

1995 Paper 9 Question 2

Information Theory and Coding

Provide the formula for the Discrete Fourier Transform. [4 marks]

Show how it is possible to split the transform of $2M$ points into two transforms of M points. Hence derive the number of complex multiplications and divisions required for the Fast Fourier Transform of 2^N points. [12 marks]

Explain the memory requirements of the Fast Fourier Transform. [4 marks]