

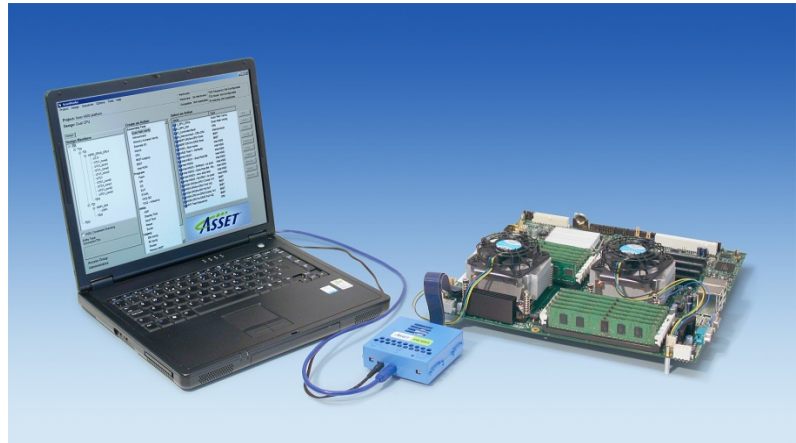
## SCANWORKS® INTEL® IBIST XEON 5600 DDR3 MEMORY TEST

### ASSET® CONTINUES TO WORK WITH INTEL® TO PROVIDE NEW TOOLS

The ScanWorks platform now supports DDR3 bus testing and validation on Intel® Xeon 5600 (codenamed Westmere-EP) platforms through Intel's IBIST technology. The ScanWorks Intel IBIST Xeon 5600 DDR3 Memory Test tool is the result of ASSET's continued work with Intel to provide test and validation tools for Intel-based platforms.

### DDR3 TEST AND VALIDATION CHALLENGES

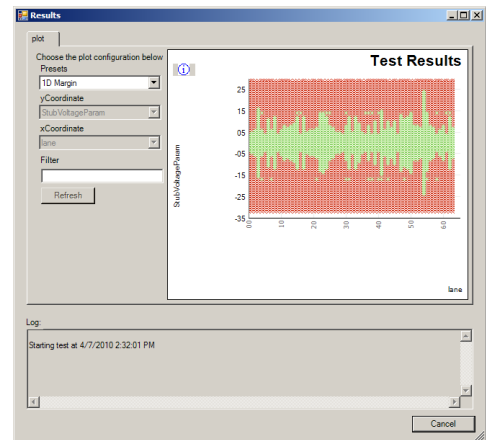
Intel's Xeon 5600 processor uses DDR3 memory exclusively and supports three (3) memory channels, at up to 3 DIMMs each, for a total of 18 DIMM slots in a dual-processor configuration. This represents a large portion of the board real estate, routing layers, and pin count. Validation must confirm performance in worst case conditions for every memory, and test must be able to verify there are no shorts, opens, or other defects in this vast pin field.



### TOOL FEATURES AND OPTIONS

The ScanWorks for Intel IBIST Xeon 5600 DDR3 Memory Test tool provides several options for validating margins on your DDR3 bus. There are several types of margin tests providing voltage and timing offsets at various parts of the memory bus.

The DIMMPotVref test uses on-board potentiometers to control the Vref used by the DIMMs. RxVref allows the test to adjust the internal Vref at the receivers of the Xeon 5600 processor, providing voltage margin data for read cycles. Timing tests include margining transmitter and receiver DQ to DQs as well as DQs to CK relationships providing data on both write and read cycles.



The tests are customizable to allow users to create tests focused on the current area of interest. Options such as loop count, crosstalk, burst size, ranks to be tested, and the rank combo method can be fine tuned to create a basic test that runs quickly on a single rank, or a longer, complex test to validate all ranks and combinations across the entire set of DIMMs.

### **XDP3 SUPPORT**

The ScanWorks for Intel IBIST Xeon 5600 DDR3 memory test can be run with the existing ASSET USB-200SII or Intel ITP-XDP2 controller when the proper BIOS modifications are in place for testing. Additionally, the ASSET USB-XDP3 and Intel ITP-XDP3 hardware are now supported as well. When testing with the XDP3 hardware, the GotoPOST (Power-On Self Test) mode can be enabled, removing the requirement for custom BIOS modifications. When the GotoPOST mode is used, ScanWorks will reboot the system under test, step it through BIOS, and stop at the user-configured POST code to allow reliable system operation for the DDR3 tests.