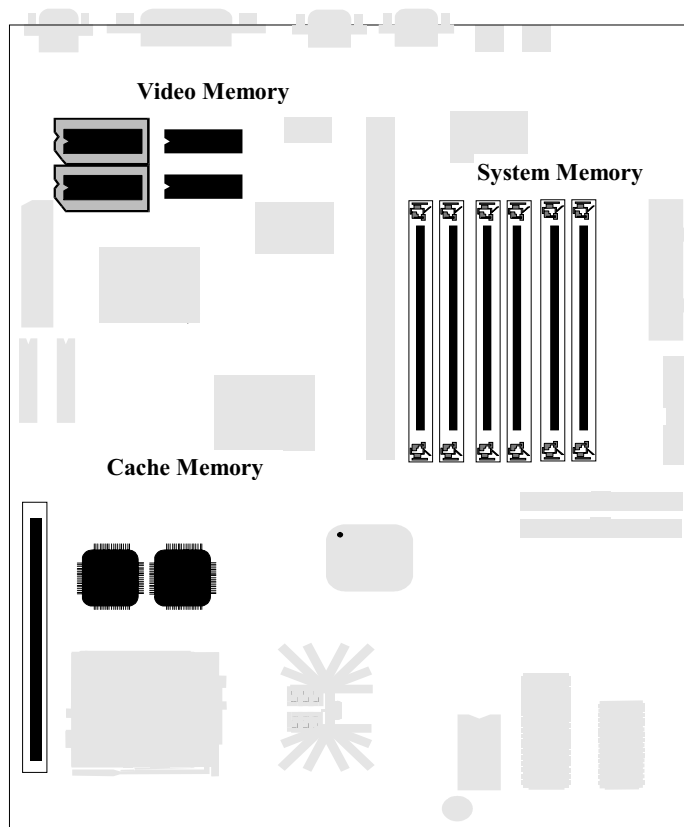


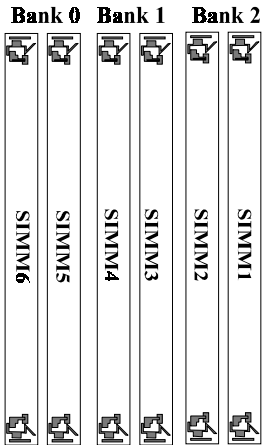
2 Memory Configurations

This chapter contains the detailed memory configuration:
System Memory, Cache Memory and Video Memory.



The diagram above displays the location of VGA DRAM, SIMM Sockets, Pipelined Burst SRAM and Cache Sockets on P5HX-LA motherboard.

System Memory



SIMM

P5HX-LA provides tremendous flexibility DRAM configurations. It accepts a maximum of 384MB memory size. The on-board DRAM is installed with 72-pin SIMM (Single-In-line-Memory Module). There are three memory banks which support the 4M/ 8M/ 16M/32M/64M type, single and/or double-density modules.



The type of SIMM must be same if they exist at the same bank.

The following table lists some possible SIMM module combinations and the total memory size of each combination.

Bank 0		Bank 1		Bank 2		Total
SIMM 6	SIMM 5	SIMM 4	SIMM 3	SIMM 2	SIMM 1	Memory Size
4MB	4MB	----	----	----	----	8MB
4MB	4MB	4MB	4MB	----	----	16MB
4MB	4MB	4MB	4MB	4MB	4MB	24MB
8MB	8MB	----	----	----	----	16MB
8MB	8MB	4MB	4MB	----	----	24MB
8MB	8MB	4MB	4MB	4MB	4MB	32MB
8MB	8MB	8MB	8MB	----	----	32MB
8MB	8MB	8MB	8MB	8MB	8MB	48MB
16MB	16MB	----	----	----	----	32MB
16MB	16MB	4MB	4MB	----	----	40MB
16MB	16MB	4MB	4MB	4MB	4MB	48MB
16MB	16MB	8MB	8MB	----	----	48MB
16MB	16MB	8MB	8MB	8MB	8MB	64MB
16MB	16MB	16MB	16MB	----	----	64MB
16MB	16MB	16MB	16MB	16MB	16MB	96MB

Continued.....

Bank 0		Bank 1		Bank 2		Total
SIMM 6	SIMM 5	SIMM 4	SIMM 3	SIMM 2	SIMM 1	Memory Size
32MB	32MB	-----	-----	-----	-----	64MB
32MB	32MB	4MB	4MB	-----	-----	72MB
32MB	32MB	4MB	4MB	4MB	4MB	80MB
32MB	32MB	8MB	8MB	-----	-----	80MB
32MB	32MB	8MB	8MB	8MB	8MB	96MB
32MB	32MB	16MB	16MB	-----	-----	96MB
32MB	32MB	16MB	16MB	16MB	16MB	128MB
32MB	32MB	32MB	32MB	-----	-----	128MB
32MB	32MB	32MB	32MB	32MB	32MB	192MB
64MB☆	64MB☆	-----	-----	-----	-----	128MB
64MB☆	64MB☆	4MB	4MB	-----	-----	136MB
64MB☆	64MB☆	4MB	4MB	4MB	4MB	144MB
64MB☆	64MB☆	8MB	8MB	-----	-----	144MB
64MB☆	64MB☆	8MB	8MB	8MB	8MB	160MB
64MB☆	64MB☆	16MB	16MB	-----	-----	160MB
64MB☆	64MB☆	16MB	16MB	16MB	16MB	192MB
64MB☆	64MB☆	32MB	32MB	-----	-----	192MB
64MB☆	64MB☆	32MB	32MB	32MB	32MB	256MB
64MB☆	64MB☆	64MB ☆	64MB☆	-----	-----	256MB
64MB☆	64MB☆	64MB ☆	64MB☆	64MB☆	64MB☆	384MB

Table 2 -1. System Memory Configurations

☆: means the memory type is not available for testing when the manual is edited.

Cache Memory Subsystem

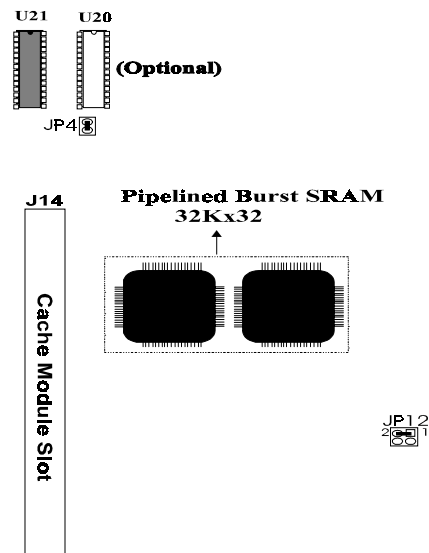
Level 1 Cache:

16KB Level 1 Cache includes Data Cache and Code Cache.

1. Data Cache: supports 8KB Write-Through and Write Back policy.
2. Code Cache: supports 8KB Write-Through policy.

Level 2 Cache:

If Motherboard with 256KB L2 Cache On-board



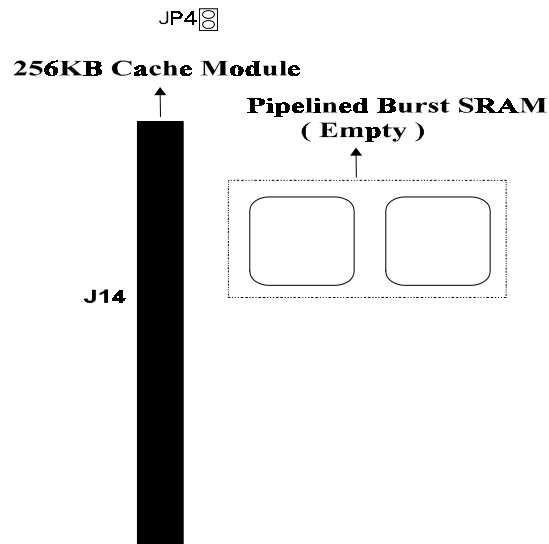
If there is an “On-board 256KB L2 Cache” in the motherboard, users may either upgrade to 512KB by inserting and ECS “CM161” or COASSt (2.1 or later) upgrade cache module of 256KB. Users can refer to **page 3-4** , **page 3-11** and **Page 3-12** for detailed settings and graphics.



If you use on-board cache, you have to install TAG RAM. Installing U21 (8Kx8 15ns or 32Kx8 15ns) , the cacheable memory size maximize 64MB.

If you install both U21 and U20 (8Kx8 15ns or 32Kx8 15ns) , the cacheable memory size maximize 384MB. (The BIOS have to set 512MB.)

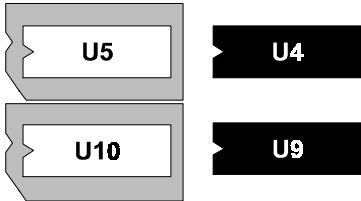
If Motherboard with 0 KB L2 Cache On-board



If there is not any “On-board 256KB L2 Cache” in the motherboard, users may either upgrade to 256KB or 512KB by inserting an ECS “CM161” or COASt (2.1 or later) upgrade cache module of 256KB or 512KB. . Users can refer to **page 3-4** , **page 3-11** and **page 3-12** for detailed settings and graphics.

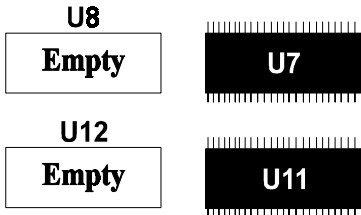
Video Memory

EDO RAM:

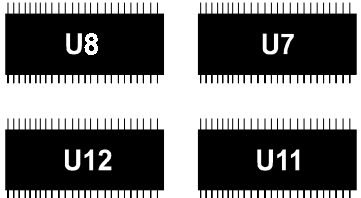


The diagram left displays the default 1M EDO Video Memory (U4, U9 On-board)
Users can add 256Kx16-7 Video Memory on U5 and U10 to update to 2M EDO. Please refer to **p3-16** for the clear location.

SDRAM:



Supports 2 pcs 128Kx16x2 SDRAM to 1 M SDRAM. (manufacture option)



Can add 128Kx16x2 SDRAM type Video Memory to mount on U8 and U12 in order to update to 2M. (manufacture option)

Please reconfirm your video memory type beofre you upgrade the BIOS.