



Inventec X680m CXL Memory Accelerator

Agilex™ 7 I-series FPGA-based CXL accelerator

Highlights

- **Lower TCO by memory virtualization**
- **Low latency, high performance**
- **CXL Memory Config:**
 - **Memory: 2 ch DDR4 64GB**
 - **Storage: 2 slots M.2 22110 4TB**
- **FH, 3/4L, PCIe Gen5x16 CEM, Single Width**
- **Built in 4-core ARM-A72 processor with dedicate boot RAM & Flash**



Data Center



Enterprise



Cloud Service

In cloud service environments, memory and storage performance requirements have been driven by growth in high-speed computing and data transmission needs, especially for the computing-intensive applications in terms of Artificial Intelligence or Machine Learning work load. The increasing system DRAM capacity demand induced the higher TCO of IT equipment became pain point of many companies. Moreover, in the traditional structure, system memory is directly linked to a CPU or GPU and can't be shared by others, which causes inefficient DRAM usage in most of the time.

Inventec X680m CXL Memory Accelerator offers new breakthrough high-speed CPU to device interconnection, memory scalability and performance optimization within single width PCIe-Gen5-x16 CEM form factor. CXL protocol enables memory expansion, pooling and sharing solutions to enhance system memory utilization. X680m uses CXL-compliant Altera Agilex™ 7 I-series FPGA controller which provides lower latency and high-performance CXL interface. Combining memory tiering technology with on-board storage and Networking interfaces, X680m facilitates lower cost NVME SSD operating as virtualized system DRAM to replace up to 50% system memory capacity and bring significant TCO reduction and best cost performance application to enterprises and Cloud Service Providers.



Inventec X680m CXL Memory Accelerator

Model Name	Inventec X680m
Form Factor	Single Width; FH, 3/4L
Controller	Agilex™ 7 FPGA
Storage	2 x M.2 22110 slots (up to 4TB)
CXL/PCIe Channel	CXL/ PCIe Gen5 x16
Memory	2 channel 8GB(64 + 8bits)Width
ARM HPS DRAM DDR4: 3200	1 channel 8GB(64 + 8bits)Width
FPGA Boot Media	qSPI
ARM: Boot Media	eMMC(32GB)
Network	1 x 100Gbps_QSFP-DD
HPS Debug	RJ45
TTY to USB	Micro USB

About Inventec Data Center Solutions (Inventec EBG)

Inventec Data Center Solutions (Inventec EBG) was established in 1998 and has been focusing on the design and manufacturing of server systems in Inventec Corporation. Over decades, Inventec EBG has been the key server system supplier of the global branding clients.

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