

Ensuring Safety Through Customization

Tailor-made mSATA SSD and Optimized DRAM for MRI Machines and NMR Equipment



Innodisk delivered a unique non-magnetic memory and storage solution that can be used near MRI machines.

Introduction

Anti-magnetic components are required if systems or devices are placed directly in the magnetic field present near MRI and NMR equipment. Safety becomes a major concern because, where extreme magnetism is present, even a small amount of magnetic response can cause catastrophic failures and injuries. To address these concerns, a client requested Innodisk to provide custom products with non-magnetic components.

Our Roadmap to Success

3ME4 mSATA SSD

- 128 GB of capacity
- Industrial-grade MLC flash
- Customized hardware that ensures that there is no magnetic response by any of the components

1866 DDR3 SODIMM

- 4 GB of capacity
 - Industrial-grade design
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Challenges

- The PCBA design must only include non-magnetic components
- The unwavering device stability needs to be unaffected by the use of alternative parts
- Effective monitoring of equipment and predictive maintenance are crucial features

Solutions

- Redesign of the SSD schematic and removal of magnetic components
- DRAM and storage devices manufactured under strict quality standards
- Innodisk's exclusive iSMART tool for efficient device health monitoring

Result

Even with the difficult conditions laid out by this application, the client achieved its design goals with Innodisk's tailor-made SSD design and DRAM modules optimized for stable and secure device operations. Combined with Innodisk's exclusive iSMART tool for seamless device monitoring, this solution provided the client with an easily-integrated solution that avoids the dangers of magnetic interference.