

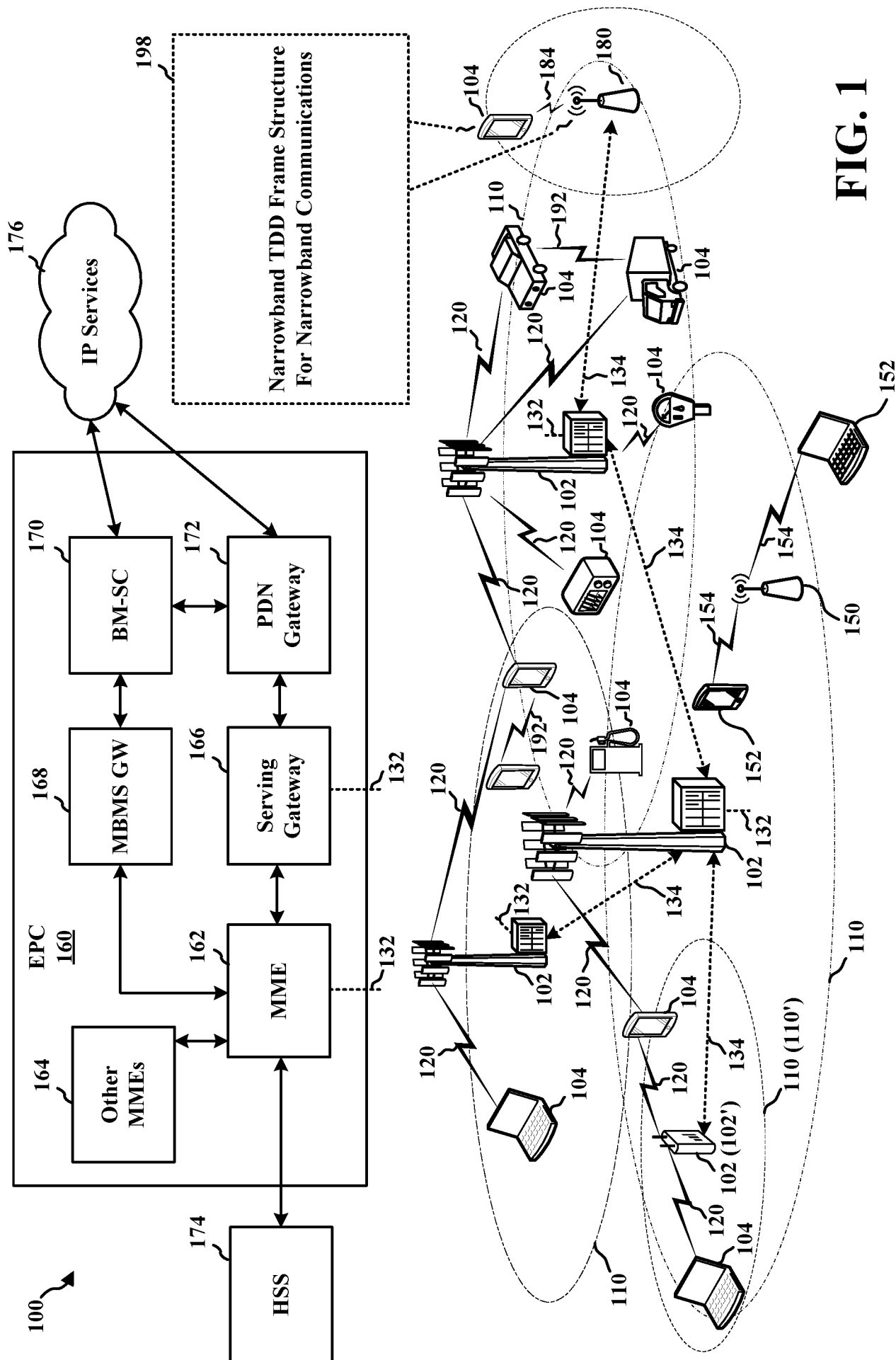
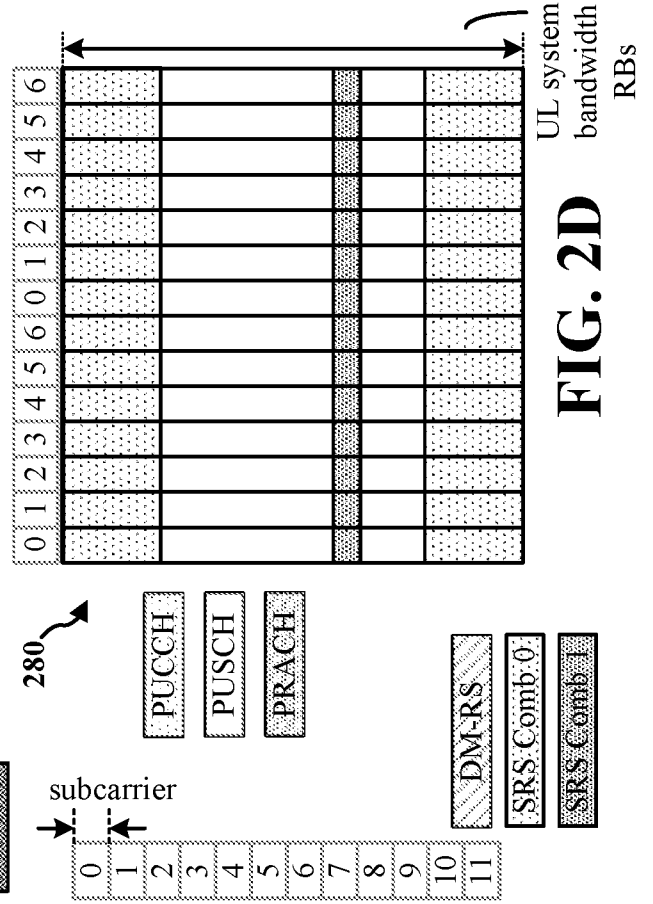
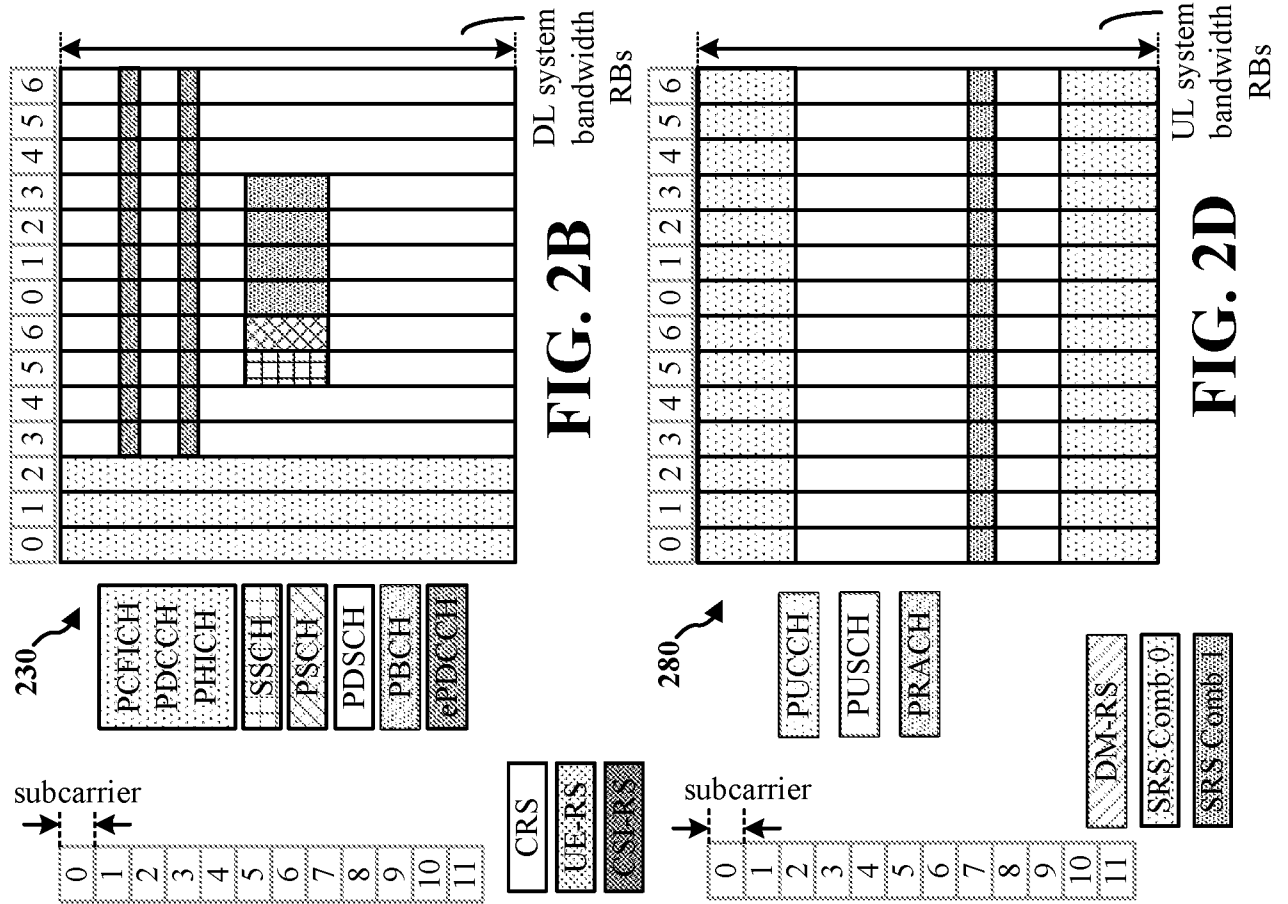
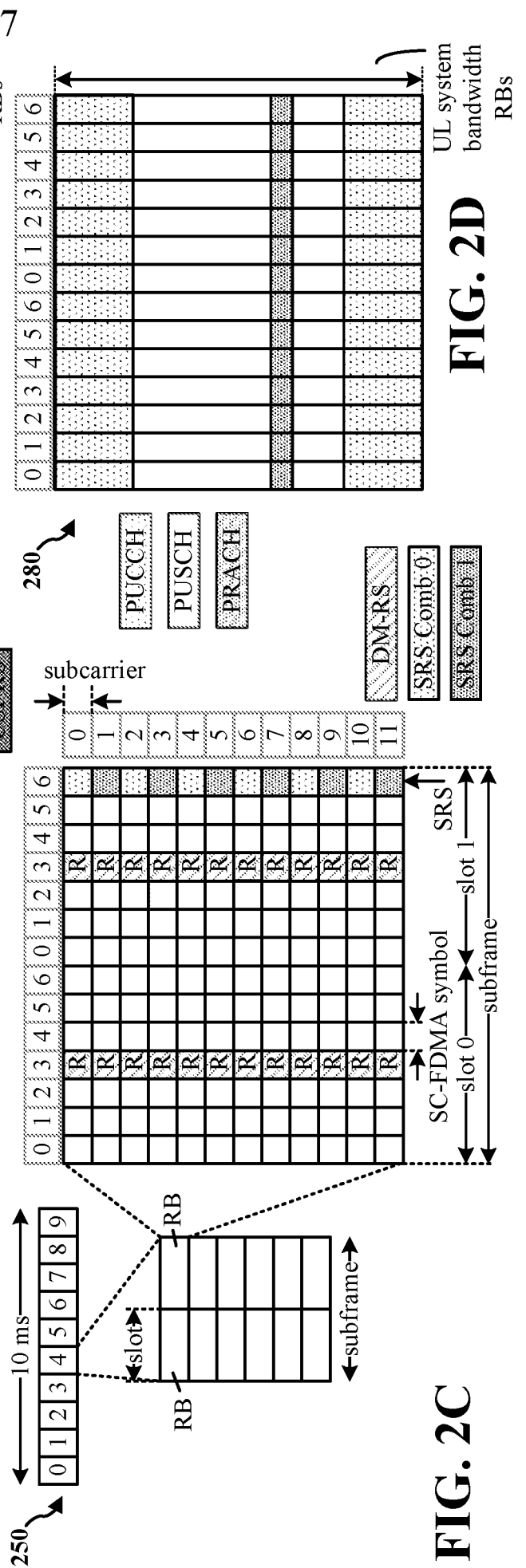
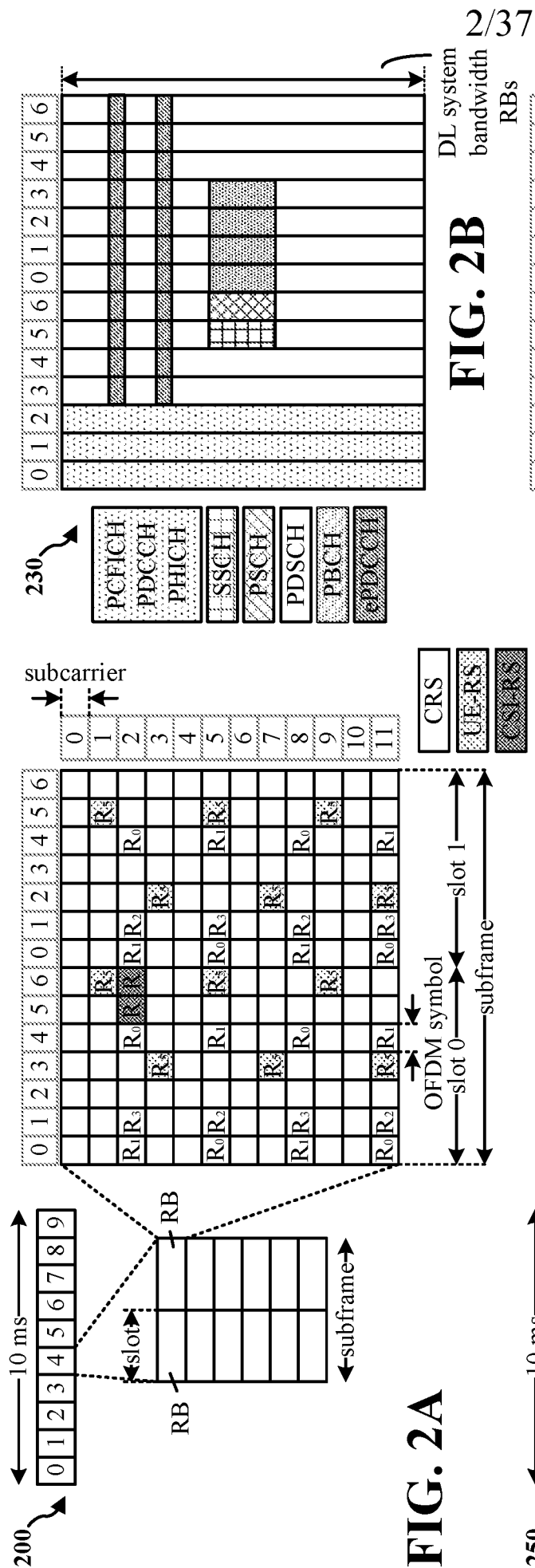


FIG. 1



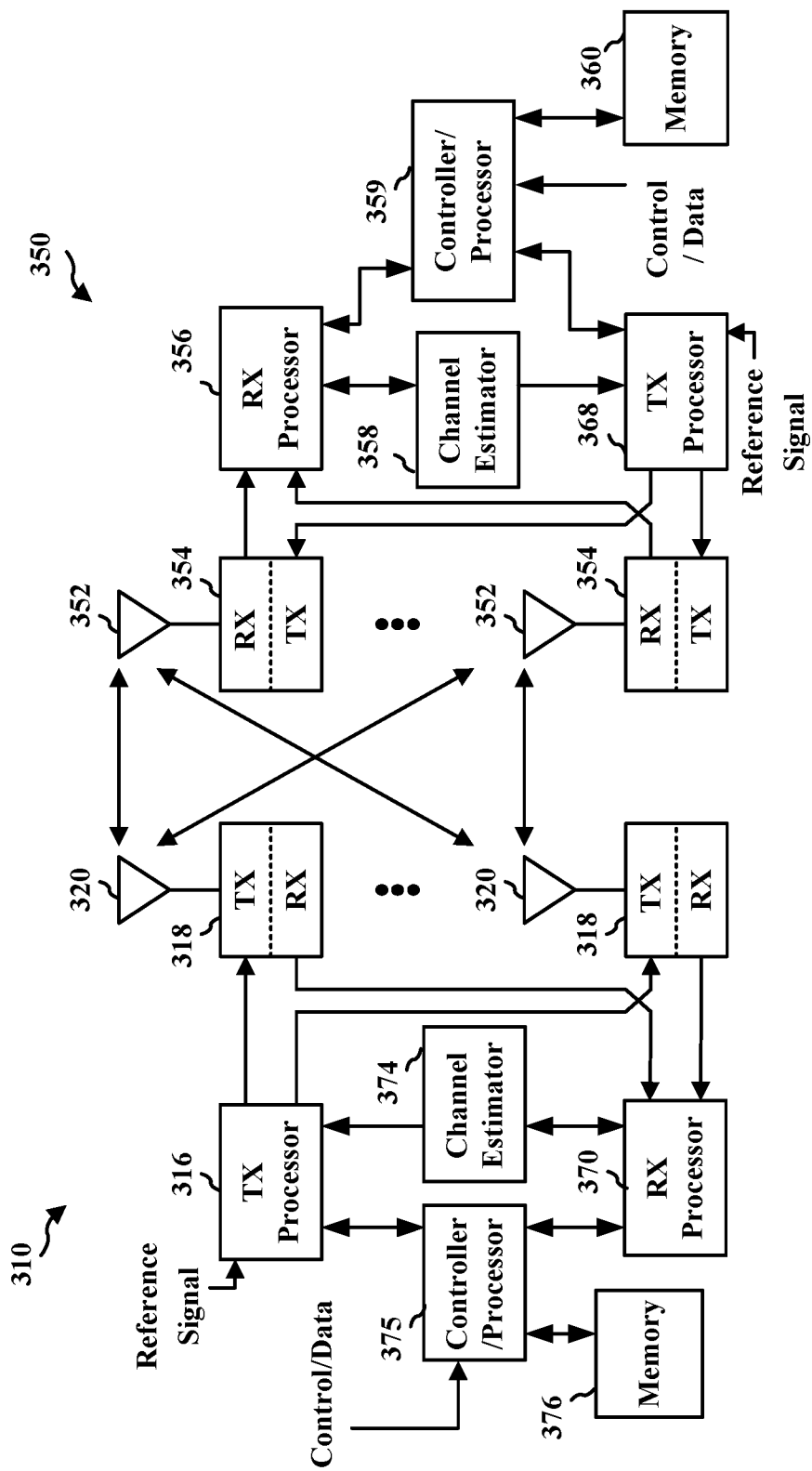
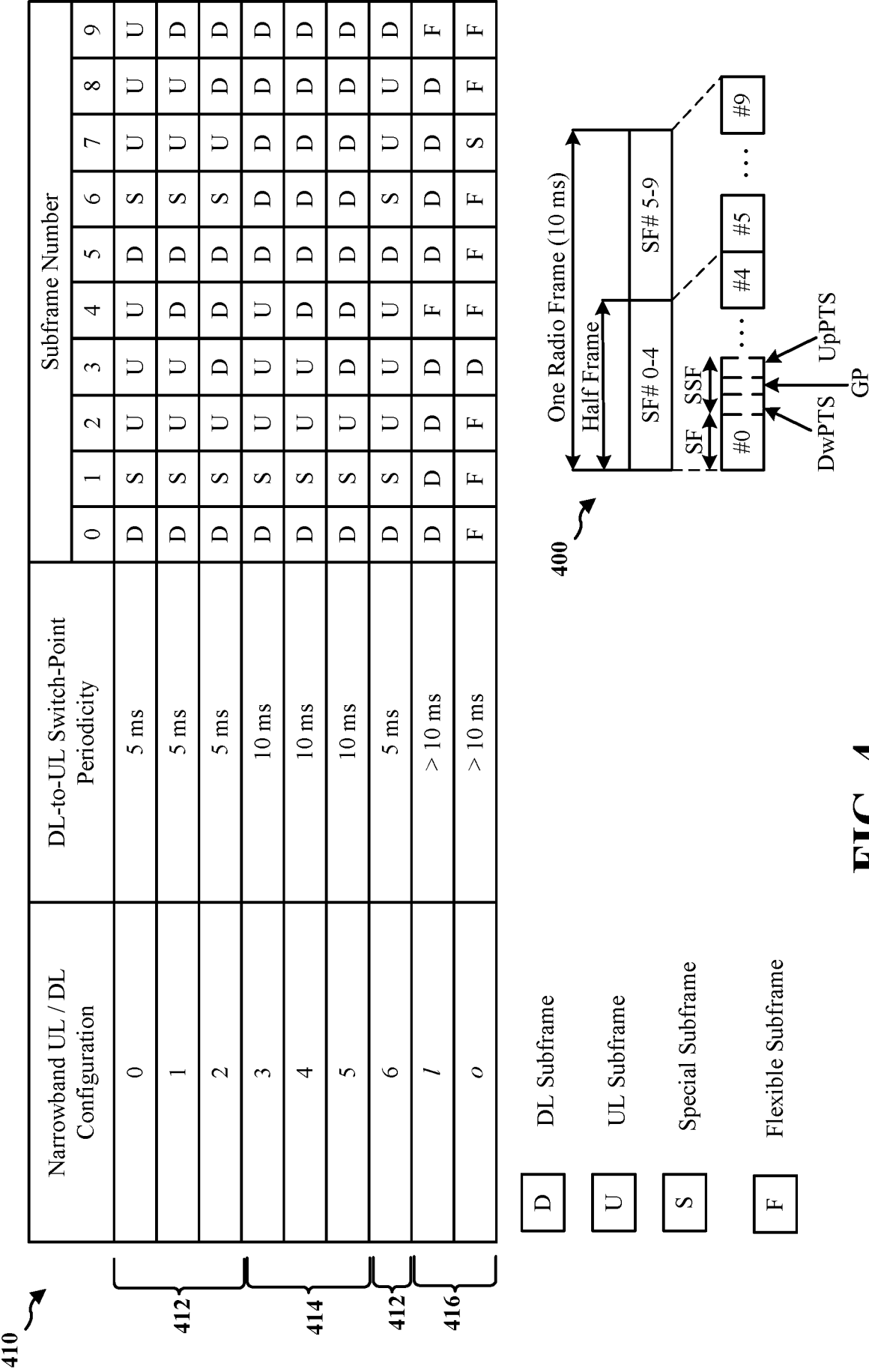


FIG. 3



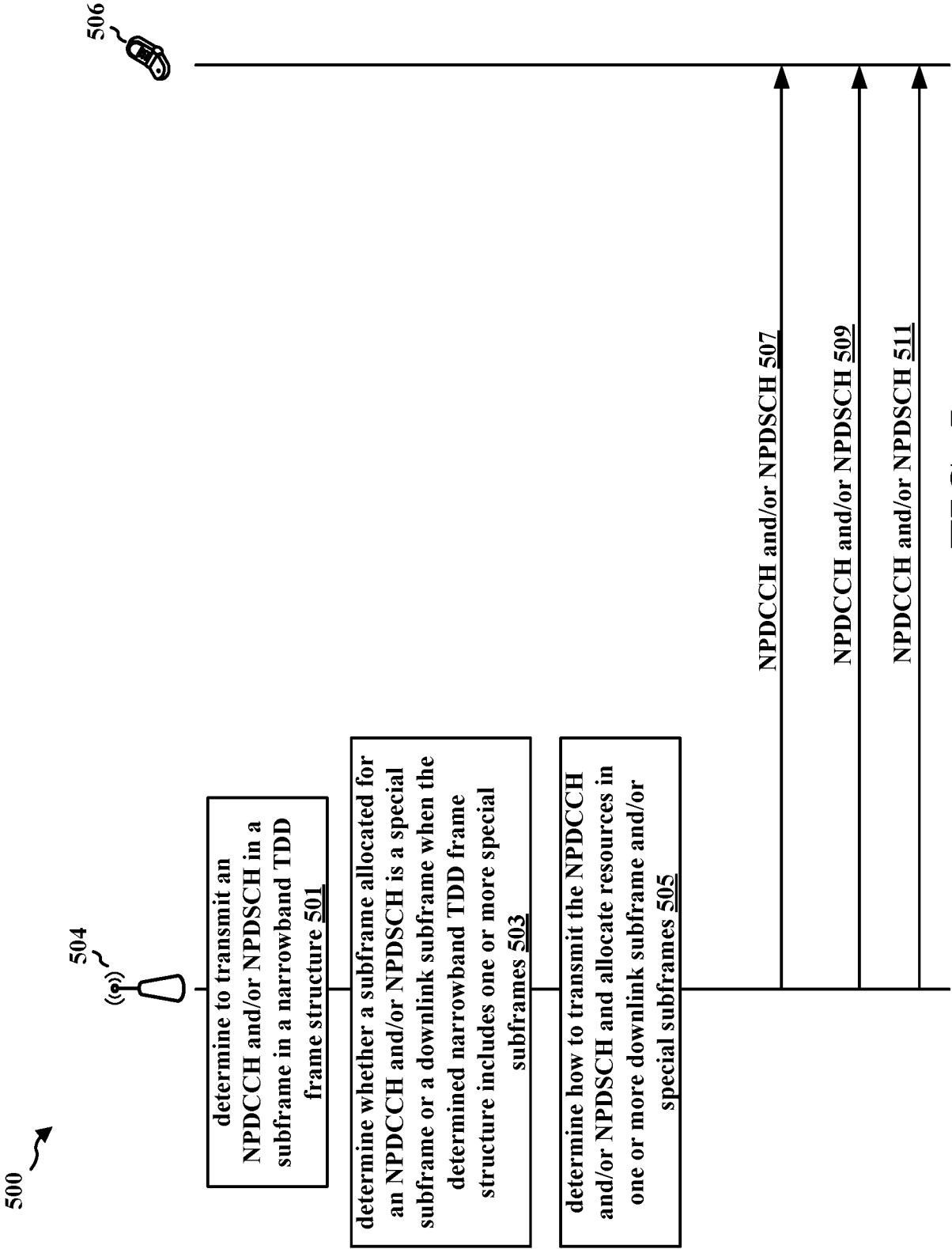


FIG. 5

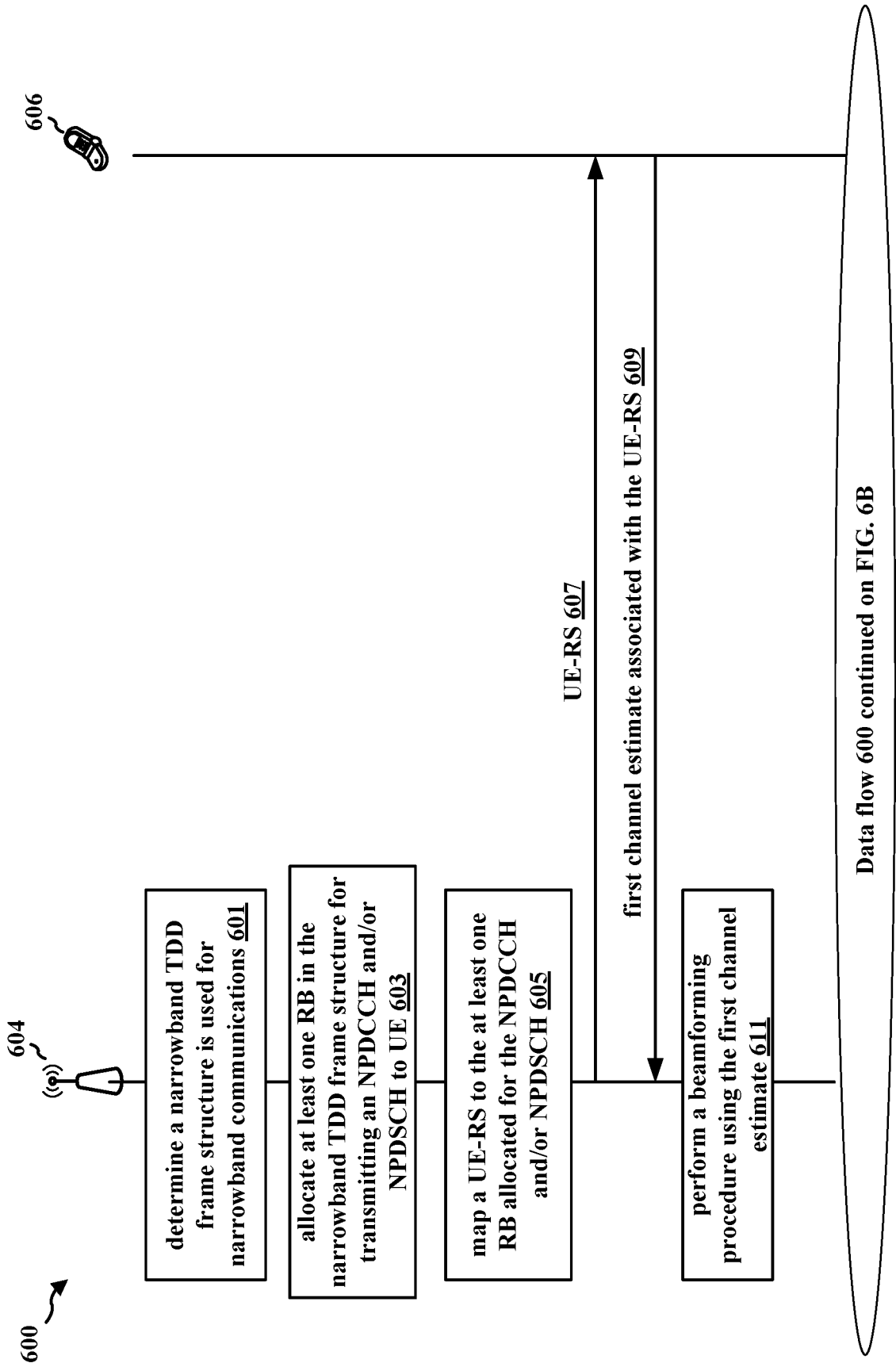


FIG. 6A

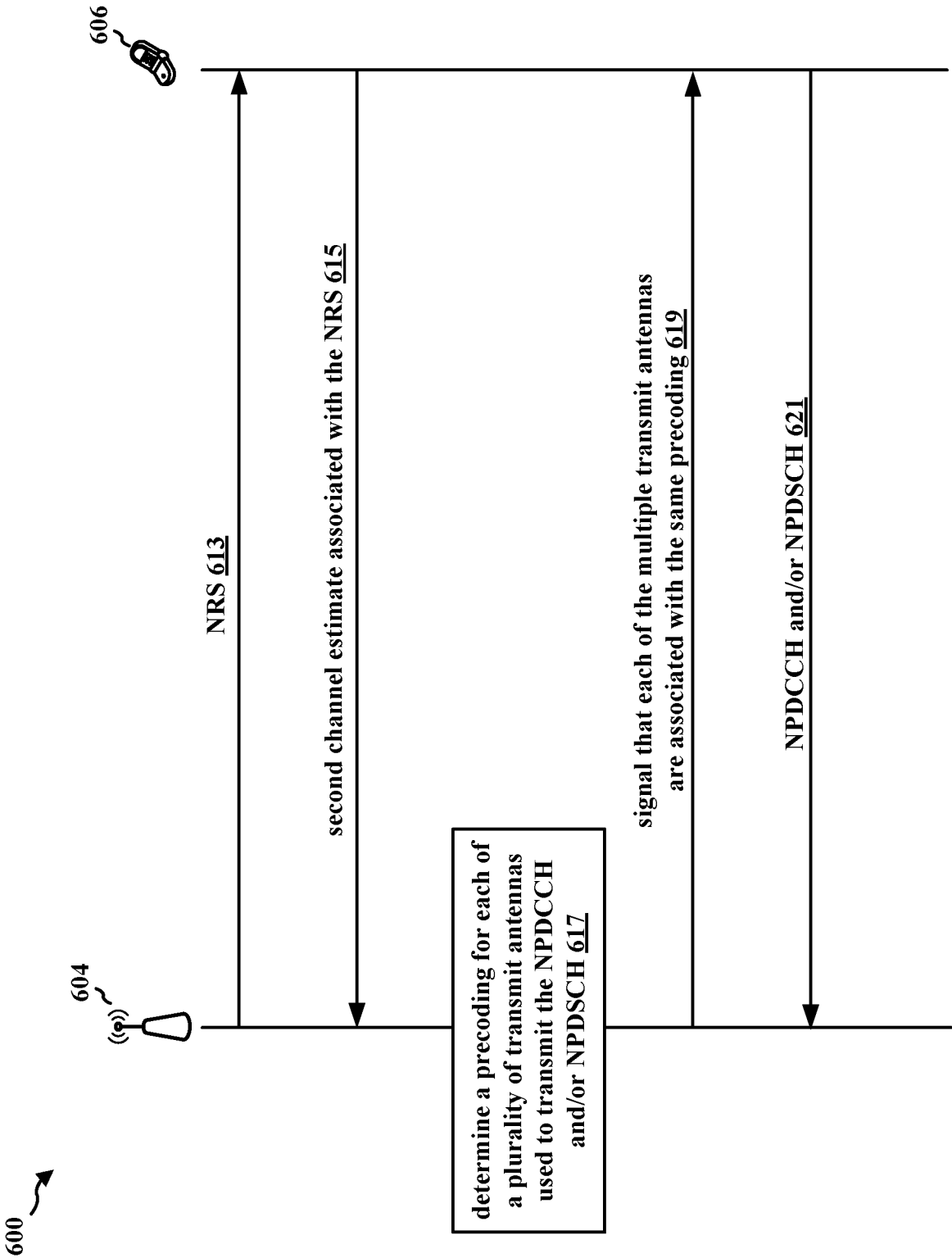


FIG. 6B

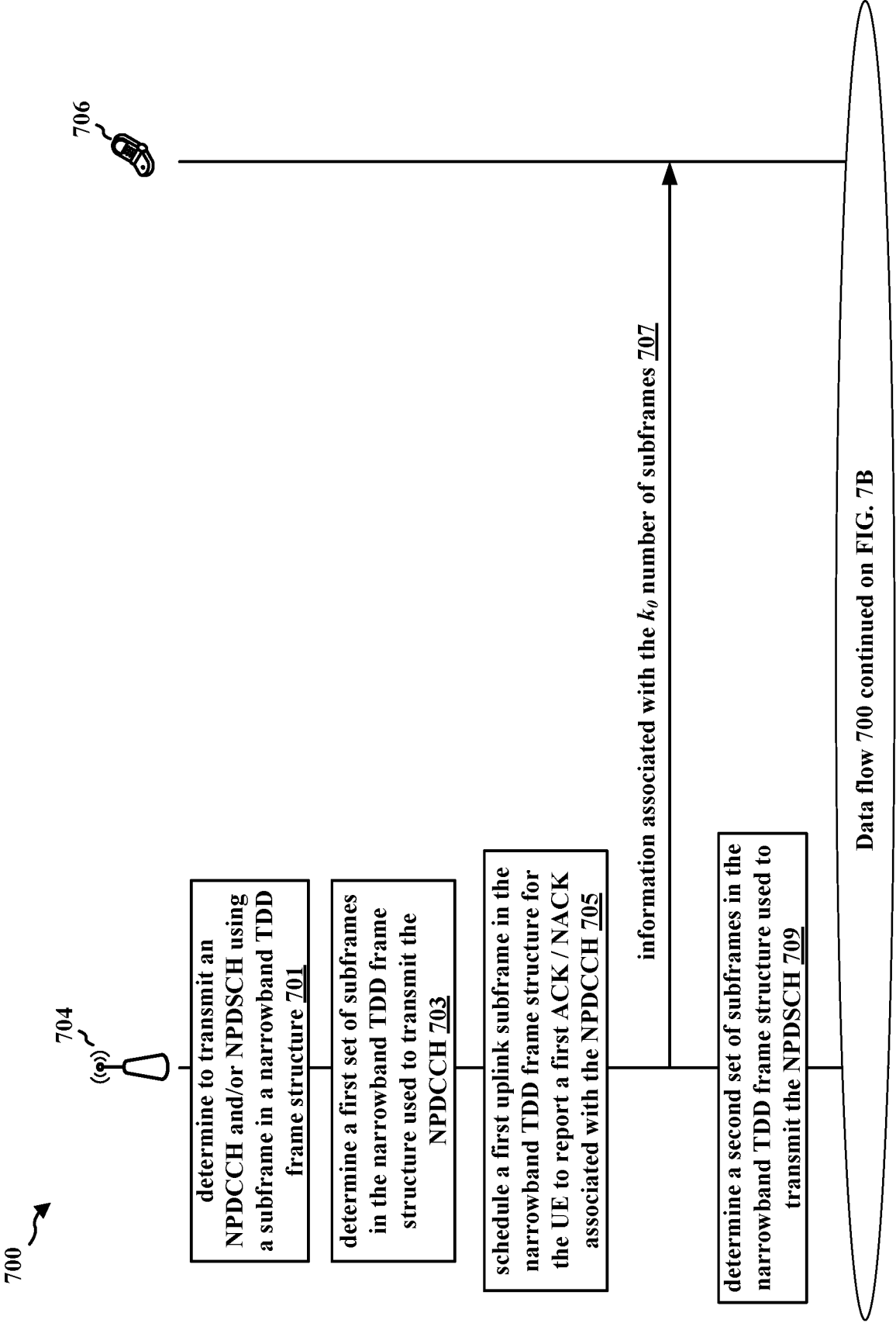


FIG. 7A

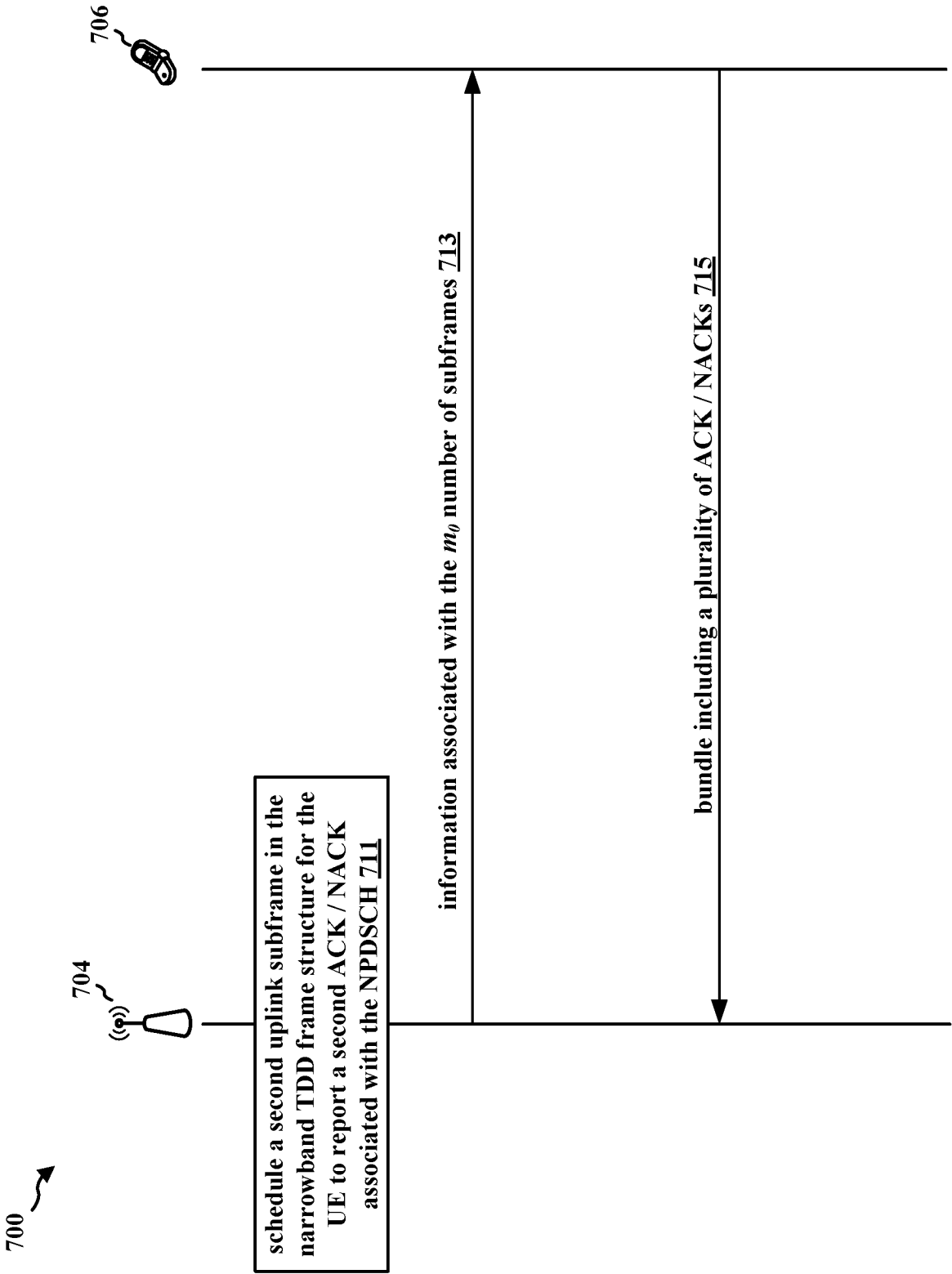


FIG. 7B

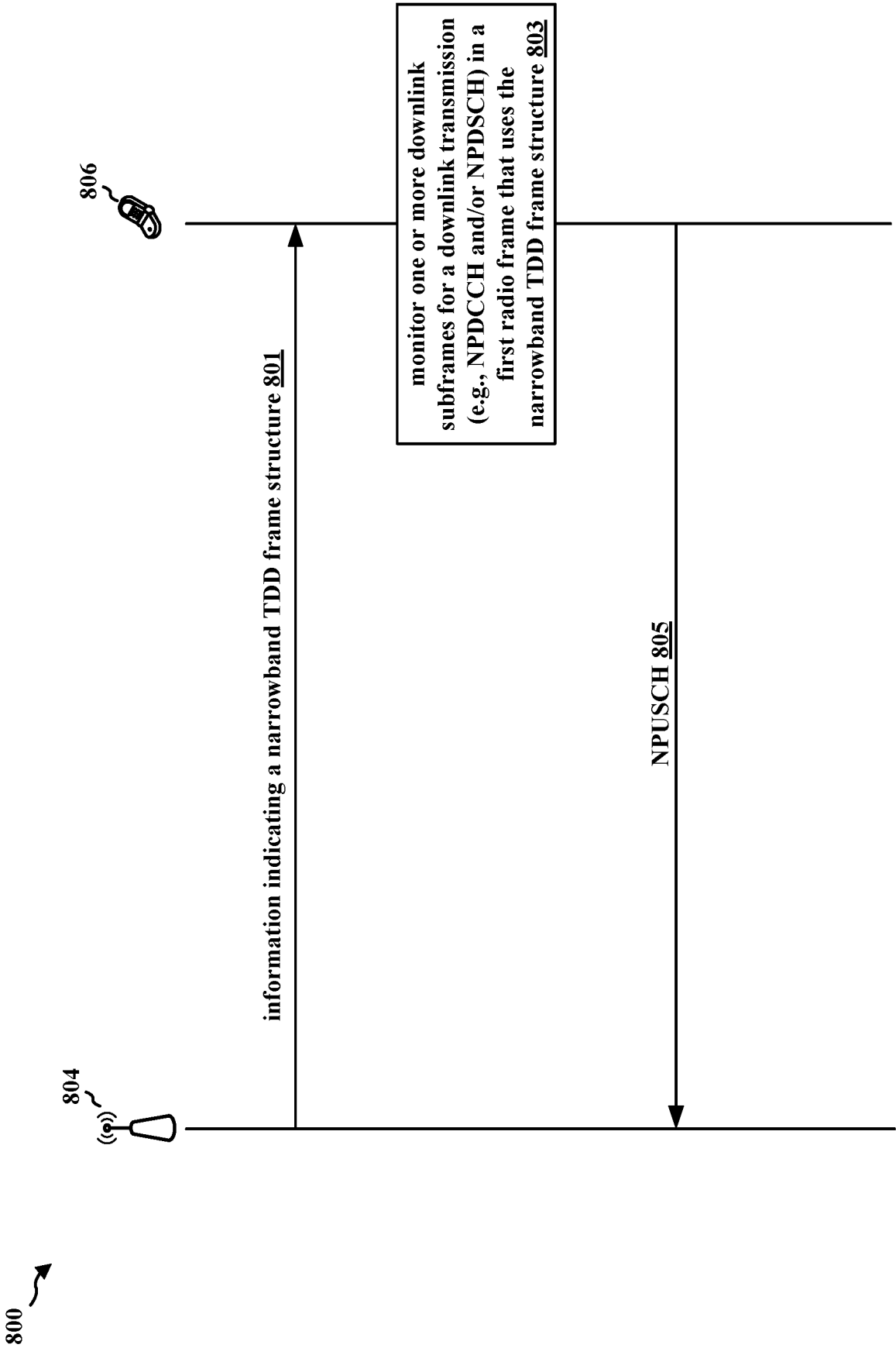


FIG. 8A

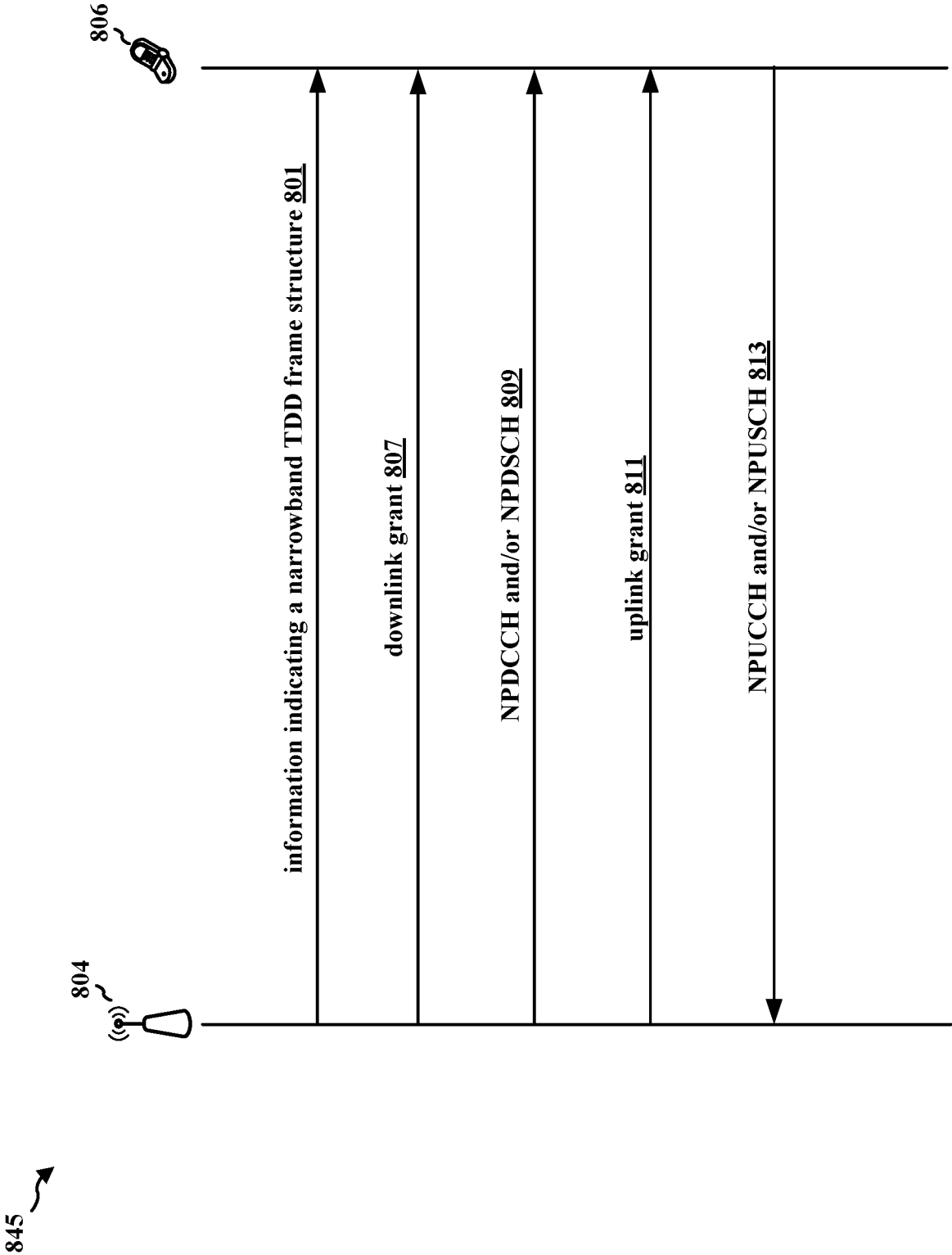


FIG. 8B

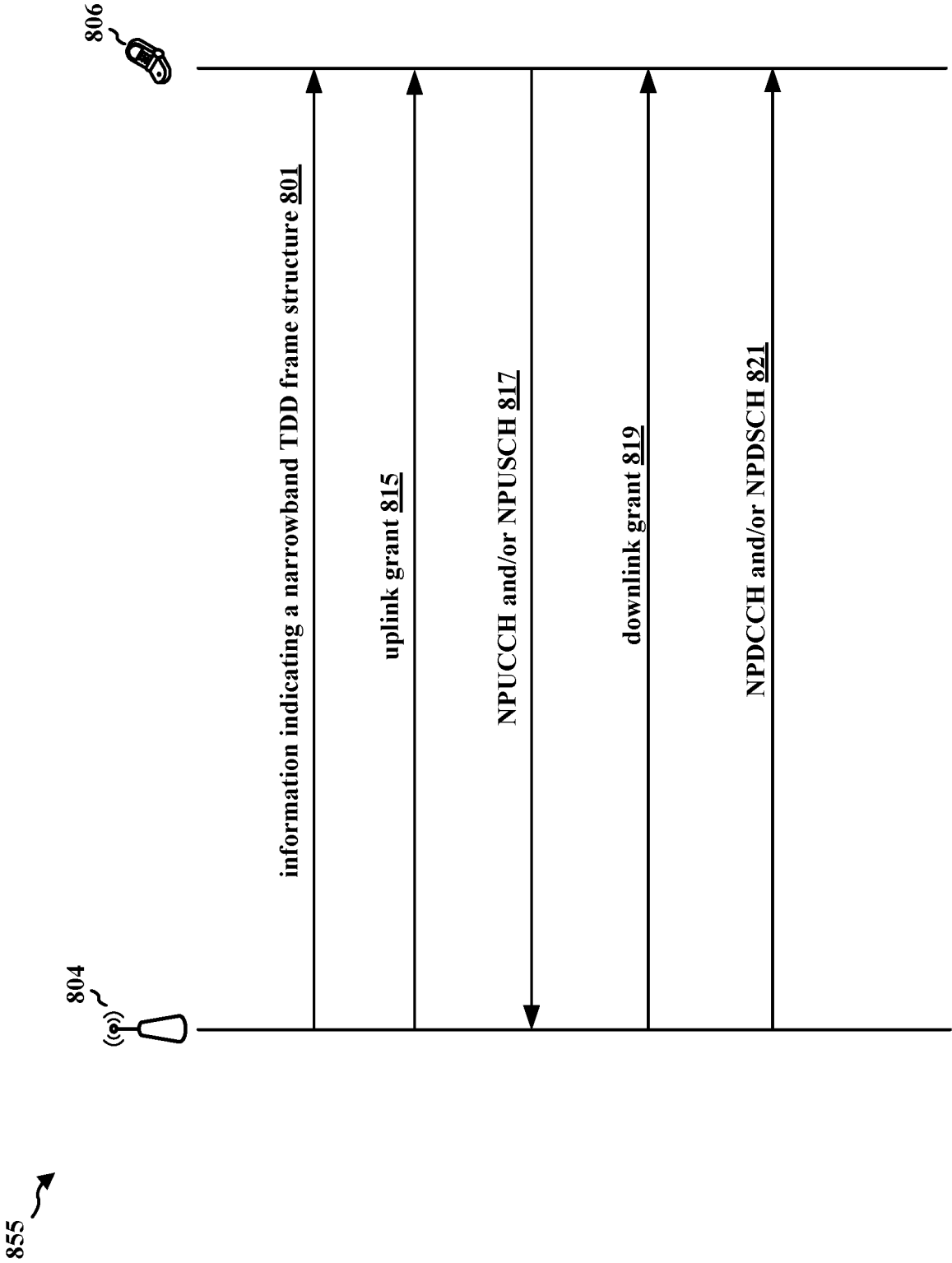


FIG. 8C

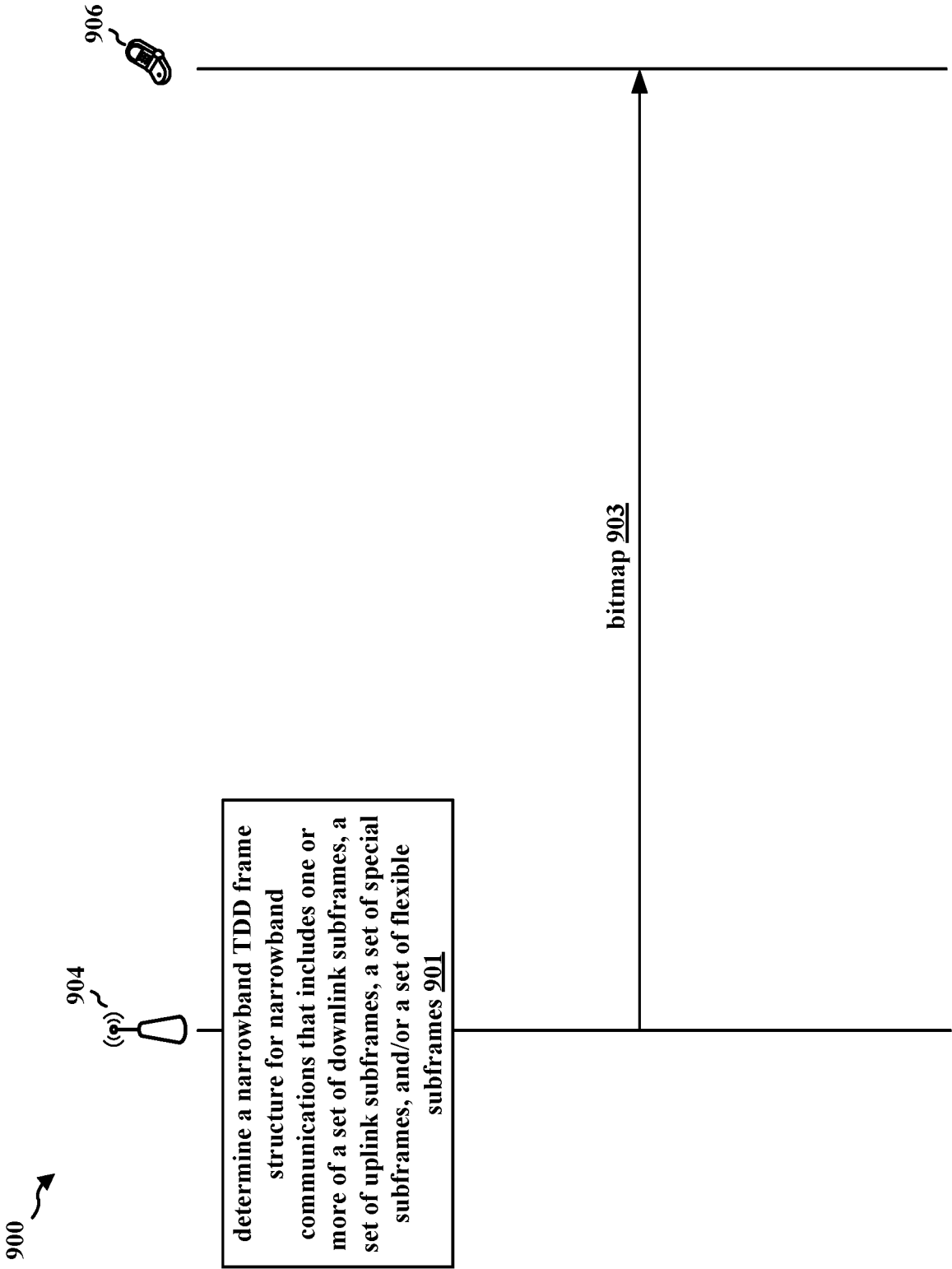


FIG. 9

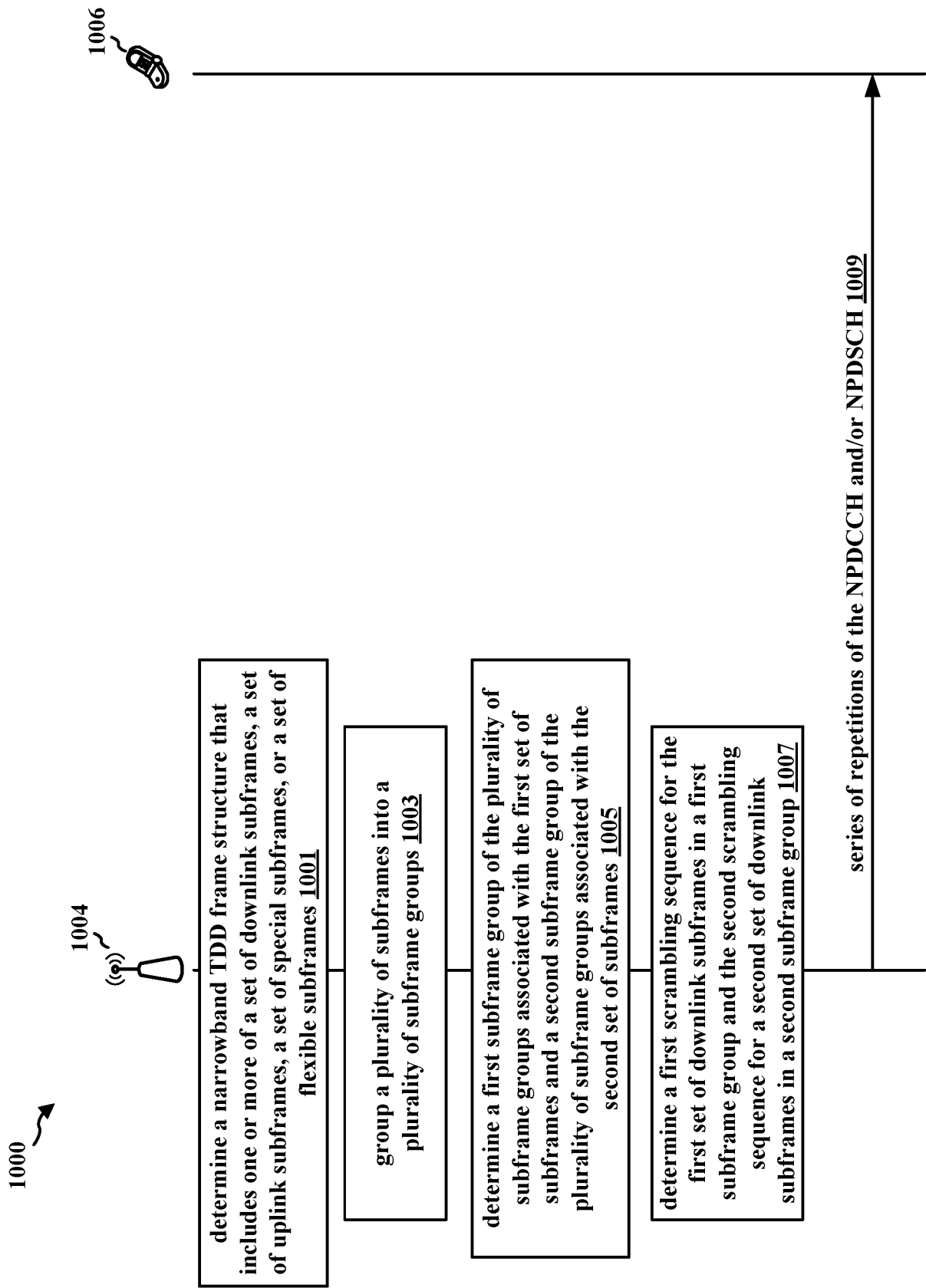


FIG. 10

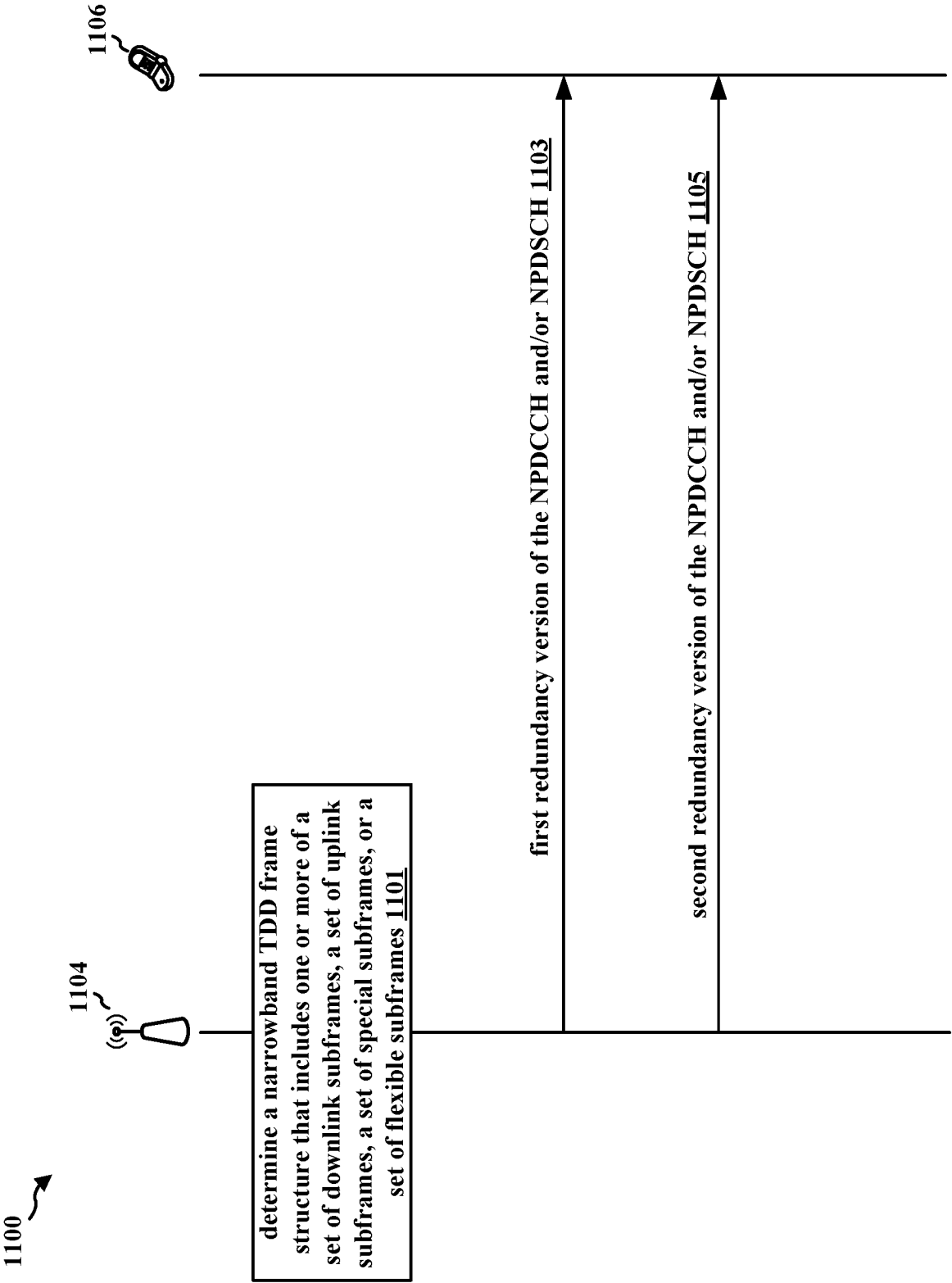
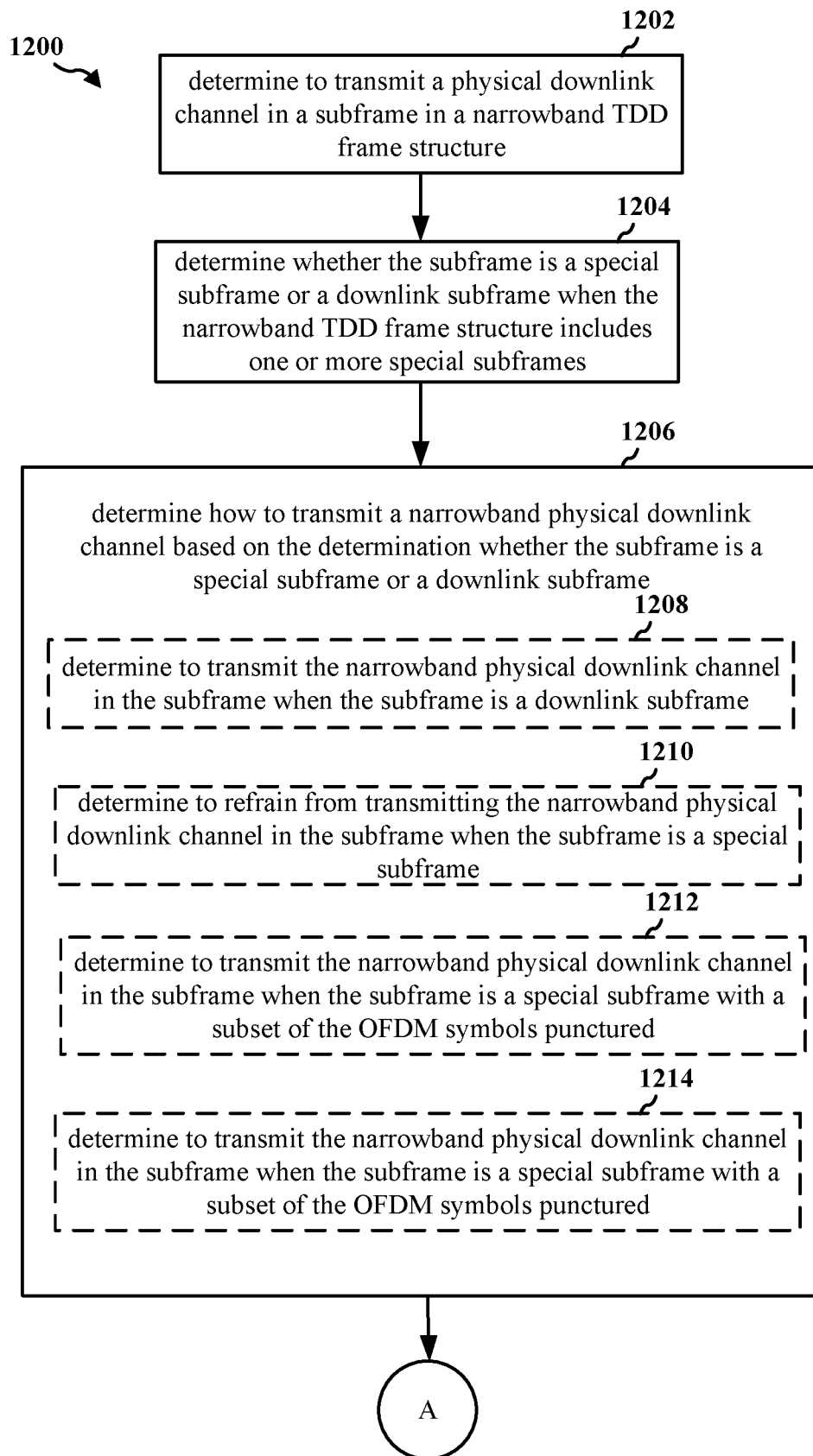


FIG. 11

16/37

**FIG. 12A**

17/37

1200



1206

determine how to transmit a narrowband physical downlink channel based on whether the subframe is a special subframe or a downlink subframe

1216

determine to transmit the narrowband physical downlink channel in the subframe when the subframe is a special subframe and a number of OFDM symbols is greater than a predetermined threshold

1218

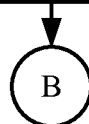
determine to transmit the narrowband physical downlink channel in a special subframe with a punctured subset of OFDM symbols when the number of OFDM symbols in the special subframe is less than a predetermined threshold

1220

determine to refrain from transmitting the narrowband physical downlink channel in the subframe when the subframe is a special subframe and a number of OFDM symbols in the special subframe is less than a predetermined threshold

1222

determine to drop the transmission of the narrowband physical downlink channel in the subframe when the subframe is a special subframe and a number OFDM symbols in the special subframe is less than a predetermined threshold

**FIG. 12B**

18/37

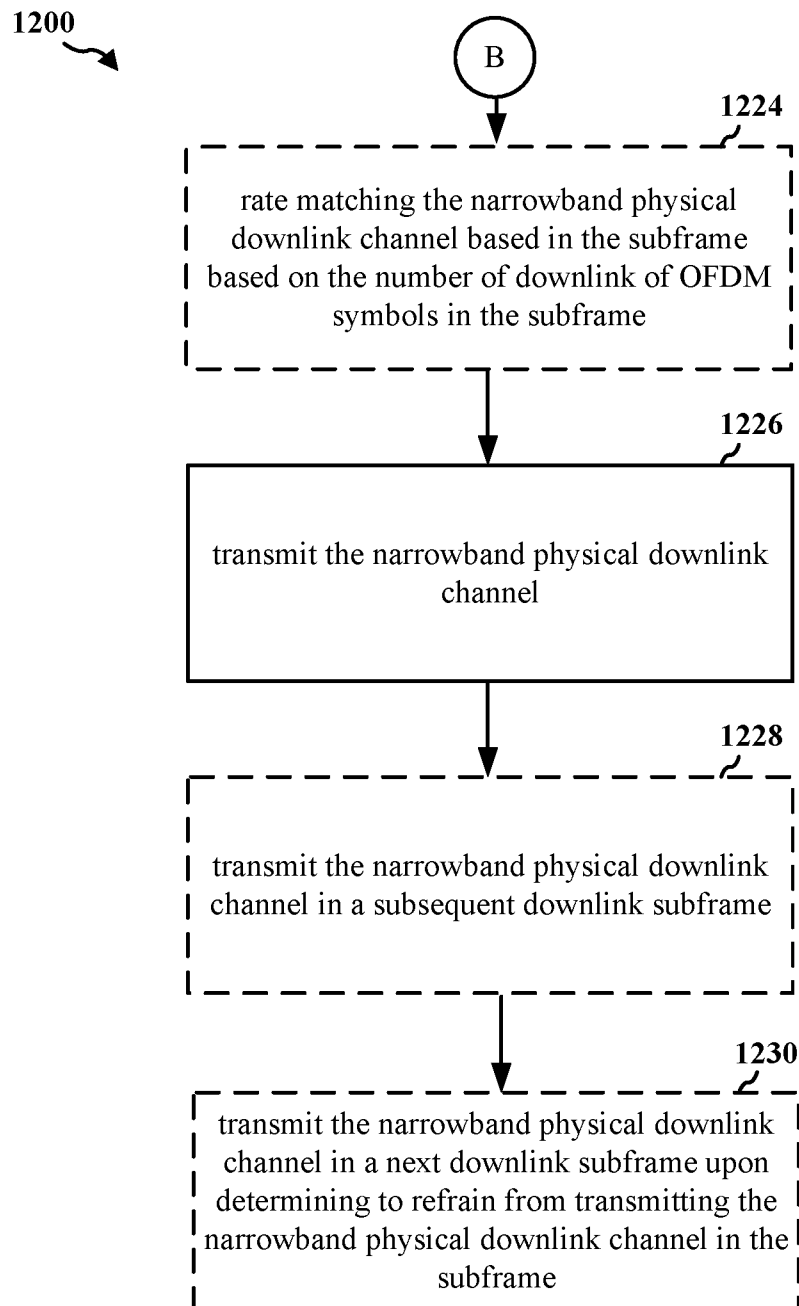


FIG. 12C

19/37

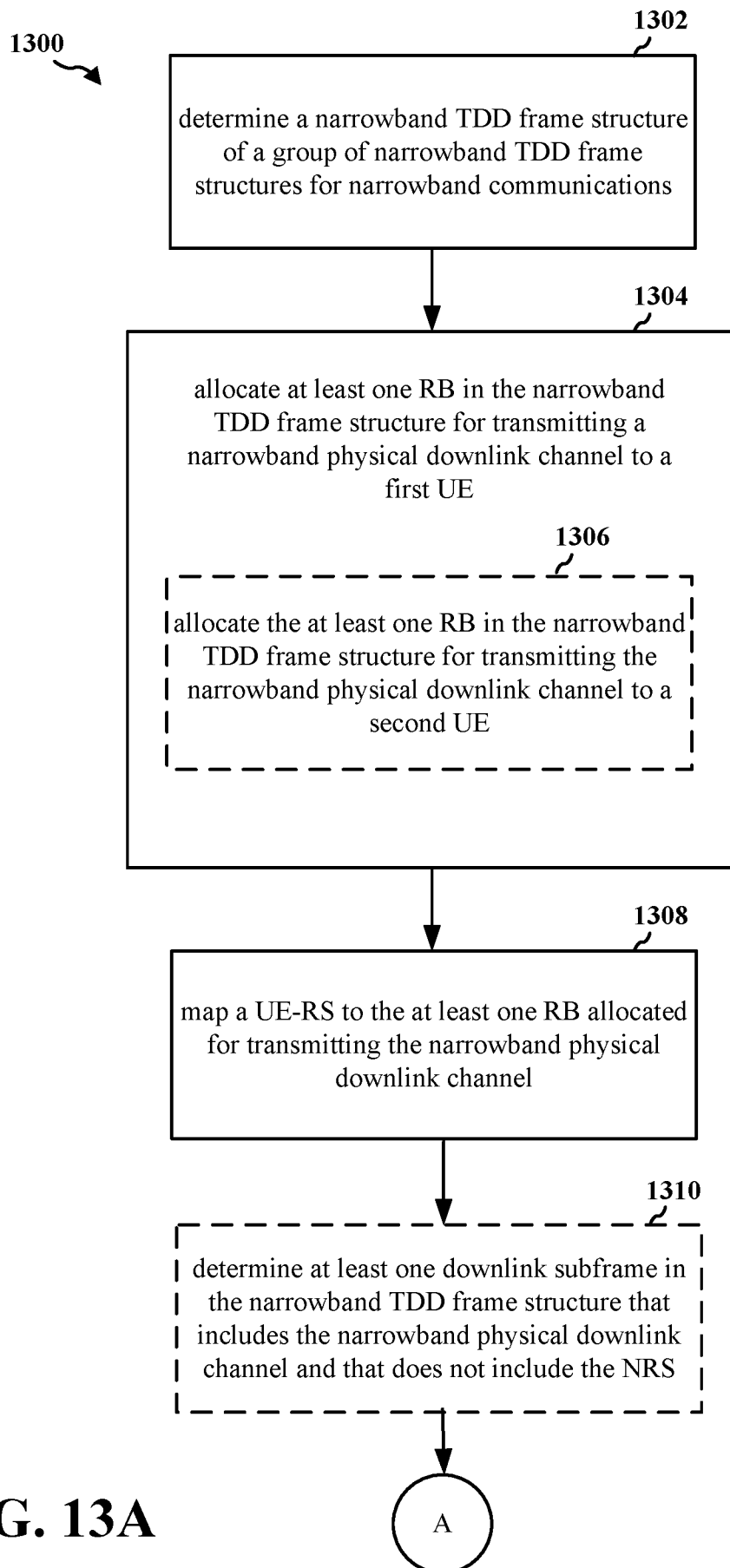
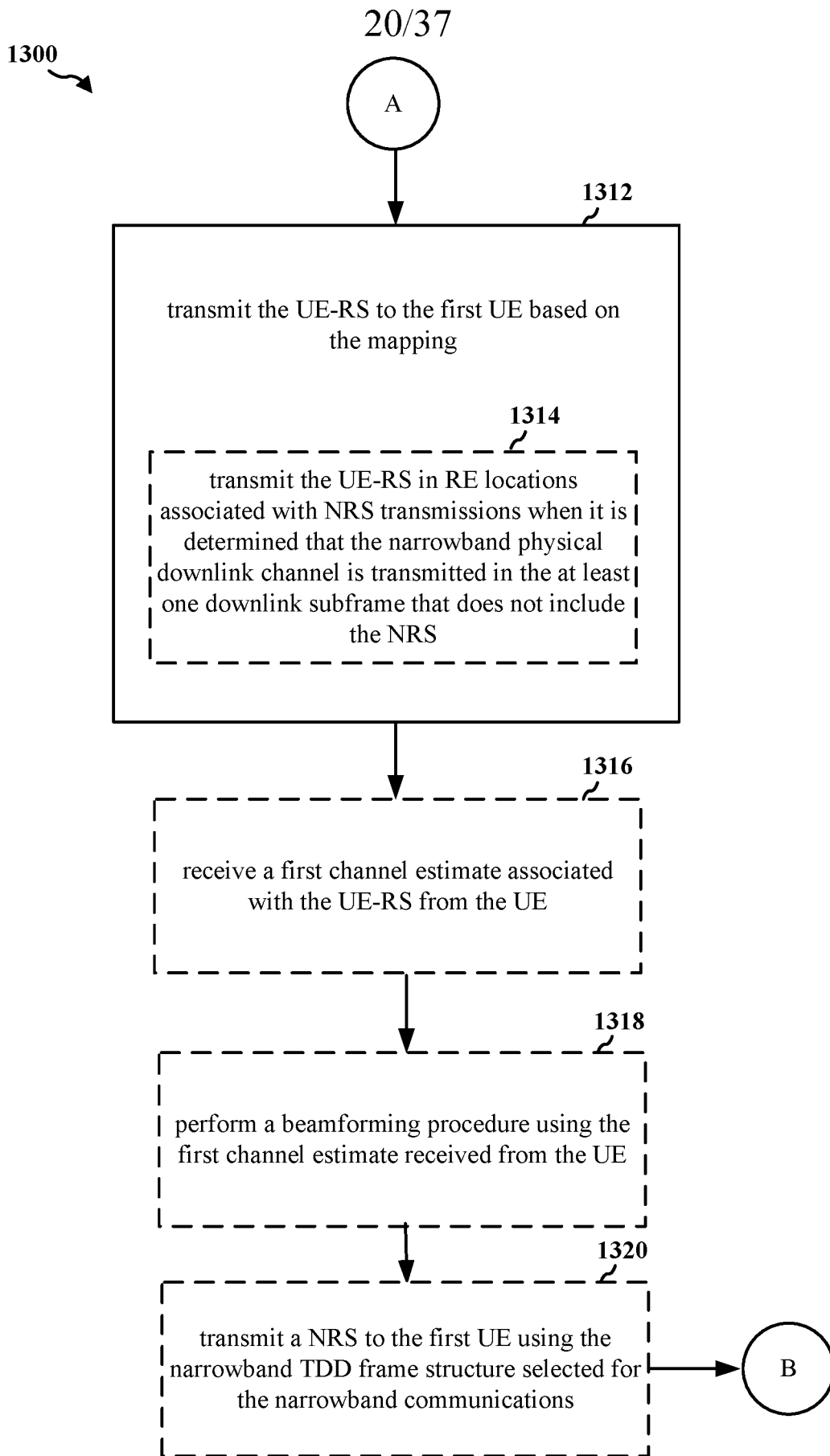


FIG. 13A

**FIG. 13B**

21/37

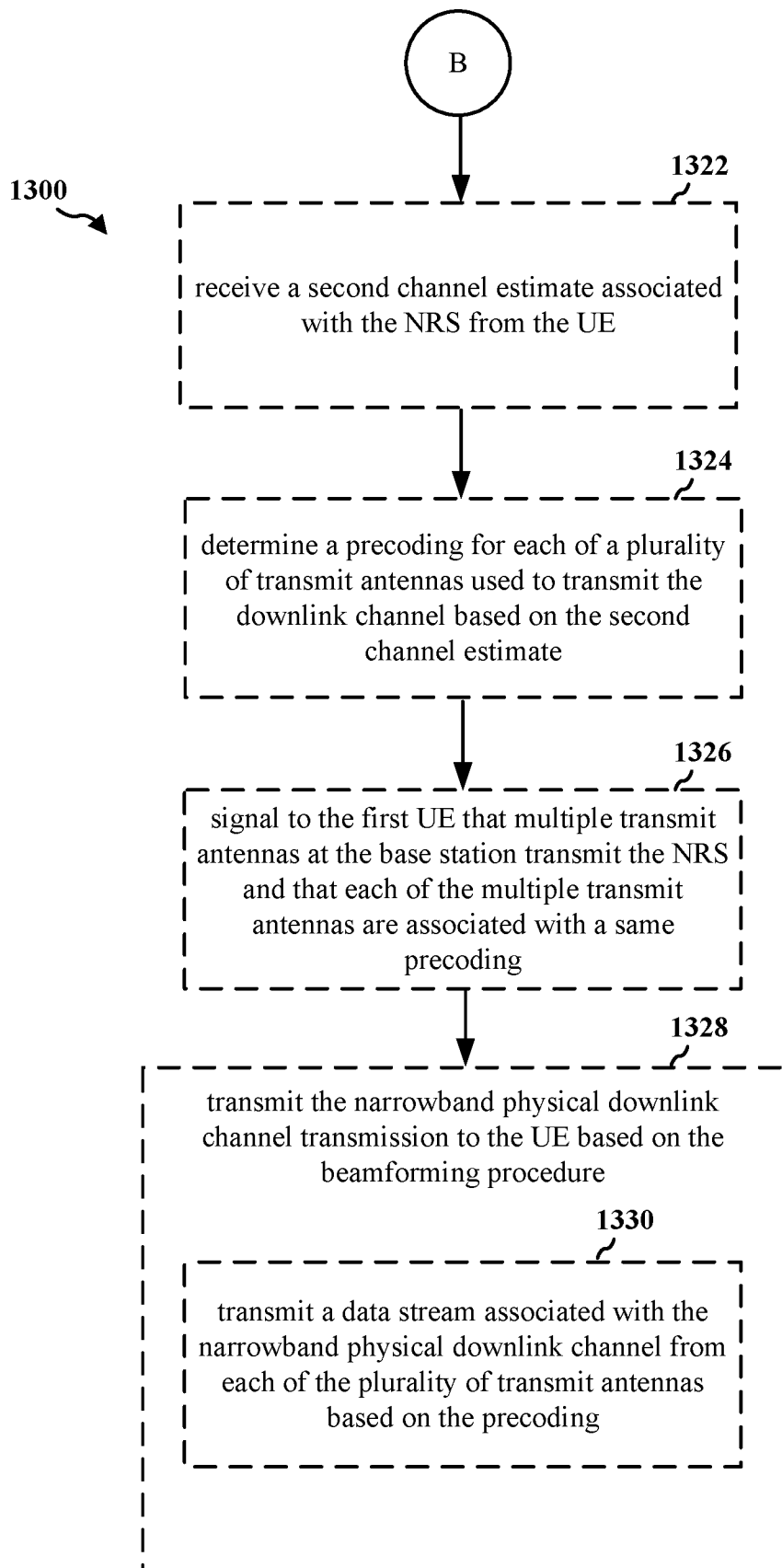


FIG. 13C

22/37

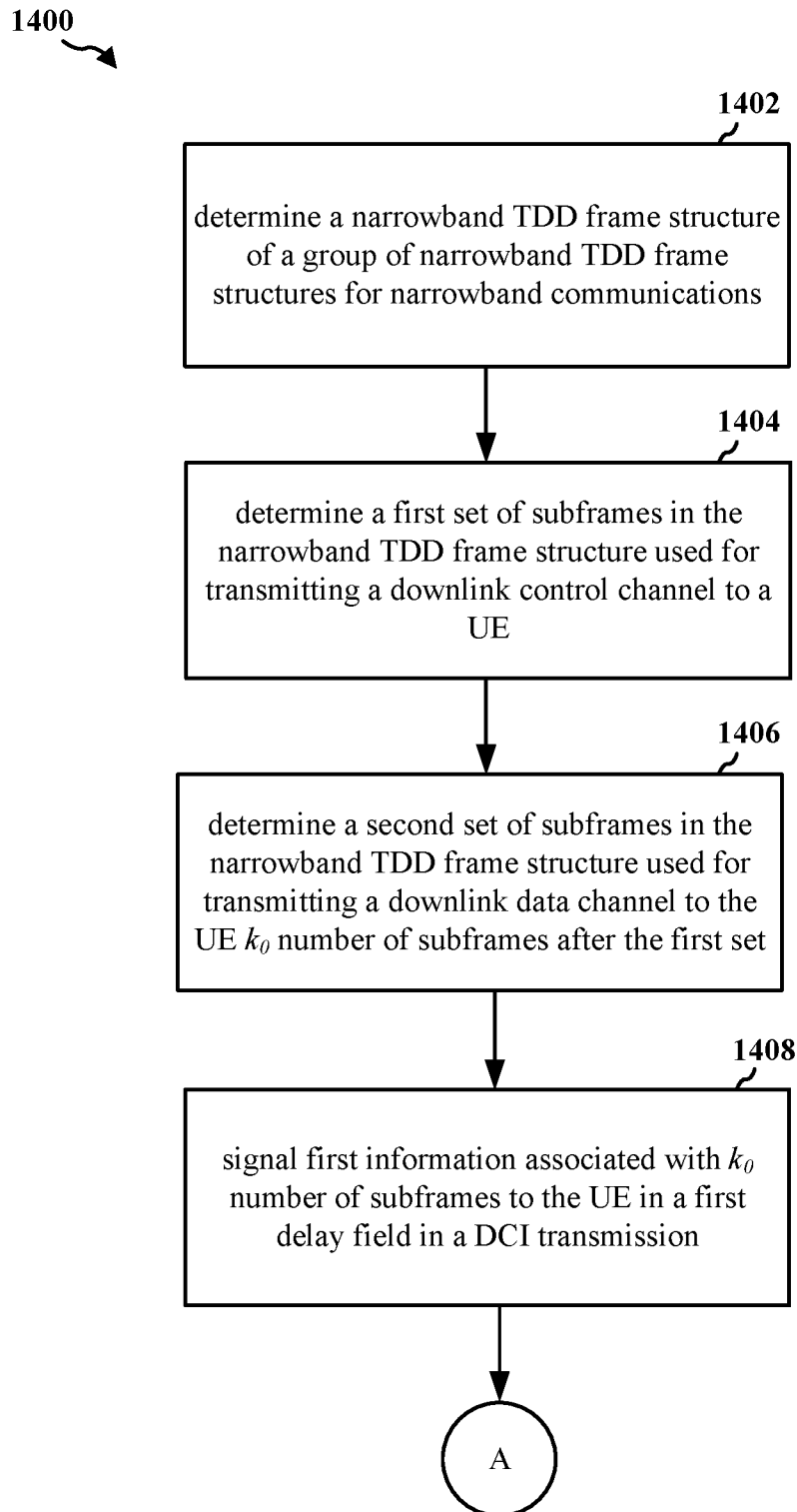
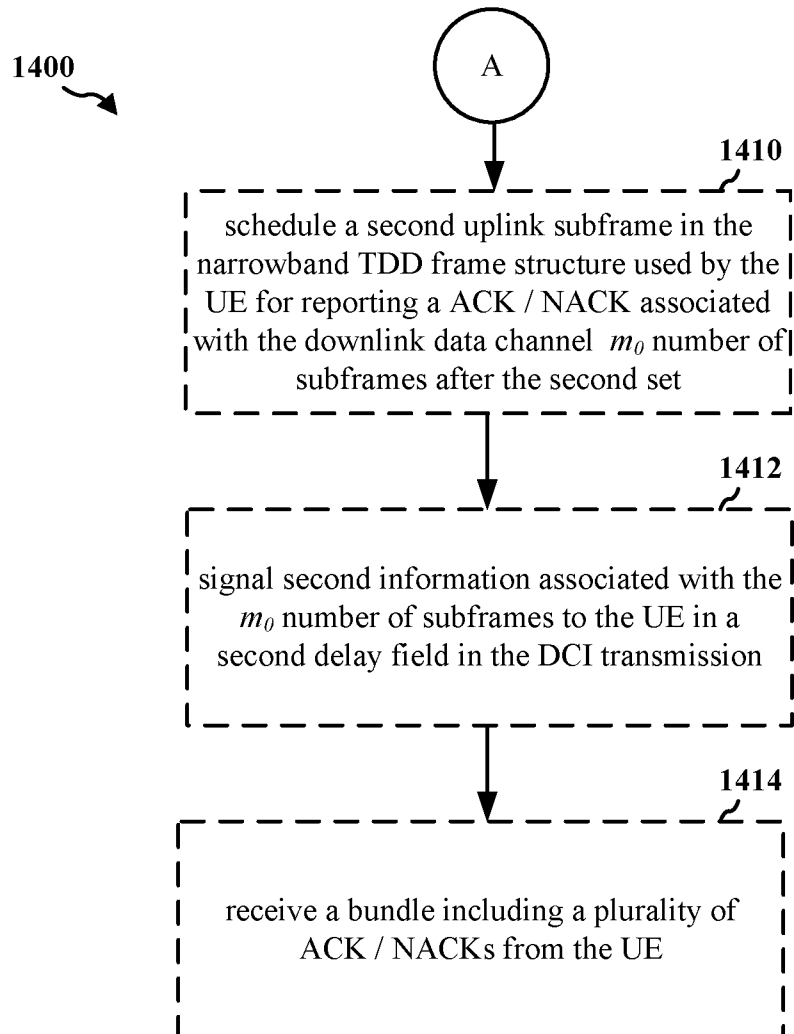
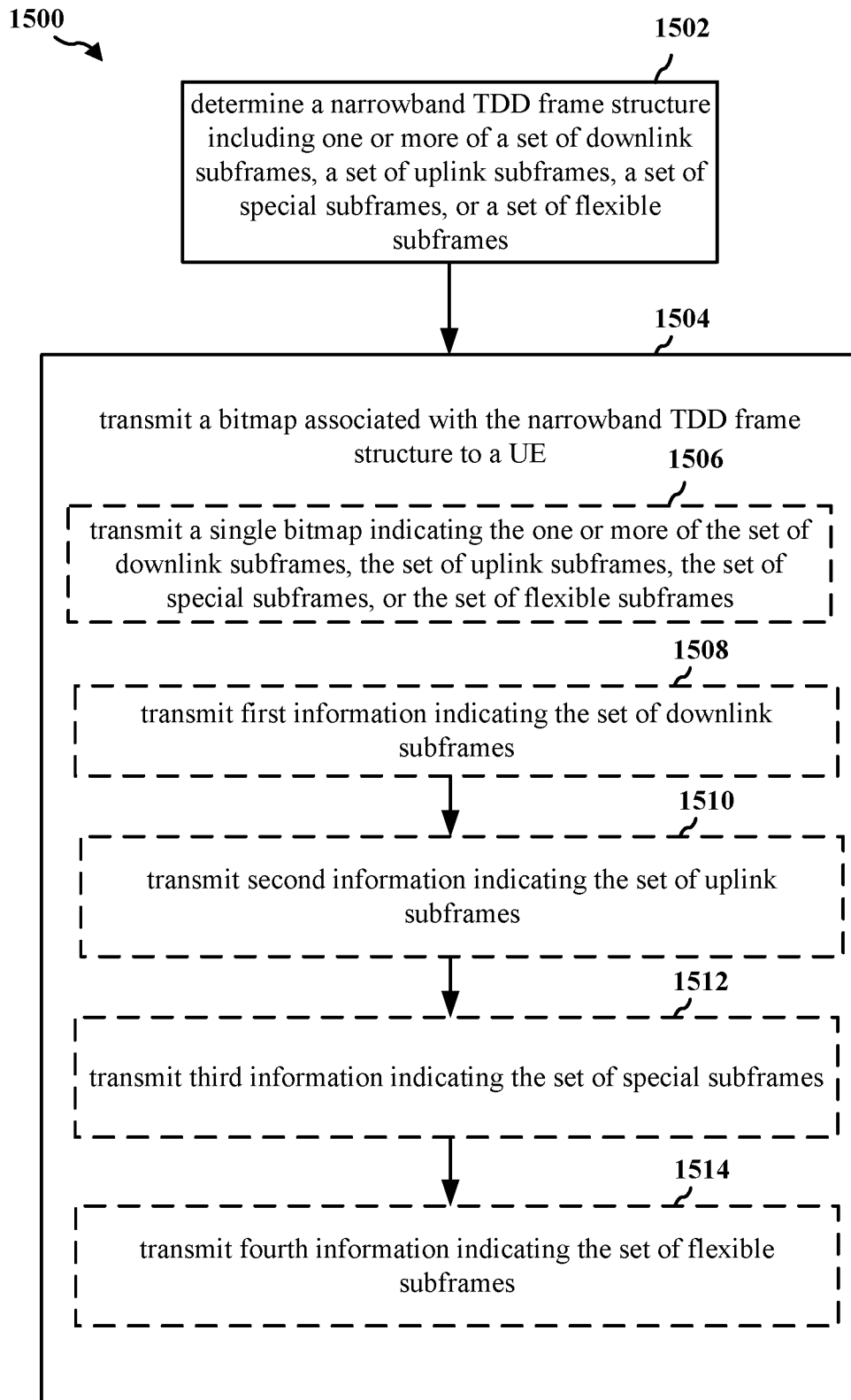


FIG. 14A

23/37

**FIG. 14B**

24/37

**FIG. 15**

25/37

1600

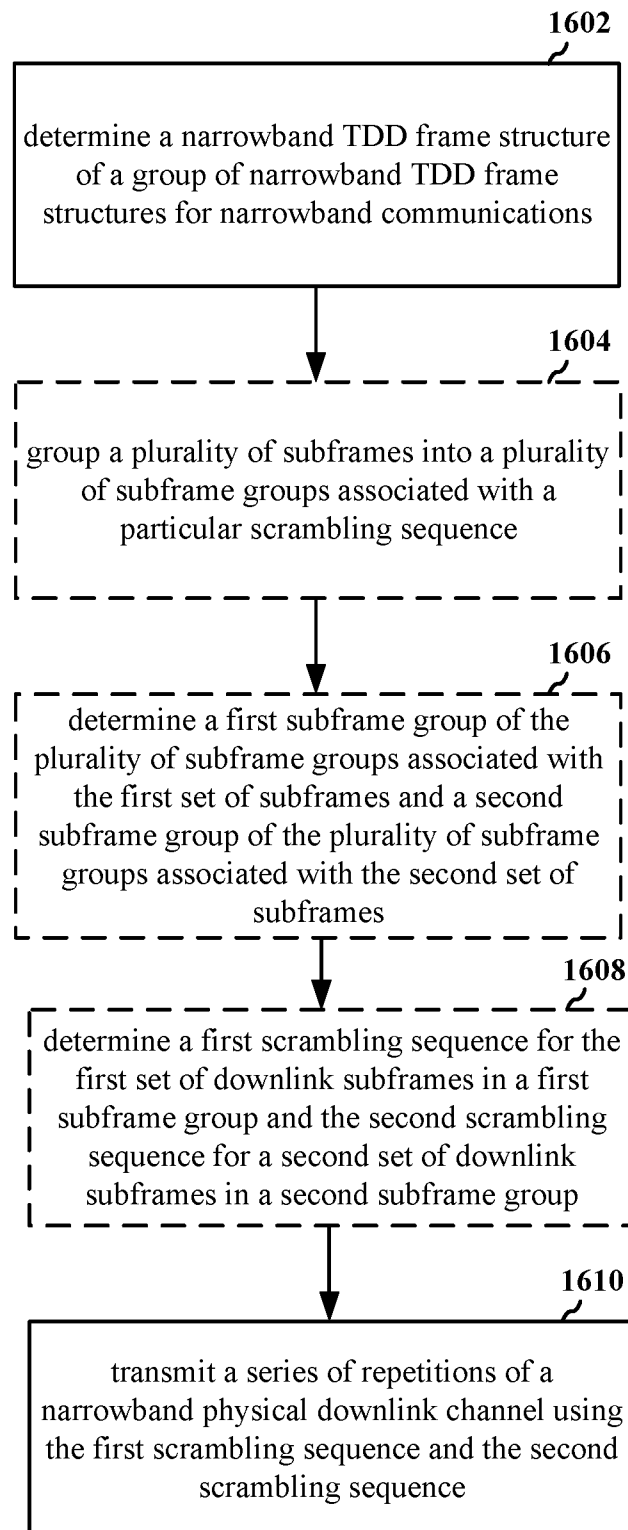
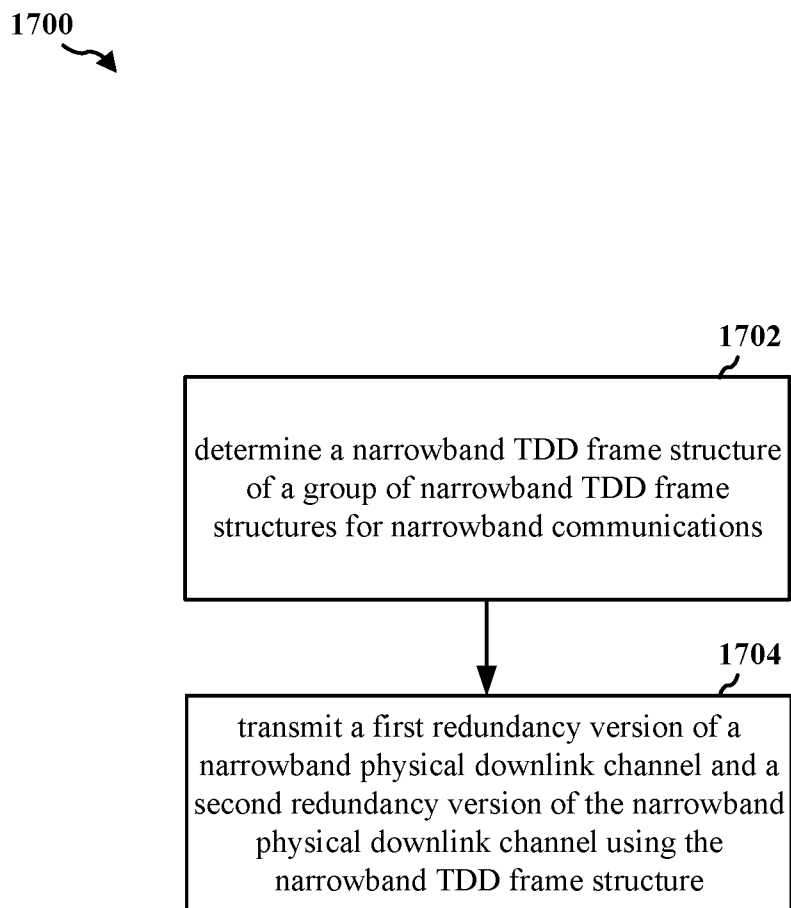


FIG. 16

**FIG. 17**

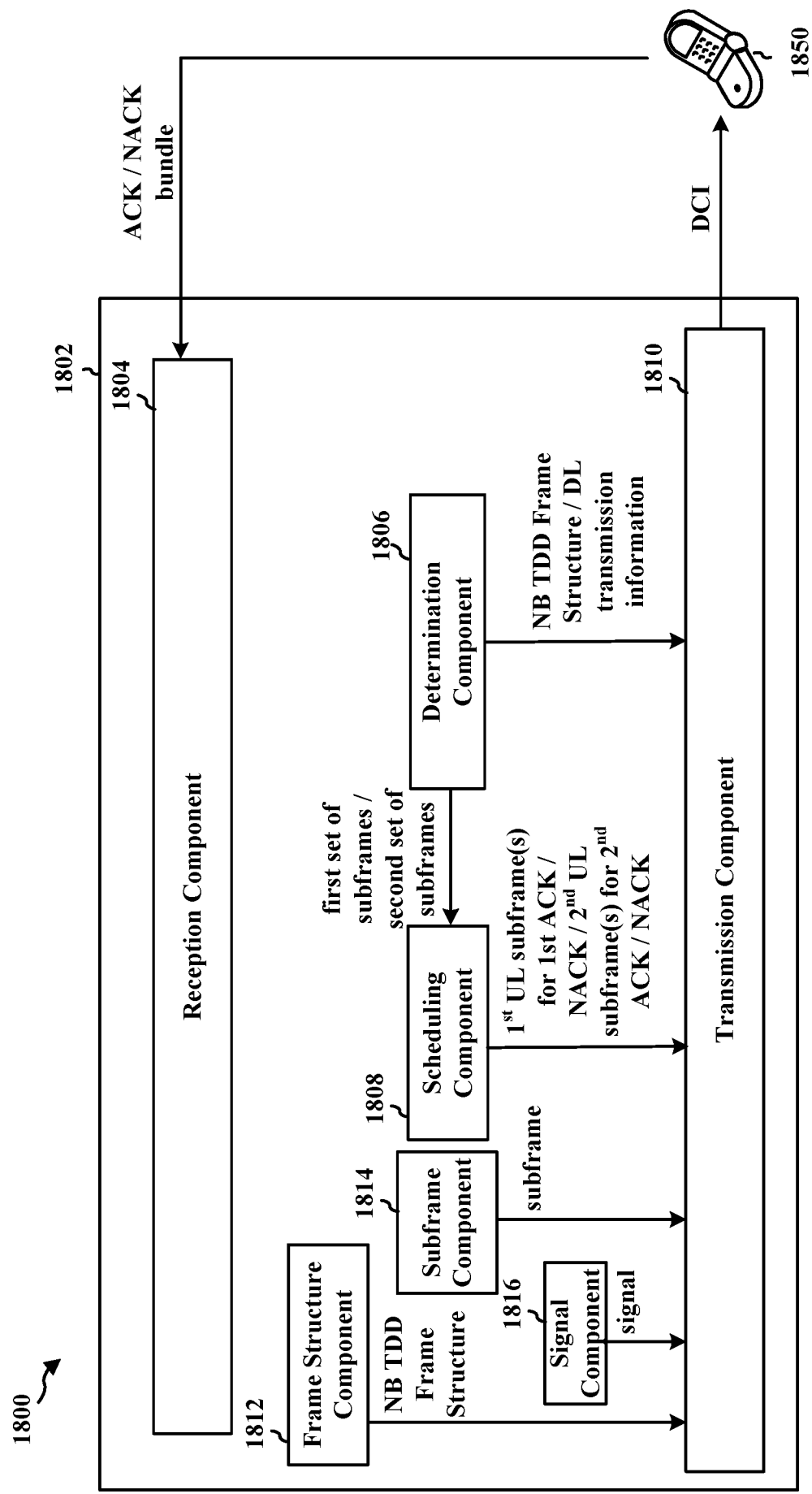


FIG. 18

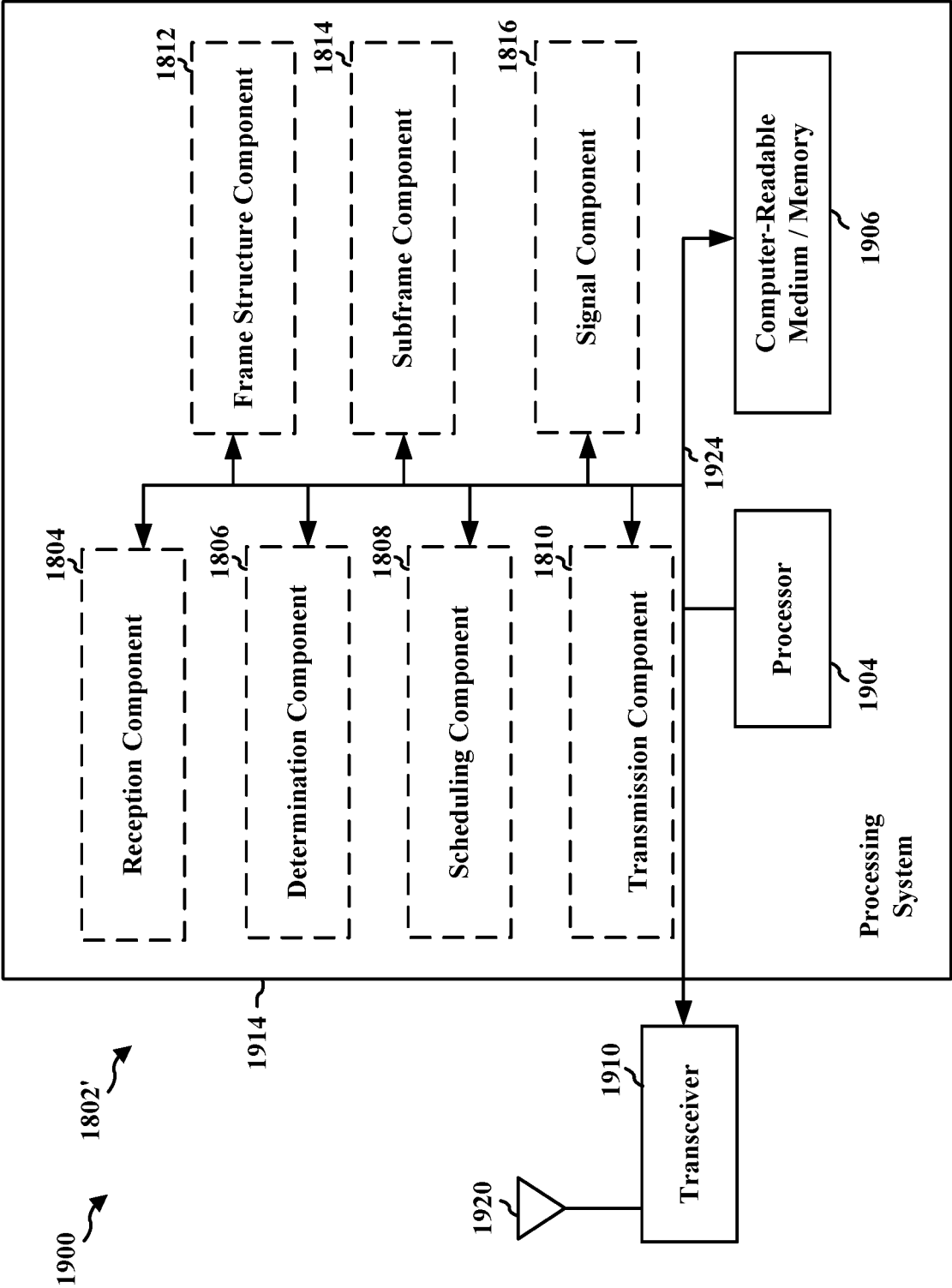
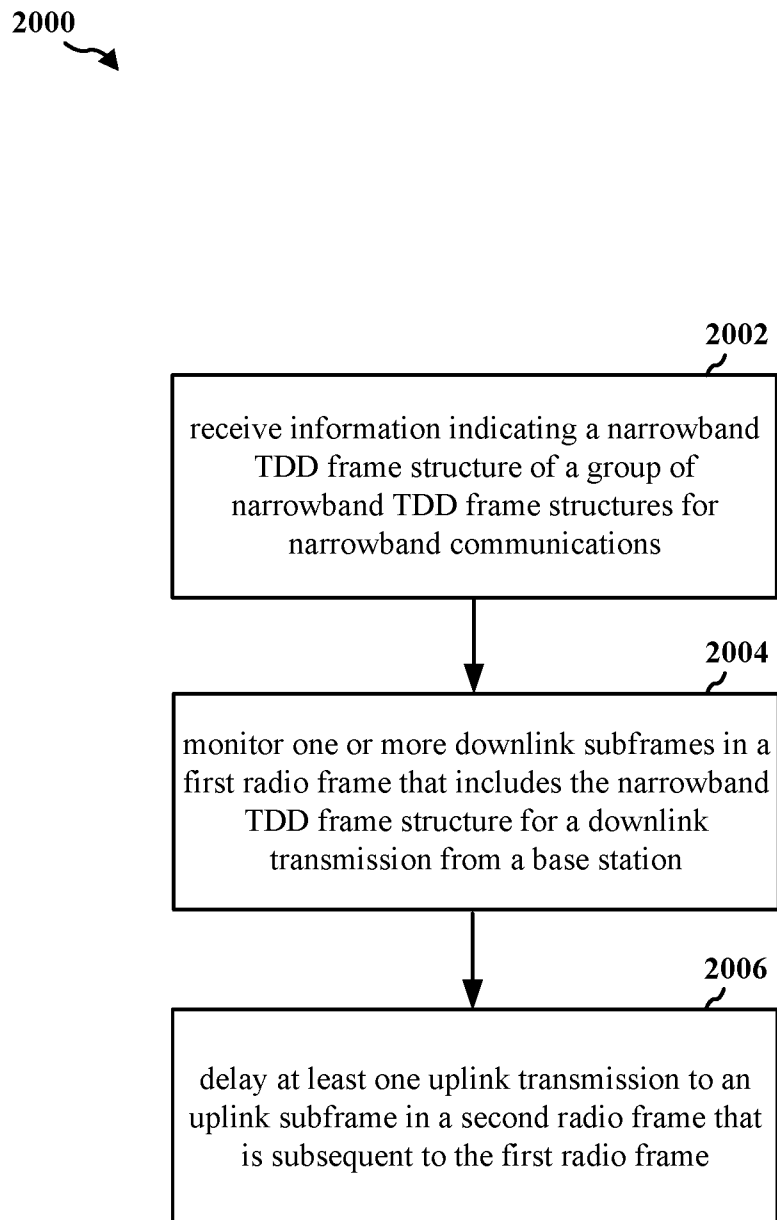


FIG. 19

**FIG. 20**

30/37

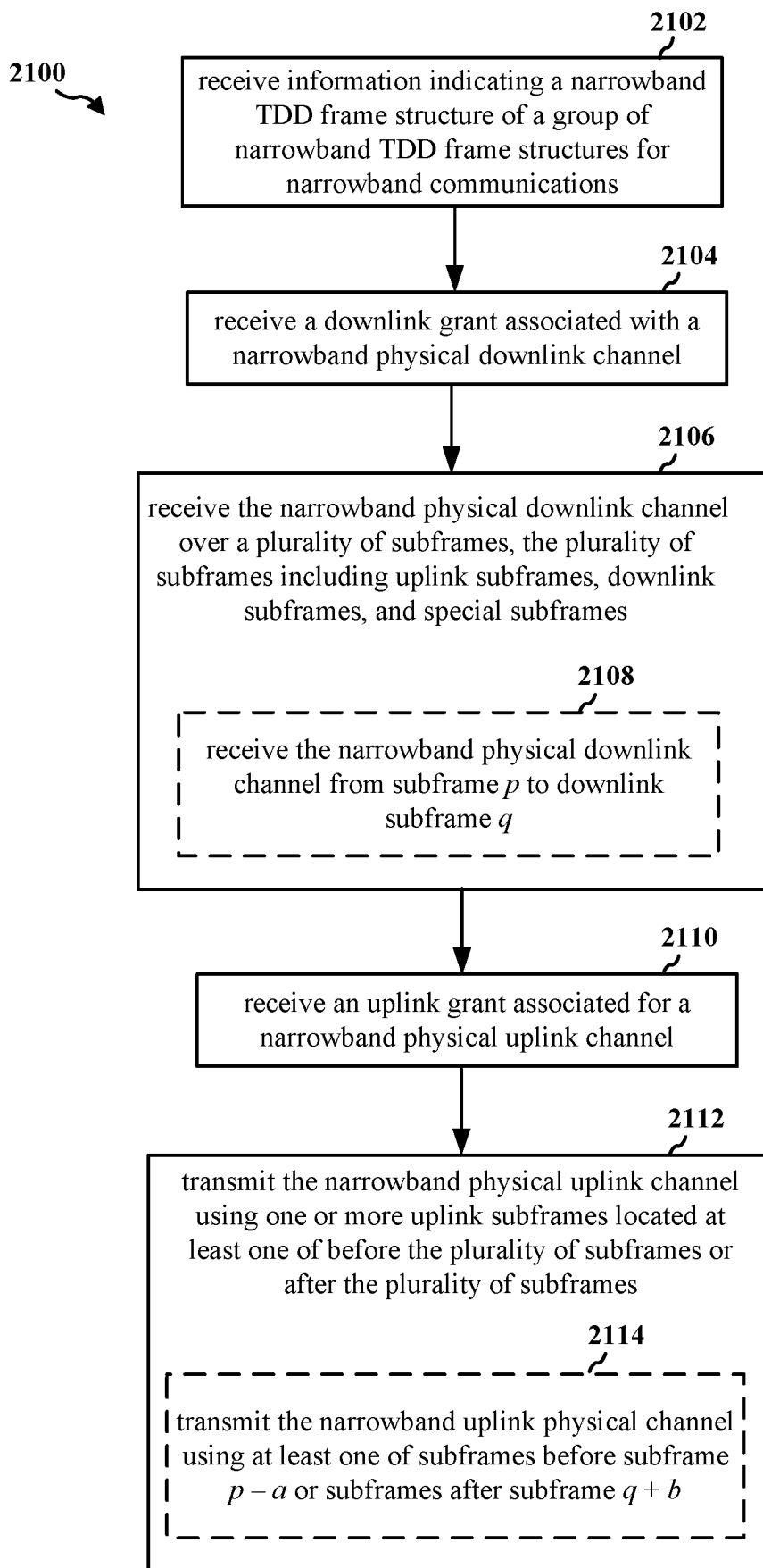


FIG. 21

31/37

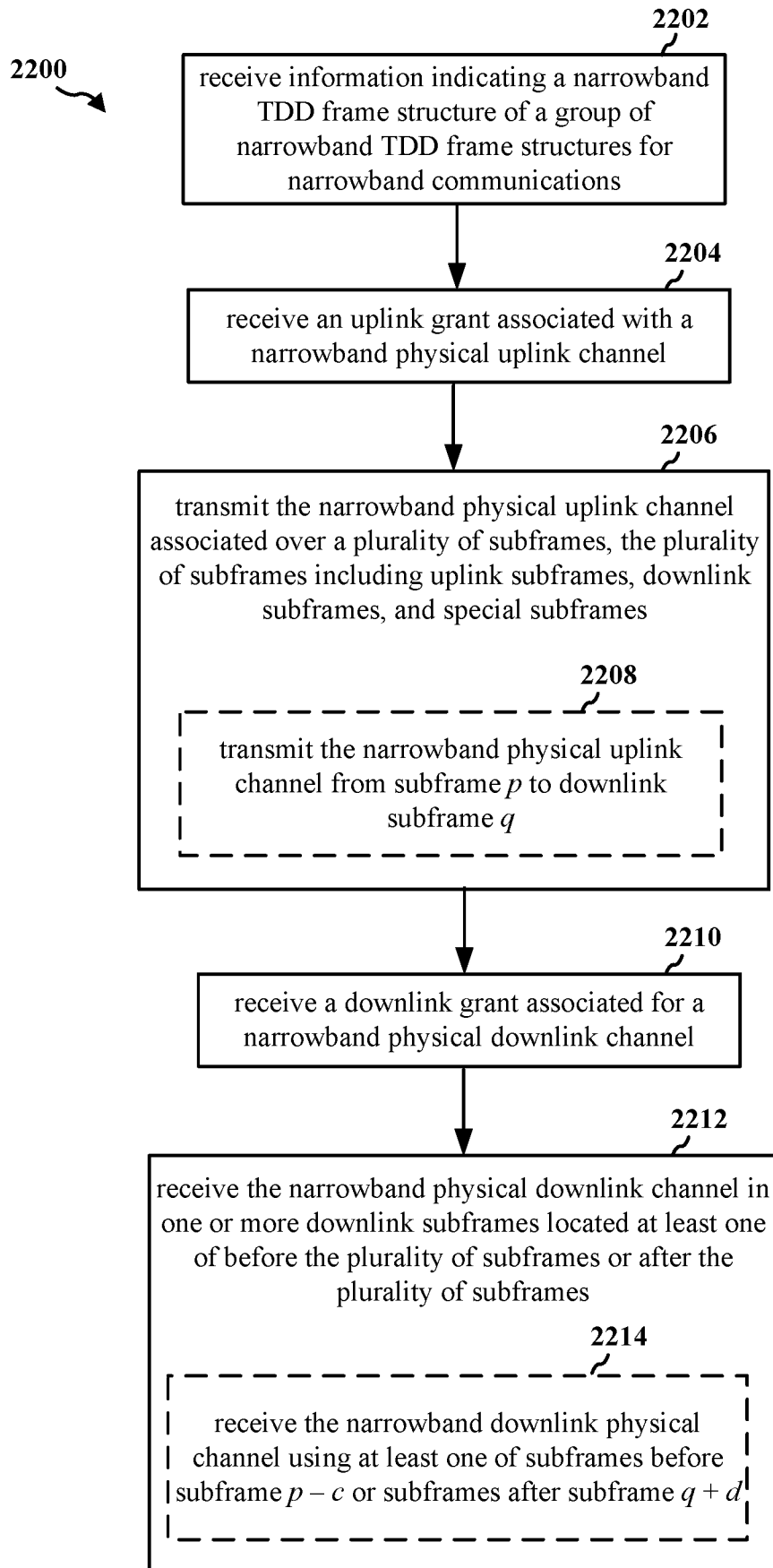


FIG. 22

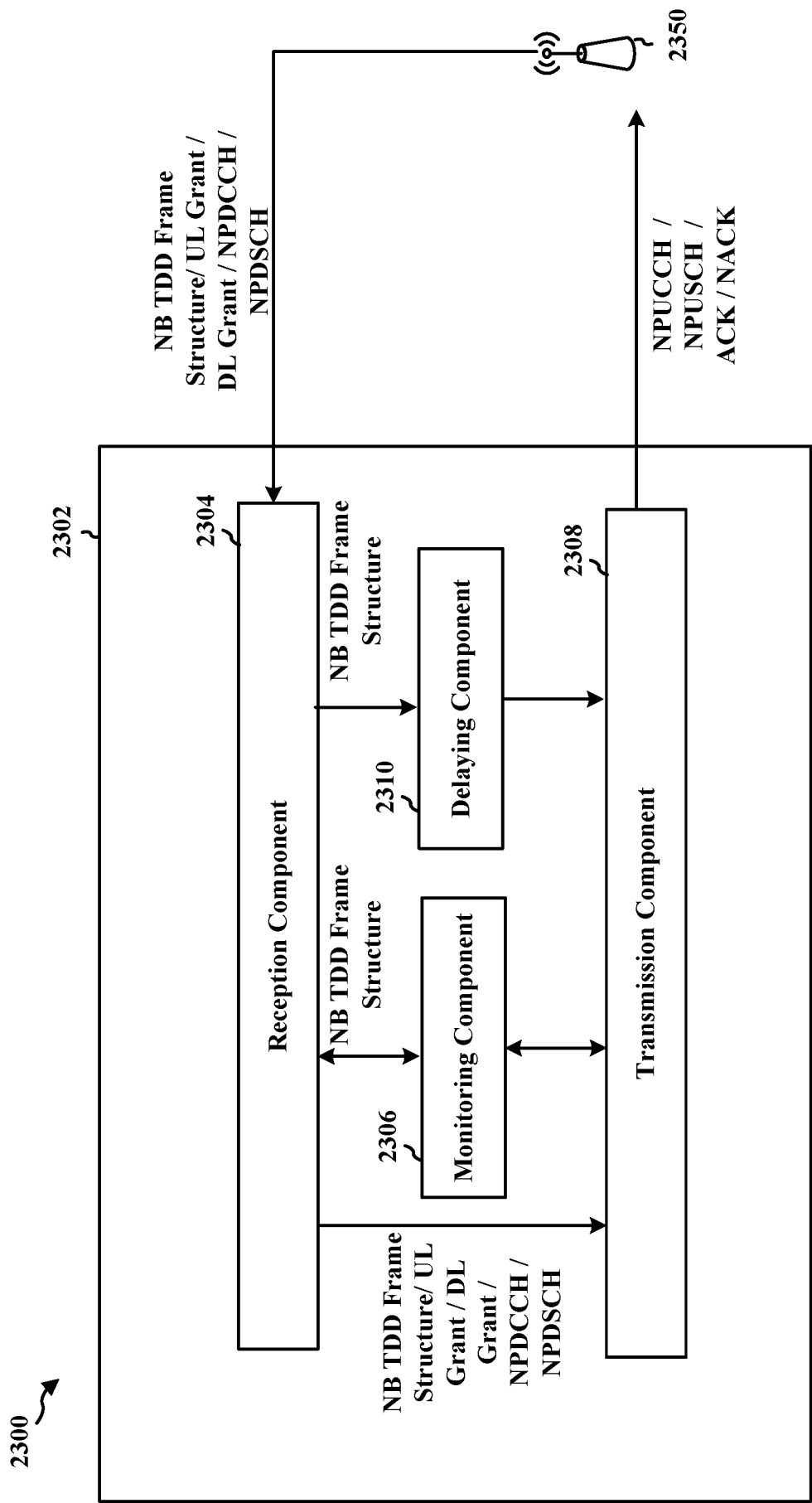


FIG. 23

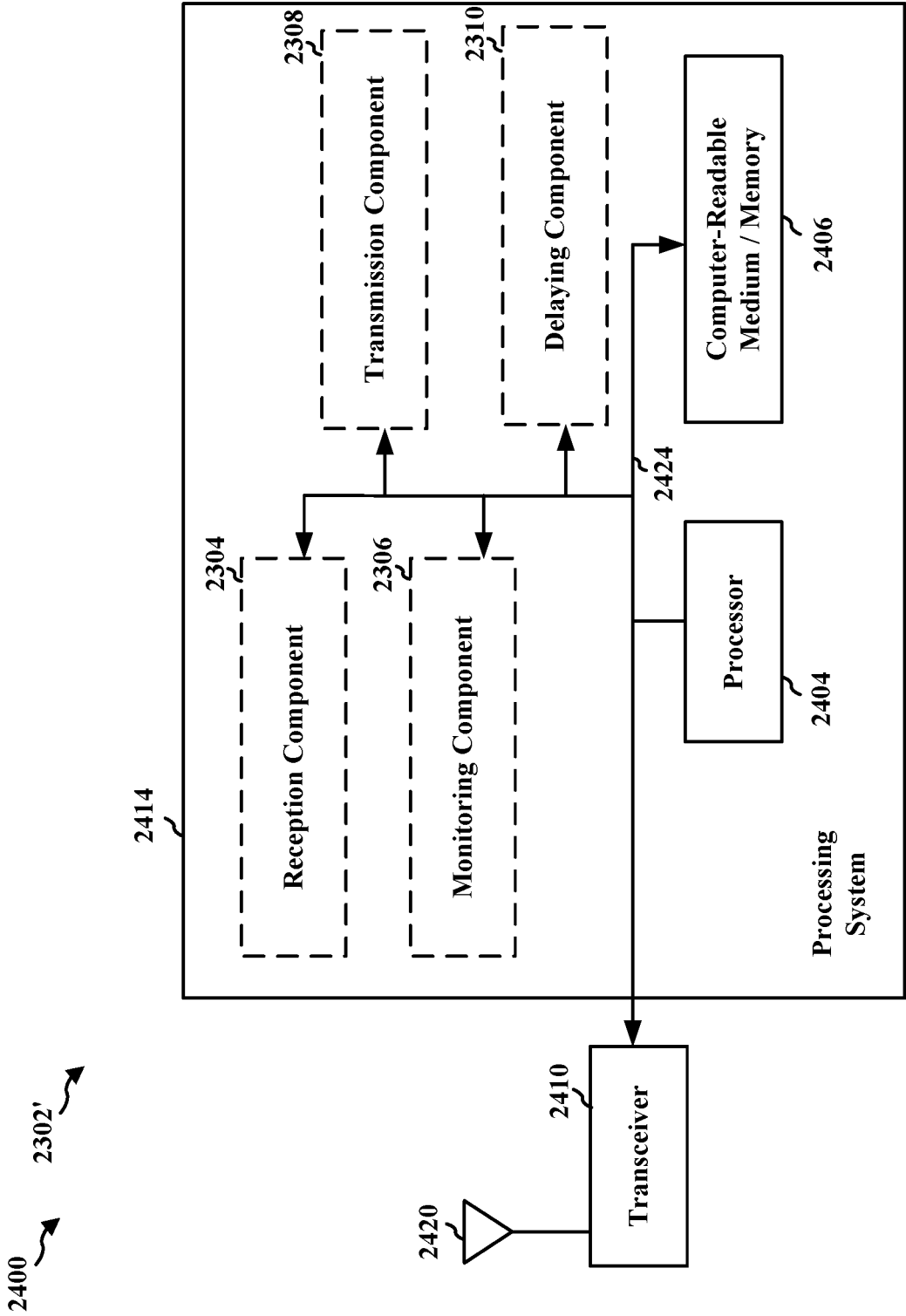


FIG. 24

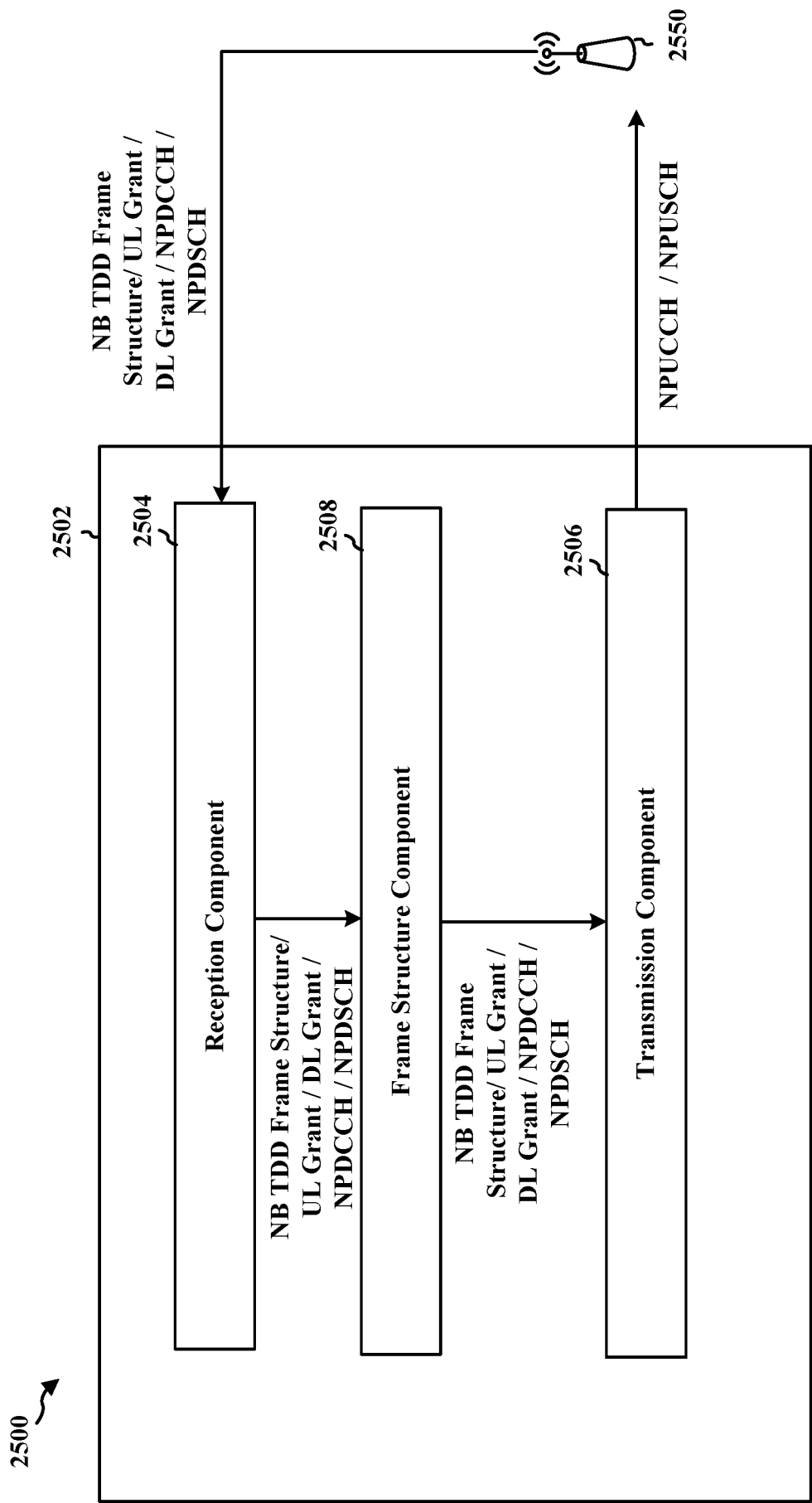


FIG. 25

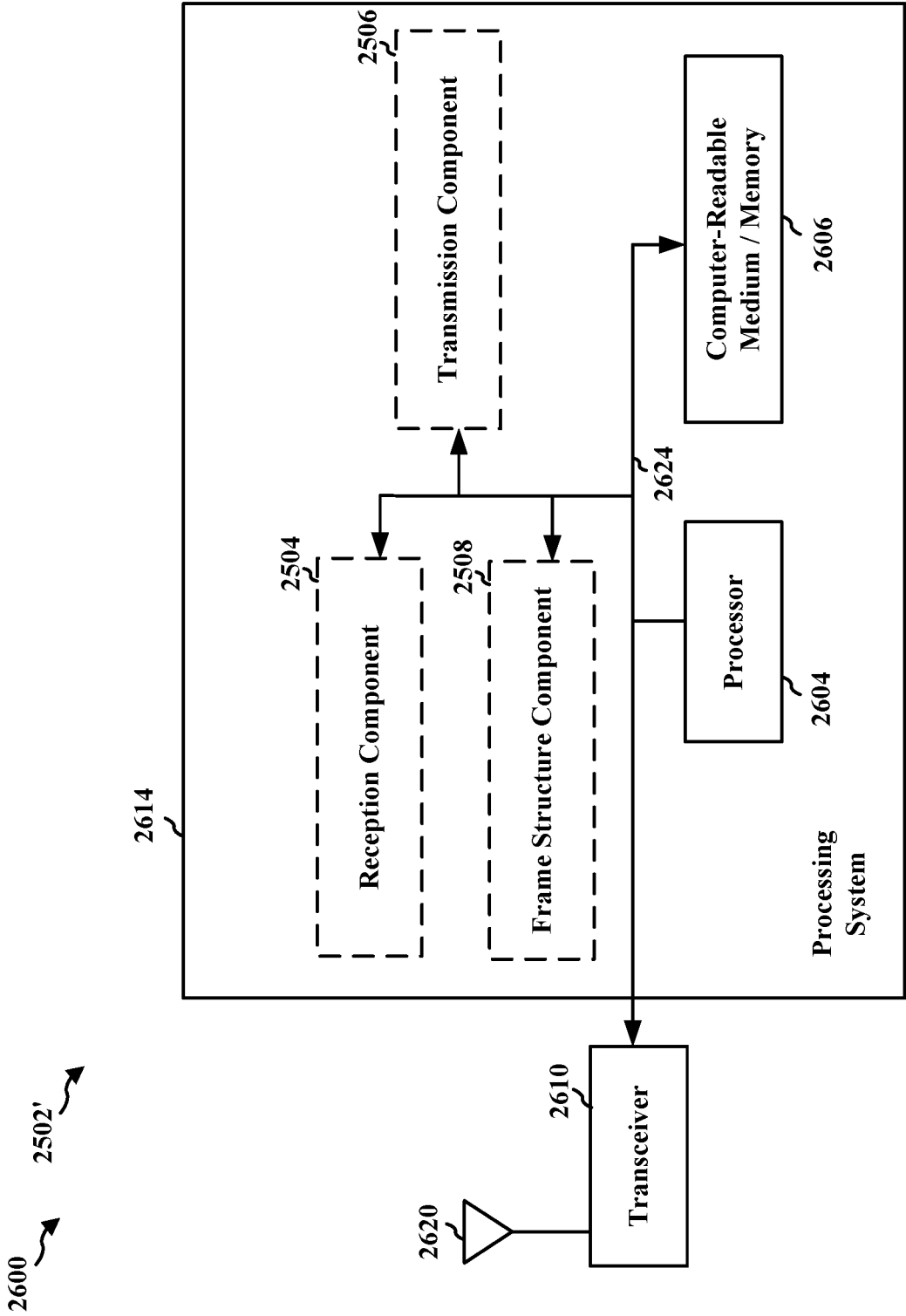


FIG. 26

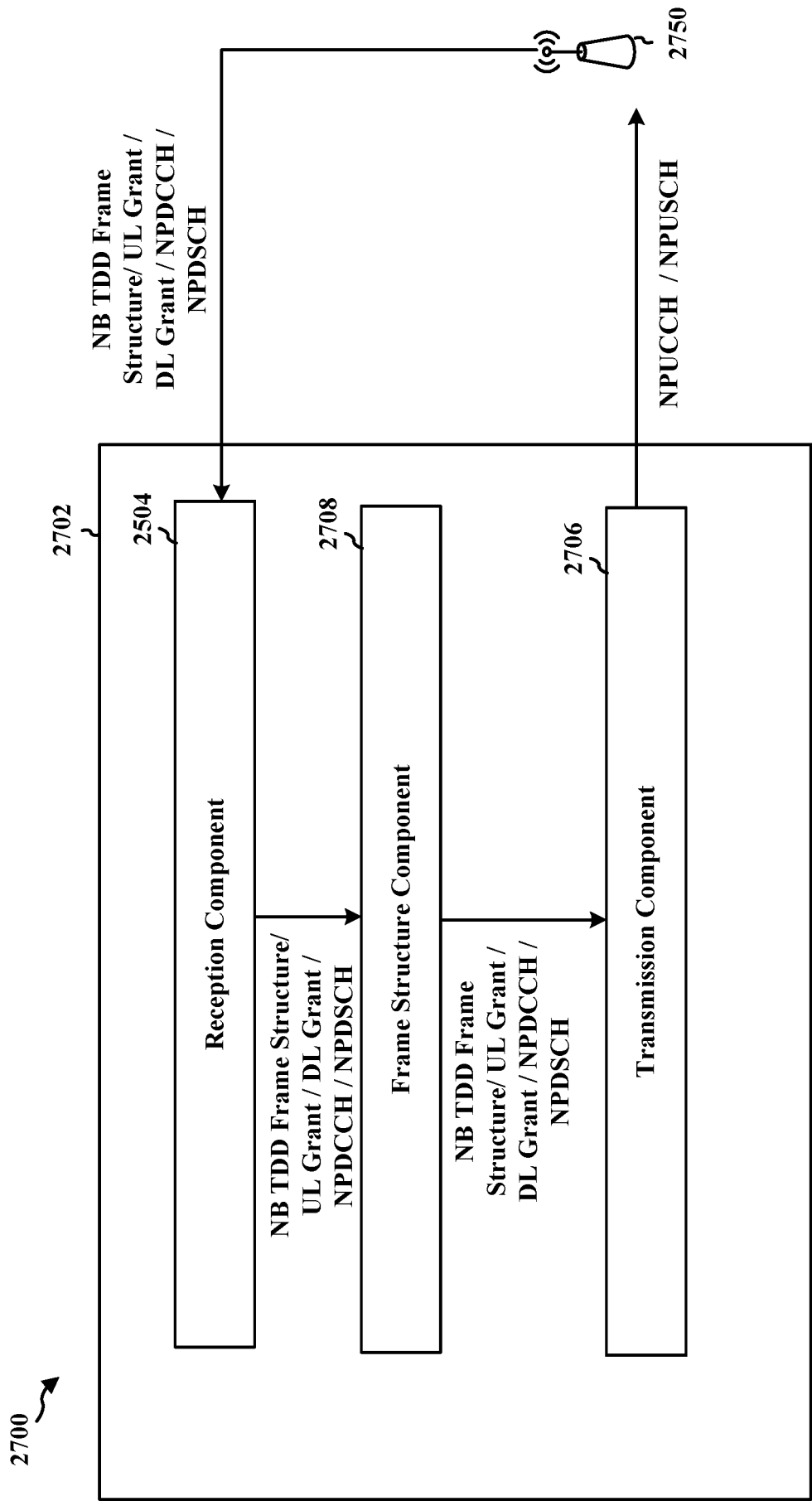


FIG. 27

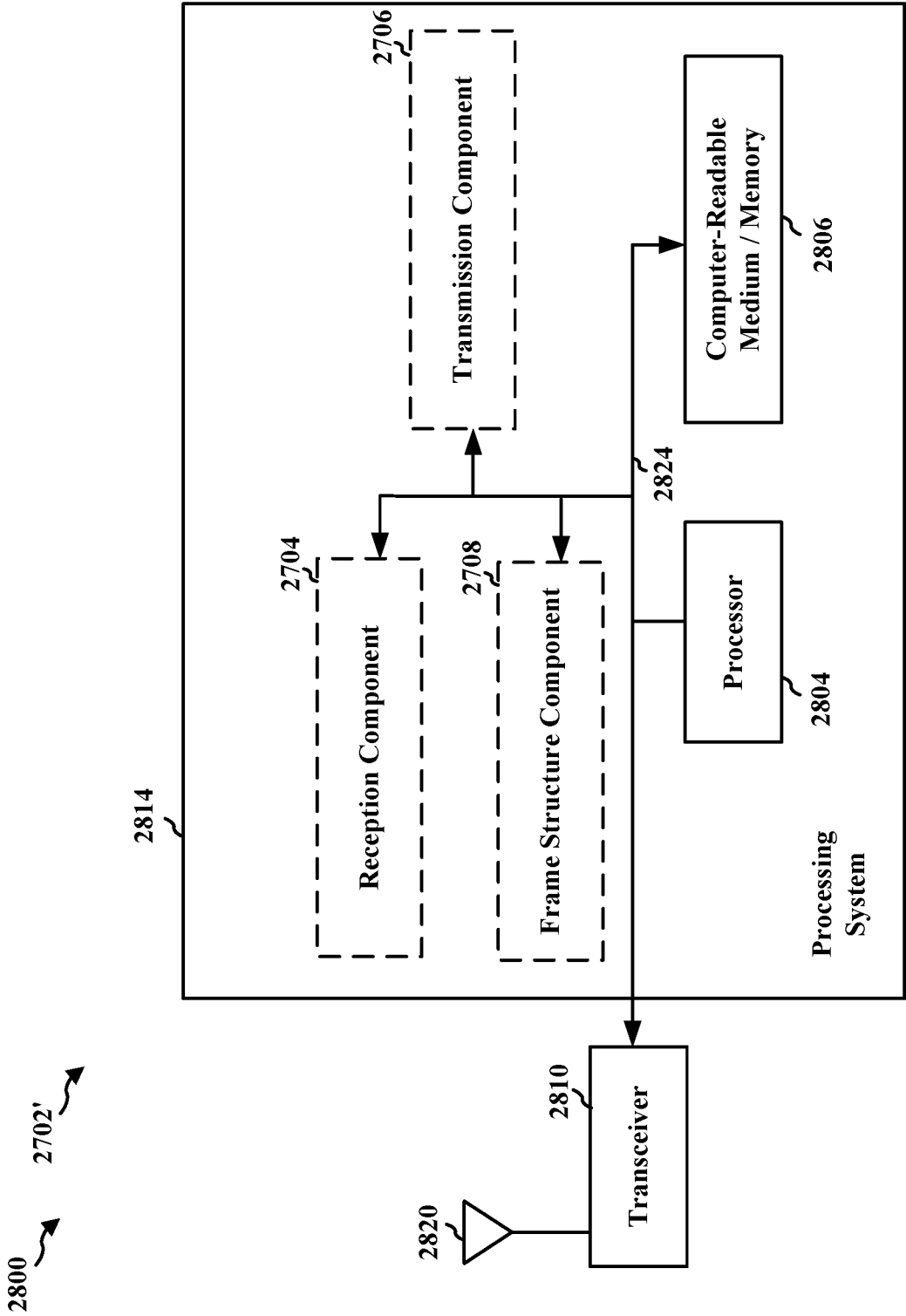


FIG. 28