

Fig. 1. Layout of 3FI65P1 chip

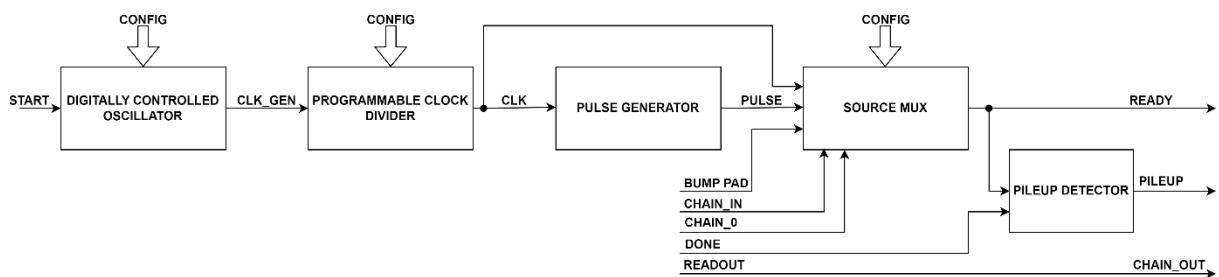


Fig. 2. Block diagram of digital circuitry implemented in the second prototype

References:

- [1] D. S. Gorni et al., "Event driven readout architecture with non-priority arbitration for radiation detectors," *Journal of Instrumentation*, vol. 17, no. 04, p. C04027, Apr. 2022, doi: <https://doi.org/10.1088/1748-0221/17/04/c04027>.
- [2] P. Yang et al., "Low-power priority Address-Encoder and Reset-Decoder data-driven readout for Monolithic Active Pixel Sensors for tracker system," *Nuclear Instruments and Methods in Physics Research*, vol. 785, pp. 61–69, Jun. 2015, doi: <https://doi.org/10.1016/j.nima.2015.02.063>.
- [3] C.L. Seitz, Ideas about arbiters, *Lambda* 1 (1980) 10–14.
- [4] A. L. Veiga and E. M. Spinelli, "A pulse generator with poisson-exponential distribution for emulation of radioactive decay events," *Latin American Symposium on Circuits and Systems*, Apr. 2016, doi: <https://doi.org/10.1109/lascas.2016.7451002>.