Top Jaw Pole Tips

10^{-3}

Y Dev. from Mean

Mean TOP = 5.7575   Regression Line Ang. (mrad) = 0.0064

Pole Tip Num. ---->

Bottom Jaw Pole Tips

Minimum Effective Gap = 11.521

10^{-3}

Y Dev. from Mean

Mean BTM = -5.8224   Regression Line Ang. (mrad) = 0.0175

Y Value Scales Centered on Mean Values   Regression Line Through Points = ------
Step Between Measured Pole Tips = 7   Dimensions in mm

SLAC
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METROLOGY

LCLS II - SXR Undulator
Nominal Gap = 11.5   Nominal Taper = 0.000
Gap Reading = 11.5000   US Encoder = 11.5000   DS Encoder = 11.5001

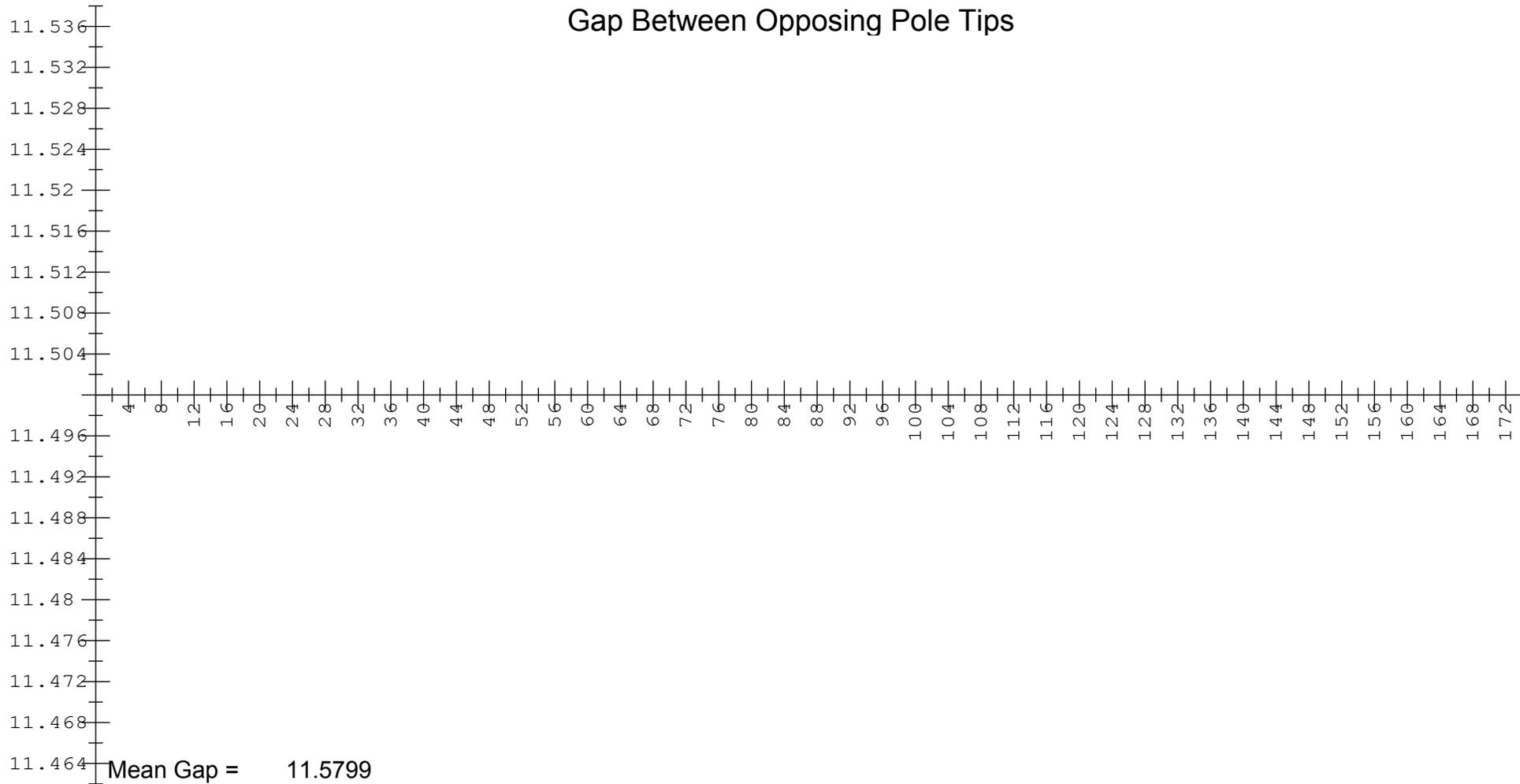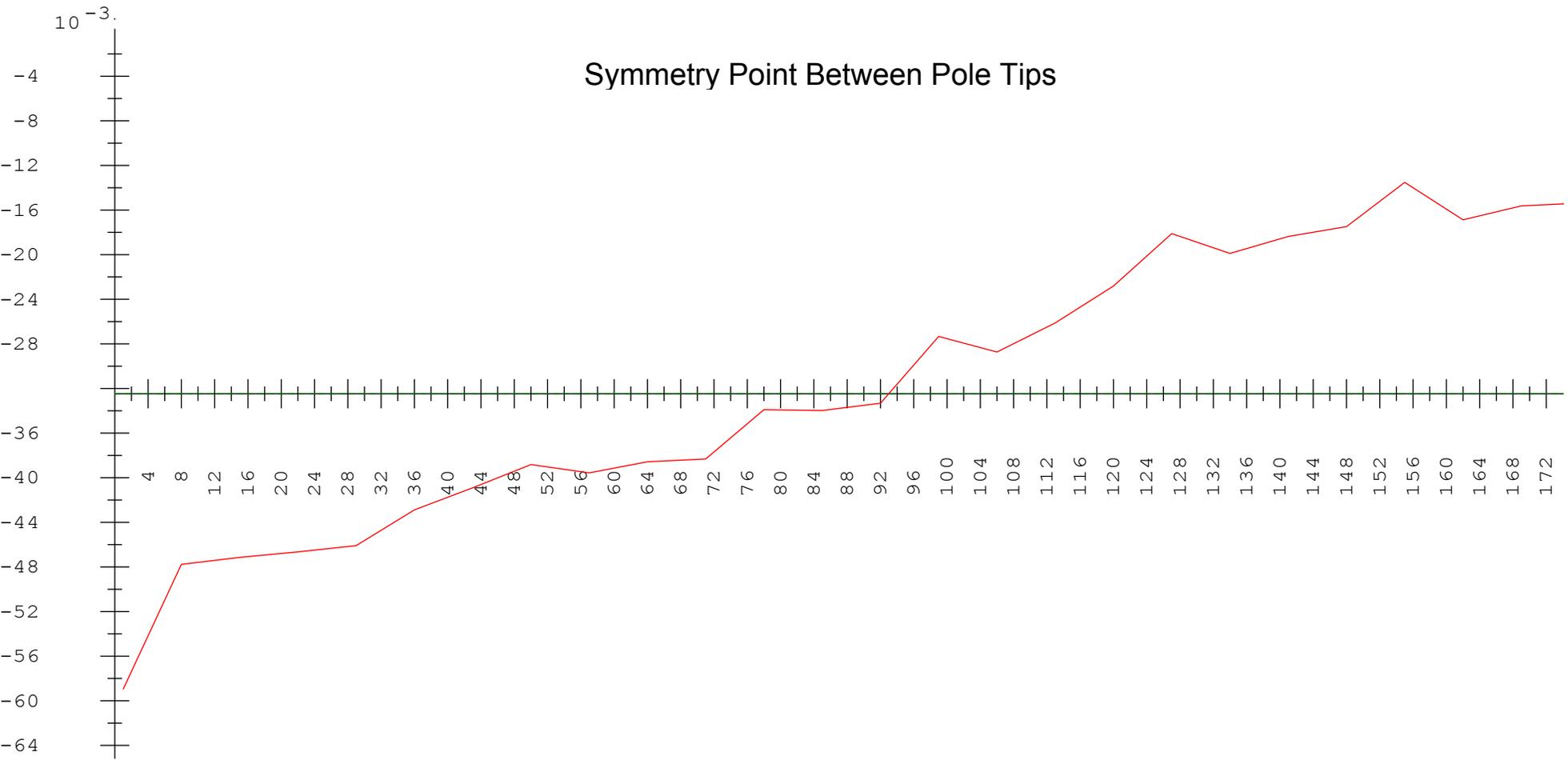04-APR-2019
S/N = 002
D/S= 0001
Run= 5

Gap Between Opposing Pole Tips

11.536
11.532
11.528
11.524
11.52
11.516
11.512
11.508
11.504

4 8 12 16 20 24 28 32 36 40 44 48 52 56 60 64 68 72 76 80 84 88 92 96 100 104 108 112 116 120 124 128 132 136 140 144 148 152 156 160 164 168 172

11.496
11.492
11.488
11.484
11.48
11.476
11.472
11.468
11.464

Mean Gap =   11.5799

Step Between Measured Pole Tips =   7

Dimensions in mm

Symmetry Point Between Pole Tips

10^{-3}.

Y-axis labels (top to bottom): -4, -8, -12, -16, -20, -24, -28, -36, -40, -44, -48, -52, -56, -60, -64

X-axis labels: 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 52, 56, 60, 64, 68, 72, 76, 80, 84, 88, 92, 96, 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140, 144, 148, 152, 156, 160, 164, 168, 172

Mean Symmetry Value =   -0.0325

Step Between Measured Pole Tips =   7

Dimensions in mm

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	5.7472	5.7519	5.7639	5.7687
Bottom	-5.8515	-5.8385	-5.8058	-5.7925
Gap	11.5987			11.5612
Taper				-0.0374

Summary of Mean Values

Top Jaw Poles	Btm. Jaw Poles	Gap Values	Sym. Pt. Values
5.7575	-5.8224	11.5799	-0.0325

Additional Calculated Values

Bottom Pole #1 Z Value	980.303
Top Jaw Pitch (mrad)	0.006
Bottom Jaw Pitch(mrad)	0.017
Minimum Effective Gap	11.521
Reference Block Gap	6.810

Dimensions in mm

SLAC NATIONAL ACCELERATOR LABORATORY
METROLOGY

LCLS II - SXR Undulator
Nominal Gap = 11.5   Nominal Taper = 0.000
Gap Reading = 11.5000   US Encoder = 11.5000   DS Encoder = 11.5001

04-APR-2019
S/N = 002
D/S = 0001
Run = 5