

There are two different versions of this cpu.

The 25-5001 came with 2 MB of memory on the memory adapter board.
The 25-5001A came with 1 MB of memory on the memory adapter board.

Memory Chip Kits -

256K SIMMS

√25-5135 consists of two 256K X 9 SIMM chips at 80 nanoseconds.
√25-5031 consists of four 256K x 9 SIMM chips at 100 nanoseconds. The individual chips can be ordered from Tandy National Parts under cat# 25-5001, part# MX-0384.

1MB SIMMS

25-5137 consists of two 1 MB x 9 SIMM chips at 60 nanoseconds.
√25-5134 consists of two 1 MB x 9 SIMM chips at 80 nanoseconds.
√25-5033 consists of two 1 MB x 9 SIMM chips at 100 nanoseconds.

Memory Boards

√25-6030 is a specialized 32-bit access memory expansion board for the 4016DX. This product can be ordered from Tandy National Parts under catalog #25-6030.

Third Party - Memory expansion can also be accomplished by using a third party, 16-bit memory adapter. These types of adapter boards do not take advantage of the on-board 32-bit memory slots of the 4016DX.

√ = Discontinued Radio Shack product

TANDY 4016DX - Expand from 1MB (25-5001A) or Expand from 2MB (25-5001)			
	First Memory Adapter	Second Memory Adapter	Add to Second Adapter
2MB	(4) MX-0384 (25-5001A)	N/A	N/A
4MB	N/A (25-5001)	25-6030	(8) MX-0384
	(4) MX-0384 (25-5001A)	25-6030	(8) MX-0384
4MB	(2) 25-5137 (replace existing chips)	N/A	N/A
8MB	(4) 25-5137 (replace existing chips)	N/A	N/A
10MB	(4) 25-5137 (replace existing chips)	25-6030	(8) MX-0384
16MB	(4) 25-5137 (replace existing chips)	25-6030	(4) 25-5137

25-6030 & MX-0384 are available from Tandy National Parts

Installing Additional Memory

The 4016 DX comes standard with either 1 MB or 2MB of high-speed RAM upgradable to 16MB. It has two 32-bit memory expansion slots for the use of 32-bit memory adapters (cat# 25-6030). It has one 32-bit memory expansion adapter installed in Memory Expansion Slot 2 on the main logic board. Refer Faxback Doc# 1558 for a diagram of the main logic board and location of the memory expansion slots.

Fill this adapter with 1MB or 256K SIMMs, increases memory to 8MB. Adding a second 32-bit memory adapter (cat# 25-6030) and SIMMs, increases the memory to 16MB.

Each memory expansion adapter (cat# 25-6030) holds two banks of memory. Four SIMMs are required to fill each bank. If you use 256KB SIMMs, one bank equals 1MB. If you use 1MB SIMMs, one bank equals 4MB. The diagram below shows two memory expansion adapters. Banks 0 and 1 are on the first adapter, which is installed in Slot 2. Banks 2 and 3 are on the second adapter.

Installing a second 32-Bit Memory Adapter (cat # 25-6030)

The main logic board has a special bracket for the installation of a second 32-bit memory expansion adapter. Follow these steps to attach this bracket to the adapter and install the adapter in the computer:

1. If the adapter comes with a long mounting bracket, detach the bracket by removing the two screws that secure the adapter. You do not need this bracket.
2. The bracket on the main logic board has two screws - one attaching the bracket to the main logic board, the other for attaching the adapter to the bracket. Remove the screw that attaches the bracket to the main logic board.
3. Remove the adapter screw. Then, use it to attach the bracket to the SIMM side of the adapter.
4. Slide the end of the adapter with the newly attached mounting into the plastic guide slot at the front of the computer. Carefully slide the adapter down into the guide and into the memory expansion slot. Be sure that the adapter is fully seated and that the tab on the mounting bracket has entered the corresponding hole in the main logic board.
5. Use the main logic board screw (removed previously) to secure the mounting bracket to the main logic board.

Memory Configurations

The memory bank assignments, SIMM types, and number of SIMMs for each adapter memory configuration are shown in the following table. The computer is shipped with either 1 MB or the 2MB configuration indicated

in the table.

Total Memory	Memory Bank Assignment	SIMM Types	Total Number of SIMMs
First Memory Expansion Adapter Installed			
1MB	0	256KB x 9*	4
2MB	0,1	256KB x 9	8
4MB	0	1MB x 9	4
8MB	0,1	1MB x 9	8
First and Second 32-bit Memory Expansion Adapters Installed			
4MB	0,1,2,3	256KB x 9	16
10MB	0,1,2,3	1MB x 9 on first adapter 256KB x 9 on second adapter	8 @ 1MB 8 @ 256KB
16MB	0,1,2,3	1MB x 9	16
*The notation "x 9" indicates that each byte of the SIMM has eight data bits and one parity bit.			

When you add memory, remember:

- The first adapter is already installed in 32-bit Memory Expansion Slot 2. Use Slot 1 for the second memory adapter.
- This computer requires 100ns SIMMs or faster.
- Add the new SIMMs using the configuration listed in the previous table.
- Refer to your SIMM kit installation documentation for more information, including instructions on removing SIMMs if necessary.
- Run the Setup program on the Utilities Diskette to complete the installation. Faxback Document # 1545 will provide specific instructions for using the SETUPDX utility.

32-Bit Memory vs. 16-Bit Memory

The 16-bit standard expansion adapter slots can also be used for add-on memory, but the 32-bit memory expansion slots are preferred for three reasons:

- They provide much higher performance at a lower cost.
- Using the 32-bit slots leaves the six 16-bit slots open for other options.

- ° If you have any memory installed in the 16-bit slots and you add a second 32-bit memory expansion adapter, the computer will no longer recognize the memory in the 16-bit slots unless you change the addresses on the 16-bit memory expansion adapter. The addresses are usually set with DIP switches on the expansion adapter. See the adapter documentation for more information.

IF you install standard 16-bit memory expansion adapters that uses DRAM memory, be sure they have 150-nanosecond (150ns) or faster DRAM memory.

NOTE: You do not have to set any jumpers or DIP switches on the computer for standard 16-bit memory expansion adapters.

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