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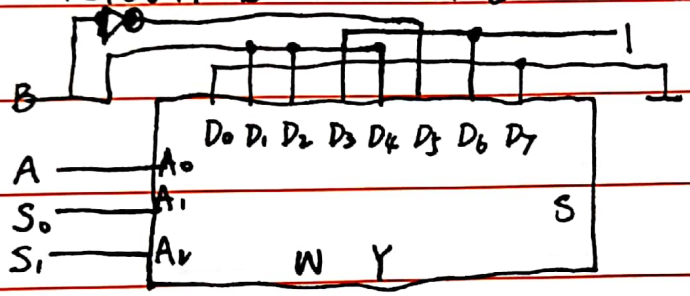
4.24　8选1数据选择器逻辑式为 $Y=(A_2'A_1'A_0')\cdot D_0+A_2'A_1'A_0\cdot D_1+A_2'A_1A_0'\cdot D_2+A_2'A_1A_0\cdot D_3+A_2A_1'A_0'\cdot D_4+A_2A_1'A_0\cdot D_5+A_2A_1A_0'\cdot D_6+A_2A_1A_0\cdot D_7$

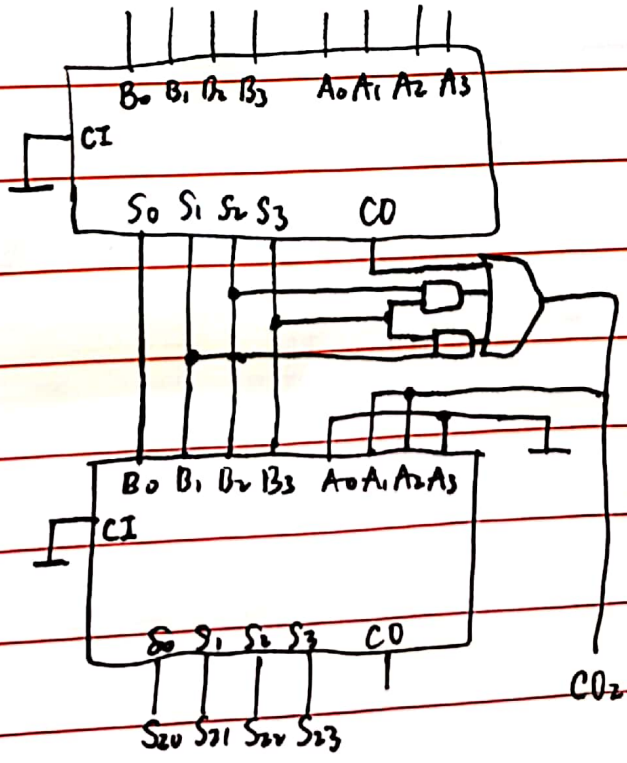
由Truth table得 $Y=S_1'S_0'A\cdot B+S_1'S_0(A+B)+S_1S_0'(A'B+AB')+S_1S_0A'\cdot 1$.

对照得 $Y=S_1'S_0'A'\cdot 0+S_1'S_0'A\cdot B+S_1'S_0A'\cdot B+S_1'S_0A\cdot 1+S_1S_0'A'\cdot B+S_1S_0'A\cdot B'+S_1S_0A'\cdot 1+S_1S_0A\cdot 0$.

⇒



4.27



$CO_2=CO_1+S_{13}S_{12}+S_{13}S_{11}$

4.32 $Y = A'CD + AB'D + BC' + CD'$

当 $B=0$，$C=D=1$ 时 $Y = A + A'$，存在.

当 $A=1=D$，$C=0$ 时，$Y = B + B'$ 存在

当 $B=1$，$D=1$，$A=0$ 时，$Y = C + C'$ 存在

当 $A=1$，$D=0$，$C=1$ 时，$Y = D + D'$，存在

4.28 需要用3片