Review of: "Pulse Amplitude Measurement Using Low Sampling ADC and Interpolation Technique"

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Potential competing interests: No potential competing interests to declare.

This study conducts experiments on the use of known interpolations in FPGAs and thoroughly analyzes their advantages and disadvantages. The descriptions of each interpolation method, the algorithm methodology, and the experimental approach to verify the algorithm's performance are detailed and well-explained. Here are some considerations to improve this paper:

1. The author only experimented with Gaussian pulses of one frequency. A more comprehensive comparison of each interpolation method could have been achieved by considering a more extensive range of frequencies or conducting experiments on more complex signals, such as audio signals.

2. The author focused solely on utilization to measure the FPGA's usage. To better evaluate the algorithm's performance, it would have been beneficial to consider both the complexity of the calculations and the calculation time (response time).

3. Only a 1MHz sampling frequency was considered for a 1kHz signal. As previously mentioned, a broader range of signal frequencies should be examined. Considering the Nyquist theorem, the study could have been improved by evaluating the algorithm's performance through signal restoration of around a 2MHz signal.

4. Lastly, for this study, which only measured previously known algorithms, to offer more unique value, additional aspects must be addressed. Suggestions for improvement include proposing a method to enhance the existing algorithm or introducing a novel measurement approach to assess the performance of the interpolation algorithm in the FPGA.