

應用DBR於LED晶粒製造廠的補投單管理模式研究

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摘要

The LED chip manufacturing (LED-CM) is an important process in the LED supply chain. The make-to-order production is a general model for the LED-DM plants to satisfy the variety requirement of their customers. Because the unstable production output of the LED-CM plants, the effective order fulfillment is low and variety. Therefore, the production planner will thus confront the issue of an insufficient output of a manufacturing order (MO). Although material re-issued is allowed by the customers, this re-issued lot is required to be rush order. The LED-CM plant thus confront the issues of on-time delivery of those re-issued lots and the impact on the normal lots.

An enhanced models of Drum-Buffer-Rope (DBR) system for LED-CM plants is proposed in this project to improve those issues mentioned above. This model provides the hot lot schedule in DRUM and immediate material-issued in ROPE. A simulation and experiment model is also designed in this project to demonstrate the feasibility and effectiveness of this model. Based on the simulation study, this model surpasses the traditional EDD model or EDD + hot lot first model in mean flow time or the deviation between forecast due-date and actual delivery.

關鍵字：Drum-Buffer-Rope(DBR), LED chip manufacturing (LED-CM), Re-issued lot, Expediting model, Hot lot scheduling