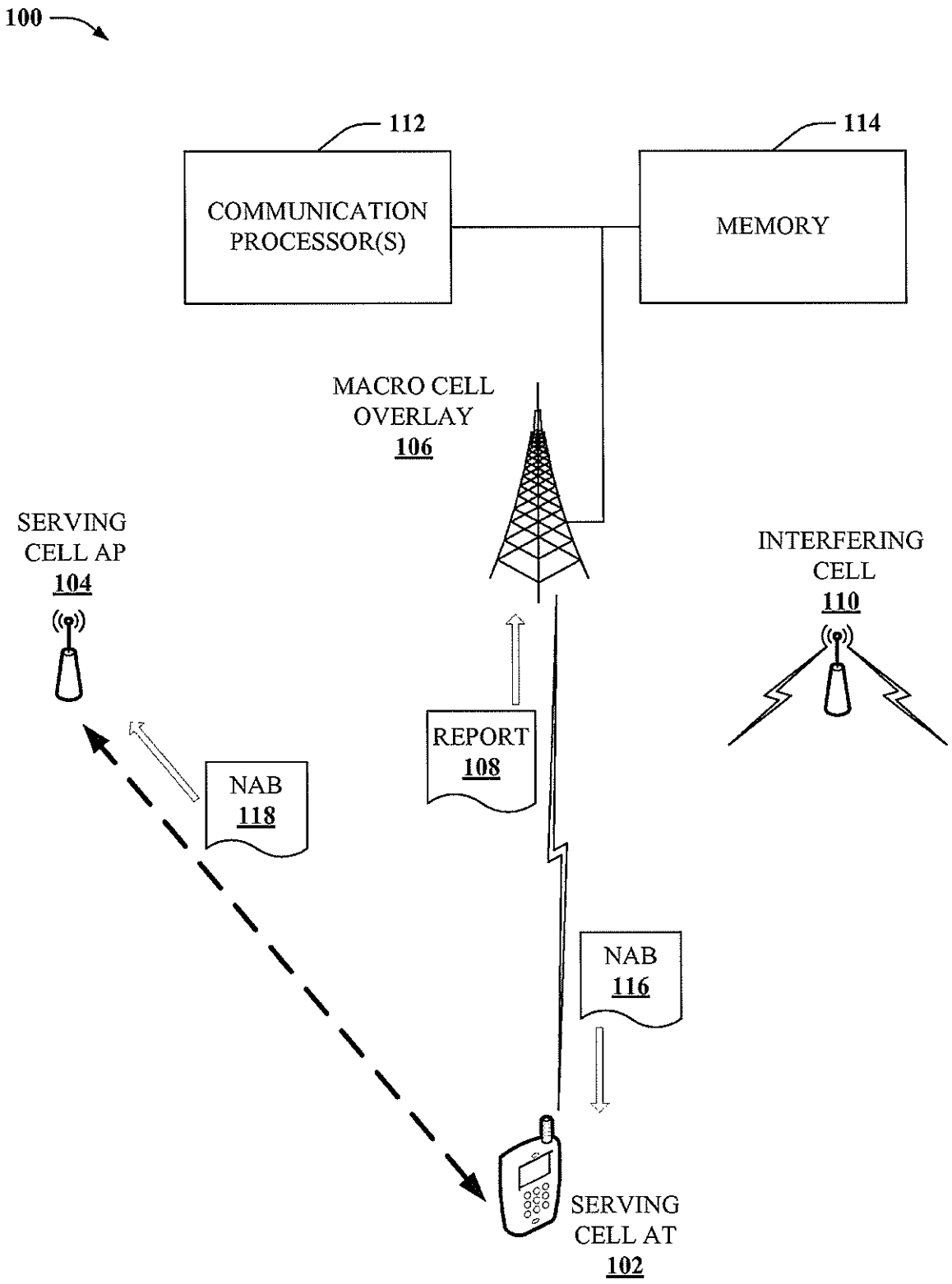

100
112
114
COMMUNICATION PROCESSOR(S)
MEMORY
MACRO CELL OVERLAY
106
SERVING CELL AP
104
INTERFERING CELL
110
REPORT
108
NAB
118
NAB
116
SERVING CELL AT
102

FIG. 1

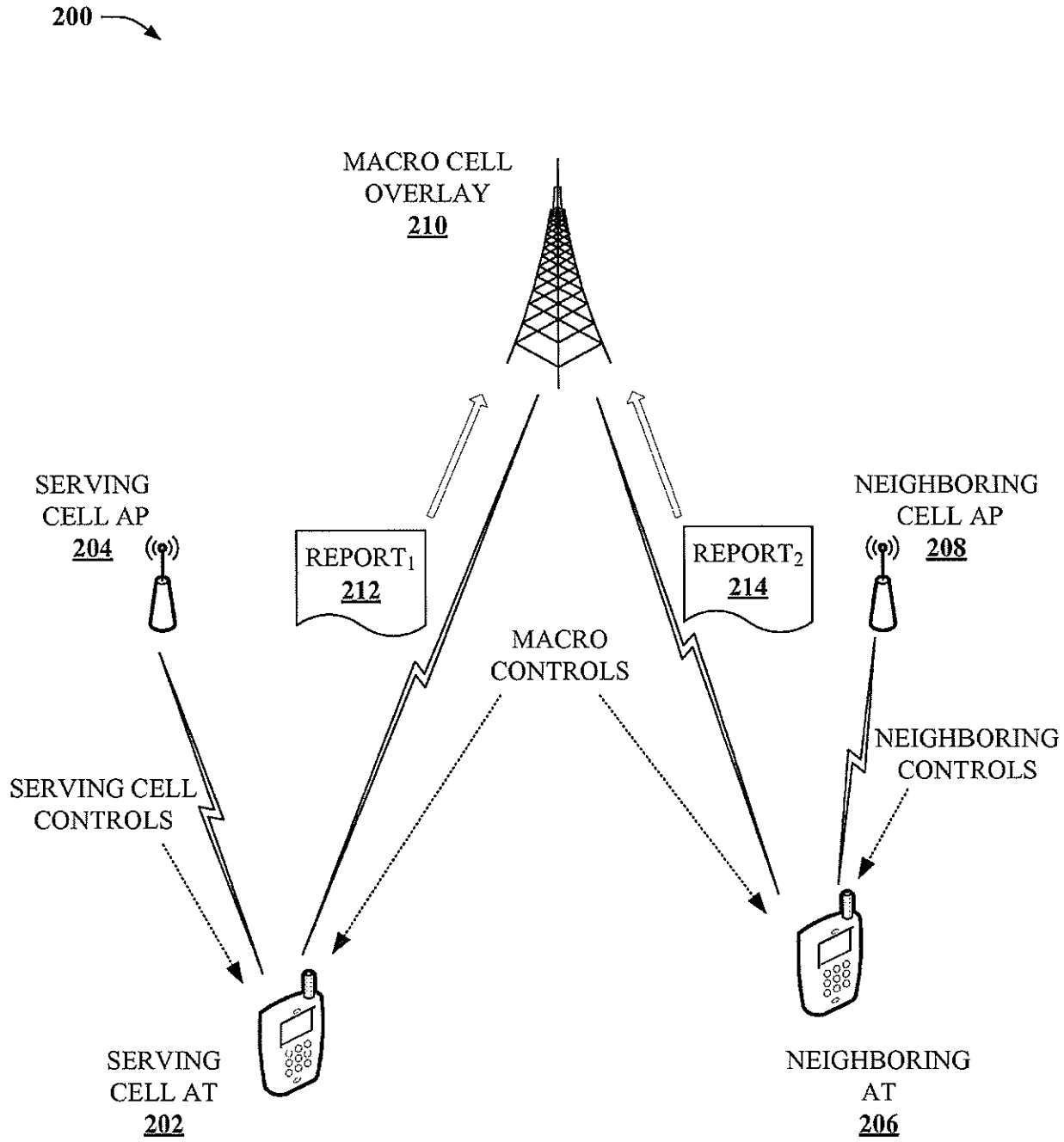

200
MACRO CELL OVERLAY 210
SERVING CELL AP 204
NEIGHBORING CELL AP 208
REPORT1 212
REPORT2 214
MACRO CONTROLS
SERVING CELL CONTROLS
NEIGHBORING CONTROLS
SERVING CELL AT 202
NEIGHBORING AT 206

FIG. 2

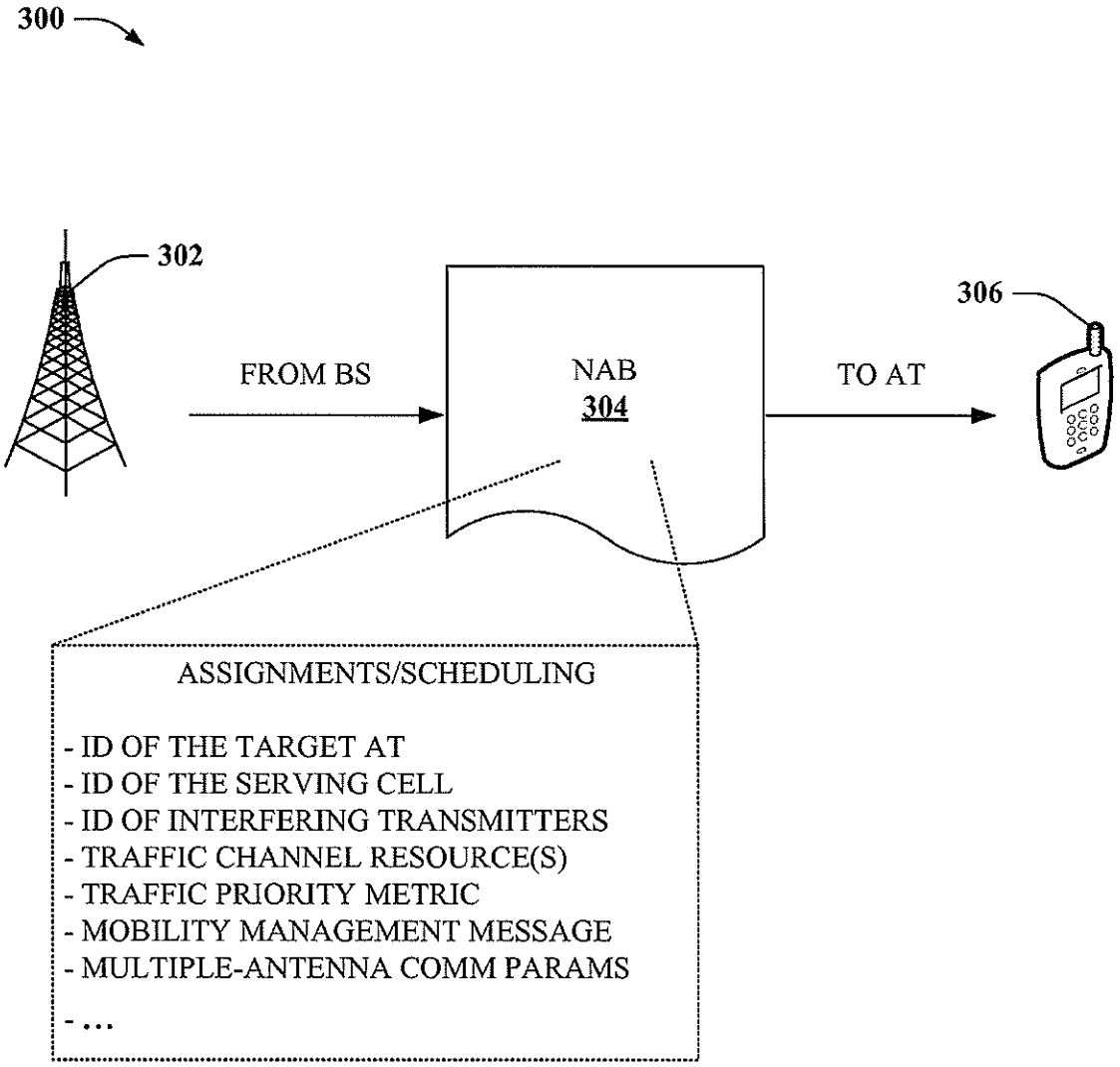

300
302
FROM BS
NAB
304
TO AT
306
ASSIGNMENTS/SCHEDULING
- ID OF THE TARGET AT
- ID OF THE SERVING CELL
- ID OF INTERFERING TRANSMITTERS
- TRAFFIC CHANNEL RESOURCE(S)
- TRAFFIC PRIORITY METRIC
- MOBILITY MANAGEMENT MESSAGE
- MULTIPLE-ANTENNA COMM PARAMS
- ...

FIG. 3

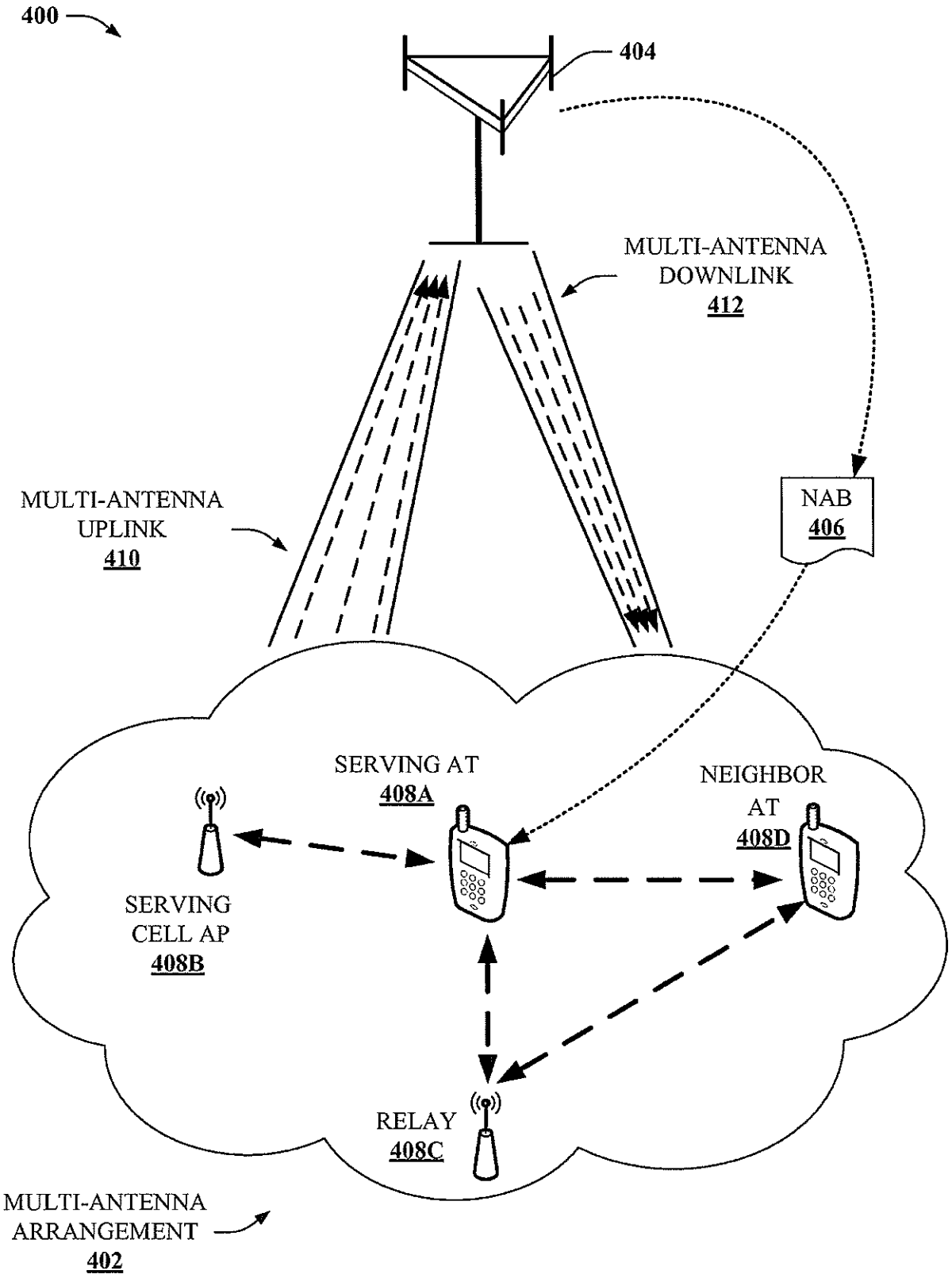

400
404
MULTI-ANTENNA
DOWNLINK
412
MULTI-ANTENNA
UPLINK
410
NAB
406
SERVING AT
408A
NEIGHBOR
AT
408D
SERVING
CELL AP
408B
RELAY
408C
MULTI-ANTENNA
ARRANGEMENT
402

FIG. 4

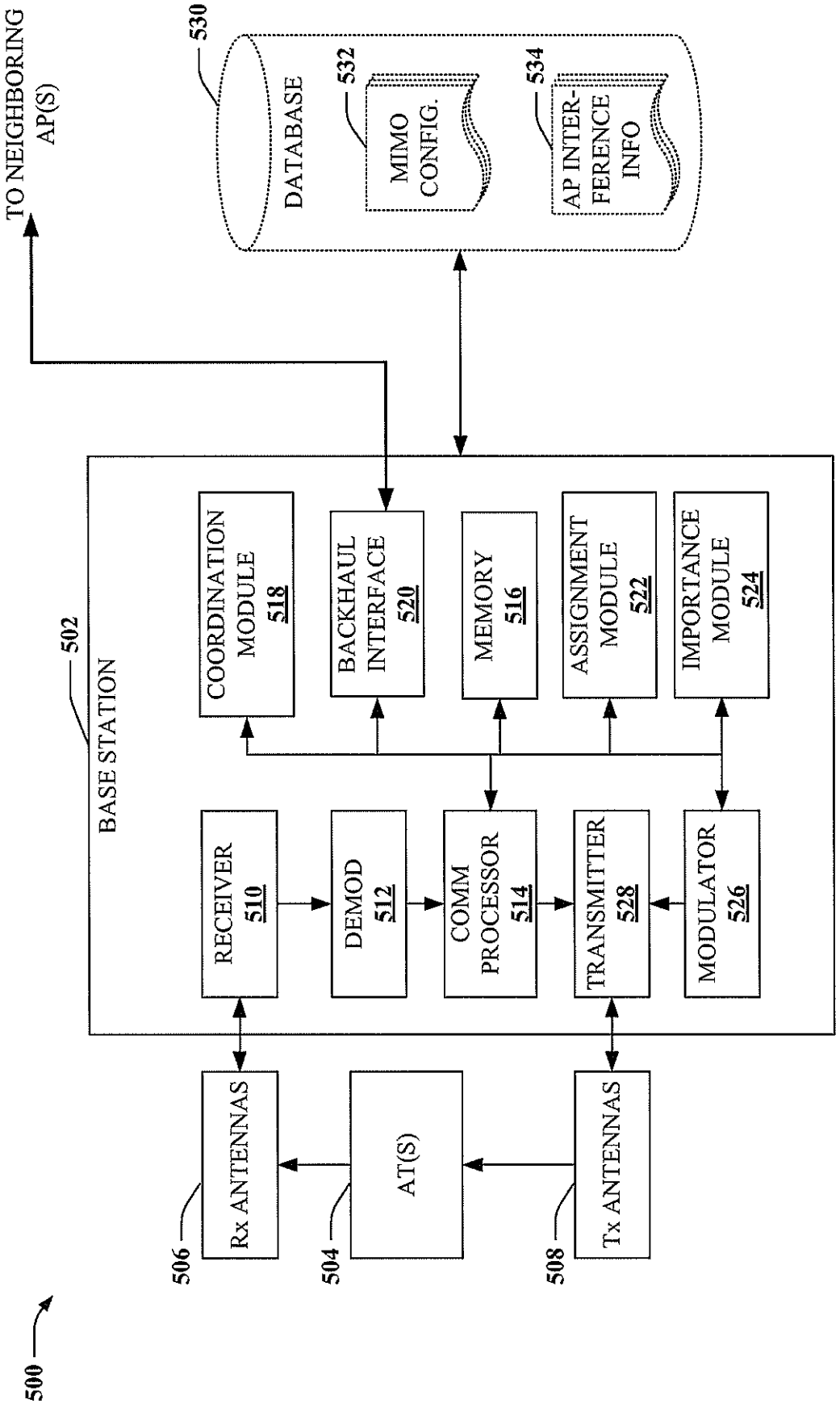

500
TO NEIGHBORING AP(S)
530
DATABASE
532
MIMO CONFIG.
534
AP INTER-FERENCE INFO
502
BASE STATION
COORDINATION MODULE 518
BACKHAUL INTERFACE 520
MEMORY 516
ASSIGNMENT MODULE 522
IMPORTANCE MODULE 524
RECEIVER 510
DEMOD 512
COMM PROCESSOR 514
TRANSMITTER 528
MODULATOR 526
Rx ANTENNAS
AT(S)
Tx ANTENNAS
506
504
508

FIG. 5

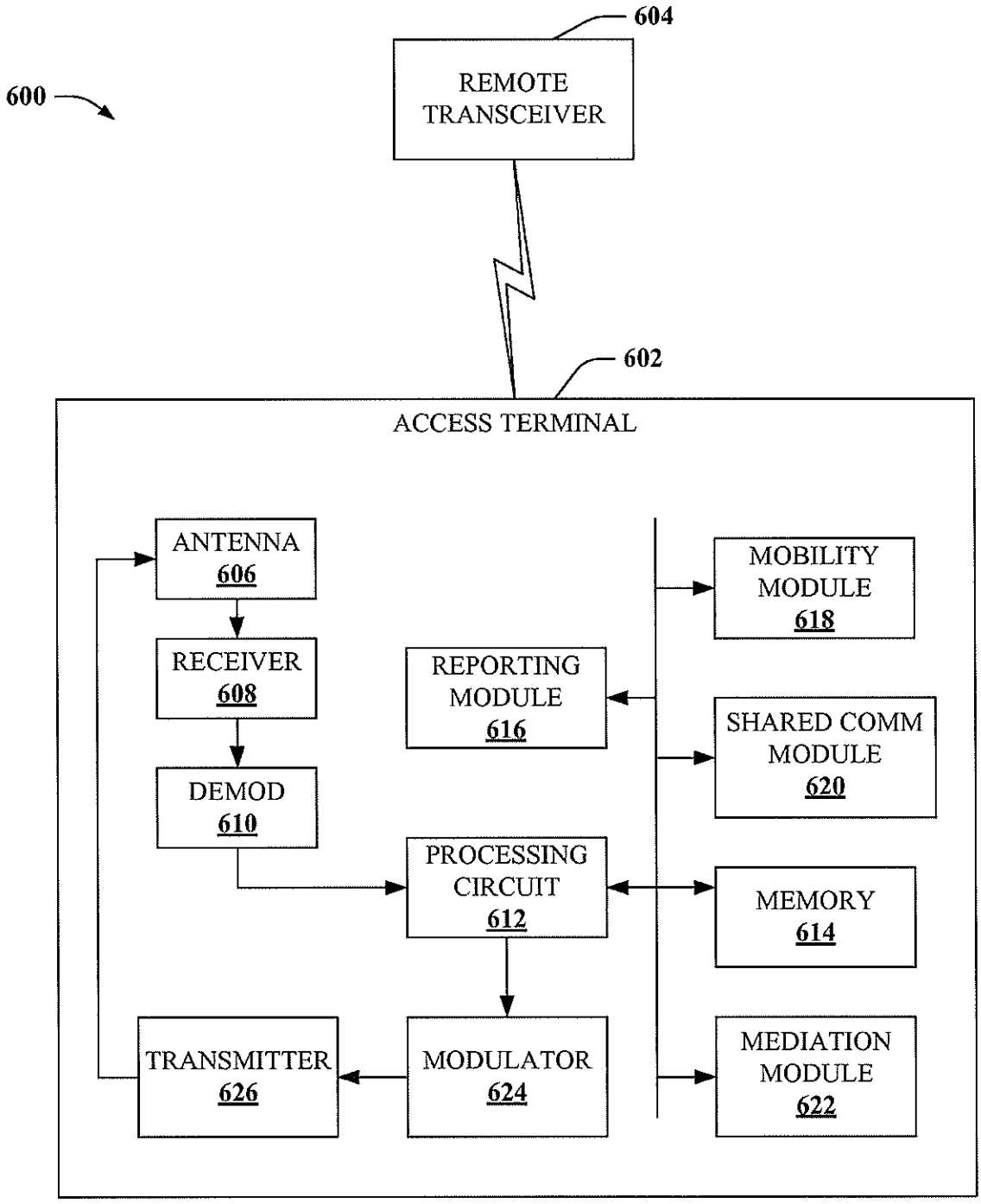

600
604
REMOTE TRANSCEIVER
602
ACCESS TERMINAL
ANTENNA 606
RECEIVER 608
DEMOD 610
PROCESSING CIRCUIT 612
TRANSMITTER 626
MODULATOR 624
REPORTING MODULE 616
MOBILITY MODULE 618
SHARED COMM MODULE 620
MEMORY 614
MEDIATION MODULE 622

FIG. 6

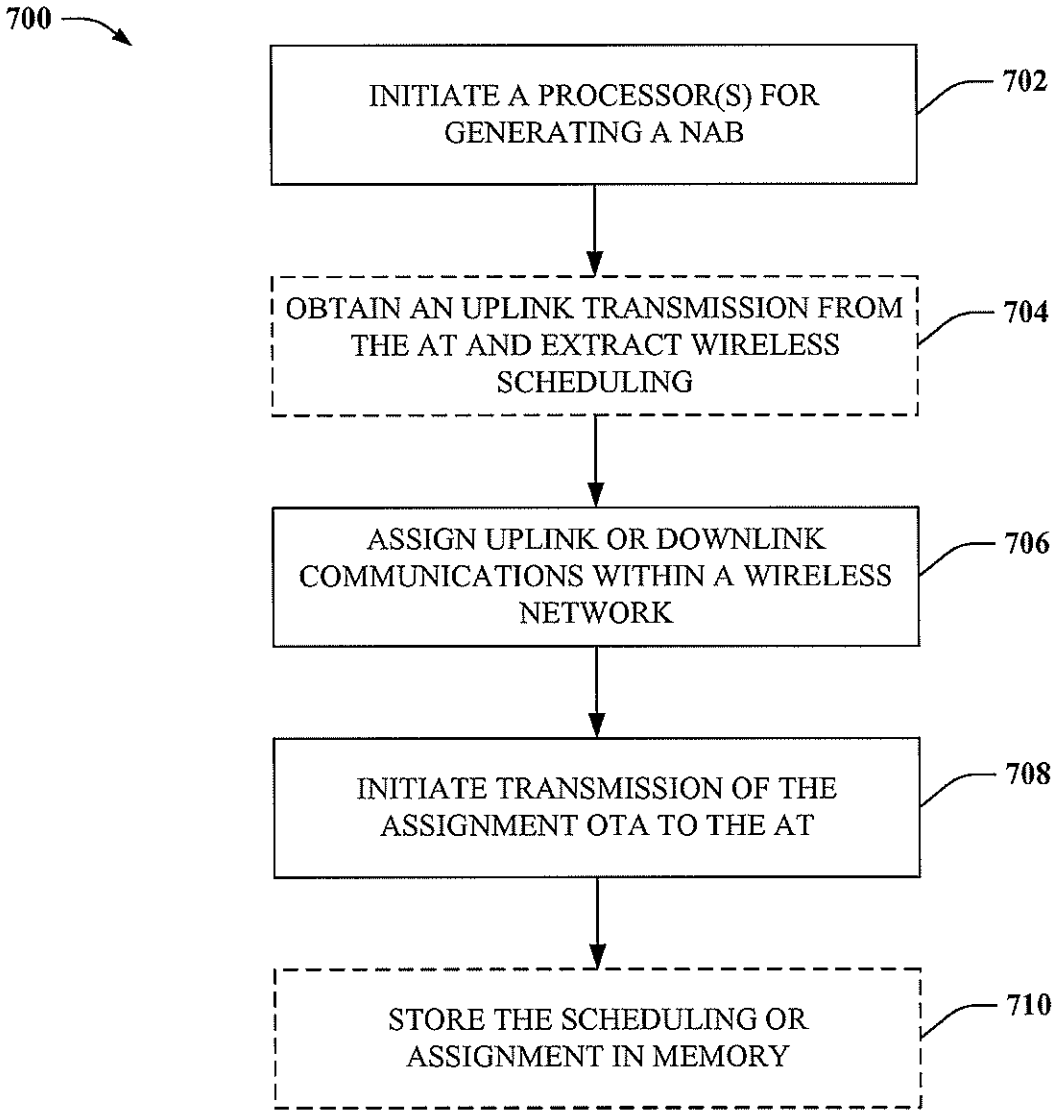

700
INITIATE A PROCESSOR(S) FOR GENERATING A NAB
702
OBTAIN AN UPLINK TRANSMISSION FROM THE AT AND EXTRACT WIRELESS SCHEDULING
704
ASSIGN UPLINK OR DOWNLINK COMMUNICATIONS WITHIN A WIRELESS NETWORK
706
INITIATE TRANSMISSION OF THE ASSIGNMENT OTA TO THE AT
708
STORE THE SCHEDULING OR ASSIGNMENT IN MEMORY
710

FIG. 7

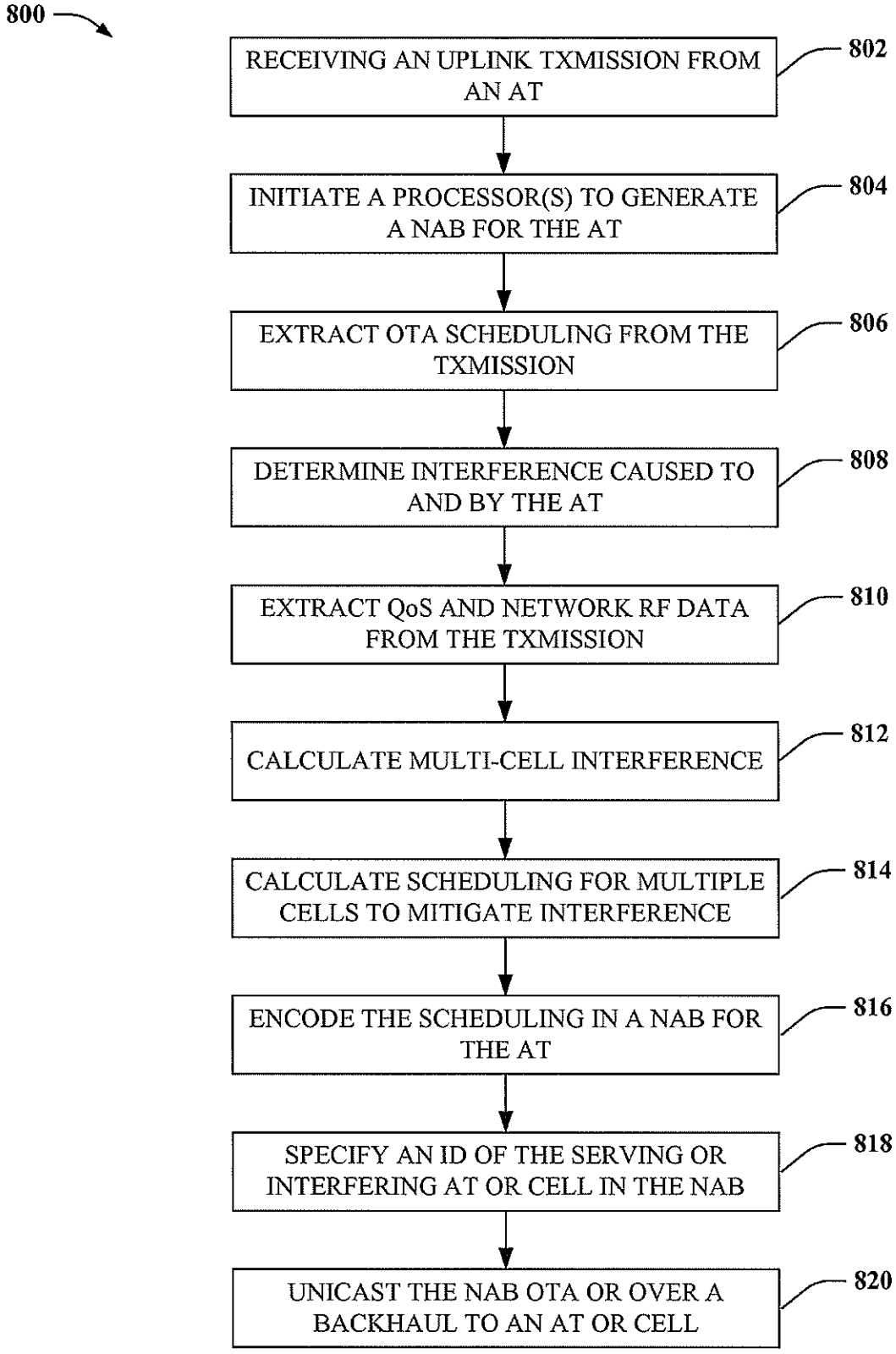

800
RECEIVING AN UPLINK TXMISSION FROM AN AT
802
INITIATE A PROCESSOR(S) TO GENERATE A NAB FOR THE AT
804
EXTRACT OTA SCHEDULING FROM THE TXMISSION
806
DETERMINE INTERFERENCE CAUSED TO AND BY THE AT
808
EXTRACT QoS AND NETWORK RF DATA FROM THE TXMISSION
810
CALCULATE MULTI-CELL INTERFERENCE
812
CALCULATE SCHEDULING FOR MULTIPLE CELLS TO MITIGATE INTERFERENCE
814
ENCODE THE SCHEDULING IN A NAB FOR THE AT
816
SPECIFY AN ID OF THE SERVING OR INTERFERING AT OR CELL IN THE NAB
818
UNICAST THE NAB OTA OR OVER A BACKHAUL TO AN AT OR CELL
820

FIG. 8

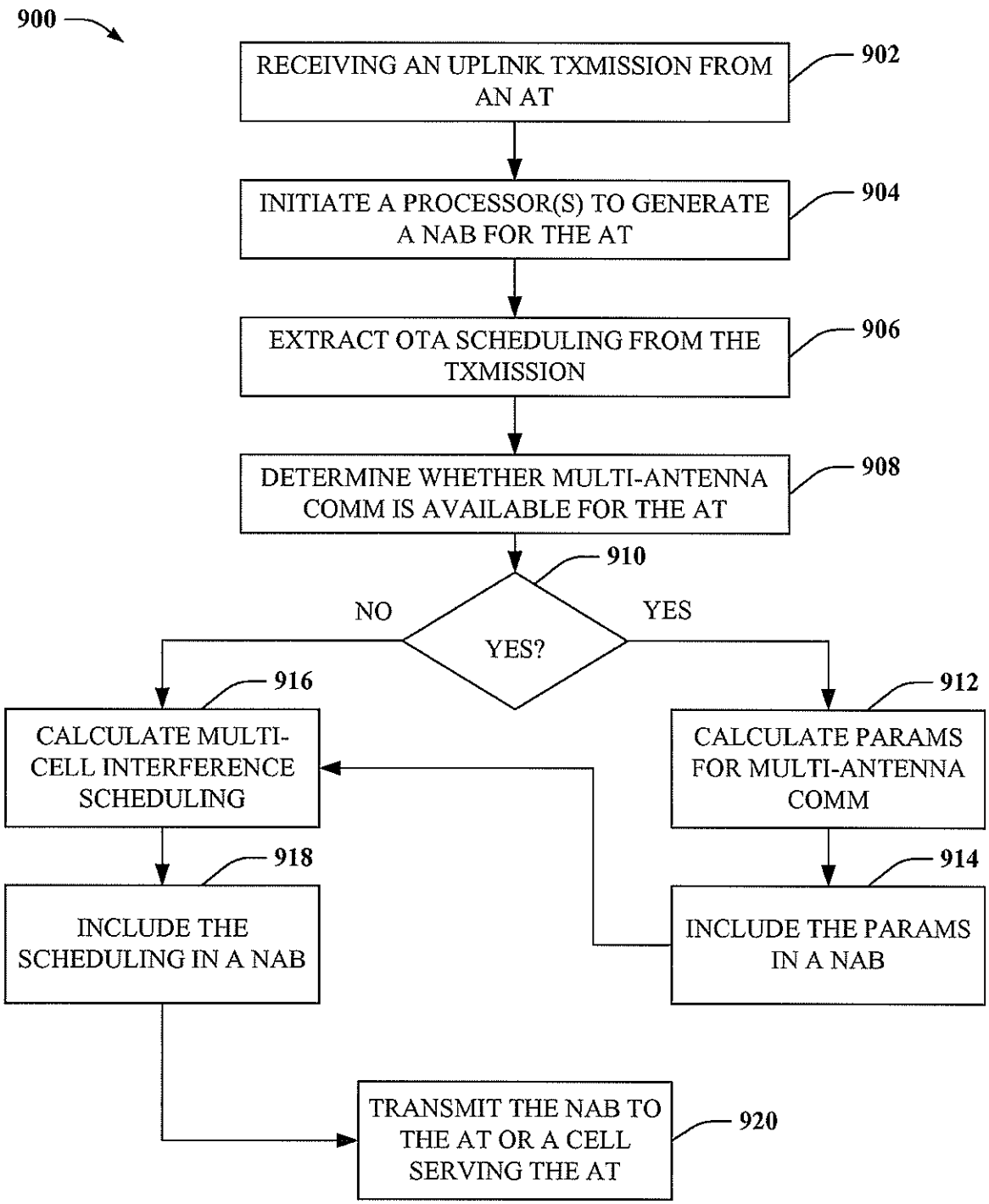

900
RECEIVING AN UPLINK TXMISSION FROM AN AT
902
INITIATE A PROCESSOR(S) TO GENERATE A NAB FOR THE AT
904
EXTRACT OTA SCHEDULING FROM THE TXMISSION
906
DETERMINE WHETHER MULTI-ANTENNA COMM IS AVAILABLE FOR THE AT
908
910
YES?
NO
YES
916
CALCULATE MULTI-CELL INTERFERENCE SCHEDULING
912
CALCULATE PARAMS FOR MULTI-ANTENNA COMM
918
INCLUDE THE SCHEDULING IN A NAB
914
INCLUDE THE PARAMS IN A NAB
TRANSMIT THE NAB TO THE AT OR A CELL SERVING THE AT
920

FIG. 9

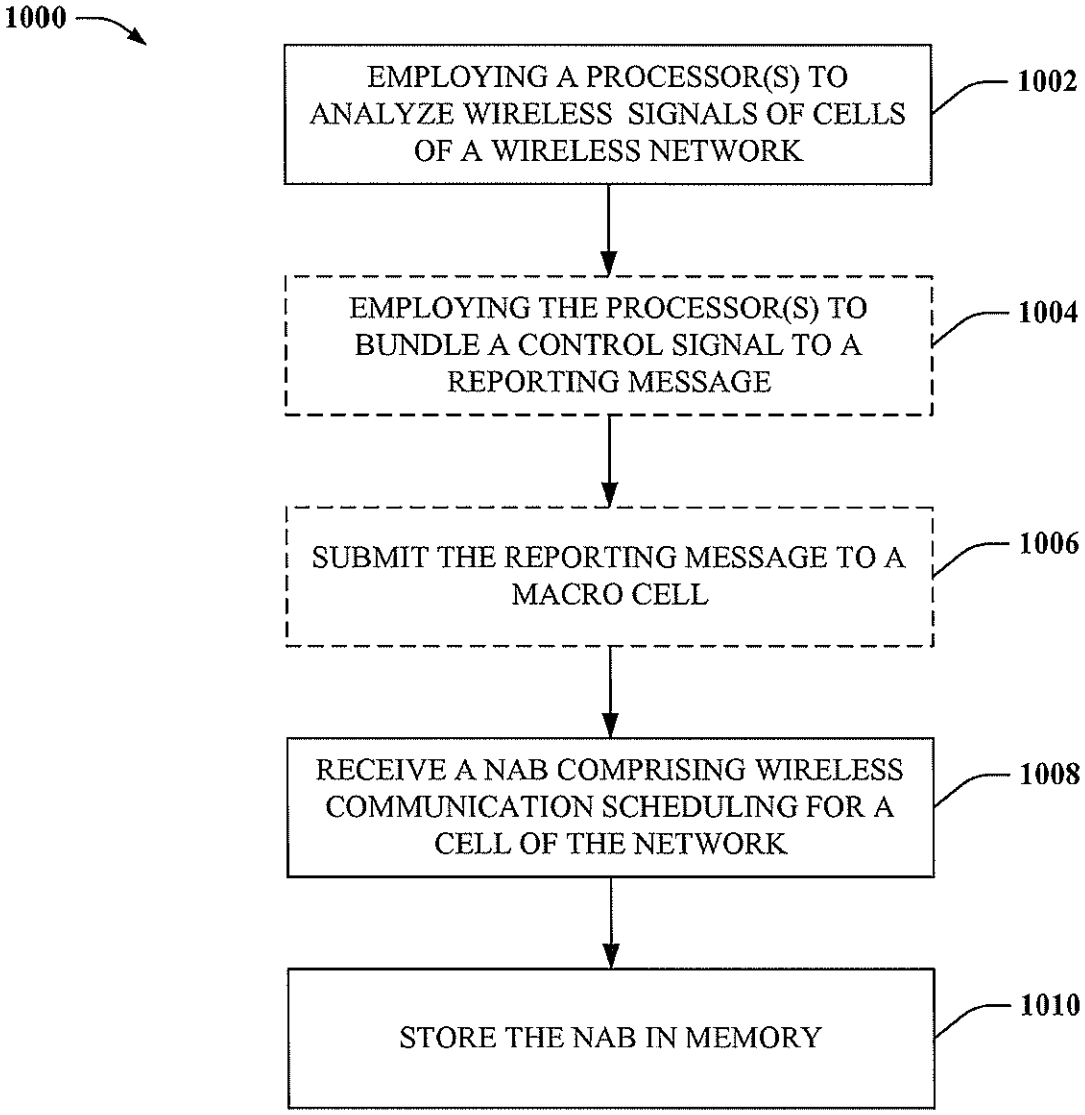

1000
EMPLOYING A PROCESSOR(S) TO ANALYZE WIRELESS SIGNALS OF CELLS OF A WIRELESS NETWORK
1002
EMPLOYING THE PROCESSOR(S) TO BUNDLE A CONTROL SIGNAL TO A REPORTING MESSAGE
1004
SUBMIT THE REPORTING MESSAGE TO A MACRO CELL
1006
RECEIVE A NAB COMPRISING WIRELESS COMMUNICATION SCHEDULING FOR A CELL OF THE NETWORK
1008
STORE THE NAB IN MEMORY
1010

FIG. 10

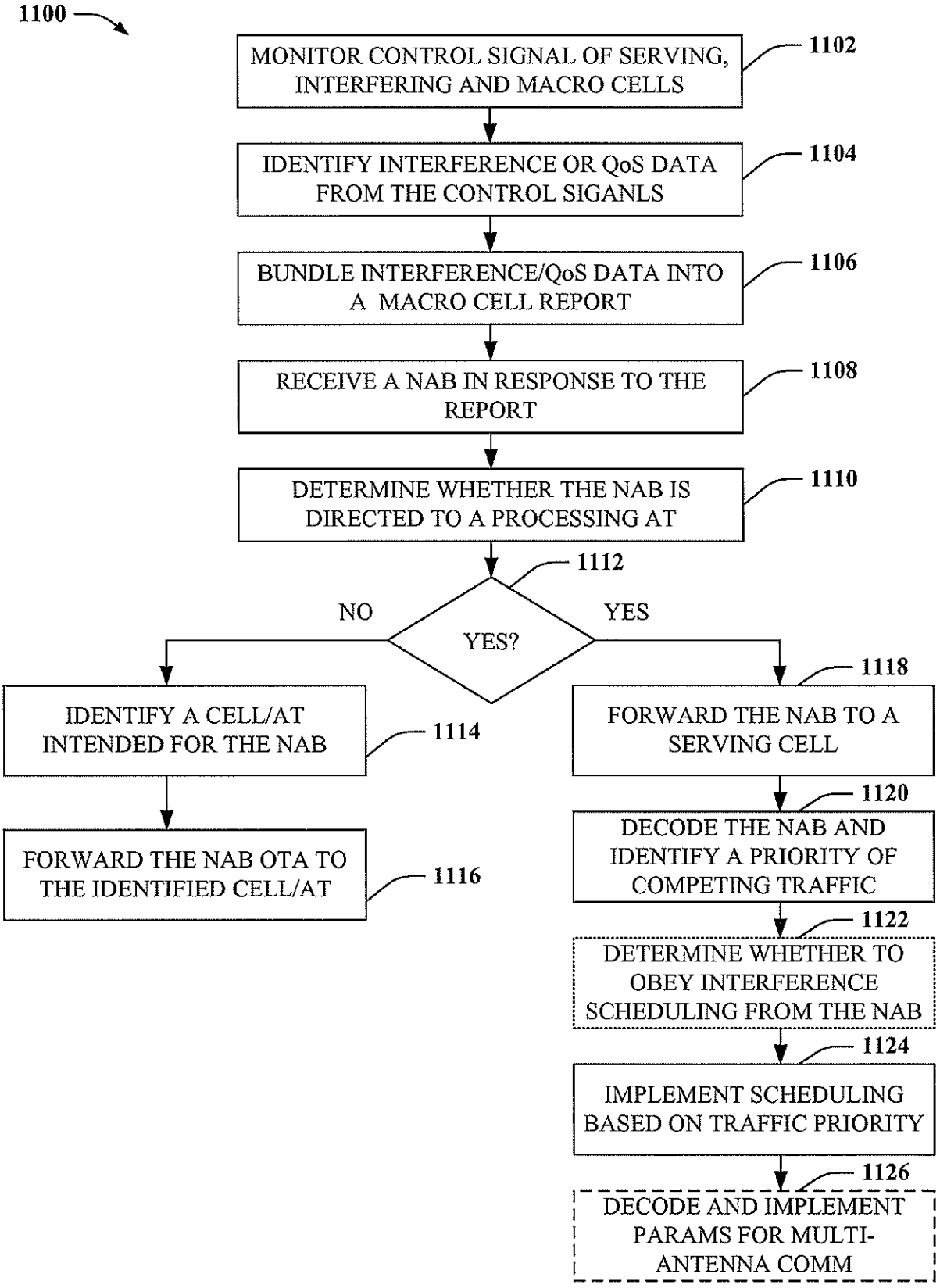

1100
MONITOR CONTROL SIGNAL OF SERVING, INTERFERING AND MACRO CELLS
1102
IDENTIFY INTERFERENCE OR QoS DATA FROM THE CONTROL SIGANLS
1104
BUNDLE INTERFERENCE/QoS DATA INTO A MACRO CELL REPORT
1106
RECEIVE A NAB IN RESPONSE TO THE REPORT
1108
DETERMINE WHETHER THE NAB IS DIRECTED TO A PROCESSING AT
1110
1112
YES?
NO
YES
IDENTIFY A CELL/AT INTENDED FOR THE NAB
1114
FORWARD THE NAB OTA TO THE IDENTIFIED CELL/AT
1116
1118
FORWARD THE NAB TO A SERVING CELL
1120
DECODE THE NAB AND IDENTIFY A PRIORITY OF COMPETING TRAFFIC
1122
DETERMINE WHETHER TO OBEY INTERFERENCE SCHEDULING FROM THE NAB
1124
IMPLEMENT SCHEDULING BASED ON TRAFFIC PRIORITY
1126
DECODE AND IMPLEMENT PARAMS FOR MULTI-ANTENNA COMM

FIG. 11

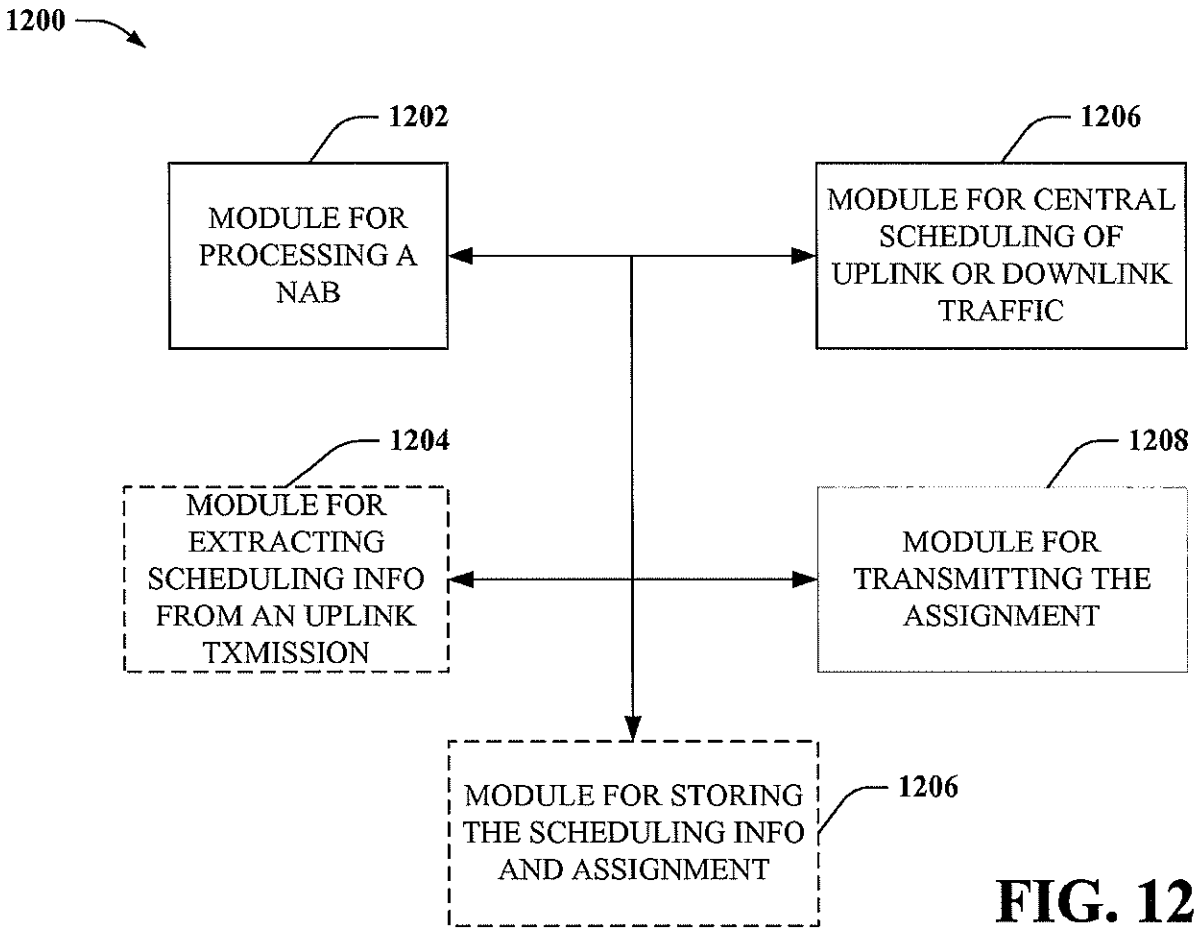

1200
1202
MODULE FOR PROCESSING A NAB
1206
MODULE FOR CENTRAL SCHEDULING OF UPLINK OR DOWNLINK TRAFFIC
1204
MODULE FOR EXTRACTING SCHEDULING INFO FROM AN UPLINK TXMISSION
1208
MODULE FOR TRANSMITTING THE ASSIGNMENT
MODULE FOR STORING THE SCHEDULING INFO AND ASSIGNMENT
1206

FIG. 12

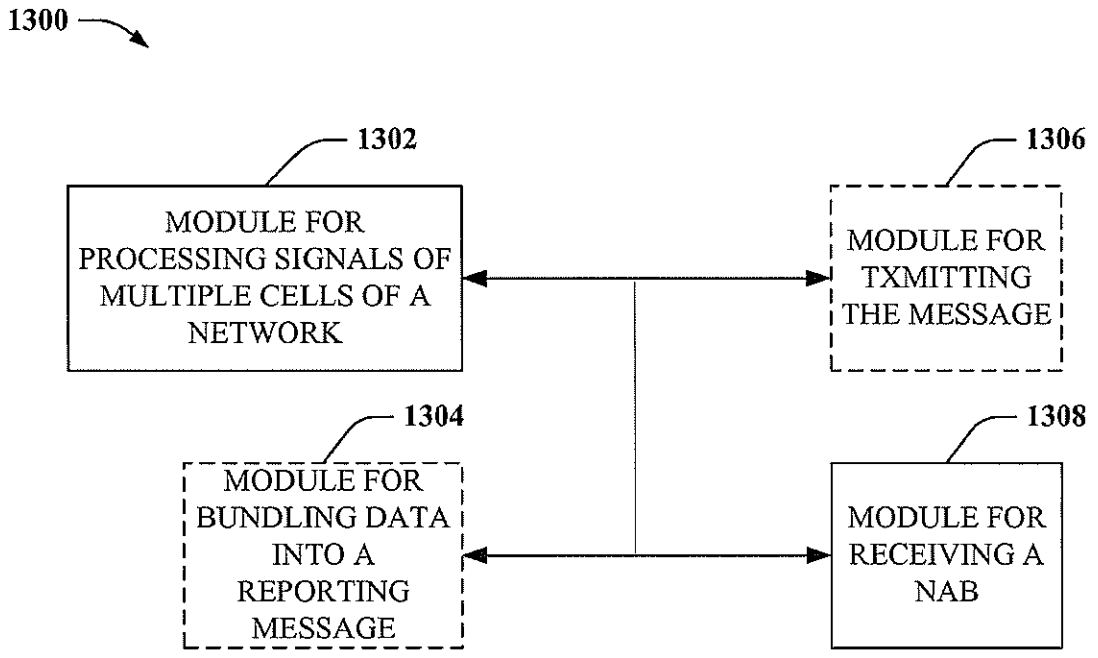

1300
1302
MODULE FOR PROCESSING SIGNALS OF MULTIPLE CELLS OF A NETWORK
1306
MODULE FOR TXMITTING THE MESSAGE
1304
MODULE FOR BUNDLING DATA INTO A REPORTING MESSAGE
1308
MODULE FOR RECEIVING A NAB

FIG. 13

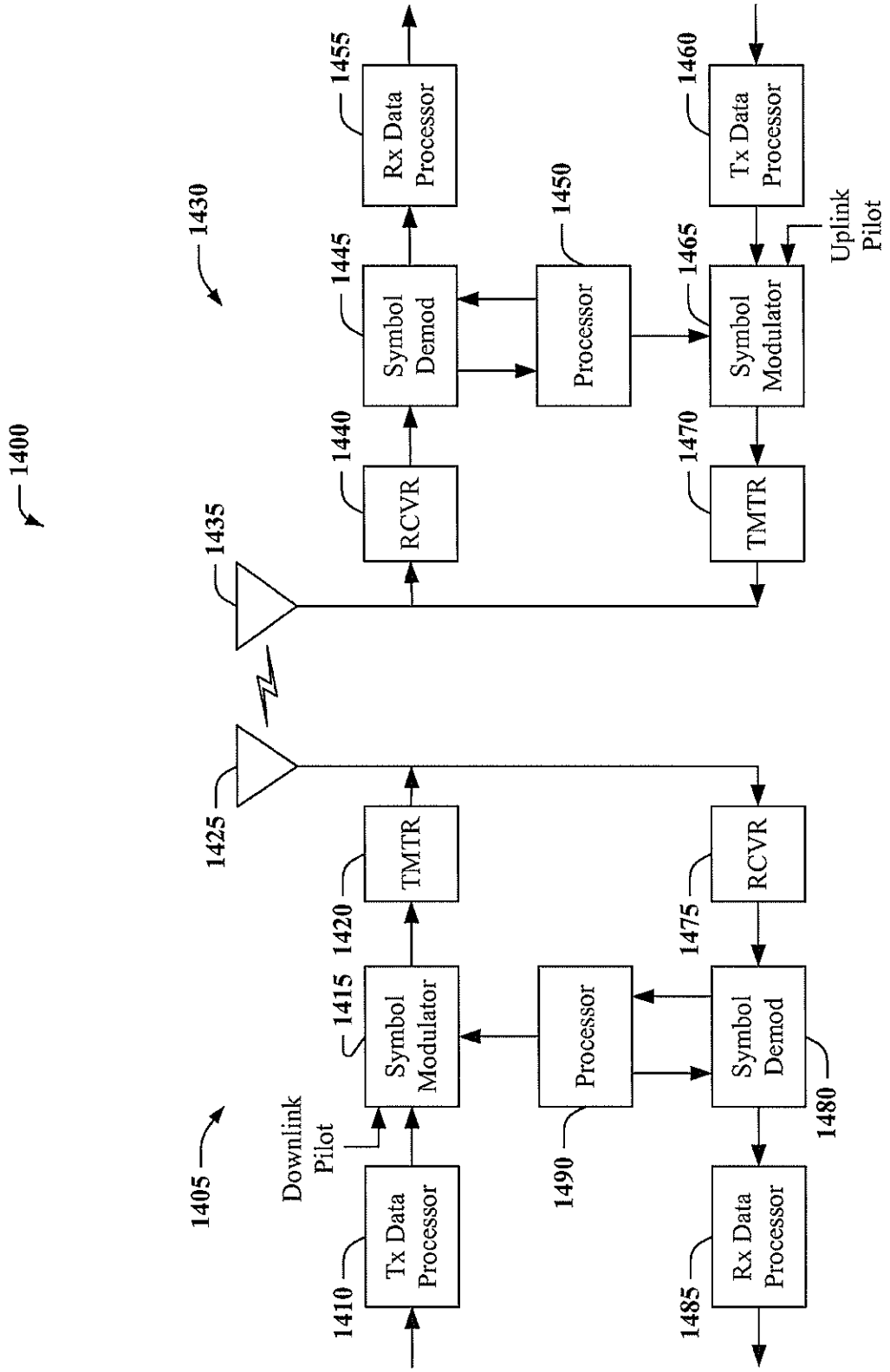

1400
1405
1410
Tx Data Processor
Downlink Pilot
1415
Symbol Modulator
1420
TMTR
1425
1430
1435
1440
RCVR
1445
Symbol Demod
Rx Data Processor
1450
Processor
1455
1460
Tx Data Processor
Uplink Pilot
1465
Symbol Modulator
1470
TMTR
1475
RCVR
1480
Symbol Demod
Rx Data Processor
1485
1490
Processor

FIG. 14

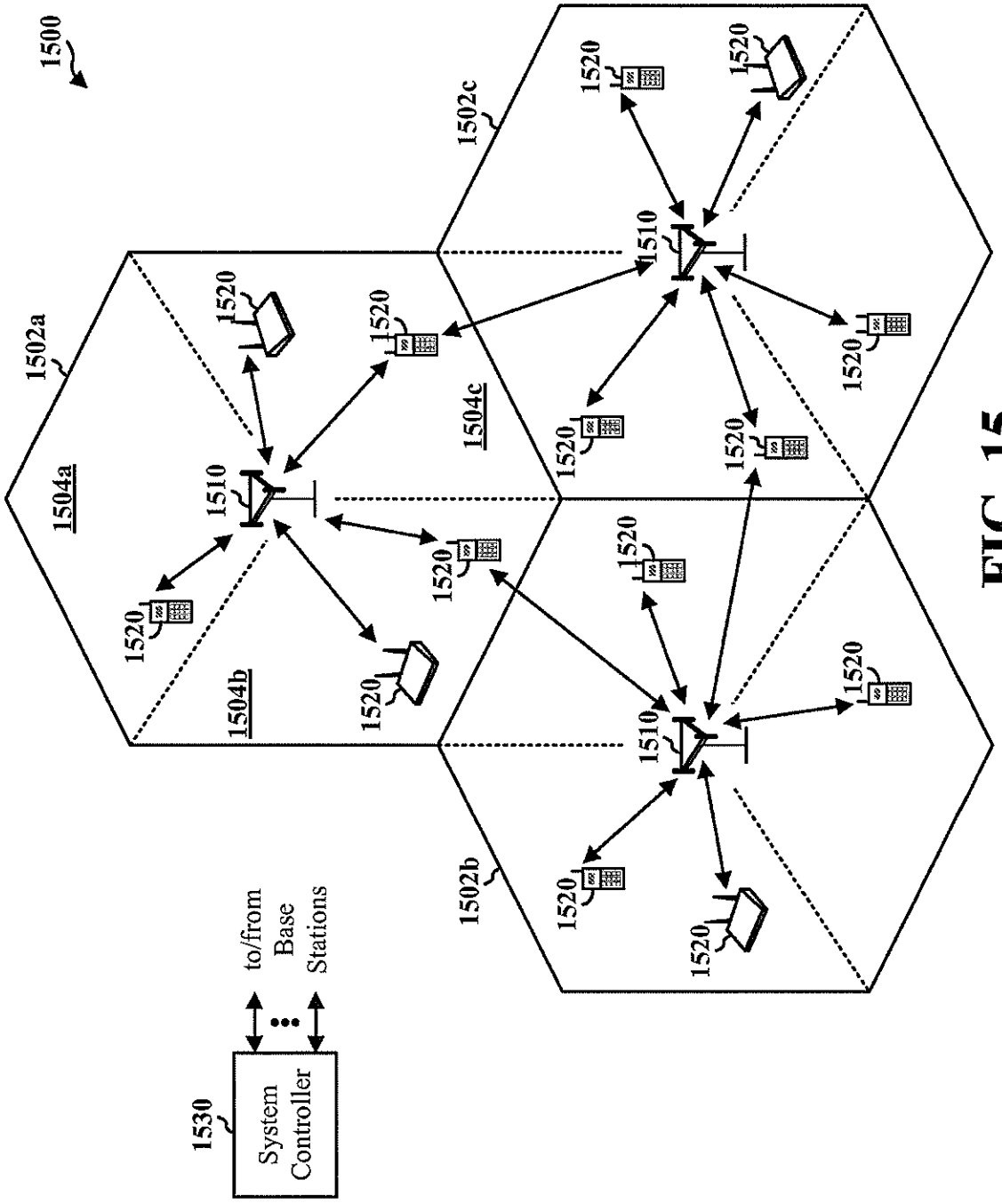

1500
1502a
1502b
1502c
1504a
1504b
1504c
1510
1520
1530
System Controller
to/from Base Stations

FIG. 15

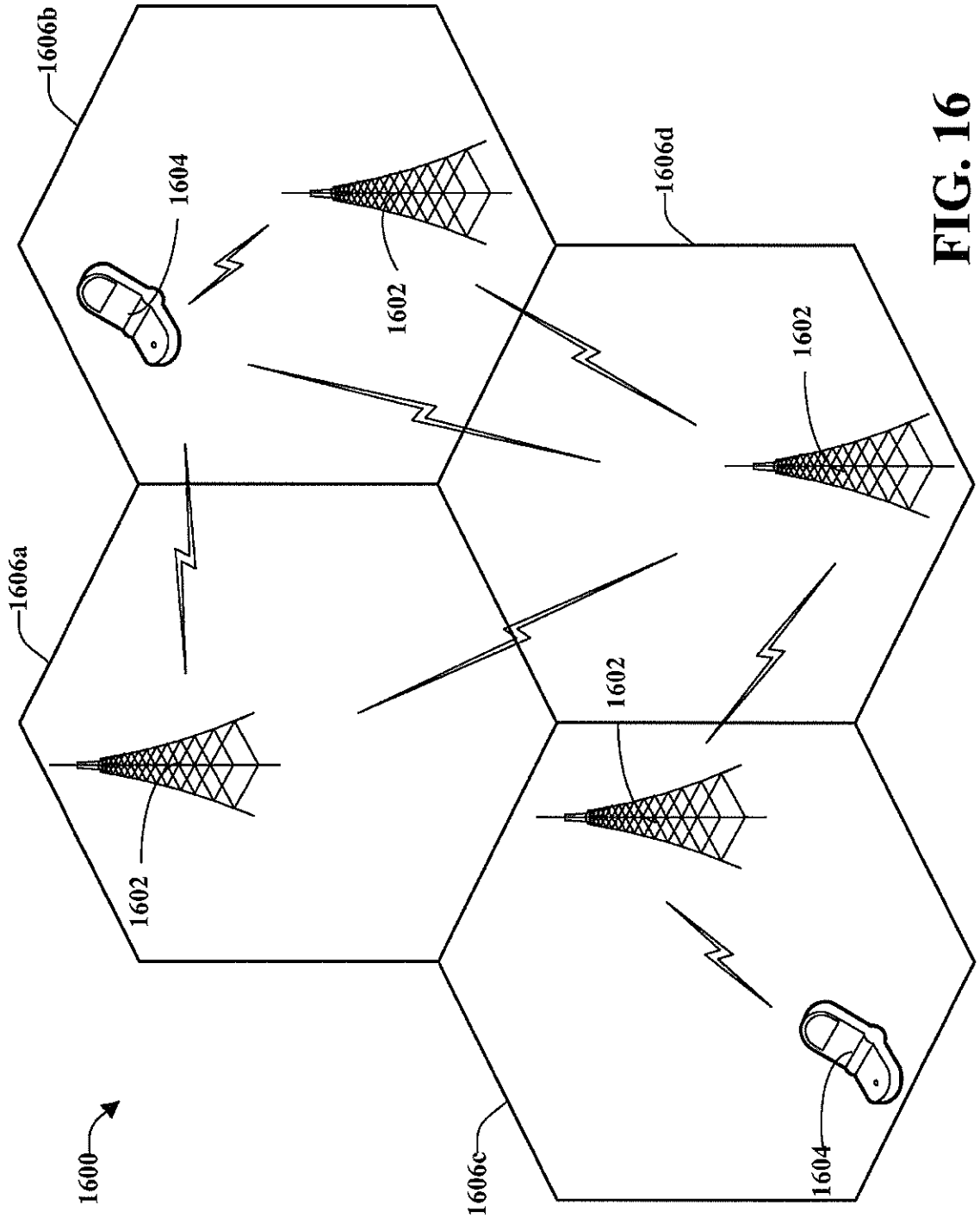


FIG. 16