

作业 221023

1. $E = AB + ACD$

$$F = \overline{BCD} \overline{B\bar{D}} \overline{B\bar{C}} = BCD + \bar{B}\bar{D} + \bar{B}\bar{C} = BCD + \bar{B}\bar{C}\bar{D} = \text{~~BCD + BCD~~}$$

$$G = \overline{CD} \overline{C\bar{D}} = C\bar{D} + \bar{C}D = C \oplus D$$

$$H = \bar{D}$$

输入余3码, 输出 8421 码

2. $y_3 = x_3, y_2 = x_2 \oplus x_1$

$$y_1 = \overline{mx_1} \overline{my_2} \oplus x_1, y_0 = \overline{mx_1} \overline{my_1} \oplus x_0$$

$$M=0 \text{ 时, } y_1 = x_1 \oplus y_2 = x_1 \oplus x_2 \oplus x_3, y_0 = x_0 \oplus y_1 = x_0 \oplus x_1 \oplus x_2 \oplus x_3$$

$$M=1 \text{ 时, } y_1 = x_1 \oplus x_2, y_0 = x_0 \oplus x_1$$

$M=0$ 时, 8421 \rightarrow Grey; $M=1$ 时, Grey \rightarrow 8421