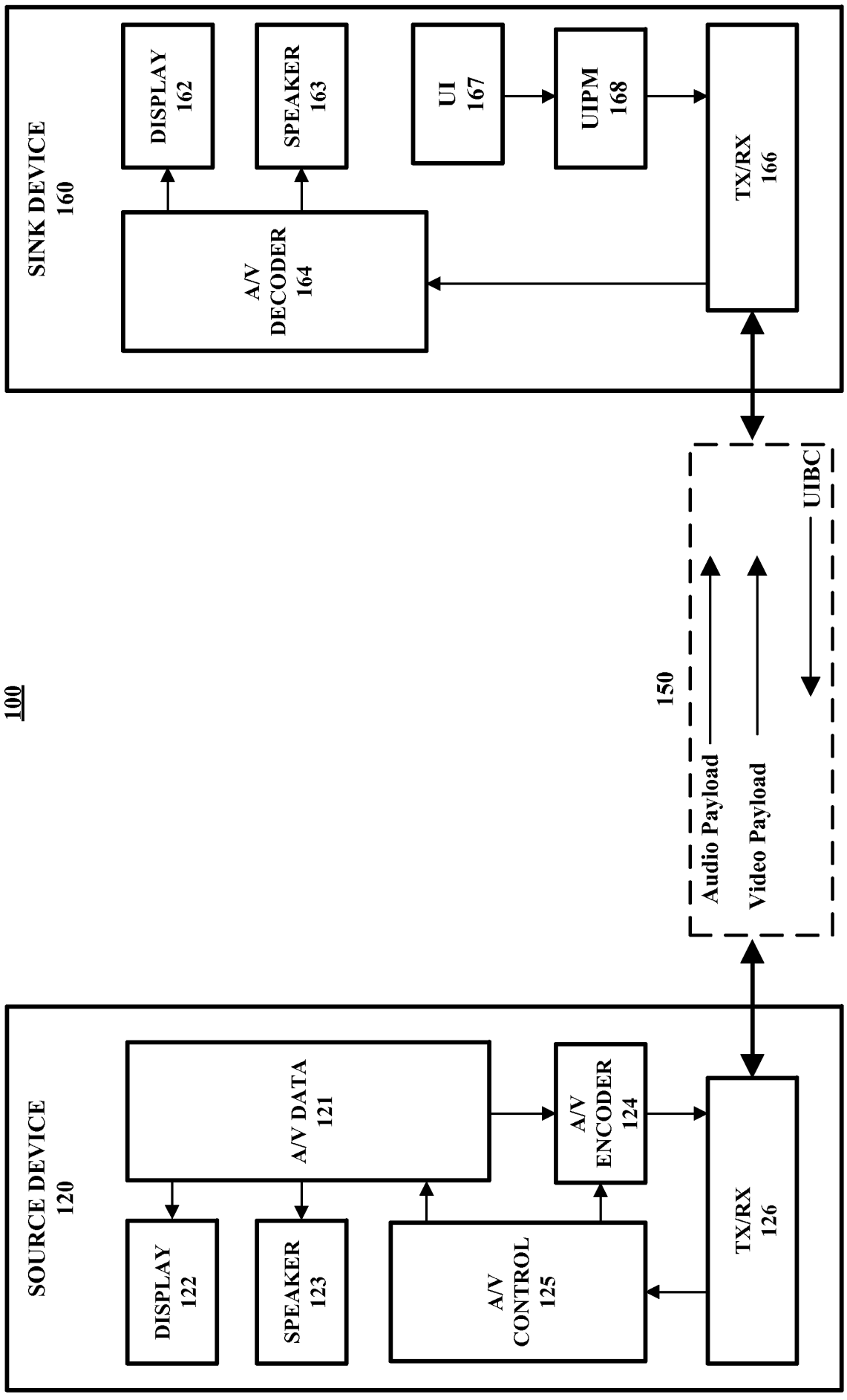
100
SOURCE DEVICE
120
DISPLAY
122
SPEAKER
123
A/V DATA
121
A/V
CONTROL
125
A/V
ENCODER
124
TX/RX
126
150
Audio Payload
Video Payload
UIBC
SINK DEVICE
160
DISPLAY
162
SPEAKER
163
A/V
DECODER
164
UI
167
UIPM
168
TX/RX
166

FIG. 1A

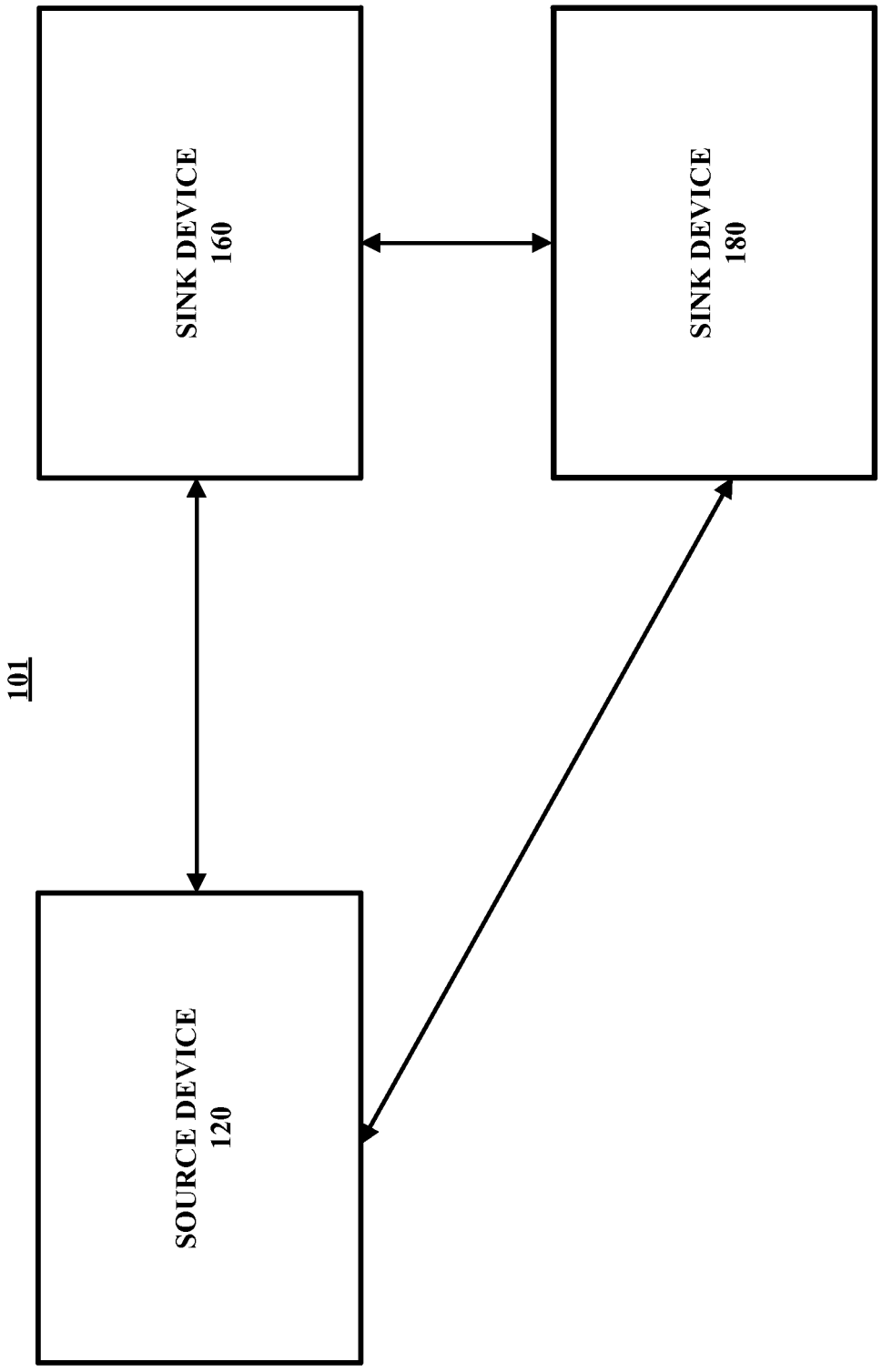

FIG. 1B

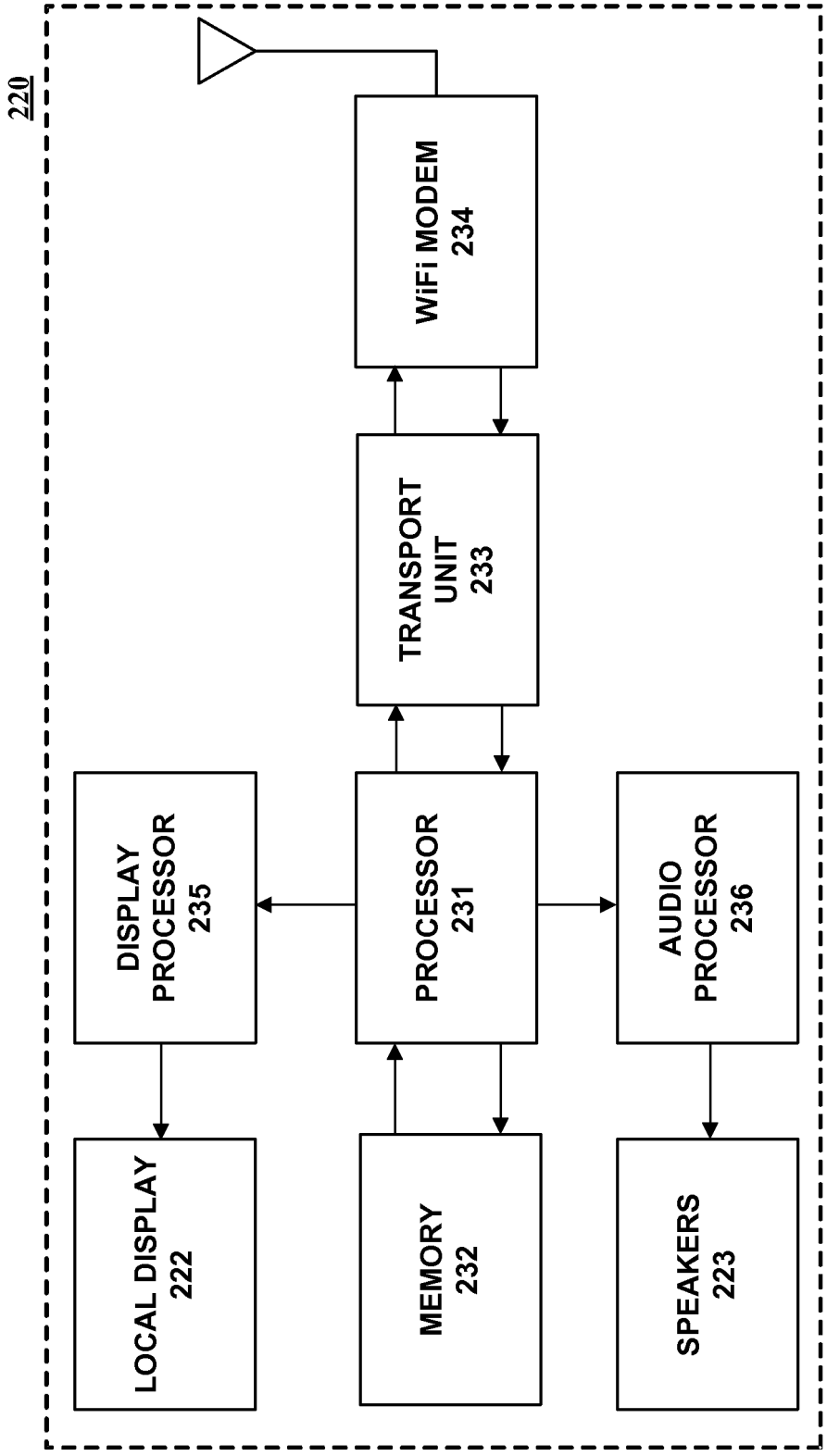
220
WiFi MODEM 234
TRANSPORT UNIT 233
DISPLAY PROCESSOR 235
PROCESSOR 231
AUDIO PROCESSOR 236
LOCAL DISPLAY 222
MEMORY 232
SPEAKERS 223

FIG. 2

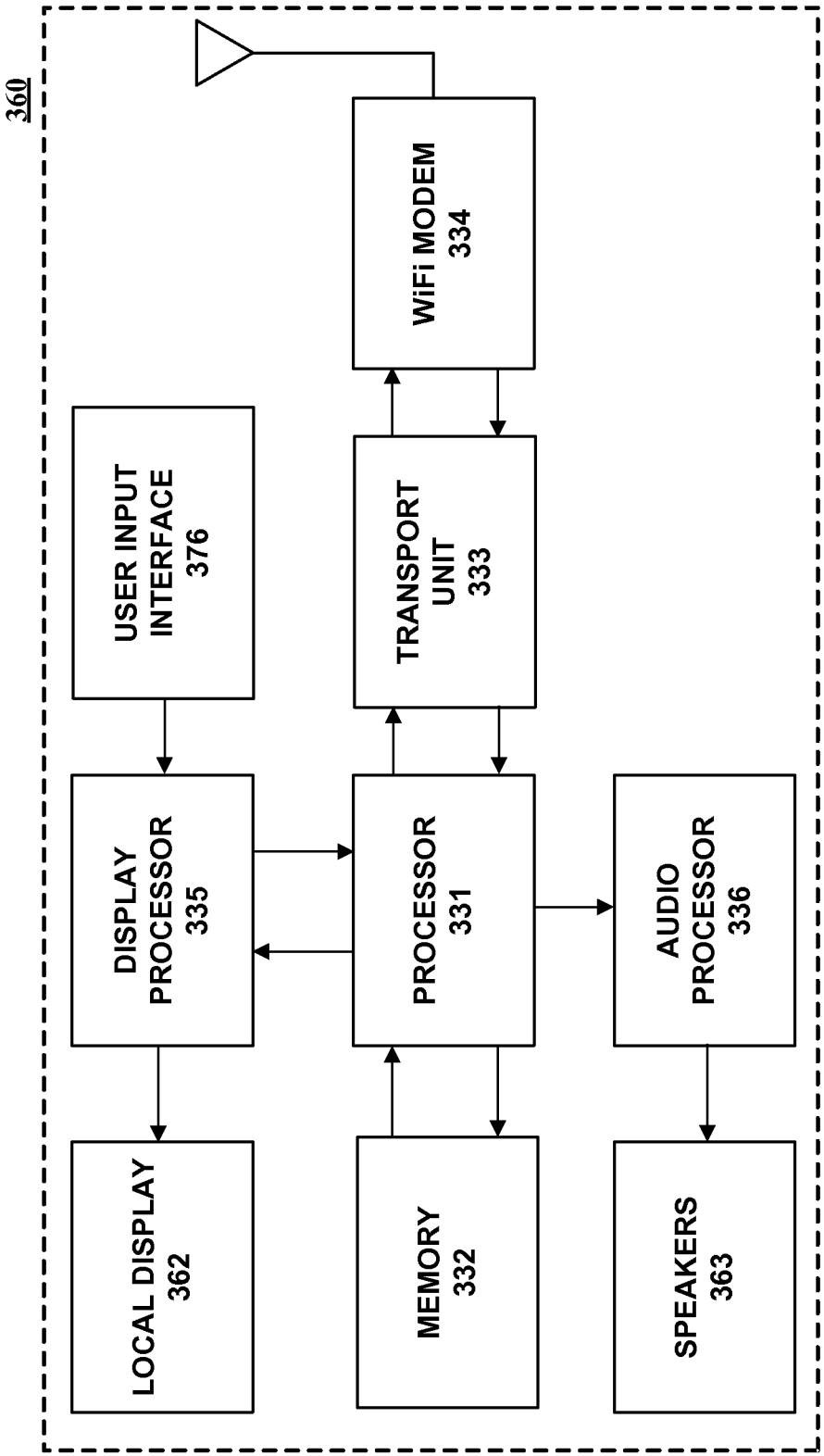
360
WiFi MODEM 334
USER INPUT INTERFACE 376
TRANSPORT UNIT 333
DISPLAY PROCESSOR 335
PROCESSOR 331
AUDIO PROCESSOR 336
LOCAL DISPLAY 362
MEMORY 332
SPEAKERS 363

FIG. 3

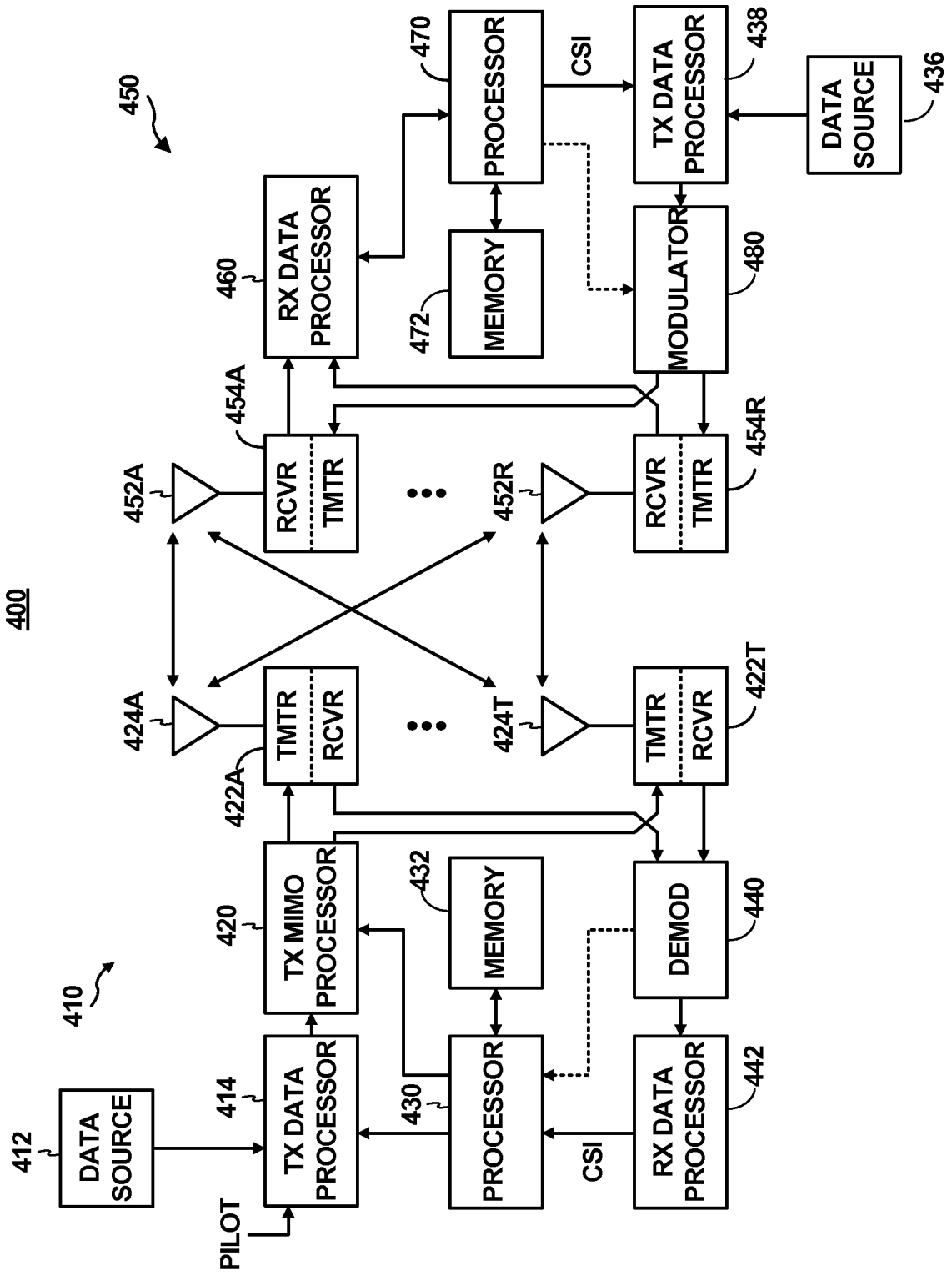
400
410
412
DATA SOURCE
414
TX DATA PROCESSOR
PILOT
420
TX MIMO PROCESSOR
422A
TMTR
RCVR
424A
452A
RCVR
TMTR
454A
460
RX DATA PROCESSOR
470
PROCESSOR
472
MEMORY
480
MODULATOR
438
TX DATA PROCESSOR
436
DATA SOURCE
450
454R
RCVR
TMTR
452R
424T
TMTR
RCVR
422T
432
MEMORY
430
PROCESSOR
CSI
440
DEMOD
442
RX DATA PROCESSOR
CSI

FIG. 4

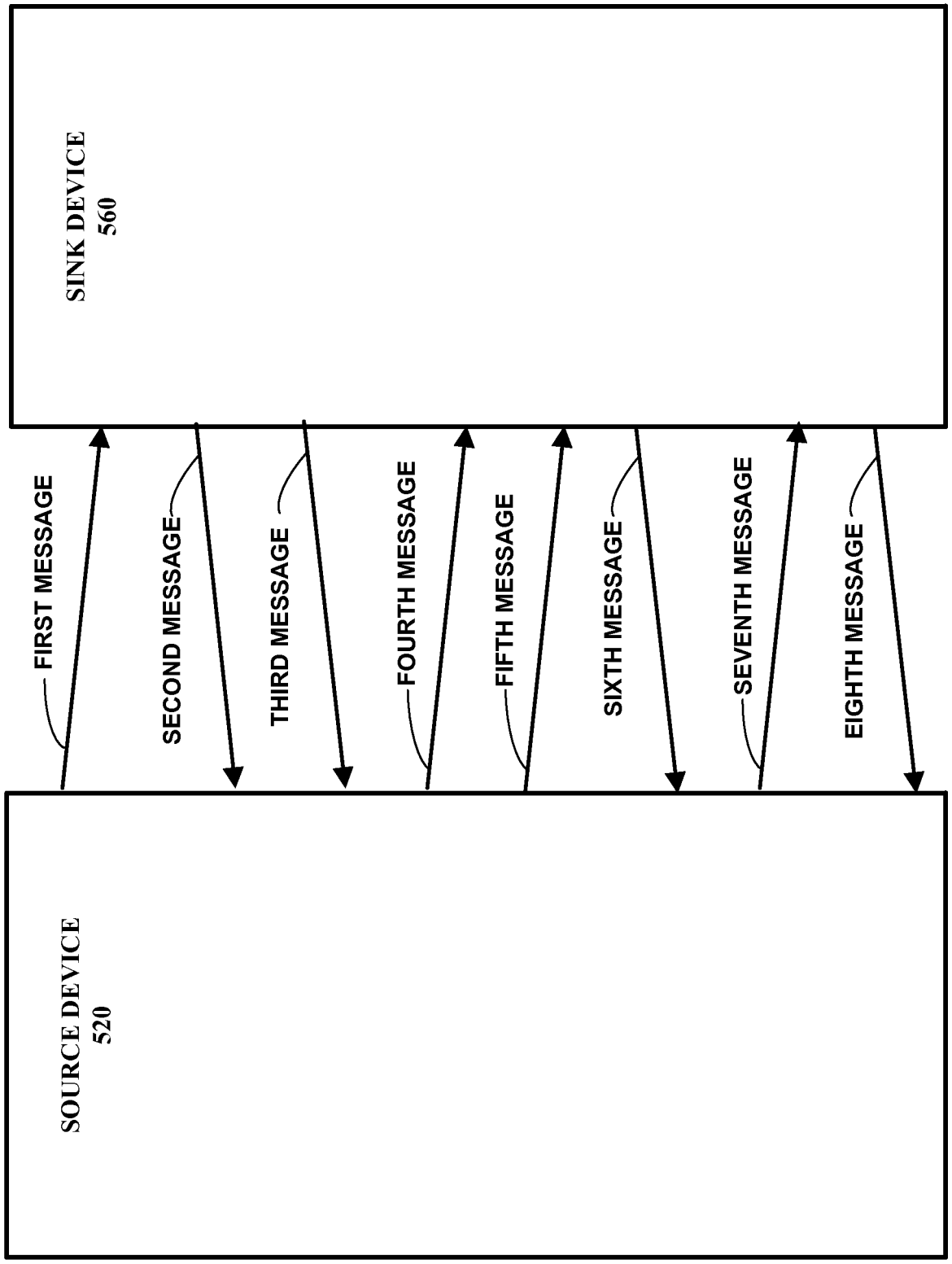
SINK DEVICE
560
FIRST MESSAGE
SECOND MESSAGE
THIRD MESSAGE
FOURTH MESSAGE
FIFTH MESSAGE
SIXTH MESSAGE
SEVENTH MESSAGE
EIGHTH MESSAGE
SOURCE DEVICE
520

FIG. 5A

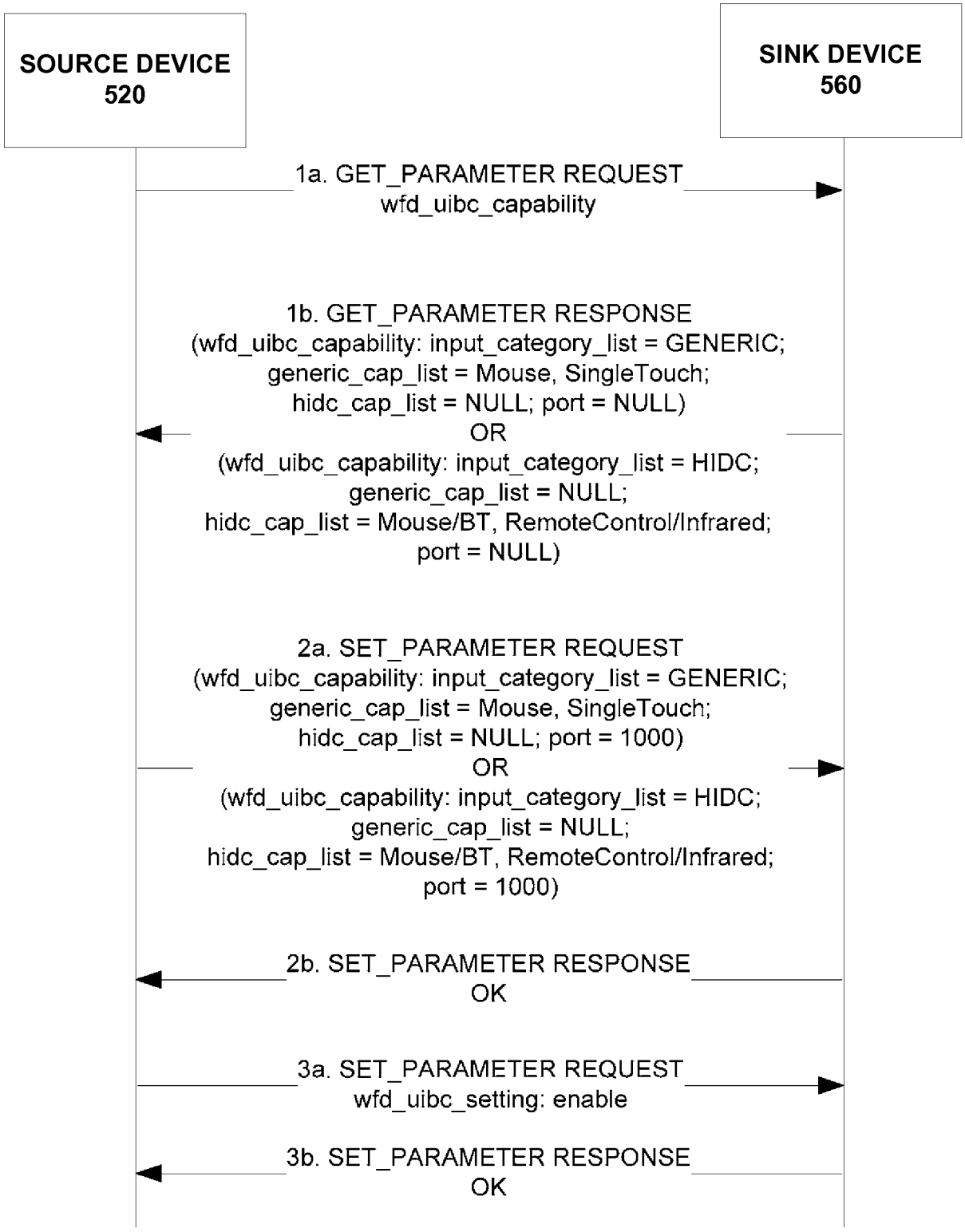
SOURCE DEVICE
520
SINK DEVICE
560
1a. GET_PARAMETER REQUEST
wfd_uibc_capability
1b. GET_PARAMETER RESPONSE
(wfd_uibc_capability: input_category_list = GENERIC;
generic_cap_list = Mouse, SingleTouch;
hidc_cap_list = NULL; port = NULL)
OR
(wfd_uibc_capability: input_category_list = HIDC;
generic_cap_list = NULL;
hidc_cap_list = Mouse/BT, RemoteControl/Infrared;
port = NULL)
2a. SET_PARAMETER REQUEST
(wfd_uibc_capability: input_category_list = GENERIC;
generic_cap_list = Mouse, SingleTouch;
hidc_cap_list = NULL; port = 1000)
OR
(wfd_uibc_capability: input_category_list = HIDC;
generic_cap_list = NULL;
hidc_cap_list = Mouse/BT, RemoteControl/Infrared;
port = 1000)
2b. SET_PARAMETER RESPONSE
OK
3a. SET_PARAMETER REQUEST
wfd_uibc_setting: enable
3b. SET_PARAMETER RESPONSE
OK

FIG. 5B

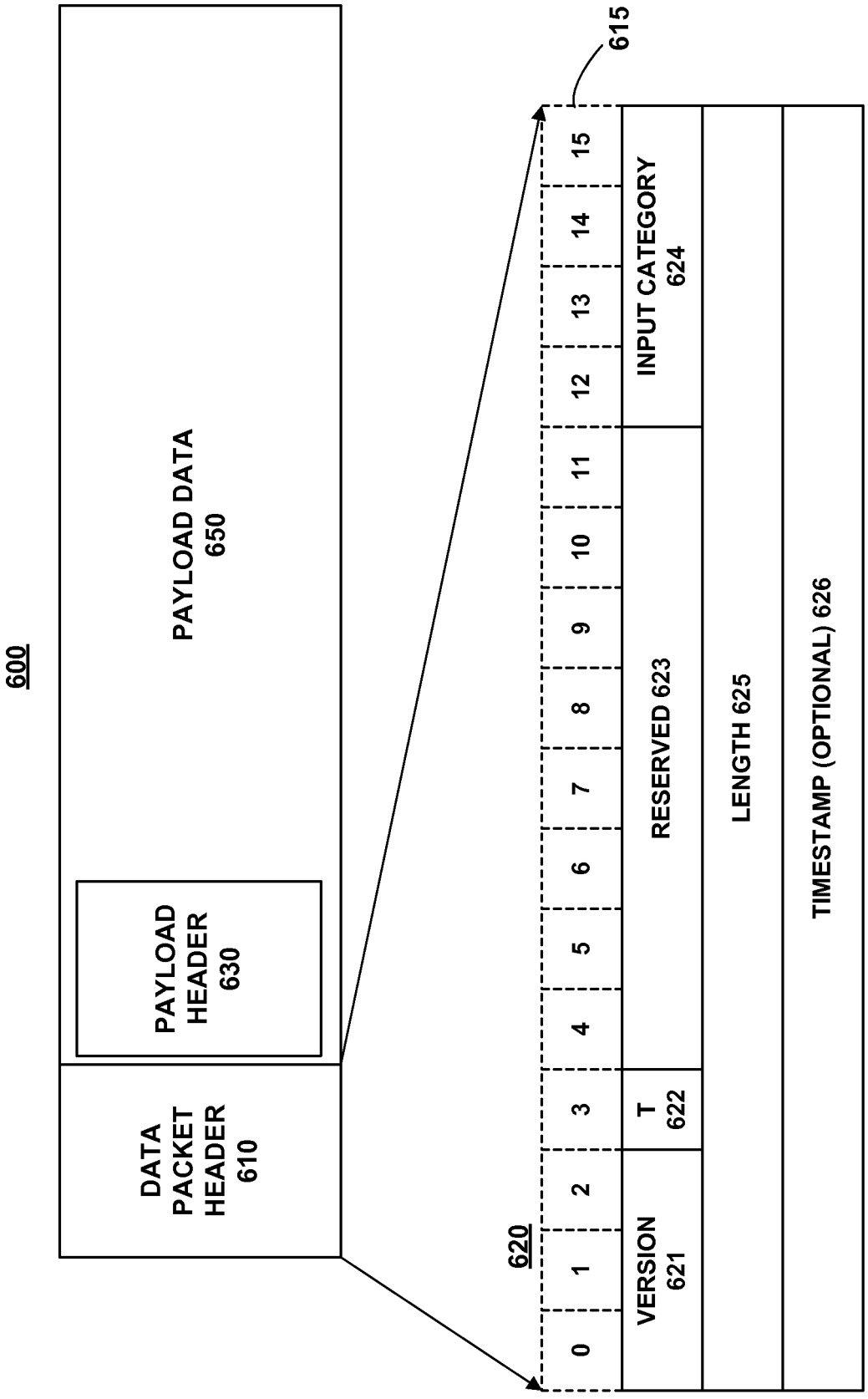
600
DATA PACKET HEADER 610
PAYLOAD HEADER 630
PAYLOAD DATA 650
620
615
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
VERSION 621
T 622
RESERVED 623
INPUT CATEGORY 624
LENGTH 625
TIMESTAMP (OPTIONAL) 626

FIG. 6

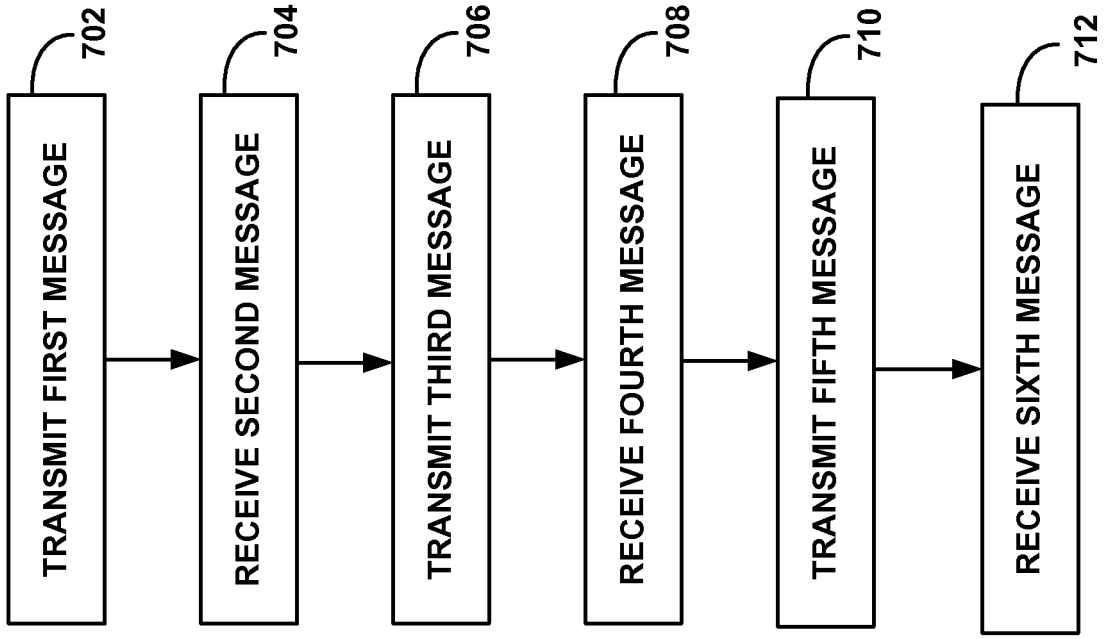
TRANSMIT FIRST MESSAGE
702
RECEIVE SECOND MESSAGE
704
TRANSMIT THIRD MESSAGE
706
RECEIVE FOURTH MESSAGE
708
TRANSMIT FIFTH MESSAGE
710
RECEIVE SIXTH MESSAGE
712

FIG. 7B

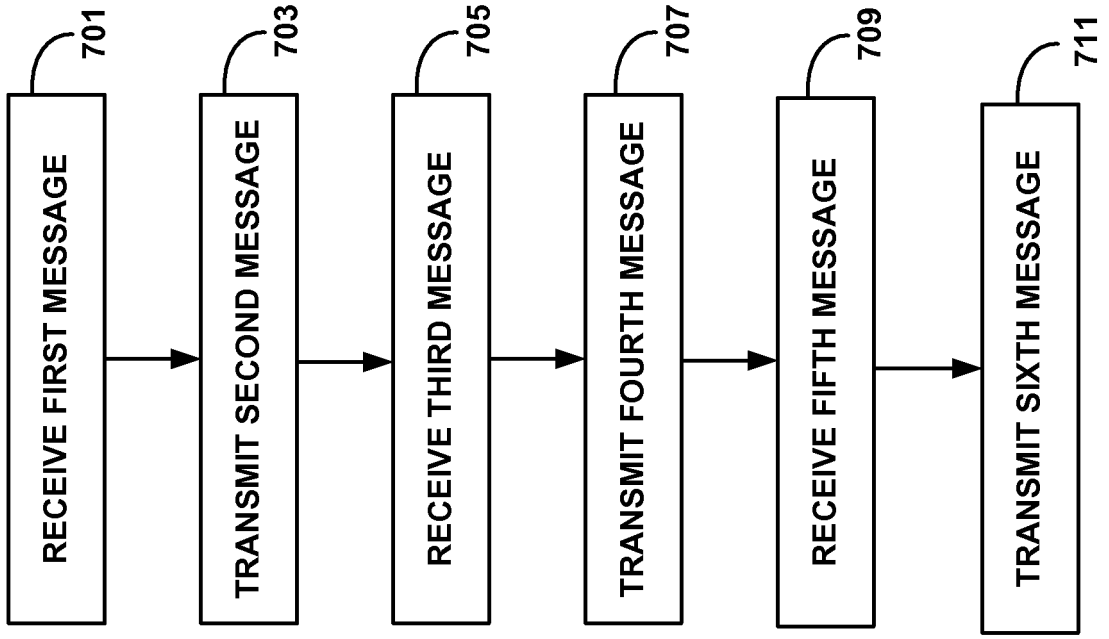
RECEIVE FIRST MESSAGE
701
TRANSMIT SECOND MESSAGE
703
RECEIVE THIRD MESSAGE
705
TRANSMIT FOURTH MESSAGE
707
RECEIVE FIFTH MESSAGE
709
TRANSMIT SIXTH MESSAGE
711

FIG. 7A

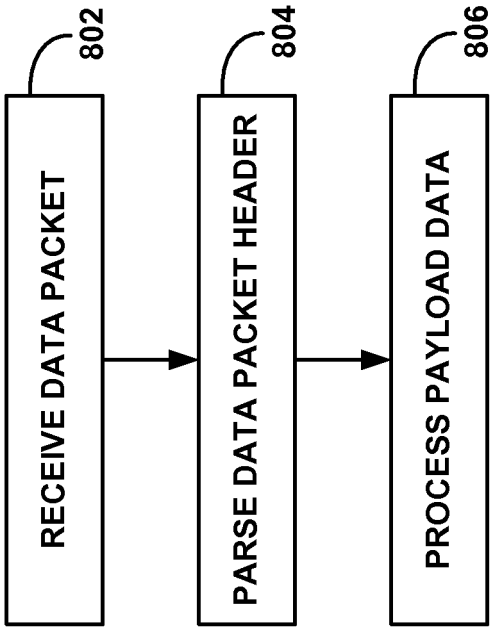
802
804
806
RECEIVE DATA PACKET
PARSE DATA PACKET HEADER
PROCESS PAYLOAD DATA

FIG. 8B

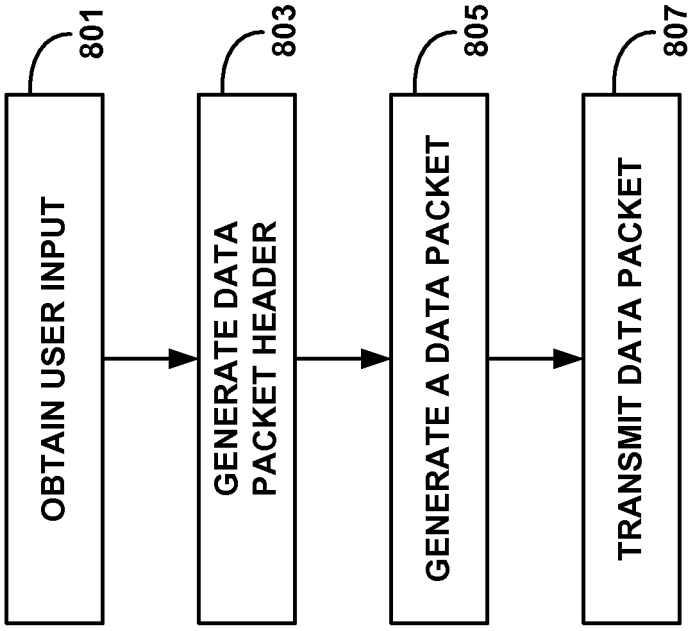
801
803
805
807
OBTAIN USER INPUT
GENERATE DATA PACKET HEADER
GENERATE A DATA PACKET
TRANSMIT DATA PACKET

FIG. 8A

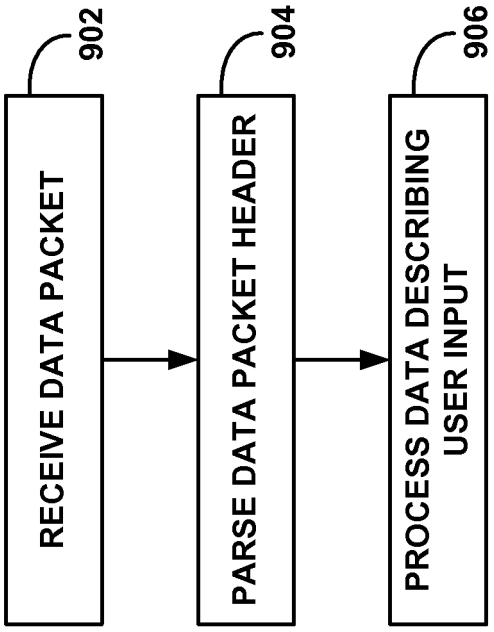
902
RECEIVE DATA PACKET
904
PARSE DATA PACKET HEADER
906
PROCESS DATA DESCRIBING USER INPUT

FIG. 9B

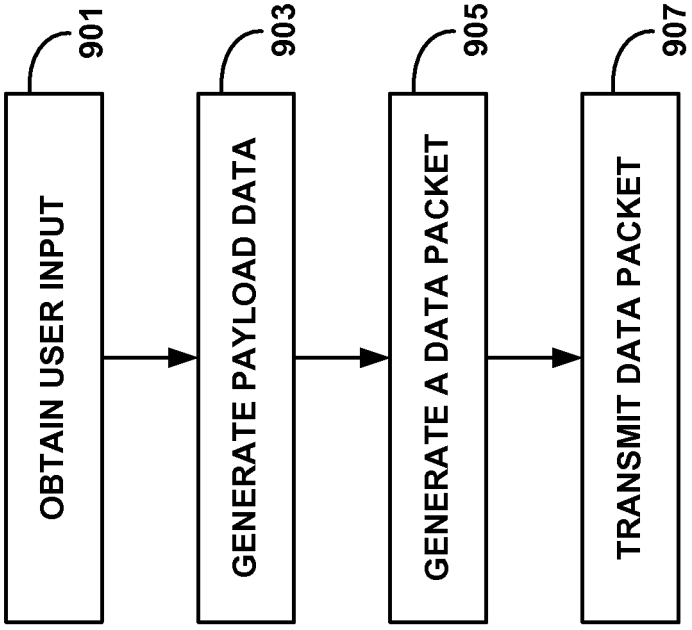
901
OBTAIN USER INPUT
903
GENERATE PAYLOAD DATA
905
GENERATE A DATA PACKET
907
TRANSMIT DATA PACKET

FIG. 9A

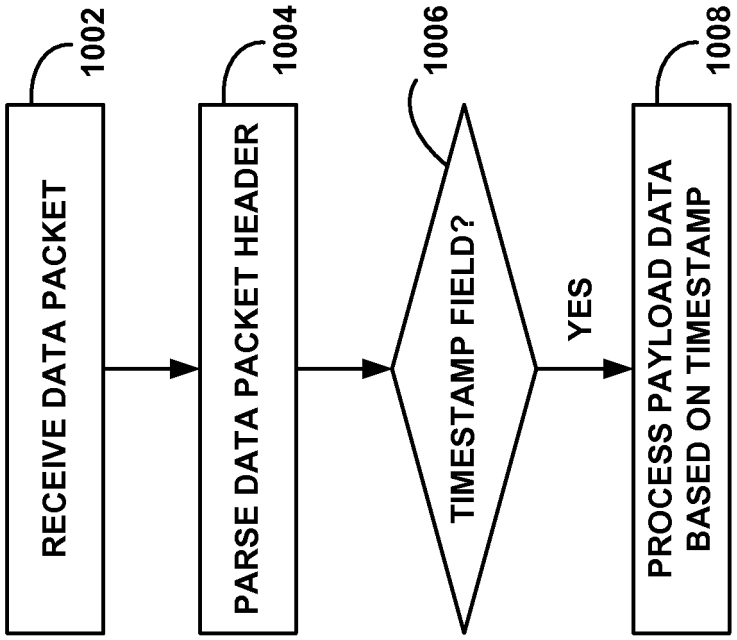

FIG. 10B

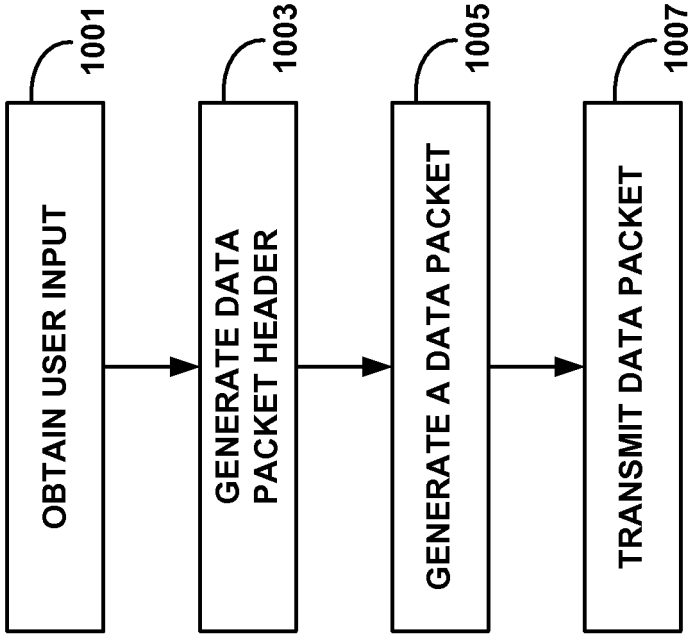

FIG. 10A

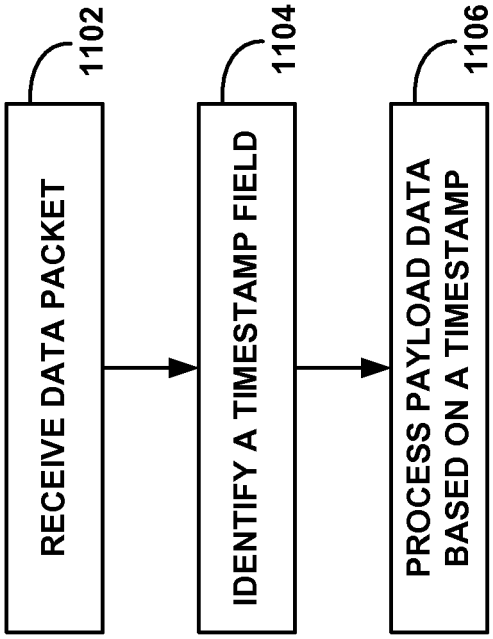

FIG. 11B

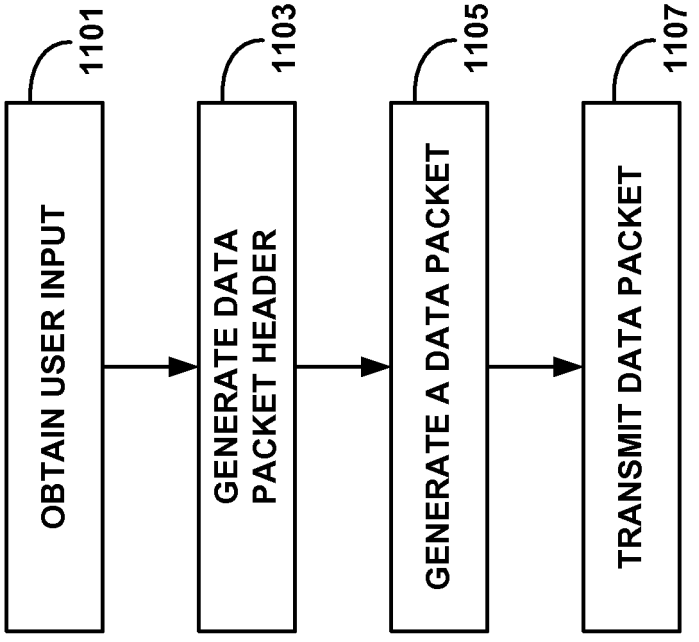

FIG. 11A

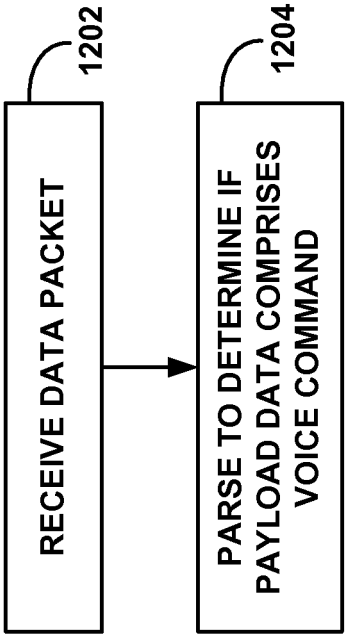

FIG. 12B

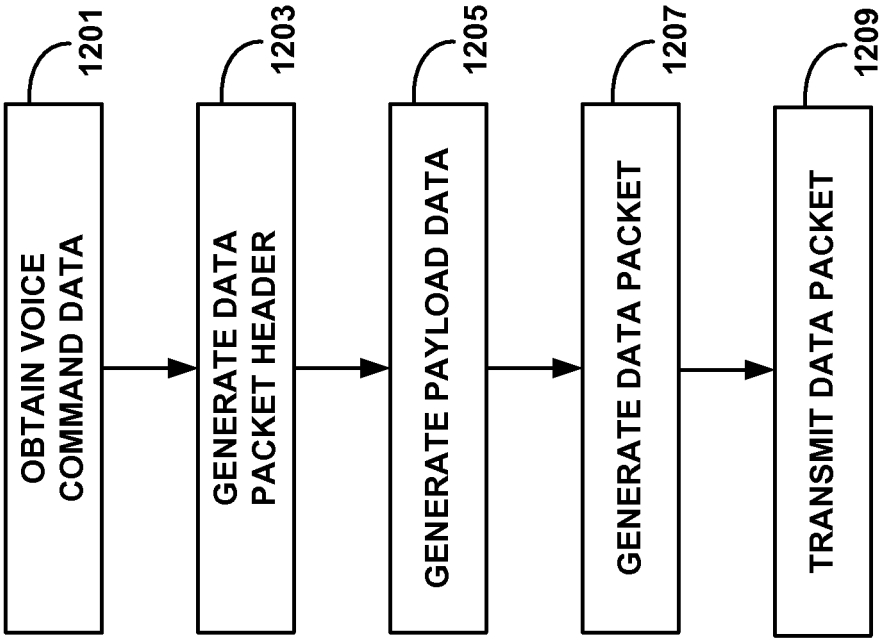

FIG. 12A

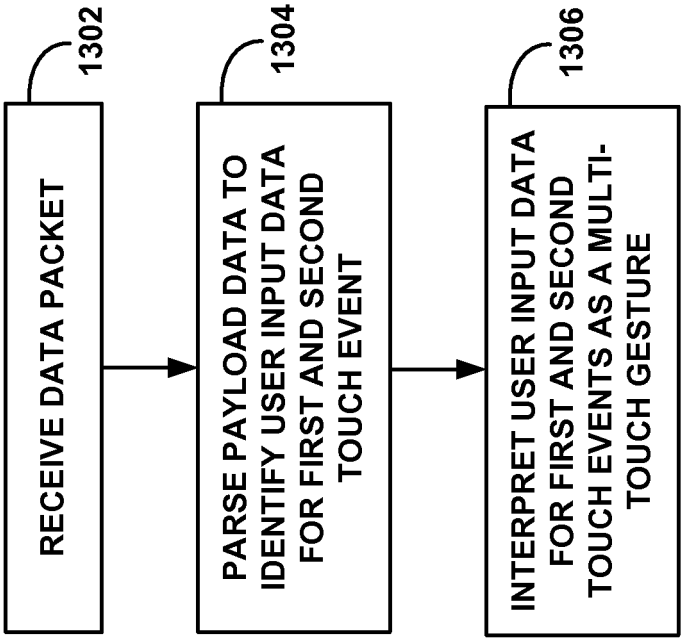

FIG. 13B

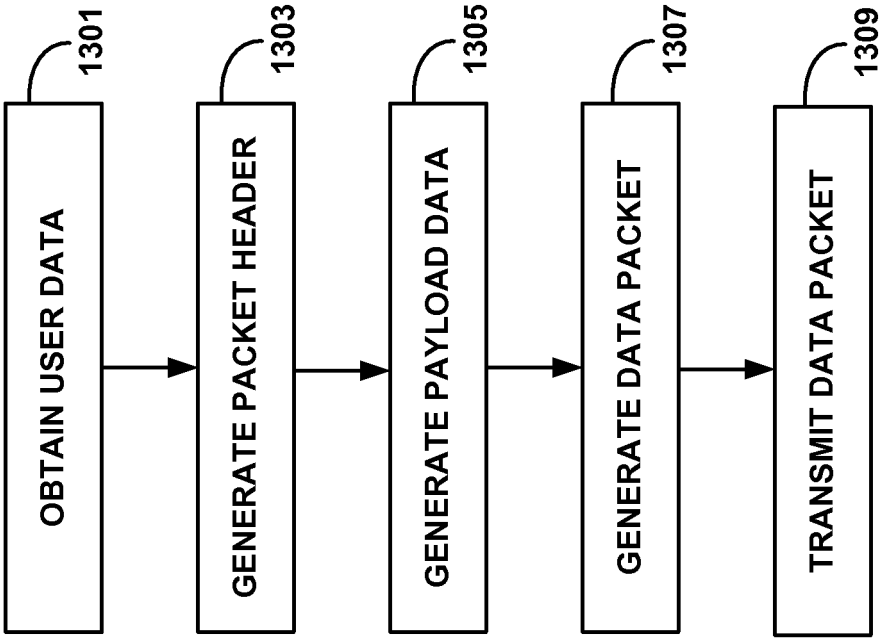

FIG. 13A

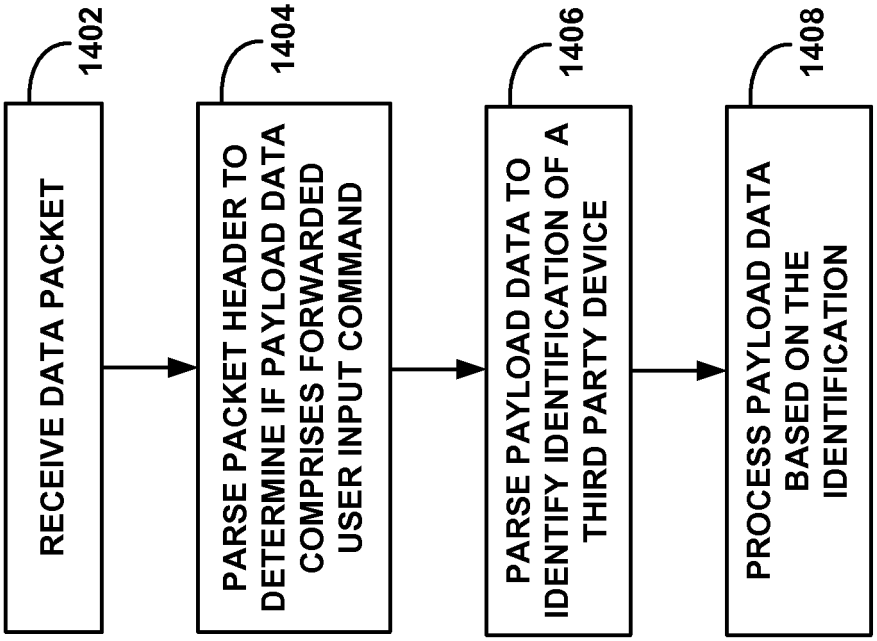

FIG. 14B

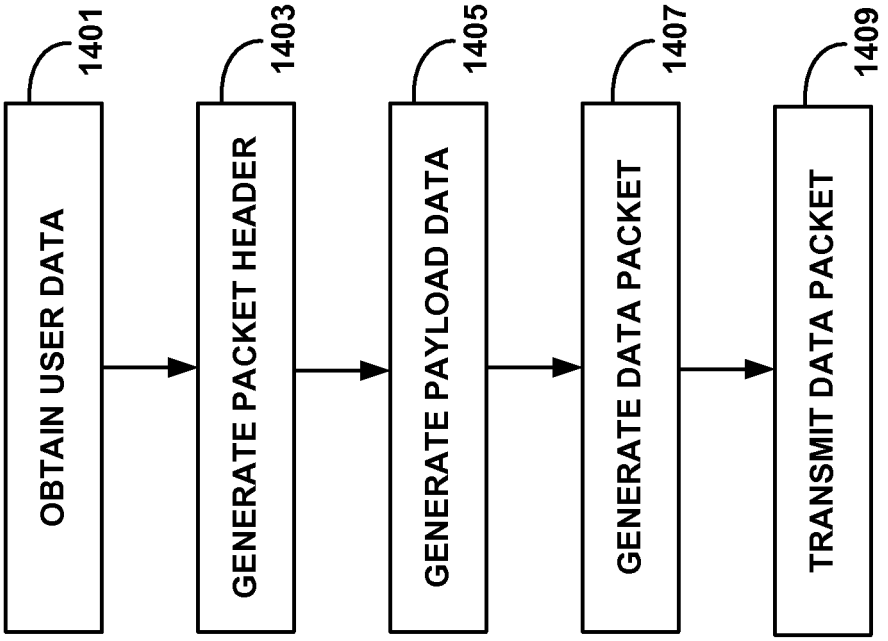

FIG. 14A

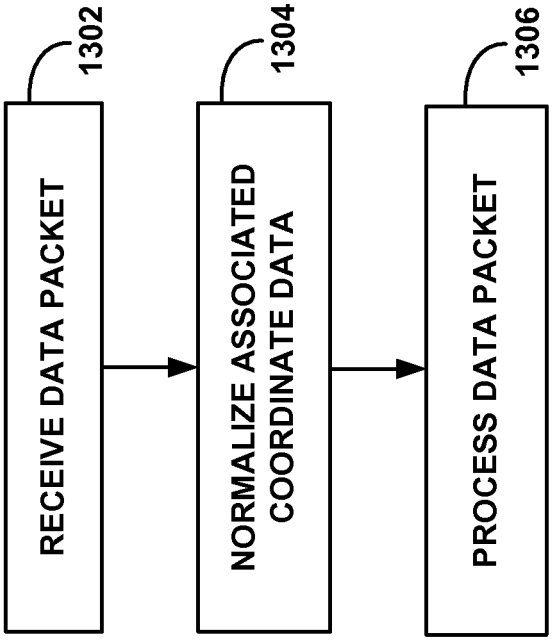

FIG. 15B

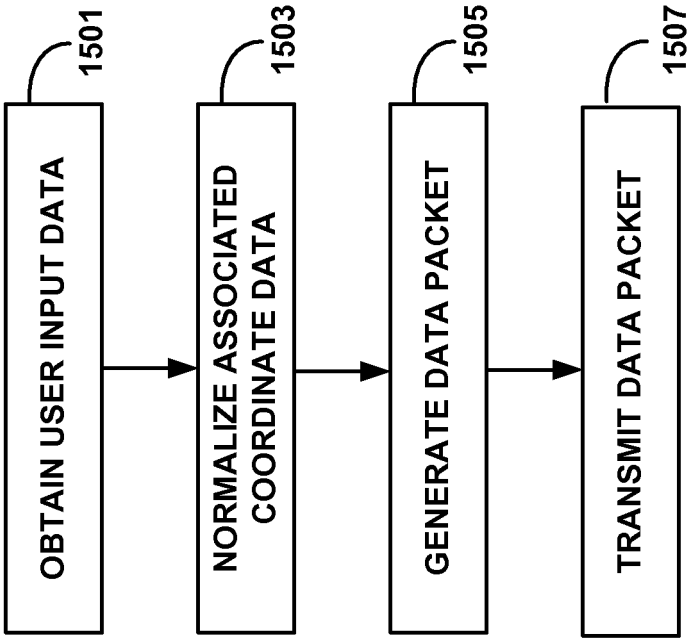

FIG. 15A