

	 <p>DAVE s.r.l.</p> <p><a href="http://www.dave.eu">www.dave.eu</a></p>	CREATION:	<b>Sep 2009</b>
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**Zefeer**

# **Environmental Test Report**

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## History

Rev.	Date	Hw Rev.	Details
1.0.0	Aug 2009		First Release

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# 1 - Introduction

The purpose of this tests is to verify how the Zefeer (<http://www.dave.eu/zefeer.html>) CPU modules withstand the sequence of power-up at very low and high temperature. Some power-ON and power-OFF cycles have been performed at the extreme environmental temperature conditions; after the power-ON, functional tests have been performed, using the RS232 serial port and the ethernet port to verify the modules behaviour.

## 2 - Test report

### 2.1 Test configuration

- ✓ Products: DZQ3610I3R
- ✓ Description: Zefeer 32MB FLASH 64 RAM, Industrial Range.
- ✓ Instruments: Climatic Chamber Angelantoni.
- ✓ Sw application: ls -laR; md5sum ;mtest from u-boot.
- ✓ Ref. Normative: EN 60068-2-1 - Tests A: Cold ; EN 60068-2-2 - Tests B: Dry heat
- ✓ Operator: Matteo Bortolin
- ✓ Test Date: 10/06/2009

### 2.2 Tests methods, reference standards and variations

The tests have been performed in partial according to standards:

Reference standard	Test	Variations
EN 60068-2-1:1993	Tests A: Cold	Timing for 8hours instead 4 hours (worst case)
EN 60068-2-2:1993	Tests B: Dry heat	Timing for 8 hours instead 2 hours (worst case) the 90°C dry heat temperature has been taken, and 90%, 95% RH is taken.

### 2.3 Tests sequence

Standard Test sequence Severity temperature / duration

Test	Description	Notes
EN 60068-2-1 Section 3	Test Ad: Cold for heat-dissipating specimen with gradual change of temperature -40°C / 8 hours	Video: Zefeer At -40°C: <a href="http://www.youtube.com/watch?v=UPeoHbN74fA">http://www.youtube.com/watch?v=UPeoHbN74fA</a>
EN 60068-2-2 Section 4	Test Bd: Dry heat for heat-dissipating specimen with gradual change of temperature +90°C / 4 hours	Video: Zefeer At +90°C <a href="http://www.youtube.com/watch?v=XOe8ZSqQG4Q">http://www.youtube.com/watch?v=XOe8ZSqQG4Q</a>

### 2.4 tests result summary

EN 60068-2-1	Passed
EN 60068-2-2	Passed