

VEX IQ Reverse Engineering Project:

What is inside a Samsung Galaxy S3?

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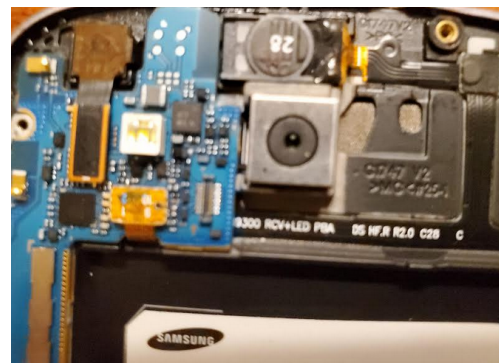
The Samsung Galaxy S3 is a cell phone that was released on the 29th of May, 2012, with this specific one being the SGH-T999. As many phones released in 2012, it had a removable back case where the battery and SIM and SD Card tray can be accessed, while still there, there are also 10 screws which can be removed to access the internals of the device. When seeing the internals, the top part of the body should be taken off carefully, as it has the speakers attached to the board via a ribbon connector. To make it easier, I removed the bottom part of the body first to disattach the ribbon connector.

In the insides of the body, several antennas can be found, including one in the top area where the speakers are. Along with the speakers, there are many more ribbon connectors for other internal parts, including the display and battery. Important Elements that can be found are the camera, the SIM and SD card slots, the display, the speaker, the battery, vibrating module (black circular object near the SD and SIM card slots), charging port, and underneath where the battery normal is, is the information for the phone, including its model, IMEI, storage information, and a phone number for support. As for this specific phone model itself, it is a has a Snapdragon S4 MSM8960 CPU, 1 Gigabyte of RAM, an 8 Megapixel Camera, and its carrier is locked to T-Mobile with 4G support, but can be unlocked with a carrier unlock code.

I did not remove the motherboard as it would have been too risky to do, so I could not find anything that could be the internal storage, unlike a laptop computer, which has an easy to spot Hard Disk Drive or Solid State Drive. That was as far I was able to go, and I feel more informed about how a cell phone works, and despite being almost 10 years old, it still is a good example today to learn from.



Close-Up of the top part of the housing



Close-Up of the camera and various ribbon connectors