

Area optimized S-BOX Architecture for Advance Encryption Standards

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Abstract— This paper presents an area optimized for composite field arithmetic based SubBytes transformation (Sbox) used in Advanced Encryption Standard (AES) encryption. The proposed architecture is based on pre-computation technique. Implementation is proposed on FPGA using Xilinx ISE on XC3S 400-5 and results are shown in the paper.

Keywords—AES, S-BOX, Sub-Byte, Encryption.

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