
Binary-coded decimal code (BCD) converter of integers in the binary code of sequential type

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The study tested the algorithm of converting binary-coded decimal code (BCD) of integers in the binary code. The circuit of multi-bit integer converter was built. The converter of sequential type, unlike Raman converter is characterized by homogeneous circuit constructing and, consequently, by simplicity of increasing the bit of convertible digits. We showed that sequential type converter implementation on programmable logic integrated circuits, for example, the company Xilinx, allows to convert 4-bit BCD integer for ~200 ns, 8-bit — 400 ns at 100 MHz clock.

Keywords: number system, BCD, binary code, converter, integer, EPLD, sequential circuit.

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