Memory Configuration for Supermicro X14SXX/X14DXX/ B14SBX/B14DBX Series Motherboards

based on

The Intel® Xeon® 6900-Series Processors with E-cores and P-cores

User's Guide

Revision 1.0a

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Memory Support for the X14/B14 Series Motherboards

This document provides the user with an easy-to-use guide for proper memory configuration and installation for the X14/B14 Series motherboards utilizing RDIMM/3DS RDIMM DDR5 (288-pin) ECC memory with speeds up to 6400 MT/s (1DPC) memory modules. Additionally, the Intel® Xeon® 6900-series processors with P-cores supports MRDIMM DDR5 memory modules with speed up to 8800 MT/s (1DPC).

Note: This memory configuration user's guide is written for Supermicro X14/B14 series motherboards based on the Intel® Xeon® 6900 processors.

To ensure proper memory installation, please carefully follow the information and instructions provided in this user's guide.

1. ESD Precautions

Electrostatic Discharge (ESD) can damage electronic components including memory modules. To avoid damaging your DIMM modules, it is important to handle them very carefully. The following measures are generally sufficient to protect your equipment from ESD.

Precautions

- Use a grounded wrist strap designed to prevent static discharge.
- Handle the memory module by its edges only.
- Put the memory modules into the antistatic bags when not in use.
- Check the Supermicro website for recommended memory modules.

2. General Memory Population Requirements

1. To maximize memory capacity, the rule of thumb is to populate all DIMM slots available on the motherboard.
2. Be sure to use the memory modules of the same type and speed on the motherboard to max. Mixing of memory modules of different types and speeds is not allowed.
3. Populating memory slots with a pair of DIMM modules of the same type and size will result in interleaved memory, which will improve memory performance.

The Intel Xeon 6900-Series Processors with E-cores

DDR5-6400 Memory Support for the Intel® Xeon® 6900-Series Processors with E-cores					
Type	**Ranks Per DIMM and Data Width (Stack)**	**DIMM Capacity (GB)**			**Speed (MT/s); Voltage (V); Slots per Channel (SPC) and DIMMs per Channel (DPC)**
		DRAM Density			**1DPC/1SPC**
		16 Gb	**24 Gb**	**32 Gb**	**+1.1V**
RDIMM	1Rx4	32 GB	48 GB	-	6400, 6000, 5600, 5200, 4800 (DDR5-6400 rated RDIMMs only)
	2Rx4	64 GB	96 GB	128 GB	
3DS RDIMM	8Rx4	256 GB	-	-	

Notes:

- Intel Xeon 6900-Series Processors with E-cores supports 1DPC configuration only.

CXL Memory Configuration Support for the Intel® Xeon® 6900-Series Processors with E-cores								
Native DDR5 Memory Per Socket				CXL Memory Per Socket				
Slot 1 DIMM Ranks	Slot 1 DIMM Capacity (GB)	DIMM Type	DRAM Density (Gb)	CXL Memory Channels	CXL Memory Type	CXL Capacity Per Device/ Module	CXL Interleave	CXL Mode
2Rx4	64	10x4	16	1+1	DDR5 x16	2ch 64 GB	Hetero x16	Hetero
1Rx4	32	10x4	16	1+1+1	DDR5 x16	2ch 64 GB	1x3 (BIOS)	Intel Flat Memory Mode

Notes:

1. The items with asterisk (*) are the default settings in BIOS

2. The Intel Xeon 6900-Series Processors with E-cores CXL memory configurations are 1DPC only for native DDR5

3. CXL Memory Channel: number of devices per root port, with root ports separated by "+", e.g. 2+2+2+2 = four root ports populated with two devices per root port

4. CXL Interleave: sets x ways, e.g. 2x4 = Set of two modules, interleaved four-way

5. CXL Modes:

   - 1LM + Vol = DDR5 ('1LM') and (volatile) CXL memory visible to SW as separate tiers, separately interleaved

   - Hetero x16 = DDR5 and (volatile) CXL memory interleaved together in one 16-way set

   - Flat Memory Mode = HW manages data movement between DDR5 and CXL memory, total capacity visible to SW

The Intel Xeon 6900-Series Processors with P-cores

DDR5-6400 Memory Support for the Intel® Xeon® 6900-Series Processors with P-cores					
Type	Ranks Per DIMM and Data Width (Stack)	DIMM Capacity (GB)			Speed (MT/s); Voltage (V); Slots per Channel (SPC) and DIMMs per Channel (DPC)
		DRAM Density			1DPC/1SPC
		16 Gb	24 Gb	32 Gb	+1.1V
RDIMM	1Rx4	32 GB	48 GB	-	6400, 6000, 5600, 5200, 4800 (DDR5-6400 rated RDIMMs only)
	2Rx8	32 GB	48 GB	-	
	2Rx4	64 GB	96 GB	128 GB	
3DS RDIMM	8Rx4	256 GB	-	-	
	4Rx4	-	-	256 GB	
MRDIMM	2Rx8	32 GB	48 GB	-	8800, 8000, 7200 (MRDIMM-8800 only)
	2Rx4	64 GB	96 GB	128 GB	
	4Rx8	64 GB	96 GB	-	
	4Rx4 (2U)	128 GB	-	-	
	4Rx4 (2U)	-	-	256 GB	

Notes:

- Intel Xeon 6900-Series Processors with P-cores supports 1DPC configuration only.
- Intel Xeon 6900-Series Processors with P-cores supports 1DIMM per processor socket with the following DIMM configuration only: 32 GB 2Rx8

CXL Memory Configuration Support for the Intel® Xeon® 6900-Series Processors with P-cores								
Native DDR5 Memory Per Socket				CXL Memory Per Socket				
Slot 1 DIMM Ranks	Slot 1 DIMM Capacity (GB)	DIMM Type	DRAM Density (Gb)	CXL Memory Channels	CXL Memory Type	CXL Capacity Per Device/ Module	CXL Interleave	CXL Mode
2Rx4	64	10x4	16	1+1	DDR5 x16	2ch 64 GB	Hetero x16	Hetero
2Rx4	64	10x4	16	2+2+2+2	DDR5 x8	64 GB	1x8*, 2x4, 4x2	1LM+Vol
2Rx4	64	10x4	16	1+1+1	DDR4 x8	128 GB	1x3 (BIOS)	1LM + Intel Flat Memory Mode

Notes:

1. The items with asterisk (*) are the default settings in BIOS

2. The Intel Xeon 6900-Series Processors with P-cores CXL memory configurations are 1DPC only for native DDR5

3. CXL Memory Channel: number of devices per root port, with root ports separated by "+", e.g. 2+2+2+2 = four root ports populated with two devices per root port

4. CXL Interleave: sets x ways, e.g. 2x4 = Set of two modules, interleaved four-way

5. CXL Modes:

   - 1LM + Vol = DDR5 ('1LM') and (volatile) CXL memory visible to SW as separate tiers, separately interleaved

   - Hetero x16 = DDR5 and (volatile) CXL memory interleaved together in one 16-way set

   - Flat Memory Mode = HW manages data movement between DDR5 and CXL memory, total capacity visible to SW

3. DIMM Population Guidelines for Optimal Performance

For optimal memory performance, follow the instructions listed in the tables below when populating memory modules.

3.1 Memory Population Tables for the X14SXX/B14SBX series Motherboards

For your system memory to work properly, please follow the memory population tables below to install your memory modules on the X14SXX/B14SBX series motherboards.

The Intel Xeon 6900-Series Processors with E-cores

DDR5-6400 Memory Support for the Intel® Xeon® 6900-Series Processors with E-cores					
Type	**Ranks Per DIMM and Data Width (Stack)**	**DIMM Capacity (GB)**			**Speed (MT/s); Voltage (V); Slots per Channel (SPC) and DIMMs per Channel (DPC)**
		DRAM Density			**1DPC/1SPC**
		16 Gb	**24 Gb**	**32 Gb**	**+1.1V**
RDIMM	1Rx4	32 GB	48 GB	-	6400, 6000, 5600, 5200, 4800 (DDR5-6400 rated RDIMMs only)
	2Rx4	64 GB	96 GB	128 GB	
3DS RDIMM	8Rx4	256 GB	-	-	

Notes:

- Intel Xeon 6900-Series Processors with E-cores supports 1DPC configuration only.

CXL Memory Configuration Support for the Intel® Xeon® 6900-Series Processors with E-cores								
Native DDR5 Memory Per Socket				CXL Memory Per Socket				
Slot 1 DIMM Ranks	Slot 1 DIMM Capacity (GB)	DIMM Type	DRAM Density (Gb)	CXL Memory Channels	CXL Memory Type	CXL Capacity Per Device/ Module	CXL Interleave	CXL Mode
2Rx4	64	10x4	16	1+1	DDR5 x16	2ch 64 GB	Hetero x16	Hetero
1Rx4	32	10x4	16	1+1+1	DDR5 x16	2ch 64 GB	1x3 (BIOS)	Intel Flat Memory Mode

Notes:

1. The items with asterisk (*) are the default settings in BIOS

2. The Intel Xeon 6900-Series Processors with E-cores CXL memory configurations are 1DPC only for native DDR5

3. CXL Memory Channel: number of devices per root port, with root ports separated by "+", e.g. 2+2+2+2 = four root ports populated with two devices per root port

4. CXL Interleave: sets x ways, e.g. 2x4 = Set of two modules, interleaved four-way

5. CXL Modes:

   - 1LM + Vol = DDR5 ('1LM') and (volatile) CXL memory visible to SW as separate tiers, separately interleaved

   - Hetero x16 = DDR5 and (volatile) CXL memory interleaved together in one 16-way set

   - Flat Memory Mode = HW manages data movement between DDR5 and CXL memory, total capacity visible to SW

The Intel Xeon 6900-Series Processors with P-cores

DDR5-6400 Memory Support for the Intel® Xeon® 6900-Series Processors with P-cores					
Type	Ranks Per DIMM and Data Width (Stack)	DIMM Capacity (GB)			Speed (MT/s); Voltage (V); Slots per Channel (SPC) and DIMMs per Channel (DPC)
		DRAM Density			1DPC/1SPC
		16 Gb	24 Gb	32 Gb	+1.1V
RDIMM	1Rx4	32 GB	48 GB	-	6400, 6000, 5600, 5200, 4800 (DDR5-6400 rated RDIMMs only)
	2Rx8	32 GB	48 GB	-	
	2Rx4	64 GB	96 GB	128 GB	
3DS RDIMM	8Rx4	256 GB	-	-	
	4Rx4	-	-	256 GB	
MRDIMM	2Rx8	32 GB	48 GB	-	8800, 8000, 7200 (MRDIMM-8800 only)
	2Rx4	64 GB	96 GB	128 GB	
	4Rx8	64 GB	96 GB	-	
	4Rx4 (2U)	128 GB	-	-	
	4Rx4 (2U)	-	-	256 GB	

Notes:

- Intel Xeon 6900-Series Processors with P-cores supports 1DPC configuration only.
- Intel Xeon 6900-Series Processors with P-cores supports 1DIMM per processor socket with following DIMM configuration only: 32 GB 2Rx8

CXL Memory Configuration Support for the Intel® Xeon® 6900-Series Processors with P-cores								
Native DDR5 Memory Per Socket				CXL Memory Per Socket				
Slot 1 DIMM Ranks	Slot 1 DIMM Capacity (GB)	DIMM Type	DRAM Density (Gb)	CXL Memory Channels	CXL Memory Type	CXL Capacity Per Device/ Module	CXL Interleave	CXL Mode
2Rx4	64	10x4	16	1+1	DDR5 x16	2ch 64 GB	Hetero x16	Hetero
2Rx4	64	10x4	16	2+2+2+2	DDR5 x8	64 GB	1x8*, 2x4, 4x2	1LM+Vol
2Rx4	64	10x4	16	1+1+1	DDR4 x8	128 GB	1x3 (BIOS)	1LM + Intel Flat Memory Mode

Notes:

1. The items with asterisk (*) are the default settings in BIOS

2. The Intel Xeon 6900-Series Processors with P-cores CXL memory configurations are 1DPC only for native DDR5

3. CXL Memory Channel: number of devices per root port, with root ports separated by "+", e.g. 2+2+2+2 = four root ports populated with two devices per root port

4. CXL Interleave: sets x ways, e.g. 2x4 = Set of two modules, interleaved four-way

5. CXL Modes:

   - 1LM + Vol = DDR5 ('1LM') and (volatile) CXL memory visible to SW as separate tiers, separately interleaved

   - Hetero x16 = DDR5 and (volatile) CXL memory interleaved together in one 16-way set

   - Flat Memory Mode = HW manages data movement between DDR5 and CXL memory, total capacity visible to SW

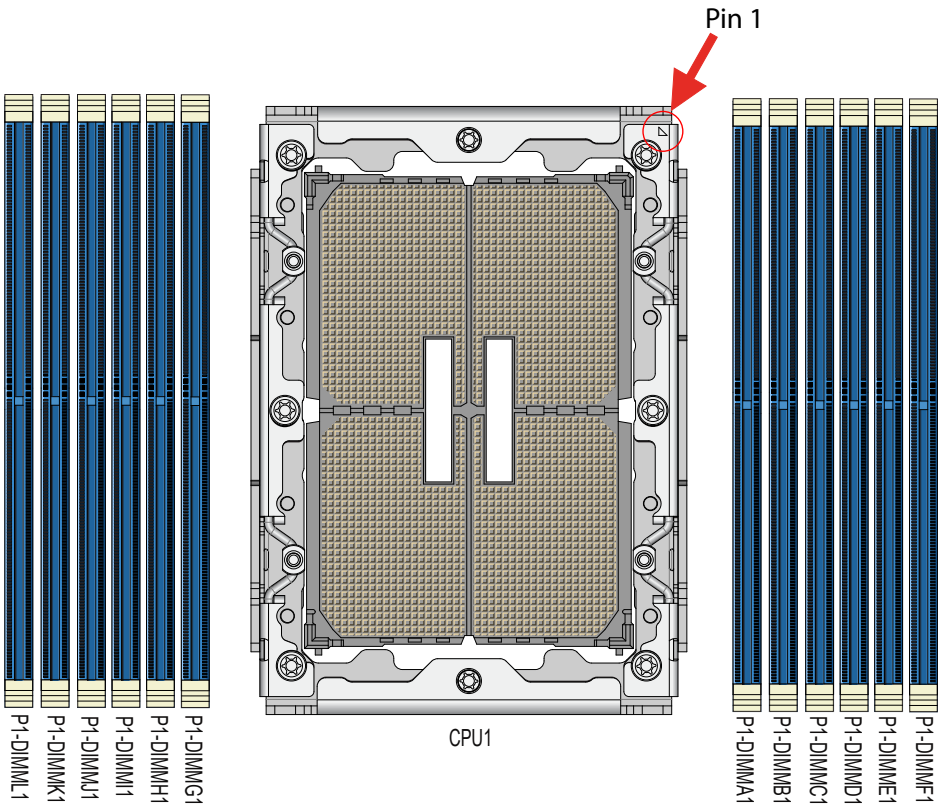
Memory Population for the X14SXX/B14SBX Motherboards (with 12 DIMM Slots)

Note: The memory table below supports the X14SXX/B14SBX series motherboards with 12 DIMM memory slots onboard.

Intel® Xeon® 6900-Series Processors with E-cores and P-cores DDR5 Memory Population Table (1 processor and 12-DIMM slots, 1 DPC)	
DIMM Counts	***Memory Population Sequence***
1 Processor and 1 DIMM (Recommended)	P1-DIMMA1
1 Processor and 8 DIMMs	P1-DIMMC1/P1-DIMMD1/P1-DIMME1/P1-DIMMF1/P1-DIMMI1/P1-DIMMJ1/P1-DIMMK1/ P1-DIMML1
1 Processor and 8 DIMMs	P1-DIMMA1/P1-DIMMB1/P1-DIMMD1/P1-DIMME1/P1-DIMMG1/P1-DIMMH1/P1-DIMMJ1/ P1-DIMMK1
1 Processor and 8 DIMMs	P1-DIMMA1/P1-DIMMB1/P1-DIMMC1/P1-DIMMF1/P1-DIMMG1/P1-DIMMH1/P1-DIMMI1/ P1-DIMML1
1 Processor and 12 DIMMs (Recommended)	P1-DIMMA1/P1-DIMMB1/P1-DIMMC1/P1-DIMMD1/P1-DIMME1/P1-DIMMF1/P1-DIMMG1/ P1-DIMMH1/P1-DIMMI1/P1-DIMMJ1/P1-DIMMK1/P1-DIMML1

Notes:

- DIMMs must be all DDR5-6400 rated RDIMMs or all MRDIMM.
- Intel Xeon 6900-series processors support 1DPC population only.
- All DIMMs in a channel must have the same number of ranks (unless explicitly specified otherwise).
- x8 DIMMs and x4 DIMMs cannot be mixed in the same channel or same processor socket.
- Vendor mixing is not allowed.



Memory Population on X14SXX/B14SBX Series Motherboards with 12 DIMMs Installed

Note: The drawing above shows DIMM module population for each processor installed on the motherboard. Please install your processors starting with socket 1.

3.2 Memory Population Tables for the X14DXX/B14DBX Series Motherboards

For your system memory to work properly, please follow the memory population tables below to install the memory modules on your motherboard.

The Intel Xeon 6900-Series Processors with E-cores

DDR5-6400 Memory Support for the Intel® Xeon® 6900-Series Processors with E-cores					
Type	Ranks Per DIMM and Data Width (Stack)	DIMM Capacity (GB)			Speed (MT/s); Voltage (V); Slots per Channel (SPC) and DIMMs per Channel (DPC)
		DRAM Density			1DPC/1SPC
		16 Gb	24 Gb	32 Gb	+1.1V
RDIMM	1Rx4	32 GB	48 GB	-	6400, 6000, 5600, 5200, 4800 (DDR5-6400 rated RDIMMs only)
	2Rx4	64 GB	96 GB	128 GB	
3DS RDIMM	8Rx4	256 GB	-	-	

Notes:

- Intel Xeon 6900-Series Processors with E-cores supports 1DPC configuration only.

CXL Memory Configuration Support for the Intel® Xeon® 6900-Series Processors with E-cores								
Native DDR5 Memory Per Socket				CXL Memory Per Socket				
Slot 1 DIMM Ranks	Slot 1 DIMM Capacity (GB)	DIMM Type	DRAM Density (Gb)	CXL Memory Channels	CXL Memory Type	CXL Capacity Per Device/ Module	CXL Interleave	CXL Mode
2Rx4	64	10x4	16	1+1	DDR5 x16	2ch 64 GB	Hetero x16	Hetero
1Rx4	32	10x4	16	1+1+1	DDR5 x16	2ch 64 GB	1x3 (BIOS)	Intel Flat Memory Mode

Notes:

1. The items with asterisk (*) are the default settings in BIOS

2. The Intel Xeon 6900-Series Processors with E-cores CXL memory configurations are 1DPC only for native DDR5

3. CXL Memory Channel: number of devices per root port, with root ports separated by "+", e.g. 2+2+2+2 = four root ports populated with two devices per root port

4. CXL Interleave: sets x ways, e.g. 2x4 = Set of two modules, interleaved four-way

5. CXL Modes:

   - 1LM + Vol = DDR5 ('1LM') and (volatile) CXL memory visible to SW as separate tiers, separately interleaved

   - Hetero x16 = DDR5 and (volatile) CXL memory interleaved together in one 16-way set

   - Flat Memory Mode = HW manages data movement between DDR5 and CXL memory, total capacity visible to SW

The Intel Xeon 6900-Series Processors with P-cores

DDR5-6400 Memory Support for the Intel® Xeon® 6900-Series Processors with P-cores					
Type	Ranks Per DIMM and Data Width (Stack)	DIMM Capacity (GB)			Speed (MT/s); Voltage (V); Slots per Channel (SPC) and DIMMs per Channel (DPC)
		DRAM Density			1DPC/1SPC
		16 Gb	24 Gb	32 Gb	+1.1V
RDIMM	1Rx4	32 GB	48 GB	-	6400, 6000, 5600, 5200, 4800 (DDR5-6400 rated RDIMMs only)
	2Rx8	32 GB	48 GB	-	
	2Rx4	64 GB	96 GB	128 GB	
3DS RDIMM	8Rx4	256 GB	-	-	
	4Rx4	-	-	256 GB	
MRDIMM	2Rx8	32 GB	48 GB	-	8800, 8000, 7200 (MRDIMM-8800 only)
	2Rx4	64 GB	96 GB	128 GB	
	4Rx8	64 GB	96 GB	-	
	4Rx4 (2U)	128 GB	-	-	
	4Rx4 (2U)	-	-	256 GB	

Notes:

- Intel Xeon 6900-Series Processors with P-cores supports 1DPC configuration only.
- Intel Xeon 6900-Series Processors with P-cores supports 1DIMM per processor socket with the following DIMM configuration only: 32 GB 2Rx8

CXL Memory Configuration Support for the Intel® Xeon® 6900-Series Processors with P-cores								
Native DDR5 Memory Per Socket				CXL Memory Per Socket				
Slot 1 DIMM Ranks	Slot 1 DIMM Capacity (GB)	DIMM Type	DRAM Density (Gb)	CXL Memory Channels	CXL Memory Type	CXL Capacity Per Device/ Module	CXL Interleave	CXL Mode
2Rx4	64	10x4	16	1+1	DDR5 x16	2ch 64 GB	Hetero x16	Hetero
2Rx4	64	10x4	16	2+2+2+2	DDR5 x8	64 GB	1x8*, 2x4, 4x2	1LM+Vol
2Rx4	64	10x4	16	1+1+1	DDR4 x8	128 GB	1x3 (BIOS)	1LM + Intel Flat Memory Mode

Notes:

1. The items with asterisk (*) are the default settings in BIOS

2. The Intel Xeon 6900-Series Processors with P-cores CXL memory configurations are 1DPC only for native DDR5

3. CXL Memory Channel: number of devices per root port, with root ports separated by "+", e.g. 2+2+2+2 = four root ports populated with two devices per root port

4. CXL Interleave: sets x ways, e.g. 2x4 = Set of two modules, interleaved four-way

5. CXL Modes:

   - 1LM + Vol = DDR5 ('1LM') and (volatile) CXL memory visible to SW as separate tiers, separately interleaved

   - Hetero x16 = DDR5 and (volatile) CXL memory interleaved together in one 16-way set

   - Flat Memory Mode = HW manages data movement between DDR5 and CXL memory, total capacity visible to SW

Memory Population for the X14DXX/B14DBX Series Motherboards (with 24 DIMM Slots)

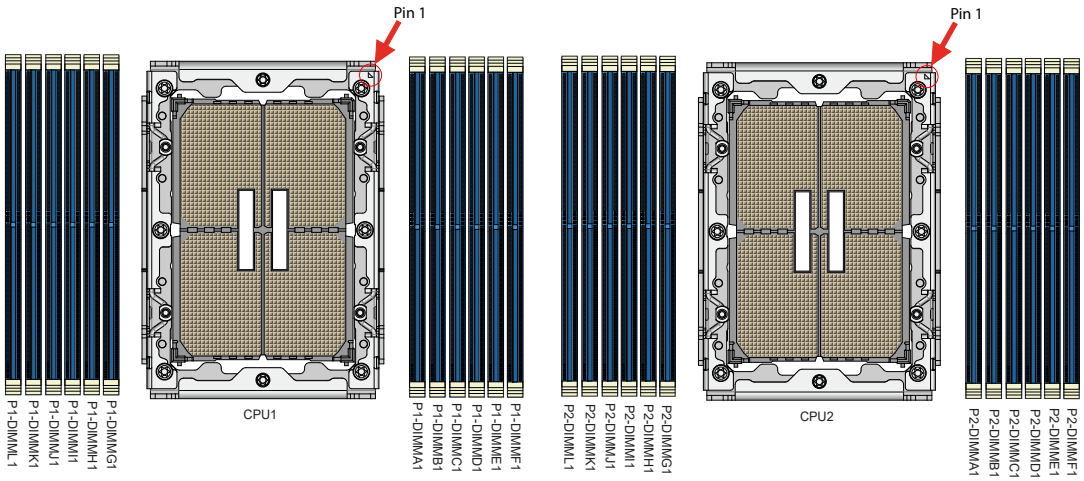
Note: The following memory population table supports Supermicro X14DXX/B14DBX series motherboards with 24 DIMM memory slots onboard.

Memory Population Table (with 24 DIMM Slots)

Intel® Xeon® 6900-Series Processors with E-cores and P-cores DDR5 Memory Population Table (2 Processors and 24-DIMM slots, 1 DPC)	
1 Processor:	***Memory Population Sequence***
1 Processor and 1 DIMM (Recommended)	P1-DIMMA1
1 Processor and 8 DIMMs	P1-DIMMC1/P1-DIMMD1/P1-DIMME1/P1-DIMMF1/P1-DIMMI1/P1-DIMMJ1/P1-DIMMK1/P1-DIMML1
1 Processor and 8 DIMMs	P1-DIMMA1/P1-DIMMB1/P1-DIMMD1/P1-DIMME1/P1-DIMMG1/P1-DIMMH1/P1-DIMMJ1/P1-DIMMK1
1 Processor and 8 DIMMs	P1-DIMMA1/P1-DIMMB1/P1-DIMMC1/P1-DIMMF1/P1-DIMMG1/P1-DIMMH1/P1-DIMMI1/P1-DIMML1
1 Processor and 12 DIMMs (Recommended)	P1-DIMMA1/P1-DIMMB1/P1-DIMMC1/P1-DIMMD1/P1-DIMME1/P1-DIMMF1/P1-DIMMG1/P1-DIMMH1/P1-DIMMI1/P1-DIMMJ1/P1-DIMMK1/P1-DIMML1
2 Processors:	***Memory Population Sequence***
2 Processors and 2 DIMMs (Recommended)	P1-DIMMA1 P2-DIMMA1
2 Processors and 16 DIMMs	P1-DIMMC1/P1-DIMMD1/P1-DIMME1/P1-DIMMF1/P1-DIMMI1/P1-DIMMJ1/P1-DIMMK1/P1-DIMML1 P2-DIMMC1/P2-DIMMD1/P2-DIMME1/P2-DIMMF1/P2-DIMMI1/P2-DIMMJ1/P2-DIMMK1/P2-DIMML1
2 Processors and 16 DIMMs	P1-DIMMA1/P1-DIMMB1/P1-DIMMD1/P1-DIMME1/P1-DIMMG1/P1-DIMMH1/P1-DIMMJ1/P1-DIMMK1 P2-DIMMA1/P2-DIMMB1/P2-DIMMD1/P2-DIMME1/P2-DIMMG1/P2-DIMMH1/P2-DIMMJ1/P2-DIMMK1
2 Processors and 16 DIMMs	P1-DIMMA1/P1-DIMMB1/P1-DIMMC1/P1-DIMMF1/P1-DIMMG1/P1-DIMMH1/P1-DIMMI1/P1-DIMML1 P2-DIMMA1/P2-DIMMB1/P2-DIMMC1/P2-DIMMF1/P2-DIMMG1/P2-DIMMH1/P2-DIMMI1/P2-DIMML1
2 Processors and 24 DIMMs (Recommended)	P1-DIMMA1/P1-DIMMB1/P1-DIMMC1/P1-DIMMD1/P1-DIMME1/P1-DIMMF1/P1-DIMMG1/P1-DIMMH1/P1-DIMMI1/P1-DIMMJ1/P1-DIMMK1/P1-DIMML1 P2-DIMMA1/P2-DIMMB1/P2-DIMMC1/P2-DIMMD1/P2-DIMME1/P2-DIMMF1/P2-DIMMG1/P2-DIMMH1/P2-DIMMI1/P2-DIMMJ1/P2-DIMMK1/P2-DIMML1

Notes:

- DIMMs must be all DDR5-6400 rated RDIMMs or all MRDIMM.
- Intel Xeon 6900-series processors support 1DPC population only.
- All DIMMs in a channel must have the same number of ranks (unless explicitly specified otherwise).
- x8 DIMMs and x4 DIMMs cannot be mixed in the same channel or same processor socket.
- Vendor mixing is not allowed.



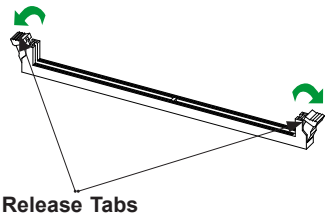
Memory Population on X14DXX/B14DBX Series Motherboards with 24 DIMMs Installed

Note: The drawing above shows DIMM module population for each processor installed on the motherboard. Please install your processors starting with socket 1.

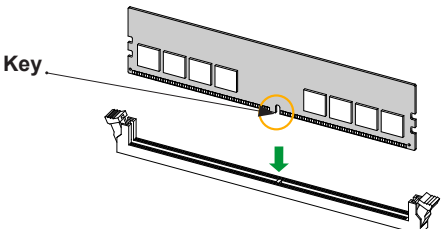
DIMM Installation

1. Insert the desired number of DIMMs into the memory slots based on the recommended DIMM population tables in the previous section. Locate DIMM memory slots on your motherboard. Please note that all graphics shown in this guide are for illustration only. Your motherboard may look different from the drawing on the right.

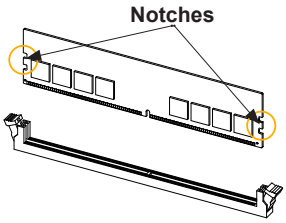
2. Push the release tabs outwards on both ends of the DIMM slot to unlock it.



3. Align the key of the DIMM module with the DIMM socket key on the memory slot.

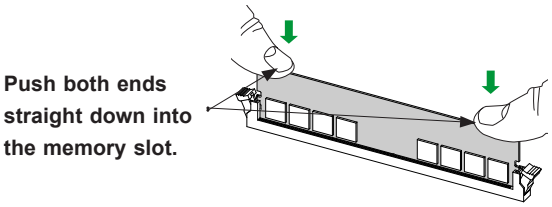


4. Align the notches on both ends of the module against the latches on the ends of the slot.



5. Push both ends of the module straight down into the slot until the module snaps into place.

6. Press the release tabs to the lock positions to secure the DIMM module into the slot.



Warning! Please do not use excessive force when pressing the release tabs on the ends of the DIMM socket to avoid causing any damage to the DIMM module or the DIMM socket. Please handle DIMM modules with care. Carefully follow all the instructions given on Page 1 of this chapter to avoid ESD-related damages done to your memory modules or components.

DIMM Removal

Press both release tabs on the ends of the DIMM module to unlock it. Once the DIMM module is loosened, remove it from the memory slot.