

Abstract

In this paper, Taguchi method, which is a relatively novel optimization technique, is employed. Based on the concept of the orthogonal array, Taguchi method effectively reduces the number of tests required in an optimization process. This method has been successfully applied in many fields such as chemical engineering, mechanical engineering, IC manufacturing, power electronics, etc. In this work, the Taguchi method is applied to optimize linear array antennas for null placement and sidelobe level reduction. The optimization process is carried out by controlling the array parameters including specifically the element excitations (amplitude and phase) and positions