NSLS-II CSX Beamline Docs Documentation

Release 0.1

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CSX-1 (23-ID-1) BEAMLINE DOCCUMENTATION

Contents:

1.1 Fast CCD Detector

1.1.1 Specifications

• Pixel Size: $30 \mu x 30 \mu$

• Active Area: 960 pixels x 960 pixels

• The center, black stripe is artificial (over scan function)

• 192 independent outputs (480 rows x 10 columns)

• 10 columns = super-column

• Frame Store Mode

• Pixel readout time: 500 us

Digitization time: 2 us at 120 Hz100 Hz maximum data collection

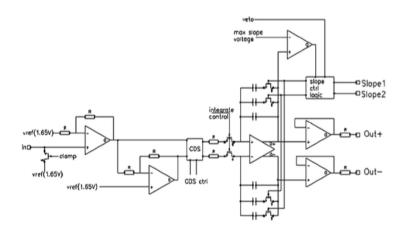


Table 1.1: Data Format

| 15 | 14 | 13 | 12 | 11 | 10 | 09 | 08 | 07 | 06 | 05 | 04 | 03 | 02 | 01 | 00 |
|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| G1 | G0 | ERR | D12 | D11 | D10 | D09 | D08 | D07 | D06 | D05 | D04 | D03 | D02 | D01 | D00 |

Table 1.2: Gain Setting

| G1 | G0 | Gain | Pre-factor |
|----|----|------|------------|
| 0 | 0 | x8 | x1 |
| 1 | 0 | x2 | x4 |
| 1 | 1 | x1 | x8 |

$$I_{corr} = (Imeas * G) - BG$$

CHAPTER

TWO

INDICES AND TABLES

- genindex
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FOUR

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