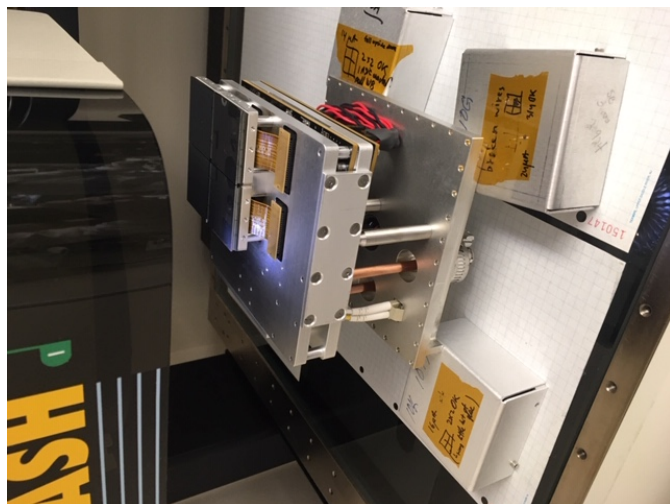


Optical metrology of epix10kaQuad.0 MEC from 2020-10-04

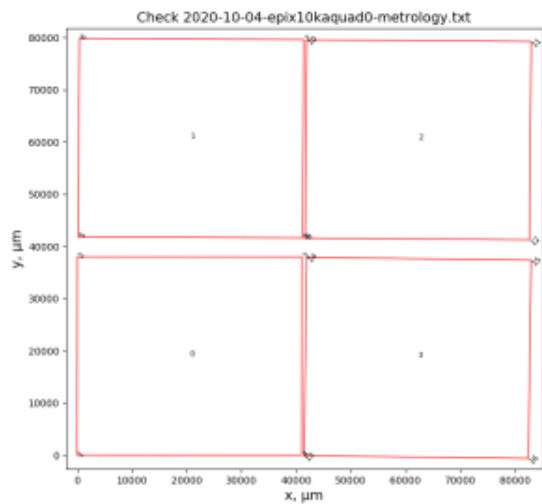
- [Metrology data](#)
- [Quality check](#)
- [Quad location in the hutch](#)
- [2020-10-13 Geometry validation on data](#)
- [References](#)

Metrology data



- [2020-10-04-epix10kaquad0-metrology.xlsx](#)
- [2020-10-04-epix10kaquad0-metrology.txt](#)

Quality check



X-Y quality check for optical metrology measurements

segm:	S1	S2	dS1	dS2	L1	L2	dL1	dL2	angle(deg)	D1	D2	dD	d
(dS)	d(dL)												
segm: 0	38006	38004	-17	-19	41021	41006	35	20	-0.02515	55922	55907		
15	2	15											
segm: 1	38007	38013	-216	-210	41009	41007	203	201	-0.29760	55918	55911		
6	-6	2											
segm: 2	38004	38005	-335	-334	41003	41006	310	313	-0.46739	55911	55908		
2	-1	-3											
segm: 3	38014	38003	-550	-561	41001	41020	506	525	-0.77604	55921	55919		
1	11	-19											

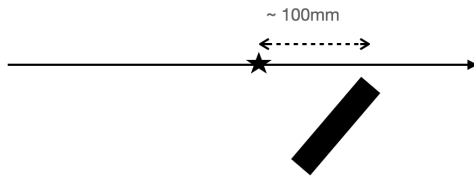
Z quality check for optical metrology measurements

segm:	SA	LA	XSize	YSize	dZS1	dZS2	dZL1	dZL2	dZSA	dZLA	ddZS	ddZL	dZX	dZY
angXZ(deg)	angYZ(deg)	dz3(um)												
segm: 0	38005	41013	41013	38005	15	-17	-1	-33	-1	-17	32	32	-17	-1
-0.02375	-0.00151	-32.000												
segm: 1	38010	41008	41008	38010	-41	-43	-14	-16	-42	-15	2	2	-15	-42
-0.02096	-0.06331	-1.994												
segm: 2	38004	41004	41004	38004	13	22	51	60	17	55	-9	-9	55	17
0.07755	0.02638	8.996												
segm: 3	38008	41010	41010	38008	113	104	187	178	108	182	9	9	182	108
0.25497	0.16356	-9.055												

Quad location in the hutch

Nagler, Bob <bnagler@slac.stanford.edu>
Wed 10/14/2020 2:50 PM
Hi Mikhael,

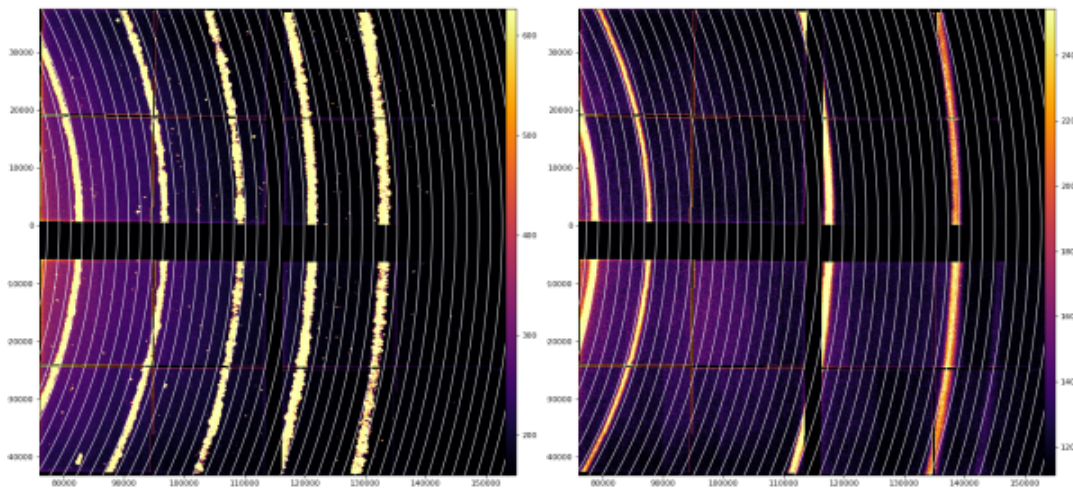
Dimitri has the fully fitted position, but very roughly:
Looking downstream, it sit behind the target on the Right. Center is at beam height. It is rotated around the vertical (Y) axis ~40degrees. Distance to IP is probably around ~100mm. A very rough sketch of topview below:



[2020-10-13-ePix10k-Quad0-calib-Dimitri.pdf](#)

2020-10-13 Geometry validation on data

- geometry file: [/reg/g/psdm/detector/alignment/epix10kaquad/2020-10-04-epix10kaquad0/2020-10-04-epix10kaquad0-geometry.txt](#)
- data
 - [nda-meclv2518-0099-quad0-LAB6-max.txt](#)
 - [nda-meclv2518-0101-quad0-CeO2-max.txt](#)



- 40 degree tilt around Y is not applied in psana geometry
- X,Y,Z camera offset relative to IP is set APPROXIMATELY in order to get "round" one of the rings on image

References

- [EPIX10KA2M References](#)
- [Optical metrology of epix10ka2m.1 from 2020-09-10](#)