Aaron Batker Pritzker Peer Review

My peer review was done by Sophie Blee-Goldman. The original sheet is currently in terrible condition, so I'll reproduce the relevant information here.

First the marks Sophie made on my first draft (paper copy).

- She pointed out a typo (the output voltage is must always be…) on page 3.
- I forgot a factor of R_2 in Equation 5
- Big comment "Titles" above Figure 3
- Next to Figure 4: "might be nice to label the cutoff frequency—hard to tell where it is with axis ticks of 2000 on such a small graph."
- Another typo on the last page. I said "even" when I meant to say "passive."
- The words "looks better" on the last page were underlined and next to them, the comment "Are you making the claim that it looks better because the higher slope is good? Or are you assuming the reader thinks/knows it looks better, then explaining the higher quality with the higher slope statement. (Does this question make sense?)" appeared.
- The words "phase shift" on the last page were underlined and next to them, the comment "I don't think you mention possible phase shift before this" appeared. I did mention a predicted phase shift on the top of page 3 though.

Now the form. I'll just reproduce the answers, not the questions.

1. Yes—you do a great job of motivating the experiment by showing the relevance of the results in the "real world" (i.e. applications in engineering, products, etc.)
2. The theory section clearly explains the basic principles and derives the relevant equations in a straightforward way (check Eq. 5 though, I think you dropped an R_2 somewhere)
3. You describe the setup clearly but might want to provide more detail about the methods—what range of amplitudes did you end up testing, with a step of how many volts? Did the input have a DC component? If not, are you sure—the function generators all seem to have a slight offset. Also, I'm not sure if the part about the slew rate is necessary. [Aaron's note: I only tested one amplitude]
4. Some of what is in the results section might be better of being introduced in the theory section. Graphs are good and display the results clearly, but titles and more descriptive axis labels would make it easier to compare them. Your analysis is good but there are a few unclear sentences—see the paper for comments.
5. The conclusion does a good job of wrapping things up and addressing the problem the experiment wanted to explore. Maybe include something about what follow-up research might entail.
6. The abstract should probably sum up what was concluded/what should be taken away from this experiment to a greater extent, rather than describing what was seen
7. Occasional typos, otherwise seems fine
8. The analysis of the graphs was done well, in terms of comparing them and explaining with theory what was being seen. The theory section is also very good (although somewhat spread out through the other sections)
9. The formatting/placement/labelling of the graphs could be greatly improved for clarity. There are also a few places that seem to be clear but might benefit from an explicit explanation i.e. state why the even components must be noise; because your input signal was an odd square wave