

Netlist Memory CMTL Certification

HyperCloud™ Memory with Intel® Xeon® Motherboards

This document contains a summary listing and detailed reports of HyperCloud Memory modules that were tested and certified by CMTL. Included in this document are:

- List of Memory Modules/motherboard combinations Page 1
- Summary table of test data Page 2
- Attachments: Detailed CMTL reports Pages 3 - 15

List of HyperCloud memory and Intel motherboard test combinations.

| <u>Density</u> | <u>Netlist Part Number</u> | <u>Intel Motherboard(s)</u> |
|----------------|----------------------------|-----------------------------|
| 8GB | NMD1G7G32507HD10A1SC | MFS5520VI/MFS5520VI |
| 8GB | NMD1G7G32507HD10A1SC | S5500HV/S5500HVR |
| 8GB | NMD1G7G32507HD10A1SC | S5500WB/S5500WBR |
| 8GB | NMD1G7G32507HD10A1SC | S5520HC/S5520HCV/S |
| 8GB | NMD1G7G32507HD10A1SC | S5520SC/S5520SCR |
| 8GB | NMD1G7G32507HD10A1SC | S5520UR/S5520URR |
| 8GB | NMD1G7G32507HD10A1SC | SR1680MV/SR1680MV |
| 16GB | NMD2G7G3510BHD10A1HB | MFS5520VI/MFS5520VI |
| 16GB | NMD2G7G3510BHD10A1HB | S5520HC/S5520HCV/S |
| 16GB | NMD2G7G3510BHD10A1HB | S5520SC/S5520SCR |
| 16GB | NMD2G7G3510BHD10A1HB | S5520UR/S5520URR |
| 16GB | NMD2G7G3510BHD10A1HB | S5500WB/S5500WBR |
| 16GB | NMD2G7G3510BHD10A1HB | SR1680MV/SR1680MV |

Memory Testing by CMTL

The CMTL Memory Module Certification Program allows computer memory manufacturers to submit their modules for advanced compatibility testing on motherboards from the industry's leading manufacturers. Modules, which pass CMTL's rigorous incoming inspection, and advanced testing criteria, are then awarded recognition as a CMTL Certified Memory Module, and can use the CMTL Certified Memory seal.

Memory modules that have completed all the testing phases under the CMTL Memory Module Certification process are known to be compatible with the motherboards on which they were tested, and will be listed as "Certified" on the CMTL website.

Memory Certification from CMTL

Every CMTL Certified Memory module is put through extensive incoming inspection and advanced compatibility testing to eliminate most incompatibly risks. The memory certification process requires the module to be advanced tested for compatibility in any one of the available motherboards from multiple motherboard manufacturers using a variety of processors and chipsets to ensure compatibility. Only modules that pass this in-depth set of checks and tests can receive the CMTL seal of compatibility, this is your guarantee of a quality memory module.



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Summary Table of Test Data

The following chart list the tests conducted by CMTL with different configurations for different Netlist memory products. Each line represents a passed test with the respective motherboards and processors, and listed configuration.

HyperCloud DDR3 RDIMM Memory

| Test # | Density | Netlist Part Number | Intel Motherboard(s) | Intel Xeon Processor | Min DPC | Min Config Memory Size | Min Config Memory Speed | Max DPC | Max Config | Max Config Memory Speed |
|--------|---------|----------------------|------------------------|----------------------|---------|------------------------|-------------------------|---------------|------------|-------------------------|
| 017837 | 8GB | NMD1G7G32507HD10A1SC | MFS5520VI MFS5520VI | X5560 | 1 | 49,152MB | 1333MHz | 2 | 98,304MB | 1066MHz |
| 017838 | 8GB | NMD1G7G32507HD10A1SC | S5500HV S5500HVR | X5570 | 1 | 49,144MB | 1333MHz | 2 | 98,296MB | 1066MHz |
| 017839 | 8GB | NMD1G7G32507HD10A1SC | S5500WB S5500WBR | X5667 | 1 | 49,152MB | 1333MHz | 1+ Mirrors | 65,536MB | 1333MHz |
| 017840 | 8GB | NMD1G7G32507HD10A1SC | S5520HC S5520HCV/S | X5677 | 1 | 49,152MB | 1333MHz | 2 | 98,304MB | 1333MHz |
| 017841 | 8GB | NMD1G7G32507HD10A1SC | S5520SC S5520SCR | X5677 | 1 | 49,152MB | 1333MHz | 2 | 98,304MB | 1333MHz |
| 017842 | 8GB | NMD1G7G32507HD10A1SC | S5520UR S5520URR | X5677 | 1 | 49,144MB | 1333MHz | 2 | 98,304MB | 1333MHz |
| 017843 | 8GB | NMD1G7G32507HD10A1SC | SR1680MV SR1680MV | X5560 | 2 | 98,304MB | 1066MHz | 3 | 147,456MB | 800MHz |
| 017892 | 16GB | NMD2G7G3510BHD10A1HB | MFS5520VI MFS5520VI | X5667 | 1 | 98,304MB | 1333MHz | 2 | 196,608MB | 1333MHz |
| 017893 | 16GB | NMD2G7G3510BHD10A1HB | S5520HC S5520HCV/S | X5677 | 1 | 98,304MB | 1333MHz | 2 | 196,608MB | 1333MHz |
| 017894 | 16GB | NMD2G7G3510BHD10A1HB | S5520SC S5520SCR | X5677 | 1 | 98,304MB | 1333MHz | 2 | 196,608MB | 1333MHz |
| 017895 | 16GB | NMD2G7G3510BHD10A1HB | S5520UR S5520URR | X5677 | 1 | 98,304MB | 1333MHz | 2 | 196,608MB | 1333MHz |
| 017896 | 16GB | NMD2G7G3510BHD10A1HB | S5500WB S5500WBR | X5667 | 1 | 98,304MB | 1333MHz | 1+ Mirrors | 131,072MB | 1333MHz |
| 017904 | 16GB | NMD2G7G3510BHD10A1HB | SR1680MV SR1680MV | X5560 | 1 | 98,304MB | 1333MHz | 3 | 294,912MB | 800MHz |

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| MOTHERBOARD | MANUFACTURER | CHIPSET | TEST NUMBER | TEST STATUS |
|----------------------|--------------|-------------|-------------|-------------|
| MFS5520VI/MFS5520VIR | Intel | Intel® 5520 | 017837 | PASSED |

MODULE INFORMATION



Module ID: **NET057**

Manufacturer Name: Netlist, Inc.
Part #: NMD1G7G32507HD10A1SC
MB: 8GB Cas Latency: **9**
Config: 1024M x 72 Assembly: **Single Board/Non St**
DRAM: Samsung Low Profile: **Yes**
DRAM Part #: K4B2G0846C-HCH9 rev B Register Part #: **DTRB**
PCB Part: 0520 na PLL Part #:
PCB_layer_count: 10 Layer Dual Die Package Support Bank
Module Info: Registered ECC 1333MHz DDR3 DIM Environment Code RoHS

MINIMUM SYSTEM INFORMATION

Minimum System: MFS5520VI/MFS5520VI
 Serial Number: BZVI91300193
 Bios at time of test: S5500.86B.01.10.0048
 Processor Code: Inter® Xeon® X55600, @ 2.80GHz,
 Memory Count : 49152MB
 Event Log Verify: Clear
 OS Memory Count: 47.9GB
 OS/Service Pack: Window 2003 64bit SP2
 Software Pack: Proprietary
 Disk Manuf: Seagate Savvio 36GB

MAXIMUM SYSTEM INFORMATION

Maximum System: MFS5520VI/MFS5520VI
 Serial Number: BZVI91300148
 Bios at time of test: S5500.86B.01.10.0048
 Processor Code: Inter® Xeon® X55600, @ 2.80GHz,
 Memory Count : 98304MB
 Event Log Verify: Clear
 OS Memory Count: 95.9GB
 OS/Service Pack: Window 2003 64bit SP2
 Software Pack: Proprietary
 Disk Manuf: Seagate Savvio® 36GB

PRE-TESTING INFORMATION

Board Revision: E41515-401
 Insertion Test: Pass
 SPD Check: Pass
 Speed Check: Pass
 Power Cycle Stat: Pass
 Power Cycle Time: 50

Voltage Margining Info

| | |
|-----------|-----------|
| Volt % | +/-3% |
| Volt Low | 1.45 volt |
| Volt High | 1.55 volt |

TESTING DETAILS FOR PHASE 2

Temperature: 55°C Time: 12Hr
 Start Date: 12/16/10
 Stop Date: 12/22/10
 Min Test Status: Pass
 Max Test Status: Pass
 SEL Min: Pass
 SEL Max: Pass
 Summary Min: Pass
 Summary Max: Pass
 Test Phase Status **Pass**

TESTING DETAILS FOR PHASE 3

Temperature: 55°C Time: 12Hr
 Start Date: 12/16/10
 Stop Date: 12/22/10
 Min Test Status: Pass
 Max Test Status: Pass
 SEL Min: Pass
 SEL Max: Pass
 Summary Min: Pass
 Summary Max: Pass
 Test Phase Status **Pass**

Single Bit Error

QTY:

VENDOR CONTACT INFORMATION

Contact: Devon Park Contact Phone: 949-679-0105 Purchase Order #: AnnualProgram

Test Traveler Notes:

CMTL USE ONLY:

Min config memory speed ran @ 1333MHz
 Max config memory speed ran @ 1066MHz

Verified by:

 Emailed by:

In the event of a module failure, CMTL is not required to provide root cause analysis. Accuracy of testing is restricted to the above mentioned module with specific DRAM, PCB and other components as listed and tested with the CMTL Memory Compatibility Functionality Test, Microsoft Advanced Server 2000®, Windows NT 4.0 Enterprise Edition®, Windows XP®, Windows 98 SE®, Dos 6.22®, MSTRESS® (v x.x), XLINEAR® (v x.x.x), FXLINEAR® (v x.x.x), Patin® (v x.x), WinMTA® (v x.x.x). (Voltage marganing applied only to those systems that are applicable.)

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| MOTHERBOARD | MANUFACTURER | CHIPSET | TEST NUMBER | TEST STATUS |
|------------------|--------------|-------------|-------------|-------------|
| S5500HV/S5500HVR | Intel | Intel® 5500 | 017838 | PASSED |

MODULE INFORMATION



Module ID: **NET057**

Manufacturer Name: Netlist, Inc.
Part #: NMD1G7G32507HD10A1SC
MB: 8GB **Cas Latency: 9**
Config: 1024M x 72 **Assembly: Single Board/Non St**
DRAM: Samsung **Low Profile: Yes**
DRAM Part #: K4B2G0846C-HCH9 rev B **Register Part #: DTRB**
PCB Part: 0520 na **PLL Part #:**
PCB_layer_count: 10 Layer **Dual Die Package Support Bank**
Module Info: Registered ECC 1333MHz DDR3 DIM Environment Code RoHS

MINIMUM SYSTEM INFORMATION

Minimum System: S5500HV/S5500HVR
 Serial Number: BTHY92200002
 Bios at time of test: 0115
 Processor Code: Inter® Xeon® X55700, @ 2.93GHz,
 Memory Count : 49144 MB
 Event Log Verify: Clear
 OS Memory Count: 48 GB
 OS/Service Pack: N/A N/A
 Software Pack: Proprietary
 Disk Manuf: N/A

MAXIMUM SYSTEM INFORMATION

Maximum System: S5500HV/S5500HVR
 Serial Number: BTHY92200003
 Bios at time of test: 0115
 Processor Code: Inter® Xeon® X55700, @ 2.93GHz,
 Memory Count : 98296 MB
 Event Log Verify: Clear
 OS Memory Count: 96 GB
 OS/Service Pack: N/A N/A
 Software Pack: Proprietary
 Disk Manuf: N/A

PRE-TESTING INFORMATION

Board Revision: E69114-001
 Insertion Test: Pass
 SPD Check: Pass
 Speed Check: Memtest v2.11
 Power Cycle Stat: Pass
 Power Cycle Time: 50

Voltage Margining Info

| | |
|-----------|-----------|
| Volt % | +/-3% |
| Volt Low | 1.45 volt |
| Volt High | 1.55 volt |

TESTING DETAILS FOR PHASE 2

Temperature: 55°C Time: 12Hr
 Start Date: 12/29/2010
 Stop Date: 1/2/2011
 Min Test Status: Pass
 Max Test Status: Pass
 SEL Min: Pass
 SEL Max: Pass
 Summary Min: Pass
 Summary Max: Pass
 Test Phase Status: **Pass**

TESTING DETAILS FOR PHASE 3

Temperature: 55°C Time: 12Hr
 Start Date: 12/29/2010
 Stop Date: 1/2/2011
 Min Test Status: Pass
 Max Test Status: Pass
 SEL Min: Pass
 SEL Max: Pass
 Summary Min: Pass
 Summary Max: Pass
 Test Phase Status: **Pass**

Single Bit Error

QTY:

VENDOR CONTACT INFORMATION

Contact: Devon Park Contact Phone: 949-679-0105 Purchase Order #: AnnualProgram

Test Traveler Notes:

CMTL USE ONLY:

Min config memory speed ran @ 1333MHz
 Max config memory speed ran @ 1066MHz

Verified by:

 Emailed by:

In the event of a module failure, CMTL is not required to provide root cause analysis. Accuracy of testing is restricted to the above mentioned module with specific DRAM, PCB and other components as listed and tested with the CMTL Memory Compatibility Functionality Test, Microsoft Advanced Server 2000®, Windows NT 4.0 Enterprise Edition®, Windows XP®, Windows 98 SE®, Dos 6.22®, MSTRESS® (v x.x), XLINER® (v x.x.x), FXLINEAR® (v x.x.x), Patin® (v x.x), WinMTA® (v x.x.x). (Voltage marganing applied only to those systems that are applicable.)

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| MOTHERBOARD | MANUFACTURER | CHIPSET | TEST NUMBER | TEST STATUS |
|------------------|--------------|-------------|-------------|-------------|
| S5500WB/S5500WBR | Intel | Intel® 5500 | 017839 | PASSED |

MODULE INFORMATION



Module ID: **NET057**

Manufacturer Name: Netlist, Inc.
Part #: NMD1G7G32507HD10A1SC
MB: 8GB **Cas Latency: 9**
Config: 1024M x 72 **Assembly: Single Board/Non St**
DRAM: Samsung **Low Profile: Yes**
DRAM Part #: K4B2G0846C-HCH9 rev B **Register Part #: DTRB**
PCB Part: 0520 na **PLL Part #:**
PCB_layer_count: 10 Layer **Dual Die Package Support Bank**
Module Info: Registered ECC 1333MHz DDR3 DIM Environment Code RoHS

MINIMUM SYSTEM INFORMATION

Minimum System: S5500WB/S5500WBR
 Serial Number: AZWK91000090
 Bios at time of test: S5500.86B.01.00.0054
 Processor Code: Intel® Xeon® X5667 @ 3.06GHz, 6.
 Memory Count : 49152MB
 Event Log Verify: Clear
 OS Memory Count: 47.9GB
 OS/Service Pack: Window 2003 64bit SP2
 Software Pack: Proprietary
 Disk Manuf: Hitachi SATA 80GB

MAXIMUM SYSTEM INFORMATION

Maximum System: S5500WB/S5500WBR
 Serial Number: AZWK91000116
 Bios at time of test: S5500.86B.01.00.0054
 Processor Code: Intel® Xeon® X5667 @ 3.06GHz, 6.
 Memory Count : 65536MB
 Event Log Verify: Clear
 OS Memory Count: 63.9GB
 OS/Service Pack: Window 2003 64bit SP2
 Software Pack: Proprietary
 Disk Manuf: Hitachi SATA 80GB

PRE-TESTING INFORMATION

Board Revision: E48472-302
 Insertion Test: Pass
 SPD Check: Pass
 Speed Check: Pass
 Power Cycle Stat: Pass
 Power Cycle Time: 50

Voltage Margining Info

| | |
|-----------|-----------|
| Volt % | +/- 3% |
| Volt Low | 1.45 volt |
| Volt High | 1.55 volt |

TESTING DETAILS FOR PHASE 2

Temperature: 55°C Time: 12Hr
 Start Date: 1/5/11
 Stop Date: 1/7/11
 Min Test Status: Pass
 Max Test Status: Pass
 SEL Min: Pass
 SEL Max: Pass
 Summary Min: Pass
 Summary Max: Pass
 Test Phase Status: **Pass**

TESTING DETAILS FOR PHASE 3

Temperature: 55°C Time: 12Hr
 Start Date: 1/5/11
 Stop Date: 1/7/11
 Min Test Status: Pass
 Max Test Status: Pass
 SEL Min: Pass
 SEL Max: Pass
 Summary Min: Pass
 Summary Max: Pass
 Test Phase Status: **Pass**

Single Bit Error

QTY:

VENDOR CONTACT INFORMATION

Contact: Devon Park Contact Phone: 949-679-0105 Purchase Order #: AnnualProgram

Test Traveler Notes:

CMTL USE ONLY:

Min config memory speed ran @ 1333MHz
 Max config memory speed ran @ 1333MHz

Verified by:

 Emailed by:

In the event of a module failure, CMTL is not required to provide root cause analysis. Accuracy of testing is restricted to the above mentioned module with specific DRAM, PCB and other components as listed and tested with the CMTL Memory Compatibility Functionality Test, Microsoft Advanced Server 2000®, Windows NT 4.0 Enterprise Edition®, Windows XP®, Windows 98 SE®, Dos 6.22®, MSTRESS® (v x.x), XLINEAR® (v x.xx), FXLINEAR® (v x.xx), Patin® (v x.x), WinMTA® (v x.xx). (Voltage marganing applied only to those systems that are applicable.)

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| MOTHERBOARD | MANUFACTURER | CHIPSET | TEST NUMBER | TEST STATUS |
|------------------------|--------------|-------------|-------------|-------------|
| /S5520HCV/S5520HCR/S55 | Intel | Intel® 5520 | 017840 | PASSED |

MODULE INFORMATION



Module ID: **NET057**

Manufacturer Name: Netlist, Inc.
Part #: NMD1G7G32507HD10A1SC
MB: 8GB Cas Latency: 9
Config: 1024M x 72 Assembly: Single Board/Non St
DRAM: Samsung Low Profile: Yes
DRAM Part #: K4B2G0846C-HCH9 rev B Register Part #: DTRB
PCB Part: 0520 na PLL Part #:
PCB_layer_count: 10 Layer Dual Die Package Support Bank
Module Info: Registered ECC 1333MHz DDR3 DIM Environment Code RoHS

MINIMUM SYSTEM INFORMATION

Minimum System: S5520HC/S5520HCV/S
 Serial Number: QSHN91200034
 Bios at time of test: S5500.86B.01.00.0054
 Processor Code: Intel® Xeon® X5677, @ 3.47GHz, 6
 Memory Count : 49152MB
 Event Log Verify: Clear
 OS Memory Count: 47.9GB
 OS/Service Pack: Window 2003 64bit SP2
 Software Pack: Proprietary
 Disk Manuf: Hitachi SATA 80GB

MAXIMUM SYSTEM INFORMATION

Maximum System: S5520HC/S5520HCV/S
 Serial Number: QSHN91200071
 Bios at time of test: S5500.86B.01.00.0054
 Processor Code: Intel® Xeon® X5677, @ 3.47GHz, 6.
 Memory Count : 98304MB
 Event Log Verify: Clear
 OS Memory Count: 95.9GB
 OS/Service Pack: Window 2003 64bit SP2
 Software Pack: Proprietary
 Disk Manuf: Hitachi SATA 80GB

PRE-TESTING INFORMATION

Board Revision: E26045-406
 Insertion Test: Pass
 SPD Check: Pass
 Speed Check: Pass
 Power Cycle Stat: Pass
 Power Cycle Time: 50

Voltage Margining Info

| | |
|-----------|-----------|
| Volt % | +/-3% |
| Volt Low | 1.45 volt |
| Volt High | 1.55 volt |

TESTING DETAILS FOR PHASE 2

Temperature: 55°C Time: 12Hr
 Start Date: 12/1/10
 Stop Date: 12/6/10
 Min Test Status: Pass
 Max Test Status: Pass
 SEL Min: Pass
 SEL Max: Pass
 Summary Min: Pass
 Summary Max: Pass
 Test Phase Status **Pass**

TESTING DETAILS FOR PHASE 3

Temperature: 55°C Time: 12Hr
 Start Date: 12/1/10
 Stop Date: 12/6/10
 Min Test Status: Pass
 Max Test Status: Pass
 SEL Min: Pass
 SEL Max: Pass
 Summary Min: Pass
 Summary Max: Pass
 Test Phase Status **Pass**

Single Bit Error

QTY:

VENDOR CONTACT INFORMATION

Contact: Devon Park Contact Phone: 949-679-0105 Purchase Order #: AnnualProgram

Test Traveler Notes:

CMTL USE ONLY:

Min config memory speed ran @ 1333MHz
 Max config memory speed ran @ 1333MHz

Verified by:

 Emailed by:

In the event of a module failure, CMTL is not required to provide root cause analysis. Accuracy of testing is restricted to the above mentioned module with specific DRAM, PCB and other components as listed and tested with the CMTL Memory Compatibility Functionality Test, Microsoft Advanced Server 2000®, Windows NT 4.0 Enterprise Edition®, Windows XP®, Windows 98 SE®, Dos 6.22®, MSTRESS® (v x.x), XLINEAR® (v x.x.x), FXLINEAR® (v x.x.x), Patin® (v x.x), WinMTA® (v x.x.x). (Voltage marganing applied only to those systems that are applicable.)

CMTL Advanced Final Report

| MOTHERBOARD | MANUFACTURER | CHIPSET | TEST NUMBER | TEST STATUS |
|------------------|--------------|-------------|-------------|-------------|
| S5520SC/S5520SCR | Intel | Intel® 5520 | 017841 | PASSED |

MODULE INFORMATION



Module ID: **NET057**

Manufacturer Name: Netlist, Inc.
Part #: NMD1G7G32507HD10A1SC
MB: 8GB Cas Latency: **9**
Config: 1024M x 72 Assembly: **Single Board/Non St**
DRAM: Samsung Low Profile: **Yes**
DRAM Part #: K4B2G0846C-HCH9 rev B Register Part #: **DTRB**
PCB Part: 0520 na PLL Part #:
PCB_layer_count: 10 Layer Dual Die Package Support Bank
Module Info: Registered ECC 1333MHz DDR3 DIM Environment Code RoHS

MINIMUM SYSTEM INFORMATION

Minimum System: S5520SC/S5520SCR
 Serial Number: QSHN91200034
 Bios at time of test: S5500.86B.01.00.0050
 Processor Code: Intel® Xeon® X5677, @ 3.47GHz, 6
 Memory Count : 49152MB
 Event Log Verify: Clear
 OS Memory Count: 47.9GB
 OS/Service Pack: Window 2003 64bit SP2
 Software Pack: Proprietary
 Disk Manuf: Hitachi SATA 80GB

MAXIMUM SYSTEM INFORMATION

Maximum System: S5520SC/S5520SCR
 Serial Number: QSHN91200071
 Bios at time of test: S5500.86B.01.00.0050
 Processor Code: Intel® Xeon® X5677, @ 3.47GHz, 6.
 Memory Count : 98304MB
 Event Log Verify: Clear
 OS Memory Count: 95.9GB
 OS/Service Pack: Window 2003 64bit SP2
 Software Pack: Proprietary
 Disk Manuf: Hitachi SATA 80GB

PRE-TESTING INFORMATION

Board Revision: E26045-406
 Insertion Test: Pass
 SPD Check: Pass
 Speed Check: Pass
 Power Cycle Stat: Pass
 Power Cycle Time: 50

Voltage Margining Info

| | |
|-----------|-----------|
| Volt % | +/-3% |
| Volt Low | 1.45 volt |
| Volt High | 1.55 volt |

TESTING DETAILS FOR PHASE 2

Temperature: 55°C Time: 12Hr
 Start Date: 12/1/10
 Stop Date: 12/6/10
 Min Test Status: Pass
 Max Test Status: Pass
 SEL Min: Pass
 SEL Max: Pass
 Summary Min: Pass
 Summary Max: Pass
 Test Phase Status **Pass**

TESTING DETAILS FOR PHASE 3

Temperature: 55°C Time: 12Hr
 Start Date: 12/1/10
 Stop Date: 12/6/10
 Min Test Status: Pass
 Max Test Status: Pass
 SEL Min: Pass
 SEL Max: Pass
 Summary Min: Pass
 Summary Max: Pass
 Test Phase Status **Pass**

Single Bit Error

QTY:

VENDOR CONTACT INFORMATION

Contact: Devon Park Contact Phone: 949-679-0105 Purchase Order #: AnnualProgram

Test Traveler Notes:

Min config memory speed ran @ 1333MHz
 Max config memory speed ran @ 1333MHz

CMTL USE ONLY:

Verified by:

 Emailed by:

In the event of a module failure, CMTL is not required to provide root cause analysis. Accuracy of testing is restricted to the above mentioned module with specific DRAM, PCB and other components as listed and tested with the CMTL Memory Compatibility Functionality Test, Microsoft Advanced Server 2000®, Windows NT 4.0 Enterprise Edition®, Windows XP®, Windows 98 SE®, Dos 6.22®, MSTRESS® (v x.x), XLINEAR® (v x.x.x), FXLINEAR® (v x.x.x), Patin® (v x.x), WinMTA® (v x.x.x). (Voltage marganing applied only to those systems that are applicable.)

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| MOTHERBOARD | MANUFACTURER | CHIPSET | TEST NUMBER | TEST STATUS |
|------------------|--------------|-------------|-------------|-------------|
| S5520UR/S5520URR | Intel | Intel® 5520 | 017842 | PASSED |

MODULE INFORMATION



Module ID: **NET057**

Manufacturer Name: Netlist, Inc.
Part #: NMD1G7G32507HD10A1SC
MB: 8GB Cas Latency: **9**
Config: 1024M x 72 Assembly: **Single Board/Non St**
DRAM: Samsung Low Profile: **Yes**
DRAM Part #: K4B2G0846C-HCH9 rev B Register Part #: **DTRB**
PCB Part: 0520 na PLL Part #:
PCB_layer_count: 10 Layer Dual Die Package Support Bank
Module Info: Registered ECC 1333MHz DDR3 DIM Environment Code RoHS

MINIMUM SYSTEM INFORMATION

Minimum System: S5520UR/S5520URR
 Serial Number: BZUB90600740
 Bios at time of test: S5500.86B.01.00.0054
 Processor Code: Intel® Xeon® X5677, @ 3.47GHz, 6
 Memory Count : 49144MB
 Event Log Verify: Clear
 OS Memory Count: 47.9GB
 OS/Service Pack: Window 2003 64bit SP2
 Software Pack: Proprietary
 Disk Manuf: Hitachi SATA 80GB

MAXIMUM SYSTEM INFORMATION

Maximum System: S5520UR/S5520URR
 Serial Number: BZUB90600717
 Bios at time of test: S5500.86B.01.00.0054
 Processor Code: Intel® Xeon® X5677, @ 3.47GHz, 6.
 Memory Count : 98304MB
 Event Log Verify: Clear
 OS Memory Count: 95.9GB
 OS/Service Pack: Window 2003 64bit SP2
 Software Pack: Proprietary
 Disk Manuf: Hitachi SATA 80GB

PRE-TESTING INFORMATION

Board Revision: E22554-601
 Insertion Test: Pass
 SPD Check: Pass
 Speed Check: Pass
 Power Cycle Stat: Pass
 Power Cycle Time: 50

Voltage Margining Info

| | |
|-----------|-----------|
| Volt % | +/- 3% |
| Volt Low | 1.45 volt |
| Volt High | 1.55 volt |

TESTING DETAILS FOR PHASE 2

Temperature: 55°C Time: 12Hr
 Start Date: 12/27/10
 Stop Date: 12/29/10
 Min Test Status: Pass
 Max Test Status: Pass
 SEL Min: Pass
 SEL Max: Pass
 Summary Min: Pass
 Summary Max: Pass
 Test Phase Status **Pass**

TESTING DETAILS FOR PHASE 3

Temperature: 55°C Time: 12Hr
 Start Date: 12/27/10
 Stop Date: 12/29/10
 Min Test Status: Pass
 Max Test Status: Pass
 SEL Min: Pass
 SEL Max: Pass
 Summary Min: Pass
 Summary Max: Pass
 Test Phase Status **Pass**

Single Bit Error

QTY:

VENDOR CONTACT INFORMATION

Contact: Devon Park Contact Phone: 949-679-0105 Purchase Order #: AnnualProgram

Test Traveler Notes:

CMTL USE ONLY:

Min config memory speed ran @ 1333MHz
 Max config memory speed ran @ 1333MHz

Verified by:

 Emailed by:

In the event of a module failure, CMTL is not required to provide root cause analysis. Accuracy of testing is restricted to the above mentioned module with specific DRAM, PCB and other components as listed and tested with the CMTL Memory Compatibility Functionality Test, Microsoft Advanced Server 2000®, Windows NT 4.0 Enterprise Edition®, Windows XP®, Windows 98 SE®, Dos 6.22®, MSTRESS® (v x.x), XLINEAR® (v x.x.x), FXLINEAR® (v x.x.x), Patin® (v x.x), WinMTA® (v x.x.x). (Voltage marganing applied only to those systems that are applicable.)

CMTL Advanced Final Report

| MOTHERBOARD | MANUFACTURER | CHIPSET | TEST NUMBER | TEST STATUS |
|--------------------|--------------|-------------|-------------|-------------|
| SR1680MV/SR1680MVR | Intel | Intel® 5500 | 017843 | PASSED |

MODULE INFORMATION



Module ID: **NET057**

Manufacturer Name: Netlist, Inc.
Part #: NMD1G7G32507HD10A1SC
MB: 8GB **Cas Latency: 9**
Config: 1024M x 72 **Assembly: Single Board/Non St**
DRAM: Samsung **Low Profile: Yes**
DRAM Part #: K4B2G0846C-HCH9 rev B **Register Part #: DTRB**
PCB Part: 0520 na **PLL Part #:**
PCB_layer_count: 10 Layer **Dual Die Package Support Bank**
Module Info: Registered ECC 1333MHz DDR3 DIM Environment Code RoHS

MINIMUM SYSTEM INFORMATION

Minimum System: SR1680MV/SR1680MV
 Serial Number: BZMY93100025
 Bios at time of test: SR1680MV.86B.01.00.0105
 Processor Code: Inter® Xeon® X55600, @ 2.80GHz,
 Memory Count : 98304MB
 Event Log Verify: Clear
 OS Memory Count: 96G
 OS/Service Pack: N/A N/A
 Software Pack: Proprietary
 Disk Manuf:

MAXIMUM SYSTEM INFORMATION

Maximum System: SR1680MV/SR1680MV
 Serial Number: BZMY93100108
 Bios at time of test: SR1680MV.86B.01.00.0105
 Processor Code: Inter® Xeon® X55600, @ 2.80GHz,
 Memory Count : 147456MB
 Event Log Verify: Clear
 OS Memory Count: 144G
 OS/Service Pack: N/A N/A
 Software Pack: Proprietary
 Disk Manuf:

PRE-TESTING INFORMATION

Board Revision: E73366-101
 Insertion Test: Pass
 SPD Check: Pass
 Speed Check: Memtest v2.11
 Power Cycle Stat: Pass
 Power Cycle Time: 50

Voltage Margining Info

| | |
|-----------|-----------|
| Volt % | +/-3% |
| Volt Low | 1.45 volt |
| Volt High | 1.55 volt |

TESTING DETAILS FOR PHASE 2

Temperature: 55°C Time: 12Hr
 Start Date: 12/23/10
 Stop Date: 12/27/10
 Min Test Status: Pass
 Max Test Status: Pass
 SEL Min: Pass
 SEL Max: Pass
 Summary Min: Pass
 Summary Max: Pass
 Test Phase Status: **Pass**

TESTING DETAILS FOR PHASE 3

Temperature: 55°C Time: 12Hr
 Start Date: 12/23/10
 Stop Date: 12/27/10
 Min Test Status: Pass
 Max Test Status: Pass
 SEL Min: Pass
 SEL Max: Pass
 Summary Min: Pass
 Summary Max: Pass
 Test Phase Status: **Pass**

Single Bit Error

QTY:

VENDOR CONTACT INFORMATION

Contact: Devon Park Contact Phone: 949-679-0105 Purchase Order #: AnnualProgram

Test Traveler Notes:

CMTL USE ONLY:

Min config memory speed ran @ 1066MHz
 Max config memory speed ran @ 800MHz

Verified by:


 Emailed by:

In the event of a module failure, CMTL is not required to provide root cause analysis. Accuracy of testing is restricted to the above mentioned module with specific DRAM, PCB and other components as listed and tested with the CMTL Memory Compatibility Functionality Test, Microsoft Advanced Server 2000®, Windows NT 4.0 Enterprise Edition®, Windows XP®, Windows 98 SE®, Dos 6.22®, MSTRESS® (v x.x), XLINEAR® (v x.x.x), FXLINEAR® (v x.x.x), Patin® (v x.x), WinMTA® (v x.x.x). (Voltage marganing applied only to those systems that are applicable.)

CMTL Advanced Final Report

| MOTHERBOARD | MANUFACTURER | CHIPSET | TEST NUMBER | TEST STATUS |
|----------------------|--------------|-------------|-------------|-------------|
| MFS5520VI/MFS5520VIR | Intel | Intel® 5520 | 017892 | PASSED |

MODULE INFORMATION

Manufacturer Name: Netlist, Inc. **Module ID:** NET060
Part #: NMD2G7G3510BHD10A1HB 
MB: 16GB **Cas Latency:** 9
Config: 2048M x 72 **Assembly:** Single Board/Non St
DRAM: Hynix **Low Profile:** Yes
DRAM Part #: H5TQ4G43BMR-H9C rev B **Register Part #:** DTRD57391JT6DBG
PCB Part: 0521 na **PLL Part #:**
PCB_layer_count: 12 Layer **Dual Die Package Support** **Bank 2**
Module Info: Registered ECC 1333MHz DDR3 DIM Environment Code RoHS

MINIMUM SYSTEM INFORMATION

Minimum System: MFS5520VI/MFS5520VI
 Serial Number: BZVI91300193
 Bios at time of test: S5500.86B.01.10.0048
 Processor Code: Intel® Xeon® X5667 @ 3.06GHz, 6.
 Memory Count : 98304MB
 Event Log Verify: Clear
 OS Memory Count: 95.9GB
 OS/Service Pack: Window 2003 64bit SP2
 Software Pack: Proprietary
 Disk Manuf: Seagate Savvio 36GB

MAXIMUM SYSTEM INFORMATION

Maximum System: MFS5520VI/MFS5520VI
 Serial Number: BZVI91300148
 Bios at time of test: S5500.86B.01.10.0048
 Processor Code: Intel® Xeon® X5667 @ 3.06GHz, 6.
 Memory Count : 196608MB
 Event Log Verify: Clear
 OS Memory Count: 191GB
 OS/Service Pack: Window 2003 64bit SP2
 Software Pack: Proprietary
 Disk Manuf: Seagate Savvio® 36GB

PRE-TESTING INFORMATION

Board Revision: E41515-401
 Insertion Test: Pass
 SPD Check: Pass
 Speed Check: Pass
 Power Cycle Stat: Pass
 Power Cycle Time: 50

Voltage Margining Info

| | |
|-----------|-----------|
| Volt % | +/-3% |
| Volt Low | 1.45 volt |
| Volt High | 1.55 volt |

TESTING DETAILS FOR PHASE 2

Temperature: 55°C Time: 12Hr
 Start Date: 12/13/10
 Stop Date: 12/16/10
 Min Test Status: Pass
 Max Test Status: Pass
 SEL Min: Pass
 SEL Max: Pass
 Summary Min: Pass
 Summary Max: Pass
 Test Phase Status: **Pass**

TESTING DETAILS FOR PHASE 3

Temperature: 55°C Time: 12Hr
 Start Date: 12/13/10
 Stop Date: 12/16/10
 Min Test Status: Pass
 Max Test Status: Pass
 SEL Min: Pass
 SEL Max: Pass
 Summary Min: Pass
 Summary Max: Pass
 Test Phase Status: **Pass**

Single Bit Error
 QTY:

VENDOR CONTACT INFORMATION

Contact: Devon Park Contact Phone: 949-679-0105 Purchase Order #: Annual plan

Test Traveler Notes:

Min config memory speed ran @ 1333MHz
 Max config memory speed ran @ 1333MHz

CMTL USE ONLY:

Verified by:

 Emailed by:

In the event of a module failure, CMTL is not required to provide root cause analysis. Accuracy of testing is restricted to the above mentioned module with specific DRAM, PCB and other components as listed and tested with the CMTL Memory Compatibility Functionality Test, Microsoft Advanced Server 2000®, Windows NT 4.0 Enterprise Edition®, Windows XP®, Windows 98 SE®, Dos 6.22®, MSTRESS® (v x.x), XLINEAR® (v x.xx), FXLINEAR® (v x.xx), Patin® (v x.x), WinMTA® (v x.xx). (Voltage marganing applied only to those systems that are applicable.)

CMTL Advanced Final Report

| <u>MOTHERBOARD</u> | <u>MANUFACTURER</u> | <u>CHIPSET</u> | <u>TEST NUMBER</u> | <u>TEST STATUS</u> |
|--------------------|---------------------|----------------|--------------------|--------------------|
| S5520SC/S5520SCR | Intel | Intel® 5520 | 017894 | PASSED |

MODULE INFORMATION



Module ID: **NET060**

Manufacturer Name: Netlist, Inc.
Part #: NMD2G7G3510BHD10A1HB
MB: 16GB **Cas Latency: 9**
Config: 2048M x 72 **Assembly: Single Board/Non St**
DRAM: Hynix **Low Profile: Yes**
DRAM Part #: H5TQ4G43BMR-H9C rev B **Register Part #: DTRD57391JT6DBG**
PCB Part: 0521 na **PLL Part #:**
PCB_layer_count: 12 Layer **Dual Die Package Support Bank 2**
Module Info: Registered ECC 1333MHz DDR3 DIM Environment Code RoHS

MINIMUM SYSTEM INFORMATION

Minimum System: S5520SC/S5520SCR
 Serial Number: QSHN91200034
 Bios at time of test: S5500.86B.01.00.0050
 Processor Code: Intel® Xeon® X5677, @ 3.47GHz, 6
 Memory Count : 98304MB
 Event Log Verify: Clear
 OS Memory Count: 95.9GB
 OS/Service Pack: Window 2003 64bit SP2
 Software Pack: Proprietary
 Disk Manuf: Hitachi SATA 80GB

MAXIMUM SYSTEM INFORMATION

Maximum System: S5520SC/S5520SCR
 Serial Number: QSHN91200071
 Bios at time of test: S5500.86B.01.00.0050
 Processor Code: Intel® Xeon® X5677, @ 3.47GHz, 6.
 Memory Count : 196608MB
 Event Log Verify: Clear
 OS Memory Count: 191GB
 OS/Service Pack: Window 2003 64bit SP2
 Software Pack: Proprietary
 Disk Manuf: Hitachi SATA 80GB

PRE-TESTING INFORMATION

Board Revision: E26045-406
 Insertion Test: Pass
 SPD Check: Pass
 Speed Check: Pass
 Power Cycle Stat: Pass
 Power Cycle Time: 50

Voltage Margining Info

| | |
|-----------|-----------|
| Volt % | +/-3% |
| Volt Low | 1.45 volt |
| Volt High | 1.55 volt |

TESTING DETAILS FOR PHASE 2

Temperature: 55°C Time: 12Hr
 Start Date: 12/23/10
 Stop Date: 1/2/11
 Min Test Status: Pass
 Max Test Status: Pass
 SEL Min: Pass
 SEL Max: Pass
 Summary Min: Pass
 Summary Max: Pass
 Test Phase Status: **Pass**

TESTING DETAILS FOR PHASE 3

Temperature: 55°C Time: 12Hr
 Start Date: 12/23/10
 Stop Date: 1/2/11
 Min Test Status: Pass
 Max Test Status: Pass
 SEL Min: Pass
 SEL Max: Pass
 Summary Min: Pass
 Summary Max: Pass
 Test Phase Status: **Pass**

Single Bit Error

QTY:

VENDOR CONTACT INFORMATION

Contact: Devon Park Contact Phone: 949-679-0105 Purchase Order #: Annual plan

Test Traveler Notes:

Min config memory speed ran @ 1333MHz
 Max config memory speed ran @ 1333MHz

CMTL USE ONLY:

Verified by:

Emailed by:

In the event of a module failure, CMTL is not required to provide root cause analysis. Accuracy of testing is restricted to the above mentioned module with specific DRAM, PCB and other components as listed and tested with the CMTL Memory Compatibility Functionality Test, Microsoft Advanced Server 2000®, Windows NT 4.0 Enterprise Edition®, Windows XP®, Windows 98 SE®, Dos 6.22®, MSTRESS® (v x.x), XLINEAR® (v x.xx), FXLINEAR® (v x.xx), Patin® (v x.x), WinMTA® (v x.xx). (Voltage marganing applied only to those systems that are applicable.)

CMTL Advanced Final Report

| <u>MOTHERBOARD</u> | <u>MANUFACTURER</u> | <u>CHIPSET</u> | <u>TEST NUMBER</u> | <u>TEST STATUS</u> |
|--------------------|---------------------|----------------|--------------------|--------------------|
| S5520UR/S5520URR | Intel | Intel® 5520 | 017895 | PASSED |

| | | |
|---------------------------|------------------------------|--|
| MODULE INFORMATION | | Module ID: NET060 |
| | | |
| Manufacturer Name: | Netlist, Inc. | |
| Part #: | NMD2G7G3510BHD10A1HB | |
| MB: | 16GB | Cas Latency: 9 |
| Config: | 2048M x 72 | Assembly: Single Board/Non St |
| DRAM: | Hynix | Low Profile: Yes |
| DRAM Part #: | H5TQ4G43BMR-H9C rev B | Register Part #: DTRD57391JT6DBG |
| PCB Part: | 0521 na | PLL Part #: |
| PCB_layer_count: | 12 Layer | Dual Die Package Support <input type="checkbox"/> Bank 2 |
| Module Info: | Registered ECC | 1333MHz DDR3 DIM Environment Code RoHS |

| | |
|---|--|
| MINIMUM SYSTEM INFORMATION Minimum System: S5520UR/S5520URR Serial Number: BZUB90600740 Bios at time of test: S5500.86B.01.00.0054 Processor Code: Intel® Xeon® X5677, @ 3.47GHz, 6 Memory Count : 98304MB Event Log Verify: Clear OS Memory Count: 95.9GB OS/Service Pack: Window 2003 64bit SP2 Software Pack: Proprietary Disk Manuf: Hitachi SATA 80GB | MAXIMUM SYSTEM INFORMATION Maximum System: S5520UR/S5520URR Serial Number: BZUB90600717 Bios at time of test: S5500.86B.01.00.0054 Processor Code: Intel® Xeon® X5677, @ 3.47GHz, 6. Memory Count : 196608MB Event Log Verify: Clear OS Memory Count: 191GB OS/Service Pack: Window 2003 64bit SP2 Software Pack: Proprietary Disk Manuf: Hitachi SATA 80GB |
|---|--|

| <u>PRE-TESTING INFORMATION</u> | <u>TESTING DETAILS FOR PHASE 2</u> | <u>TESTING DETAILS FOR PHASE 3</u> |
|---|--|--|
| Board Revision: E22554-601 Insertion Test: Pass SPD Check: Pass Speed Check: Pass Power Cycle Stat: Pass Power Cycle Time: 50 <div style="border: 1px solid black; padding: 5px; width: fit-content;"> Voltage Margining Info Volt % +/- 3% Volt Low 1.45 volt Volt High 1.55 volt </div> | Temperature: 55°C Time: 12Hr Start Date: 1/2/11 Stop Date: 1/6/11 Min Test Status: Pass Max Test Status: Pass SEL Min: Pass SEL Max: Pass Summary Min: Pass Summary Max: Pass Test Phase Status Pass | Temperature: 55°C Time: 12Hr Start Date: 1/2/11 Stop Date: 1/6/11 Min Test Status: Pass Max Test Status: Pass SEL Min: Pass SEL Max: Pass Summary Min: Pass Summary Max: Pass Test Phase Status Pass |

Single Bit Error
 QTY:

| <u>VENDOR CONTACT INFORMATION</u> | | |
|-----------------------------------|-----------------------------|-------------------------------|
| Contact: Devon Park | Contact Phone: 949-679-0105 | Purchase Order #: Annual plan |

| | |
|--|--|
| Test Traveler Notes: Min config memory speed ran @ 1333MHz Max config memory speed ran @ 1333MHz | CMTL USE ONLY: Verified by: Emailed by: |
|--|--|

In the event of a module failure, CMTL is not required to provide root cause analysis. Accuracy of testing is restricted to the above mentioned module with specific DRAM, PCB and other components as listed and tested with the CMTL Memory Compatibility Functionality Test, Microsoft Advanced Server 2000®, Windows NT 4.0 Enterprise Edition®, Windows XP®, Windows 98 SE®, Dos 6.22®, MSTRESS® (v x.x), XLINEAR® (v x.xx), FXLINEAR® (v x.xx), Patin® (v x.x), WinMTA® (v x.xx). (Voltage marganing applied only to those systems that are applicable.)

CMTL Advanced Final Report

| MOTHERBOARD | MANUFACTURER | CHIPSET | TEST NUMBER | TEST STATUS |
|------------------|--------------|-------------|-------------|-------------|
| S5500WB/S5500WBR | Intel | Intel® 5500 | 017896 | PASSED |

MODULE INFORMATION



Module ID: **NET060**

Manufacturer Name: Netlist, Inc.
Part #: NMD2G7G3510BHD10A1HB
MB: 16GB **Cas Latency: 9**
Config: 2048M x 72 **Assembly: Single Board/Non St**
DRAM: Hynix **Low Profile: Yes**
DRAM Part #: H5TQ4G43BMR-H9C rev B **Register Part #: DTRD57391JT6DBG**
PCB Part: 0521 na **PLL Part #:**
PCB_layer_count: 12 Layer **Dual Die Package Support Bank 2**
Module Info: Registered ECC 1333MHz DDR3 DIM Environment Code RoHS

MINIMUM SYSTEM INFORMATION

Minimum System: S5500WB/S5500WBR
 Serial Number: AZWK91000090
 Bios at time of test: S5500.86B.01.00.0054
 Processor Code: Intel® Xeon® X5667 @ 3.06GHz, 6.
 Memory Count : 98304MB
 Event Log Verify: Clear
 OS Memory Count: 95.9GB
 OS/Service Pack: Window 2003 64bit SP2
 Software Pack: Proprietary
 Disk Manuf: Hitachi SATA 80GB

MAXIMUM SYSTEM INFORMATION

Maximum System: S5500WB/S5500WBR
 Serial Number: AZWK91000116
 Bios at time of test: S5500.86B.01.00.0054
 Processor Code: Intel® Xeon® X5667 @ 3.06GHz, 6.
 Memory Count : 131072MB
 Event Log Verify: Clear
 OS Memory Count: 127GB
 OS/Service Pack: Window 2003 64bit SP2
 Software Pack: Proprietary
 Disk Manuf: Hitachi SATA 80GB

PRE-TESTING INFORMATION

Board Revision: E48472-302
 Insertion Test: Pass
 SPD Check: Pass
 Speed Check: Pass
 Power Cycle Stat: Pass
 Power Cycle Time: 50

Voltage Margining Info

| | |
|-----------|-----------|
| Volt % | +/- 3% |
| Volt Low | 1.45 volt |
| Volt High | 1.55 volt |

TESTING DETAILS FOR PHASE 2

Temperature: 55°C Time: 12Hr
 Start Date: 1/7/11
 Stop Date: 1/10/11
 Min Test Status: Pass
 Max Test Status: Pass
 SEL Min: Pass
 SEL Max: Pass
 Summary Min: Pass
 Summary Max: Pass
 Test Phase Status: **Pass**

TESTING DETAILS FOR PHASE 3

Temperature: 55°C Time: 12Hr
 Start Date: 1/7/11
 Stop Date: 1/10/11
 Min Test Status: Pass
 Max Test Status: Pass
 SEL Min: Pass
 SEL Max: Pass
 Summary Min: Pass
 Summary Max: Pass
 Test Phase Status: **Pass**

Single Bit Error

QTY:

VENDOR CONTACT INFORMATION

Contact: Devon Park Contact Phone: 949-679-0105 Purchase Order #: Annual plan

Test Traveler Notes:

CMTL USE ONLY:

Min config memory speed ran @ 1333MHz
 Max config memory speed ran @ 1333MHz


Verified by:

Emailed by:

In the event of a module failure, CMTL is not required to provide root cause analysis. Accuracy of testing is restricted to the above mentioned module with specific DRAM, PCB and other components as listed and tested with the CMTL Memory Compatibility Functionality Test, Microsoft Advanced Server 2000®, Windows NT 4.0 Enterprise Edition®, Windows XP®, Windows 98 SE®, Dos 6.22®, MSTRESS® (v x.x), XLINEAR® (v x.xx), FXLINEAR® (v x.xx), Patin® (v x.x), WinMTA® (v x.xx). (Voltage marganing applied only to those systems that are applicable.)

CMTL Advanced Final Report

| MOTHERBOARD | MANUFACTURER | CHIPSET | TEST NUMBER | TEST STATUS |
|--------------------|--------------|-------------|-------------|-------------|
| SR1680MV/SR1680MVR | Intel | Intel® 5500 | 017904 | PASSED |

| | | | |
|---|---|---|--------------------------|
| MODULE INFORMATION | |  | Module ID: NET060 |
| Manufacturer Name: Netlist, Inc. | Part #: NMD2G7G3510BHD10A1HB | | Cas Latency: 9 |
| MB: 16GB | Config: 2048M x 72 | Assembly: Single Board/Non St | |
| DRAM: Hynix | DRAM Part #: H5TQ4G43BMR-H9C rev B | Low Profile: Yes | |
| PCB Part: 0521 na | PCB_layer_count: 12 Layer | Register Part #: DTRD57391JT6DBG | |
| Module Info: Registered ECC | 1333MHz DDR3 DIM | PLL Part #: Dual Die Package Support <input type="checkbox"/> Bank 2 | |
| | Environment Code | RoHS | |

| MINIMUM SYSTEM INFORMATION | MAXIMUM SYSTEM INFORMATION |
|---|---|
| Minimum System: SR1680MV/SR1680MV | Maximum System: SR1680MV/SR1680MV |
| Serial Number: BZMY93100025 | Serial Number: BZMY93100108 |
| Bios at time of test: SR1680MV.86B.01.00.0105 | Bios at time of test: SR1680MV.86B.01.00.0105 |
| Processor Code: Inter® Xeon® X55600, @ 2.80GHz, | Processor Code: Inter® Xeon® X55600, @ 2.80GHz, |
| Memory Count : 98304MB | Memory Count : 294912MB |
| Event Log Verify: Clear | Event Log Verify: Clear |
| OS Memory Count: 96G | OS Memory Count: 288G |
| OS/Service Pack: N/A | OS/Service Pack: N/A |
| Software Pack: Proprietary | Software Pack: Proprietary |
| Disk Manuf: | Disk Manuf: |

| PRE-TESTING INFORMATION | TESTING DETAILS FOR PHASE 2 | TESTING DETAILS FOR PHASE 3 |
|----------------------------|--------------------------------|--------------------------------|
| Board Revision: E73366-101 | Temperature: 55°C | Temperature: 55°C |
| Insertion Test: Pass | Time: 12Hr | Time: 12Hr |
| SPD Check: Pass | Start Date: 12/17/10 | Start Date: 12/17/10 |
| Speed Check: Memtest v2.11 | Stop Date: 12/22/10 | Stop Date: 12/22/10 |
| Power Cycle Stat: Pass | Min Test Status: Pass | Min Test Status: Pass |
| Power Cycle Time: 50 | Max Test Status: Pass | Max Test Status: Pass |
| | SEL Min: Pass | SEL Min: Pass |
| | SEL Max: Pass | SEL Max: Pass |
| | Summary Min: Pass | Summary Min: Pass |
| | Summary Max: Pass | Summary Max: Pass |
| | Test Phase Status: Pass | Test Phase Status: Pass |

Single Bit Error

QTY:

| VENDOR CONTACT INFORMATION | | |
|---|-----------------------------|-------------------------------|
| Contact: Devon Park | Contact Phone: 949-679-0105 | Purchase Order #: Annual plan |
| Test Traveler Notes: | | CMTL USE ONLY: |
| Min config memory speed ran @ 1333MHz Max config memory speed ran @ 800MHz | | Verified by: |
| | | Emailed by: |

In the event of a module failure, CMTL is not required to provide root cause analysis. Accuracy of testing is restricted to the above mentioned module with specific DRAM, PCB and other components as listed and tested with the CMTL Memory Compatibility Functionality Test, Microsoft Advanced Server 2000®, Windows NT 4.0 Enterprise Edition®, Windows XP®, Windows 98 SE®, Dos 6.22®, MSTRESS® (v x.x), XLINEAR® (v x.xx), FXLINEAR® (v x.xx), Patin® (v x.x), WinMTA® (v x.xx). (Voltage marganing applied only to those systems that are applicable.)