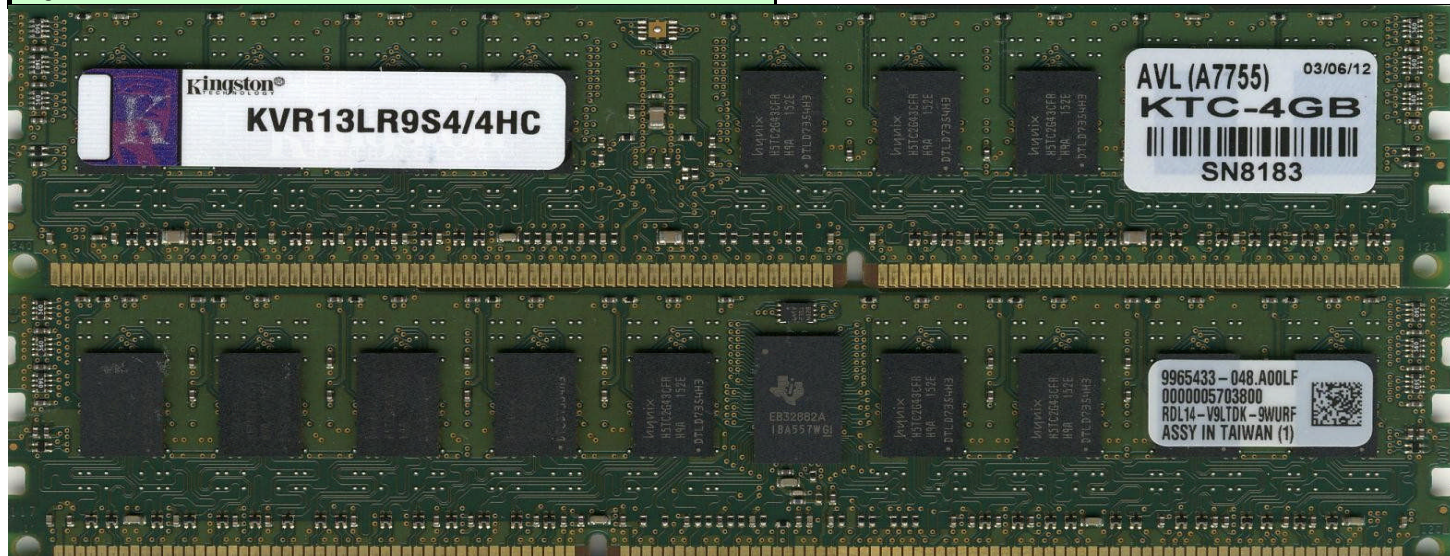


	AVL Supermicro server platform Memory Module Qualification Test		
	Intel E5-2650(SNB-EP) x 1, Intel C602	Test Results	Pass
	PN: KVR13LR9S4/4HC (4GB / RDIMM / ECC) On: X9SRE-F Rev.1.2		

RP77D3x-106-KI-SQ-SMC-V2		Module Information		Rev 05/30/2012
AVL WorkOrder #	WC4141	AVL A#	7755	
Start Date	6/25/2012	End Date	6/28/2012	
Tested By		Van N.		
Module Manufacturer		Kingston		
Module Part Number		KVR13LR9S4/4HC		
Module BOM Number		9965433-048.A00LF		
Module Capacity / Memory Type / ECC		4GB	/ RDIMM	/ ECC
Module Configuration (Width, # of devices, # of Ranks)		512Mx72	/18 Devices	/ 1 Rank
Speed Tested (Data rate of Mbps, CL-tRP-tRCD)		DDR3-1333	/9-9-9	
DRAM Device Vendor		Hynix		
DRAM Device Part Number / Date code		H5TC2G4CFR-H9A	1152	
DRAM Die Revision / Process Technology (nm)		C		
DRAM Device Config (Density / Width)		512Mbit	/ x4	/ 512Mx4bit
Thermal Sensor Device Vendor / Part Number / Revision		STMicro		
Register Device Vendor / Part Number / Revision		TI	EB32882A	3.3



Platform System Information				
Motherboard Info (Model# & MB Revision & MB S/N & AVL S/N)	X9SRE-F	1.2	ZM23U39156	SO6530
BIOS Revision / BIOS Date	1.0a	3/6/2012		
CPU / Speed	Intel E5-2650(SNB-EP) x 1	2.0GHz		
Chipset info (Stepping)	Intel C602			



AVL Supermicro server platform Memory Module Qualification Test

Intel E5-2650(SNB-EP) x 1, Intel C602

PN: KVR13LR9S4/4HC (4GB / RDIMM / ECC) On: X9SRE-F Rev.1.2

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	Pass	Use proprietary tools
3. Reset Cycle	Run Linux based diags & utility software @ 50°C	50 loops	Pass	1 DIMM Per Channel when applicable
4a. Stress Application Test	Run Linux based diags & utility software @50°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 @50°C -	12hrs	Pass	DIMM Loading per spec
6. Stress Application Test	Run Linux based diags & utility software @50°C	6hrs	N/A	3 DIMM Per Channel when applicable

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