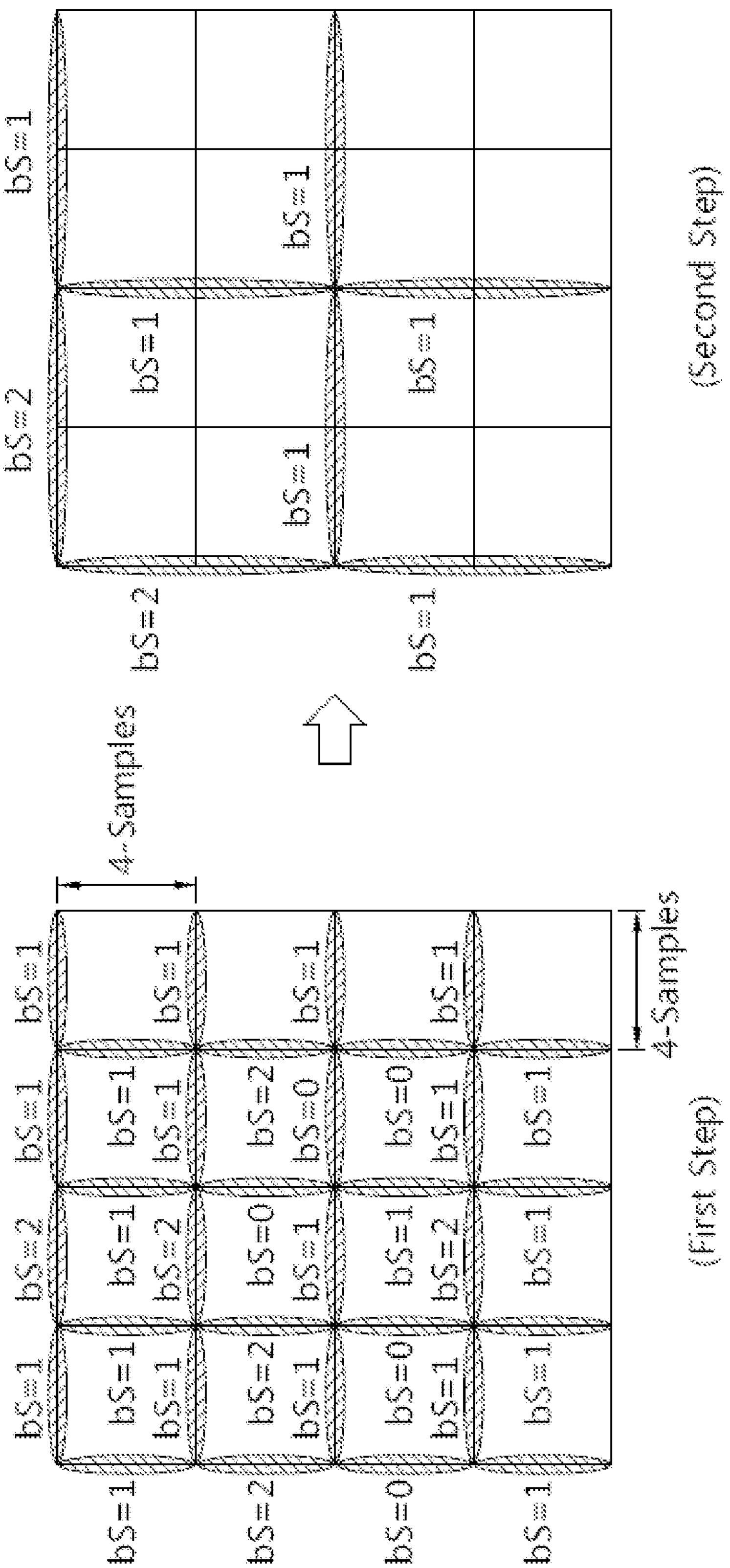

bS=1
bS=2
bS=0
4-Samples
4-Samples
(First Step)
bS=2
bS=1
(Second Step)

Fig 1

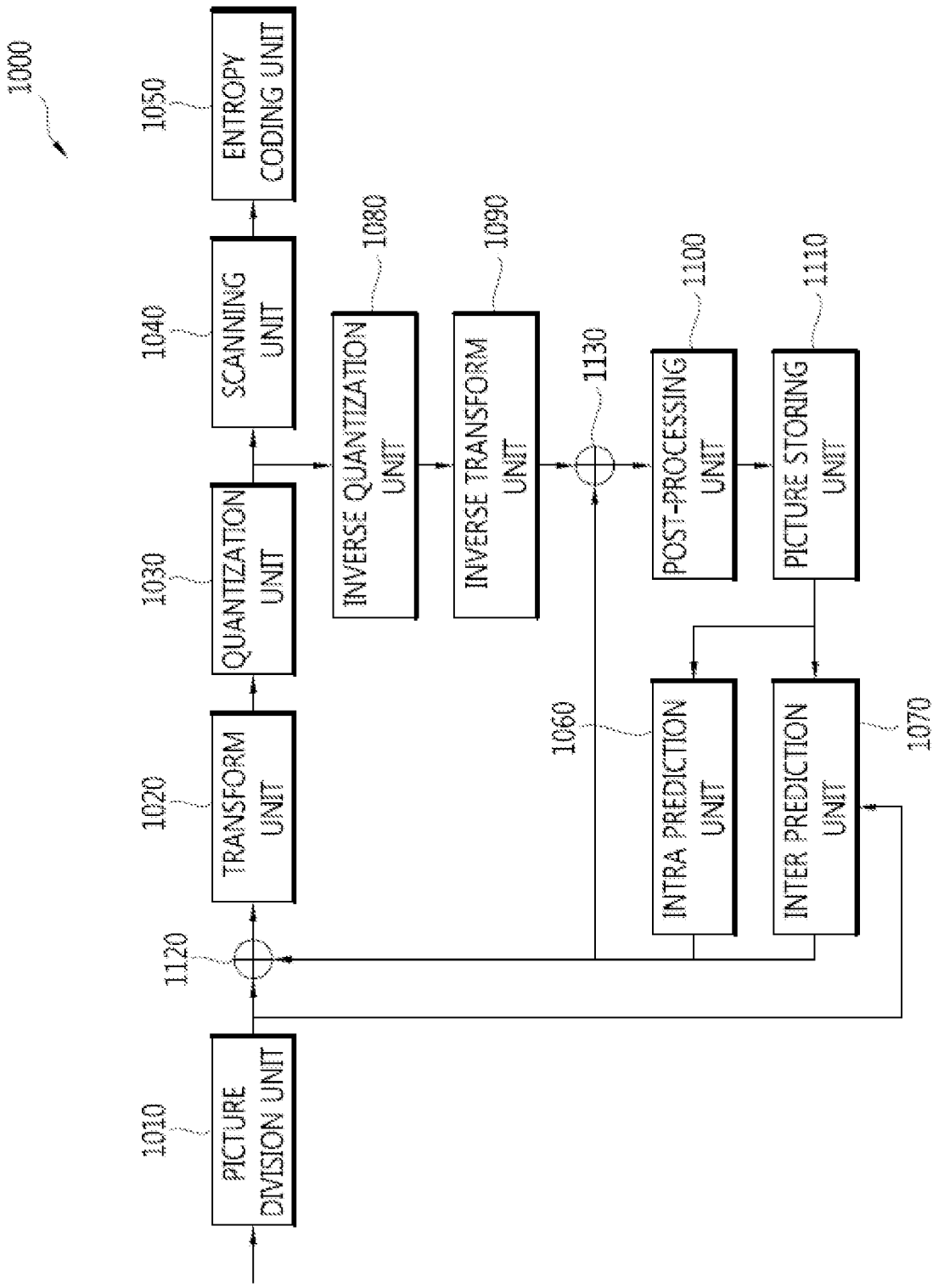

1000
1050
ENTROPY CODING UNIT
1040
SCANNING UNIT
1080
INVERSE QUANTIZATION UNIT
1090
INVERSE TRANSFORM UNIT
1130
1100
POST-PROCESSING UNIT
1110
PICTURE STORING UNIT
1030
QUANTIZATION UNIT
1060
INTRA PREDICTION UNIT
1070
INTER PREDICTION UNIT
1020
TRANSFORM UNIT
1120
1010
PICTURE DIVISION UNIT

Fig 2

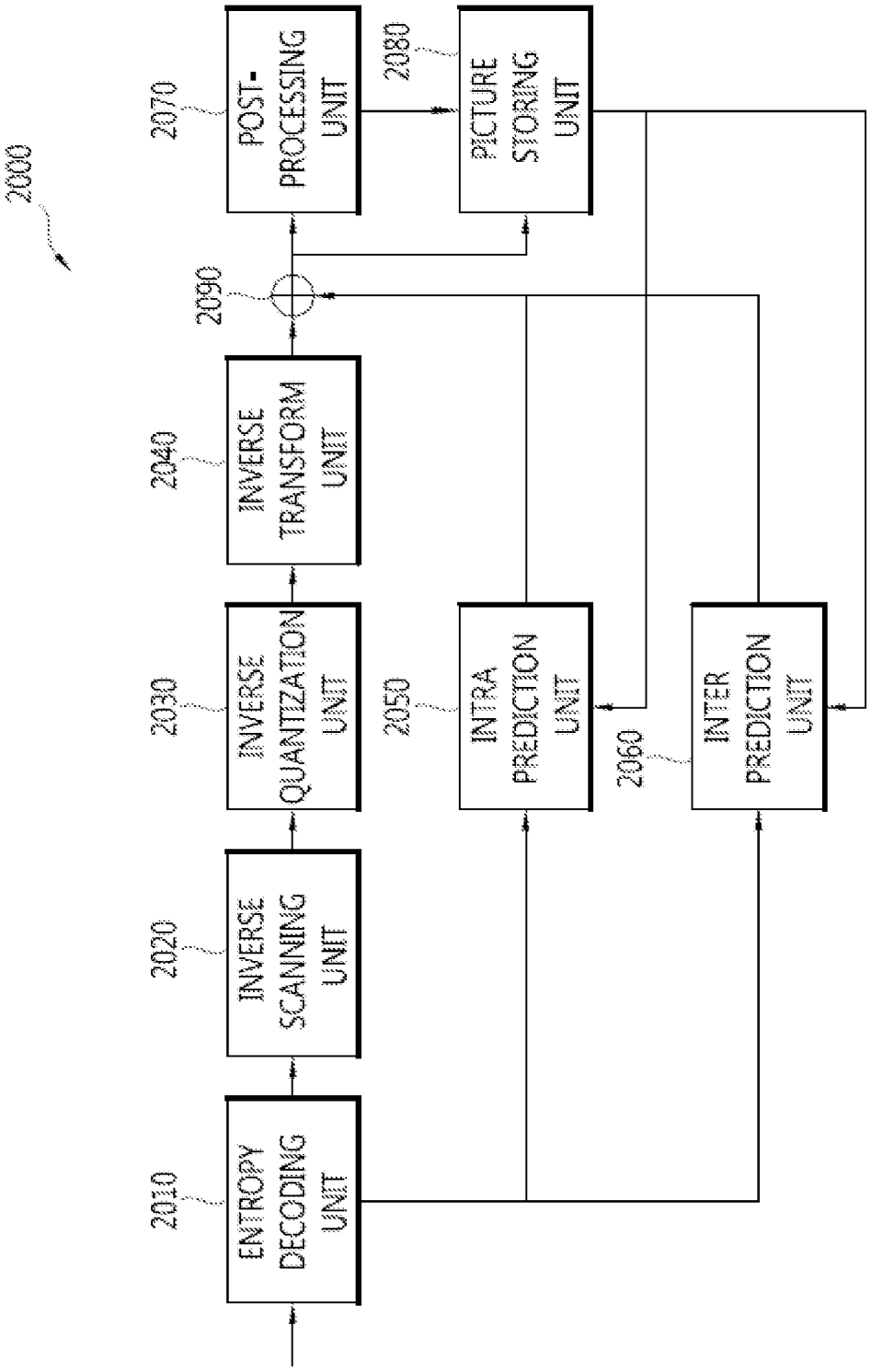

2000
2070
POST-PROCESSING UNIT
2080
PICTURE STORING UNIT
2090
2040
INVERSE TRANSFORM UNIT
2030
INVERSE QUANTIZATION UNIT
2050
INTRA PREDICTION UNIT
2060
INTER PREDICTION UNIT
2020
INVERSE SCANNING UNIT
2010
ENTROPY DECODING UNIT

Fig 3

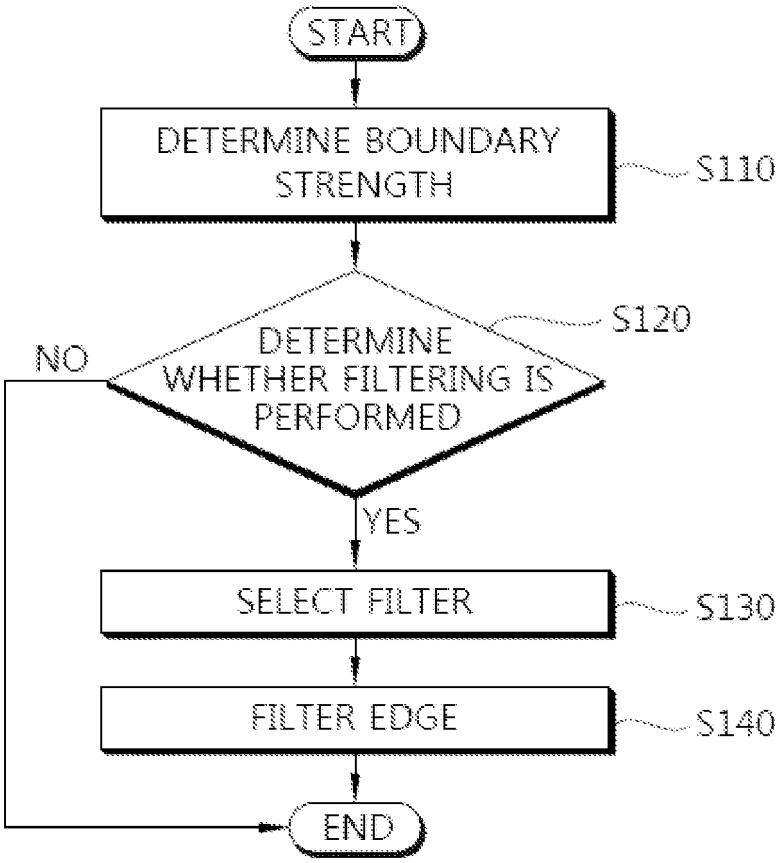

START
DETERMINE BOUNDARY STRENGTH
S110
DETERMINE WHETHER FILTERING IS PERFORMED
S120
NO
YES
SELECT FILTER
S130
FILTER EDGE
S140
END

Fig 4

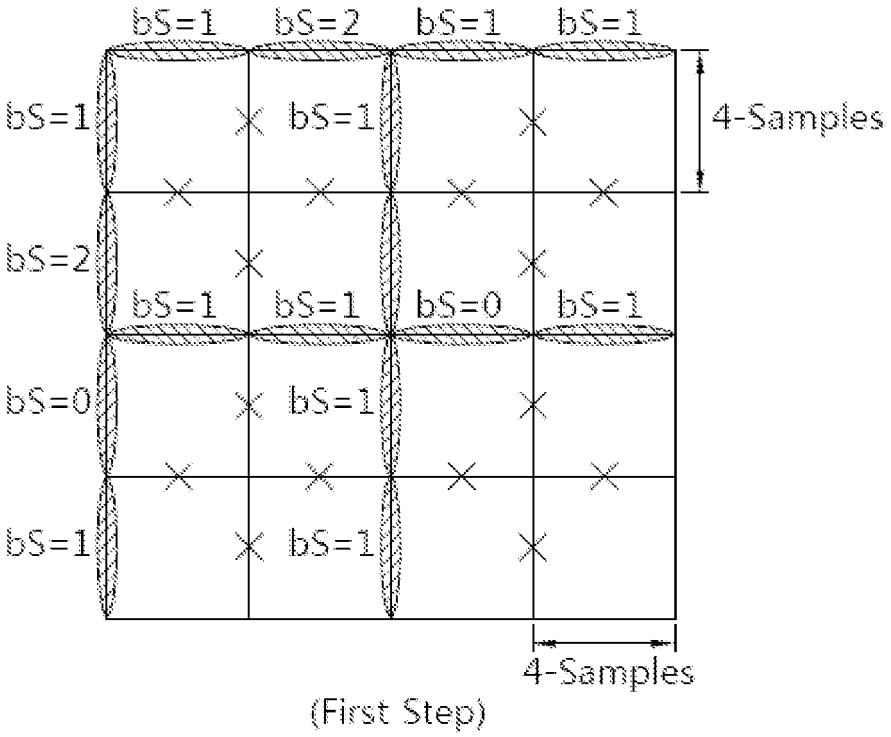

bS=1
bS=2
bS=1
bS=1
bS=1
bS=1
4-Samples
bS=2
bS=1
bS=1
bS=0
bS=1
bS=0
bS=1
bS=1
bS=1
4-Samples
(First Step)

Fig 5

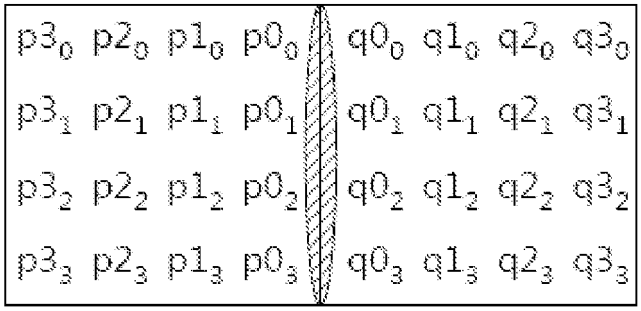

p3 0 p2 0 p1 0 p0 0 q0 0 q1 0 q2 0 q3 0
p3 1 p2 1 p1 1 p0 1 q0 1 q1 1 q2 1 q3 1
p3 2 p2 2 p1 2 p0 2 q0 2 q1 2 q2 2 q3 2
p3 3 p2 3 p1 3 p0 3 q0 3 q1 3 q2 3 q3 3

Fig 6

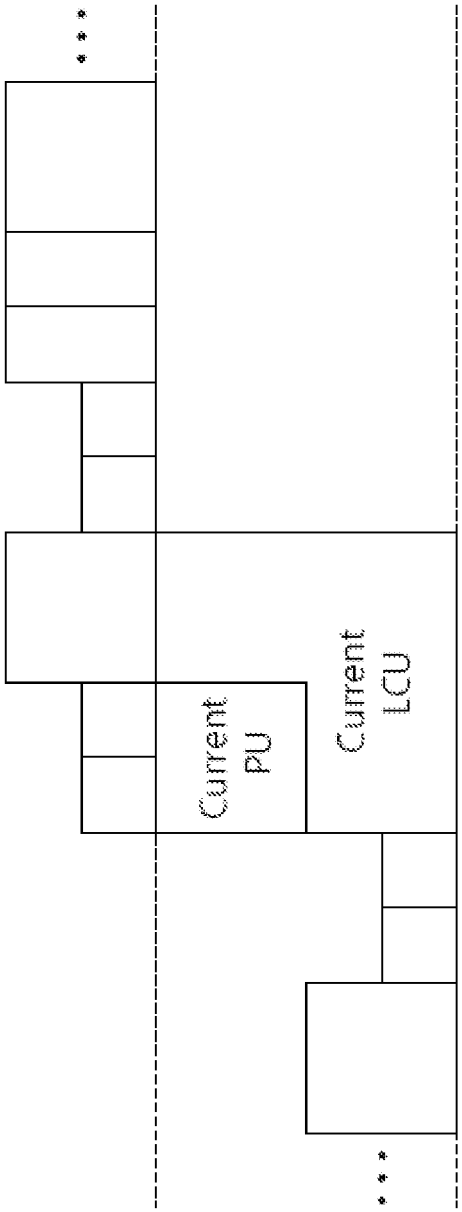


Fig 7

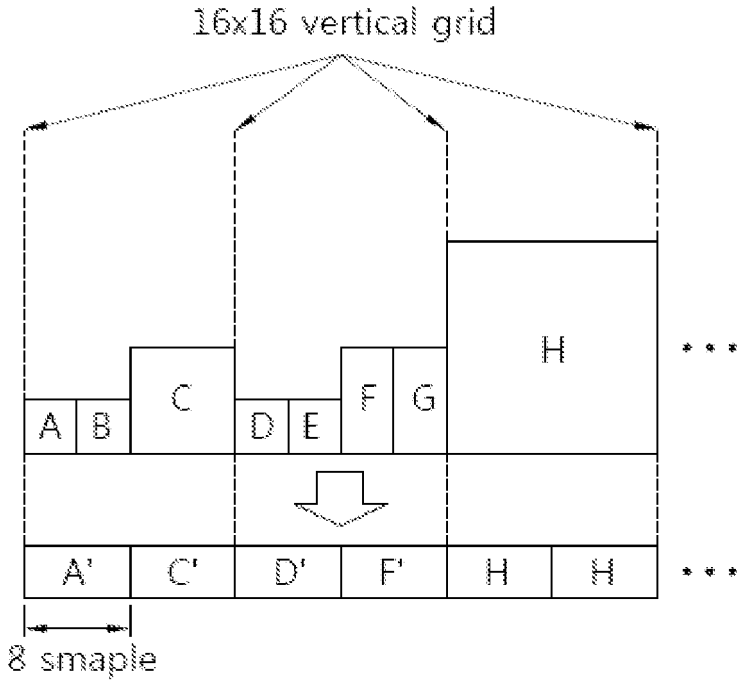


Fig 8

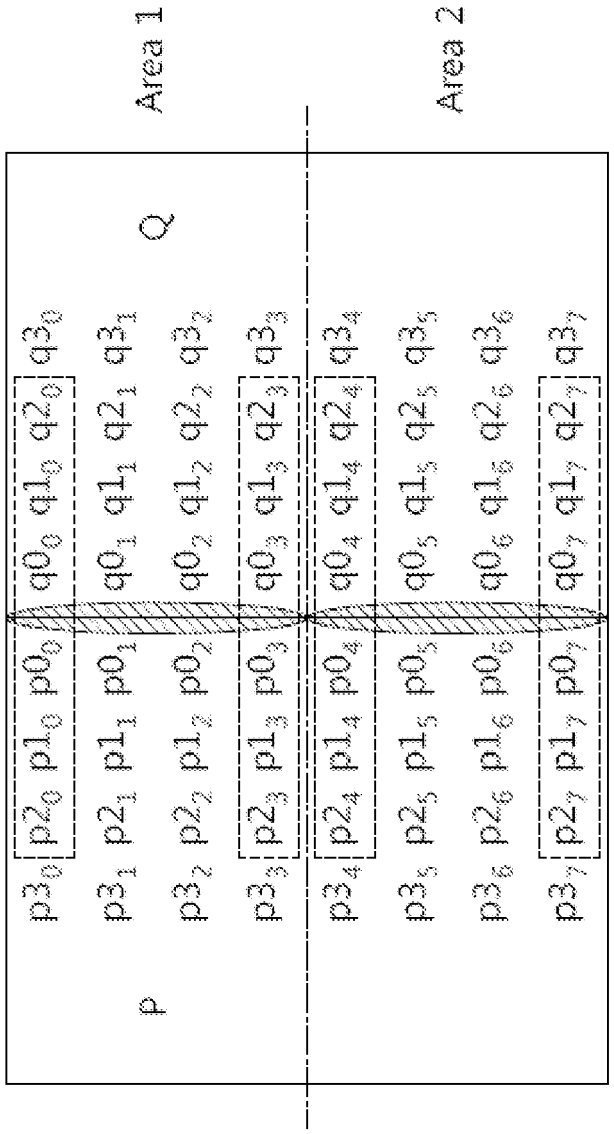

Area 1
Area 2
P
Q
p3$_0$ p2$_0$ p1$_0$ p0$_0$ q0$_0$ q1$_0$ q2$_0$ q3$_0$
p3$_1$ p2$_1$ p1$_1$ p0$_1$ q0$_1$ q1$_1$ q2$_1$ q3$_1$
p3$_2$ p2$_2$ p1$_2$ p0$_2$ q0$_2$ q1$_2$ q2$_2$ q3$_2$
p3$_3$ p2$_3$ p1$_3$ p0$_3$ q0$_3$ q1$_3$ q2$_3$ q3$_3$
p3$_4$ p2$_4$ p1$_4$ p0$_4$ q0$_4$ q1$_4$ q2$_4$ q3$_4$
p3$_5$ p2$_5$ p1$_5$ p0$_5$ q0$_5$ q1$_5$ q2$_5$ q3$_5$
p3$_6$ p2$_6$ p1$_6$ p0$_6$ q0$_6$ q1$_6$ q2$_6$ q3$_6$
p3$_7$ p2$_7$ p1$_7$ p0$_7$ q0$_7$ q1$_7$ q2$_7$ q3$_7$

Fig 9