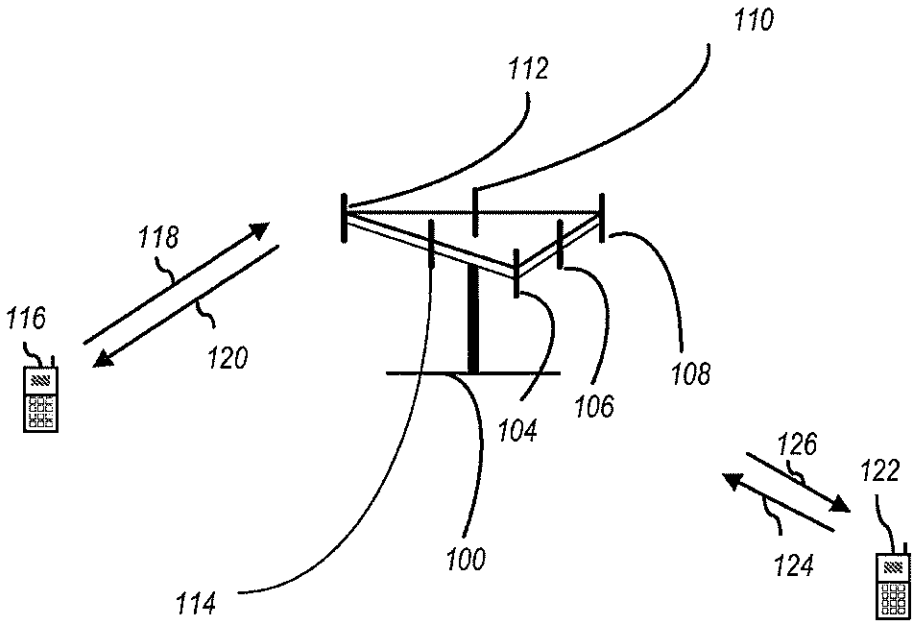


Fig. 1

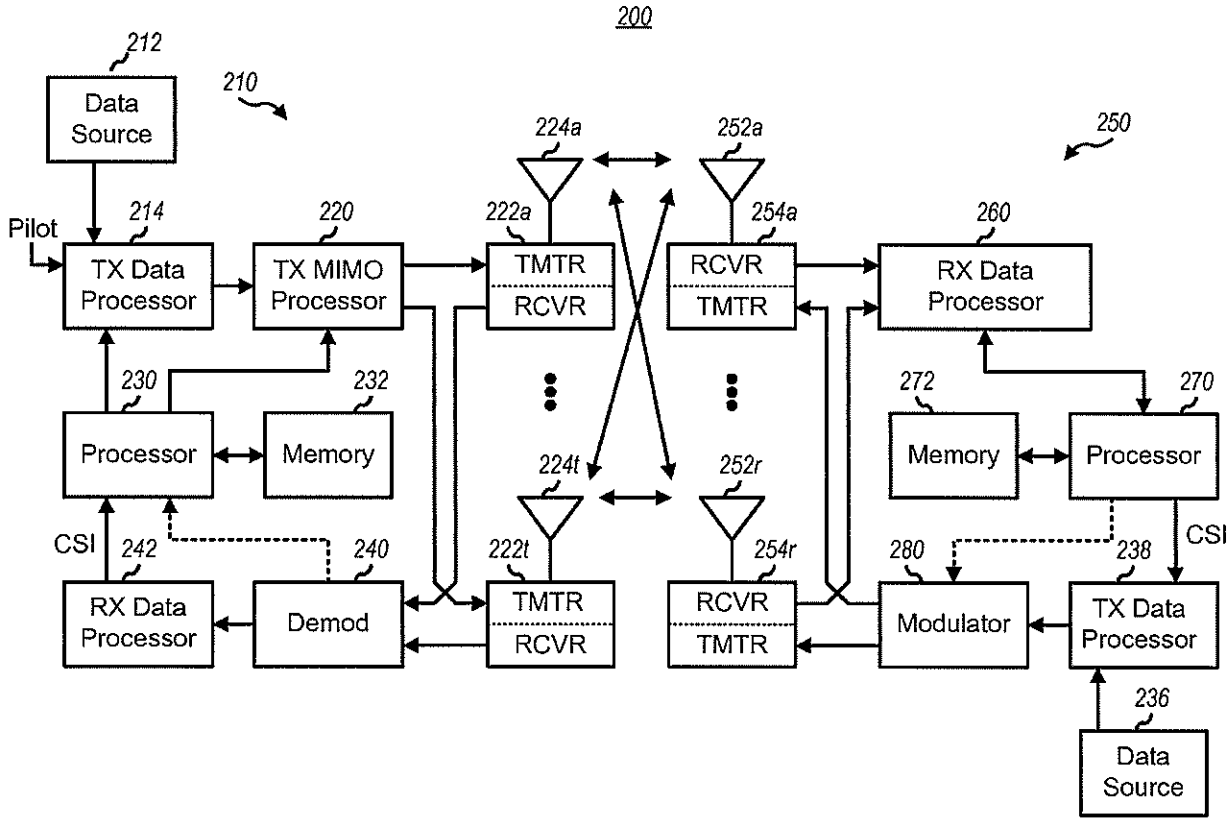

200
212
Data Source
210
224a
252a
250
Pilot
214
220
222a
254a
260
TX Data Processor
TX MIMO Processor
TMTR
RCVR
RCVR
TMTR
RX Data Processor
230
232
224t
252r
272
270
Processor
Memory
Memory
Processor
CSI
242
240
222t
254r
280
238
CSI
RX Data Processor
Demod
TMTR
RCVR
RCVR
TMTR
Modulator
TX Data Processor
236
Data Source

Fig. 2

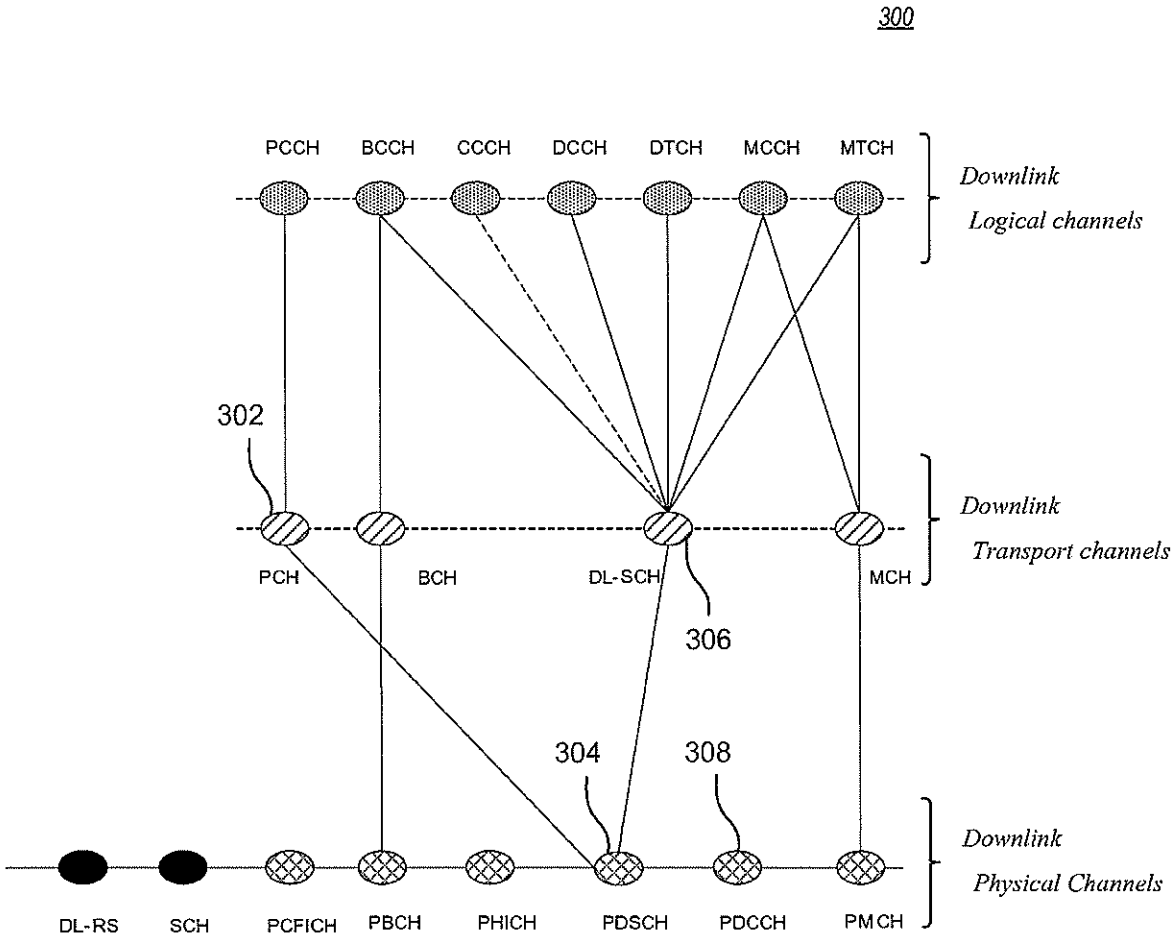

300
PCCH
BCCH
CCCH
DCCH
DTCH
MCCH
MTCH
Downlink
Logical channels
302
PCH
BCH
DL-SCH
MCH
Downlink
Transport channels
306
304
308
DL-RS
SCH
PCFICH
PBCH
PHICH
PDSCH
PDCCH
PMCH
Downlink
Physical Channels

Fig. 3

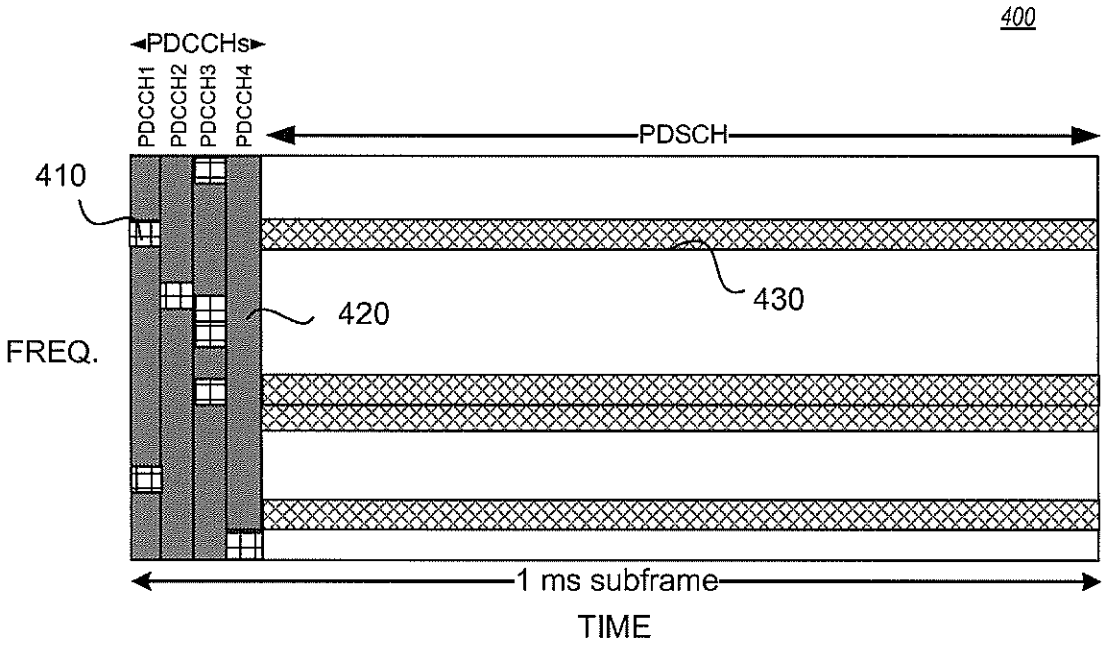

400
PDCCHs
PDCCH1
PDCCH2
PDCCH3
PDCCH4
PDSCH
410
420
430
FREQ.
1 ms subframe
TIME

Fig. 4A

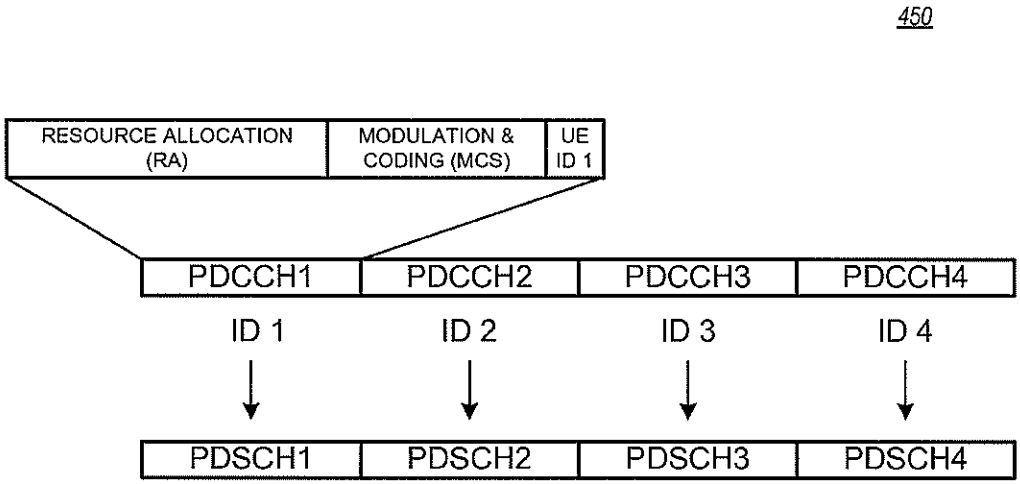

450
RESOURCE ALLOCATION (RA)
MODULATION & CODING (MCS)
UE ID 1
PDCCH1
PDCCH2
PDCCH3
PDCCH4
ID 1
ID 2
ID 3
ID 4
PDSCH1
PDSCH2
PDSCH3
PDSCH4

Fig. 4B

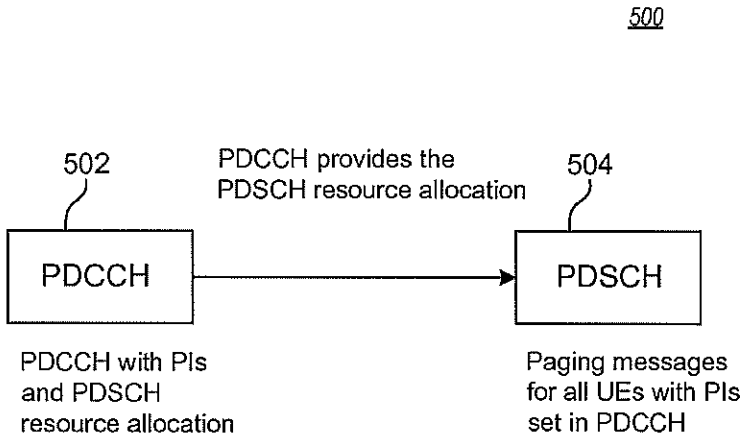

500
502
PDCCH provides the PDSCH resource allocation
504
PDCCH
PDSCH
PDCCH with PIs and PDSCH resource allocation
Paging messages for all UEs with PIs set in PDCCH

Fig. 5

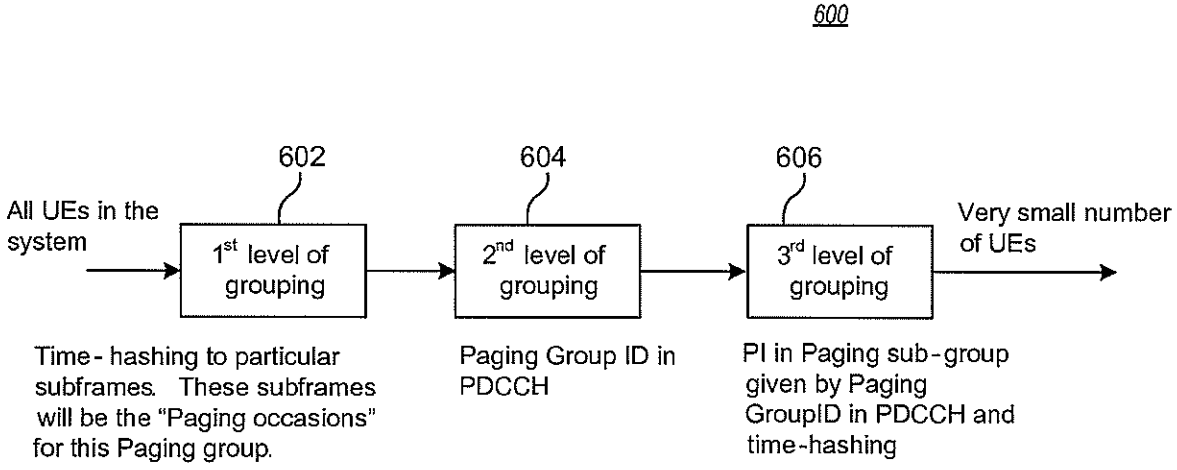

600
602
604
606
All UEs in the system
1st level of grouping
2nd level of grouping
3rd level of grouping
Very small number of UEs
Time-hashing to particular subframes. These subframes will be the "Paging occasions" for this Paging group.
Paging Group ID in PDCCH
PI in Paging sub-group given by Paging GroupID in PDCCH and time-hashing

Fig. 6

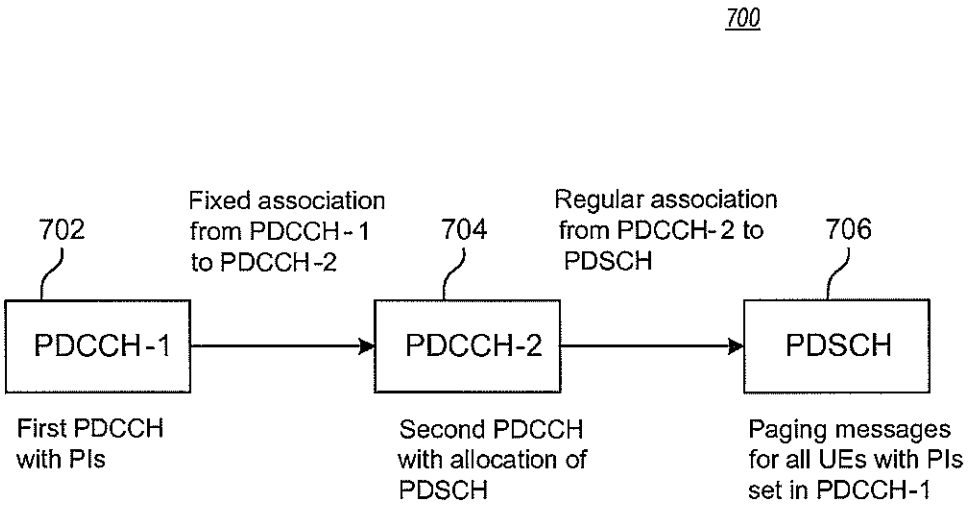

700
702
Fixed association from PDCCH-1 to PDCCH-2
704
Regular association from PDCCH-2 to PDSCH
706
PDCCH-1
PDCCH-2
PDSCH
First PDCCH with PIs
Second PDCCH with allocation of PDSCH
Paging messages for all UEs with PIs set in PDCCH-1

Fig. 7A

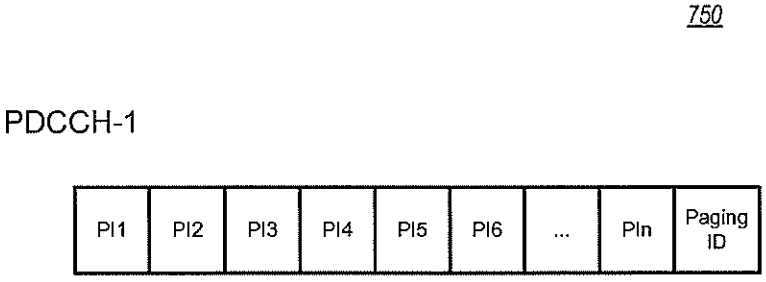

750
PDCCH-1
PI1
PI2
PI3
PI4
PI5
PI6
...
PIn
Paging ID

Fig. 7B

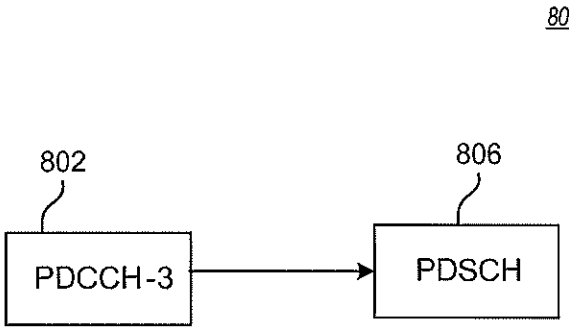

800
802
806
PDCCH-3
PDSCH

Fig. 8A

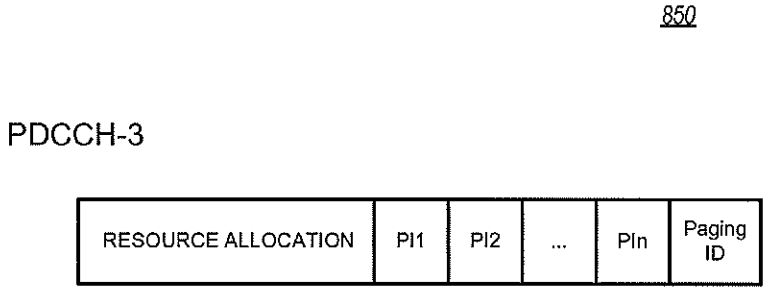

850
PDCCH-3
RESOURCE ALLOCATION
PI1
PI2
...
PIn
Paging ID

Fig. 8B

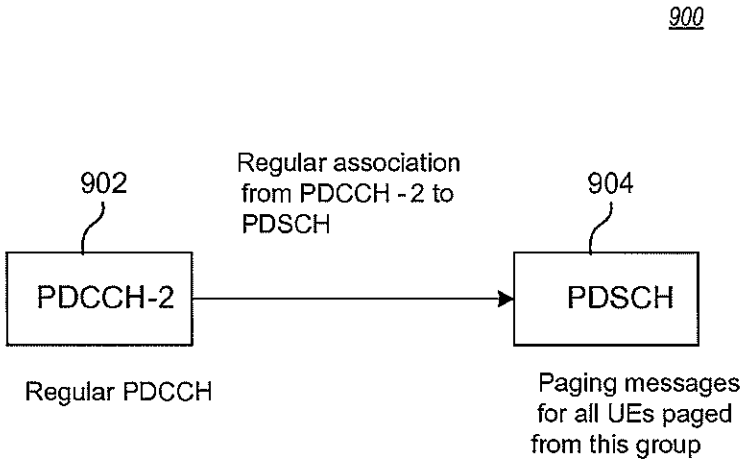

900
902
Regular association from PDCCH - 2 to PDSCH
904
PDCCH-2
PDSCH
Regular PDCCH
Paging messages for all UEs paged from this group

Fig. 9A

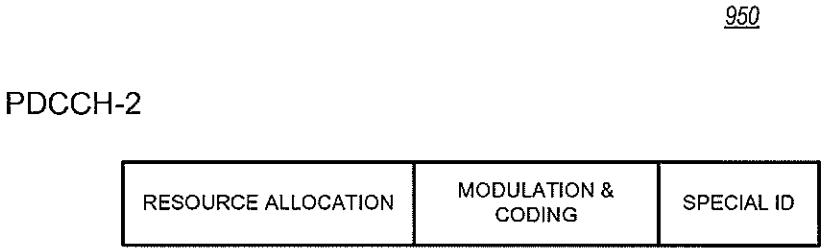

950
PDCCH-2
RESOURCE ALLOCATION
MODULATION & CODING
SPECIAL ID

Fig. 9B