Abstract

This paper proposes two efficient residue to binary converters on a new three-moduli set \{2^{2n-1},2^{4n},2^{2n+1}\} using the Chinese Remainder Theorem. The proposed reverse converters are adder based and memoryless. In comparison with other moduli sets with similar dynamic range, the new schemes out-perform the existing schemes in terms of both hardware cost and relative performance.

References


**Index Terms**

Computer Science

Circuits and Systems

**Keywords**

Residue to binary converter, reverse converter, residue number system (RNS), Chinese remainder theorem, moduli set.