iPhone 5 Deconstruction

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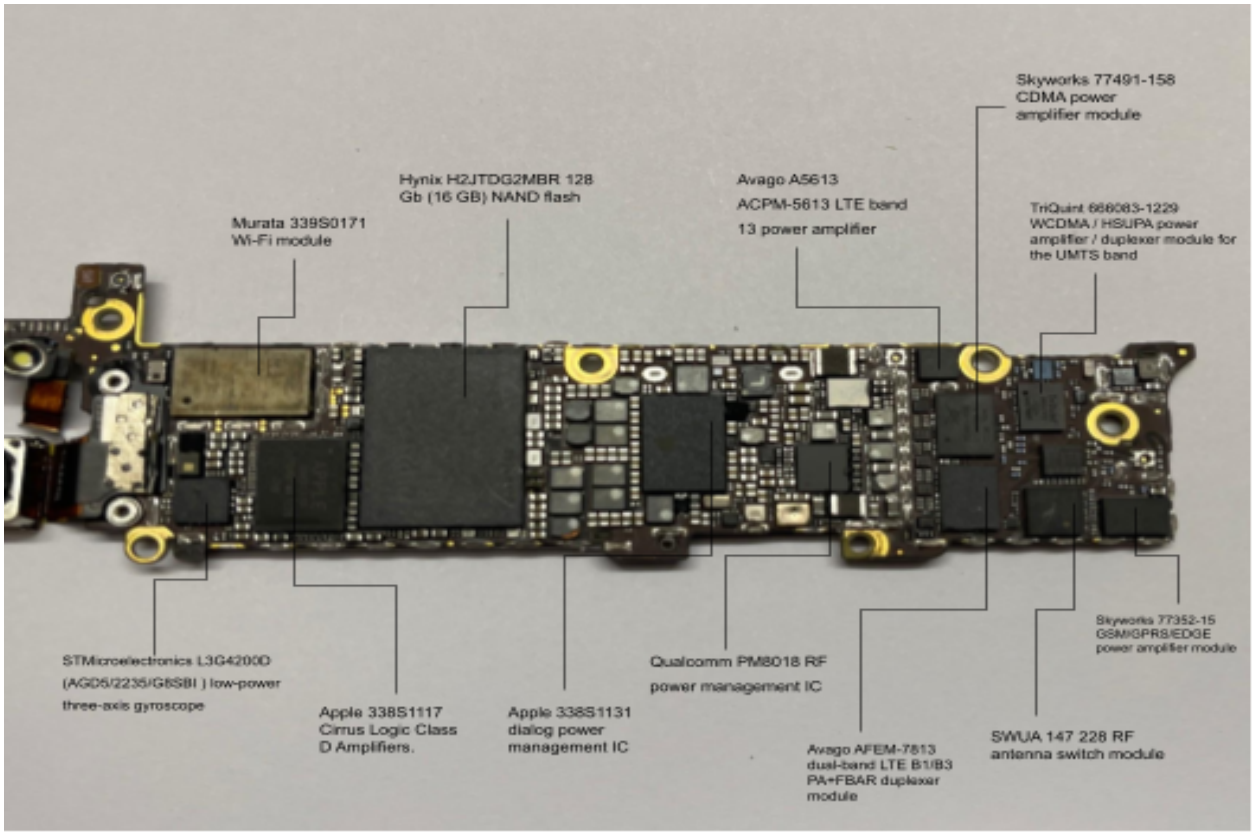
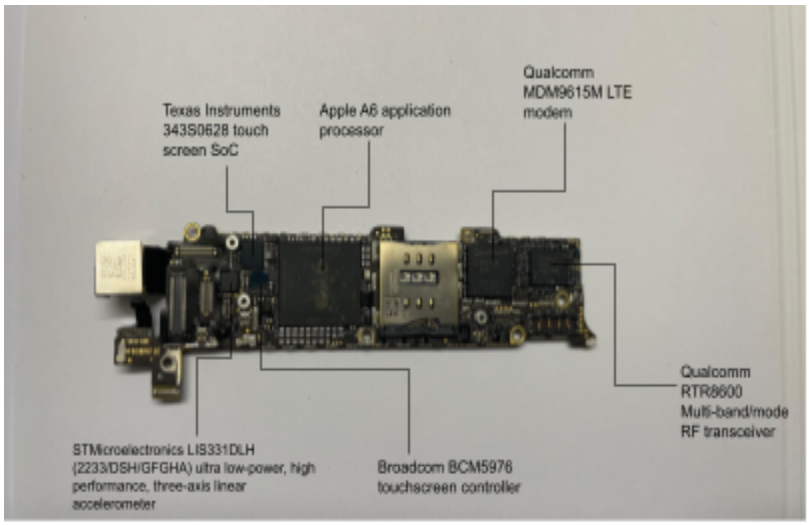
We chose to disassemble an iPhone 5 because it is an old piece of technology that has distinct types of hardware we do not see today. The identifiable parts that we found were an iPhone logic board and battery, an 8-megapixel iSight camera, a power amplifier module, an antenna switch module, a duplexer module, a power management IC, NAND flash, dialog power management IC, Class D amplifier, a low power three-axis gyroscope, Wi-fi module, three-axis linear accelerometer, an application processor.





An iPhone motherboard is the part that controls all an iPhone's functions, which is located next to the Li-ion battery. The motherboard has a series of chips in it and many lines that connect those chips. The battery of an iPhone 5 is positioned on the left of the iPhone and has a talk time of up to 8 hours on 3G and a standby time of up to 225 hours (about 1 and a half weeks). It looks like a big black chip with a smooth surface located on the left of the phone. An 8-megapixel iSight camera that is revealed at the top right corner of the iPhone. Which can capture images of excellent quality with eight-million tiny squares of information per inch. It has a blue lens on top and black plastic around it. The power amplifier module inside the iPhone 5 is a part of the speakers that produces what you want to hear. It looks like a circuit board and has many lines of metal running through it. An antenna switch module helps with telecommunication in the iPhone. It has many chips in it and is formatted like a circuit board. A duplexer module authorizes communication in a smartphone over a single path or channel. It looks like a big black box made of plastic with black out pieces and holes in them. The power management IC, which stands for power management integrated circuits, is a solid-state device, which controls the flow and directions of the electrical power in the device. The NAND flash is a non-volatile device which stores data such as photos on your device. The dialog power management IC controls most of the power-supply requirements and other blocks such as audio. The Class D amplifier gives high power amplification in transmission systems. A low power three-axis gyroscope shows the measured angular rate which is how fast a body rotates in a specific time to the real world through a digital confluence. The wi-fi module simply dispatches and acquires data over wi-fi. The three-axis linear accelerometer distributes accelerating values in three diverse types of axes. An application processor dispenses all the needs for an iPhone which include memory and graphics all inside the iPhone 5.

Through this experience, we have learned the various parts of an iphone 5 and how they contribute to the operating systems of a phone. We also have learned how all these tiny little parts are crucial for an iphone to function.