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

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Index Terms

Computer Science

Circuits and Systems

Keywords

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