

## TN0098E Temperature data in NVE 40K.doc

Applies to: NVE40K

Level: Public

# Summary

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This document is about the temperature data of each component of interest in the NVE40K rack system. Despite of NVE40K rack system having 2 PSU's and 12 blades, the temperature data below shows it has no heating issues. Tests have been made with and without the bottom side of rack to see whether it makes any differences. Since PSUs and components around PSUs might have heating issues, those areas are thoroughly checked.

## Detailed Information

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### 1. Temperature on each point (with the bottom side)



< Picture 1. NVE 40K temperature check point >

12 points (from A to L) were checked in the NVE40K rack as above.

a : fan exhaust

b : fan exhaust

c : hottest part of PSU 1(nearer surface)

d : hottest part of PSU 2(nearer surface)

g : air near the PSU

h : upper air of the rack

j : bottom air of the rack

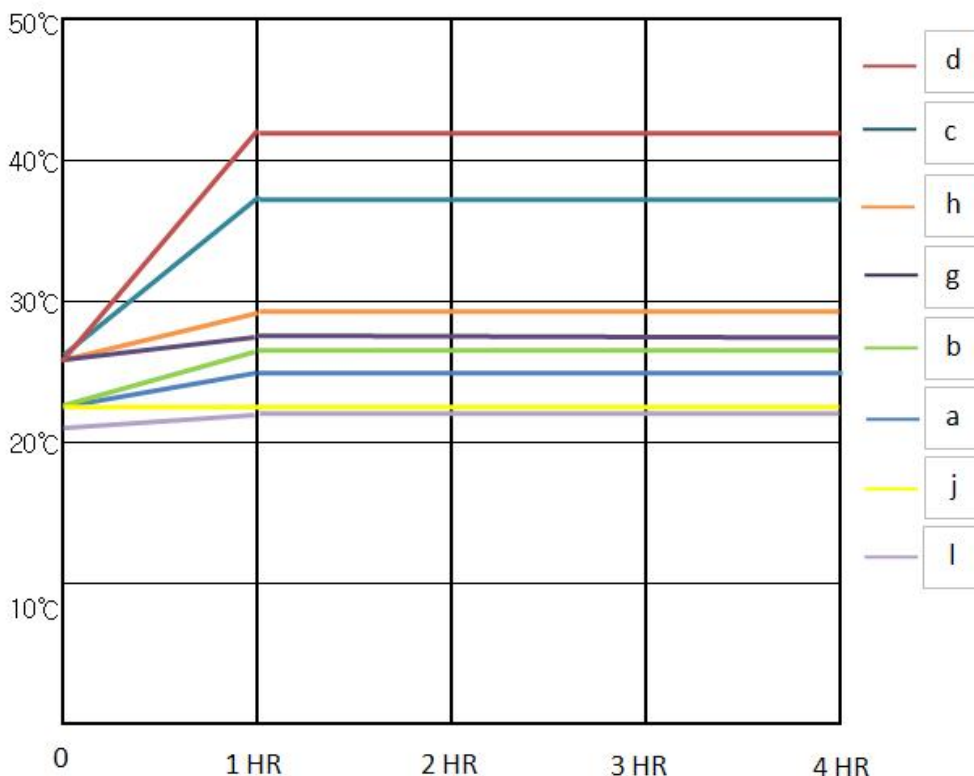
l : ambient air (not marked on the picture)

The specific checking points (a,b,c,d,h,j) are shown on the below pictures separately and the figures are recorded on the graph 1. Note that h and j points are not on the board but ambient temperature around the board



< Picture 2. Detail of temperature check point >

Below graph shows the temperature trends graph on the each components of NVE40K.



< Graph 1. Temperature on each point >

## 2. Temperature on each point (the bottom side removed)

The temperature gap between the bottom side-off and bottom side-on has no big difference. Only point **c** and **d** show a gap of 3°C and in case of other check points, the gap ranges are within 1°C. Refer to the below table for detail figure.

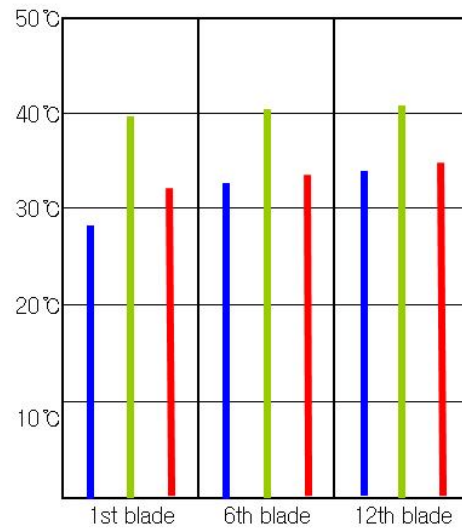
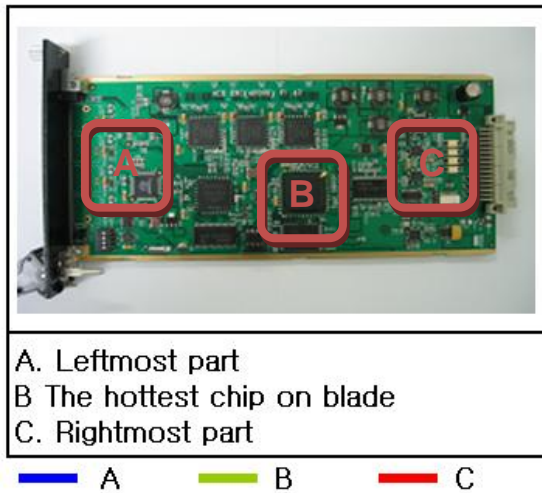
Point	With bottom side	Without bottom side
Point c	41 °C	38 °C
Point d	38 °C	35 °C

< Table 1. Temperature comparison >

## 3. Effect of PSU on the temperature

As two of PSU in the NVE40K can affect the temperature on the components, three points on each 3 boards are checked. According to the distance from PSU, the temperature of blade shows different value (12<sup>th</sup> blade is the one placed close to the PSU)

FYI. The ambient temperature : 22 °C



< Picture 3. Check points of 3 blades >

<Graph 2. Temperature of 3 blades >

# Revision History

Revision	Date	Description
A	2008-03-11	Created.