

96SD3-1G1333NN-TR1

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

Content

Test Result Definition:	4
Test Item List Summary	5
1. Product Information:	6
2. Test Platform	8
3. Test Software	9
4. Test Item	9
4.1 Function test	9
4.1.1 Socket combination and Power on/off test	9
4.1.2 Cpu-Z	10
4.1.3 MemTest86+ test	10
4.1.4 OS installation	11
4.2 Performance test	11
4.2.1 Sisoftware Sandra	11
4.3 PCMark05	11
4.4 Reliability test	12
4.4.1 Room temperature	12
4.4.2 High/Low temperature	13
5. Appendix	13

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-258	GM45 + ICH9M	Pass	
DAC-BC03	Atom N455+ICH8M	Pass	
PCM-8204	Pineview-D D525+ICH8M	Pass	
UNO-2184	Intel Cougar Point-M QM67	Pass	
AIMB-272	Intel Cougar Point-M QM67	Pass	
PCM-8505	Pineview-D D525+ICH8M	Pass	

1. Product Information:

Advantech Part Number	96SD3-1G1333NN-TR1
Manufacturer	Transcend
Module Part NO.	TS128MSK64V3U
PCB Part NO.	09-2820
IC Brand(chip model)	SEC 128 BCH9 K4B1G0846G
Memory Category	DDR3
Socket type	204Pin
Size	1GB
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	1
Power supply(VDD)	1.5V ± 0.075V
Operating Temperature	0°C - 60°C
Dimension (W x H x D)	67.60x30x1
RoHS Status (Yes/No)	Yes

Photo:



2. Test Platform

MB/SBC	AIMB-258		
PCB version	A101-4	CPU	Core™2 Duo T7300 2.00GHZ
BIOS version	258X1163	DRAM	Transcend DDR3 1333 1GBX2
Core Chipset	GM45 + ICH9M	Backplane	NA
VGA Chipset	Intel GM45 integrated	Other	

MB/SBC	DAC-BC03		
PCB version	A101-2	CPU	Intel Pineview-D N455 1.66GHZ
BIOS version	BC03X005	DRAM	Transcend DDR3 1333 1GB
Core Chipset	Atom N455+ICH8M	Backplane	NA
VGA Chipset	N455 integrated	Other	


MB/SBC	PCM-8204		
PCB version	A101-2	CPU	Intel Pineview-D D525 1.80GHZ
BIOS version	8204X003	DRAM	Transcend DDR3 1333 1GBX2
Core Chipset	Pineview-D D525+ICH8M	Backplane	NA
VGA Chipset	D525 integrated	Other	

MB/SBC	UNO-2184		
PCB version	A101-1	CPU	Intel i7-2715QE 2.10GHZ
BIOS version	2184X008	DRAM	Transcend DDR3 1333 1GBX2
Core Chipset	Intel Cougar Point-M QM67	Backplane	NA
VGA Chipset	CPU integrated VGA Controller	Other	

MB/SBC	AIMB-272		
PCB version	A101-3	CPU	Intel i7-2710QE 2.10GHZ
BIOS version	A272X014	DRAM	Transcend DDR3 1333 1GBX2
Core Chipset	Intel Cougar Point-M QM67	Backplane	NA
VGA Chipset	CPU integrated VGA Controller	Other	

MB/SBC	PCM-8505		
PCB version	A101-2	CPU	Intel Pineview-D D525 1.80GHZ
BIOS version	8505X006	DRAM	Transcend DDR3 1333 1GBX2
Core Chipset	Pineview-D D525+ICH8M	Backplane	NA
VGA Chipset	D525 integrated	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.

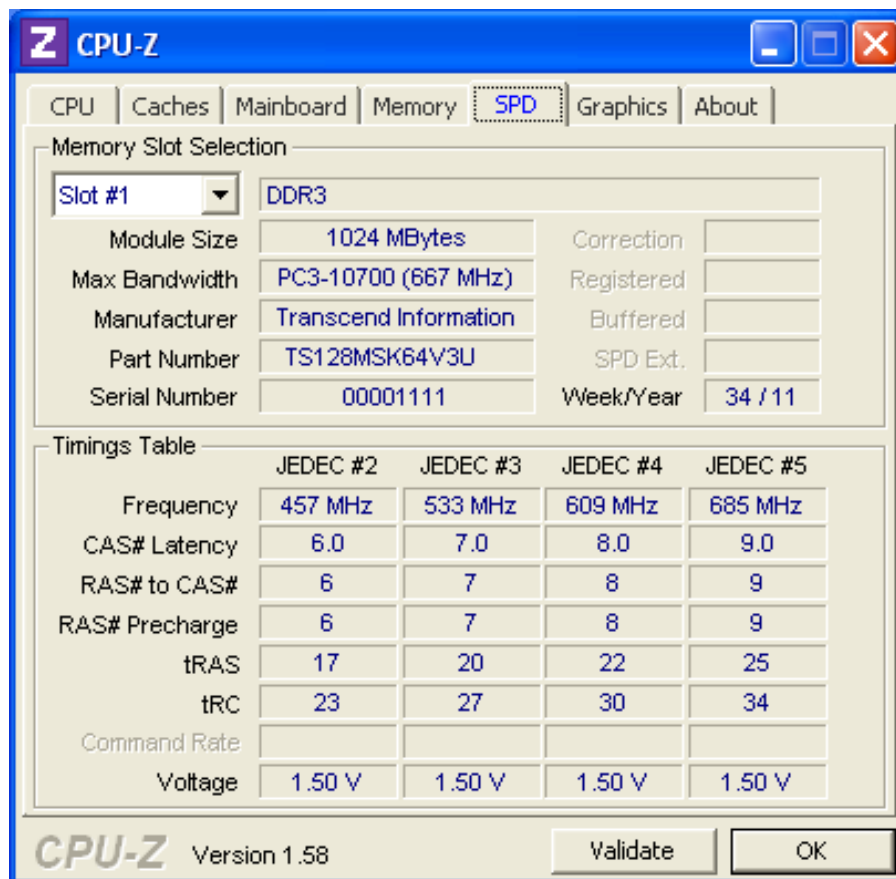
MB/SBC	CPU	Socket	Remark	Result
AIMB-258	Core2 Duo T7300 2.00GHZ	DIMM1	Frequency800,Size: 979904k+64M,less than actual size 3136k	Pass
		DIMM2	Frequency800,Size: 963520k+64M,less than actual size 19520k.	Pass
		FULL	Frequency800,Size:1995712k+64M,less than actual size 34904k.	Pass
UNO-2184	i7-2715QE 2.10GHZ	DIMM1	Spec cann't support displaying memory information in the post and BIOS, but cpu-z detect the information is DDR3 1333 1GB.	Pass
		DIMM2	Spec cann't support displaying memory information in the post and BIOS, but cpu-z detect the information is DDR3 1333 1GB.	Pass
		FULL	Spec cann't support displaying memory information in the post and BIOS, but cpu-z detect the information is DDR3 1333 1GB x2.	Pass
PCM-8204	Pineview-D D525 1.80GHZ	DIMM0	Frequency800,Size:1015MB,less than actual size 9MB.	Pass
		DIMM1	Frequency800,Size:1015MB,less than actual size 9MB.	Pass
		FULL	Frequency800,Size:2039MB,less than actual size 9MB.	Pass
PCM-8505	Pineview-D D525 1.80GHZ	CN21	Frequency800,Size:1015MB,less than actual size 9MB.	Pass
		CN22	Frequency800,Size:1015MB,less than actual size 9MB.	Pass
		FULL	Frequency800,Size:2039MB,less than actual size 9MB.	Pass

DAC-BC03	Pineview-D N455 1.66GHz	DIMM1 (FULL)	Frequency667,Size:1014MB,less than actual size 10MB.	Pass
AIMB-272	i7-2710QE 2.10GHz	DIMM1	Spec can't support displaying memory information in the post and BIOS, but cpu-z detect the information is DDR3 1333 1GB.	Pass
		DIMM2	Spec can't support displaying memory information in the post and BIOS, but cpu-z detect the information is DDR3 1333 1GB.	Pass
		FULL	Spec can't support displaying memory information in the post and BIOS, but cpu-z detect the information is DDR3 1333 1GBx2.	Pass

4.1.2Cpu-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-258	Core2 Duo T7300 2.00GHZ FSB:1066	Speed:1333;Size:4056MB.	Pass
DAC-BC03	Pineview-D N455 1.66GHZ FSB:667	Speed:667;Size:2008MB.	Pass
PCM-8204	Pineview-D D525 1.80GHZ FSB:800	Speed:800;Size:1981MB	Pass
UNO-2184	Intel i7-2715QE 2.10GHZ FSB:1333	Speed :1333,Size:2048MB(cpu-z detect)	Pass
AIMB-272	Intel i7-2710QE 2.10GHZ FSB:1333	Speed :1333,Size:2048MB(cpu-z detect)	Pass
PCM-8505	Pineview-D D525 1.80GHZ FSB:800	Speed:800;Size:2039MB	Pass

4.1.4 OS installation

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

MB&SBC: PCM-8204

OS	Version	Result
Windows XP	Windows XP professional with X32 SP3(English)	Pass
Windows 7	Windows 7 Ultimate X32(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
	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-258	Core2 Duo T7300 2.00GHZ	4.36	4.35	109	69.5	Pass
DAC-BC03	Pineview-D N455 1.66GHZ	3.16	2.71	163	87.7	Pass
PCM-8204	Pineview-D D525 1.80GHZ	3.8	3.22	149	88.3	Pass
UNO-2184	Intel i7-2715QE 2.10GHZ	16.9	16.88	81	59.9	Pass
AIMB-272	Intel i7-2710QE 2.10GHZ	16.42	16.39	84	61.7	Pass
PCM-8505	Pineview-D D525 1.80GHZ	3.8	3.2	170	63.2	Pass

4.3 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-258	Core2 Duo T7300 2.00GHz	4327	16MB	5267.357	3413.432	3880.840	9.947	Pass
			8MB	6212.072	3417.963	4030.585	11.937	
			192KB	12789.453	12536.259	12000.993	129.028	
			4KB	30018.436	29203.721	30134.297	666.384	
DAC-BC03	Pineview-D N455 1.66GHz	2551	16MB	3423.112	2900.957	3381.630	6.730	Pass
			8MB	3442.742	2900.088	3383.348	7.561	
			192KB	5047.598	7232.870	3965.918	81.386	
			4KB	13954.210	13985.331	8980.880	554.534	
PCM-8204	Pineview-D D525 1.80GHz	2863	16MB	4357.414	3474.937	4008.043	7.159	Pass
			8MB	4375.694	3474.997	4008.264	7.917	
			192KB	5440.023	7464.118	4274.870	87.590	
			4KB	15044.676	15071.624	9679.660	597.283	
UNO-2184	Intel i7-2715QE 2.10GHz	9848	16MB	14544.630	14544.630	13049.030	12.462	Pass
			8MB	20127.133	14546.462	13620.008	16.023	
			192KB	39415.211	27293.992	27100.934	245.551	
			4KB	66315.672	43781.371	43294.301	747.494	
AIMB-272	Intel i7-2710QE 2.10GHz	9739	16MB	15518.590	14221.308	12744.717	12.462	Pass
			8MB	19655.764	14224.142	13203.610	15.650	
			192KB	39260.539	27815.434	26990.811	245.551	
			4KB	66257.398	43793.961	43297.234	747.494	
PCM-8505	Pineview-D D525 1.80GHz	2818	16MB	4305.623	3441.820	3956.406	7.159	Pass
			8MB	4263.274	3442.551	3955.468	7.825	
			192KB	5379.249	7258.869	4225.756	87.590	
			4KB	14583.471	14612.953	9267.857	597.283	

4.4 Reliability test

4.4.1 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
DAC-BC03	Pass	Pass	
PCM-8204	Pass	Pass	
UNO-2184	Pass	Pass	
AIMB-272	Pass	Pass	
PCM-8505	Pass	Pass	

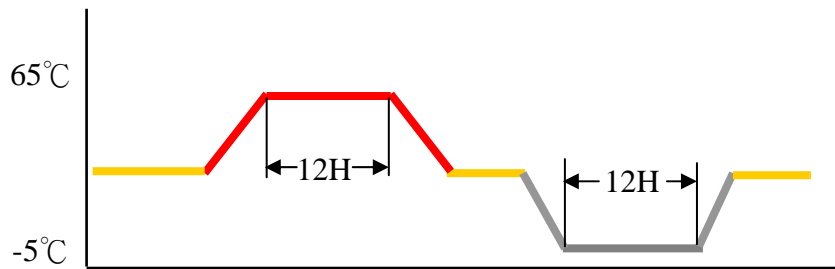
4.4.2 High/Low temperature

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-258	Pass	Pass	

5. Appendix