

## Z87-WS Memory Qualified Vendors List (QVL)

### DDR3 2800 MHz Capability BIOS Version:1504

#### DDR3 2800 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								2 DIMM	4 DIMM
G.SKILL	F3-2800C11Q-16GTXD	16GB ( 4x 4GB )	DS	-	-	11-13-13-35	1.65V	•	•
G.SKILL	F3-2800C11D-8GTXDG	8GB ( 2x 4GB )	DS	-	-	11-14-14-35	1.65V	•	•
G.SKILL	F3-2800C11D-16GTXDG	16GB ( 2 x 8GB )	DS	-	-	11-14-14-35	1.65V	•	•
G.SKILL	F3-2800C11Q-32GTXDG	32GB ( 4 x 8GB )	DS	-	-	11-14-14-35	1.65V	•	•
APACER	78.BAGH5.AFD0C	8GB ( 2x 4GB )	DS	-	-	12-14-14-35	1.65V	•	•
CORSAIR	CMD16GX3M4A2800C12	16GB ( 4x 4GB )	DS	-	-	12-14-14-36	1.65V	•	•

### DDR3 2933 MHz Capability BIOS Version:1504

#### DDR3 2933 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								2 DIMM	4 DIMM
G.SKILL	F3-2933C12D-8GTXDG	8GB ( 2 x 4GB )	SS	-	-	12-14-14-35	1.65V	•	•
G.SKILL	F3-2933C12Q-16GTXDG	16GB ( 4 x 4GB )	SS	-	-	12-14-14-35	1.65V	•	•

### DDR3 3000 MHz Capability BIOS Version:1504

#### DDR3 3000 Qualified Vendors List (QVL)

Vendors	Part No.	Size	SS/DS	Chip Brand	Chip NO.	Timing	Voltage	DIMM socket support (Optional)	
								2 DIMM	4 DIMM
G.SKILL	F3-3000C12Q-16GTXDG	16GB ( 4x 4GB )	SS	-	-	12-14-14-35	1.65V	•	•
G.SKILL	F3-3000C12D-8GTXDG	8GB ( 2 x 4GB )	SS	-	-	12-14-14-35	1.65V	•	•

#### 4 DIMM Slots

- **1 DIMM:** Supports one module inserted in any slot as Single-channel memory configuration
- **2 DIMM:** Supports one pair of modules inserted into either the **blue** slots or the **black** slots as one pair of Dual-channel memory configuration
- **4 DIMM:** Supports 4 modules inserted into both the **blue** and **black** slots as two pairs of Dual-channel memory configuration

-When installing total memory of 4GB capacity or more, Windows 32-bit operation system may only recognize less than 3GB. Hence, a total installed memory of less than 3GB is recommended.

-It is recommended to install the memory modules from the slots for better overclocking capability.

-The default DIMM frequency depends on its Serial Presence Detect (SPD), which is the standard way of accessing information from a memory module. Under the default state, some memory modules for overclocking may operate at a lower frequency than the vendor-marked value.

-Memory module with memory frequency higher than 2133 MHz and its corresponding timing or the loaded XMP Profile is not the JEDEC memory standard. The stability and compatibility of these memory modules depend on the CPU's capabilities and other installed devices.

-Always install DIMMs with the same CAS latency. For optimal compatibility, we recommend that you install memory modules of the same version or date code (D/C) from the same vendor. Check with the retailer to get the correct memory modules.