LCLS II - SXR Undulator

METROLOGY

Top Jaw Pole Tips

Y Dev.from Mean

Y Dev.from Mean

Mean TOP = 5.4449   Regression Line Ang. (mrad) = 0.0324

Pole Tip Num. --->   Bottom Jaw Pole Tips   Minimum Effective Gap = 9.965
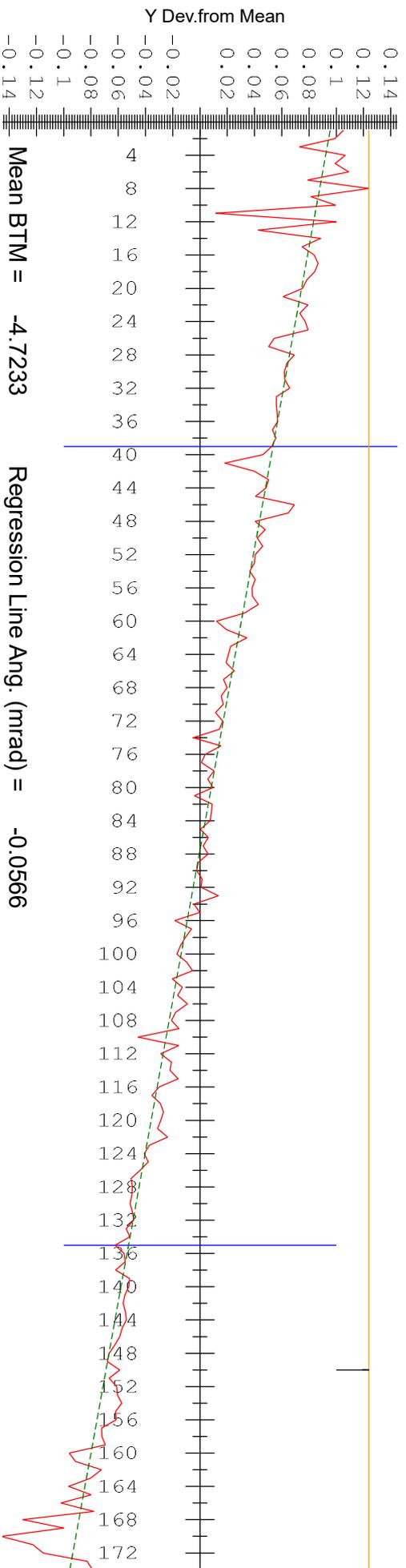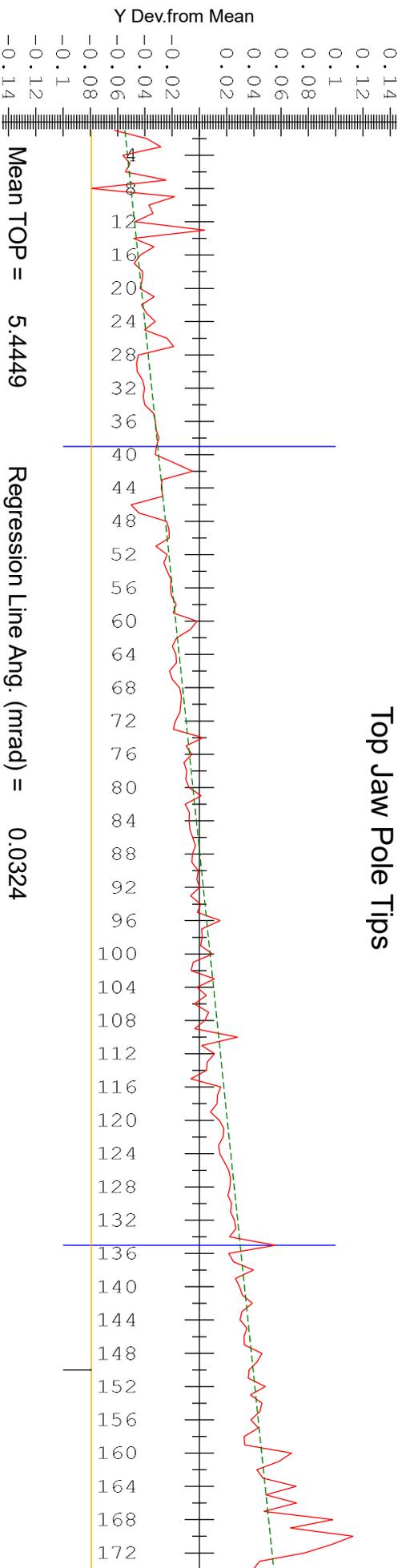
Mean BTM = -4.7233   Regression Line Ang. (mrad) = -0.0566

Y Value Scales Centered on Mean Values
Step Between Measured Pole Tips = 1
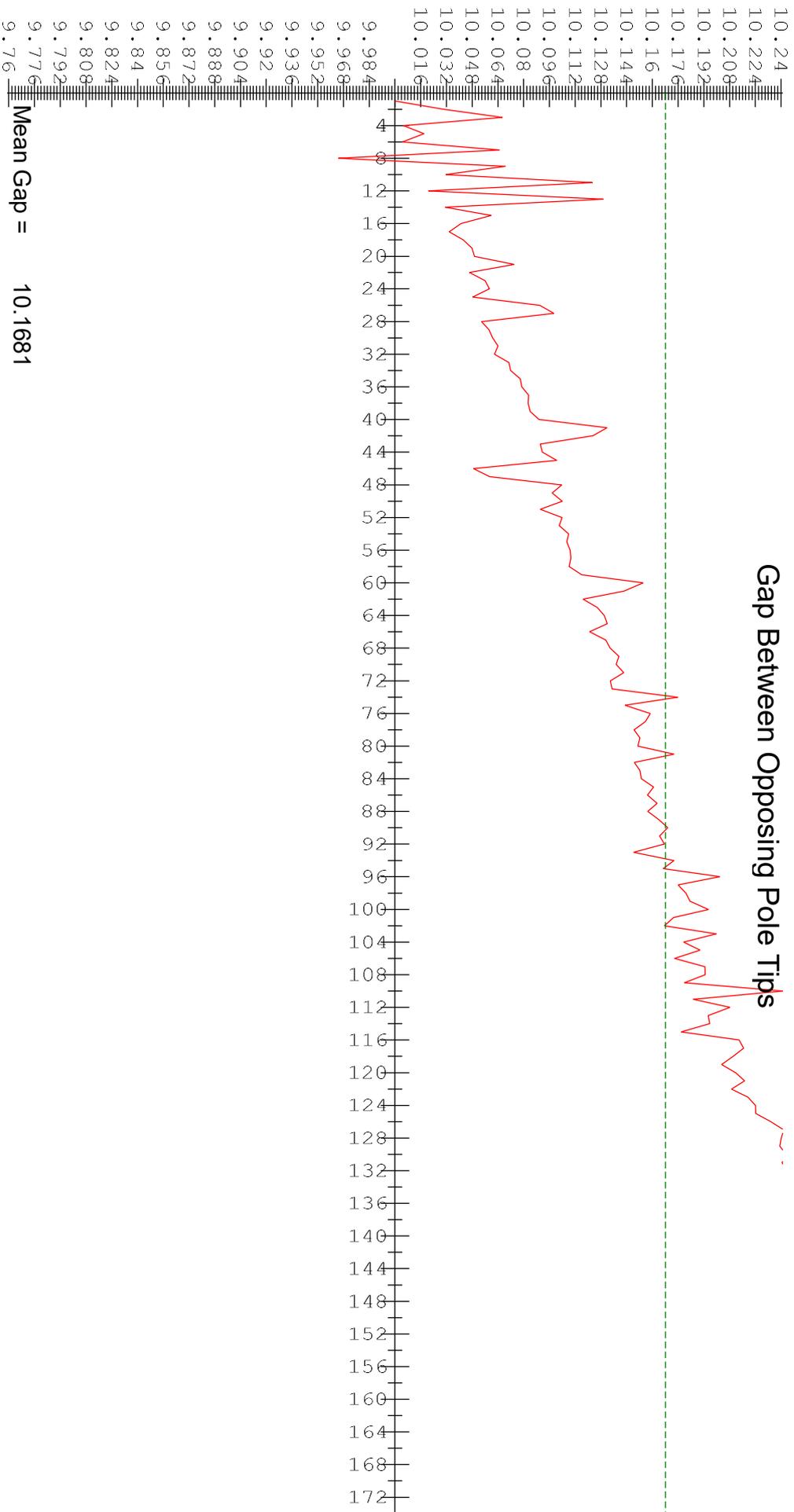
Regression Line Through Points =
Dimensions in mm

Nominal Gap = 10   Nominal Taper = 0.300
Gap Reading = 10.1500   US Encoder = 10.0000   DS Encoder = 10.3001

14-JUL-2020
S/N = 021
D/S = 0001
Run = 24

Gap Between Opposing Pole Tips

Dimensions in mm

Step Between Measured Pole Tips =   1

Mean Gap =   10.1681

METROLOGY

LCLS II - SXR Undulator

Nominal Gap = 10	Nominal Taper = 0.300	14-JUL-2020
		S/N = 021
		D/S= 0001
Gap Reading = 10.1500	US Encoder = 10.0000	Run= 24
	DS Encoder = 10.3001	

Symmetry Point Between Pole Tips

Dimensions in mm

Mean Symmetry Value = 0.3608

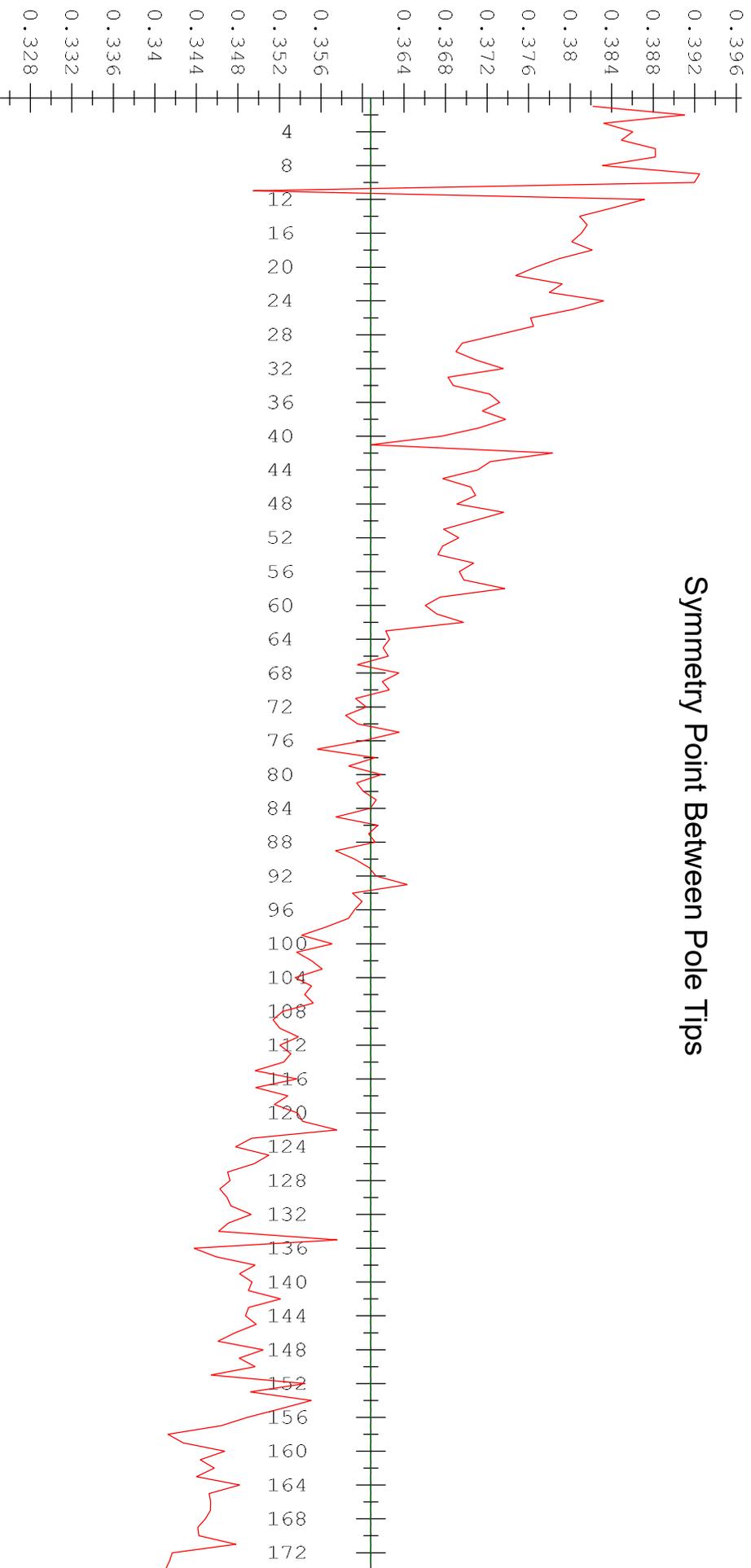Step Between Measured Pole Tips = 1

METROLOGY

LCLS II - SXR Undulator

Nominal Gap = 10   Nominal Taper = 0.300

Gap Reading = 10.1500   US Encoder = 10.0000   DS Encoder = 10.3001
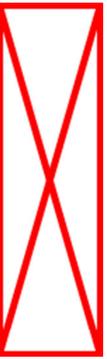
14-JUL-2020
S/N = 021
D/S= 0001
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METROLOGY

Top and Bottom Jaw
Regression Line Intersect Points

Jaw	First Pole (Pole 1)	US Actuator (Pole 39)	DS Actuator (Pole 135)	Last Pole (Pole 174)
Top	5.3903	5.4143	5.4748	5.4995
Bottom	-4.6278	-4.6697	-4.7757	-4.8188
Gap	10.0180			10.3182
Taper				0.3002

Summary of Mean Values

Top Jaw Poles	Btm. Jaw Poles	Gap Values	Sym. Pt. Values
5.4449	-4.7233	10.1681	0.3608

Additional Calculated Values

Bottom Pole #1 Z Value	980.159
Top Jaw Pitch (mrad)	0.032
Bottom Jaw Pitch(mrad)	-0.057
Minimum Effective Gap	9.965
Reference Block Gap	6.799

LCLS II - SXR Undulator

Nominal Gap = 10   Nominal Taper = 0.300

Gap Reading = 10.1500   US Encoder = 10.0000   DS Encoder = 10.3001

14-JUL-2020
S/N = 021
D/S= 0001
Run= 24

Dimensions in mm