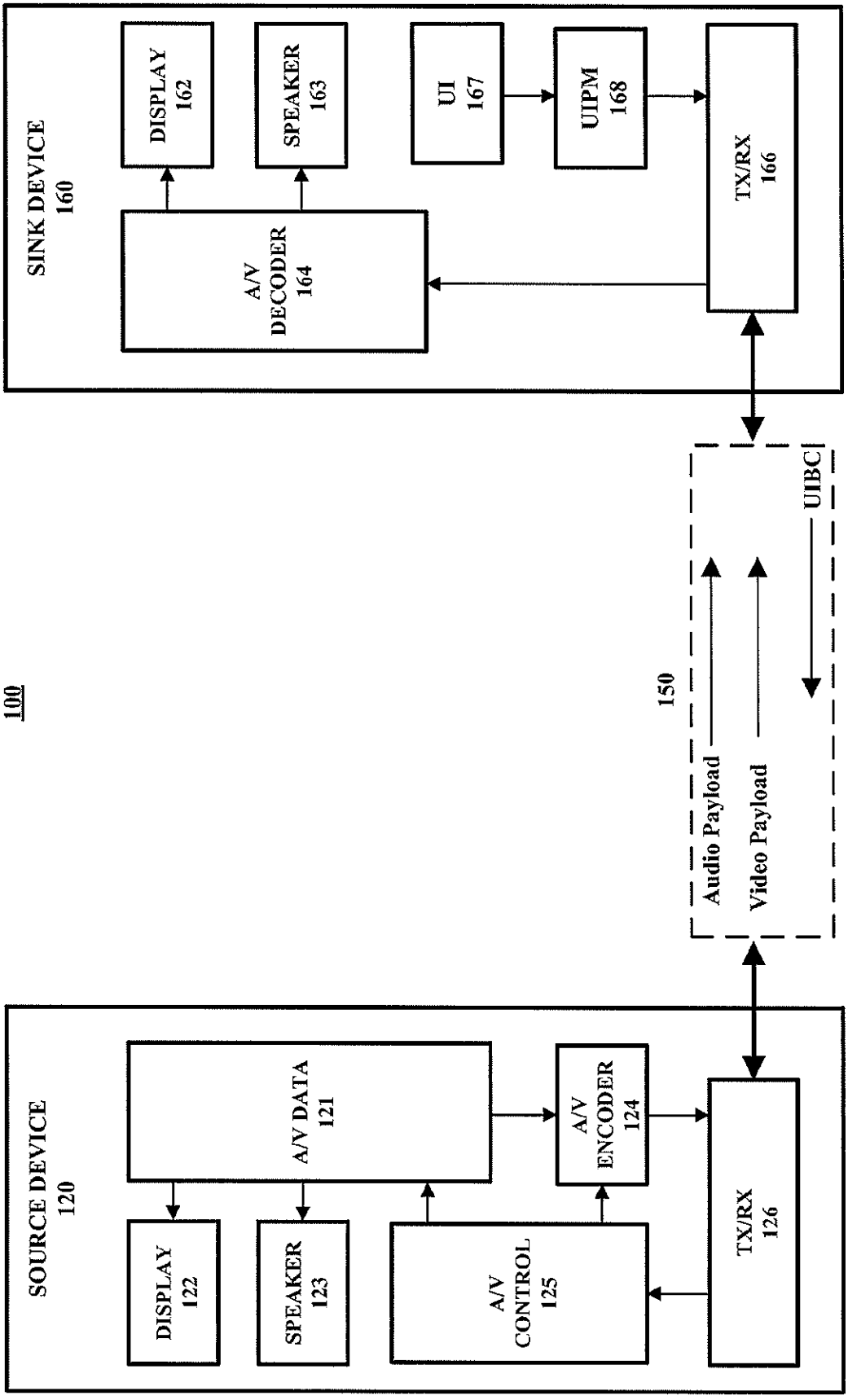
100
SOURCE DEVICE
120
A/V DATA
121
A/V
ENCODER
124
TX/RX
126
DISPLAY
122
SPEAKER
123
A/V
CONTROL
125
150
Audio Payload
Video Payload
UIBC
SINK DEVICE
160
DISPLAY
162
SPEAKER
163
UI
167
UIPM
168
TX/RX
166
A/V
DECODER
164

FIG. 1A

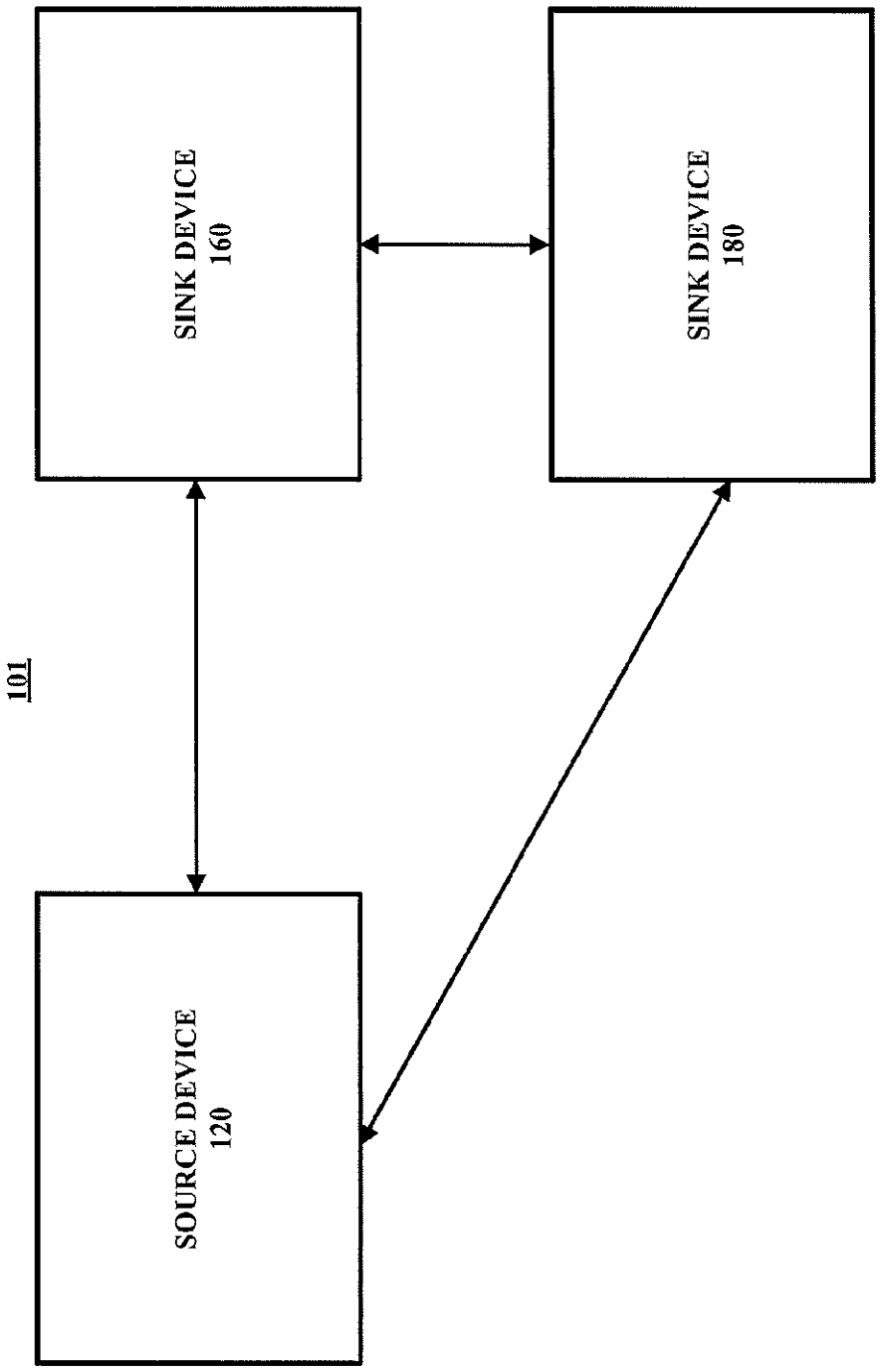


FIG. 1B

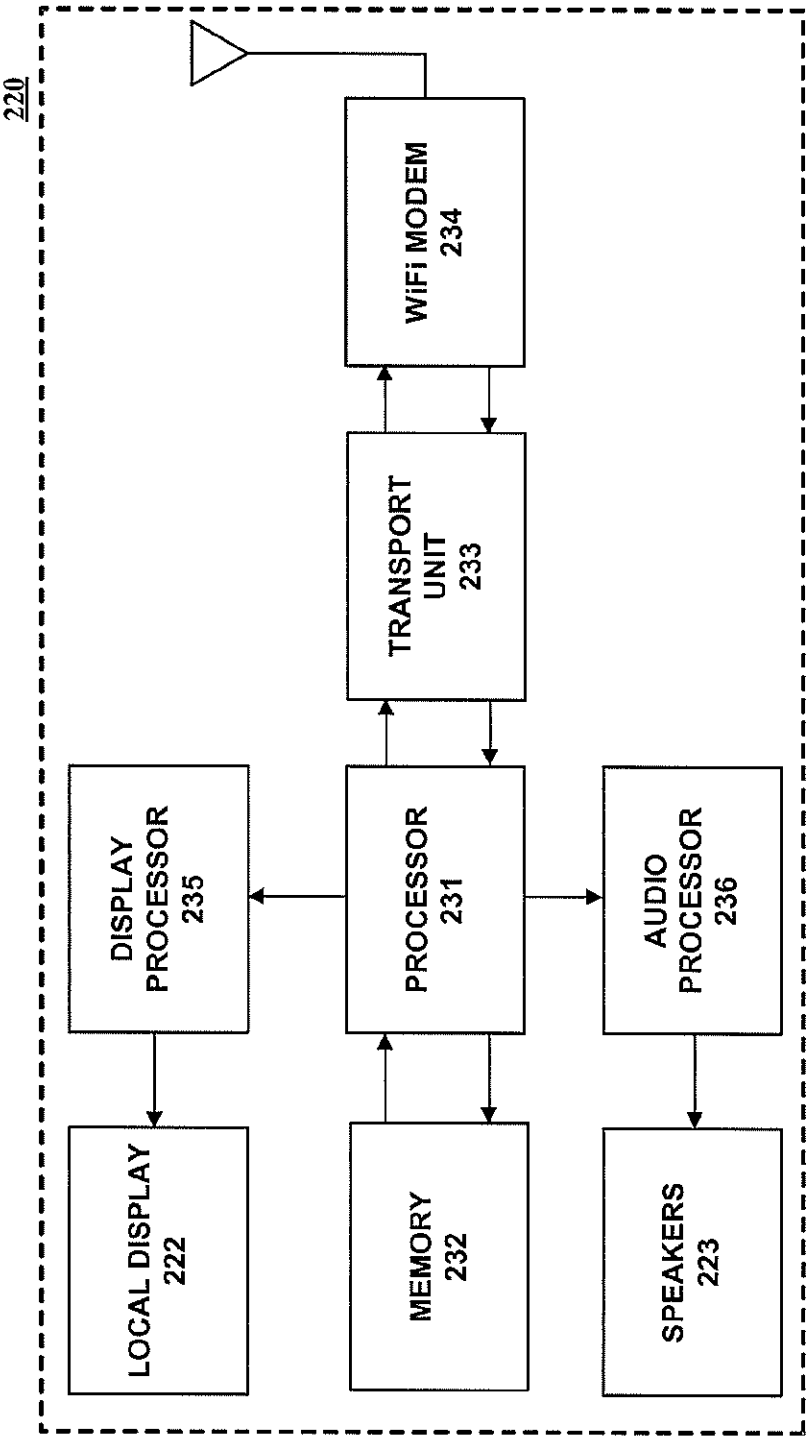
220
WiFi MODEM 234
TRANSPORT UNIT 233
DISPLAY PROCESSOR 235
PROCESSOR 231
AUDIO PROCESSOR 236
LOCAL DISPLAY 222
MEMORY 232
SPEAKERS 223

FIG. 2

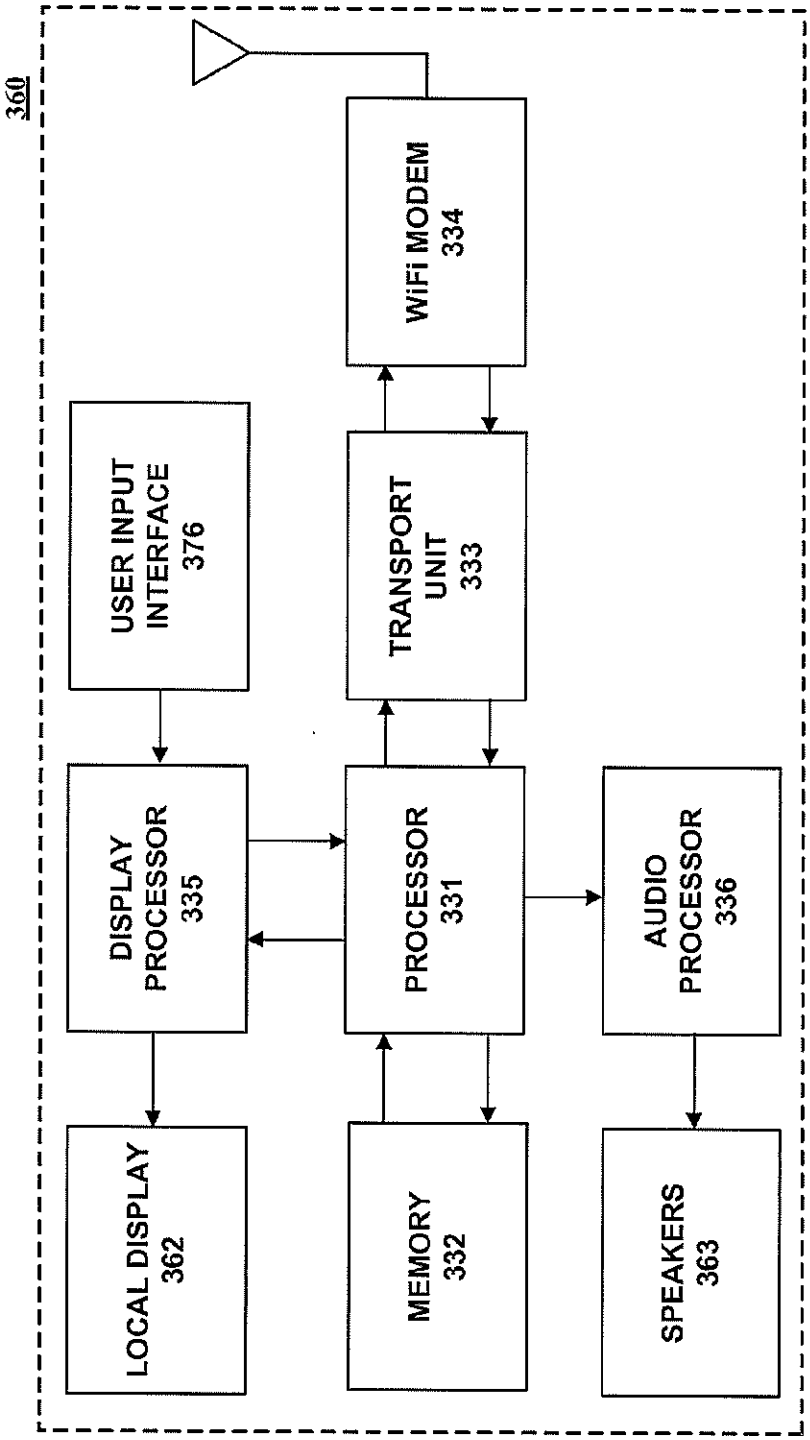
360
WiFi MODEM 334
USER INPUT INTERFACE 376
TRANSPORT UNIT 333
DISPLAY PROCESSOR 335
PROCESSOR 331
AUDIO PROCESSOR 336
LOCAL DISPLAY 362
MEMORY 332
SPEAKERS 363

FIG. 3

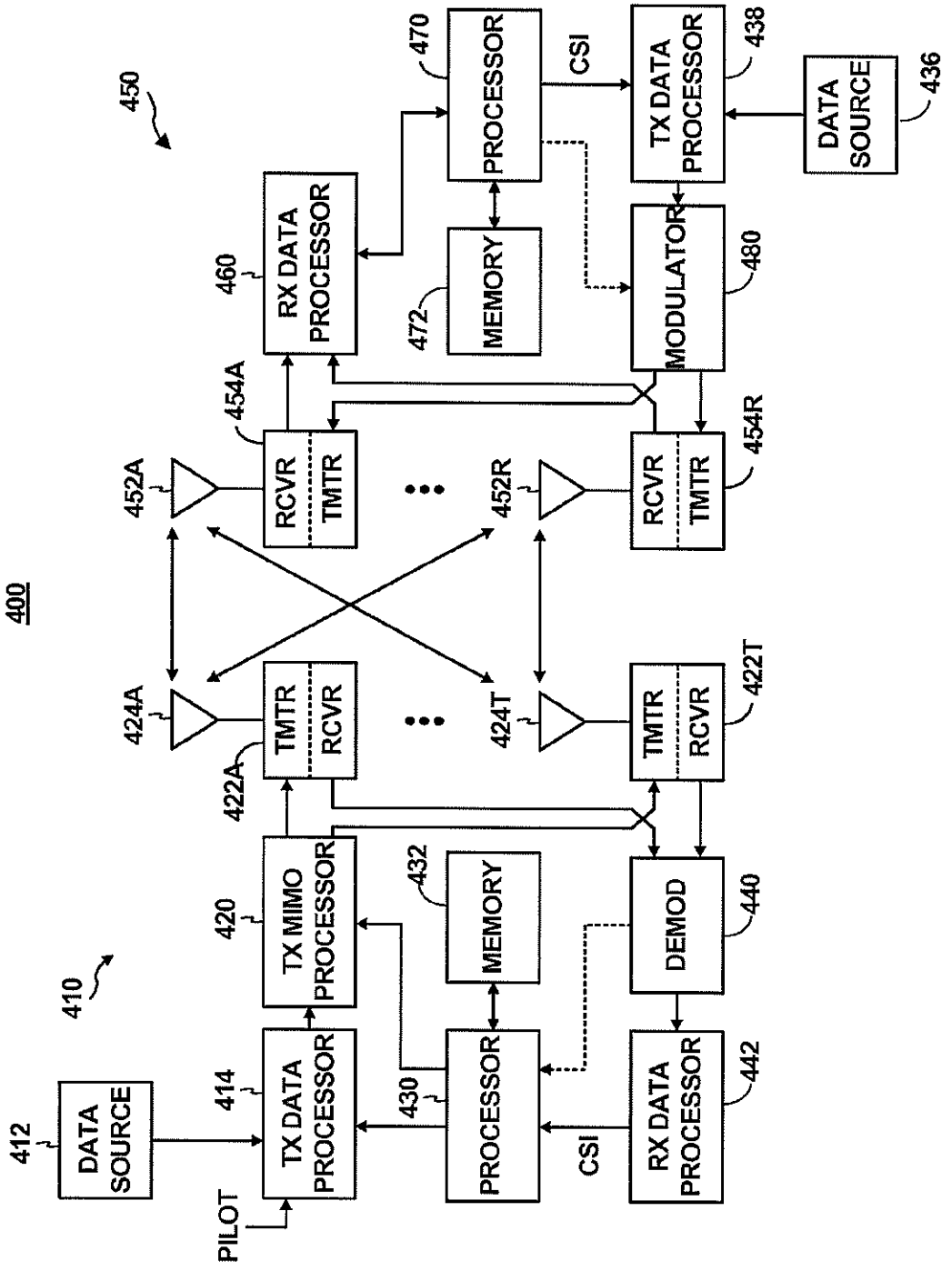
400
410
412
DATA SOURCE
414
TX DATA PROCESSOR
PILOT
420
TX MIMO PROCESSOR
422A
TMTR
RCVR
424A
452A
454A
RCVR
TMTR
460
RX DATA PROCESSOR
470
PROCESSOR
472
MEMORY
450
CSI
TX DATA PROCESSOR
438
DATA SOURCE
436
MODULATOR
480
454R
RCVR
TMTR
452R
424T
422T
TMTR
RCVR
432
MEMORY
430
PROCESSOR
CSI
DEMOD
440
RX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

FIG. 4

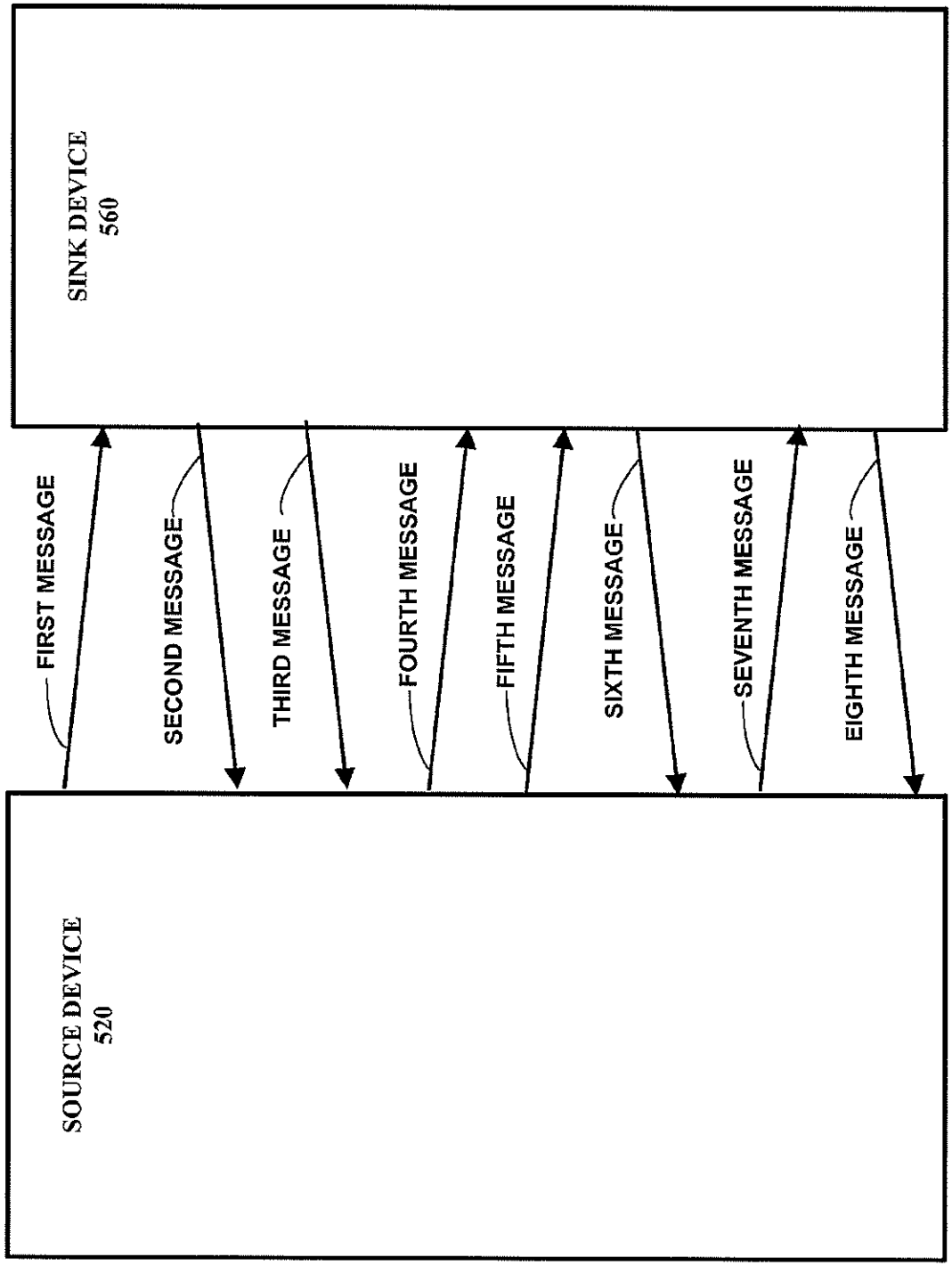
SINK DEVICE
560
SOURCE DEVICE
520
FIRST MESSAGE
SECOND MESSAGE
THIRD MESSAGE
FOURTH MESSAGE
FIFTH MESSAGE
SIXTH MESSAGE
SEVENTH MESSAGE
EIGHTH MESSAGE

FIG. 5A

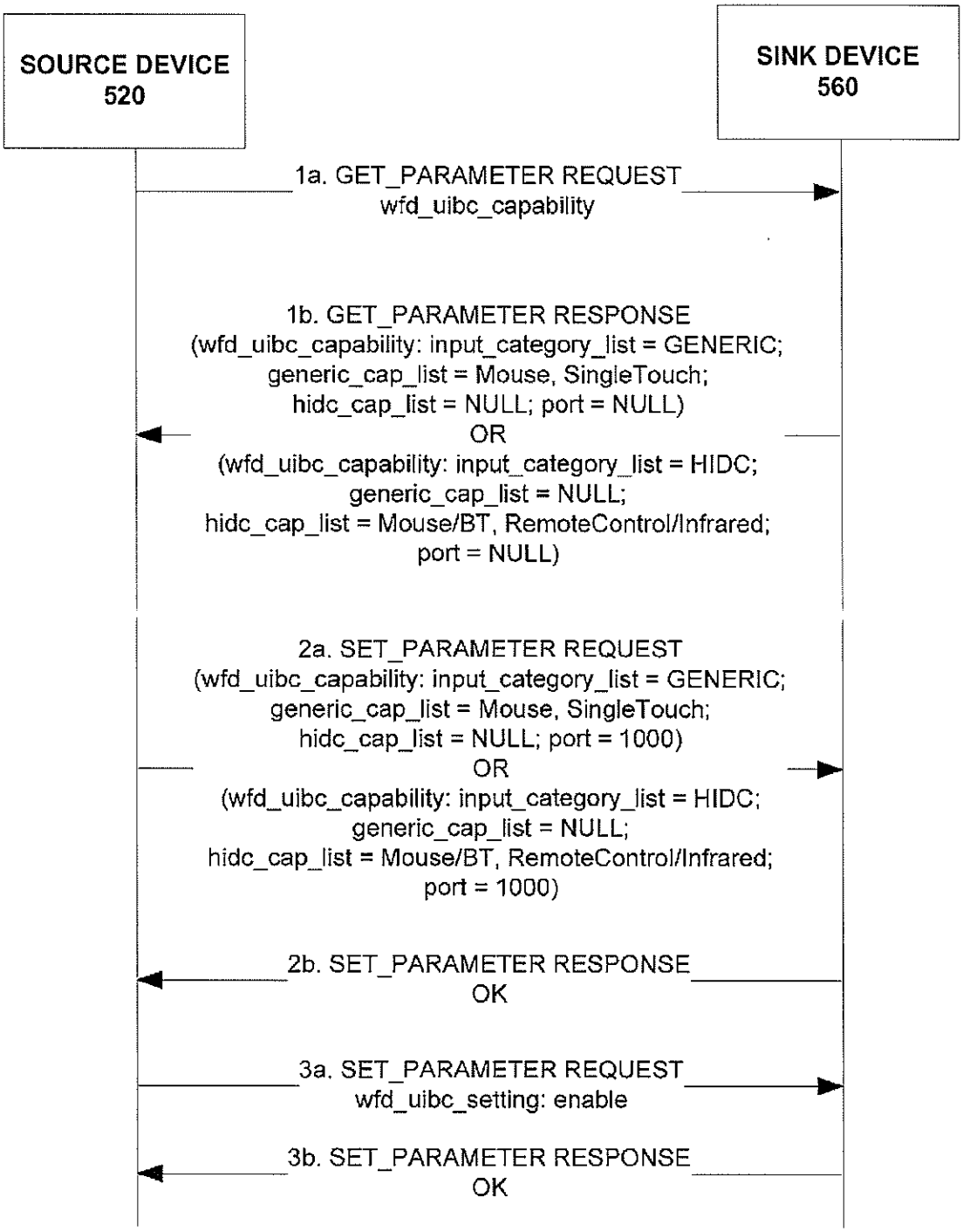
SOURCE DEVICE
520
SINK DEVICE
560
1a. GET_PARAMETER REQUEST
wfd_uibc_capability
1b. GET_PARAMETER RESPONSE
(wfd_uibc_capability: input_category_list = GENERIC;
generic_cap_list = Mouse, SingleTouch;
hidc_cap_list = NULL; port = NULL)
OR
(wfd_uibc_capability: input_category_list = HIDC;
generic_cap_list = 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

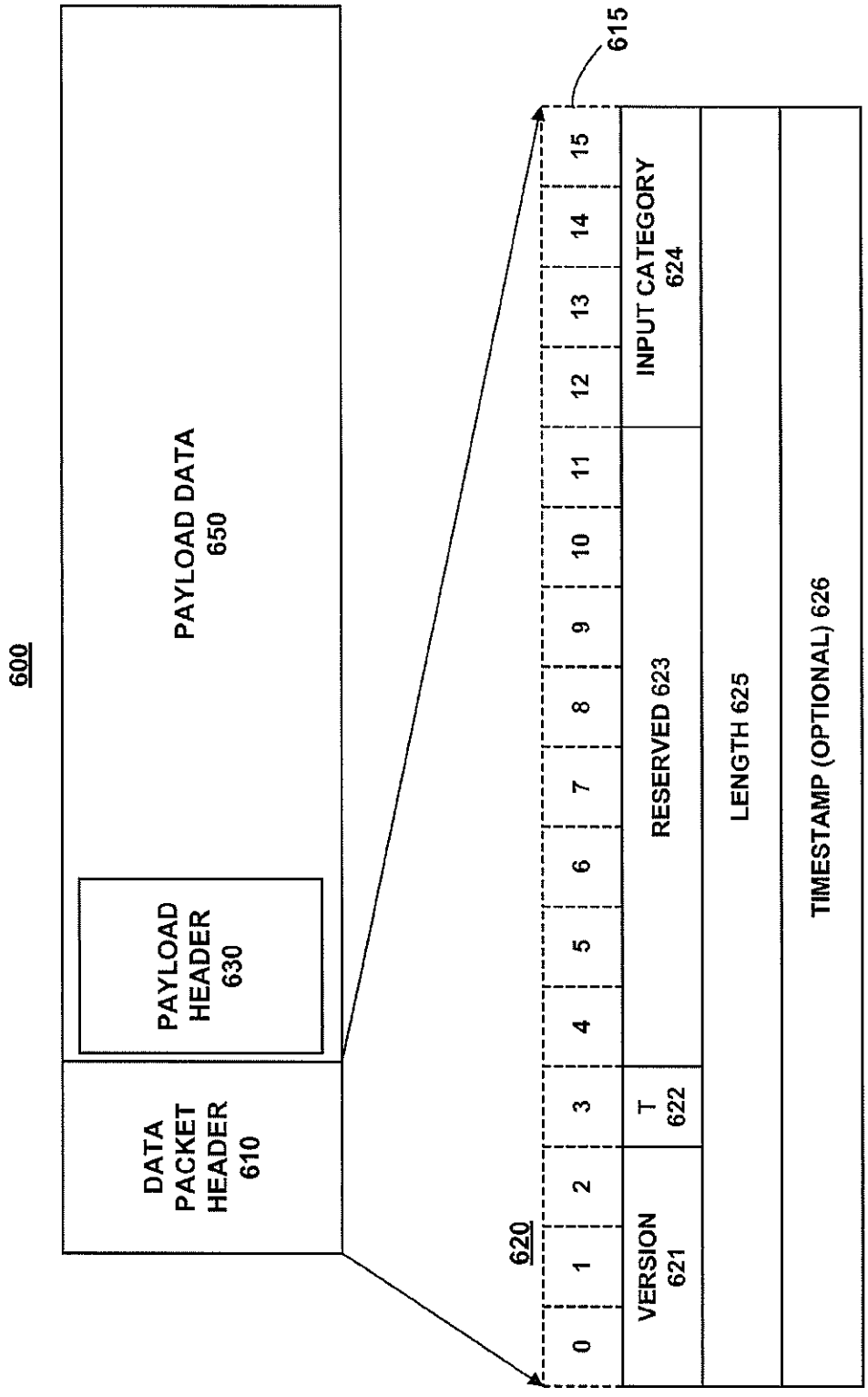
600
PAYLOAD DATA
650
PAYLOAD HEADER
630
DATA PACKET HEADER
610
620
615
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
VERSION
621
T
622
RESERVED 623
INPUT CATEGORY
624
LENGTH 625
TIMESTAMP (OPTIONAL) 626

FIG. 6

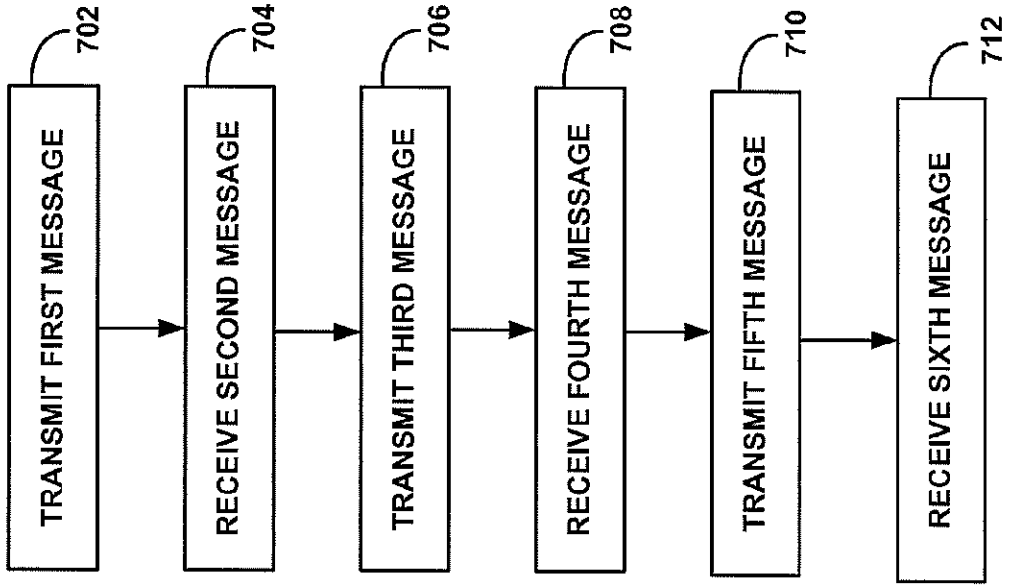
TRANSMIT FIRST MESSAGE
702
RECEIVE SECOND MESSAGE
704
TRANSMIT THIRD MESSAGE
706
RECEIVE FOURTH MESSAGE
708
TRANSMIT FIFTH MESSAGE
710
RECEIVE SIXTH MESSAGE
712

FIG. 7B

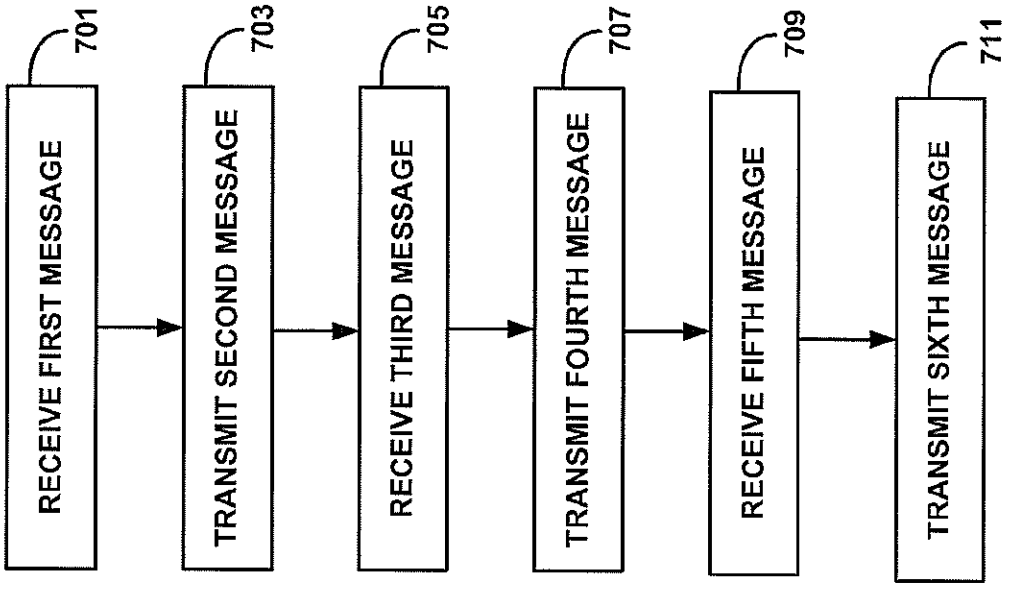
RECEIVE FIRST MESSAGE
701
TRANSMIT SECOND MESSAGE
703
RECEIVE THIRD MESSAGE
705
TRANSMIT FOURTH MESSAGE
707
RECEIVE FIFTH MESSAGE
709
TRANSMIT SIXTH MESSAGE
711

FIG. 7A

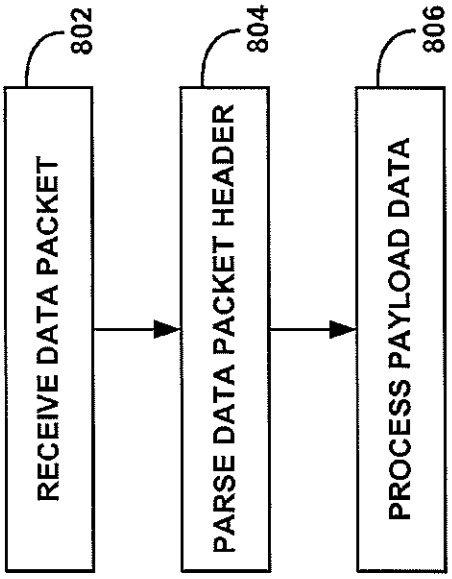
802
804
806
RECEIVE DATA PACKET
PARSE DATA PACKET HEADER
PROCESS PAYLOAD DATA

FIG. 8B

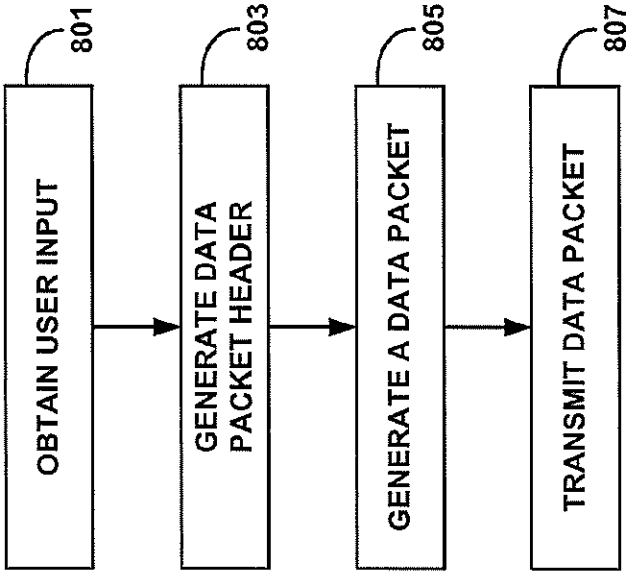
801
803
805
807
OBTAIN USER INPUT
GENERATE DATA PACKET HEADER
GENERATE A DATA PACKET
TRANSMIT DATA PACKET

FIG. 8A

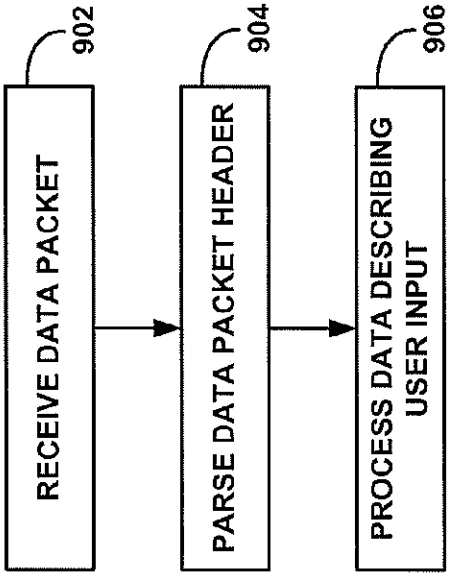
902
RECEIVE DATA PACKET
904
PARSE DATA PACKET HEADER
906
PROCESS DATA DESCRIBING USER INPUT

FIG. 9B

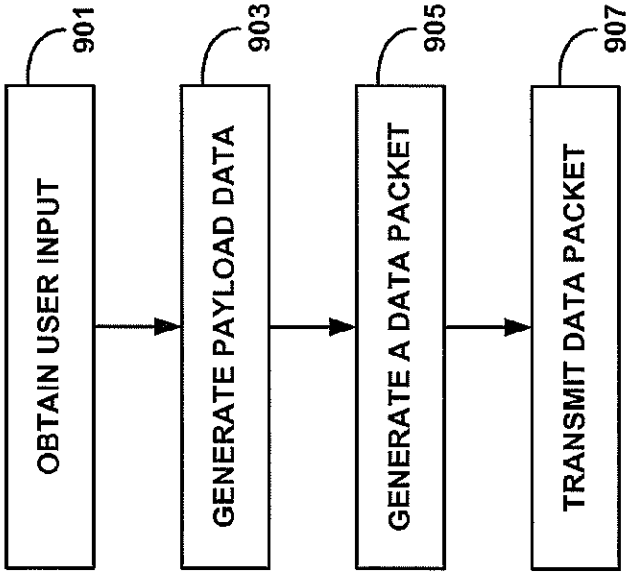
901
OBTAIN USER INPUT
903
GENERATE PAYLOAD DATA
905
GENERATE A DATA PACKET
907
TRANSMIT DATA PACKET

FIG. 9A

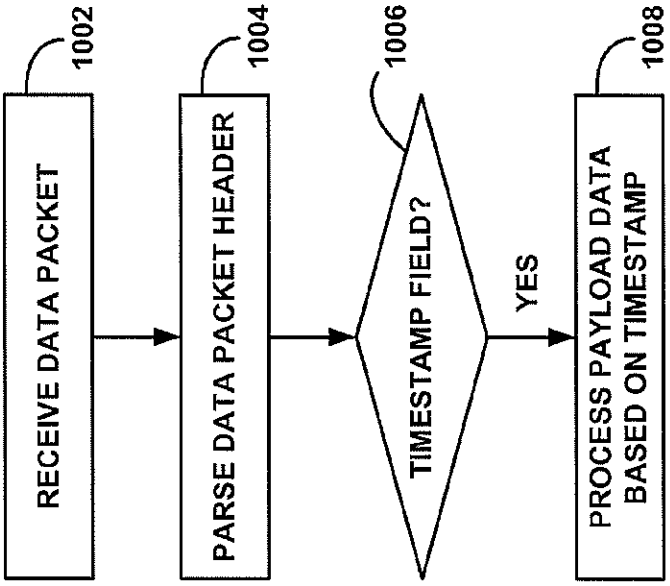


FIG. 10B

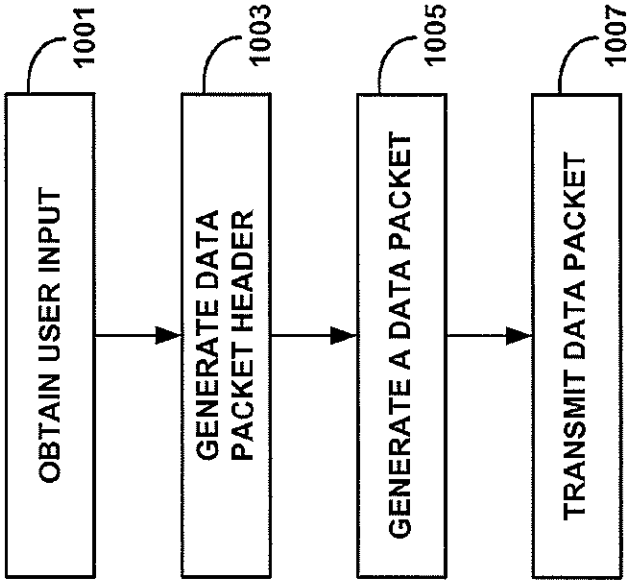


FIG. 10A

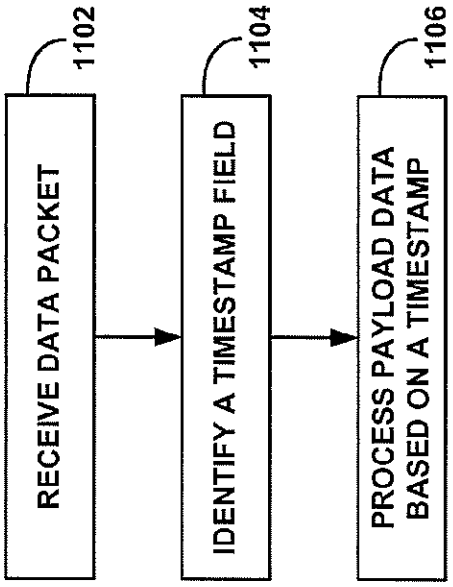


FIG. 11B

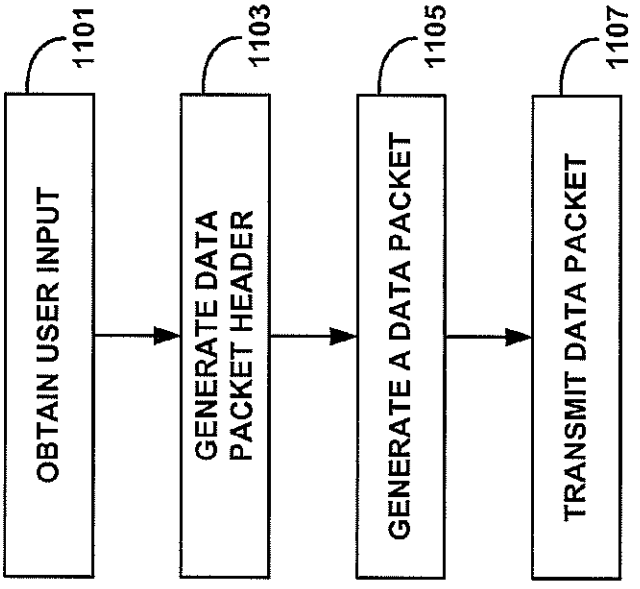


FIG. 11A

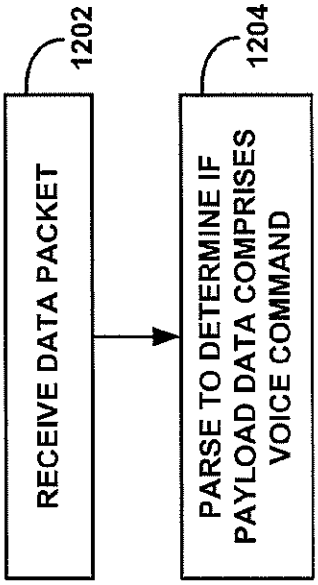


FIG. 12B

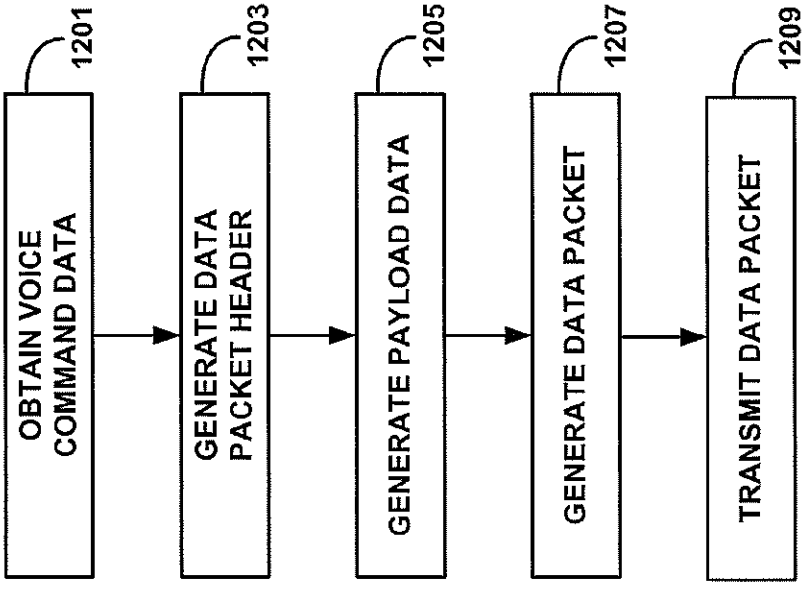


FIG. 12A

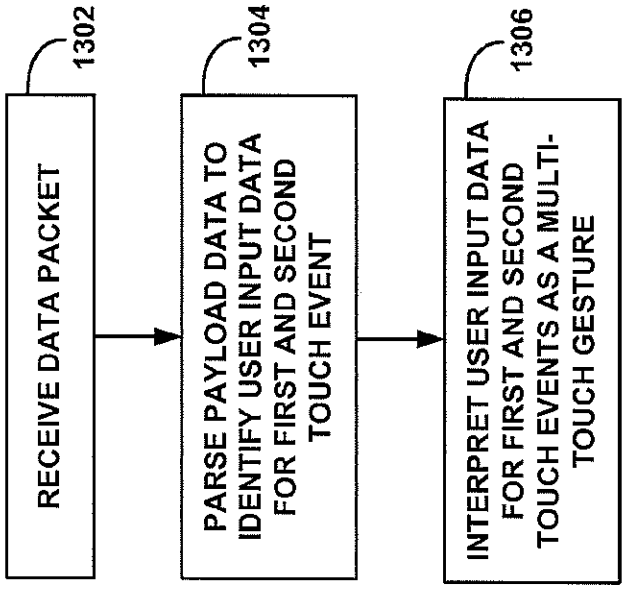


FIG. 13B

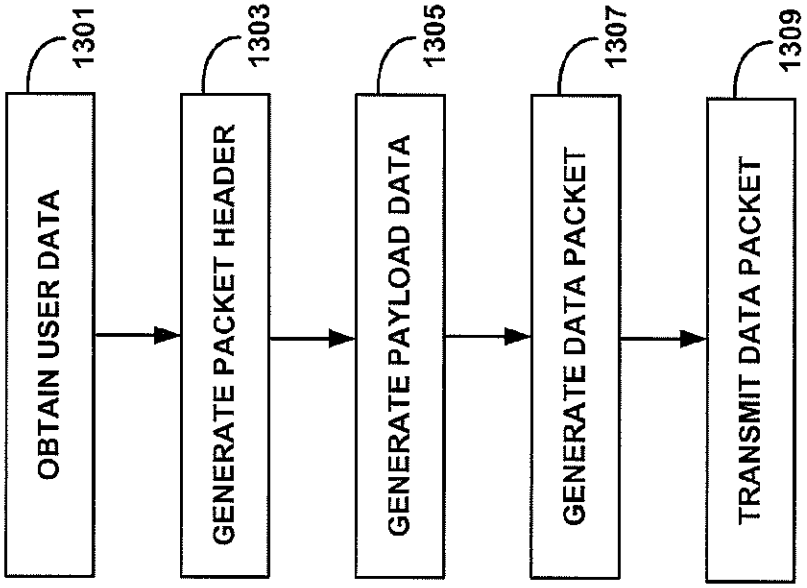


FIG. 13A

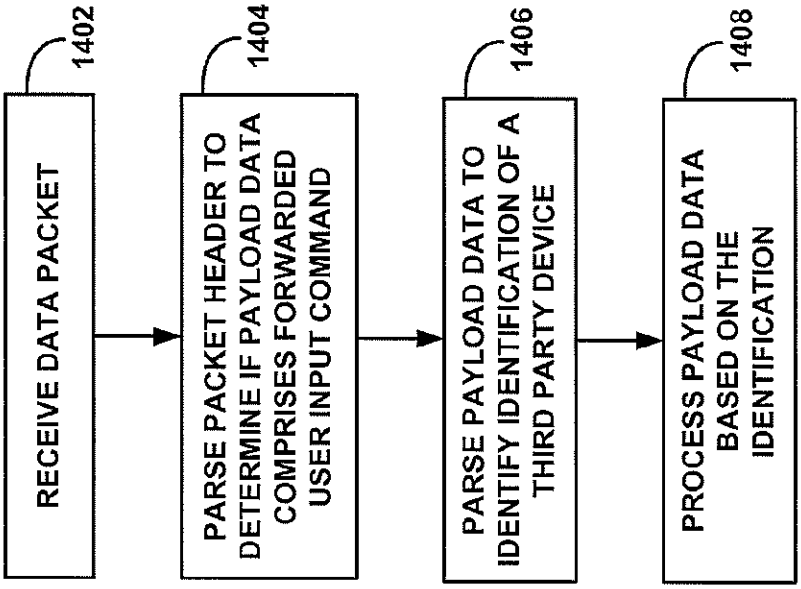


FIG. 14B

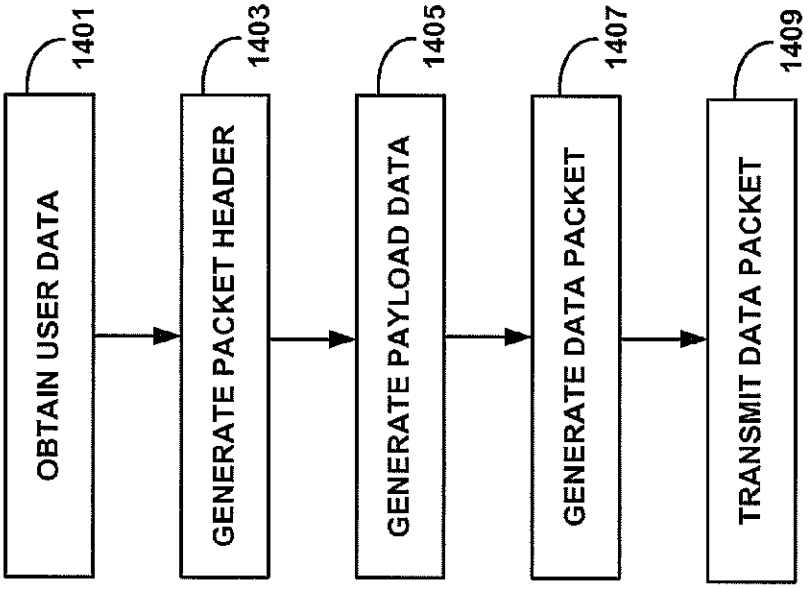


FIG. 14A

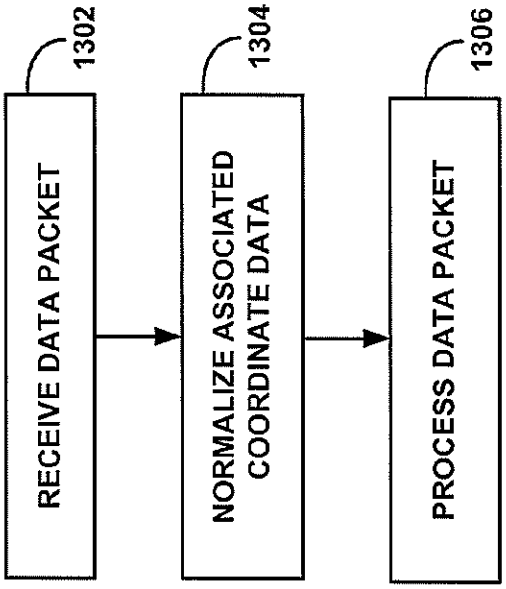


FIG. 15B

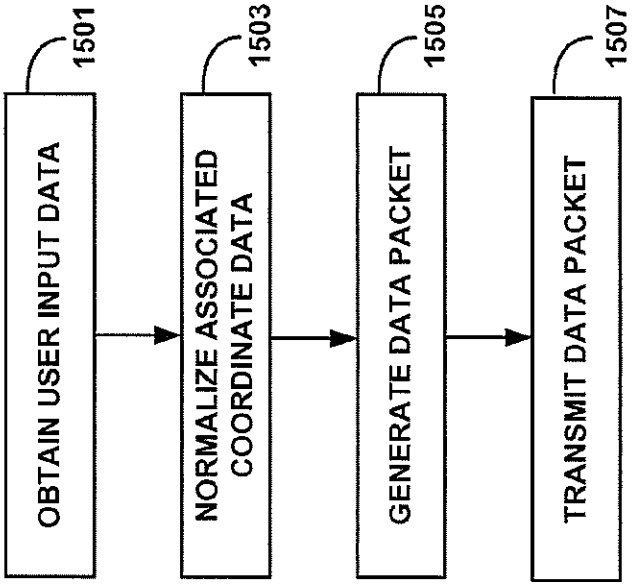


FIG. 15A