invent

EK–EGCPU–UP. E01

ALPHASERVER GS1280 CPU MODULE INSTALLATION CARD

Use this card as a quick reference to install a dual-processor CPU module in an AlphaServer GS1280 system. Additional information can be found in the *AlphaServer ES47/ES80/GS1280 User Information*.

Overview

- Open the computer system cabinet.
- Identify the cabinet, drawer, and slot for the CPU module.
- Access the 8P CPU drawer.
- Install the CPU module.
- Verify the installation.

Before you Begin

Keep these points in mind when installing a CPU module:

***WARNING**: To prevent injury, access is limited to persons who have appropriate technical training and experience. Such persons are expected to understand the hazards of working within this equipment and take measures to minimize danger to themselves or others.*

***WARNING**: CPU modules and memory modules have parts that operate at high temperatures. Wait 2 minutes after power is removed before touching any module.*

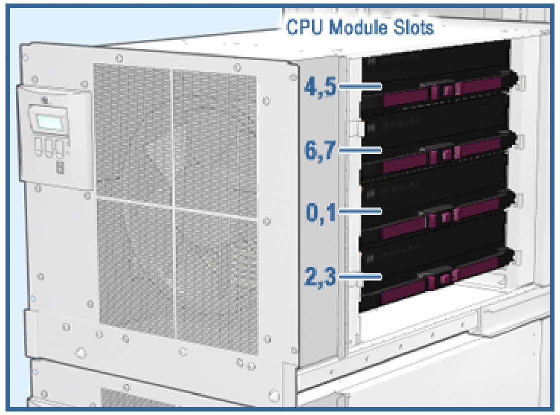
***CAUTION**: Wear an antistatic wrist strap when working on this system.*

***CAUTION**: To reduce the risk of electrical shock or damage to the equipment: Do not disable the power cord grounding plug. The grounding plug is an important safety feature. Plug the power cord into a grounded (earthed) electrical outlet that is easily accessible at all times.*

Identify the Cabinet, Drawer, and Slot for the CPU Module

Note: All slots in drawers must be filled with either a CPU or a filler module.

Use the following tables to determine the cabinet, drawer, and slot into which to install your CPU module. There are two EVs per CPU module. The slots in an 8P CPU drawer are numbered as follows:



8P System

Module Placement

EVs	Drawer 0: 2-3	0-1	6-7	4-5
8	X	X	X	X
6	X	X	O	X
4	O	X	O	X
2	O	X	O	O

CPU (X) & Filler (O) Slot Assignment

16P System

Module Placement

EVs	Drawer 0: 2-3	0-1	6-7	4-5	Drawer 1: 2-3	0-1	6-7	4-5
16	X	X	X	X	X	X	X	X
14	X	X	X	X	X	X	O	X
12	X	X	O	X	X	X	O	X
10	X	X	O	X	O	X	O	X
8	O	X	O	X	O	X	O	X
6	O	X	O	X	O	X	O	O
4	O	X	O	O	O	X	O	O
2	O	X	O	O	O	O	O	O

CPU (X) & Filler (O) Slot Assignment

32P System (1 Cabinet)

Module Placement

EVs	Drawer 0: 2-3	0-1	6-7	4-5	Drawer 1: 2-3	0-1	6-7	4-5
32	X	X	X	X	X	X	X	X
30	X	X	X	X	X	X	X	X
28	X	X	X	X	X	X	X	X
26	X	X	X	X	X	X	O	X
24	X	X	O	X	X	X	O	X
22	X	X	O	X	X	X	O	X
20	X	X	O	X	X	X	O	X
18	X	X	O	X	O	X	O	X
16	O	X	O	X	O	X	O	X
14	O	X	O	X	O	X	O	X
12	O	X	O	X	O	X	O	X
10	O	X	O	X	O	X	O	X
8	O	X	O	X	O	X	O	X
6	O	X	O	X	O	X	O	O
4	O	X	O	O	O	X	O	O
2	O	X	O	O	O	O	O	O

EVs	Drawer 2: 2-3	0-1	6-7	4-5	Drawer 3: 2-3	0-1	6-7	4-5
32	X	X	X	X	X	X	X	X
30	X	X	X	X	X	X	O	X
28	X	X	O	X	X	X	O	X
26	X	X	O	X	X	X	O	X
24	X	X	O	X	X	X	O	X
22	X	X	O	X	O	X	O	X
20	O	X	O	X	O	X	O	X
18	O	X	O	X	O	X	O	X
16	O	X	O	X	O	X	O	X
14	O	X	O	X	O	X	O	O
12	O	X	O	O	O	X	O	O
10	O	X	O	O	O	O	O	O
8	O	O	O	O	O	O	O	O
6	O	O	O	O	O	O	O	O
4	O	O	O	O	O	O	O	O
2	O	O	O	O	O	O	O	O

CPU (X) & Filler (O) Slot Assignment

64P System (Cabinet 0)

Module Placement

EVs	Drawer 0: 2-3	0-1	6-7	4-5	Drawer 1: 2-3	0-1	6-7	4-5	Drawer 2: 2-3	0-1	6-7	4-5	Drawer 3: 2-3	0-1	6-7	4-5
64	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
60	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
56	X	X	X	X	X	X	X	X	X	X	O	X	X	X	O	X
52	X	X	X	X	X	X	X	X	X	X	O	X	X	X	O	X
48	X	X	O	X	X	X	O	X	X	X	O	X	X	X	O	X
44	X	X	O	X	X	X	O	X	X	X	O	X	X	X	O	X
40	X	X	O	X	X	X	O	X	O	X	O	X	O	X	O	X
36	X	X	O	X	X	X	O	X	O	X	O	X	O	X	O	X
32	O	X	O	X	O	X	O	X	O	X	O	X	O	X	O	X
24	O	X	O	X	O	X	O	X	O	X	O	O	O	X	O	O
16	O	X	O	X	O	X	O	X	O	O	O	O	O	O	O	O

64P System (Cabinet 1)

EVs	Drawer 0: 2-3	0-1	6-7	4-5	Drawer 1: 2-3	0-1	6-7	4-5	Drawer 2: 2-3	0-1	6-7	4-5	Drawer 3: 2-3	0-1	6-7	4-5
64	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
60	X	X	X	X	X	X	X	X	X	X	O	X	X	X	O	X
56	X	X	X	X	X	X	X	X	X	X	O	X	X	X	O	X
52	X	X	O	X	X	X	O	X	X	X	O	X	X	X	O	X
48	X	X	O	X	X	X	O	X	X	X	O	X	X	X	O	X
44	X	X	O	X	X	X	O	X	O	X	O	X	O	X	O	X
40	X	X	O	X	X	X	O	X	O	X	O	X	O	X	O	X
36	O	X	O	X	O	X	O	X	O	X	O	X	O	X	O	X
32	O	X	O	X	O	X	O	X	O	X	O	X	O	X	O	X
24	O	X	O	X	O	X	O	X	O	X	O	O	O	X	O	O
16	O	X	O	X	O	X	O	X	O	O	O	O	O	O	O	O

CPU (X) & Filler (O) Slot Assignment.

AlphaServer GS1280 Systems can use two different CPUs:

CPU Speed	Part Number
1150 MHz	3X-KN72C-xx
1300 MHz	3X-KN72D-xx

***CAUTION:** Only one type of CPU may run within a given hard partition. A system may run CPUs of different speeds in different partitions, as long as all the CPUs within each partition are the same.*

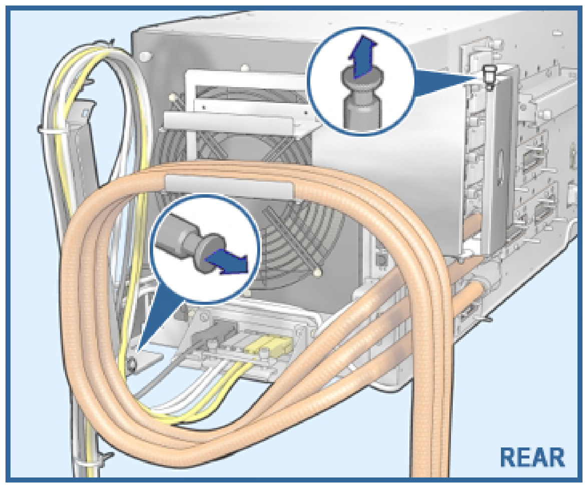
Open the Cabinet

1. Back up all important data, systematically shut down your applications, and perform an orderly shut down of the operating system of each partition associated with the target 8P drawer.
2. Once the operating system is shut down, execute the **p off** MBM console command. For a system with partitioned CPUs, you must power down all of the CPU partitions associated with the target 8P drawer in which you are installing the CPU module by typing in the following MBM console command:

   ```
   p off -hp <partition_name>
   ```
3. Wait for the orderly shutdown to complete.
4. Unlock and open the front door.

Access the 8P CPU Drawer

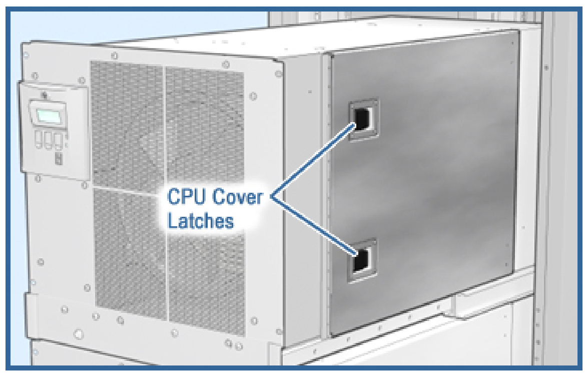
1. At the rear of the cabinet, make sure that the cable supports are unlatched and free to move.



CAUTION: If the cabinet has more than two 8P drawers, pull out and secure the stabilizer bar.

2. Unlock the key latch holding all the drawers to the cabinet frame and pull all drawers from the cabinet.

3. On the right side of the drawer, use the CPU cover latches to open the door to the CPU compartment.
4. Ensure that power has been turned off by checking that the CPU LEDs are flashing.



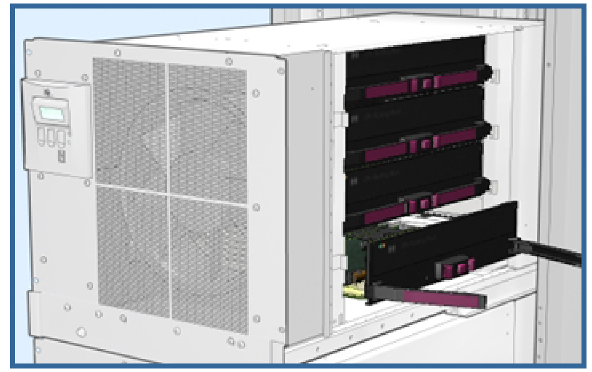
5. If a filler module is currently occupying the space where the CPU module is to be installed, remove the filler module by opening the locking levers and sliding the module out of the drawer.

Install the Dual-Processor CPU Module

Note: When adding or replacing a Dual CPU Building Block module (3X-KN72x-xx) that contains a 4GB Memory Option (3X-MS7AB-DA), ensure that four (4) RIMM VRMs are installed in the CPU being added to

the configuration. In a repair situation, it will be necessary to remove a VRM from the Dual CPU being removed from the system and it will be necessary to add the VRM into the Dual CPU being added to the configuration.

1. Slide the new CPU module into place. **Be sure the module is in the module guides**.



2. **Close both locking levers at the same time.**

CAUTION: Damage may result if the levers are not closed simultaneously <u>and/or</u> if they are closed when the module is not properly seated.

3. Close the drawer door and push the drawers back into the cabinet.
4. If necessary, prepare the stabilizer bar for retraction and push it back into the cabinet.
5. Close the cabinet door.

Verify the Installation

1. Power up the system. Server management runs its power-up self-tests and displays information indicating that the CPU module has been added. Then, the MBM management console command prompt appears.
2. To verify that the CPU module appears in the System Building Block Table, type in the following command:

   ```
   show sys
   ```


3. If you have a system with partitioned CPUs, power up the partition associated with the CPU module you just installed by typing in the following command:

   ```
   p on -hp <partition_name>
   ```
4. If you are using a serial connection to perform management, you can connect to the SRM console by typing in the following command:

   ```
   connect -hp <partition_name>
   ```

   At the SRM command prompt, you can type in the **show config** command and observe the resulting display to confirm that server management has properly recognized the addition of your new CPU module to the system.

Part numbers for CPU module options can be found in the appropriate Quick Specs using the following URL:

http://h18002.www1.hp.com/alphaserver/technology/index.html

Troubleshooting information can be found in the *AlphaServer ES47/ES80/GS1280 Service Information.*