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**Ma et al.**

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(54) **DUAL-MODE SHARED OFDM METHODS/TRANSMITTERS, RECEIVERS AND SYSTEMS**

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(51) **Int. Cl.**

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**H04L 1/02** (2006.01)

(52) **U.S. Cl.** ..... **370/208**; 370/335; 370/342; 375/267

(58) **Field of Classification Search** ..... 370/208, 370/308, 240, 310-350; 455/277.1; 375/267, 375/299, 346-348

See application file for complete search history.

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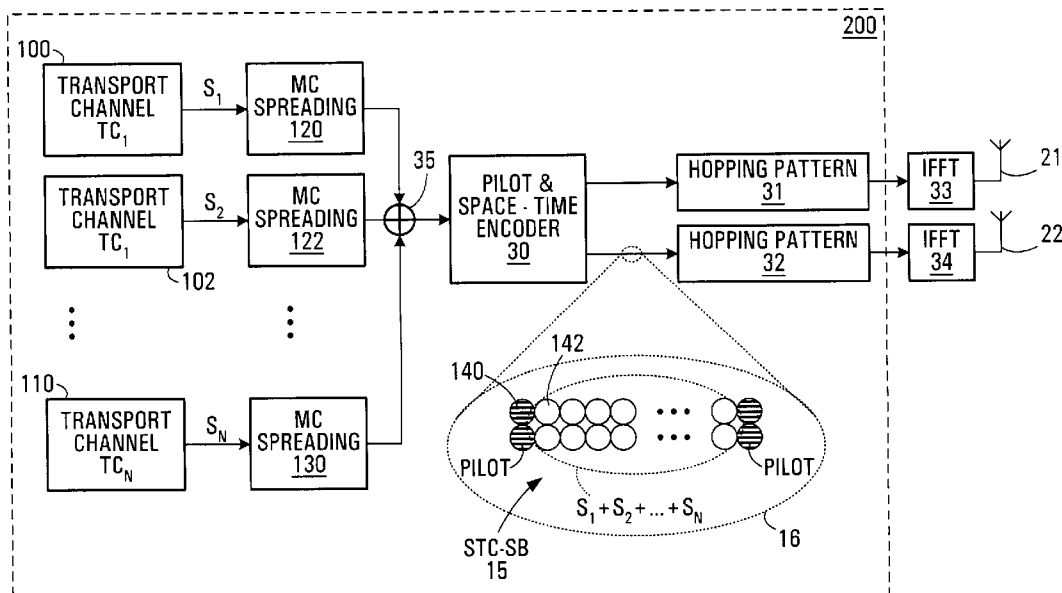
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Primary Examiner—Tri H Phan

(57) **ABSTRACT**

A wireless terminal and network terminal are provided for implementing a new uplink OFDM protocol. In the new protocol, the wireless terminal has a first transmit chain for generating and transmitting a low rate mode OFDM transmission in a first frequency band of the OFDM band; and a second transmit chain for generating and transmitting a burst-mode transmission in a second frequency band of the OFDM band, the first frequency band being distinct from the second frequency band. An access channel is provided which is overlaid over the low rate mode transmissions of other users.

**76 Claims, 17 Drawing Sheets**



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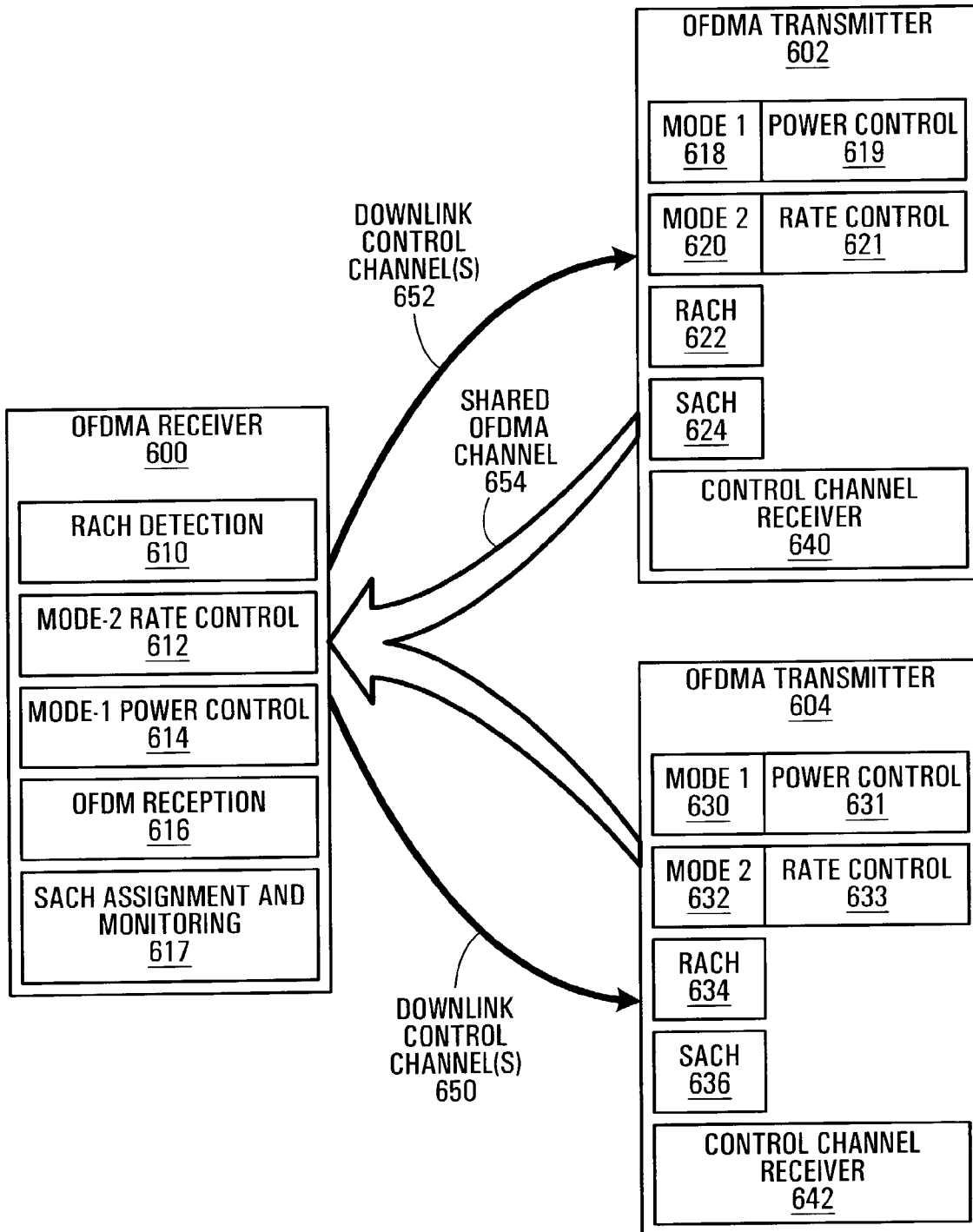


FIG. 1

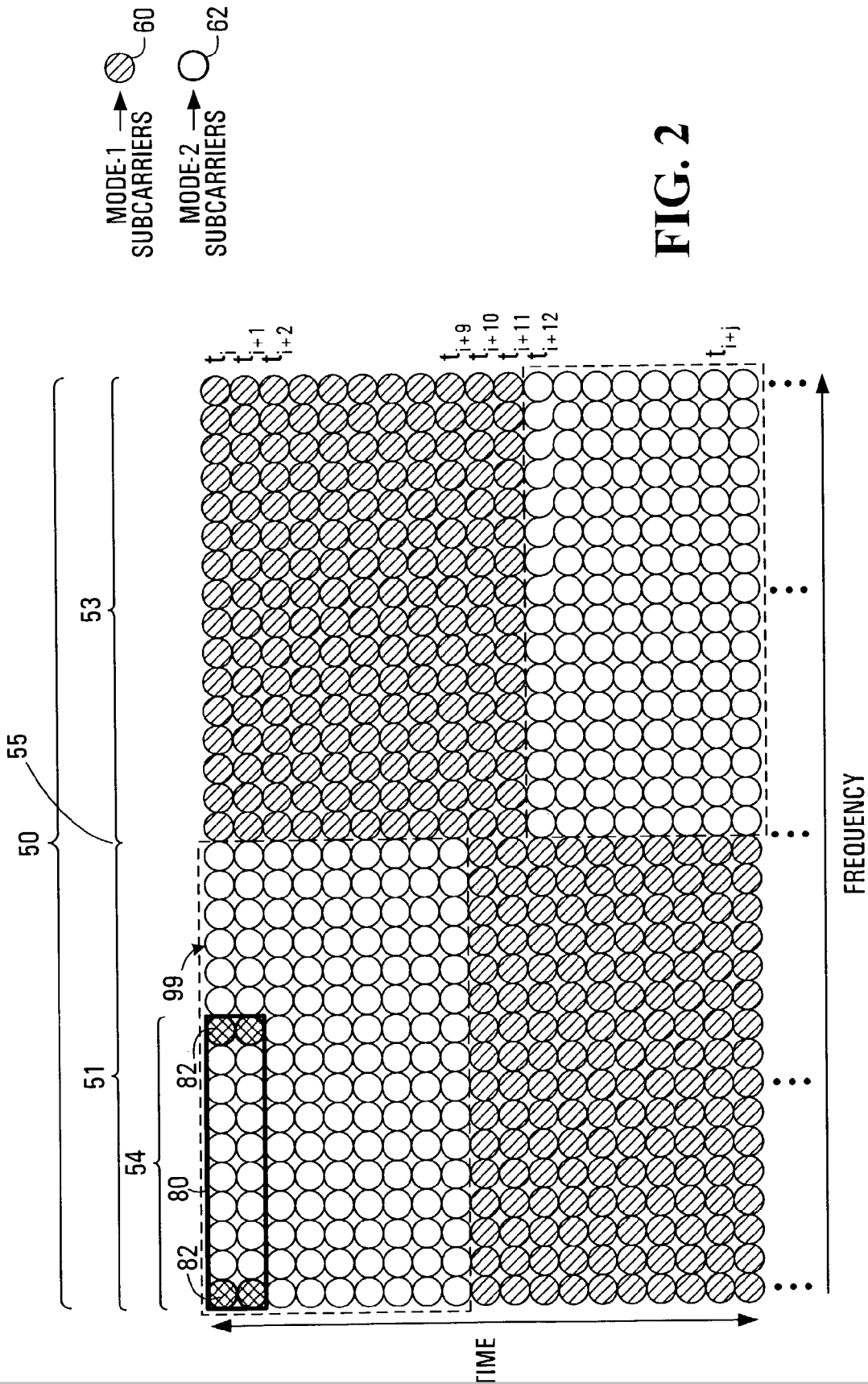


FIG. 2

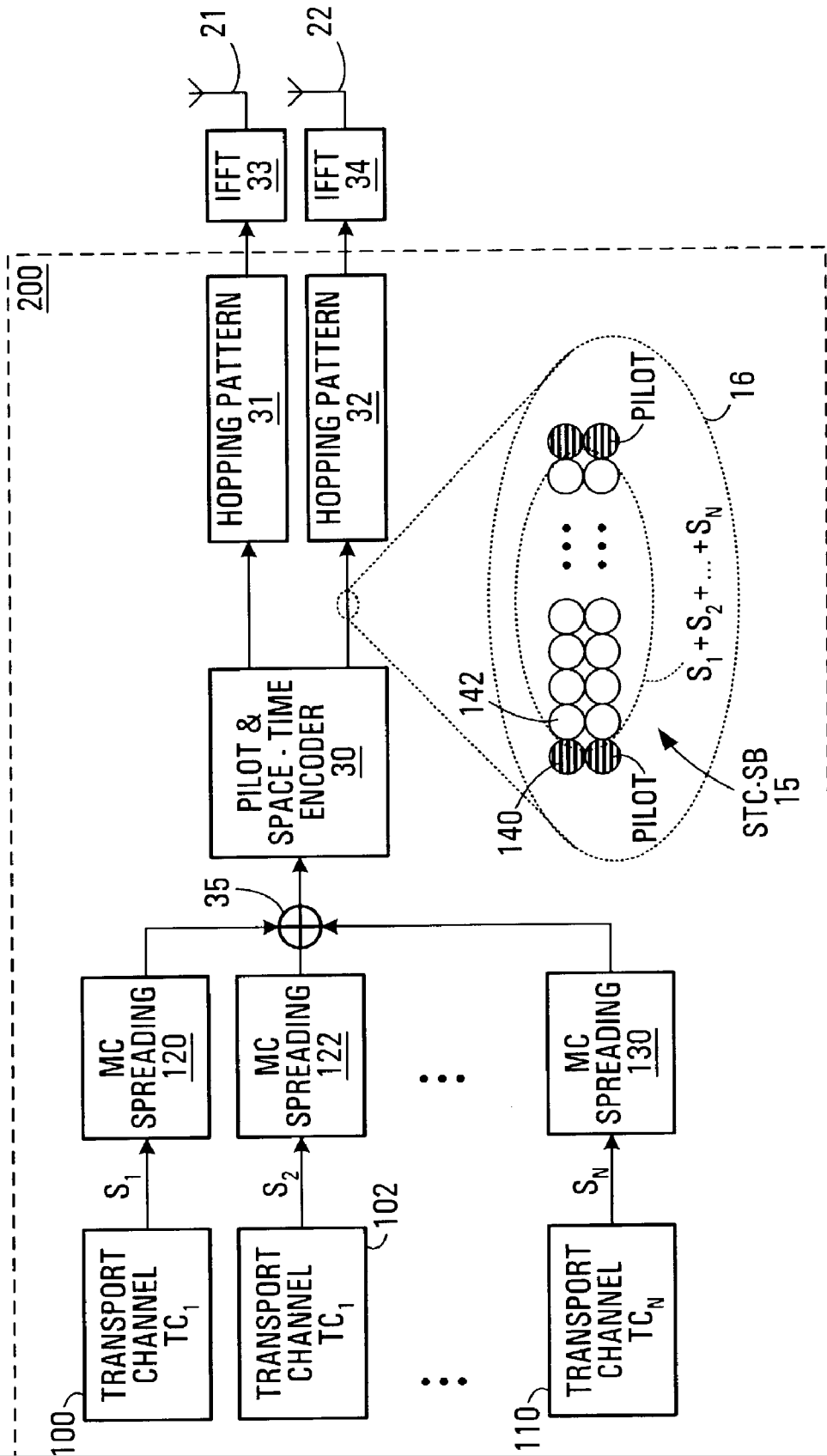


FIG. 3

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