



[54] **LINK ADAPTATION METHOD FOR LINKS USING MODULATION SCHEMES THAT HAVE DIFFERENT SYMBOL RATES**

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[51] **Int. Cl.**<sup>6</sup> ..... **H03C 3/00**; H04J 3/16; H04B 1/38

[52] **U.S. Cl.** ..... **375/302**; 370/465; 455/552

[58] **Field of Search** ..... 375/302, 334, 375/222, 223, 308, 261, 279, 208; 370/465, 468, 206, 207, 203; 455/552, 553

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*Primary Examiner*—Chi H. Pham

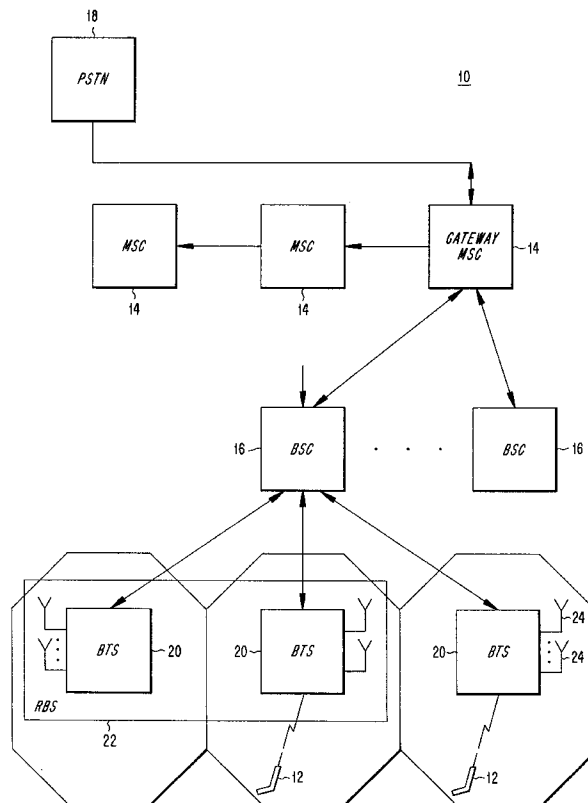
*Assistant Examiner*—Khai Tran

*Attorney, Agent, or Firm*—Burns, Doane, Swecker & Mathis, L.L.P.

[57] **ABSTRACT**

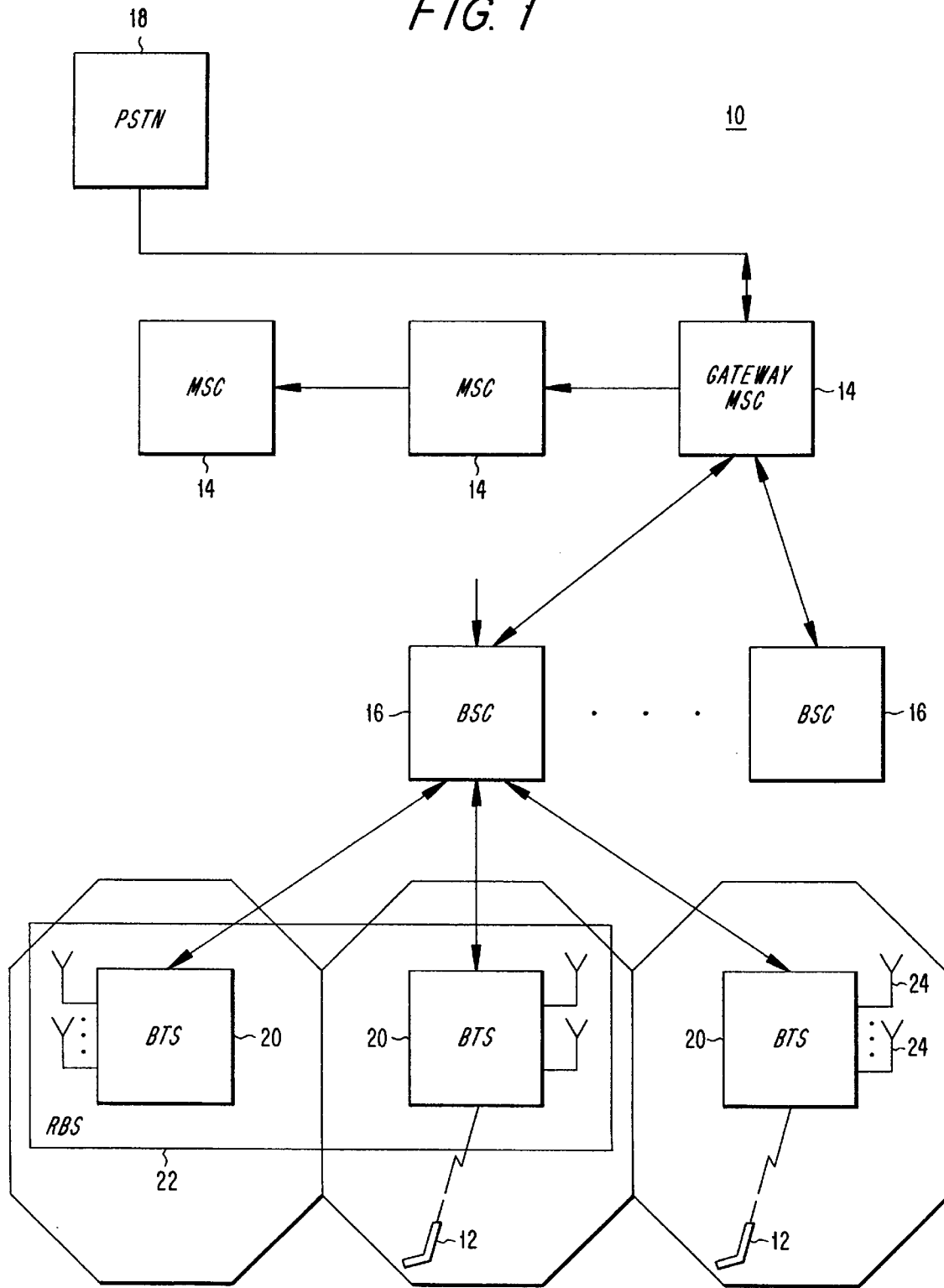
A communication system supports multiple modulation schemes having differing symbol rates. The system supports two modulation schemes that have the same symbol rate and at least one modulation scheme that does not have the same symbol rate. For as long as communication can be carried out using the modulation schemes with the same symbol rate, the system avoids using the modulation scheme with different symbol rate, even if communication can be carried out using this scheme.

**27 Claims, 8 Drawing Sheets**



Qualcomm Incorporated

FIG. 1



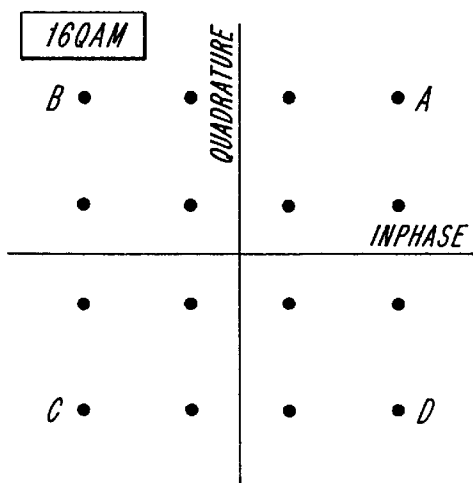


FIG. 2(a)

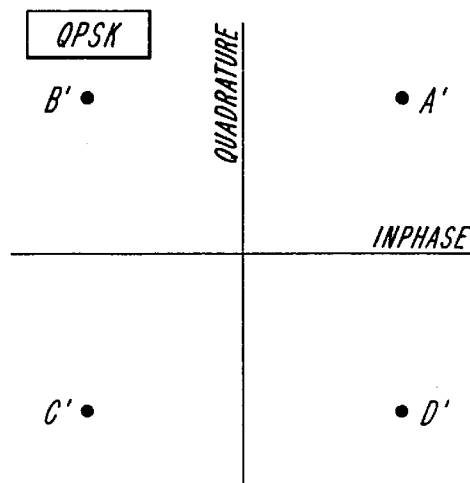


FIG. 2(b)

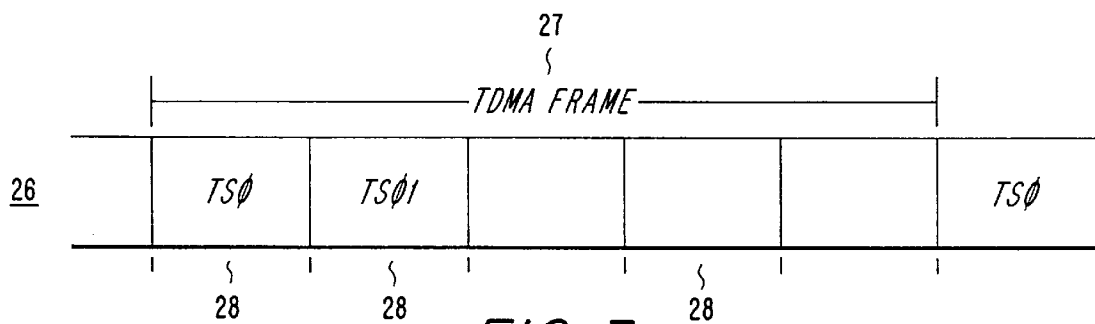


FIG. 3

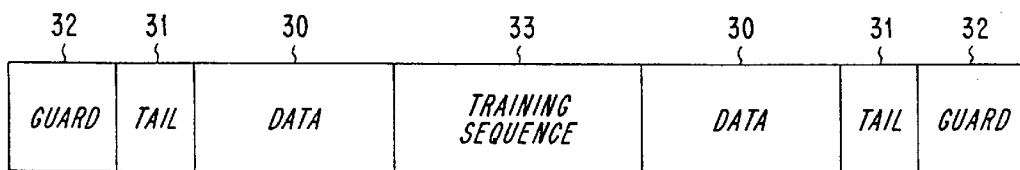


FIG. 4

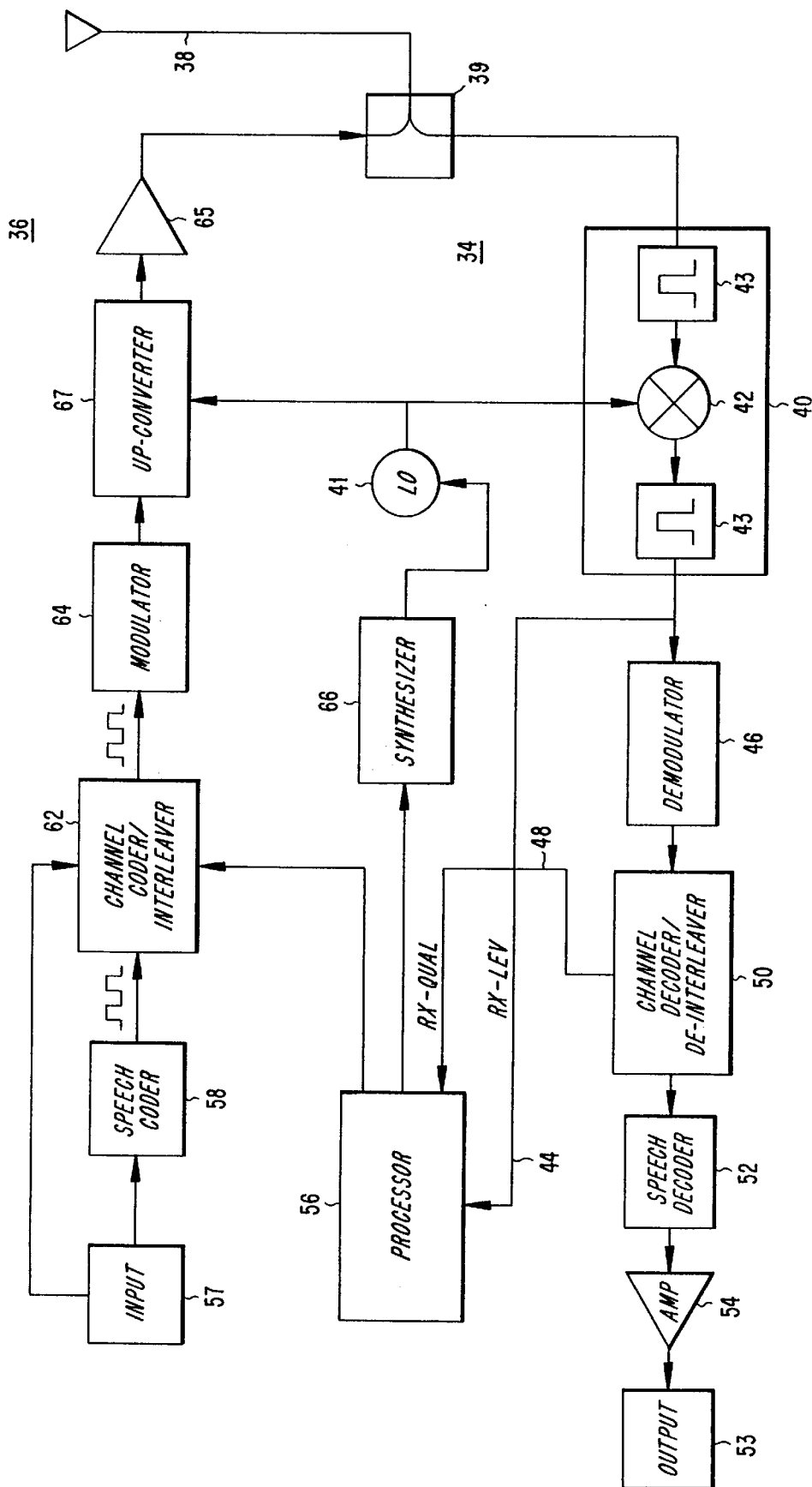
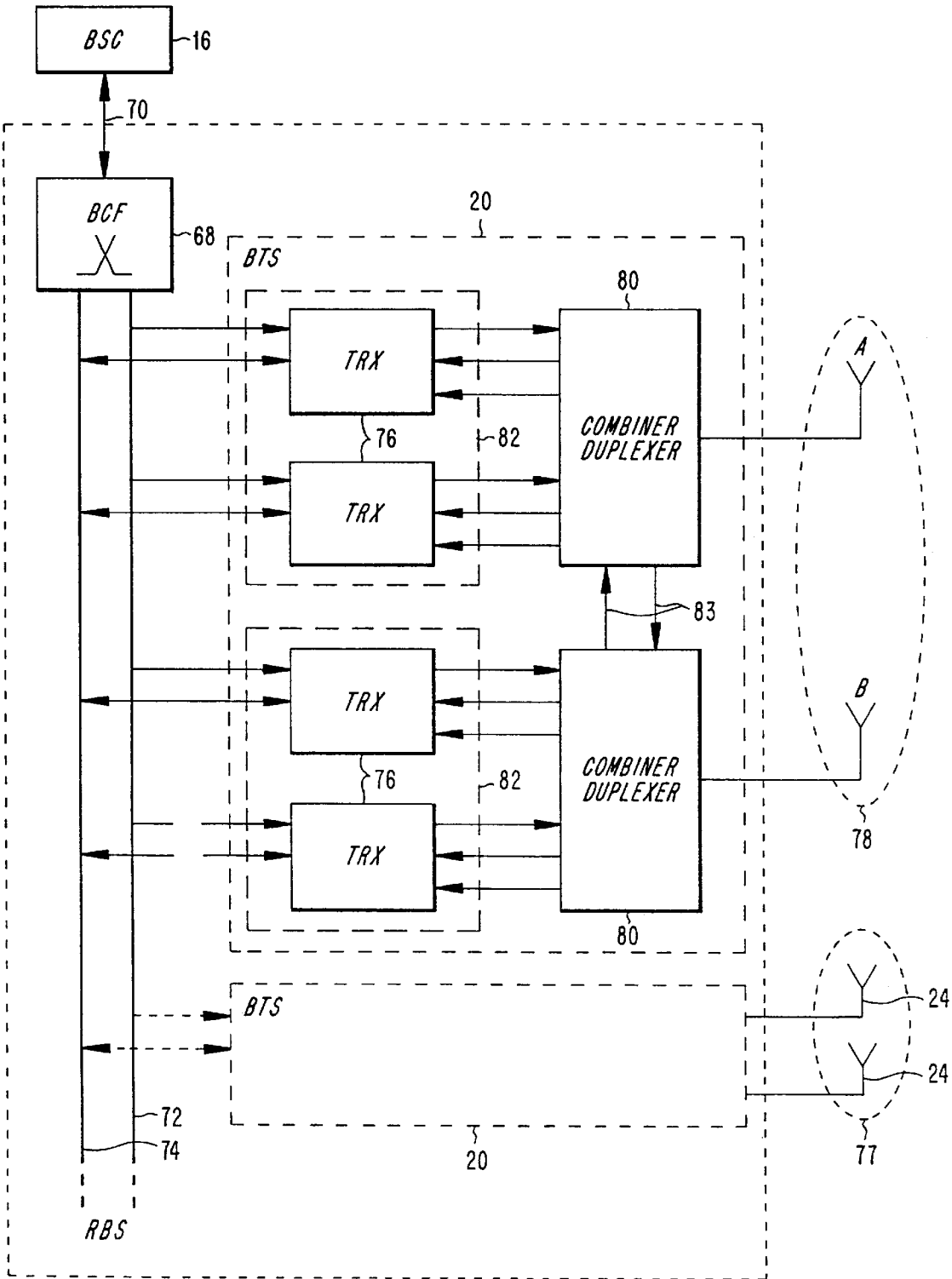


FIG. 5



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FIG. 6

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