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(54) **Title**: TIME AND FREQUENCY SYNCHRONIZATION

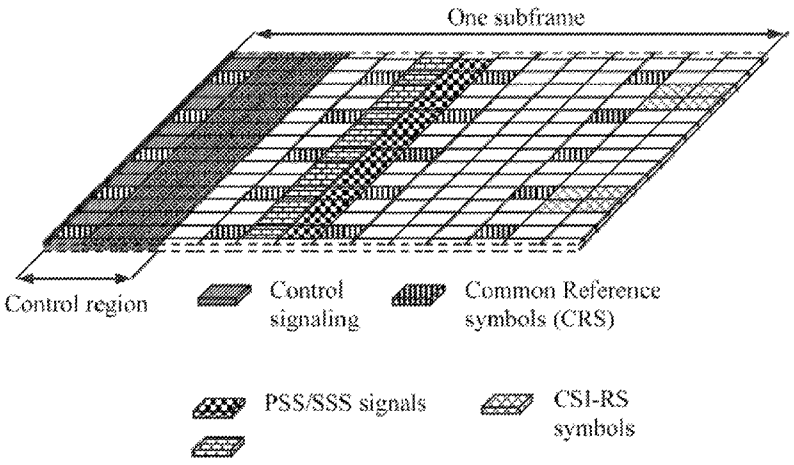

FIG. 4

(57) **Abstract**: The scheduling flexibility of CSI reference signals enables time and frequency synchronization using multiple non-zero CSI-RSs transmitted in the same subframe, or using CSI-RSs transmitted in the same subframe with other synchronization signals. Also, multiple synchronization signals may be scheduled in the same subframe to enable fine time and frequency synchronization without cell-specific reference signals.

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