

Testing and Programming the Integrator/ Digitizer Card for the Beam Loss Monitoring System

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Abstract

The beam loss monitoring system is one of the most widely used systems in particle accelerators. Beam losses are used for beam tuning and accelerator diagnostics. The BLM systems implemented at Fermilab are comprised of two fundamental component, the BLM detector and the VME crate. In this project a program to configure and test the Integrator/ Digitizer card in the VME crate was developed. In this project, we have successfully developed user interface to program and configure the FPGA via the EEPROM for the Digitizer/ Integrator card. Furthermore, routines were developed to test different components of the card.