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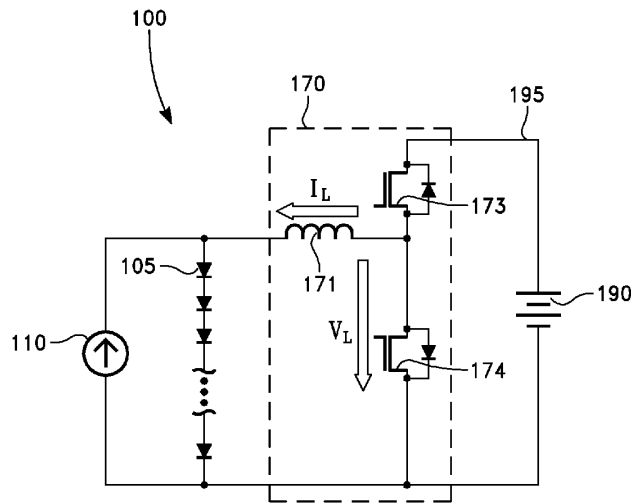


FIG. 1

(57) Abstract: In one implementation, a method for a solar cell array is provided, the method includes emitting a communication message from the solar cell array by reverse biasing the solar cell array so as to cause at least a portion of the solar array to emit a detectable amount of radiation corresponding to the communication message. In one embodiment a solar cell array circuit is provided including a solar string comprising a plurality of solar cells coupled together, a charge storage device coupled to a power bus, and a bidirectional boost-buck converter having a first and second pair of MOSFETs connected in series between positive and negative rails of the power bus with an inductor coupled from between the first and second paired MOSFETs to a charging output of the solar string.

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