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(54) **Title**: HIGH EFFICIENCY LINEAR TRANSMITTER

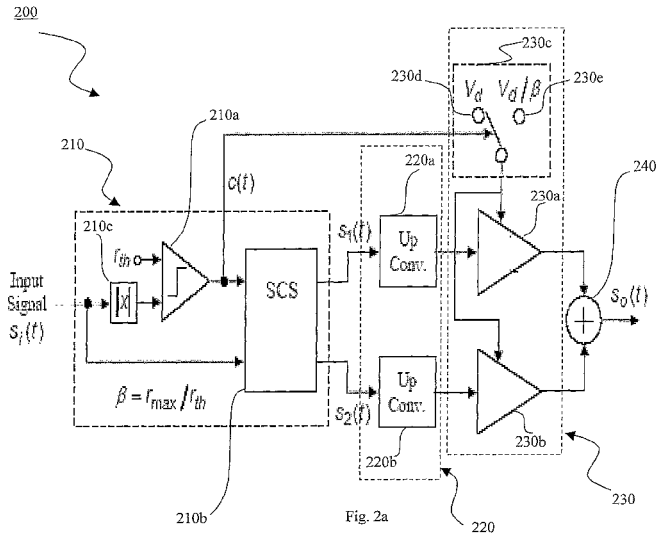

Fig. 2a

(57) **Abstract**: A highly efficient linear transmitter uses a control module to compare an input signal with a threshold. The transmitter includes one or more power amplifiers (230a, 230b), a component separator (210b) and a combiner (240). The power amplifiers are coupled to a first power supply voltage (V_d) and a second power supply voltage (V_d/β). Above the threshold the input signal is applied directly to the separator and a first power supply voltage is selected for the power amplifiers. When the input signal is below the threshold the input to the separator is multiplied by a factor β and the power amplifiers are compensated by applying a second power supply voltage (V_d/β). Components include LINC (constant amplitude variable phase) signals.

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