
NSLS-II CSX Beamline Docs Documentation

Release 0.1

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CONTENTS

1	CSX-1 (23-ID-1) Beamline Documentation	3
1.1	Fast CCD Detector	3
2	Indices and tables	5
3	Downloads	7
4	Indices and tables	9

Contents:

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

Contents:

1.1 Fast CCD Detector

1.1.1 Specifications

- Pixel Size: $30\ \mu\text{m} \times 30\ \mu\text{m}$
- 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 μs
- Digitization time: 2 μs at 120 Hz
- 100 Hz maximum data collection

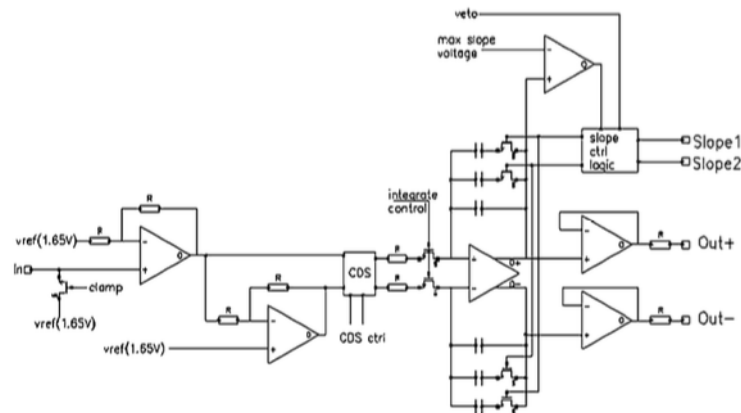


Table 1.1: Data Format

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

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

1.1.2 Useful Links

- [LBNL Fast CCD Site](#)
- [csxtools python analysis routines](#)
- [libcin low level c driver](#)
- [areaDetector Driver](#)

INDICES AND TABLES

- `genindex`
- `modindex`
- `search`

DOWNLOADS

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