

Low Temperature Test Report

Issue by

Certification Center

Product Model	5.7" Rugged Handheld Device : R05I98H-RTD1
Product Description	Rugged Handheld Device
Test Reason	<input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> Rugged Handheld Device <input type="checkbox"/> Renew product <input type="checkbox"/> PCB : <input type="checkbox"/> BIOS: <input type="checkbox"/> Revision change <input type="checkbox"/> PCB : <input type="checkbox"/> BIOS: <input type="checkbox"/> Component:

2011/10/12
Issue date

Lindon Lin
Approved

Freeman Lee
Test Engineer

1. Document Introduction and Revision History

This document describes how we conduct the environment conditions and test procedure. It includes the test equipment we use, the test condition, and the test procedure we take. We also define our test criteria and the way to conclude the test result.

(According to client's test specification, please see following sheets in detail.)

Table of Testing Summary Results

NO	Test Item	Condition Description	Sect. / Page	Reference to
1	Low(Cold) Temperature Test	Operation Temperature: -21°C ± 2°C For a period of 72 Hours	4 / 5	MIL-STD-810F Method 502.4 Procedure II

2. Product Configuration

1. M/B : Winmate I98H5-110
2. CPU : Intel® Atom™ Processor Z510 @ 1.10 GHz
3. Chipset : Intel US15W
4. RAM : Transcend TS128MSQ64V6U SODIMM DDR2-667 1GB
5. SSD : PQI D10080G57RW01A70 MiniPCIe PATA SSD 8G MLC
6. Panel : DataImage 050722DSSWDG01 640x480
7. Battery : FSP RTB-057HH Li-Ion Battery 2S1P 7.4V 2600mAh x 2
8. Bluetooth : Q-COM Bluetooth QBT400-USB01p
9. 3G : HUAWEI EM770W HSPA Module
10. GPS : u-blox LEA-6S GPS Module
11. Wifi : Wi2Wi W2SW0001 WLAN SIP 802.11b/g
12. Adapter : EDAC EA1050C-120 / AC IN 100-240V~1.8A,50-60Hz / DC OUT 12V,4.16A
13. Hot Tab / EC : 205_H5 / 212

3. Low (Cold) Temperature Test

A. Test Equipment:

- Test Site: Winmate LAB
- Programmable Temperature & Humidity Chamber
- KSON / THS-E4C-100 / S/N: 3087

B. LAB Environmental Conditions:

- Ambient Temperature :25 +/- 3°C
- Relative Humidity: 55 +/- 20% RH

C. Test Method / Specification :

- Reference to MIL-STD-810F Method 502.4 Testing Procedures
- Selecting Produces: Procedure II / Operation / Mild Cold (C0)
- Reference to Table 502.4-II. Summary of Low temperature diurnal cycle range.
- Temperature: -21°C ± 2°C
- For a period of 72 Hours
- Testing Software:
Running Windows XP with PassMark BurnIn Test Professional V6.0 (Build 1030)
- Quantity: Total 1 Set
- Testing Period: Aug. 13, 2011 to Aug. 15, 2011

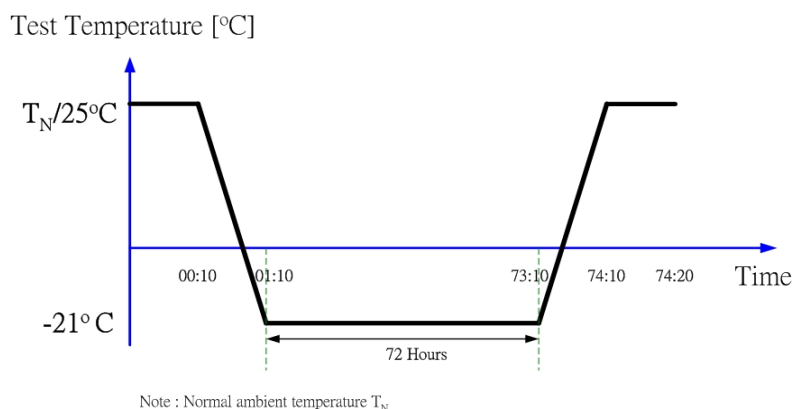


Figure 1: Low Temperature , temperature cycle

D. Check Condition and Requirements:

After the preconditioning time, the temperature cycle is started at normal ambient temperature T_N and run as shown in Fig 1. The equipment in its low (Cold) temperature mode, shall exposed to daily low temperature cycles between 72 Hours at -21°C . The equipment shall withstand the required environmental conditions and shall meet, without any functional damage, all performance requirements after being exposed to 1 cycle of low temperatures, as illustrated in Figure 1.

Performance check : Running Windows XP with PassMark BurnIn Test Professional V6.0 (Build 1030)

E. Test Result:

Examine the appearance of specimen(s) by visual check and perform functional check after this test. Connect the specimen with rated power then examine whether the display function of specimen could be work normally or not.

- Functional Check & Mechanical Structure: Normal
- Appearance check (Visual check): No visible damage
- The requirements of the performance test and check shall be met.

F. Test Judgment:

- Test Result

Check Item Style Item No.	Appearance check (Visual check)		Functional & Performance check
	Initial	Final	
5.7" Rugged Handheld Device: R05I98H-RTD1	No visible damage	No visible damage	Normal