

Patrick Lukens

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Subject: Pulsar Production Readiness Review Report

Committee Report for Pulsar Production Readiness Review

Reviewers: Alex Cerri, Jonathan Lewis, Peter Wilson

On Nov 7, 2003 there was a production readiness review for the L2 Pulsar project of the CDF Run 2b upgrades. We were presented with an overview of the design and fabrication of the board and results of system testing.

The design of the Pulsar is very mature having been through prototyping and pre-production runs without a single modification to the board schematics or layouts. The prototype boards are functionally identical to what is planned for the production run and no blue wire modifications are present on any of the boards.

The testing of the Pulsar boards and their attached mezzanine cards started with extensive simulation prior to fabrication of the first prototype PCB. This has continued with testing on the teststand and tests with beam in August and September for the application as a L2 Muon Trigger Interface board. All of these tests have been successful.

Given the extensive simulation and testing work, the boards are ready for production for use in the upgraded L2 trigger system and as a first stage upgrade for the SVT.

There were only a few comments from the committee.

1. We requested that a test be done with as many Pulsars in one crate as practical. The goal was to ensure that there is no hidden problem of disturbing backplane operation by loading with many boards. This test was successfully completed on Monday Nov 10.
2. Jonathan asked whether all types of mezzanine card had been tested since this was not presented in the talks. The answer was that all had been tested.
3. We requested that all Pulsar boards receive serial numbers and Fermilab property stickers for tracking purposes. In addition, we suggest that property stickers be applied to all mezzanine cards for the same purpose. It is best if these are applied before checkout of the boards to facilitate tracking through the checkout procedure.
4. A "database" should be used during the checkout procedure to track the handling of the boards and any problems that arise. The database may be in the form of flat file(s) as Pulsar project see fit.

In summary, we recommend that the Pulsar boards be released for production.

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