Team 94065J Black Jaguar

Electronic design challenge

Device taken apart-PHILIPS DVD 724 DVD video player

We have decided to take apart this DVD player because we want to see what chips and all are used towards giving us a clear view of the DVD in the player itself. We were able to see that the DVD player consists of one board with all of the power suppliers(run after plugged in), the powerhouse of the device. Then we saw the other main board with the components that let us view the DVD itself. On the board, we found an ESS VideoDrive chip. This is what helps us see a flicker free video display, by ESS Technology. We also found random access memory chip, by Micron, Inc. Then the next largest contributor to the chipboard was a chip that is a multiblock and chip erase. It is basically the security guard of the whole operation. The PIR motion sensor in the device widens the field of view and can adjust to the size of the field through device it is connected to. In order to do this in uses infrared light to do its job. On the board, there is also a voltage regulator, by ST Microelectronics, this is used for stability. During this experience we learned how a chipboard is organized and how all of the components are connected so that they function properly.

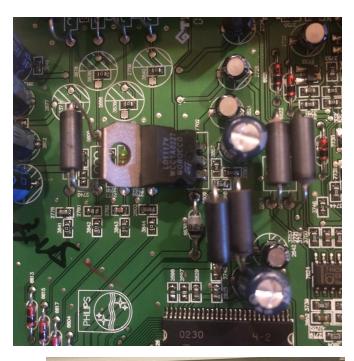


This is the ESS VideoDrive that is used for the display.

It is located near the center of the board.



This is random access memory. It is located near the top of the chip board.



The chip with the hole is the voltage regulator. It provides stable voltage and current to the rest of components on board and helps with stability. It is located near the top of the chip board.

This is the whole entire chip board on which the elements we have summarized are found.



This is the DVD player without the top cover on. Now you can see how the chip boards are connected.