



Jefferson Lab Alignment Group

Data Transmittal

TO: T. Whitlatch

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Checked: SEH

: D1577

DETAILS:

Data: Fiduc\HallD\FDC\131202a, Step2B\HallD\140918a

Below are the results from the Sept. 18, 2014 survey carried out on the HD FDC package. A +Z is downstream from ideal, a +X is to the beam left, and a +Y is above. A +yaw angle (degrees) is counter clockwise looking from above, a + pitch is ccw from the beam right, and a + roll angle is cw looking from upstream. The machine coordinates (in meters) used for the ideal positioning are also listed below. The bisected plane between the upstream and downstream Al flanges on each package defined the Z, pitch, and yaw. The survey fiducial points placed on each detector using a jig defined the X, Y, and roll. Also listed below are the lengths of each detector between the outside of the upstream and downstream flanges.

OFFSETS FROM IDEAL :

FDC #	Z	X	Y	YAW	PITCH	ROLL	LENGTH
1	5.4	-0.9	0.3	0.016	-0.049	0.088	144.26
2	5.4	-0.7	-0.1	0.023	-0.035	0.009	144.92
3	5.4	0.0	-0.3	0.029	-0.068	0.030	144.46
4	5.4	0.2	0.2	-0.002	0.110	0.007	144.44

IDEAL MACHINE COORDINATES :

FDC #	Z	X	Y
1	399.95573	80.60000	104.70000
2	400.54144	80.60000	104.70000
3	401.12733	80.60000	104.70000
4	401.51408	80.60000	104.70000