
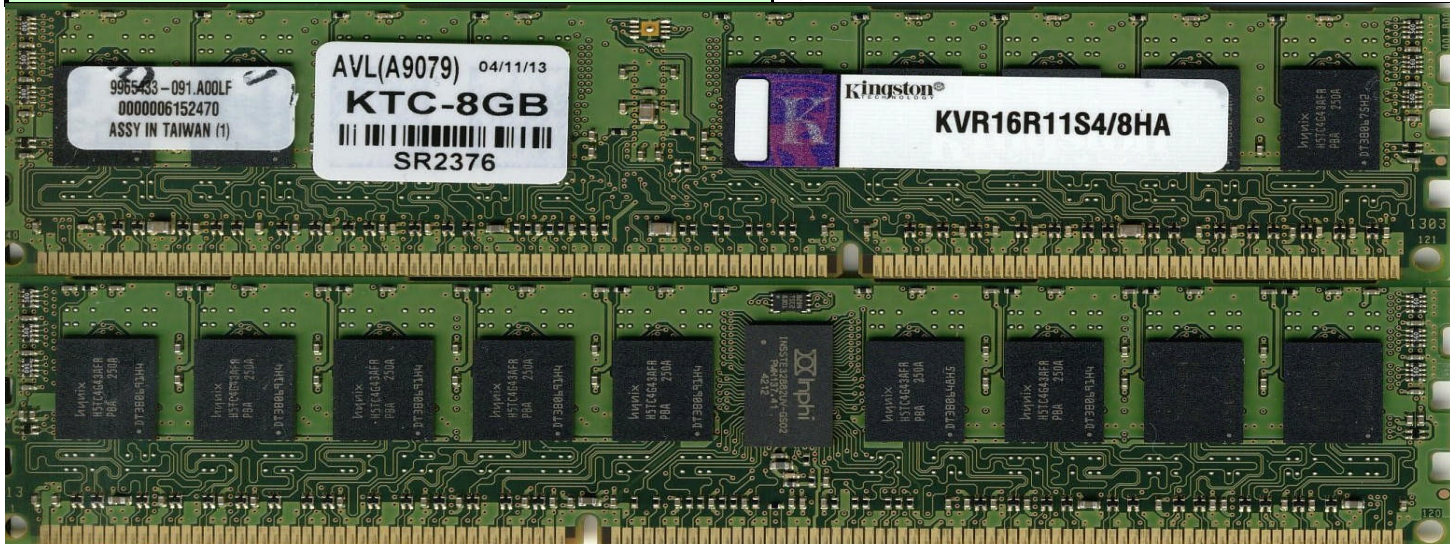


| | | | |
|---|--|--|--------------|
|  | AVL Supermicro server platform Memory Module Qualification Test | | |
| | Intel E5-2650(SNB-EP) x 2, Intel C602 | | Test Results |
| | PN: KVR16R11S4/8HA (8GB / RDIMM / ECC) On: X9DAI Rev.1234567890 | | Pass |

| RP77D3x-106-KI-SQ-SMC-V2 | | Module Information | | Rev 05/30/2012 |
|--|----------------------------|--------------------|-----------|----------------|
| AVL WorkOrder # | WC6718 | AVL A# | 9079 | |
| Start Date | 4/29/2013 | End Date | 4/30/2013 | |
| Tested By | Van N. | | | |
| Module Manufacturer | Kingston | | | |
| Module Part Number | KVR16R11S4/8HA | | | |
| Module BOM Number | 9965433-091.A00LF | | | |
| Module Capacity / Memory Type / ECC | 8GB / RDIMM / ECC | | | |
| Module Configuration (Width, # of devices, # of Ranks) | 1Gx72 /18 Devices / 1 Rank | | | |
| Speed Tested (Data rate of Mbps, CL-tRP-tRCD) | DDR3-1600 /11-11-11 | | | |
| DRAM Device Vendor | Hynix | | | |
| DRAM Device Part Number / Date code | H5TC4G43AFR-PBA | | | 1250 |
| DRAM Die Revision / Process Technology (nm) | A | | | |
| DRAM Device Config (Density / Width) | 4Gbit / x4 /1024Mx4bit | | | |
| Thermal Sensor Device Vendor / Part Number / Revision | STMicro | | | |
| Register Device Vendor / Part Number / Revision | Inphi | SSTE32882 | 2.1 | |



| Platform System Information | | | | |
|--|---------------------------|------------|------------|--------|
| Motherboard Info (Model# & MB Revision & MB S/N & AVL S/N) | X9DAI | 1234567890 | UM23S30507 | SN9376 |
| BIOS Revision / BIOS Date | 1 | | 2/3/2012 | |
| CPU / Speed | Intel E5-2650(SNB-EP) x 2 | | 2.0GHz | |
| Chipset info (Stepping) | Intel C602 | | | |



AVL Supermicro server platform Memory Module Qualification Test

Intel E5-2650(SNB-EP) x 2, Intel C602

PN: KVR16R11S4/8HA (8GB / RDIMM / ECC) On: X9DAI Rev.1234567890

Test Results:

PASS

Comments:

AVL Memory Module Qual Test Results Summary

| Test # and name | Test Description | Specs | Test | Comments |
|---|--|---------------------|---------|------------------------------------|
| | | | Results | |
| 1. Latest BIOS Upgrade & Configuration | Download / Upgrade latest BIOS & record size and speed detection | | Done | |
| 2. SPD Check | Memory module SPD content check for JEDEC compliance | JEDEC | Done | Use proprietary tools |
| 3. Reset Cycle | Run Linux based diags & utility software @ 55°C | 50 loops | Pass | 1 DIMM Per Channel when applicable |
| 4a. Stress Application Test | Run Linux based diags & utility software @55°C | 8 Hour per config | Pass | DIMM Loading per spec |
| 4b. Stream Benchmark Test | | 5 loop per config | Pass | DIMM Loading per spec |
| 4b. Reset Cycle | | 200 loop per config | Pass | DIMM Loading per spec |
| 5. Functional Stress Test | Memory Stress Test @55°C | 12hrs | Pass | DIMM Loading per spec |
| 6. Stress Application Test | Run Linux based diags & utility software @55°C | 8hrs | N/A | 3 DIMM Per Channel when applicable |

Note: All test under IMC Vdd=Nom, Vref=Vddnom/2