

A CORDIC Based Design Technique for Efficient Computation of DCT

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Abstract : A discrete cosine transform (DCT) is described and a technique to compute it using fast Fourier transform (FFT) is developed. In this work, DCT of a finite length sequence is obtained by incorporating CORDIC methodology in radix-2 FFT algorithm. The proposed methodology is simple to comprehend and maintains a regular structure, thereby reducing computational complexity. DCTs are used extensively in the area of digital processing for the purpose of pattern recognition. So the efficient computation of DCT maintaining a transparent design flow is highly solicited.

Keywords : DCT, DFT, CORDIC, FFT

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