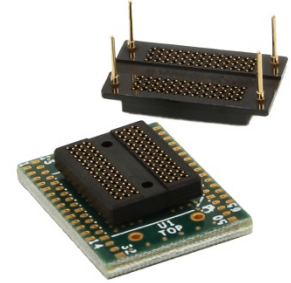


Target Socketed DDR4 Oscilloscope Component Interposers

Premier DDR4 Analog Component Validation

- Recommended for Optimal Analog validation
- Analyze Address, Command, Read and Write Commands
- X4/x8 and x16 options available
- Support for Existing DIMM or Embedded designs
- Patented Target Sockets eliminate the need for target rework
- Socketed interposers are elevated to provide mechanical clearance



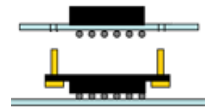
Nexus Technology recommends DDR4 component interposers for applications requiring optimal analog validation. These interposers allow for oscilloscope acquisition of command, address, and data of x4/x8 or x16 DDR4 memory components.

Premier Component Interposer Design

Optimal DDR4 validation requires analysis of the DDR4 signals, as seen by the memory components. This allows for the highest confidence that the signals captured are representative of the signals on the target. Nexus Technology component interposers allow for oscilloscope probing of the DDR4 signals extremely close to the memory component's BGA balls.

Memory Component Interposer Installation

The process of attaching the interposer to your target has been greatly simplified using Nexus Technology's Patented, High-bandwidth, component interposer sockets. These patented sockets completely remove the need to contract specialized rework houses to perform the installation. Instead, our customers can use standard BGA assembly practices to install the component interposer socket. Nexus Technology can perform the attachment service for a nominal fee.



Once the interposer socket is installed on the target, logic analyzer or oscilloscope interposers can easily be inserted or removed from the socket. This provides a reusable interface to your target system and completely removes any need to rework customer targets or our component interposers. Note that the interposer socket elevates the interposer above the adjacent BGAs to provide the mechanical clearance necessary for easy probe attachment.



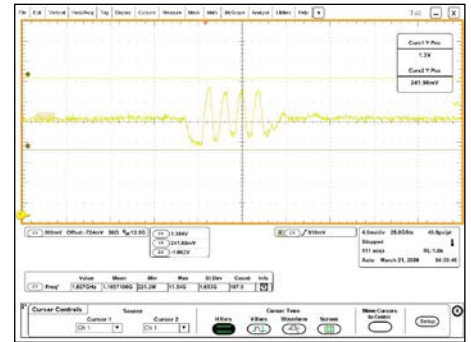
DDR4 BGA Component Installation

The interposer can be ordered with a second socket for easy BGA memory component installation and removal. These sockets allow for the quick swapping & testing of different memory components on the interposer. The NEXVu Sockets Quick Start Guide provides more information.

Oscilloscope Component Interposer Hardware

Connection to an oscilloscope is enabled by using x4/x8 or x16 oscilloscope memory component interposers. These controlled impedance, matched trace length interposers provide analog visibility using an oscilloscope. All signals are brought out to probe points that are designed to accommodate solder down probe tips. For more information, please see the [Nexus Soldering Guide](#). Removable oscilloscope probe tips can also be used to easily move the oscilloscope probe between signals for quick and accurate measurement.

Figure 1: Strobe as seen using the Oscilloscope Component Interposer



Oscilloscope Analog Validation

Filter software, available from Tektronix for use with select Tektronix oscilloscopes, removes the effect of the oscilloscope interposer. Although these interposers are designed to optimize signal integrity, this feature removes even the slightest effect the adapter has from the oscilloscope display.

Nexus Technology's Component Interposer Advantages

Probed at the BGA Balls

The best place to probe to eliminate reflections associated with standard embedded DDR3 mid bus probing or other methods. Interposers require no target footprints or special routing requirements that mid-bus probing requires.

Use with Existing Embedded Designs or DIMMs

No need to change existing designs. Simply add the interposer to your embedded target or DIMM with no re-design or added probe points.

Socket Design

The interposers are reusable. Once an interposer socket is installed, the interposer can be attached and removed by hand - allowing the interposer to be used on multiple targets quickly or allowing quick swapping of logic analyzer and oscilloscope interposers on the same target.

Support for DDR4 x4 or x8 Memory Devices

Full coverage for DDR4 applications.

Easy to Install

By either adding the interposer socket using industry standard BGA attachment methods or by using Nexus Technology's [attachment service](#).

Simple Analog Validation Via Standard Interposer Socket

The easy to install interposer socket can be used with the oscilloscope for maximum flexibility and very quick analog validation.

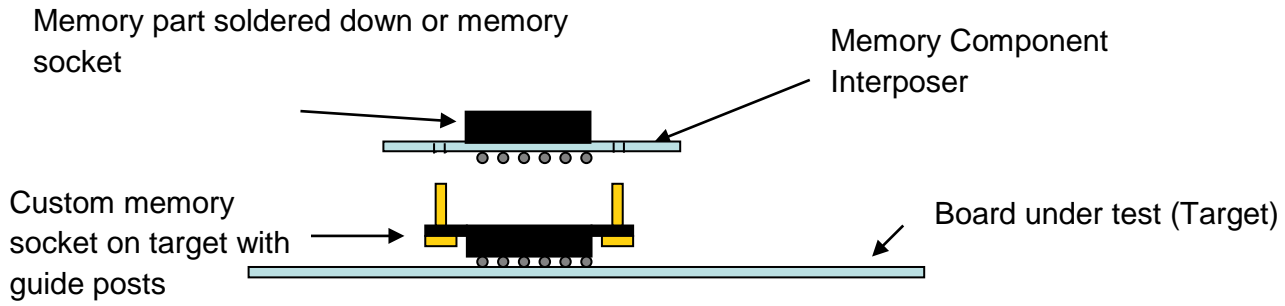
Oscilloscope Interposer Software

Oscilloscope "de-embedding" filter software removes effects of the interposer.

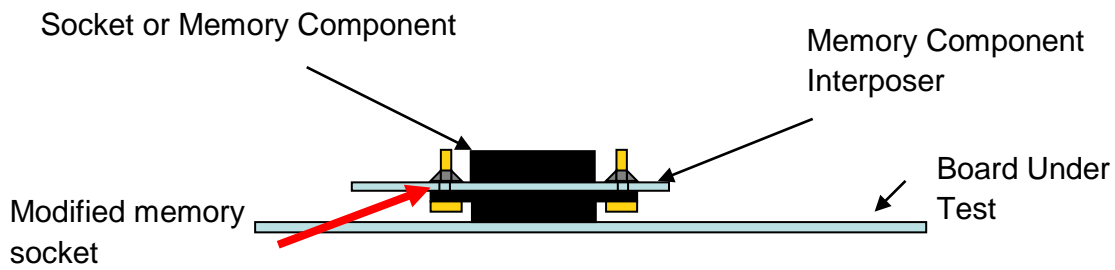
Interposer Retention to the Target

The interposer socket has four posts that are soldered to four mounting holes on the interposer. This ensures the interposer will not be mistakenly pulled off the socket attached to the target.

Attaching & Reusing Interposers

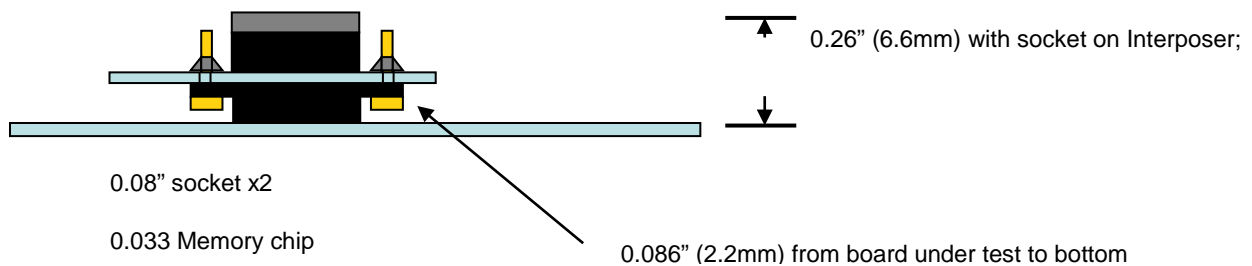


Side view of interposer insertion into the socket on the target



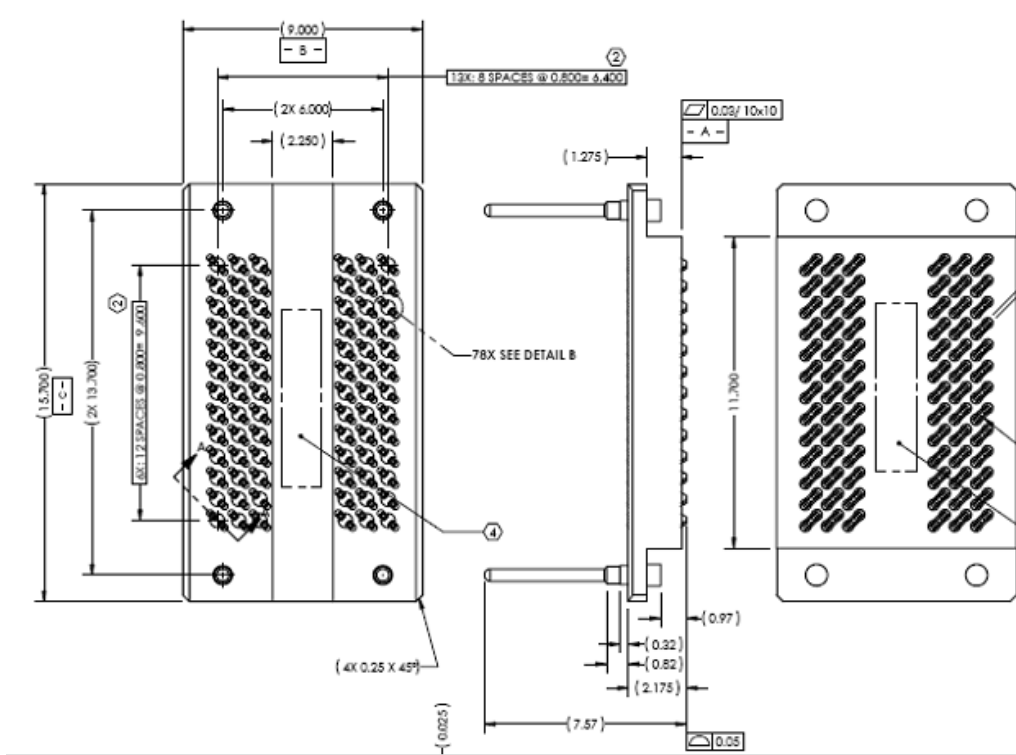
With pins. Soldered down

Side view of attached interposer

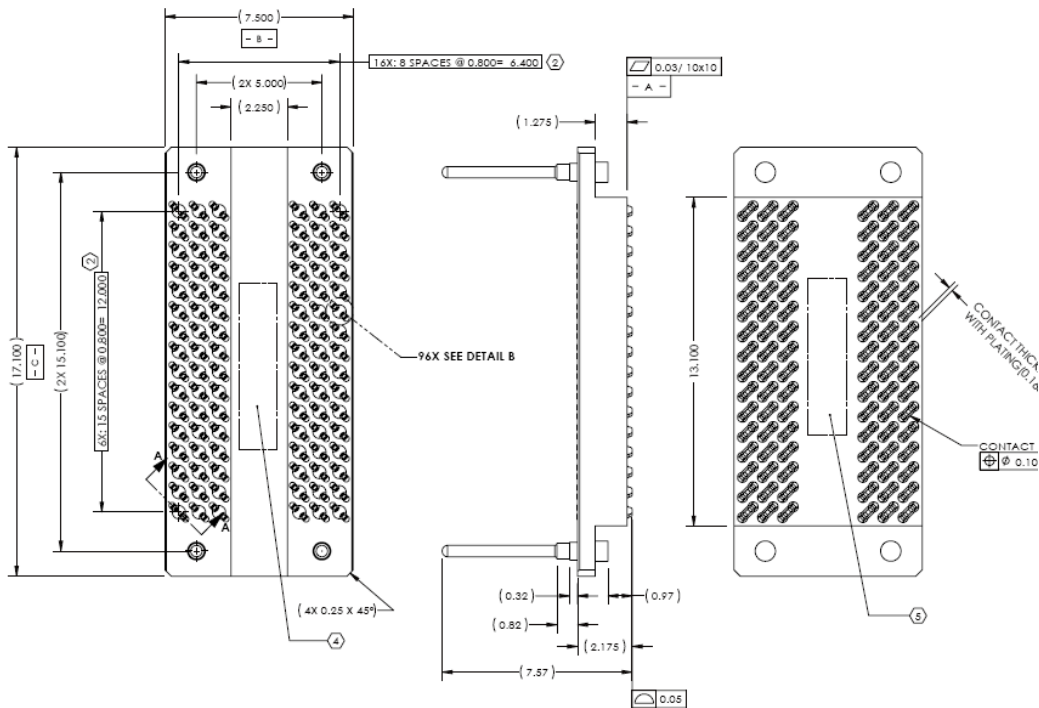


DDR4 Full Installation Height

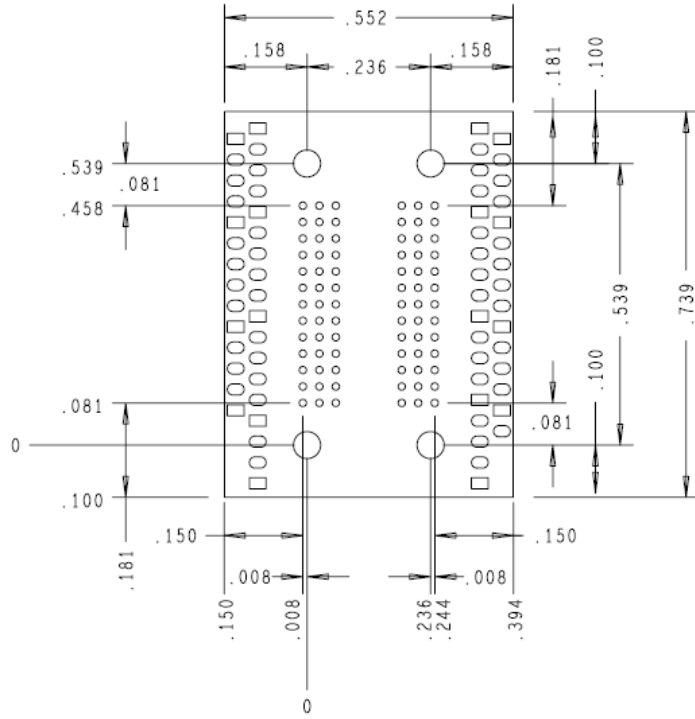
Product Dimensions



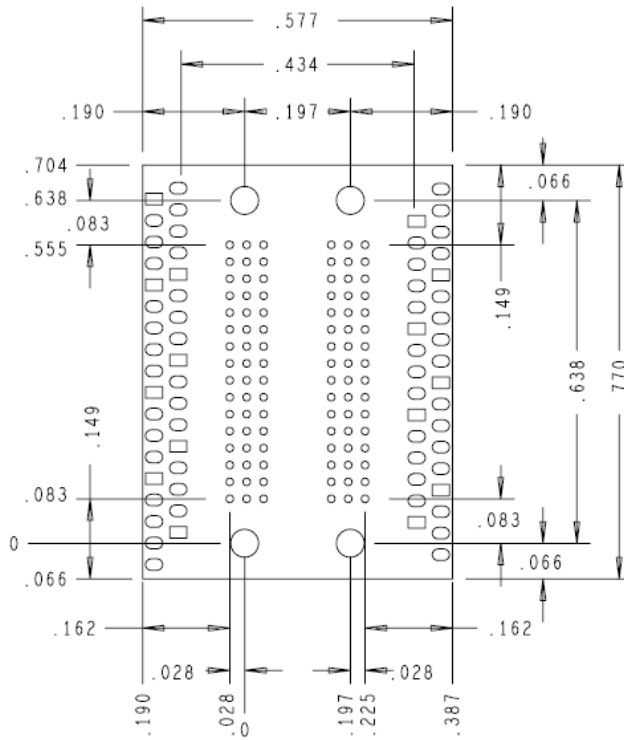
DDR4 x4 x8 Target Socket Dimensions



DDR4 x16 Target Socket Dimensions



DDR4 x4/x8 Socketed Oscilloscope Interposer Dimensions



DDR4 X16 Socketed Oscilloscope Interposer Dimensions

Product Configuration Tables

DDR3 Oscilloscope Interposers

Nomenclature	Interposer Type	Data Width	Component Socket Included	Installation Service Included
NEX-DDR4MP78BSCSK	Oscilloscope	x4/x8	Yes	No
NEX-DDR4MP78BSCSK-AT	Oscilloscope	x4/x8	Yes	Yes
NEX-DDR4MP78BSC	Oscilloscope	x4/x8	No	No
NEX-DDR4MP78BSC-AT	Oscilloscope	x4/x8	No	Yes
NEX-DDR4MP96BSCSK	Oscilloscope	x16	Yes	No
NEX-DDR4MP96BSCSK-AT	Oscilloscope	x16	Yes	Yes
NEX-DDR4MP96BSC	Oscilloscope	x16	No	No
NEX-DDR4MP96BSC-AT	Oscilloscope	x16	No	Yes

Optional Additional Component Interposer Sockets

Nomenclature	Data Width	Solder Balls Added	Quantity of Sockets
NEX-DDR478BGASKBA	x4/x8	Yes	1
NEX-DDR478BGASKBA-3	x4/x8	Yes	3
NEX-DDR496BGASKBA	x16	Yes	1
NEX-DDR496BGASKBA-3	x16	Yes	3

Further Information

Please contact us by telephone, email or mail as listed below. Email is preferred. Normal business hours are 9:00 - 5:00 EST.

Telephone 877-595-8116

Fax 877-595-8118

Address 78 Northeastern Blvd. Unit 2 Nashua, NH 03062

Technical Support techsupport@nexustechnology.com

Quote Requests quotes@nexustechnology.com

General Information support@nexustechnology.com

