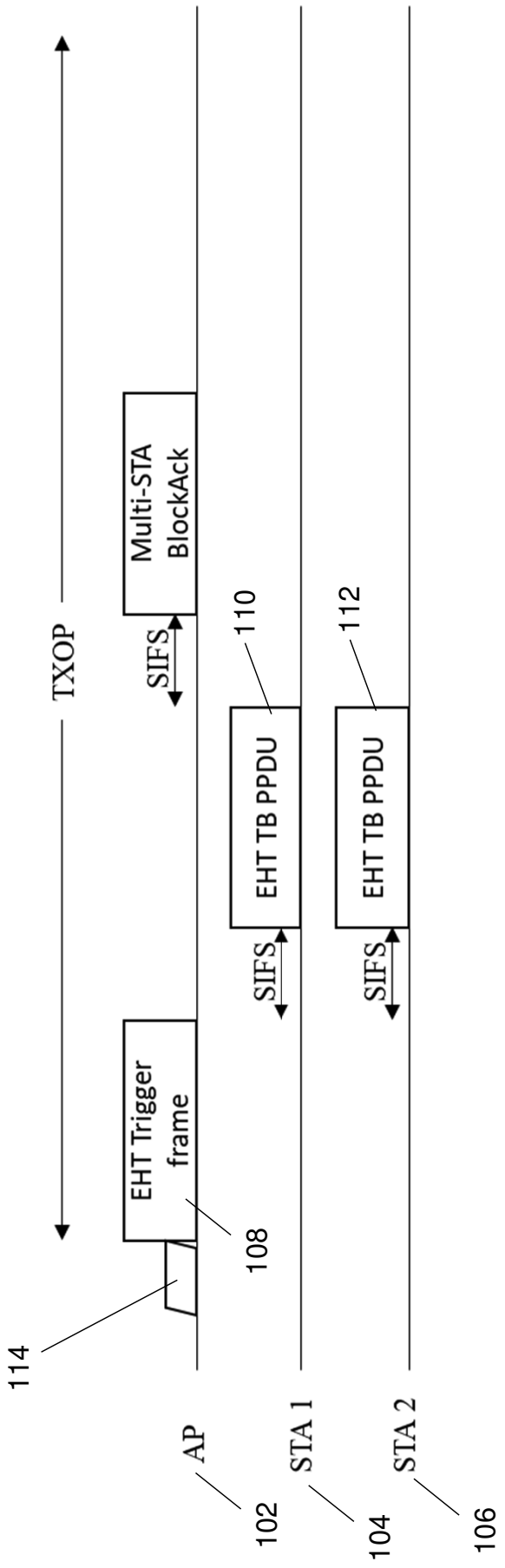

TXOP
EHT Trigger frame
SIFS
Multi-STA BlockAck
SIFS
EHT TB PPDU
SIFS
EHT TB PPDU
AP
STA 1
STA 2
102
104
106
108
110
112
114
100

Figure 1

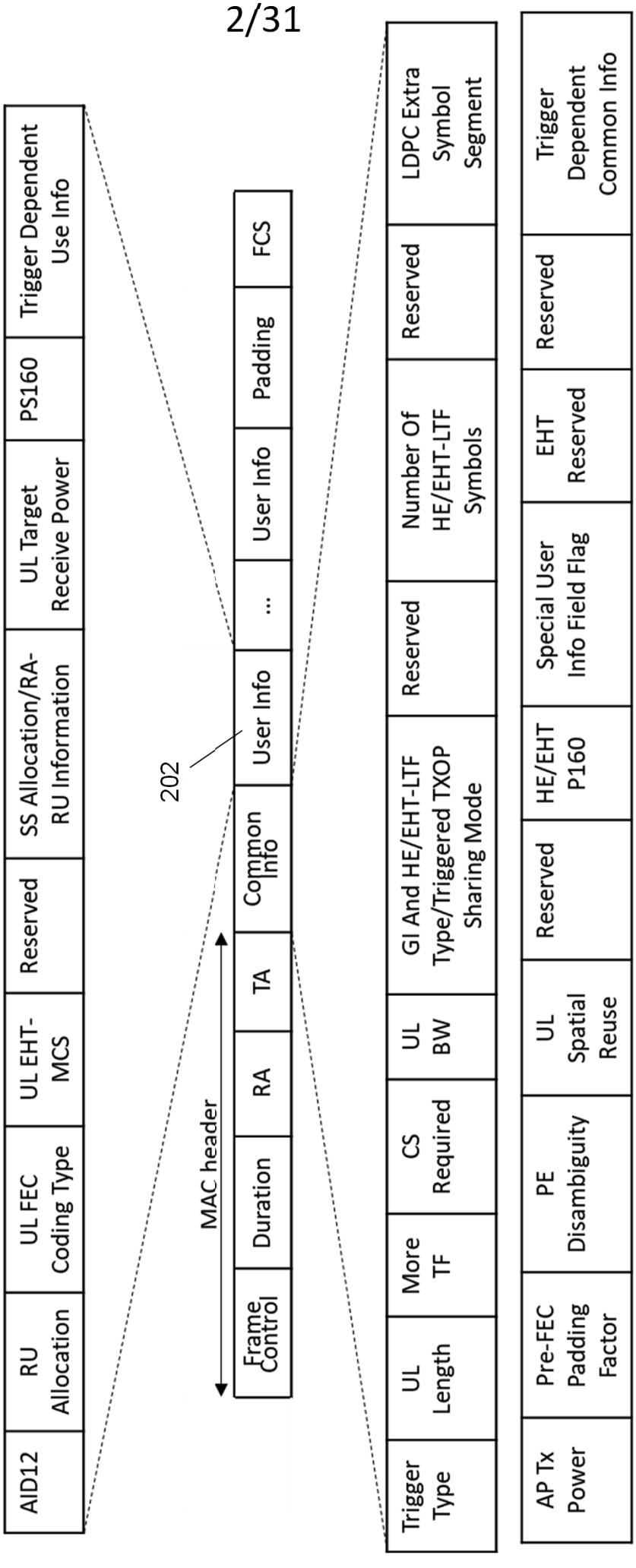

Frame Control
Duration
RA
TA
Common Info
User Info
...
User Info
Padding
FCS
MAC header
202
AID12
RU Allocation
UL FEC Coding Type
UL EHT-MCS
Reserved
SS Allocation/RA-RU Information
UL Target Receive Power
PS160
Trigger Dependent Use Info
Trigger Type
UL Length
More TF
CS Required
UL BW
GI And HE/EHT-LTF Type/Triggered TXOP Sharing Mode
Reserved
Number Of HE/EHT-LTF Symbols
Reserved
LDPC Extra Symbol Segment
AP Tx Power
Pre-FEC Padding Factor
PE Disambiguity
UL Spatial Reuse
Reserved
HE/EHT P160
Special User Info Field Flag
EHT Reserved
Reserved
Trigger Dependent Common Info
200

Figure 2



Figure 3

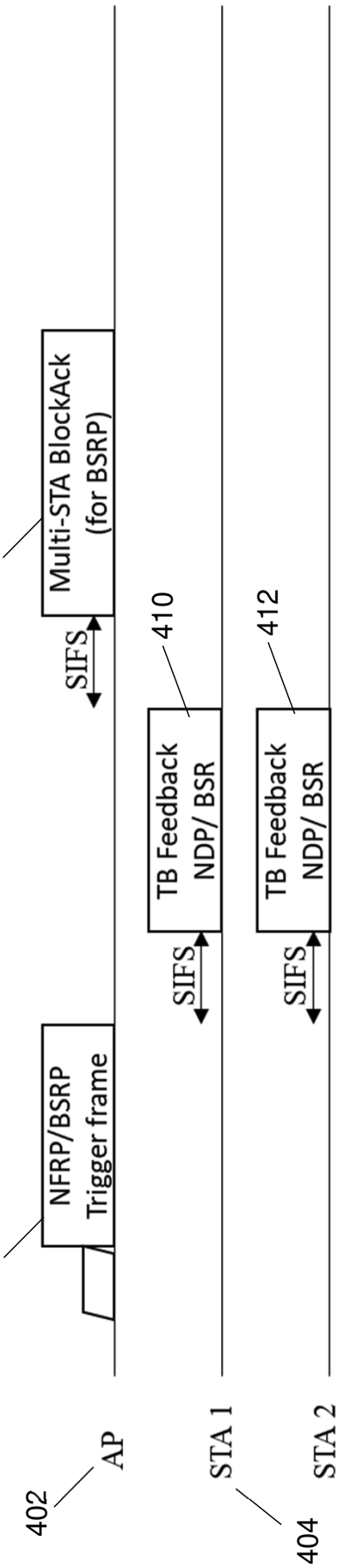

AP
STA 1
STA 2
402
404
406
408
NFRP/BSRP Trigger frame
SIFS
TB Feedback NDP/ BSR
410
SIFS
TB Feedback NDP/ BSR
412
SIFS
Multi-STA BlockAck (for BSRP)
414
400

Figure 4

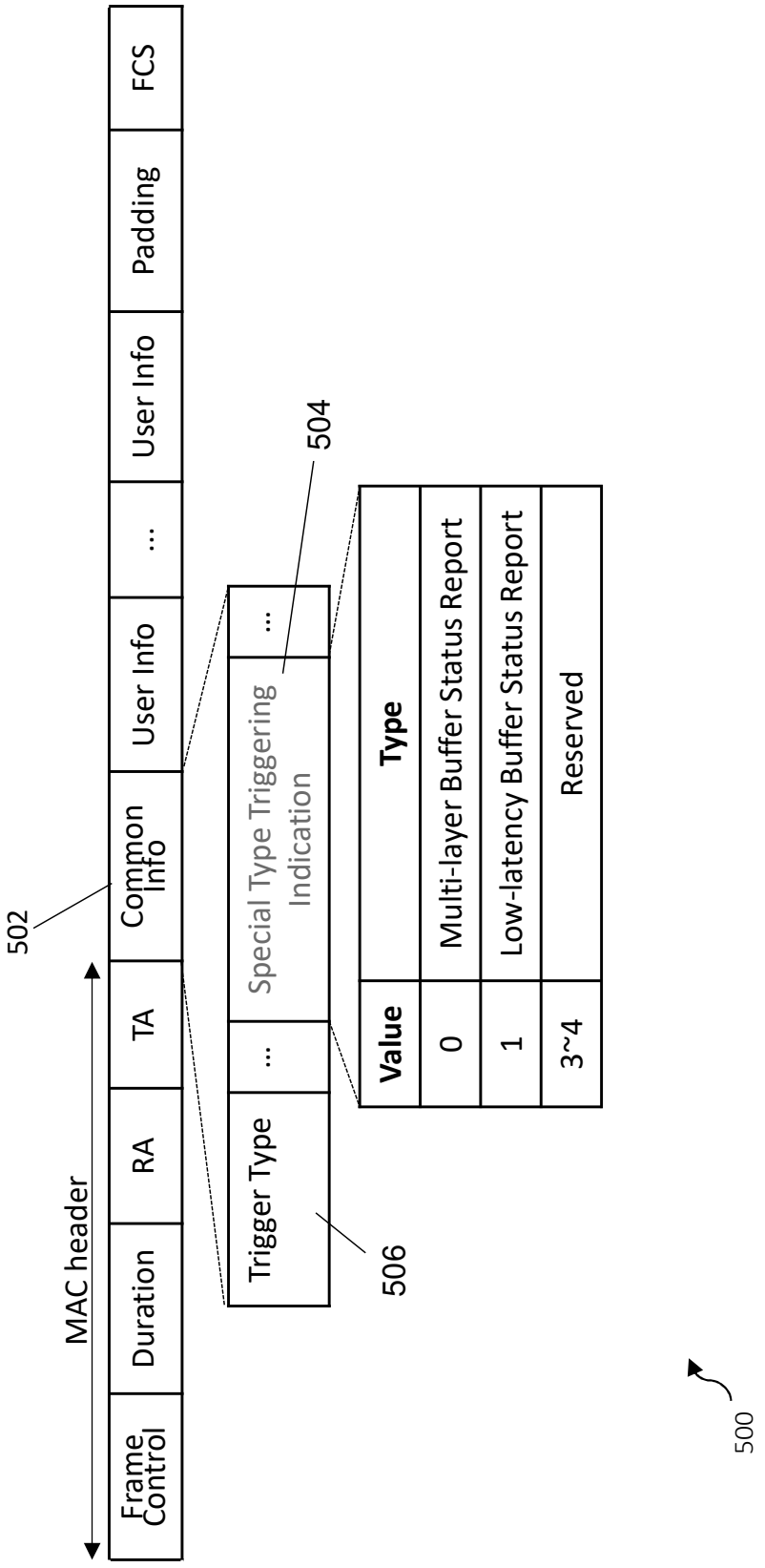

Frame Control
Duration
RA
TA
Common Info
User Info
...
User Info
Padding
FCS
MAC header
502
Trigger Type
...
Special Type Triggering Indication
...
504
506
Value
Type
0
Multi-layer Buffer Status Report
1
Low-latency Buffer Status Report
3~4
Reserved
500

Figure 5

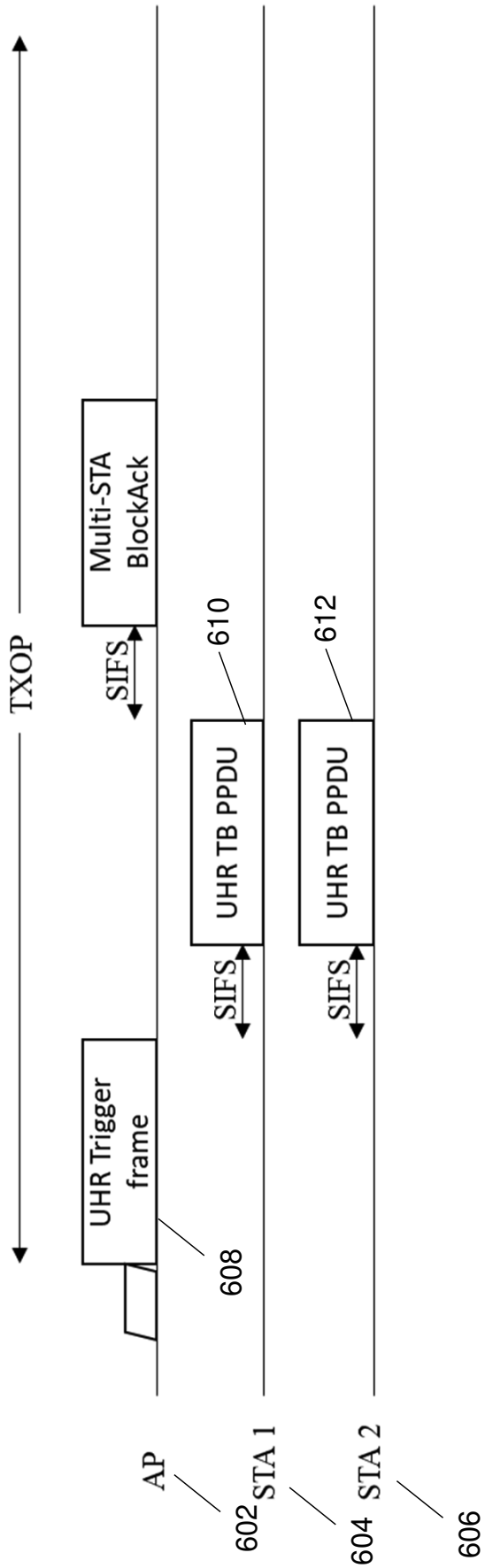

TXOP
UHR Trigger frame
608
SIFS
Multi-STA BlockAck
SIFS
610
UHR TB PPDU
SIFS
612
UHR TB PPDU
AP
602
STA 1
604
STA 2
606
600

Figure 6

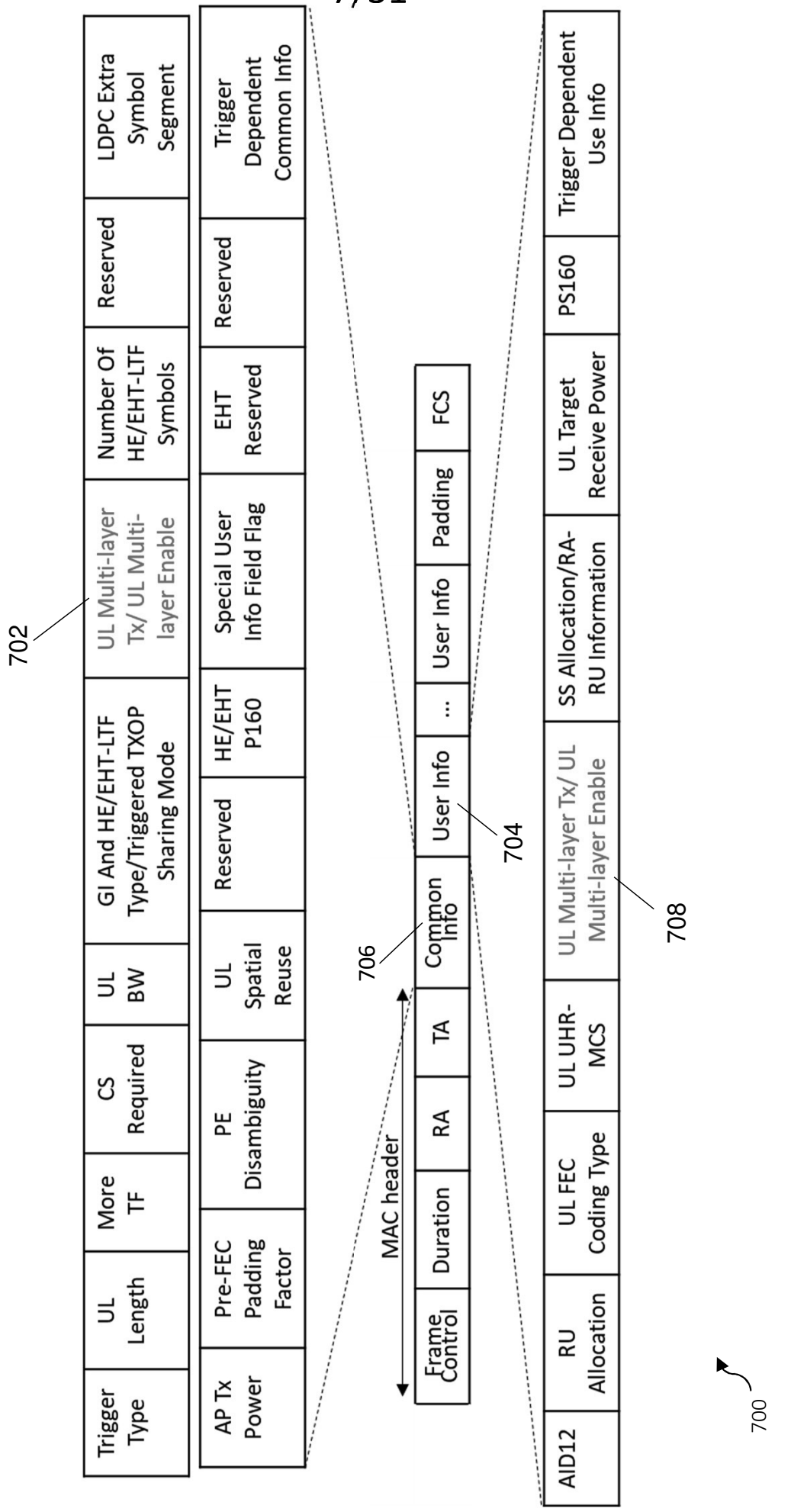

Trigger Type
UL Length
More TF
CS Required
UL BW
GI And HE/EHT-LTF Type/Triggered TXOP Sharing Mode
Reserved
Number Of HE/EHT-LTF Symbols
Reserved
LDPC Extra Symbol Segment
AP Tx Power
Pre-FEC Padding Factor
PE Disambiguity
UL Spatial Reuse
Reserved
HE/EHT P160
Special User Info Field Flag
EHT Reserved
Reserved
Trigger Dependent Common Info
Frame Control
Duration
RA
TA
Common Info
User Info
...
User Info
Padding
FCS
MAC header
AID12
RU Allocation
UL FEC Coding Type
UL UHR-MCS
UL Multi-layer Tx/ UL Multi-layer Enable
SS Allocation/RA-RU Information
UL Target Receive Power
PS160
Trigger Dependent Use Info
UL Multi-layer Tx/ UL Multi-layer Enable
702
704
706
708
700

Figure 7

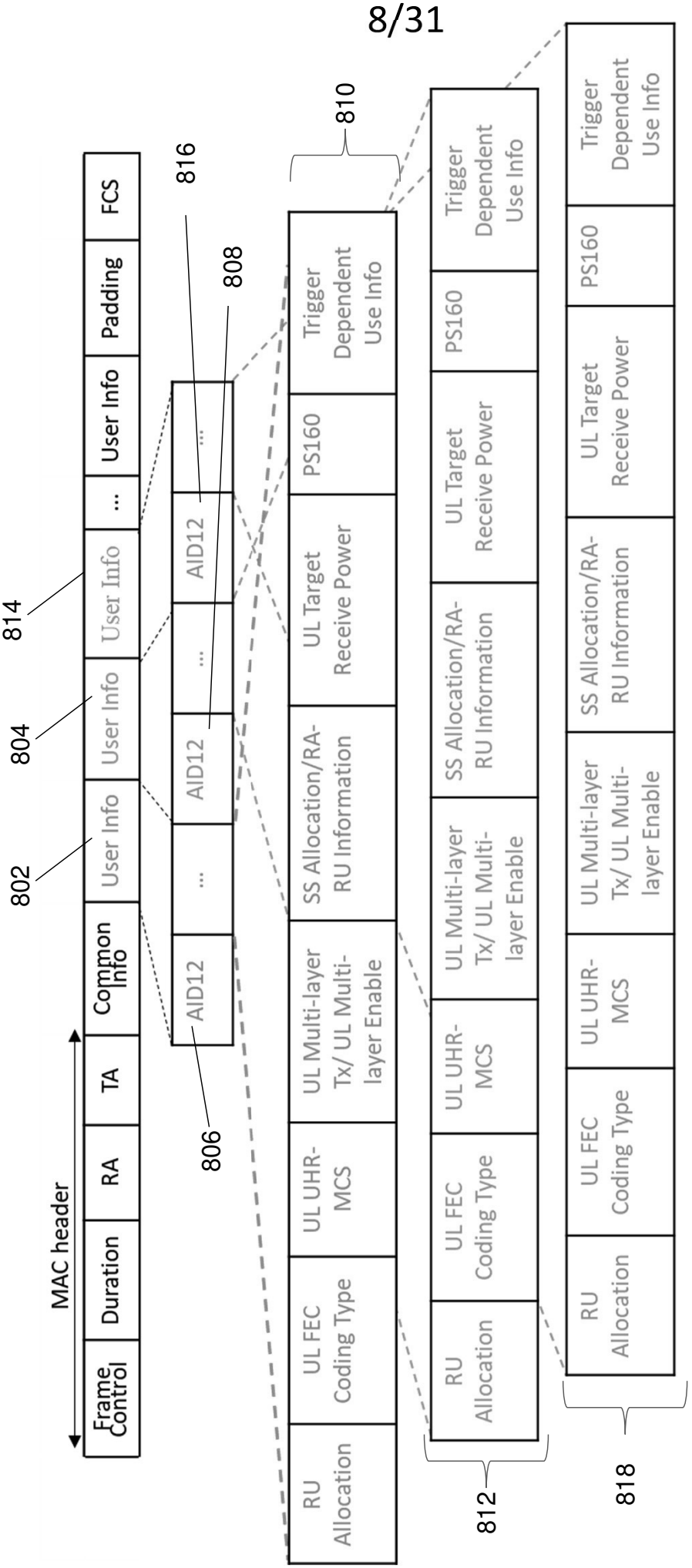

MAC header
Frame Control
Duration
RA
TA
Common Info
User Info
...
User Info
Padding
FCS
802
804
806
808
810
812
814
816
818
800
AID12
...
AID12
...
AID12
...
User Info
RU Allocation
UL FEC Coding Type
UL UHR-MCS
UL Multi-layer Tx/ UL Multi-layer Enable
SS Allocation/RA-RU Information
UL Target Receive Power
PS160
Trigger Dependent Use Info

Figure 8

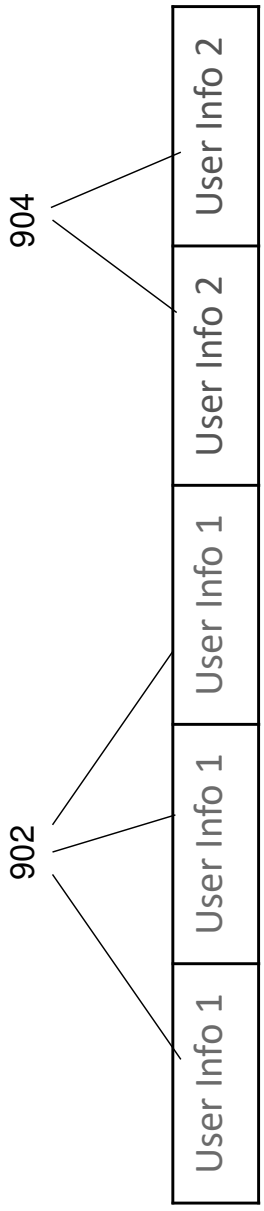

User Info 1
User Info 1
User Info 1
User Info 2
User Info 2
902
904
900

Figure 9


RU Allocation
UL FEC Coding Type
UL UHR-MCS
End Flag
SS Allocation/RA-RU Information
UL Target Receive Power
PS160
Trigger Dependent Use Info
1002
1000

Figure 10

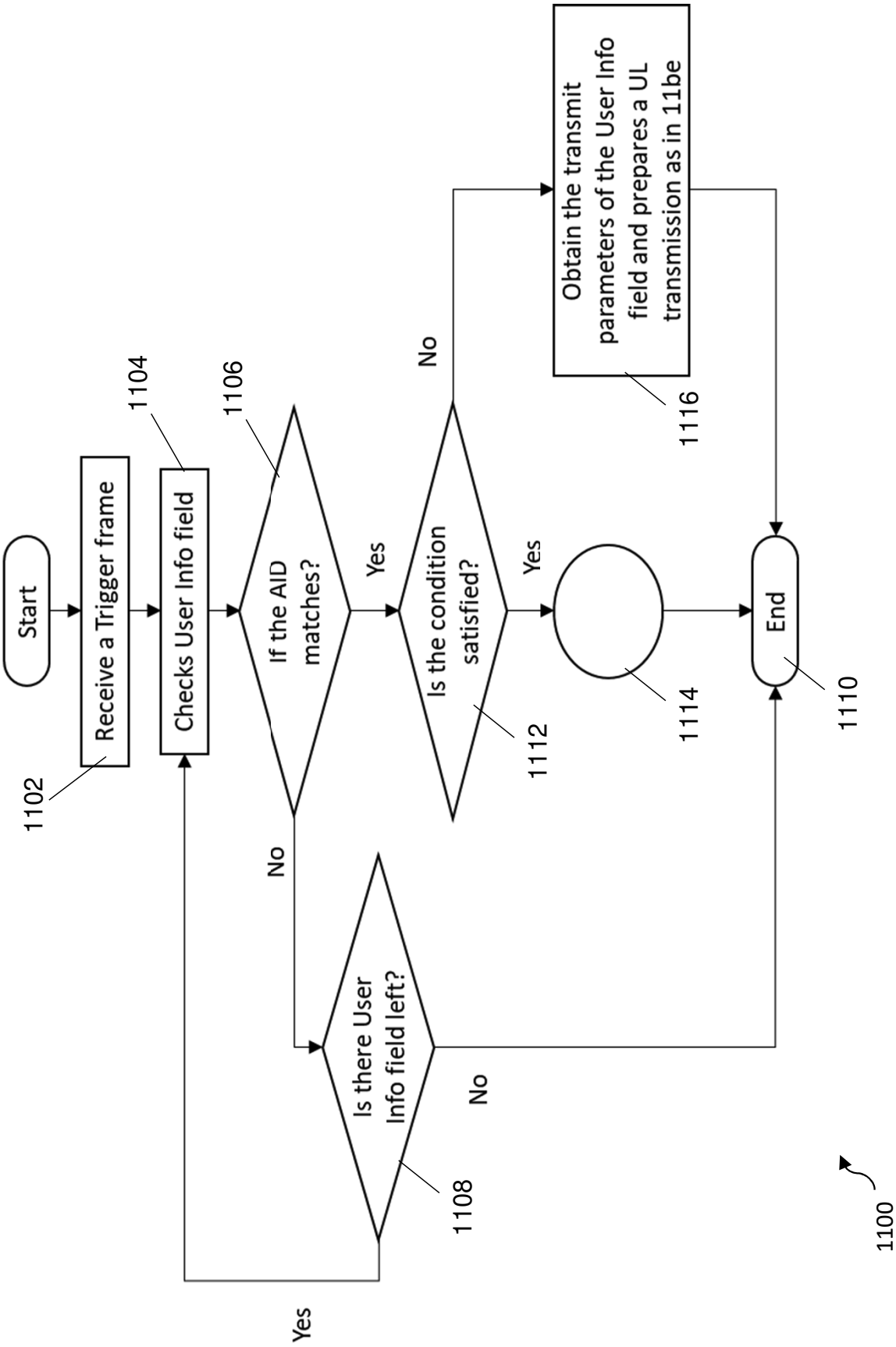

Start
Receive a Trigger frame
Checks User Info field
If the AID matches?
Is the condition satisfied?
Obtain the transmit parameters of the User Info field and prepares a UL transmission as in 11be
End
Is there User Info field left?
Yes
No
Yes
No
Yes
No
1102
1104
1106
1108
1110
1112
1114
1116
1100

Figure 11

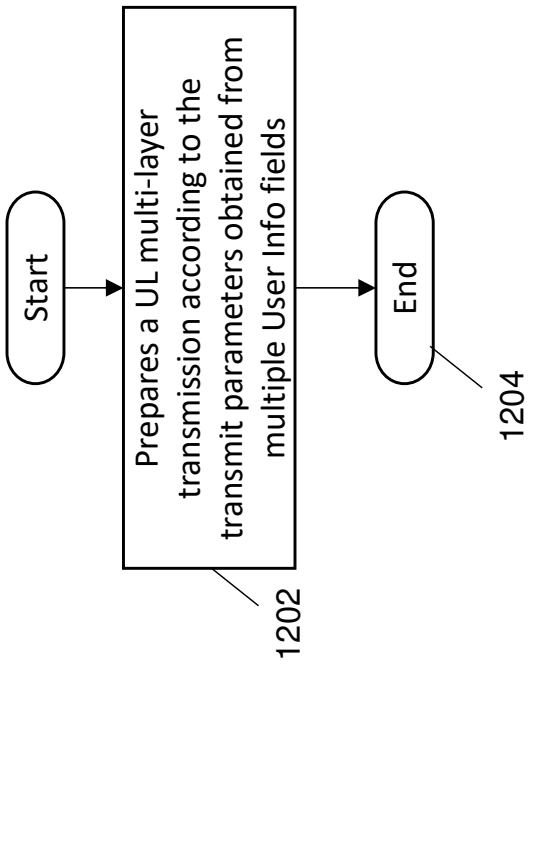

Start
Prepares a UL multi-layer transmission according to the transmit parameters obtained from multiple User Info fields
End
1202
1204
1200

Figure 12

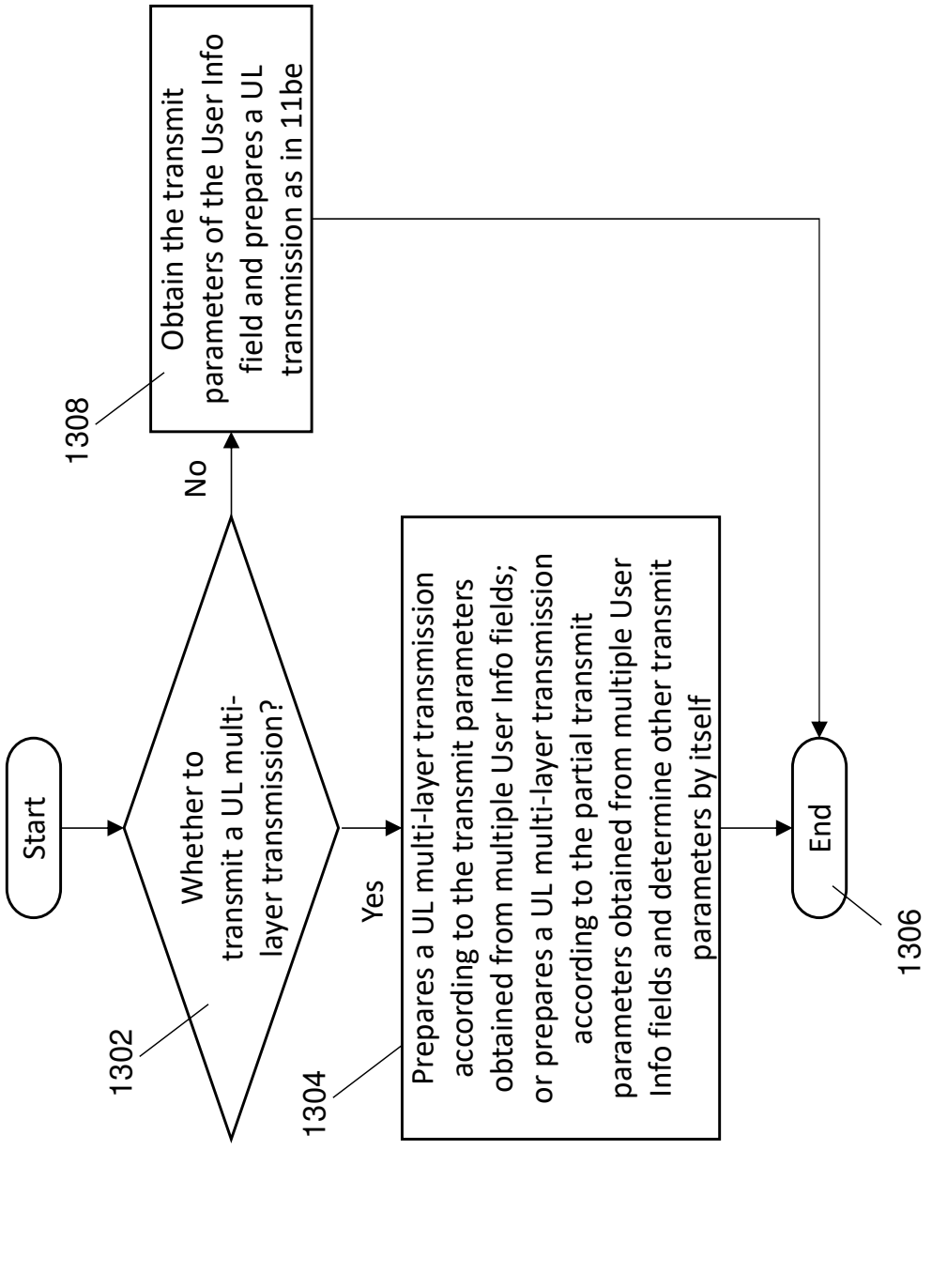

Start
Whether to transmit a UL multi-layer transmission?
1302
No
Obtain the transmit parameters of the User Info field and prepares a UL transmission as in 11be
1308
Yes
Prepares a UL multi-layer transmission according to the transmit parameters obtained from multiple User Info fields; or prepares a UL multi-layer transmission according to the partial transmit parameters obtained from multiple User Info fields and determine other transmit parameters by itself
1304
End
1306
1300

Figure 13

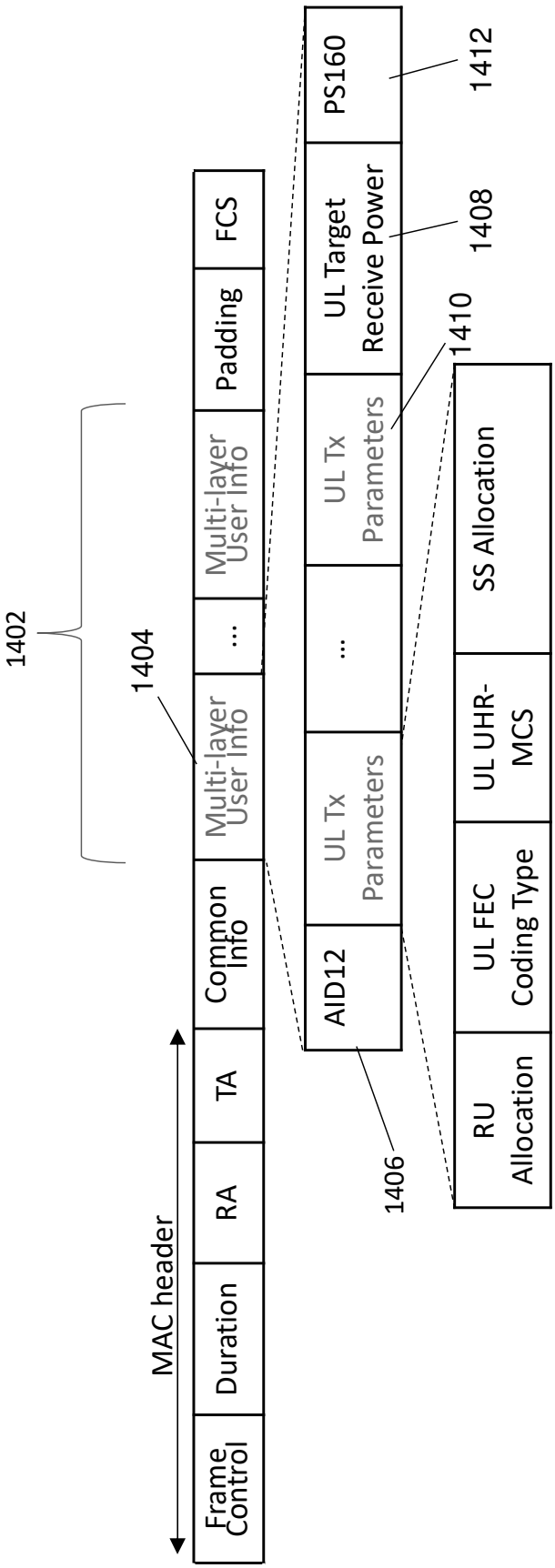

Frame Control
Duration
RA
TA
Common Info
Multi-layer User Info
...
Padding
FCS
MAC header
1402
1404
AID12
UL Tx Parameters
...
UL Tx Parameters
UL Target Receive Power
PS160
1406
1408
1410
1412
RU Allocation
UL FEC Coding Type
UL UHR-MCS
SS Allocation
1400

Figure 14

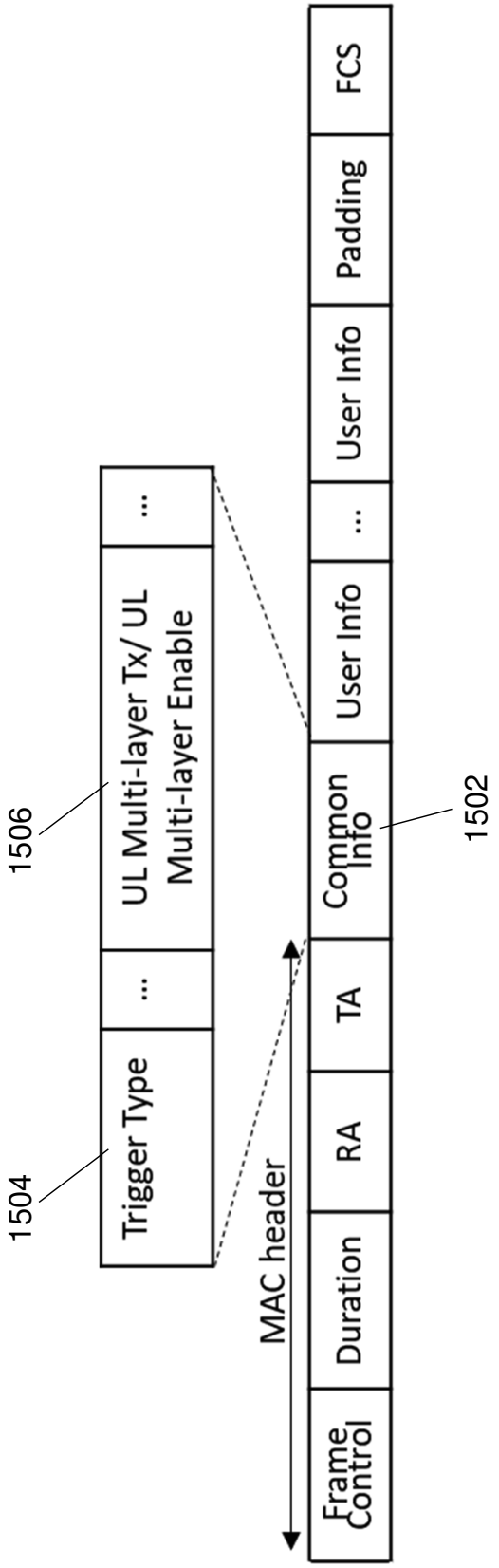

Frame Control
Duration
RA
TA
Common Info
User Info
...
User Info
Padding
FCS
MAC header
Trigger Type
...
UL Multi-layer Tx/ UL Multi-layer Enable
...
1500
1502
1504
1506

Figure 15

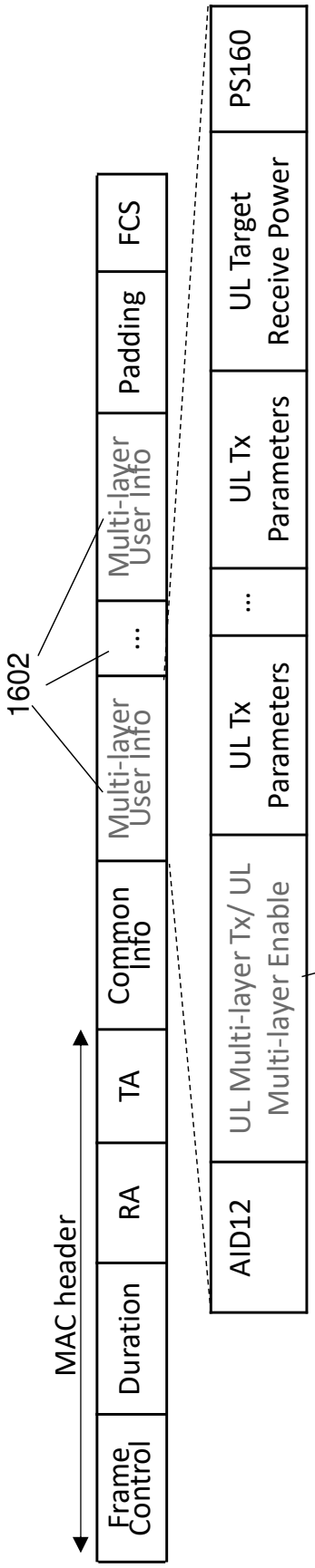

MAC header
Frame Control
Duration
RA
TA
Common Info
Multi-layer User Info
...
Multi-layer User Info
Padding
FCS
1602
AID12
UL Multi-layer Tx/ UL Multi-layer Enable
UL Tx Parameters
...
UL Tx Parameters
UL Target Receive Power
PS160
1604
1600

Figure 16

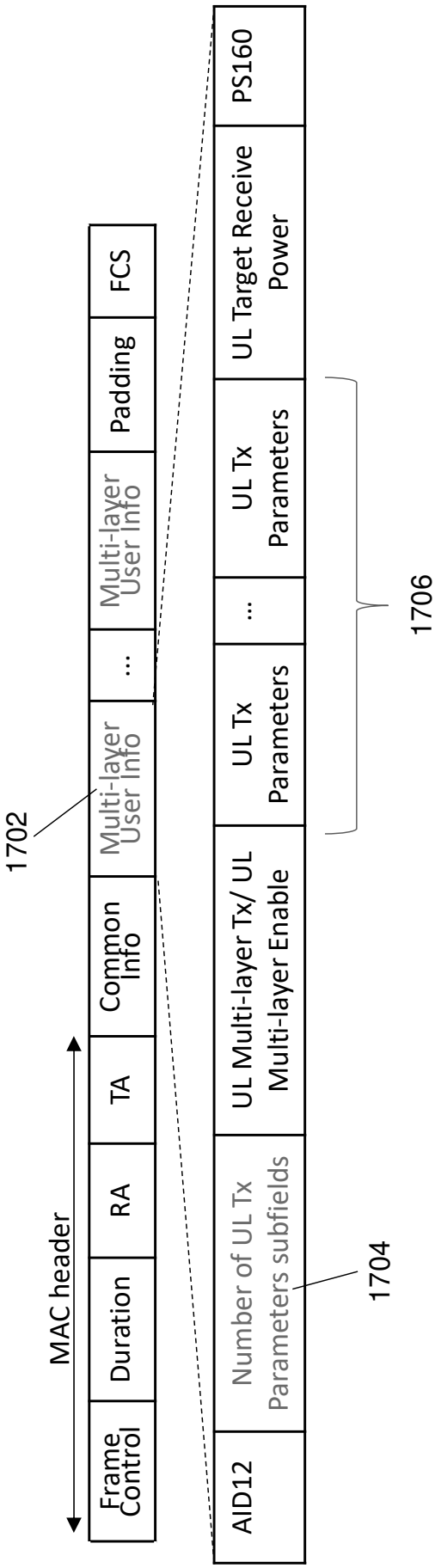

Frame Control
Duration
RA
TA
Common Info
Multi-layer User Info
...
Padding
FCS
MAC header
1702
AID12
Number of UL Tx Parameters subfields
UL Multi-layer Tx/ UL Multi-layer Enable
UL Tx Parameters
...
UL Tx Parameters
UL Target Receive Power
PS160
1704
1706
1700

Figure 17

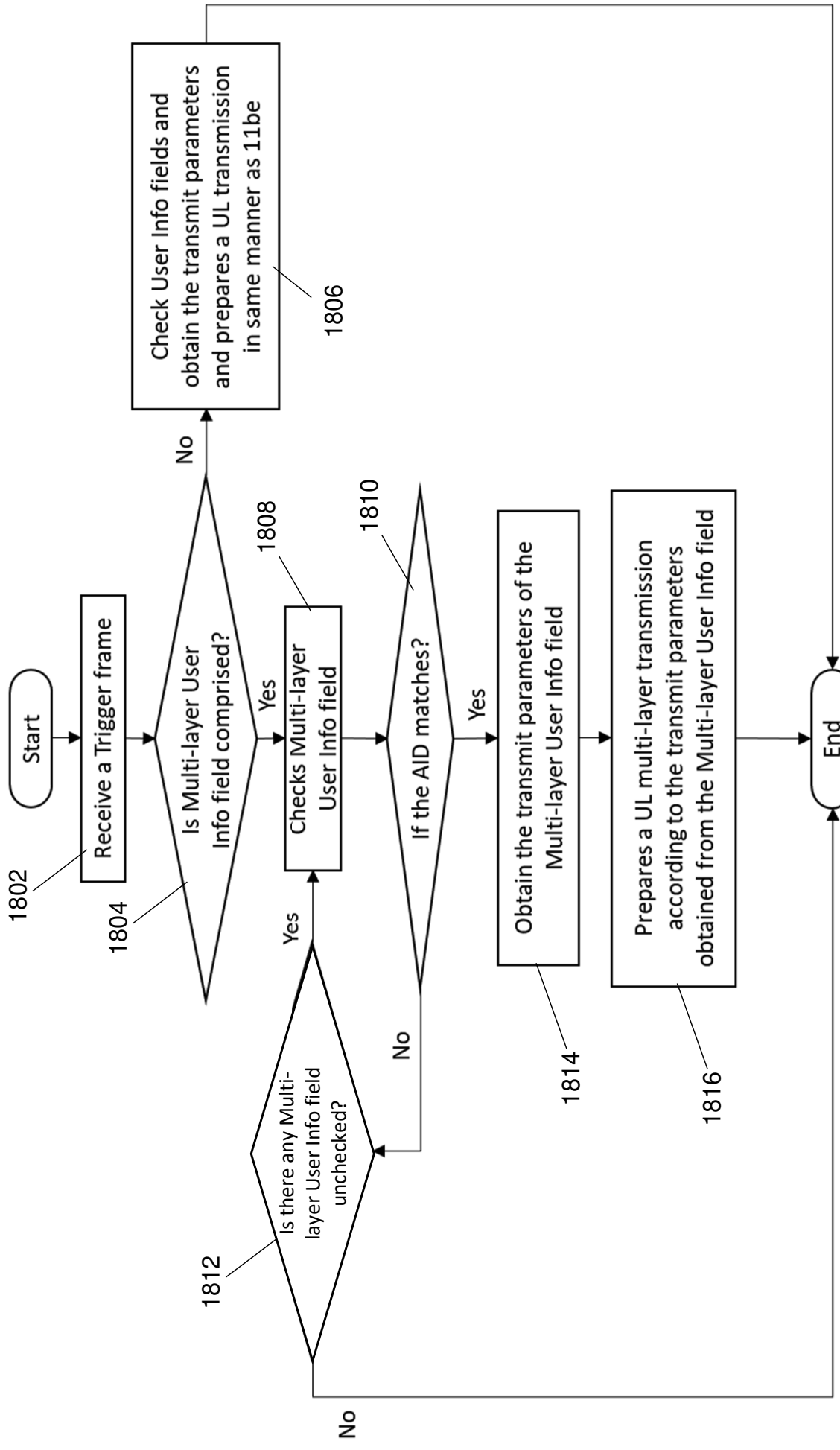

Start
Receive a Trigger frame
Is Multi-layer User Info field comprised?
Yes
No
Checks Multi-layer User Info field
If the AID matches?
Yes
No
Is there any Multi-layer User Info field unchecked?
Yes
No
Check User Info fields and obtain the transmit parameters and prepares a UL transmission in same manner as 11be
Obtain the transmit parameters of the Multi-layer User Info field
Prepares a UL multi-layer transmission according to the transmit parameters obtained from the Multi-layer User Info field
End
1802
1804
1806
1808
1810
1812
1814
1816
1818
1800

Figure 18

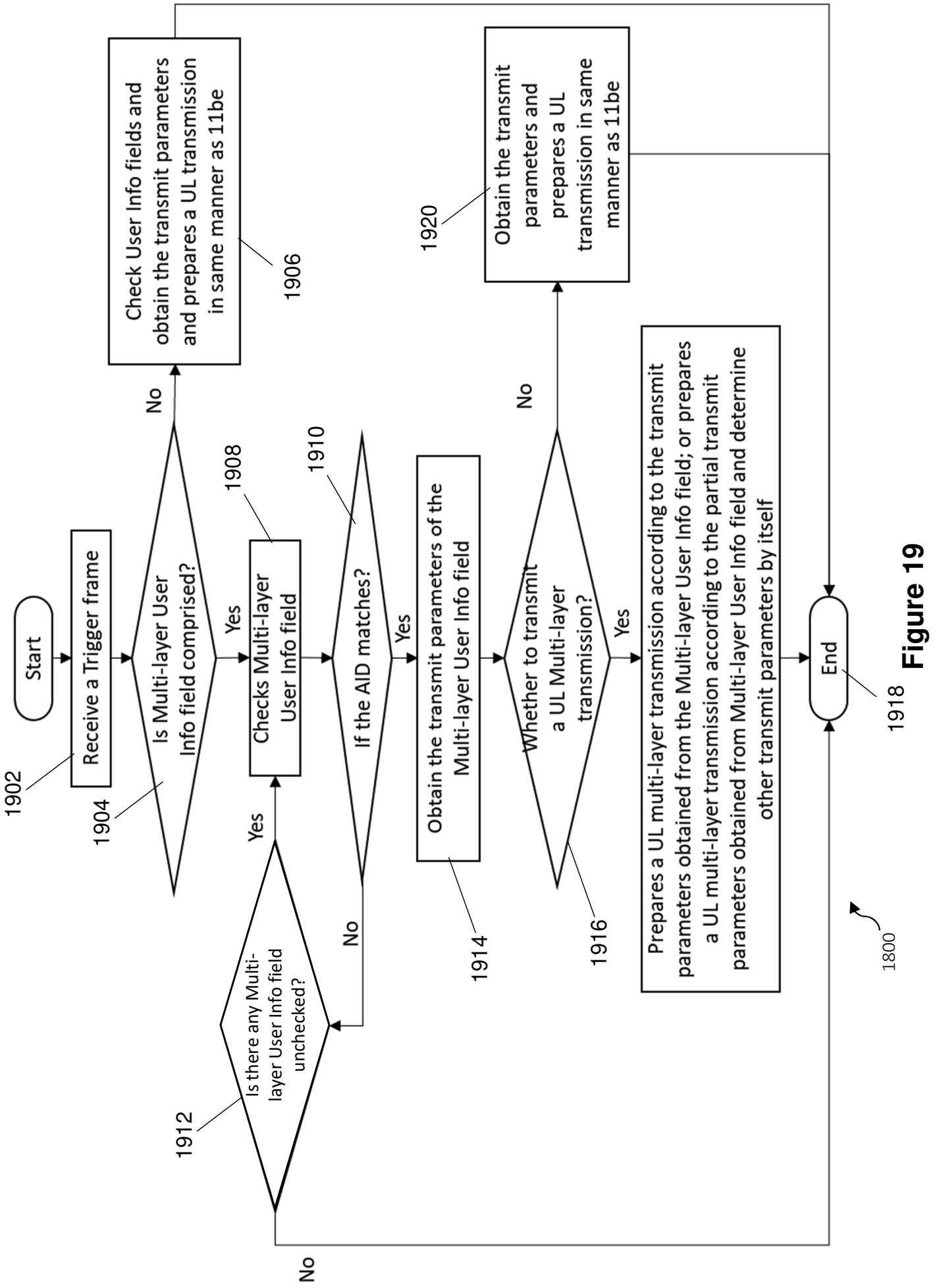

Start
Receive a Trigger frame
Is Multi-layer User Info field comprised?
Yes
No
Checks Multi-layer User Info field
If the AID matches?
Yes
No
Is there any Multi-layer User Info field unchecked?
Yes
No
Obtain the transmit parameters of the Multi-layer User Info field
Whether to transmit a UL Multi-layer transmission?
Yes
No
Prepares a UL multi-layer transmission according to the transmit parameters obtained from the Multi-layer User Info field; or prepares a UL multi-layer transmission according to the partial transmit parameters obtained from Multi-layer User Info field and determine other transmit parameters by itself
Check User Info fields and obtain the transmit parameters and prepares a UL transmission in same manner as 11be
Obtain the transmit parameters and prepares a UL transmission in same manner as 11be
End
1902
1904
1906
1908
1910
1912
1914
1916
1918
1920
1800

Figure 19

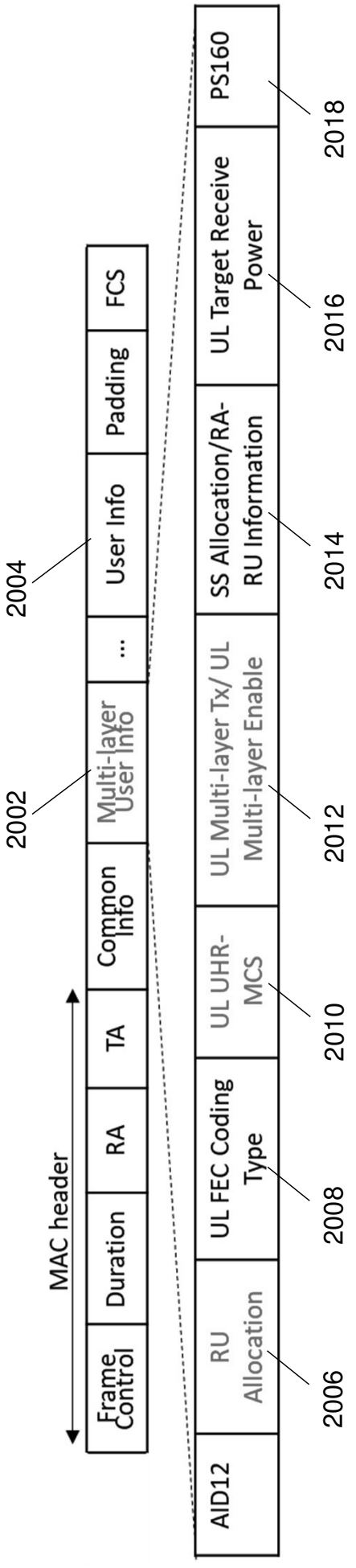

MAC header
Frame Control
Duration
RA
TA
Common Info
Multi-layer User Info
...
User Info
Padding
FCS
AID12
RU Allocation
UL FEC Coding Type
UL UHR-MCS
UL Multi-layer Tx/ UL Multi-layer Enable
SS Allocation/RA-RU Information
UL Target Receive Power
PS160
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018

Figure 20

Value	MCS for 1st transmission layer	MCS for 2nd transmission layer
0	MCS0	MCS4
1	MCS0	MCS6
2	MCS0	MCS8
3	MCS1	MCS5
4	MCS1	MCS7
5	MCS1	MCS9
6	MCS2	MCS6
7	MCS2	MCS8
8	MCS3	MCS7
9	MCS3	MCS9
10	MCS4	MCS0
11	MCS4	MCS8
12	MCS5	MCS1
13	MCS5	MCS9
14	MCS6	MCS0
15	MCS6	MCS2
16	MCS7	MCS1
17	MCS7	MCS3
18	MCS8	MCS0
19	MCS8	MCS2
20	MCS8	MCS4
21	MCS9	MCS1
22	MCS9	MCS3
23	MCS9	MCS5
24-31	Reserved	

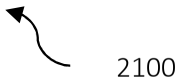


Figure 21

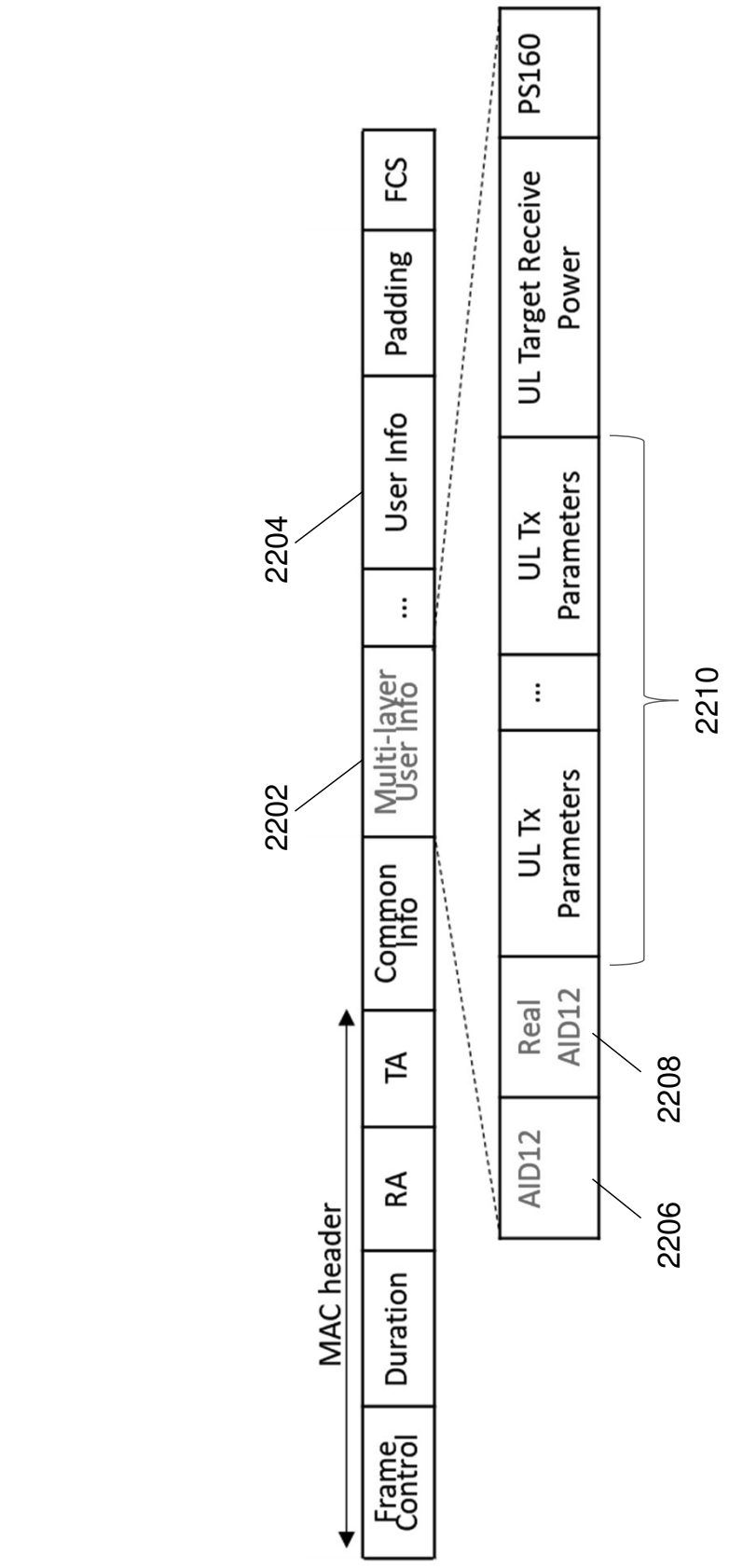

Frame Control
Duration
RA
TA
Common Info
Multi-layer User Info
...
User Info
Padding
FCS
MAC header
2202
2204
AID12
Real AID12
UL Tx Parameters
...
UL Tx Parameters
UL Target Receive Power
PS160
2206
2208
2210
2200

Figure 22

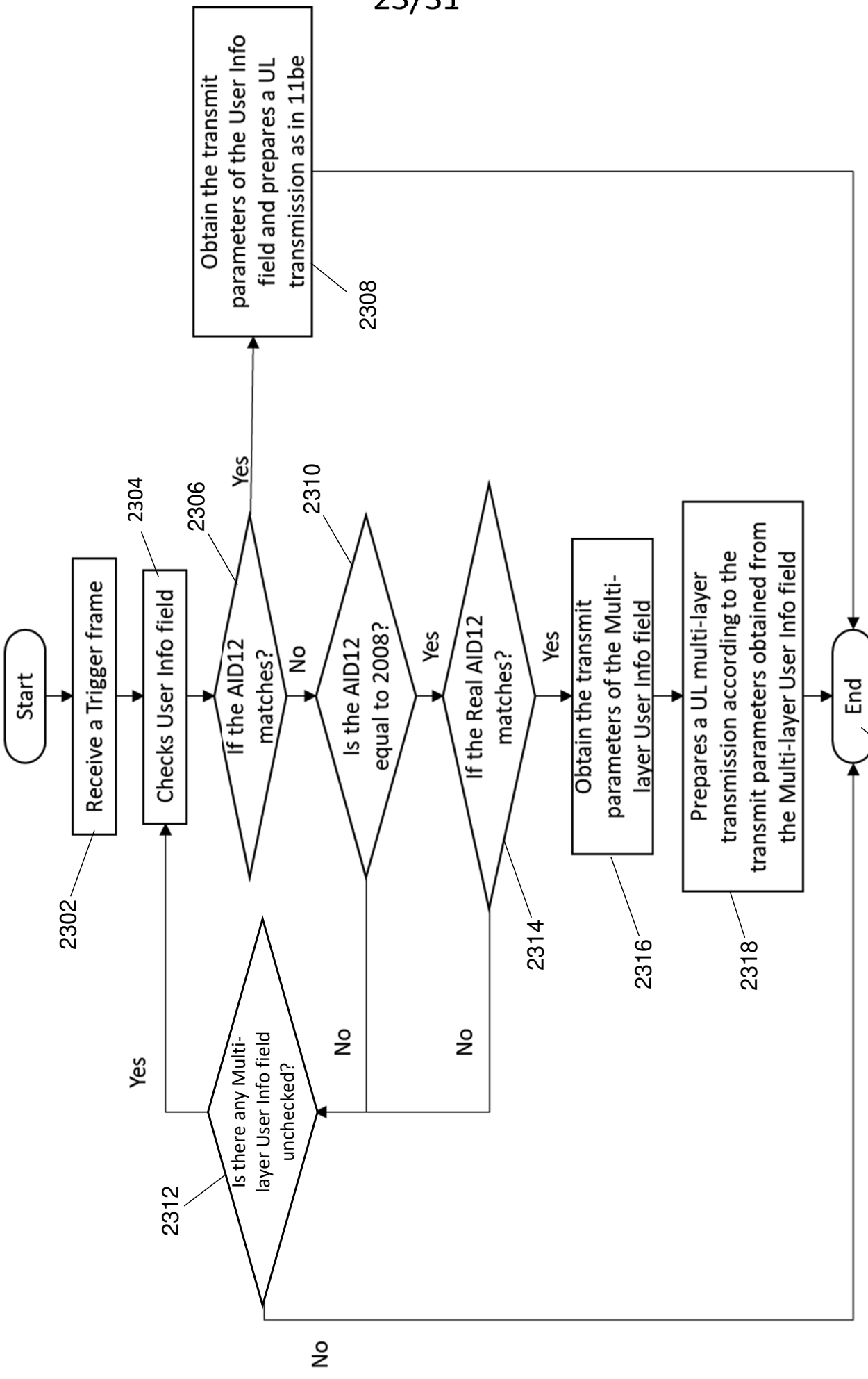

Start
Receive a Trigger frame
Checks User Info field
If the AID12 matches?
Yes
No
Is the AID12 equal to 2008?
Yes
No
If the Real AID12 matches?
Yes
No
Is there any Multi-layer User Info field unchecked?
Yes
No
Obtain the transmit parameters of the User Info field and prepares a UL transmission as in 11be
Obtain the transmit parameters of the Multi-layer User Info field
Prepares a UL multi-layer transmission according to the transmit parameters obtained from the Multi-layer User Info field
End
2300
2302
2304
2306
2308
2310
2312
2314
2316
2318
2320

Figure 23

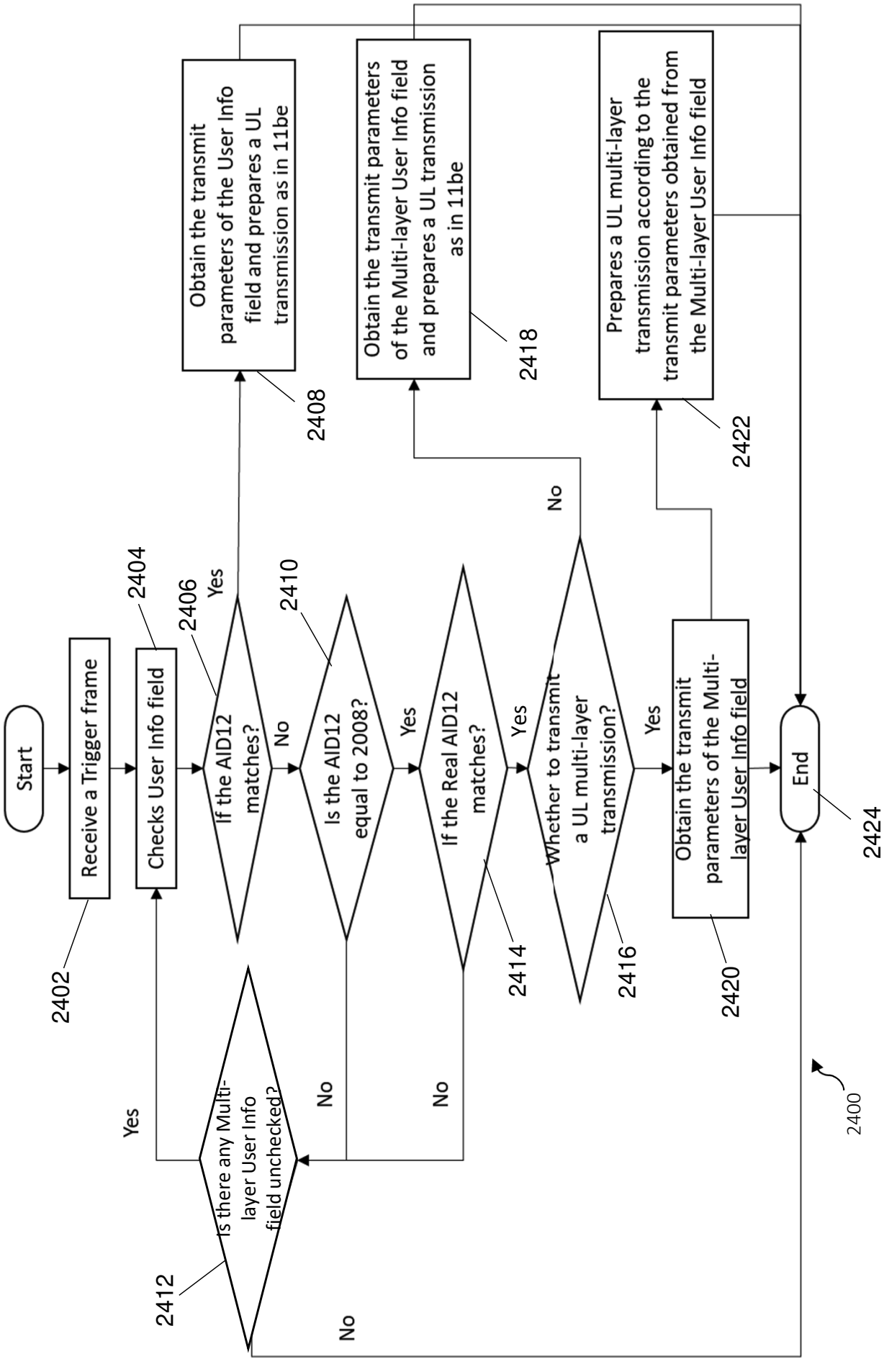

Start
Receive a Trigger frame
Checks User Info field
If the AID12 matches?
Is the AID12 equal to 2008?
If the Real AID12 matches?
Whether to transmit a UL multi-layer transmission?
Is there any Multi-layer User Info field unchecked?
Obtain the transmit parameters of the User Info field and prepares a UL transmission as in 11be
Obtain the transmit parameters of the Multi-layer User Info field and prepares a UL transmission as in 11be
Prepares a UL multi-layer transmission according to the transmit parameters obtained from the Multi-layer User Info field
Obtain the transmit parameters of the Multi-layer User Info field
End
Yes
No
2402
2404
2406
2408
2410
2412
2414
2416
2418
2420
2422
2424
2400

Figure 24

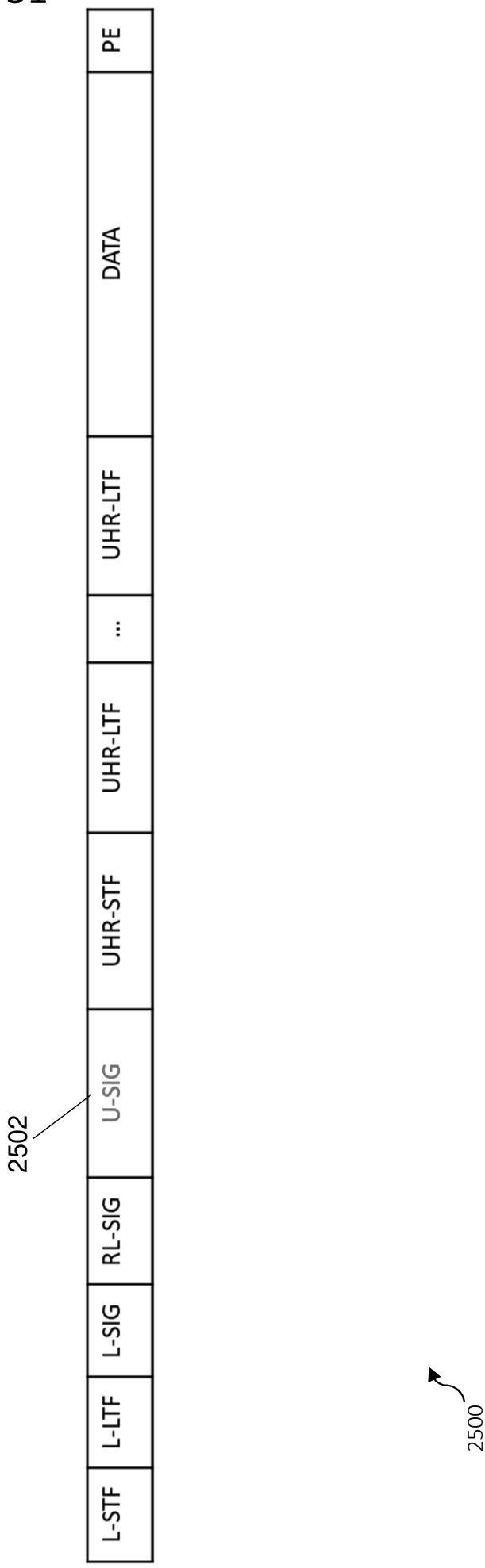

L-STF
L-LTF
L-SIG
RL-SIG
U-SIG
UHR-STF
UHR-LTF
...
UHR-LTF
DATA
PE
2502
2500

Figure 25

U-SIG part	Bit	Field
U-SIG-1	B0-B2	PHY Version Identifier
	B3-B5	BW
	B6	UL/DL
	B7-B12	BSS Color
	B13-B19	TXOP
	B20	UL Multi-layer Transmission Flag
	B21-B24	Disregard
	B25	Validate
U-SIG-2	B0-B1	PPDU Type and Compression Mode
	B2	Validate
	B3-B7	Punctured Channel Information
	B8	Validate
	B9-B10	EHT-SIG MCS
	B11-B15	Number Of EHT-SIG Symbols
	B16-B19	CRC
	B20-B25	Tail

2602

2600

Figure 26

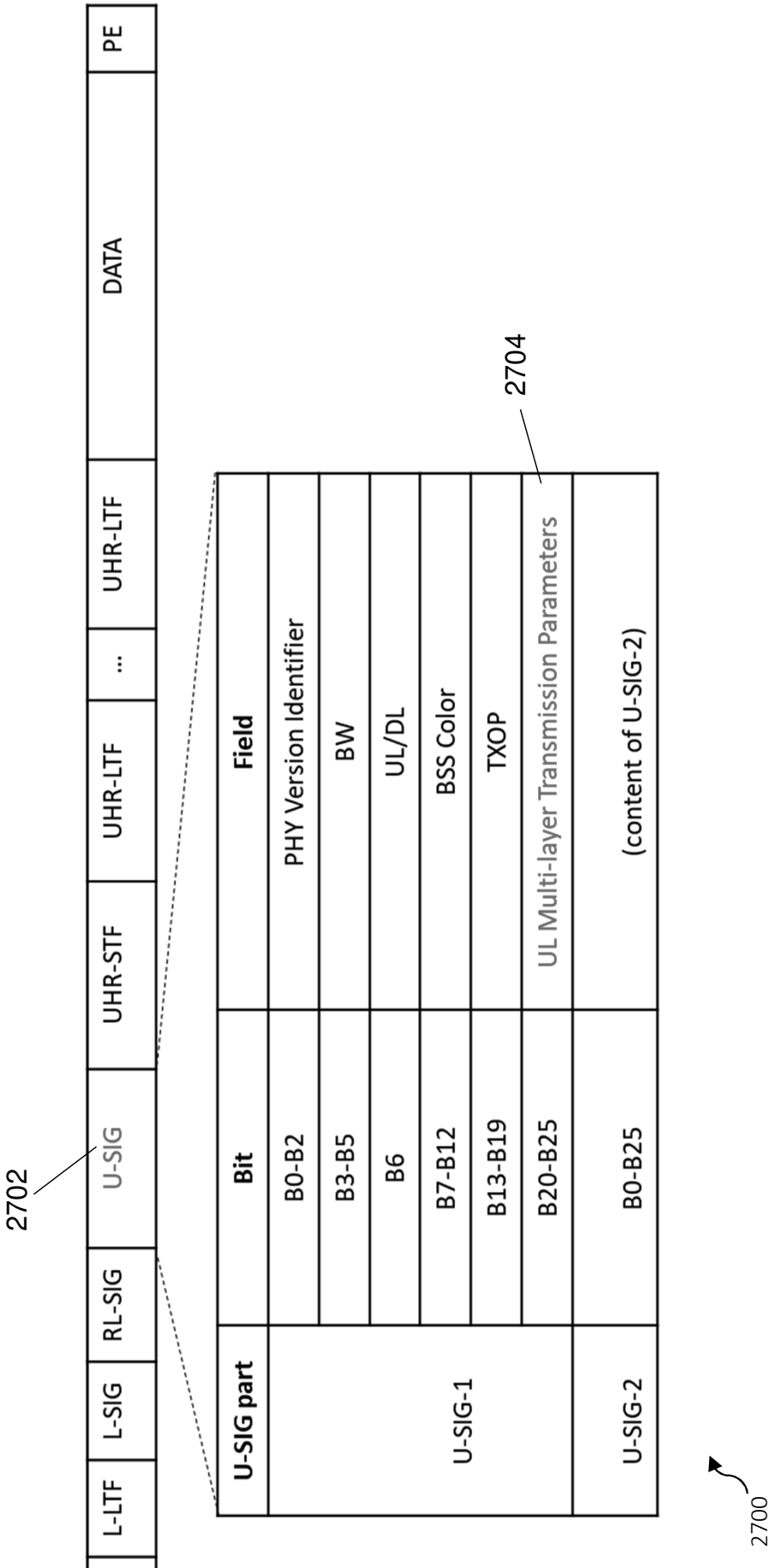

L-STF
L-LTF
L-SIG
RL-SIG
U-SIG
UHR-STF
UHR-LTF
...
UHR-LTF
DATA
PE
2702
2704
2700
U-SIG part
Bit
Field
U-SIG-1
B0-B2
PHY Version Identifier
B3-B5
BW
B6
UL/DL
B7-B12
BSS Color
B13-B19
TXOP
B20-B25
UL Multi-layer Transmission Parameters
U-SIG-2
B0-B25
(content of U-SIG-2)

Figure 27

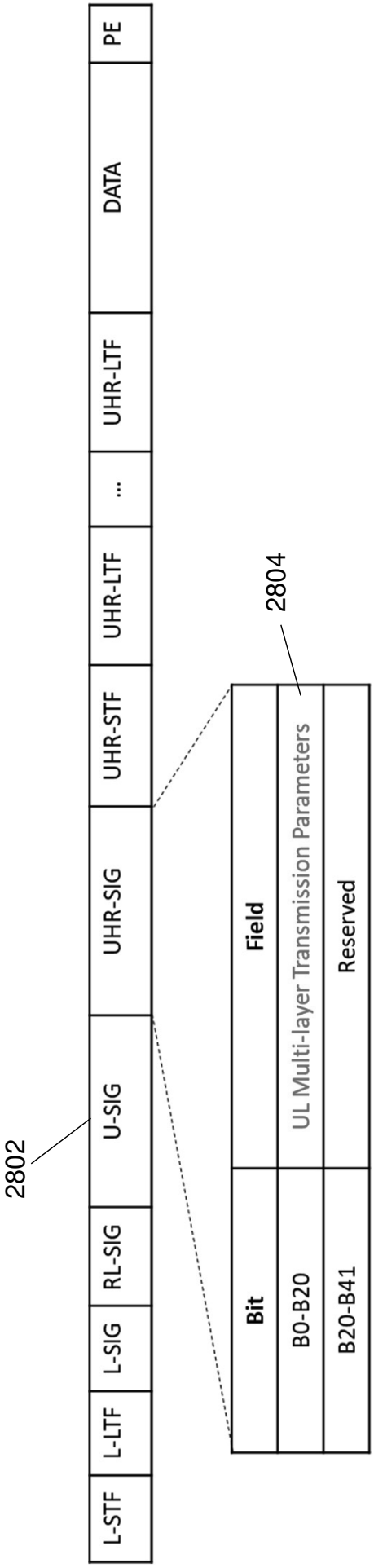

L-STF
L-LTF
L-SIG
RL-SIG
U-SIG
UHR-SIG
UHR-STF
UHR-LTF
...
UHR-LTF
DATA
PE
2802
2804
Bit
Field
B0-B20
UL Multi-layer Transmission Parameters
B20-B41
Reserved
2800

Figure 28

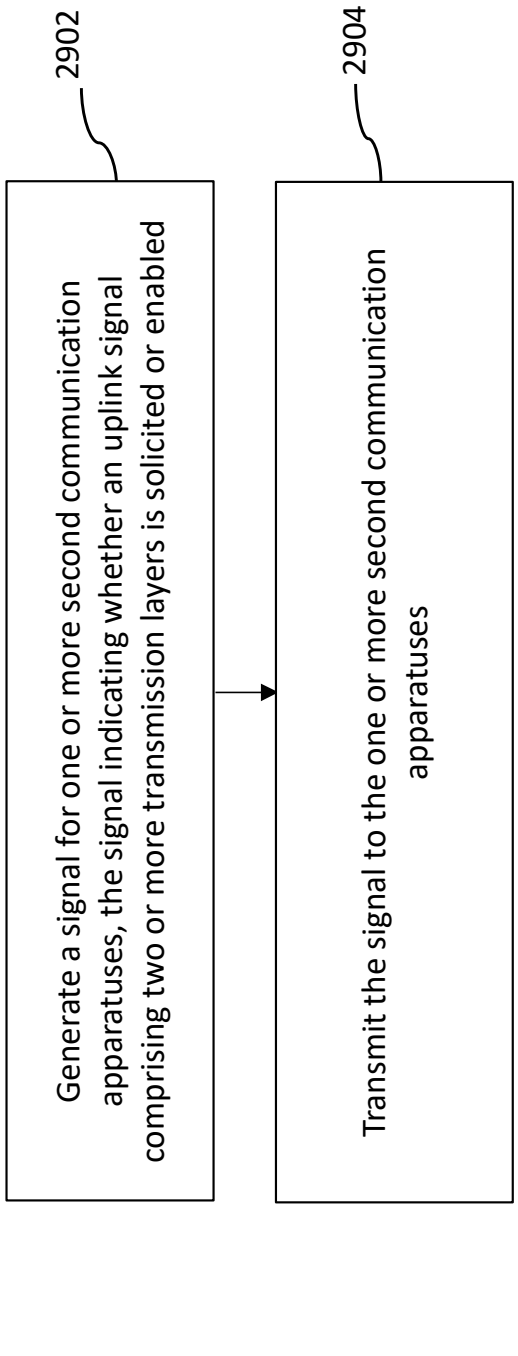

2902
Generate a signal for one or more second communication apparatuses, the signal indicating whether an uplink signal comprising two or more transmission layers is solicited or enabled
2904
Transmit the signal to the one or more second communication apparatuses
2900

Figure 29

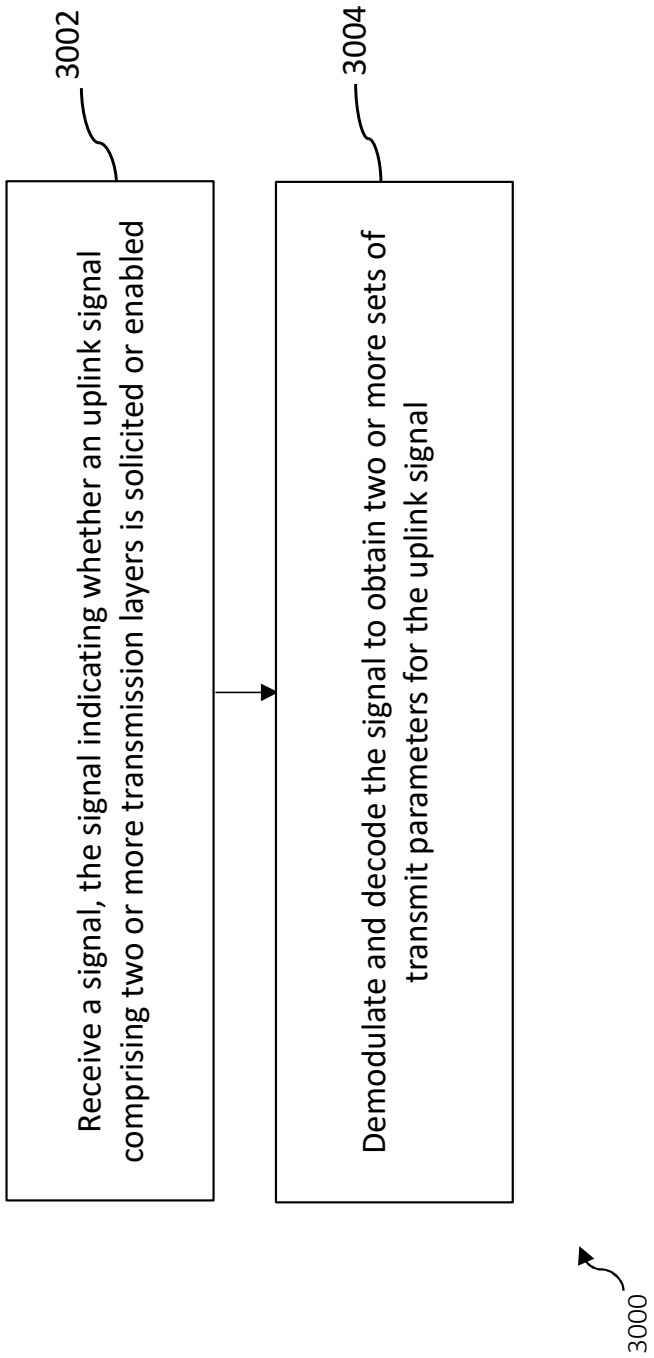

3002
Receive a signal, the signal indicating whether an uplink signal comprising two or more transmission layers is solicited or enabled
3004
Demodulate and decode the signal to obtain two or more sets of transmit parameters for the uplink signal
3000

Figure 30

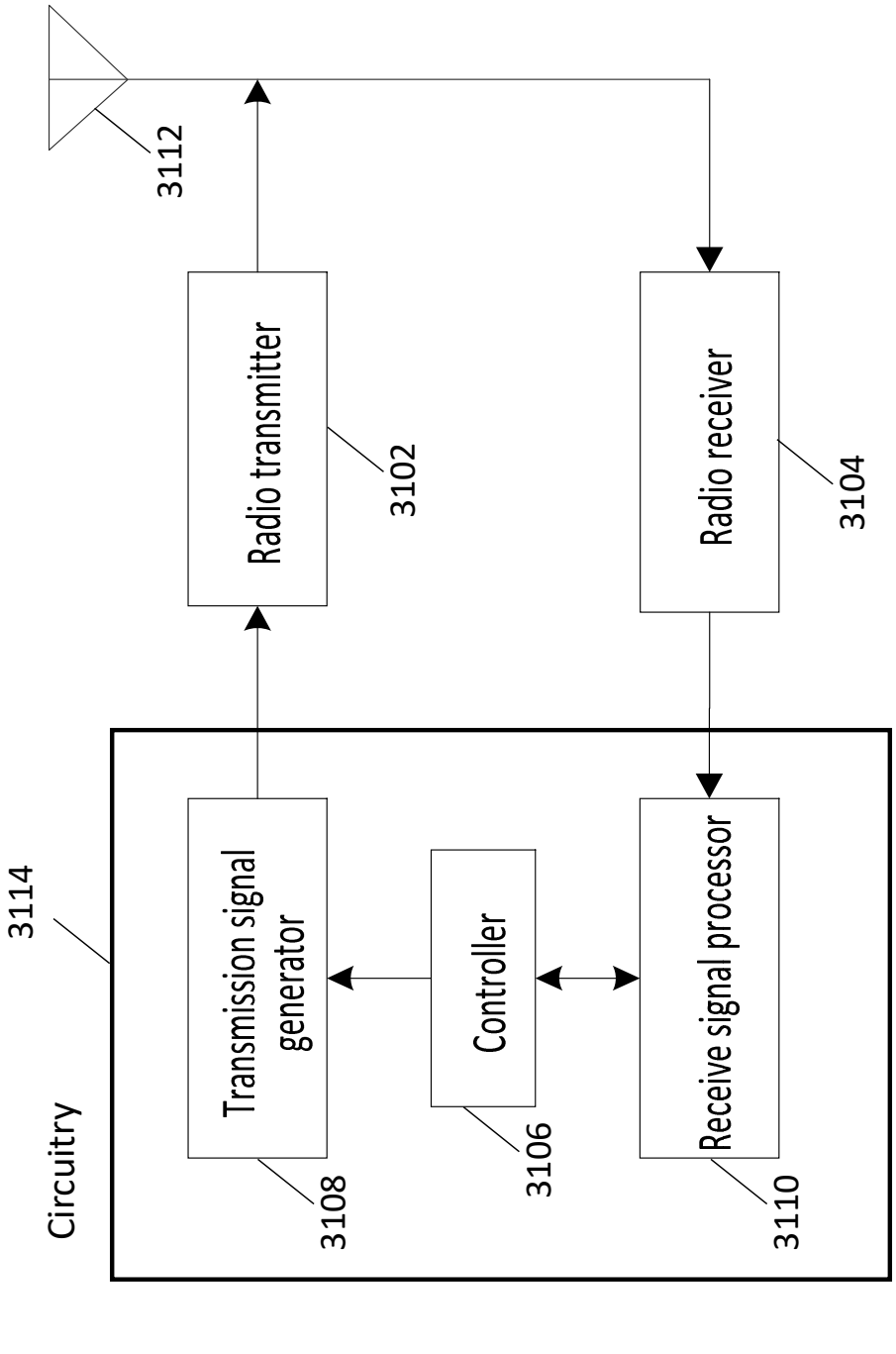

3112
Radio transmitter
3102
Radio receiver
3104
3114
Circuitry
Transmission signal generator
3108
Controller
3106
Receive signal processor
3110
3100

Figure 31