Mirrored memory configuration

Mirroring provides protection against uncorrectable memory errors that would otherwise result in server downtime.

Mirroring is performed on the branch level. Branch 0 and branch 1 mirror each other.

Each branch maintains a copy of all memory contents. Memory writes go to both branches. Memory reads come from only one of the two branches (unless an uncorrectable error occurs). If a memory read on one branch returns incorrect data due to an uncorrectable memory error, the system automatically retrieves the proper data from the other branch. A branch is not necessarily disabled (thus losing mirroring protection) because of a single uncorrectable error. Mirroring protection is not lost because of transient and soft uncorrectable errors, resulting in systems that maintain mirroring protection (and thus improved uptime) unless there is a failure of both branches.

Mirrored memory FBDIMM configuration requirements (in addition to general configuration requirements):

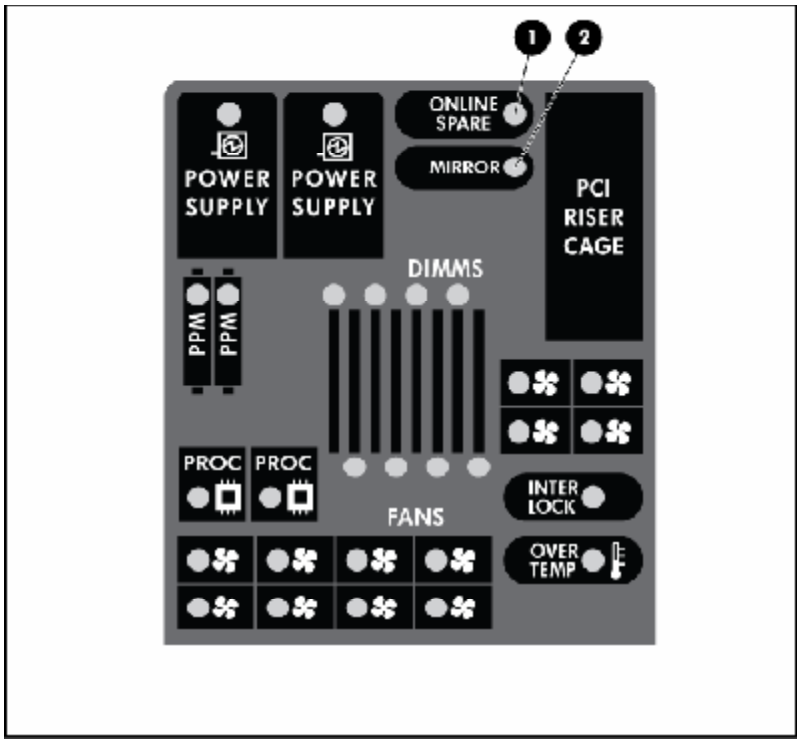
- Banks A and B must be fully populated.
- Bank A and bank B must contain FBDIMMs with identical part numbers. If installed, bank C and bank D must also contain FBDIMMs with identical part numbers.

When using mirrored memory mode, FBDIMMs must be populated as specified in the following table:

Configuration	Bank A (1A and 3A)	Bank B (5B and 7B)	Bank C (2C and 4C)	Bank D (6D and 8D)
1	X	X	—	—
2	X	X	X	X

After installing FBDIMMs, use RBSU to configure the system for mirrored memory support.

Systems Insight Display LEDs



Item	Description	Status
1	Online spare	Off = No protection Green = Protection enabled Amber = Memory failure occurred Flashing amber = Memory configuration error
2	Mirror	Off = No protection Green = Protection enabled Amber = Memory failure occurred Flashing amber = Memory configuration error
	All other LEDs	Off = Normal Amber = Failure

NOTE: The HP Systems Insight Display LEDs represent the system board layout.