

EE504P – S03 Assignment #4 – Due at Lecture 14.

Modify the DFT filter program that you wrote for Assignment #3 to implement a 16-point Cosine Filter. Use the same data set that was supplied for assignment #3.

1. Provide a graph for each voltage and current that has both the time sample data and computed peak magnitude plotted together.
2. Determine how many samples are needed to achieve a steady state output in the input is not changing in either phase or magnitude?
3. Provide a plot to verify your conclusion.
4. Compare the filter responses that you obtained for Assignment #3 with those of Assignment #4. Describe the performance of the two filters with respect to filter transient and overshoot.