PORTABLE MEDIA TRANSFER INTERMEDIARY

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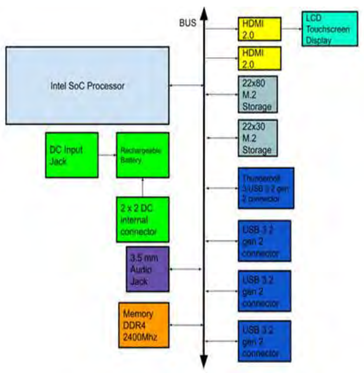
INTRODUCTION

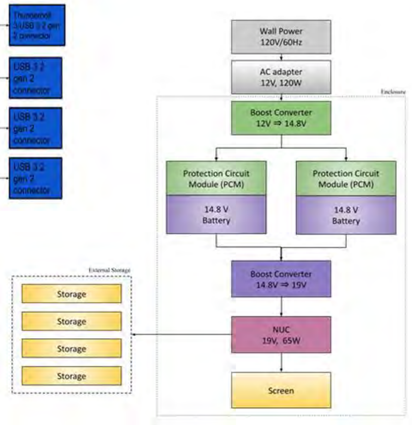
The digital imaging technician (DIT) is a specialized film crewmember whose role is to verify hard-disk recording while making backup copies of highly valuable and irreplaceable media. With each shot costing as much as into the thousands of dollars, media data backup is essential for production security. The DIT of a crew accomplishes this by hauling out several crates of equipment to a film site. By designing a small portable media transfer intermediary, the team hopes to condense the thousands of dollars worth of equipment and a crew member to a single, affordable, and reliable piece of equipment.

PROPOSED SOLUTION

To save thousands in equipment costs and to reduce the quantity of daily devices that technicians carry on set, the proposed AutoDIT system delivers a scalable high-speed media transfer intermediary device that is affordable and efficient in data management.

The entire system runs on modern 10th Generation Intel Core I7 processing power, that is housed in an enclosure with a color accurate 1200p resolution LCD screen, that is easy to carry between different film sites with an average rechargeable battery life of around 3 hours active and 3 hours idle time. It is capable of transferring data between multiple storage devices at USB super speeds of up to 10 Gbps.





SYSTEM DIAGRAMS

BACKGROUND

As video production becomes more accessible to the consumer, low-budget productions seek to scale down their project scopes and cost without having to resort to a reduction in quality. In order to accomplish this, productions have begun to look for alternatives to their current hardware and software setups that can offer new different levels of affordability.

RESULTS

Although several factors such as heat, type of connection & drive, and the formatted file system type limit the data transfer speeds between connected USB storage devices, the AutoDIT system is capable of transferring data at around 5-7 Gbps, when conditions are ideal, and with possible faster speeds depending on the type and size of data, the device can transmit up to a theoretical maximum of 10Gbps.

The AutoDIT is also capable of queuing several transfer operations at a time and run them according to the queue with the click of a button. The transfer operations can also run with optional checksum algorithms such as MD5, SHA1, SHA256, & SHA512 that add an extra layer of data protection and integrity. Supported File System Types include EXFAT, FAT32, HFS+, NTFS, and APFS. Supported Movie files are .mov, .mkv, .hevc, .avi. After every transfer, the system generates a pdf report that contains transfer details, thumbnails, and embedded iXML metadata of the files that were transferred.

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