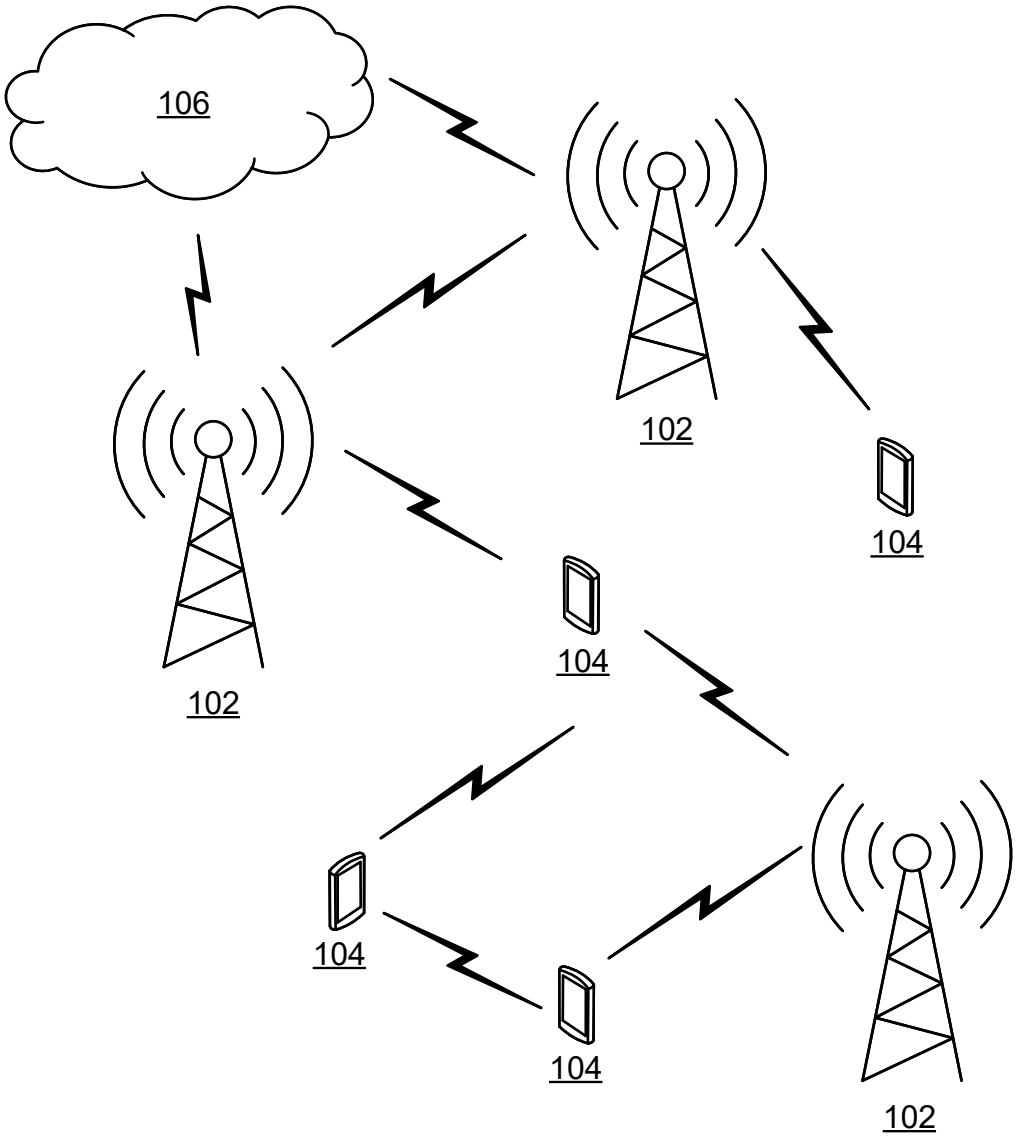


FIG. 1

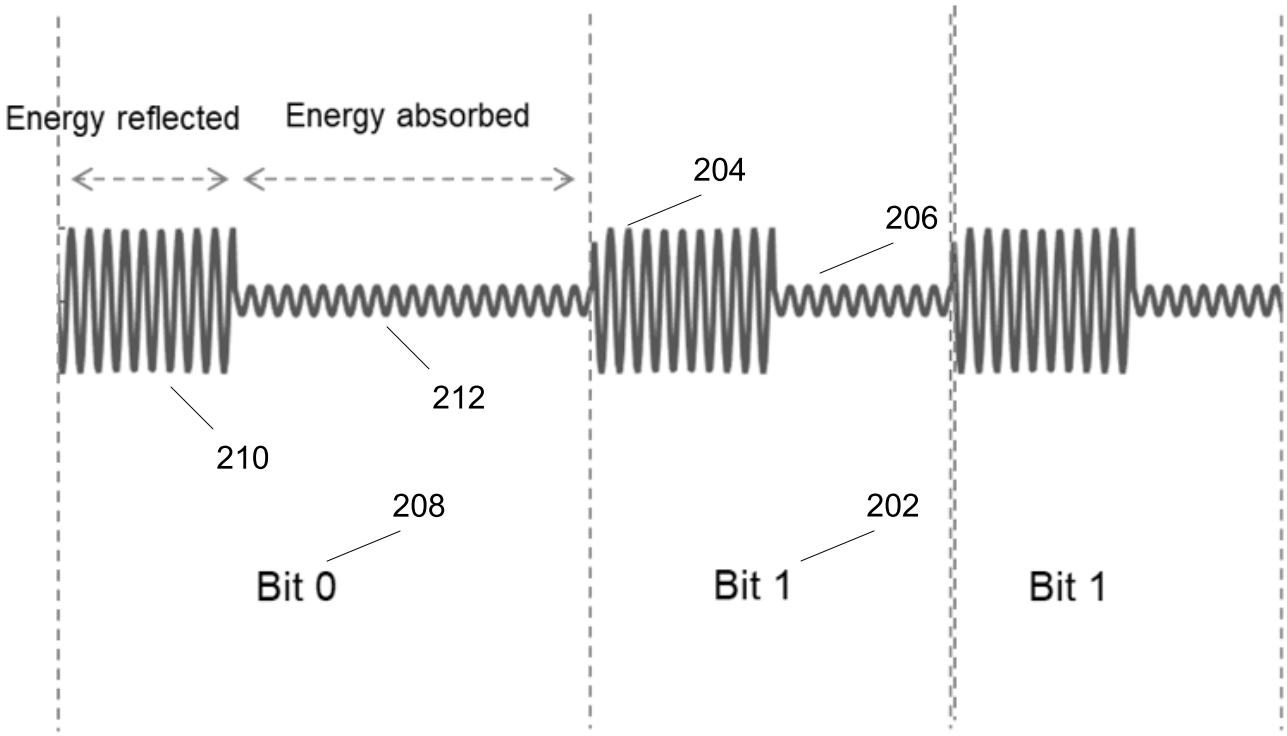

Energy reflected
Energy absorbed
204
206
212
210
208
202
Bit 0
Bit 1
Bit 1

FIG. 2

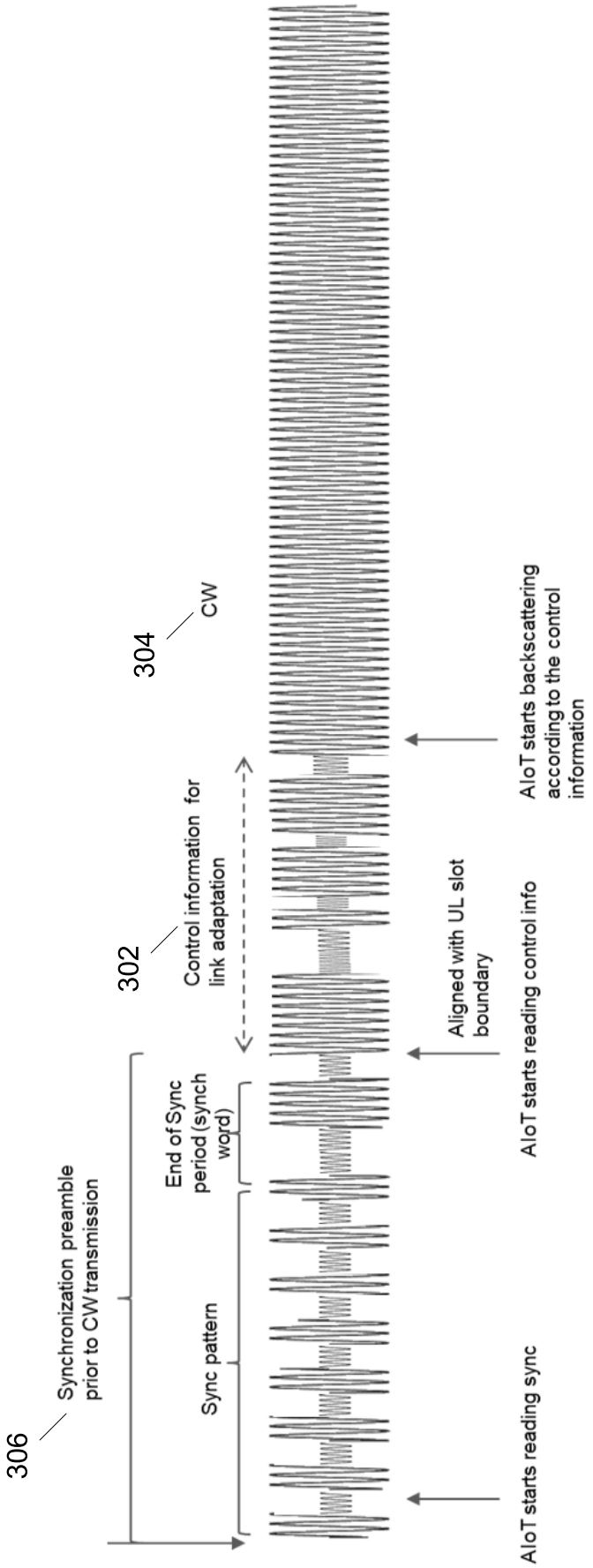

306
Synchronization preamble prior to CW transmission
Sync pattern
End of Sync period (synch word)
302
Control information for link adaptation
304
CW
AIoT starts reading sync
AIoT starts reading control info
Aligned with UL slot boundary
AIoT starts backscattering according to the control information

FIG. 3

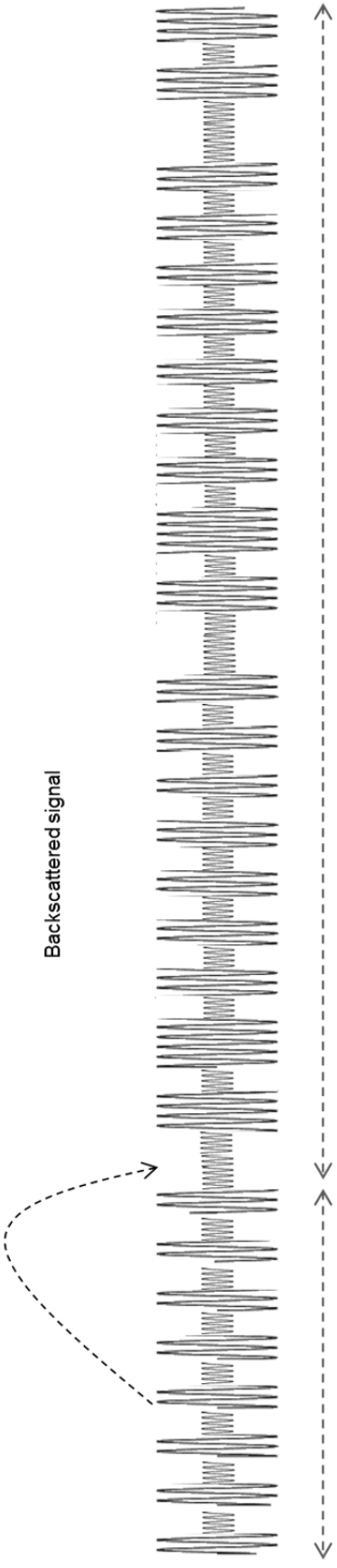

Backscattered signal
Indication of the selected coding/modulation scheme (modulated and encoded with pre-defined scheme known by BS)
Data (encoded/modulated with the autonomously selected scheme by AIoT)
402
404

FIG. 4

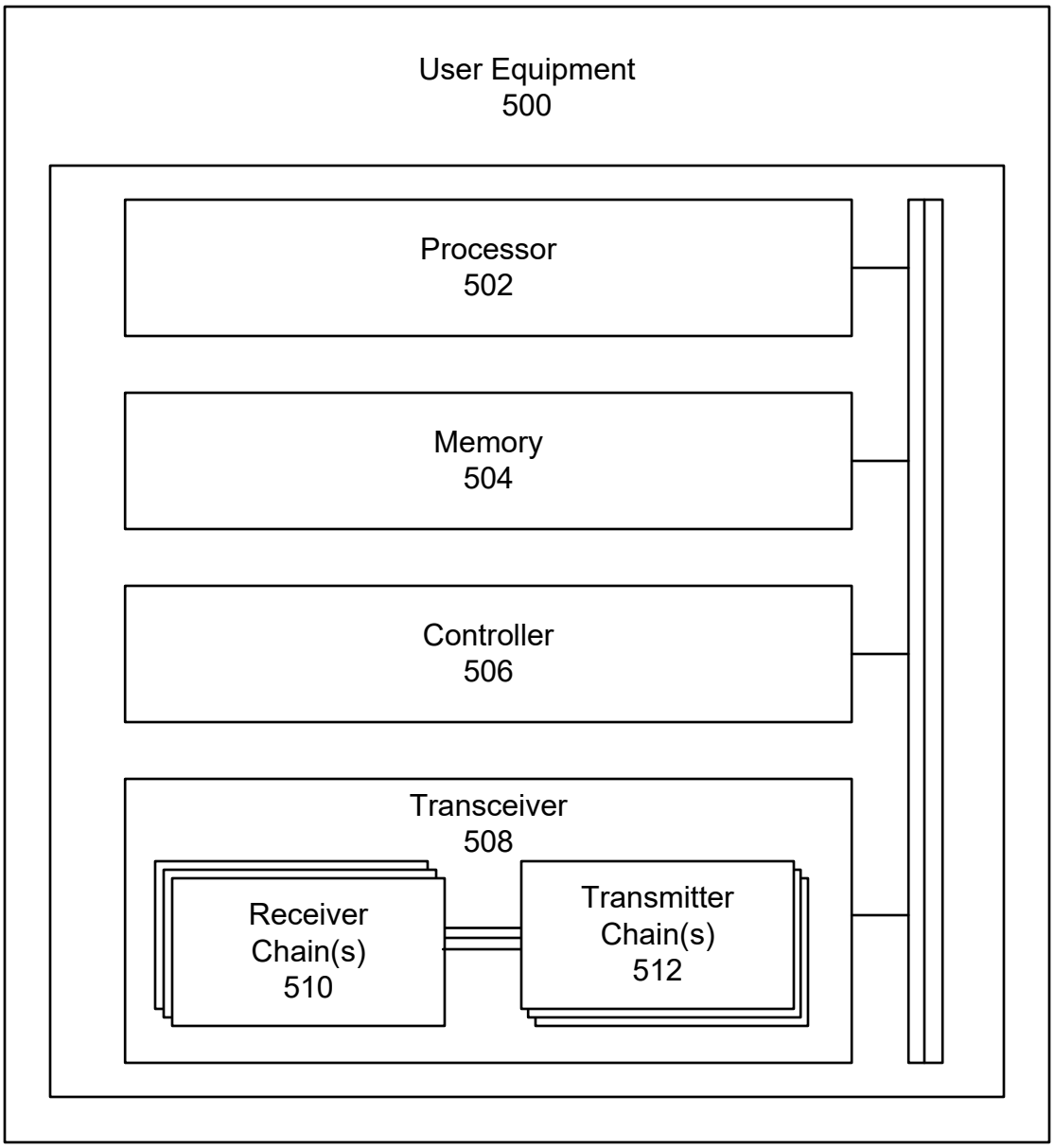

User Equipment
500
Processor
502
Memory
504
Controller
506
Transceiver
508
Receiver
Chain(s)
510
Transmitter
Chain(s)
512

FIG. 5

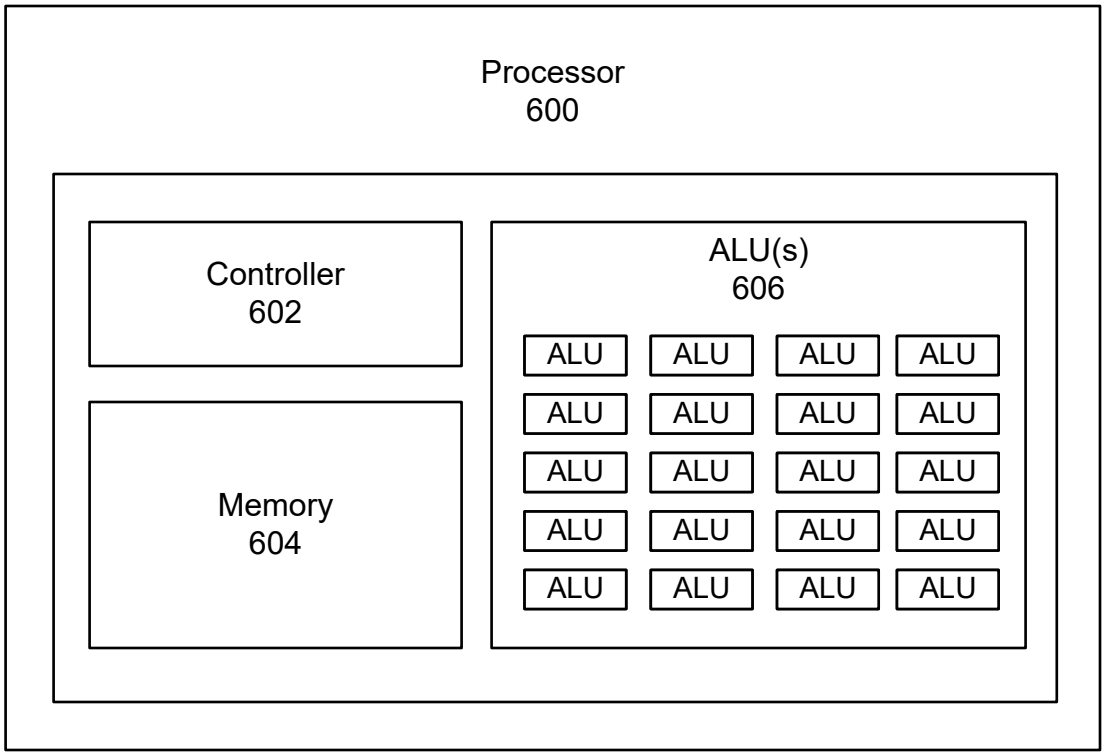

Processor
600
Controller
602
Memory
604
ALU(s)
606
ALU
ALU
ALU
ALU
ALU
ALU
ALU
ALU
ALU
ALU
ALU
ALU
ALU
ALU
ALU
ALU
ALU
ALU
ALU
ALU

FIG. 6

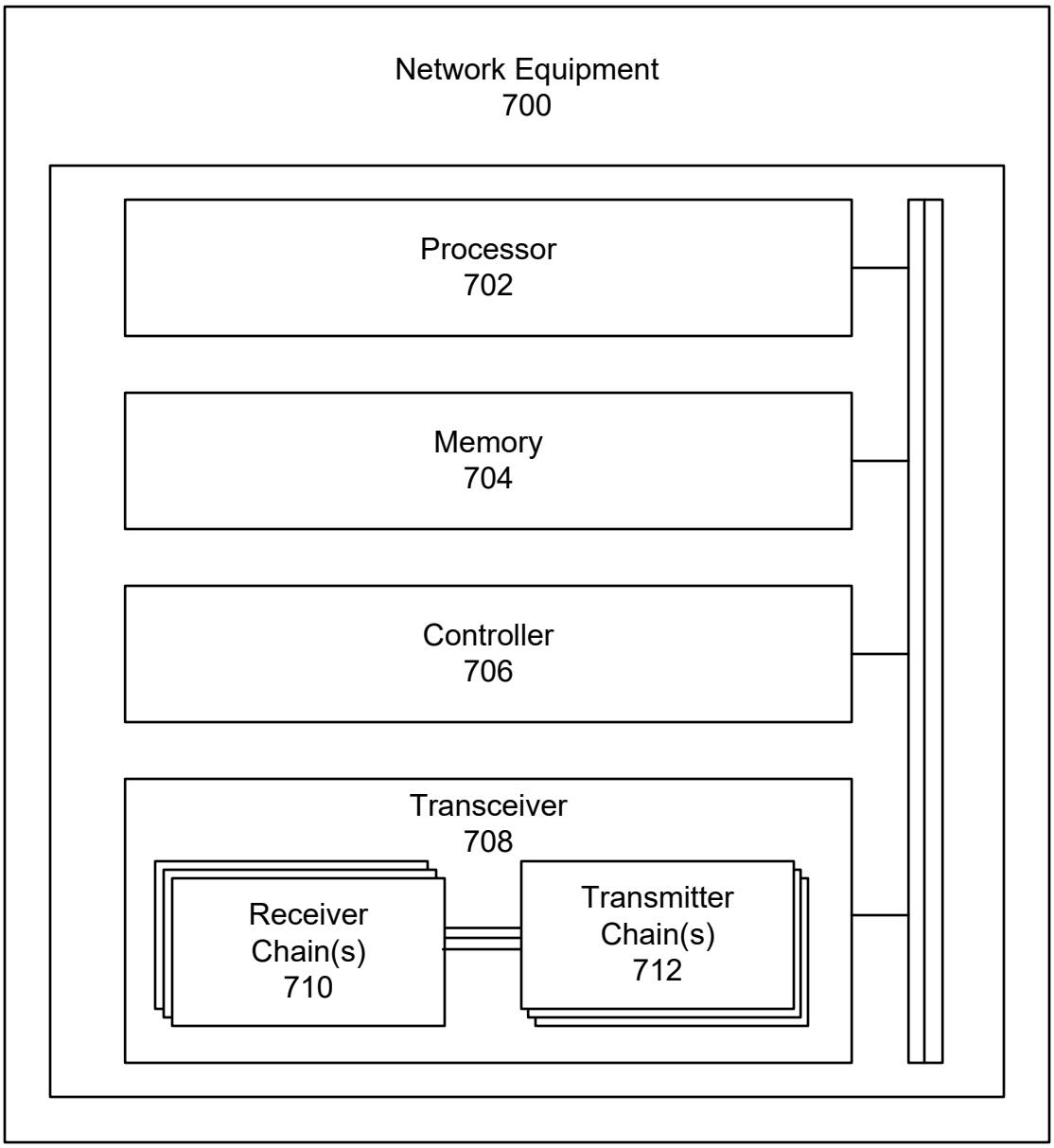

Network Equipment
700
Processor
702
Memory
704
Controller
706
Transceiver
708
Receiver
Chain(s)
710
Transmitter
Chain(s)
712

FIG. 7

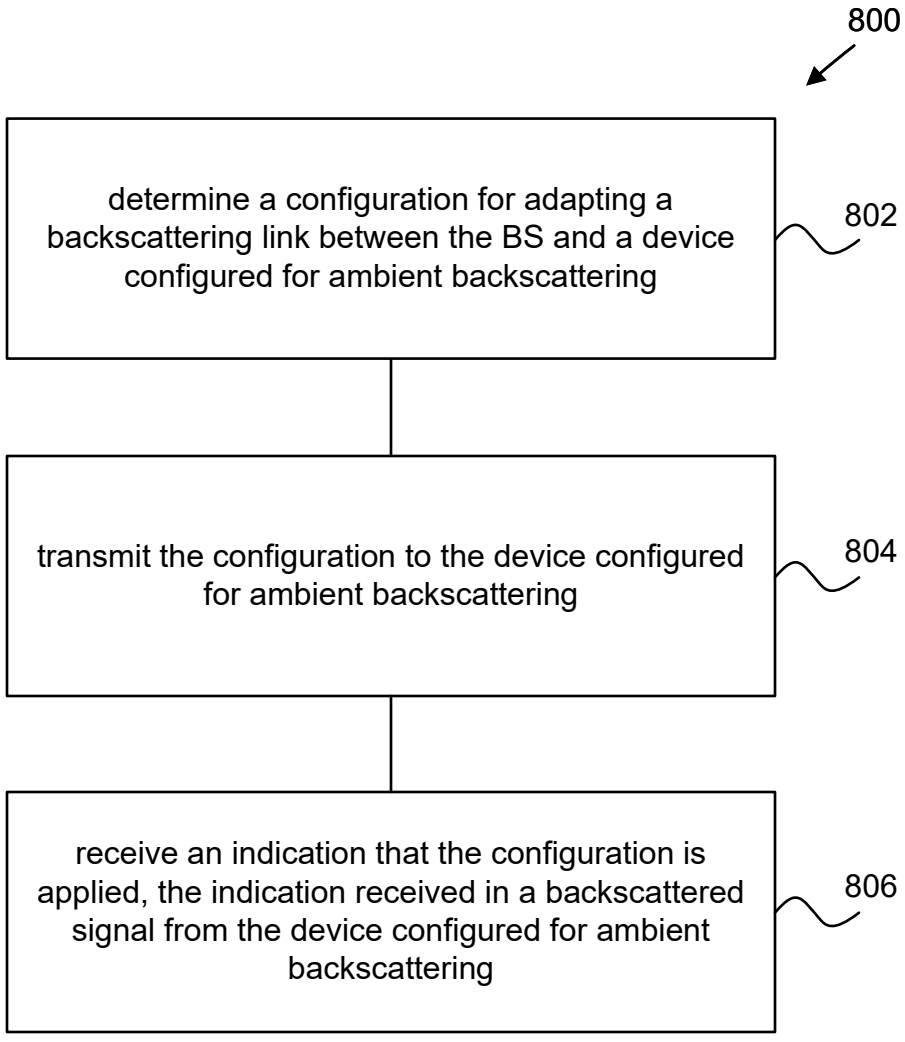

800
determine a configuration for adapting a backscattering link between the BS and a device configured for ambient backscattering
802
transmit the configuration to the device configured for ambient backscattering
804
receive an indication that the configuration is applied, the indication received in a backscattered signal from the device configured for ambient backscattering
806

FIG. 8

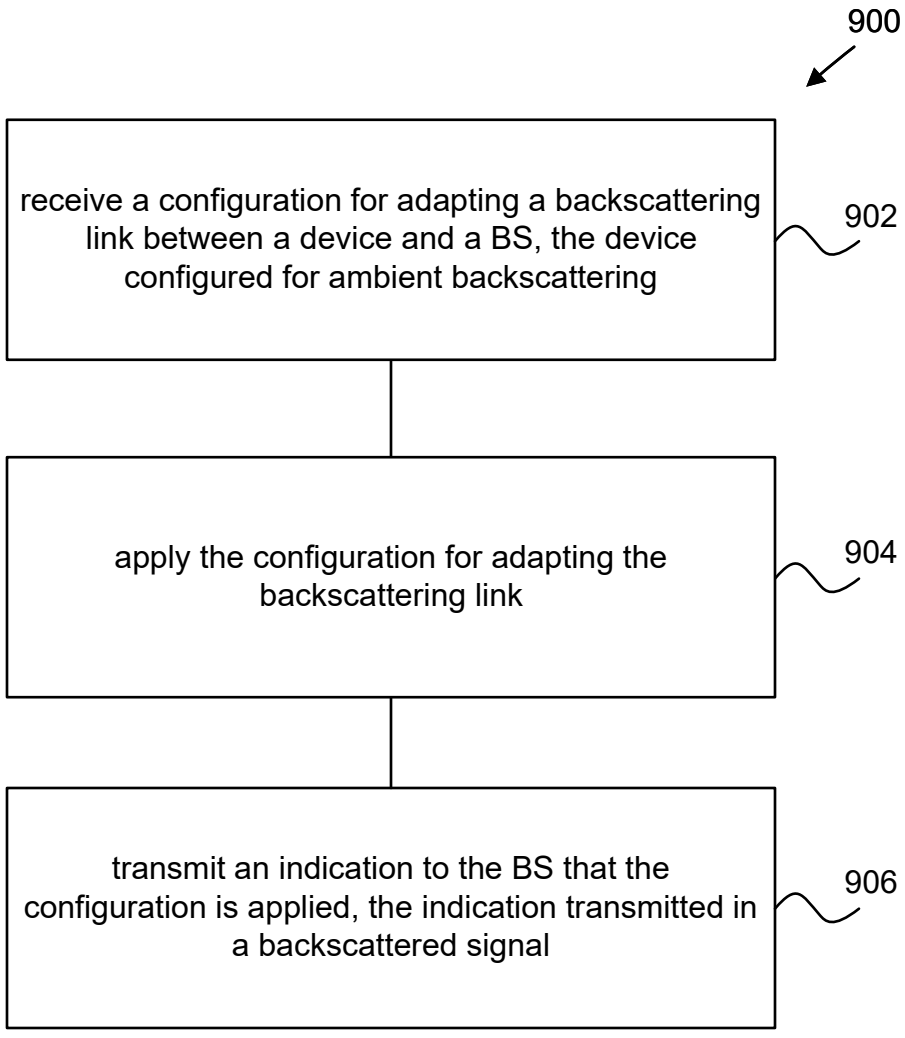

900
receive a configuration for adapting a backscattering link between a device and a BS, the device configured for ambient backscattering
902
apply the configuration for adapting the backscattering link
904
transmit an indication to the BS that the configuration is applied, the indication transmitted in a backscattered signal
906

FIG. 9

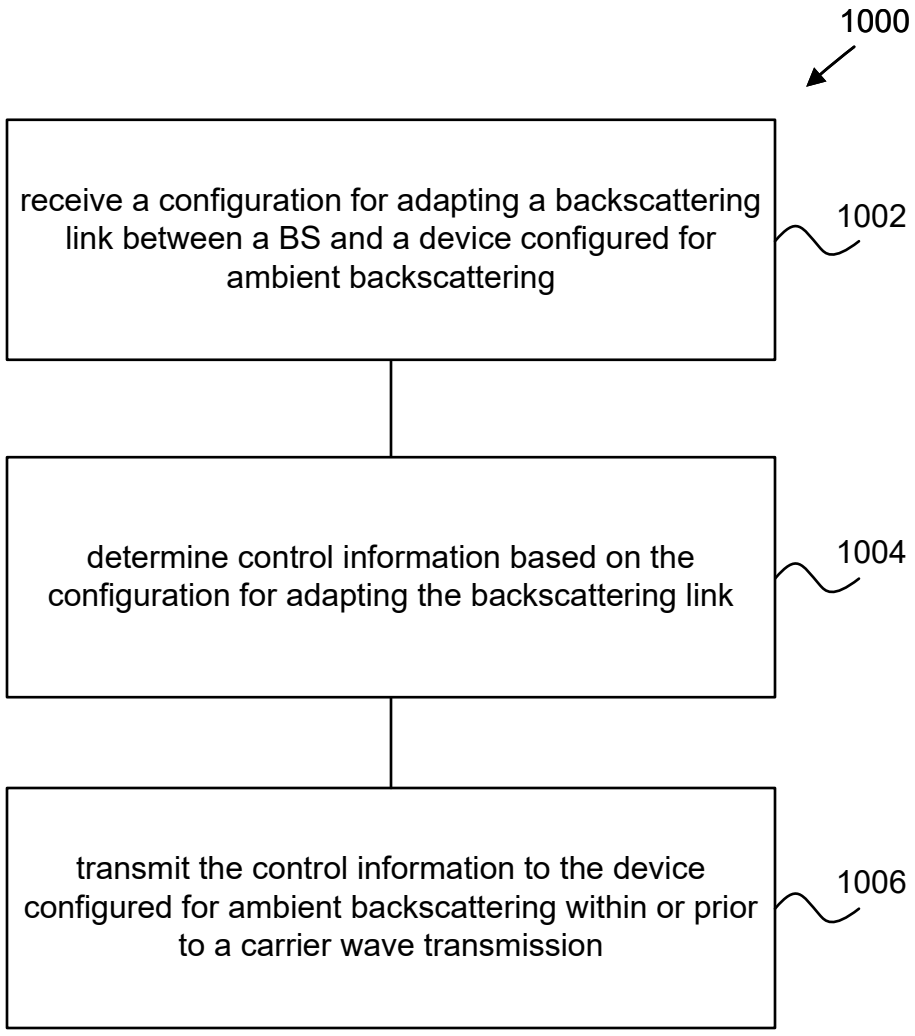

1000
receive a configuration for adapting a backscattering link between a BS and a device configured for ambient backscattering
1002
determine control information based on the configuration for adapting the backscattering link
1004
transmit the control information to the device configured for ambient backscattering within or prior to a carrier wave transmission
1006

FIG. 10