

FIG. 1

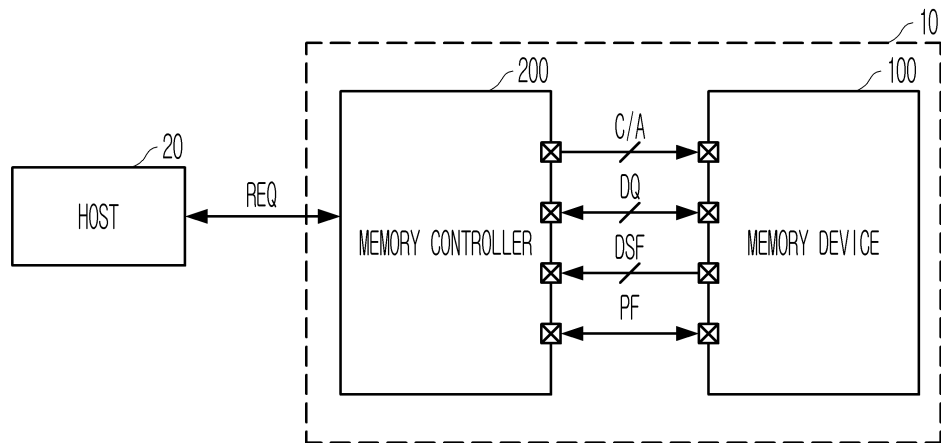


FIG. 2

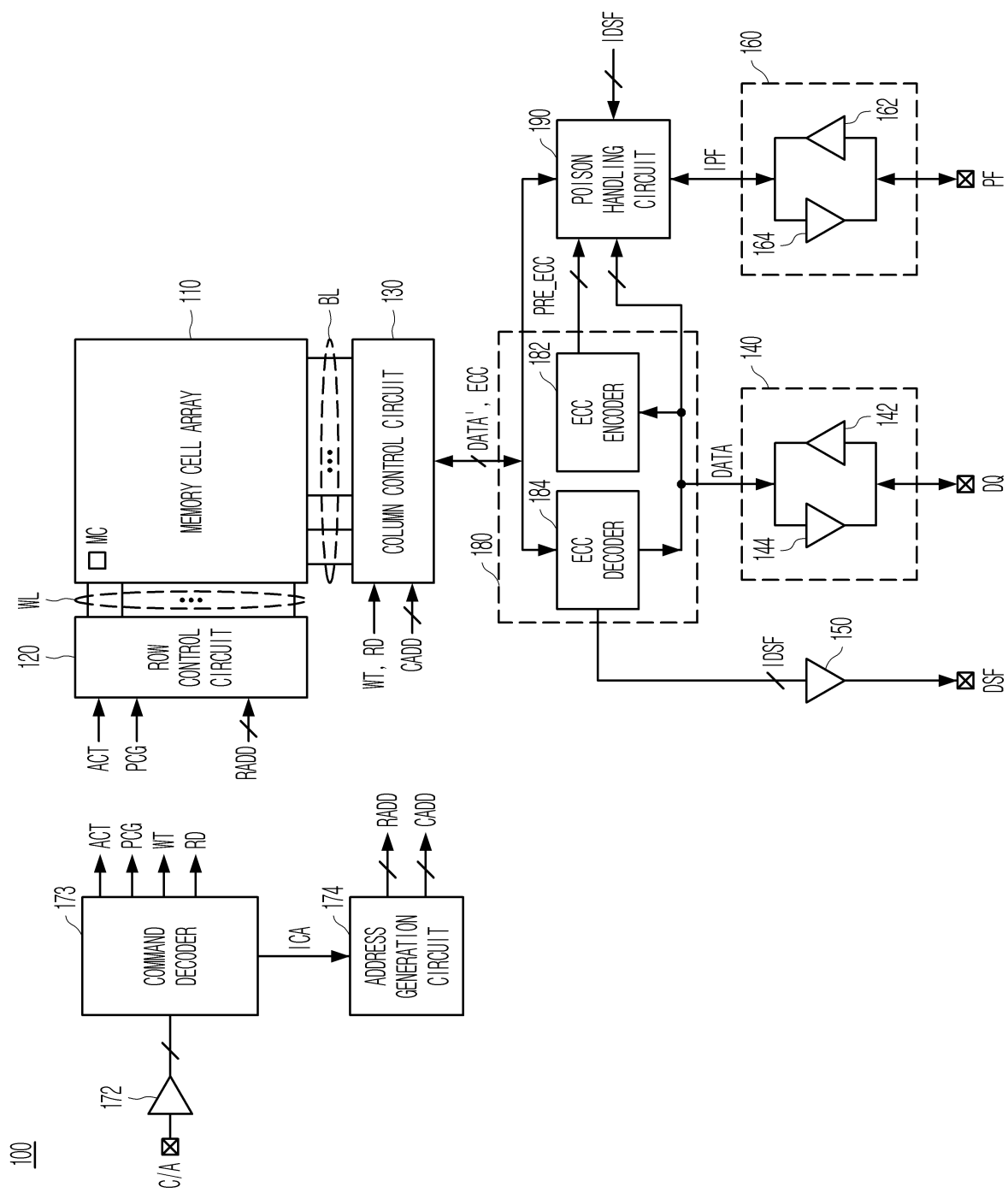


FIG. 3

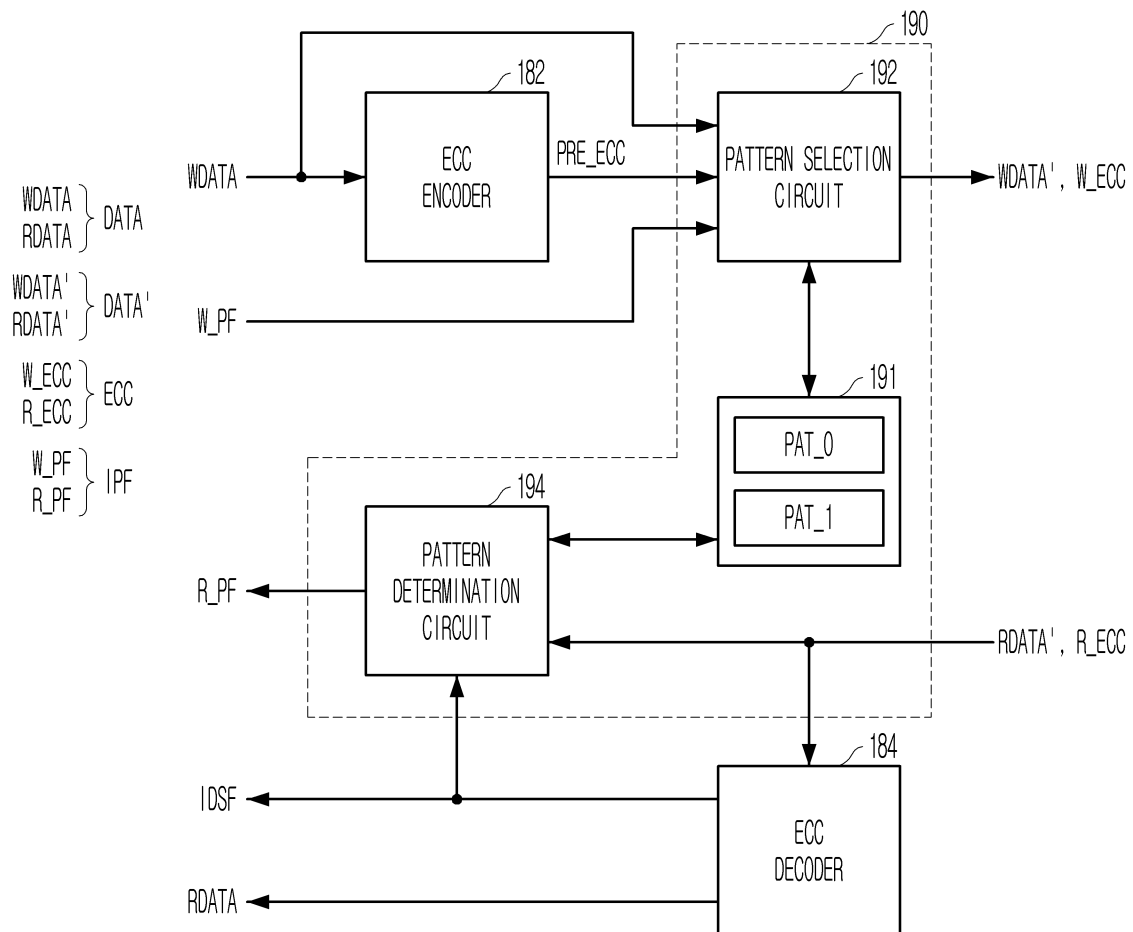


FIG. 4

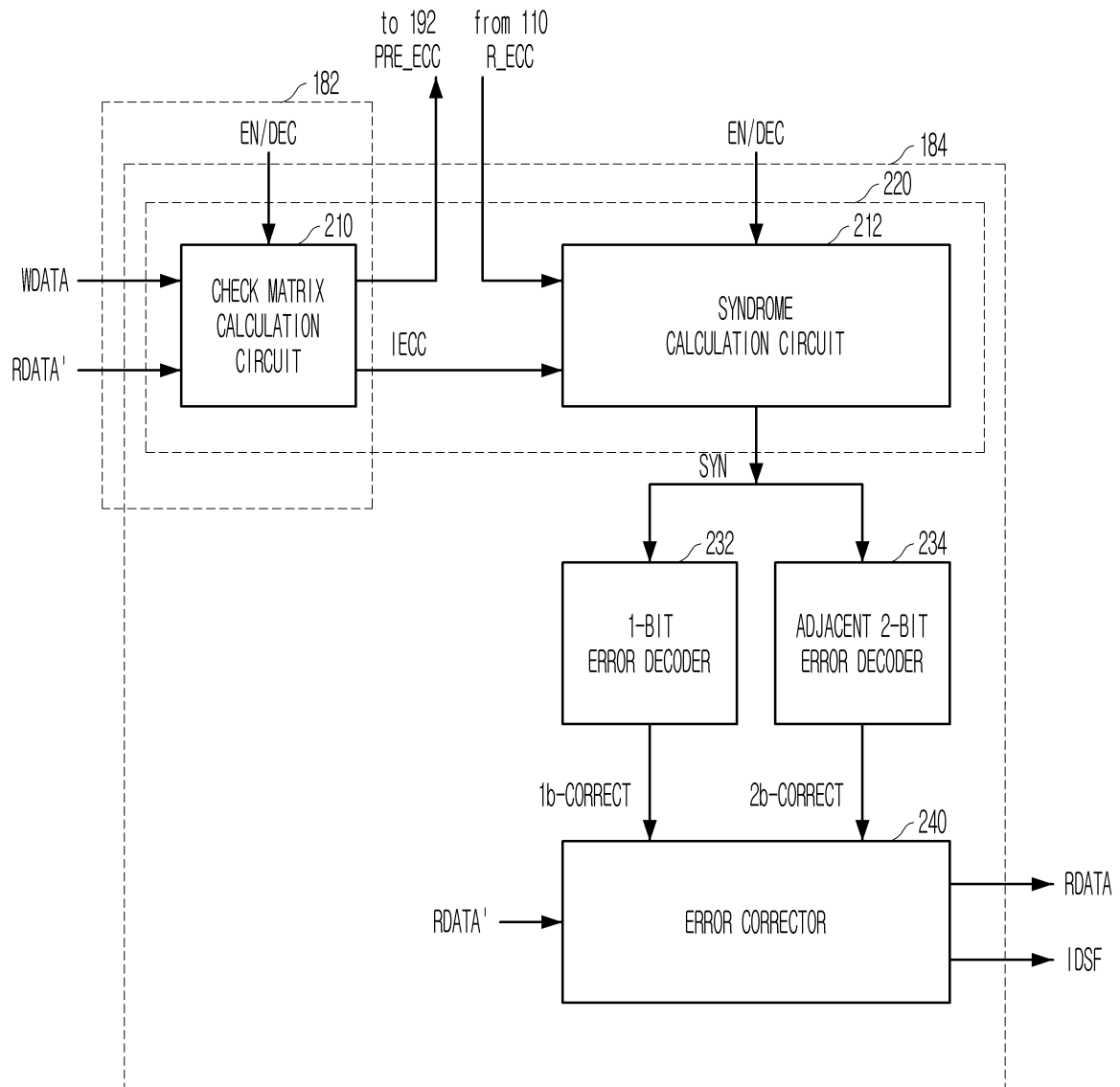


FIG. 8

$$\begin{pmatrix}
 0 & 0 & 1 & 0 & 1 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
 0 & 0 & 0 & 1 & 0 & 1 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 \\
 1 & 0 & 0 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 \\
 0 & 1 & 0 & 0 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 \\
 1 & 0 & 1 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 \\
 0 & 1 & 0 & 1 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 \\
 1 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 \\
 0 & 1 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1
 \end{pmatrix} \times \begin{pmatrix}
 D0' \\
 D1' \\
 D2' \\
 D3' \\
 D4' \\
 D5' \\
 D6' \\
 D7' \\
 D0 \\
 E1 \\
 E2 \\
 E3 \\
 E4 \\
 E5 \\
 E6 \\
 E7
 \end{pmatrix} = \begin{pmatrix}
 S0 \\
 S1 \\
 S2 \\
 S3 \\
 S4 \\
 S5 \\
 S6 \\
 S7
 \end{pmatrix}$$

FIG. 9

DATA								ECC							
D0'	D1'	D2'	D3'	D4'	D5'	D6'	D7'	E0	E1	E2	E3	E4	E5	E6	E7
0	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0
0	0	0	1	0	1	0	1	0	1	0	0	0	0	0	0
1	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0
0	1	0	0	0	1	0	1	0	0	0	1	0	0	0	0
1	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0
0	1	0	1	0	0	0	1	0	0	0	0	0	1	0	0
1	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0
0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	1

FIG. 10

DATA				ECC			
D0'D1'	D2'D3'	D4'D5'	D6'D7'	E0	E2	E4	E6
0	1	1	1	1	0	0	0
0	1	1	1	1	0	0	0
1	0	1	1	0	1	0	0
1	0	1	1	0	1	0	0
1	0	0	1	0	0	1	0
1	1	0	1	0	0	1	0
1	1	1	0	0	0	0	1
1	1	1	0	0	0	0	1

FIG. 11A

$$\begin{pmatrix}
 0 & 0 & 1 & 0 & 1 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
 0 & 0 & 0 & 1 & 0 & 1 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 \\
 1 & 0 & 0 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 \\
 0 & 1 & 0 & 0 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 \\
 1 & 0 & 1 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 \\
 0 & 1 & 0 & 1 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 \\
 1 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 \\
 0 & 1 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1
 \end{pmatrix}
 \times
 \begin{pmatrix}
 1 \\
 1 \\
 0 \\
 0 \\
 1 \\
 0 \\
 1 \\
 0 \\
 0 \\
 0 \\
 0 \\
 1 \\
 1 \\
 1 \\
 0 \\
 1
 \end{pmatrix}
 =
 \begin{pmatrix}
 0 \\
 0 \\
 0 \\
 0 \\
 0 \\
 0 \\
 0 \\
 0
 \end{pmatrix}$$

FIG. 11B

$$\begin{pmatrix}
 0 & 0 & 1 & 0 & 1 & 0 & \cancel{1} & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
 0 & 0 & 0 & 1 & 0 & 1 & \cancel{0} & 1 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 \\
 1 & 0 & 0 & 0 & 1 & 0 & \cancel{1} & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 \\
 0 & 1 & 0 & 0 & 0 & 1 & \cancel{0} & 1 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 \\
 1 & 0 & 1 & 0 & 0 & 0 & \cancel{1} & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 \\
 0 & 1 & 0 & 1 & 0 & 0 & \cancel{0} & 1 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 \\
 1 & 0 & 1 & 0 & 1 & 0 & \cancel{0} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 \\
 0 & 1 & 0 & 1 & 0 & 1 & \cancel{0} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1
 \end{pmatrix}
 \times
 \begin{pmatrix}
 1 \\
 1 \\
 0 \\
 0 \\
 1 \\
 0 \\
 \cancel{0} \\
 0 \\
 0 \\
 0 \\
 0 \\
 1 \\
 1 \\
 1 \\
 0 \\
 1
 \end{pmatrix}
 =
 \begin{pmatrix}
 1 \\
 0 \\
 1 \\
 0 \\
 1 \\
 0 \\
 0 \\
 0
 \end{pmatrix}$$

FIG. 11C

$$\begin{pmatrix}
 0 & 0 & 1 & 0 & 1 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
 0 & 0 & 0 & 1 & 0 & 1 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 \\
 1 & 0 & 0 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 \\
 0 & 1 & 0 & 0 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 \\
 1 & 0 & 1 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 \\
 0 & 1 & 0 & 1 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 \\
 1 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 \\
 0 & 1 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1
 \end{pmatrix} \times \begin{pmatrix}
 1 \\
 1 \\
 0 \\
 0 \\
 1 \\
 0 \\
 0 \\
 1 \\
 1 \\
 1 \\
 0 \\
 0 \\
 1 \\
 1 \\
 0 \\
 1
 \end{pmatrix} = \begin{pmatrix}
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 0 \\
 0
 \end{pmatrix}$$

FIG. 12

PAT_0								PAT_1							
0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1

FIG. 13C

$$\begin{pmatrix} 0 & 0 & 1 & 0 & 1 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 & 0 & 1 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 0 & 0 \\ 1 & 0 & 0 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 1 & 0 & 0 & 0 \\ 1 & 0 & 1 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 \\ 0 & 1 & 0 & 1 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 1 & 0 \\ 1 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 \\ 0 & 1 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 \end{pmatrix} \times \begin{pmatrix} 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ // \\ // \\ 0 \\ 0 \\ 0 \\ 0 \\ 1 \\ 1 \\ 0 \\ 1 \\ 1 \\ 1 \end{pmatrix} = \begin{pmatrix} 1 \\ 1 \\ 1 \\ 0 \\ 0 \\ 1 \\ 1 \\ 1 \\ 1 \end{pmatrix} \Rightarrow \text{UE}$$

FIG. 14

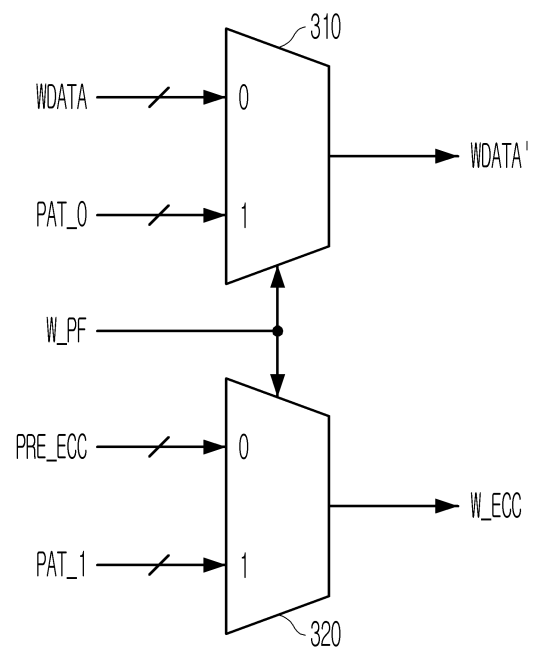
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FIG. 15

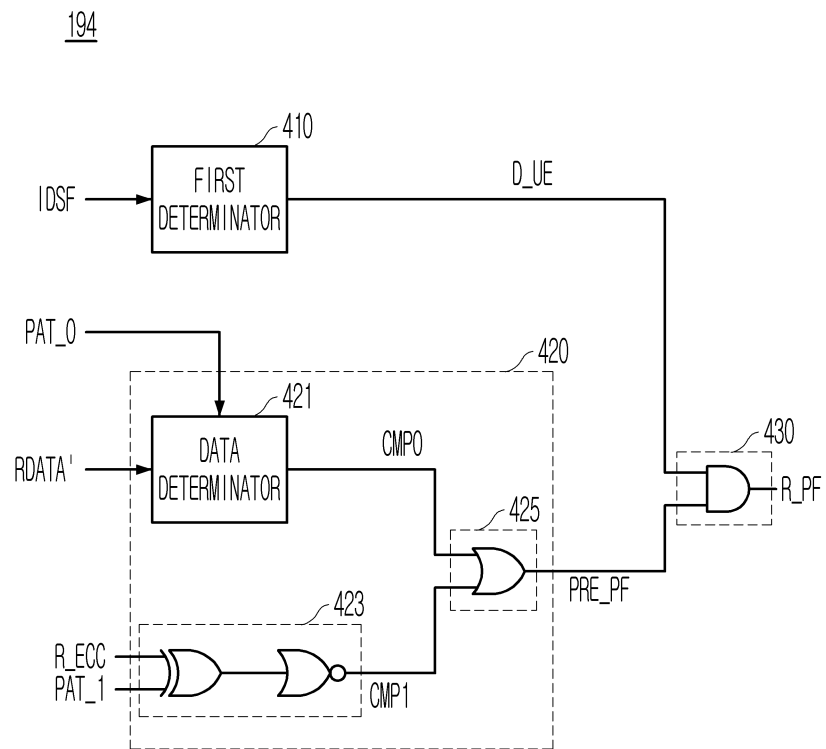


FIG. 16

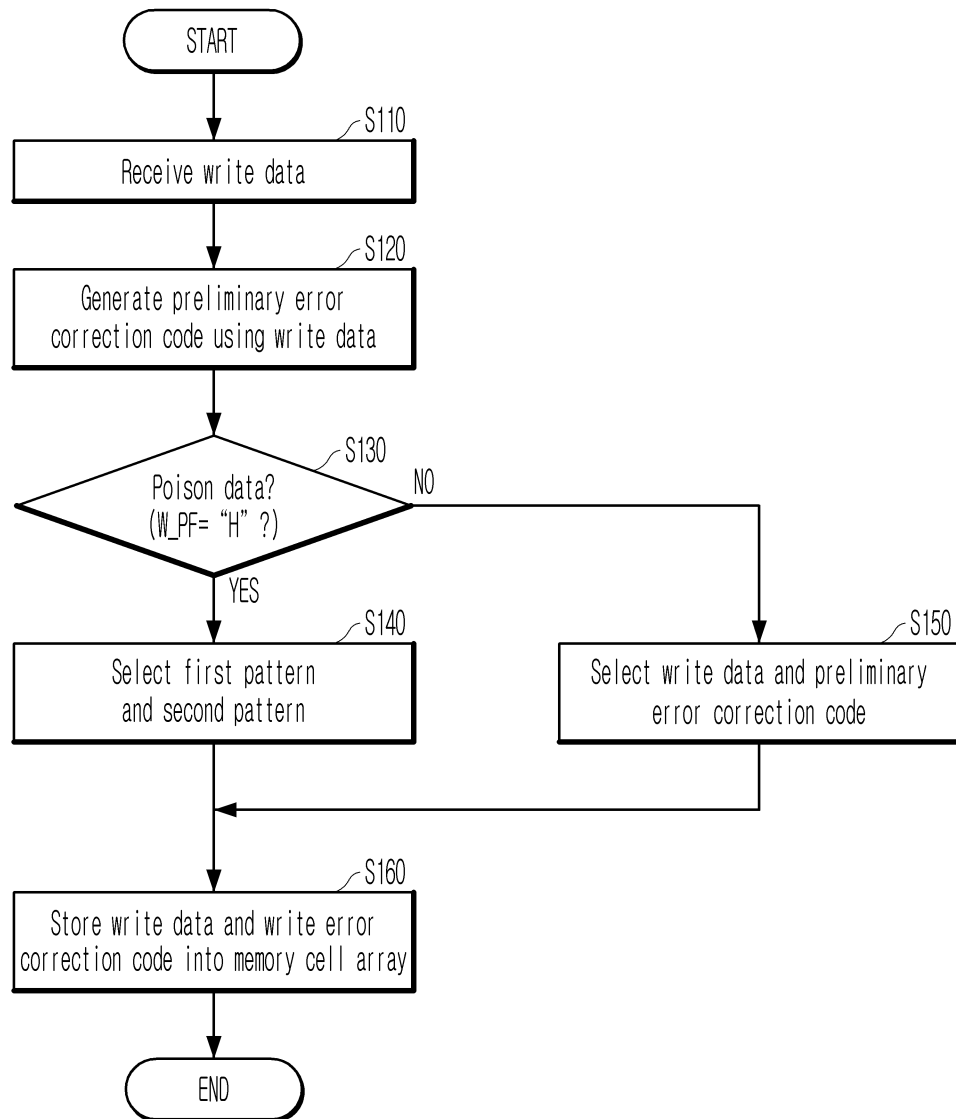


FIG. 17

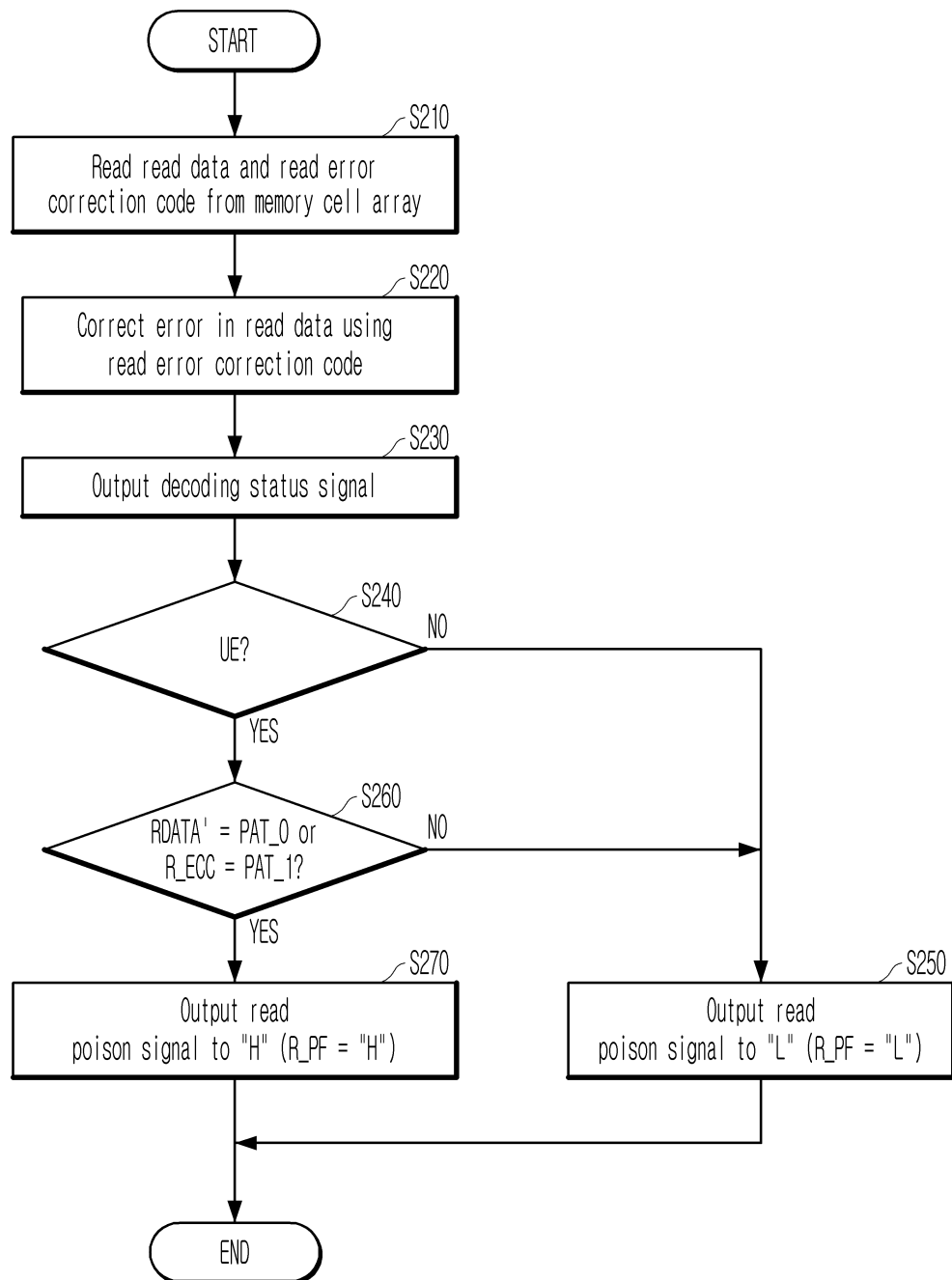


FIG. 18

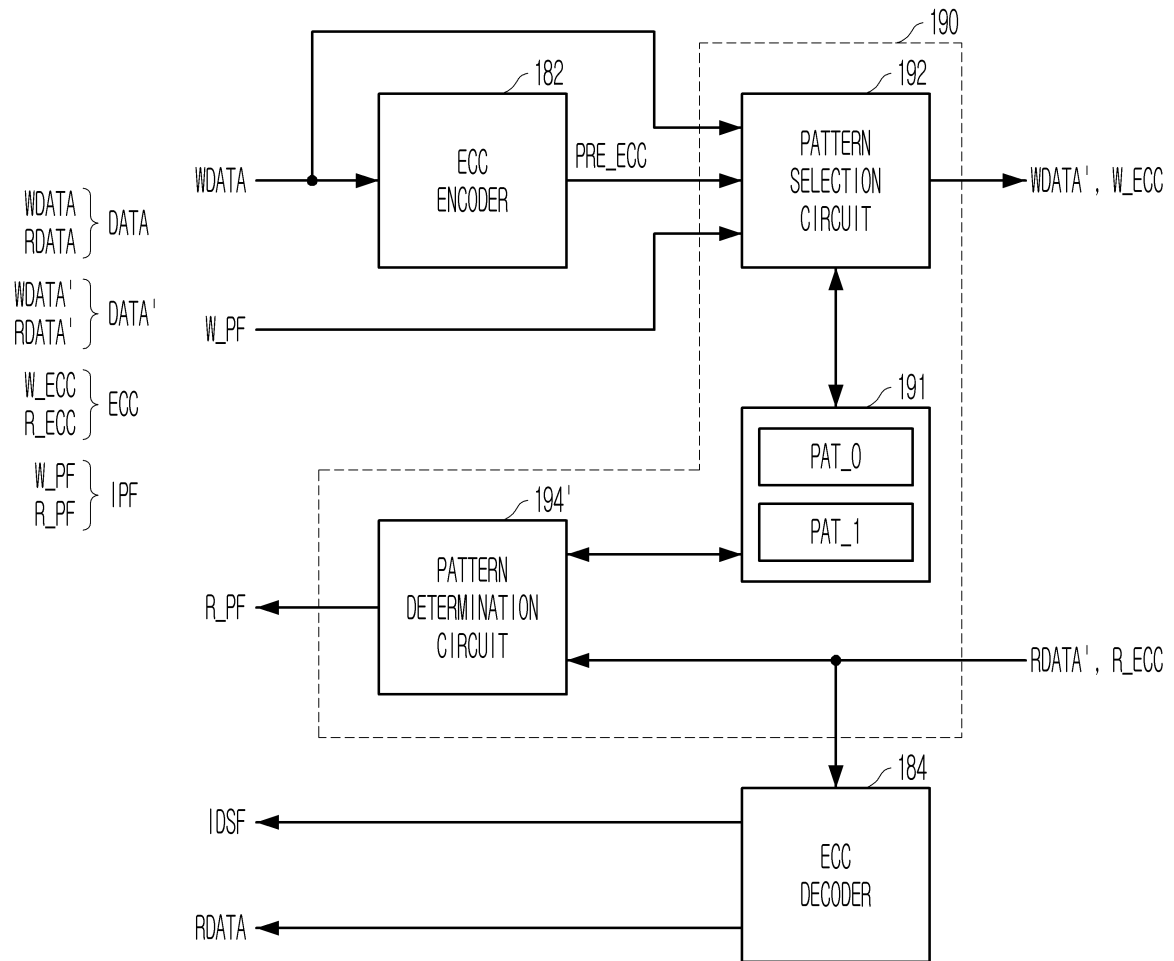


FIG. 19

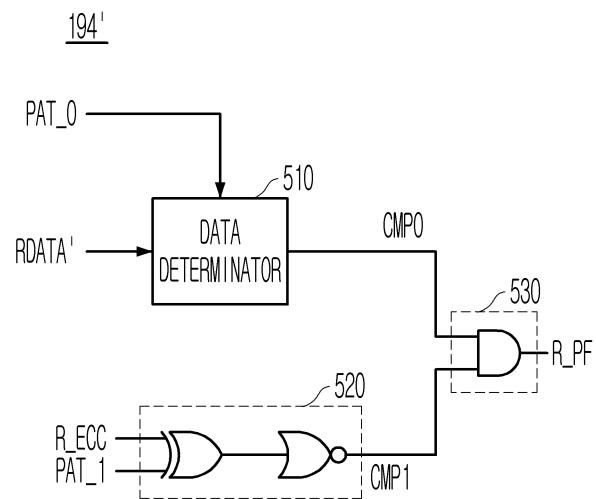


FIG. 20

