

# Advanced Micro Devices 64-Bit Opteron Design Note #37 Triple Processor Video Server



Three high-powered 64-Bit AMD Opteron processors together with three double-wide PCI-Express Video Slots make the most demanding simulations possible.

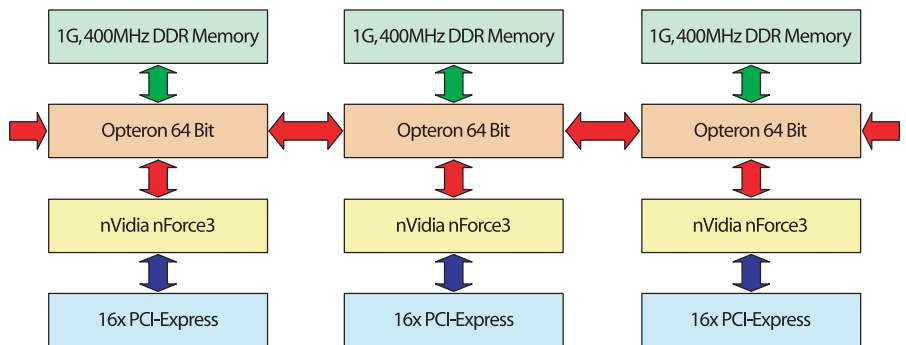


## Advanced Micro Devices Opteron 64-Bit CPU

When Advanced Micro Devices approached Orchid Technologies to perform the design of its Triple Opteron 64-Bit Video Server we realized that this would be one of the most powerful video processing computers ever designed. Each 64-Bit AMD Opteron Processor connects to its neighbor through two dedicated, extremely high-speed HyperTransport links. Each 64-Bit AMD Opteron Processor also connects to its own dedicated NVIDIA nForce3 media and communications processor (MCP). Finally, each MCP supports its own dedicated, high-speed sixteen-lane PCI-Express video slot.

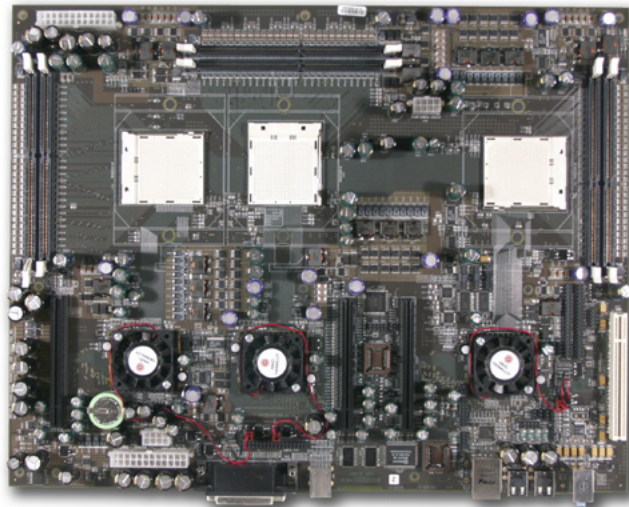
## nVidia nForce3 MCP

nVidia's nForce3 Media and Communications Processor (MCP) provide dedicated support services to each AMD 64-Bit Opteron Processor. Three dedicated high speed HyperTransport links connect three AMD 64-Bit Opteron Processors to three nVidia nForce3 MCP devices. Each nVidia nForce3 MCP supports a dedicated, high-speed, sixteen-lane PCI-Express video slot.



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"We chose Orchid Technologies because of its well known reputation for high quality design services. Power-up was flawless and no board rework required! Orchid's attention to detail is incredible."

- Engineering Manager



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