

96D3-2G1333NN-TR2

Test Report

Test Requestor	Feng.Qin	Job Title		Release Date	2011-10-21
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Revision History:

Revision Date	Revision	Description	Creator
2011/08/17	1.0	First version released	Jier.liu

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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

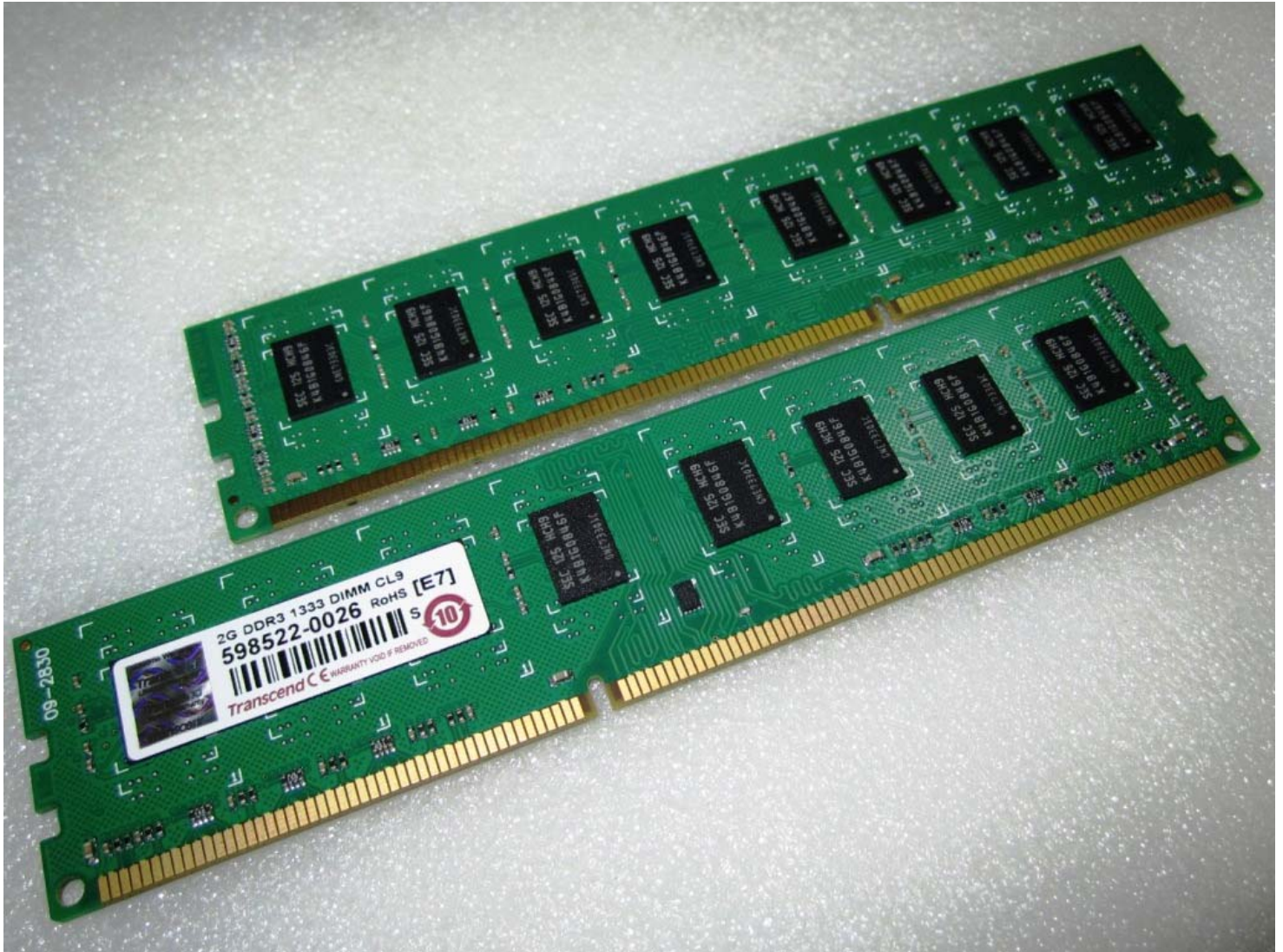
Motherboard or CPU card compatibility test result

MB/SBC	Core Chipset	Result	Remark
AIMB-780W	Intel 3450	Pass	
PCE-5125Q	Intel Q57	Pass	
IPPC-Q45	Intel Q45+ICH10DO	Pass	
NAMB-3210	Intel Cougar Point C206	Pass	

1. Product Information:

Advantech Part Number	96D3-2G1333NN-TR2
Manufacturer	Transcend
Module Part NO.	TS256MLK64V3U
PCB Part NO.	09-2830
IC Brand(chip model)	SEC 125 HCH9 K4B1G0846F
Memory Category	DDR3
Socket type	240Pin
Size	2GB
ECC&REG	NO ECC®
Bandwidth	10.6GB/sec
Speed Grade	1333MHz
Max Frequency	666MHz
CAS Latency	CL9
Organization	128Mx64
Component Composition	128Mx8*8EA
Number of Rank	2
Power supply(VDD)	1.5V ± 0.075V
Operating Temperature	0°C - 60°C
Dimension (W x H x D)	133.5x30x1.27
RoHS Status (Yes/No)	Yes

Photo:



2. Test Platform


MB/SBC	AIMB-780W		
PCB version	A101-2	CPU	Intel® Core™ X3430 2.40 GHz
BIOS version	V1.10	DRAM	Transcend DDR3 1333 2GBx4
Core Chipset	Intel 3450	Backplane	NA
VGA Chipset	Leadtek GT430 1024M	Other	

MB/SBC	PCE-5125Q		
PCB version	A101-2	CPU	Intel® Core™ i7-860 2.80 GHz
BIOS version	125X0041	DRAM	Transcend DDR3 1333 2GBx2
Core Chipset	Intel Q57	Backplane	PCE-5B13-08_A101-1
VGA Chipset	ASUS EAH5670 DI 512M	Other	

MB/SBC	IPPC-Q45		
PCB version	08GSAQ45005203	CPU	Core2 Duo E8400 3.00GHZ
BIOS version	V1.12	DRAM	Transcend DDR3 1333 2GBx2
Core Chipset	Intel Q45+ICH10DO	Backplane	NA
VGA Chipset	Q45 integrated	Other	

MB/SBC	NAMB-3210		
PCB version	A101-1	CPU	Intel® Core™ i7-2600 3.40 GHz
BIOS version	3210X006	DRAM	Transcend DDR3 1333 2GBx4
Core Chipset	Intel C206	Backplane	NA
VGA Chipset	CPU integrated VGA Controller	Other	

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(for Performance test)	V16.67
PCMark05(for Performance test)	V1.20

4. Test Item

4.1 Function test

4.1.1 Socket combination and Power on/off test

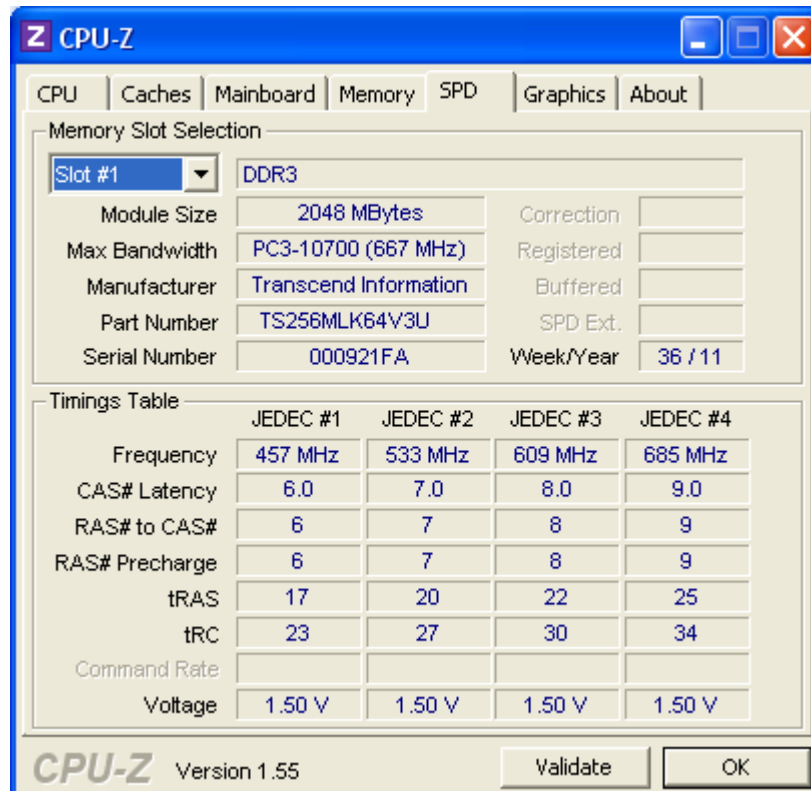
Pass Criteria: Power on/off 10 times, successful boot rate 100% when memory in different socket combination as below, then record memory size and frequency information on the boot screen display.

MB/SBC	CPU	Socket	Remark	Result
AIMB-780W	Intel X3430 2.40GHz	DIMM A1	Frequency1333,Size:2008MB,less than actual size40MB.	Pass
		DIMM B1	Frequency1333,Size:2008MB,less than actual size40MB.	Pass
		DIMM A2/B2	Because of chipset limitation,it can't boot up.	Limitation
		DIMM A2+B2	Because of chipset limitation,it can't boot up.	Limitation
		DIMM A1+B1	Frequency1333,Size:4056MB,less than actual size40MB.	Pass
		FULL	Frequency1333,Size:8152MB,less than actual size40MB.	Pass
PCE-5125Q	Intel i7-860 2.80GHz	DIMM A1	Frequency1333,Size:2008MB,less than actual size40MB.	Pass
		DIMM A2	Frequency1333,Size:2008MB,less than actual size40MB.	Pass
		FULL	Frequency1333,Size:4056MB,less than actual size40MB.	Pass
IPPC-Q45	Intel E8400 3.00GHZ	XMM1	Frequency1067,Size:1997MB,less than actual size49MB.	Pass
		XMM3	Frequency1067,Size:2013MB,less than actual size35MB.	Pass
		FULL	Frequency1067,Size:3997MB,less than actual size99MB.	Pass
NAMB-3210	Inte i7-2600 3.40GHz	DIMM A1	Frequency1333,Size:2048MB,less than actual size0MB.	Pass
		DIMM A2	Frequency1333,Size:2048MB,less than actual size0MB.	Pass
		DIMM B1	Frequency1333,Size:2048MB,less than actual size0MB.	Pass
		DIMM B2	Frequency1333,Size:2048MB,less than actual size0MB.	Pass
		DIMM A1+B1	Frequency1333,Size:4096MB,less than actual size0MB.	Pass
		DIMM A2+B2	Frequency1333,Size:4096MB,less than actual size0MB.	Pass
		FULL	Frequency1333,Size:8192MB,less than actual size0MB.	Pass

4.1.2 Cpu-Z

Pass Criteria: CPU-Z for SPD detect the correct Memory information.

Picture:



4.1.3 MemTest86+ test

Pass Criteria: MemTest86+ V4.20 should show the correct Memory size and Run 3 Cycles No error.

(note: Memory must be full loading)

MB/SBC	CPU	Remark	Result
AIMB-780W	Intel X3430 2.40GHz FSB:1333	Speed:1333;Size:8152MB.	Pass
PCE-5125Q	Intel i7-860 2.80GHz FSB:1333	Speed:1333;Size:4056MB.	Pass
IPPC-Q45	Intel E8400 3.00GHz FSB:1333	Speed:1067;Size:3997MB	Pass
NAMB-3210	Inte i7-2600 3.40GHz FSB:1333	Speed :1333,Size:8192MB	Pass

4.1.4 OS installation

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

MB&SBC: AIMB-780W

OS	Version	Result
Windows XP	Windows XP professional with X32 SP3(English)	Pass
Windows 7	Windows 7 Ultimate X32(English)	Pass
Windows 2008	Windows Server2008 X64 with SP2(English)	Pass

4.2 CPU compatibility test

Pass Criteria: Set CPU/2D/3D/Memory loading 100%,run Burn_in V6.0 for 3H ,and the result should be Passed when memory in single channel or dual channel.

(note: Select the CPU must be include different core and FSB.)

MB/SBC	CPU	In Socket	Remark	Result
AIMB-780W	Intel i5-650 3.20GHz FSB:1333	DIMM A1+B1	Speed:1333;Size:3960MB	Pass
	Intel PG6950 2.80GHz FSB:1066	DIMM A2+B2	Speed:1066;Size:3896MB	Pass
PCE-5125Q	Intel i5-750 2.66GHz FSB:1333	DIMM A1	Speed:1333;Size:2008MB	Pass
	Intel i3-530 2.66GHz FSB:1333	DIMM B1	Speed:1333;Size:1912MB	Pass
IPPC-Q45	Intel Core2 6300 1.86GHz FSB:1066	XMM1	Speed:1066;Size:1997MB	Pass
	Intel E4400 2.00GHz FSB:800	XMM3	Speed:800;Size:2013MB	Pass
NAMB-3210	Intel i5-2400 3.10GHz FSB:1333	DIMM A1+B1	Speed:1333;Size:4096MB	Pass
	Intel i3-2100 3.10GHz FSB:1333	DIMM A2+B2	Speed:1333;Size:4096MB	Pass

4.3 Performance test

4.3.1 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
	CPU	Memory Bandwidth-Int Buff'd (GB/s)	Memory Bandwidth Float Buff'd (GB/s)	Memory (Random Access) Latency (ns)	Memory Latency-Speed Factor	
AIMB-780W	Intel X3430 2.40GHz	16.5	16.54	81	50.50	Pass
PCE-5125Q	Intel i7-860 2.80GHz	17	17	75	51.8	Pass
IPPC-Q45	Intel E8400 3.00GHz	5.2	5.2	114	800	Pass
NAMB-3210	Inte i7-2600 3.40GHz	18.29	18.27	72	67.3	Pass

4.4 PCMark05

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
	CPU	Memory score	Item	Memory read (MB/S)	Memory write (MB/S)	Memory copy (MB/S)	Memory latency-Random (Maccesses/s)	
AIMB-780W	Intel X3430 2.40GHz	8100	16MB	10842.723	8947.936	9724.771	12.017	Pass
			8MB	22853.324	8939.111	12853.888	37.386	
			192KB	18470.371	23076.818	18008.900	245.551	
			4KB	37522.973	37665.863	37647.176	632.627	
PCE-5125Q	Intel i7-860 2.80GHz	9006	16MB	11901.378	10052.479	10774.323	12.941	Pass
			8MB	25094.627	10033.798	14463.365	42.060	
			192KB	20618.701	25809.783	20116.037	273.614	
			4KB	41810.496	41927.609	41919.285	699.354	
IPPC-Q45	Intel E8400 3.00GHz	5114	16MB	5664.670	5368.353	4840.322	8.628	Pass
			8MB	7429.713	5370.183	5017.893	10.682	
			192KB	15579.980	14284.111	14293.612	143.647	
			4KB	35952.141	35007.129	36088.227	787.183	
NAMB-3210	Inte i7-2600 3.40GHz	12770	16MB	18731.586	17733.916	15224.410	12.462	Pass
			8MB	26866.838	17744.926	20406.578	37.386	
			192KB	50056.109	34766.836	34453.758	305.632	
			4KB	84284.680	55636.156	55027.699	948.506	

4.5 Reliability test

4.5.1 Room temperature

Pass Criteria: 1. Power on/off 100 times, successful boot rate 100%;

2. Set CPU/2D/3D/Memory loading 100%; The result should be Passed when running Burn_in V6.0 for 12 hours.

OS: Windows XP professional with X32 SP3(English)

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

MB/SBC	Power on/off 100 times	Burn_in V6.0 12hours	Remark
PCE-5125Q	Pass	Pass	
IPPC-Q45	Pass	Pass	
NAMB-3210	Pass	Pass	

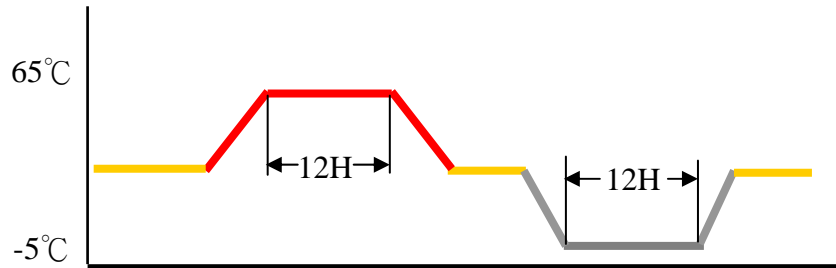
4.5.2 High/Low temperature

Test Environment: -5°C~65°C

Pass Criteria :1. Power on/off 100 times, successful boot rate 100%;

2. Set CPU/2D/3D/Memory loading 100%; The result should be Passed when running Burn_in V6.0 for 12 hours.

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



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

MB/SBC	Power on/off 100 times	Burn_in V6.0 12hours	Remark
AIMB-780W	Pass	Pass	

5. Appendix