

DDR3 Device Test Setup Information:

- Arria II GX FPGA Development Board (PCIe) - DDR3 SDRAM x16 Device Test
- Arria II GX Device EP2AGX125EF35
- DDR3 SDRAM Device (U19)
 - Micron Part Number: MT41J64M16LA-15E
 - Size: 1Gb (8Meg x 16)
 - Max Memory Speed: 666.7MHz (1333Mb/sec)
- Quartus II Version 9.0 SP2
- MegaWizard: [DDR3 High-Performance Controller V9.0](#)
- The clock source is the 125MHz on-board oscillator (CLKIN_TOP_P/ CLKIN_TOP_N)
- DDR3 SDRAM Test Frequency: 300MHz
- Local Interface Clock Frequency: Half-Rate Mode (150MHz)
- Memory Width: 16-bit running in x9 mode
- DDR3 SDRAM On-Die Termination : ON

Test Status Information:

- LED2 indicates test completed. This LED will appear to always be on, but toggles high when the test completes.
- LED3 indicates that an error occurred when illuminated and will remain on until the Error-Control -> Clear button is pressed in the GUI.
- The Clear button will reset the test and clear any errors.

The DDR3 SDRAM controller used in this demonstration was created using the Altera® [DDR3 SDRAM High-Performance Controller](#) MegaWizard. The memory data-bus is 16-bits wide, running at 300MHz. With a half-rate mode the controller and user interface logic run at half the speed of the memory clock interface.

