Mark Bollinger

4-19-2016

DWD420

MSI GeForce GTX 980 TI gaming 6g

Graphics have been around for a long time even before the graphic card the first computer had graphics but it didn’t use a graphics card. The first graphics card that was made was from IBM they were a monochrome display adapter that was a plug-in device that would attach to your monitor which at the time was a CRT. The MDA card had 4 kilobytes of memory which could process and produce about 720 by 350 pixels which is approximately about 25 rows of 80 characters per row. IBM would later produce a lot more graphic then the MDA graphics card.

A monitor or television have similarities which include thousands of pixels that display whatever it is you are looking for, for example a movie, television show, book or a article for a research project all have these pixels. All of the items you are looking up have to be presented on a monitor or television so that you can either read the word or get a visual of that particular item. The monitor or television has pixels that display certain colors to create what we see. That is a lot of pixels how does a computer know what to do with all of those pixels and which colors to display on each one? The data comes from the CPU because it’s the central processing unit for the where everything is processed so basically the brain of the computer. The GPU which I will explain later in the paper outputs binary data that needs to be processed so that each individual pixel knows what color to be to create the image you’re trying to see. This happens about sixty times per second. The other way is the motherboard could have a way to process graphics already on it. Graphics cards are mostly used for gaming and for multiple screens.

I’m going to explain all the different components that let~~s~~ the graphics card accomplish everything that it needs to do to make the user happy. The motherboard is where the graphics card gets the power and data. The data the graphics card is getting is from the CPU. The graphics card and CPU communicate to perform specific tasks. A lot of newer graphic cards can’t get enough power from the motherboard so they need a separate connection to the power supply. The GPU is also a lot like a CPU on the motherboard. It has memory, heatsink, fan, and a connection to the motherboard. The GPU is where the data is processed to tell exactly what pixels on screen are what color. The memory portion of the graphics card will hold the information for each pixel and to temporarily hold an already downloaded item so it can display the result faster. The final step is displaying the image or whatever on the monitor or television so you can see what you want to see.

The MSI GeForce GTX 980 TI gaming 6g graphic card I have has one DVi, one hdmi, and three display ports. With that one card I can hook my computer up to four monitors or televisions at the maximum so I don’t overheat the card. The cards bus is PCI express x16 3.0, the memory type id GDDR5, and the memory size is 6144 megabytes. The core clock speed is different depending on if you have it overclocked, gaming mode, or silent mode. The power consumption from the one card is 250 watts which is important when you are paying a power supply if your building the computer yourself which I found that out when I ordered the wrong power supply for my computer.

Lauderdale, C. (n.d.). *Who Invented the Graphics Card?* Retrieved from eHow: <http://www.ehow.com/about_5663390_invented-graphics-card_.html>

N/A. (n.d.). *GeForce\_900\_series*. Retrieved from wikipedia: <https://en.wikipedia.org/wiki/GeForce_900_series>

N/A. (n.d.). *GTX 980 Ti GAMING 6G | MSI USA | Graphics card - The world leader in display performance*. Retrieved from MSI: <https://us.msi.com/Graphics-card/GTX-980-Ti-GAMING-6G.html#hero-overview>