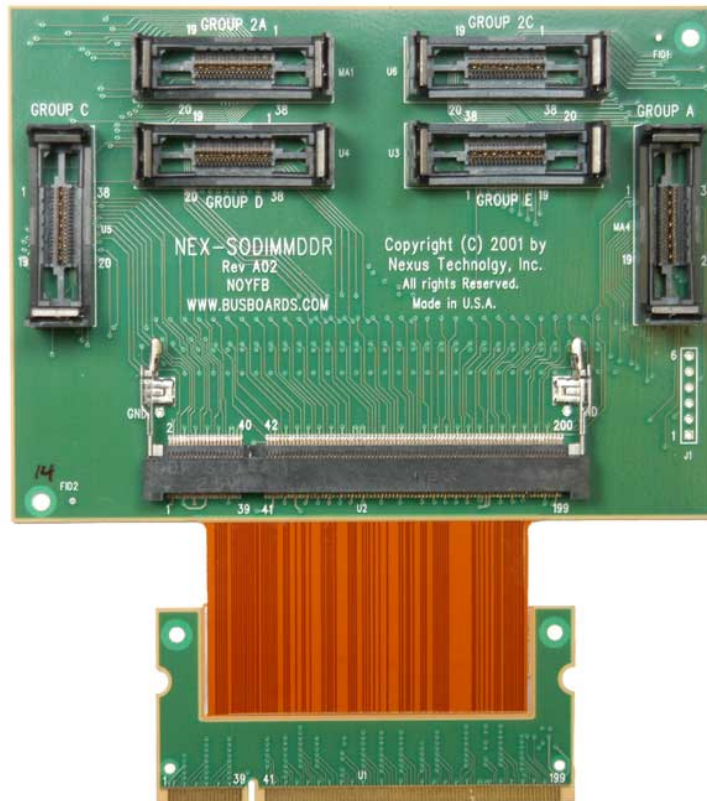


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## NEX-SODIMMDDR

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- Rigid/Flex/Rigid design provides mechanical clearance for use in standard PC2100 DDR SDRAM Unbuffered SO-DIMM targets
- Data Read and Write acquisition of DDR bus
- Quick and easy connection between the SODIMM DDR bus and Tektronix Logic Analyzers
- Extender Design does not require a dedicated slot
- Impedance controlled, matched trace length design
- No active buffering of the DDR signals
- Accurate 8GHz Timing analysis
- Simultaneous State and timing on every channel of the TLA
- Trigger on setup/hold violations
- Correlation with data acquired from other acquisition modules
- All DDR signals brought to mictor connectors for monitoring
- Unused mictor pins routed to pad area for easy connection

## General Description

The NEX-SODIMMDDR adapter is an extender design and does not require a dedicated SODIMM DDR slot. It provides quick and easy connections to interface a TLA600 or TLA700 Logic Analyzer to a 200-pin PC2100 DDR SDRAM Unbuffered SO-DIMM socket . Connections are made through P6434/P6860 high-density probes to help minimize the size of the adapter board, thus reducing trace length and keeping signal loading to a minimum.

The adapter is a Rigid/Flex/Rigid design which provides the ability to connect to an SO-DIMM DDR socket on a target that does not have much mechanical clearance.

### Timing analysis

Available on all DDR signals.

### Triggering

Pre-defined Trigger setup for the following: Read Col Address Read, Write Col Address Write, Mode Register Set, Row Address Strobe, Precharge, No Operation, Ignore Command Data, Burst Stop, Refresh, Precharge, and Precharge Select Bank.

### Software

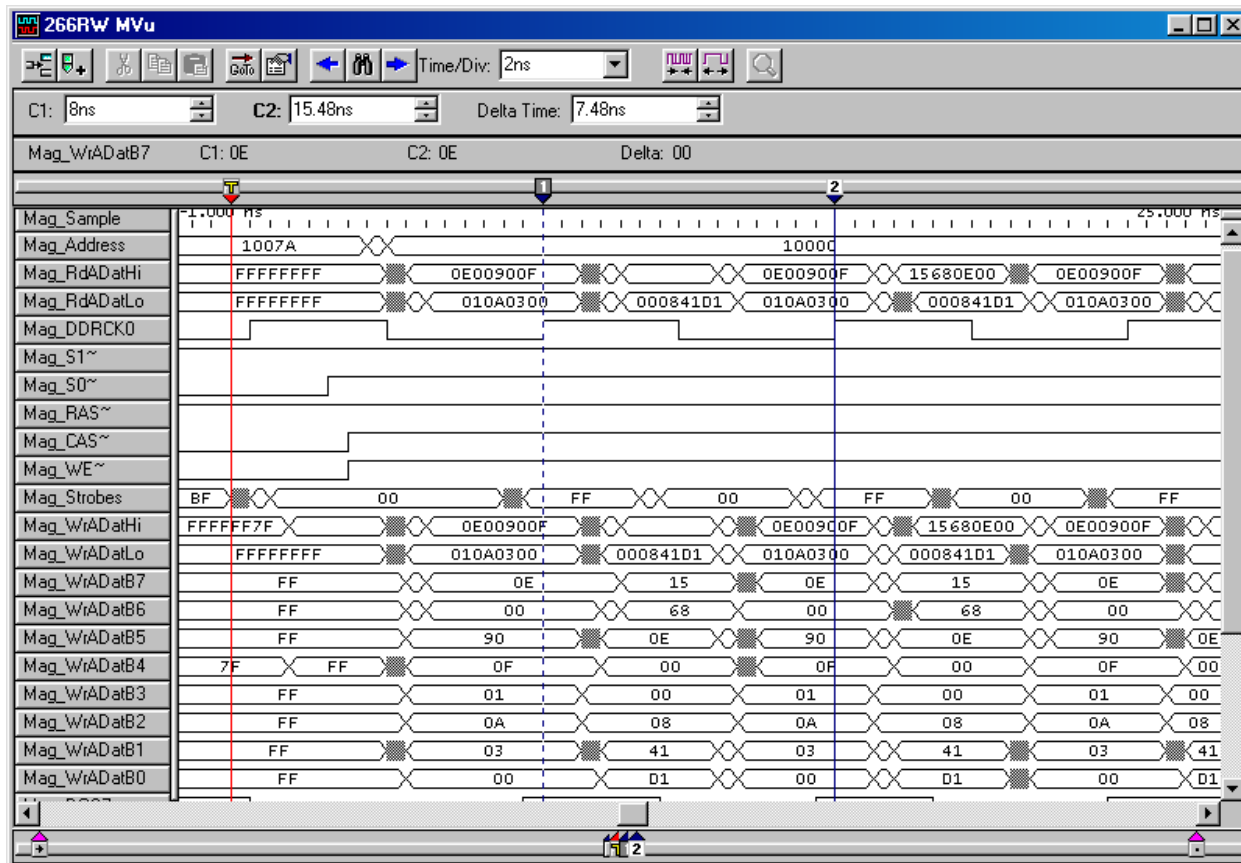
Four software support packages have been included with the NEX-SODIMMDDR adapter to support 200MHz and 266MHz SODIMM DDR:

**SO200** offers the ability to synchronously acquire 200Mhz DDR Address and Command signals on every edge of DDR CK0 or CK1. DDR200 Read Data or Write Data can also be acquired. This support requires one 136-channel acquisition card (or TLA6X4) with the 200MHz state clocking option.

**SO200RW** requires two merged 136-channel acquisitions cards and is designed to give the user the ability to acquire both Read and Write data at a 200MHz data rate. For this support to work, both merged cards must have the 200MHz state clocking option. The SO200RW support is usable with a TLA7XX-series Logic Analyzer only as two acquisition cards are required for this support.

**SO266** also requires two merged 136-channel acquisition cards. This support is designed to give the user the ability to acquire either DDR266 Read or Write data. For this support to work, both merged cards must have the 200MHz state clocking option. The SO266 support is usable with a TLA7XX-series Logic Analyzer only as two acquisition cards are required for this support.

**SO266RW** requires three merged 136-channel acquisition cards. This support is designed to give the user the ability to acquire both DDR266 Read and Write data. For this support to work, all merged cards must have the 200MHz state clocking option. The SO266RW support is usable with a TLA7XX-series Logic Analyzer only as three acquisition cards are required for this support. The TLA must also be running V3.2 or later of the TLA Application Software.



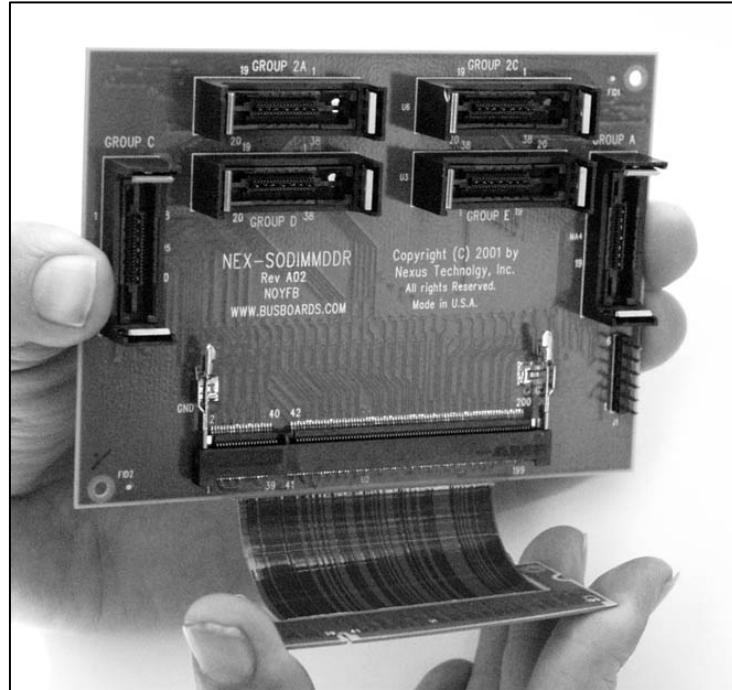
SODIMMDDR Timing Display

| Sample | DDR 266RW Address | DDR 266RW RdADatHi | DDR 266RW RdADatLo | DDR 266RW RdBDatHi | DDR 266RW RdBDatLo | DDR 266RW WrADatHi | DDR 266RW WrADatLo | DDR 266RW WrBDatHi | DDR 266RW WrBDatLo | DDR 266RW Mnemonics             | DDR 266RW Strobes | Timestamp  |
|--------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------------------|-------------------|------------|
| 952    | 19060             |                    |                    |                    |                    |                    |                    |                    |                    | ACTV - ROW ADDRESS STROBE (S0~) | FF                | 112,500 ns |
| 955    | 180AC             |                    |                    |                    |                    |                    |                    |                    |                    | READ - COL ADDR READ (S0~)      | FF                | 22,500 ns  |
| 957    |                   |                    |                    | 2C83E808           | E394F50E           |                    |                    |                    |                    | READ DATA                       | 00                | 15,000 ns  |
| 958    |                   | 61075DF8           | E22C61E8           | 16527A16           | 326E00C3           |                    |                    |                    |                    | READ DATA                       | FF                | 7,500 ns   |
| 959    |                   | 82691626           | 74166879           | 0EB4300C           | 50F1F6DA           |                    |                    |                    |                    | READ DATA                       | FF                | 7,500 ns   |
| 960    |                   | 300CE086           | 581252E8           | 015CB012           | 48E80EB4           |                    |                    |                    |                    | READ DATA                       | FF                | 7,500 ns   |
| 961    |                   | 8B2E8656           | E8FF88E8           |                    |                    |                    |                    |                    |                    | READ DATA                       | FF                | 7,500 ns   |
| 980    | 19060             |                    |                    |                    |                    |                    |                    |                    |                    | ACTV - ROW ADDRESS STROBE (S0~) | FF                | 142,500 ns |
| 983    | 180AC             |                    |                    |                    |                    |                    |                    |                    |                    | READ - COL ADDR READ (S0~)      | FF                | 22,500 ns  |
| 985    |                   |                    |                    | 2C83E808           | E394F50E           |                    |                    |                    |                    | READ DATA                       | 00                | 15,000 ns  |
| 986    |                   | 61075DF8           | E22C61E8           | 16527A16           | 326E00C3           |                    |                    |                    |                    | READ DATA                       | FF                | 7,500 ns   |
| 987    |                   | 82691626           | 74166879           | 0EB4300C           | 50F1F6DA           |                    |                    |                    |                    | READ DATA                       | FF                | 7,500 ns   |
| 988    |                   | 300CE086           | 581252E8           | 015CB012           | 48E80EB4           |                    |                    |                    |                    | READ DATA                       | FF                | 7,500 ns   |
| 989    |                   | 8B2E8656           | E8FF88E8           |                    |                    |                    |                    |                    |                    | READ DATA                       | FF                | 7,500 ns   |
| 1010   | 10062             |                    |                    |                    |                    |                    |                    |                    |                    | ACTV - ROW ADDRESS STROBE (S0~) | FF                | 157,500 ns |
| 1013   | 1003C             |                    |                    |                    |                    |                    |                    |                    |                    | READ - COL ADDR READ (S0~)      | FF                | 22,500 ns  |
| 1015   |                   |                    |                    | F87408A8           | 047449EC           |                    |                    |                    |                    | READ DATA                       | 00                | 15,000 ns  |
| 1016   |                   | 007AE851           | 50C35859           | 08ABEC39           | 2B06C280           |                    |                    |                    |                    | READ DATA                       | FF                | 7,500 ns   |
| 1017   |                   | 59FB7508           | A8ECFB74           | 7501A8EC           | FB7401A8           |                    |                    |                    |                    | READ DATA                       | FF                | 7,500 ns   |
| 1018   |                   | 99E85150           | C35859FB           | 49ECC933           | 06C28000           |                    |                    |                    |                    | READ DATA                       | FF                | 7,500 ns   |
| 1019   |                   | C933F875           | 08A80E74           |                    |                    |                    |                    |                    |                    | READ DATA                       | FF                | 7,500 ns   |
| 1020   | 10000             |                    |                    |                    |                    |                    |                    |                    |                    | ACTV - ROW ADDRESS STROBE (S0~) | FF                | 7,500 ns   |
| 1023   | 1007A             |                    |                    |                    |                    | 0E00900F           | 010A0300           | 15680E00           | 000841D1           | WRITE - COL ADDR WRITE (S0~)    | BF                | 22,500 ns  |
| 1024   |                   |                    |                    |                    |                    | 0E00900F           | 010A0300           | 15680E00           | 000841D1           | WRITE DATA                      | 00                | 7,500 ns   |
| 1025   |                   |                    |                    |                    |                    | 0E00900F           | 010A0300           | 15680E00           | 000841D1           | WRITE DATA                      | 00                | 7,500 ns   |
| 1026   |                   |                    |                    |                    |                    | 0E00900F           | 010A0300           | 15680E00           | 000841D1           | WRITE DATA                      | 00                | 7,500 ns   |
| 1027   |                   |                    |                    |                    |                    | 0E00900F           | 010A0300           | 15680E00           | 000841D1           | WRITE DATA                      | 00                | 7,500 ns   |
| 1074   | 10062             |                    |                    |                    |                    |                    |                    |                    |                    | ACTV - ROW ADDRESS STROBE (S0~) | FF                | 352,500 ns |
| 1077   | 1004C             |                    |                    |                    |                    |                    |                    |                    |                    | READ - COL ADDR READ (S0~)      | FF                | 22,500 ns  |
| 1079   |                   |                    |                    | E243EF20           | CC800375           |                    |                    |                    |                    | READ DATA                       | 00                | 15,000 ns  |
| 1080   |                   | BAEC03CC           | BA50C3EA           | D4820274           | 01A803B4           |                    |                    |                    |                    | READ DATA                       | FF                | 7,500 ns   |
| 1081   |                   | 5FC42600           | 1AE8C358           | C0BA0072           | E8FA5250           |                    |                    |                    |                    | READ DATA                       | FF                | 7,500 ns   |
| 1082   |                   | FB0069E8           | EE20B003           | C486ACE3           | 8AC3585A           |                    |                    |                    |                    | READ DATA                       | FF                | 7,500 ns   |
| 1083   |                   | 013C0775           | 03C4FA81           |                    |                    |                    |                    |                    |                    | READ DATA                       | FF                | 7,500 ns   |
| 1084   | 10000             |                    |                    |                    |                    |                    |                    |                    |                    | ACTV - ROW ADDRESS STROBE (S0~) | CF                | 7,500 ns   |
| 1087   | 1007A             |                    |                    |                    |                    |                    |                    |                    |                    | WRITE - COL ADDR WRITE (S0~)    | FF                | 22,500 ns  |
| 1088   | 1007A             |                    |                    |                    |                    |                    |                    |                    |                    | WRITE - COL ADDR WRITE (S0~)    | 00                | 7,500 ns   |
| 1089   | 1007A             |                    |                    |                    |                    | 0E00400F           | 010A030A           | 15680E00           | 000841F0           | WRITE DATA                      | 00                | 7,500 ns   |
| 1090   |                   |                    |                    |                    |                    | 0E00F00F           | 010A0500           | 15680E00           | 000741D1           | WRITE DATA                      | 00                | 7,500 ns   |
| 1091   |                   |                    |                    |                    |                    | 0E00010E           | 010A0400           | 15680E00           | 000941F0           | WRITE DATA                      | 00                | 7,500 ns   |
| 1092   |                   |                    |                    |                    |                    | 0E00010E           | 010A0400           | 15680E00           | 000941F0           | WRITE DATA                      | 00                | 7,500 ns   |

SODIMMDDR State Display – Control Flow Mode, Address & Data Cycles Only

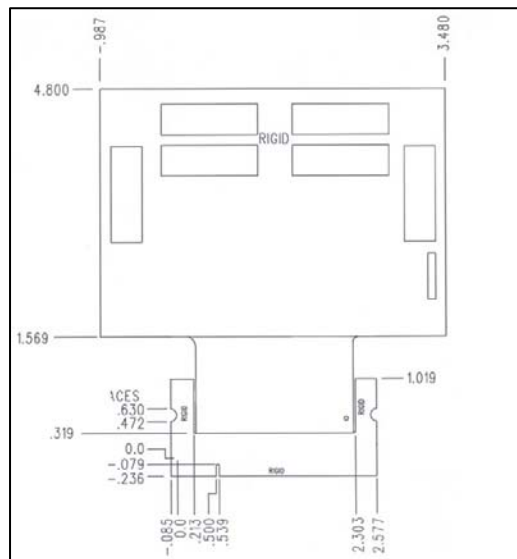
## Unused Mictor pins

There are six unused pins on the mictor connectors. These six pins are routed to a pad area so the user can connect other signals for monitoring by the Logic Analyzer.



The NEX-SODIMDDR adapter is a Rigid/Flex/Rigid design that allows for the mechanical clearance necessary to connect to the target.

## Mechanical Outline



Mechanical outline of the NEX-SODIMDDR adapter

## Tektronix Logic Analyzer Support/Configuration

A TLA700 equipped with three welded 136-channel 200MHz sync. modules is required for data read and write acquisition of DDR266.

A TLA600 or TLA700 equipped with a 136-channel 200MHz sync. module provides timing analysis of a DDR200 or DDR266 DIMM. It can also be used to synchronously acquire DDR200 Address, Command and Read or Write Data. A TLA700 configured with two 136-channel 200MHz sync. acquisition cards provides support for DDR200 sync. acquisition of Address, Command, Read Data and Write Data. This configuration can also be used to acquire sync. acquisition of DDR266 Address, Command and Read Data or Write Data.

## Ordering / Contact Information

**Part Number** NEX-SODIMMDDR

**Includes:** DDR SDRAM SO-DIMM Bus Adapter  
SO200, SO200RW, SO266 and SO266RW Analysis Software  
Manual

**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](http://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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