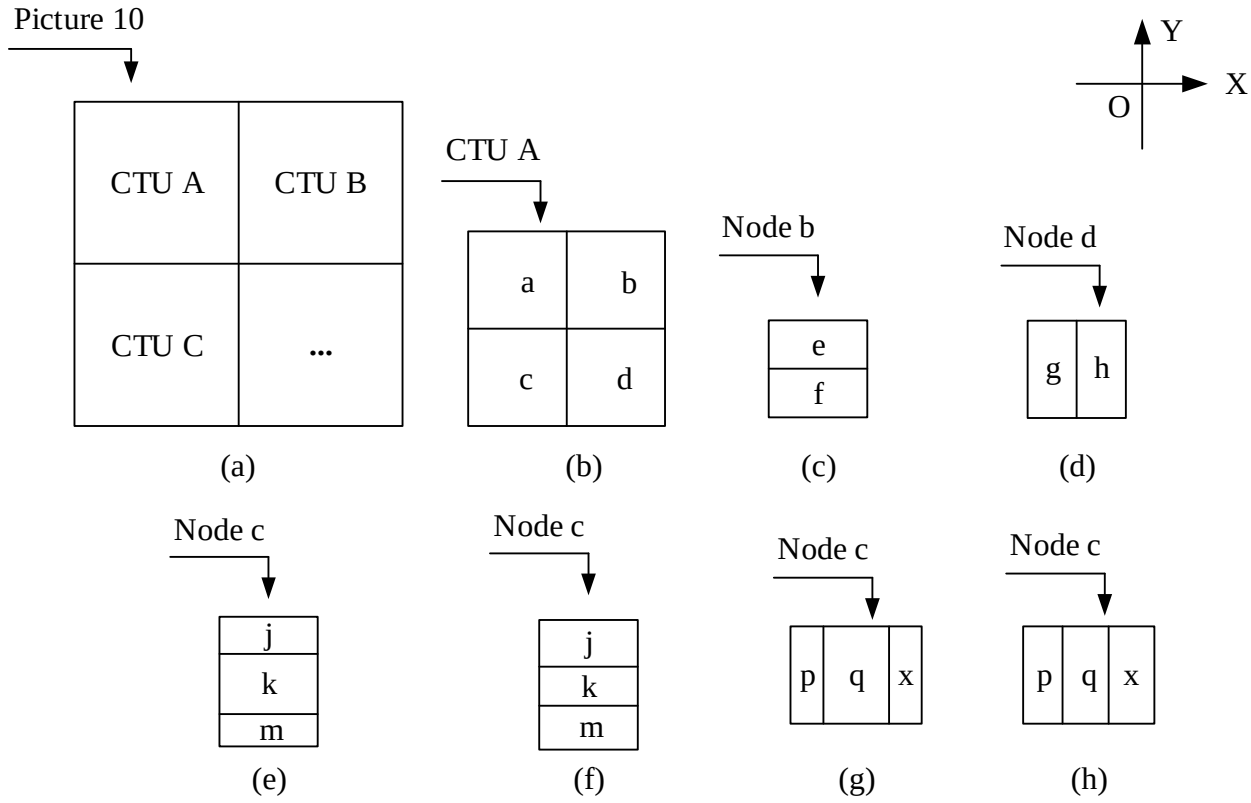

Picture 10
Y
X
O
CTU A
CTU B
CTU C
...
(a)
CTU A
a
b
c
d
(b)
Node b
e
f
(c)
Node d
g
h
(d)
Node c
j
k
m
(e)
Node c
j
k
m
(f)
Node c
p
q
x
(g)
Node c
p
q
x
(h)

FIG. 1

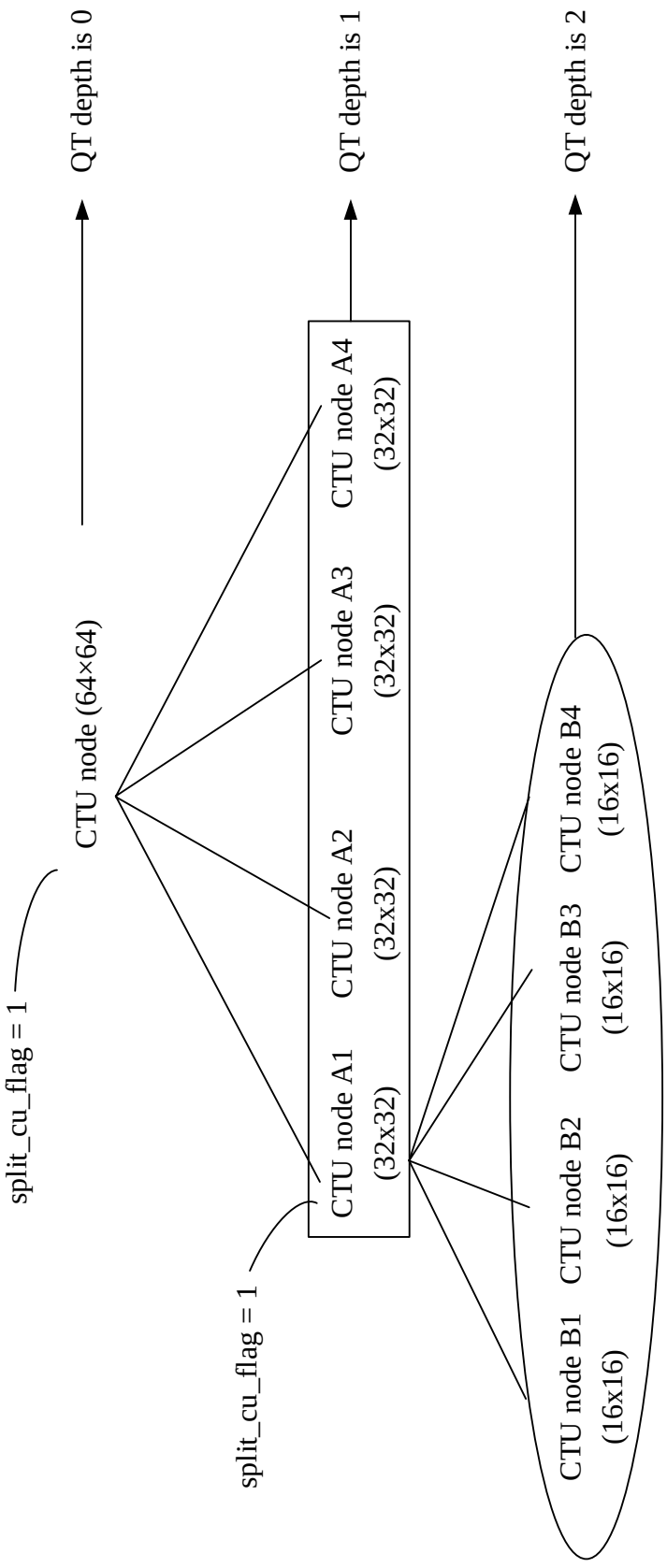

QT depth is 0
QT depth is 1
QT depth is 2
CTU node (64×64)
split_cu_flag = 1
split_cu_flag = 1
CTU node A1 (32x32)
CTU node A2 (32x32)
CTU node A3 (32x32)
CTU node A4 (32x32)
CTU node B1 (16x16)
CTU node B2 (16x16)
CTU node B3 (16x16)
CTU node B4 (16x16)

FIG. 2

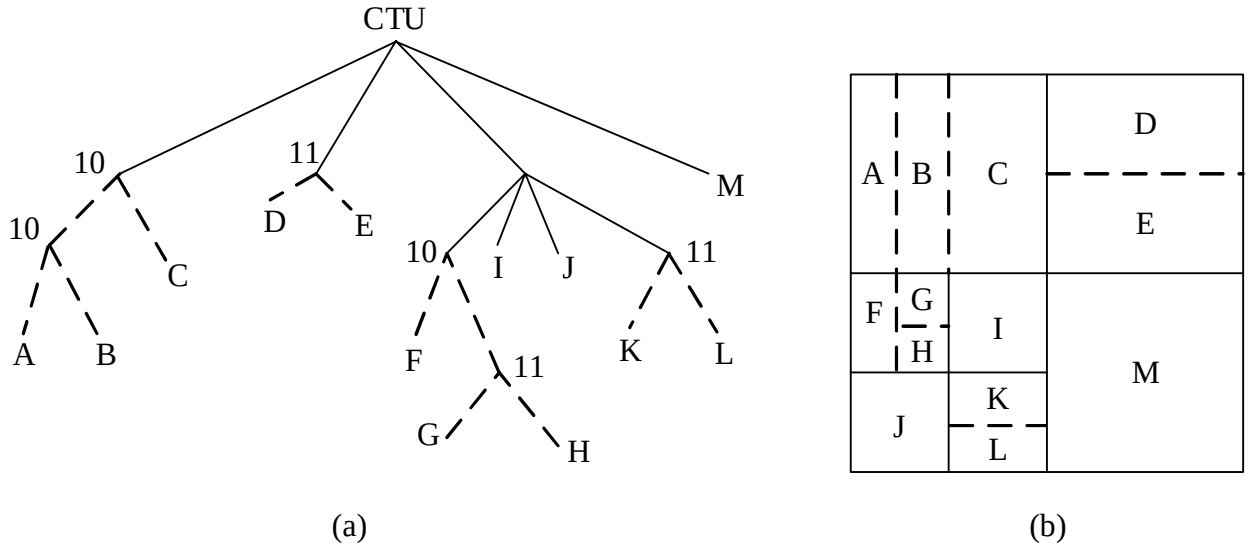


FIG. 3

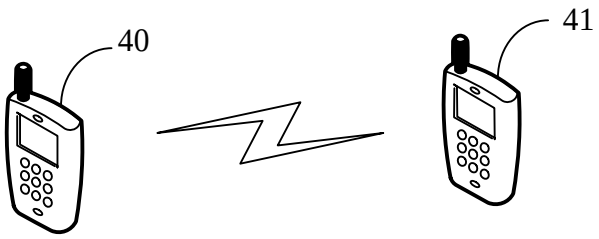


FIG. 4

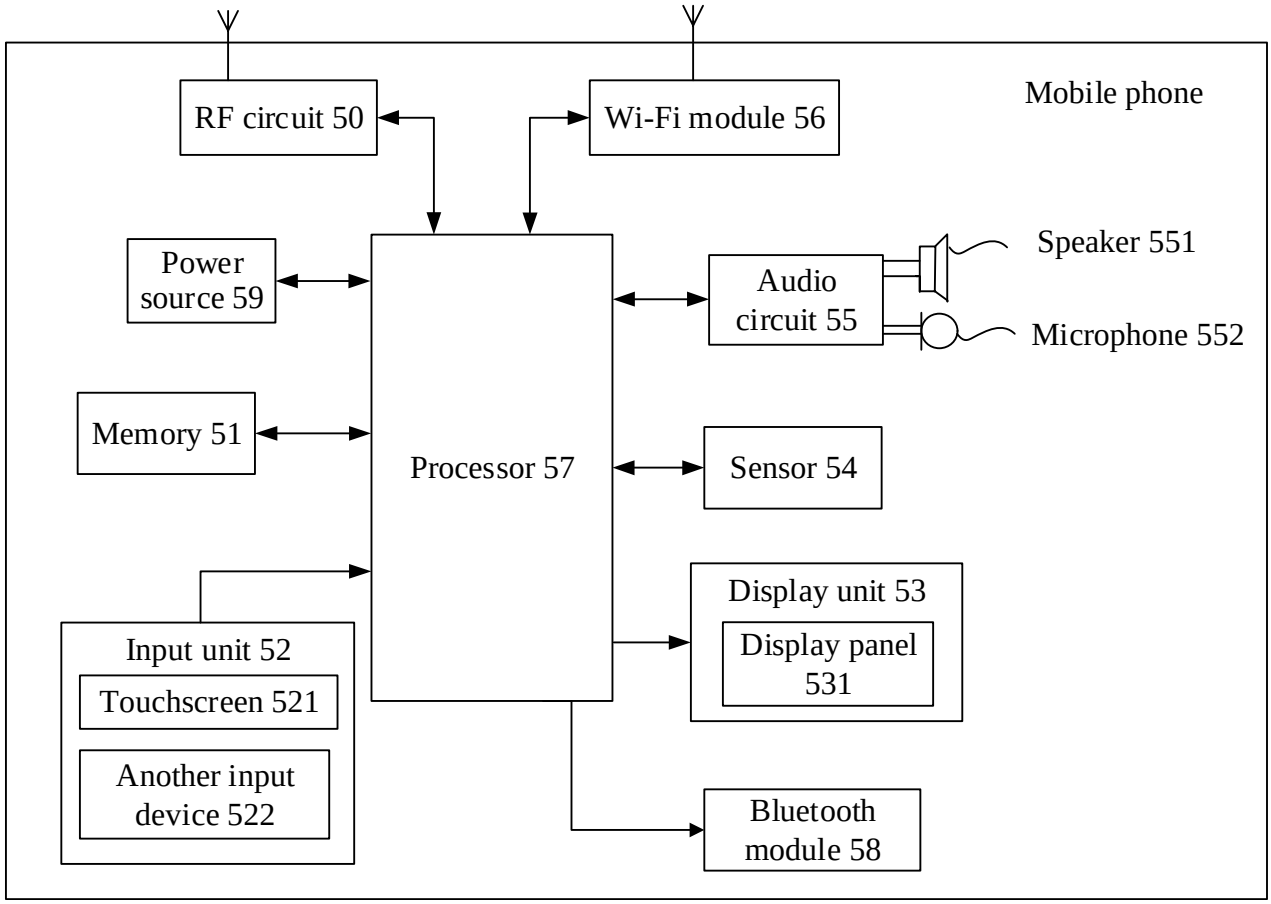

Mobile phone
RF circuit 50
Wi-Fi module 56
Power source 59
Audio circuit 55
Speaker 551
Microphone 552
Memory 51
Processor 57
Sensor 54
Display unit 53
Display panel 531
Input unit 52
Touchscreen 521
Another input device 522
Bluetooth module 58

FIG. 5

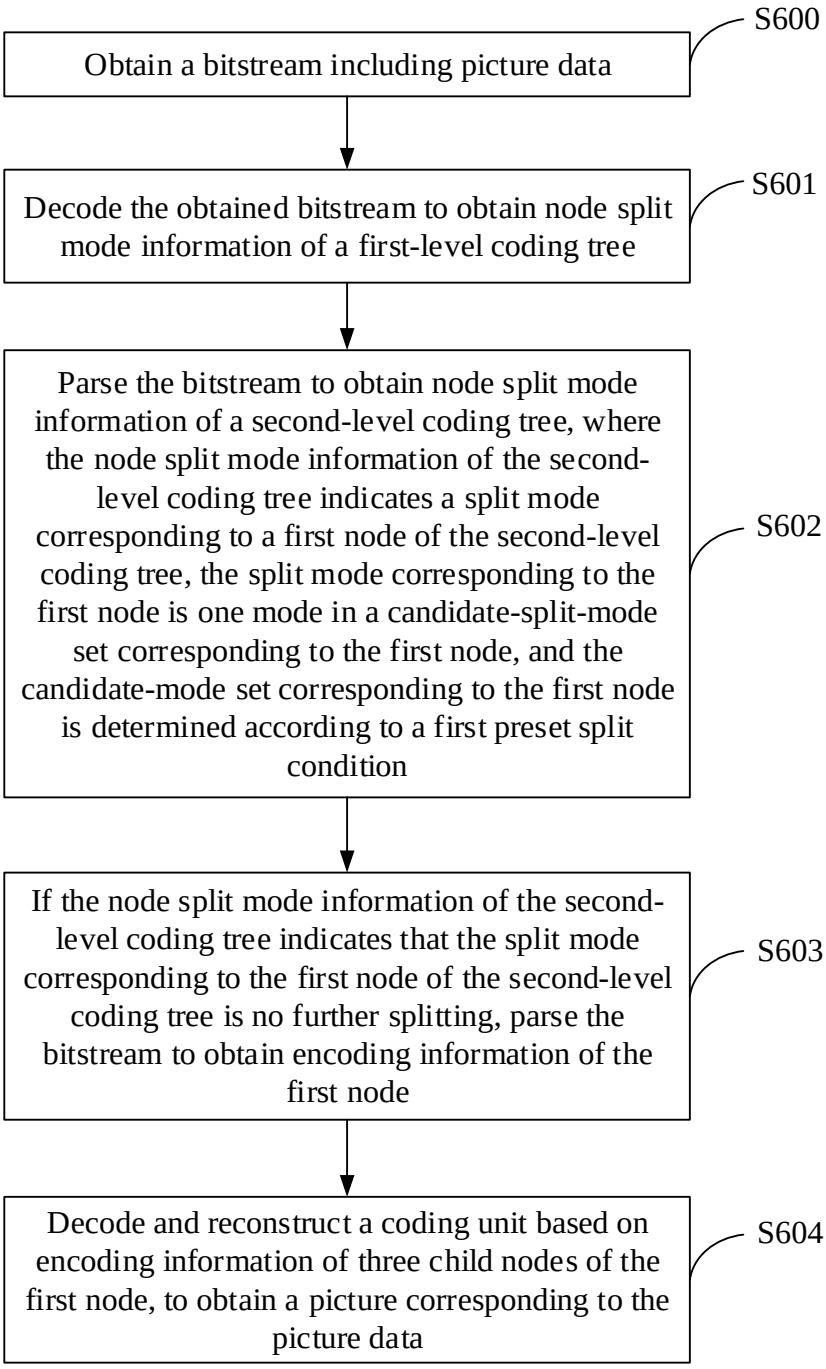

S600
Obtain a bitstream including picture data
S601
Decode the obtained bitstream to obtain node split mode information of a first-level coding tree
S602
Parse the bitstream to obtain node split mode information of a second-level coding tree, where the node split mode information of the second-level coding tree indicates a split mode corresponding to a first node of the second-level coding tree, the split mode corresponding to the first node is one mode in a candidate-split-mode set corresponding to the first node, and the candidate-mode set corresponding to the first node is determined according to a first preset split condition
S603
If the node split mode information of the second-level coding tree indicates that the split mode corresponding to the first node of the second-level coding tree is no further splitting, parse the bitstream to obtain encoding information of the first node
S604
Decode and reconstruct a coding unit based on encoding information of three child nodes of the first node, to obtain a picture corresponding to the picture data

FIG. 6

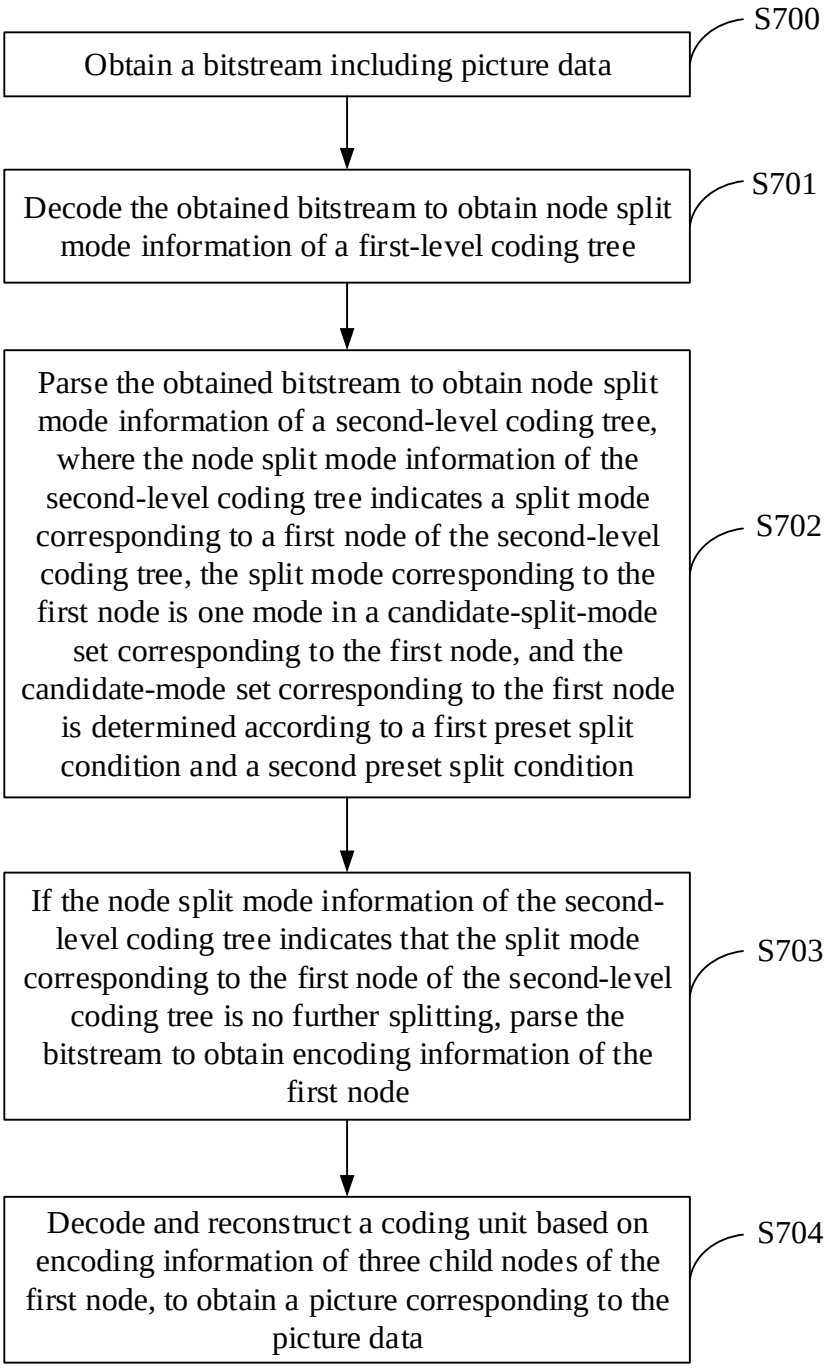

S700
Obtain a bitstream including picture data
S701
Decode the obtained bitstream to obtain node split mode information of a first-level coding tree
S702
Parse the obtained bitstream to obtain node split mode information of a second-level coding tree, where the node split mode information of the second-level coding tree indicates a split mode corresponding to a first node of the second-level coding tree, the split mode corresponding to the first node is one mode in a candidate-split-mode set corresponding to the first node, and the candidate-mode set corresponding to the first node is determined according to a first preset split condition and a second preset split condition
S703
If the node split mode information of the second-level coding tree indicates that the split mode corresponding to the first node of the second-level coding tree is no further splitting, parse the bitstream to obtain encoding information of the first node
S704
Decode and reconstruct a coding unit based on encoding information of three child nodes of the first node, to obtain a picture corresponding to the picture data

FIG. 7

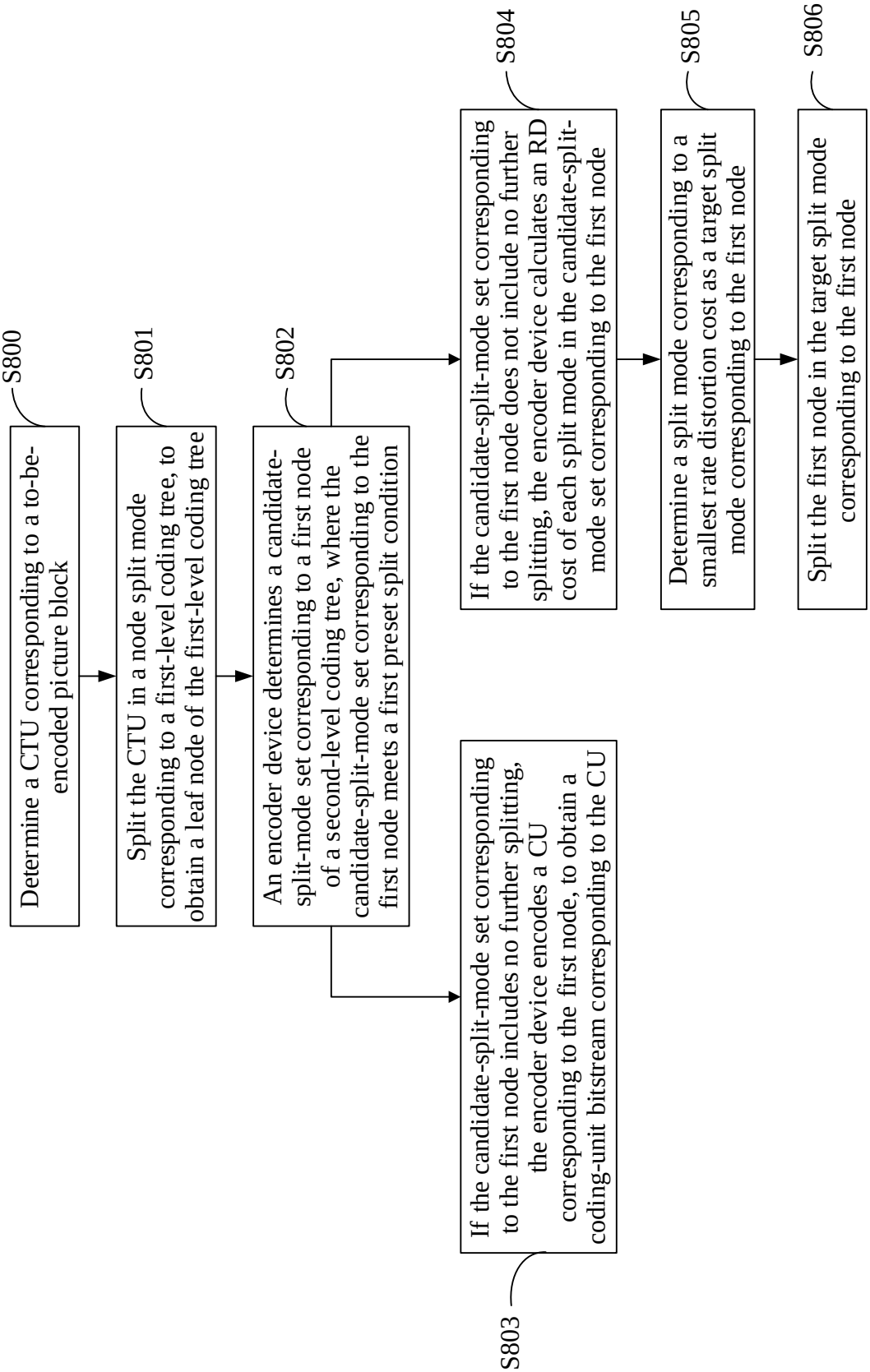

S800
Determine a CTU corresponding to a to-be-encoded picture block
S801
Split the CTU in a node split mode corresponding to a first-level coding tree, to obtain a leaf node of the first-level coding tree
S802
An encoder device determines a candidate-split-mode set corresponding to a first node of a second-level coding tree, where the candidate-split-mode set corresponding to the first node meets a first preset split condition
S803
If the candidate-split-mode set corresponding to the first node includes no further splitting, the encoder device encodes a CU corresponding to the first node, to obtain a coding-unit bitstream corresponding to the CU
S804
If the candidate-split-mode set corresponding to the first node does not include no further splitting, the encoder device calculates an RD cost of each split mode in the candidate-split-mode set corresponding to the first node
S805
Determine a split mode corresponding to a smallest rate distortion cost as a target split mode corresponding to the first node
S806
Split the first node in the target split mode corresponding to the first node

FIG. 8

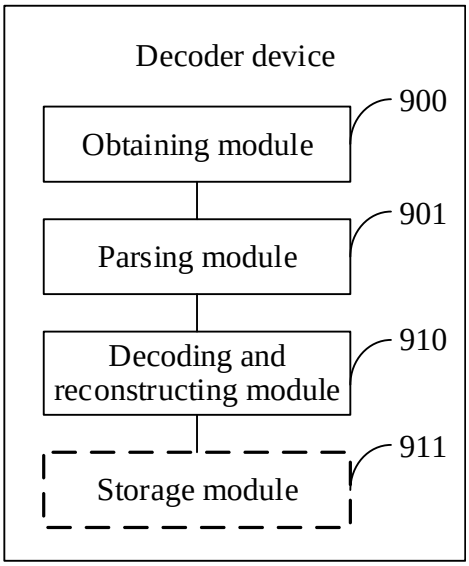

Decoder device
Obtaining module
900
Parsing module
901
Decoding and reconstructing module
910
Storage module
911

FIG. 9

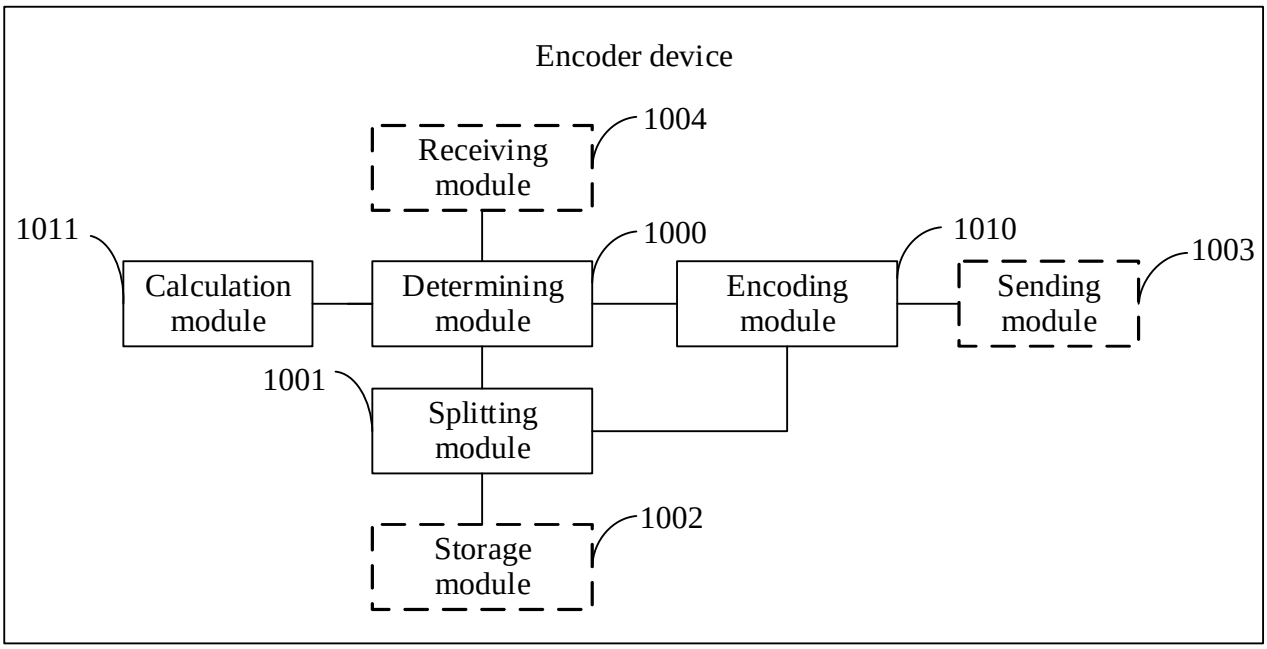

Encoder device
Receiving module
1004
1011
Calculation module
Determining module
1000
Encoding module
1010
Sending module
1003
1001
Splitting module
Storage module
1002

FIG. 10