
NEX-PCIXRA



- Disassembly of PCI-X 2.0 (266MHz) bus transactions
- Logic analyzer probes connect at a right angles providing a narrow keep out volume
- Controlled impedance design
- Matched signal length design
- No active buffering of the PCI-X 2.0 signals
- Support for PCI-X 1.0 and PCI-X 2.0 at the full 266 MHz speed
- Extender card design
- High density connectors provide a quick, convenient connection to the PCI-X 2.0 bus
- Timing analysis to 8 GS/s (125ps) on each channel
- Logic analyzer setup software gets you up and running fast
- Simultaneous state and timing acquisition on each channel
- Trigger on Setup/Hold violations on all channels

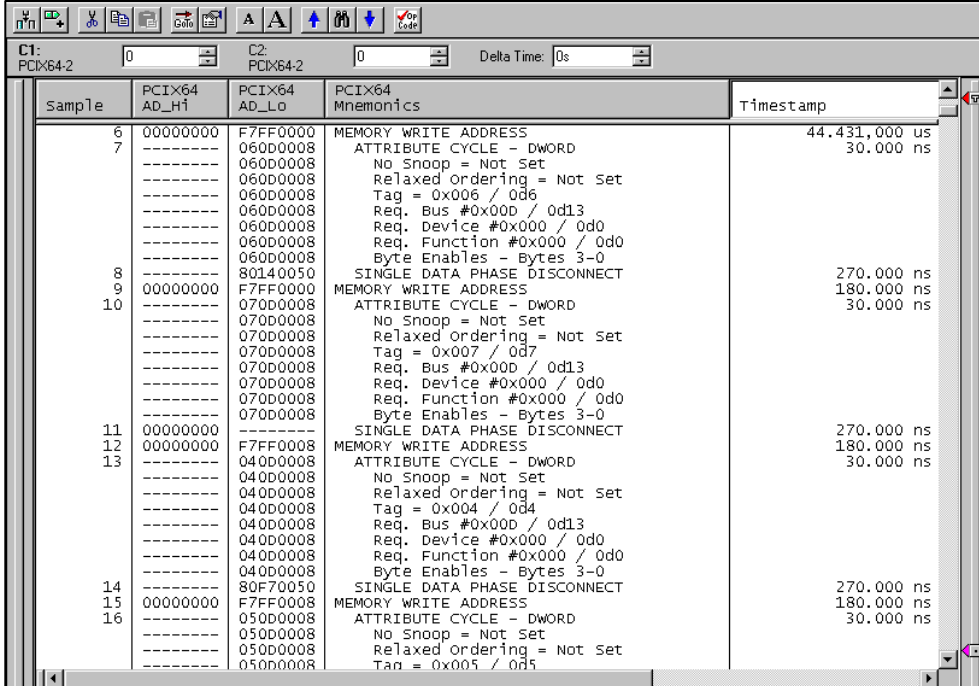
General Description

NEX-PCIXRA Adapter Board

The NEX-PCIXRA 2.0 adapter board uses four Tektronix P6960 probes that are connected at right angles to the interposer. This reduces the keep-out volume required to use the interposer and allows the interposer to be used in systems with minimal clearance around the PCI-X cards. Please refer to the mechanical outline provided in this data sheet for details on the physical size of the NEX-PCIXRA adapter.

PCI-X 2.0 Disassembly Software

The included PCIX266D disassembly software executes on the Tektronix Logic Analyzer and supports both PCI-X 1.0 (66/133MHz) and PCI-X Mode 2 (266MHz). This software decodes bus transactions and displays information in an easily understood form, just like a typical Tektronix microprocessor disassembler. All PCI-X Cycle types are identified and Config cycles are decoded to reflect the meaning of the registers.



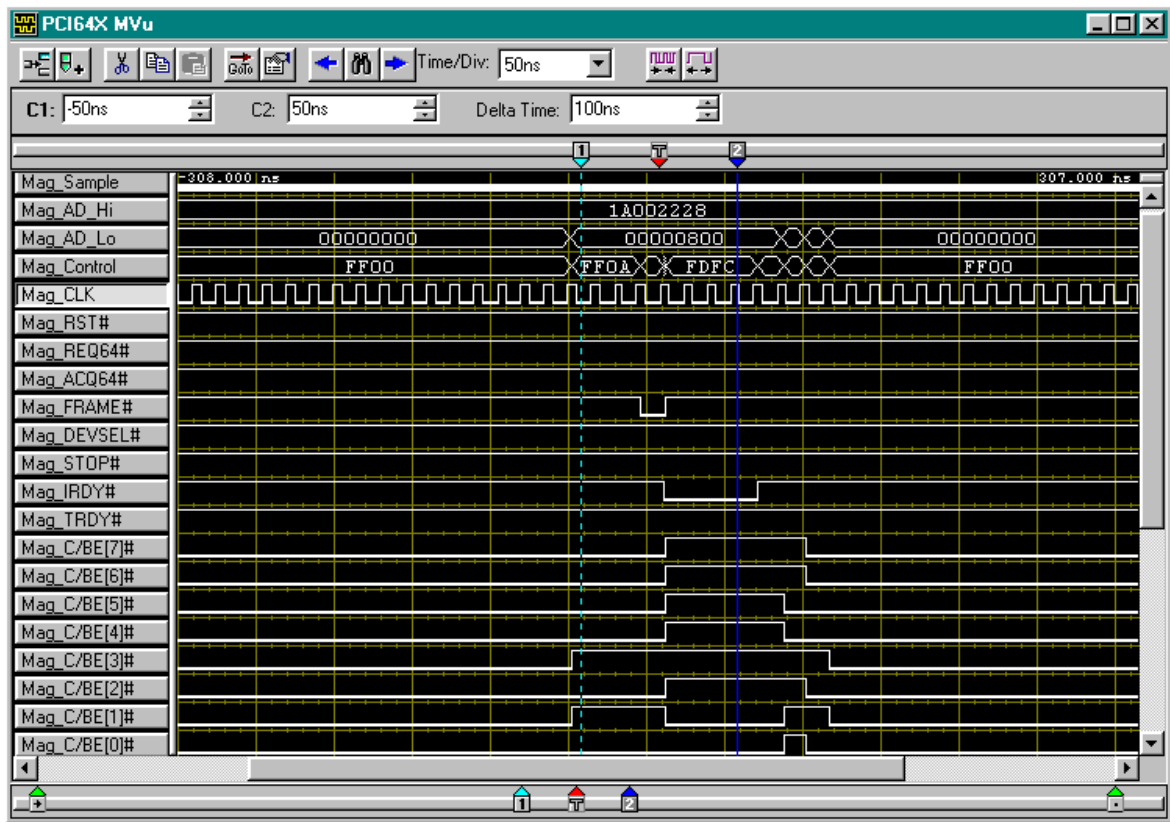
Sample	PCI-X64 AD_H1	PCI-X64 AD_L0	PCI-X64 Mnemonics	Timestamp
6	00000000	F7FF0000	MEMORY WRITE ADDRESS	44.431,000 us
7	-----	060D0008	ATTRIBUTE CYCLE - DWORD	30.000 ns
	-----	060D0008	No Snoop = Not Set	
	-----	060D0008	Relaxed Ordering = Not Set	
	-----	060D0008	Tag = 0x006 / 0d6	
	-----	060D0008	Req. Bus #0x000 / 0d13	
	-----	060D0008	Req. Device #0x000 / 0d0	
	-----	060D0008	Req. Function #0x000 / 0d0	
	-----	060D0008	Byte Enables - Bytes 3-0	
8	80140050		SINGLE DATA PHASE DISCONNECT	270.000 ns
9	00000000	F7FF0000	MEMORY WRITE ADDRESS	180.000 ns
10	-----	070D0008	ATTRIBUTE CYCLE - DWORD	30.000 ns
	-----	070D0008	No Snoop = Not Set	
	-----	070D0008	Relaxed Ordering = Not Set	
	-----	070D0008	Tag = 0x007 / 0d7	
	-----	070D0008	Req. Bus #0x000 / 0d13	
	-----	070D0008	Req. Device #0x000 / 0d0	
	-----	070D0008	Req. Function #0x000 / 0d0	
	-----	070D0008	Byte Enables - Bytes 3-0	
11	00000000		SINGLE DATA PHASE DISCONNECT	270.000 ns
12	00000000	F7FF0000	MEMORY WRITE ADDRESS	180.000 ns
13	-----	040D0008	ATTRIBUTE CYCLE - DWORD	30.000 ns
	-----	040D0008	No Snoop = Not Set	
	-----	040D0008	Relaxed Ordering = Not Set	
	-----	040D0008	Tag = 0x004 / 0d4	
	-----	040D0008	Req. Bus #0x000 / 0d13	
	-----	040D0008	Req. Device #0x000 / 0d0	
	-----	040D0008	Req. Function #0x000 / 0d0	
	-----	040D0008	Byte Enables - Bytes 3-0	
14	80F70050		SINGLE DATA PHASE DISCONNECT	270.000 ns
15	00000000	F7FF0000	MEMORY WRITE ADDRESS	180.000 ns
16	-----	050D0008	ATTRIBUTE CYCLE - DWORD	30.000 ns
	-----	050D0008	No Snoop = Not Set	
	-----	050D0008	Relaxed Ordering = Not Set	
	-----	050D0008	Tag = 0x005 / 0d5	

Sample PCI-X Disassembly Screen

Another feature of the disassembly software is its ability to intelligently acquire PCI-X data. By taking advantage of the data clocking power built into the Tektronix Logic Analyzer TLA7XX acquisition cards the disassembly software is able to acquire only the PCI-X bus cycles and ignore Idle and Wait states. This means that the user is able to make optimum use of the acquisition card's memory and see more bus transactions. For debug purposes the user also has the ability to override this function and acquire data on every PCI-X CLK rising edge to permit the user to see all of the bus traffic including the Idle and Wait states.

Timing Analysis

Timing analysis of the PCI-X bus is available on every channel at up to 8Ghz (125ps).



Tektronix Logic Analyzers Supported

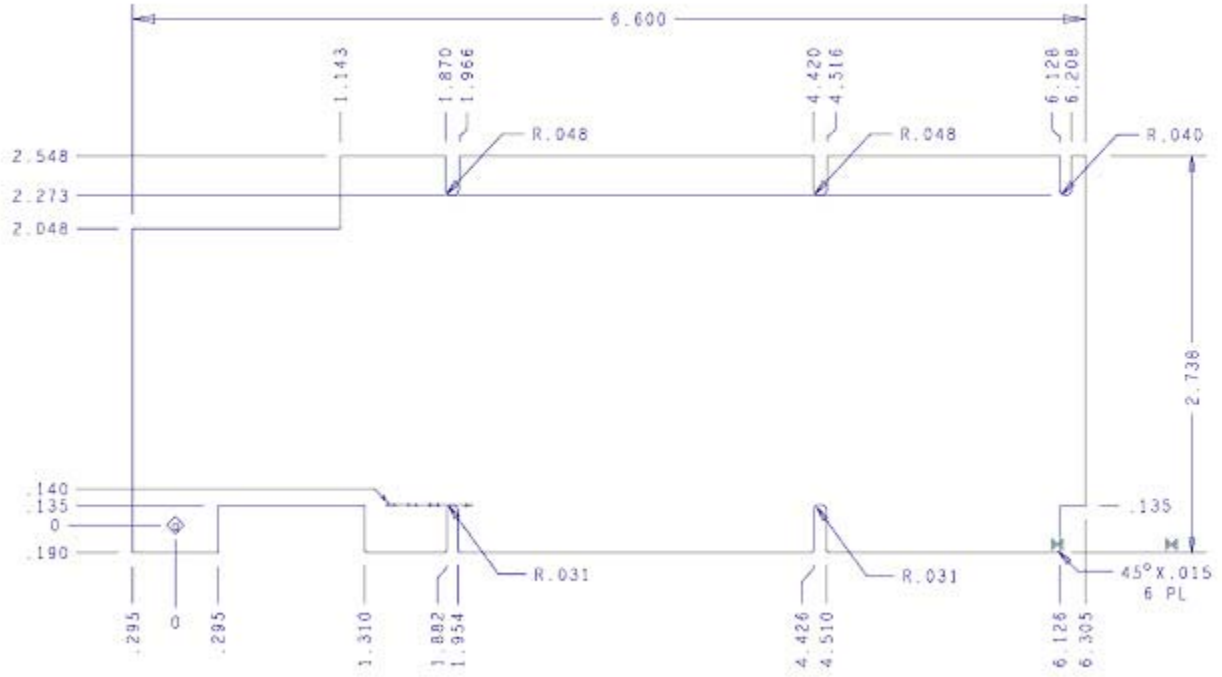
PCI-X 2.0 266MHz

All Tektronix TLA700 series Logic Analyzers with a TLA7Ax4 acquisition module (136 channels), 450 MHz sync. acquisition required for PCI-X 2.0 266MHz analysis. Four P6960 probes are also required and are available from Tektronix.

PCI-X 1.0 66/133MHz

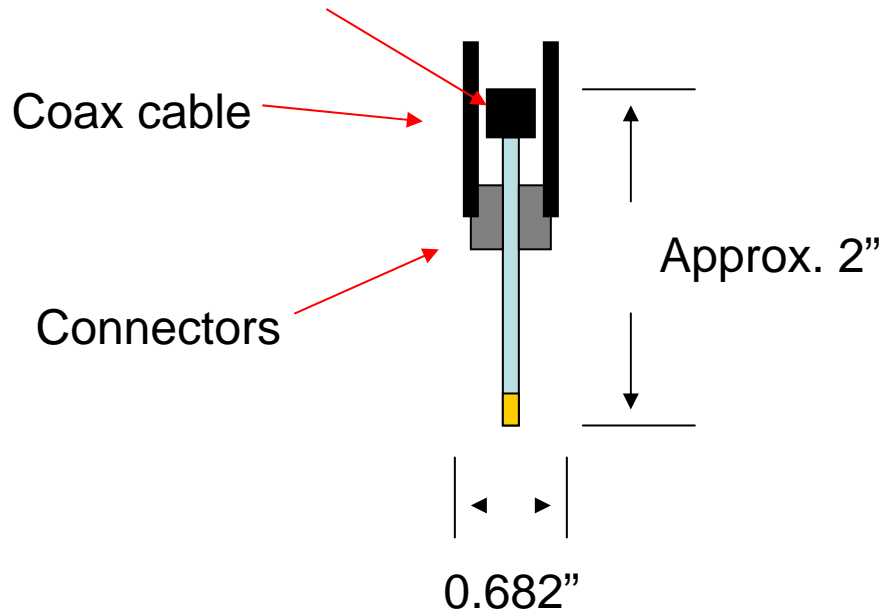
All Tektronix TLA700 series Logic Analyzers with a TLA7Ax4 acquisition module (136 channels), 235 MHz sync. acquisition (minimum) for PCI-X 66/133MHz analysis. Four P6960 probes are also required and are available from Tektronix.

Mechanical Outline



Edge keep out with probes attached

PCIX 64 bit connector



Ordering / Contact Information

Part Number NEX-PCIXRA

Includes: PCI-X 2.0 266MHz Bus Adapter
Software
Manual

Postal: Nexus Technology, Inc.
78 Northeastern Blvd. #2
Nashua, NH 03062

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Website: www.nexustechnology.com

Placing an Order

Credit Card orders can be placed directly at 877-595-8116.
Purchase orders can be faxed to 877-595-8118.

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