

Modern Procedures for Evaluating MEMS Reliability

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Abstract

Two procedures were proposed for evaluating MEMS reliability: i) To evaluate the reliability of a Virtual Prototype, i.e simulating the dependence of the reliability level on device structure and process parameters; ii) To shorten the test time by using accelerated testing, which means to test the components at higher values of stress as those encountered in normal functioning, in the aim to shorten the time period necessary to obtain significant results. These two solutions are complementary, because the estimations made on a Virtual Prototype has to be verified by the accelerated testing.

Keywords: reliability, MEMS, virtual prototyping, accelerated testing.

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