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(54) Title: VARIABLE OFFSET POSITIONING ANTENNA ARRAY FOR ENHANCED GUIDANCE OF AUTOMATED GUIDED VEHICLES (AGVS)

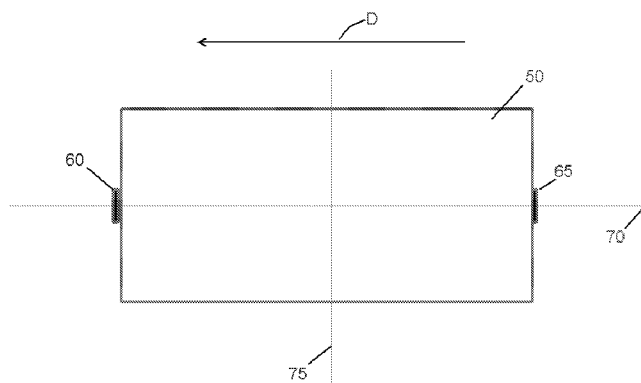


FIG. 1

(57) Abstract: A Variable Offset Positioning Antenna Array for Enhanced Guidance of Automated Guided Vehicles (AGVs) in automated warehousing or storage systems for automobiles or the like, includes two or more inductor coils producing output as a result of interaction with a guidance wire located in or near the surface of the floor which is energized by a frequency generator, and an on board programmable microprocessor which processes the coil output to determine an exact position of the antenna array relative to the guidance wire. In one embodiment, the antenna array enables an AGV to follow a guidance wire at an offset to the direction of travel in order to allow automated storage and retrieval systems to handle asymmetrical items, such as automobiles, more efficiently and cost effectively by decreasing the building space required for travel aisles, vertical conveyors and storage locations as well as decreasing total individual item processing time.



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