A New Efficient Residue to Binary Converter for (5n+2)-bit Dynamic Range Moduli Set

International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

Volume 179
Number 34

Year of Publication: 2018

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10.5120/ijca2018916726

Abstract

This paper proposes an efficient residue to binary converter on a new three-moduli set \((2^{2n+1}),2^{(2n-1)}-1,2^n-1\) using the Mixed Radix Conversion. 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 propagation delay.

References


9. K. A. Gbolagade, “New Adder-Based RNS-Binary Converters for the \(\{2^{(n+1)}+1, 2^{(n+1)}+1, 2^n\}\) Moduli Set,” Int. Sch. Res. Netw


17. P. V. Ananda Mohan and A. B. Premkumar, “RNS-to-binary converters for two four-moduli sets \{2

**Index Terms**

Computer Science

Information Sciences
Keywords

Reverse Converter, Mixed Radix Conversion, Dynamic Range, Moduli Set, Residue Number System