

2	0	1	I19
2	0	2	I20
2	1	0	I21
2	1	1	I22
2	1	2	I23
2	2	0	I24
2	2	1	I25
2	2	2	I26

Table 14. Function Table For 2-Bit Comparator

A1	A0	B1	B0	A>B	A=B	A<B
0	0	0	0	0	2	0
0	0	0	1	0	0	2
0	0	0	2	0	0	2
0	0	1	0	0	0	2
0	0	1	1	0	0	2
0	0	1	2	0	0	2
0	0	2	0	0	0	2
0	0	2	1	0	0	2
0	0	2	2	0	0	2
0	1	0	0	2	0	0
.
.
.
.
2	2	1	2	2	0	0
2	2	2	0	2	0	0
2	2	2	1	2	0	0
2	2	2	2	0	2	0

Table 15. Function Table For 1-Bit & 2-Bit Position Shifter

X	Y0	Y1	Y2
0	W0	W1	W2
1	0	W0	W1
2	0	0	W0

Table 16. Function Table For Barrel Shifter

S	Y0	Y1	Y2
0 (PARALLEL LOAD)	W0	W1	W2
1 (SHIFT BY 1-BIT POSITION TO RIGHT)	W2	W0	W1
	W1	W2	W0
	W0	W1	W2
2 (SHIFT BY 2-BIT POSITION TO RIGHT)	W1	W2	W0
	W2	W0	W1
	W0	W1	W2

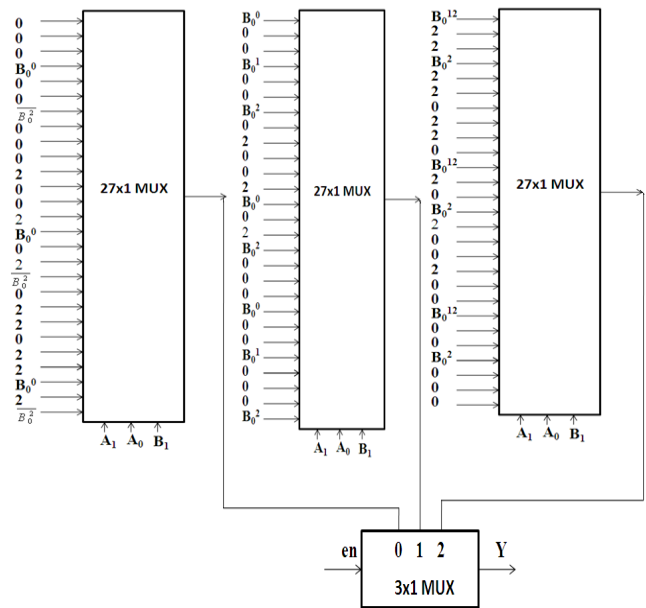


Fig.20(d). Block diagram of 2-bit comparator