Status Registers
- Core parameters
- Execution state (idle, running, done, cleared, etc.)
- Timer value

Control Registers
- Reset execution
- Clear axon events BRAMs
- Clear neuron URAMs
- Set core parameters
- Execute time step
- Continuously execute

Suggestions
- As per Alpha Data, use AXI interface 23 to access HBM since it is physically closer to the PCIe interface.
- Use AXI Bypass for higher throughput to HBM.
- Use AXI-Lite for writing to control registers and reading from status registers.
- Output axon events and spikes could possibly be routed via PCIe using card-to-host AXI Stream.