VXI120
Variable Voltage Interface for VXI

Features
- 192 Channel Differential TTL / TTL interface
- 50MHz transfer rate
- Six user loadable FPGAs for automated data processing
- Single slot VXI form factor
- 32-bit VXI/VME bus interface
- Integrated over-voltage protection on all lines

Summary
Phillips’ VXI120 configurable Differential TTL / TTL module interface card is an intelligent digital interface capable of supporting development and validation testing. The VXI120 has 6 on-board field programmable gate arrays (FPGAs) to support bus emulation, protocol simulation, test algorithm generation and other data conversion functions.

The user can configure (on-the-fly) the direction and type of I/O for each pin. The VXI120 provides a very flexible interface with independent high and low thresholds that can be set using two 14-bit DACs for each channel. When in input mode, the FPGAs can detect when the signal is above, below, or in between the thresholds. When in output mode, high and low output levels be set as well. High and low ranges can each be set to any levels between -15V and +15V. Built-in diodes protect each channel from overvoltage conditions, and current limiting resistors protect against overcurrent conditions.

The VXI120’s six ACEX1K100s have capacity and memory to support complex operations decoupled from the VXI bus. This allows the VXI120 to operate at high speed without being interrupted by the host controller.

The user can program the FPGAs through the VXI interface, or via on-board EPROM so the board is automatically loaded. Example FPGA code and driver source code are provided with the VXI120.

The VXI120 has a VME32 compatibility mode that allows high speed operation with a VME style real-time host controller instead of a VXI host controller.

Custom versions of the VXI120 are available to our customers. Please contact the factory for further information.

Specifications
- Channels: 192 user-defined I/O, direction control for each, two I/O can be combined to operate as a differential pair
- Clock Rate: 50MHz max
- Output: H>2V into 500ohms, L<0.2V
  - Sink 20mA
  - Source 20mA
- Input: H>2V, L<0.8V
- Termination: 120Ω (differential mode)
- OVP: Transient suppression on all lines
- Clocks: On-board crystal, DDS
- FPGA: ACEX1K100
- Connectors: Six VHDCI 68-pin female connectors
- Power: +5V @ 6.0A max

Ordering Information
Hardware
- 335-4113 VXI120 192 channel differential TTL / TTL
- 335-4112 VXI120 128 channel differential TTL / TTL
- 335-4111 VXI120 64 channel differential TTL / TTL

Software
- VXI-API-QNX
- QNX® software support package
- VXI-API-WIN
- Windows® DLL software package

Accessories
- TP-DIN68S Termination panel, VHDCI receptacle
- CBCSI-6803MM Cable, shielded, 3-ft, VHDCI plug at both ends