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基因演算法優化小尺寸 LCD 背光模組

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Abstract

This paper mainly uses genetic algorithm to optimize the backlight of 1.8" cellular phone front-panel. The employed light sources are the white-light LEDs (NSSW108) produced by Nichia Chemistry, and the tiny structure of carrying light module adopts point distribution with the material of acryl. By using genetic algorithm to optimize the tiny structure and its distribution, the primary result shows that the homogeneity of the backlight can reach to 75% by using the 9-point measurement method. If the number of partition is promoted, the homogeneity can reach the request (about 80%) of industry.

Key words : Genetic algorithm; Backlight; White-light LED; Homogeneity