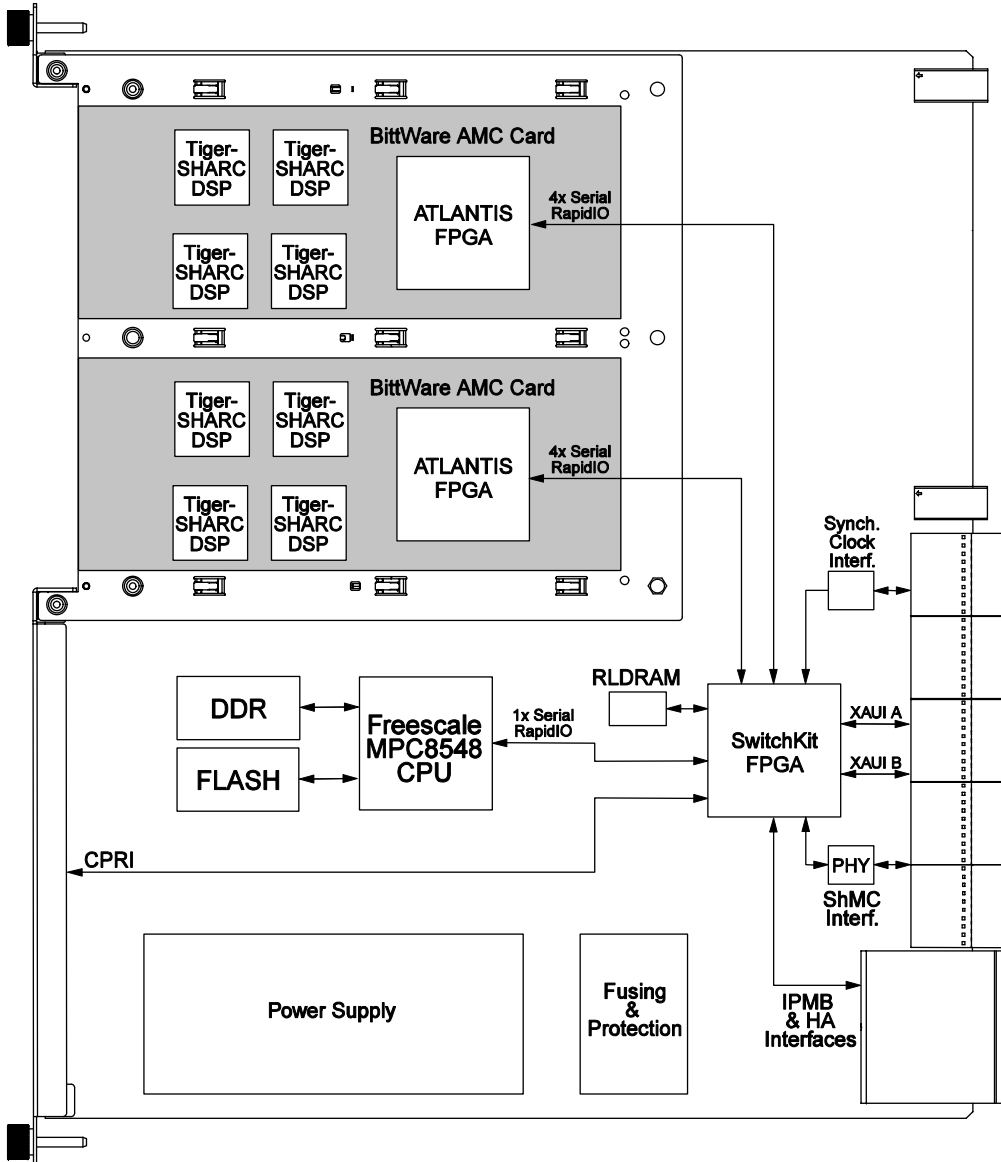


***SwitchKit*[™] Case Study: BTS Baseband Processing Card**

Application Requirements

- Two AMC based programmable baseband processing cards
 - Four TigerSHARC DSPs per card
 - BittWare ATLANTIS FPGA to interface DSPs to 4x serial RapidIO links
- Ethernet backplane interface for OBSAI compatibility
- CPRI radio interface
- Power-QUICC III for control plane functions
- Challenges:
 - Range of interfaces
 - 4x Serial RapidIO to AMCs
 - 1x Serial RapidIO on Power QUICC
 - Two XAUI Ethernet interfaces to the backplane
 - CPRI for radio data
 - High performance, shared memory, pool needed for data streams

SwitchKit Based Solution



- SwitchKit interface switch implements:
 - Three Port RapidIO switch for AMCs and Processor.
 - Load balances traffic between AMCs
 - Memory controller for shared data
 - Bridge to Ethernet backplane
 - CPRI Interface

Interface Switch Implementation

