

# 2012

一、(1)  $(11011)_2 = (55)_{10} = \left( \frac{0101}{5} \frac{0101}{5} \right)_{16}$   
 $1+2+4+16+32$

(2)  $2^{16} \times 8 = 64k \times 8 = 512k$   
 $16\text{位地址线} \rightarrow 2^{16}\text{个存储单元}$      $8\text{数据位} \rightarrow \text{每个存储单元8位}$

(3) 0C17 T517 南桥

第3次考试

(4) 并行逐次双积分型

双积分型是一种间接ADC

(5) 增加冗余度 低通滤波电路 迟滞脉冲

课本原话

二、最简与-或式:

$$Y = B\bar{C} + AB\bar{C}E + \bar{B}(A\oplus D) + B(A\oplus D)$$

$$= B\bar{C} + A\bar{D} + \bar{A}D$$

最简或与式:

对偶式:  $Y' = (B+\bar{C})(A+B+\bar{C}+E)(\bar{B}+(\bar{A}+\bar{D})(A+D))(B+(A+D)(\bar{A}+D))$

$$= (B+\bar{C})(\bar{B}+A\bar{D})(B+A\bar{D})$$

$$= (B+\bar{C})(A\bar{D} + \bar{A}D)$$

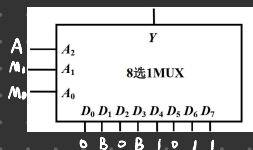
$$= ABD + A\bar{C}D + \bar{A}B\bar{D} + \bar{A}\bar{C}\bar{D}$$

再对Y'求对偶:

$$Y'' = (A+B+D)(A+\bar{C}+D)(\bar{A}+B+\bar{D})(\bar{A}+\bar{C}+\bar{D})$$

三、因为A在M<sub>0</sub>M<sub>1</sub>的4项组合中均有取值, 所以A, A<sub>1</sub>, A<sub>0</sub>分别输入A-M<sub>1</sub>-M<sub>0</sub>.

	A	M <sub>1</sub>	M <sub>0</sub>	F
D <sub>0</sub>	0	0	0	F=A=0
D <sub>1</sub>	0	0	1	F=0⊕0=B
D <sub>2</sub>	0	1	0	F=A⊕0=B
D <sub>3</sub>	0	1	1	F=A⊕B=B
D <sub>4</sub>	1	0	0	F=A=1
D <sub>5</sub>	1	0	1	F=1⊕0=0
D <sub>6</sub>	1	1	0	F=A⊕B=1
D <sub>7</sub>	1	1	1	F=A⊕B=1



(本题题设较灵活, 仅供参考, 合理即可)

四、输出函数:  $Y = \overline{Q_2 \cdot Q_1} = Q_1 Q_2$  为 Moore 型

激励函数:

$$J_2 = Q_0 Q_1 \quad J_1 = Q_0 \quad J_0 = Q_2 Q_1$$

$$K_2 = Q_1 \quad K_1 = \overline{Q_0 Q_2} \quad K_0 = 1$$

次态方程式:

$$Q_2^{n+1} = Q_0 Q_1 Q_2 + \overline{Q_1} Q_2$$

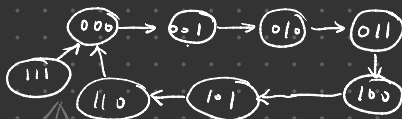
$$Q_1^{n+1} = Q_0 Q_1 + \overline{Q_0} \overline{Q_2} Q_1$$

$$Q_0^{n+1} = \overline{Q_1 Q_2} \overline{Q_0}$$

状态表:

现态	次态	Y
$Q_2 \ Q_1 \ Q_0$	$Q_2' \ Q_1' \ Q_0'$	
0 0 0	0 0 1	0
0 0 1	0 1 0	0
0 1 0	0 1 1	0
0 1 1	1 0 0	0
1 0 0	1 0 1	0
1 0 1	1 1 0	0
1 1 0	0 0 0	1
1 1 1	0 0 0	1

状态图:



可以自启动

无无效序列可以返回有效序列