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(54) Title: VARIABLE PHASE AND FREQUENCY PULSE-WIDTH MODULATION TECHNIQUE

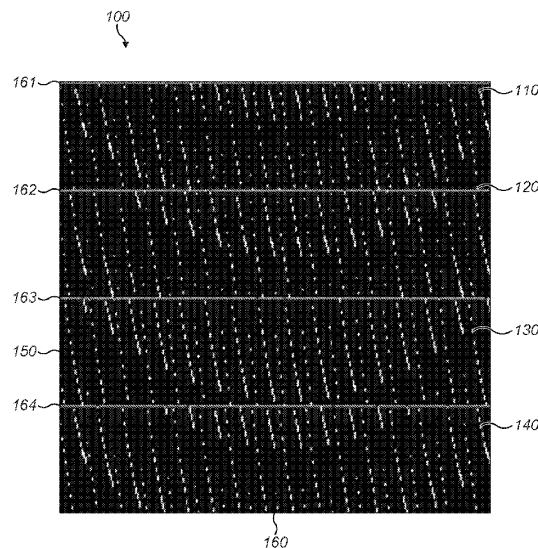


FIG. 1

(57) Abstract: Phased array systems rely on the production of an exact carrier frequency to function. Reconstructing digital signals by specified amplitude and phase is accomplished explicitly by inducing frequency shifts away from a base frequency implied by phase changes. Shifting the carrier frequency of a digitally controlled phased array while preserving the timing of the individual phase pulses enables more efficient driving of the phased array system when the phase of the drive signals change dynamically in time.

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