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# SINGLE PHASE SINGLE STAGE SWITCHED-BOOST INVERTER WITH FOUR SWITCHES

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## *ABSTRACT*

*The DC source voltage is greater than the peak ac output voltage in voltage source inverters (VSIs), which are buck dc-ac power converters. When two power switches in a leg are turned ON at the same time, a dc voltage source is shorted out. To obtain a high ac output voltage when a low input voltage is employed, a second boost dc-dc converter is installed in front of the inverter bridge. The end result is a second, high-priced, low-efficiency power converter with two stages of dc-dc-ac power conversion. Here, a brand-new, four-switch single-phase, single-stage switched-boost inverter is suggested. Its primary characteristics include shoot-through immunity, constant input current, and buck/boost voltage with single-stage conversion. The operating theories and simulation findings for the suggested inverter are presented in this research.*

***KEYWORDS:*** *Single Phase Single Stage Inverters, Quasi-Z Source Inverter, Quasi-Switched Boost Inverter*