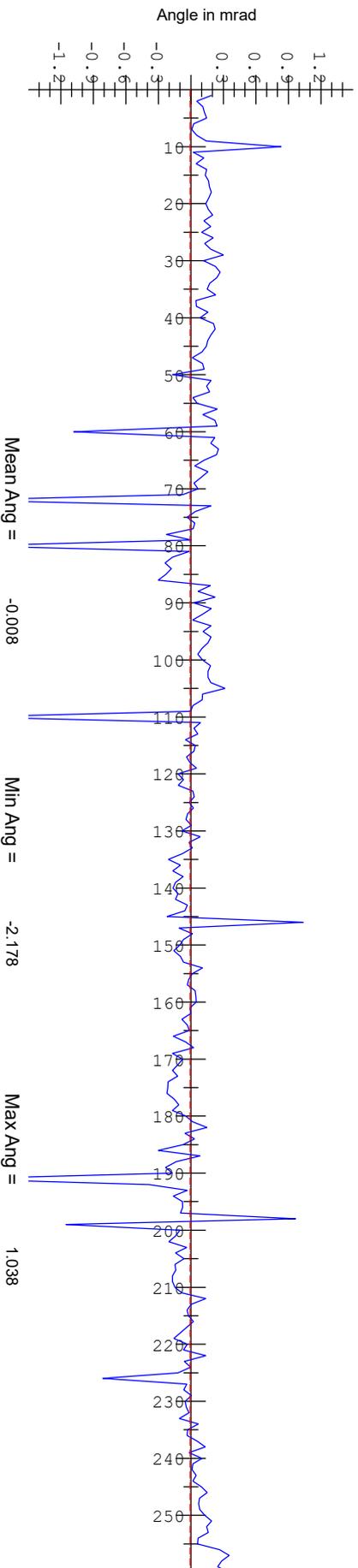


### Included Angle Between Pole Tips

Pole Tip Num. ----->

### Angle of Symmetry Line between Pole Tips to Tuning Gap ZX Plane



Dimensions in MM, Angles in Milliradians



**SLAC**  
NATIONAL ACCELERATOR LABORATORY  
METROLOGY

## HGVPU - Pole Tip Angles

**Nominal Gap :** 40.000    **US Full :** 40.0002    **DS Full :** 40.0003

**Nom. Taper :** 0.000    **US Wall Half :** 19.9929    **DS Wall Half :** 19.9916

**US Aisle Half :** 19.9925    **DS Aisle Half :** 19.9923

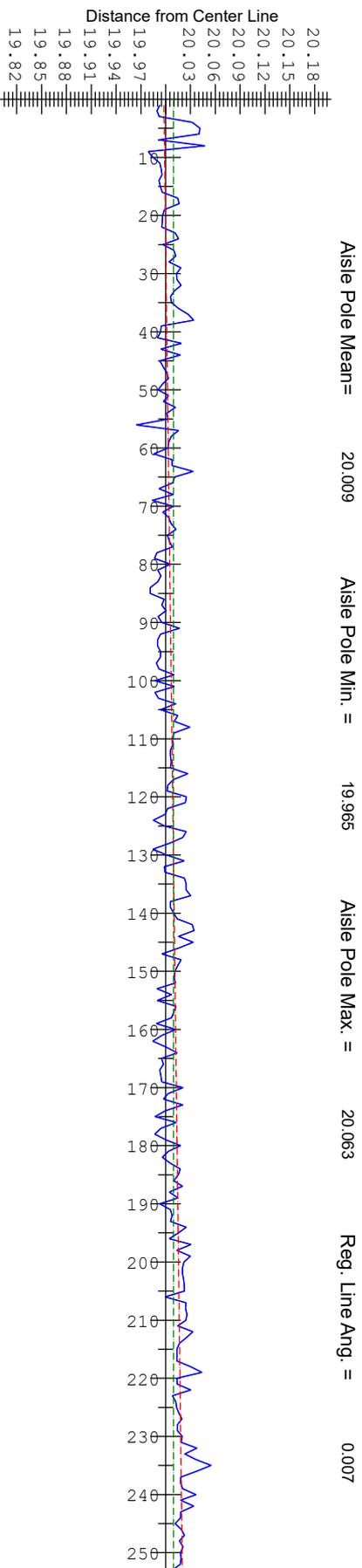
**S/N :** HXU 016

**Date :** 22-JAN-2021

**Data Set :** 0002

**Run :** FINAL

**Cam Pos. :** B

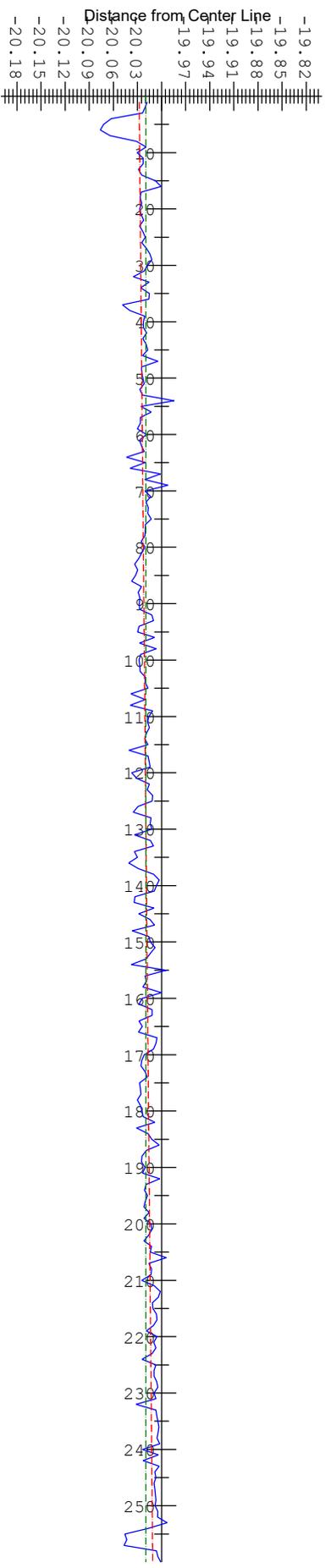


### Aisle Pole Tips at Nom. Beam Height

Pole Tip Num. ----->

Blue = Pole Tip points  
 Green = Mean line  
 Red = Regression line thru points

Minimum Clearance Gap = 39.930



### Girder centerline in reference to Pointed Magnets

Dimensions in MM, Angles in Milliradians



### HGVPU - Pole Tip Location from Girder Centerline

|               |        |                 |         |                 |         |
|---------------|--------|-----------------|---------|-----------------|---------|
| Nominal Gap : | 40.000 | US Full :       | 40.0002 | DS Full :       | 40.0003 |
| Nom. Taper :  | 0.000  | US Wall Half :  | 19.9929 | DS Wall Half :  | 19.9916 |
|               |        | US Aisle Half : | 19.9925 | DS Aisle Half : | 19.9923 |

|          |               |
|----------|---------------|
| S/N      | : HXU 016     |
| Date     | : 22-JAN-2021 |
| Data Set | : 0002        |
| Run      | : FINAL       |
| Cam Pos. | : B           |

**Values Calculated from Regression Line End Points**

| Dimension              | X Value | Y Value | Z Value  | Calc. Value |
|------------------------|---------|---------|----------|-------------|
| US Aisle Pole Tip(1)   | 19.998  | 0.000   | 8.750    |             |
| US Wall Pole Tip(1)    | -20.028 | 0.000   | 8.750    |             |
| US Sym. Pt.            | -0.015  |         |          |             |
| US Gap                 |         |         |          | 40.026      |
| DS Aisle Pole Tip(260) | 20.021  | 0.000   | 3375.750 |             |
| DS Wall Pole Tip(260)  | -20.011 | 0.000   | 3375.750 |             |
| DS Sym. Pt.            | 0.005   |         |          |             |
| DS Gap                 |         |         |          | 40.032      |
| Taper                  |         |         |          | 0.006       |

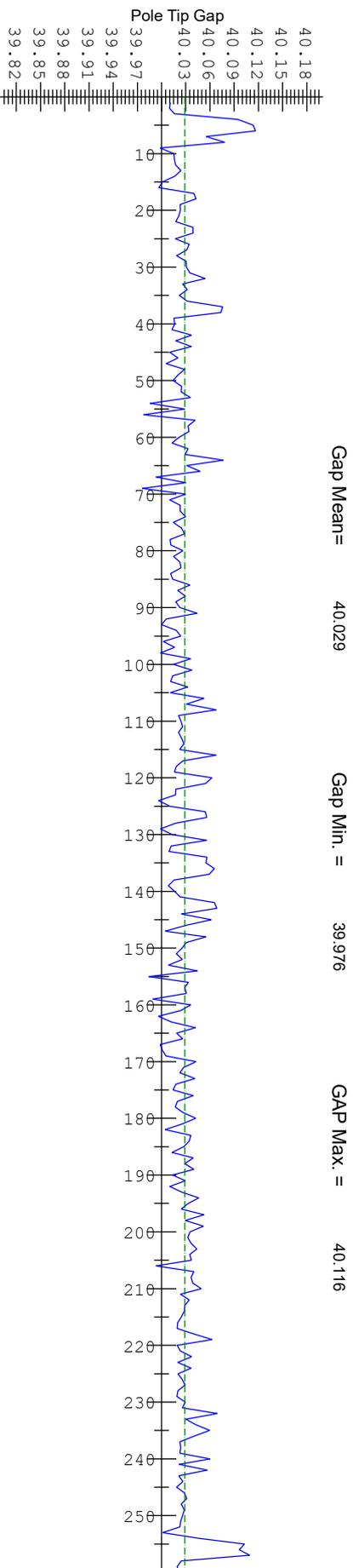
Dimensions in MM



**HGVPU - Gap Calc. from Regression Line End Points**

|               |        |                 |         |                 |         |
|---------------|--------|-----------------|---------|-----------------|---------|
| Nominal Gap : | 40.000 | US Full :       | 40.0002 | DS Full :       | 40.0003 |
| Nom. Taper :  | 0.000  | US Wall Half :  | 19.9929 | DS Wall Half :  | 19.9916 |
|               |        | US Aisle Half : | 19.9925 | DS Aisle Half : | 19.9923 |

|          |               |
|----------|---------------|
| S/N      | : HXU_016     |
| Date     | : 22-JAN-2021 |
| Data Set | : 0002        |
| Run      | : FINAL       |
| Cam Pos. | : B           |

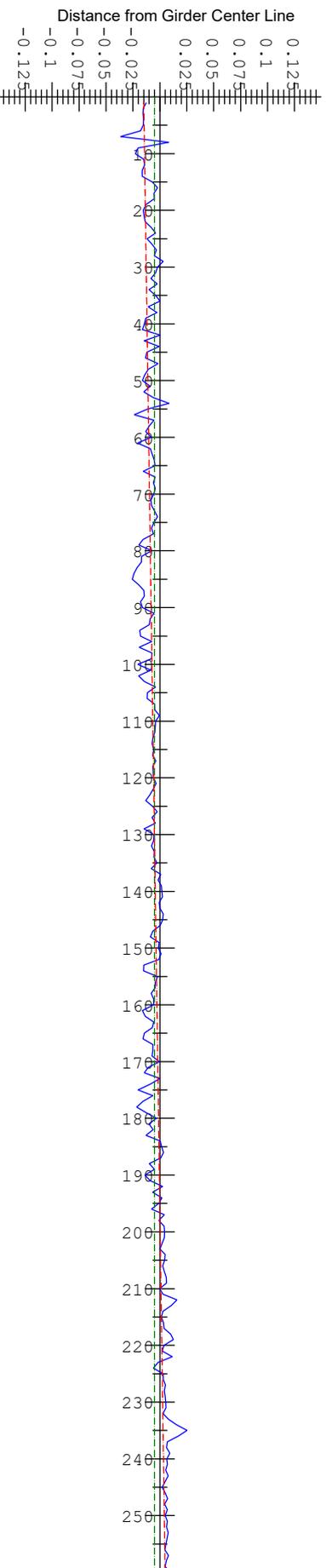


### Pole Tip Gap at Nom. Beam Height

Blue = Pole Tip points  
 Green = Mean line  
 Red = Regression line thru points

Pole Tip Num. ----->

### Pole Tip Symmetry Point at Nom. Beam Height



### Girder centerline in reference to Pointed Magnets

Dimensions in MM, Angles in Milliradians

**SLAC**  
NATIONAL ACCELERATOR LABORATORY  
METROLOGY

## HGVPU - Pole Tip Gap and Symmetry Point Location

Nominal Gap : 40.000      US Full : 40.0002      DS Full : 40.0003

Nom. Taper : 0.000      US Wall Half : 19.9929      DS Wall Half : 19.9916

US Aisle Half : 19.9925      DS Aisle Half : 19.9923

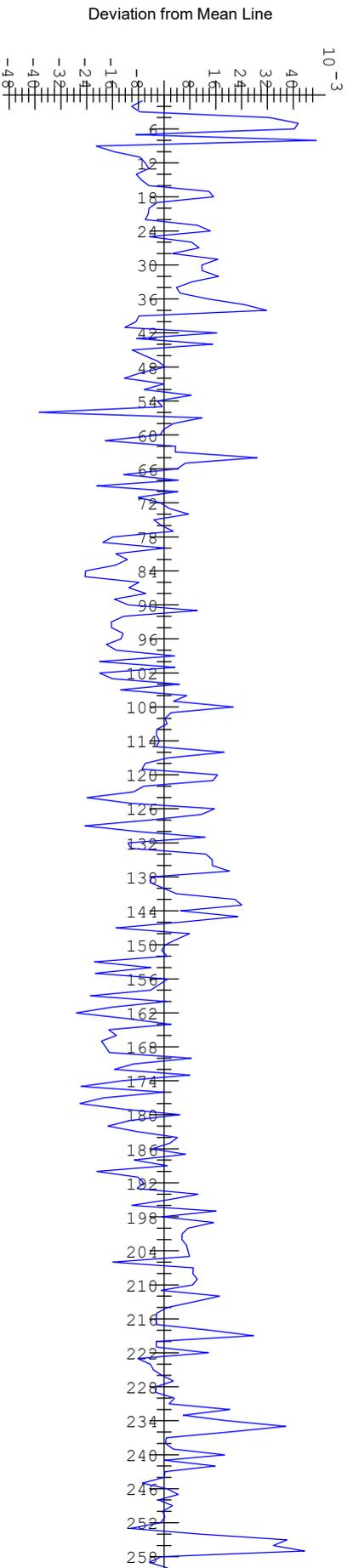
S/N : HXU 016

Date : 22-JAN-2021

Data Set : 0002

Run : FINAL

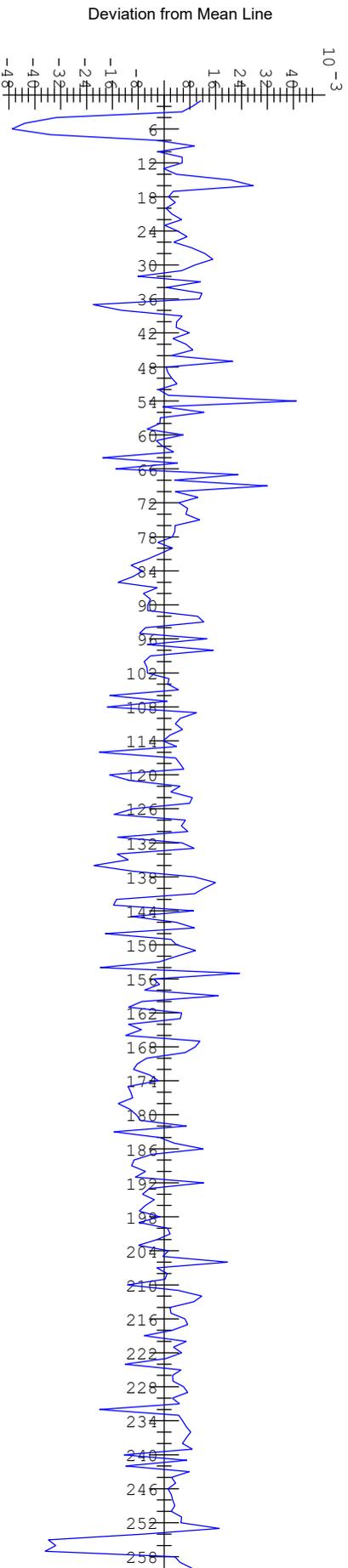
Cam Pos. : B



**Aisle Pole Tips**

Pole Tip Num. ----->

**Wall Pole Tips**



**Pole Tip Deviations from Jaw Mean Lines when aligned to actual Gap Sym. Plane**

Dimensions in MM



**HGVPU - Pole Tip Deviation from Mean Line**

|               |        |                 |         |                 |         |
|---------------|--------|-----------------|---------|-----------------|---------|
| Nominal Gap : | 40.000 | US Full :       | 40.0002 | DS Full :       | 40.0003 |
| Nom. Taper :  | 0.000  | US Wall Half :  | 19.9929 | DS Wall Half :  | 19.9916 |
|               |        | US Aisle Half : | 19.9925 | DS Aisle Half : | 19.9923 |

|          |               |
|----------|---------------|
| S/N      | : HXU 016     |
| Date     | : 22-JAN-2021 |
| Data Set | : 0002        |
| Run      | : FINAL       |
| Cam Pos. | : B           |