Specifications

Number of I/O Channels:	80.
Configuration:	I/O lines selectable as input or output on an 8-bit byte basis. Also tri-state programmable on an 8-bit byte basis.
Byte Transfer Polarity:	All input and output bytes individually selectable as active high or active low.
Input Data:	Returned as two hexadecimal ASCII characters per byte.
Input Control:	On program command, or with external Data Ready and Data Acknowledge handshake.
Output Data:	Programmed as two hexadecimal ASCII characters per byte, or by an H or L character on an individual bit basis.
Output Control:	On program command, or with external Ready for Data and Data Available handshake.
Tri-State Control:	On program command on an individual byte, or by external tri-state control signals.
Mask Capability:	On an individual byte basis, for input or output. AND, OR, and XOR masking provided.
Byte Ordering:	A predefined sequence for input or output byte transfer may be programmed. Bytes may be transferred in any required order.
Interrupt Modes:	Program selectable, on programming error, Ready For Data handshake, and/or Data Ready handshake.
External Control Logic Sense:	Data Available, Ready For Data, Data Acknowledge, and Data Ready control line polarities are all individually program selectable as low or high true.
I/O Signal Type:	TTL and CMOS compatible (74AHCT245 driver).
D.C. Electrical Characteristics:	-10° to +55° C., typical specs at 25° C. A minus sign indicates current flowing out of the card.

	min	typ	max	units
Output high voltage (Voh)				
Io = -20 µA	4.4	5.0		V
Io = -6 mA	3.84	4.2		V
Output low voltage (Vol)				
Io = 20 µA		0	0.1	V
Io = 24 mA		0	0.5	V
Output low current (Iol)			24	mA
Input high voltage (Vih)	2.0			V
Input low voltage (Vil)			0.8	V
* Input current (Iin)			230	µA
Tri-state leakage current (Ioz)		0.5	5.0	µA

* There are 22K pull-up resistors to +5V on all I/O and handshake lines to account for floating inputs. The input IC uses 1.0 µA max, while the pull-down resistors require 5V / 22K = 227.6 µA.

External Control Lines:

External Tri-state Input to Tri-state Active:	ETS5 - ETS9	typ. 30 nS	max. 63 nS
	ETS0	typ. 70 nS	max. 115 nS
Valid Output Data to Data Available Strobe:	0 nS.		
Data Acknowledge to Data Ready Strobe Delay:	0 nS.		

VXIbus Compatibility: Fully compatible with the VXIbus Specification for message-based instruments with the Halt switch in the ON position.

VXI Device Type: VXI message based instrument, Revision 1.3.

VXI Protocol: Word Serial.

VXI Module Size: C size, one slot wide.

Module-Specific Commands: All module-specific commands and data are sent via the VXIbus Byte Available command. All module-specific commands are made up of ASCII characters. Module-specific data may be in either ASCII or binary format.

VMEbus Interface: Data transfer bus (DTB) slave - A16, D16 only.

Interrupt Level: Switch selectable, levels 1 (highest priority) through 7 (lowest).

Interrupt Acknowledge: D16, lower 8 bits returned are the logical address of the module.

VXIbus Data Rate: Write: 20 Kbytes/sec maximum.
Read: 400 Kbytes/sec maximum.

VXIbus Commands Supported:

All VXIbus commands are accepted (e.g. DTACK* will be returned). The following commands have effect on this module; all other commands will cause an Unrecognized Command event:

BYTE AVAILABLE (with or without END bit set)
BYTE REQUEST
BEGIN NORMAL OPERATION
READ PROTOCOL
READ STATUS
CLEAR
* GRANT DEVICE
* TRIGGER
* SET LOCK
* CLEAR LOCK
* IDENTIFY COMMANDER

* These commands are accepted, but have no effect on the module.

VXIbus Protocol Events Supported:

VXIbus events are returned via VME interrupts. The following event is supported and returned to the VX4802 Module's commander:

REQUEST TRUE (In IEEE-488 systems such as the 73A-IBX, this interrupt will cause a Service Request (SRQ) to be generated on the IEEE-488 bus.

VXIbus Registers:

ID
Device Type
Status
Control
Protocol
Response
Data Low
See Appendix A for definition of register contents.

Device Type Register Contents:

F4DD (ones complement of binary value of model number with bit 11 set low).

Power Requirements:

All required dc power is provided by the Power Supply in the VXIbus mainframe.

Voltage: +5 Volt supply: 4.75V dc to 5.25V dc.

Current (Peak Module, I_{PM}): +5 Volt supply: 3.6 A (all outputs fully loaded).

Current (Quiescent): 2.1 A

Current (Dynamic Module, I_{DM}): +5 Volt supply: 1.6 A RMS (4.6 A PTP) - 80 outputs fully loaded.

Power-up Defaults:	All I/O pins tri-stated. All bytes defined as inputs, active high. All external handshake lines disabled. Request True interrupts disabled.
Fuses:	Replacement fuse: Littlefuse P/N 273004
Cooling:	Provided by the fan in the VXIbus mainframe. Less than 10°C temperature rise with 1.2 liters/sec. of air at a pressure drop of 0.03 mm of H_2O.
Temperature:	0°C to +50°C, operating. -40°C to +85°C, storage.
Humidity:	Less than 95% R.H. non-condensing, -10°C to +30°C. Less than 75% R.H. non-condensing, +31°C to +40°C. Less than 45% R.H. non-condensing, +41°C to +55°C.
VXI Bus Radiated Emissions:	Complies with VXIbus Specification.
VXI Bus Conducted Emissions:	Complies with VXIbus Specification.
Module Envelope Dimensions:	VXI C size. 262 mm x 353 mm x 30.5 mm (10.3 in x 13.9 in x 1.2 in)
Dimensions, Shipping:	When ordered with a Tek/CDS mainframe, this module will be installed and secured in one of the instrument module slots (slots 1 - 12). When ordered alone, the module's shipping dimensions are: 406 mm x 305 mm x 102 mm. (16 in x 12 in x 4 in).
Weight:	1.3 kg. (2.96 lb).
Weight, Shipping:	When ordered with a Tek/CDS mainframe, this module will be installed and secured in one of the instrument module slots (slots 1-12). When ordered alone, the module's shipping weight is: 1.8 kg. (4 lb).
Mounting Position:	Any orientation.
Mounting Location:	Installs in an instrument module slot (slots 1-12) of a C or D size VXIbus mainframe. (Refer to D size mainframe manual for information on required adapters.)

Front Panel Signal Connectors:	2 - 50 pin (DD 50S) connector, socket. Refer to Appendix B for connector pinouts.
Equipment Supplied:	1 - VX4802 Module.
Software Revision:	V1.5
Optional Equipment:	2 - 73A-657P 5 meter, 50 pin cable, unterminated. Option 01: 64 mA TTL outputs. Option 02: Open collector outputs. See Appendix D for a description of the options.