

## **Approach to the design of monitoring buffer for read-out ASICs**

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The paper describes the approach to designing built-in monitoring buffers for the purpose of checking the functionality of ASICs as parts of test printed boards. A comparative analysis of spread circuits of monitoring buffers is presented. A figure of merit (FOM), based on that analysis is suggested. Features of the FOM, applied to particle physics experiments, are the speed, power consumption, load driving capability and occupied chip area. As an example, illustrating the choice of buffer according to the proposed FOM, there are presented the results of designing a buffer version as part of an ASIC for the CBM MUCH.

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