
37			3		5			8		10		12			15		17			20		22		24	37
38			3		5			8		10		12			15		17			20		22		24	38
39			3		5			8		10		12			15		17			20		22		24	39
40			3		5			8		10		12			15		17			20		22		24	40
41	1		3		5			8		10		12			15		17			20		22		24	41
42	1		3		5			8		10		12	13		15		17			20		22		24	42
43	1		3		5			8		10		12	13		15		17			20		22		24	43
44	1		3		5			8		10		12	13		15		17			20		22		24	44
45	1		3		5			8		10		12	13		15		17			20		22		24	45
46	1		3		5			8		10		12	13		15		17			20		22		24	46
47	1		3		5			8		10		12	13		15		17			20		22		24	47
48	1		3		5			8		10		12	13		15		17			20		22		24	48

Related DIMM population sequences for eight processor systems:

- Processor 1 and 2 DIMM population sequences:
 - [Table 19 “Independent mode with eight processors \(Processors 1 and 2, 8 to 24 total DIMMs installed in server\)” on page 26](#)
 - [Table 21 “Independent mode with eight processors \(Processors 1 and 2, 49 to 72 total DIMMs installed in server\)” on page 29](#)
 - [Table 22 “Independent mode with eight processors \(Processors 1 and 2, 73 to 96 total DIMMs installed in server\)” on page 30](#)
- To continue populating DIMMs for a system with 25 to 48 DIMMs:
 - [Table 24 “Independent mode with eight processors \(Processors 3 and 4, 25 to 48 total DIMMs installed in server\)” on page 32](#)
 - [Table 28 “Independent mode with eight processors \(Processors 5 and 6, 25 to 48 total DIMMs installed in server\)” on page 36](#)
 - [Table 32 “Independent mode with eight processors \(Processors 7 and 8, 25 to 48 total DIMMs installed in server\)” on page 40](#)

Table 21. Independent mode with eight processors (Processors 1 and 2, 49 to 72 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
49	1		3		5		7	8	9	10			13		15		17			20		22		24	49
50	1		3		5		7	8	9	10			13		15		17		19	20	21	22			50
51	1		3		5		7	8	9	10			13		15		17		19	20	21	22			51
52	1		3		5		7	8	9	10			13		15		17		19	20	21	22			52
53	1		3		5		7	8	9	10			13		15		17		19	20	21	22			53
54	1		3		5		7	8	9	10			13		15		17		19	20	21	22			54
55	1		3		5		7	8	9	10			13		15		17		19	20	21	22			55
56	1		3		5		7	8	9	10			13		15		17		19	20	21	22			56
57			3	4	5	6	7	8	9	10			13		15		17		19	20	21	22			57
58			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			58
59			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			59
60			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			60
61			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			61
62			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			62
63			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			63
64			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			64
65	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			65
66	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	66
67	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	67
68	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	68
69	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	69
70	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	70
71	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	71
72	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	72

Related DIMM population sequences for eight processor systems:

- Processor 1 and 2 DIMM population sequences:
 - [Table 19 “Independent mode with eight processors \(Processors 1 and 2, 8 to 24 total DIMMs installed in server\)” on page 26](#)
 - [Table 20 “Independent mode with eight processors \(Processors 1 and 2, 25 to 48 total DIMMs installed in server\)” on page 28](#)
 - [Table 22 “Independent mode with eight processors \(Processors 1 and 2, 73 to 96 total DIMMs installed in server\)” on page 30](#)
- To continue populating DIMMs for a system with 49 to 72 DIMMs:
 - [Table 25 “Independent mode with eight processors \(Processors 3 and 4, 49 to 72 total DIMMs installed in server\)” on page 33](#)
 - [Table 29 “Independent mode with eight processors \(Processors 5 and 6, 49 to 72 total DIMMs installed in server\)” on page 37](#)
 - [Table 33 “Independent mode with eight processors \(Processors 7 and 8, 49 to 72 total DIMMs installed in server\)” on page 41](#)

Table 22. Independent mode with eight processors (Processors 1 and 2, 73 to 96 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
73			3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	73
74			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	74
75			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	75
76			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	76
77			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	77
78			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	78
79			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	79
80			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	80
81	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	81
82	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	82
83	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	83
84	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	84
85	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	85
86	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	86
87	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	87
88	1		3	4	5	6	7	8	9	10	11	12	13		15	16	17	18	19	20	21	22	23	24	88
89	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	89
90	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	90
91	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	91
92	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	92
93	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	93
94	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	94
95	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	95
96	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	96

Related DIMM population sequences for eight processor systems:

- Processor 1 and 2 DIMM population sequences:
 - [Table 19 “Independent mode with eight processors \(Processors 1 and 2, 8 to 24 total DIMMs installed in server\)” on page 26](#)
 - [Table 20 “Independent mode with eight processors \(Processors 1 and 2, 25 to 48 total DIMMs installed in server\)” on page 28](#)
 - [Table 21 “Independent mode with eight processors \(Processors 1 and 2, 49 to 72 total DIMMs installed in server\)” on page 29](#)
- To continue populating DIMMs for a system with 73 to 96 DIMMs:
 - [Table 26 “Independent mode with eight processors \(Processors 3 and 4, 73 to 96 total DIMMs installed in server\)” on page 34](#)
 - [Table 30 “Independent mode with eight processors \(Processors 5 and 6, 73 to 96 total DIMMs installed in server\)” on page 38](#)
 - [Table 34 “Independent mode with eight processors \(Processors 7 and 8, 73 to 96 total DIMMs installed in server\)” on page 42](#)

Table 23. Independent mode with eight processors (Processors 3 and 4, 8 to 24 total DIMMs installed in server)

Total DIMMs	Processor 3												Processor 4												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
8							8												20					8	
9							8												20					9	
10							8												20					10	
11					5		8												20					11	
12					5		8									17			20					12	
13					5		8									17			20					13	
14					5		8									17			20					14	
15					5		8									17			20					15	
16					5		8									17			20					16	
17					5		8									17			20					17	
18					5		8									17			20					18	
19					5		8		10							17			20					19	
20					5		8		10							17			20		22			20	
21					5		8		10							17			20		22			21	
22					5		8		10							17			20		22			22	
23					5		8		10							17			20		22			23	
24					5		8		10							17			20		22			24	

Related DIMM population sequences for eight processor systems:

- Processor 3 and 4 DIMM population sequences:
 - [Table 24 “Independent mode with eight processors \(Processors 3 and 4, 25 to 48 total DIMMs installed in server\)” on page 32](#)
 - [Table 25 “Independent mode with eight processors \(Processors 3 and 4, 49 to 72 total DIMMs installed in server\)” on page 33](#)
 - [Table 26 “Independent mode with eight processors \(Processors 3 and 4, 73 to 96 total DIMMs installed in server\)” on page 34](#)
- To continue populating DIMMs for a system with 8 to 24 DIMMs:
 - [Table 19 “Independent mode with eight processors \(Processors 1 and 2, 8 to 24 total DIMMs installed in server\)” on page 26](#)
 - [Table 27 “Independent mode with eight processors \(Processors 5 and 6, 8 to 24 total DIMMs installed in server\)” on page 35](#)
 - [Table 31 “Independent mode with eight processors \(Processors 7 and 8, 8 to 24 total DIMMs installed in server\)” on page 39](#)

Table 24. Independent mode with eight processors (Processors 3 and 4, 25 to 48 total DIMMs installed in server)

Total DIMMs	Processor 3												Processor 4												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
25					5			8		10							17			20		22			25
26					5			8		10							17			20		22			26
27			3		5			8		10							17			20		22			27
28			3		5			8		10					15		17			20		22			28
29			3		5			8		10					15		17			20		22			29
30			3		5			8		10					15		17			20		22			30
31			3		5			8		10					15		17			20		22			31
32			3		5			8		10					15		17			20		22			32
33			3		5			8		10					15		17			20		22			33
34			3		5			8		10					15		17			20		22			34
35			3		5			8		10		12			15		17			20		22			35
36			3		5			8		10		12			15		17			20		22		24	36
37			3		5			8		10		12			15		17			20		22		24	37
38			3		5			8		10		12			15		17			20		22		24	38
39			3		5			8		10		12			15		17			20		22		24	39
40			3		5			8		10		12			15		17			20		22		24	40
41			3		5			8		10		12			15		17			20		22		24	41
42			3		5			8		10		12			15		17			20		22		24	42
43	1		3		5			8		10		12			15		17			20		22		24	43
44	1		3		5			8		10		12	13		15		17			20		22		24	44
45	1		3		5			8		10		12	13		15		17			20		22		24	45
46	1		3		5			8		10		12	13		15		17			20		22		24	46
47	1		3		5			8		10		12	13		15		17			20		22		24	47
48	1		3		5			8		10		12	13		15		17			20		22		24	48

Related DIMM population sequences for eight processor systems:

- Processor 3 and 4 DIMM population sequences:
 - [Table 23 “Independent mode with eight processors \(Processors 3 and 4, 8 to 24 total DIMMs installed in server\)” on page 31](#)
 - [Table 25 “Independent mode with eight processors \(Processors 3 and 4, 49 to 72 total DIMMs installed in server\)” on page 33](#)
 - [Table 26 “Independent mode with eight processors \(Processors 3 and 4, 73 to 96 total DIMMs installed in server\)” on page 34](#)
- To continue populating DIMMs for a system with 25 to 48 DIMMs:
 - [Table 20 “Independent mode with eight processors \(Processors 1 and 2, 25 to 48 total DIMMs installed in server\)” on page 28](#)
 - [Table 28 “Independent mode with eight processors \(Processors 5 and 6, 25 to 48 total DIMMs installed in server\)” on page 36](#)
 - [Table 32 “Independent mode with eight processors \(Processors 7 and 8, 25 to 48 total DIMMs installed in server\)” on page 40](#)

Table 25. Independent mode with eight processors (Processors 3 and 4, 49 to 72 total DIMMs installed in server)

Total DIMMs	Processor 3												Processor 4												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
49	1		3		5			8		10		12	13		15		17			20		22		24	49
50	1		3		5			8		10		12	13		15		17			20		22		24	50
51	1		3		5		7	8	9	10			13		15		17			20		22		24	51
52	1		3		5		7	8	9	10			13		15		17		19	20	21	22			52
53	1		3		5		7	8	9	10			13		15		17		19	20	21	22			53
54	1		3		5		7	8	9	10			13		15		17		19	20	21	22			54
55	1		3		5		7	8	9	10			13		15		17		19	20	21	22			55
56	1		3		5		7	8	9	10			13		15		17		19	20	21	22			56
57	1		3		5		7	8	9	10			13		15		17		19	20	21	22			57
58	1		3		5		7	8	9	10			13		15		17		19	20	21	22			58
59			3	4	5	6	7	8	9	10			13		15		17		19	20	21	22			59
60			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			60
61			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			61
62			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			62
63			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			63
64			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			64
65			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			65
66			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			66
67	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			67
68	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	68
69	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	69
70	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	70
71	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	71
72	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	72

Related DIMM population sequences for eight processor systems:

- Processor 3 and 4 DIMM population sequences:
 - [Table 23 “Independent mode with eight processors \(Processors 3 and 4, 8 to 24 total DIMMs installed in server\)” on page 31](#)
 - [Table 24 “Independent mode with eight processors \(Processors 3 and 4, 25 to 48 total DIMMs installed in server\)” on page 32](#)
 - [Table 26 “Independent mode with eight processors \(Processors 3 and 4, 73 to 96 total DIMMs installed in server\)” on page 34](#)
- To continue populating DIMMs for a system with 49 to 72 DIMMs:
 - [Table 21 “Independent mode with eight processors \(Processors 1 and 2, 49 to 72 total DIMMs installed in server\)” on page 29](#)
 - [Table 29 “Independent mode with eight processors \(Processors 5 and 6, 49 to 72 total DIMMs installed in server\)” on page 37](#)
 - [Table 33 “Independent mode with eight processors \(Processors 7 and 8, 49 to 72 total DIMMs installed in server\)” on page 41](#)

Table 26. Independent mode with eight processors (Processors 3 and 4, 73 to 96 total DIMMs installed in server)

Total DIMMs	Processor 3												Processor 4												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
73	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	73
74	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	74
75			3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	75
76			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	76
77			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	77
78			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	78
79			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	79
80			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	80
81			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	81
82			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	82
83			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	83
84			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	84
85	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	85
86	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	86
87	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	87
88	1		3	4	5	6	7	8	9	10	11	12	13		15	16	17	18	19	20	21	22	23	24	88
89	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	89
90	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	90
91	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	91
92	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	92
93	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	93
94	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	94
95	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	95
96	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	96

Related DIMM population sequences for eight processor systems:

- Processor 3 and 4 DIMM population sequences:
 - [Table 23 “Independent mode with eight processors \(Processors 3 and 4, 8 to 24 total DIMMs installed in server\)” on page 31](#)
 - [Table 24 “Independent mode with eight processors \(Processors 3 and 4, 25 to 48 total DIMMs installed in server\)” on page 32](#)
 - [Table 25 “Independent mode with eight processors \(Processors 3 and 4, 49 to 72 total DIMMs installed in server\)” on page 33](#)
- To continue populating DIMMs for a system with 73 to 96 DIMMs:
 - [Table 22 “Independent mode with eight processors \(Processors 1 and 2, 73 to 96 total DIMMs installed in server\)” on page 30](#)
 - [Table 30 “Independent mode with eight processors \(Processors 5 and 6, 73 to 96 total DIMMs installed in server\)” on page 38](#)
 - [Table 34 “Independent mode with eight processors \(Processors 7 and 8, 73 to 96 total DIMMs installed in server\)” on page 42](#)

Table 27. Independent mode with eight processors (Processors 5 and 6, 8 to 24 total DIMMs installed in server)

Total DIMMs	Processor 5												Processor 6												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
8							8												20					8	
9							8												20					9	
10							8												20					10	
11							8												20					11	
12							8												20					12	
13					5		8												20					13	
14					5		8									17			20					14	
15					5		8									17			20					15	
16					5		8									17			20					16	
17					5		8									17			20					17	
18					5		8									17			20					18	
19					5		8									17			20					19	
20					5		8									17			20					20	
21					5		8		10							17			20					21	
22					5		8		10							17			20		22			22	
23					5		8		10							17			20		22			23	
24					5		8		10							17			20		22			24	

Related DIMM population sequences for eight processor systems:

- Processor 5 and 6 DIMM population sequences:
 - [Table 28 “Independent mode with eight processors \(Processors 5 and 6, 25 to 48 total DIMMs installed in server\)” on page 36](#)
 - [Table 29 “Independent mode with eight processors \(Processors 5 and 6, 49 to 72 total DIMMs installed in server\)” on page 37](#)
 - [Table 30 “Independent mode with eight processors \(Processors 5 and 6, 73 to 96 total DIMMs installed in server\)” on page 38](#)
- To continue populating DIMMs for a system with 8 to 24 DIMMs:
 - [Table 19 “Independent mode with eight processors \(Processors 1 and 2, 8 to 24 total DIMMs installed in server\)” on page 26](#)
 - [Table 23 “Independent mode with eight processors \(Processors 3 and 4, 8 to 24 total DIMMs installed in server\)” on page 31](#)
 - [Table 31 “Independent mode with eight processors \(Processors 7 and 8, 8 to 24 total DIMMs installed in server\)” on page 39](#)

Table 28. Independent mode with eight processors (Processors 5 and 6, 25 to 48 total DIMMs installed in server)

Total DIMMs	Processor 5												Processor 6												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
25					5			8		10						17			20		22			25	
26					5			8		10						17			20		22			26	
27					5			8		10						17			20		22			27	
28					5			8		10						17			20		22			28	
29			3		5			8		10						17			20		22			29	
30			3		5			8		10					15		17		20		22			30	
31			3		5			8		10					15		17		20		22			31	
32			3		5			8		10					15		17		20		22			32	
33			3		5			8		10					15		17		20		22			33	
34			3		5			8		10					15		17		20		22			34	
35			3		5			8		10					15		17		20		22			35	
36			3		5			8		10					15		17		20		22			36	
37			3		5			8		10		12			15		17		20		22			37	
38			3		5			8		10		12			15		17		20		22		24	38	
39			3		5			8		10		12			15		17		20		22		24	39	
40			3		5			8		10		12			15		17		20		22		24	40	
41			3		5			8		10		12			15		17		20		22		24	41	
42			3		5			8		10		12			15		17		20		22		24	42	
43			3		5			8		10		12			15		17		20		22		24	43	
44			3		5			8		10		12			15		17		20		22		24	44	
45	1		3		5			8		10		12			15		17		20		22		24	45	
46	1		3		5			8		10		12	13		15		17		20		22		24	46	
47	1		3		5			8		10		12	13		15		17		20		22		24	47	
48	1		3		5			8		10		12	13		15		17		20		22		24	48	

Related DIMM population sequences for eight processor systems:

- Processor 5 and 6 DIMM population sequences:
 - [Table 27 “Independent mode with eight processors \(Processors 5 and 6, 8 to 24 total DIMMs installed in server\)” on page 35](#)
 - [Table 29 “Independent mode with eight processors \(Processors 5 and 6, 49 to 72 total DIMMs installed in server\)” on page 37](#)
 - [Table 30 “Independent mode with eight processors \(Processors 5 and 6, 73 to 96 total DIMMs installed in server\)” on page 38](#)
- To continue populating DIMMs for a system with 25 to 48 DIMMs:
 - [Table 20 “Independent mode with eight processors \(Processors 1 and 2, 25 to 48 total DIMMs installed in server\)” on page 28](#)
 - [Table 24 “Independent mode with eight processors \(Processors 3 and 4, 25 to 48 total DIMMs installed in server\)” on page 32](#)
 - [Table 32 “Independent mode with eight processors \(Processors 7 and 8, 25 to 48 total DIMMs installed in server\)” on page 40](#)

Table 29. Independent mode with eight processors (Processors 5 and 6, 49 to 72 total DIMMs installed in server)

Total DIMMs	Processor 5												Processor 6												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
49	1		3		5			8		10		12	13		15		17			20		22		24	49
50	1		3		5			8		10		12	13		15		17			20		22		24	50
51	1		3		5			8		10		12	13		15		17			20		22		24	51
52	1		3		5			8		10		12	13		15		17			20		22		24	52
53	1		3		5		7	8	9	10			13		15		17			20		22		24	53
54	1		3		5		7	8	9	10			13		15		17		19	20	21	22			54
55	1		3		5		7	8	9	10			13		15		17		19	20	21	22			55
56	1		3		5		7	8	9	10			13		15		17		19	20	21	22			56
57	1		3		5		7	8	9	10			13		15		17		19	20	21	22			57
58	1		3		5		7	8	9	10			13		15		17		19	20	21	22			58
59	1		3		5		7	8	9	10			13		15		17		19	20	21	22			59
60	1		3		5		7	8	9	10			13		15		17		19	20	21	22			60
61			3	4	5	6	7	8	9	10			13		15		17		19	20	21	22			61
62			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			62
63			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			63
64			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			64
65			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			65
66			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			66
67			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			67
68			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			68
69	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			69
70	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	70
71	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	71
72	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	72

Related DIMM population sequences for eight processor systems:

- Processor 5 and 6 DIMM population sequences:
 - [Table 27 “Independent mode with eight processors \(Processors 5 and 6, 8 to 24 total DIMMs installed in server\)” on page 35](#)
 - [Table 28 “Independent mode with eight processors \(Processors 5 and 6, 25 to 48 total DIMMs installed in server\)” on page 36](#)
 - [Table 30 “Independent mode with eight processors \(Processors 5 and 6, 73 to 96 total DIMMs installed in server\)” on page 38](#)
- To continue populating DIMMs for a system with 49 to 72 DIMMs:
 - [Table 21 “Independent mode with eight processors \(Processors 1 and 2, 49 to 72 total DIMMs installed in server\)” on page 29](#)
 - [Table 25 “Independent mode with eight processors \(Processors 3 and 4, 49 to 72 total DIMMs installed in server\)” on page 33](#)
 - [Table 33 “Independent mode with eight processors \(Processors 7 and 8, 49 to 72 total DIMMs installed in server\)” on page 41](#)

Table 30. Independent mode with eight processors (Processors 5 and 6, 73 to 96 total DIMMs installed in server)

Total DIMMs	Processor 5												Processor 6												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
73	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	73
74	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	74
75	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	75
76	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	76
77			3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	77
78			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	78
79			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	79
80			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	80
81			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	81
82			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	82
83			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	83
84			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	84
85			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	85
86			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	86
87			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	87
88	1		3	4	5	6	7	8	9	10	11	12	13		15	16	17	18	19	20	21	22	23	24	88
89	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	89
90	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	90
91	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	91
92	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	92
93	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	93
94	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	94
95	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	95
96	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	96

Related DIMM population sequences for eight processor systems:

- Processor 5 and 6 DIMM population sequences:
 - [Table 27 “Independent mode with eight processors \(Processors 5 and 6, 8 to 24 total DIMMs installed in server\)” on page 35](#)
 - [Table 28 “Independent mode with eight processors \(Processors 5 and 6, 25 to 48 total DIMMs installed in server\)” on page 36](#)
 - [Table 29 “Independent mode with eight processors \(Processors 5 and 6, 49 to 72 total DIMMs installed in server\)” on page 37](#)
- To continue populating DIMMs for a system with 73 to 96 DIMMs:
 - [Table 22 “Independent mode with eight processors \(Processors 1 and 2, 73 to 96 total DIMMs installed in server\)” on page 30](#)
 - [Table 26 “Independent mode with eight processors \(Processors 3 and 4, 73 to 96 total DIMMs installed in server\)” on page 34](#)
 - [Table 34 “Independent mode with eight processors \(Processors 7 and 8, 73 to 96 total DIMMs installed in server\)” on page 42](#)

Table 31. Independent mode with eight processors (Processors 7 and 8, 8 to 24 total DIMMs installed in server)

Total DIMMs	Processor 7												Processor 8												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
8							8												20					8	
9							8												20					9	
10							8												20					10	
11							8												20					11	
12							8												20					12	
13							8												20					13	
14							8												20					14	
15					5		8												20					15	
16					5		8									17			20					16	
17					5		8									17			20					17	
18					5		8									17			20					18	
19					5		8									17			20					19	
20					5		8									17			20					20	
21					5		8									17			20					21	
22					5		8									17			20					22	
23					5		8		10							17			20					23	
24					5		8		10							17			20		22			24	

Related DIMM population sequences for eight processor systems:

- Processor 7 and 8 DIMM population sequences:
 - [Table 32 “Independent mode with eight processors \(Processors 7 and 8, 25 to 48 total DIMMs installed in server\)” on page 40](#)
 - [Table 33 “Independent mode with eight processors \(Processors 7 and 8, 49 to 72 total DIMMs installed in server\)” on page 41](#)
 - [Table 34 “Independent mode with eight processors \(Processors 7 and 8, 73 to 96 total DIMMs installed in server\)” on page 42](#)
- To continue populating DIMMs for a system with 8 to 24 DIMMs:
 - [Table 19 “Independent mode with eight processors \(Processors 1 and 2, 8 to 24 total DIMMs installed in server\)” on page 26](#)
 - [Table 23 “Independent mode with eight processors \(Processors 3 and 4, 8 to 24 total DIMMs installed in server\)” on page 31](#)
 - [Table 27 “Independent mode with eight processors \(Processors 5 and 6, 8 to 24 total DIMMs installed in server\)” on page 35](#)

Table 32. Independent mode with eight processors (Processors 7 and 8, 25 to 48 total DIMMs installed in server)

Total DIMMs	Processor 7												Processor 8												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
25					5			8		10							17			20		22			25
26					5			8		10							17			20		22			26
27					5			8		10							17			20		22			27
28					5			8		10							17			20		22			28
29					5			8		10							17			20		22			29
30					5			8		10							17			20		22			30
31			3		5			8		10							17			20		22			31
32			3		5			8		10					15		17			20		22			32
33			3		5			8		10					15		17			20		22			33
34			3		5			8		10					15		17			20		22			34
35			3		5			8		10					15		17			20		22			35
36			3		5			8		10					15		17			20		22			36
37			3		5			8		10					15		17			20		22			37
38			3		5			8		10					15		17			20		22			38
39			3		5			8		10		12			15		17			20		22			39
40			3		5			8		10		12			15		17			20		22		24	40
41			3		5			8		10		12			15		17			20		22		24	41
42			3		5			8		10		12			15		17			20		22		24	42
43			3		5			8		10		12			15		17			20		22		24	43
44			3		5			8		10		12			15		17			20		22		24	44
45			3		5			8		10		12			15		17			20		22		24	45
46			3		5			8		10		12			15		17			20		22		24	46
47	1		3		5			8		10		12			15		17			20		22		24	47
48	1		3		5			8		10		12	13		15		17			20		22		24	48

Related DIMM population sequences for eight processor systems:

- Processor 7 and 8 DIMM population sequences:
 - [Table 31 “Independent mode with eight processors \(Processors 7 and 8, 8 to 24 total DIMMs installed in server\)” on page 39](#)
 - [Table 33 “Independent mode with eight processors \(Processors 7 and 8, 49 to 72 total DIMMs installed in server\)” on page 41](#)
 - [Table 34 “Independent mode with eight processors \(Processors 7 and 8, 73 to 96 total DIMMs installed in server\)” on page 42](#)
- To continue populating DIMMs for a system with 25 to 48 DIMMs:
 - [Table 20 “Independent mode with eight processors \(Processors 1 and 2, 25 to 48 total DIMMs installed in server\)” on page 28](#)
 - [Table 24 “Independent mode with eight processors \(Processors 3 and 4, 25 to 48 total DIMMs installed in server\)” on page 32](#)
 - [Table 28 “Independent mode with eight processors \(Processors 5 and 6, 25 to 48 total DIMMs installed in server\)” on page 36](#)

Table 33. Independent mode with eight processors (Processors 7 and 8, 49 to 72 total DIMMs installed in server)

Total DIMMs	Processor 7												Processor 8												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
49	1		3		5			8		10		12	13		15		17			20		22		24	49
50	1		3		5			8		10		12	13		15		17			20		22		24	50
51	1		3		5			8		10		12	13		15		17			20		22		24	51
52	1		3		5			8		10		12	13		15		17			20		22		24	52
53	1		3		5			8		10		12	13		15		17			20		22		24	53
54	1		3		5			8		10		12	13		15		17			20		22		24	54
55	1		3		5		7	8	9	10			13		15		17			20		22		24	55
56	1		3		5		7	8	9	10			13		15		17		19	20	21	22			56
57	1		3		5		7	8	9	10			13		15		17		19	20	21	22			57
58	1		3		5		7	8	9	10			13		15		17		19	20	21	22			58
59	1		3		5		7	8	9	10			13		15		17		19	20	21	22			59
60	1		3		5		7	8	9	10			13		15		17		19	20	21	22			60
61	1		3		5		7	8	9	10			13		15		17		19	20	21	22			61
62	1		3		5		7	8	9	10			13		15		17		19	20	21	22			62
63			3	4	5	6	7	8	9	10			13		15		17		19	20	21	22			63
64			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			64
65			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			65
66			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			66
67			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			67
68			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			68
69			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			69
70			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			70
71	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			71
72	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	72

Related DIMM population sequences for eight processor systems:

- Processor 7 and 8 DIMM population sequences:
 - [Table 31 “Independent mode with eight processors \(Processors 7 and 8, 8 to 24 total DIMMs installed in server\)” on page 39](#)
 - [Table 32 “Independent mode with eight processors \(Processors 7 and 8, 25 to 48 total DIMMs installed in server\)” on page 40](#)
 - [Table 34 “Independent mode with eight processors \(Processors 7 and 8, 73 to 96 total DIMMs installed in server\)” on page 42](#)
- To continue populating DIMMs for a system with 49 to 72 DIMMs:
 - [Table 21 “Independent mode with eight processors \(Processors 1 and 2, 49 to 72 total DIMMs installed in server\)” on page 29](#)
 - [Table 25 “Independent mode with eight processors \(Processors 3 and 4, 49 to 72 total DIMMs installed in server\)” on page 33](#)
 - [Table 29 “Independent mode with eight processors \(Processors 5 and 6, 49 to 72 total DIMMs installed in server\)” on page 37](#)

Table 34. Independent mode with eight processors (Processors 7 and 8, 73 to 96 total DIMMs installed in server)

Total DIMMs	Processor 7												Processor 8												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
73	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	73
74	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	74
75	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	75
76	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	76
77	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	77
78	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	78
79			3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	79
80			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	80
81			3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	81
82			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	82
83			3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	83
84			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	84
85			3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	85
86			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	86
87			3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	87
88	1		3	4	5	6	7	8	9	10	11	12	13		15	16	17	18	19	20	21	22	23	24	88
89			3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	89
90			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	90
91			3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	91
92			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	92
93	1	2	3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	93
94	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	94
95	1	2	3	4	5	6	7	8	9	10	11	12	13		15	16	17	18	19	20	21	22	23	24	95
96	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	96

Related DIMM population sequences for eight processor systems:

- Processor 7 and 8 DIMM population sequences:
 - [Table 31 “Independent mode with eight processors \(Processors 7 and 8, 8 to 24 total DIMMs installed in server\)” on page 39](#)
 - [Table 32 “Independent mode with eight processors \(Processors 7 and 8, 25 to 48 total DIMMs installed in server\)” on page 40](#)
 - [Table 33 “Independent mode with eight processors \(Processors 7 and 8, 49 to 72 total DIMMs installed in server\)” on page 41](#)
- To continue populating DIMMs for a system with 73 to 96 DIMMs:
 - [Table 22 “Independent mode with eight processors \(Processors 1 and 2, 73 to 96 total DIMMs installed in server\)” on page 30](#)
 - [Table 26 “Independent mode with eight processors \(Processors 3 and 4, 73 to 96 total DIMMs installed in server\)” on page 34](#)
 - [Table 30 “Independent mode with eight processors \(Processors 5 and 6, 73 to 96 total DIMMs installed in server\)” on page 38](#)

Memory mirroring

Memory-mirroring mode provides full memory redundancy while reducing the total system memory capacity in half. Memory channels are grouped in pairs with each channel receiving the same data. If a failure occurs, the memory controller switches from the DIMMs on the primary channel to the DIMMs on the backup channel. The DIMM installation order for memory mirroring varies based on the number of processors and DIMMs installed in the server.

Memory mirroring guidelines:

- Memory mirroring reduces the maximum available memory by half of the installed memory. For example, if the server has 64 GB of installed memory, only 32 GB of addressable memory is available when memory mirroring is enabled.
- DIMMs are installed in pairs for each processor. Each DIMM in a pair must be identical in size and architecture.
- DIMMs on each memory channel must be of equal density.
- If two memory channels have DIMMs, mirroring occurs across two DIMMs (channels 0/1 will both contain the primary/secondary memory caches).
- If three memory channels have DIMMs, mirroring occurs across all three DIMMs (channels 0/1, channels 1/2, and channels 2/0 will all contain primary/secondary memory caches).

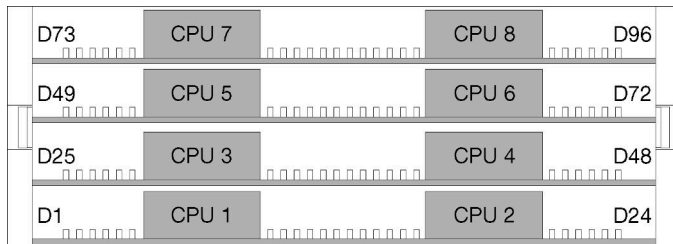


Figure 3. Processor and memory module layout

Memory mirroring DIMM population sequences for each of the supported processor configurations is shown by one of the following topics:

- [“Installation order: memory mirroring with two processors” on page 44](#)
- [“Installation order: memory mirroring with three processors” on page 45](#)
- [“Installation order: memory mirroring with four processors” on page 49](#)
- [“Installation order: memory mirroring with six processors” on page 53](#)
- [“Installation order: memory mirroring with eight processors” on page 65](#)

For information about configuring memory settings, including how to enable memory mirroring, see “Memory configuration” in the *ThinkSystem SR950 Setup Guide*.

Installation order: memory mirroring with two processors

Memory module installation order for memory mirroring with two processors installed in the server.

The following table shows the DIMM population sequence for memory mirroring when two processors are installed.

- Processors 1 and 2 are installed in the lower system board of the lower compute tray.

Note: When adding one or more DIMMs during a memory upgrade, you might need to move other DIMMs that are already installed to new locations.

Table 35. Memory mirroring with two processors, 4 to 24 total DIMMs installed in server

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
4								8		10										20		22			4
5								8		10		12								20		22			5
6								8		10		12								20		22		24	6
7			3		5			8		10										20		22		24	7
8			3		5			8		10					15		17			20		22			8
9	1		3		5			8		10		12								20		22		24	9
10	1		3		5			8		10		12			15		17			20		22			10
11	11 DIMM memory mirroring configuration is not supported.												11 DIMM memory mirroring configuration is not supported.												11
12	1		3		5			8		10		12	13		15		17			20		22		24	12
13	1		3		5		7	8	9	10	11	12			15		17			20		22			13
14	1		3		5			8		10		12			15	16	17	18	19	20	21	22			14
15	1		3		5		7	8	9	10	11	12	13		15		17			20		22		24	15
16			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			16
17	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			17
18	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	18
19	19 DIMM memory mirroring configuration is not supported.												19 DIMM memory mirroring configuration is not supported.												19
20	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22			20
21	1	2	3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	21
22	22 DIMM memory mirroring configuration is not supported.												22 DIMM memory mirroring configuration is not supported.												22
23	23 DIMM memory mirroring configuration is not supported.												23 DIMM memory mirroring configuration is not supported.												23
24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	24

Installation order: memory mirroring with three processors

Memory module installation order for memory mirroring with three processors installed in the server.

The following tables show the DIMM population sequence for memory mirroring when three processors are installed.

- Processors 1 and 2 are installed in the lower system board of the lower compute tray.
- Processor 3 is installed in the upper system board of the lower compute tray or in the upper compute tray (processor slot 4 or processor slot 6).

Note: When adding one or more DIMMs during a memory upgrade, you might need to move other DIMMs that are already installed to new locations.

Table 36. Memory mirroring with three processors (Processors 1 and 2, 6 to 24 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
6							8		10										20		22			6	
7							8		10		12								20		22			7	
8							8		10		12								20		22		24	8	
9							8		10		12								20		22		24	9	
10			3		5		8		10										20		22		24	10	
11			3		5		8		10					15		17			20		22			11	
12			3		5		8		10					15		17			20		22			12	
13	13 DIMM memory mirroring configuration is not supported												13 DIMM memory mirroring configuration is not supported												13
14	1		3		5		8		10		12			15		17			20		22			14	
15	1		3		5		8		10		12	13		15		17			20		22		24	15	
16	1		3		5		8		10		12	13		15		17			20		22			16	
17	17 DIMM memory mirroring configuration is not supported.												17 DIMM memory mirroring configuration is not supported.												17
18	1		3		5		8		10		12	13		15		17			20		22		24	18	
19	19 DIMM memory mirroring configuration is not supported.												19 DIMM memory mirroring configuration is not supported.												19
20			3	4	5	6	7	8	9	10			13		15		17			20		22		24	20
21	21 DIMM memory mirroring configuration is not supported.												21 DIMM memory mirroring configuration is not supported.												21
22			3	4	5	6	7	8	9	10				15	16	17	18	19	20	21	22			22	
23	23 DIMM memory mirroring configuration is not supported.												23 DIMM memory mirroring configuration is not supported.												23
24			3	4	5	6	7	8	9	10				15	16	17	18	19	20	21	22			24	

Related DIMM population sequences for three processor systems:

- Processor 1 and 2 DIMM population sequences for 25 to 36 DIMMs, see [Table 37 “Memory mirroring with three processors \(Processors 1 and 2, 25 to 36 total DIMMs installed in server\)”](#) on page 46.
- To continue populating processor 3 for a system with 6 to 24 DIMMs, see [Table 38 “Memory mirroring with three processors \(Processor 3, 6 to 24 total DIMMs installed in server\)”](#) on page 47.

Table 37. Memory mirroring with three processors (Processors 1 and 2, 25 to 36 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
25	1		3		5		7	8	9	10	11	12			15	16	17	28	19	20	21	22			25
26	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	26
27	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	27
28	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22			28
29	1	2	3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	29
30	1	2	3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	30
31	31 DIMM memory mirroring configuration is not supported.												31 DIMM memory mirroring configuration is not supported.												31
32	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	32
33	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	33
34	34 DIMM memory mirroring configuration is not supported.												34 DIMM memory mirroring configuration is not supported.												34
35	35 DIMM memory mirroring configuration is not supported.												35 DIMM memory mirroring configuration is not supported.												35
36	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	36

Related DIMM population sequences for three processor systems:

- Processor 1 and 2 DIMM population sequences for 6 to 24 DIMMs, see [Table 36 “Memory mirroring with three processors \(Processors 1 and 2, 6 to 24 total DIMMs installed in server\)”](#) on page 45.
- To continue populating processor 3 for a system with 25 to 36 DIMMs, see [Table 39 “Memory mirroring with three processors \(Processor 3, 25 to 36 total DIMMs installed in server\)”](#) on page 48.

Table 38. Memory mirroring with three processors (Processor 3, 6 to 24 total DIMMs installed in server)

Note: Processor 3 is actually installed in the processor 4 or processor 6 slot.

Total DIMMs	Processor 3 slot is empty												Processor 4/6 slot (Processor 3)												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
6																				20		22			6
7																				20		22			7
8																				20		22			8
9																				20		22		24	9
10																				20		22		24	10
11																				20		22		24	11
12															15		17			20		22			12
13													13 DIMM memory mirroring configuration is not supported.												13
14															15		17			20		22			14
15															15		17			20		22		24	15
16															15		17			20		22			16
17													17 DIMM memory mirroring configuration is not supported.												17
18													13		15		17			20		22		24	18
19													19 DIMM memory mirroring configuration is not supported.												19
20													13		15		17			20		22		24	20
21													21 DIMM memory mirroring configuration is not supported.												21
22													13		15		17			20		22		24	22
23													23 DIMM memory mirroring configuration is not supported.												23
24															15	16	17	18	19	20	21	22			24

Related DIMM population sequences for three processor systems:

- Processor 3 DIMM population sequences for systems with 25 to 36 DIMMs, see [Table 39 “Memory mirroring with three processors \(Processor 3, 25 to 36 total DIMMs installed in server\)”](#) on page 48.
- To continue populating processor 1 and 2 DIMMs for a system with 6 to 24 DIMMs, see [Table 36 “Memory mirroring with three processors \(Processors 1 and 2, 6 to 24 total DIMMs installed in server\)”](#) on page 45.

Table 39. Memory mirroring with three processors (Processor 3, 25 to 36 total DIMMs installed in server)

Note: Processor 3 is actually installed in the processor 4 or processor 6 slot.

Total DIMMs	Processor 3 slot is empty												Processor 4/6 slot (Processor 3)												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
25															15	16	17	18	19	20	21	22			25
26															15	16	17	18	19	20	21	22			26
27													13		15		17		19	20	21	22	23	24	27
28															15	16	17	18	19	20	21	22			28
29															15	16	17	18	19	20	21	22			29
30													13		15		17		19	20	21	22	23	24	30
31	31 DIMM memory mirroring configuration is not supported.																								31
32															15	16	17	18	19	20					32
33													13		15		17		19	20	21	22	23	24	33
34	34 DIMM memory mirroring configuration is not supported.																								34
35	35 DIMM memory mirroring configuration is not supported.																								35
36													13	14	15	16	17	18	19	20	21	22	23	24	36

Related DIMM population sequences for three processor systems:

- Processor 3 population sequences for 6 to 24 DIMMs, see [Table 38 “Memory mirroring with three processors \(Processor 3, 6 to 24 total DIMMs installed in server\)” on page 47.](#)
- To continue populating processor 1 and 2 DIMMs for a system with 25 to 36 DIMMs, see [Table 37 “Memory mirroring with three processors \(Processors 1 and 2, 25 to 36 total DIMMs installed in server\)” on page 46.](#)

Installation order: memory mirroring with four processors

Memory module installation order for memory mirroring with four processors installed in the server.

The following tables show the DIMM population sequence for memory mirroring when four processors are installed.

- Processors 1 and 2 are installed in the lower system board of the lower compute tray.
- Processors 3 and 4 are installed in the upper system board of the lower compute tray or in the upper compute tray.

Note: When adding one or more DIMMs during a memory upgrade, you might need to move other DIMMs that are already installed to new locations.

Table 40. Memory mirroring with four processors (Processors 1 and 2, 8 to 24 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
8							8		10											20		22			8
9							8		10		12									20		22			9
10							8		10		12									20		22			10
11							8		10		12									20		22		24	11
12							8		10		12									20		22		24	12
13			3		5		8		10											20		22		24	13
14			3		5		8		10											20		22		24	14
15			3		5		8		10						15		17			20		22			15
16			3		5		8		10						15		17			20		22			16
17	17 DIMM memory mirroring configuration is not supported.												17 DIMM memory mirroring configuration is not supported.												17
18	1		3		5		8		10		12				15		17			20		22			18
19	19 DIMM memory mirroring configuration is not supported.												19 DIMM memory mirroring configuration is not supported.												19
20	1		3		5		8		10		12				15		17			20		22			20
21	1		3		5		8		10		12		13		15		17			20		22		24	21
22	1		3		5		8		10		12		13		15		17			20		22		24	22
23	23 DIMM memory mirroring configuration is not supported.												23 DIMM memory mirroring configuration is not supported.												23
24	1		3		5		8		10		12		13		15		17			20		22		24	24

Related DIMM population sequences for four processor systems:

- Processor 1 and 2 DIMM population sequences for 25 to 48 DIMMs, see [Table 41 “Memory mirroring with four processors \(Processors 1 and 2, 25 to 48 total DIMMs installed in server\)”](#) on page 50.
- To continue populating processor 3 and 4 DIMMs for a system with 8 to 24 DIMMs, see [Table 42 “Memory mirroring with four processors \(Processors 3 and 4, 8 to 24 total DIMMs installed in server\)”](#) on page 51.

Table 41. Memory mirroring with four processors (Processors 1 and 2, 25 to 48 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
25	25 DIMM memory mirroring configuration is not supported.												25 DIMM memory mirroring configuration is not supported.												25
26			3	4	5	6	7	8	9	10			13		15		17			20		22		24	26
27			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			27
28			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			28
29	29 DIMM memory mirroring configuration is not supported.												29 DIMM memory mirroring configuration is not supported.												29
30			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			30
31	31 DIMM memory mirroring configuration is not supported.												31 DIMM memory mirroring configuration is not supported.												31
32			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			32
33	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			33
34	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			34
35	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	35
36	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	36
37	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22			37
38	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	38
39	1	2	3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	39
40	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	40
41	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	41
42	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	42
43	1	2	3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	43
44	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	44
45	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	45
46	46 DIMM memory mirroring configuration is not supported.												46 DIMM memory mirroring configuration is not supported.												46
47	47 DIMM memory mirroring configuration is not supported.												47 DIMM memory mirroring configuration is not supported.												47
48	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	48

Related DIMM population sequences for four processor systems:

- Processor 1 and 2 DIMM population sequences for 8 to 24 DIMMs, see [Table 40 “Memory mirroring with four processors \(Processors 1 and 2, 8 to 24 total DIMMs installed in server\)”](#) on page 49.
- To continue populating processor 3 and 4 DIMMs for a system with 25 to 48 DIMMs, see [Table 43 “Memory mirroring with four processors \(Processors 3 and 4, 25 to 48 total DIMMs installed in server\)”](#) on page 52.

Table 42. Memory mirroring with four processors (Processors 3 and 4, 8 to 24 total DIMMs installed in server)

Total DIMMs	Processor 3												Processor 4												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
8								8		10										20		22			8
9								8		10										20		22			9
10								8		10		12								20		22			10
11								8		10		12								20		22			11
12								8		10		12								20		22		24	12
13								8		10		12								20		22		24	13
14			3		5			8		10										20		22		24	14
15			3		5			8		10										20		22		24	15
16			3		5			8		10					15		17			20		22			16
17	17 DIMM memory mirroring configuration is not supported.												17 DIMM memory mirroring configuration is not supported.												17
18			3		5			8		10					15		17			20		22			18
19	19 DIMM memory mirroring configuration is not supported.												19 DIMM memory mirroring configuration is not supported.												19
20	1		3		5			8		10		12			15		17			20		22			20
21	1		3		5			8		10		12								20		22		24	21
22	1		3		5			8		10		12			15		17			20		22			22
23	23 DIMM memory mirroring configuration is not supported.												23 DIMM memory mirroring configuration is not supported.												23
24	1		3		5			8		10		12	13		15		17			20		22		24	24

Related DIMM population sequences for four processor systems:

- Processor 3 and 4 DIMM population sequences for systems with 25 to 48 DIMMs, see [Table 43 “Memory mirroring with four processors \(Processors 3 and 4, 25 to 48 total DIMMs installed in server\)”](#) on page 52.
- To continue populating processor 1 and 2 DIMMs for a system with 8 to 24 DIMMs, see [Table 40 “Memory mirroring with four processors \(Processors 1 and 2, 8 to 24 total DIMMs installed in server\)”](#) on page 49.

Table 43. Memory mirroring with four processors (Processors 3 and 4, 25 to 48 total DIMMs installed in server)

Total DIMMs	Processor 3												Processor 4												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
25	25 DIMM memory mirroring configuration is not supported.												25 DIMM memory mirroring configuration is not supported.												25
26	1		3		5		8		10		12	13		15		17		20		22		24	26		
27			3	4	5	6	7	8	9	10									20		22		24	27	
28	1		3		5		8		10		12	13		15		17		20		22		24	28		
29	29 DIMM memory mirroring configuration is not supported.												29 DIMM memory mirroring configuration is not supported.												29
30			3	4	5	6	7	8	9	10			13		15		17		20		22		24	30	
31	31 DIMM memory mirroring configuration is not supported.												31 DIMM memory mirroring configuration is not supported.												31
32			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			32
33			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			33
34	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			34
35	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			35
36	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	36
37	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			37
38			3	4	5	6	7	8	9	10			13		15		17		20		22		24	38	
39	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	39
40			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			40
41	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			41
42	1	2	3	4	5	6	7	8	9	10	11	12	13		15		17		20		22		24	42	
43	1	2	3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	43
44	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22			44
45	1	2	3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	45
46	46 DIMM memory mirroring configuration is not supported.												46 DIMM memory mirroring configuration is not supported.												46
47	47 DIMM memory mirroring configuration is not supported.												47 DIMM memory mirroring configuration is not supported.												47
48	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	48

Related DIMM population sequences for four processor systems:

- Processor 3 and 4 DIMM population sequences for 8 to 24 DIMMs, see [Table 42 “Memory mirroring with four processors \(Processors 3 and 4, 8 to 24 total DIMMs installed in server\)”](#) on page 51.
- To continue populating processor 1 and 2 DIMMs for a system with 25 to 48 DIMMs, see [Table 41 “Memory mirroring with four processors \(Processors 1 and 2, 25 to 48 total DIMMs installed in server\)”](#) on page 50.

Installation order: memory mirroring with six processors

Memory module installation order for memory mirroring with six processors installed in the server.

The following tables show the DIMM population sequence for memory mirroring when six processors are installed.

- Processors 1 and 2 are installed in the lower system board of the lower compute tray.
- Processors 3 and 4 are installed in the upper system board of the lower compute tray.
- Processors 5 is in the lower system board of the upper compute tray.
- Processors 6 is installed in the upper system board of the upper compute tray (processor slot 7).

Note: When adding one or more DIMMs during a memory upgrade, you might need to move other DIMMs that are already installed to new locations.

Table 44. Memory mirroring with six processors (Processors 1 and 2, 12 to 24 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
12							8		10										20		22			12	
13							8		10		12								20		22			13	
14							8		10		12								20		22		24	14	
15							8		10		12								20		22		24	15	
16							8		10		12								20		22		24	16	
17							8		10		12								20		22		24	17	
18							8		10		12								20		22		24	18	
19			3		5		8		10										20		22		24	19	
20			3		5		8		10					15		17			20		22			20	
21			3		5		8		10					15		17			20		22			21	
22			3		5		8		10					15		17			20		22			22	
23			3		5		8		10					15		17			20		22			23	
24			3		5		8		10					15		17			20		22			24	

Related DIMM population sequences for six processor systems:

- Processor 1 and 2 DIMM population sequences:
 - [Table 45 “Memory mirroring with six processors \(Processors 1 and 2, 25 to 48 total DIMMs installed in server\)” on page 54](#)
 - [Table 46 “Memory mirroring with six processors \(Processors 1 and 2, 49 to 72 total DIMMs installed in server\)” on page 55](#)
- To continue populating DIMMs for a system with 12 to 24 DIMMs:
 - [Table 47 “Memory mirroring with six processors \(Processors 3 and 4, 12 to 24 total DIMMs installed in server\)” on page 56](#)
 - [Table 50 “Memory mirroring with six processors \(Processors 5 and 6, 12 to 24 total DIMMs installed in server\)” on page 59](#)
 - [Table 53 “Memory mirroring with six processors \(Processors 7 and 8, 12 to 24 total DIMMs installed in server\)” on page 62](#)

Table 45. Memory mirroring with six processors (Processors 1 and 2, 25 to 48 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
25	1		3		5			8		10		12			15		17			20		22			25
26	1		3		5			8		10		12			15		17			20		22			26
27	1		3		5			8		10		12	13		15		17			20		22		24	27
28	1		3		5			8		10		12	13		15		17			20		22		24	28
29	1		3		5			8		10		12	13		15		17			20		22		24	29
30	1		3		5			8		10		12	13		15		17			20		22		24	30
31	1		3		5			8		10		12	13		15		17			20		22		24	31
32	1		3		5			8		10		12	13		15		17			20		22		24	32
33	1		3		5			8		10		12	13		15		17			20		22		24	33
34	1		3		5			8		10		12	13		15		17			20		22		24	34
35	1		3		5		7	8	9	10	11	12	13		15		17			20		22		24	35
36	1		3		5			8		10		12	13		15		17			20		22		24	36
37	1		3		5		7	8	9	10	11	12	13		15		17			20		22		24	37
38	1		3		5			8		10		12	13		15		17			20		22		24	38
39	1		3		5		7	8	9	10	11	12	13		15		17			20		22		24	39
40			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			40
41	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			41
42			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			42
43	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			43
44			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			44
45	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			45
46			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			46
47	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			47
48			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			48

Related DIMM population sequences for six processor systems:

- Processor 1 and 2 DIMM population sequences:
 - [Table 44 “Memory mirroring with six processors \(Processors 1 and 2, 12 to 24 total DIMMs installed in server\)” on page 53](#)
 - [Table 46 “Memory mirroring with six processors \(Processors 1 and 2, 49 to 72 total DIMMs installed in server\)” on page 55](#)
- To continue populating DIMMs for a system with 25 to 48 DIMMs:
 - [Table 48 “Memory mirroring with six processors \(Processors 3 and 4, 25 to 48 total DIMMs installed in server\)” on page 57](#)
 - [Table 51 “Memory mirroring with six processors \(Processors 5 and 6, 25 to 48 total DIMMs installed in server\)” on page 60](#)
 - [Table 54 “Memory mirroring with six processors \(Processors 7 and 8, 25 to 48 total DIMMs installed in server\)” on page 63](#)

Table 46. Memory mirroring with six processors (Processors 1 and 2, 49 to 72 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
49	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			49
50	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	50
51	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	51
52	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	52
53	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	53
54	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	54
55	1	2	3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	55
56	1	2	3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	56
57	1	2	3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	57
58	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	58
59	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	59
60	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	60
61	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	61
62	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	62
63	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	63
64	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	64
65	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	65
66	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	66
67	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	67
68	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	68
69	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	69
70	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	70
71	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	71
72	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	72

Related DIMM population sequences for six processor systems:

- Processor 1 and 2 DIMM population sequences:
 - [Table 44 “Memory mirroring with six processors \(Processors 1 and 2, 12 to 24 total DIMMs installed in server\)” on page 53](#)
 - [Table 45 “Memory mirroring with six processors \(Processors 1 and 2, 25 to 48 total DIMMs installed in server\)” on page 54](#)
- To continue populating DIMMs for a system with 49 to 72 DIMMs:
 - [Table 49 “Memory mirroring with six processors \(Processors 3 and 4, 49 to 72 total DIMMs installed in server\)” on page 58](#)
 - [Table 52 “Memory mirroring with six processors \(Processors 5 and 6, 49 to 72 total DIMMs installed in server\)” on page 61](#)
 - [Table 55 “Memory mirroring with six processors \(Processors 7 and 8, 49 to 72 total DIMMs installed in server\)” on page 64](#)

Table 47. Memory mirroring with six processors (Processors 3 and 4, 12 to 24 total DIMMs installed in server)

Total DIMMs	Processor 3												Processor 4												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
12								8		10										20		22			12
13								8		10										20		22			13
14								8		10										20		22			14
15								8		10		12								20		22			15
16								8		10		12								20		22		24	16
17								8		10		12								20		22		24	17
18								8		10		12								20		22		24	18
19								8		10		12								20		22		24	19
20								8		10		12								20		22		24	20
21			3		5			8		10										20		22		24	21
22			3		5			8		10					15		17			20		22			22
23			3		5			8		10					15		17			20		22			23
24			3		5			8		10					15		17			20		22			24

Related DIMM population sequences for six processor systems:

- Processor 3 and 4 DIMM population sequences:
 - [Table 48 “Memory mirroring with six processors \(Processors 3 and 4, 25 to 48 total DIMMs installed in server\)” on page 57](#)
 - [Table 49 “Memory mirroring with six processors \(Processors 3 and 4, 49 to 72 total DIMMs installed in server\)” on page 58](#)
- To continue populating DIMMs for a system with 12 to 24 DIMMs:
 - [Table 44 “Memory mirroring with six processors \(Processors 1 and 2, 12 to 24 total DIMMs installed in server\)” on page 53](#)
 - [Table 50 “Memory mirroring with six processors \(Processors 5 and 6, 12 to 24 total DIMMs installed in server\)” on page 59](#)
 - [Table 53 “Memory mirroring with six processors \(Processors 7 and 8, 12 to 24 total DIMMs installed in server\)” on page 62](#)

Table 48. Memory mirroring with six processors (Processors 3 and 4, 25 to 48 total DIMMs installed in server)

Total DIMMs	Processor 3												Processor 4												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
25			3		5			8		10					15		17			20		22			25
26			3		5			8		10					15		17			20		22			26
27	1		3		5			8		10		12								20		22		24	27
28			3		5			8		10					15		17			20		22			28
29	29 DIMM memory mirroring configuration is not supported.																								29
30	1		3		5			8		10		12	13		15		17			20		22		24	30
31			3		5			8		10			13		15		17			20		22		24	31
32	1		3		5			8		10		12	13		15		17			20		22		24	32
33	1		3		5			8		10		12	13		15		17			20		22		24	33
34	1		3		5			8		10		12	13		15		17			20		22		24	34
35	1		3		5			8		10		12	13		15		17			20		22		24	35
36	1		3		5			8		10		12	13		15		17			20		22		24	36
37	1		3		5			8		10		12	13		15		17			20		22		24	37
38	1		3		5			8		10		12	13		15		17			20		22		24	38
39	1		3		5			8		10		12	13		15		17			20		22		24	39
40	1		3		5			8		10		12	13		15		17			20		22		24	40
41	1		3		5			8		10		12	13		15		17			20		22		24	41
42			3	4	5	6	7	8	9	10			13		15		17			20		22		24	42
43			3	4	5	6	7	8	9	10			13		15		17			20		22		24	43
44			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			44
45			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			45
46			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			46
47			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			47
48			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			48

Related DIMM population sequences for six processor systems:

- Processor 3 and 4 DIMM population sequences:
 - [Table 47 “Memory mirroring with six processors \(Processors 3 and 4, 12 to 24 total DIMMs installed in server\)” on page 56](#)
 - [Table 49 “Memory mirroring with six processors \(Processors 3 and 4, 49 to 72 total DIMMs installed in server\)” on page 58](#)
- To continue populating DIMMs for a system with 25 to 48 DIMMs:
 - [Table 45 “Memory mirroring with six processors \(Processors 1 and 2, 25 to 48 total DIMMs installed in server\)” on page 54](#)
 - [Table 51 “Memory mirroring with six processors \(Processors 5 and 6, 25 to 48 total DIMMs installed in server\)” on page 60](#)
 - [Table 54 “Memory mirroring with six processors \(Processors 7 and 8, 25 to 48 total DIMMs installed in server\)” on page 63](#)

Table 49. Memory mirroring with six processors (Processors 3 and 4, 49 to 72 total DIMMs installed in server)

Total DIMMs	Processor 3												Processor 4												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
49			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			49
50			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			50
51	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			51
52	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	52
53	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	53
54	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	54
55	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	55
56	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	56
57	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	57
58	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	58
59	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	59
60	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	60
61	1	2	3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	61
62	1	2	3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	62
63	1	2	3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	63
64	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	64
65	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	65
66	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	66
67	67 DIMM memory mirroring configuration is not supported.																								67
68	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	68
69	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	69
70	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	70
71	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	71
72	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	72

Related DIMM population sequences for six processor systems:

- Processor 3 and 4 DIMM population sequences:
 - [Table 47 “Memory mirroring with six processors \(Processors 3 and 4, 12 to 24 total DIMMs installed in server\)” on page 56](#)
 - [Table 48 “Memory mirroring with six processors \(Processors 3 and 4, 25 to 48 total DIMMs installed in server\)” on page 57](#)
- To continue populating DIMMs for a system with 49 to 72 DIMMs:
 - [Table 46 “Memory mirroring with six processors \(Processors 1 and 2, 49 to 72 total DIMMs installed in server\)” on page 55](#)
 - [Table 52 “Memory mirroring with six processors \(Processors 5 and 6, 49 to 72 total DIMMs installed in server\)” on page 61](#)
 - [Table 55 “Memory mirroring with six processors \(Processors 7 and 8, 49 to 72 total DIMMs installed in server\)” on page 64](#)

Table 50. Memory mirroring with six processors (Processors 5 and 6, 12 to 24 total DIMMs installed in server)

Total DIMMs	Processor 5												Processor 6 slot is empty												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
12							8		10															12	
13							8		10															13	
14							8		10															14	
15							8		10															15	
16							8		10															16	
17							8		10		12													17	
18							8		10		12													18	
19							8		10		12													19	
20							8		10		12													20	
21							8		10		12													21	
22							8		10		12													22	
23			3		5		8		10															23	
24			3		5		8		10															24	

Related DIMM population sequences for six processor systems:

- Processor 5 and 6 DIMM population sequences:
 - [Table 51 “Memory mirroring with six processors \(Processors 5 and 6, 25 to 48 total DIMMs installed in server\)” on page 60](#)
 - [Table 52 “Memory mirroring with six processors \(Processors 5 and 6, 49 to 72 total DIMMs installed in server\)” on page 61](#)
- To continue populating DIMMs for a system with 12 to 24 DIMMs:
 - [Table 44 “Memory mirroring with six processors \(Processors 1 and 2, 12 to 24 total DIMMs installed in server\)” on page 53](#)
 - [Table 47 “Memory mirroring with six processors \(Processors 3 and 4, 12 to 24 total DIMMs installed in server\)” on page 56](#)
 - [Table 53 “Memory mirroring with six processors \(Processors 7 and 8, 12 to 24 total DIMMs installed in server\)” on page 62](#)

Table 51. Memory mirroring with six processors (Processors 5 and 6, 25 to 48 total DIMMs installed in server)

Note: Processor 6 is actually installed in the processor 7 slot.

Total DIMMs	Processor 5												Processor 6 slot is empty												Total DIMMs						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
25			3		5			8		10															25						
26			3		5			8		10															26						
27								8		10		12													27						
28			3		5			8		10															28						
29	29 DIMM memory mirroring configuration is not supported.																														29
30								8		10		12													30						
31			3		5			8		10															31						
32			3		5			8		10															32						
33	1		3		5			8		10		12													33						
34	1		3		5			8		10		12													34						
35			3		5			8		10															35						
36	1		3		5			8		10		12													36						
37	1		3		5			8		10		12													37						
38	1		3		5			8		10		12													38						
39	1		3		5			8		10		12													39						
40	1		3		5			8		10		12													40						
41	1		3		5			8		10		12													41						
42	1		3		5			8		10		12													42						
43	1		3		5			8		10		12													43						
44	1		3		5			8		10		12													44						
45	1		3		5			8		10		12													45						
46			3	4	5	6	7	8	9	10															46						
47			3	4	5	6	7	8	9	10															47						
48			3	4	5	6	7	8	9	10															48						

Related DIMM population sequences for six processor systems:

- Processor 5 and 6 DIMM population sequences:
 - [Table 50 “Memory mirroring with six processors \(Processors 5 and 6, 12 to 24 total DIMMs installed in server\)” on page 59](#)
 - [Table 52 “Memory mirroring with six processors \(Processors 5 and 6, 49 to 72 total DIMMs installed in server\)” on page 61](#)
- To continue populating DIMMs for a system with 25 to 48 DIMMs:
 - [Table 45 “Memory mirroring with six processors \(Processors 1 and 2, 25 to 48 total DIMMs installed in server\)” on page 54](#)
 - [Table 48 “Memory mirroring with six processors \(Processors 3 and 4, 25 to 48 total DIMMs installed in server\)” on page 57](#)
 - [Table 54 “Memory mirroring with six processors \(Processors 7 and 8, 25 to 48 total DIMMs installed in server\)” on page 63](#)

Table 52. Memory mirroring with six processors (Processors 5 and 6, 49 to 72 total DIMMs installed in server)

Total DIMMs	Processor 5												Processor 6 slot is empty												Total DIMMs					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24						
49			3	4	5	6	7	8	9	10															49					
50			3	4	5	6	7	8	9	10															50					
51			3	4	5	6	7	8	9	10															51					
52			3	4	5	6	7	8	9	10															52					
53	1		3		5			8		10		12													53					
54	1		3		5		7	8	9	10	11	12													54					
55			3	4	5	6	7	8	9	10															55					
56	1		3		5		7	8	9	10	11	12													56					
57	1		3		5		7	8	9	10	11	12													57					
58			3	4	5	6	7	8	9	10															58					
59	1		3		5		7	8	9	10	11	12													59					
60	1		3		5		7	8	9	10	11	12													60					
61			3	4	5	6	7	8	9	10															61					
62	1		3		5		7	8	9	10	11	12													62					
63	1		3		5		7	8	9	10	11	12													63					
64			3	4	5	6	7	8	9	10															64					
65	1		3		5		7	8	9	10	11	12													65					
66	1		3		5		7	8	9	10	11	12													66					
67	67 DIMM memory mirroring configuration is not supported.																											67		
68	1	2	3	4	5	6	7	8	9	10	11	12													68					
69	1	2	3	4	5	6	7	8	9	10	11	12													69					
70	70 DIMM memory mirroring configuration is not supported.																												70	
71	71 DIMM memory mirroring configuration is not supported.																													71
72	1	2	3	4	5	6	7	8	9	10	11	12													72					

Related DIMM population sequences for six processor systems:

- Processor 5 and 6 DIMM population sequences:
 - [Table 50 “Memory mirroring with six processors \(Processors 5 and 6, 12 to 24 total DIMMs installed in server\)” on page 59](#)
 - [Table 51 “Memory mirroring with six processors \(Processors 5 and 6, 25 to 48 total DIMMs installed in server\)” on page 60](#)
- To continue populating DIMMs for a system with 49 to 72 DIMMs:
 - [Table 46 “Memory mirroring with six processors \(Processors 1 and 2, 49 to 72 total DIMMs installed in server\)” on page 55](#)
 - [Table 49 “Memory mirroring with six processors \(Processors 3 and 4, 49 to 72 total DIMMs installed in server\)” on page 58](#)

- [Table 55 “Memory mirroring with six processors \(Processors 7 and 8, 49 to 72 total DIMMs installed in server\)” on page 64](#)

Table 53. Memory mirroring with six processors (Processors 7 and 8, 12 to 24 total DIMMs installed in server)

Note: Processor 6 is actually installed in the processor 7 slot.

Total DIMMs	Processor 7 slot (Processor 6)												Processor 8												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
12							8		10																12
13							8		10																13
14							8		10																14
15							8		10																15
16							8		10																16
17							8		10																17
18							8		10		12														18
19							8		10		12														19
20							8		10		12														20
21							8		10		12														21
22							8		10		12														22
23							8		10		12														23
24			3		5		8		10																24

Related DIMM population sequences for six processor systems:

- Processor 7 and 8 DIMM population sequences:
 - [Table 54 “Memory mirroring with six processors \(Processors 7 and 8, 25 to 48 total DIMMs installed in server\)” on page 63](#)
 - [Table 55 “Memory mirroring with six processors \(Processors 7 and 8, 49 to 72 total DIMMs installed in server\)” on page 64](#)
- To continue populating DIMMs for a system with 12 to 24 DIMMs:
 - [Table 44 “Memory mirroring with six processors \(Processors 1 and 2, 12 to 24 total DIMMs installed in server\)” on page 53](#)
 - [Table 47 “Memory mirroring with six processors \(Processors 3 and 4, 12 to 24 total DIMMs installed in server\)” on page 56](#)
 - [Table 50 “Memory mirroring with six processors \(Processors 5 and 6, 12 to 24 total DIMMs installed in server\)” on page 59](#)

Table 54. Memory mirroring with six processors (Processors 7 and 8, 25 to 48 total DIMMs installed in server)

Total DIMMs	Processor 7 slot (Processor 6)												Processor 8												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
25								8		10		12													25
26			3		5			8		10															26
27								8		10		12													27
28			3		5			8		10															28
29	29 DIMM memory mirroring configuration is not supported.																								29
30								8		10		12													30
31								8		10		12													31
32			3		5			8		10															32
33								8		10		12													33
34			3		5			8		10															34
35			3		5			8		10															35
36	1		3		5			8		10		12													36
37			3		5			8		10															37
38			3		5			8		10															38
39	1		3		5			8		10		12													39
40	1		3		5			8		10		12													40
41	1		3		5			8		10		12													41
42	1		3		5			8		10		12													42
43	1		3		5			8		10		12													43
44	1		3		5			8		10		12													44
45	1		3		5			8		10		12													45
46	1		3		5			8		10		12													46
47	1		3		5			8		10		12													47
48			3	4	5	6	7	8	9	10															48

Related DIMM population sequences for six processor systems:

- Processor 7 and 8 DIMM population sequences:
 - [Table 53 “Memory mirroring with six processors \(Processors 7 and 8, 12 to 24 total DIMMs installed in server\)” on page 62](#)
 - [Table 55 “Memory mirroring with six processors \(Processors 7 and 8, 49 to 72 total DIMMs installed in server\)” on page 64](#)
- To continue populating DIMMs for a system with 25 to 48 DIMMs:
 - [Table 45 “Memory mirroring with six processors \(Processors 1 and 2, 25 to 48 total DIMMs installed in server\)” on page 54](#)
 - [Table 48 “Memory mirroring with six processors \(Processors 3 and 4, 25 to 48 total DIMMs installed in server\)” on page 57](#)
 - [Table 51 “Memory mirroring with six processors \(Processors 5 and 6, 25 to 48 total DIMMs installed in server\)” on page 60](#)

Table 55. Memory mirroring with six processors (Processors 7 and 8, 49 to 72 total DIMMs installed in server)

Total DIMMs	Processor 7 slot (Processor 6)												Processor 8												Total DIMMs			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
49			3	4	5	6	7	8	9	10														49				
50			3	4	5	6	7	8	9	10														50				
51			3	4	5	6	7	8	9	10														51				
52			3	4	5	6	7	8	9	10														52				
53			3	4	5	6	7	8	9	10														53				
54	1		3		5		7	8	9	10	11	12												54				
55			3	4	5	6	7	8	9	10														55				
56			3	4	5	6	7	8	9	10														56				
57	1		3		5		7	8	9	10	11	12												57				
58			3	4	5	6	7	8	9	10														58				
59			3	4	5	6	7	8	9	10														59				
60	1		3		5		7	8	9	10	11	12												60				
61			3	4	5	6	7	8	9	10														61				
62			3	4	5	6	7	8	9	10														62				
63	1		3		5		7	8	9	10	11	12												63				
64			3	4	5	6	7	8	9	10														64				
65			3	4	5	6	7	8	9	10														65				
66	1		3		5		7	8	9	10	11	12												66				
67	67 DIMM memory mirroring configuration is not supported.																										67	
68			3	4	5	6	7	8	9	10														68				
69	1		3				7	8	9	10	11	12												69				
70	70 DIMM memory mirroring configuration is not supported.																											70
71	71 DIMM memory mirroring configuration is not supported.																											71
72	1	2	3	4	5	6	7	8	9	10	11	12												72				

Related DIMM population sequences for six processor systems:

- Processor 7 and 8 DIMM population sequences:
 - [Table 53 “Memory mirroring with six processors \(Processors 7 and 8, 12 to 24 total DIMMs installed in server\)” on page 62](#)
 - [Table 54 “Memory mirroring with six processors \(Processors 7 and 8, 25 to 48 total DIMMs installed in server\)” on page 63](#)
- To continue populating DIMMs for a system with 49 to 72 DIMMs:
 - [Table 46 “Memory mirroring with six processors \(Processors 1 and 2, 49 to 72 total DIMMs installed in server\)” on page 55](#)
 - [Table 49 “Memory mirroring with six processors \(Processors 3 and 4, 49 to 72 total DIMMs installed in server\)” on page 58](#)
 - [Table 52 “Memory mirroring with six processors \(Processors 5 and 6, 49 to 72 total DIMMs installed in server\)” on page 61](#)

Installation order: memory mirroring with eight processors

Memory module installation order for memory mirroring with eight processors installed in the server.

The following tables show the DIMM population sequence for memory mirroring when eight processors are installed.

- Processors 1 and 2 are installed in the lower system board of the lower compute tray.
- Processors 3 and 4 are installed in the upper system board of the lower compute tray.
- Processors 5 and 6 are installed in the lower system board of the upper compute tray.
- Processors 7 and 8 are installed in the upper system board of the upper compute tray.

Note: When adding one or more DIMMs during a memory upgrade, you might need to move other DIMMs that are already installed to new locations.

Table 56. Memory mirroring with eight processors (Processors 1 and 2, 16 to 24 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
16							8		10										20		22			16	
17							8		10		12								20		22			17	
18							8		10		12								20		22		24	18	
19							8		10		12								20		22		24	19	
20							8		10		12								20		22		24	20	
21							8		10		12								20		22		24	21	
22							8		10		12								20		22		24	22	
23							8		10		12								20		22		24	23	
24							8		10		12								20		22		24	24	

Related DIMM population sequences for eight processor systems:

- Processor 1 and 2 DIMM population sequences:
 - [Table 57 “Memory mirroring with eight processors \(Processors 1 and 2, 25 to 48 total DIMMs installed in server\)” on page 66](#)
 - [Table 58 “Memory mirroring with eight processors \(Processors 1 and 2, 49 to 72 total DIMMs installed in server\)” on page 67](#)
 - [Table 59 “Memory mirroring with eight processors \(Processors 1 and 2, 73 to 96 total DIMMs installed in server\)” on page 68](#)
- To continue populating DIMMs for a system with 16 to 24 DIMMs:
 - [Table 60 “Memory mirroring with eight processors \(Processors 3 and 4, 16 to 24 total DIMMs installed in server\)” on page 69](#)
 - [Table 64 “Memory mirroring with eight processors \(Processors 5 and 6, 16 to 24 total DIMMs installed in server\)” on page 73](#)
 - [Table 68 “Memory mirroring with eight processors \(Processors 7 and 8, 16 to 24 total DIMMs installed in server\)” on page 77](#)

Table 57. Memory mirroring with eight processors (Processors 1 and 2, 25 to 48 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
25			3		5			8		10									20		22		24	25	
26			3		5			8		10					15		17			20		22			26
27			3		5			8		10					15		17			20		22			27
28			3		5			8		10					15		17			20		22			28
29			3		5			8		10					15		17			20		22			29
30			3		5			8		10					15		17			20		22			30
31			3		5			8		10					15		17			20		22			31
32			3		5			8		10					15		17			20		22			32
33	1		3		5			8		10		12			15		17			20		22			33
34	1		3		5			8		10		12			15		17			20		22			34
35	1		3		5			8		10		12	13		15		17			20		22		24	35
36	1		3		5			8		10		12	13		15		17			20		22		24	36
37	1		3		5		7	8	9	10	11	12			15		17			20		22		24	37
38	1		3		5			8		10		12	13		15		17			20		22		24	38
39	1		3		5		7	8	9	10	11	12	13		15		17			20		22		24	39
40	1		3		5			8		10		12	13		15		17			20		22		24	40
41	1		3		5		7	8	9	10	11	12	13		15		17			20		22		24	41
42	1		3		5			8		10		12	13		15		17			20		22		24	42
43	1		3		5		7	8	9	10	11	12	13		15		17			20		22		24	43
44	1		3		5			8		10		12	13		15		17			20		22		24	44
45	1		3		5		7	8	9	10	11	12	13		15		17			20		22		24	45
46	1		3		5			8		10		12	13		15		17			20		22		24	46
47	1		3		5		7	8	9	10	11	12	13		15		17			20		22		24	47
48	1		3		5			8		10		12	13		15		17			20		22		24	48

Related DIMM population sequences for eight processor systems:

- Processor 1 and 2 DIMM population sequences:
 - [Table 56 “Memory mirroring with eight processors \(Processors 1 and 2, 16 to 24 total DIMMs installed in server\)” on page 65](#)
 - [Table 58 “Memory mirroring with eight processors \(Processors 1 and 2, 49 to 72 total DIMMs installed in server\)” on page 67](#)
 - [Table 59 “Memory mirroring with eight processors \(Processors 1 and 2, 73 to 96 total DIMMs installed in server\)” on page 68](#)
- To continue populating DIMMs for a system with 25 to 48 DIMMs:
 - [Table 61 “Memory mirroring with eight processors \(Processors 3 and 4, 25 to 48 total DIMMs installed in server\)” on page 70](#)
 - [Table 65 “Memory mirroring with eight processors \(Processors 5 and 6, 25 to 48 total DIMMs installed in server\)” on page 74](#)
 - [Table 69 “Memory mirroring with eight processors \(Processors 7 and 8, 25 to 48 total DIMMs installed in server\)” on page 78](#)

Table 58. Memory mirroring with eight processors (Processors 1 and 2, 49 to 72 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
49	1		3		5		7	8	9	10	11	12	13		15		17			20		22		24	49	
50			3	4	5	6	7	8	9	10			13		15		17			20		22		24	50	
51	1		3		5		7	8	9	10	11	12	13		15		17			20		22		24	51	
52			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			52	
53	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			53	
54			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			54	
55	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			55	
56			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			56	
57	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			57	
58			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			58	
59	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			59	
60			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			60	
61	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			61	
62			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			62	
63	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			63	
64			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			64	
65	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			65	
66	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22			66	
67	1		3		5		7	8	9	10	11	12	13		15		17			19	20	21	22	23	24	67
68	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22			68	
69	1		3		5		7	8	9	10	11	12	13		15		17			19	20	21	22	23	24	69
70	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	70	
71	1		3		5		7	8	9	10	11	12	13		15		17			19	20	21	22	23	24	71
72	1		3		5		7	8	9	10	11	12	13		15		17			19	20	21	22	23	24	72

Related DIMM population sequences for eight processor systems:

- Processor 1 and 2 DIMM population sequences:
 - [Table 56 “Memory mirroring with eight processors \(Processors 1 and 2, 16 to 24 total DIMMs installed in server\)” on page 65](#)
 - [Table 57 “Memory mirroring with eight processors \(Processors 1 and 2, 25 to 48 total DIMMs installed in server\)” on page 66](#)
 - [Table 59 “Memory mirroring with eight processors \(Processors 1 and 2, 73 to 96 total DIMMs installed in server\)” on page 68](#)
- To continue populating DIMMs for a system with 49 to 72 DIMMs:
 - [Table 62 “Memory mirroring with eight processors \(Processors 3 and 4, 49 to 72 total DIMMs installed in server\)” on page 71](#)
 - [Table 66 “Memory mirroring with eight processors \(Processors 5 and 6, 49 to 72 total DIMMs installed in server\)” on page 75](#)
 - [Table 70 “Memory mirroring with eight processors \(Processors 7 and 8, 49 to 72 total DIMMs installed in server\)” on page 79](#)

Table 59. Memory mirroring with eight processors (Processors 1 and 2, 73 to 96 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
73	1	2	3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	73
74	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	74
75	1	2	3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	75
76	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	76
77	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	77
78	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	78
79	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	79
80	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	80
81	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	81
82	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	82
83	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	83
84	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	84
85	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	85
86	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	86
87	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	87
88	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	88
89	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	89
90	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	90
91	91 DIMM memory mirroring configuration is not supported.												91 DIMM memory mirroring configuration is not supported.												91
92	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	92
93	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	93
94	94 DIMM memory mirroring configuration is not supported.												94 DIMM memory mirroring configuration is not supported.												94
95	95 DIMM memory mirroring configuration is not supported.												95 DIMM memory mirroring configuration is not supported.												95
96	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	96

Related DIMM population sequences for eight processor systems:

- Processor 1 and 2 DIMM population sequences:
 - [Table 56 “Memory mirroring with eight processors \(Processors 1 and 2, 16 to 24 total DIMMs installed in server\)” on page 65](#)
 - [Table 57 “Memory mirroring with eight processors \(Processors 1 and 2, 25 to 48 total DIMMs installed in server\)” on page 66](#)
 - [Table 58 “Memory mirroring with eight processors \(Processors 1 and 2, 49 to 72 total DIMMs installed in server\)” on page 67](#)
- To continue populating DIMMs for a system with 73 to 96 DIMMs:
 - [Table 63 “Memory mirroring with eight processors \(Processors 3 and 4, 73 to 96 total DIMMs installed in server\)” on page 72](#)
 - [Table 67 “Memory mirroring with eight processors \(Processors 5 and 6, 73 to 96 total DIMMs installed in server\)” on page 76](#)

- Table 71 “Memory mirroring with eight processors (Processors 7 and 8, 73 to 96 total DIMMs installed in server)” on page 80

Table 60. Memory mirroring with eight processors (Processors 3 and 4, 16 to 24 total DIMMs installed in server)

Total DIMMs	Processor 3												Processor 4												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
16								8		10										20		22			16
17								8		10										20		22			17
18								8		10										20		22			18
19								8		10		12								20		22			19
20								8		10		12								20		22		24	20
21								8		10		12								20		22		24	21
22								8		10		12								20		22		24	22
23								8		10		12								20		22		24	23
24								8		10		12								20		22		24	24

Related DIMM population sequences for eight processor systems:

- Processor 3 and 4 DIMM population sequences:
 - Table 61 “Memory mirroring with eight processors (Processors 3 and 4, 25 to 48 total DIMMs installed in server)” on page 70
 - Table 62 “Memory mirroring with eight processors (Processors 3 and 4, 49 to 72 total DIMMs installed in server)” on page 71
 - Table 63 “Memory mirroring with eight processors (Processors 3 and 4, 73 to 96 total DIMMs installed in server)” on page 72
- To continue populating DIMMs for a system with 16 to 24 DIMMs:
 - Table 56 “Memory mirroring with eight processors (Processors 1 and 2, 16 to 24 total DIMMs installed in server)” on page 65
 - Table 64 “Memory mirroring with eight processors (Processors 5 and 6, 16 to 24 total DIMMs installed in server)” on page 73
 - Table 68 “Memory mirroring with eight processors (Processors 7 and 8, 16 to 24 total DIMMs installed in server)” on page 77

Table 61. Memory mirroring with eight processors (Processors 3 and 4, 25 to 48 total DIMMs installed in server)

Total DIMMs	Processor 3												Processor 4												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
25							8		10		12								20		22		24	25	
26							8		10		12								20		22		24	26	
27			3		5		8		10										20		22		24	27	
28			3		5		8		10					15		17			20		22			28	
29			3		5		8		10					15		17			20		22			29	
30			3		5		8		10					15		17			20		22			30	
31			3		5		8		10					15		17			20		22			31	
32			3		5		8		10					15		17			20		22			32	
33			3		5		8		10					15		17			20		22			33	
34			3		5		8		10					15		17			20		22			34	
35			3		5		8		10					15		17			20		22			35	
36			3		5		8		10					15		17			20		22			36	
37			3		5		8		10					15		17			20		22			37	
38	1		3		5		8		10		12			15		17			20		22			38	
39			3		5		8		10					15		17			20		22			39	
40	1		3		5		8		10		12	13		15		17			20		22		24	40	
41	1		3		5		8		10		12			15		17			20		22			41	
42	1		3		5		8		10		12	13		15		17			20		22		24	42	
43	1		3		5		8		10		12	13		15		17			20		22		24	43	
44	1		3		5		8		10		12	13		15		17			20		22		24	44	
45	1		3		5		8		10		12	13		15		17			20		22		24	45	
46	1		3		5		8		10		12	13		15		17			20		22		24	46	
47	1		3		5		8		10		12	13		15		17			20		22		24	47	
48	1		3		5		8		10		12	13		15		17			20		22		24	48	

Related DIMM population sequences for eight processor systems:

- Processor 3 and 4 DIMM population sequences:
 - [Table 60 “Memory mirroring with eight processors \(Processors 3 and 4, 16 to 24 total DIMMs installed in server\)” on page 69](#)
 - [Table 62 “Memory mirroring with eight processors \(Processors 3 and 4, 49 to 72 total DIMMs installed in server\)” on page 71](#)
 - [Table 63 “Memory mirroring with eight processors \(Processors 3 and 4, 73 to 96 total DIMMs installed in server\)” on page 72](#)
- To continue populating DIMMs for a system with 25 to 48 DIMMs:
 - [Table 57 “Memory mirroring with eight processors \(Processors 1 and 2, 25 to 48 total DIMMs installed in server\)” on page 66](#)
 - [Table 65 “Memory mirroring with eight processors \(Processors 5 and 6, 25 to 48 total DIMMs installed in server\)” on page 74](#)
 - [Table 69 “Memory mirroring with eight processors \(Processors 7 and 8, 25 to 48 total DIMMs installed in server\)” on page 78](#)

Table 62. Memory mirroring with eight processors (Processors 3 and 4, 49 to 72 total DIMMs installed in server)

Total DIMMs	Processor 3												Processor 4												Total DIMMs		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
49	1		3		5			8		10		12	13		15		17			20		22		24	49		
50	1		3		5			8		10		12	13		15		17			20		22		24	50		
51	1		3		5			8		10		12	13		15		17			20		22		24	51		
52	1		3		5			8		10		12	13		15		17			20		22		24	52		
53	1		3		5			8		10		12	13		15		17			20		22		24	53		
54			3	4	5	6		7	8	9	10			13		15		17			20		22		24	54	
55			3	4	5	6		7	8	9	10			13		15		17			20		22		24	55	
56			3	4	5	6		7	8	9	10					15	16	17	18		19	20	21	22		56	
57			3	4	5	6		7	8	9	10					15	16	17	18		19	20	21	22		57	
58			3	4	5	6		7	8	9	10					15	16	17	18		19	20	21	22		58	
59			3	4	5	6		7	8	9	10					15	16	17	18		19	20	21	22		59	
60			3	4	5	6		7	8	9	10					15	16	17	18		19	20	21	22		60	
61			3	4	5	6		7	8	9	10					15	16	17	18		19	20	21	22		61	
62			3	4	5	6		7	8	9	10					15	16	17	18		19	20	21	22		62	
63			3	4	5	6		7	8	9	10					15	16	17	18		19	20	21	22		63	
64			3	4	5	6		7	8	9	10					15	16	17	18		19	20	21	22		64	
65			3	4	5	6		7	8	9	10					15	16	17	18		19	20	21	22		65	
66			3	4	5	6		7	8	9	10					15	16	17	18		19	20	21	22		66	
67	1		3		5			7	8	9	10	11	12			15	16	17	18		19	20	21	22		67	
68			3	4	5	6		7	8	9	10					15	16	17	18		19	20	21	22		68	
69	1		3		5			7	8	9	10	11	12	13		15		17			19	20	21	22	23	24	69
70			3	4	5	6		7	8	9	10					15	16	17	18		19	20	21	22		70	
71	1		3		5			7	8	9	10	11	12	13		15		17			19	20	21	22	23	24	71
72	1		3		5			7	8	9	10	11	12	13		15		17			19	20	21	22	23	24	72

Related DIMM population sequences for eight processor systems:

- Processor 3 and 4 DIMM population sequences:
 - [Table 60 “Memory mirroring with eight processors \(Processors 3 and 4, 16 to 24 total DIMMs installed in server\)” on page 69](#)
 - [Table 61 “Memory mirroring with eight processors \(Processors 3 and 4, 25 to 48 total DIMMs installed in server\)” on page 70](#)
 - [Table 63 “Memory mirroring with eight processors \(Processors 3 and 4, 73 to 96 total DIMMs installed in server\)” on page 72](#)
- To continue populating DIMMs for a system with 49 to 72 DIMMs:
 - [Table 58 “Memory mirroring with eight processors \(Processors 1 and 2, 49 to 72 total DIMMs installed in server\)” on page 67](#)
 - [Table 66 “Memory mirroring with eight processors \(Processors 5 and 6, 49 to 72 total DIMMs installed in server\)” on page 75](#)
 - [Table 70 “Memory mirroring with eight processors \(Processors 7 and 8, 49 to 72 total DIMMs installed in server\)” on page 79](#)

Table 63. Memory mirroring with eight processors (Processors 3 and 4, 73 to 96 total DIMMs installed in server)

Total DIMMs	Processor 3												Processor 4												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
73	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	73
74	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22			74
75	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	75
76	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22			76
77	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	77
78	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	78
79	1	2	3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	79
80	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	80
81	1	2	3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	81
82	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	82
83	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	83
84	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	84
85	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	85
86	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	86
87	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	87
88	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	88
89	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	89
90	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	90
91	91 DIMM memory mirroring configuration is not supported.												91 DIMM memory mirroring configuration is not supported.												91
92	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	92
93	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	93
94	94 DIMM memory mirroring configuration is not supported.												94 DIMM memory mirroring configuration is not supported.												94
95	95 DIMM memory mirroring configuration is not supported.												95 DIMM memory mirroring configuration is not supported.												95
96	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	96

Related DIMM population sequences for eight processor systems:

- Processor 3 and 4 DIMM population sequences:
 - [Table 60 “Memory mirroring with eight processors \(Processors 3 and 4, 16 to 24 total DIMMs installed in server\)” on page 69](#)
 - [Table 61 “Memory mirroring with eight processors \(Processors 3 and 4, 25 to 48 total DIMMs installed in server\)” on page 70](#)
 - [Table 62 “Memory mirroring with eight processors \(Processors 3 and 4, 49 to 72 total DIMMs installed in server\)” on page 71](#)
- To continue populating DIMMs for a system with 73 to 96 DIMMs:
 - [Table 59 “Memory mirroring with eight processors \(Processors 1 and 2, 73 to 96 total DIMMs installed in server\)” on page 68](#)
 - [Table 67 “Memory mirroring with eight processors \(Processors 5 and 6, 73 to 96 total DIMMs installed in server\)” on page 76](#)

- [Table 71 “Memory mirroring with eight processors \(Processors 7 and 8, 73 to 96 total DIMMs installed in server\)” on page 80](#)

Table 64. Memory mirroring with eight processors (Processors 5 and 6, 16 to 24 total DIMMs installed in server)

Total DIMMs	Processor 5												Processor 6												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
16								8		10										20		22			16
17								8		10										20		22			17
18								8		10										20		22			18
19								8		10										20		22			19
20								8		10										20		22			20
21								8		10		12								20		22			21
22								8		10		12								20		22		24	22
23								8		10		12								20		22		24	23
24								8		10		12								20		22		24	24

Related DIMM population sequences for eight processor systems:

- Processor 5 and 6 DIMM population sequences:
 - [Table 65 “Memory mirroring with eight processors \(Processors 5 and 6, 25 to 48 total DIMMs installed in server\)” on page 74](#)
 - [Table 66 “Memory mirroring with eight processors \(Processors 5 and 6, 49 to 72 total DIMMs installed in server\)” on page 75](#)
 - [Table 67 “Memory mirroring with eight processors \(Processors 5 and 6, 73 to 96 total DIMMs installed in server\)” on page 76](#)
- To continue populating DIMMs for a system with 16 to 24 DIMMs:
 - [Table 56 “Memory mirroring with eight processors \(Processors 1 and 2, 16 to 24 total DIMMs installed in server\)” on page 65](#)
 - [Table 60 “Memory mirroring with eight processors \(Processors 3 and 4, 16 to 24 total DIMMs installed in server\)” on page 69](#)
 - [Table 68 “Memory mirroring with eight processors \(Processors 7 and 8, 16 to 24 total DIMMs installed in server\)” on page 77](#)

Table 65. Memory mirroring with eight processors (Processors 5 and 6, 25 to 48 total DIMMs installed in server)

Total DIMMs	Processor 5												Processor 6												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
25							8		10		12								20		22		24	25	
26							8		10		12								20		22		24	26	
27							8		10		12								20		22		24	27	
28							8		10		12								20		22		24	28	
29			3		5		8		10										20		22		24	29	
30			3		5		8		10					15		17			20		22			30	
31			3		5		8		10					15		17			20		22			31	
32			3		5		8		10					15		17			20		22			32	
33			3		5		8		10					15		17			20		22			33	
34			3		5		8		10					15		17			20		22			34	
35			3		5		8		10					15		17			20		22			35	
36			3		5		8		10					15		17			20		22			36	
37			3		5		8		10					15		17			20		22			37	
38			3		5		8		10					15		17			20		22			38	
39			3		5		8		10					15		17			20		22			39	
40			3		5		8		10					15		17			20		22			40	
41			3		5		8		10					15		17			20		22			41	
42	1		3		5		8		10		12			15		17			20		22			42	
43			3		5		8		10					15		17			20		22			43	
44	1		3		5		8		10		12	13		15		17			20		22		24	44	
45	1		3		5		8		10		12			15		17			20		22			45	
46	1		3		5		8		10		12	13		15		17			20		22		24	46	
47	1		3		5		8		10		12	13		15		17			20		22		24	47	
48	1		3		5		8		10		12	13		15		17			20		22		24	48	

Related DIMM population sequences for eight processor systems:

- Processor 5 and 6 DIMM population sequences:
 - [Table 64 “Memory mirroring with eight processors \(Processors 5 and 6, 16 to 24 total DIMMs installed in server\)” on page 73](#)
 - [Table 66 “Memory mirroring with eight processors \(Processors 5 and 6, 49 to 72 total DIMMs installed in server\)” on page 75](#)
 - [Table 67 “Memory mirroring with eight processors \(Processors 5 and 6, 73 to 96 total DIMMs installed in server\)” on page 76](#)
- To continue populating DIMMs for a system with 25 to 48 DIMMs:
 - [Table 57 “Memory mirroring with eight processors \(Processors 1 and 2, 25 to 48 total DIMMs installed in server\)” on page 66](#)
 - [Table 61 “Memory mirroring with eight processors \(Processors 3 and 4, 25 to 48 total DIMMs installed in server\)” on page 70](#)
 - [Table 69 “Memory mirroring with eight processors \(Processors 7 and 8, 25 to 48 total DIMMs installed in server\)” on page 78](#)

Table 66. Memory mirroring with eight processors (Processors 5 and 6, 49 to 72 total DIMMs installed in server)

Total DIMMs	Processor 5												Processor 6												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
49	1		3		5			8		10		12	13		15		17			20		22		24	49
50	1		3		5			8		10		12	13		15		17			20		22		24	50
51	1		3		5			8		10		12	13		15		17			20		22		24	51
52	1		3		5			8		10		12	13		15		17			20		22		24	52
53	1		3		5			8		10		12	13		15		17			20		22		24	53
54	1		3		5			8		10		12	13		15		17			20		22		24	54
55	1		3		5			8		10		12	13		15		17			20		22		24	55
56	1		3		5			8		10		12	13		15		17			20		22		24	56
57	1		3		5			8		10		12	13		15		17			20		22		24	57
58			3	4	5	6	7	8	9	10			13		15		17			20		22		24	58
59			3	4	5	6	7	8	9	10			13		15		17			20		22		24	59
60			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			60
61			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			61
62			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			62
63			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			63
64			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			64
65			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			65
66			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			66
67			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			67
68			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			68
69	1		3		5		7	8	9	10	11	12	13		15	16	17	18	19	20	21	22			69
70			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			70
71	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	71
72	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	72

Related DIMM population sequences for eight processor systems:

- Processor 5 and 6 DIMM population sequences:
 - [Table 64 “Memory mirroring with eight processors \(Processors 5 and 6, 16 to 24 total DIMMs installed in server\)” on page 73](#)
 - [Table 65 “Memory mirroring with eight processors \(Processors 5 and 6, 25 to 48 total DIMMs installed in server\)” on page 74](#)
 - [Table 67 “Memory mirroring with eight processors \(Processors 5 and 6, 73 to 96 total DIMMs installed in server\)” on page 76](#)
- To continue populating DIMMs for a system with 49 to 72 DIMMs:
 - [Table 58 “Memory mirroring with eight processors \(Processors 1 and 2, 49 to 72 total DIMMs installed in server\)” on page 67](#)
 - [Table 62 “Memory mirroring with eight processors \(Processors 3 and 4, 49 to 72 total DIMMs installed in server\)” on page 71](#)
 - [Table 70 “Memory mirroring with eight processors \(Processors 7 and 8, 49 to 72 total DIMMs installed in server\)” on page 79](#)

Table 67. Memory mirroring with eight processors (Processors 5 and 6, 73 to 96 total DIMMs installed in server)

Total DIMMs	Processor 5												Processor 6												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
73	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	73
74			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			74
75	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	75
76			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			76
77	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	77
78			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			78
79	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	79
80			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			80
81	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	81
82	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22			82
83	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	83
84	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22			84
85	1	2	3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	85
86	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	86
87	1	2	3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	87
88	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	88
89	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	89
90	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	90
91	91 DIMM memory mirroring configuration is not supported.												91 DIMM memory mirroring configuration is not supported.												91
92	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	92
93	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	93
94	94 DIMM memory mirroring configuration is not supported.												94 DIMM memory mirroring configuration is not supported.												94
95	95 DIMM memory mirroring configuration is not supported.												95 DIMM memory mirroring configuration is not supported.												95
96	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	96

Related DIMM population sequences for eight processor systems:

- Processor 5 and 6 DIMM population sequences:
 - [Table 64 “Memory mirroring with eight processors \(Processors 5 and 6, 16 to 24 total DIMMs installed in server\)” on page 73](#)
 - [Table 65 “Memory mirroring with eight processors \(Processors 5 and 6, 25 to 48 total DIMMs installed in server\)” on page 74](#)
 - [Table 66 “Memory mirroring with eight processors \(Processors 5 and 6, 49 to 72 total DIMMs installed in server\)” on page 75](#)
- To continue populating DIMMs for a system with 73 to 96 DIMMs:
 - [Table 59 “Memory mirroring with eight processors \(Processors 1 and 2, 73 to 96 total DIMMs installed in server\)” on page 68](#)
 - [Table 63 “Memory mirroring with eight processors \(Processors 3 and 4, 73 to 96 total DIMMs installed in server\)” on page 72](#)

- Table 71 “Memory mirroring with eight processors (Processors 7 and 8, 73 to 96 total DIMMs installed in server)” on page 80

Table 68. Memory mirroring with eight processors (Processors 7 and 8, 16 to 24 total DIMMs installed in server)

Total DIMMs	Processor 7												Processor 8												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
16								8		10										20		22			16
17								8		10										20		22			17
18								8		10										20		22			18
19								8		10										20		22			19
20								8		10										20		22			20
21								8		10										20		22			21
22								8		10										20		22			22
23								8		10		12								20		22			23
24								8		10		12								20		22		24	24

Related DIMM population sequences for eight processor systems:

- Processor 7 and 8 DIMM population sequences:
 - Table 69 “Memory mirroring with eight processors (Processors 7 and 8, 25 to 48 total DIMMs installed in server)” on page 78
 - Table 70 “Memory mirroring with eight processors (Processors 7 and 8, 49 to 72 total DIMMs installed in server)” on page 79
 - Table 71 “Memory mirroring with eight processors (Processors 7 and 8, 73 to 96 total DIMMs installed in server)” on page 80
- To continue populating DIMMs for a system with 16 to 24 DIMMs:
 - Table 56 “Memory mirroring with eight processors (Processors 1 and 2, 16 to 24 total DIMMs installed in server)” on page 65
 - Table 60 “Memory mirroring with eight processors (Processors 3 and 4, 16 to 24 total DIMMs installed in server)” on page 69
 - Table 64 “Memory mirroring with eight processors (Processors 5 and 6, 16 to 24 total DIMMs installed in server)” on page 73

Table 69. Memory mirroring with eight processors (Processors 7 and 8, 25 to 48 total DIMMs installed in server)

Total DIMMs	Processor 7												Processor 8												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
25							8		10		12								20		22		24	25	
26							8		10		12								20		22		24	26	
27							8		10		12								20		22		24	27	
28							8		10		12								20		22		24	28	
29							8		10		12								20		22		24	29	
30							8		10		12								20		22		24	30	
31			3		5		8		10										20		22		24	31	
32			3		5		8		10					15		17			20		22			32	
33			3		5		8		10										20		22		24	33	
34			3		5		8		10					15		17			20		22			34	
35			3		5		8		10										20		22		24	35	
36			3		5		8		10					15		17			20		22			36	
37			3		5		8		10					15		17			20		22			37	
38			3		5		8		10					15		17			20		22			38	
39			3		5		8		10					15		17			20		22			39	
40			3		5		8		10					15		17			20		22			40	
41			3		5		8		10					15		17			20		22			41	
42			3		5		8		10					15		17			20		22			42	
43			3		5		8		10					15		17			20		22			43	
44			3		5		8		10					15		17			20		22			44	
45			3		5		8		10					15		17			20		22			45	
46	1		3		5		8		10		12			15		17			20		22			46	
47			3		5		8		10					15		17			20		22			47	
48	1		3		5		8		10		12	13		15		17			20		22		24	48	

Related DIMM population sequences for eight processor systems:

- Processor 7 and 8 DIMM population sequences:
 - [Table 68 “Memory mirroring with eight processors \(Processors 7 and 8, 16 to 24 total DIMMs installed in server\)” on page 77](#)
 - [Table 70 “Memory mirroring with eight processors \(Processors 7 and 8, 49 to 72 total DIMMs installed in server\)” on page 79](#)
 - [Table 71 “Memory mirroring with eight processors \(Processors 7 and 8, 73 to 96 total DIMMs installed in server\)” on page 80](#)
- To continue populating DIMMs for a system with 25 to 48 DIMMs:
 - [Table 57 “Memory mirroring with eight processors \(Processors 1 and 2, 25 to 48 total DIMMs installed in server\)” on page 66](#)
 - [Table 61 “Memory mirroring with eight processors \(Processors 3 and 4, 25 to 48 total DIMMs installed in server\)” on page 70](#)
 - [Table 65 “Memory mirroring with eight processors \(Processors 5 and 6, 25 to 48 total DIMMs installed in server\)” on page 74](#)

Table 70. Memory mirroring with eight processors (Processors 7 and 8, 49 to 72 total DIMMs installed in server)

Total DIMMs	Processor 7												Processor 8												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
49	1		3		5			8		10		12			15		17			20		22			49
50	1		3		5			8		10		12	13		15		17			20		22		24	50
51	1		3		5			8		10		12	13		15		17			20		22		24	51
52	1		3		5			8		10		12	13		15		17			20		22		24	52
53	1		3		5			8		10		12	13		15		17			20		22		24	53
54	1		3		5			8		10		12	13		15		17			20		22		24	54
55	1		3		5			8		10		12	13		15		17			20		22		24	55
56	1		3		5			8		10		12	13		15		17			20		22		24	56
57	1		3		5			8		10		12	13		15		17			20		22		24	57
58	1		3		5			8		10		12	13		15		17			20		22		24	58
59	1		3		5			8		10		12	13		15		17			20		22		24	59
60	1		3		5			8		10		12	13		15		17			20		22		24	60
61	1		3		5			8		10		12	13		15		17			20		22		24	61
62			3	4	5	6	7	8	9	10			13		15		17			20		22		24	62
63			3	4	5	6	7	8	9	10			13		15		17			20		22		24	63
64			3	4	5	6	7	8	9	10					15	16	17	18		20	21	22			64
65			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			65
66			3	4	5	6	7	8	9	10			13		15		17			20		22		24	66
67			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			67
68			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			68
69			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			69
70			3	4	5	6	7	8	9	10			13		15		17			20		22		24	70
71	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			71
72	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	72

Related DIMM population sequences for eight processor systems:

- Processor 7 and 8 DIMM population sequences:
 - [Table 68 “Memory mirroring with eight processors \(Processors 7 and 8, 16 to 24 total DIMMs installed in server\)” on page 77](#)
 - [Table 69 “Memory mirroring with eight processors \(Processors 7 and 8, 25 to 48 total DIMMs installed in server\)” on page 78](#)
 - [Table 71 “Memory mirroring with eight processors \(Processors 7 and 8, 73 to 96 total DIMMs installed in server\)” on page 80](#)
- To continue populating DIMMs for a system with 49 to 72 DIMMs:
 - [Table 58 “Memory mirroring with eight processors \(Processors 1 and 2, 49 to 72 total DIMMs installed in server\)” on page 67](#)
 - [Table 62 “Memory mirroring with eight processors \(Processors 3 and 4, 49 to 72 total DIMMs installed in server\)” on page 71](#)
 - [Table 66 “Memory mirroring with eight processors \(Processors 5 and 6, 49 to 72 total DIMMs installed in server\)” on page 75](#)

Table 71. Memory mirroring with eight processors (Processors 7 and 8, 73 to 96 total DIMMs installed in server)

Total DIMMs	Processor 7												Processor 8												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
73			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			73
74			3	4	5	6	7	8	9	10			13		15		17			20		22		24	74
75	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	75
76			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			76
77	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			77
78			3	4	5	6	7	8	9	10			13		15		17			20		22		24	78
79			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			79
80			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			80
81	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	81
82			3	4	5	6	7	8	9	10			13		15		17			20		22		24	82
83	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			83
84			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			84
85			3	4	5	6	7	8	9	10					15	16	17	19	19	20	21	22			85
86			3	4	5	6	7	8	9	10			13		15		17			20		22		24	86
87	1		3		5		7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	87
88			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			88
89	1		3		5		7	8	9	10	11	12			15	16	17	18	19	20	21	22			89
90	1	2	3	4	5	6	7	8	9	10	11	12	13		15		17			20		22		24	90
91	91 DIMM memory mirroring configuration is not supported.												91 DIMM memory mirroring configuration is not supported.												91
92	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22			92
93	1	2	3	4	5	6	7	8	9	10	11	12	13		15		17		19	20	21	22	23	24	93
94	94 DIMM memory mirroring configuration is not supported.												94 DIMM memory mirroring configuration is not supported.												94
95	95 DIMM memory mirroring configuration is not supported.												95 DIMM memory mirroring configuration is not supported.												95
96	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	96

Related DIMM population sequences for eight processor systems:

- Processor 7 and 8 DIMM population sequences:
 - [Table 68 “Memory mirroring with eight processors \(Processors 7 and 8, 16 to 24 total DIMMs installed in server\)” on page 77](#)
 - [Table 69 “Memory mirroring with eight processors \(Processors 7 and 8, 25 to 48 total DIMMs installed in server\)” on page 78](#)
 - [Table 70 “Memory mirroring with eight processors \(Processors 7 and 8, 49 to 72 total DIMMs installed in server\)” on page 79](#)
- To continue populating DIMMs for a system with 73 to 96 DIMMs:
 - [Table 59 “Memory mirroring with eight processors \(Processors 1 and 2, 73 to 96 total DIMMs installed in server\)” on page 68](#)
 - [Table 63 “Memory mirroring with eight processors \(Processors 3 and 4, 73 to 96 total DIMMs installed in server\)” on page 72](#)

- Table 67 “Memory mirroring with eight processors (Processors 5 and 6, 73 to 96 total DIMMs installed in server)” on page 76

Memory sparing

In memory-sparing mode, one memory rank serves as a spare for other ranks on the same channel in case they fail. The spare rank is held in reserve and not used as active memory until a failure is indicated, with reserved capacity subtracted from the total available memory in the system. The DIMM installation order for memory sparing varies based on the number of processors and memory modules installed in the server.

After an error threshold is surpassed in a system protected by memory sparing, the content of a failing rank of DIMMs is copied to the spare rank. The failing rank is then taken offline and the spare rank placed online for use as active memory in place of the failed rank. Since the failover process involves copying of memory content, the level of memory redundancy provided by memory sparing is less than that provided by memory mirroring; memory mirroring is the preferred failure-protection choice for critical applications.

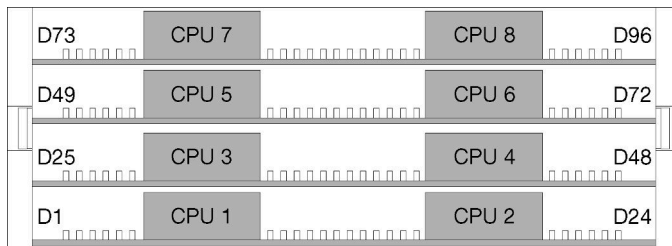


Figure 4. Processor and memory module layout

Memory sparing guidelines:

- The spare rank must have identical or larger memory capacity than all of the other active memory ranks on the same channel.
- If installing DIMMs that are one rank, follow the population sequences listed below.
- If installing DIMMs with more than one rank, follow population sequences specified for independent memory mode. See [“Independent memory mode” on page 6](#).

The memory sparing DIMM population sequences for each supported processor configuration are:

- [“Installation order: memory sparing with two processors” on page 83](#)
- [“Installation order: memory sparing with three processors” on page 84](#)
- [“Installation order: memory sparing with four processors” on page 88](#)
- [“Installation order: memory sparing with six processors” on page 92](#)
- [“Installation order: memory sparing with eight processors” on page 104](#)

For information about configuring memory settings, including how to enable memory sparing, see “Memory configuration” in the *ThinkSystem SR950 Setup Guide*.

Installation order: memory sparing with two processors

Memory module installation order for memory sparing with two processors installed in the server.

The following table shows the DIMM population sequence for memory sparing when two processors are installed.

- Processors 1 and 2 are installed in the lower system board of the lower compute tray.

Note: An even number of DIMMs is required for memory sparing.

Table 72. Memory sparing with two processors, 4 to 24 total DIMMs installed in server

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
4							7	8											19	20					4
6					5	6	7	8											19	20					6
8					5	6	7	8									17	18	19	20					8
10					5	6	7	8	9	10							17	18	19	20					10
12					5	6	7	8	9	10							17	18	19	20	21	22			12
14			3	4	5	6	7	8	9	10							17	18	19	20	21	22			14
16			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			16
18			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22			18
20			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	20
22	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	22
24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	24

Installation order: memory sparing with three processors

Memory module installation order for memory sparing with three processors installed in the server.

The following tables show the DIMM population sequence for memory sparing when three processors are installed.

- Processors 1 and 2 are installed in the lower system board of the lower compute tray.
- Processor 3 is installed in the upper system board of the lower compute tray or in the upper compute tray (processor slot 4)

Note: An even number of DIMMs is required for memory sparing.

Table 73. Memory sparing with three processors (Processors 1 and 2, 6 to 24 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
6							7	8											19	20					6
8					5	6	7	8											19	20					8
10					5	6	7	8									17	18	19	20					10
12					5	6	7	8									17	18	19	20					12
14					5	6	7	8	9	10							17	18	19	20					14
16					5	6	7	8	9	10							17	18	19	20	21	22			16
18					5	6	7	8	9	10							17	18	19	20	21	22			18
20			3	4	5	6	7	8	9	10							17	18	19	20	21	22			20
22			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			22
24			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			24

Related DIMM population sequences for three processor systems:

- Processor 1 and 2 DIMM population sequences for 26 to 48 DIMMs, see [Table 74 “Memory sparing with three processors \(Processors 1 and 2, 26 to 48 total DIMMs installed in server\)”](#) on page 85.
- To continue populating processor 3 DIMMs for a system with 6 to 24 DIMMs, see [Table 75 “Memory sparing with three processors \(Processor 3, 6 to 24 total DIMMs installed in server\)”](#) on page 86.

Table 74. Memory sparing with three processors (Processors 1 and 2, 26 to 48 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
26			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22			26
28			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	28
30			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	30
32			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22			32
34			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	34
36	1	2	3	4	5	6	7	8	9	10	11	12	13	13	15	16	17	18	19	20	21	22	23	24	36

Related DIMM population sequences for three processor systems:

- Processor 1 and 2 DIMM population sequences for 6 to 24 DIMMs, see [Table 73 “Memory sparing with three processors \(Processors 1 and 2, 6 to 24 total DIMMs installed in server\)”](#) on page 84.
- To continue populating processor 3 DIMMs for a system with 26 to 48 DIMMs, see [Table 76 “Memory sparing with three processors \(Processor 3, 26 to 48 total DIMMs installed in server\)”](#) on page 87.

Table 75. Memory sparing with three processors (Processor 3, 6 to 24 total DIMMs installed in server)

Total DIMMs	Processor 3 slot is empty												Processor 4 slot (Processor 3)												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
6																			19	20					6
8																			19	20					8
10																			19	20					10
12																	17	18	19	20					12
14																	17	18	19	20					14
16																	17	18	19	20					16
18																	17	18	19	20	21	22			18
20																	17	18	19	20	21	22			20
22																	17	18	19	20	21	22			22
24															15	16	17	18	19	20	21	22			24

Related DIMM population sequences for three processor systems:

- Processor 3 population sequence for systems with 26 to 48 DIMMs, see [Table 76 “Memory sparing with three processors \(Processor 3, 26 to 48 total DIMMs installed in server\)” on page 87.](#)
- To continue populating processor 1 and 2 DIMMs for a system with 6 to 24 DIMMs, see [Table 73 “Memory sparing with three processors \(Processors 1 and 2, 6 to 24 total DIMMs installed in server\)” on page 84.](#)

Table 76. Memory sparing with three processors (Processor 3, 26 to 48 total DIMMs installed in server)

Total DIMMs	Processor 3 slot is empty												Processor 4 slot (Processor 3)								Total DIMMs				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		21	22	23	24
26															15	16	17	18	19	20	21	22			26
28															15	16	17	18	19	20	21	22			28
30															15	16	17	18	19	20	21	22	23	24	30
32															15	16	17	18	19	20	21	22	23	24	32
34															15	16	17	18	19	20	21	22	23	24	34
36													13	14	15	16	17	18	19	20	21	22	23	24	36

Related DIMM population sequences for three processor systems:

- Processor 3 DIMM population sequence for 6 to 24 DIMMs, see [Table 75 “Memory sparing with three processors \(Processor 3, 6 to 24 total DIMMs installed in server\)”](#) on page 86.
- To continue populating processor 1 and 2 DIMMs for a system with 26 to 48 DIMMs, see [Table 74 “Memory sparing with three processors \(Processors 1 and 2, 26 to 48 total DIMMs installed in server\)”](#) on page 85.

Installation order: memory sparing with four processors

Memory module installation order for memory sparing with four processors installed in the server.

The following tables show the DIMM population sequence for memory sparing when four processors are installed.

- Processors 1 and 2 are installed in the lower system board of the lower compute tray.
- Processors 3 and 4 are installed in the upper system board of the lower compute tray or in the upper compute tray.

Note: An even number of DIMMs is required for memory sparing.

Table 77. Memory sparing with four processors (Processors 1 and 2, 8 to 24 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
8							7	8											19	20					8
10					5	6	7	8											19	20					10
12					5	6	7	8									17	18	19	20					12
14					5	6	7	8									17	18	19	20					14
16					5	6	7	8									17	18	19	20					16
18					5	6	7	8	9	10							17	18	19	20					18
20					5	6	7	8	9	10							17	18	19	20	21	22			20
22					5	6	7	8	9	10							17	18	19	20	21	22			22
24					5	6	7	8	9	10							17	18	19	20	21	22			24

Related DIMM population sequences for four processor systems:

- Processor 1 and 2 DIMM population sequences for 26 to 48 DIMMs, see [Table 78 “Memory sparing with four processors \(Processors 1 and 2, 26 to 48 total DIMMs installed in server\)”](#) on page 89.
- To continue populating processor 3 and 4 DIMMs for a system with 8 to 24 DIMMs, see [Table 79 “Memory sparing with four processors \(Processors 3 and 4, 8 to 24 total DIMMs installed in server\)”](#) on page 90.

Table 78. Memory sparing with four processors (Processors 1 and 2, 26 to 48 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
26			3	4	5	6	7	8	9	10					17	18	19	20	21	22				26	
28			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			28
30			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			30
32			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			32
34			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22			34
36			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	36
38			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	38
40			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	40
42	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	42
44	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	44
46	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	46
48	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	48

Related DIMM population sequences for four processor systems:

- Processor 1 and 2 DIMM population sequences for 8 to 24 DIMMs, see [Table 77 “Memory sparing with four processors \(Processors 1 and 2, 8 to 24 total DIMMs installed in server\)”](#) on page 88.
- To continue populating processor 3 and 4 DIMMs for a system with 26 to 48 DIMMs, see [Table 80 “Memory sparing with four processors \(Processors 3 and 4, 26 to 48 total DIMMs installed in server\)”](#) on page 91.

Table 79. Memory sparing with four processors (Processors 3 and 4, 8 to 24 total DIMMs installed in server)

Total DIMMs	Processor 3												Processor 4												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
8							7	8											19	20					8
10							7	8											19	20					10
12							7	8											19	20					12
14					5	6	7	8											19	20					14
16					5	6	7	8									17	18	19	20					16
18					5	6	7	8									17	18	19	20					18
20					5	6	7	8									17	18	19	20					20
22					5	6	7	8	9	10							17	18	19	20					22
24					5	6	7	8	9	10							17	18	19	20	21	22			24

Related DIMM population sequences for four processor systems:

- Processor 3 and 4 DIMM population sequences for systems with 26 to 48 DIMMs, see [Table 80 “Memory sparing with four processors \(Processors 3 and 4, 26 to 48 total DIMMs installed in server\)”](#) on page 91.
- To continue populating processor 1 and 2 DIMMs for a system with 8 to 24 DIMMs, see [Table 77 “Memory sparing with four processors \(Processors 1 and 2, 8 to 24 total DIMMs installed in server\)”](#) on page 88.

Table 80. Memory sparing with four processors (Processors 3 and 4, 26 to 48 total DIMMs installed in server)

Total DIMMs	Processor 3												Processor 4												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
26					5	6	7	8	9	10						17	18	19	20	21	22			26	
28					5	6	7	8	9	10						17	18	19	20	21	22			28	
30			3	4	5	6	7	8	9	10						17	18	19	20	21	22			30	
32			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			32
34			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			34
36			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			36
38			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22			38
40			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	40
42			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	42
44			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	44
46	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	46
48	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	48

Related DIMM population sequences for four processor systems:

- Processor 3 and 4 DIMM population sequences for 8 to 24 DIMMs, see [Table 79 “Memory sparing with four processors \(Processors 3 and 4, 8 to 24 total DIMMs installed in server\)”](#) on page 90.
- To continue populating processor 1 and 2 DIMMs for a system with 26 to 48 DIMMs, see [Table 78 “Memory sparing with four processors \(Processors 1 and 2, 26 to 48 total DIMMs installed in server\)”](#) on page 89.

Installation order: memory sparing with six processors

Memory module installation order for memory sparing with six processors installed in the server.

The following table shows the DIMM population sequence for memory sparing when six processors are installed.

- Processors 1 and 2 are installed in the lower system board of the lower compute tray.
- Processors 3 and 4 are installed in the upper system board of the lower compute tray.
- Processor 5 is installed in the lower system board of the upper compute tray.
- Processor 6 is installed in the upper system board of the upper compute tray (processor slot 7).

Note: An even number of DIMMs is required for memory sparing.

Table 81. Memory sparing with six processors (Processors 1 and 2, 12 to 24 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
12							7	8											19	20					12
14					5	6	7	8											19	20					14
16					5	6	7	8									17	18	19	20					16
18					5	6	7	8									17	18	19	20					18
20					5	6	7	8									17	18	19	20					20
22					5	6	7	8									17	18	19	20					22
24					5	6	7	8									17	18	19	20					24

Related DIMM population sequences for six processor systems:

- Processor 1 and 2 DIMM population sequences:
 - [Table 82 “Memory sparing with six processors \(Processors 1 and 2, 26 to 48 total DIMMs installed in server\)” on page 93](#)
 - [Table 83 “Memory sparing with six processors \(Processors 1 and 2, 50 to 72 total DIMMs installed in server\)” on page 94](#)
- To continue populating DIMMs for a system with 16 to 24 DIMMs:
 - [Table 84 “Memory sparing with six processors \(Processors 3 and 4, 12 to 24 total DIMMs installed in server\)” on page 95](#)
 - [Table 87 “Memory sparing with six processors \(Processors 5, 12 to 24 total DIMMs installed in server\)” on page 98](#)
 - [Table 90 “Memory sparing with six processors \(Processor 7 slot, which is actually Processor 6, 12 to 24 total DIMMs installed in server\)” on page 101](#)

Table 82. Memory sparing with six processors (Processors 1 and 2, 26 to 48 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
26					5	6	7	8	9	10							17	18	19	20					26
28					5	6	7	8	9	10							17	18	19	20	21	22			28
30					5	6	7	8	9	10							17	18	19	20	21	22			30
32					5	6	7	8	9	10							17	18	19	20	21	22			32
34					5	6	7	8	9	10							17	18	19	20	21	22			34
36					5	6	7	8	9	10							17	18	19	20	21	22			36
38			3	4	5	6	7	8	9	10							17	18	19	20	21	22			38
40			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			40
42			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			42
44			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			44
46			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			46
48			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			48

Related DIMM population sequences for six processor systems:

- Processor 1 and 2 DIMM population sequences:
 - [Table 81 “Memory sparing with six processors \(Processors 1 and 2, 12 to 24 total DIMMs installed in server\)” on page 92](#)
 - [Table 83 “Memory sparing with six processors \(Processors 1 and 2, 50 to 72 total DIMMs installed in server\)” on page 94](#)
- To continue populating DIMMs for a system with 26 to 48 DIMMs:
 - [Table 85 “Memory sparing with six processors \(Processors 3 and 4, 26 to 48 total DIMMs installed in server\)” on page 96](#)
 - [Table 88 “Memory sparing with six processors \(Processors 5 and 6, 26 to 48 total DIMMs installed in server\)” on page 99](#)
 - [Table 91 “Memory sparing with six processors \(Processor 7 slot, which is actually Processor 6, 26 to 48 total DIMMs installed in server\)” on page 102](#)

Table 83. Memory sparing with six processors (Processors 1 and 2, 50 to 72 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
50			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22			50
52			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	52
54			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	54
56			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	56
58			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	58
60			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	60
62	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	62
64	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	64
66	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	66
68	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	68
70	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	70
72	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	72

Related DIMM population sequences for six processor systems:

- Processor 1 and 2 DIMM population sequences:
 - [Table 81 “Memory sparing with six processors \(Processors 1 and 2, 12 to 24 total DIMMs installed in server\)” on page 92](#)
 - [Table 82 “Memory sparing with six processors \(Processors 1 and 2, 26 to 48 total DIMMs installed in server\)” on page 93](#)
- To continue populating DIMMs for a system with 50 to 72 DIMMs:
 - [Table 86 “Memory sparing with six processors \(Processors 3 and 4, 50 to 72 total DIMMs installed in server\)” on page 97](#)
 - [Table 89 “Memory sparing with six processors \(Processors 5 and 6, 50 to 72 total DIMMs installed in server\)” on page 100](#)
 - [Table 92 “Memory sparing with six processors \(Processor 7 slot, which is actually Processor 6, 50 to 72 total DIMMs installed in server\)” on page 103](#)

Table 84. Memory sparing with six processors (Processors 3 and 4, 12 to 24 total DIMMs installed in server)

Total DIMMs	Processor 3												Processor 4												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
12							7	8											19	20					12
14							7	8											19	20					14
16							7	8											19	20					16
18					5	6	7	8											19	20					18
20					5	6	7	8									17	18	19	20					20
22					5	6	7	8									17	18	19	20					22
24					5	6	7	8									17	18	19	20					24

Related DIMM population sequences for six processor systems:

- Processor 3 and 4 DIMM population sequences:
 - [Table 85 “Memory sparing with six processors \(Processors 3 and 4, 26 to 48 total DIMMs installed in server\)” on page 96](#)
 - [Table 86 “Memory sparing with six processors \(Processors 3 and 4, 50 to 72 total DIMMs installed in server\)” on page 97](#)
- To continue populating DIMMs for a system with 16 to 24 DIMMs:
 - [Table 81 “Memory sparing with six processors \(Processors 1 and 2, 12 to 24 total DIMMs installed in server\)” on page 92](#)
 - [Table 87 “Memory sparing with six processors \(Processors 5, 12 to 24 total DIMMs installed in server\)” on page 98](#)
 - [Table 90 “Memory sparing with six processors \(Processor 7 slot, which is actually Processor 6, 12 to 24 total DIMMs installed in server\)” on page 101](#)

Table 85. Memory sparing with six processors (Processors 3 and 4, 26 to 48 total DIMMs installed in server)

Total DIMMs	Processor 3												Processor 4												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
26					5	6	7	8									17	18	19	20					26
28					5	6	7	8									17	18	19	20					28
30					5	6	7	8	9	10							17	18	19	20					30
32					5	6	7	8	9	10							17	18	19	20	21	22			32
34					5	6	7	8	9	10							17	18	19	20	21	22			34
36					5	6	7	8	9	10							17	18	19	20	21	22			36
38					5	6	7	8	9	10							17	18	19	20	21	22			38
40					5	6	7	8	9	10							17	18	19	20	21	22			40
42			3	4	5	6	7	8	9	10							17	18	19	20	21	22			42
44			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			44
46			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			46
48			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			48

Related DIMM population sequences for six processor systems:

- Processor 3 and 4 DIMM population sequences:
 - [Table 84 “Memory sparing with six processors \(Processors 3 and 4, 12 to 24 total DIMMs installed in server\)” on page 95](#)
 - [Table 86 “Memory sparing with six processors \(Processors 3 and 4, 50 to 72 total DIMMs installed in server\)” on page 97](#)
- To continue populating DIMMs for a system with 26 to 48 DIMMs:
 - [Table 82 “Memory sparing with six processors \(Processors 1 and 2, 26 to 48 total DIMMs installed in server\)” on page 93](#)
 - [Table 88 “Memory sparing with six processors \(Processors 5 and 6, 26 to 48 total DIMMs installed in server\)” on page 99](#)
 - [Table 91 “Memory sparing with six processors \(Processor 7 slot, which is actually Processor 6, 26 to 48 total DIMMs installed in server\)” on page 102](#)

Table 86. Memory sparing with six processors (Processors 3 and 4, 50 to 72 total DIMMs installed in server)

Total DIMMs	Processor 3												Processor 4												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
50			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			50
52			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			52
54			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22			54
56			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	56
58			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	58
60			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	60
62			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	62
64			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	64
66	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	66
68	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	68
70	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	70
72	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	72

Related DIMM population sequences for six processor systems:

- Processor 3 and 4 DIMM population sequences:
 - [Table 84 “Memory sparing with six processors \(Processors 3 and 4, 12 to 24 total DIMMs installed in server\)” on page 95](#)
 - [Table 85 “Memory sparing with six processors \(Processors 3 and 4, 26 to 48 total DIMMs installed in server\)” on page 96](#)
- To continue populating DIMMs for a system with 50 to 72 DIMMs:
 - [Table 83 “Memory sparing with six processors \(Processors 1 and 2, 50 to 72 total DIMMs installed in server\)” on page 94](#)
 - [Table 89 “Memory sparing with six processors \(Processors 5 and 6, 50 to 72 total DIMMs installed in server\)” on page 100](#)
 - [Table 92 “Memory sparing with six processors \(Processor 7 slot, which is actually Processor 6, 50 to 72 total DIMMs installed in server\)” on page 103](#)

Table 87. Memory sparing with six processors (Processors 5, 12 to 24 total DIMMs installed in server)

Note: Processor 6 is actually installed in the processor 7 slot.

Total DIMMs	Processor 5												Processor 6 slot is empty												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
12							7	8																	12
14							7	8																	14
16							7	8																	16
18							7	8																	18
20							7	8																	20
22					5	6	7	8																	22
24					5	6	7	8																	24

Related DIMM population sequences for six processor systems:

- Processor 5 and 6 DIMM population sequences:
 - [Table 88 “Memory sparing with six processors \(Processors 5 and 6, 26 to 48 total DIMMs installed in server\)” on page 99](#)
 - [Table 89 “Memory sparing with six processors \(Processors 5 and 6, 50 to 72 total DIMMs installed in server\)” on page 100](#)
- To continue populating DIMMs for a system with 16 to 24 DIMMs:
 - [Table 81 “Memory sparing with six processors \(Processors 1 and 2, 12 to 24 total DIMMs installed in server\)” on page 92](#)
 - [Table 84 “Memory sparing with six processors \(Processors 3 and 4, 12 to 24 total DIMMs installed in server\)” on page 95](#)
 - [Table 90 “Memory sparing with six processors \(Processor 7 slot, which is actually Processor 6, 12 to 24 total DIMMs installed in server\)” on page 101](#)

Table 88. Memory sparing with six processors (Processors 5 and 6, 26 to 48 total DIMMs installed in server)

Total DIMMs	Processor 5												Processor 6 slot is empty												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
26					5	6	7	8																	26
28					5	6	7	8																	28
30					5	6	7	8																	30
32					5	6	7	8																	32
34					5	6	7	8	9	10															34
36					5	6	7	8	9	10															36
38					5	6	7	8	9	10															38
40					5	6	7	8	9	10															40
42					5	6	7	8	9	10															42
44					5	6	7	8	9	10															44
46			3	4	5	6	7	8	9	10															46
48			3	4	5	6	7	8	9	10															48

Related DIMM population sequences for six processor systems:

- Processor 5 and 6 DIMM population sequences:
 - [Table 87 “Memory sparing with six processors \(Processors 5, 12 to 24 total DIMMs installed in server\)” on page 98](#)
 - [Table 89 “Memory sparing with six processors \(Processors 5 and 6, 50 to 72 total DIMMs installed in server\)” on page 100](#)
- To continue populating DIMMs for a system with 26 to 48 DIMMs:
 - [Table 82 “Memory sparing with six processors \(Processors 1 and 2, 26 to 48 total DIMMs installed in server\)” on page 93](#)
 - [Table 85 “Memory sparing with six processors \(Processors 3 and 4, 26 to 48 total DIMMs installed in server\)” on page 96](#)
 - [Table 91 “Memory sparing with six processors \(Processor 7 slot, which is actually Processor 6, 26 to 48 total DIMMs installed in server\)” on page 102](#)

Table 89. Memory sparing with six processors (Processors 5 and 6, 50 to 72 total DIMMs installed in server)

Total DIMMs	Processor 5												Processor 6 slot is empty												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
50			3	4	5	6	7	8	9	10														50	
52			3	4	5	6	7	8	9	10														52	
54			3	4	5	6	7	8	9	10														54	
56			3	4	5	6	7	8	9	10														56	
58			3	4	5	6	7	8	9	10	11	12												58	
60			3	4	5	6	7	8	9	10	11	12												60	
62			3	4	5	6	7	8	9	10	11	12												62	
64			3	4	5	6	7	8	9	10	11	12												64	
66			3	4	5	6	7	8	9	10	11	12												66	
68			3	4	5	6	7	8	9	10	11	12												68	
70	1	2	3	4	5	6	7	8	9	10	11	12												70	
72	1	2	3	4	5	6	7	8	9	10	11	12												72	

Related DIMM population sequences for six processor systems:

- Processor 5 and 6 DIMM population sequences:
 - [Table 87 “Memory sparing with six processors \(Processors 5, 12 to 24 total DIMMs installed in server\)” on page 98](#)
 - [Table 88 “Memory sparing with six processors \(Processors 5 and 6, 26 to 48 total DIMMs installed in server\)” on page 99](#)
- To continue populating DIMMs for a system with 50 to 72 DIMMs:
 - [Table 83 “Memory sparing with six processors \(Processors 1 and 2, 50 to 72 total DIMMs installed in server\)” on page 94](#)
 - [Table 86 “Memory sparing with six processors \(Processors 3 and 4, 50 to 72 total DIMMs installed in server\)” on page 97](#)
 - [Table 92 “Memory sparing with six processors \(Processor 7 slot, which is actually Processor 6, 50 to 72 total DIMMs installed in server\)” on page 103](#)

Table 90. Memory sparing with six processors (Processor 7 slot, which is actually Processor 6, 12 to 24 total DIMMs installed in server)

Note: Processor 6 is actually installed in the processor 7 slot.

Total DIMMs	Processor 7 slot (Processor 6)												Processor 8												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
12							7	8																	12
14							7	8																	14
16							7	8																	16
18							7	8																	18
20							7	8																	20
22							7	8																	22
24					5	6	7	8																	24

Related DIMM population sequences for six processor systems:

- Processor 7 and 8 DIMM population sequences:
 - [Table 91 “Memory sparing with six processors \(Processor 7 slot, which is actually Processor 6, 26 to 48 total DIMMs installed in server\)” on page 102](#)
 - [Table 92 “Memory sparing with six processors \(Processor 7 slot, which is actually Processor 6, 50 to 72 total DIMMs installed in server\)” on page 103](#)
- To continue populating DIMMs for a system with 16 to 24 DIMMs:
 - [Table 81 “Memory sparing with six processors \(Processors 1 and 2, 12 to 24 total DIMMs installed in server\)” on page 92](#)
 - [Table 84 “Memory sparing with six processors \(Processors 3 and 4, 12 to 24 total DIMMs installed in server\)” on page 95](#)
 - [Table 87 “Memory sparing with six processors \(Processors 5, 12 to 24 total DIMMs installed in server\)” on page 98](#)

Table 91. Memory sparing with six processors (Processor 7 slot, which is actually Processor 6, 26 to 48 total DIMMs installed in server)

Total DIMMs	Processor 7 slot (Processor 6)												Processor 8												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
26					5	6	7	8																	26
28					5	6	7	8																	28
30					5	6	7	8																	30
32					5	6	7	8																	32
34					5	6	7	8																	34
36					5	6	7	8	9	10															36
38					5	6	7	8	9	10															38
40					5	6	7	8	9	10															40
42					5	6	7	8	9	10															42
44					5	6	7	8	9	10															44
46					5	6	7	8	9	10															46
48			3	4	5	6	7	8	9	10															48

Related DIMM population sequences for six processor systems:

- Processor 7 and 8 DIMM population sequences:
 - [Table 90 “Memory sparing with six processors \(Processor 7 slot, which is actually Processor 6, 12 to 24 total DIMMs installed in server\)” on page 101](#)
 - [Table 92 “Memory sparing with six processors \(Processor 7 slot, which is actually Processor 6, 50 to 72 total DIMMs installed in server\)” on page 103](#)
- To continue populating DIMMs for a system with 26 to 48 DIMMs:
 - [Table 82 “Memory sparing with six processors \(Processors 1 and 2, 26 to 48 total DIMMs installed in server\)” on page 93](#)
 - [Table 85 “Memory sparing with six processors \(Processors 3 and 4, 26 to 48 total DIMMs installed in server\)” on page 96](#)
 - [Table 88 “Memory sparing with six processors \(Processors 5 and 6, 26 to 48 total DIMMs installed in server\)” on page 99](#)

Table 92. Memory sparing with six processors (Processor 7 slot, which is actually Processor 6, 50 to 72 total DIMMs installed in server)

Total DIMMs	Processor 7 slot (Processor 6)												Processor 8												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
50			3	4	5	6	7	8	9	10															50
52			3	4	5	6	7	8	9	10															52
54			3	4	5	6	7	8	9	10															54
56			3	4	5	6	7	8	9	10															56
58			3	4	5	6	7	8	9	10															58
60			3	4	5	6	7	8	9	10	11	12													60
62			3	4	5	6	7	8	9	10	11	12													62
64			3	4	5	6	7	8	9	10	11	12													64
66			3	4	5	6	7	8	9	10	11	12													66
68			3	4	5	6	7	8	9	10	11	12													68
70			3	4	5	6	7	8	9	10	11	12													70
72	1	2	3	4	5	6	7	8	9	10	11	12													72

Related DIMM population sequences for six processor systems:

- Processor 7 and 8 DIMM population sequences:
 - [Table 90 “Memory sparing with six processors \(Processor 7 slot, which is actually Processor 6, 12 to 24 total DIMMs installed in server\)” on page 101](#)
 - [Table 91 “Memory sparing with six processors \(Processor 7 slot, which is actually Processor 6, 26 to 48 total DIMMs installed in server\)” on page 102](#)
- To continue populating DIMMs for a system with 50 to 72 DIMMs:
 - [Table 83 “Memory sparing with six processors \(Processors 1 and 2, 50 to 72 total DIMMs installed in server\)” on page 94](#)
 - [Table 86 “Memory sparing with six processors \(Processors 3 and 4, 50 to 72 total DIMMs installed in server\)” on page 97](#)
 - [Table 89 “Memory sparing with six processors \(Processors 5 and 6, 50 to 72 total DIMMs installed in server\)” on page 100](#)

Installation order: memory sparing with eight processors

Memory module installation order for memory sparing with eight processors installed in the server.

The following table shows the DIMM population sequence for memory sparing when eight processors are installed.

- Processors 1 and 2 are installed in the lower system board of the lower compute tray.
- Processors 3 and 4 are installed in the upper system board of the lower compute tray.
- Processors 5 and 6 are installed in the lower system board of the upper compute tray.
- Processors 7 and 8 are installed in the upper system board of the upper compute tray.

Note: An even number of DIMMs is required for memory sparing.

Table 93. Memory sparing with eight processors (Processors 1 and 2, 16 to 24 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
16							7	8											19	20					16
18					5	6	7	8											19	20					18
20					5	6	7	8											19	20					20
22					5	6	7	8									17	18	19	20					22
24					5	6	7	8									17	18	19	20					24

Related DIMM population sequences for eight processor systems:

- Processor 1 and 2 DIMM population sequences:
 - [Table 94 “Memory sparing with eight processors \(Processors 1 and 2, 26 to 48 total DIMMs installed in server\)” on page 105](#)
 - [Table 95 “Memory sparing with eight processors \(Processors 1 and 2, 50 to 72 total DIMMs installed in server\)” on page 106](#)
 - [Table 96 “Memory sparing with eight processors \(Processors 1 and 2, 74 to 96 total DIMMs installed in server\)” on page 107](#)
- To continue populating DIMMs for a system with 16 to 24 DIMMs:
 - [Table 97 “Memory sparing with eight processors \(Processors 3 and 4, 16 to 24 total DIMMs installed in server\)” on page 108](#)
 - [Table 101 “Memory sparing with eight processors \(Processors 5 and 6, 16 to 24 total DIMMs installed in server\)” on page 112](#)
 - [Table 105 “Memory sparing with eight processors \(Processors 7 and 8, 16 to 24 total DIMMs installed in server\)” on page 116](#)

Table 94. Memory sparing with eight processors (Processors 1 and 2, 26 to 48 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
26					5	6	7	8									17	18	19	20					26
28					5	6	7	8									17	18	19	20					28
30					5	6	7	8									17	18	19	20					30
32					5	6	7	8									17	18	19	20					32
34					5	6	7	8	9	10							17	18	19	20					34
36					5	6	7	8	9	10							17	18	19	20	21	22			36
38					5	6	7	8	9	10							17	18	19	20	21	22			38
40					5	6	7	8	9	10							17	18	19	20	21	22			40
42					5	6	7	8	9	10							17	18	19	20	21	22			42
44					5	6	7	8	9	10							17	18	19	20	21	22			44
46					5	6	7	8	9	10							17	18	19	20	21	22			46
48					5	6	7	8	9	10							17	18	19	20	21	22			48

Related DIMM population sequences for eight processor systems:

- Processor 1 and 2 DIMM population sequences:
 - [Table 93 “Memory sparing with eight processors \(Processors 1 and 2, 16 to 24 total DIMMs installed in server\)” on page 104](#)
 - [Table 95 “Memory sparing with eight processors \(Processors 1 and 2, 50 to 72 total DIMMs installed in server\)” on page 106](#)
 - [Table 96 “Memory sparing with eight processors \(Processors 1 and 2, 74 to 96 total DIMMs installed in server\)” on page 107](#)
- To continue populating DIMMs for a system with 26 to 48 DIMMs:
 - [Table 98 “Memory sparing with eight processors \(Processors 3 and 4, 26 to 48 total DIMMs installed in server\)” on page 109](#)
 - [Table 102 “Memory sparing with eight processors \(Processors 5 and 6, 26 to 48 total DIMMs installed in server\)” on page 113](#)
 - [Table 106 “Memory sparing with eight processors \(Processors 7 and 8, 26 to 48 total DIMMs installed in server\)” on page 117](#)

Table 95. Memory sparing with eight processors (Processors 1 and 2, 50 to 72 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
50			3	4	5	6	7	8	9	10						17	18	19	20	21	22			50	
52			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			52
54			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			54
56			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			56
58			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			58
60			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			60
62			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			62
64			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			64
66			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22			66
68			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	68
70			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	70
72			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	72

Related DIMM population sequences for eight processor systems:

- Processor 1 and 2 DIMM population sequences:
 - [Table 93 “Memory sparing with eight processors \(Processors 1 and 2, 16 to 24 total DIMMs installed in server\)” on page 104](#)
 - [Table 94 “Memory sparing with eight processors \(Processors 1 and 2, 26 to 48 total DIMMs installed in server\)” on page 105](#)
 - [Table 96 “Memory sparing with eight processors \(Processors 1 and 2, 74 to 96 total DIMMs installed in server\)” on page 107](#)
- To continue populating DIMMs for a system with 50 to 72 DIMMs:
 - [Table 99 “Memory sparing with eight processors \(Processors 3 and 4, 50 to 72 total DIMMs installed in server\)” on page 110](#)
 - [Table 103 “Memory sparing with eight processors \(Processors 5 and 6, 50 to 72 total DIMMs installed in server\)” on page 114](#)
 - [Table 107 “Memory sparing with eight processors \(Processors 7 and 8, 50 to 72 total DIMMs installed in server\)” on page 118](#)

Table 96. Memory sparing with eight processors (Processors 1 and 2, 74 to 96 total DIMMs installed in server)

Total DIMMs	Processor 1												Processor 2												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
74			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	74
76			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	76
78			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	78
80			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	80
82	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	82
84	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	84
86	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	86
88	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	88
90	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	90
92	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	92
94	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	94
96	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	96

Related DIMM population sequences for eight processor systems:

- Processor 1 and 2 DIMM population sequences:
 - [Table 93 “Memory sparing with eight processors \(Processors 1 and 2, 16 to 24 total DIMMs installed in server\)” on page 104](#)
 - [Table 94 “Memory sparing with eight processors \(Processors 1 and 2, 26 to 48 total DIMMs installed in server\)” on page 105](#)
 - [Table 95 “Memory sparing with eight processors \(Processors 1 and 2, 50 to 72 total DIMMs installed in server\)” on page 106](#)
- To continue populating DIMMs for a system with 74 to 96 DIMMs:
 - [Table 100 “Memory sparing with eight processors \(Processors 3 and 4, 74 to 96 total DIMMs installed in server\)” on page 111](#)
 - [Table 104 “Memory sparing with eight processors \(Processors 5 and 6, 74 to 96 total DIMMs installed in server\)” on page 115](#)
 - [Table 108 “Memory sparing with eight processors \(Processors 7 and 8, 74 to 96 total DIMMs installed in server\)” on page 119](#)

Table 97. Memory sparing with eight processors (Processors 3 and 4, 16 to 24 total DIMMs installed in server)

Total DIMMs	Processor 3												Processor 4												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
16							7	8											19	20					16
18							7	8											19	20					18
20							7	8											19	20					20
22					5	6	7	8											19	20					22
24					5	6	7	8									17	18	19	20					24

Related DIMM population sequences for eight processor systems:

- Processor 3 and 4 DIMM population sequences:
 - [Table 98 “Memory sparing with eight processors \(Processors 3 and 4, 26 to 48 total DIMMs installed in server\)” on page 109](#)
 - [Table 99 “Memory sparing with eight processors \(Processors 3 and 4, 50 to 72 total DIMMs installed in server\)” on page 110](#)
 - [Table 100 “Memory sparing with eight processors \(Processors 3 and 4, 74 to 96 total DIMMs installed in server\)” on page 111](#)
- To continue populating DIMMs for a system with 16 to 24 DIMMs:
 - [Table 93 “Memory sparing with eight processors \(Processors 1 and 2, 16 to 24 total DIMMs installed in server\)” on page 104](#)
 - [Table 101 “Memory sparing with eight processors \(Processors 5 and 6, 16 to 24 total DIMMs installed in server\)” on page 112](#)
 - [Table 105 “Memory sparing with eight processors \(Processors 7 and 8, 16 to 24 total DIMMs installed in server\)” on page 116](#)

Table 98. Memory sparing with eight processors (Processors 3 and 4, 26 to 48 total DIMMs installed in server)

Total DIMMs	Processor 3												Processor 4												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
26					5	6	7	8									17	18	19	20					26
28					5	6	7	8									17	18	19	20					28
30					5	6	7	8									17	18	19	20					30
32					5	6	7	8									17	18	19	20					32
34					5	6	7	8									17	18	19	20					34
36					5	6	7	8									17	18	19	20					36
38					5	6	7	8	9	10							17	18	19	20					38
40					5	6	7	8	9	10							17	18	19	20	21	22			40
42					5	6	7	8	9	10							17	18	19	20	21	22			42
44					5	6	7	8	9	10							17	18	19	20	21	22			44
46					5	6	7	8	9	10							17	18	19	20	21	22			46
48					5	6	7	8	9	10							17	18	19	20	21	22			48

Related DIMM population sequences for eight processor systems:

- Processor 3 and 4 DIMM population sequences:
 - [Table 97 “Memory sparing with eight processors \(Processors 3 and 4, 16 to 24 total DIMMs installed in server\)” on page 108](#)
 - [Table 99 “Memory sparing with eight processors \(Processors 3 and 4, 50 to 72 total DIMMs installed in server\)” on page 110](#)
 - [Table 100 “Memory sparing with eight processors \(Processors 3 and 4, 74 to 96 total DIMMs installed in server\)” on page 111](#)
- To continue populating DIMMs for a system with 26 to 48 DIMMs:
 - [Table 94 “Memory sparing with eight processors \(Processors 1 and 2, 26 to 48 total DIMMs installed in server\)” on page 105](#)
 - [Table 102 “Memory sparing with eight processors \(Processors 5 and 6, 26 to 48 total DIMMs installed in server\)” on page 113](#)
 - [Table 106 “Memory sparing with eight processors \(Processors 7 and 8, 26 to 48 total DIMMs installed in server\)” on page 117](#)

Table 99. Memory sparing with eight processors (Processors 3 and 4, 50 to 72 total DIMMs installed in server)

Total DIMMs	Processor 3												Processor 4												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
50					5	6	7	8	9	10							17	18	19	20	21	22			50
52					5	6	7	8	9	10							17	18	19	20	21	22			52
54			3	4	5	6	7	8	9	10							17	18	19	20	21	22			54
56			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			56
58			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			58
60			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			60
62			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			62
64			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			64
66			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			66
68			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			68
70			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22			70
72			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	72

Related DIMM population sequences for eight processor systems:

- Processor 3 and 4 DIMM population sequences:
 - [Table 97 “Memory sparing with eight processors \(Processors 3 and 4, 16 to 24 total DIMMs installed in server\)” on page 108](#)
 - [Table 98 “Memory sparing with eight processors \(Processors 3 and 4, 26 to 48 total DIMMs installed in server\)” on page 109](#)
 - [Table 100 “Memory sparing with eight processors \(Processors 3 and 4, 74 to 96 total DIMMs installed in server\)” on page 111](#)
- To continue populating DIMMs for a system with 50 to 72 DIMMs:
 - [Table 95 “Memory sparing with eight processors \(Processors 1 and 2, 50 to 72 total DIMMs installed in server\)” on page 106](#)
 - [Table 103 “Memory sparing with eight processors \(Processors 5 and 6, 50 to 72 total DIMMs installed in server\)” on page 114](#)
 - [Table 107 “Memory sparing with eight processors \(Processors 7 and 8, 50 to 72 total DIMMs installed in server\)” on page 118](#)

Table 100. Memory sparing with eight processors (Processors 3 and 4, 74 to 96 total DIMMs installed in server)

Total DIMMs	Processor 3												Processor 4												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
74			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	74
76			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	76
78			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	78
80			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	80
82			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	82
84			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	84
86	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	86
88	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	88
90	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	90
92	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	92
94	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	94
96	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	96

Related DIMM population sequences for eight processor systems:

- Processor 3 and 4 DIMM population sequences:
 - [Table 97 “Memory sparing with eight processors \(Processors 3 and 4, 16 to 24 total DIMMs installed in server\)” on page 108](#)
 - [Table 98 “Memory sparing with eight processors \(Processors 3 and 4, 26 to 48 total DIMMs installed in server\)” on page 109](#)
 - [Table 99 “Memory sparing with eight processors \(Processors 3 and 4, 50 to 72 total DIMMs installed in server\)” on page 110](#)
- To continue populating DIMMs for a system with 74 to 96 DIMMs:
 - [Table 96 “Memory sparing with eight processors \(Processors 1 and 2, 74 to 96 total DIMMs installed in server\)” on page 107](#)
 - [Table 104 “Memory sparing with eight processors \(Processors 5 and 6, 74 to 96 total DIMMs installed in server\)” on page 115](#)
 - [Table 108 “Memory sparing with eight processors \(Processors 7 and 8, 74 to 96 total DIMMs installed in server\)” on page 119](#)

Table 101. Memory sparing with eight processors (Processors 5 and 6, 16 to 24 total DIMMs installed in server)

Total DIMMs	Processor 5												Processor 6												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
16							7	8											19	20					16
18							7	8											19	20					18
20							7	8											19	20					20
22							7	8											19	20					22
24							7	8											19	20					24

Related DIMM population sequences for eight processor systems:

- Processor 5 and 6 DIMM population sequences:
 - [Table 102 “Memory sparing with eight processors \(Processors 5 and 6, 26 to 48 total DIMMs installed in server\)” on page 113](#)
 - [Table 103 “Memory sparing with eight processors \(Processors 5 and 6, 50 to 72 total DIMMs installed in server\)” on page 114](#)
 - [Table 104 “Memory sparing with eight processors \(Processors 5 and 6, 74 to 96 total DIMMs installed in server\)” on page 115](#)
- To continue populating DIMMs for a system with 16 to 24 DIMMs:
 - [Table 93 “Memory sparing with eight processors \(Processors 1 and 2, 16 to 24 total DIMMs installed in server\)” on page 104](#)
 - [Table 97 “Memory sparing with eight processors \(Processors 3 and 4, 16 to 24 total DIMMs installed in server\)” on page 108](#)
 - [Table 105 “Memory sparing with eight processors \(Processors 7 and 8, 16 to 24 total DIMMs installed in server\)” on page 116](#)

Table 102. Memory sparing with eight processors (Processors 5 and 6, 26 to 48 total DIMMs installed in server)

Total DIMMs	Processor 5												Processor 6												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
26					5	6	7	8										19	20					26	
28					5	6	7	8									17	18	19	20					28
30					5	6	7	8									17	18	19	20					30
32					5	6	7	8									17	18	19	20					32
34					5	6	7	8									17	18	19	20					34
36					5	6	7	8									17	18	19	20					36
38					5	6	7	8									17	18	19	20					38
40					5	6	7	8									17	18	19	20					40
42					5	6	7	8	9	10							17	18	19	20					42
44					5	6	7	8	9	10							17	18	19	20	21	22			44
46					5	6	7	8	9	10							17	18	19	20	21	22			46
48					5	6	7	8	9	10							17	18	19	20	21	22			48

Related DIMM population sequences for eight processor systems:

- Processor 5 and 6 DIMM population sequences:
 - [Table 101 “Memory sparing with eight processors \(Processors 5 and 6, 16 to 24 total DIMMs installed in server\)” on page 112](#)
 - [Table 103 “Memory sparing with eight processors \(Processors 5 and 6, 50 to 72 total DIMMs installed in server\)” on page 114](#)
 - [Table 104 “Memory sparing with eight processors \(Processors 5 and 6, 74 to 96 total DIMMs installed in server\)” on page 115](#)
- To continue populating DIMMs for a system with 26 to 48 DIMMs:
 - [Table 94 “Memory sparing with eight processors \(Processors 1 and 2, 26 to 48 total DIMMs installed in server\)” on page 105](#)
 - [Table 98 “Memory sparing with eight processors \(Processors 3 and 4, 26 to 48 total DIMMs installed in server\)” on page 109](#)
 - [Table 106 “Memory sparing with eight processors \(Processors 7 and 8, 26 to 48 total DIMMs installed in server\)” on page 117](#)

Table 103. Memory sparing with eight processors (Processors 5 and 6, 50 to 72 total DIMMs installed in server)

Total DIMMs	Processor 5												Processor 6												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
50					5	6	7	8	9	10							17	18	19	20	21	22			50
52					5	6	7	8	9	10							17	18	19	20	21	22			52
54					5	6	7	8	9	10							17	18	19	20	21	22			54
56					5	6	7	8	9	10							17	18	19	20	21	22			56
58			3	4	5	6	7	8	9	10						17	18	19	20	21	22			58	
60			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			60
62			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			62
64			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			64
66			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			66
68			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			68
70			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			70
72			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			72

Related DIMM population sequences for eight processor systems:

- Processor 5 and 6 DIMM population sequences:
 - [Table 101 “Memory sparing with eight processors \(Processors 5 and 6, 16 to 24 total DIMMs installed in server\)” on page 112](#)
 - [Table 102 “Memory sparing with eight processors \(Processors 5 and 6, 26 to 48 total DIMMs installed in server\)” on page 113](#)
 - [Table 104 “Memory sparing with eight processors \(Processors 5 and 6, 74 to 96 total DIMMs installed in server\)” on page 115](#)
- To continue populating DIMMs for a system with 50 to 72 DIMMs:
 - [Table 95 “Memory sparing with eight processors \(Processors 1 and 2, 50 to 72 total DIMMs installed in server\)” on page 106](#)
 - [Table 99 “Memory sparing with eight processors \(Processors 3 and 4, 50 to 72 total DIMMs installed in server\)” on page 110](#)
 - [Table 107 “Memory sparing with eight processors \(Processors 7 and 8, 50 to 72 total DIMMs installed in server\)” on page 118](#)

Table 104. Memory sparing with eight processors (Processors 5 and 6, 74 to 96 total DIMMs installed in server)

Total DIMMs	Processor 5												Processor 6												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
74			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22			74
76			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	76
78			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	78
80			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	80
82			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	82
84			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	84
86			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	86
88			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	88
90	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	90
92	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	92
94	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	94
96	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	96

Related DIMM population sequences for eight processor systems:

- Processor 5 and 6 DIMM population sequences:
 - [Table 101 “Memory sparing with eight processors \(Processors 5 and 6, 16 to 24 total DIMMs installed in server\)” on page 112](#)
 - [Table 102 “Memory sparing with eight processors \(Processors 5 and 6, 26 to 48 total DIMMs installed in server\)” on page 113](#)
 - [Table 103 “Memory sparing with eight processors \(Processors 5 and 6, 50 to 72 total DIMMs installed in server\)” on page 114](#)
- To continue populating DIMMs for a system with 74 to 96 DIMMs:
 - [Table 96 “Memory sparing with eight processors \(Processors 1 and 2, 74 to 96 total DIMMs installed in server\)” on page 107](#)
 - [Table 100 “Memory sparing with eight processors \(Processors 3 and 4, 74 to 96 total DIMMs installed in server\)” on page 111](#)
 - [Table 108 “Memory sparing with eight processors \(Processors 7 and 8, 74 to 96 total DIMMs installed in server\)” on page 119](#)

Table 105. Memory sparing with eight processors (Processors 7 and 8, 16 to 24 total DIMMs installed in server)

Total DIMMs	Processor 7												Processor 8												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
16							7	8											19	20					16
18							7	8											19	20					18
20							7	8											19	20					20
22							7	8											19	20					22
24							7	8											19	20					24

Related DIMM population sequences for eight processor systems:

- Processor 7 and 8 DIMM population sequences:
 - [Table 106 “Memory sparing with eight processors \(Processors 7 and 8, 26 to 48 total DIMMs installed in server\)” on page 117](#)
 - [Table 107 “Memory sparing with eight processors \(Processors 7 and 8, 50 to 72 total DIMMs installed in server\)” on page 118](#)
 - [Table 108 “Memory sparing with eight processors \(Processors 7 and 8, 74 to 96 total DIMMs installed in server\)” on page 119](#)
- To continue populating DIMMs for a system with 16 to 24 DIMMs:
 - [Table 93 “Memory sparing with eight processors \(Processors 1 and 2, 16 to 24 total DIMMs installed in server\)” on page 104](#)
 - [Table 97 “Memory sparing with eight processors \(Processors 3 and 4, 16 to 24 total DIMMs installed in server\)” on page 108](#)
 - [Table 101 “Memory sparing with eight processors \(Processors 5 and 6, 16 to 24 total DIMMs installed in server\)” on page 112](#)

Table 106. Memory sparing with eight processors (Processors 7 and 8, 26 to 48 total DIMMs installed in server)

Total DIMMs	Processor 7												Processor 8												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
26							7	8											19	20					26
28							7	8											19	20					28
30					5	6	7	8											19	20					30
32					5	6	7	8									17	18	19	20					32
34					5	6	7	8									17	18	19	20					34
36					5	6	7	8									17	18	19	20					36
38					5	6	7	8									17	18	19	20					38
40					5	6	7	8									17	18	19	20					40
42					5	6	7	8									17	18	19	20					42
44					5	6	7	8									17	18	19	20					44
46					5	6	7	8	9	10							17	18	19	20					46
48					5	6	7	8	9	10							17	18	19	20	21	22			48

Related DIMM population sequences for eight processor systems:

- Processor 7 and 8 DIMM population sequences:
 - [Table 105 “Memory sparing with eight processors \(Processors 7 and 8, 16 to 24 total DIMMs installed in server\)” on page 116](#)
 - [Table 107 “Memory sparing with eight processors \(Processors 7 and 8, 50 to 72 total DIMMs installed in server\)” on page 118](#)
 - [Table 108 “Memory sparing with eight processors \(Processors 7 and 8, 74 to 96 total DIMMs installed in server\)” on page 119](#)
- To continue populating DIMMs for a system with 26 to 48 DIMMs:
 - [Table 94 “Memory sparing with eight processors \(Processors 1 and 2, 26 to 48 total DIMMs installed in server\)” on page 105](#)
 - [Table 98 “Memory sparing with eight processors \(Processors 3 and 4, 26 to 48 total DIMMs installed in server\)” on page 109](#)
 - [Table 102 “Memory sparing with eight processors \(Processors 5 and 6, 26 to 48 total DIMMs installed in server\)” on page 113](#)

Table 107. Memory sparing with eight processors (Processors 7 and 8, 50 to 72 total DIMMs installed in server)

Total DIMMs	Processor 7												Processor 8												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
50					5	6	7	8	9	10							17	18	19	20	21	22			50
52					5	6	7	8	9	10							17	18	19	20	21	22			52
54					5	6	7	8	9	10							17	18	19	20	21	22			54
56					5	6	7	8	9	10							17	18	19	20	21	22			56
58					5	6	7	8	9	10							17	18	19	20	21	22			58
60					5	6	7	8	9	10							17	18	19	20	21	22			60
62			3	4	5	6	7	8	9	10							17	18	19	20	21	22			62
64			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			64
66			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			66
68			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			68
70			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			70
72			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			72

Related DIMM population sequences for eight processor systems:

- Processor 7 and 8 DIMM population sequences:
 - [Table 105 “Memory sparing with eight processors \(Processors 7 and 8, 16 to 24 total DIMMs installed in server\)” on page 116](#)
 - [Table 106 “Memory sparing with eight processors \(Processors 7 and 8, 26 to 48 total DIMMs installed in server\)” on page 117](#)
 - [Table 108 “Memory sparing with eight processors \(Processors 7 and 8, 74 to 96 total DIMMs installed in server\)” on page 119](#)
- To continue populating DIMMs for a system with 50 to 72 DIMMs:
 - [Table 95 “Memory sparing with eight processors \(Processors 1 and 2, 50 to 72 total DIMMs installed in server\)” on page 106](#)
 - [Table 99 “Memory sparing with eight processors \(Processors 3 and 4, 50 to 72 total DIMMs installed in server\)” on page 110](#)
 - [Table 103 “Memory sparing with eight processors \(Processors 5 and 6, 50 to 72 total DIMMs installed in server\)” on page 114](#)

Table 108. Memory sparing with eight processors (Processors 7 and 8, 74 to 96 total DIMMs installed in server)

Total DIMMs	Processor 7												Processor 8												Total DIMMs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
74			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			74
76			3	4	5	6	7	8	9	10					15	16	17	18	19	20	21	22			76
78			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22			78
80			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	80
82			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	82
84			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	84
86			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	86
88			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	88
90			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	90
92			3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	92
94	1	2	3	4	5	6	7	8	9	10	11	12			15	16	17	18	19	20	21	22	23	24	94
96	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	96

Related DIMM population sequences for eight processor systems:

- Processor 7 and 8 DIMM population sequences:
 - [Table 105 “Memory sparing with eight processors \(Processors 7 and 8, 16 to 24 total DIMMs installed in server\)” on page 116](#)
 - [Table 106 “Memory sparing with eight processors \(Processors 7 and 8, 26 to 48 total DIMMs installed in server\)” on page 117](#)
 - [Table 107 “Memory sparing with eight processors \(Processors 7 and 8, 50 to 72 total DIMMs installed in server\)” on page 118](#)
- To continue populating DIMMs for a system with 74 to 96 DIMMs:
 - [Table 96 “Memory sparing with eight processors \(Processors 1 and 2, 74 to 96 total DIMMs installed in server\)” on page 107](#)
 - [Table 100 “Memory sparing with eight processors \(Processors 3 and 4, 74 to 96 total DIMMs installed in server\)” on page 111](#)
 - [Table 104 “Memory sparing with eight processors \(Processors 5 and 6, 74 to 96 total DIMMs installed in server\)” on page 115](#)

Chapter 3. DCPMM installation order

The server also supports Intel Optane DC persistent memory modules (DCPMMs). Use this information to determine the correct installation order, depending on the configuration.

Notes:

- Before installing DCPMMs and DRAM DIMMs, refer to “DC Persistent Memory Module (DCPMM) setup” in *Setup Guide* and make sure to meet all the requirements.
- To verify if the presently installed processors support DCPMMs, examine the four digits in the processor description. Only the processor with description meeting *both* of the following requirements support DCPMMs.

- The first digit is **5** or a larger number.

Note: The only exception to this rule is *Intel Xeon Silver 4215*, which also supports DCPMM.

- The second digit is **2**.

Example: *Intel Xeon 5215L* and *Intel Xeon Platinum 8280M*

If the presently installed processors do not support DCPMMs, replace them with the processors that support DCPMMs.

- Supported memory capacity range varies with the following types of processors.
 - **Large memory tier (L):** The processors with **L** after the four digits (for example: *Intel Xeon 5215L*)
 - **Medium memory tier (M):** The processors with **M** after the four digits (for example: *Intel Xeon Platinum 8280M*)
 - **Other:** Other processors that support DCPMMs (for example: *Intel Xeon Gold 5222*)

In addition, you can take advantage of a memory configurator, which is available at the following site:

http://1config.lenovo.com/#/memory_configuration

App Direct Mode

In App Direct Mode, DCPMMs act as independent and persistent memory resources directly accessible by specific applications, and DRAM DIMMs act as system memory.

When implementing App Direct Mode, any supported DIMMs in any capacity can be installed.

DCPMM Installation order: App Direct mode with two processors

When implementing App Direct Mode, any supported DIMMs in any capacity can be installed.

When two processors are installed in the server:

- Processors 1 and 2 are installed in the lower system board of the lower compute tray.

Several configurations are supported with implementing App Direct mode with eight processors:

- 6 DCPMMs/6 DRAM DIMMs per processor
- 4 DCPMMs/6 DRAM DIMMs per processor
- 2 DCPMMs/8 DRAM DIMMs per processor
- 2 DCPMMs/6 DRAM DIMMs per processor
- 2 DCPMMs/4 DRAM DIMMs per processor
- 1 DCPMM/6 DRAM DIMMs per processor
- 1 DCPMM in the system

6 DCPMMs/6 DRAM DIMMs per processor

Table 109. App Direct mode with 6 DCPMMs and 6 DRAM DIMMs per processor (2 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D

4 DCPMMs/6 DRAM DIMMs per processor

Table 110. App Direct mode with 4 DCPMMs and 6 DRAM DIMMs per processor (2 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D

2 DCPMMs/ 8 DRAM DIMMs per processor

Table 111. App Direct mode with 2 DCPMMs and 8 DRAM DIMMs per processor (8 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Table 111. App Direct mode with 2 DCPMMs and 8 DRAM DIMMs per processor (8 processors) (continued)

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D	D	D	D	D	D	D	D		P	P		D	D	D	D	D	D	D	D		P

2 DCPMMs/6 DRAM DIMMs per processor

Table 112. App Direct mode with 2 DCPMMs and 6 DRAM DIMMs per processor (2 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D	P	P	D		D		D	D		D		D	P	P	D		D		D

2 DCPMMs/4 DRAM DIMMs per processor

Table 113. App Direct mode with 2 DCPMMs and 4 DRAM DIMMs per processor (2 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P

1 DCPMM/6 DRAM DIMMs per processor

Table 114. App Direct mode with 1 DCPMMs and 6 DRAM DIMMs

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D		P	D		D		D	D		D		D		P	D		D		D

1 DCPMM in the system

Table 115. App Direct mode with 1 DCPMM in the system

In the table below:

- P = DCPMM
- D = DRAM DIMM

Table 115. App Direct mode with 1 DCPMM in the system (continued)

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D		P	D		D		D	D		D		D			D		D		D

DCPMM Installation order: App Direct mode with four processors

When implementing App Direct Mode, any supported DIMMs in any capacity can be installed.

When eight processors are installed in the server:

- Processors 1 and 2 are installed in the lower system board of the lower compute tray.
- Processors 3 and 4 are installed in the upper system board of the lower compute tray.

Several configurations are supported with implementing App Direct mode with eight processors:

- 6 DCPMMs/6 DRAM DIMMs per processor
- 4 DCPMMs/6 DRAM DIMMs per processor
- 2 DCPMMs/8 DRAM DIMMs per processor
- 2 DCPMMs/6 DRAM DIMMs per processor
- 2 DCPMMs/4 DRAM DIMMs per processor
- 1 DCPMM/6 DRAM DIMMs per processor
- 1 DCPMM in the system

6 DCPMMs/6 DRAM DIMMs per processor

Table 116. App Direct mode with 6 DCPMMs and 6 DRAM DIMMs per processor (4 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D

4 DCPMMs/6 DRAM DIMMs per processor

Table 117. App Direct mode with 4 DCPMMs and 6 DRAM DIMMs per processor (4 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D

2 DCPMMs/ 8 DRAM DIMMs per processor

Table 118. App Direct mode with 2 DCPMMs and 8 DRAM DIMMs per processor (8 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D	D	D	D	D	D	D	D		P	P		D	D	D	D	D	D	D	D		P
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D	D	D	D	D	D	D	D		P	P		D	D	D	D	D	D	D	D		P

2 DCPMMs/6 DRAM DIMMs per processor

Table 119. App Direct mode with 2 DCPMMs and 6 DRAM DIMMs per processor (4 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D	P	P	D		D		D	D		D		D	P	P	D		D		D
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D	P	P	D		D		D	D		D		D	P	P	D		D		D

2 DCPMMs/4 DRAM DIMMs per processor

Table 120. App Direct mode with 2 DCPMMs and 4 DRAM DIMMs per processor (4 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P

1 DCPMM/6 DRAM DIMMs per processor

Table 121. App Direct mode with 1 DCPMMs and 6 DRAM DIMMs

In the table below:

Table 121. App Direct mode with 1 DCPMMs and 6 DRAM DIMMs (continued)

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D		P	D		D		D	D		D		D		P	D		D		D
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D		P	D		D		D	D		D		D		P	D		D		D

1 DCPMM in the system

Table 122. App Direct mode with 1 DCPMM in the system

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D		P	D		D		D	D		D		D			D		D		D
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D			D		D		D	D		D		D			D		D		D

DCPMM Installation order: App Direct mode with six processors

When implementing App Direct Mode, any supported DIMMs in any capacity can be installed.

When eight processors are installed in the server:

- Processors 1 and 2 are installed in the lower system board of the lower compute tray.
- Processors 3 and 4 are installed in the upper system board of the lower compute tray.
- Processors 5 and 6 are installed in the lower system board of the upper compute tray.

Several configurations are supported with implementing App Direct mode with eight processors:

- 6 DCPMMs/ 6 DRAM DIMMs per processor
- 4 DCPMMs/ 6 DRAM DIMMs per processor
- 2 DCPMMs/8 DRAM DIMMs per processor
- 2 DCPMMs/ 6 DRAM DIMMs per processor
- 2 DCPMMs/ 4 DRAM DIMMs per processor
- 1 DCPMM/6 DRAM DIMMs per processor
- 1 DCPMM in the system

6 DCPMMs/ 6 DRAM DIMMs per processor

Table 123. App Direct mode with 6 DCPMMs and 6 DRAM DIMMs per processor (6 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D

4 DCPMMs/ 6 DRAM DIMMs per processor

Table 124. App Direct mode with 4 DCPMMs and 6 DRAM DIMMs per processor (6 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D
Processor 3												Processor 4											

Table 124. App Direct mode with 4 DCPMMs and 6 DRAM DIMMs per processor (6 processors) (continued)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D

2 DCPMMs/ 8 DRAM DIMMs per processor

Table 125. App Direct mode with 2 DCPMMs and 8 DRAM DIMMs per processor (8 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D	D	D	D	D	D	D	D		P	P		D	D	D	D	D	D	D	D		P
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D	D	D	D	D	D	D	D		P	P		D	D	D	D	D	D	D	D		P
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D	D	D	D	D	D	D	D		P	P		D	D	D	D	D	D	D	D		P

2 DCPMMs/ 6 DRAM DIMMs per processor

Table 126. App Direct mode with 2 DCPMMs and 6 DRAM DIMMs per processor (6 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D	P	P	D		D		D	D		D		D	P	P	D		D		D
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D	P	P	D		D		D	D		D		D	P	P	D		D		D
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D	P	P	D		D		D	D		D		D	P	P	D		D		D

2 DCPMMs/ 4 DRAM DIMMs per processor

Table 127. App Direct mode with 2 DCPMMs and 4 DRAM DIMMs per processor (6 processors)

In the table below:

Table 127. App Direct mode with 2 DCPMMs and 4 DRAM DIMMs per processor (6 processors) (continued)

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P

1 DCPMM/6 DRAM DIMMs per processor

Table 128. App Direct mode with 1 DCPMMs and 6 DRAM DIMMs

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D		P	D		D		D	D		D		D		P	D		D		D
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D		P	D		D		D	D		D		D		P	D		D		D
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D		P	D		D		D	D		D		D		P	D		D		D

1 DCPMM in the system

Table 129. App Direct mode with 1 DCPMM in the system

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D		P	D		D		D	D		D		D			D		D		D
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D			D		D		D	D		D		D			D		D		D

Table 129. App Direct mode with 1 DCPMM in the system (continued)

Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D			D		D		D	D		D		D			D		D		D

DCPMM Installation order: App Direct mode with eight processors

When implementing App Direct Mode, any supported DIMMs in any capacity can be installed.

When eight processors are installed in the server:

- Processors 1 and 2 are installed in the lower system board of the lower compute tray.
- Processors 3 and 4 are installed in the upper system board of the lower compute tray.
- Processors 5 and 6 are installed in the lower system board of the upper compute tray.
- Processors 7 and 8 are installed in the upper system board of the upper compute tray.

Several configurations are supported with implementing App Direct mode with eight processors:

- 6 DCPMMs/6 DRAM DIMMs per processor
- 4 DCPMMs/6 DRAM DIMMs per processor
- 2 DCPMMs/8 DRAM DIMMs per processor
- 2 DCPMMs/6 DRAM DIMMs per processor
- 2 DCPMMs/4 DRAM DIMMs per processor
- 1 DCPMM/6 DRAM DIMMs per processor
- 1 DCPMM in the system

6 DCPMMs/ 6 DRAM DIMMs per processor

Table 130. App Direct mode with 6 DCPMMs and 6 DRAM DIMMs per processor (8 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D
Processor 7												Processor 8											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D

4 DCPMMs/ 6 DRAM DIMMs per processor

Table 131. App Direct mode with 4 DCPMMs and 6 DRAM DIMMs per processor (8 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Table 131. App Direct mode with 4 DCPMMs and 6 DRAM DIMMs per processor (8 processors) (continued)

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D
Processor 7												Processor 8											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D

2 DCPMMs/ 8 DRAM DIMMs per processor

Table 132. App Direct mode with 2 DCPMMs and 8 DRAM DIMMs per processor (8 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D	D	D	D	D	D	D	D		P	P		D	D	D	D	D	D	D	D		P
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D	D	D	D	D	D	D	D		P	P		D	D	D	D	D	D	D	D		P
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D	D	D	D	D	D	D	D		P	P		D	D	D	D	D	D	D	D		P
Processor 7												Processor 8											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D	D	D	D	D	D	D	D		P	P		D	D	D	D	D	D	D	D		P

2 DCPMMs/ 6 DRAM DIMMs per processor

Table 133. App Direct mode with 2 DCPMMs and 6 DRAM DIMMs per processor (8 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

Table 133. App Direct mode with 2 DCPMMs and 6 DRAM DIMMs per processor (8 processors) (continued)

D		D		D	P	P	D		D		D	D	D	D	D	P	P	D		D		D		D
Processor 3												Processor 4												
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
D		D		D	P	P	D		D		D	D	D	D	D	P	P	D		D		D		D
Processor 5												Processor 6												
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
D		D		D	P	P	D		D		D	D	D	D	D	P	P	D		D		D		D
Processor 7												Processor 8												
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
D		D		D	P	P	D		D		D	D	D	D	D	P	P	D		D		D		D

2 DCPMMs/ 4 DRAM DIMMs per processor

Table 134. App Direct mode with 2 DCPMMs and 4 DRAM DIMMs per processor (8 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P
Processor 7												Processor 8											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P

1 DCPMM/6 DRAM DIMMs per processor

Table 135. App Direct mode with 1 DCPMMs and 6 DRAM DIMMs

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D		P	D		D		D	D		D		D		P	D		D		D

Table 135. App Direct mode with 1 DCPMMs and 6 DRAM DIMMs (continued)

Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D		P	D		D		D	D		D		D		P	D		D		D
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D		P	D		D		D	D		D		D		P	D		D		D
Processor 7												Processor 8											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D		P	D		D		D	D		D		D		P	D		D		D

1 DCPMM in the system

Table 136. App Direct mode with 1 DCPMM in the system

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D		P	D		D		D	D		D		D			D		D		D
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D			D		D		D	D		D		D			D		D		D
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D			D		D		D	D		D		D			D		D		D
Processor 7												Processor 8											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D			D		D		D	D		D		D			D		D		D

Mixed Memory Mode

In Mixed Memory Mode, 1-99% of DCPMM capacity acts as system memory. In this mode, some percentage of DCPMM capacity is directly accessible to specific applications (App Direct), while the rest serves as system memory. The App Direct part of DCPMM is displayed as persistent memory, while the rest of DCPMM capacity is displayed as system memory. DRAM DIMMs act as cache in this mode.

When implementing Mixed Memory Mode, any supported DIMMs in any capacity can be installed.

DCPMM Installation order: Mixed Memory mode with two processors

When implementing Mixed Memory mode, any supported DIMMs in any capacity can be installed.

When two processors are installed in the server:

- Processors 1 and 2 are installed in the lower system board of the lower compute tray.

Several configurations are supported with implementing Mixed Memory mode with six processors:

- 6 DCPMMs/ 6 DRAM DIMMs per processor
- 4 DCPMMs/ 6 DRAM DIMMs per processor
- 2 DCPMMs/ 6 DRAM DIMMs per processor
- 2 DCPMMs/ 4 DRAM DIMMs per processor

6 DCPMMs/ 6 DRAM DIMMs per processor

Table 137. Mixed Memory mode with 6 DCPMMs and 6 DRAM DIMMs per processor (2 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D

4 DCPMMs/ 6 DRAM DIMMs per processor

Table 138. Mixed Memory mode with 4 DCPMMs and 6 DRAM DIMMs per processor (2 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D

2 DCPMMs/ 6 DRAM DIMMs per processor

Note: Only RDIMMs are recommended for this configuration

Table 139. Mixed Memory mode with 2 DCPMMs and 6 DRAM DIMMs per processor (2 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D	P	P	D		D		D	D		D		D	P	P	D		D		D

2 DCPMMs/ 4 DRAM DIMMs per processor

Table 140. Mixed Memory mode with 2 DCPMMs and 4 DRAM DIMMs per processor (2 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P

DCPMM Installation order: Mixed Memory mode with four processors

When implementing Mixed Memory mode, any supported DIMMs in any capacity can be installed.

When four processors are installed in the server:

- Processors 1 and 2 are installed in the lower system board of the lower compute tray.
- Processors 3 and 4 are installed in the upper system board of the lower compute tray.

Several configurations are supported with implementing Mixed Memory mode with six processors:

- 6 DCPMMs/ 6 DRAM DIMMs per processor
- 4 DCPMMs/ 6 DRAM DIMMs per processor
- 2 DCPMMs/ 6 DRAM DIMMs per processor
- 2 DCPMMs/ 4 DRAM DIMMs per processor

6 DCPMMs/ 6 DRAM DIMMs per processor

Table 141. Mixed Memory mode with 6 DCPMMs and 6 DRAM DIMMs per processor (4 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D

4 DCPMMs/ 6 DRAM DIMMs per processor

Table 142. Mixed Memory mode with 4 DCPMMs and 6 DRAM DIMMs per processor (4 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D

2 DCPMMs/ 6 DRAM DIMMs per processor

Note: Only RDIMMs are recommended for this configuration

Table 143. Mixed Memory mode with 2 DCPMMs and 6 DRAM DIMMs per processor (4 processors)

In the table below:

Table 143. Mixed Memory mode with 2 DCPMMs and 6 DRAM DIMMs per processor (4 processors) (continued)

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D	P	P	D		D		D	D		D		D	P	P	D		D		D
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D	P	P	D		D		D	D		D		D	P	P	D		D		D

2 DCPMMs/ 4 DRAM DIMMs per processor

Table 144. Mixed Memory mode with 2 DCPMMs and 4 DRAM DIMMs per processor (4 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P

DCPMM Installation order: Mixed Memory mode with six processors

When implementing Mixed Memory mode, any supported DIMMs in any capacity can be installed.

When six processors are installed in the server:

- Processors 1 and 2 are installed in the lower system board of the lower compute tray.
- Processors 3 and 4 are installed in the upper system board of the lower compute tray.
- Processors 5 and 6 are installed in the lower system board of the upper compute tray.

Several configurations are supported with implementing Mixed Memory mode with six processors:

- 6 DCPMMs/ 6 DRAM DIMMs per processor
- 4 DCPMMs/ 6 DRAM DIMMs per processor
- 2 DCPMMs/ 6 DRAM DIMMs per processor
- 2 DCPMMs/ 4 DRAM DIMMs per processor

6 DCPMMs/ 6 DRAM DIMMs per processor

Table 145. Mixed Memory mode with 6 DCPMMs and 6 DRAM DIMMs per processor (6 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D

4 DCPMMs/ 6 DRAM DIMMs per processor

Table 146. Mixed Memory mode with 4 DCPMMs and 6 DRAM DIMMs per processor (6 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D
Processor 5												Processor 6											

Table 146. Mixed Memory mode with 4 DCPMMs and 6 DRAM DIMMs per processor (6 processors) (continued)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D

2 DCPMMs/ 6 DRAM DIMMs per processor

Note: Only RDIMMs are recommended for this configuration

Table 147. Mixed Memory mode with 2 DCPMMs and 6 DRAM DIMMs per processor (6 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D	P	P	D		D		D	D		D		D	P	P	D		D		D
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D	P	P	D		D		D	D		D		D	P	P	D		D		D
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D	P	P	D		D		D	D		D		D	P	P	D		D		D

2 DCPMMs/ 4 DRAM DIMMs per processor

Table 148. Mixed Memory mode with 2 DCPMMs and 4 DRAM DIMMs per processor (6 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P

DCPMM Installation order: Mixed Memory mode with eight processors

When implementing Mixed Memory mode, any supported DIMMs in any capacity can be installed.

When eight processors are installed in the server:

- Processors 1 and 2 are installed in the lower system board of the lower compute tray.
- Processors 3 and 4 are installed in the upper system board of the lower compute tray.
- Processors 5 and 6 are installed in the lower system board of the upper compute tray.
- Processors 7 and 8 are installed in the upper system board of the upper compute tray.

Several configurations are supported with implementing Mixed Memory mode with eight processors:

- 6 DCPMMs/ 6 DRAM DIMMs per processor
- 4 DCPMMs/ 6 DRAM DIMMs per processor
- 2 DCPMMs/ 6 DRAM DIMMs per processor
- 2 DCPMMs/ 4 DRAM DIMMs per processor

6 DCPMMs/ 6 DRAM DIMMs per processor

Table 149. Mixed Memory mode with 6 DCPMMs and 6 DRAM DIMMs per processor (8 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D
Processor 7												Processor 8											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D

4 DCPMMs/ 6 DRAM DIMMs per processor

Table 150. Mixed Memory mode with 4 DCPMMs and 6 DRAM DIMMs per processor (8 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D

Table 150. Mixed Memory mode with 4 DCPMMs and 6 DRAM DIMMs per processor (8 processors) (continued)

Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D
Processor 7												Processor 8											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D

2 DCPMMs/ 6 DRAM DIMMs per processor

Note: Only RDIMMs are recommended for this configuration

Table 151. Mixed Memory mode with 2 DCPMMs and 6 DRAM DIMMs per processor (8 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D	P	P	D		D		D	D		D		D	P	P	D		D		D
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D	P	P	D		D		D	D		D		D	P	P	D		D		D
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D	P	P	D		D		D	D		D		D	P	P	D		D		D
Processor 7												Processor 8											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D	P	P	D		D		D	D		D		D	P	P	D		D		D

2 DCPMMs/ 4 DRAM DIMMs per processor

Table 152. Mixed Memory mode with 2 DCPMMs and 4 DRAM DIMMs per processor (8 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P

Table 152. Mixed Memory mode with 2 DCPMMs and 4 DRAM DIMMs per processor (8 processors) (continued)

Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P
Processor 7												Processor 8											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P

Memory Mode

In Memory Mode, 100% of DCPMM capacity acts as system memory. The DRAM DIMMs act as cache.

When implementing Memory Mode, any supported DIMMs in any capacity can be installed.

DCPMM Installation order: Memory mode with two processors

When implementing Memory mode, any supported DIMMs in any capacity can be installed.

When two processors are installed in the server:

- Processors 1 and 2 are installed in the lower system board of the lower compute tray.

Several configurations are supported with implementing Memory mode with two processors:

- 6 DCPMMs/6 DRAM DIMMs per processor
- 4 DCPMMs/6 DRAM DIMMs per processor
- 2 DCPMMs/6 DRAM DIMMs per processor
- 2 DCPMMs/4 DRAM DIMMs per processor

6 DCPMMs/ 6 DRAM DIMMs per processor

Table 153. Memory mode with 6 DCPMMs and 6 DRAM DIMMs per processor (2 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D

4 DCPMMs/ 6 DRAM DIMMs per processor

Table 154. Memory mode with 4 DCPMMs and 6 DRAM DIMMs per processor (2 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D

2 DCPMMs/ 8 DRAM DIMMs per processor

Table 155. Memory mode with 2 DCPMMs and 8 DRAM DIMMs per processor (2 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D	D	D	D	D	D	D	D		P	P		D	D	D	D	D	D	D	D		P

2 DCPMMs/ 6 DRAM DIMMs per processor

Table 156. Memory mode with 2 DCPMMs and 6 DRAM DIMMs per processor (2 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Note: In this configuration, only RDIMMs are recommended for the DRAM DIMMs.

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D	P	P	D		D		D	D		D		D	P	P	D		D		D

2 DCPMMs/ 4 DRAM DIMMs per processor

Table 157. App Direct mode with 2 DCPMMs and 4 DRAM DIMMs per processor (2 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P

DCPMM Installation order: Memory mode with four processors

When implementing Memory mode, any supported DIMMs in any capacity can be installed. However, you should consider using DIMMs that are greater than 32 GB.

When four processors are installed in the server:

- Processors 1 and 2 are installed in the lower system board of the lower compute tray.
- Processors 3 and 4 are installed in the upper system board of the lower compute tray.

Several configurations are supported with implementing Memory mode with four processors:

- 6 DCPMMs/6 DRAM DIMMs per processor
- 4 DCPMMs/6 DRAM DIMMs per processor
- 2 DCPMMs/6 DRAM DIMMs per processor
- 2 DCPMMs/4 DRAM DIMMs per processor

6 DCPMMs/ 6 DRAM DIMMs per processor

Table 158. Memory mode with 6 DCPMMs and 6 DRAM DIMMs per processor (4 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D

4 DCPMMs/ 6 DRAM DIMMs per processor

Table 159. Memory mode with 4 DCPMMs and 6 DRAM DIMMs per processor (4 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D

2 DCPMMs/ 8 DRAM DIMMs per processor

Table 160. Memory mode with 2 DCPMMs and 8 DRAM DIMMs per processor (4 processors)

In the table below:

- P = DCPMM

Table 160. Memory mode with 2 DCPMMs and 8 DRAM DIMMs per processor (4 processors) (continued)

- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D	D	D	D	D	D	D	D		P	P		D	D	D	D	D	D	D	D		P
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D	D	D	D	D	D	D	D		P	P		D	D	D	D	D	D	D	D		P

2 DCPMMs/ 6 DRAM DIMMs per processor

Table 161. Memory mode with 2 DCPMMs and 6 DRAM DIMMs per processor (4 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Note: In this configuration, only RDIMMs are recommended for the DRAM DIMMs.

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D	P	P	D		D		D	D		D		D	P	P	D		D		D
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D	P	P	D		D		D	D		D		D	P	P	D		D		D

2 DCPMMs/ 4 DRAM DIMMs per processor

Table 162. App Direct mode with 2 DCPMMs and 4 DRAM DIMMs per processor (4 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P

DCPMM Installation order: Memory mode with six processors

When implementing Memory mode, any supported DIMMs in any capacity can be installed. However, you should consider using DIMMs that are greater than 32 GB.

When six processors are installed in the server:

- Processors 1 and 2 are installed in the lower system board of the lower compute tray.
- Processors 3 and 4 are installed in the upper system board of the lower compute tray.
- Processors 5 and 6 are installed in the lower system board of the upper compute tray.

Several configurations are supported with implementing Memory mode with six processors:

- 6 DCPMMs/6 DRAM DIMMs per processor
- 4 DCPMMs/6 DRAM DIMMs per processor
- 2 DCPMMs/6 DRAM DIMMs per processor
- 2 DCPMMs/4 DRAM DIMMs per processor

6 DCPMMs/ 6 DRAM DIMMs per processor

Table 163. Memory mode with 6 DCPMMs and 6 DRAM DIMMs per processor (6 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D

4 DCPMMs/ 6 DRAM DIMMs per processor

Table 164. Memory mode with 4 DCPMMs and 6 DRAM DIMMs per processor (6 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D
Processor 5												Processor 6											

Table 164. Memory mode with 4 DCPMMs and 6 DRAM DIMMs per processor (6 processors) (continued)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D

2 DCPMMs/ 8 DRAM DIMMs per processor

Table 165. Memory mode with 2 DCPMMs and 8 DRAM DIMMs per processor (6 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D	D	D	D	D	D	D	D		P	P		D	D	D	D	D	D	D	D		P
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D	D	D	D	D	D	D	D		P	P		D	D	D	D	D	D	D	D		P
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D	D	D	D	D	D	D	D		P	P		D	D	D	D	D	D	D	D		P

2 DCPMMs/ 6 DRAM DIMMs per processor

Table 166. Memory mode with 2 DCPMMs and 6 DRAM DIMMs per processor (6 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Note: In this configuration, only RDIMMs are recommended for the DRAM DIMMs.

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D	P	P	D		D		D	D		D		D	P	P	D		D		D
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D	P	P	D		D		D	D		D		D	P	P	D		D		D
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D	P	P	D		D		D	D		D		D	P	P	D		D		D

2 DCPMMs/ 4 DRAM DIMMs per processor

Table 167. App Direct mode with 2 DCPMMs and 4 DRAM DIMMs per processor (6 processors)

In the table below:

- P = DCPMM

Table 167. App Direct mode with 2 DCPMMs and 4 DRAM DIMMs per processor (6 processors) (continued)

- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P

DCPMM Installation order: Memory mode with eight processors

When implementing Memory mode, any supported DIMMs in any capacity can be installed. However, you should consider using DIMMs that are greater than 32 GB.

When eight processors are installed in the server:

- Processors 1 and 2 are installed in the lower system board of the lower compute tray.
- Processors 3 and 4 are installed in the upper system board of the lower compute tray.
- Processors 5 and 6 are installed in the lower system board of the upper compute tray.
- Processors 7 and 8 are installed in the upper system board of the upper compute tray.

Several configurations are supported with implementing Memory mode with eight processors:

- 6 DCPMMs/6 DRAM DIMMs per processor
- 4 DCPMMs/6 DRAM DIMMs per processor
- 2 DCPMMs/6 DRAM DIMMs per processor
- 2 DCPMMs/4 DRAM DIMMs per processor

6 DCPMMs/ 6 DRAM DIMMs per processor

Table 168. Memory mode with 6 DCPMMs and 6 DRAM DIMMs per processor (8 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D
Processor 7												Processor 8											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	P	D	P	D	P	P	D	P	D	P	D	D	P	D	P	D	P	P	D	P	D	P	D

4 DCPMMs/ 6 DRAM DIMMs per processor

Table 169. Memory mode with 4 DCPMMs and 6 DRAM DIMMs per processor (8 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D

Table 169. Memory mode with 4 DCPMMs and 6 DRAM DIMMs per processor (8 processors) (continued)

Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D
Processor 7												Processor 8											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D	P	D	P	P	D	P	D		D	D		D	P	D	P	P	D	P	D		D

2 DCPMMs/ 8 DRAM DIMMs per processor

Table 170. Memory mode with 2 DCPMMs and 8 DRAM DIMMs per processor (8 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D	D	D	D	D	D	D	D		P	P		D	D	D	D	D	D	D	D		P
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D	D	D	D	D	D	D	D		P	P		D	D	D	D	D	D	D	D		P
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D	D	D	D	D	D	D	D		P	P		D	D	D	D	D	D	D	D		P
Processor 7												Processor 8											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D	D	D	D	D	D	D	D		P	P		D	D	D	D	D	D	D	D		P

2 DCPMMs/ 6 DRAM DIMMs per processor

Table 171. Memory mode with 2 DCPMMs and 6 DRAM DIMMs per processor (8 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Note: In this configuration, only RDIMMs are recommended for the DRAM DIMMs.

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D	P	P	D		D		D	D		D		D	P	P	D		D		D

Table 171. Memory mode with 2 DCPMMs and 6 DRAM DIMMs per processor (8 processors) (continued)

Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D	P	P	D		D		D	D		D		D	P	P	D		D		D
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D	P	P	D		D		D	D		D		D	P	P	D		D		D
Processor 7												Processor 8											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D		D		D	P	P	D		D		D	D		D		D	P	P	D		D		D

2 DCPMMs/ 4 DRAM DIMMs per processor

Table 172. App Direct mode with 2 DCPMMs and 4 DRAM DIMMs per processor (8 processors)

In the table below:

- P = DCPMM
- D = DRAM DIMM

Processor 1												Processor 2											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P
Processor 3												Processor 4											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P
Processor 5												Processor 6											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P
Processor 7												Processor 8											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
P		D		D			D		D		P	P		D		D			D		D		P

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