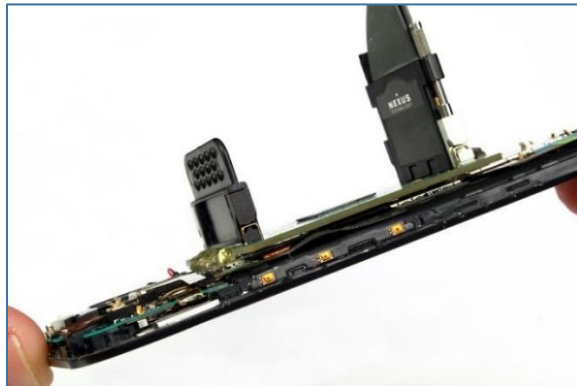


# The Nexus Difference

## LPDDR4 Interposers



### Key Features

- High fidelity interposers for LPDDR4
- Low and high-speed operation
- Data rates exceeding 4,267MT/s
- Enables oscilloscope or logic/memory analyzer probing
- Patented interposer/probe designs

### Applications

- LPDDR4
  - Memory validation and debug
  - Monitoring bus traffic
  - Bus traffic measurement
  - Optimization of memory performance
  - Analog insight
- LPDDR4 rates above LPDDR4-4267

### Overview

Low power double-data rate (LPDDR) mobile memory technologies are developed by the Joint Electronic Devices Engineering Council (JEDEC) for use in handheld

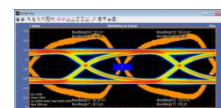
devices or applications where low-power and small size is critical.

No matter where you are in your product development cycle we have you covered! Complete analysis and validation of your product design, power-on, debug, compliance and optimization.

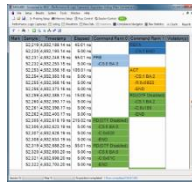
- Electrical Analysis - Early simulation, power on analog debug and analysis
- Logic Analysis - State/Cycle analysis viewing multiple signals as Commands and Data
- Compliance Analysis - Real Time bus protocol and performance analysis compared to JEDEC standards. System Optimization

### Interposer Types - Electrical Analysis

Electrical analysis is enabled by using either an EdgeProbe™, high density, or socketed interposer to capture memory activity on an oscilloscope. The oscilloscope is then used to debug, analyze, and verify the analog characteristics of your design. Presenting an accurate representation of the signals under test to the oscilloscope is critical. Nexus interposers provide an unobtrusive interconnect and accurate signal to your oscilloscope.



## Interposer Types - Logic/Compliance Analysis



Logic analysis is performed using a logic / compliance interposer to capture memory activity on a logic or memory analyzer. The logic or memory analyzer is

then used to debug, analyze, and verify the logic (basic protocol) of your design. Compliance analysis uses the same interposers to capture activity on a memory analyzer. The memory analyzer is then used to debug, analyze, margin test, performance analyze, and verify the memory protocol.



## EdgeProbe™ Interposer Technology



Nexus Technology's patent pending EdgeProbe™ technology enables our interposers to be virtually the same size as the memory

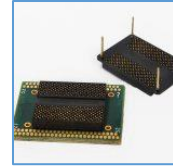
component. This is important because standard direct-attach interposers are significantly larger than the memory component which can potentially cause mechanical clearance problems. In other words, standard direct-attach interposers do not fit in all applications. EdgeProbe™ interposers fit in all applications.

EdgeProbe™ interposers provide advanced analysis capabilities by integrating the oscilloscope probe in to the interposer itself. In doing so, the probe point moves extremely close to the component pad which is the optimal and least intrusive location.

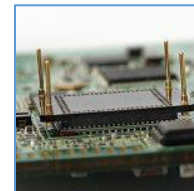
## Socketed Interposer Technology

Socketed interposer consists of a target socket, an interposer, and - optionally - a component socket. The target socket has a

standard ball-grid-array (BGA) interface which is used to install the socket on to the target. The target socket has a removable socket interface to which the interposer can be mechanically attached and re-attached by using a simple tool and your finger to press-fit the parts together.



The target socket's design forces the interposer up and over adjacent components, allowing this solution to fit in a wide variety of mechanically tight applications.



If an optional component socket is provided, this socket will reside on the interposer and provide a mechanically constrained and reusable interface for attaching standard BGA components. If the optional component socket is not provided, the standard BGA component is attached to the interposer using standard BGA component attachment techniques. Lastly, when testing is completed, the interposer can be removed and the BGA component may be press fit directly the custom socket on the target essentially removing the effect of the interposer in the target.

## Attachment Service



Nexus Technology's expert attachment service provides a ready-to-go test solution customized

to your application. We will attach the interposer and any additional accessories to your application's target. We can also power-on and test your application to confirm functionality.

## LPDDR4 Interposer Availability

### Product Matrix

Package (ChxDB)	Interposers			Options	
	EdgeProbe™	Direct Attach	Logic / Compliance	Riser	Component Socket
200 Ball (2x16)	*	✓	✓	Yes	Yes
272 Ball (4x16)	✓	✓	✓	Yes	Yes
366 Ball (4x16)	*	✓	✓	Yes	Yes
260-Pin SODIMM	x	X	✓	x	X
Custom	Custom designs are also available. Please contact us.				

\*: If you don't see what you need, please contact us for the most up to date information.

x: Not applicable.

### Product List

Product	Package (ChxDB)	Nomenclature	More Information
LPDDR4 SODIMM Slot Interposer	260-Pin SODIMM	NEX-LP4INTR260-CMPL	See Product Datasheet
LPDDR4 200 Ball Direct Attach Interposer	200 Ball (2x16)	NEX-LP4MCI200SCDS	See Product Datasheet
LPDDR4 200 Ball Compliance Interposer	200 Ball (2x16)	NEX-LP4POP200CA	See Product Datasheet
LPDDR4 272 Ball EdgeProbe™ Interposer	272 Ball (4x16)	NEX-LP4MCI272BSCA	See Product Datasheet
LPDDR4 272 Ball Direct Attach Interposer	272 Ball (4x16)	NEX-LP4POP272BSC	See Product Datasheet
LPDDR4 272 Ball Compliance Interposer	272 Ball (4x16)	NEX-LP4POP272CA	See Product Datasheet
LPDDR4 366 Ball Direct Attach Interposer	366 Ball (4x16)	NEX-LP4POP366BSC	See Product Datasheet
LPDDR4 366 Ball Compliance Interposer	366 Ball (4x16)	NEX-LP4POP366CA	See Product Datasheet

## Contact Information

For more information, please contact us by telephone, email or mail as listed below. Normal business hours are 9:00 - 5:00 EDT/EST.

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