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Laser Irradiation Experimental Studies on DDR3 for Xilinx Zynq-7010 SoC Microzed

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The single event effects of DDR3 influenced on Xilinx Zynq-7010 SoC Microzed performance were tested with 1064nm laser irradiation. The major affecting factors responsible for SEE sensitive region distributions on DDR3 and the SEFI happening probabilities of SoC induced by laser irradiation on DDR3 were tested in detail. These experimental factors include the data communication modes between DDR3 and the circuit modules embedded in SoC, Microzed test board operating frequency, laser device power and its irradiation position on DDR3. The mechanisms of the SEE typical experimental results were primarily explored.

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Session Classification: After dinner POSTER session, with drinks: (All presenters are requested/encouraged to attend their posters; All participants are requested to participate the session, with drinks!)

Track Classification: Electronics