CA 3

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Roll no. 63

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1. Introduction

1.1 Objective of the project

Use any Open Sources Software Displays details about various system information tools, like the CPU, motherboard, monitor audio, network and other components. Also display the current and average speed/rate of the memory, hard drive, and CPU.

1.2 Description of the project

One popular open-source software that displays system information is called "HWINFO" It is available for Windows and Linux operating systems and can provide detailed information about various system components, including: CPU , Motherboard, Monitor, Audio, Network, etc.

1.3 Scope of the Project

HWINFO can display real-time and average speed/rate of the memory, hard drive, and CPU. It can show the current usage and performance metrics such as CPU temperature, clock speed, memory usage, disk I/O speed, and network bandwidth.

CPU: information about the processor model, clock speed, core count, and usage

Motherboard: details about the motherboard model, chipset, and BIOS version

Monitor: specifications of the connected display(s), such as resolution, refresh rate, and supported features

Audio: information about the audio device(s) installed in the system

Network: details about the network interfaces, including IP address, MAC address, and speed

2. System Description

2.1 Target system description

The target is to have accurate support for latest technologies and standards even before the products reach the market.

HWINFO for DOS is in development since 1995 and was one of the first tools of it's kind providing accurate hardware information. HWINFO for DOS reaches it's limit in size and available system (DOS) memory. The development has been ceased due to a low demand.

HWiNFO32 development started around 1999 and it was one of the first tools being able to give precise hardware information on the Windows NT/2000 platforms. It is still under heavy development (daily basis) adding new features, improvements and fixes. A stable release is available approximately every month, beta pre-releases are available more frequently (~ every week).

In 2011 HWiNFO32 has been ported to 64-bits, so HWiNFO64 was created. HWiNFO64 is a native x64

application and has some advantages over the 32-bit version: especially it's not limited to 64 logical CPU units as HWiNFO32 is. HWiNFO64 is currently able to support up-to 512 logical CPUs and this limit can be raised if needed.

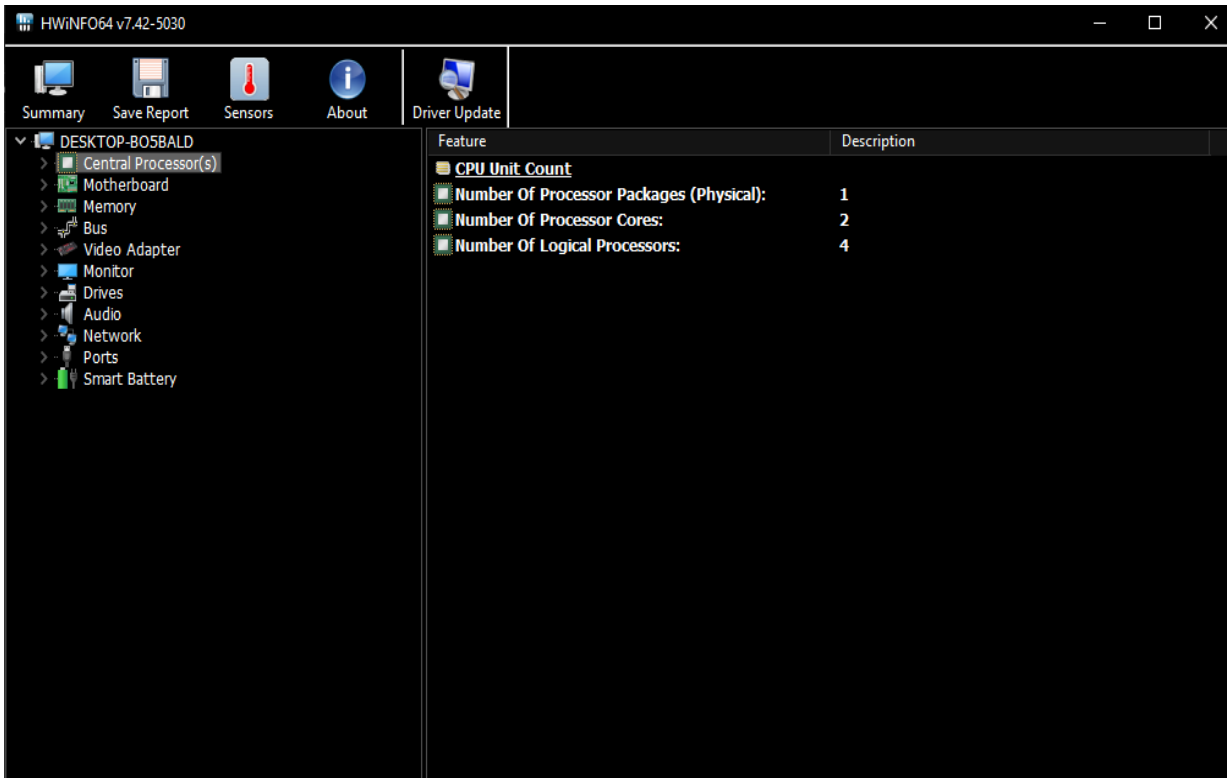
Both HWiNFO32 and HWiNFO64 require a kernel mode driver to work, as this is the only way how to access hardware. This driver is used only to obtain precise hardware information for HWINFO and Administrative rights are required to install it.

HWiNFO32/64 public beta pre-releases are fully functioning.

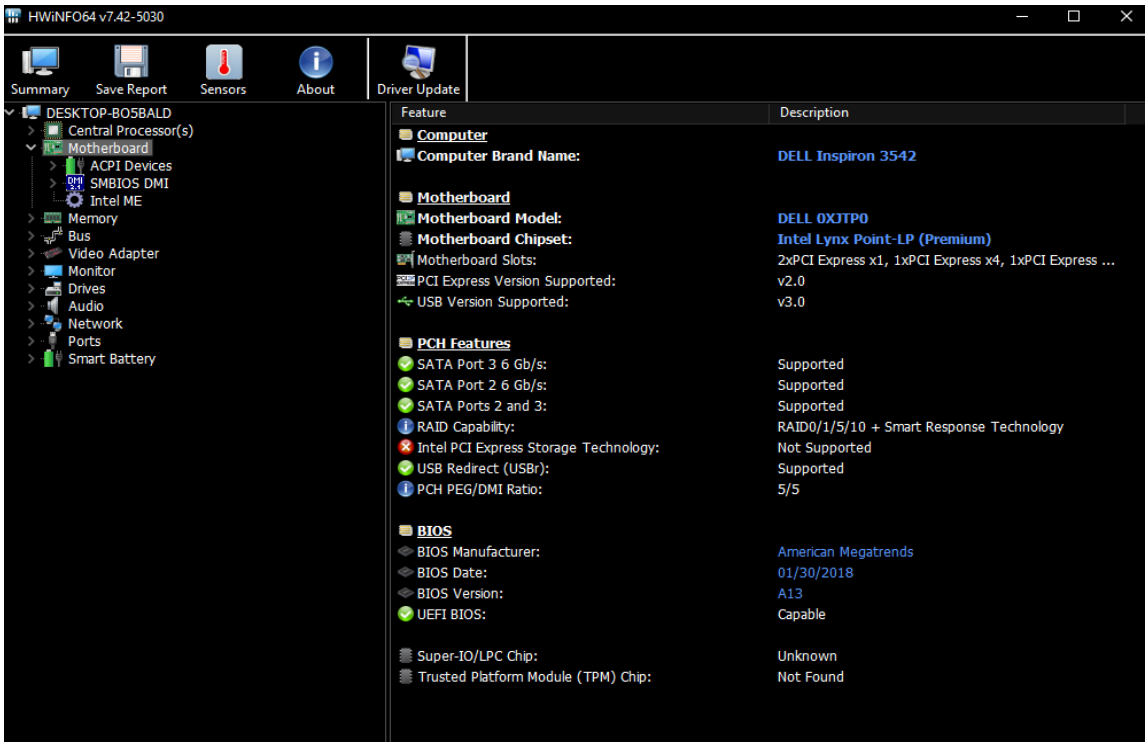
3. Analysis Report

3.1 System snapshots and full analysis report

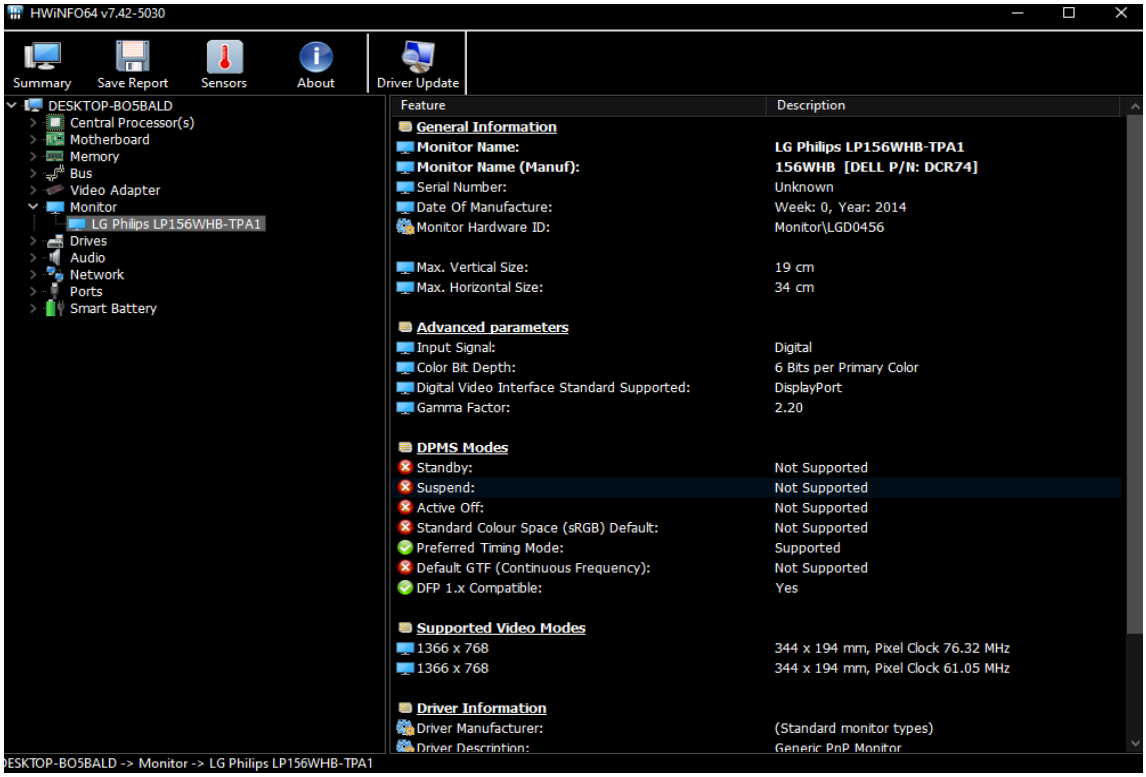
CPU info:



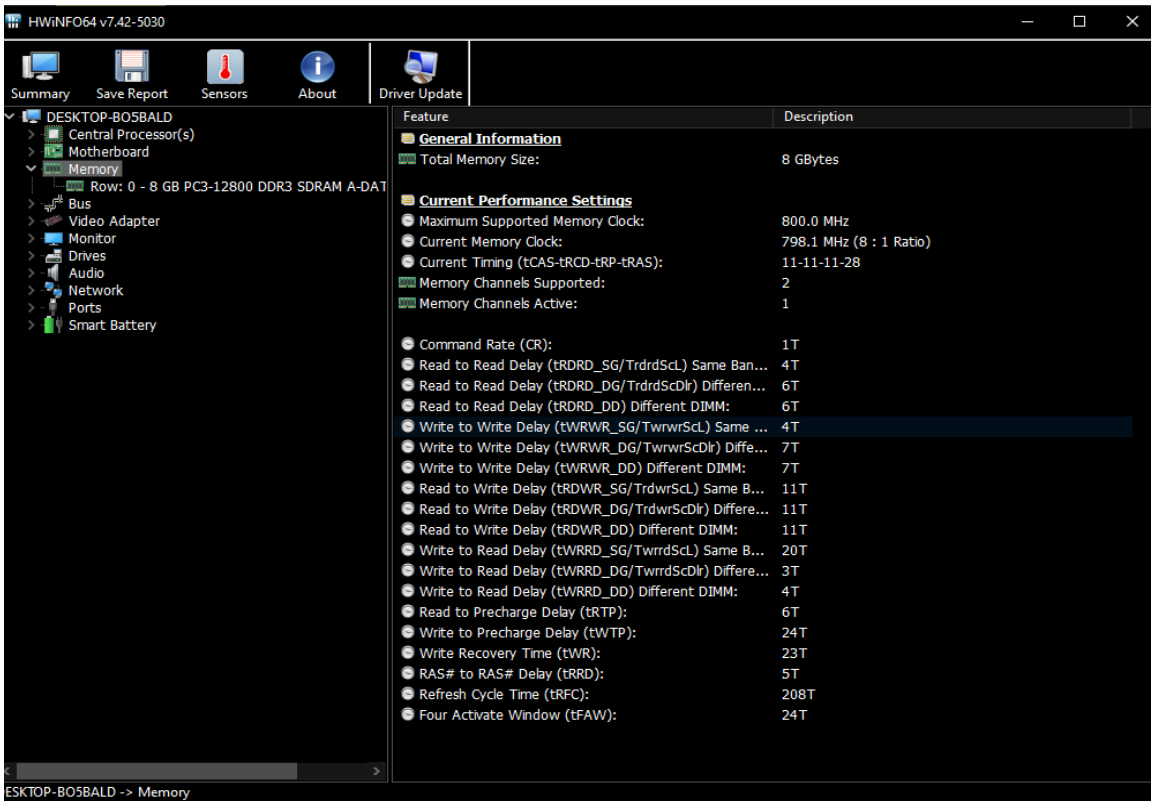
Motherboard info:



Monitor info:

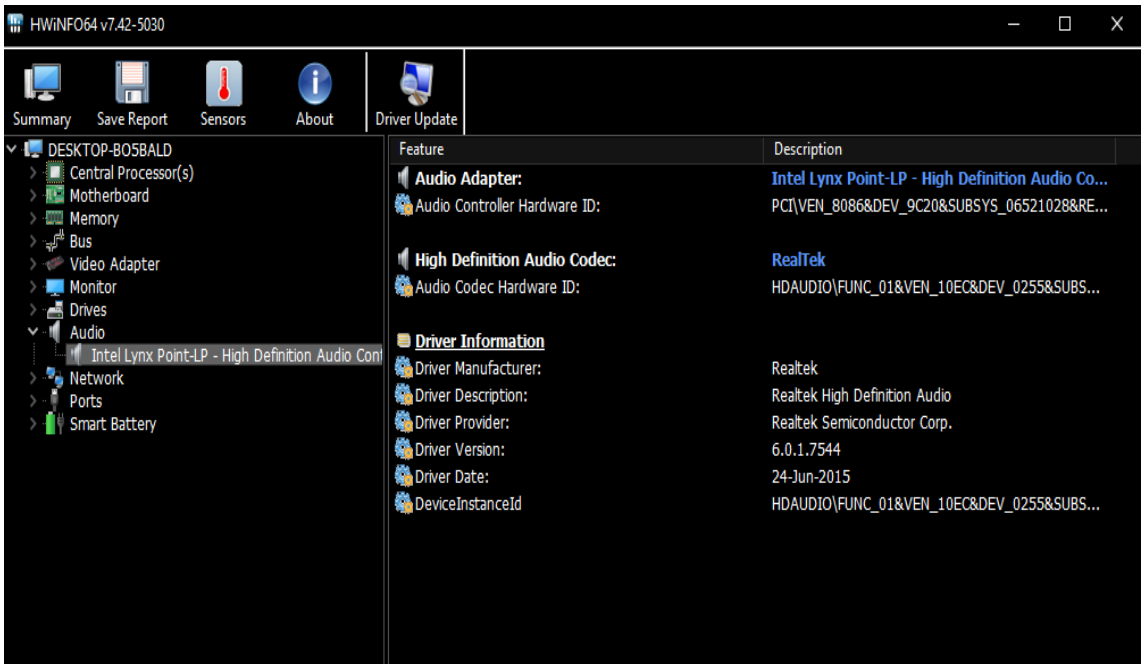


Memory info:



Network info:

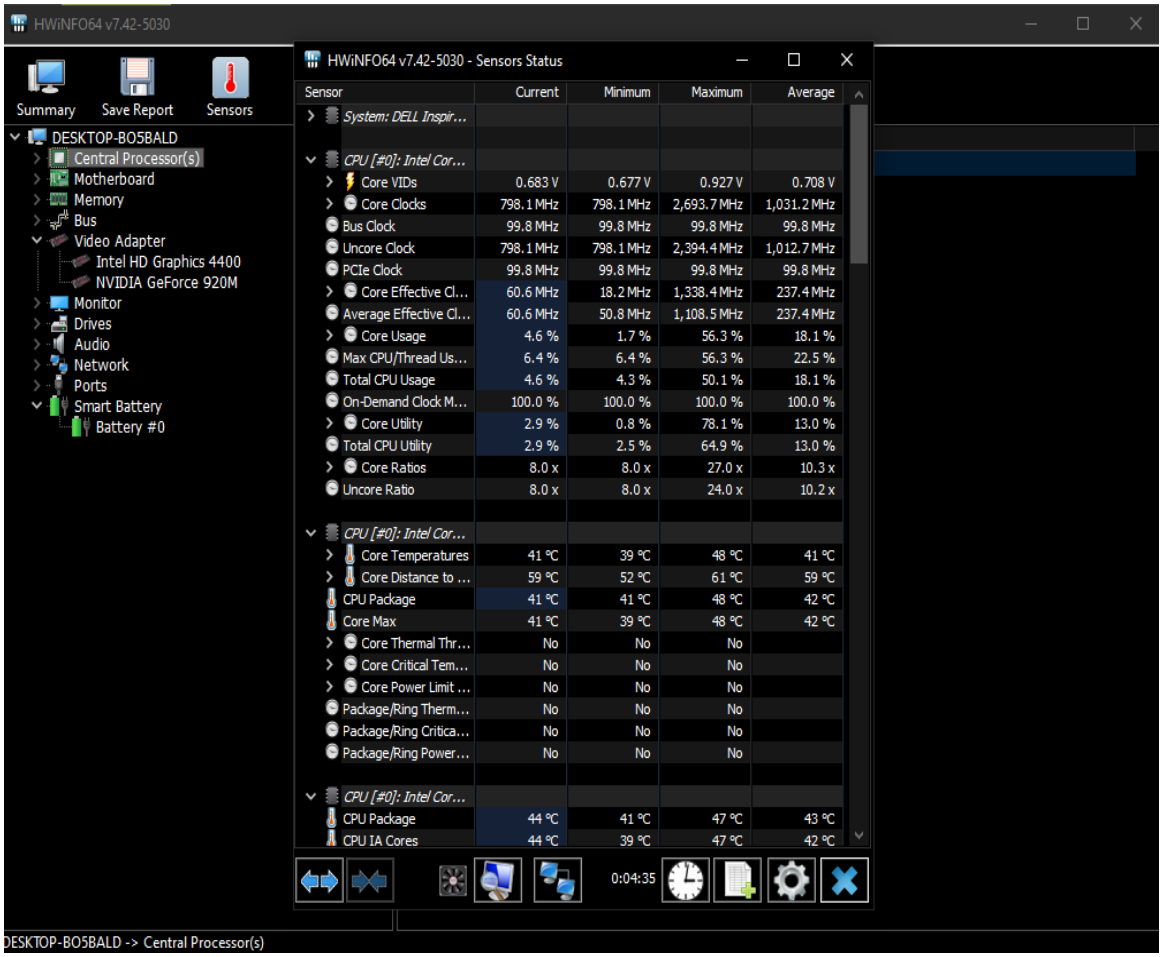
Audio info:



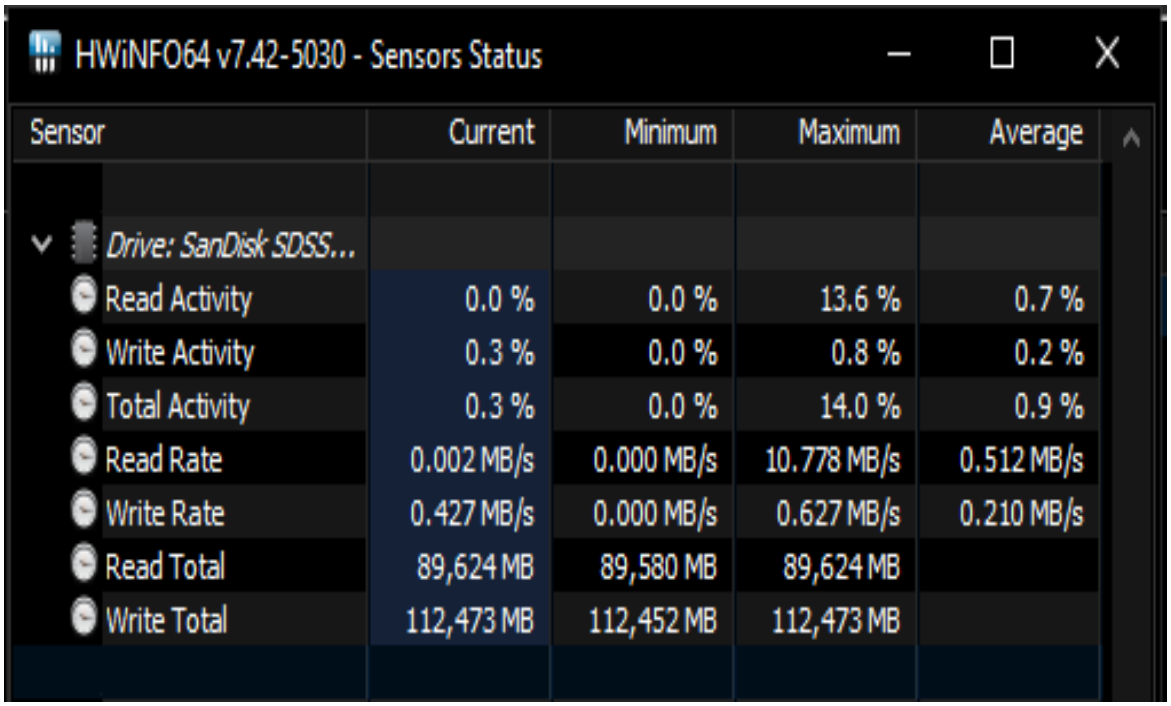
GPU info:

Battery info:

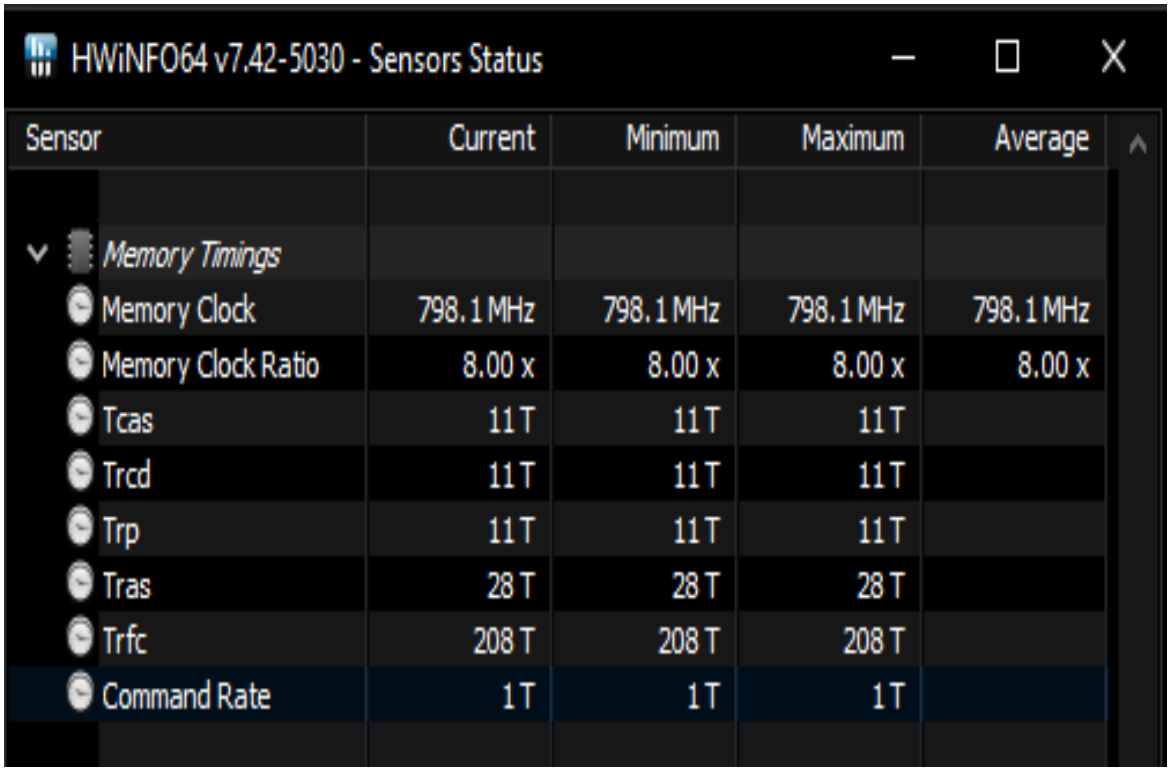
Average Speed/Rate of CPU:



Average Speed/Rate of Hard drive:



Average Speed/Rate of Hard drive:



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