

Lenovo G50059-380860

The device we chose is the Lenovo G50059-380860 15.6 inch laptop. We chose this device because we wanted to investigate how a mobile laptop might differ from their desktop counterparts. While there are some known differences such as their size, this report investigates the effectiveness of the hardware of a laptop. During the process of breaking down the computer, we found a variety of components (none of which were TI components). We categorized components into two sections: Components with a direct relation to the motherboard and components that weren't directly involved.

Motherboard & Related Components

The motherboard is the main circuit board that connects all the components of the computer. Components that were connected to the motherboard include the Central Processing Unit (CPU), and the Random Access Memory (RAM). The motherboard is vital to the functionality of this device because it allows for all these separate components to communicate with each other. While the motherboard is vital to the operation of the device, it isn't the only vital component.

The Central Processing Unit (CPU) can be considered the 'brain' of the computer. Its function is to make the necessary calculations to run different programs. The motherboard allows the CPU to communicate with other components. CPUs receive data and information from the RAM or the given operating system and will execute the instructions.



Motherboard found inside & the CPU is highlighted in the yellow box

The laptop's RAM, which acts as the computer's short term memory, was found connected to the motherboard. The model of the RAM found in this device is RAMAXEL 4GB RAM. An important component, it sits on the motherboard in order to facilitate communications.



The RAM Component found in the device: RAMAXEL 4GB RAM

Other Components

In addition to all these components, the laptop included a Hard Drive as well. Purposed for storage of digital content, the model present in our device is the HGST 500GB manufactured by Hitachi with 5400 RPM (revolutions per minute). Due to the archaic age of the laptop, it does not contain a Solid State Drive (SSD) which can be found in recent models. Furthermore, there was a wifi-card present that acted as a transmitter and receiver for wireless communication. One vital function it provides is the ability to access the internet, an essential in today's world. The model located within the card slot, adjacent to the USB port, was the Qualcomm Atheros Model QCNFA335. Finally, the last component was the Panasonic UJ8FB 9.5mm Sata Internal Slim DL DVD CD RW Burner Drive, which was the slot which allows the computer to read, view and modify DVDs and CDs.



Panasonic UJ8FB 9.5mm Sata Internal Slim DL DVD CD RW Burner Drive



Hitachi 500 GB Hard Drive

This device had a multitude of features and components that were interesting due to its age which allowed for exposure to models and companies previously unknown to us. A key take-away from examining a computer in the past was the rate in which technology grows and evolves and how it builds upon the foundations of previous generations.