

96D3-8G1333ER-TR

Test Report

Test Requestor	Feng.Qin	Job Title		Release Date	2011-8-16
Testing Engineer	Jier.Liu	Job Title	AKDC DQA Engineer	Revision	V1.0
Approved by	Sophie.Song	Job Title	AKDC DQA assistant manager	Release Status	Formal Release

Revision History:

Revision Date	Revision	Description	Creator
2011/08/16	1.0	First version released	Jier.Liu

Content

Test Result Definition	4
Test Item List Summary	5
1. Product Information:	6
2. Test Platform.....	8
3. Test Software.....	8
4. Test Item	8
4.1 Function test	8
4.1.1 Socket combination and Power on/off test.....	8
4.1.2 MemTest86+ test	9
4.1.3 OS installation	9
4.2 Performance test	9
4.2.1 Sisoftware Sandra	9
4.2.2 PCMark05.....	10
4.3 Reliability test.....	10
5. Appendix	10

Test Result Definition

Item	Description
Pass	Compatibility test properly without any problem.
Fail	Compatibility test can't work properly and can't meet the product spec, please describe issue to the "Remark" item detailedly.
No test	No test (no test tool or device or driver not ready), please write reason to the "Remark" item.
N/A	Spec not support.
Limitation	Compatibility issue Limitation, it needs formal approval mail or other formal reply from PM or Applicant or Manufacturer.

Test Item List Summary**Motherboard or CPU card compatibility test result**

MB/SBC	Core Chipset	Result	Remark
FW-6500	Intel® 5520+ICH10R	Pass	

1. Product Information:

Advantech Part Number	96D3-8G1333ER-TR
Manufacturer	Transcend
Module part NO.	TS9KRN30600-3S
PCB Part NO.	09-3060
IC Brand(chip information)	SAMSUNG-R K4B2G0846C-HCH9
Memory Category	DDR3
Socket type	240 Pin
Size	8GB
ECC®	REG
Bandwidth	10.6GB/sec
Speed Grade	1333Mbps
Max Frequency	667MHz
CAS Latency	CL9
Organization	1G x 72bits
Component Composition	256Mx8*36
Number of Rank	4
Power supply(VDD)	1.5V ± 0.075V
Operating Temperature	0 ~ 85°C
Dimension (W x H x D)(mm)	133.35x30x1.27
RoHS Status (Yes/No)	Yes


Photo:



2. Test Platform

MB/SBC	FWA-6500		
PCB version	NA	VGA Chipset	VOLARI-Z11M-A2CB-HF SMD
BIOS version	A11F	CPU	Intel Xeon E5504 2.00GHz
Core Chipset	Intel® 5520+ICH10R	DRAM	Transcend DDR3 1333 8GBx4

3. Test Software

Utilities	Version / Description
Power On/Off (For Reliability test)	
Passmark BurnIn Test Pro (For Reliability test)	V6.0 build 1029
MemTest86+ (For Function test)	V4.20
Sisoftware Sandra2010.SP3	V16.67
PCMark05	V1.20

4. Test Item

4.1 Function test

4.1.1 Socket combination and Power on/off test

Pass Criteria: Can boot up when memory in defferent socket combination and show correct size.

Power on/off 100 times when Memory full loading,and the other socket combination power on/off 10 times.

MB/SBC	CPU	Socket	Remark	Result
FWA-6500	Intel Xeon E5504 2.00GHz	DIMM A1	Speed:1333,Size:8184MB,less than actual size 8MB.	Pass
		DIMM B1	Speed:1333,Size:8184MB,less than actual size 8MB.	Pass
		DIMM C1	Speed:1333,Size:8184MB,less than actual size 8MB.	Pass
		DIMM D1	Speed:1333,Size:8184MB,less than actual size 8MB.	Pass
		DIMM E1	Speed:1333,Size:8184MB,less than actual size 8MB.	Pass
		DIMM F1	Speed:1333,Size:8184MB,less than actual size 8MB.	Pass
		DIMM A1+B1	Speed:1333,Size:16376MB,less than actual size 8MB.	Pass
		DIMM A1+B1+C1	Speed:1333,Size:24568MB,less than actual size 8MB.	Pass
		DIMM A1+B1+C1+E1	Speed:1333,Size:32760MB,less than actual size 8MB.	Pass

	DIMM A1+A2+D1+D2	Speed:1333,Size:32760MB,less than actual size 8MB.	Pass
	DIMM A2/B2/ C2/D2/E2/F2	Because of chipset limitation,it can't boot up.	N/A
	DIMM A2+B2	Because of chipset limitation,it can't boot up.	N/A
	DIMM A2+B2+ C2	Because of chipset limitation,it can't boot up.	N/A
	DIMM A2+B2+ D2+E2	Because of chipset limitation,it can't boot up.	N/A

4.1.2 MemTest86+ test

Pass Criteria: Memory Full loading, MemTest86+ V4.20 should show the correct Memory size and Run 3 Cycles

No error.

MB/SBC	CPU	Socket	Remark	Result
FWA-6500	Intel Xeon E5504 2.00GHz	DIMM B1+C1+E1+F1	Speed:1333;Size:32760MB.	Pass

4.1.3 OS installation

MB/SBC: FWA-6500

Pass Criteria: Windows OS can be installed and boot into OS properly.

OS	Version	Result
Windows XP	Windows XP professional with 32bit SP3(English)	Pass
Windows 7	Windows 7 Ultimate 64bit(English)	Pass
Windows 2k8	Windows Server2008 64bit with SP2(English)	Pass

4.2 Performance test

4.2.1 Sisoftware Sandra

Pass Criteria: Run software "Sisoftware Sandra 2010", Recording the benchmark score and compare the score with other product.The Memory performance can reach the average value;

(Note: The CPU must be Select Max core with Max FSB.)

MB/SBC	Sisoftware Sandra2010.SP3 (16.67)				Result
	Memory Bandwidth-Int Buff'd (GB/s)	Memory Bandwidth Float Buff'd (GB/s)	Memory (Random Access) Latency (ns)	Memory Latency-Speed Factor	
FWA-6500	5.78	6.24	106	52.6	Pass

4.2.2PCMark05

Pass Criteria: Run software “PCMark05 V1.20”, Recording the benchmark score and compare the score with other product.The Memory performance can reach the average value;

(Note: The CPU must be Select Max core with Max FSB.)

MB/SBC	PCMark05 V1.20						Result
	Memory score	Item	Memory read (MB/S)	Memory write (MB/S)	Memory copy (MB/S)	Memory latency-Random (Maccesses/s)	
FWA-6500	4108	16MB	7798.48	4127.969	5428.769	7.799	Pass
		8MB	7800.643	4131.87	5408.458	9.426	
		192KB	14748.001	18308.775	14382.798	11.561	
		4KB	29931.73	34516.623	30047.354	499.918	

4.3 Reliability test

MB/SBC: FWA-6500

OS: Windows XP professional with 32bit SP3(English)

Test Environment:Room Temperature

(Note: The CPU must be Select Max core with Max FSB,and Memory Full Loading.)

Item	Pass Criteria	Result
Power on/off	Power on/off 100 times, successful boot rate 100%;	Pass
Burn_inV6.0	Set CPU/2D/3D/Memory loading 100%; The result should be Passed when running Burn_in V6.0 for 12 hours.	Pass

5. Appendix