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(54) Title: ORTHOGONAL TIME FREQUENCY SPACE (OTFS)-BASED RADAR SENSING

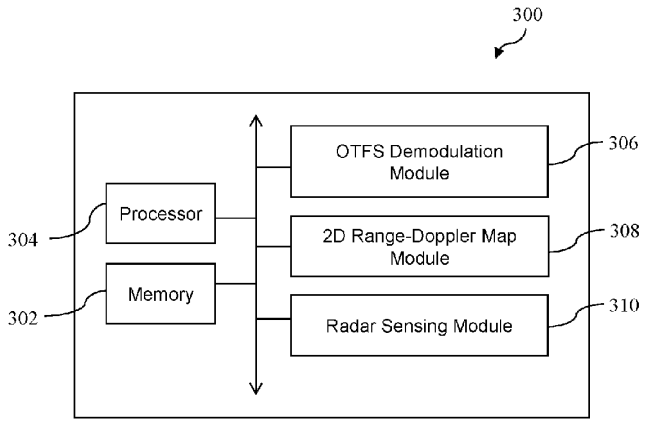


FIG. 3

(57) Abstract: A method of orthogonal time frequency space (OTFS)-based radar sensing is provided. The method includes: performing an OTFS demodulation based on a time domain signal or a Delayed-Time (DT) domain signal received and reflected from one or more objects from a time domain signal or a DT domain signal transmitted, the time domain signal or the DT domain signal transmitted being generated from an OTFS modulation based on a first Delay-Doppler (DD) domain signal; determining a two-dimensional (2D) range-Doppler map based on a first Time-Frequency (TF) domain signal associated with the first DD domain signal and a second TF domain signal associated with the time domain signal or the DT domain signal received; and performing radar sensing based on the 2D range-Doppler map. There is also provided a corresponding system for OTFS-based radar sensing.

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