LCLS II-HE - SXR Undulator

METROLOGY

Top Jaw Pole Tips

Bottom Jaw Pole Tips

Pole Tip Num. ---->

Y Dev.from Mean

Y Dev.from Mean

Mean TOP = 5.4634

Regression Line Ang. (mrad) = -0.0036

Mean BTM = -5.5353

Regression Line Ang. (mrad) = -0.0081

Minimum Effective Gap = 10.968

Y Value Scales Centered on Mean Values

Step Between Measured Pole Tips = **5**
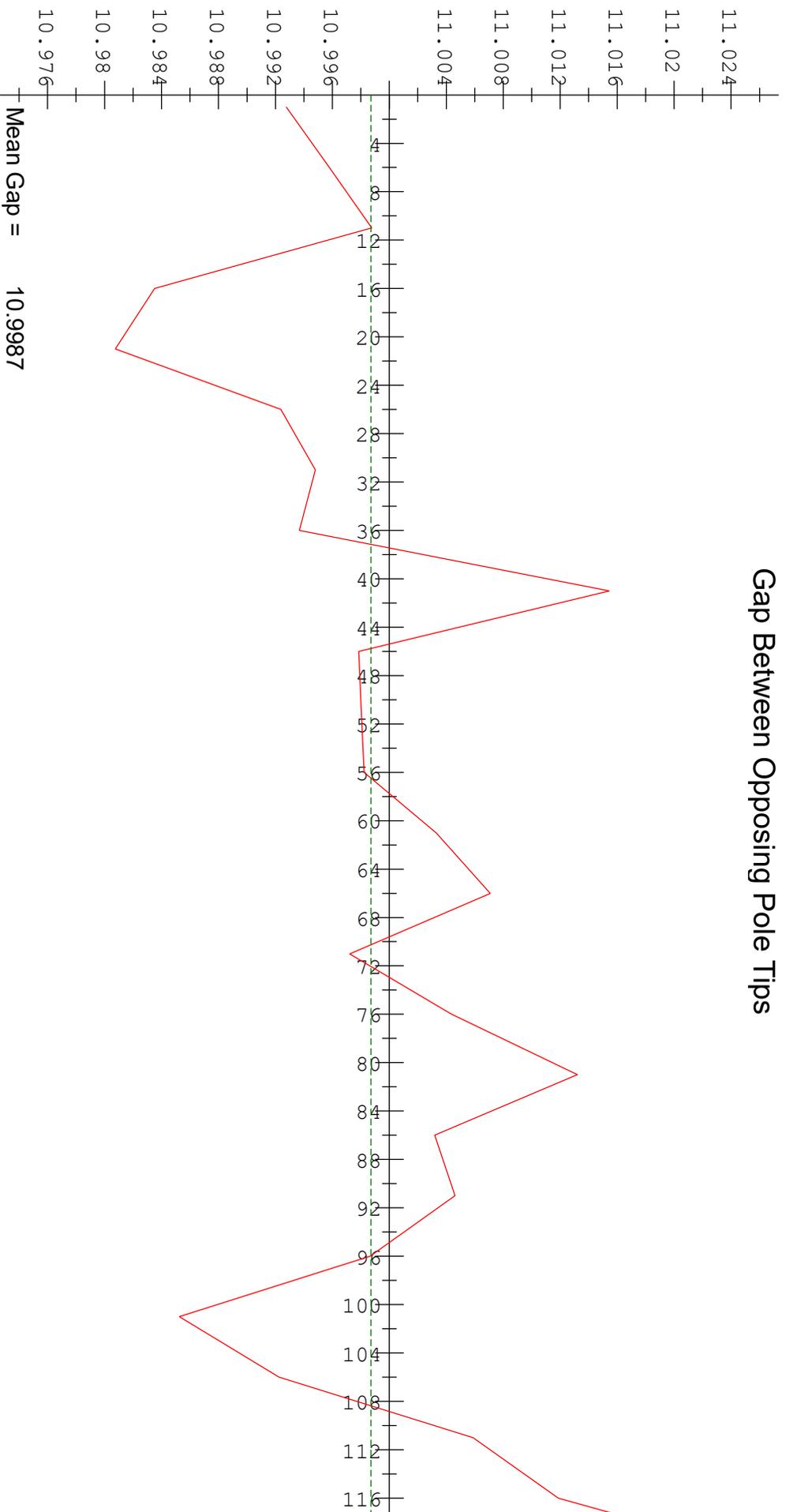
Regression Line Through Points = Dimensions in mm
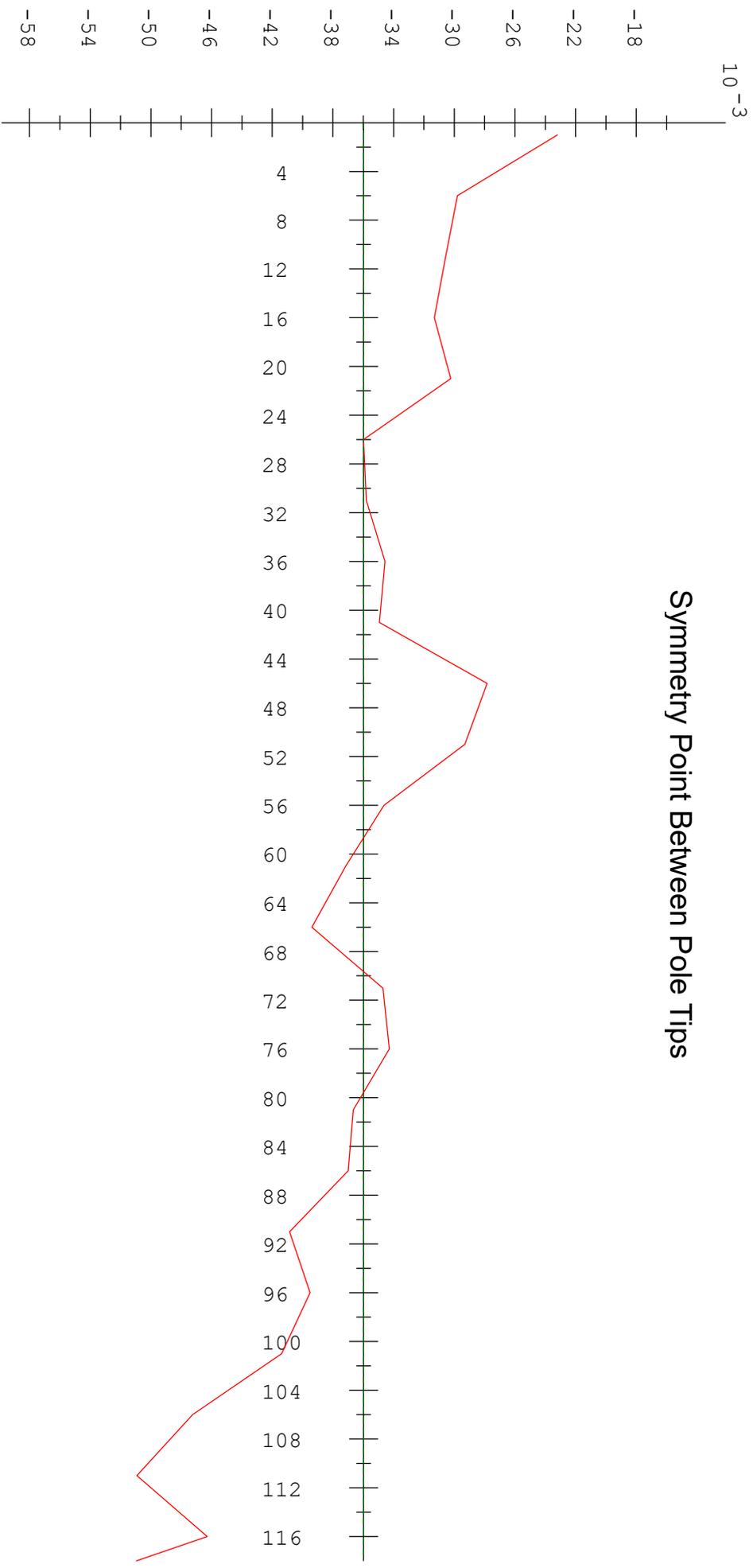
Nominal Gap = 11   Nominal Taper = 0.000

Gap Reading = 11.0000   US Encoder = 11.0000

DS Encoder = 11.0000

23-MAY-2024
S/N = 023
D/S= 0001
Run= 11

LCLS II-HE - SXR Undulator

Gap Between Opposing Pole Tips

Dimensions in mm

Step Between Measured Pole Tips = 5

METROLOGY

Mean Gap = 10.9987

Nominal Gap = 11	Nominal Taper = 0.000
Gap Reading = 11.0000	US Encoder = 11.0000	DS Encoder = 11.0000

23-MAY-2024	
S/N =	023
D/S=	0001
Run=	11

Symmetry Point Between Pole Tips

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Mean Symmetry Value =   -0.0360

Step Between Measured Pole Tips =   5

Nominal Gap = 11	Nominal Taper = 0.000	
Gap Reading = 11.0000	US Encoder = 11.0000	DS Encoder = 11.0000

METROLOGY

Dimensions in mm

23-MAY-2024	
S/N =	023
D/S=	0001
Run=	11

Top and Bottom Jaw
Regression Line Intersect Points

Jaw	First Pole (Pole 1)	US Actuator (Pole 28)	DS Actuator (Pole 90)	Last Pole (Pole 118)
Top	5.4691	5.4664	5.4603	5.4575
Bottom	-5.5227	-5.5288	-5.5429	-5.5493
Gap	10.9918		11.0068	
Taper				0.0150

Summary of Mean Values

Top Jaw Poles	Btm. Jaw Poles	Gap Values	Sym. Pt. Values
5.4634	-5.5353	10.9987	-0.0360

Additional Calculated Values

Bottom Pole #1 Z Value	979.438
Top Jaw Pitch (mrad)	-0.004
Bottom Jaw Pitch(mrad)	-0.008
Minimum Effective Gap	10.968
Reference Block Gap	6.799

LCLS II-HE - SXR Undulator

Nominal Gap = 11 **Nominal Taper = 0.000**

Nominal Gap = 11.0000   Nominal Taper = 0.0000

Gap Reading = 11.0000   US Encoder = 11.0000   DS Encoder = 11.0000

METROLOGY

Dimensions in mm

23-MAY-2024
S/N = 023
D/S= 0001
Run= 11