Abstract

The importance of Digital Signal Processing (DSP) algorithms have increased drastically in recent times, the two important techniques of DSP are the Discrete Fourier Transform (DFT) and the Fast Fourier Transform (FFT). DFT is broadly used in the applications such as convolution, linear filtering etc. Another algorithm to compute DFT efficiently is the Fast Fourier Transform (FFT). Fast Fourier Transform processor has an important role in the field of communication system such as audio broadcasting and digital video etc. This paper deals with the designing of an 8 point FFT using radix-2 DIT FFT algorithm. This 8 point FFT design is implemented using Verilog HDL in Xilinx ISE Software.

References

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Index Terms

Computer Science          Signal Processing

Keywords

Digital Signal Processing (DSP), Discrete Fourier Transform (DFT), Fast Fourier Transform (FFT), Split-Radix FFT (SRFFT), Decimation in Time FFT (DIT-FFT), Decimation in Frequency (DIF-FFT)