

Genetic algorithm optimization for coefficient of FFT processor

ABSTRACT

This paper describes the implementation of Single-objective Genetic Algorithm (SOGA) and Multi-objectives Genetic Algorithm (MOGA) to optimize the pipelined Fast Fourier Transform (FFT) coefficient in order to improve the performance of Signal to Noise Ratio (SNR) and also the Switching Activity (SA). The SA and SNR are optimized separately in a Radix-4 Single Path Delay Feedback (R4SDF) pipelined Fast Fourier Transform (FFT) processor using SOGA. The MOGA optimized both objectives using Weighted-Sum approach.

Keyword: FFT processor; Signal to noise ratio; Switching activity