

Abstracts

Computer Based Methods for Production Tuning of Microwave Components

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Three multivariate discrimination methods are applied as computer based tuning algorithms during the manufacture of over 9000 C-band power amplifiers. The three methods are parametric, nearest neighbor, and Monte Carlo discrimination. The nearest neighbor and Monte Carlo algorithms are found to be the most useful for tuning microwave components. Monte Carlo discrimination is judged to be the best method. Application of the nearest neighbor and Monte Carlo methods improved the rate of successfully reclaiming initially failing parts from 51% to 82% when compared with manual tuning techniques.

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