EENG 385 - Electronic Devices and Circuits

Lab 11 – FFT and Fourier Series

Just Solutions

# Fast Fourier Transform/ Fourier Series:

Table : The magnitude of the various components of a square wave with f0=1kHz or, equivalently, ω0=6.28kRad/sec.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| n | 1 | 3 | 5 | 7 | 9 |
| nω0 | 1kHz | 3kHz | 5kHz | 7kHz | 9kHz |
| Theory | 1.0 | 0.33 | 0.2 | 0.14 | 0.11 |
| Measured | 4.4 | 1.5 | 0.9 | 0.65 | 0.5 |
| Scaled | 1 | 0.34 | 0.2 | 0.15 | 0.11 |

Frequency response of Audio amplifier front end

Generating a Bode plot using the oscilloscope

