



General Information

Model 4404 is a VXI module which provides an interface between the Hewlett Packard Local Bus and the Front Panel Data Port (FPDP). It consists of a single-slot C-size VXI module enclosure with two front panel FPDP connectors.

The unit accepts data transfers from the Hewlett Packard Local Bus on the VXI backplane, packs the data into 16- or 32-bit parallel words and sends the data over the front panel FPDP connectors.

The VXIbus interface provides control and status, as well as a secondary data output path.

FPDP

FPDP (Front Panel Data Port) is an industry-standard front panel ribbon cable bus, now defined by an ANSI/VITA specification, which provides high-speed data transfers between system peripherals, array processors and data acquisition devices. FPDP implements a 32-bit parallel communication link capable of delivering data at peak rates up to 160 MB/sec using standard flat ribbon cable.

HP Local Bus

The HP Local Bus connects adjacent VXI modules across the backplane using a parallel 8-bit ECL bus capable of operating at up to 100 MHz, thereby supporting peak transfer rates up to 100 MB/sec.

Operation

In the output mode, the data from the HP Local Bus is packed into 16- or 32-bit parallel words using the FPGA (programmable gate array), which also performs some simple high-speed processing tasks. Data is first buffered in dual FIFO memories and then delivered to front panel FPDP connectors.

The FPDP controller provides interface logic, timing and handshaking, and supports both TTL and PECL data strobes for clock rates up to 40 MHz.

Applications

Applications include real-time data acquisition and digital signal processing systems that require a data bridge from a VXI data source using the HP Local Bus to FPDP.

Pentek offers several products compatible with FPDP. These include the 65xx series of digital receivers, the 64xx series of A/D converters, the Model 6099A Memory Buffer and the Model 6226 FPDP Adapter VIM-2 Module for the Model 4290 Quad C6201 DSP Processor and the Model 4291 Quad C6701 DSP Processor boards.

Features

- Single-slot C-size VXI module
- VXIbus interface provides control and status
- Front panel industry-standard FPDP connectors
- Compatible with Pentek VME and VXI digital receiver products
- Compatible with Pentek VME and VXI DSP and data acquisition products.

Ordering Information

Model	Description
4404	HP Local Bus-to-FPDP Interface VXI Module

Options:

-003	16-bit PECL output
-007	32-bit standard FPDP output

Block Diagram, Model 4404

