VFPIX Silicon Telescope Design Document

Caleb Fangmeier
Frank Meier

Univ. of Nebraska-Lincoln

June 3, 2015

Abstract

A really cool silicon strip detector based telescope is being designed for the purpose of testing a under-development silicon pixel detector for the VFPIX upgrade of CMS.

Here is documented the goals, constraints, and design decisions of the telescope.

Contents

1 Introduction **3**

2 Overview of Previous Work **3**

3 System Components **3**

4 Performance Targets **3**
4.1 Precision/Accuracy Targets 3
4.2 Speed Targets 3

5 Hardware Proposal **3**

6 Timeline **3**

1 Introduction

2 Overview of Previous Work

Here is some junk[1]

3 System Components

The telescope consists of the following main components.

1. **Silicon Strip Sensor**
2. **Analog Pipeline Chip x128 (APC128)**
3. **Sensor Mount Card (SMT)**
4. **Back-Plane Board (BPB)**
5. **Readout Board (ROB)**

4 Performance Targets

4.1 Precision/Accuracy Targets

4.2 Speed Targets

5 Hardware Proposal

6 Timeline

References

[1] Paul Turner. Something something telescope. Cool Paper, Bro, August 2012.