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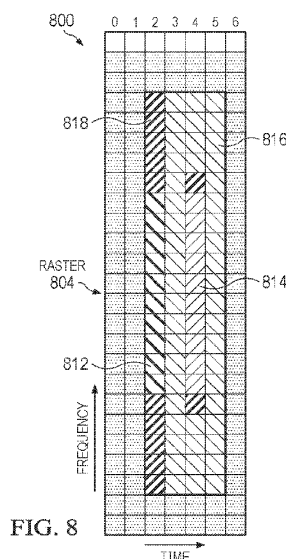
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Declarations under Rule 4.17:
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(54) **Title:** METHOD AND APPARATUS FOR DETERMINING SYNCHRONIZATION SIGNAL BLOCK LOCATIONS FOR SMALL BANDWIDTH CHANNELS



(57) **Abstract:** A base station generates a punctured synchronization signal block (SSB) for a channel of a frequency band based on a SSB. A bandwidth of the SSB exceeds a bandwidth of the channel. The punctured SSB includes a punctured physical broadcast channel (PBCH), a primary synchronization signal (PSS), and a secondary synchronization signal (SSS). The PSS of the punctured SSB has a center frequency indicated by a sync raster location of a set of sync raster locations associated with the frequency band. The punctured PBCH is obtained from a PBCH of the first SSB based on a puncture pattern associated with the sync raster location. The base station transmits the punctured SSB in the channel. A user equipment (UE) detects the punctured SSB according to the sync raster location.

WO 2023/122806 A3

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