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(54) Title: PROCEDURES FOR AUTONOMOUS UPLINK TRANSMISSIONS

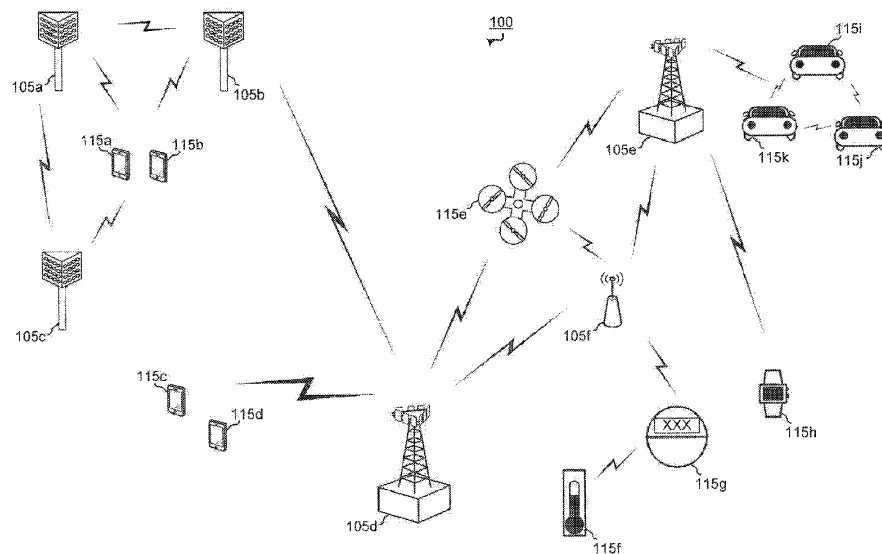


FIG. 1

(57) Abstract: Various procedures associated with autonomous uplink (AUL) are disclosed. In order to address the mismatch between listen before talk (LBT) and AUL bandwidth a fractional sensing channel is defined less than 20MHz. Accordingly, a user equipment (UE) may use the fractional sensing channel to perform LBT only on the resources allocated for AUL. Contention window update may further be modified for transmissions spanning multiple transmission opportunities (TxOPs). A contention window update may occur over all transmission channels considering full acknowledgement information of each TxOP, a percentage of acknowledgement information weighted on the number of channels, a percentage of acknowledgement information weighted on the ratio of resources on each channel, or by selecting a primary channel of the multiple channels for the contention window update. In repetition scenarios, the reference transmission for contention window updates may be selected depending on whether all repetitions are within one or multiple

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