

Application: NAS Controller
Pericom Device: PI6CV857BA 2.5V 1:10 SSTL_2 PLL Clock Driver

Overview

Data storage expansion is a major concern for today's enterprise systems. The pace of customers needs for mass storage is increasing along with the demand for more speed and bandwidth. Network Attached Storage (NAS) is the alternative solution to adding disk drives and servers to existing networks to increase storage capacity. NAS appliances expand storage capacity independent of servers, and provide a simple, cost-effective solution without incurring any down-time during installation.



PI6CV857B Application Block Diagram

Pericom Solution

NAS systems use a highly specialized processor to maximize throughput and minimize packet processing time in order to achieve the best performance. The most recent generation of NAS processors take advantage of the high-performance, low cost, and high density aspects of DDR SDRAM. Pericom PI6CV857B is well suited for this application. Every PI6CV857B offers 10 outputs capable of directly driving up to 40 DDR SDRAM devices. Up to 10 Giga-Bytes for 256M x 8 memory configuration. The 200 MHz PI6CV857B has plenty of margin to support DDR200, DDR266, and DDR333 (PC1600, PC2100 and PC2700). For added reliability, the PI6CV857B comes in an Industrial temperature version.



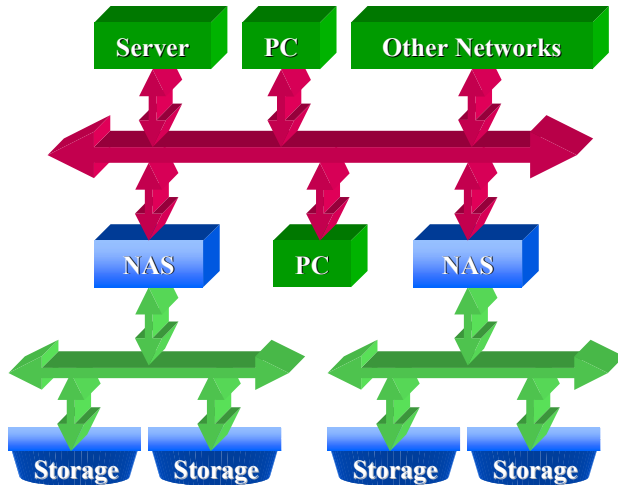
Low End and Mid Range Rack Mount NAS



High-Performance, Fabric Switch based NAS

Key Features & Specifications

- ❑ High Frequency: 200 MHz
- ❑ Low Cycle Jitter: ± 50ps
- ❑ Low Phase Offset: ± 50ps
- ❑ Low Output-to-Output Skew: 75ps
- ❑ Output Cross Over Voltage: 100mV
- ❑ Optimal Slew Rate: 1.0 ~ 2.0 V/ns
- ❑ Industrial Temp. (-40°C ~ +85°C) version
- ❑ Spread Spectrum Compliant
- ❑ Low-Voltage, 2.5V Power Supply
- ❑ Low Profile 48-Pin TSSOP Package
 - <http://www.pericom.com/packaging/mechanicals.php>
 - <http://www.pericom.com/packaging/A48.pdf>



Example of NAS Network Connectivity

Key Benefits

- Surpasses JEDEC Specifications
- 200 MHz
- Low Profile 48-pin TSSOP Package
- Industrial Temperature Version

Product Status

Samples: NOW
Production: NOW
Lead-Time: 4 Weeks

Additional Information

- Datasheet:
 - <http://www.pericom.com/specs/PI6CV857B.pdf>
- IBIS:
 - <http://www.pericom.com/ibis/6cv857ba.ibs>
- Application Notes:
 - [Interface single-ended signal to DDR devices](#)
 - [Frequently Asked Questions on DDR Applications](#)
 - [Procedure for DDR Clock Skew and Jitter Measurements](#)
- Product Presentation
 - http://www.pericom.com/presentations/PI6CV857B_ow.pdf
- Product Guide / Databook CD
 - <http://www.onfulfillment.com/pericom>

Contact Information

Application Support:

<http://www.pericom.com/support/apps.php>

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