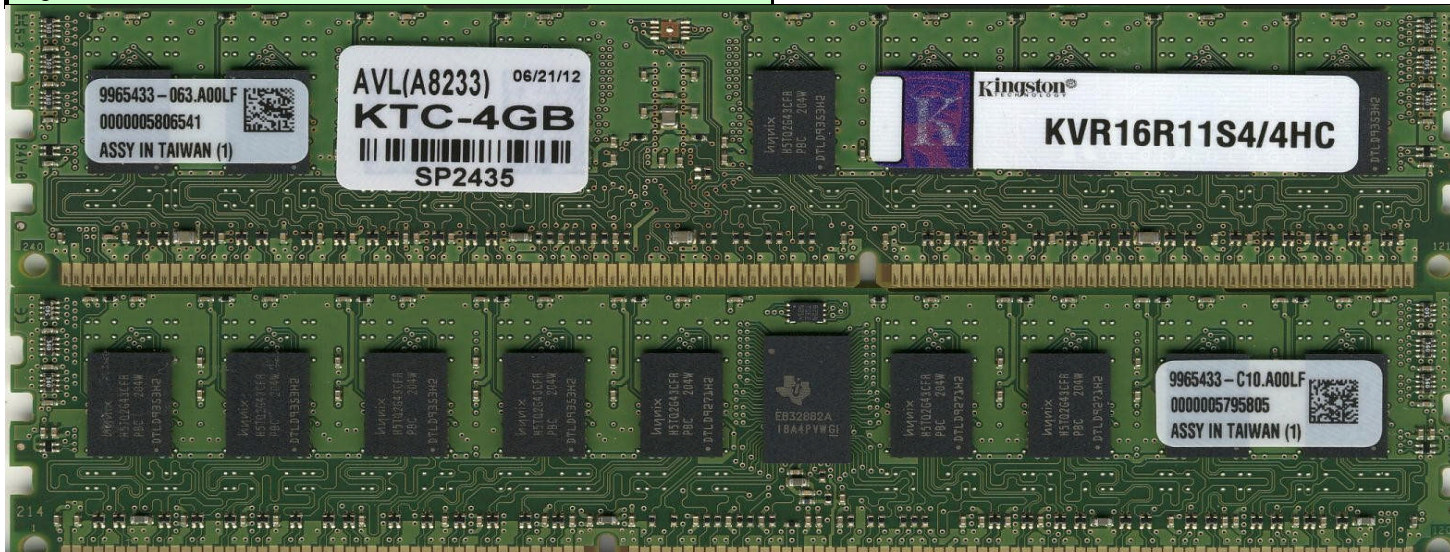
	AVL Supermicro server platform Memory Module Qualification Test		
	Intel E5-2650(SNB-EP) x 2, Intel C602		Test Results
	PN: KVR16R11S4/4HC (4GB / RDIMM / ECC) On: X9DR3-LN4F+ Rev.1.1		Pass

RP77D3x-106-KI-SQ-SMC-V2		Module Information		Rev 05/30/2012
AVL WorkOrder #	WC4130	AVL A#	8233	
Start Date	6/30/2012	End Date	7/12/2012	
Tested By	Van N.			
Module Manufacturer	Kingston			
Module Part Number	KVR16R11S4/4HC			
Module BOM Number	9965433-063.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)	DDR3-1600 11-11-11			
DRAM Device Vendor	Hynix			
DRAM Device Part Number / Date code	H5TQ2G43CFR-PBC			1204
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)	X9DR3-LN4F+	1.1	0M23S40378	SN9374
BIOS Revision / BIOS Date	1.0b		2/1/2012	
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: KVR16R11S4/4HC (4GB / RDIMM / ECC) On: X9DR3-LN4F+ Rev.1.1

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	Pass	3 DIMM Per Channel when applicable

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