



BIWIN Flash Storage

Test Report

Product Name: SSD

Product Model: CHF87GS237D-240

Test Item: Reliability Test

Reporter: Erik.zhang

Date: 2015.11.24

Approver: _____

Date: _____

1. Sample Information

Product Model	CHF87GS237D-240	Quantity	4PCS
Controller	SM2256K	Flash	K9CHGD8U5D
PCB	SM2256AB_8BGA152_00928	Capacity	240GB
Firmware	O1015A		

2. Test Purpose

Do the reliability test for the sample to make sure the quality of product.

3. Test Item

Test Setup	Test Item	Result
1	Storage test at high-low Temperature	PASS
2	Boot from high-low temperature test	PASS
3	Write/Read operation loop test at high-low temperature	PASS
4	ESD test	PASS: CLASS A
5	Vibration test	PASS

4. Test Process

4.1 Storage test at high-low temperature (Client Rating)

Test Item	Storage test at high-low temperature	Test Place	Reliability Laboratory	
Test time	Start time	2015.11.18	Finish time	2015.11.19
Test Purpose	Simulate the enviroment of transport&storage to make sure the quality of product			
Test Equipment	1.Machine:FAST-150 2.Mainboard:ASUS P8H61-M LE			
Test Condition	1. Run the machine continuously at 85°C/ humidity 90% for 4 hours. 2. Run the machine continuously at -40°C for 4 hours.			
Test Process	1.Setup the test program of the high-low temperature 2.Put the product into the test machine 3.Boot the machine, and make it work followed the condition as below: 25°C (humidity:60%) → 85°C (humidity:90%) → 25°C (humidity:60%) → (-40°C) → 25°C (humidity:60%)			

Test Criteria	No function fail (According to 《BIWIN SSD Product Public Quality Standard》)	
Conclusion	PASS	Reporter
		Erik.Zhang

4.2 Boot from high-low temperature test (Client Rating)

Test Item	Boot from high-low temperature test		Test Place	Reliability Laboratory
Test time	Start time	2015.11.19	Finish time	2015.11.20
Test Purpose	Simulate the enviroment of use to make sure the quality of product			
Test Equipment	1. Machine:FAST-150 2. Mainboard: ASUS P8H61-M LE			
Test Condition	1. Boot the system at 70°C/&humidity 65% 2. Boot the system at 0°C			
Test Process	<p>1. Setup the test program of the high temperature</p> <p>2. Put the product into the test machine</p> <p>3. Boot the machine and check the system can detect the SSD at high temperature and low temperature or not, and the detailed information of environment shown as below: 25°C (humidity 60%)→70°C (humidity 65%)→25°C (humidity 40%)→(0°C)</p> <p>4. Repeat the operation for 5 times and record the result</p>			
Test Criteria	No function fail (According to 《BIWIN SSD Product Public Quality Standard》)			
Conclusion	PASS	Reporter		
		Erik.Zhang		

4.3 Write/Read operation loop test at high-low temperature (Client Rating)

Test Item	Write/Read operation loop test at high-low temperature		Test Place	Reliability Laboratory
Test time	Start time	2015.11.23	Finish time	2015.11.24
Test Purpose	Simulate the environment of use to make sure the quality of product			
Test Equipment	1. Machine:FAST-150 2. Mainboard: ASUS P8H61-M LE			
Test Condition	1. Run the burnin test at 70°C/humidity 65% for 8 hours 2. Run the burnin test at -20°C for 4 hours			
Test Process	<p>1. Setup the test program of the temperature 2. Put the product into the test machine 3. Boot the machine and check the system can detect the SSD or not 25°C (humidity 60%) → 70°C (humidity 65%) → 25°C (humidity 40%) → (-20°C) → 25°C (humidity 40%) 4. Run Burnin test software for the sample 5. Check the sample which drop drive or have data errors or not after a period of 16.5 hours</p>			
Test criteria	No function fail (According to 《BIWIN SSD Product Public Quality Standard》)			
Conclusion	PASS			Reporter Erik.Zhang

4.4 ESD Test

Test Item	ESD Test		Test Place	Reliability Laboratory
Test time	Start time	2015.11.24	Finish time	2015.11.24
Test Purpose	Test the ability of antistic to make sure the quality of product			
Test Equipment	1. Machine of ESD: SKS-0220 2. System computer:			

Test Condition	1. Touch the surface of chassis of computer: +/-4KV 2. No touch the surface of chassis of computer: +/-8KV	
Test Process	1. Touch a. Setup the ESD generator and the output of voltage is +4KV b. Play the music which was storied in the test target after plugging the system board c. Touch the chassis and do the ESD test. 2. No Touch a. Setup the ESD generator and the output of voltage is +8KV b. Play the music which was storied in the test target after plugging the system board c. Don't touch the chassis and do the ESD test.	
Test Criteria	Reach the B of rating (According to ESD standard: ICE61000-4-2)	
Conclusion	PASS: CLASS A	Reporter Erik.Zhang

4.5 Vibration Test

Test Item	Vibration Test		Test Place	Reliability Laboratory
Test time	Start time	2015.11.24	Finish time	2015.11.24
Test Purpose	Test the ability of anti-seismic to make sure the quality of product			
Test Equipment	Single vibration test machine: TOS-835JK-1			
Test Condition	Run the machine continuously at rotate speed of 150-180 turn/s for 30 minutes			
Test Process	1. Set the test time as 30 minutes and the amplitude of vibration as 25.4mmp-p 2. Put the sample into the middle of test machine 3. Run the test machine and adjust the rotate speed as 150-180 turn/s for 30 minutes 4. Check the sample which have functional failure or not			
Test Criteria	No function failure(According to 《BIWIN SSD Product Public Quality Standard》)			
Conclusion	PASS		Reporter Erik.Zhang	