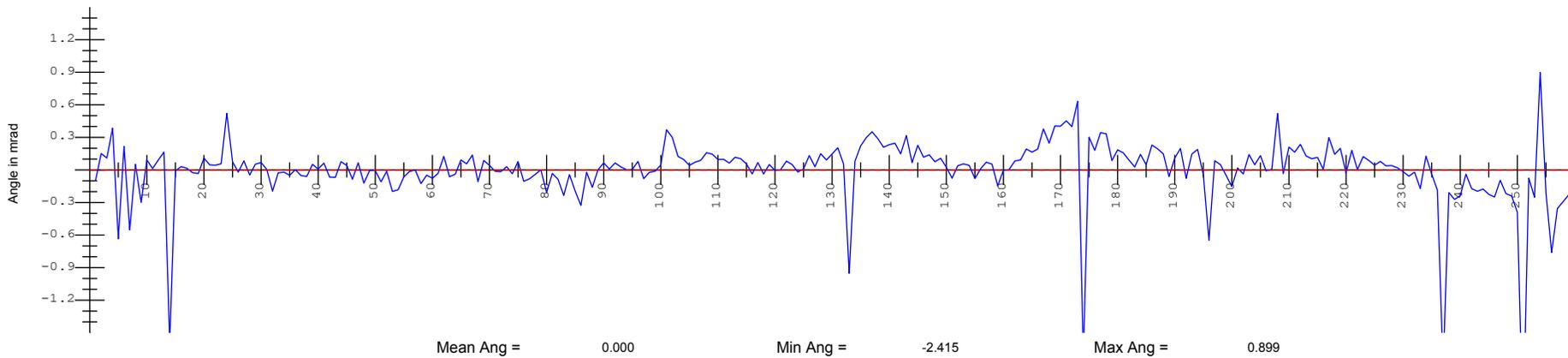


**Included Angle Between Pole Tips**

Pole Tip Num. ----->

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



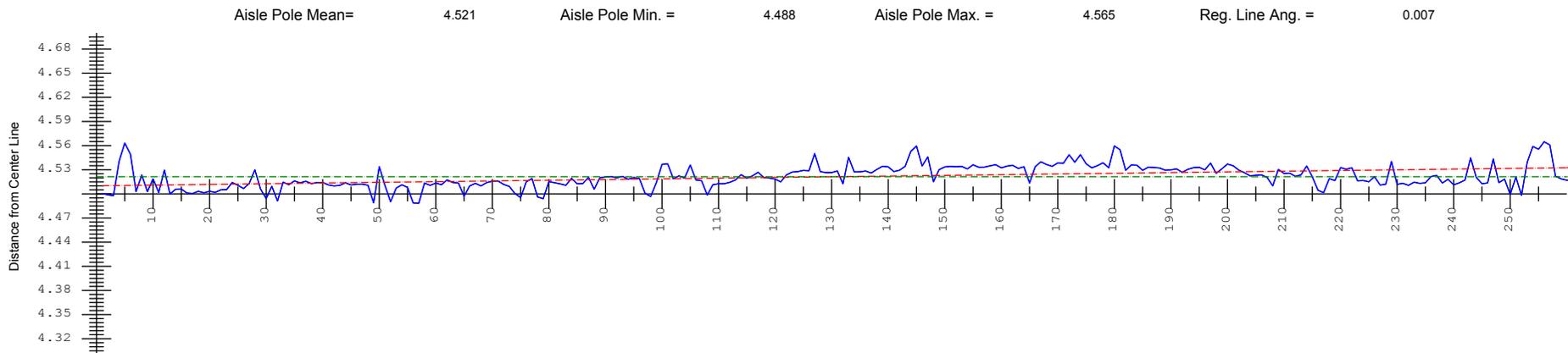
Dimensions in MM, Angles in Milliradians



**HGVPU - Pole Tip Angles**

|                      |              |                        |               |                        |               |
|----------------------|--------------|------------------------|---------------|------------------------|---------------|
| <b>Nominal Gap :</b> | <b>9.000</b> | <b>US Full :</b>       | <b>9.0000</b> | <b>DS Full :</b>       | <b>9.0002</b> |
| <b>Nom. Taper :</b>  | <b>0.000</b> | <b>US Wall Half :</b>  | <b>4.5022</b> | <b>DS Wall Half :</b>  | <b>4.4999</b> |
|                      |              | <b>US Aisle Half :</b> | <b>4.4992</b> | <b>DS Aisle Half :</b> | <b>4.5023</b> |

|                 |                      |
|-----------------|----------------------|
| <b>S/N</b>      | <b>: HXU_005</b>     |
| <b>Date</b>     | <b>: 25-JUN-2019</b> |
| <b>Data Set</b> | <b>: 0001</b>        |
| <b>Run</b>      | <b>: FINAL</b>       |
| <b>Cam Pos.</b> | <b>: B</b>           |



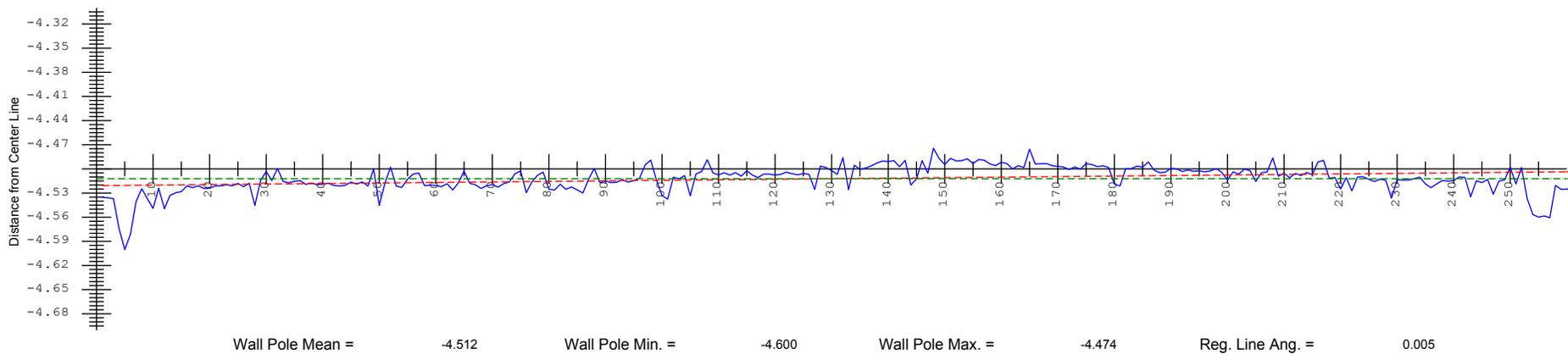
### Aisle Pole Tips at Nom. Beam Height

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

Pole Tip Num. ----->

### Wall Pole Tips at Nom. Beam Height

Minimum Clearance Gap = 8.949



### Girder centerline in reference to Pointed Magnets

Dimensions in MM, Angles in Milliradians



### HGVPU - Pole Tip Location from Girder Centerline

|                      |              |                        |               |                        |               |
|----------------------|--------------|------------------------|---------------|------------------------|---------------|
| <b>Nominal Gap :</b> | <b>9.000</b> | <b>US Full :</b>       | <b>9.0000</b> | <b>DS Full :</b>       | <b>9.0002</b> |
| <b>Nom. Taper :</b>  | <b>0.000</b> | <b>US Wall Half :</b>  | <b>4.5022</b> | <b>DS Wall Half :</b>  | <b>4.4999</b> |
|                      |              | <b>US Aisle Half :</b> | <b>4.4992</b> | <b>DS Aisle Half :</b> | <b>4.5023</b> |

|                 |                      |
|-----------------|----------------------|
| <b>S/N</b>      | <b>: HXU_005</b>     |
| <b>Date</b>     | <b>: 25-JUN-2019</b> |
| <b>Data Set</b> | <b>: 0001</b>        |
| <b>Run</b>      | <b>: FINAL</b>       |
| <b>Cam Pos.</b> | <b>: B</b>           |

**Values Calculated from Regression Line End Points**

| <b>Dimension</b>              | <b>X Value</b> | <b>Y Value</b> | <b>Z Value</b>  | <b>Calc. Value</b> |
|-------------------------------|----------------|----------------|-----------------|--------------------|
| <b>US Aisle Pole Tip(1)</b>   | <b>4.510</b>   | <b>0.000</b>   | <b>8.750</b>    |                    |
| <b>US Wall Pole Tip(1)</b>    | <b>-4.521</b>  | <b>0.000</b>   | <b>8.750</b>    |                    |
| <b>US Sym. Pt.</b>            | <b>-0.005</b>  |                |                 |                    |
| <b>US Gap</b>                 |                |                |                 | <b>9.031</b>       |
| <b>DS Aisle Pole Tip(260)</b> | <b>4.533</b>   | <b>0.000</b>   | <b>3375.750</b> |                    |
| <b>DS Wall Pole Tip(260)</b>  | <b>-4.504</b>  | <b>0.000</b>   | <b>3375.750</b> |                    |
| <b>DS Sym. Pt.</b>            | <b>0.014</b>   |                |                 |                    |
| <b>DS Gap</b>                 |                |                |                 | <b>9.036</b>       |
| <b>Taper</b>                  |                |                |                 | <b>0.005</b>       |

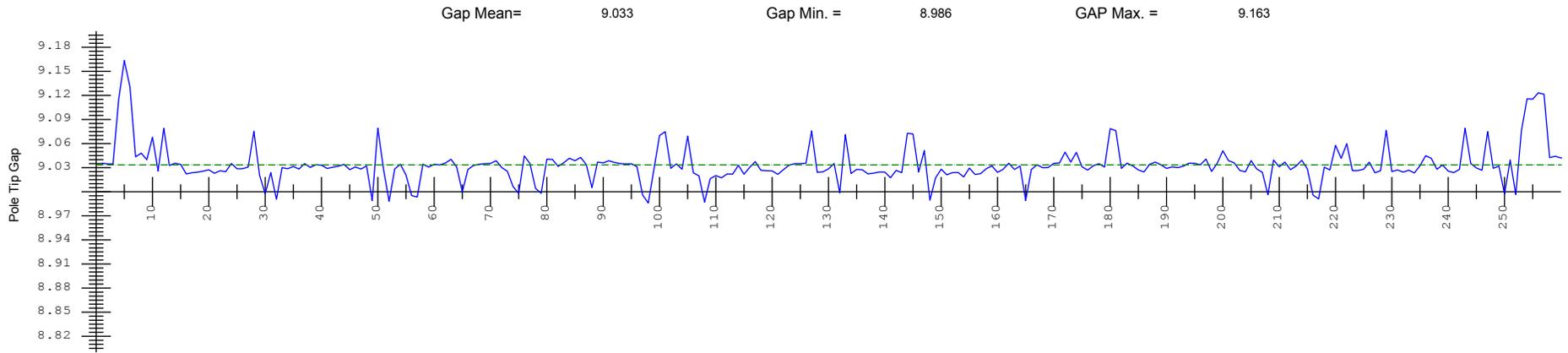
Dimensions in MM



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

|                      |              |                        |               |                        |               |
|----------------------|--------------|------------------------|---------------|------------------------|---------------|
| <b>Nominal Gap :</b> | <b>9.000</b> | <b>US Full :</b>       | <b>9.0000</b> | <b>DS Full :</b>       | <b>9.0002</b> |
| <b>Nom. Taper :</b>  | <b>0.000</b> | <b>US Wall Half :</b>  | <b>4.5022</b> | <b>DS Wall Half :</b>  | <b>4.4999</b> |
|                      |              | <b>US Aisle Half :</b> | <b>4.4992</b> | <b>DS Aisle Half :</b> | <b>4.5023</b> |

|                 |               |
|-----------------|---------------|
| <b>S/N</b>      | : HXU_005     |
| <b>Date</b>     | : 25-JUN-2019 |
| <b>Data Set</b> | : 0001        |
| <b>Run</b>      | : FINAL       |
| <b>Cam Pos.</b> | : B           |

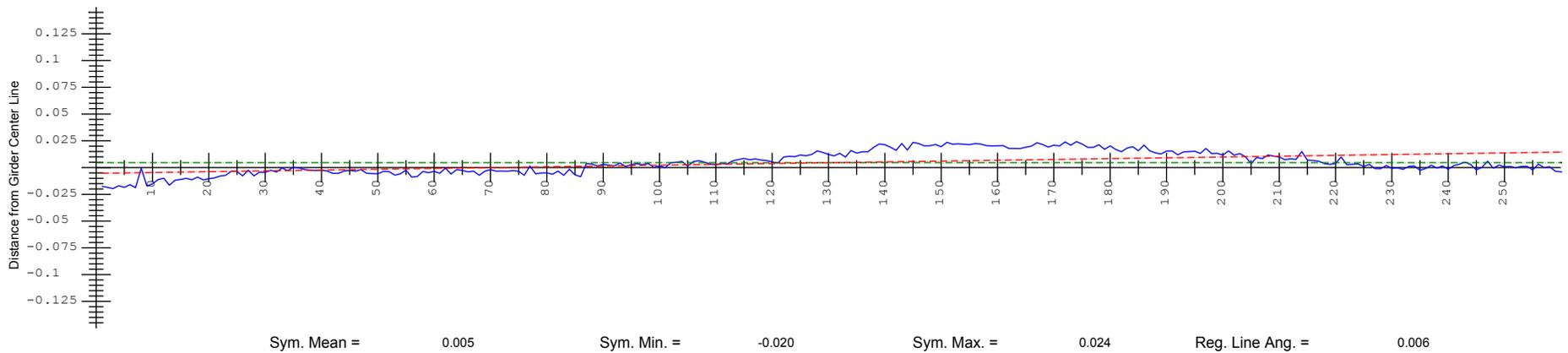


### Pole Tip Gap at Nom. Beam Height

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

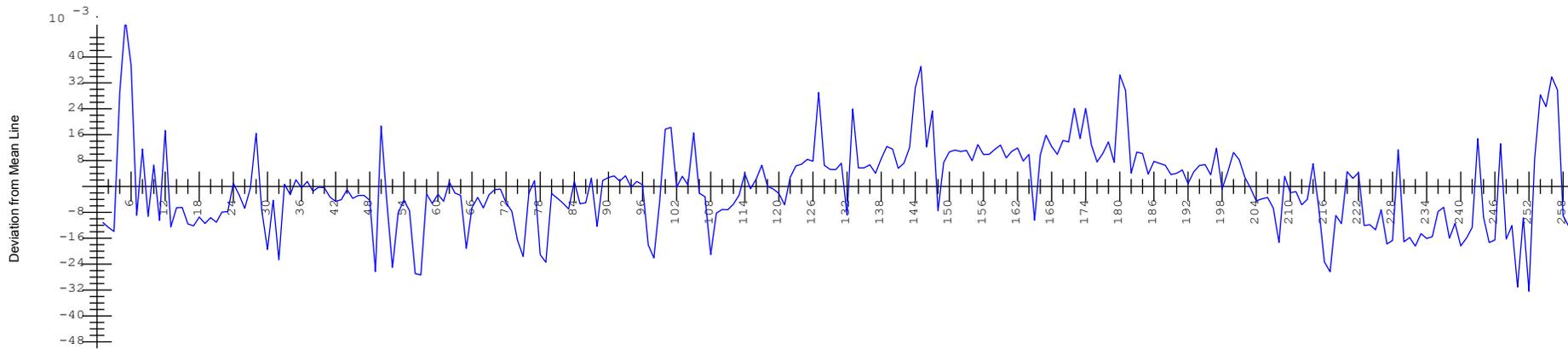
Dimensions in MM, Angles in Milliradians



### HGVPU - Pole Tip Gap and Symmetry Point Location

|                      |              |                        |               |                        |               |
|----------------------|--------------|------------------------|---------------|------------------------|---------------|
| <b>Nominal Gap :</b> | <b>9.000</b> | <b>US Full :</b>       | <b>9.0000</b> | <b>DS Full :</b>       | <b>9.0002</b> |
| <b>Nom. Taper :</b>  | <b>0.000</b> | <b>US Wall Half :</b>  | <b>4.5022</b> | <b>DS Wall Half :</b>  | <b>4.4999</b> |
|                      |              | <b>US Aisle Half :</b> | <b>4.4992</b> | <b>DS Aisle Half :</b> | <b>4.5023</b> |

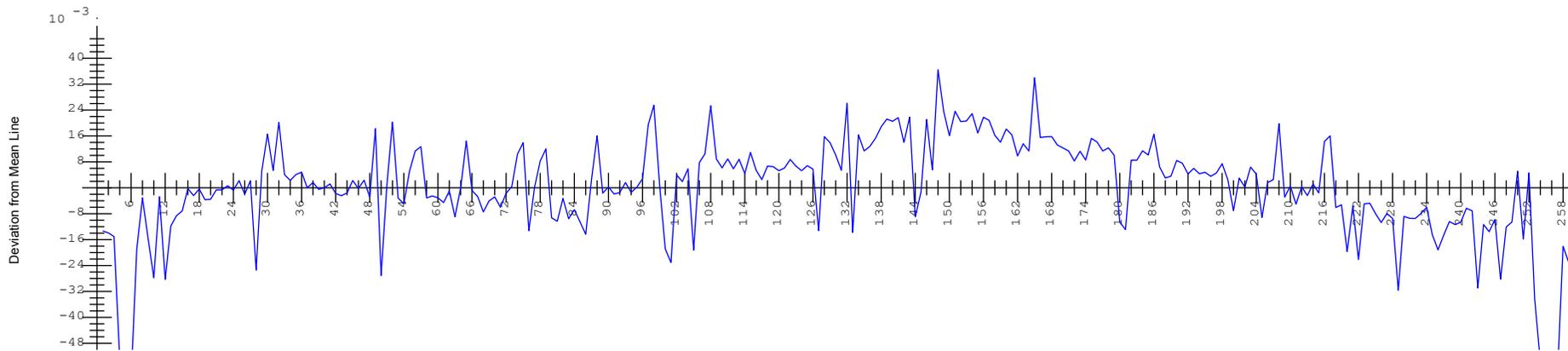
|                 |                      |
|-----------------|----------------------|
| <b>S/N</b>      | <b>: HXU_005</b>     |
| <b>Date</b>     | <b>: 25-JUN-2019</b> |
| <b>Data Set</b> | <b>: 0001</b>        |
| <b>Run</b>      | <b>: FINAL</b>       |
| <b>Cam Pos.</b> | <b>: B</b>           |



### 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

|                      |              |                        |               |                        |               |
|----------------------|--------------|------------------------|---------------|------------------------|---------------|
| <b>Nominal Gap :</b> | <b>9.000</b> | <b>US Full :</b>       | <b>9.0000</b> | <b>DS Full :</b>       | <b>9.0002</b> |
| <b>Nom. Taper :</b>  | <b>0.000</b> | <b>US Wall Half :</b>  | <b>4.5022</b> | <b>DS Wall Half :</b>  | <b>4.4999</b> |
|                      |              | <b>US Aisle Half :</b> | <b>4.4992</b> | <b>DS Aisle Half :</b> | <b>4.5023</b> |

|                 |                      |
|-----------------|----------------------|
| <b>S/N</b>      | <b>: HXU_005</b>     |
| <b>Date</b>     | <b>: 25-JUN-2019</b> |
| <b>Data Set</b> | <b>: 0001</b>        |
| <b>Run</b>      | <b>: FINAL</b>       |
| <b>Cam Pos.</b> | <b>: B</b>           |