## DATA STORAGE UNIT

The Hi-SIDE Mass Memory Unit (MMU) is a flexible system which interconnects the IO, memory modules and data processing functions using an internal SpaceFibre network. Through its scalability the unit is adaptable to suit a broad range of input data rates and storage capacities as required by different missions. The unit implements emerging technologies for space applications which boost the system performance such as high-density and high-speed NAND Flash memory, high-speed serial links (SpaceFibre standard) and high-performance space-grade FPGA technology (Microsemi RTG4). High speed communication and high volume storage management is controlled and supervised by software using optimized HW/SW interfaces. The SSMM "speaks" three protocol variants for on-board communication, downlink and command and monitoring.

TARGET

INPUT DATA LINK UP TO 50 GBPS DATA RATE

STORAGE CAPACITY UP TO 64 TBIT

OUTPUT DATA LINK 10 GBPS FOR 4-LANE LINK
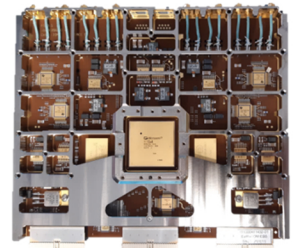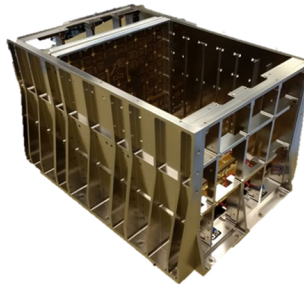
ACHIEVEMENTS

1 Mass Memory Unit EM Hardware with 16Tbit storage capacity available.

2 EGSE for functional and performance verification complete.

3 Implementation of SpaceFibre Interface complete.

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