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A Study on the System Imbalance of the Single-Switch Converter for the Conductive Common Mode Noise Reduction
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Summary:

This paper reduces system imbalance by replacing the single-switch converter with a synchronized double-switch converter based on two active switches technique and hybrid balance technique, including active balance and passive balance for common mode noise reduction. The system balance is experimentally evaluated by the common mode rejection ratio (CMRR). Finally, examples show that the CMRR of the single-switch converter is improved from 1.67 dB to 32.04 dB when the double-converter with two active switches technique is applied and to 41.5 dB when the double-switch converter with hybrid balance technique is applied.

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