



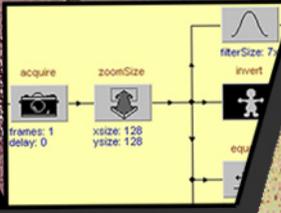
Storage PSMOD Family

Vision By
MaxPCI®



Scalable Storage and Added Processing Power

- Greatly increases storage capacity and number of gateways (Storage 96 more than triples memory of MaxPCI)
- Ideal for applications using high-end sensors that generate large images or many bits per pixel
- Family includes: Storage 96 (6x16 MB) and Storage 64 (4x16 MB)
- Each VSIM provides additional pipeline processing resources



The Storage PSMODs (processing and storage module) expand the image processing capabilities of the Datacube boards on which they are installed by providing additional VSIM memories. The increased memory surface gateways and storage capacity provided by these additional VSIMs can be used to support more complex pipelines, larger images, or cine-loops.

The Storage PSMOD family includes:

- **Storage 96** with six 16 MB VSIMs
- **Storage 64** with four 16 MB VSIMs

In addition to being surface stores each VSIM has a crosspoint switch, statistical processor, LUT, and ALU, allowing them to perform additional pipeline processing functions at 40 MHz.

On MaxPCI, Storage PSMODs can be installed using any available PSMOD connector. The PSMOD connections provide power as well as four input, four output, and four bidirectional connections to the motherboard's crosspoint switch. This allows the Storage PSMODs to be easily integrated into even the most complex image processing pipelines.

Features

- Pipeline grayscale video transmit and receive over the PSMOD connector at 40 MB/second
- Pipeline binary video transmit and receive over the PSMOD connector at 40 Mbit/second

- Independent ROI timing buses for each gateway from the Storage PSMOD to the motherboard
- Master or slave ROI timing for each gateway
- Transmit and receive interrupts
- Memory mapped 4 MB host image access to memory
- Big endian/little endian swapping of bytes, programmable per memory
- Common port allocation and register space definition across the product line, allowing ImageFlow software to remain the same
- Interrupt status and interrupt enable registers as required by PSMOD specification
- EEPROM for storage of hardware configuration information as required by PSMOD specification

Specifications

Physical Specifications

Height: 0.31 inches (8 mm)
 Length: 4.50 inches (114 mm)
 Width: 2.69 inches (68 mm)
 Weight: 2.33 ounces (66.0 g)

Power Requirements (all voltages ±5%)

Storage 96

+3.3 Volts 250 mA (typical)
 +5.0 Volts 2.25 A (typical)
 12.08 Watts Total (typical)

Storage 64

+3.3 Volts 250 mA (typical)
 +5.0 Volts 1.75 A (typical)
 9.58 Watts Total (typical)

Environmental Specifications

Operating Temp.: 0° to 55° C (32° to 131° F)

Maximum Chip Case Temp.: 85° C (185° F)

Storage Temp.: -40° to 100° C (-40° to 212° F)

Relative Humidity: 10% to 90% (non-condensing)

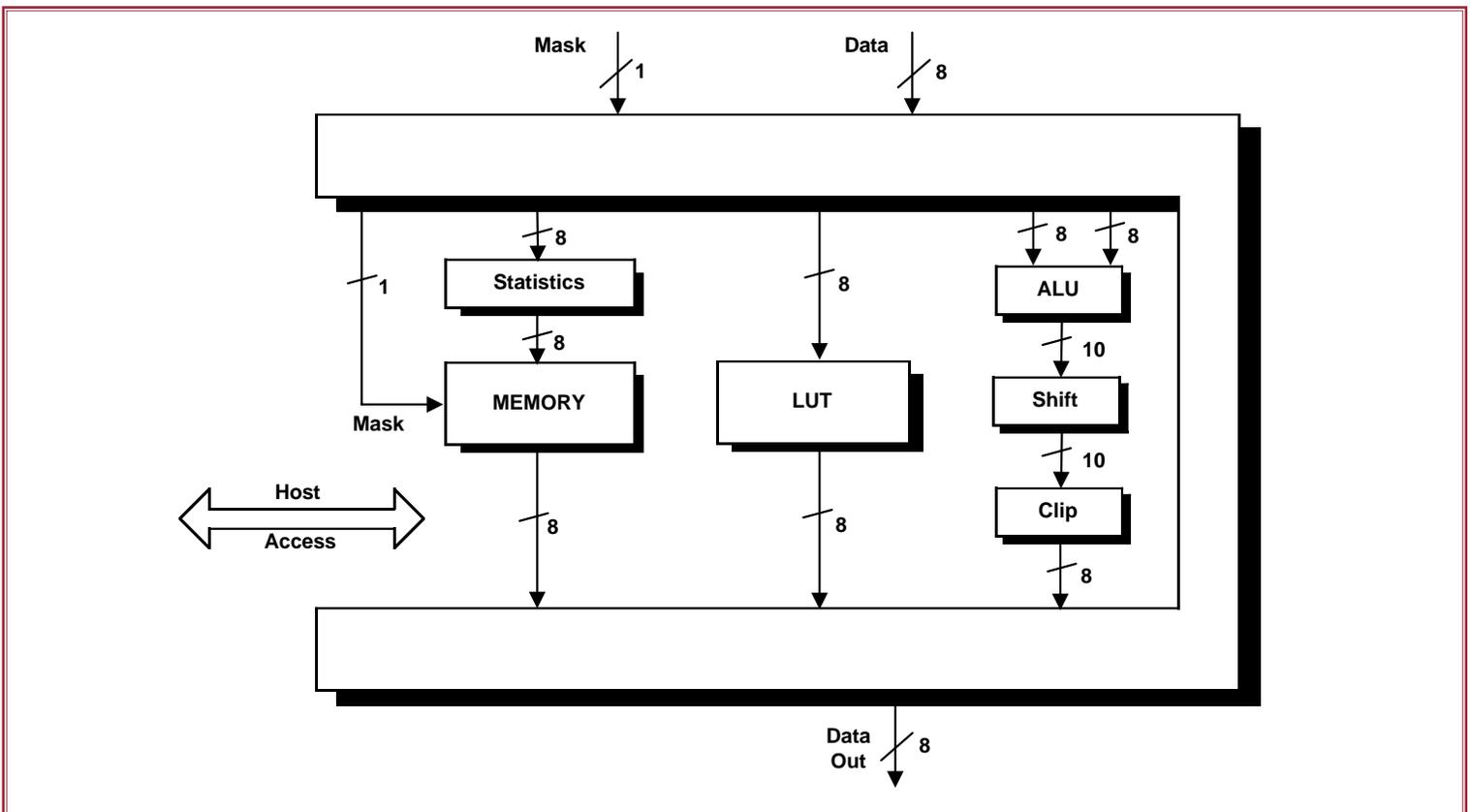
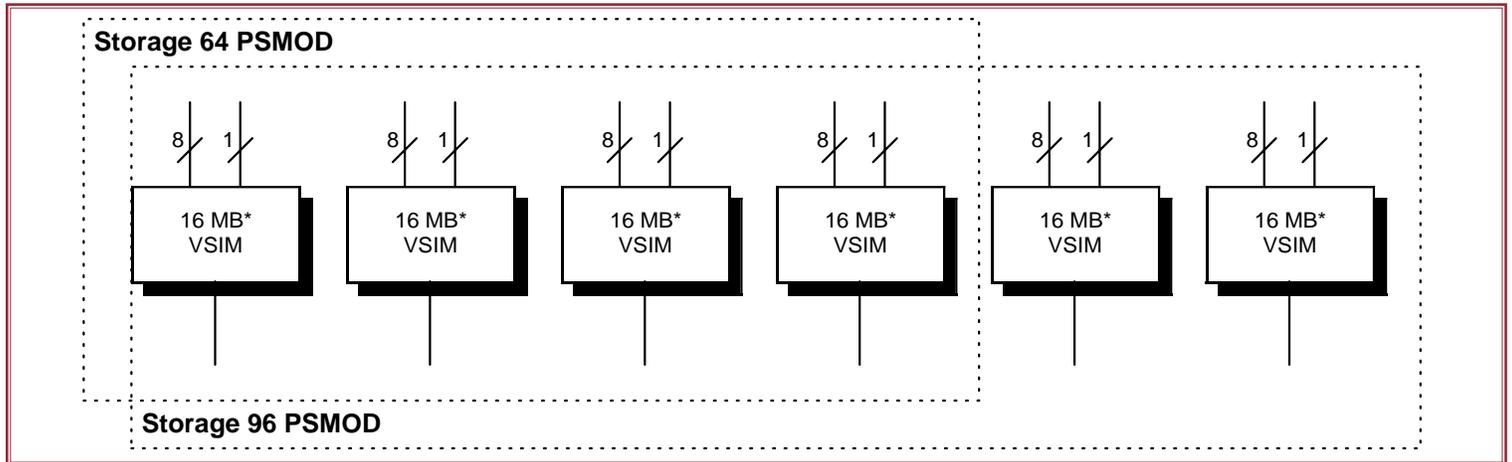
Air Flow Requirement: 50 LFPM (min)

Additional Information

For related product information, refer to the following Datacube literature:

[MaxPCI Data Sheet](#)
[DatacubeWiT Data Sheet](#)
[PC ImageFlow Data Sheet](#)

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