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## FEATURES OF MEASUREMENT AND EFFECTIVE REDUCING OF CONDUCTIVE NOISE CAUSED BY TRANSISTOR CONVERTERS

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### Abstract

*The paper considers voltage converters as sources of conductive electromagnetic interference (EMI). Some features of the standard measurement method of converters EMI are considered and it is shown that it measures only the total level of noise, which can be the same at completely different relations between the differential and common components of EMI. This leads to inefficient use of means reducing the total converter noise to the permitted level, because the different ratio between the above components of this noise requires different means to reduce them. The paper proposes to supplement the standard noise measurement method by two additional measurements at frequencies where the total noise exceeds the permitted level, using during the first measurement the additional RFI common mode filter which effectively reduces only the common noise, and the additional RFI differential mode filter which effectively reduces only the differential noise during the second measurement. It is shown that these two additional measurements make it possible to determine the differential and common components of the total noise. This, in turn, makes it possible to reduce the total noise to the permitted level at the minimal cost. References 6.*

**Key words:** conductive noise, LISN, EMI, RFI filter.

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