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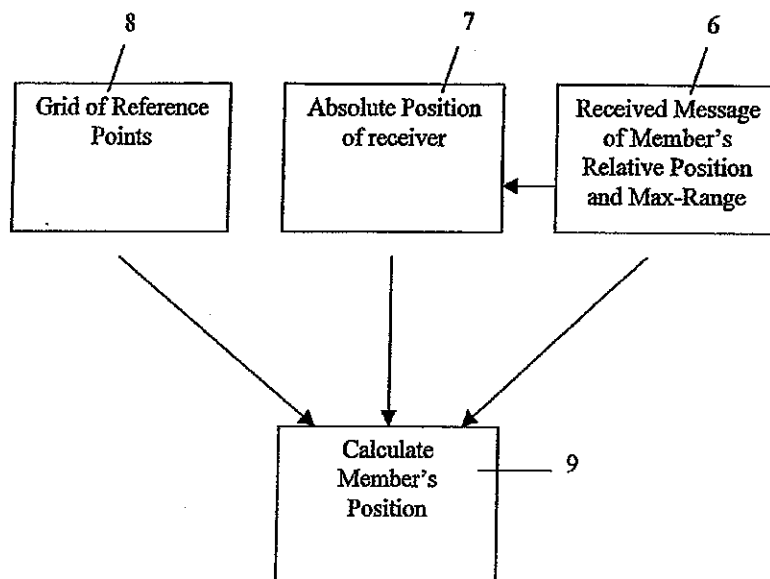
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(54) Title: GRID-BASED TRANSMISSION SYSTEM



(57) Abstract: A grid-based transmission system for determining relative positions of vehicles in a grid quadrangle of a reference grid, each vehicle having a transmitter and a receiver, comprising determining an absolute position of a vehicle. A reference grid is obtained. A reference point for the reference grid is assigned; and a relative position of the vehicle relative to the reference point is generated. The reference grid is a stored and previously generated reference grid, or is generated based on the absolute position and a transmission range of a transmitter. The vehicle sends a position message containing the relative position; the transmission range; an identity of the vehicle; an identity for all other vehicles that have previously sent a position message received by the vehicle; and the relative position of the all other vehicles.

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