

TITLE: DC TO DC BOOST CONVERTER USING eSim

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PROBLEM STATEMENT:

The growing reliance on renewable energy, electric vehicles, and portable electronics has amplified the need for efficient power conversion systems. Conventional boost converters, commonly employed for voltage step-up, face challenges such as limited voltage gain, substantial switching losses, and decreased efficiency at elevated voltage levels. These challenges reduce their suitability for applications necessitating high voltage conversion ratios and efficiency.

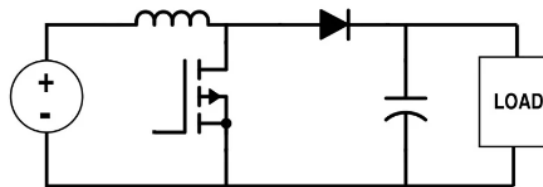


Figure: DC TO DC BOOST CONVERTER

TITLE OF THE PAPER: Research on Improved High Gain Boost Converter

REFERENCES:

- [1] Intel Technology Symposium, Tech. Rep, Intel Corporation, Hillsboro, OR, 2001.
- [2] B. Wu, S. Li, Y. Liu and K. Ma Smedley, "A New Hybrid Boosting Converter for Renewable Energy Applications," in IEEE Transactions on Power Electronics, vol. 31, no. 2, pp. 1203-1215, Feb. 2016
- [3] G. Wu, X. Ruan and Z. Ye, "Nonisolated High Step-Up DC–DC Converters Adopting Switched-Capacitor Cell," in IEEE Transactions on Industrial Electronics, vol. 62, no. 1, pp. 383-393, Jan. 2015.