

relative amount of energy of one waveform varies significantly from the others. True, all waveforms have different amounts of energy over the same frequency range but the difference is proportional throughout all frequencies of the spectrum as should have been suspected. Although the results do not refute a possible resonant effect they do nothing to support that claim.

Table 2. Main Components for Various Repetition Rates.

Frequency (kHz)	Component magnitudes versus frequency for various repetition rates			
	5 Hz	11 Hz	15 Hz	20 Hz
4.4	0.050	0.110	0.148	.0200
8.8	0.047	0.105	0.148	0.185
13.2	0.043	0.095	0.132	0.175
17.6	0.039	0.058	0.132	0.159
22.0	0.034	0.085	0.119	0.135
26.4	0.028	0.062	0.085	0.112

Also, a Fourier transform (Figure 13) of an approximation of the single pulse of Figure 4 was done using a hand-held calculator. The approximation of the waveform used to find the transform is displayed in Figure 11 and the negative portion is enlarged (time scale) in Figure 12. It is pointed out that the approximate waveform contained more energy at the higher frequencies than the actual waveform. This point is supported by noting the abrupt edges of the approximation versus the actual waveform (Figure 18) at the maximum point of the negative portion of the pulse as well as at the zero crossing. Also, an examination of a lowpass (LP) filter output of the negative portion of the waveform (Figure 17) shows that the lower cut off frequency smooths the...