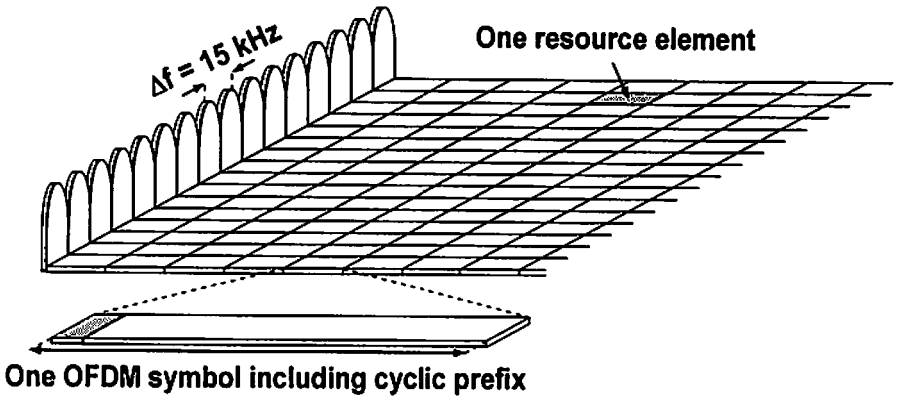



Figure 1 The LTE downlink physical resource

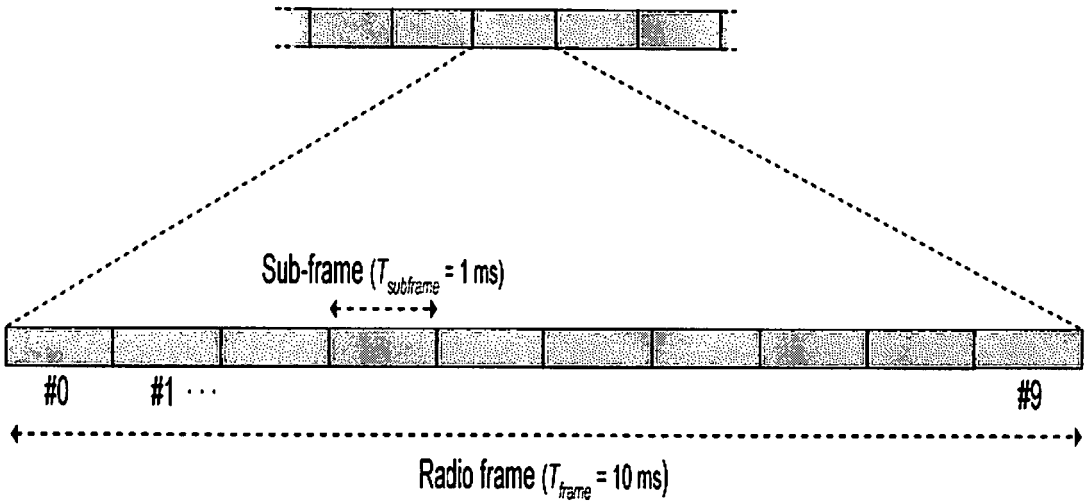



Figure 2 LTE time-domain structure

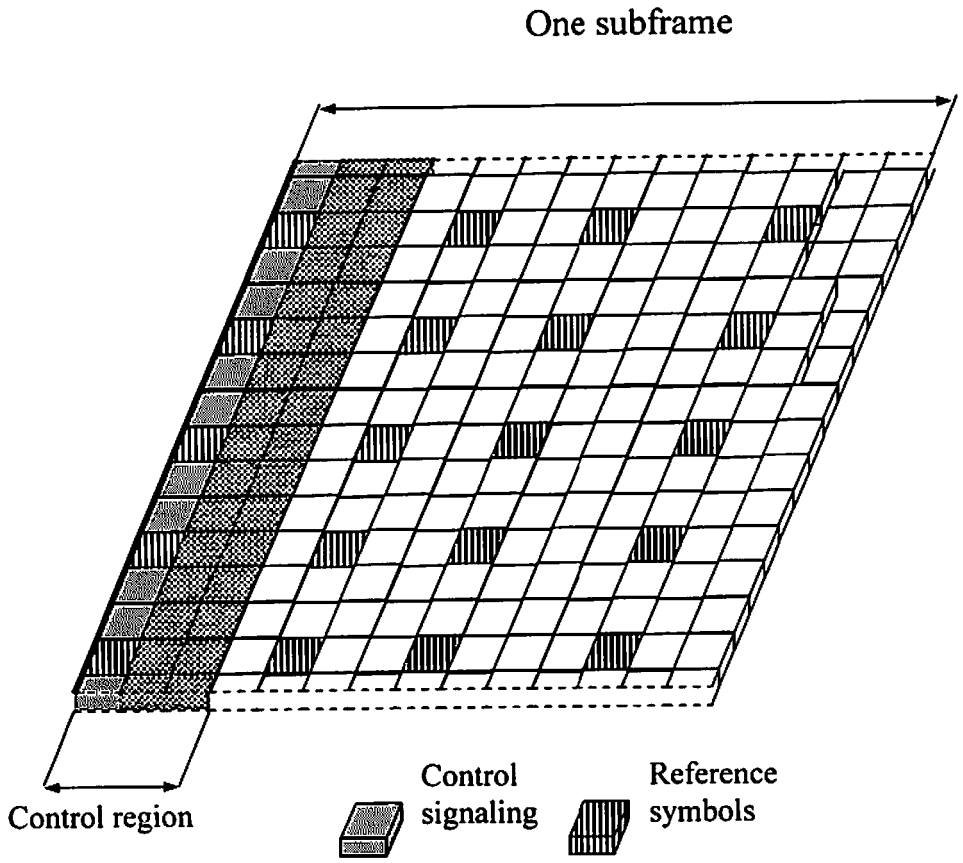



Figure 3 Downlink subframe

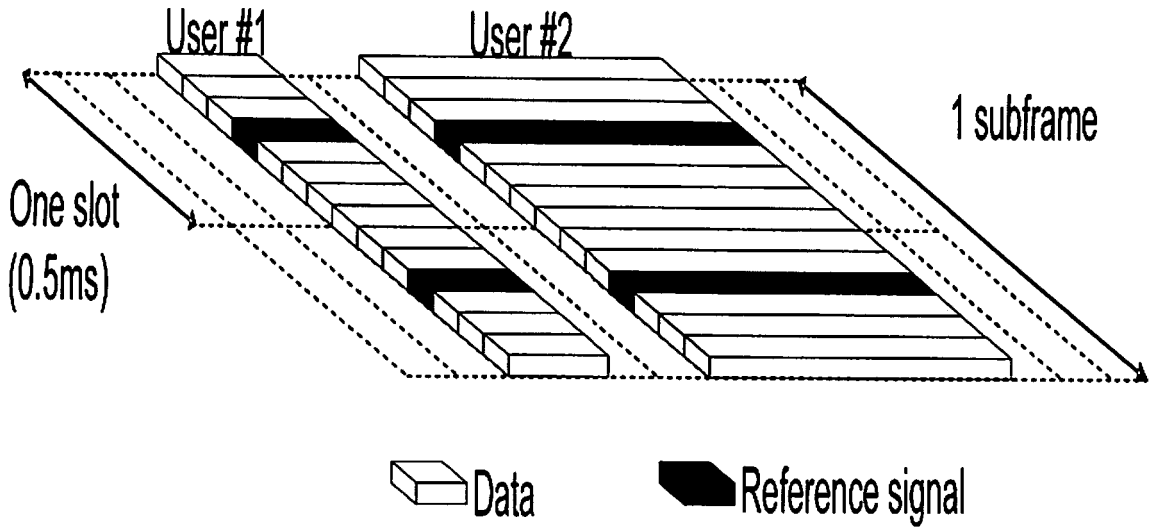



Figure 4: PUSCH resource assignment

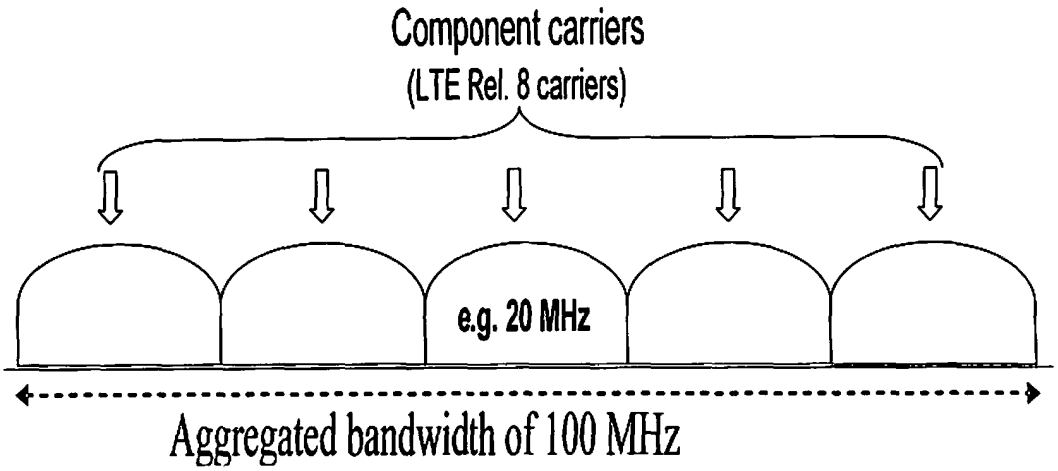



Figure 5 – Carrier Aggregation

| $C_7$ | $C_6$ | $C_5$ | $C_4$ | $C_3$ | $C_2$ | $C_1$ | R |
|---|---|---|---|---|---|---|---|
| R | V | PH (Type 1, PCell) | | | | | |
| R | R | $P_{CMAX,c}$ 1 | | | | | |
| R | V | PH (Type 1, Scell 1) | | | | | |
| R | R | $P_{CMAX,c}$ 2 | | | | | |
| ... | | | | | | | |
| R | V | PH (Type 1, Scell n) | | | | | |
| R | R | $P_{CMAX,c}$ m | | | | | |

Figure 6 - Extended PHR MAC CE as depicted in 3GPP TS 36.321

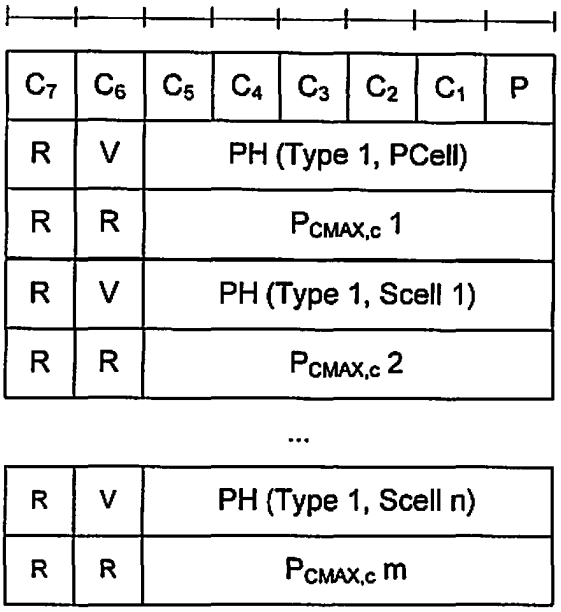
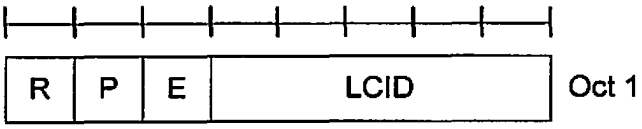



Figure 7




R/R/E/LCID sub-header

Figure 8

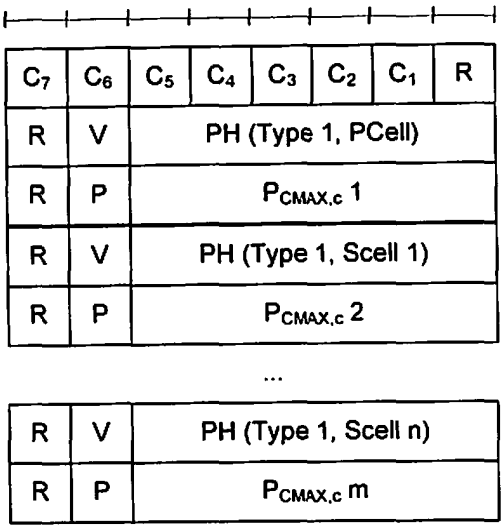



Figure 9

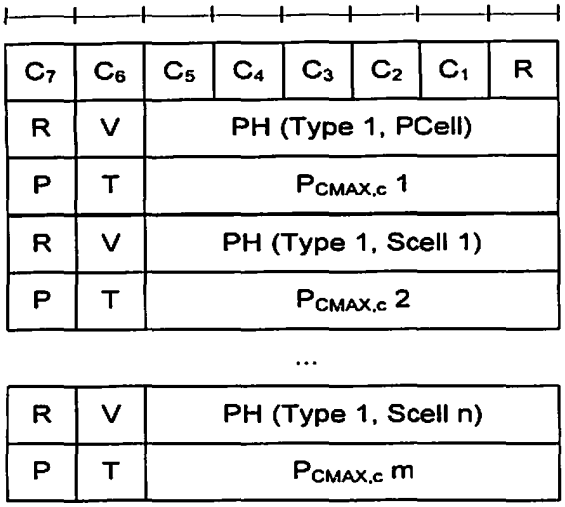



Figure 10

| P bit | T bit | Applied backoff |
|---|---|---|
| 0 | 0 | Backoff value 0 |
| 0 | 1 | Backoff value 1 |
| 1 | 0 | Backoff value 2 |
| 1 | 1 | Backoff value 3 |

Figure 10A

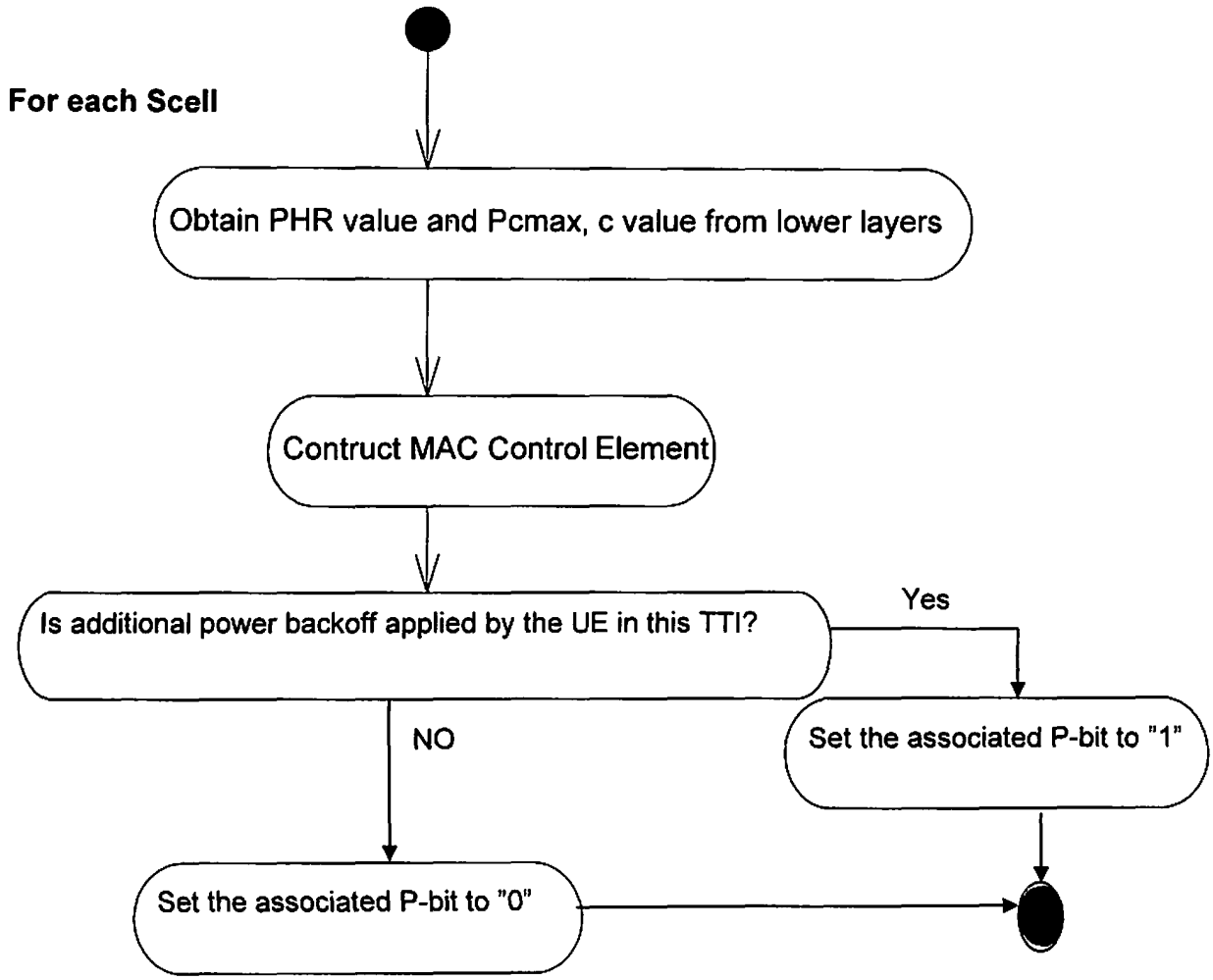

For each Scell
Obtain PHR value and Pcmax, c value from lower layers
Contruct MAC Control Element
Is additional power backoff applied by the UE in this TTI?
Yes
NO
Set the associated P-bit to "1"
Set the associated P-bit to "0"

Figure 11

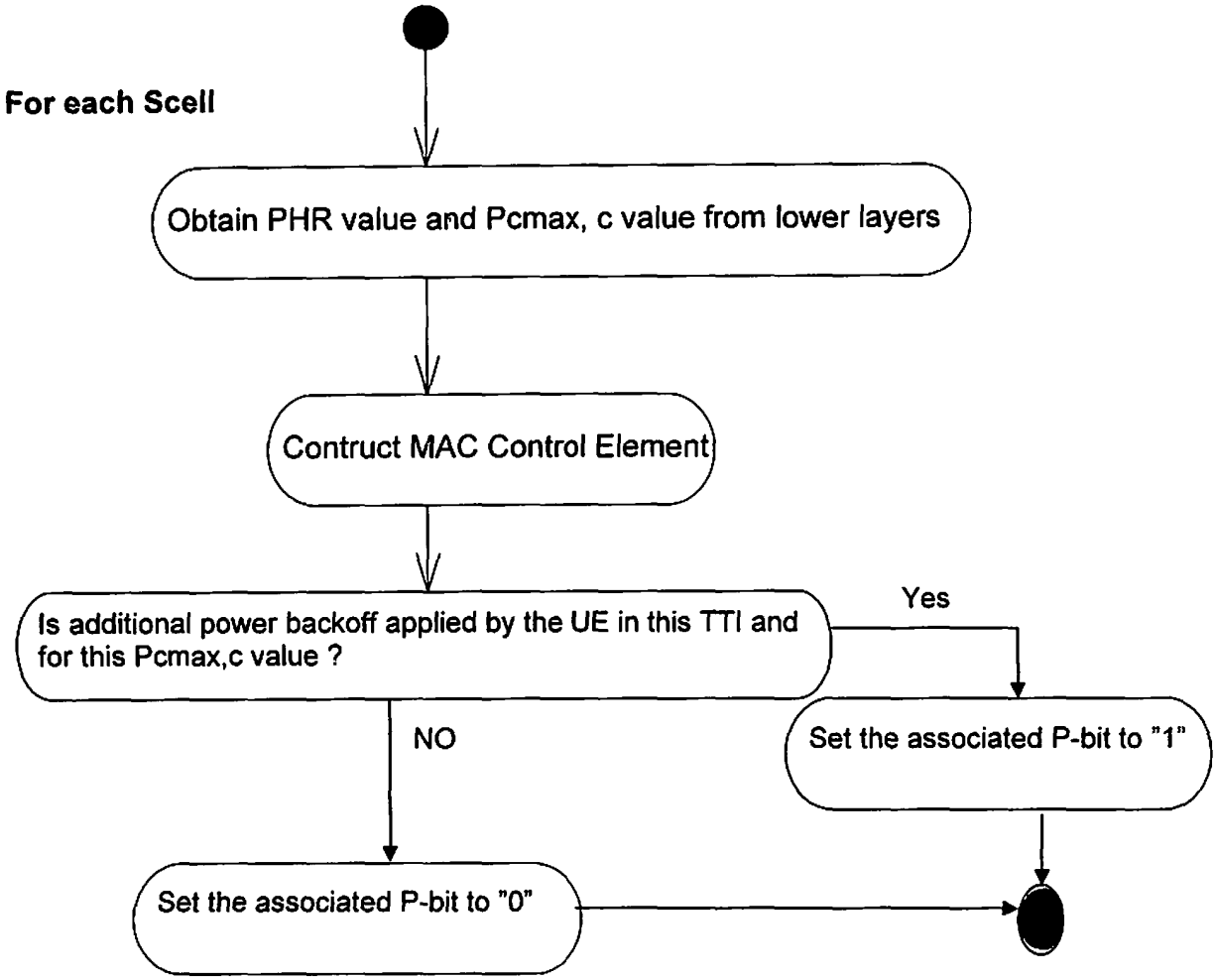

For each Scell
Obtain PHR value and Pcmax, c value from lower layers
Contruct MAC Control Element
Is additional power backoff applied by the UE in this TTI and for this Pcmax,c value ?
Yes
NO
Set the associated P-bit to "1"
Set the associated P-bit to "0"

Figure 12

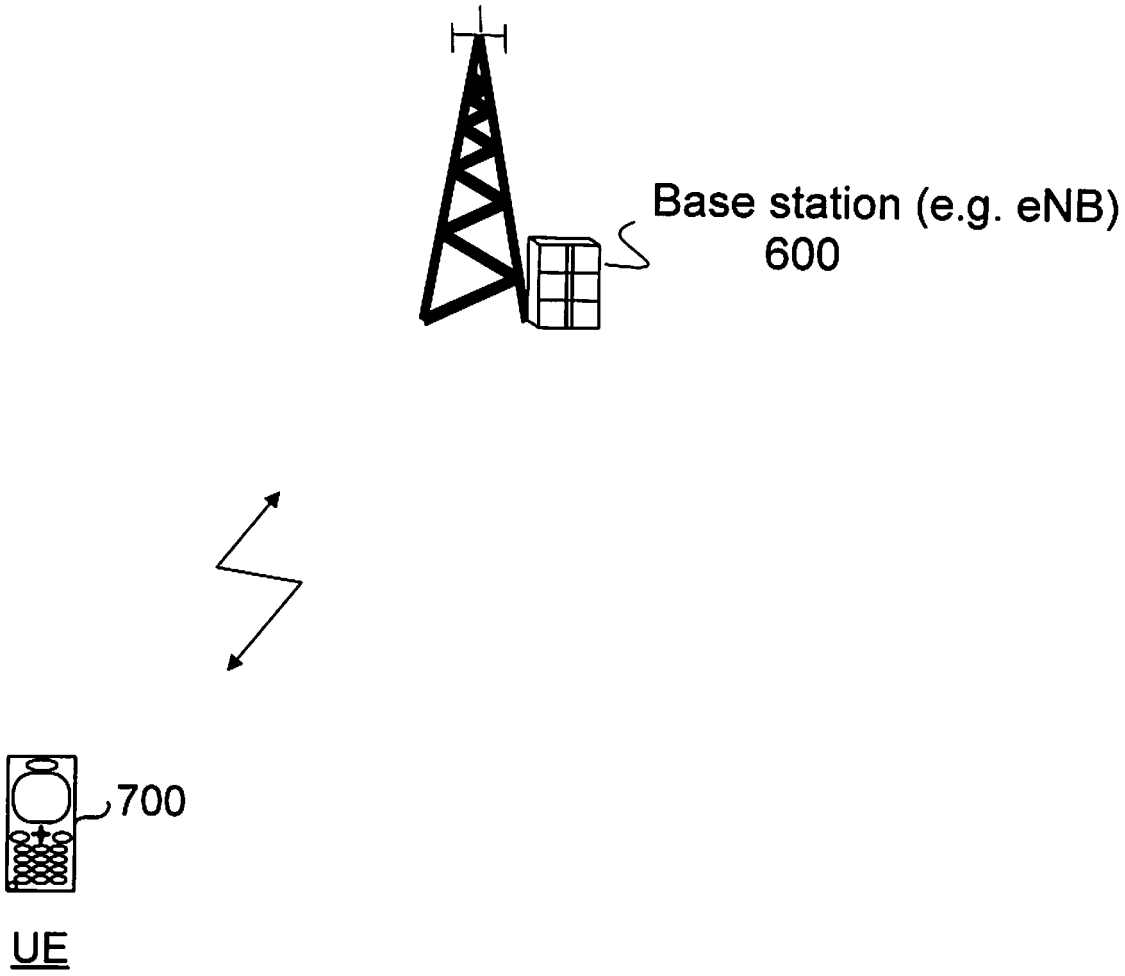



FIGURE 13

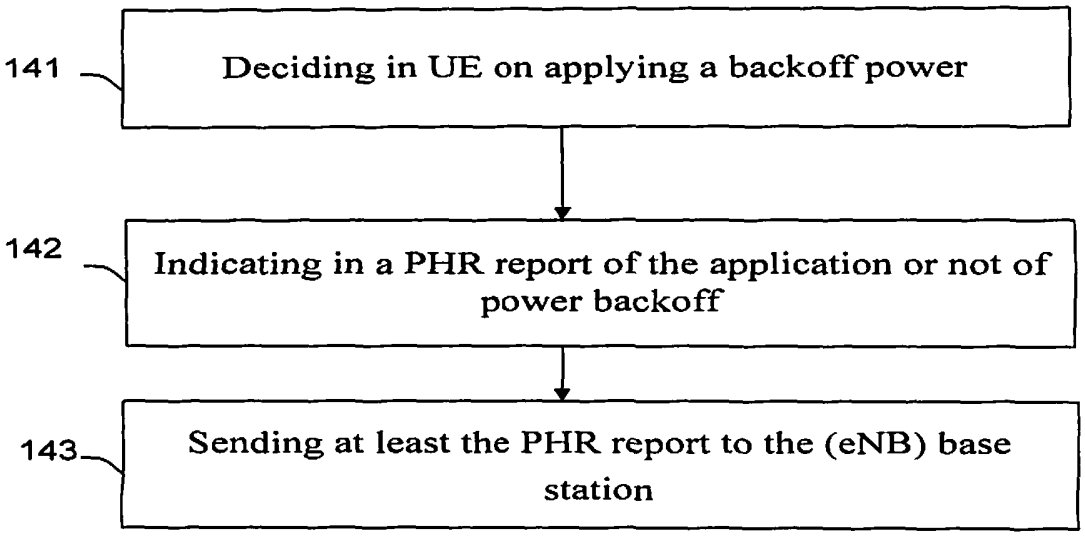



Figure 14

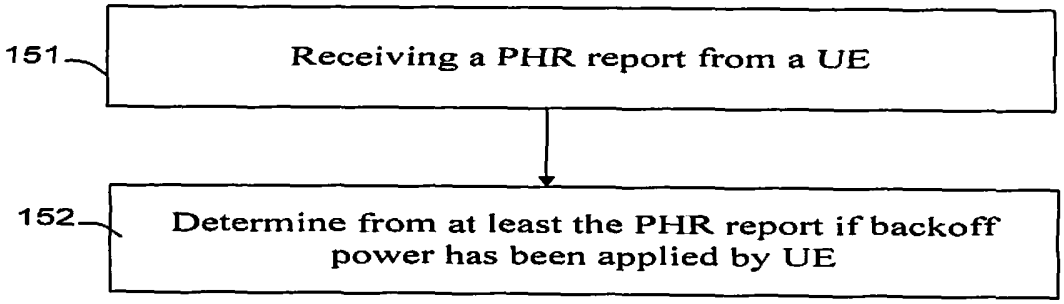



Figure 15

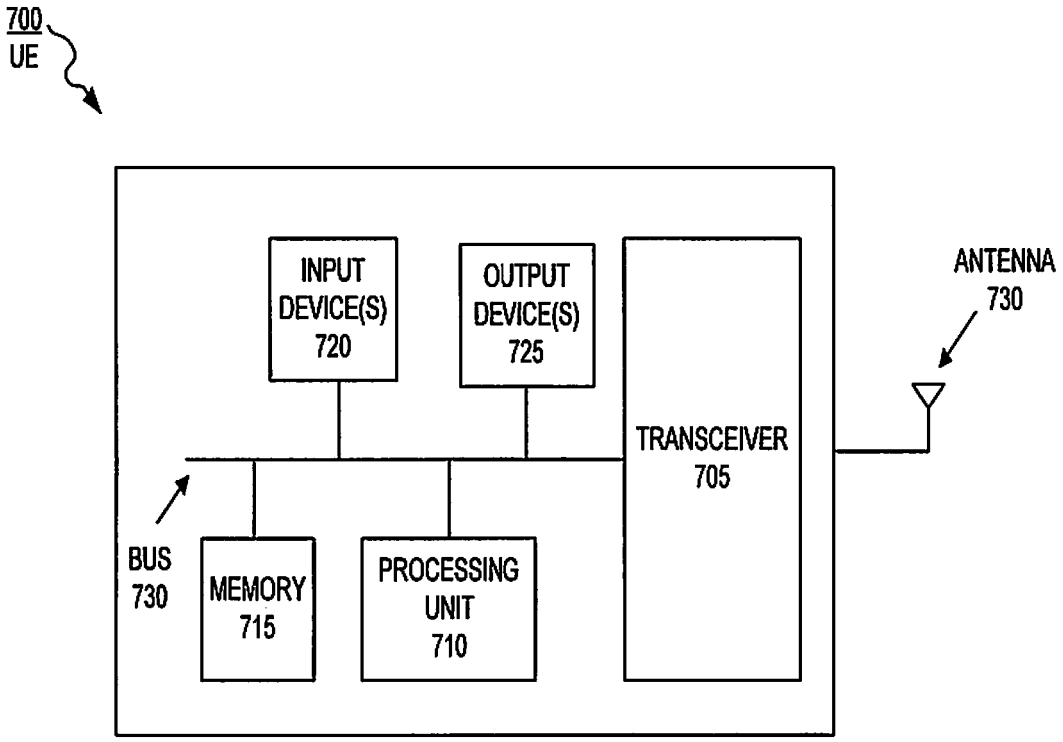

700
UE
INPUT DEVICE(S) 720
OUTPUT DEVICE(S) 725
TRANSCEIVER 705
ANTENNA 730
BUS 730
MEMORY 715
PROCESSING UNIT 710

Figure 16

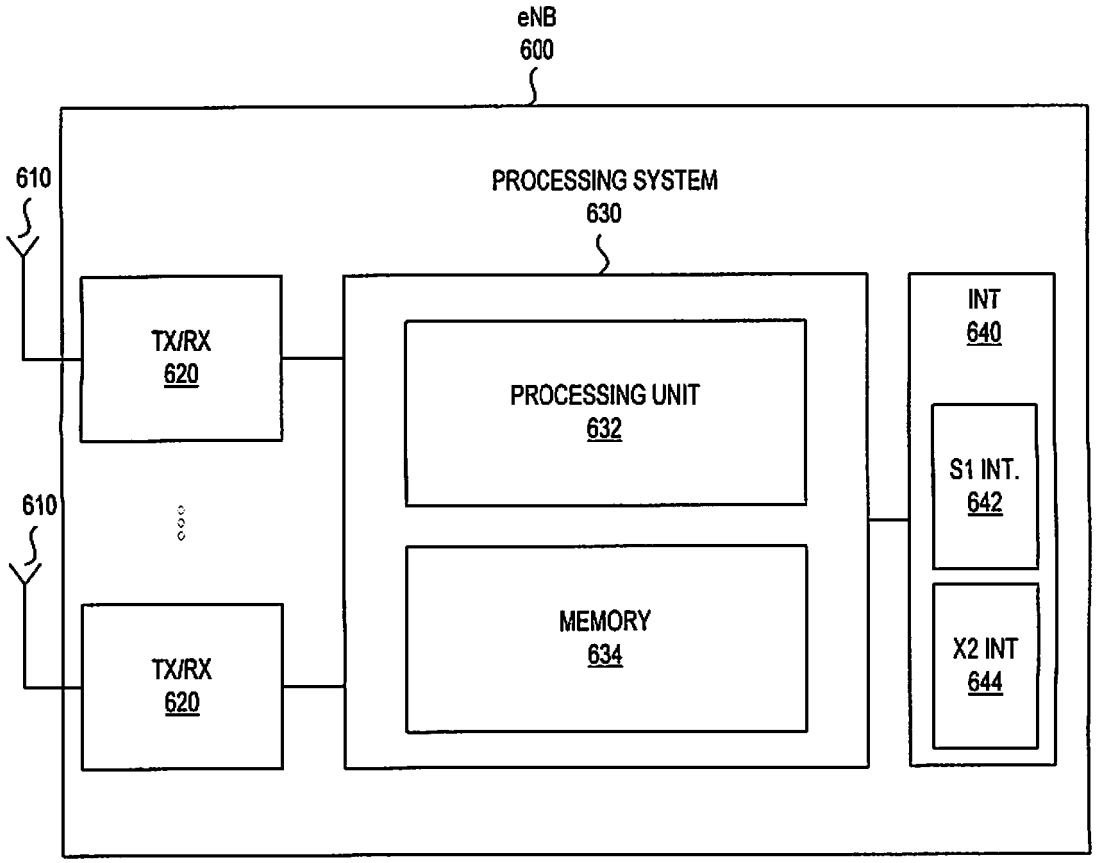

eNB
600
610
PROCESSING SYSTEM
630
TX/RX
620
PROCESSING UNIT
632
INT
640
S1 INT.
642
610
MEMORY
634
TX/RX
620
X2 INT
644

Figure 17