The BittWare 250-M2D is an FPGA-based Computational Storage Processor (CSP) designed to meet the draft M.2 Accelerator Module Hardware Specification standard. It is intended to operate in Glacier Point carrier cards for Yosemite servers. These feature-rich, dense servers are favored by hyperscale and cloud companies striving to improve the performance density and energy-efficiency of machine learning platforms.

Order your 250-M2D pre-configured with Eideticom’s NoLoad:
- Plug-and-play solution
- NVMe compatible and standards-based with no OS changes
- Reduced TCO/TCA - lower power and reduced IO
- CPU offload improves QoS up to 40x
- Disaggregates compute and storage into independently scalable resources
- CPU agnostic
- Reconfigurable accelerators, enabling scalable compute architectures

Learn more at www.eideticom.com

Order your 250-M2D pre-configured with Myrtle.ai SEAL accelerator for recommender systems:
- Rapid 8x scaling in processing capacity with the same server infrastructure
- 50% less CapEx required to build new processing capacity
- More content ranking within tight latency constraints means better recommendations and hence increased revenue
- Up to 80% reduction in energy consumption
- Easy to install
- Complementary to other accelerators
- Scalable

Learn more at www.myrtle.ai/SEAL
**Customization**
Additional specification options or accessory boards to meet your exact needs.

**Server Integration**
Available pre-integrated in our TeraBox servers in a range of configurations.

**Application Optimization**
Ask about our services to help you port, optimize, and benchmark your application.

**Service and Support**
BittWare Developer Site provides online documentation and issue tracking.

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**Specifications**

| **FPGA** | Xilinx Kintex UltraScale+  
| · KU3P in an B784 package  
| · Core speed grade -2  
| · Contact BittWare for additional FPGA options |
| **On-board DDR4 SDRAM** | Two banks of DDR4 SDRAM x 32 bits  
| · 8GB bank (16GB version also available)  
| · Transfer Rate: up to 2400 MT/s |
| **Host interface** | M.2 interface supporting Gen3 x4 PCIe |
| **Cooling** | Open Compute M.2 accelerator case optimized for cooling with passive heatsink |
| **Electrical** | Hot swapping tolerant  
| · Power dissipation is application dependent  
| · TDP: 14.85W max  
| · Module Absolute Peak Power (20us): 24W |

| **Environmental** | Operating temperature: 5°C to 50°C at module inlet  
| · Cooling: air convection |
| **Quality** | Manufactured to ISO9001:2008 IPC JSTD-001 -Class III  
| · RoHS compliant |
| **Form factor** | M.2 Accelerator Module Hardware Specification* (not designed for standard M.2)  
| * Opencompute.org/wiki/Server/Working |

| **Development Tools** | **FPGA development**  
| · BIST - Built-In Self-Test for CentOS 7 provided with source code (pinout, gateware, PCIe driver and host test application) |
| **Application development** | Xilinx Tools - Vivado Design Suite HLx Editions: HDL and C/C++ with HLS |
| **PCIe carrier card** | PCIe carrier card allowing 250-M2D to be populated in a standard PCIe slot for lab development |

| **Deliverables** | 250-M2D FPGA board  
| · Built-In Self-Test (BIST)  
| · Eideticom NoLoad pre-installed (optional)  
| · Myrtle.ai SEAL pre-installed (optional)  
| · 1-year access to online Developer Site  
| · 1-year hardware warranty  
| · Contact BittWare for extended warranty and support options |

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To learn more, visit [www.BittWare.com](http://www.BittWare.com)

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