IMPLEMENTATION OF REVERSIBLE GATES AND IT'S APPLICATION

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ABSTRACT

Reversible logic has become one of the most promising technologies in the recent past, with applications in several fields; such as low power CMOS, nanocomputing and optical computing etc. This paper presents reversible gates and reversible logic implementations for Binary Coded Decimal (BCD) adder. Reversible logic gates are widely known to be compatible with future computing technologies which virtually dissipate zero heat. The main virtue of BCD adders is that it allows easy conversion to decimal digits for printing or display and faster decimal calculations. These reversible BCD circuits are basis of the decimal ALU of primitive Quantum CPU. The proposed BCD adders have been simulated in VLSI.

KEYWORDS: Reversible Logic, BCD Adder, VLSI, Zero Heat Dissipation