## APPLICATION NOTE COMMUNICATIONS



# SCSI drives with the latest in SATA technology

### **STORAGE MODULE**

LEGACY UPGRADE



This 6U "VME-like" disk module uses the latest drive technology in a backwards compatible form, fit and functional replacement module for use in optical switching equipment for the telecommunications industry. Variations of this product can be used in many applications requiring custom storage solutions.

- Dual drive module with one fixed and one front removable drive
- Fixed position 2.5" solid state drive and removable Compact Flash drive
- Combination SCSI to SATA and SCSI to ATA/ATAPI architecture supporting both drive options
- Live insertion capable at the board and Compact Flash level
- Front panel activity LED indicators for both drives
- NEBs compliant

### **Requirements**

Replace aging and outdated SCSI disk drive technology and replace PCMCIA storage with hot swap removable Compact Flash storage capability. Maintain operational compatibility with existing system architecture. Eliminate procurement problems associated with waning SCSI and PCMCIA drive supplies and production.

### Solution

Elma Electronic designed a form, fit and functional replacement for this digital storage module (DSM) used in optical switching equipment in the telecommunications industry. Using sophisticated dual channel sCSI to ATA and SCSI to SATA bridging technology, Elma engineers produced a technically modern version of the DSM with full backward compatibility software capability. The updated module replaced 3.5" rotating SCSI hard drives with cutting edge 2.5" SATA solid state drives and the PCMCIA card with CompactFlash drive technology.

### **Benefits**

The revised DSM alleviated procurement concerns related to 3.5" SCSI drive and PCMCIA card availability and support. Widespread availability and long life projections of SATA and Compact Flash drives help extend the service life for systems using the DSM. Significant enhancements in environmental durability were realized including improvements in temperature, shock and vibration tolerance as a result of replacing rotating drives with solid state drives. Raising the environmental bar of the DSM also reduced cost of ownership by increasing the mean time between failure (MTBF) rate. The module's form, fit and functional capability makes field replacement seamless and fast.