An Industry-Standard Benchmark Consortium

AutoBench™ Version 1.1   Benchmark Name: Fast Fourier Transform (FFT)

Benchmark Description

This EEMBC benchmark simulates an embedded automotive/industrial application performing a power spectrum analysis of a time varying input waveform.

The kernel computes the 'radix-2' decimation in frequency Fast Fourier Transform (FFT) on complex input values stored in real and imaginary arrays. After the time domain values are converted to the equivalent frequency domain, the power spectrum is calculated.

Optimization Rules

Category	Allowed	Disallowed
ANSI C	X	
Intrinsics/Language Extensions	X	
Custom Libraries	X	
Assembly Language	X	
HW Accelerators	X	

Algorithm Flowchart