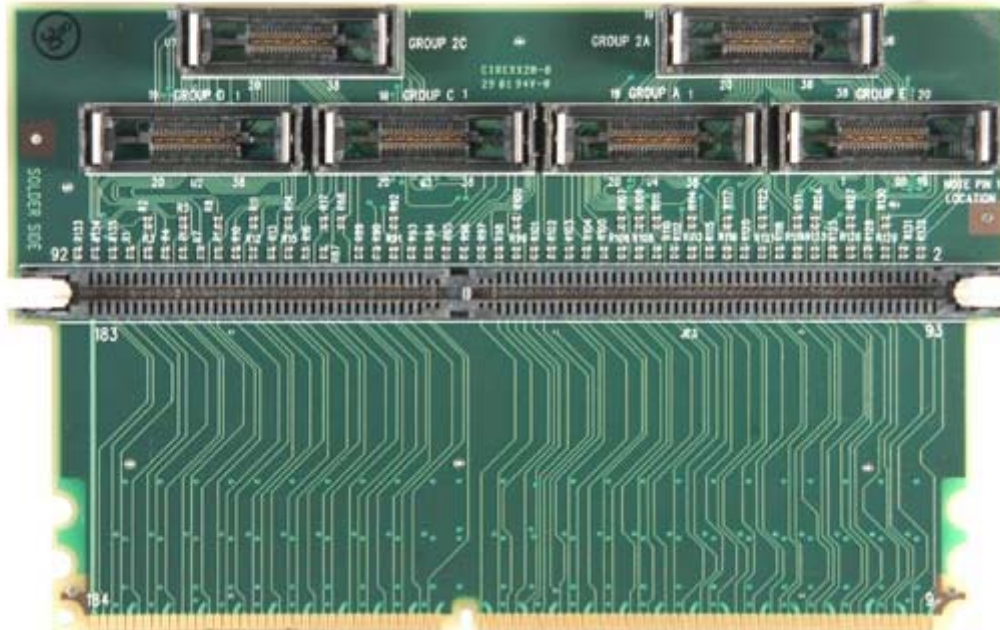


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## NEX-DDR266RWM

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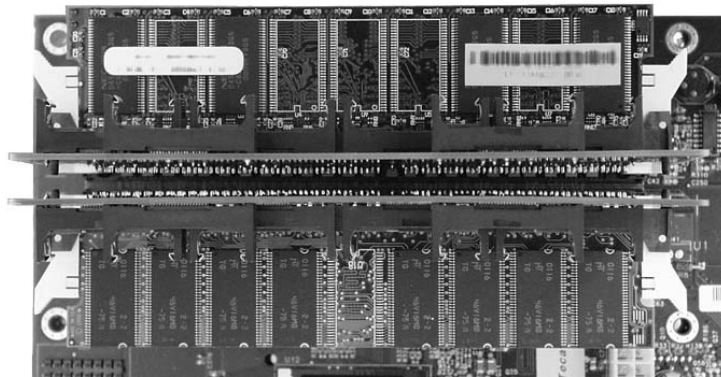


- Mirrored design of NEX-DDR266RW product that provides the ability to simultaneously monitor two DDR sockets in a target.
- Acquisition of Read and Write data from DDR200 and DDR266
- Quick and easy connection between the DDR bus and a Tektronix Logic Analyzer
- Extender design does not require a dedicated slot
- Supports 184-pin, 2.5V, Unbuffered or Registered DDR SDRAM DIMMs up to 266MHz
- Impedance controlled
- Matched trace lengths
- <55ps skew between any two channels
- No active buffering of the DDR signals
- Accurate 2-8GHz timing analysis (depending on acquisition module(s) used)
- Simultaneous state and timing on every channel of the TLA
- Trigger on setup/hold violations
- Correction with data from other acquisition modules
- Several GND points close to the DDR socket for use with a scope probe
- Use the TLA's Extended iView capabilities to view any channel on an oscilloscope without re-probing (depending on the acquisition module(s) used)
- AMP Mictor Connector part number is 767054-1

## General Description

The NEX-DDR266RWM is a redesign of the NEX-DDR266RW product that places the DDR socket and Mictor connectors on the solder side of the board. Since the NEX-DDR266RW places the DDR socket and Mictors on the component side of the adapter, the NEX-DDR266RW and NEX-DDR266RWM can both be used in the target at the same time without mechanical interference. This provides the ability to simultaneously monitor two DDR slots in a design.

The NEX-DDR266RWM adapter provides clocking, setup, symbolic display of information, and a quick convenient connection to a 2.5 V, 184-pin SDRAM DIMM bus. It is designed as an extender card for the DDR DIMM under test. The socket for the DDR module under test is elevated above adjacent DDR modules for mechanical clearance. Trigger on a Read, Write, Burst, Mode Register Set, etc. for easy problem identification.



Target with both the standard and mirrored DDR266RW adapters with memory installed. Probes not connected. (NEX-DDR266RW & NEX-DDR266RWM)

**2-8Ghz Timing Analysis** available for all DDRII signals

**Oscilloscope Connectivity** on any channel without re-probing via the TLA's Enhanced iView Analog Mux capability (depending on acquisition module(s) used)

**No Dedicated Slot Required** – The logic analyzer connects above the normal DIMM height so that there is no interference with adjacent DIMMs.

**Pre-Defined Symbols** for the following Command Cycles allow for easy Trigger Setup:

- Read Col Address Read
- Mode Register Set
- Row Address Strobe
- Ignore Command Data
- Refresh
- Write Col Address Write
- Precharge
- No Op
- Burst Stop
- Precharge Select Bank

**Correlating Bus Activity** While the NEX-DDR package is being used to monitor the DDR bus activity, another acquisition module can be used to monitor activity elsewhere in the system. The results of the two acquisitions can be correlated in time to determine the sequence of actions that occurred. For instance, the system microprocessor could be monitored and correlated with bus activity to verify the proper response to an external interrupt condition.

The following support package(s) are included with this product:

**DDR200** 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 – the acquisition of DDR data requires a valid data window of approximately 1.6ns. This support requires one 136-channel acquisition card (or TLA6X4) with the 200MHz state clocking option.

**DDR200M** 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 DDR200M support is usable with a TLA7XX-series Logic Analyzer only as two acquisition cards are required for this support.

**DDR266** 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 DDR266 support is usable with a TLA7XX-series Logic Analyzer only as two acquisition cards are required for this support.

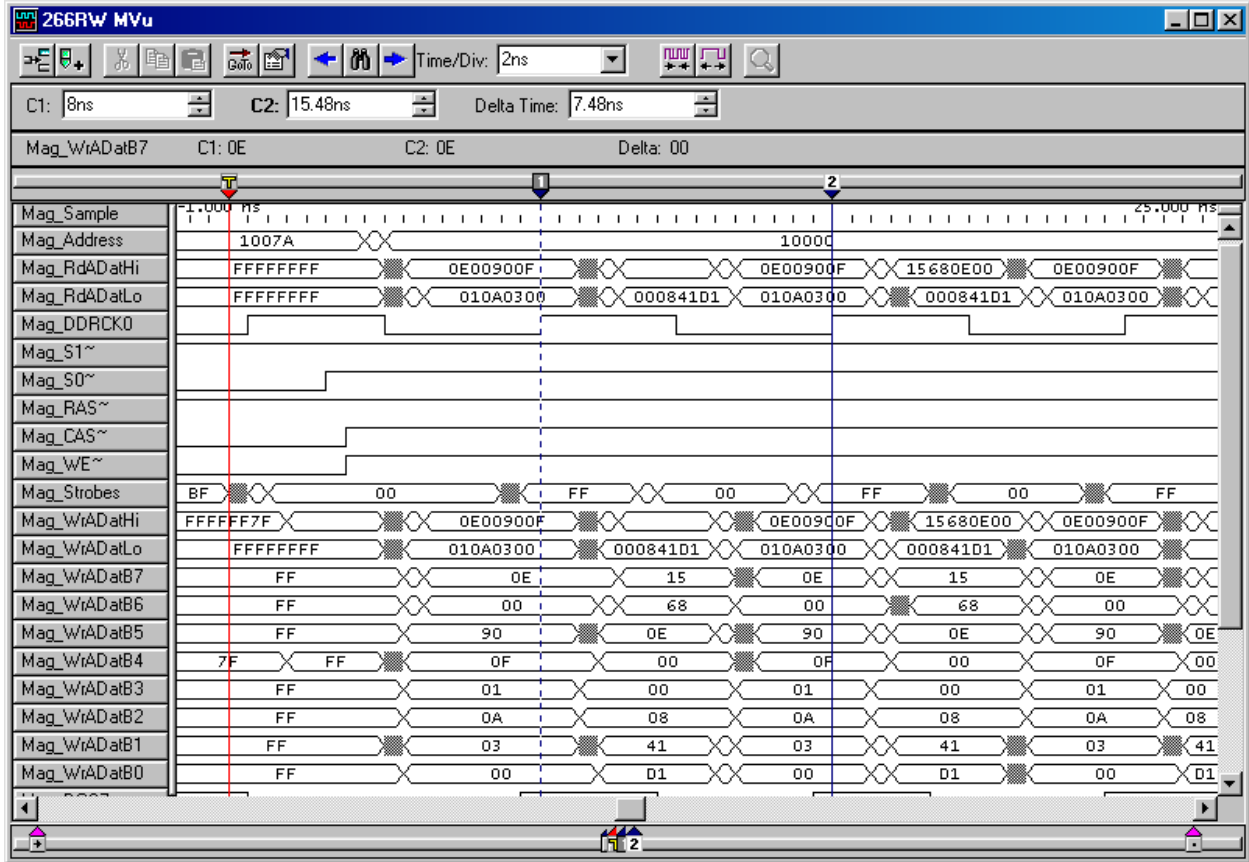
**DDR266M** requires three merged 136-channel acquisition cards. This support is designed to give the user the ability to acquire both DDR266 Read and Write data. For this support to work, all merged cards must have the 200MHz state clocking option. The DDR266RW support is usable with a TLA7XX-series 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.

## LA Support / Configuration

Acquisition Type	TLA5204	TLA6x4	TLA7L/M/N/P/Q4 Module(s)	TLA7AA/AB4 Module(s)
DDR200/266 Timing Only	136-channel - 4 P6434 probes	136-channel - 4 P6434 probes	<b>1 module</b> - 136-channel - 4 P6434 probes	<b>1 module</b> - 136-channel - 4 P6860 probes - 4 Mictor adapters
DDR200 Read <b>or</b> Write Data	136-channel - 4 P6434 probes	136-channel - 200MHz option - 4 P6434 probes	<b>1 module</b> - 200MHz option - 136-channel - 4 P6434 probes	<b>1 Module</b> - 136-channel - 235MHz option - 4 P6860 probes - 4 Mictor adapters
DDR200 Read <b>and</b> Write Data	NA	NA	<b>2 merged modules</b> - 200MHz option - 136-channel - 4 P6434 probes	<b>2 merged modules</b> - 136-channel - 235MHz option - 4 P6860 probes - 4 Mictor adapters
DDR266 Read <b>or</b> Write Data	NA	NA	<b>2 merged modules</b> - 200MHz option - 136-channel - 4 P6434 probes	<b>2 merged modules</b> - 136-channel - 235MHz option - 4 P6860 probes - 4 Mictor adapters
DDR266 Read <b>and</b> Write Data	NA	NA	<b>3 merged modules</b> - 200MHz option - 136-channel - 6 P6434 probes	<b>3 merged modules</b> - 136-channel - 235MHz option - 6 P6860 probes - 6 Mictor adapters

\*\* Read **and/or** Write at greater than 266MHz not available with this product. Please see NEX-DDRHS product for Read **and/or** Write support at speeds greater than 266MHz.

# Timing Display



# State Display

Sample	DDR266RW Address	DDR266RW RdADatHi	DDR266RW RdADatLo	DDR266RW RbBDatHi	DDR266RW RbBDatLo	DDR266RW WrADatHi	DDR266RW WrADatLo	DDR266RW WrBDatHi	DDR266RW WrBDatLo	DDR266RW Mnemonics	DDR266RW 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	50F1F60A	-----	-----	-----	-----	READ DATA	FF	7.500 ns
960	-----	300CED86	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	50F1F60A	-----	-----	-----	-----	READ DATA	FF	7.500 ns
988	-----	300CED86	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	08A8ECC9	2B06C280	-----	-----	-----	-----	READ DATA	FF	7.500 ns
1017	-----	59FB7508	A8ECFB74	7501A8EC	FB7401A8	-----	-----	-----	-----	READ DATA	FF	7.500 ns
1018	-----	99E85150	C35859FB	49EC9333	06C28000	-----	-----	-----	-----	READ DATA	FF	7.500 ns
1019	-----	C933F875	08A80E74	-----	-----	-----	-----	-----	-----	READ DATA	FF	7.500 ns
1020	10000	-----	-----	-----	-----	-----	-----	-----	-----	ACTV - ROW ADDRESS STROBE (S0~)	CF	7.500 ns
1023	1007A	-----	-----	-----	-----	-----	-----	-----	-----	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	D4B20274	01A803B4	-----	-----	-----	-----	READ DATA	FF	7.500 ns
1081	-----	5FC42600	1AE8C358	CBAD0772	ESP45250	-----	-----	-----	-----	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

Control Flow Mode, Address & Data Cycles Only

## Ordering / Contact Information

**Part Number** NEX-DDR266RWM

**Includes:** NEX-DDR266RWM adapter  
DDR200, DDR200M, DDR266 and DDR266M Support Software  
Manual

**Available software** includes

NEX-DDRSPA - TLA Software Plug-In for determining optimum Setup & Hold sample points.

**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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