Tolerance Design for a Subsystem with Unequal Specification Limits Using Taguchi's Quadratic

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Abstract

In 1990, Tsai (1990a) presented the probabilistic tolerance design for a subsystem with symmetric specification limits and the product with Taguchi's (1986) quadratic loss function. In this paper, we further present the modified Tsai's (1990a) model under the unequal specification limits for a subsystem. The linear and quadratic quality loss functions for the product are considered in the modified model.

Keywords: Quality Loss Function, Tolerance Design, Unequal Specification Limits.