

B85 series

| DDR3 1067 Qualified Vendors List (QVL) |                    |      |       |            |                |        |           |                                |        |        |
|--|--------------------|------|-------|------------|----------------|--------|-----------|--------------------------------|--------|--------|
| Vendors                                | Part No.           | Size | SS/DS | Chip Brand | Chip NO.       | Timing | Voltage   | DIMM socket support (Optional) |        |        |
|  |                    |      |       |            |                |        |           | 1 DIMM                         | 2 DIMM | 4 DIMM |
| Crucial                                | CT25664BA1067.16FF | 2GB  | DS    | Micron     | 9HF22D9KPT     | 7      | -         | ●                              | ●      | ●      |
| ELPIDA                                 | EBJ21UE8EDF0-AE-F  | 2GB  | DS    | ELPIDA     | J1108EDSE-DJ-F | -      | 1.35V(low | ●                              | ●      | ●      |
| KINGSTON                               | KVR1066D3N7/2G     | 2GB  | DS    | ELPIDA     | J1108BFSE-DJ-F | -      | 1.5V      | ●                              | ●      | ●      |
| KINGSTON                               | KVR1066D3N7/4G     | 4GB  | DS    | Hynix      | H5TQ2G83AFR    | 7      | 1.5V      | ●                              | ●      | ●      |

| DDR3 1333 Qualified Vendors List (QVL) |                          |              |       |            |                    |            |                   |                                |        |        |
|--|--------------------------|--------------|-------|------------|--------------------|------------|-------------------|--------------------------------|--------|--------|
| Vendors                                | Part No.                 | Size         | SS/DS | Chip Brand | Chip NO.           | Timing     | Voltage           | DIMM socket support (Optional) |        |        |
|  |                          |              |       |            |                    |            |                   | 1 DIMM                         | 2 DIMM | 4 DIMM |
| AMD                                    | AE32G1339U1-U            | 2GB          | SS    | AMD        | 23EY4587MB3H11503M | 9-9-9-24   | 1.5V              | ●                              | ●      | ●      |
| AMD                                    | AE34G1339U2-U            | 4GB          | DS    | AMD        | 23EY4587MB3H11503M | 9-9-9-24   | 1.5V              | ●                              | ●      | ●      |
| ASint                                  | SLZ302G08-EDJ1C          | 2GB          | SS    | Asint      | SLZ302G08-DJ1C     | -          | 1.5V              | ●                              | ●      |        |
| Asint                                  | SLA304G08-EDJ1B          | 4GB          | SS    | Asint      | 304G08-DJ1B1301    | -          | -                 | ●                              | ●      | ●      |
| ASint                                  | SLA302G08-EDJ1C          | 4GB          | DS    | Asint      | SLA302G08-DJ1C     | -          | 1.5V              | ●                              | ●      | ●      |
| ASint                                  | SLB304G08-EDJ1B          | 8GB          | DS    | Asint      | SLB304G08-DJ1B     | -          | 1.5V              | ●                              | ●      | ●      |
| Elixir                                 | M2F2G64CB88B7N-CG        | 2GB          | SS    | Elixir     | N2CB2G80BN-CG      | -          | 1.5V              | ●                              | ●      | ●      |
| Elixir                                 | M2F2G64CB88D7N-CG        | 2GB          | SS    | Elixir     | N2CB2G80DN-CG      | -          | 1.5V              | ●                              | ●      | ●      |
| Elixir                                 | M2F2G64CB88G7N-CG        | 2GB          | SS    | Elixir     | N2CB2G80GN-CG      | -          | -                 | ●                              | ●      | ●      |
| Elixir                                 | M2F4G64CB8HB5N-CG        | 4GB          | DS    | Elixir     | N2CB2G80BN-CG      | -          | 1.5V              | ●                              | ●      | ●      |
| Elixir                                 | M2F4G64CB8HD5N-CG        | 4GB          | DS    | Elixir     | N2CB2G80DN-CG      | -          | 1.5V              | ●                              | ●      | ●      |
| HMD                                    | HMDD302GU648S1B9C-MEX    | 2GB          | SS    | ERTH       | 256X8DDR3 WT       | -          | 1.5V              | ●                              | ●      |        |
| HMD                                    | HMDD304GU648S1B9C-MEX    | 4GB          | SS    | UUJK       | 512X8DDR3 WT       | -          | 1.5V              | ●                              | ●      | ●      |
| HMD                                    | HMDD308GU648D1B9C-MEX    | 8GB          | DS    | FFCT       | 512X8DDR3 WT       | -          | 1.5V              | ●                              | ●      | ●      |
| KINGSHARE                              | KSRPCD313332G            | 2GB          | DS    | PATRIOT    | PM128M8D385-15     | -          | 1.5V              | ●                              | ●      | ●      |
| MARKVISION                             | BMD32048M1333C9-1123     | 2GB          | DS    | MARKVISION | M3D1288P-13        | -          | -                 | ●                              | ●      | ●      |
| MARKVISION                             | BMD34096M1333C9-1124     | 4GB          | DS    | MARKVISION | M3D2568E-13        | -          | -                 | ●                              | ●      | ●      |
| PATRIOT                                | PSD32G13332H             | 2GB          | DS    | -          | -                  | -          | 1.5V              | ●                              | ●      | ●      |
| PATRIOT                                | PG38G1333EL(XMP)         | 8GB          | DS    | -          | -                  | 9-9-9-24   | 1.5V              | ●                              | ●      |        |
| RAMAXEL                                | RMR1870ED48E8F-1333      | 2GB          | DS    | ELPIDA     | J1108BDBG-DJ-F     | -          | -                 | ●                              | ●      | ●      |
| RAMAXEL                                | RMR1870EC58E9F-1333      | 4GB          | DS    | ELPIDA     | J2108BCSE-DJ-F     | -          | -                 | ●                              | ●      | ●      |
| RIATA                                  | C304627CB1AG22Fe         | 2GB          | DS    | RIATA      | N/A                | 9          | 1.5V              | ●                              | ●      | ●      |
| RIATA                                  | E304459CB1AG32Cf         | 4GB          | DS    | RIATA      | N/A                | 9          | 1.5V              | ●                              | ●      | ●      |
| Silicon Power                          | SP002GBLTU133V02         | 2GB          | SS    | S-POWER    | 20YT3NG-1202       | -          | 1.5V              | ●                              | ●      | ●      |
| Silicon Power                          | SP004GBLTU133V02         | 4GB          | DS    | S-POWER    | 20YT3NG-1201       | -          | 1.5V              | ●                              | ●      |        |
| TAKEMS                                 | TMS2GB364D082-138EW      | 2GB          | DS    | -          | -                  | 8-8-8-24   | 1.5V              | ●                              | ●      | ●      |
| UMAX                                   | E41302GP0-73BDB          | 2GB          | DS    | UMAX       | U2S24D30TP-13      | -          | 1.5V              | ●                              | ●      | ●      |
| WINTEC                                 | 3WVS31333-2G-CNR         | 2GB          | DS    | AMPO       | AM3420803-13H      | -          | 1.5V              | ●                              | ●      | ●      |
| CORSAIR                                | CMX4GX3M1A1333C9         | 4GB          | DS    | -          | -                  | 9-9-9-24   | 1.50V             | ●                              | ●      | ●      |
| TEAM                                   | TED34GM1333C9BK          | 4GB          | DS    | HYNIX      | DWLDL9J5HL         | 9-9-9-24   | 1.5V              | ●                              | ●      | ●      |
| TEAM                                   | TED38GM1333C9BK          | 8GB          | DS    | HYNIX      | DT38J3bbDHJ        | 9-9-9-24   | 1.5V              | ●                              | ●      | ●      |
| A-DATA                                 | AD3U1333C2G9             | 2GB          | SS    | A-DATA     | 3CCD-1509HNA1126L  | -          | -                 | ●                              | ●      | ●      |
| A-DATA                                 | AX3U1333C2G9-BP          | 2GB          | SS    | -          | -                  | -          | -                 | ●                              | ●      | ●      |
| A-DATA                                 | AD31333G002GMU           | 2GB          | DS    | -          | -                  | 8-8-8-24   | 1.65-1.85V        | ●                              | ●      |        |
| Apacer                                 | 78.A1GC6.9L1             | 2GB          | DS    | Apacer     | AM5D5808DEWSBG     | -          | -                 | ●                              | ●      | ●      |
| Apacer                                 | 78.A1GC6.9L1             | 2GB          | DS    | Apacer     | AM5D5808FEQSBG     | 9          | -                 | ●                              | ●      | ●      |
| Apacer                                 | AU02GFA33C9NBGC          | 2GB          | DS    | Apacer     | AM5D5808APQSBG     | -          | -                 | ●                              | ●      | ●      |
| Apacer                                 | 78.B1GDE.9L10C           | 4GB          | DS    | Apacer     | AM5D5908CEHSBG     | -          | -                 | ●                              | ●      | ●      |
| CORSAIR                                | TR3X6G1333C9 G           | 6GB(3x 2GB)  | SS    | -          | -                  | 9-9-9-24   | 1.50V             | ●                              | ●      | ●      |
| CORSAIR                                | CMD24GX3M6A1333C9(XMP)   | 24GB(6x4GB)  | DS    | -          | -                  | 9-9-9-24   | 1.60V             | ●                              | ●      |        |
| CORSAIR                                | TW3X4G1333C9D G          | 4GB(2 x 2GB) | DS    | -          | -                  | 9-9-9-24   | 1.50V             | ●                              | ●      | ●      |
| CORSAIR                                | CM3X4GA1333C9N2          | 4GB          | DS    | CORSAIR    | 256MBDCJGELC040113 | 9-9-9-24   | -                 | ●                              | ●      | ●      |
| CORSAIR                                | CMX4GX3M1A1333C9         | 4GB          | DS    | -          | -                  | 9-9-9-24   | 1.50V             | ●                              | ●      | ●      |
| CORSAIR                                | CMD8GX3M4A1333C7         | 8GB(4 x 2GB) | DS    | -          | -                  | 7-7-7-20   | 1.60V             | ●                              | ●      | ●      |
| Crucial                                | CT25664BA1339.16FF       | 2GB          | DS    | Micron     | 9KF27D9KPT         | 9          | -                 | ●                              | ●      | ●      |
| Crucial                                | BL25664BN1337.16FF (XMP) | 6GB(3 x 2GB) | DS    | -          | -                  | 7-7-7-24   | 1.65V             | ●                              | ●      | ●      |
| ELPIDA                                 | EBJ21UE8EDF0-DJ-F        | 2GB          | DS    | ELPIDA     | J1108EDSE-DJ-F     | -          | 1.35V(low         | ●                              | ●      | ●      |
| G.SKILL                                | F3-10666CL8D-4GBECO(XMP) | 4GB(2 x 2GB) | DS    | -          | -                  | 8-8-8-8-24 | XMP 1.35V         | ●                              | ●      | ●      |
| G.SKILL                                | F3-10666CL7T-6GBPK(XMP)  | 6GB(3 x 2GB) | DS    | -          | -                  | 7-7-7-18   | 1.5~1.6V          | ●                              |        |        |
| G.SKILL                                | F3-10666CL7D-8GBRH(XMP)  | 8GB(2 x 4GB) | DS    | -          | -                  | 7-7-7-21   | 1.5V              | ●                              | ●      | ●      |
| GEIL                                   | GG34GB1333C9DC           | 4GB(2 x 2GB) | DS    | GEIL       | GL1L128M88BA12N    | 9-9-9-24   | 1.3V(low voltage) | ●                              | ●      | ●      |
| GEIL                                   | GV34GB1333C9DC           | 4GB(2 x 2GB) | DS    | -          | -                  | 9-9-9-24   | 1.5V              | ●                              | ●      | ●      |
| GEIL                                   | GVP34GB1333C7DC          | 4GB(2 x 2GB) | DS    | -          | -                  | 7-7-7-24   | 1.5V              | ●                              | ●      | ●      |
| Hynix                                  | HMT325U6BFR8C-H9         | 2GB          | SS    | Hynix      | H5TQ2G83BFRH9C     | -          | -                 | ●                              | ●      | ●      |
| Hynix                                  | HMT125U6TFR8A-H9         | 2GB          | DS    | Hynix      | H5TC1G83TFRH9A     | -          | 1.35V(low         | ●                              | ●      | ●      |
| Hynix                                  | HMT351U6BFR8C-H9         | 4GB          | DS    | Hynix      | H5TQ2G83BFRH9C     | -          | -                 | ●                              | ●      | ●      |
| KINGMAX                                | FLFE85F-C8KF9 CAES       | 2GB          | SS    | KINGMAX    | KFC8FMFXF-DXX-15A  | -          | -                 | ●                              | ●      | ●      |
| KINGMAX                                | FLFE85F-C8KL9 NAES       | 2GB          | SS    | KINGMAX    | KFC8FNLXF-DXX-15A  | -          | -                 | ●                              | ●      |        |
| KINGMAX                                | FLFE85F-C8KM9 NAES       | 2GB          | SS    | KINGMAX    | KFC8FNMXF-BXX-15A  | -          | -                 | ●                              | ●      |        |
| KINGMAX                                | FLFE85F-B8KL9 NEES       | 2GB          | DS    | KINGMAX    | KKB8FNBWBFGNX-26A  | -          | -                 | ●                              | ●      | ●      |
| KINGMAX                                | FLFF65F-C8KL9 NEES       | 4GB          | DS    | KINGMAX    | KFC8FNLXF-DXX-15A  | -          | -                 | ●                              | ●      | ●      |
| KINGMAX                                | FLFF65F-C8KM9 NEES       | 4GB          | DS    | KINGMAX    | KFC8FNMXF-BXX-15A  | -          | -                 | ●                              | ●      | ●      |
| KINGSTON                               | KVR1333D3N9/2G(矮版)       | 2GB          | SS    | Hynix      | H5TQ2G83AFRH9C     | 9          | -                 | ●                              | ●      | ●      |
| KINGSTON                               | KVR1333D3S8N9/2G         | 2GB          | SS    | Micron     | IID77 D9LGK        | -          | 1.5V              | ●                              | ●      | ●      |
| KINGSTON                               | KVR1333D3S8N9/2G-SP(矮版)  | 2GB          | SS    | ELPIDA     | J2108BCSE-DJ-F     | -          | 1.5V              | ●                              | ●      | ●      |
| KINGSTON                               | KVR1333D3N9/2G(矮版)       | 2GB          | DS    | ELPIDA     | J1108BFBG-DJ-F     | 9          | 1.5V              | ●                              | ●      | ●      |
| KINGSTON                               | KVR1333D3N9/2G-SP(矮版)    | 2GB          | DS    | KTC        | D1288JEMFNGD9U     | -          | 1.5V              | ●                              | ●      | ●      |
| KINGSTON                               | KVR1333D3N9/2G-SP(矮版)    | 2GB          | DS    | KINGSTON   | D1288JPSFPGD9U     | -          | 1.5V              | ●                              | ●      | ●      |
| KINGSTON                               | KHX1333C7D3K2/4GX(XMP)   | 4GB(2 x 2GB) | DS    | -          | -                  | 7          | 1.65V             | ●                              | ●      | ●      |
| KINGSTON                               | KHX1333C9D3UK2/4GX(XMP)  | 4GB(2 x 2GB) | DS    | -          | -                  | 9          | XMP 1.25V         | ●                              | ●      |        |
| KINGSTON                               | KVR1333D3N9/4G(矮版)       | 4GB          | DS    | ELPIDA     | J2108BCSE-DJ-F     | -          | 1.5V              | ●                              | ●      | ●      |
| KINGSTON                               | KVR1333D3N9/4G           | 4GB          | DS    | KTC        | D2568JENCNGD9U     | -          | 1.5V              | ●                              | ●      | ●      |
| KINGSTON                               | KVR1333D3N9/4G           | 4GB          | DS    | Hynix      | H5TQ2G83AFR        | -          | -                 | ●                              | ●      | ●      |
| KINGSTON                               | KVR1333D3N9/4G-SP(矮版)    | 4GB          | DS    | KINGSTON   | D2568JENCPGD9U     | -          | 1.5V              | ●                              | ●      | ●      |
| Micron                                 | MT8JTF25664AZ-1G4D1      | 2GB          | SS    | Micron     | OJD12D9LGK         | -          | -                 | ●                              | ●      | ●      |
| Micron                                 | MT8JTF25664AZ-1G4M1      | 2GB          | SS    | MICRON     | IJM22 D9PFJ        | -          | -                 | ●                              | ●      | ●      |
| Micron                                 | MT16JTF51264AZ-1G4D1     | 4GB          | DS    | Micron     | OLD22D9LGK         | -          | -                 | ●                              | ●      | ●      |
| NANYA                                  | NT4GC64B8HG0NF-CG        | 4GB          | DS    | NANYA      | NT5CB256M8GN-CG    | -          | -                 | ●                              | ●      | ●      |
| PSC                                    | AL8F8G73F-DJ2            | 2GB          | DS    | PSC        | A3P1GF3FGF         | -          | -                 | ●                              | ●      | ●      |
| SAMSUNG                                | M378B5773DH0-CH9         | 2GB          | SS    | SAMSUNG    | K4B2G0846D         | -          | -                 | ●                              | ●      | ●      |
| SAMSUNG                                | M378B5673FH0-CH9         | 2GB          | DS    | SAMSUNG    | K4B1G0846F         | -          | -                 | ●                              | ●      | ●      |
| SAMSUNG                                | M378B5273CH0-CH9         | 4GB          | DS    | SAMSUNG    | K4B2G0846C         | -          | -                 | ●                              | ●      | ●      |
| SAMSUNG                                | M378B1G73AH0-CH9         | 8GB          | DS    | SAMSUNG    | K4B4G0846A-HCH9    | -          | -                 | ●                              | ●      |        |
| Super Talent                           | W1333UB2GS               | 2GB          | DS    | SAMSUNG    | K4B1G0846F         | 9          | -                 | ●                              | ●      | ●      |
| Super Talent                           | W1333UB4GS               | 4GB          | DS    | SAMSUNG    | K4B2G0846C         | -          | -                 | ●                              | ●      | ●      |
| Super Talent                           | W1333UX6GM               | 6GB(3x 2GB)  | DS    | Micron     | 0BF27D9KPT         | 9-9-9-24   | 1.5V              | ●                              | ●      | ●      |
| Transcend                              | JM1333KLN-2G             | 2GB          | SS    | HYNIX      | H5TQ2G83BZRH9C     | -          | -                 | ●                              | ●      | ●      |
| Transcend                              | 8G DDR3 1333 DIMM CL9    | 8GB          | DS    | Transcend  | E207X8BO643Y       | -          | -                 | ●                              | ●      |        |
| Transcend                              | 8G DDR3 1333 DIMM CL9    | 8GB          | DS    | -          | N/A                | -          | -                 | ●                              | ●      |        |
| KINGSTEK                               | KSTD3PC-10600            | 2GB          | SS    | MICRON     | PE911-125E         | -          | -                 | ●                              | ●      | ●      |
| TEAM                                   | TED34G1333HC9BK          | 4GB          | DS    | -          | -                  | 9-9-9-24   | -                 | ●                              | ●      |        |
| TEAM                                   | TED38G1333HC9BK          | 8GB          | DS    | -          | -                  | 9-9-9-24   | -                 | ●                              | ●      | ●      |



| Vendors  | Part No.                           | Size            | SS/DS | Chip Brand | Chip NO.   | Timing      | Voltage | DIMM socket support (Optional) |        |        |
|----------|------------------------------------|-----------------|-------|------------|------------|-------------|---------|--------------------------------|--------|--------|
|          |                                    |                 |       |            |            |             |         | 1 DIMM                         | 2 DIMM | 4 DIMM |
| CORSAIR  | CMT4GX3M2A1866C9(XMP)              | 4GB(2 x 2GB)    | DS    | -          | -          | 9-9-9-24    | 1.65V   | •                              | •      |        |
| CORSAIR  | CMT6GX3MA1866C9(XMP)               | 6GB(3 x 2GB)    | DS    | -          | -          | 9-9-9-24    | 1.65V   | •                              | •      |        |
| CORSAIR  | CMZ8GX3M2A1866C9(XMP)              | 8GB(2 x 4GB)    | DS    | -          | -          | 9-10-9-27   | 1.50V   | •                              | •      | •      |
| CRUCIAL  | BLE4G3D1869DE1TXO.16FM<br>D(XMP)   | 4GB             | DS    | -          | -          | 9-9-9-27    | 1.5V    | •                              | •      |        |
| CRUCIAL  | BLT4G3D1869DT1TX0.13FKD(<br>XMP)   | 4GB             | DS    | -          | -          | 9-9-9-27    | 1.5V    | •                              | •      | •      |
| CRUCIAL  | BLT4G3D1869DT2TXOB.16FM<br>R(XMP)  | 4GB             | DS    | -          | -          | 9-9-9-27    | 1.5V    | •                              | •      |        |
| G.SKILL  | F3-14900CL9Q-                      | 16GB ( 4GB x4 ) | DS    | -          | -          | 9-10-9-28   | 1.5V    |                                | •      |        |
| G.SKILL  | F3-14900CL10Q2-<br>64GBZLD(XMP1.3) | 64GB ( 8GBx 8 ) | DS    | -          | -          | 10-11-10-30 | 1.5V    | •                              | •      | •      |
| G.SKILL  | F3-14900CL9D-8GBXL(XMP)            | 8GB(2 x 4GB)    | DS    | -          | -          | 9-10-9-28   | 1.5V    | •                              | •      |        |
| G.SKILL  | F3-14900CL9Q-8GBXL(XMP)            | 8GB(2GBx4)      | DS    | -          | -          | 9-9-9-24    | 1.6V    | •                              | •      | •      |
| KINGSTON | KHX1866C9D3K4/16GX(XMP)            | 16GB ( 4GB x4 ) | DS    | -          | -          | -           | 1.65V   | •                              | •      | •      |
| KINGSTON | KHX1866C11D3P1K2/8G                | 8GB ( 4GB x 2)  | DS    | -          | -          | -           | 1.5V    | •                              | •      | •      |
| KINGSTON | KHX1866C9D3K2/8GX(XMP)             | 8GB(4GBX2)      | DS    | -          | -          | -           | 1.65V   | •                              | •      | •      |
| KINGSTON | KHX18C10T3K4/32X                   | 8GB             | DS    | -          | -          | -           | 1.5V    | •                              | •      | •      |
| ADATA    | AX3U1866XW8G10                     | 16GB ( 2x 8GB ) | DS    | -          | -          | 10-11-10-30 | 1.5V    | •                              | •      | •      |
| Team     | TLD34G1866H9KBK                    | 4GB             | DS    | -          | -          | 9-11-9-27   | 1.5V    | •                              |        |        |
| Team     | TLD38G1866HC10SBK                  | 8GB             | DS    | -          | -          | 10-11-10-30 | 1.5V    | •                              | •      | •      |
| AMD      | AP38G1869U2K                       | 8GB(4GBX2)      | DS    | -          | -          | 9-10-9-27   | 1.5V    | •                              |        |        |
| TEAM     | TED34GM1866C13BK                   | 4GB             | DS    | HYNIX      | DW3DJ472B3 | -           | 1.5V    | •                              | •      | •      |
| TEAM     | TLD34G1866HC9KBK                   | 4GB             | DS    | -          | -          | 9-11-9-27   | 1.5V    | •                              |        | •      |
| TEAM     | TED38GM1866C13BK                   | 8GB             | DS    | HYNIX      | DT38G54BHM | -           | 1.5V    | •                              | •      |        |
| TEAM     | TLD38G1866HC10SBK                  | 8GB             | DS    | -          | -          | 10-11-10-30 | 1.5V    | •                              | •      |        |

DDR3 2000 Qualified Vendors List (QVL)

| Vendors  | Part No.                 | Size           | SS/DS | Chip Brand | Chip NO. | Timing      | Voltage | DIMM socket support (Optional) |        |        |
|----------|--------------------------|----------------|-------|------------|----------|-------------|---------|--------------------------------|--------|--------|
|          |                          |                |       |            |          |             |         | 1 DIMM                         | 2 DIMM | 4 DIMM |
| Apacer   | 78.AAGD5.9KD(XMP)        | 6GB(3 x 2GB)   | DS    | -          | -        | 9-9-9-27    | 1.65V   |                                | •      | •      |
| CORSAIR  | CMZ4GX3M2A2000C10(XMP)   | 4GB(2 x 2GB)   | SS    | -          | -        | 10-10-10-27 | 1.50V   | •                              | •      | •      |
| CORSAIR  | CMT6GX3M3A2000C8(XMP)    | 6GB(3 x 2GB)   | DS    | -          | -        | 8-9-8-24    | 1.65V   | •                              | •      | •      |
| G.SKILL  | F3-16000CL9D-4GBFLS(XMP) | 4GB(2 x 2GB)   | DS    | -          | -        | 9-9-9-24    | 1.65V   | •                              | •      | •      |
| G.SKILL  | F3-16000CL9D-4GBTD(XMP)  | 4GB(2 x 2GB)   | DS    | -          | -        | 9-9-9-27    | 1.65V   | •                              | •      |        |
| G.SKILL  | F3-16000CL6T-6GBPIS(XMP) | 6GB (3x 2GB )  | DS    | -          | -        | 6-9-6-24    | 1.65V   | •                              | •      | •      |
| GEIL     | GUP34GB2000C9DC(XMP)     | 4GB(2 x 2GB)   | DS    | -          | -        | 9-9-9-28    | 1.65V   | •                              | •      | •      |
| KINGSTON | KHX2000C9AD3T1K2/4GX(XM  | 4GB ( 2x 2GB ) | DS    | -          | -        | -           | 1.65V   | •                              | •      |        |
| KINGSTON | KHX2000C9AD3W1K2/4GX(X   | 4GB ( 2x 2GB ) | DS    | -          | -        | -           | 1.65V   | •                              |        |        |
| KINGSTON | KHX2000C9AD3W1K3/6GX(X   | 6GB ( 3x 2GB ) | DS    | -          | -        | -           | 1.65V   | •                              | •      |        |
| KINGSTON | KHX2000C9AD3T1K3/6GX(XM  | 6GB (3x 2GB )  | DS    | -          | -        | -           | 1.65V   | •                              | •      |        |

DDR3 2133 Qualified Vendors List (QVL)

| Vendors  | Part No.                | Size            | SS/DS | Chip Brand | Chip NO. | Timing      | Voltage | DIMM socket support (Optional) |        |        |
|----------|-------------------------|-----------------|-------|------------|----------|-------------|---------|--------------------------------|--------|--------|
|          |                         |                 |       |            |          |             |         | 1 DIMM                         | 2 DIMM | 4 DIMM |
| CORSAIR  | CMT16GX3M4X2133C9(XMP   | 16GB ( 4GB x4 ) | DS    | -          | -        | 9-11-10-27  | 1.50V   | •                              | •      | •      |
| CORSAIR  | CMT4GX3M2A2133C9(XMP)   | 4GB(2x 2GB)     | DS    | -          | -        | 9-10-9-24   | 1.65V   | •                              | •      |        |
| CORSAIR  | CMT4GX3M2B2133C9(XMP)   | 4GB(2x 2GB)     | DS    | -          | -        | 9-10-9-27   | 1.50V   | •                              | •      |        |
| CORSAIR  | CMT8GX3M2B2133C9(XMP)   | 8GB ( 4GB x 2)  | DS    | -          | -        | 9-11-9-27   | 1.50V   | •                              | •      | •      |
| G.SKILL  | F3-17000CL9Q-           | 16GB ( 4GB x4 ) | DS    | -          | -        | 9-11-10-28  | 1.65V   | •                              | •      | •      |
| G.SKILL  | F3-17000CL11Q2-         | 8GB             | DS    | -          | -        | 11-11-11-31 | 1.5V    | •                              | •      |        |
| G.SKILL  | F3-2133C11Q-32GZL(XMP)  | 8GB             | DS    | -          | -        | 11-11-11-31 | 1.5V    | •                              | •      | •      |
| GEIL     | GE34GB2133C9DC(XMP)     | 2GB             | DS    | -          | -        | 9-9-9-28    | 1.65V   | •                              | •      |        |
| GEIL     | GU34GB2133C9DC(XMP)     | 4GB(2 x 2GB)    | DS    | -          | -        | 9-9-9-28    | 1.65V   | •                              |        |        |
| KINGSTON | KHX2133C11D3K4/16GX(XMP | 16GB ( 4GB x4 ) | DS    | -          | -        | -           | 1.65V   | •                              | •      |        |
| KINGSTON | KHX2133C11D3T1K2/16GX(X | 16GB(8GB x 2)   | DS    | -          | -        | -           | 1.6V    | •                              | •      | •      |
| KINGSTON | KHX21C11T1BK2/16X(XMP)  | 16GB(8GBx2)     | DS    | -          | -        | -           | 1.6V    | •                              | •      | •      |
| KINGSTON | KHX2133C9AD3T1K2/4GX(XM | 4GB ( 2x 2GB )  | DS    | -          | -        | -           | 1.65V   | •                              | •      | •      |
| KINGSTON | KHX2133C9AD3X2K2/4GX(XM | 4GB(2 x 2GB)    | DS    | -          | -        | 9-11-9-27   | 1.65V   | •                              | •      | •      |
| KINGSTON | KHX2133C9AD3T1K4/8GX(XM | 8GB(4 x 2GB)    | DS    | -          | -        | 9-11-9-27   | 1.65V   | •                              | •      | •      |
| KINGSTON | KHX21C11T1BK2/8X(XMP)   | 8GB(4GBx2)      | DS    | -          | -        | -           | 1.6V    | •                              | •      | •      |
| KINGSTON | KHX2133C9AD3T1FK4/8GX(X | 8GB(4x 2GB)     | DS    | -          | -        | -           | 1.65V   | •                              | •      |        |
| KINGSTON | KHX21C11T3K4/32X        | 8GB             | DS    | -          | -        | -           | 1.65V   | •                              | •      | •      |
| ADATA    | AX3U2133XW8G10          | 16GB ( 2x 8GB ) | DS    | -          | -        | 10-11-11-30 | 1.65V   | •                              | •      | •      |
| ADATA    | AX3U2133XC4G10-2X(XMP)  | 4GB             | DS    | -          | -        | 10-11-11-30 | 1.65V   | •                              | •      | •      |
| ADATA    | AX3U2133XW8G10-2X(XMP)  | 8GB             | DS    | -          | -        | 10-11-11-30 | 1.65V   | •                              | •      | •      |
| Team     | TXD34096M2133HC11-L     | 4GB             | SS    | -          | -        | -           | 1.5V    | •                              | •      | •      |
| Team     | TLD38G2133HC11ABK       | 8GB             | DS    | -          | -        | 11-11-11-31 | 1.65V   | •                              | •      |        |
| AMD      | AP38G2133U2K            | 4GB             | DS    | -          | -        | 11-12-11-30 | 1.65V   | •                              | •      |        |
| TEAM     | TLD34G2133HC11ABK       | 4GB             | SS    | -          | -        | 11-11-11-31 | 1.65V   | •                              | •      | •      |
| TEAM     | TLD38G2133HC11ABK       | 8GB             | DS    | -          | -        | 11-13-13-31 | 1.65V   | •                              |        |        |

DDR3 2200 Qualified Vendors List (QVL)

| Vendors | Part No.                 | Size         | SS/DS | Chip Brand | Chip NO. | Timing    | Voltage | DIMM socket support (Optional) |        |        |
|---------|--------------------------|--------------|-------|------------|----------|-----------|---------|--------------------------------|--------|--------|
|         |                          |              |       |            |          |           |         | 1 DIMM                         | 2 DIMM | 4 DIMM |
| GEIL    | GET34GB2200C9DC(XMP)     | 2GB          | DS    | -          | -        | 9-10-9-28 | 1.65V   | •                              | •      | •      |
| GEIL    | GET38GB2200C9ADC(XMP)    | 4GB          | DS    | -          | -        | 9-11-9-28 | 1.65V   | •                              | •      | •      |
| KINGMAX | FLKE85F-B8KJAA-FEIS(XMP) | 2GB          | DS    | -          | -        | -         | 1.5V    | •                              | •      | •      |
| KINGMAX | FLKE85F-B8KHA EEIH(XMP)  | 4GB(2 x 2GB) | DS    | -          | -        | -         | 1.65V   | •                              | •      |        |
| KINGMAX | FLKE85F-B8KJA FEIH(XMP)  | 4GB(2 x 2GB) | DS    | -          | -        | -         | 1.65V   | •                              | •      |        |

DDR3 2250 Qualified Vendors List (QVL)

| Vendors  | Part No.                | Size           | SS/DS | Chip Brand | Chip NO. | Timing | Voltage | DIMM socket support (Optional) |        |        |
|----------|-------------------------|----------------|-------|------------|----------|--------|---------|--------------------------------|--------|--------|
|          |                         |                |       |            |          |        |         | 1 DIMM                         | 2 DIMM | 4 DIMM |
| KINGSTON | KHX2250C9D3T1K2/4GX(XMP | 4GB ( 2x 2GB ) | DS    | -          | -        | -      | 1.65V   | •                              | •      | •      |

DDR3 2400 Qualified Vendors List (QVL)

| Vendors  | Part No.                          | Size            | SS/DS | Chip Brand | Chip NO. | Timing      | Voltage | DIMM socket support (Optional) |        |        |
|----------|-----------------------------------|-----------------|-------|------------|----------|-------------|---------|--------------------------------|--------|--------|
|          |                                   |                 |       |            |          |             |         | 1 DIMM                         | 2 DIMM | 4 DIMM |
| CORSAIR  | CMGTX8(XMP)                       | 8GB (2GBx 4)    | SS    | -          | -        | 10-12-10-27 | 1.65V   | •                              | •      |        |
| G.SKILL  | F3-2400C10D-8GTX(XMP)             | 8GB(2x 4GB)     | SS    | -          | -        | 10-12-12-31 | 1.65V   | •                              | •      | •      |
| G.SKILL  | F3-19200CL11Q-<br>16GBZHD(XMP1.3) | 16GB ( 4GB x4 ) | DS    | -          | -        | 11-11-11-31 | 1.65V   | •                              |        |        |
| G.SKILL  | F3-19200CL9D-4GBPIS(XMP)          | 4GB(2x 2GB)     | DS    | -          | -        | 9-11-9-28   | 1.65V   | •                              | •      | •      |
| G.SKILL  | F3-19200CL 10Q-                   | 8GB             | DS    | -          | -        | 10-12-12-31 | 1.65V   | •                              | •      | •      |
| GEIL     | GET34GB2400C9DC(XMP)              | 2GB             | DS    | -          | -        | 9-11-9-27   | 1.65V   | •                              | •      |        |
| KINGMAX  | FLLE88F-C8KKAA HAIS(XMP)          | 2GB             | SS    | -          | -        | 10-11-10-30 | 1.8V    | •                              | •      | •      |
| KINGSTON | KHX2400C11D3K4/8GX(XMP)           | 8GB(4GBx2)      | SS    | -          | -        | -           | 1.65V   | •                              | •      | •      |
| KINGSTON | KHX24C11T2K2/8X(XMP)              | 4GB             | DS    | -          | -        | -           | 1.65V   | •                              | •      | •      |
| ADATA    | AX3U2400GW8G11                    | 16GB ( 2x 8GB ) | DS    | -          | -        | 11-13-13-35 | 1.65V   | •                              | •      |        |
| ADATA    | AX3U2400G4G10-DG2(XMP)            | 4GB             | DS    | -          | -        | 10-12-12-31 | 1.65V   | •                              | •      | •      |
| Team     | TXD38G2400HC10QBK                 | 8GB             | DS    | -          | -        | 10-12-12-31 | 1.65V   | •                              | •      | •      |
| CORSAIR  | CMD16GX3M2A2400C9(Ver4.2          | 8GB             | DS    | -          | -        | 10-12-12-31 | 1.65V   | •                              | •      | •      |

| TEAM                                   | TXD38G2400HC10QBK       | 8GB             | DS    | -          | -        | 10-12-12-31 | 1.62V   | ●                              | ●      | ●      |
|--|-------------------------|-----------------|-------|------------|----------|-------------|---------|--------------------------------|--------|--------|
| DDR3 2600 Qualified Vendors List (QVL) |                         |                 |       |            |          |             |         |                                |        |        |
| Vendors                                | Part No.                | Size            | SS/DS | Chip Brand | Chip NO. | Timing      | Voltage | DIMM socket support (Optional) |        |        |
|  |                         |                 |       |            |          |             |         | 1 DIMM                         | 2 DIMM | 4 DIMM |
| G.SKILL                                | F3-2600CL10Q-           | 16GB(4x 4GB)    | DS    | -          | -        | 10-12-12-31 | 1.65V   | ●                              | ●      |        |
| G.SKILL                                | F3-2600CL11Q-           | 32GB(8GBx4)     | DS    | -          | -        | 11-13-13-35 | 1.65V   | ●                              | ●      |        |
| ADATA                                  | AX3U2600GW8G11          | 16GB ( 2x 8GB ) | DS    | -          | -        | 11-13-13-35 | 1.65V   | ●                              | ●      | ●      |
| DDR3 2666 Qualified Vendors List (QVL) |                         |                 |       |            |          |             |         |                                |        |        |
| Vendors                                | Part No.                | Size            | SS/DS | Chip Brand | Chip NO. | Timing      | Voltage | DIMM socket support (Optional) |        |        |
|  |                         |                 |       |            |          |             |         | 1 DIMM                         | 2 DIMM | 4 DIMM |
| CORSAIR                                | CMD16GX3M4A2666C11      | 4GB             | DS    | -          | -        | 11-13-13-35 | 1.65V   | ●                              | ●      | ●      |
| G.SKILL                                | F3-2666C11Q-16GTXD(XMP) | 16GB(4GBx4)     | DS    | -          | -        | 11-13-13-35 | 1.65V   | ●                              | ●      | ●      |
| Team                                   | TXD34G2666HC11CBK       | 8GB ( 2x 4GB )  | SS    | -          | -        | 11-13-13-35 | 1.65V   | ●                              | ●      | ●      |
| Team                                   | TXD38G2666HC11CBK       | 16GB ( 2x 8GB ) | DS    | -          | -        | 11-13-13-35 | 1.65V   | ●                              | ●      | ●      |
| TEAM                                   | TXD38G2666HC11CBK       | 8GB             | DS    | -          | -        | 11-13-13-35 | 1.65V   |                                | ●      |        |
| DDR3 2800 Qualified Vendors List (QVL) |                         |                 |       |            |          |             |         |                                |        |        |
| Vendors                                | Part No.                | Size            | SS/DS | Chip Brand | Chip NO. | Timing      | Voltage | DIMM socket support (Optional) |        |        |
|  |                         |                 |       |            |          |             |         | 1 DIMM                         | 2 DIMM | 4 DIMM |
| G.SKILL                                | F3-2800C11Q-16GTXD(XMP) | 16GB(4GBx4)     | DS    | -          | 0        | 11-13-13-35 | 1.65V   | ●                              | ●      | ●      |
| DDR3 2933 Qualified Vendors List (QVL) |                         |                 |       |            |          |             |         |                                |        |        |
| Vendors                                | Part No.                | Size            | SS/DS | Chip Brand | Chip NO. | Timing      | Voltage | DIMM socket support (Optional) |        |        |
|  |                         |                 |       |            |          |             |         | 1 DIMM                         | 2 DIMM | 4 DIMM |
| G.SKILL                                | F3-2933C12Q-16GTDXG     | 4GB             | SS    | -          | -        | 12-14-14-35 | 1.65V   | ●                              | ●      |        |
| DDR3 3000 Qualified Vendors List (QVL) |                         |                 |       |            |          |             |         |                                |        |        |
| Vendors                                | Part No.                | Size            | SS/DS | Chip Brand | Chip NO. | Timing      | Voltage | DIMM socket support (Optional) |        |        |
|  |                         |                 |       |            |          |             |         | 1 DIMM                         | 2 DIMM | 4 DIMM |
| G.SKILL                                | F3-3000C12Q-16GTXDG     | 4GB             | SS    | -          | -        | -           | 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 recon

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.