**Application Study** 

# Match Your Intelligent Medical Systems with the Proper Storage

The latest advancements in the medical/healthcare fields demand that the proper storage is deployed in your system



With Innodisk's DRAM memory and Flash storage solutions, one medical technology company has successfully developed a breakthrough, high-resolution digital microscopy system with AI analytics.

#### Introduction

In the medical industry, a client looking to find a better way to perform laboratory diagnosis has developed an end-to-end digital microscopy system that can significantly improve the entire analysis process as well as the image quality. Thanks to their innovative medical technology and Innodisk's industrial-grade products and AIoT solutions, a breakthrough microscopy system has been unveiled.



# Our Roadmap to Success

# DDR4 2666 32GB ECC UDIMM

- $\cdot$  Fixed BOM
- $\cdot$  Original IC
- 100% tested and optimized
- Quality certificate: CE/FCC/RoHS
- Anti-sulfuration: a protective layer to safeguard the module from sulfur gases.

# 2.5" SATA SSD 3TG6-P

- High IOPS
- AES-256 encryption
- $\cdot$  End to end data path protection
- · iSMART disk health monitoring
- iData Guard for abnormal power failure
- iPower Guard for protecting unstable start up and shut down

# M.2 (P80) SSD 3TE6

- PCIe Gen. III x4, NVMe 1.3
- · DRAM-less Solution
- · Less Controller Heat
- $\cdot$  Anti-vibration mechanical design
- Hybrid Write Mode
- · LDPC ECC engine supported
- · iPowerGuard Protection

# Challenges

- Various disparate devices and components need to be connected while maintaining a high level of performance and stability.
- A large number of samples and specimens must be rapidly transmitted with no latencies.
- Imperceptible samples require high-resolution images at 100X magnification.
- High data capacity is needed for the microscopy system.

#### Solutions

- Bring all the required performance and stability with Innodisk's DDR4 ECC UDIMM, 2.5" SATA SSD and M.2 SSD series.
- Provide both the needed speed and capacity, as well as low latency.
- High quality IC is reliable for industrial-grade and medical applications.
- A fixed BOM guarantees product longevity and long-term supply.
- Support iSmart for disk monitoring and iData Guard to ward off failure should a power outage occur.

# Result

When designing a leading-edge microscopy system, do not overlook the memory subsystem, one that can be fully supported by Innodisk, a subsystem that brings all the necessary features. Our hardware design improves airflow inside the system and reduces thermal impact, ensures high performance and capacity, while the software tools manage and monitor disk health, and stay on the lookout for power failures. Now, the medical professionals can access AloT Cloud-to-Edge computing, with the ability to employ bigger and faster storage units.

# **Our Promise**

At Innodisk, we believe that any challenge can be overcome through cooperation. By maintaining a strong line of communication all the way from inquiry to implementation, we ensure a tailormade solution that fits your application. We remain committed to innovation with our continual focus on hardware, firmware, and software integration.

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