



Jefferson Lab Alignment Group

Data Transmittal

TO: B. Crahen, T. Whitlatch

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FROM: J. Dahlberg

Checked:

: D1538

DETAILS:

DATA: Inspection\HallD\FDC\131205a

Below are the results from the Dec 5th, 2013 survey carried out on the Hall D FDC. The coordinate system is based on the solenoid center at a distance of 2392.2 mm downstream from the upstream face. The FDC center is based on an average center Z axis through all four detector packages with the Z = 0 at the upstream side of detector 1 gusset. The ideal values for the FDC package fiducials are based on a distance of 2408 mm downstream from the solenoid upstream face. A +X is to the beam left, a +Y is above ideal, and a +Z is downstream. Values are in millimeters and degrees.

FDC CENTER FROM IDEAL

X: -0.04 Y: +0.05 Z: -102.47
 Yaw: 0.0203 ccw looking from above.
 Pitch: 0.0158 ccw looking from beam right.
 Roll: -0.0060 ccw looking from upstream.

FIDUCIAL	MEASURED			IDEAL			Delta		
	X	Y	Z	X	Y	Z	dX	dY	dZ
HDFDCPA	454.19	-436.13	-120.32	454.42	-435.84	-17.64	-0.23	-0.29	-102.68
HDFDCPB	-538.51	-327.08	-111.34	-538.32	-327.24	-9.03	-0.19	0.16	-102.31
HDFDCPC	302.41	550.83	-117.86	302.21	551.09	-14.97	0.20	-0.26	-102.89
HDFDCPD	-325.96	537.89	-111.23	-326.36	537.93	-8.46	0.40	-0.04	-102.77
HDFDCPE	437.18	-453.34	473.53	437.20	-453.26	576.17	-0.02	-0.08	-102.64
HDFDCPF	-551.60	-303.74	471.30	-551.56	-304.17	573.52	-0.04	0.43	-102.22
HDFDCPG	324.97	538.43	472.93	324.63	538.45	575.69	0.34	-0.02	-102.76
HDFDCPH	-304.33	550.70	475.82	-304.70	550.33	577.47	0.37	0.37	-101.65
HDFDCPJ	470.15	-415.96	1054.78	469.74	-416.43	1157.43	0.41	0.47	-102.65
HDFDCPK	-522.04	-348.62	1058.03	-522.32	-349.10	1160.30	0.28	0.48	-102.27
HDFDCPM	281.49	563.07	1056.62	281.21	562.52	1159.39	0.28	0.55	-102.77
HDFDCPN	-346.44	525.02	1059.55	-346.73	524.54	1162.11	0.29	0.48	-102.56
HDFDCPP	416.98	-470.13	1592.13	416.23	-470.55	1694.73	0.75	0.42	-102.60
HDFDCPQ	-562.42	-281.15	1595.70	-563.01	-281.42	1697.83	0.59	0.27	-102.13
HDFDCPR	346.90	525.53	1592.40	346.54	525.04	1695.02	0.36	0.49	-102.62
HDFDCPS	-280.77	563.65	1595.37	-281.22	563.27	1697.80	0.45	0.38	-102.43
HDFDCTP	415.20	-317.06	1624.27	414.52	-317.52	1726.82	0.68	0.46	-102.55
HDFDCTQ	-199.29	-481.89	1624.90	-199.96	-482.21	1727.10	0.67	0.32	-102.20
HDFDCTR	200.30	483.64	1622.79	199.83	483.19	1725.37	0.47	0.45	-102.58
HDFDCTS	-317.72	415.15	1622.62	-318.17	414.81	1724.96	0.45	0.34	-102.34