Abstract

In the wireless communication system, to transfer the data without loss and to reduce size of antenna, modulation is the most important technique. Phase-shift keying (PSK) is a modulation technique in which the phase of a transmitted signal varies to convey information. Binary Phase Shift Keying (BPSK) and Quadrature Phase Shift Keying (QPSK) are implemented in Field Programmable Gate Array (FPGA). The proposed designs are aimed for study purposes. These digital modulators are designed using Verilog Hardware Description Language (HDL). Cadence’s NC-Sim simulation software is used to check the functionality of designs. Xilinx’s integrated software Environment (ISE) used for FPGA design implementation.

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Index Terms

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Keywords

BPSK, QPSK, FPGA, DDS (Direct Digital Synthesizer), ROM (Read Only Memory), LUT (Look
Up Table)