Parallel Digital I/O VIM-2 Module





Features

- VIM-2 module for VIMcompatible processor boards
- Provides two 16-bit parallel streaming data interfaces
- Simultaneous input and output transfers
- Sustained streaming data rates up to 50 MB/sec each
- Control and status port provides the processor with 16-bit read/write access to peripherals
- External interrupt input line
- All lines are single-ended TTI
- Can be configured as dual input, dual output, or input/output

Ordering Information

Model Description

6227 Parallel Digital I/O VIM-2 module

General Information

Model 6227 is a VIM-2 module which attaches directly to VIM-compatible processor boards. It serves as a general purpose digital interface for the processors, providing two high-speed parallel data ports plus a third control/status port. This flexible module is ideal for connecting to a wide range of digital peripherals.

Two Model 6227's may be attached to a quad processor board, nesting in the same slot. Alternatively, the Model 6227 may be combined with any other VIM-2 module to provide additional I/O functions.

High Speed Streaming Ports

The two high-speed streaming data ports are 16-bit parallel data buses using single-ended TTL lines. Either port can be configured as an input or output for total I/O flexibility.

The 16 data lines of bidirectional port 1 are directed to the 16 least significant bits of the 32-bit mezzanine BI-FIFO of processor A or C. In addition to the data lines, the input port also accepts an input clock and an input enable line which is used to enable the input clock.

The 16 data lines of bidirectional port 2 are driven from the 16 least significant bits of the 32-bit mezzanine BI-FIFO of processor B or D. In addition to the output lines, the output port accepts two TTL inputs: an output data clock and an output data enable.

Maximum clock rates for both streaming ports are 25 MHz, supporting simultaneous 16-bit transfers of 50 MB/sec each.

Control/Status Port

The Model 6227 also provides a 16-bit parallel TTL control/status port suitable for controlling and monitoring specific functions on peripheral devices. This port is a bidirectional register mapped into the random access memory space of processor A or C.

A read enable input enables the input mode and a write enable input latches output data at the connected board. An external interrupt input line can be used to interrupt processor A or C.

Front Panel Connector

All signal lines are provided through a single 100-pin, flat ribbon cable front panel connector. Input, output and control ports can be separated into individual cables, if desired.

Block Diagram, Model 6227



