

VME64X Bus Adapter & Analysis Software for Tektronix TLA Logic Analyzers

NEX-VME64 & NEX-VME64X



- Bus Traffic Analysis of the VME, VME64 or VME64X Bus
- No Active Buffering of the VME Signals
- Extender Card Design
- Quick and Easy connection to the VME/VME64/VME64X Bus
- Timing Analysis to 8 GS/s (125ps) on each channel
- Supports VME, VME64 and VME64X
- Logic Analyzer Setup Software gets you up and running fast
- Simultaneous State and Timing acquisition on each channel

General Description

NEX-VME64 Support

P0 connectors are not installed but are provided for future use.

NEX-VME64X Support

P0 connectors installed.

NEX-VME64 / NEX-VME64X Adapter Board

The NEX-VME64 / NEX-VME64X adapter board has Mictor connectors for connecting the VME, VME64 and VME64X bus to a Tektronix Logic Analyzer. Right angle adapters (NEX-HDRT) are also available from Nexus Technology when a low profile connection is needed. Please refer to Table A for the pinout of the Mictor connectors.

The following VME64X signals are routed to a pad area that can have an included right angle header installed for connection to the Tektronix TLA. This connection would be made by using the appropriate Tektronix probe (P6417/P6418/P6810): Z1, Z3, Z5, Z7, Z9, Z11, Z13, Z15, Z17, Z19, Z21, Z23, Z25, Z27, Z29, Z31, D5, D8, D9, D10, D11, D13, D15, D17, D19, D21, D23, D25, D27, D29.

Up to 64 User Defined and Reserved signals can also be monitored.



Optional Mictor right angle adapters for low profile connection

Full Acquisition

VME, VME64 or VME64X bus signals including the seven IRQ's are acquired by the TLA. This mode requires at a minimum a TLA acquisition module with 136-channels to connect to the four Mictor connectors on the NEX-VME64X adapter. Merged acquisition cards are also usable to enable acquiring more than 136 VME signals.

Limited Signal Acquisition

The TLA channel count requirement can be reduced from 136-channels to 102-channels by looking at only one of the seven IRQ signals on the VME, VME64 or VME64X bus. The IRQ to be monitored is jumper selectable on the NEX-VME64X. If Limited Signal Acquisition mode is used the user would connect the TLA to three of the four available Mictor connectors on the NEX-VME64X adapter.

Disassembly Software

The included NEX–VME64X analysis software executes on the Tektronix Logic Analyzer and supports VME, VME64 and VME64X transactions.

Timing Analysis

Timing analysis of the VME, VME64 and VME64X bus can be done at 2GHz (500ps) or 8Ghz (125ps) on each channel depending upon the acquisition card used. No active buffering results in accurate timing analysis on each channel of the VME, VME64 or VME64X bus. In addition if a TLA7AA or TLA7AB acquisition card is used then signals can be monitored with an oscilloscope using the Enhanced iView capability, eliminating the need to probe the signals directly with the scope.

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- X Pa C	🛛 🚓 😭 Tir	me/Div: 50ps 💌	📖 🖬 🗸 🗲	🕅 🔶 Search	·	
C1: -50ns 🚊 C2: 50ns 🚊 Delta Time: 100ns 🚊 🗖 Lock Delta Time						
MagniVu: A16_Addr C1: 7070 C2: 9090 Delta: E0E0						
MagniVu: Sample	-250 ps	I		1		250 ps
MagniVu: A16_Addr	FDFD	FEFE	FFFF	0000	0101	0202
MagniVu: A24_Addr	FDFDFD	FEFEFE X	FFFFF	000000	010101	020202
MagniVu: A32_Addr	FDFDFDFD	FEFEFEF	FFFFFFF	00000000	01010101	02020202
MagniVu: A40_Addr		FEFEFEFE	FFFFFFFF	000000000 X	0101010101	X
MagniVu: A64_Addr		FEFEFEFEFEFE	FFFFFFFFFFFF	000000000000000	0101010101010101	X
MagniVu: Transfer	13	10	1F	00 X	02	X oc
MagniVu: Mode	3F			00		
MagniVu: Control	18	17	1F	00 >	08	04
MagniVu: Misc	3F			00		
MagniVu: BusReq	20 X	1E X	3F)	00 >	21	12
MagniVu: BusGrant	F			0		
MagniVu: Interrupts	70 X	7E X	7F	00 X	01	02
MagniVu: AddrHi	FDFDFDFD	FEFEFEFE X	FFFFFFF	00000000	01010101	02020202
MagniVu: AddrLo	FDFDFDFD	FEFEFEFE X	FFFFFFF	00000000	01010101	02020202
MagniVu: DataHi	FDFDFDFD	FEFEFEF	FFFFFF	00000000	01010101	02020202
MagniVu: DataLo	FDFDFDFD	FEFEFEF	FFFFFF	00000000	01010101	02020202

Tektronix Logic Analyzer Support and Configuration

VME / VME64 / VME64X (Limited Signal Acquisition)

All Tektronix TLA52xx or TLA6xx Logic Analyzers (running V3.2 or later software) with the following configuration:

• 102- or 136-channels of acquisition and three P6434 probes

Note: Additional TLA probes must be used to acquire User Defined signals or VME64X signals on the following VME64X connector pins: Z1, Z3, Z5, Z7, Z9, Z11, Z13, Z15, Z17, Z19, Z21, Z23, Z25, Z27, Z29, Z31, D5, D8, D9, D10, D11, D13, D15, D17, D19, D21, D23, D25, D27, D29. Tektronix P6417 or P6418 probes are required.

All Tektronix TLA700 series Logic Analyzers (running V3.2 or later software) with one of the following:

- TLA7x3/4 acquisition module with three P6434 probes
- TLA7Ax3/4 acquisition module with three P6860 probes and three Tektronix Mictor to Compression adapters

Note: Additional Tektronix TLA modules and probes must be used to acquire User Defined signals or VME64X signals on the following VME64X connector pins: Z1, Z3, Z5, Z7, Z9, Z11, Z13, Z15, Z17, Z19, Z21, Z23, Z25, Z27, Z29, Z31, D5, D8, D9, D10, D11, D13, D15, D17, D19, D21, D23, D25, D27, D29. If Tektronix TLA7x3/4 acquisition modules are used then Tektronix P6417 or P6418 probes are required. If Tektronix TLA7Ax3/4 acquisition modules are used then Tektronix P6810 probes are necessary.

VME64X (Full Acquisition)

All Tektronix TLA52xx or TLA6xx Logic Analyzers (running V3.2 or later software) with the following configuration:

• 136-channels of acquisition and four P6434 probes

All Tektronix TLA700 series Logic Analyzers (running V3.2 or later software) with one of the following:

- TLA7x4 acquisition module with four P6434 probes
- TLA7Ax4 acquisition module with four P6860 probes and four Tektronix Mictor to Compression adapters

Note: Additional Tektronix TLA modules and probes must be used to acquire User Defined signals or VME64X signals on the following VME64X connector pins: Z1, Z3, Z5, Z7, Z9, Z11, Z13, Z15, Z17, Z19, Z21, Z23, Z25, Z27, Z29, Z31, D5, D8, D9, D10, D11, D13, D15, D17, D19, D21, D23, D25, D27, D29. If Tektronix TLA7x4 acquisition modules used then Tektronix P6417 or P6418 probes would be used. If Tektronix TLA7Ax4 acquisition modules are used then Tektronix P6810 probes would be required.

Ordering / Contact Information

Part Number NEX-VME64

Includes: NEX-VME64 Bus Adapter with PO connectors supplied but not installed on the adapter Software Manual

Part Number NEX-VME64X

Includes: NEX-VME64X Bus Adapter Software Manual

Options include

NEX-HDRT Low profile connection to the NEX-VME64(X) adapter. Four (x4) required.

- Postal: Nexus Technology, Inc. 78 Northeastern Blvd. #2 Nashua, NH 03062
- **Telephone:** 877-595-8116
- **Fax:** 877-595-8118
- Email: support@nexustechnology.com quotes@nexustechnology.com techsupport@nexustechnology.com
- 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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