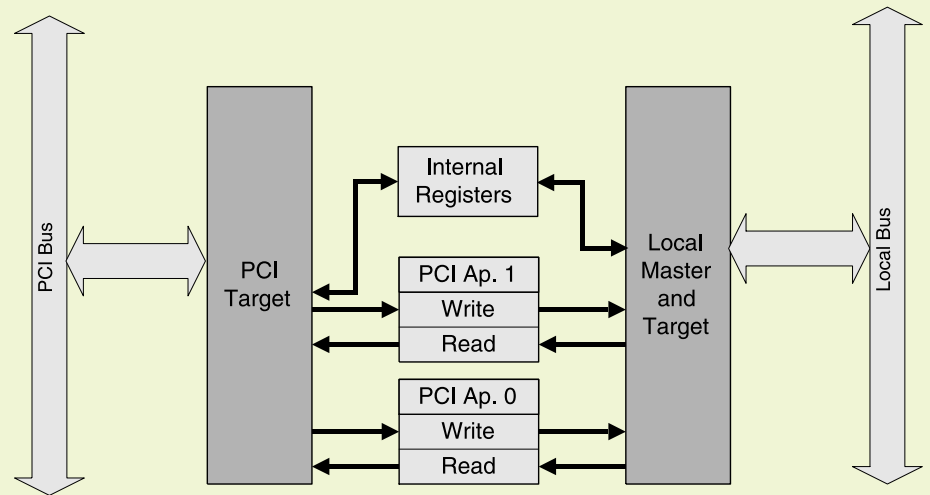# V300PSC Rev A0

PCI BUS TARGET INTERFACE
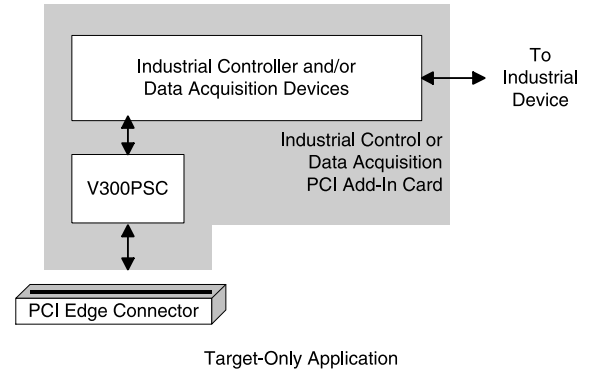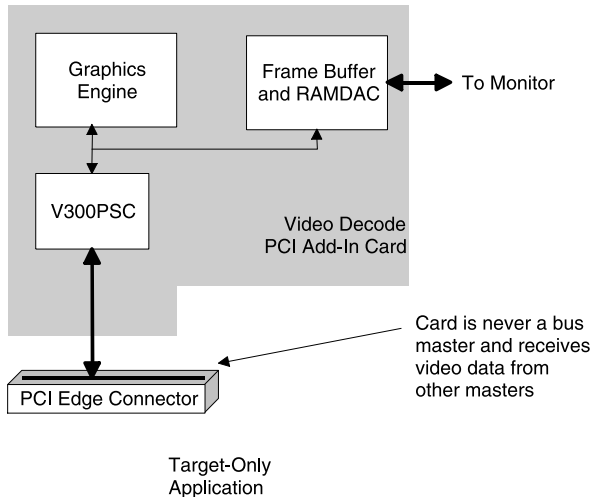

BLOCK DIAGRAM

- A general purpose PCI bus target interface

- Multiplexed and de-multiplexed local bus

- 32-, 16-, or 8-bit local bus interface with 16 programmable region size registers

- Fully compliant with PCI 2.1 specification

- Up to 1Kbyte burst access support on both local and PCI interfaces

- Large, 320-byte total FIFOs using V3's unique DYNAMIC BANDWIDTH ALLOCATION™ architecture

- On-the-fly byte order (endian) conversion including automatic byte swapping

- Flexible address space mapping

- Programmable PCI and local interrupt management

- Support for real-mode DOS "holes"

- Optional power-on serial EEPROM initialization

- 40MHz local bus with independent PCI bus operation up to 33MHz

- Industrial Temperature range (-40C to +85C)

- 3.3v operation support

- Hot swap support

V3 SEMICONDUCTOR
THE EMBEDDED CHIPSET COMPANY

BLOCK DIAGRAMS

Graphics Engine — Frame Buffer and RAMDAC → To Monitor

V300PSC

Video Decode PCI Add-In Card

PCI Edge Connector

Card is never a bus master and receives video data from other masters

Target-Only Application

Industrial Controller and/or Data Acquisition Devices → To Industrial Device

V300PSC

Industrial Control or Data Acquisition PCI Add-In Card

PCI Edge Connector

Target-Only Application

TYPICAL APPLICATIONS

GENERIC 32-, 16-, 8-BIT TARGET APPLICATION | V96BMC V96SSC MEMORY | DRAM | ROM

V300PSC PCI to LOCAL BUS BRIDGE | PCI PERIPHERAL | PCI SLOT or EDGE CONNECTOR
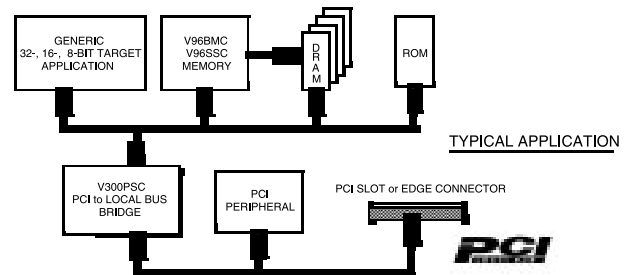
TYPICAL APPLICATION

Two unique features of the V300PSC make it the highest performance PCI Slave Controller on the market. One is the size of the FIFO structure; 320 bytes of FIFO storage gives you plenty of buffering to handle continuous transfers of large data streams without tying up the local or PCI buses. The DYNAMIC BANDWIDTH ALLOCATION™ feature of the FIFOs allows you to adjust the "draining" and "filling" of the read and write FIFOs to most efficiently meet the requirements of the data streams. You can balance your bus utilization to maximize overall system performance. The priority of reads, writes, and FIFO flushes can be independently programmed to maintain strict coherency.

The V300PSC is the most economical and flexible way to add PCI connectivity to inexpensive applications like cost sensitive networking products, graphics controllers, sound cards, and industrial control and data-acquisition devices. The V300PSC also provides a pin-compatible and register compatible seamless upgrade path to our full PCI Bridge Products.

The V300PSC from V3 Semiconductor is the ideal PCI Slave controller for migrating devices from the legacy buses such as ISA to the PCI bus.
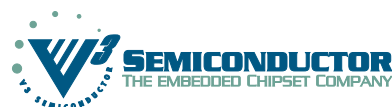
ABOUT V3 SEMICONDUCTOR

V3 Semiconductor has been providing embedded systems designers with innovative products since 1987. V3 products are supported throughout North America, Europe, the Middle East and the Far East by a network of distributors and manufacturers' representatives.

For more information on the V300PSC, or our other i960® and PowerPC™ processors support components, please contact:

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