

**Qualified Vendors List (QVL), Model Name: GA-B150-HD3**

DDR4 2400MHz (downgrade to DDR4 2133MHz)

| Module Supplier | Density | # of Ranks<br>x DRAM devices | Module P/N.          | SS/DS | Chip Brand | Chip P/N. | Timing      | Voltage | Memory socket support |   |
|-----------------|---------|------------------------------|----------------------|-------|------------|-----------|-------------|---------|-----------------------|---|
|                 |         |                              |                      |       |            |           |             |         | 2                     | 4 |
| ADATA           | 4GB     | 1Rx8                         | AX4U2400W4G16        | SS    | SKHynix    |           | 16-16-16-39 | 1.2v    | v                     | v |
| ADATA           | 8GB     | 2Rx8                         | AX4U2400W8G16        | DS    | SKHynix    |           | 16-16-16-39 | 1.2v    | v                     | v |
| Apacer          | 8GB     | 2Rx8                         | 78.C1GMS.4010B       | DS    | Samsung    |           | CL17        | 1.2v    | v                     | v |
| Avexir          | 4GB     | 1Rx8                         | AVD4U24001604G-4M    | SS    | SKHynix    |           | CL16        | 1.2v    | v                     | v |
| Avexir          | 8GB     | 2Rx8                         | AVD4U24001608G-4M    | DS    | SKHynix    |           | CL16        | 1.2v    | v                     | v |
| CORSAIR         | 4GB     | 1Rx8                         | CMK16GX4M4A2400C14   | SS    | Samsung    |           | 14-16-16-31 | 1.2v    | v                     | v |
| CORSAIR         | 4GB     | 1Rx8                         | CMD16GX4M4A2400C14   | SS    | Samsung    |           | 14-16-16-31 | 1.2v    | v                     | v |
| CORSAIR         | 8GB     | 2Rx8                         | CMK32GX4M4A2400C14   | DS    | Samsung    |           | 14-16-16-31 | 1.2v    | v                     | v |
| CORSAIR         | 8GB     | 2Rx8                         | CMD32GX4M4A2400C14   | DS    | Samsung    |           | 14-16-16-31 | 1.2v    | v                     | v |
| CORSAIR         | 16GB    | 2Rx8                         | CMK128GX4M8A2400C14  | DS    |            |           | 14-16-16-31 | 1.2v    | v                     | v |
| CRUCIAL         | 4GB     | 1Rx8                         | BLS4G4D240FSA.M8FADM | SS    | Micron     |           | 16-16-16-40 | 1.2v    | v                     | v |
| CRUCIAL         | 8GB     | 2Rx8                         | BS8G4D240FSA         | DS    | Micron     |           | 16-16-16-40 | 1.2v    | v                     | v |
| CRUCIAL         | 16GB    | 2Rx8                         | BLS16G4D240FSB.16FAD | DS    | Micron     |           | 16-16-16-39 | 1.2v    | v                     | v |
| G.SKILL         | 4GB     | 1Rx8                         | F4-2400C15D-8GRR     | SS    |            |           | 15-15-15-35 | 1.2v    | v                     |   |
| G.SKILL         | 4GB     | 1Rx8                         | F4-2400C15D-8GVR     | SS    |            |           | 15-15-15-35 | 1.2v    | v                     |   |
| G.SKILL         | 4GB     | 1Rx8                         | F4-2400C15D-8GNT     | SS    |            |           | 15-15-15-35 | 1.2v    | v                     |   |
| G.SKILL         | 4GB     | 1Rx8                         | F4-2400C15Q-16GRR    | SS    |            |           | 15-15-15-35 | 1.2v    | v                     | v |
| G.SKILL         | 4GB     | 1Rx8                         | F4-2400C15Q-16GRB    | SS    |            |           | 15-15-15-35 | 1.2v    | v                     | v |
| G.SKILL         | 4GB     | 1Rx8                         | F4-2400C15Q-16GRK    | SS    |            |           | 15-15-15-35 | 1.2v    | v                     | v |
| G.SKILL         | 4GB     | 1Rx8                         | F4-2400C15Q-16GVR    | SS    |            |           | 15-15-15-35 | 1.2v    | v                     | v |
| G.SKILL         | 4GB     | 1Rx8                         | F4-2400C15Q-16GNT    | SS    |            |           | 15-15-15-35 | 1.2v    | v                     | v |
| G.SKILL         | 8GB     | 2Rx8                         | F4-2400C15D-16GRR    | DS    |            |           | 15-15-15-35 | 1.2v    | v                     |   |
| G.SKILL         | 8GB     | 2Rx8                         | F4-2400C15D-16GVR    | DS    |            |           | 15-15-15-35 | 1.2v    | v                     |   |
| G.SKILL         | 8GB     | 2Rx8                         | F4-2400C15D-16GNT    | DS    |            |           | 15-15-15-35 | 1.2v    | v                     |   |
| G.SKILL         | 8GB     | 2Rx8                         | F4-2400C15Q-32GRR    | DS    |            |           | 15-15-15-35 | 1.2v    | v                     | v |
| G.SKILL         | 8GB     | 2Rx8                         | F4-2400C15Q-32GRB    | DS    |            |           | 15-15-15-35 | 1.2v    | v                     | v |
| G.SKILL         | 8GB     | 2Rx8                         | F4-2400C15Q-32GRK    | DS    |            |           | 15-15-15-35 | 1.2v    | v                     | v |
| G.SKILL         | 8GB     | 2Rx8                         | F4-2400C15Q-32GVR    | DS    |            |           | 15-15-15-35 | 1.2v    | v                     | v |
| G.SKILL         | 8GB     | 2Rx8                         | F4-2400C15Q-32GNT    | DS    |            |           | 15-15-15-35 | 1.2v    | v                     | v |
| G.SKILL         | 16GB    | 2Rx8                         | F4-2400C15Q2-128GRK  | DS    |            |           | 15-15-15-35 | 1.2v    | v                     | v |
| Kingston        | 4GB     | 1Rx8                         | HX424C12PB2K4/16     | SS    | SKHynix    |           | CL12        | 1.35v   | v                     |   |
| PATRIOT         | 4GB     | 1Rx8                         | PX416G240C5QK        | SS    |            |           | 15-15-15-35 | 1.2v    | v                     | v |
| PATRIOT         | 4GB     | 1Rx8                         | PX48G240C5K          | SS    |            |           | 15-15-15-35 | 1.2v    | v                     | v |
| PATRIOT         | 8GB     | 2Rx8                         | PV432G240C5QK        | DS    |            |           | 15-15-15-35 | 1.2v    | v                     | v |
| PATRIOT         | 8GB     | 2Rx8                         | PX432G240C5QK        | DS    |            |           | 15-15-15-35 | 1.2v    | v                     | v |
| PATRIOT         | 8GB     | 2Rx8                         | PX416G240C5K         | DS    |            |           | 15-15-15-35 | 1.2v    | v                     | v |
| Panram          | 4GB     | 1Rx8                         | PUD42400C154G4NJW    | SS    | SKhynix    |           | 15-15-15-35 | 1.2v    | v                     | v |
| Panram          | 8GB     | 2Rx8                         | PUD42400C158G4NJW    | DS    | SKhynix    |           | 15-15-15-35 | 1.2v    | v                     | v |
| Team            | 4GB     | 1Rx8                         | TED44GM2400C16BK     | SS    | Samsung    |           | 16-16-16-39 | 1.2v    | v                     | v |
| Team            | 8GB     | 2Rx8                         | TED48GM2400C16BK     | DS    | Samsung    |           | 16-16-16-39 | 1.2v    | v                     | v |
| V-Color         | 4GB     | 1Rx8                         | TD4G8C17-UH          | SS    |            |           | CL17        | 1.2v    | v                     | v |

DDR4 2133MHz

| Module Supplier | Density | # of Ranks<br>x DRAM devices | Module P/N.           | SS/DS | Chip Brand | Chip P/N. | Timing      | Voltage | Memory socket support |   |
|-----------------|---------|------------------------------|-----------------------|-------|------------|-----------|-------------|---------|-----------------------|---|
|                 |         |                              |                       |       |            |           |             |         | 2                     | 4 |
| ADATA           | 4GB     | 1Rx8                         | AD4U2133W4G15-B       | SS    | SKhynix    |           | CL15        | 1.2v    | v                     | v |
| ADATA           | 8GB     | 2Rx8                         | AD4U2133W8G15-B       | DS    | SKhynix    |           | CL15        | 1.2v    | v                     | v |
| Apacer          | 4GB     | 1Rx8                         | 78.B1GM3.AF00B        | SS    |            |           | CL15        | 1.2v    | v                     | v |
| Apacer          | 8GB     | 2Rx8                         | 78.C1GM3.AF10B        | DS    |            |           | CL15        | 1.2v    | v                     | v |
| CORSAIR         | 4GB     | 1Rx8                         | CMV4GX4M1A2133C15-ESM | SS    | Micron     |           | CL15        | 1.2v    | v                     | v |
| CORSAIR         | 4GB     | 1Rx8                         | CMV4GX4M1A2133C15     | SS    | SKhynix    |           | CL15        | 1.2v    | v                     | v |
| CORSAIR         | 4GB     | 1Rx8                         | CMK16GX4M4A2133C13    | SS    |            |           | 13-15-15-28 | 1.2v    | v                     | v |
| CORSAIR         | 4GB     | 1Rx8                         | CMD16GX4M4B2133C10    | SS    |            |           | 10-12-12-31 | 1.35v   | v                     | v |
| CORSAIR         | 8GB     | 2Rx8                         | CMV8GX4M1A2133C15-ESM | DS    | Micron     |           | CL15        | 1.2v    | v                     | v |
| CORSAIR         | 8GB     | 2Rx8                         | CMV8GX4M1A2133C15     | DS    | SKhynix    |           | CL15        | 1.2v    | v                     | v |
| CORSAIR         | 8GB     | 2Rx8                         | CMK32GX4M4A2133C13    | DS    |            |           | 13-15-15-28 | 1.2v    | v                     | v |
| CORSAIR         | 8GB     | 2Rx8                         | CMK64GX4M8A2133C13    | DS    |            |           | 13-15-15-28 | 1.2v    | v                     | v |
| CRUCIAL         | 4GB     | 1Rx8                         | CT4G4DFS8213.C8FAR1   | SS    | Micron     |           | CL15        | 1.2v    | v                     | v |
| CRUCIAL         | 4GB     | 1Rx8                         | CT4G4WFS8213.9FA1     | SS    | Micron     |           | CL15        | 1.2v    | v                     | v |
| CRUCIAL         | 8GB     | 2Rx8                         | CT8G4DFD8213.C16FAR1  | DS    | Micron     |           | CL15        | 1.2v    | v                     | v |
| CRUCIAL         | 8GB     | 2Rx8                         | CT8G4WFD8213          | DS    | Micron     |           | CL15        | 1.2v    | v                     | v |
| G.SKILL         | 4GB     | 1Rx8                         | F4-2133C15D-8GRR      | SS    |            |           | 15-15-15-35 | 1.2v    | v                     |   |
| G.SKILL         | 4GB     | 1Rx8                         | F4-2133C15D-8GVR      | SS    |            |           | 15-15-15-35 | 1.2v    | v                     |   |
| G.SKILL         | 4GB     | 1Rx8                         | F4-2133C15D-8GNT      | SS    |            |           | 15-15-15-35 | 1.2v    | v                     |   |
| G.SKILL         | 4GB     | 1Rx8                         | F4-2133C15Q-16GRR     | SS    |            |           | 15-15-15-35 | 1.2v    | v                     | v |
| G.SKILL         | 4GB     | 1Rx8                         | F4-2133C15Q-16GRB     | SS    |            |           | 15-15-15-35 | 1.2v    | v                     | v |
| G.SKILL         | 4GB     | 1Rx8                         | F4-2133C15Q-16GRK     | SS    |            |           | 15-15-15-35 | 1.2v    | v                     | v |
| G.SKILL         | 4GB     | 1Rx8                         | F4-2133C15Q-16GVR     | SS    |            |           | 15-15-15-35 | 1.2v    | v                     | v |
| G.SKILL         | 4GB     | 1Rx8                         | F4-2133C15Q-16GNT     | SS    |            |           | 15-15-15-35 | 1.2v    | v                     | v |
| G.SKILL         | 8GB     | 2Rx8                         | F4-2133C15D-16GRR     | DS    |            |           | 15-15-15-35 | 1.2v    | v                     |   |
| G.SKILL         | 8GB     | 2Rx8                         | F4-2133C15D-16GVR     | DS    |            |           | 15-15-15-35 | 1.2v    | v                     |   |
| G.SKILL         | 8GB     | 2Rx8                         | F4-2133C15Q-16NT      | DS    |            |           | 15-15-15-35 | 1.2v    | v                     |   |
| G.SKILL         | 8GB     | 2Rx8                         | F4-2133C15Q-32GRR     | DS    |            |           | 15-15-15-35 | 1.2v    | v                     | v |

|               |     |      |                   |    |         |  |             |      |   |   |
|---------------|-----|------|-------------------|----|---------|--|-------------|------|---|---|
| G.SKILL       | 8GB | 2Rx8 | F4-2133C15Q-32GRB | DS |         |  | 15-15-15-35 | 1.2v | v | v |
| G.SKILL       | 8GB | 2Rx8 | F4-2133C15Q-32GRK | DS |         |  | 15-15-15-35 | 1.2v | v | v |
| G.SKILL       | 8GB | 2Rx8 | F4-2133C15Q-32GVR | DS |         |  | 15-15-15-35 | 1.2v | v | v |
| G.SKILL       | 8GB | 2Rx8 | F4-2133C15Q-32GNT | DS |         |  | 15-15-15-35 | 1.2v | v | v |
| innodisk      | 4GB | 1Rx8 | M4C0-4GSSLCRG     | SS |         |  |             | 1.2v | v | v |
| innodisk      | 8GB | 2Rx8 | M4C0-8GSSMCRG     | SS |         |  |             | 1.2v | v | v |
| Kingston      | 4GB | 1Rx8 | HX421C14FBK4/16   | SS |         |  |             | 1.2v | v | v |
| Panram        | 4GB | 1Rx8 | PUD42133C154G2VS  | SS | SKhynix |  | 15-15-15-36 | 1.2v | v | v |
| Panram        | 4GB | 1Rx8 | PUD42133C134G4NJW | SS | SKhynix |  | 13-13-13-35 | 1.2v | v | v |
| Panram        | 4GB | 1Rx8 | PED42133C154GVS   | SS | SKhynix |  | 15-15-15-36 | 1.2v | v | v |
| Panram        | 8GB | 2Rx8 | PUD42133C158G2VS  | DS | SKhynix |  | 15-15-15-36 | 1.2v | v | v |
| Panram        | 8GB | 2Rx8 | PUD42133C138G4NJW | DS | SKhynix |  | 13-13-13-35 | 1.2v | v | v |
| Panram        | 8GB | 2Rx8 | PED42133C158GVS   | DS | SKhynix |  | 15-15-15-36 | 1.2v | v | v |
| SAMSUNG       | 4GB | 1Rx8 | M378A5143DB0-CPB  | SS |         |  |             | 1.2v | v | v |
| SAMSUNG       | 8GB | 2Rx8 | M378A1G43DB0-CPB  | DS |         |  |             | 1.2v | v | v |
| Silicon POWER | 4GB | 1Rx8 | SP004GBLFU213N01  | SS | Samsung |  | CL15        | 1.2v | v | v |
| Silicon POWER | 8GB | 2Rx8 | SP008GBLFU213N01  | DS | Samsung |  | CL15        | 1.2v | v | v |
| Team          | 4GB | 1Rx8 | TED44GM2133C15BK  | SS |         |  | 15-15-15-36 | 1.2v | v | v |

• Memory modules listed as above is for reference only. Due to massive memory models in market, we can only verify some of them.

以上所列的記憶體模組僅供參考，因市面上的記憶體模組眾多，我們無法一一驗證。

• When enabling Dual Channel mode with two or four memory modules, it is recommended that using the same capacity, brand, speed, and chips of memory modules and also installed in the same color of DDR4 slots.

若要安裝兩支DDR4記憶體模組，建議您使用相同容量/廠牌/速度/顆粒等之記憶體模組。