Lab: Fast Fourier Transform

Design and implement a 1024 Point FFT IP on the PYNQ-Z2 board, using Vivado HLS.

To get good accuracy we use the following

- Single-precision floating-point format (`float32`)
- Trigonometric functions: *sine* and *cosine* via the `hls_math` library

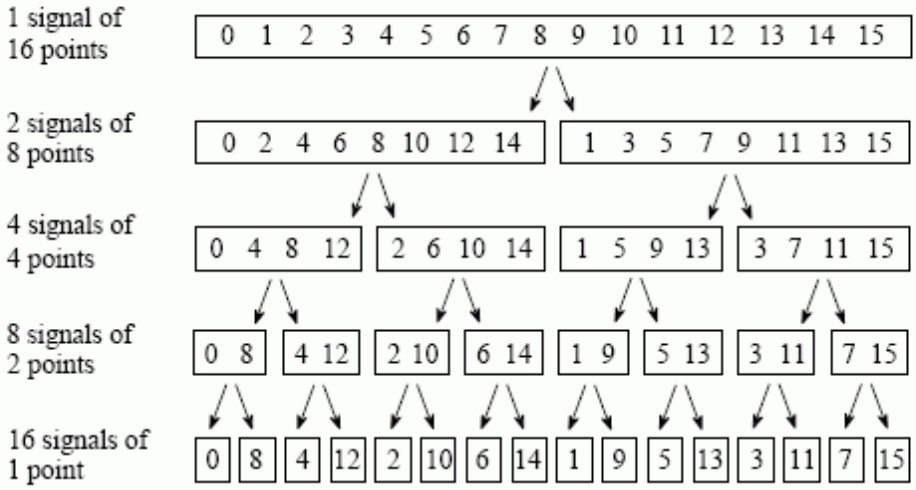

FIGURE 12-2
The FFT decomposition. An N point signal is decomposed into N signals each containing a single point. Each stage uses an *interlace decomposition*, separating the even and odd numbered samples.