

论文

多输出逻辑函数最小覆盖算法原理的改进

陈苏, 许道荣

清华大学 北京 100084

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摘要

本文对求逻辑函数最小覆盖的析取(extraction)法在多输出情况下的立用进行了研究, 弥补了原有算法在多输出极值项处理上的欠缺, 并在此基础上定义了3种不同情况下的劣势项。对劣势项的定义做了3种推广, 可以更有效地求出项数最少输出无冗余的覆盖。给出了MOSE算法。

关键词 [多输出函数最小化](#) [可编程逻辑阵列化简](#) [最小“与或”表达式](#)

分类号

IMPROVEMENT OF THE ALGORITHM PRINCIPLE FOR MINIMIZATION OF MULTI-OUTPUT FUNCTIONS

Chen Su, Xu Daorong

Tsinghua University Beijing 100084

Abstract

The application of extraction principle for logic function minimization to multiple-output cases is studied. The defect in original algorithm in dealing with multi-output extremals is complemented, and three kinds of less-than terms in different conditions are defined. In addition, three kinds of generations for the definition of less-than terms are given, so as to more efficiently find out the coverage with minimal number of terms and irredundant function outputs. Finally, an algorithm MOSE based on the work is presented.

Key words [Multi-output function minimization](#) [Reduction of programmable logic array \(PLA\)](#) [Minimal "AND-OR" expression](#)

DOI:

通讯作者

作者个人主页

陈苏; 许道荣

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