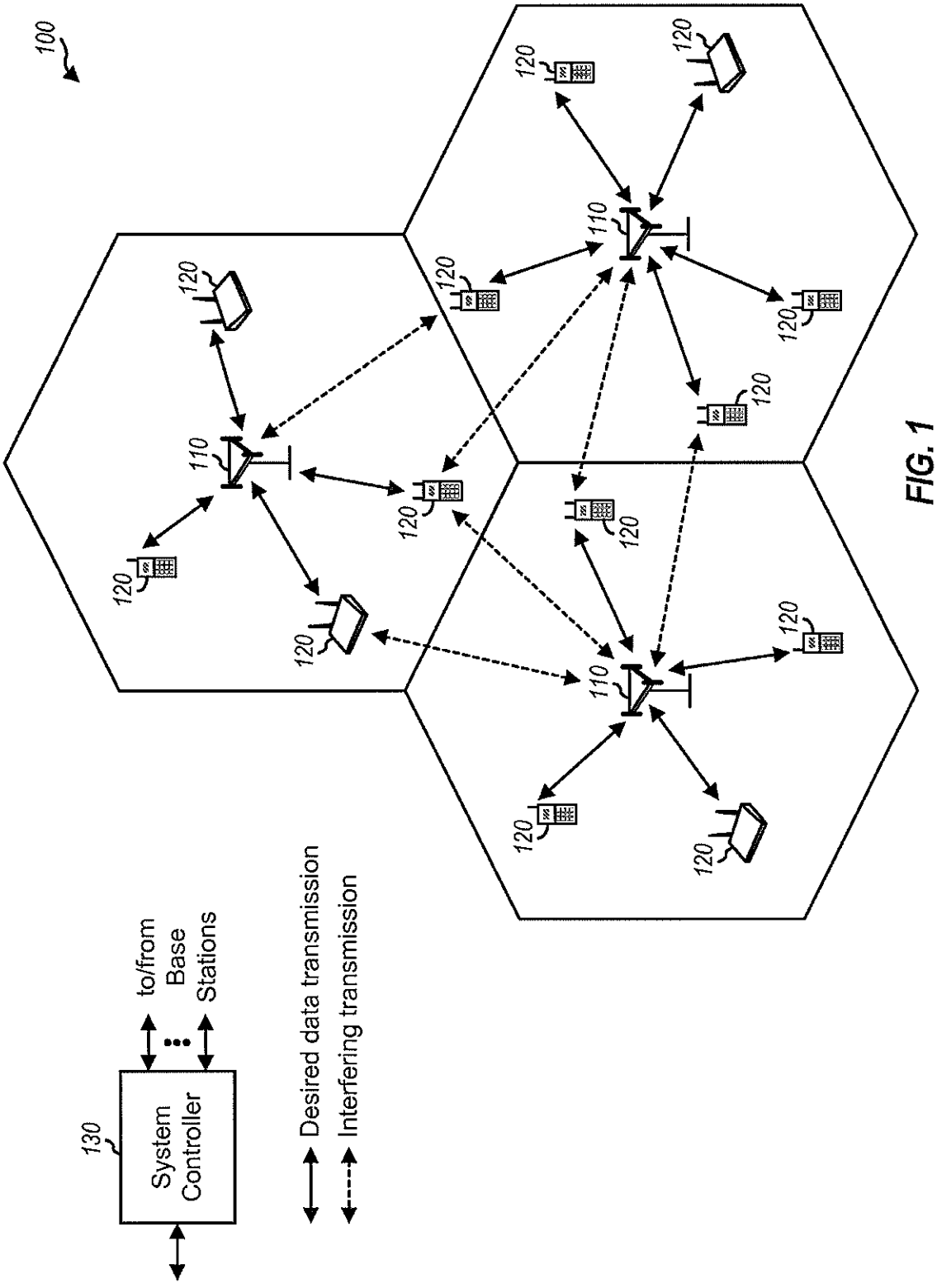

100
110
120
130
System Controller
to/from Base Stations
Desired data transmission
Interfering transmission

FIG. 1

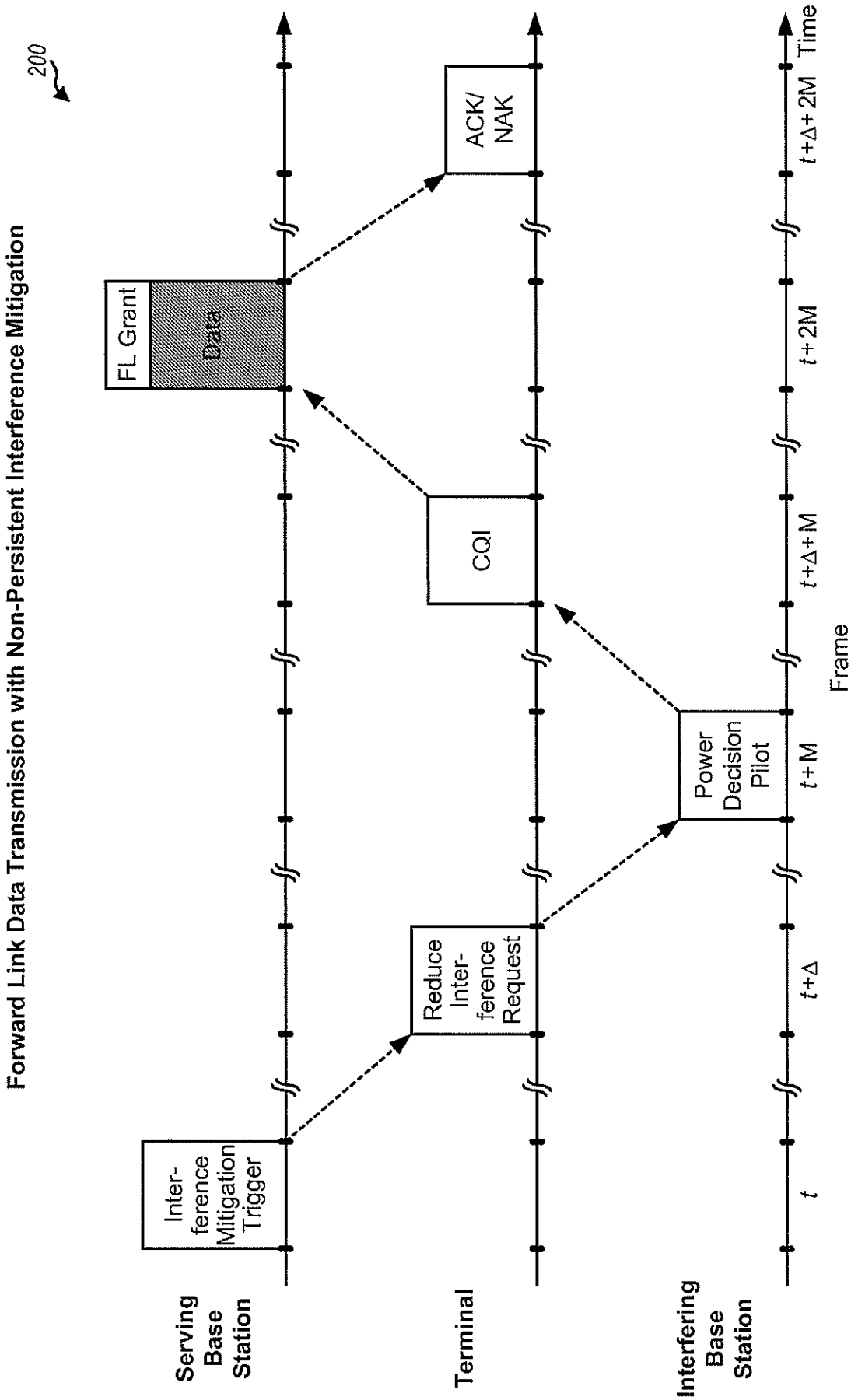

200
Forward Link Data Transmission with Non-Persistent Interference Mitigation
Serving Base Station
Terminal
Interfering Base Station
Inter-ference Mitigation Trigger
Reduce Inter-ference Request
Power Decision Pilot
FL Grant
Data
CQI
ACK/ NAK
t
t+Δ
t+M
t+2M
t+Δ+M
t+Δ+2M
Frame
Time

FIG. 2

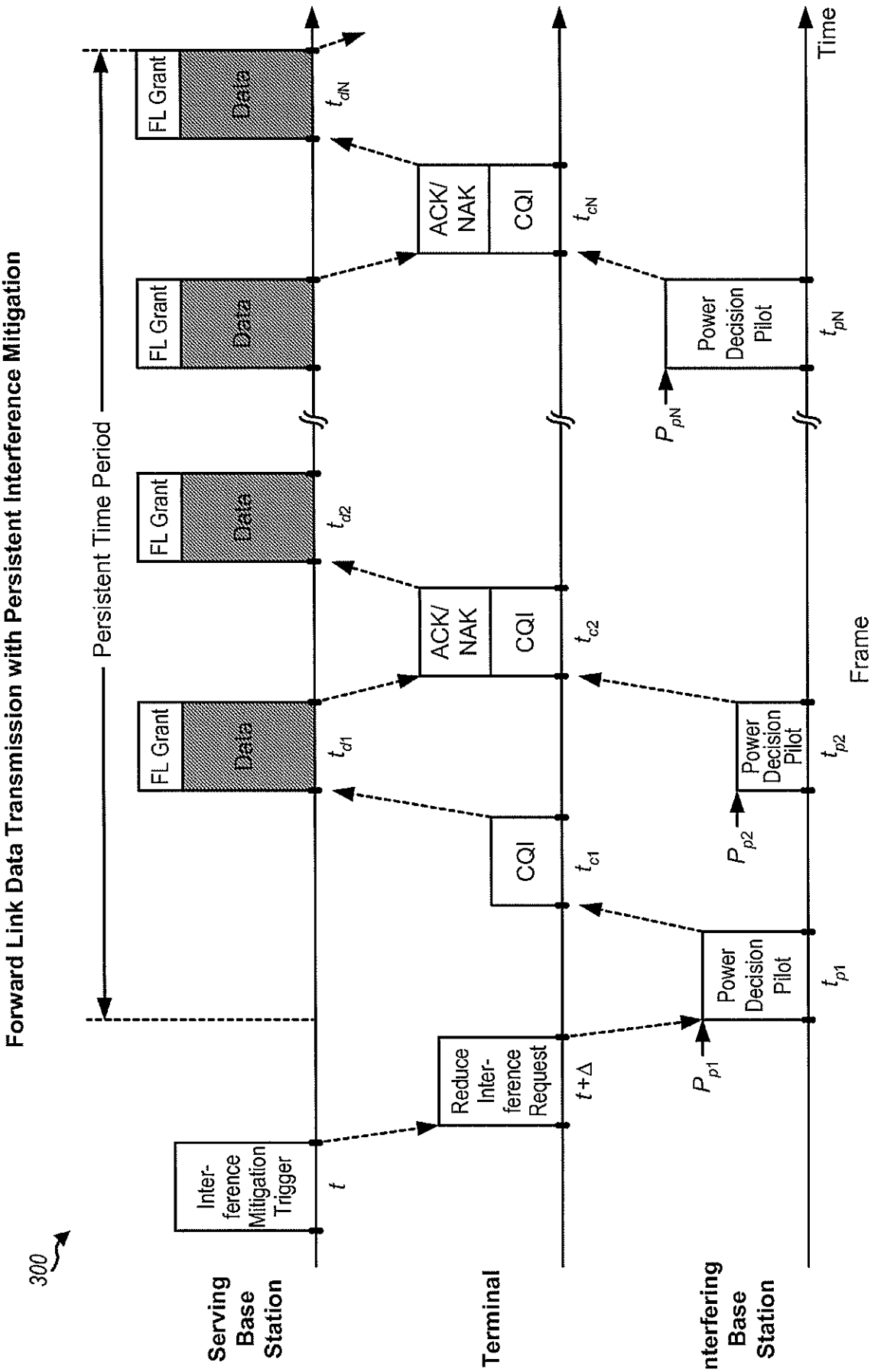

Forward Link Data Transmission with Persistent Interference Mitigation
300
Serving Base Station
Terminal
Interfering Base Station
Time
Frame
Persistent Time Period
Inter-ference Mitigation Trigger
Reduce Inter-ference Request
FL Grant
Data
ACK/ NAK
CQI
Power Decision Pilot
t
t+Δ
t_{c1}
t_{c2}
t_{cN}
t_{d1}
t_{d2}
t_{dN}
t_{p1}
t_{p2}
t_{pN}
P_{p1}
P_{p2}
P_{pN}

FIG. 3

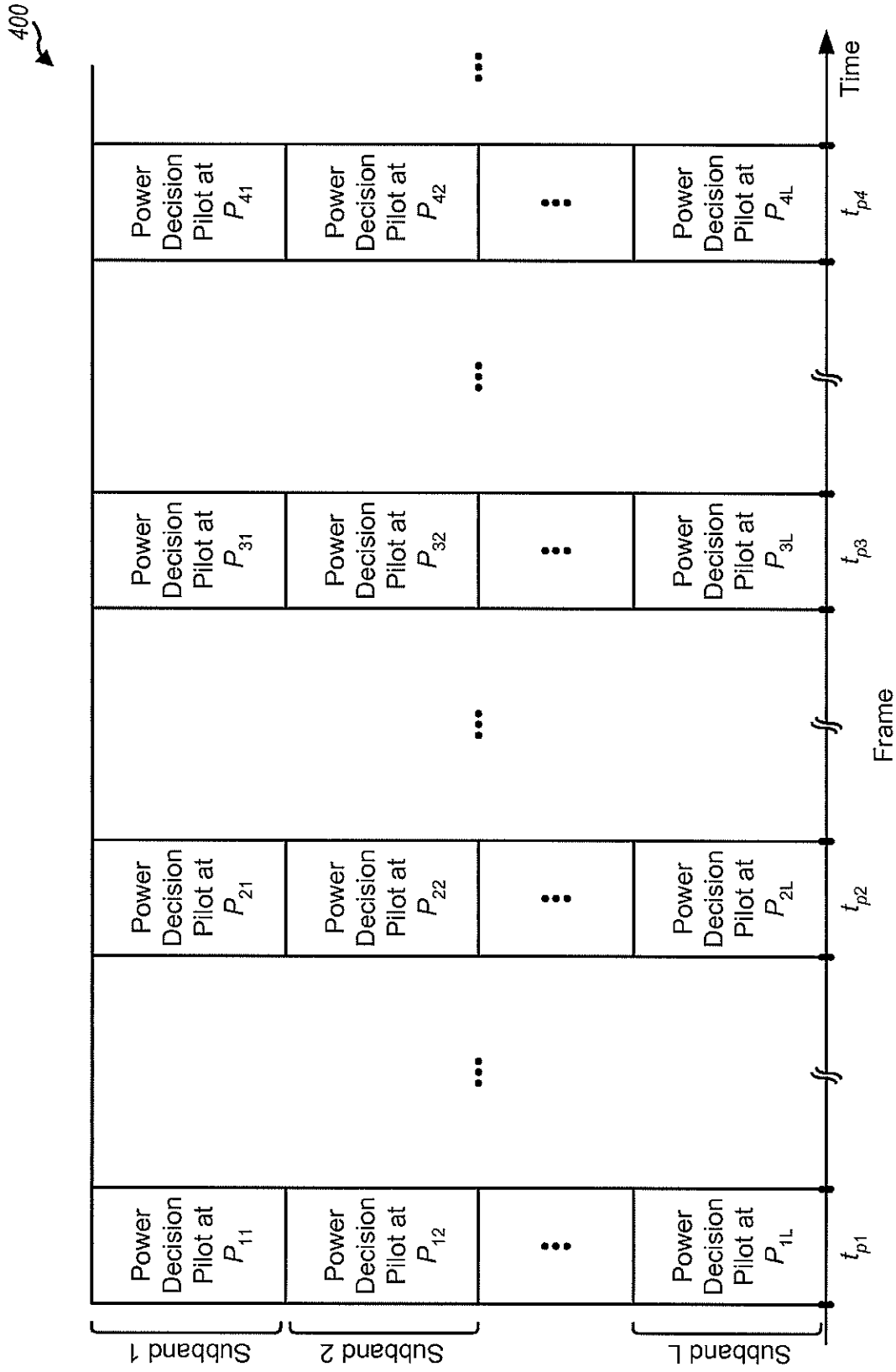

400
Power Decision Pilot at P_{11}
Power Decision Pilot at P_{12}
Power Decision Pilot at P_{1L}
Power Decision Pilot at P_{21}
Power Decision Pilot at P_{22}
Power Decision Pilot at P_{2L}
Power Decision Pilot at P_{31}
Power Decision Pilot at P_{32}
Power Decision Pilot at P_{3L}
Power Decision Pilot at P_{41}
Power Decision Pilot at P_{42}
Power Decision Pilot at P_{4L}
t_{p1}
t_{p2}
t_{p3}
t_{p4}
Time
Frame
Subband 1
Subband 2
Subband L

FIG. 4

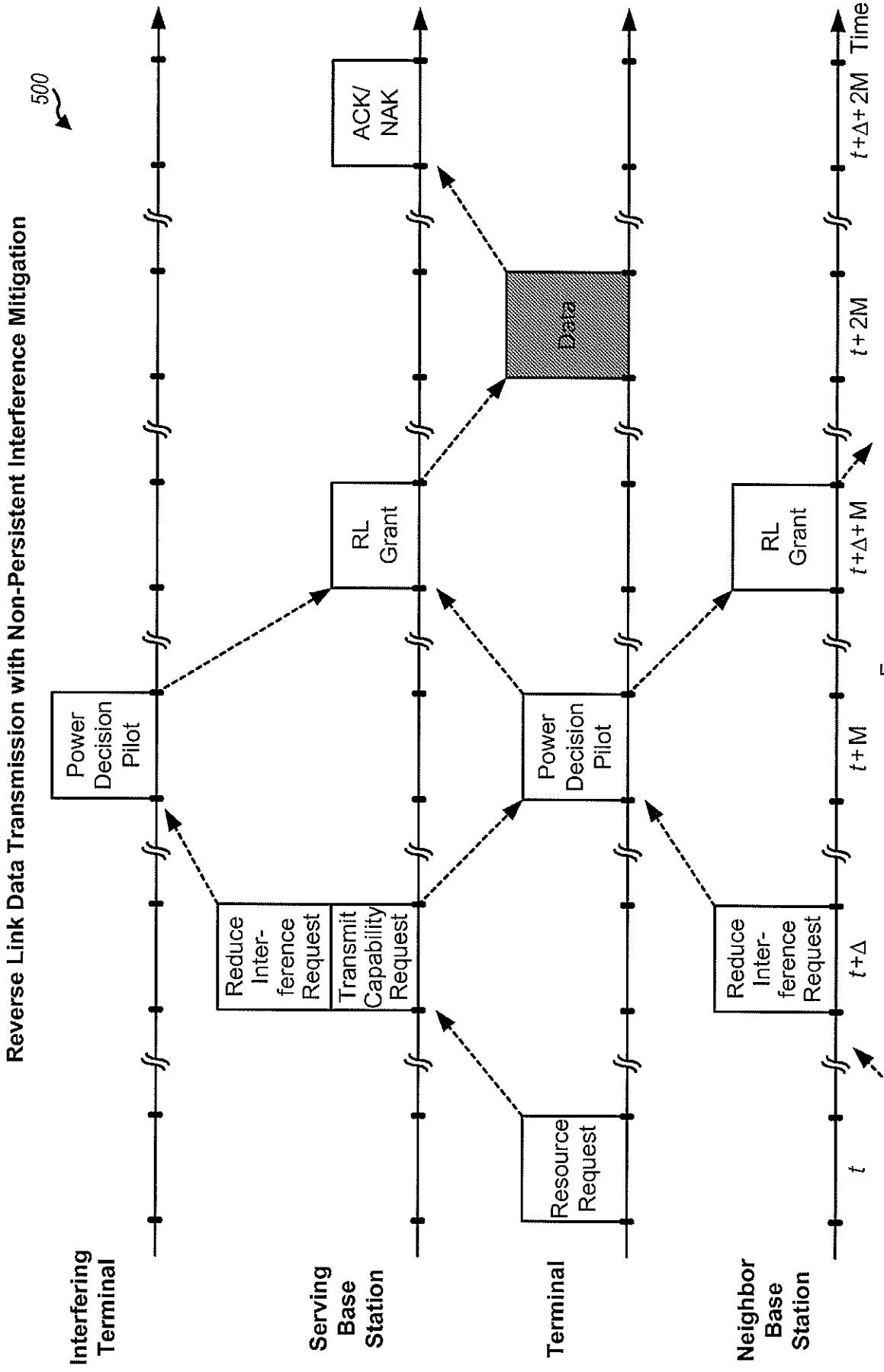

Reverse Link Data Transmission with Non-Persistent Interference Mitigation
500
Interfering Terminal
Serving Base Station
Terminal
Neighbor Base Station
Power Decision Pilot
Reduce Inter-ference Request
Transmit Capability Request
RL Grant
ACK/ NAK
Data
Resource Request
Power Decision Pilot
Reduce Inter-ference Request
RL Grant
t
t+Δ
t+M
t+Δ+M
t+2M
t+Δ+2M
Time
Frame

FIG. 5

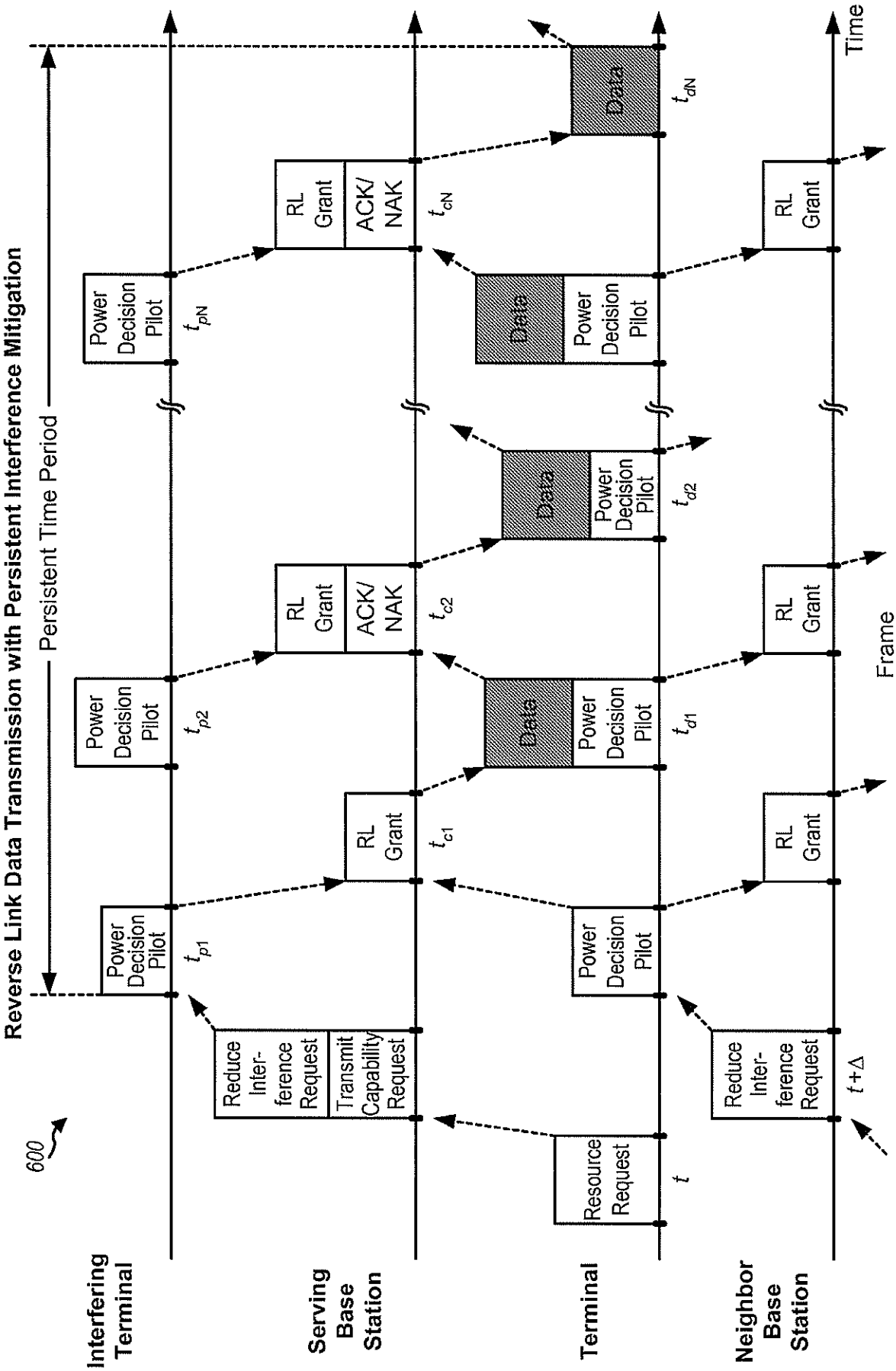

Reverse Link Data Transmission with Persistent Interference Mitigation
Persistent Time Period
600
Interfering Terminal
Serving Base Station
Terminal
Neighbor Base Station
Time
Frame
Power Decision Pilot
Reduce Inter-ference Request
Transmit Capability Request
RL Grant
ACK/ NAK
Data
Resource Request
t_{p1}
t_{p2}
t_{pN}
t_{c1}
t_{c2}
t_{cN}
t_{d1}
t_{d2}
t_{dN}
t
$t+\Delta$

FIG. 6

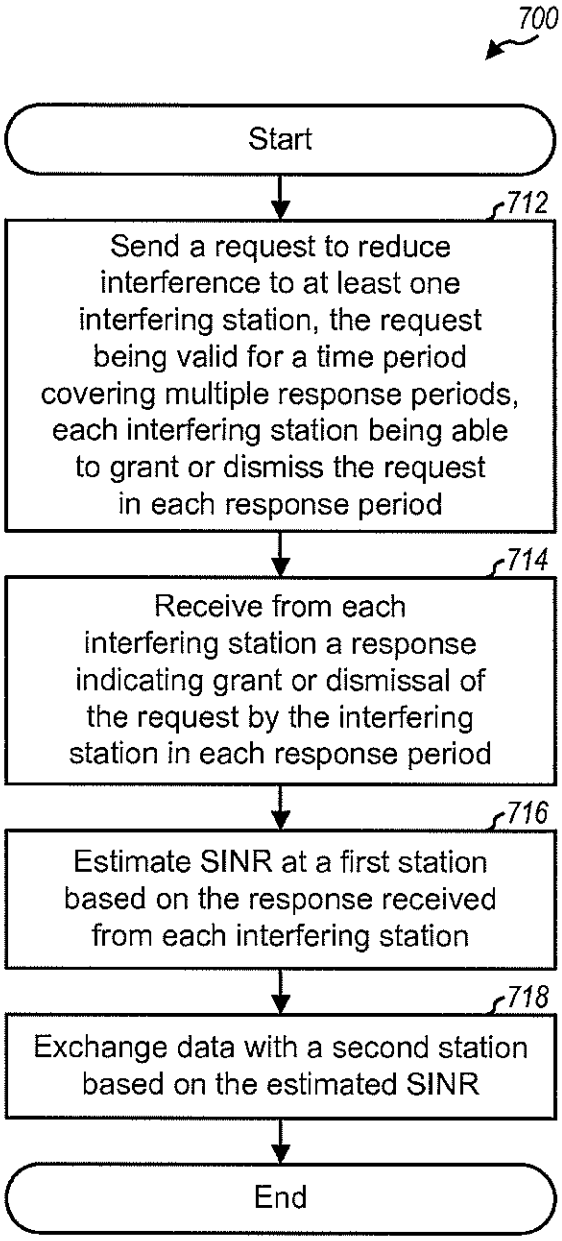

700
Start
712
Send a request to reduce interference to at least one interfering station, the request being valid for a time period covering multiple response periods, each interfering station being able to grant or dismiss the request in each response period
714
Receive from each interfering station a response indicating grant or dismissal of the request by the interfering station in each response period
716
Estimate SINR at a first station based on the response received from each interfering station
718
Exchange data with a second station based on the estimated SINR
End

FIG. 7

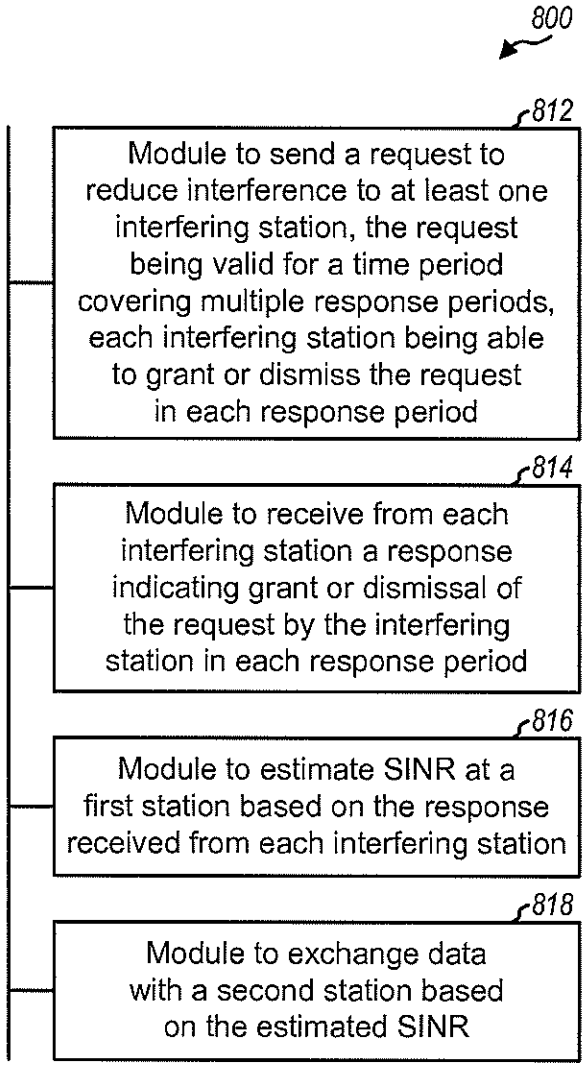

800
812
Module to send a request to reduce interference to at least one interfering station, the request being valid for a time period covering multiple response periods, each interfering station being able to grant or dismiss the request in each response period
814
Module to receive from each interfering station a response indicating grant or dismissal of the request by the interfering station in each response period
816
Module to estimate SINR at a first station based on the response received from each interfering station
818
Module to exchange data with a second station based on the estimated SINR

FIG. 8

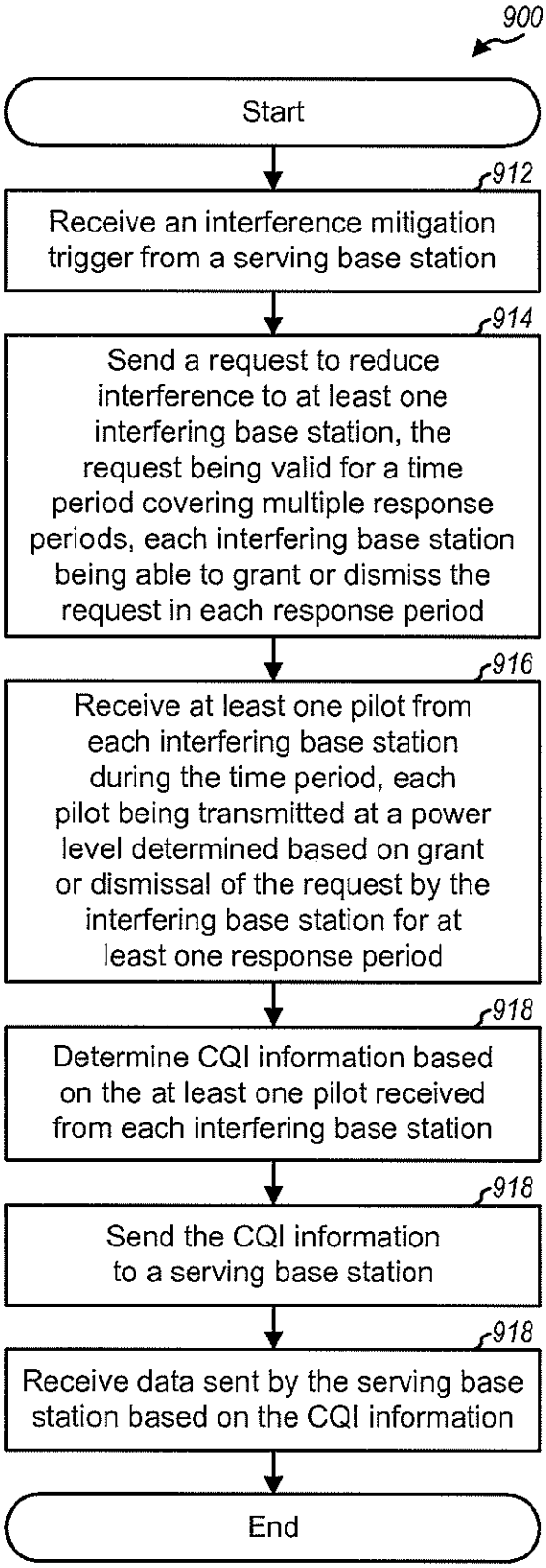

900
Start
912
Receive an interference mitigation trigger from a serving base station
914
Send a request to reduce interference to at least one interfering base station, the request being valid for a time period covering multiple response periods, each interfering base station being able to grant or dismiss the request in each response period
916
Receive at least one pilot from each interfering base station during the time period, each pilot being transmitted at a power level determined based on grant or dismissal of the request by the interfering base station for at least one response period
918
Determine CQI information based on the at least one pilot received from each interfering base station
918
Send the CQI information to a serving base station
918
Receive data sent by the serving base station based on the CQI information
End

FIG. 9

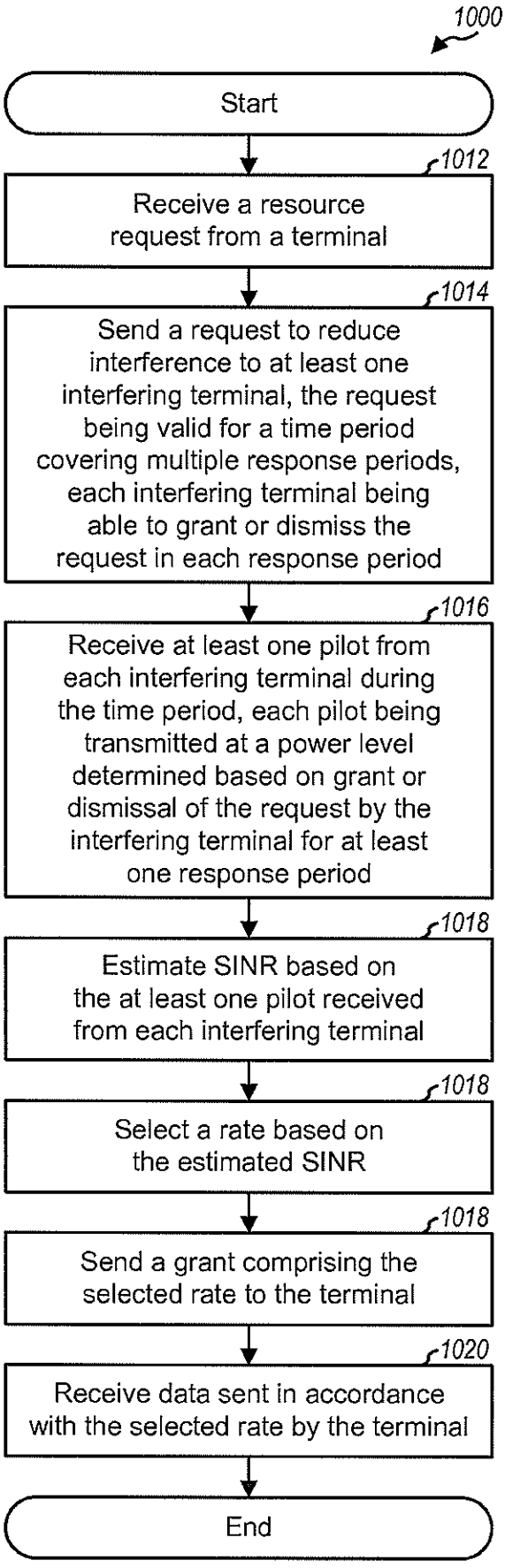

1000
Start
1012
Receive a resource request from a terminal
1014
Send a request to reduce interference to at least one interfering terminal, the request being valid for a time period covering multiple response periods, each interfering terminal being able to grant or dismiss the request in each response period
1016
Receive at least one pilot from each interfering terminal during the time period, each pilot being transmitted at a power level determined based on grant or dismissal of the request by the interfering terminal for at least one response period
1018
Estimate SINR based on the at least one pilot received from each interfering terminal
1018
Select a rate based on the estimated SINR
1018
Send a grant comprising the selected rate to the terminal
1020
Receive data sent in accordance with the selected rate by the terminal
End

FIG. 10

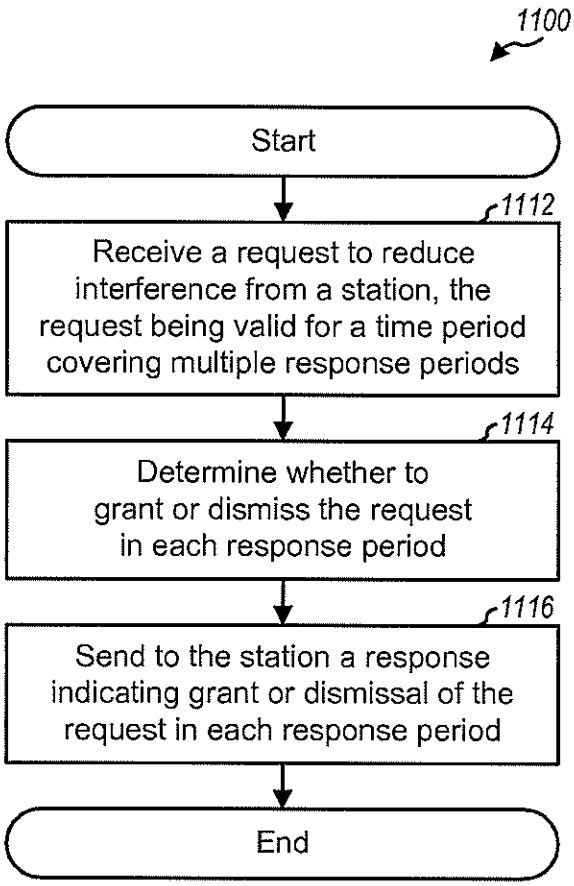

1100
Start
1112
Receive a request to reduce interference from a station, the request being valid for a time period covering multiple response periods
1114
Determine whether to grant or dismiss the request in each response period
1116
Send to the station a response indicating grant or dismissal of the request in each response period
End

FIG. 11

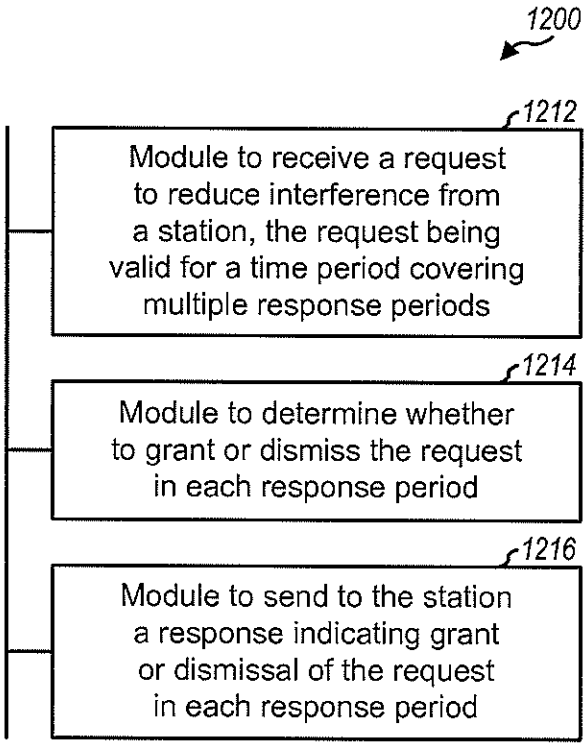

1200
1212
Module to receive a request to reduce interference from a station, the request being valid for a time period covering multiple response periods
1214
Module to determine whether to grant or dismiss the request in each response period
1216
Module to send to the station a response indicating grant or dismissal of the request in each response period

FIG. 12

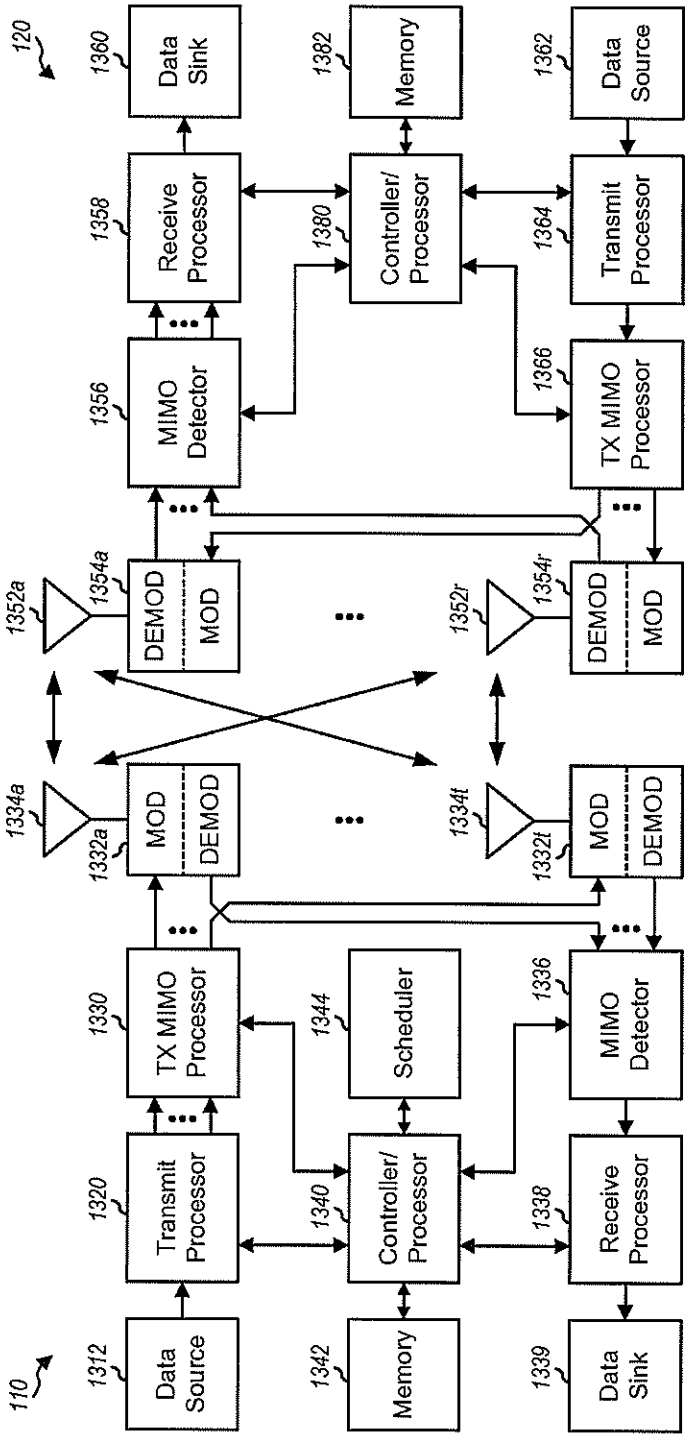

110
120
1312
Data Source
1320
Transmit Processor
1330
TX MIMO Processor
1332a
MOD
DEMOD
1334a
1334t
1332t
1336
MIMO Detector
1338
Receive Processor
1339
Data Sink
1340
Controller/ Processor
1342
Memory
1344
Scheduler
1352a
1352r
1354a
1354r
DEMOD
MOD
1356
MIMO Detector
1358
Receive Processor
1360
Data Sink
1362
Data Source
1364
Transmit Processor
1366
TX MIMO Processor
1380
Controller/ Processor
1382
Memory

FIG. 13