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## TEMPERATURE & HUMIDITY TEST REPORT

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# Eterna™ 1 & 2

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**Prepared for:**

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# Temperature & Humidity Test Report

Document Number 2253

Test Dates: 01/ 07 - 01/12/2013

## Eterna 1 & 2

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Reference Documents			
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## 1. Products Tested

The units subjected to the temperature and humidity process are documented below.

**Table 1: Product Identification**

Description	Model	Mac Address	Fixture #
DC9001A	Not a UUT	00-17-0D-00-00-3F-F5-16	-
LTP5900	Eterna 1	00-17-0D-00-00-3F-F8-8C	36
LTP5901	Eterna 2	00-17-0D-00-00-3F-F7-80	24
LTP5900	Eterna 1	00-17-0D-00-00-3F-F8-96	26
LTP5900	Eterna 1	00-17-0D-00-00-3F-F8-85	35
LTP5902	Eterna 2	00-17-0D-00-00-3F-F6-C3	4
LTP5902	Eterna 2	00-17-0D-00-00-3F-F6-B7	5
LTP5900	Eterna 1	00-17-0D-00-00-3F-F8-77	34
LTP5901	Eterna 2	00-17-0D-00-00-3F-F7-81	21
LTP5902	Eterna 2	00-17-0D-00-00-3F-F6-C2	3
LTP5902	Eterna 2	00-17-0D-00-00-3F-F6-C4	2
LTP5901	Eterna 2	00-17-0D-00-00-3F-F7-82	20
LTP5900	Eterna 1	00-17-0D-00-00-3F-F8-9B	33
LTP5901	Eterna 2	00-17-0D-00-00-3F-F7-7E	22
LTP5902	Eterna 2	00-17-0D-00-00-3F-F6-99	1
LTP5902	Eterna 2	00-17-0D-00-00-3F-F6-C5	6
LTP5901	Eterna 2	00-17-0D-00-00-3F-F7-B6	19
LTP5901	Eterna 2	00-17-0D-00-00-3F-F7-77	23
LTP5900	Eterna 1	00-17-0D-00-00-3F-F8-95	25
DC9001A	Not a UUT	00-17-0D-00-00-3F-FF-BD	-
LTP5901	Eterna 2	00-17-0D-00-00-3F-F7-B3	15
LTP5900	Eterna 1	00-17-0D-00-00-3F-F8-84	30
LTP5902	Eterna 2	00-17-0D-00-00-3F-F6-8F	8
LTP5901	Eterna 2	00-17-0D-00-00-3F-F7-AE	18
LTP5902	Eterna 2	00-17-0D-00-00-3F-F6-D1	9
LTP5900	Eterna 1	00-17-0D-00-00-3F-F8-8E	28
LTP5900	Eterna 1	00-17-0D-00-00-3F-F8-87	32
LTP5901	Eterna 2	00-17-0D-00-00-3F-F7-B5	16
LTP5902	Eterna 2	00-17-0D-00-00-3F-F6-B1	10
LTP5901	Eterna 2	00-17-0D-00-00-3F-F7-B4	13
LTP5900	Eterna 1	00-17-0D-00-00-3F-F8-7F	29
LTP5901	Eterna 2	00-17-0D-00-00-3F-F7-AF	14
LTP5902	Eterna 2	00-17-0D-00-00-3F-F6-C6	11
LTP5900	Eterna 1	00-17-0D-00-00-3F-F8-AB	31
LTP5900	Eterna 1	00-17-0D-00-00-3F-F8-AE	27
LTP5901	Eterna 2	00-17-0D-00-00-3F-F7-7D	17
LTP5902	Eterna 2	00-17-0D-00-00-3F-F6-95	7
LTP5902	Eterna 2	00-17-0D-00-00-3F-F6-C7	12

## 2. Test Equipment and Calibration Records

Equipment used to conduct the testing is detailed below. All test equipment that requires periodic calibration was in current calibration at time of test. The calibration certifications are traceable to the National Institute of Standards and Technology (NIST).

**Table 2: Reliant Labs Calibration Records - Lab 6**

Description	Manufacturer	Model Number	Serial Number	Calibration Due
Temp/Humidity Chamber	Espec	ESX-3CA	0110463	09/18/2013

## 3. Functional Test Description & Test Results

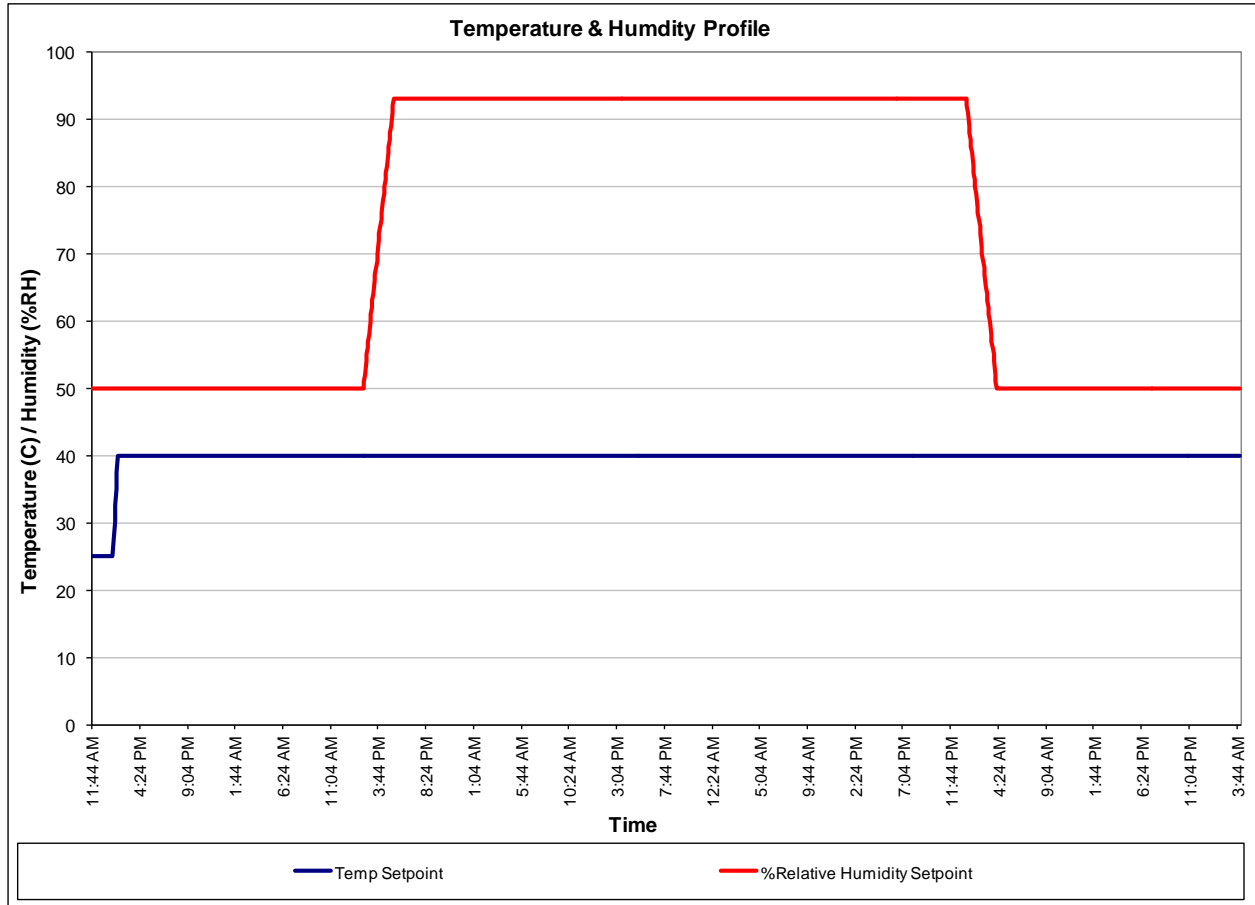
The units were operational and monitored for functionality throughout the temperature and humidity testing via Tera Term. The 'sm' command was executed to verify the 'Joins' counter was 1 on all the UUTs.

Test Results: The UUTs remained operational and the 'Joins' counter remained at 1 on all the UUTs throughout the test.

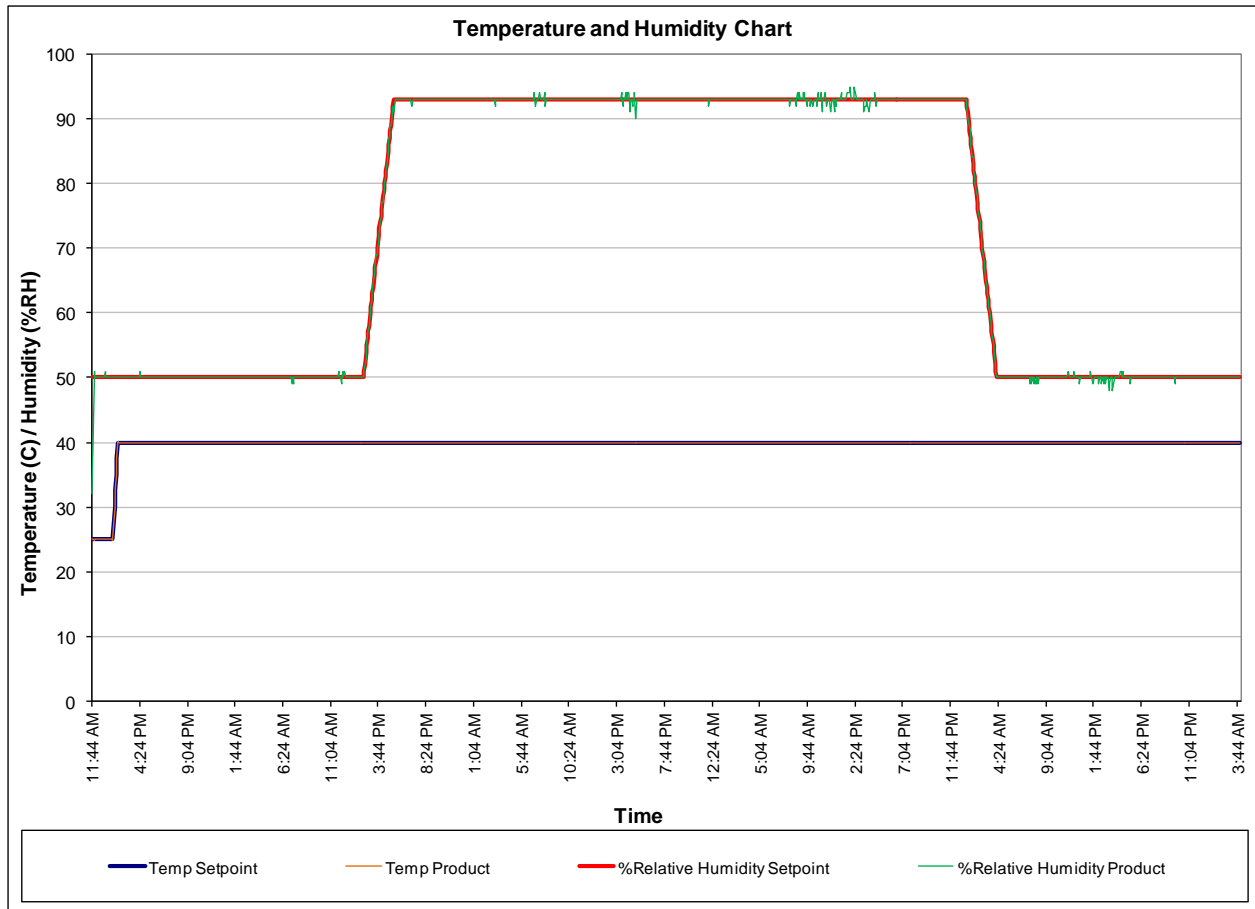
## 4. Temperature and Relative Humidity Profile

- Test based on IEC 61298-3
- Stabilize chamber at 25°C / 50%RH (2hrs)
- Ramp from 25°C to 40°C at constant 50%RH (.5hrs)
- Dwell at 40°C / 50%RH with UUT powered on (24hrs)
- Ramp from 50%RH to 93%RH at 40°C with UUT powered off (3hrs)
- Dwell at 40°C / 93%RH with UUT powered off (48hrs)
- Dwell at 40°C / 93%RH with UUT powered on (8hrs)
- Ramp from 93%RH to 50%RH at 40°C with UUT powered on (3hrs)
- Dwell at 40°C / 50%RH with UUT powered on (24hrs)

## 5. Temperature and Humidity Profile and Chamber Data



**Figure 1 Temperature and Humidity Profile Chart**



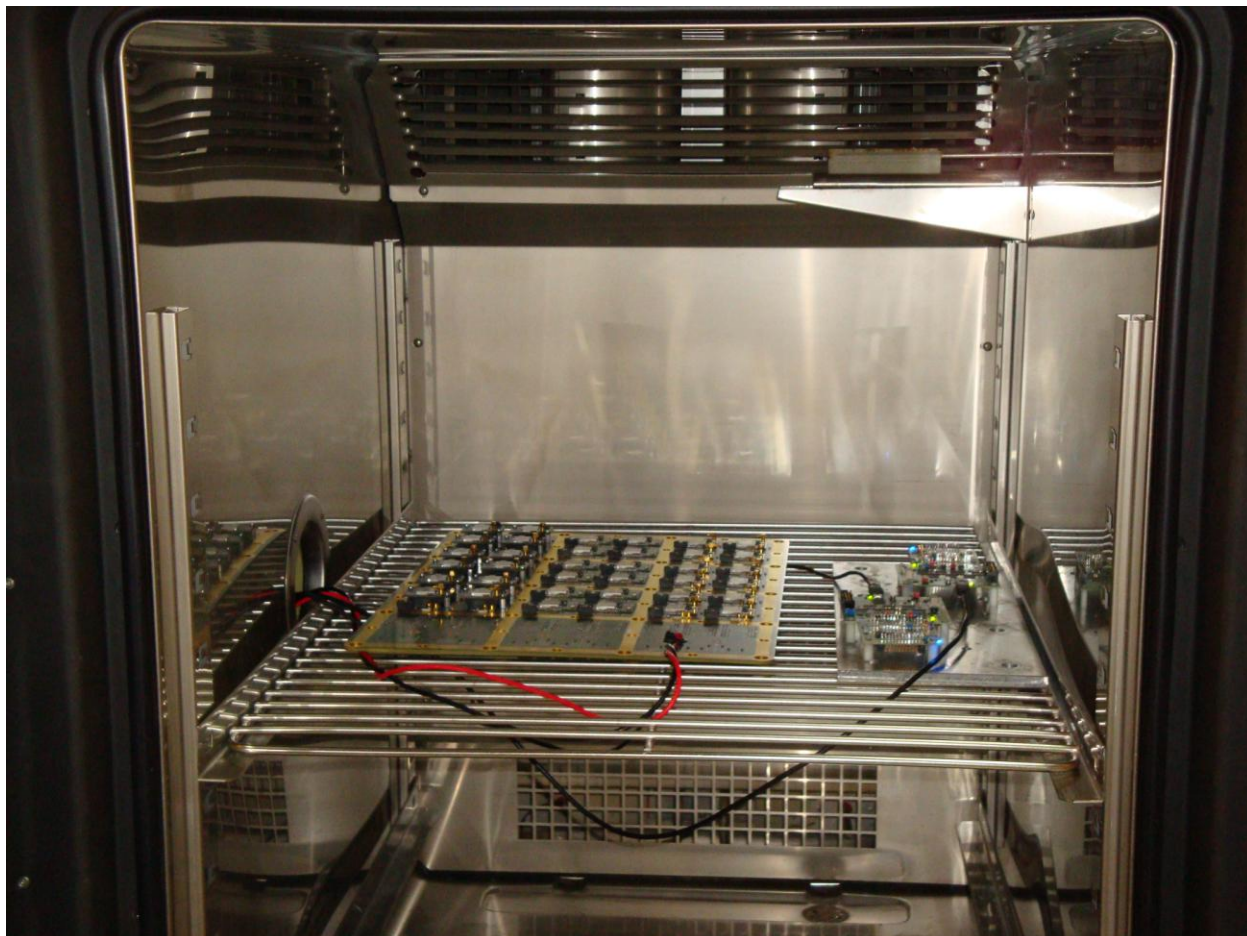
**Figure 2 Temperature and Humidity Chamber Data Chart**

## 6. Test Setup Pictures



**Figure 3 Test Samples in Chamber**





**Figure 4 Test Samples in Chamber - Close-up**



**Figure 5 Test Equipment and Chamber Setup**