

1. Stability Test: Rev.0A1

1.1 CPU Test:

Procedure:

- (1) Install O.S.
- (2) Check CPU information & specification with CPU-Z.
- (3) Run 3DMark11 Professional Edition Ver.1.0.5 BenchMark - 3 times.
- (4) Check CPU temperature in the BIOS after running 3DMark.
- (5) Run S3/S4/S5 - 3 times.

| No. | CPU | Type | CPU Temp. | Result |
|-----|----------------|---|-----------|--------|
| 1 | Intel / 3.1GHz | Core i7-4770S (Haswell/C0-SR14H) / 65W / LGA1150 | 35.5 °C | Pass |
| 2 | Intel / 2.3GHz | Core i7-4770TE (Haswell/C0-SR183) / 45W / LGA1150 | 30 °C | Pass |
| 3 | Intel / 2.0GHz | Core i7-4765T (Haswell/C0-SR14Q) / 35W / LGA1150 | 46 °C | Pass |
| 4 | Intel / 2.3GHz | Core i5-4670T (Haswell/C0-SR14P) / 45W / LGA1150 | 44.5 °C | Pass |
| 5 | Intel / 3.1GHz | Core i5-4670S (Haswell/C0-SR14K) / 65W / LGA1150 | 43.5 °C | Pass |
| 6 | Intel / 2.7GHz | Core i5-4570TE (Haswell/C0-SR17Z) / 35W / LGA1150 | 29.5 °C | Pass |

1.2 DDR3 SO-DIMM Test:

Procedure:

- (1) Install O.S.
- (2) Check Memory information & specification with CPU-Z.
- (3) Run 3DMark11 Professional Edition Ver.1.0.5 BenchMark - 3 times.
- (4) Run S3/S4/S5 - 3 times.

| No. | Brand | Chip | Size | Type | Chip Model No. | Vendor Part No. | Result |
|-----|-----------|--------|------|---------------------------|-----------------|--|--------|
| 1 | Crucial | Micron | 8GB | PC3-12800 (DDR3L-1600) | 2RD27D9PCP | CT102464BF160B.16FDD (MT16KTF1G64HZ-1G6D1) 1.35/1.5V [512Mx8b-x16/1024Mx64b,CL=11-11-11-30] | Pass |
| 2 | INNODISK | Micron | 4GB | PC3-12800 (DDR3L-1600) | 1XM77-D9PFJ | M3SP-4GMJDL0C-M 1.35V/1.5V [256Mx8b-x16/512Mx64b,CL=9] | Pass |
| 3 | Hynix | Hynix | 1GB | PC3-12800 (DDR3-1600) | H5TQ2G63BFR PBC | HMT312S6BFR6C-PBNO 1.5V [128Mx16b-x4/128Mx64b,CL=11] | Pass |
| 4 | Transcend | Micron | 8GB | PC3-10600 (DDR3-1333) | 1ZD27-D9PBC | TS1GSK64V3H 1.5V [512Mx8b-x16/1024Mx64b,CL=9] | Pass |
| 5 | Crucial | Micron | 4GB | PC3-10600 (DDR3-1333) | ICD77D9LGK | CT51264BC1339.16FR 1.5V [256Mx8b-x16/512Mx64b,CL=9] | Pass |

| | | | | | | | |
|-----------|-----------|--------|-----|--------------------------|----------------|--|-------------|
| 6 | Transcend | ELPIDA | 2GB | PC3-10600 (DDR3-1333) | J1108BFBG-DJ-F | TS256MSK64V3U 1.5V [128Mx8b-*16/256Mx64b,CL=9] | Pass |
| 7 | Crucial | Micron | 1GB | PC3-10600 (DDR3-1333) | 0NDI2-D9LGQ | CT12864BC1339.4FD 1.5V [128Mx16b-x4/128Mx64b,CL=9] | Pass |
| 8 | Transcend | Hynix | 4GB | PC3-8500 (DDR3-1066) | H5TQ2G83AFRH9C | TS512MSK64V1N 1.5V [256Mx8b/512Mx64b,CL=7-7-7-20] | Pass |
| 9 | Kingston | ELPIDA | 2GB | PC3-8500 (DDR3-1066) | J1108BABG-DJ-E | KVR1066D3S7/2G 1.5V [128Mx8bits/256Mx64bits,CL=7-7-7-20] | Pass |
| 10 | Transcend | SEC | 1GB | PC3-8500 (DDR3-1066) | K4B1G0846D | TS128MSK64V1U 1.5V±0.75 [128Mx8bits/128Mx64bits,CL=6,7,8] | Pass |



1.3 DDR3 SO-DIMM Test Procedures:

Procedure:

- (1) Install O.S.**
- (2) Check Memory information & specification with CPU-Z.**
- (3) Run 3DMark11 Professional Edition Ver.1.0.5Benchmark - 3 times.**
- (4) Run S3/S4/S5 - 3 times.**

| No. | DDR3 Module | Test Environment | 3DMark Score | Result |
|----------|---|--|--------------|-------------|
| 1 | Crucial (CT102464BF160B.16FDD (MT16KTF1G64HZ-1G6D1) 1.35V/1.5V) [512Mx8b-x16/1024Mx64b, CL=11-11-11-30] / Micron (2RD27D9PCP) / PC3-12800 (DDR3L-1600) / 8GB *1 | M/B: HD100-H81D Rev.A (0A1) (BMD360100019) M/B BIOS: AMI-Aptio 09/25/2013 M/B Drivers: Demo Oct/02/2013 CPU: Intel / Core i5-4570TE (Haswell/C0-SR17Z) / 2.7GHz DIMM Slot: DIMM-1 (Single channel) SATA HDD: Hitachi / HDP725025GLA380 SATA2 NCQ 250GB/7200RPM Display: On Board DVD-RW: Lite-On / It iHAS324-07 SATA Power: Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 64Bit (English) & SP1 | P778 | Pass |
| 2 | INNODISK (M3SP-4GMJDL0C-M 1.35V/1.5V) [256Mx8b-x16/512Mx64b,CL=9] / Micron (1XM77-D9PFJ) / PC3-12800 (DDR3L-1600) / 4GB *2 | M/B: HD100-H81D Rev.A (0A1) (BMD360100019) M/B BIOS: AMI-Aptio 09/25/2013 M/B Drivers: Demo Oct/02/2013 CPU: Intel / Core i7-4765T (Haswell/C0-SR14Q) / 2.0GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Seagate / ST500DM002 SATA3 NCQ 500GB Display: On Board DVD-RW: Lite-On / It iHAS324-07 SATA Power: Delta / GPS-500BB 500W O.S.: Windows 8 Enterprise 64Bit (English) | P865 | Pass |

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|-----------------|---|---|---------------------|--------------------|
| <p>3</p> | <p>Hynix (HMT312S6BFR6C-PBNO 1.5V) [128Mx16b-x4/128Mx64b,CL=11] / Hynix (H5TQ2G63BFR PBC) / PC3-12800 (DDR3-1600) / 1GB *</p> | <p>M/B: HD100-H81D Rev.A (0A1) (BMD360100019) M/B BIOS: AMI-Aptio 09/25/2013 M/B Drivers: Demo Oct/02/2013 CPU: Intel / Core i7-4770S (Haswell/C0-SR14H) / 3.1GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Seagate / ST500DM002 SATA3 NCQ 500GB Display: On Board DVD-RW: Lite-On / It iHAS324-07 SATA Power: Delta / GPS-500BB 500W O.S.: Windows 8 Enterprise 32Bit (English)</p> | <p>P1361</p> | <p>Pass</p> |
| <p>4</p> | <p>Transcend (TS1GSK64V3H 1.5V) [512Mx8b-x16/1024Mx64b,CL=9] / Micron (1ZD27-D9PBC) / PC3-10600 (DDR3-1333) / 8GB *2</p> | <p>M/B: HD100-H81D Rev.A (0A1) (BMD360100019) M/B BIOS: AMI-Aptio 09/25/2013 M/B Drivers: Demo Oct/02/2013 CPU: Intel / Core i5-4670T (Haswell/C0-SR14P) / 2.3GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Hitachi / HDP725025GLA380 SATA2 NCQ 250GB/7200RPM Display: On Board DVD-RW: Lite-On / It iHAS324-07 SATA Power: Delta / GPS-500BB 500W O.S.: Windows 8 Enterprise 64Bit (English)</p> | <p>P1337</p> | <p>Pass</p> |
| <p>5</p> | <p>Crucial (CT51264BC1339.16FR 1.5V) [256Mx8b-x16/512Mx64b,CL=9] / Micron (ICD77D9LGK) / PC3-10600 (DDR3-1333) / 4GB *2</p> | <p>M/B: HD100-H81D Rev.A (0A1) (BMD360100019) M/B BIOS: AMI-Aptio 09/25/2013 M/B Drivers: Demo Oct/02/2013 CPU: Intel / Core i7-4770TE (Haswell/C0-SR183) / 2.3GHz DIMM Slot: DIMM-1/2 (Dual channel) SSD: Intel / SSDSC2CW060A3K5 SATA3 60GB/2.5" Display: On Board DVD-RW: Lite-On / It iHAS324-07 SATA Power: Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 64Bit (English) & SP1 Test Summary: Running Overnight looping for 12 hours</p> | <p>P1077</p> | <p>Pass</p> |



| No. | DDR3 Module | Test Environment | 3DMark Score | Result |
|-----|--|--|--------------|-------------|
| 6 | Transcend (TS256MSK64V3U 1.5V) [128Mx8b-*16/256Mx64b,CL=9] / ELPIDA (J1108BFBG-DJ-F) / PC3-10600 (DDR3-1333) / 2GB *2 | M/B: HD100-H81D Rev.A (0A1) (BMD360100019) M/B BIOS: AMI-Aptio 09/25/2013 M/B Drivers: Demo Oct/02/2013 CPU: Intel / Core i5-4670S (Haswell/C0-SR14K) / 3.1GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Seagate / ST500DM002 SATA3 NCQ 500GB Display: On Board DVD-RW: Lite-On / It iHAS324-07 SATA Power: Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 32Bit (English) & SP1 | P1337 | Pass |
| 7 | Crucial (CT12864BC1339.4FD 1.5V) [128Mx16b-x4/128Mx64b,CL=9] / Micron (0NDI2-D9LGQ) / PC3-10600 (DDR3-1333) / 1GB *2 | M/B: HD100-H81D Rev.A (0A1) (BMD360100019) M/B BIOS: AMI-Aptio 09/25/2013 M/B Drivers: Demo Oct/02/2013 CPU: Intel / Core i5-4570TE (Haswell/C0-SR17Z) / 2.7GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Hitachi / HDP725025GLA380 SATA2 NCQ 250GB/7200RPM Display: On Board DVD-RW: Lite-On / It iHAS324-07 SATA Power: Delta / GPS-500BB 500W O.S.: Windows 8 Enterprise 32Bit (English) | P788 | Pass |
| 8 | Transcend (TS512MSK64V1N 1.5V) [256Mx8b/512Mx64b,CL=7-7-7-20] / Hynix (H5TQ2G83AFRH9C) / PC3-8500 (DDR3-1066) / 4GB *2 | M/B: HD100-H81D Rev.A (0A1) (BMD360100019) M/B BIOS: AMI-Aptio 09/25/2013 M/B Drivers: Demo Oct/02/2013 CPU: Intel / Core i7-4770S (Haswell/C0-SR14H) / 3.1GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Seagate / ST500DM002 SATA3 NCQ 500GB Display: On Board DVD-RW: Lite-On / It iHAS324-07 SATA Power: Delta / GPS-500BB 500W O.S.: Windows 8 Enterprise 64Bit (English) | P1362 | Pass |

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|------------------|--|---|---------------------|--------------------|
| <p>9</p> | <p>Kingston (KVR1066D3S7/2G 1.5V) [128Mx8bits/256Mx64bits,CL=7-7-7-20] / ELPIDA (J1108BABG-DJ-E) / PC3-8500 (DDR3-1066) / 2GB *1</p> | <p>M/B: HD100-H81D Rev.A (0A1) (BMD360100019) M/B BIOS: AMI-Aptio 09/25/2013 M/B Drivers: Demo Oct/02/2013 CPU: Intel / Core i5-4670T (Haswell/C0-SR14P) / 2.3GHz DIMM Slot: DIMM-2 (Single channel) SATA HDD: Seagate / ST500DM002 SATA3 NCQ 500GB Display: On Board DVD-RW: Lite-On / It iHAS324-07 SATA Power: Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 32Bit (English) & SP1</p> | <p>P884</p> | <p>Pass</p> |
| <p>10</p> | <p>Transcend (TS128MSK64V1U 1.5V±0.75) [128Mx8bits/128Mx64bits,CL=6,7,8] / SEC (K4B1G0846D) / PC3-8500 (DDR3-1066) / 1GB *2</p> | <p>M/B: HD100-H81D Rev.A (0A1) (BMD360100019) M/B BIOS: AMI-Aptio 09/25/2013 M/B Drivers: Demo Oct/02/2013 CPU: Intel / Core i5-4670T (Haswell/C0-SR14P) / 2.3GHz DIMM Slot: DIMM-1/2 (Dual channel) SATA HDD: Seagate / ST500DM002 SATA3 NCQ 500GB Display: On Board DVD-RW: Lite-On / It iHAS324-07 SATA Power: Delta / GPS-500BB 500W O.S.: Windows 7 Ultimate 32Bit (English) & SP1</p> | <p>P1066</p> | <p>Pass</p> |