**实验八 触发器及其应用（2）**

**一、实验数据记录**

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| **实验名称** | **实验八触发器及其应用二** | | | |
| **器件** |  | | | |
| 1. **实验任务（1）：用D触发器设计一个同步八进制计数器（必做）**  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **状态转移表、卡诺图及表达式：**  **状态转移表：**   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | **输入** | **次态** | | | **现态** | | | |  |  |  |  |  |  |  | |  | **0** | **0** | **0** | **0** | **0** | **1** | |  | **0** | **0** | **1** | **0** | **1** | **0** | |  | **0** | **1** | **0** | **0** | **1** | **1** | |  | **0** | **1** | **1** | **1** | **0** | **0** | |  | **1** | **0** | **0** | **1** | **0** | **1** | |  | **1** | **0** | **1** | **1** | **1** | **0** | |  | **1** | **1** | **0** | **1** | **1** | **1** | |  | **1** | **1** | **1** | **0** | **0** | **0** |   **表达式：**    **卡诺图：**     |  |  |  |  |  | | --- | --- | --- | --- | --- | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | | | **电路及波形仿真结果：（请分析结果现象）**  **电路图：**    **波形仿真结果：**    **在信号的上升沿，Q改变1位。当Q为111时，在信号的上升沿，Q被重置为000** |  1. **实验任务（2）：用D触发器设计按键开关消抖电路（选做）** | | | | |
| **设计思路：** | | | | |
| **电路及波形仿真结果：（请分析结果现象）** | | | | |
| **故障记录（记录实验过程中的故障现象及解决方案）** | | | | |
| **实验成绩** | |  | **指导老师签字** |  |