NVIDIA NVFORCE2 MCP SPECIFICATIONS

• NVIDIA Communications Suite
  • USB 2.0
  • RAID USB 2.0 Enhanced Host Controller Interface (EHCI) / Dual USB 1.1 Open Host Controller Interface
  • Support for up to 6 ports
  • Supports transfer rates at high speed (480 Mbps), full speed (12 Mbps), and low speed (1.2 Mbps)
  • Dynamically configures slower devices to the best utilization of bandwidth
  • Allows USB concurrency
  • NVIDIA IDE 2.3.x.MAC
  • HomePNA

NVIDIA StreamThru

• NVIDIA IDE 820.3.MAC
• Supports 10/100BASE-T Ethernet / Fast Ethernet
• Supports HomePNA 2.0 PHYs
• ACR and CNR interface support
• Isochronous controller paired with HyperTransport results in fastest networking performance
• Dual Fast Ultra ATA-133 Disk Drive Controllers
  • Supports Ultra DMA modes 6-8 (Ultra 100)
  • Supports up to two codecs
• Industry-standard PCI bus master IDE register set
• Separate independent IDE connections for SATA-parallel primary and secondary interfaces

HyperTransport
  • High speed (400MB/sec)
  • Low voltage
  • Differential
  • Low pin count interface
  • Isochronous link between SPP/SIP and the southbridge

AC ’97 2.1 Compliant Interface

• Supports 2, 4-, or 6-channel audio
• Dual AC-link—Supports up to two codecs
• 16-bit or 20-bit stereo output and 16-bit stereo streams
• Supports input, output, and SPDIF channels for host-based modems
  • Separate independent functions for audio and modem
  • Supports ACR and CNR interface
  • SPDIF output (Stereo or AC-3 output)

ADDITIONAL NVIDIA NVFORCE2 MCP SPECIFICATIONS

• NVIDIA Audio Processing Unit (APU)
  • Dolby Digital Interactive Content metadata
  • Hardware DirectX 8.0 audio processor
  • 256 total voices
  • 3D sound
  • Downloadable sound level 2 acceleration (DL2)
  • 32 bit mixer (8 voice volumes mapped to each bin)

NVIDIA Enhanced Communications

• IEEE 1394a/FireWire
  • Fully compliant with IEEE 1394a/FireWire specification release 1.1 and with provisions of IEEE 1394-1995 and IEEE 1394-2000
  • Compatible with Microsoft Windows Plug and Play (PnP)

• NVIDIA DualNet
  • Concurrent operation of two 10/100
  • BASE-T Ethernet/Fast Ethernet Ports
  • Supports 10/100BASE-T Ethernet / Fast Ethernet
  • Supports HomePNA 2.0 PHYs
  • ACR and CNR Interface Support
  • 3Com IEEE 820.3.MAC
  • Supports 10/100BASE-T Ethernet / Fast Ethernet
  • 3Com commercial networking feature set for corporate environments

StreamThru

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ADDITIONAL NVIDIA NVFORCE2 RAID GABIT MCP SPECIFICATIONS

• Gigabit Ethernet
  • Integrated 100/1000 Mbps third generation NM MAC
  • Jumbo Ethernet frame support (up to 9000 bytes)

• Checksum offloads (IP, UDP, and TCP)
• TCP segmentation offload
• IEEE 802.3x flow control
• Traffic prioritization (IEEE 802.1p/Q)
• Wake-on-LAN support
• Capable of waking from S5 or S3
• Remote wake-up (PME)
• Network management (CPL, WLI, and WMI scripts)
• Alert Standard Format (ASF)
• IPg
• Security
  • NVIDIA Firewall technology

• 2 additional USB 2.0 ports, for a total of 8

• SATA ATA Controller
  • Supports 2 Serial ATA drives with transfer rates up to 150MB/sec.
  • Low Power connectivity

• RAID Controllers
  • Supports SATA PPH power-down capability
  • Supports SATA hot plug

NVIDIA RAID
  • Support for RAID 0, 1, 0+1 and JBOD
  (just a bunch of disks)
  • Single RAID across controllers
  • Shared or dedicated
  • Booting from a RAID drive
  • Separate independent functions
  • Advanced GUI

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NVIDIA RAID MCP SPECIFICATIONS

The DIGITAL MEDIA PLATFORM

With the proliferation of residential gateways, DVD players, digital cameras, Gigabit Ethernet, and inexpensive hard drives, and broadband connectivity for high-speed Internet access, it’s clear that PC’s have entered the contemporary, digital dimension. From playing interactive 3D games, to editing home movies, to browsing a collection of music MP3 files, today’s PCs are faced with the challenge of keeping up with life’s digital demands.

NVIDIA’s NVforce™ processors bring a new level of performance to multimedia and communications applications. By merging the AMD Athlon® XP-based PC’s powerful processing capabilities with NVIDIA’s GeForce™ 4 graphics processors, NVIDIA has created a truly remarkable platform to handle the most demanding multimedia applications.

NVIDIA RAIDXPS™ is the first PCI-based RAID controller to support RAID 0, 1, 0+1 and JBOD just a bunch of disks. This highly integrated RAID controller eliminates bottlenecks and provides an easy-to-use, high-performance storage solution for today’s digital media environments.

NVIDIA® GeForce™ 4 series graphics processors bring a new level of performance to multimedia and communications applications. By merging the AMD Athlon® XP-based PC’s powerful processing capabilities with NVIDIA’s GeForce™ 4 graphics processors, NVIDIA has created a truly remarkable platform to handle the most demanding multimedia applications.

NVIDIA Unmatched performance for PC’s, graphics motherboards, and processor motherboards designed with NVIDIA nForce2 processors. NVIDIA has the power to deliver an amazing digital media experience. NVIDIA nForce2 MCP incorporates dual-400MHz DDR memory controllers delivering twice the bandwidth of typical AMD Athlon XP-based systems, an optimized 128-bit architecture including advanced memory technology, and 400MHz front-side bus (FSB) support for up to 2GB of memory. With its efficient memory design, and support for a staggering 1GB of high-performance DDR memory, the NVIDIA nForce2 processors eliminate system bottlenecks and accelerate everyday multimedia rich applications to help you work and play faster. The NVIDIA nForce2 uses an advanced PCI-Express architecture with 3.3V DDR, coupled with a 400MHz FSB and PCI-X 133x, to enable the industry’s best graphics performance from a mainstream processor. NVIDIA nForce2 series on a single 64-bit memory channel to deliver 400MHz FSB and DDR-400 performance to the mainstream PC user. The nForce2 series provide multiple multimedia and communications features to fit every budget and every feature set a consumer may need.

THE ULTIMATE IN CONNECTIVITY

The NVIDIA nForce2 MCP also delivers the industry’s fastest and most versatile suite of network security, and connectivity solutions. With support for up to eight USB 2.0 ports, Ultra ATA-133, RAID A& B, and Serial ATA as fast-and safe hard drive throughput, and FastEthernet® serial bus for super-fast digital video and editing capabilities, NVIDIA nForce2 offers the most complete digital content support available today. From digital video editing to scanning, to optical keyboards and mice, only NVIDIA nForce2 provides dedicated bandwidth for both digital content networking and secure, safe desktop computing.

NVIDIA’s nForce2 MCP series also includes NVIDIA DualNet™ technology. DualNet integrates both the industry-standard 3Com and NVIDIA networking technologies—proven to an exceptional or independently or simultaneously for the fastest networking experience possible—creating the ultimate in-office/home office gateway. For applications that demand superior networking performance, NVIDIA nForce2 offers the fastest Gigabit Ethernet performance available today. Integrated into NVIDIA’s nForce2 MCP with NVIDIA Gigabit Ethernet, NVIDIA FireWire—a high-performance, network-level firewall—protects your PC from intruders by filtering unauthorized traffic. It provides professional-grade traffic inspection capabilities, advanced management features—remote access, configuration, and monitoring—and is easy to use and manage.

ROCK-SOLID SOFTWARE

The robust NVIDIA ForceWare™ unified software environment delivers unmatched platform stability to NVIDIA nForce-based systems. A single NVIDIA ForceWare™ driver simplifies software updates and lowers total cost of ownership, and continual performance and feature improvements ensure maximum performance with its industry leading platform technologies. Through its comprehensive set of software tools and industry-leading platform technologies, NVIDIA’s ForceWare platform software delivers high-speed system performance, unprecedented security, and incredible audio functionality for high-definition systems.

SCREAMING GRAPHICS

NVIDIA GeForce® 4 series graphics processors deliver incredible graphics performance and the most comprehensive set of features. The GeForce® FX series provides NVIDIA’s AcceleRay™ rendering technology that takes 3D graphics to the next level—time-based performance, compatibility, and visual quality at all natively resolutions, plus a dedicated video processing engine (VPE) that provides the highest quality, full-frame real-time playback. The NVIDIA nForce4® hardware and software technology combination delivers superior analog and digital audio performance and allows for the connection of multiple configurations of DVI, USB, and FireWire without requiring any additional hardware. Upgrading to a high-performance graphics processor is as easy as the additional AGP slot—the fastest graphics interface available today.

DIGITAL 3D AUDIO

Only NVIDIA nForce2 provides users with a full range of audio solutions including low-cost integrated AC ‘97 audio, the NVIDIA nForce audio processing unit (APU), or the state-of-the-art NVIDIA SoundStorm™ audio solutions. The integrated NVIDIA nForce audio API performs the world’s most advanced 3D audio functions and delivers cutting-edge audio features normally reserved for enterprise systems. NVIDIA’s nForce2 series audio solutions are optimized for the latest 3D audio standards. For digital music enthusiasts, the NVIDIA SoundStorm™ audio solution delivers cutting-edge audio features normally reserved for enterprise systems. NVIDIA’s nForce2 series audio solutions are optimized for the latest 3D audio standards. For digital music enthusiasts, the NVIDIA SoundStorm™ audio solution delivers cutting-edge audio features normally reserved for enterprise systems.

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NVIDIA DualDDR Memory Architecture

NVIDIA GeForce4 MX GPU (IGP)

processors make hard work easy.

features and a versatile multi-display performance, streamlined management functionality, increased system performance.

By delivering a complete suite of advanced digital media devices to your PC and access to videos, and pictures. NVIDIA nForce2 allows you to easily upgrade your graphics board to the latest NVIDIA GPU technology. The NVIDIA nForce2 has the ability to playback favorite MP3 tunes, or watch DVDs in full Dolby Digital 5.1 surround sound, or even play music in Dolby Digital 5.1 format for full surround sound effects, and with its processing power of up to 256 simultaneous audio streams, you can truly hear what you can’t see.

AMAZING ONLINE EXPERIENCES

Whether playing your favorite game online with friends or having an all-out “frag-fest” in your home, NVIDIA nForce2 is the platform for you. Featuring NVIDIA nForce2 platform processors with the latest NVIDIA technology and NVIDIA Gigabit Ethernet, PCs equipped with NVIDIA nForce2 deliver high-speed networking for no-lag gaming, plus the ability to easily share music, video, and photos.

NVIDIA nForce2 SPECIFICATIONS

° MPEG-2 hardware decode, including inverse discrete cosine transform and motion compensation
° NVIDIA ForceWare Platform Software
° ForceWare platform driver based on the NVIDIA Unified Driver Architecture
° NVIDIA System Utility
° NVIDIA RAID technology
° NVIDIA RAID Access Manager
° AXP BI Interface
  ° Compliant with AXP 3.0, 3.0X, and 4X, with Fast Write data transfers
  ° Supports AXP 2.0 for 4X, 2X, and 1X modes
  ° Multiplexed with external DVI interface signals
° Integrated TV Encoder (IGP)
° Support for various worldwide formats
° Composite and S-video output modes
° Display resolution up to 1024x768
° Full Macrovision™ 7.11 encoding for DVD compatibility
° Fully programmable 5-tap horizontal and vertical upscaling and downscaling to TV resolutions
° External DVI Interface (IGP)
° Clock speeds up to full DVI specification of 165MHz (up to 1400x1200 at 60Hz in single link mode, up to 330 megapixels/sec. in dual-link mode)
° Multiplexed with AXP 8X interface
° Integrated Clock Synthesizer
° Supports all FSB and memory bus asynchronous frequency combinations
° Independent overclocking of CPU, REM, and ACP clocks
° Power Management
° BIOS or ACPI S1
° Supports DRAM or ACPI S3
° Suspend to disk (STD) or ACPI S4/S5
° Supports C0 and C1 states
° Support for shutdown of internal IOM
° ACPI 2.0 compliant
° HyperTransport® Technology
° HyperTransport 64/32/16/8/4/2/1/0 (H/8/4/2/1/0)
° Low voltage
° Differential
° Low pin count interface
° Isochronous link between SP/GPI and ACPI
° CPU Interface
° Supports AMD Athlon/Duron CPU
° 400/533/666 MHz FSB clock
° FSB clock and memory clock can be operated asynchronously
° DDR400/333/266/200 support
° 64-byte (cache line) data burst transfers (32-bit burst)
° ...