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## **Increasing Bandwidth of Data Acquisition Systems on IBR-2 Reactor Spectrometers in FLNP**

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Present trends towards increasing the number of detector channels and the volumes of registered and accumulated data in real time in experiments on IBR-2 reactor spectrometers in FLNP require increasing the bandwidth of data acquisition systems.

The paper considers modernization of the data acquisition system based on the MPD and De-Li-DAQ-2D blocks earlier developed in FLNP and being widely used on neutron spectrometers today. Initially, for this system to connect the modules to the computer, the FLINK fiber-optic adapter with an USB2.0 interface was developed.

In new projects aimed at development of the FLNP spectrometers, up to 240 detector elements are to be connected to MPD units with a maximum load of up to 8M events/s. This requires increasing the bandwidth of channels for connection with the computer to 50 MB/s, which is not feasible with the existing USB2.0 interface.

To achieve the goal several variants of upgrading link interfaces for the modules De-Li-DAQ-2D and MPD used in the data acquisition system for the IBR-2 spectrometers have been developed.

A ten times bandwidth increase has been realized by developing a new FLINK-USB3.0 adapter which enables a link between the fiber optic interface of the modules and the interface USB 3.0 of the computer.

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