

# The Fastest DDR4 Capture just got Faster

October 1, 2014 Bedford NH: FuturePlus Systems announced today the successful probing and capture of the latest DDR4 technology at speeds of 3.125GT/s. Previous demonstrations showed capture at 2.4GT/s. “ We design the probing to go as fast as we can but until we show it in a real live system we are just showing simulation results” said Torry Hack, General Manager at FuturePlus Systems. The FS2510 DDR4 Interposer and Keysight Technology U4154B Logic analyzer were used to make the capture. Although FuturePlus and Keysight have been shipping and selling DDR4 Validation Tools for over 2 years none of the available systems have gone over 2.4GT/s.

In order for engineers to ensure that their memory busses are working correctly they need tools to capture very fast and low power signals and analyze them for correct operation. Keysight Technologies and FuturePlus Systems have established themselves as the leader in this area working together for over 20 years on high speed validation and debug tools for the computer industry.

The challenge is to probe and capture the memory signals while the memory is installed in its target system running any software. This type of validation ensures that the memory subsystem will perform as intended in the end users environment like a server in a data center or an embedded memory chip in a cell phone. This is in contrast to the parametric testing of a memory chip or memory controller on a fixture, in a controlled environment lab, that is important but does not provide any insight into how both the memory controller and the memory chip will inner operate ‘in the wild’.

These linked pictures illustrate the ‘drill down’ functionality that engineers require in order to declare that a system is ready to ship. First the [state listing](#) shows the DDR4 Command and the double data rate Data as captured by the DDR memory bus clock. The second is the [simultaneous capture](#) of those signals using a high speed sampling clock. This allows for engineers to see what is going on in between system clock cycles. Finally an ultra [high speed sampling or a scan](#) can be performed to ensure that the trillions of Data Bytes that are being transferred every second are uniform in nature and comply with the JEDEC DDR4 memory specification.

For more information on the U4154B Logic Analyzer used to make this capture visit the [Keysight Technologies](#) web site. For information on the FS2510 DDR4 Interposer used along with the U4154B to make this capture visit the [FuturePlus Systems](#) web site.

**About Keysight Technologies:** Keysight Technologies Inc. (NYSE: KEYS) is the world's leading electronic measurement company, transforming today's measurement experience through innovation in wireless, modular, and software solutions. With its HP and Agilent legacy, Keysight delivers solutions in wireless communications, aerospace and defense and semiconductor markets with world-class platforms, software and consistent measurement science. The company's 9,500 employees serve customers in more than 100 countries. [Learn More](#)

**About FuturePlus Systems:** FuturePlus Systems has been a Strategic Solutions Partner to Keysight Technologies and its predecessors Agilent Technologies and Hewlett-Packard for over 20 years. The two companies enjoy a close business relationship that involves engineering, marketing and sales. FuturePlus® products are available through Keysight Technologies and available directly from FuturePlus Systems. [Learn More](#)

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