Data sheet

HP ProLiant m800 Server Cartridge

Workload-specific server cartridges for the HP Moonshot System

HP Moonshot System: the first software-defined server

Only in the Discovery Lab

The foundation you need to compete in a new era of computing
The growth of Social Media, mobile computing, e-commerce, and Big Data is actually being restricted by the very thing that is supposed to enable it: infrastructure. HP Moonshot System addresses modern IT workloads with a new class of software-defined servers. These workload-optimized servers provide maximum scalability, efficiency, density, and simplicity while requiring less power, space, and environmental cooling, and fewer system management resources than traditional servers.

Customize HP Moonshot System for specific workloads
The HP Moonshot System uses energy-efficient CPUs that balance performance and cost to match the needs of very specific applications through the use of workload-specific cartridge servers. The HP Moonshot System with the HP ProLiant m800 server cartridge was designed for applications that perform analysis or processing on streaming data, such as telecommunication and seismic processing. The HP ProLiant m800 server cartridge has four Texas Instruments KeyStone II based 66AK2H System on Chip (SoC) servers featuring four ARM® A15 cores and eight C66x DSP cores per processor with 32 GB (8 GB per SoC) of memory on a compact cartridge.

Massive power meets unparalleled efficiency

HP Moonshot System delivers maximum density with unparalleled power efficiency—requiring up to 89 percent less energy, 80 percent less space, and 77 percent less cost than traditional servers.[1] The key is the way HP ProLiant Moonshot System Server cartridges deliver workload specialization—efficiently and easily aligning just the right amount of compute, memory, storage, and scalability.

- **Cost-effective and efficient mobile processing**—Accelerating the transmission of signals/data and easing the transition from 3G to 4G.
- **Accelerated seismic processing**—Keeping processing costs and energy use down for highly compute-intensive oil and gas industry processes.

HP Moonshot Concierge Services

HP provides the specialized consulting services and advanced infrastructure support these extremely scalable, highly dense environments require through the HP Moonshot Concierge Services program. It includes educational tools and services to help you effectively implement your HP Moonshot system, including HP Technology Services, HP Foundation Care and HP Datacenter Care. Every Moonshot chassis comes with warranty and Canonical Ubuntu operating system support.

See HP Moonshot System in action at an HP Discovery Lab
The new HP Moonshot Concierge Services program also offers select customers and partners direct access to technology, industry experts and peers through the HP Discovery Labs. These collaborative facilities allow for experimenting, testing and benchmarking of applications on HP Moonshot development systems, as well as traditional servers.

HP Discovery Labs offer access to all HP Moonshot servers and options, offering great value to a solution's preproduction phase to determine how it will perform. In addition, onsite testing of future HP Moonshot infrastructure allows you to confidentially gauge applications suitability on current and evolving HP server technology. HP Discovery Labs are now open in Singapore, Purdue University, Houston, TX and Grenoble, France, with plans to add more locations around the world.

[1] Based on the HP ProLiant Moonshot Server Cartridge vs. traditional servers, HP engineering internal research

Processor	Texas Instruments KeyStone II based 66AK2H System on Chip (SoC), 1.0 GHz Quad Cortex-A15 processors with Eight C66x DSP cores (per SoC)
Cache memory	1 MB L2 cache per C66 DSP core
Memory	
Type	DDR3 PC3-12800 SDRAM (1,600 MHz)
DIMM slots available	4 SODIMM slots
Maximum configuration	32 GB (4x8 GB)
Network controller	Integrated into the SoC
Storage controller	SATA mezzanine card, with aggregators
Maximum internal storage	32 GB iSSD per SoC via Mezzanine Storage Kit
Interfaces	• Cartridge Link LED/button • Cartridge UID LED/button • Cartridge health LED • Cartridge power LED/button
Industry standard compliance	• U-Boot • PCIe 2.0
Operating systems and virtualization software support for HP ProLiant Servers	Canonical Ubuntu Note: For more information on HP's Certified and Supported HP ProLiant Servers for OS and Virtualization Software and latest listing of software drivers available for your server including how to purchase from HP, please visit our OS Support Site at: hp.com/go/ossupport and our driver download page: hp.com/go/servers/Moonshot/download.

Customize your IT lifecycle management, from acquisition of new IT, management of existing assets, and removal of unneeded equipment.
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