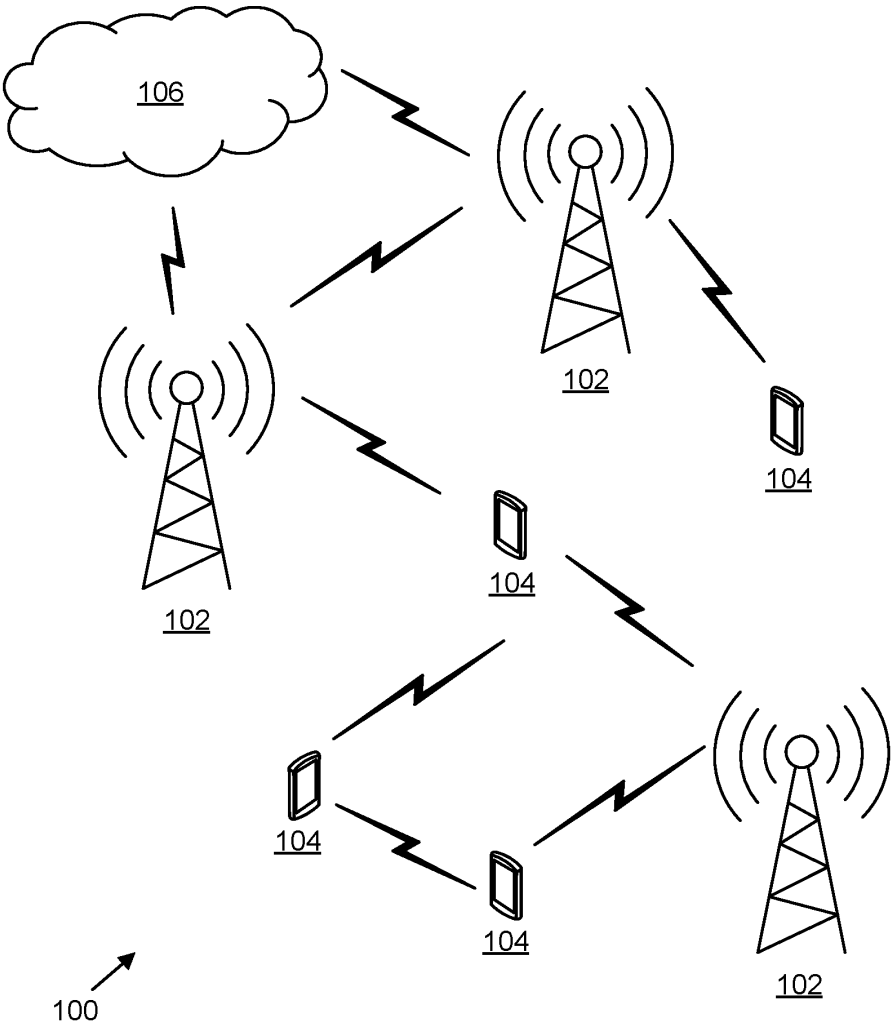


FIG. 1

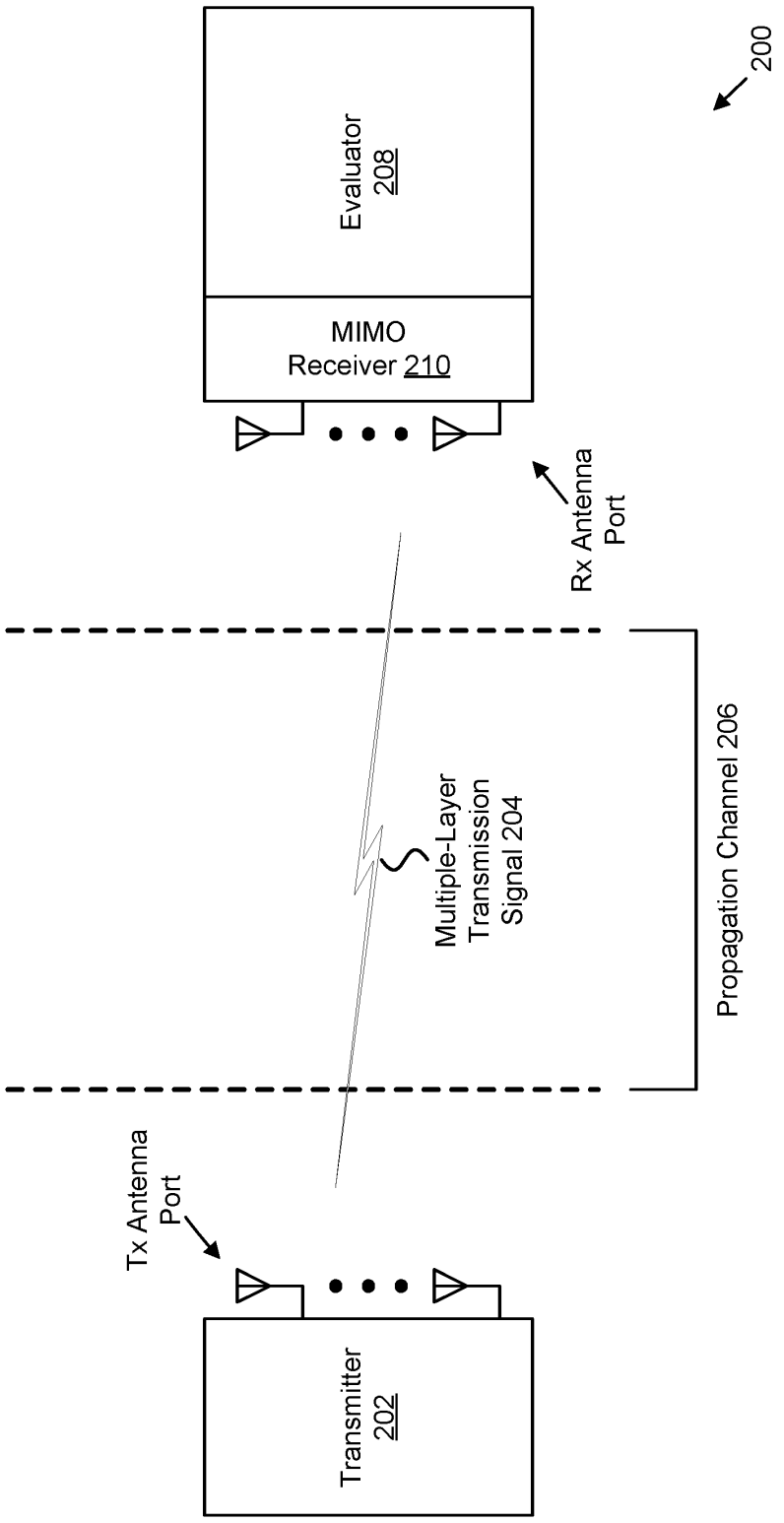
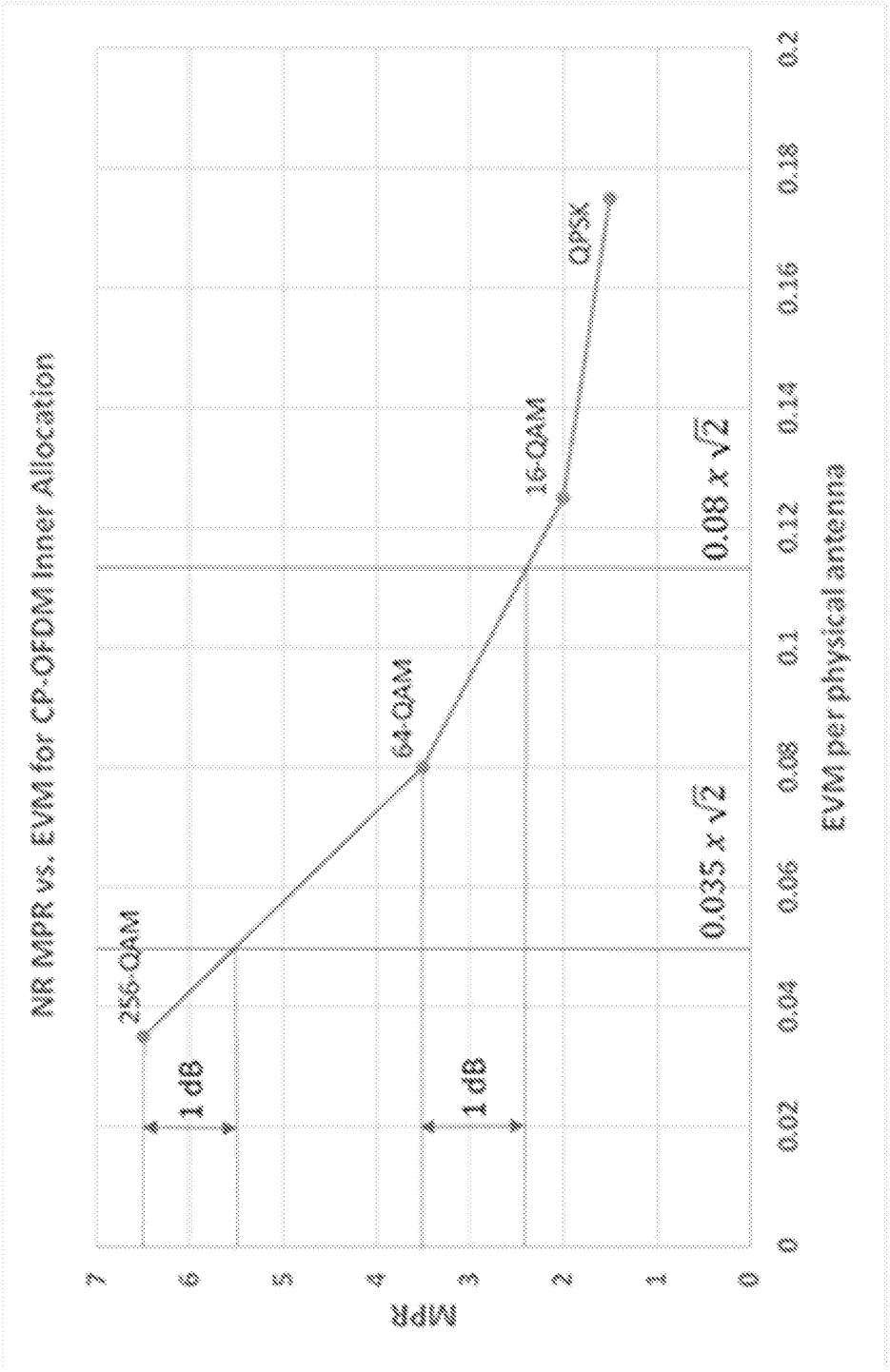

200
Evaluator 208
MIMO Receiver 210
Rx Antenna Port
Multiple-Layer Transmission Signal 204
Propagation Channel 206
Tx Antenna Port
Transmitter 202

FIG. 2


NR MPR vs. EVM for CP-OFDM Inner Allocation
MPR
EVM per physical antenna
256-QAM
64-QAM
16-QAM
QPSK
1 dB
1 dB
0.035 x √2
0.08 x √2
0
1
2
3
4
5
6
7
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
0.2

300

FIG. 3

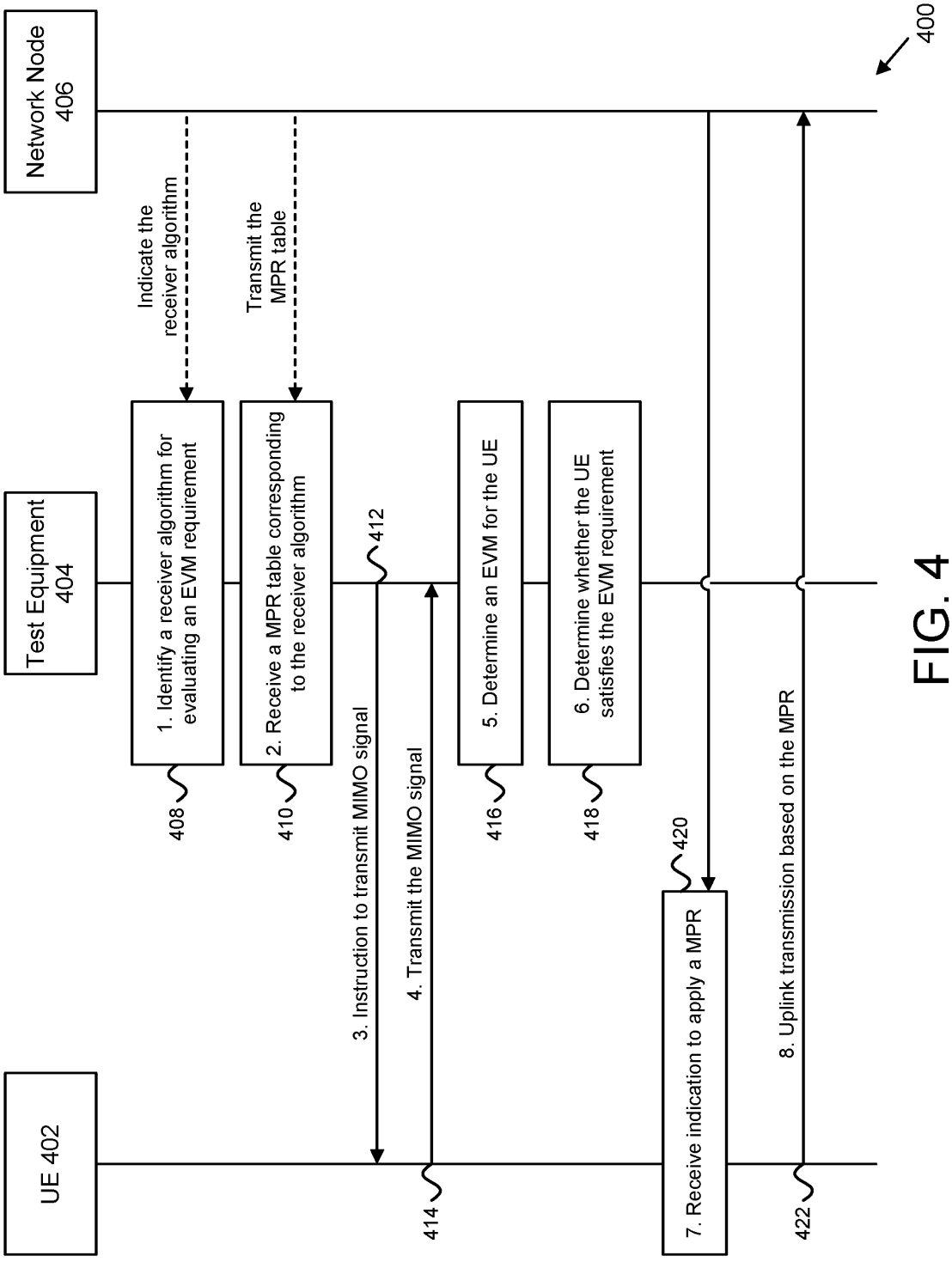

400
Network Node 406
Test Equipment 404
UE 402
Indicate the receiver algorithm
Transmit the MPR table
1. Identify a receiver algorithm for evaluating an EVM requirement
2. Receive a MPR table corresponding to the receiver algorithm
3. Instruction to transmit MIMO signal
4. Transmit the MIMO signal
5. Determine an EVM for the UE
6. Determine whether the UE satisfies the EVM requirement
7. Receive indication to apply a MPR
8. Uplink transmission based on the MPR
408
410
412
414
416
418
420
422

FIG. 4

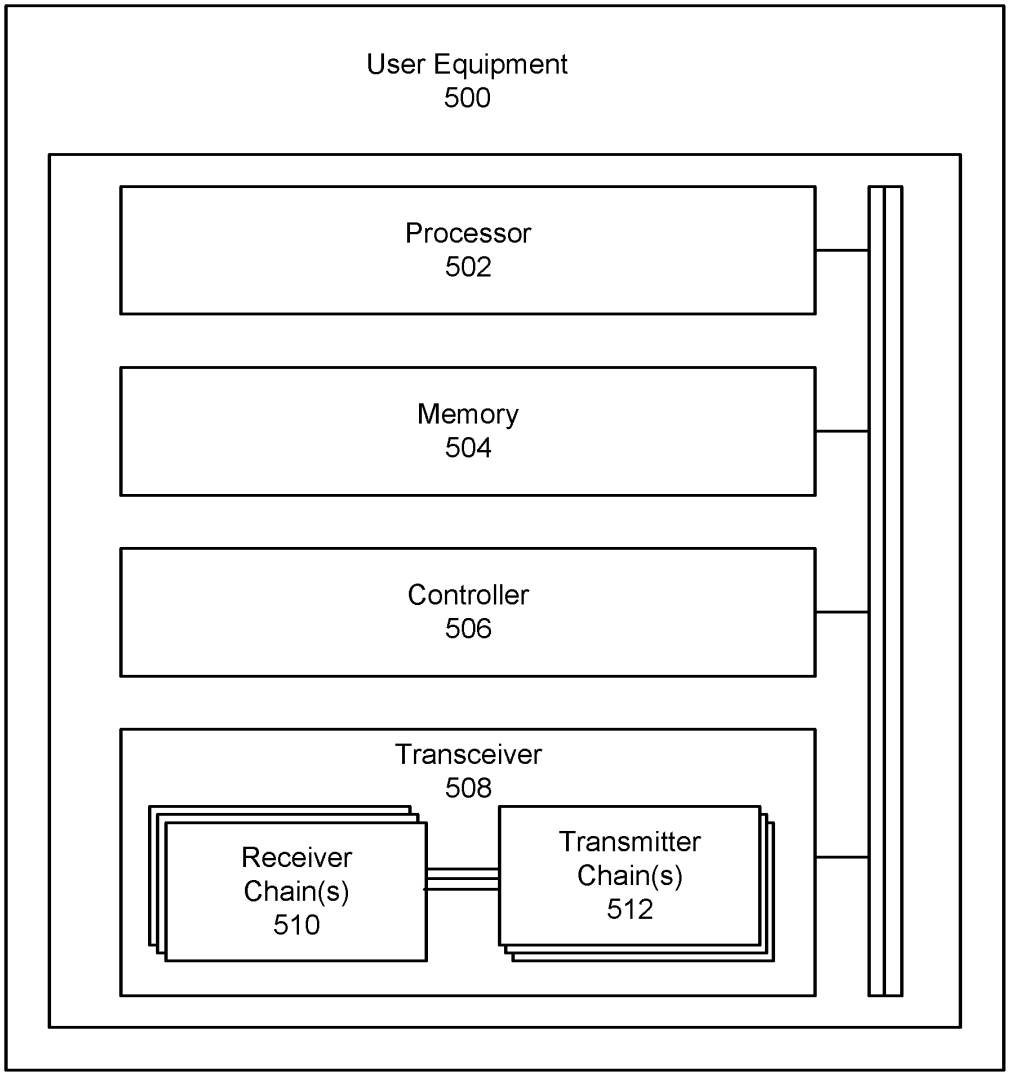

User Equipment
500
Processor
502
Memory
504
Controller
506
Transceiver
508
Receiver
Chain(s)
510
Transmitter
Chain(s)
512

FIG. 5

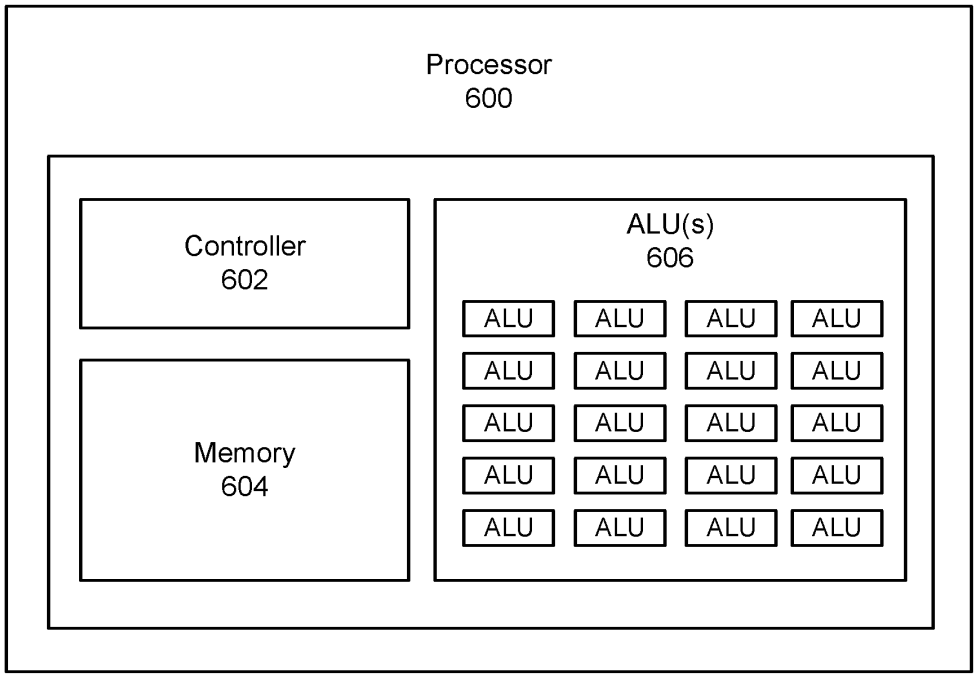

Processor
600
Controller
602
Memory
604
ALU(s)
606
ALU
ALU
ALU
ALU
ALU
ALU
ALU
ALU
ALU
ALU
ALU
ALU
ALU
ALU
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ALU

FIG. 6

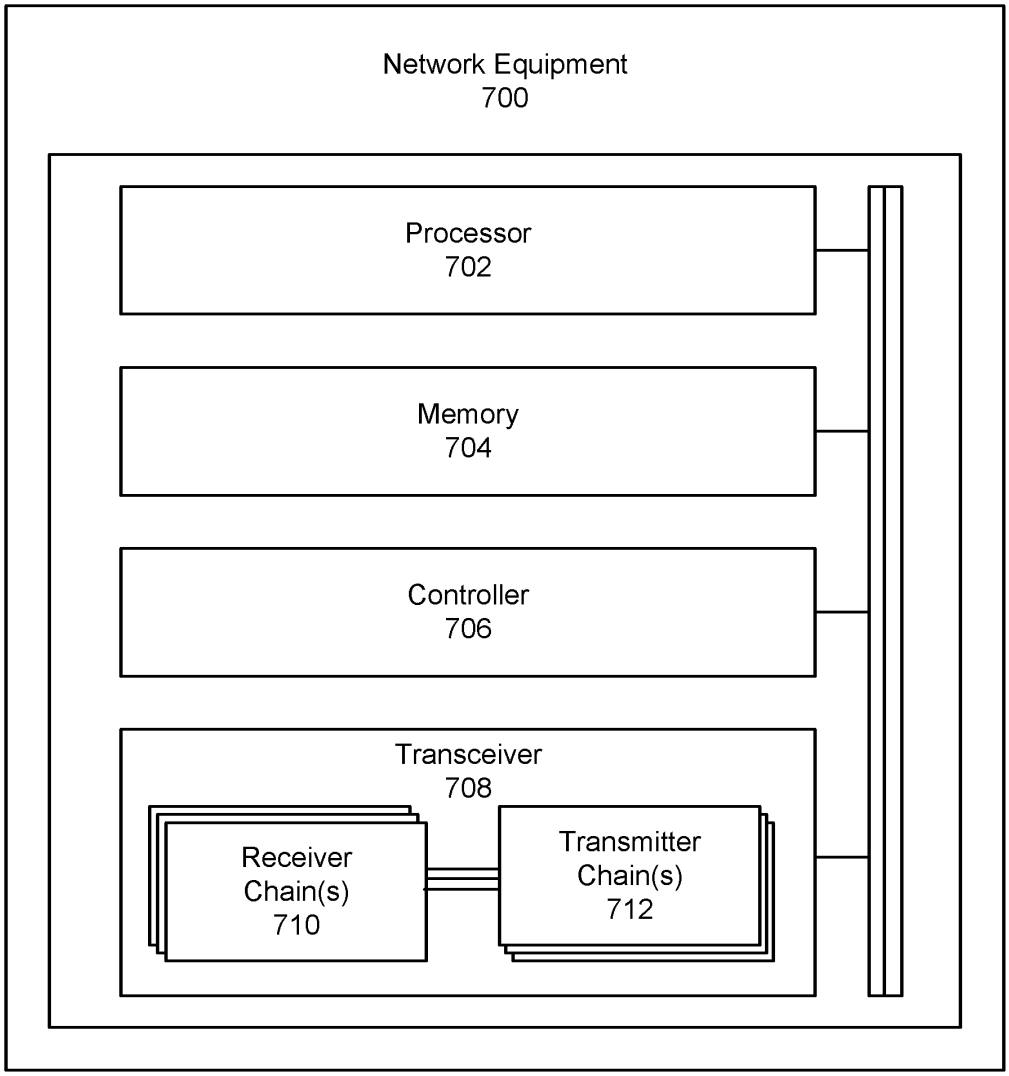

Network Equipment
700
Processor
702
Memory
704
Controller
706
Transceiver
708
Receiver
Chain(s)
710
Transmitter
Chain(s)
712

FIG. 7

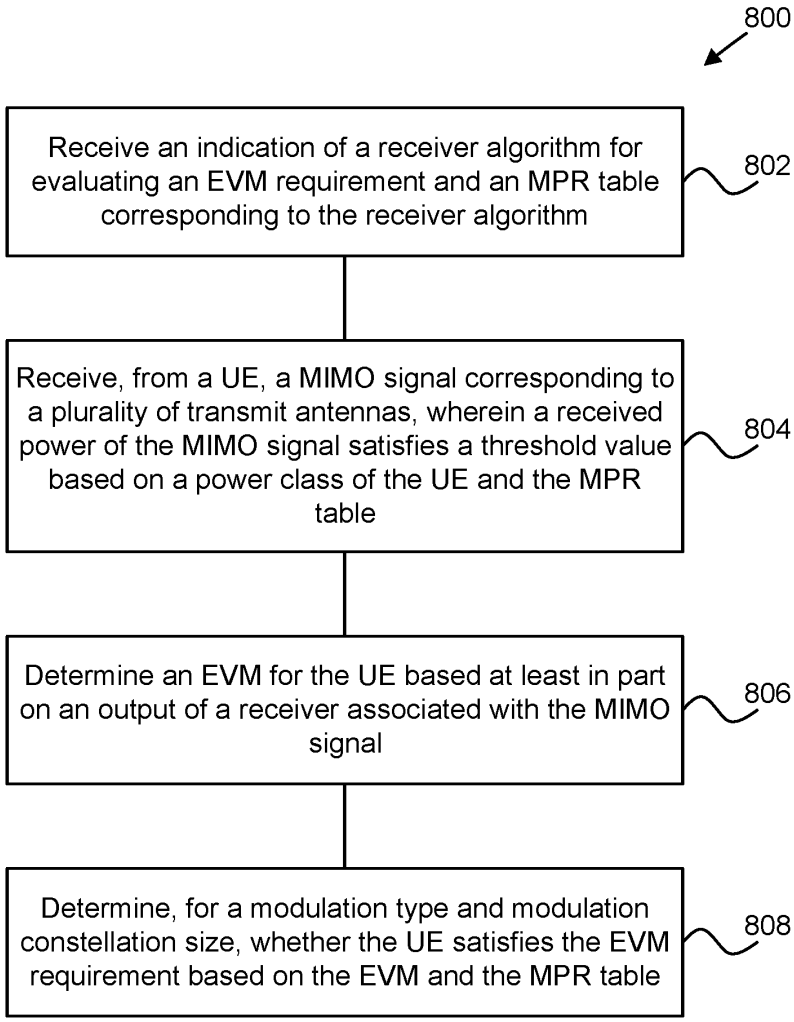

800
Receive an indication of a receiver algorithm for evaluating an EVM requirement and an MPR table corresponding to the receiver algorithm
802
Receive, from a UE, a MIMO signal corresponding to a plurality of transmit antennas, wherein a received power of the MIMO signal satisfies a threshold value based on a power class of the UE and the MPR table
804
Determine an EVM for the UE based at least in part on an output of a receiver associated with the MIMO signal
806
Determine, for a modulation type and modulation constellation size, whether the UE satisfies the EVM requirement based on the EVM and the MPR table
808

FIG. 8

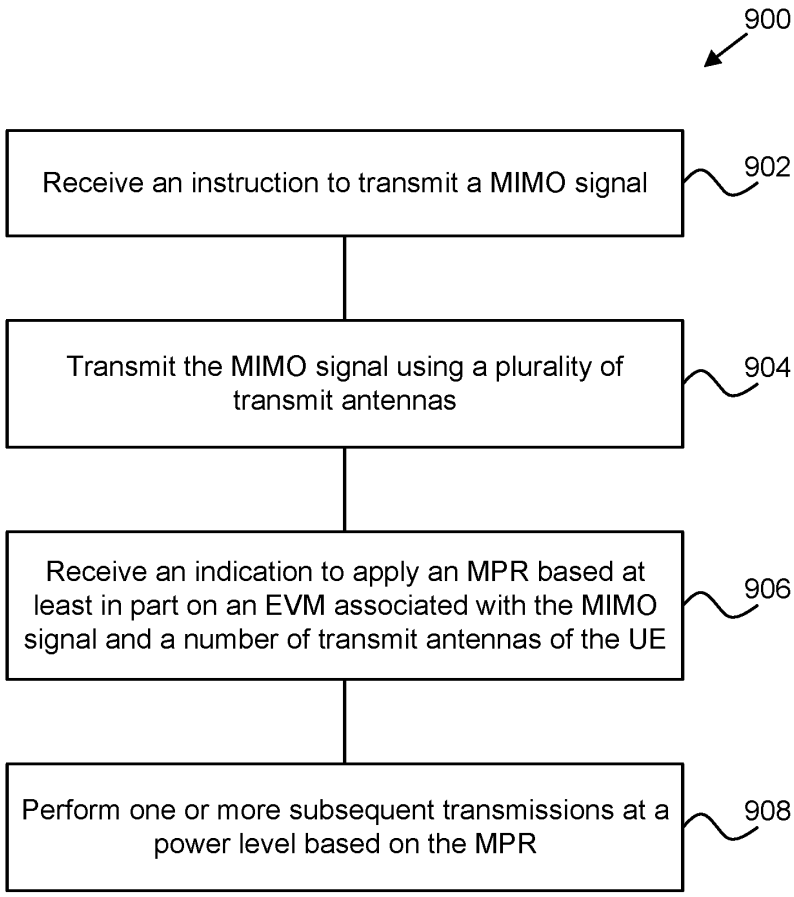

900
Receive an instruction to transmit a MIMO signal
902
Transmit the MIMO signal using a plurality of transmit antennas
904
Receive an indication to apply an MPR based at least in part on an EVM associated with the MIMO signal and a number of transmit antennas of the UE
906
Perform one or more subsequent transmissions at a power level based on the MPR
908

FIG. 9

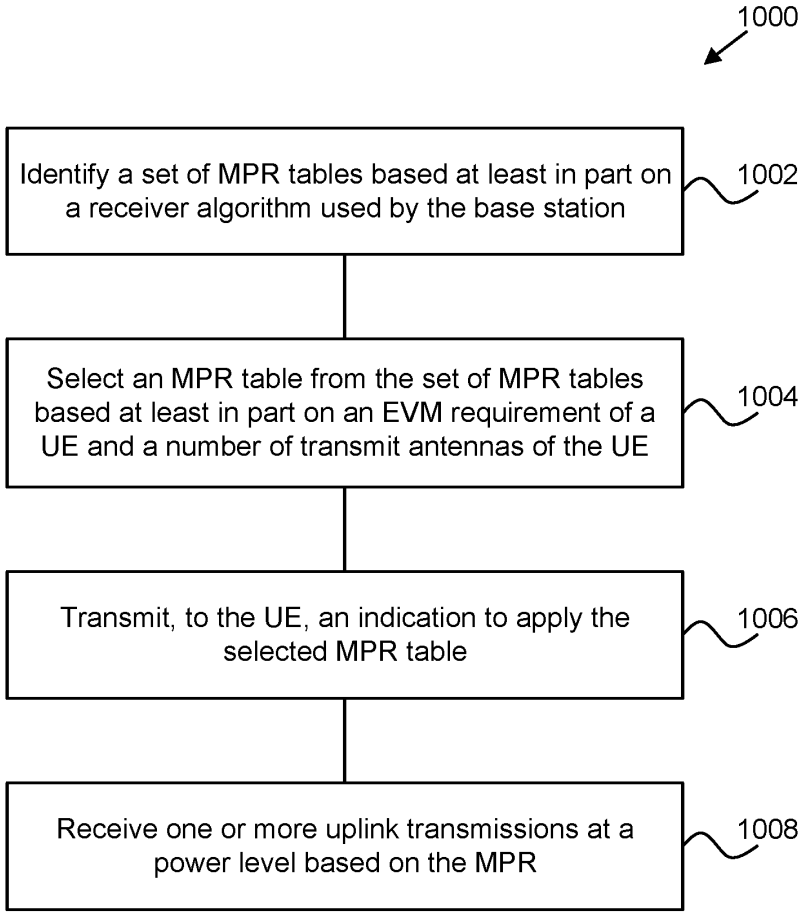

1000
Identify a set of MPR tables based at least in part on a receiver algorithm used by the base station
1002
Select an MPR table from the set of MPR tables based at least in part on an EVM requirement of a UE and a number of transmit antennas of the UE
1004
Transmit, to the UE, an indication to apply the selected MPR table
1006
Receive one or more uplink transmissions at a power level based on the MPR
1008

FIG. 10