Synchronous Rectification in High-Frequency MagAmp Power Converters

Yaskiv Volodymyr1, Yaskiv Anna1, Yurchenko Oleg2

1. [Department of Applied Information Technologies and Electrical Engineering](http://www.cs.ox.ac.uk/), Ternopil Ivan Puluj National Technical University, UKRAINE, Ternopil, 56 Ruska str., email: [yaskiv@yahoo.com](mailto:yaskiv@yahoo.com)
2. The Institute of Electrodynamics of The National Academy of Sciences of Ukraine, UKRAINE, Kyiv, 56 Peremogy ave., email: [yuon@ied.org.ua](mailto:yuon@ied.org.ua)

*Abstract*: **The paper describes new approaches to high-efficient high-frequency power supply design for specialized computer systems, which require high load current at low output voltage. It is suggested to use semiconductor power converters based on high-frequency magnetic amplifiers. Paper shows the ways to increase converter’s efficiency due to the use of a synchronous rectifier based on MOSFETs.**

*Keywords*: **high-frequency magnetic amplifier, synchronous rectifier, power converter, high level of the load current.**