

Rapport de tests de fiabilité et environnementaux

Révision: 001



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RSEC-K1



EQT Report

Rev.1

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1. Introduction

This EQT (Environment Qualification Test) report is used to describe the final status of RSEC-K1 Switch about the EQT results.

All test items are following IEC-68 series, ASTM and WNC standard.

The test results show in page 4.

2. Test Acceptable Criteria

Appearance:

No change shape, no any break, no color change and no any component drop out.

Function:

The function and throughput of RSEC-K1 is normal (console and access).

3. Test Items and Results

The following table is to show the final status :

No.	Test Item	Mode	Tested Site	Result	Remark
1	High Temperature and Humidity Storage	Non-operation	WNC	PASS	
2	Low Temperature Storage	Non-operation	WNC	PASS	
3	High Temperature Operation	Operation	WNC	PASS	
4	Low Temperature Operation	Operation	WNC	PASS	
5	Temperature Cycling Operation	Operation	WNC	PASS	
6	Thermal Shock	Non-operation	WNC	PASS	
7	Mechanical Vibration	Operation	WNC	PASS	
8	Mechanical Shock Drop – 30cm	Non-operation	WNC	PASS	See page 12

4. Test Information and Data

4.1 High Temperature and Humidity Storage

Test Conditions	Quantity	Date	Site
Temperature : 75 °C, RH=95%, Dwell time : 72 hours	4pcs	2008/08/14 ~ 2008/08/17	WNC

Test Equipment	Brand, Model	Serial Number	Calibration Date
Chamber	King Son, THS-C6C-150	3865	2007.11.6

Test Result				
S/N	Before	Appearance	After Function	Result
01	OK	OK	OK	PASS
02	OK	OK	OK	PASS
03	OK	OK	OK	PASS
04	OK	OK	OK	PASS

Summary of Test:

1. The test samples have passed this Test.
2. The test result refers only to the samples, which is submitted to this test, and is valid as the same reliability is built into the design.

4.2 Low Temperature Storage

Test Conditions	Quantity	Date	Site
Temperature : -20 °C, Dwell time : 72 hours	4pcs	2008/08/08 ~ 2008/08/11	WNC

Test Equipment	Brand, Model	Serial Number	Calibration Date
Chamber	King Son, THS-C6C-150	3865	2007.11.6

Test Result				
S/N	Before	Appearance	After Function	Result
01	OK	OK	OK	PASS
02	OK	OK	OK	PASS
03	OK	OK	OK	PASS
04	OK	OK	OK	PASS

Summary of Test:

1. The test samples have passed this Test.
2. The test result refers only to the samples, which is submitted to this test, and is valid as the same reliability is built into the design.

4.3 High Temperature Operation

Test Conditions	Quantity	Date	Site
Temperature : 55 °C, RH=95%, Dwell time : 96 hours	4pcs	2008/08/14 ~ 2008/08/18	WNC

Test Equipment	Brand, Model	Serial Number	Calibration Date
Chamber	King Son, THS-C4C-150	2844	2008.2.11.

Test Result					
S/N	Before	On testing	Appearance	After Function	Result
05	OK	OK	OK	OK	PASS
06	OK	OK	OK	OK	PASS
07	OK	OK	OK	OK	PASS
08	OK	OK	OK	OK	PASS

Summary of Test:

1. The test samples have passed this Test.
2. The test result refers only to the samples, which is submitted to this test, and is valid as the same reliability is built into the design.

4.4 Low Temperature Operation

Test Conditions	Quantity	Date	Site
Temperature : -10 °C, Dwell time : 96 hours	4pcs	2008/08/08 ~ 2008/08/12	WNC

Test Equipment	Brand, Model	Serial Number	Calibration Date
Chamber	King Son, THS-C4C-150	2844	2008.2.11.

Test Result					
S/N	Before	On testing	Appearance	After Function	Result
05	OK	OK	OK	OK	PASS
06	OK	OK	OK	OK	PASS
07	OK	OK	OK	OK	PASS
08	OK	OK	OK	OK	PASS

Summary of Test:

1. The test samples have passed this Test.
2. The test result refers only to the samples, which is submitted to this test, and is valid as the same reliability is built into the design.

4.5 Temperature Cycling Operation

Test Conditions	Quantity	Date	Site
Temperature: 25°C, 0.5 hour; From 25°C to 0°C, 1 hour; Temperature: 0°C, 1 hour; From 0°C to 60°C, 1 hour; Temperature: 60°C, RH=95%, 1 hour; Temperature: From 60°C to -10°C, 1 hour; Temperature: -10°C, 1 hour; Temperature: From -10°C to 25°C, 1 hour Temperature: 25°C, 0.5 hour Total cycle: 6 cycles	4pcs	2008/08/11 ~ 2008/08/13	WNC

Test Equipment	Brand, Model	Serial Number	Calibration Date
Chamber	King Son, THS-C4C-150	2844	2008.2.11.

Test Result					
S/N	Before	On testing	Appearance	After Function	Result
05	OK	OK	OK	OK	PASS
06	OK	OK	OK	OK	PASS
07	OK	OK	OK	OK	PASS
08	OK	OK	OK	OK	PASS

Summary of Test:

1. The test samples have passed this Test.
2. The test result refers only to the samples, which is submitted to this test, and is valid as the same reliability is built into the design.

4.6 Thermal Shock

Test Conditions	Quantity	Date	Site
Soak the assembly for 1 hour at -20°C, and soak the assembly for 1 hour at +75°C Repeat 20 times	4pcs	2008/08/06 ~ 2008/08/08	WNC

Test Equipment	Brand, Model	Serial Number	Calibration Date
Chamber	King Son, TSK-B5C-150	3864	2007.11.6.

Test Result				
S/N	Before	After		
		Appearance	Function	Result
01	OK	OK	OK	PASS
02	OK	OK	OK	PASS
03	OK	OK	OK	PASS
04	OK	OK	OK	PASS

Summary of Test:

1. The test samples have passed this Test.
2. The test result refers only to the samples, which is submitted to this test, and is valid as the same reliability is built into the design.

4.7 Mechanical Vibration

Test Conditions	Quantity	Date	Site
Acceleration: 9.8 m/s ² rms Vibration frequency: 5 - 2000 Hz Sweep time: 30 minutes for each direction Vibration type: random Axis of vibration : X, Y, Z axes (up/down, back/forth, right/left)	4pcs	2008/08/18	WNC

Test Equipment	Brand, Model	Serial Number	Calibration Date
Vibration tester	King Design, EM-600F2K-40M20	FR106109191	2008.3.19.

Test Result					
S/N	Before	On testing	After		
			Appearance	Function	Result
01	OK	OK	OK	OK	PASS
02	OK	OK	OK	OK	PASS
03	OK	OK	OK	OK	PASS
04	OK	OK	OK	OK	PASS

Summary of Test:

1. The test samples have passed this Test.
2. The test result refers only to the samples, which is submitted to this test, and is valid as the same reliability is built into the design.

4.8 Mechanical Shock Drop – 30cm

Test Conditions	Quantity	Date	Site
Drop height: 30 cm 3cm-thick lauan board on concrete surface Drop each face 2 times, 6 face, total 12 times	2pcs	2008/09/03	WNC

Test Equipment	Brand, Model	Serial Number	Calibration Date
Drop Tester	King Design, KD 128A	FR106109091	No need

Test Result				
S/N	Before	After		
		Appearance	Function	Result
05	OK	P1	OK	PASS
06	OK	P1	OK	PASS

P1:

1. There are some abrasions on the housing.
2. The SD module and battery should use glue to reinforce.
3. The holder needs to be attached on to the housing in order to hold CF card.

Summary of Test:

1. The test samples have passed this Test (function).
2. The test result refers only to the samples, which is submitted to this test, and is valid as the same reliability is built into the design.