

FIG.1

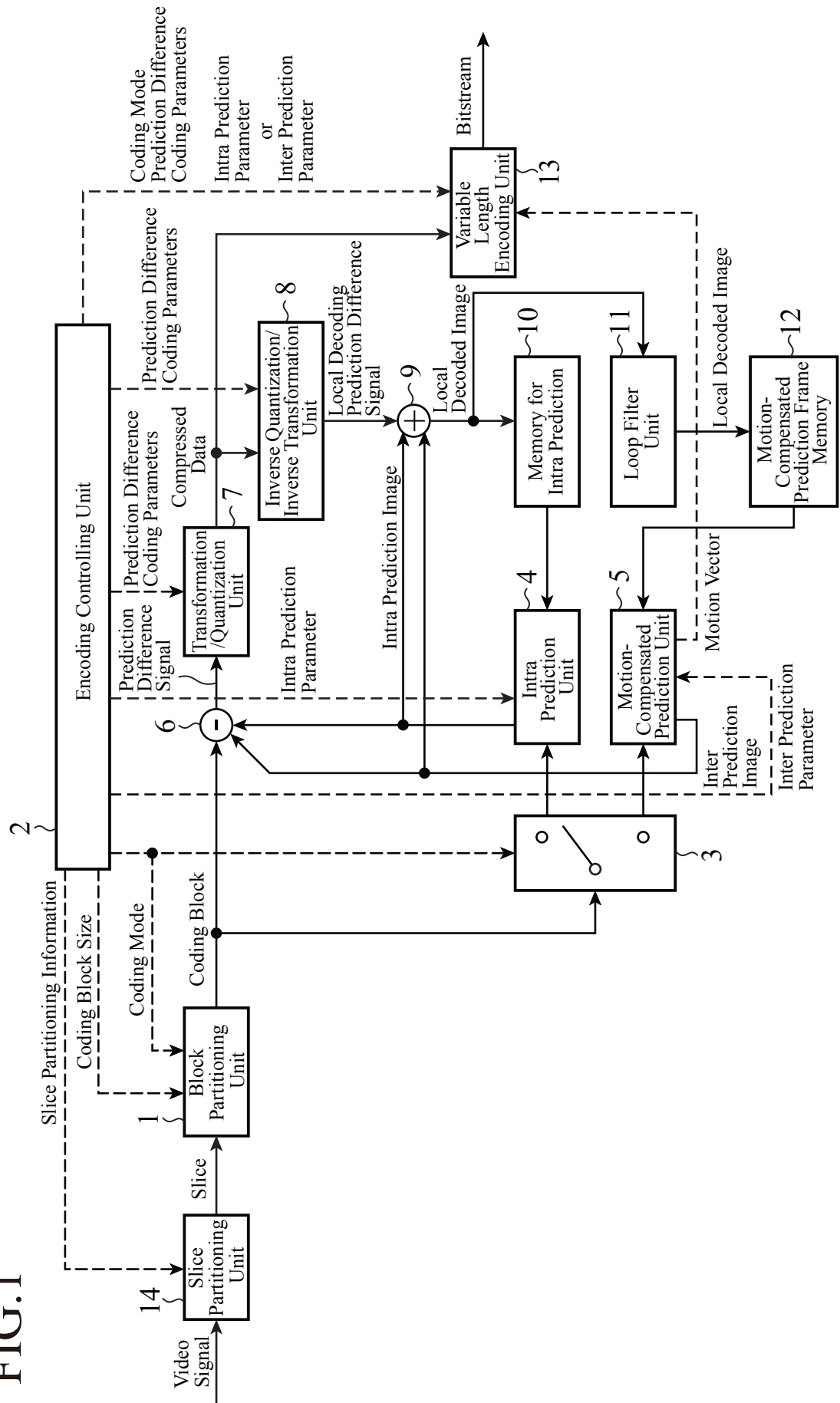


FIG.2

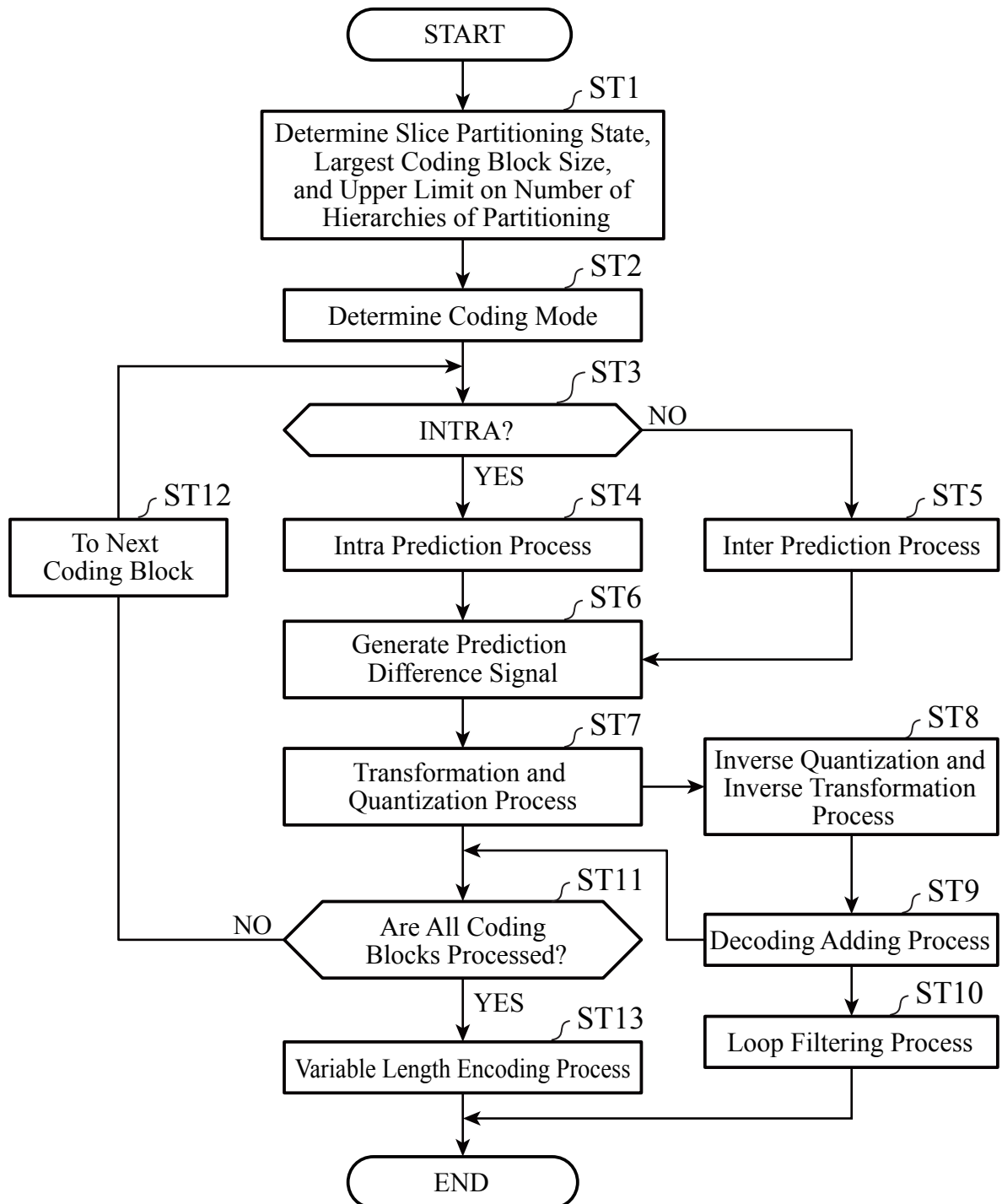


FIG.3

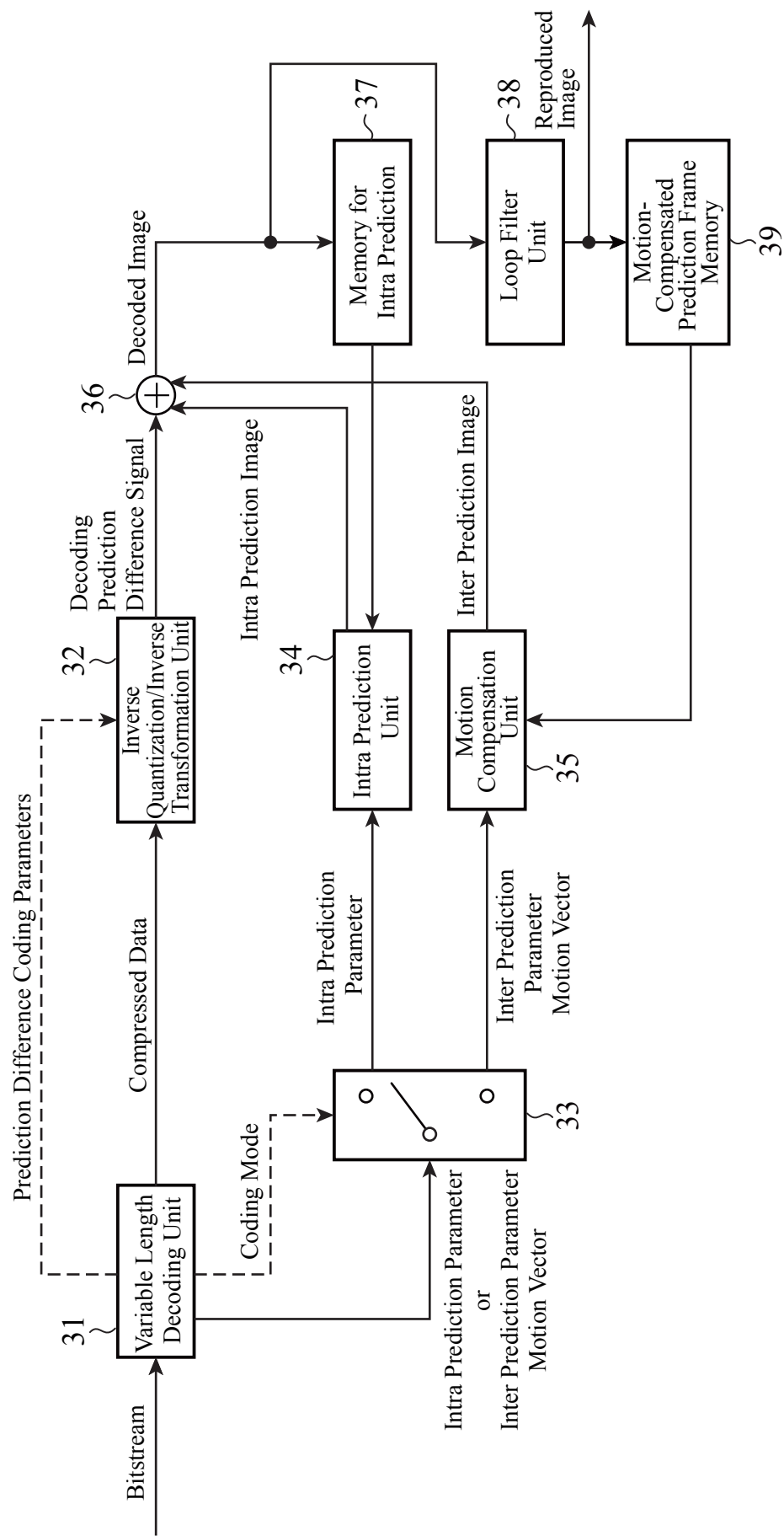


FIG.4

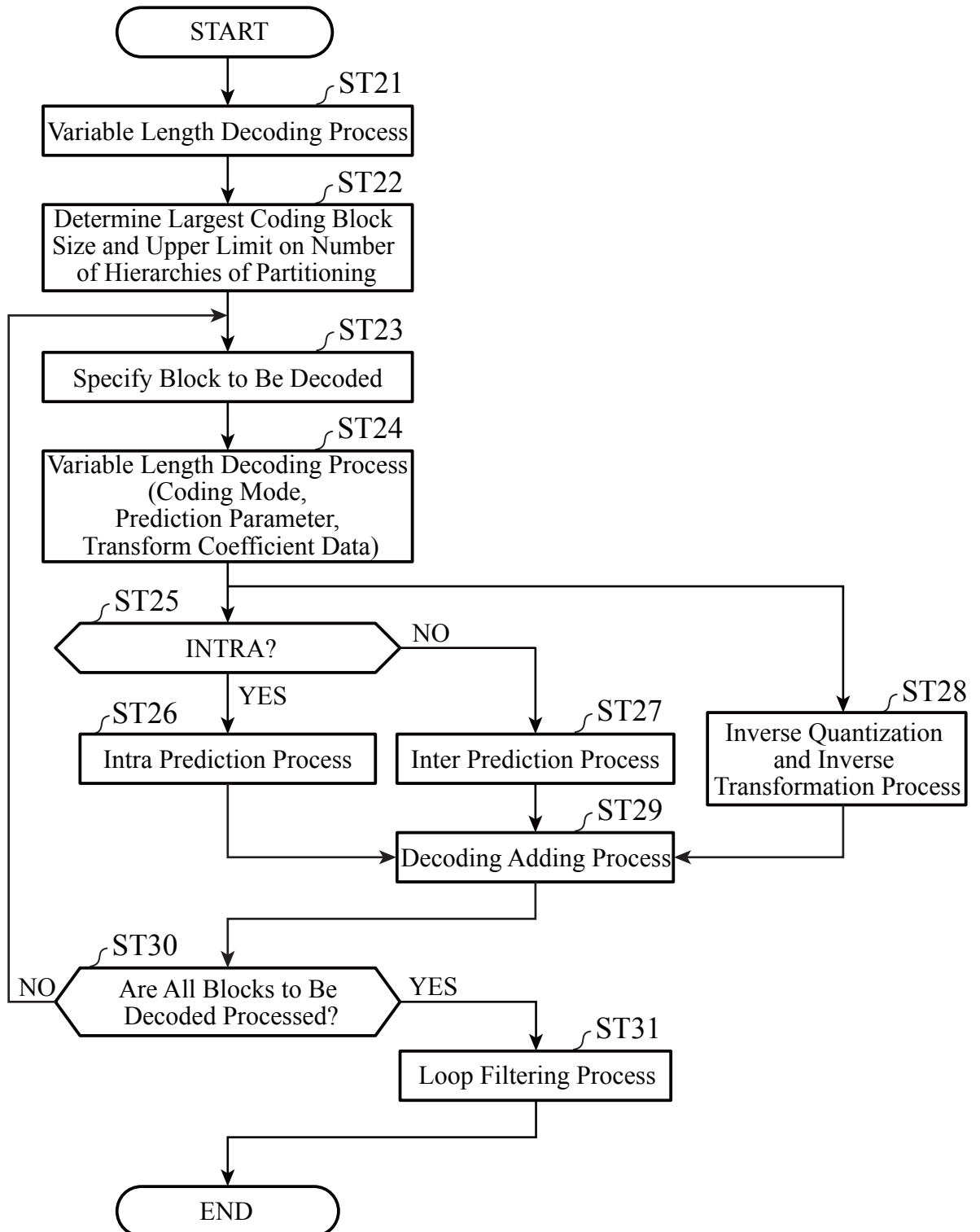


FIG.5

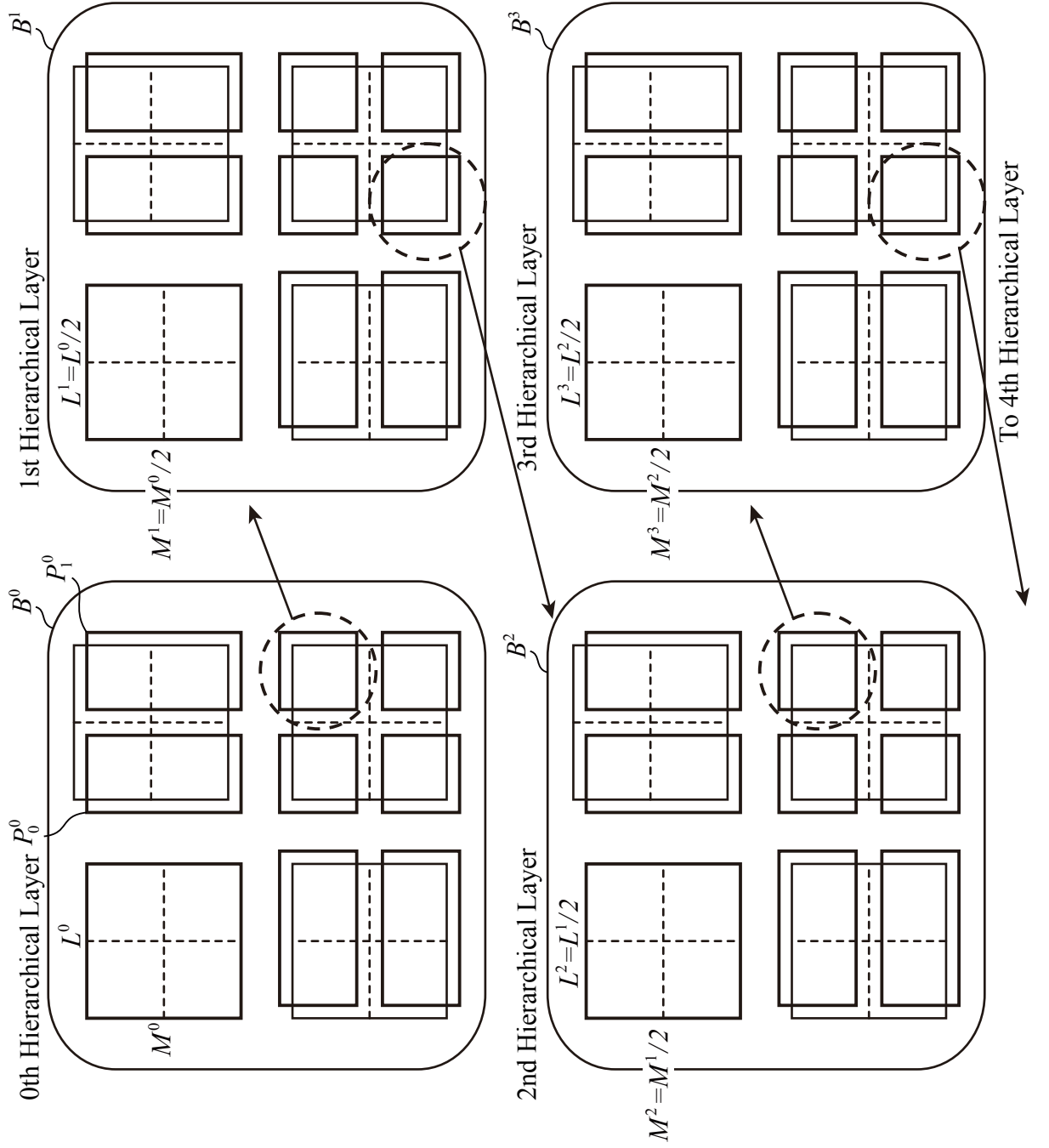


FIG.6

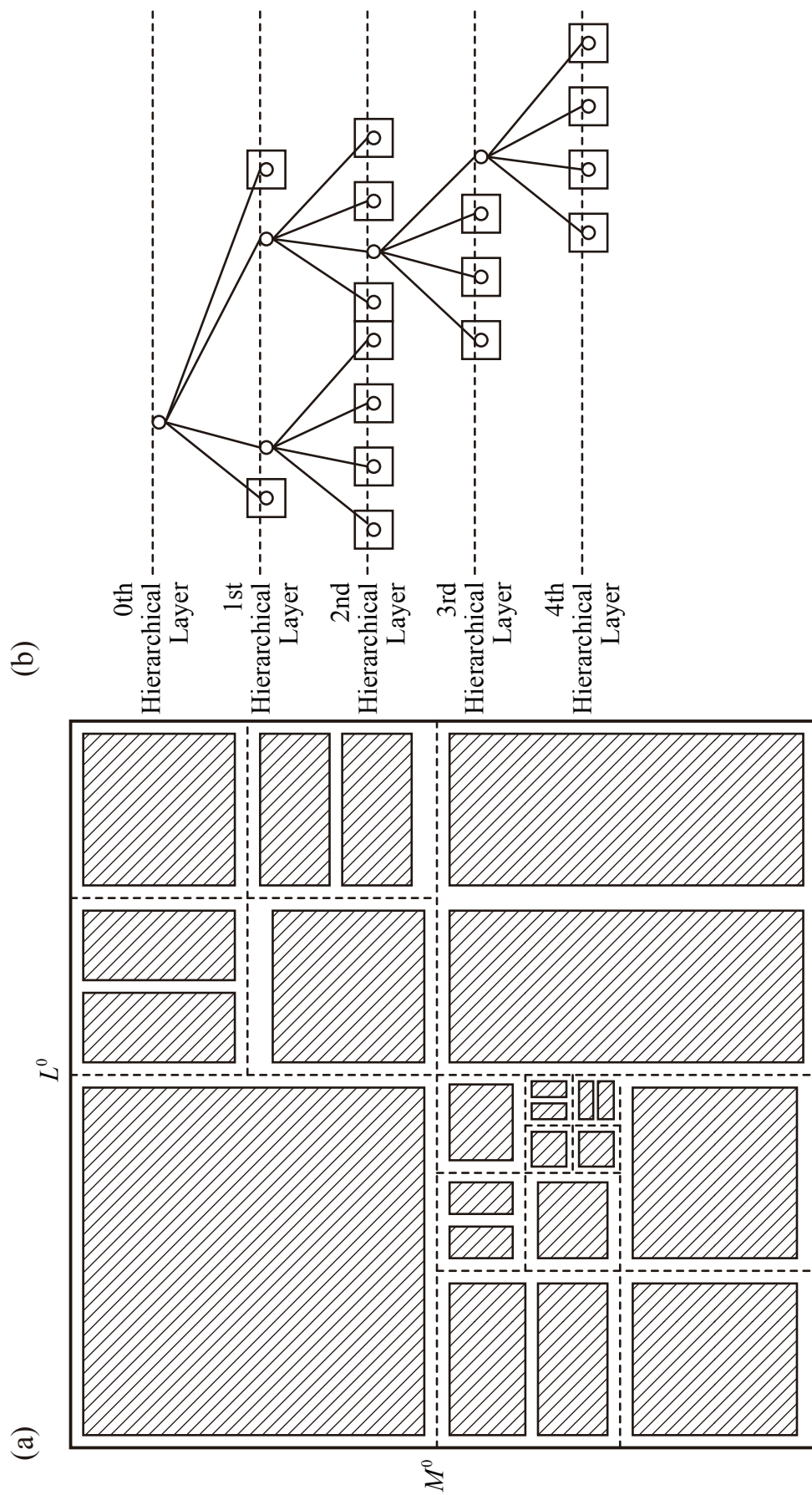


FIG.7

| Intra Prediction Mode Index | Intra Prediction Mode   |
|-----------------------------|-------------------------|
| 0                           | Planar Prediction       |
| 1                           | Vertical Prediction     |
| 2                           | Horizontal Prediction   |
| 3                           | Average (DC) Prediction |
| 4 ~ $N_I-1$                 | Diagonal Prediction     |

$N_I$ :Number of Intra Prediction Modes

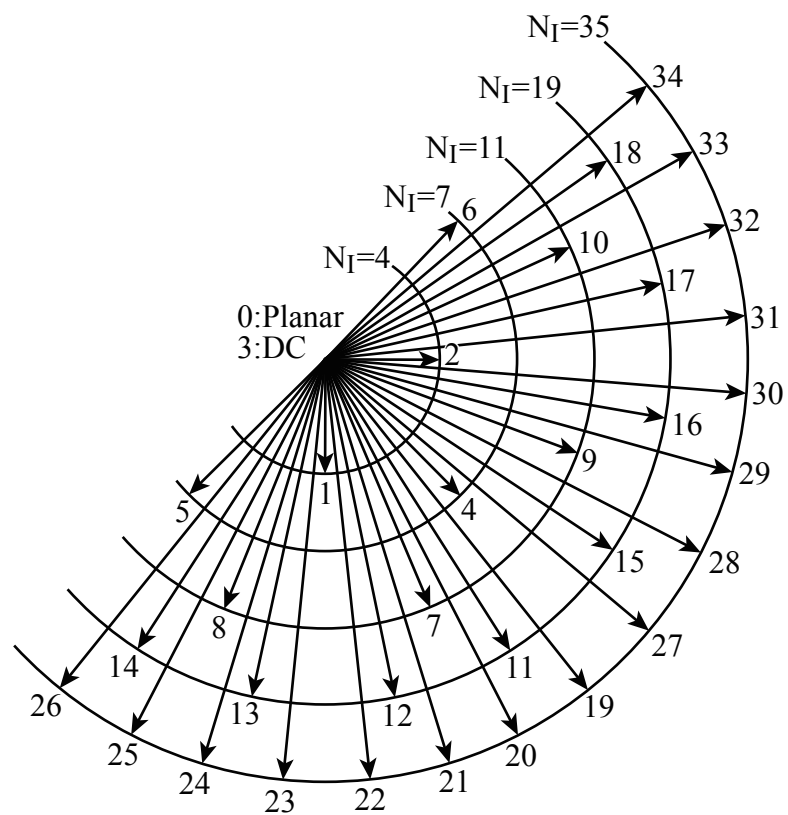


FIG.8

In Case of  $l_i^n = m_i^n = 4$

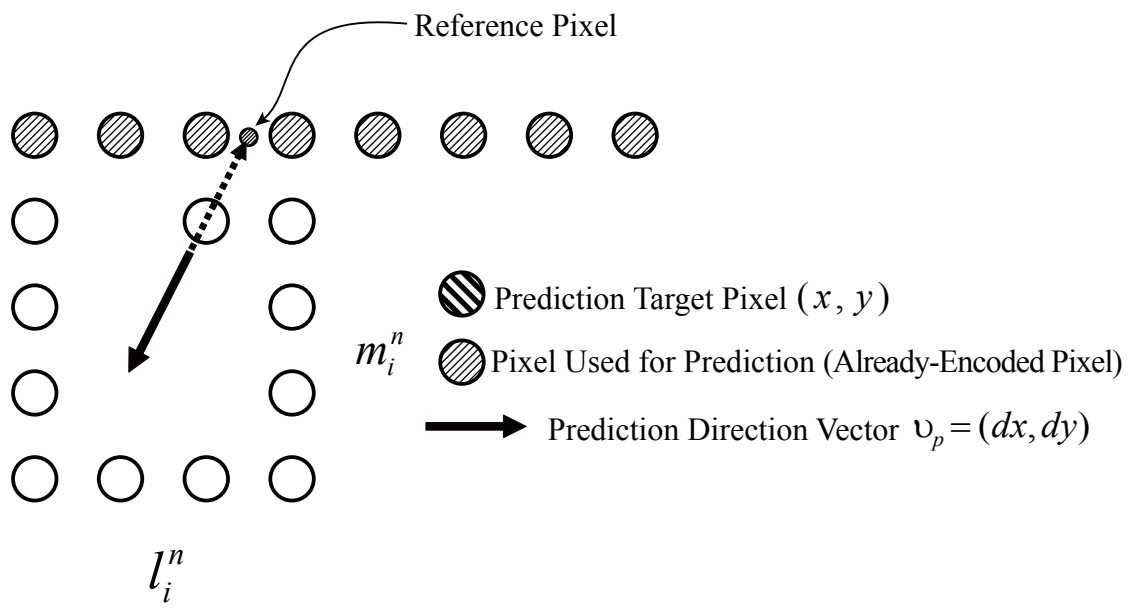


FIG.9

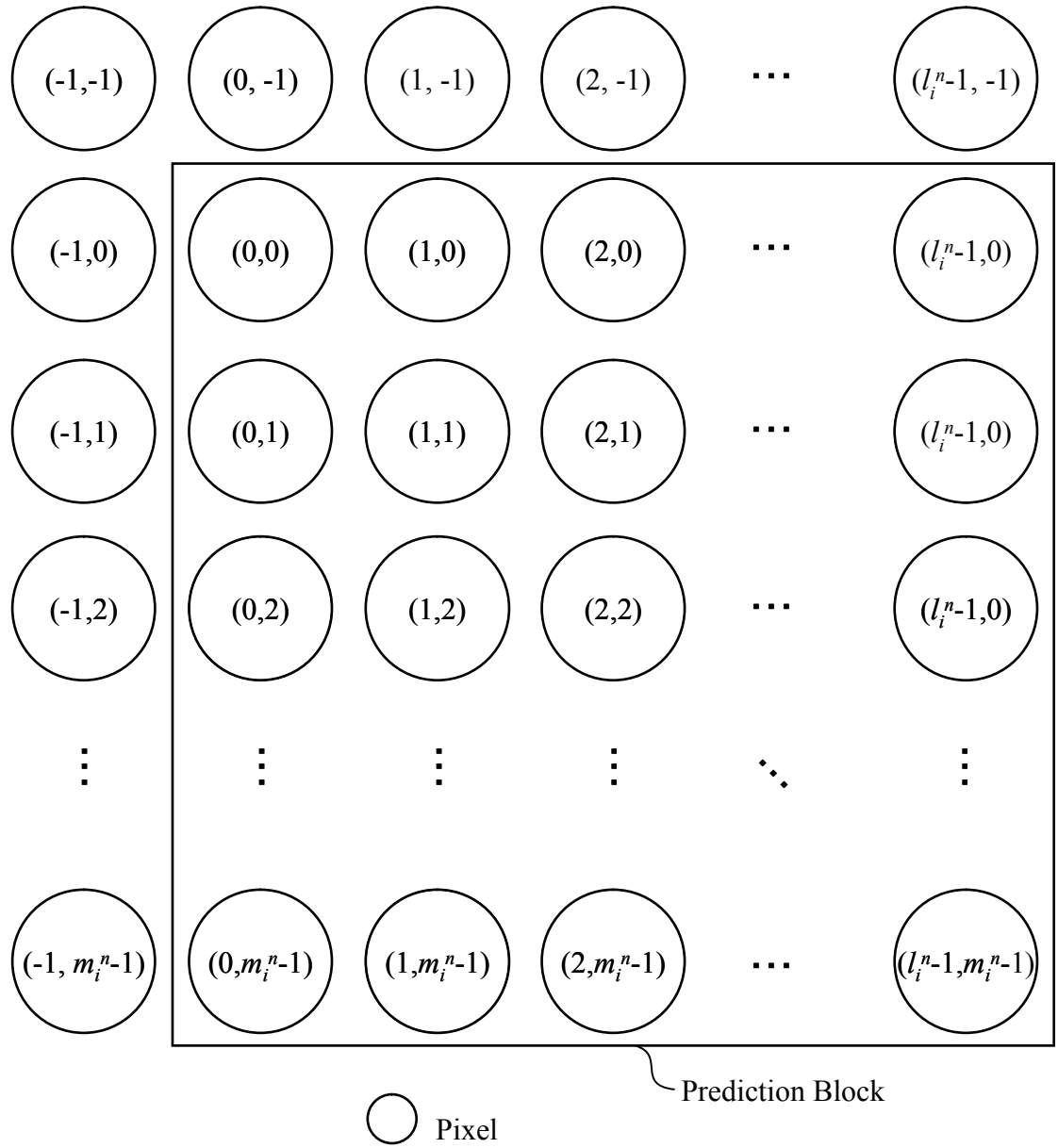


FIG.10

|   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 |
| 0 | 0 | 0 | 1 | 1 | 2 | 2 | 3 |
| 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 |
| 0 | 1 | 1 | 2 | 2 | 3 | 3 | 3 |
| 1 | 1 | 2 | 2 | 3 | 3 | 3 | 3 |
| 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |

FIG.11

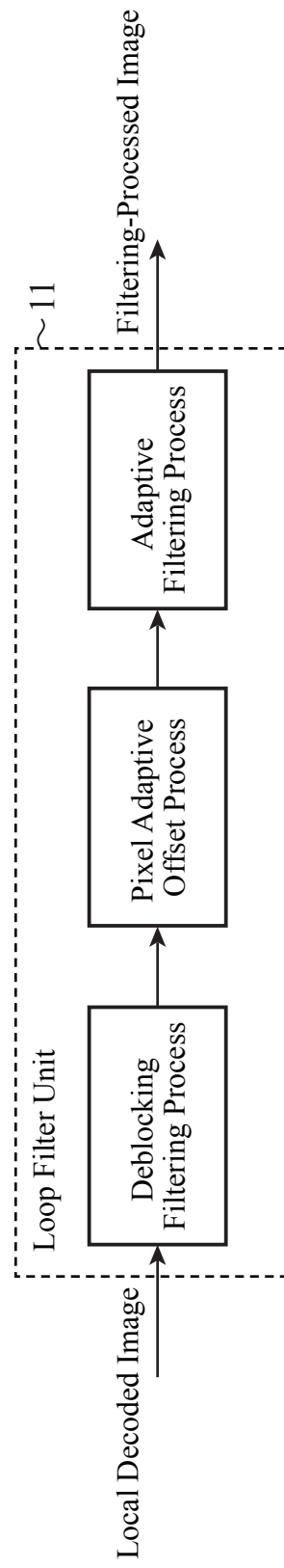


FIG.12

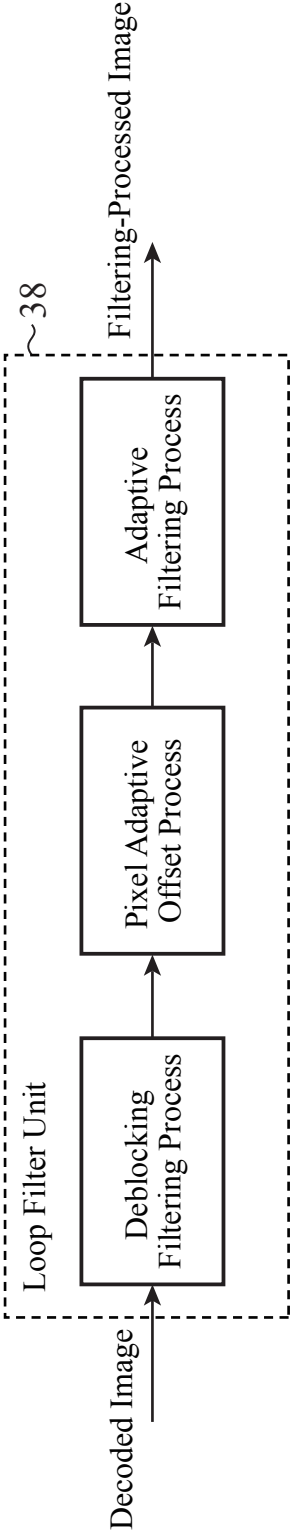


FIG.13

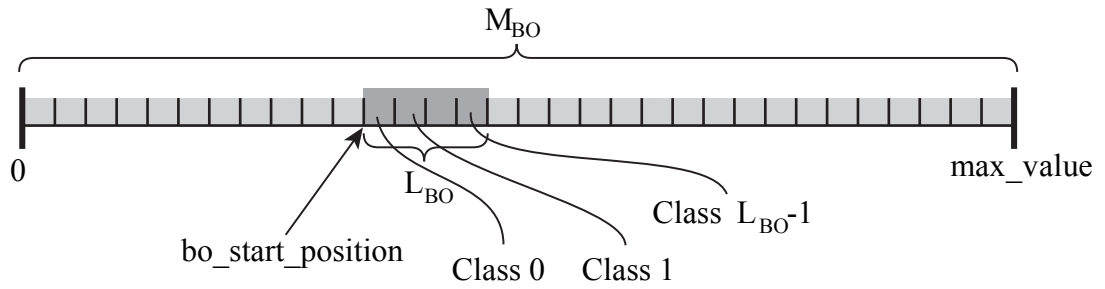
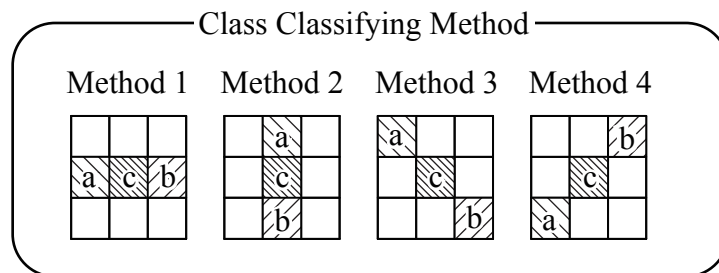


FIG.14



Classification Criteria in Each Class Classifying Method

| Class | Criterion                                              |
|-------|--------------------------------------------------------|
| 1     | $c < a \ \&\& \ c < b$                                 |
| 2     | $(c < a \ \&\& \ c = b) \    \ (c < b \ \&\& \ c = a)$ |
| 3     | $(c > a \ \&\& \ c = b) \    \ (c > b \ \&\& \ c = a)$ |
| 4     | $c > a \ \&\& \ c > b$                                 |
| 0     | Other than Classes 1 to 4                              |

a, b, c: Brightness Value of Each Pixel

FIG.15

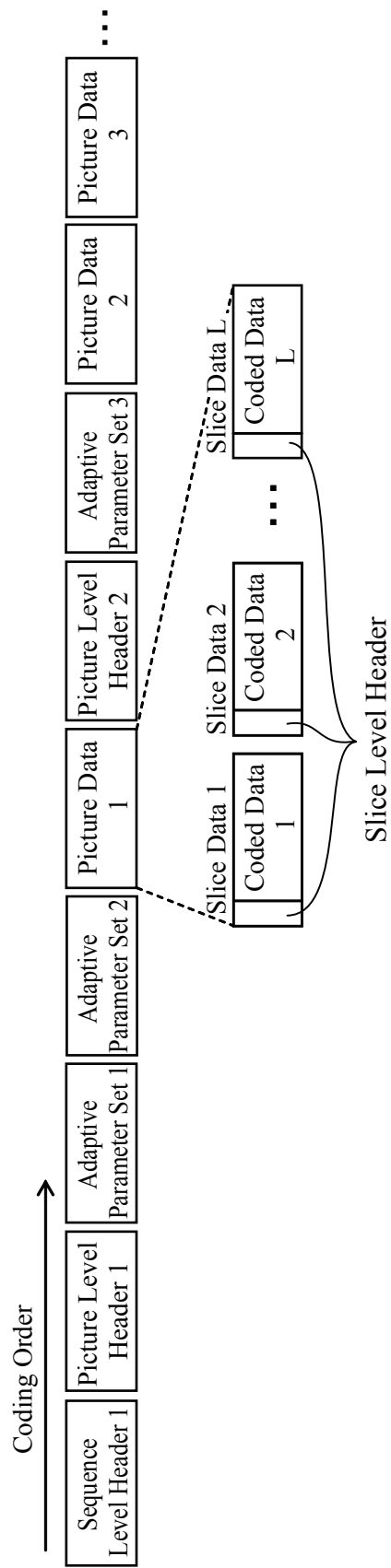


FIG.16

| Index | Class Classifying Method |
|-------|--------------------------|
| 0     | No Offset Process        |
| 1     | EO Method 1              |
| 2     | EO Method 2              |
| 3     | EO Method 3              |
| 4     | EO Method 4              |
| 5     | BO Method                |

FIG.17

| Index | Offset Value |         |         |         |         |
|-------|--------------|---------|---------|---------|---------|
|       | Class 0      | Class 1 | Class 2 | Class 3 | Class 4 |
| 0     | 0            | 1       | 0       | 0       | -1      |
| 1     | 0            | 2       | 1       | -1      | -2      |
| 2     | 0            | 3       | 1       | -1      | -3      |
| 3     | 0            | 4       | 2       | -2      | -4      |

FIG.18



## FIG.19

Bit Depth : 8

| Index | Offset Value |         |         |         |         |
|-------|--------------|---------|---------|---------|---------|
|       | Class 0      | Class 1 | Class 2 | Class 3 | Class 4 |
| 0     | 0            | 1       | 0       | 0       | -1      |

Bit Depth : 9

| Index | Offset Value |         |         |         |         |
|-------|--------------|---------|---------|---------|---------|
|       | Class 0      | Class 1 | Class 2 | Class 3 | Class 4 |
| 0     | 0            | 1       | 0       | 0       | -1      |
| 1     | 0            | 2       | 1       | -1      | -2      |

Bit Depth : 10

| Index | Offset Value |         |         |         |         |
|-------|--------------|---------|---------|---------|---------|
|       | Class 0      | Class 1 | Class 2 | Class 3 | Class 4 |
| 0     | 0            | 1       | 0       | 0       | -1      |
| 1     | 0            | 2       | 1       | -1      | -2      |
| 2     | 0            | 3       | 1       | -1      | -3      |
| 3     | 0            | 4       | 2       | -2      | -4      |

FIG.20

8 Bits

9 Bits

10 Bits

| Index | Offset Value |         |         |         |         |
|-------|--------------|---------|---------|---------|---------|
|       | Class 0      | Class 1 | Class 2 | Class 3 | Class 4 |
| 0     | 0            | 1       | 0       | 0       | -1      |
| 1     | 0            | 2       | 1       | -1      | -2      |
| 2     | 0            | 3       | 1       | -1      | -3      |
| 3     | 0            | 4       | 2       | -2      | -4      |

FIG.21

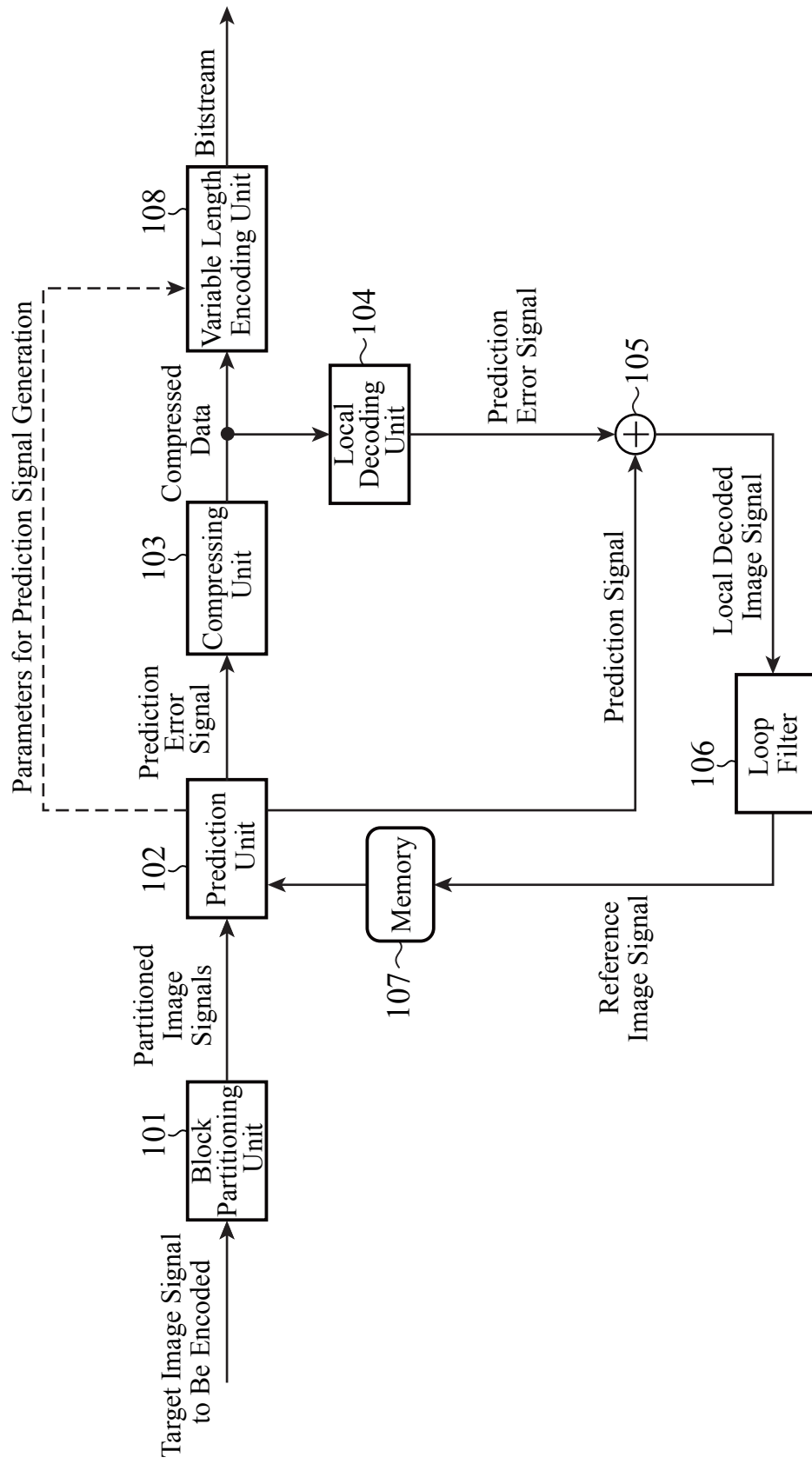


FIG. 22

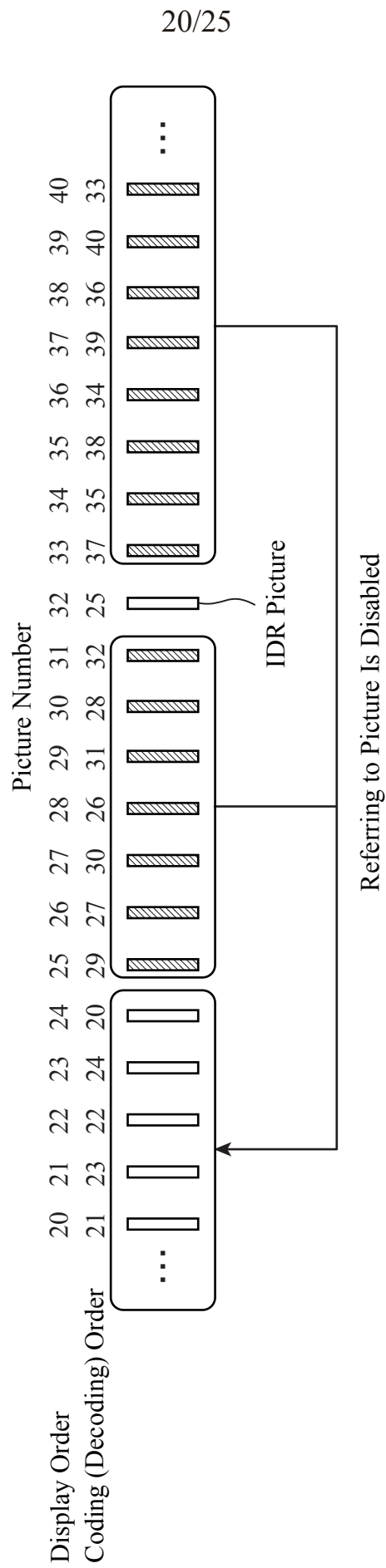


FIG.23

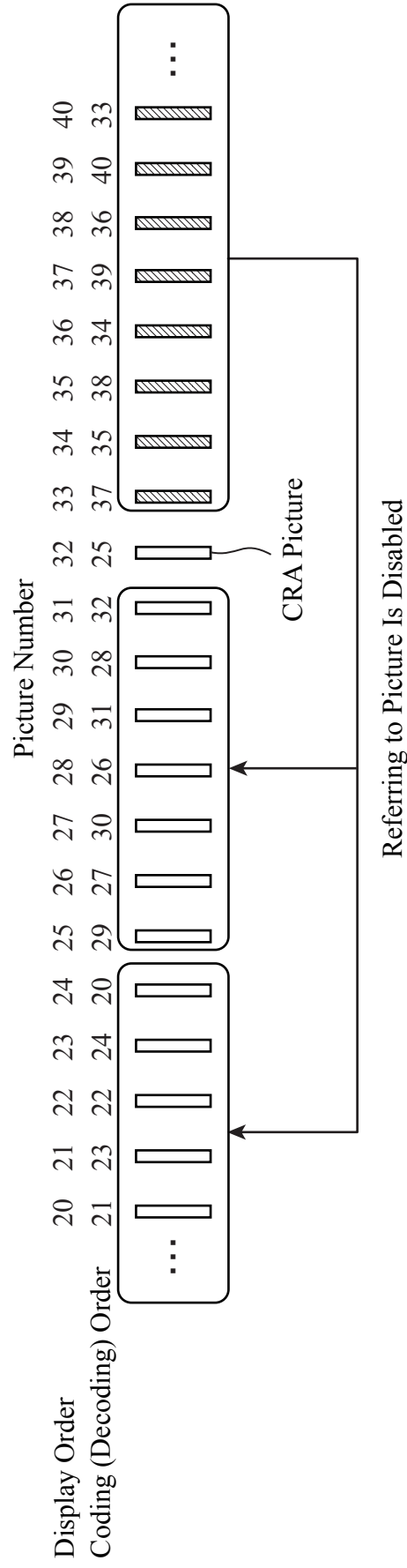


FIG.24

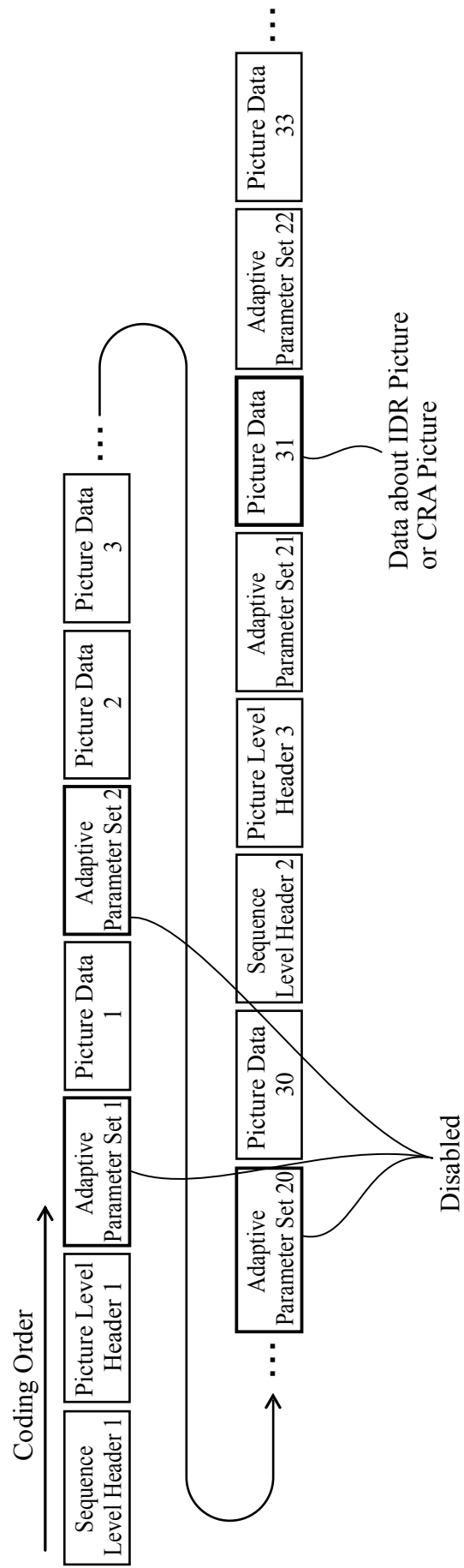


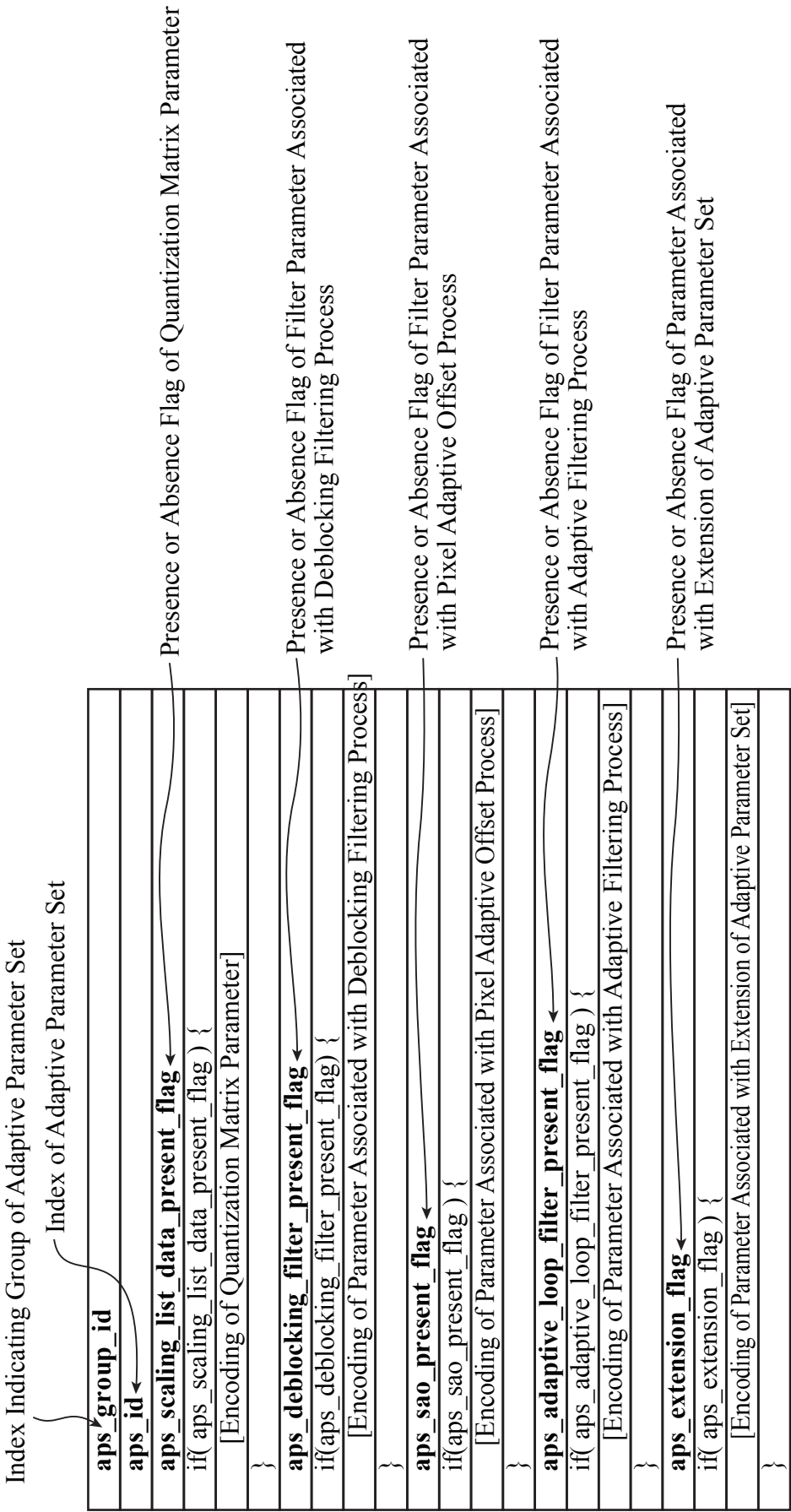
FIG.25

| Target Symbol to Be Encoded | Output Code Word |   |   |   |   |
|-----------------------------|------------------|---|---|---|---|
| 0                           | 0                |   |   |   |   |
| 1                           | 1                | 0 |   |   |   |
| 2                           | 1                | 1 | 0 |   |   |
| 3                           | 1                | 1 | 1 | 0 |   |
| 4                           | 1                | 1 | 1 | 1 | 0 |
| 5                           | 1                | 1 | 1 | 1 | 1 |

FIG.26

| Target Symbol to Be Encoded | Output Code Word |   |   |   |   |   |
|-----------------------------|------------------|---|---|---|---|---|
| 0                           | 0                |   |   |   |   |   |
| 1                           | 1                | 0 |   |   |   |   |
| 2                           | 1                | 1 | 0 |   |   |   |
| 3                           | 1                | 1 | 1 | 0 |   |   |
| 4                           | 1                | 1 | 1 | 1 | 0 |   |
| 5                           | 1                | 1 | 1 | 1 | 1 | 0 |
| ⋮                           | ⋮                |   |   |   |   |   |

FIG.27



\* Bold Letter Shows Syntax to Be Encoded

FIG.28

