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(54) Title: GENERATION OF MBSFN-DOB SYNCHRONIZATION CODES

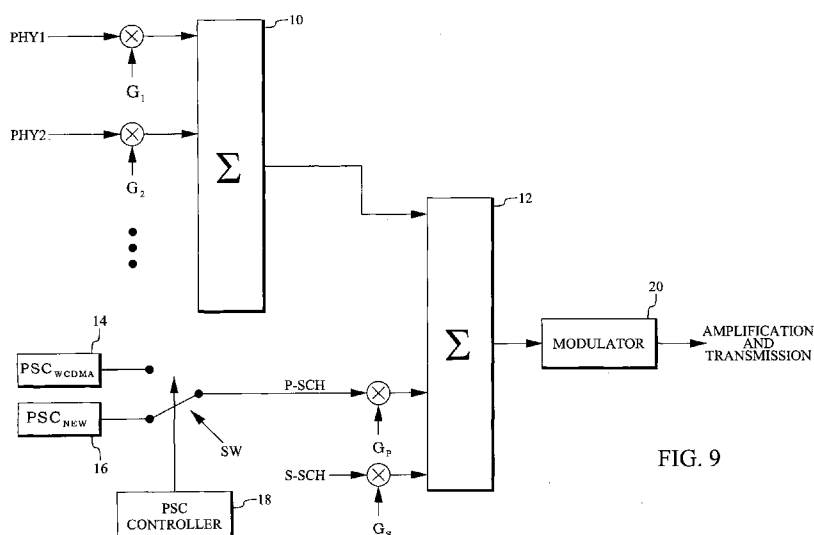


FIG. 9

(57) Abstract: Physical downlink channels PPHY1, PHY2 are summed in a summation unit 10. The output of summation unit 10 is forwarded to another summation unit 12, where it is combined with the primary and secondary synchronization channels P-SCH, S-SCH. The secondary synchronization channel S-SCH is formed as in WCDMA. The primary synchronization channel P-SCH is formed by connecting a switch SW either to a code generator 14 generating the conventional code PSCWCDMA or a code generator 18 generating the code PSCNEW. The selection is controlled by a PSC controller 18. This controller can be adapted to produce a P-SCH in accordance with one of several formats. PSCNEW has the properties that it is a hierarchical Golay sequence constructed by a plurality of constituent sequences with at least one of the constituent sequences being the Golay sequence, and that it is orthogonal to the primary and secondary synchronization codes used in non-MBSFN capable WCDMA.

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