



Jefferson Lab Alignment Group

Data Transmittal

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Checked:

: C1814

DETAILS:

Below are the results of the recent SHMS Dipole Mapper survey. The values given are the as-found positions and orientations of the probe relative to the centerline of the dipole cryostat. The coordinate system is right hand rule. A positive X is beam left, a positive Y is up and a positive Z is downstream. Measurements were taken approximately every six inches along the beam axis.

Note: The second instance of Station -1.250 was taken with the roll set parallel to the ZX plane.

Station (M)	X (mm)	Y (mm)	Z (mm)	PITCH °	YAW °	ROLL °
-1.400	9.49	1.66	-1402.78	-0.511	-0.266	1.497
-1.250	8.88	1.50	-1250.06	-0.514	-0.241	5.414
-1.250	8.88	0.73	-1250.06	-0.510	-0.228	0.022
-1.099	8.71	0.94	-1097.82	-0.542	-0.232	4.713
-0.945	8.55	0.61	-945.50	-0.579	-0.231	5.332
-0.792	8.02	1.36	-792.14	-0.616	-0.219	4.796
-0.640	7.83	0.58	-639.98	-0.611	-0.215	5.052
-0.487	7.86	-1.00	-487.49	-0.668	-0.212	4.201
-0.182	9.71	-0.18	-181.15	-0.698	-0.240	5.138
-0.024	9.96	0.69	-24.06	-0.654	-0.251	5.523
0.124	9.80	0.19	125.04	-0.678	-0.243	4.323
0.279	9.72	0.13	278.97	-0.688	-0.240	4.426
0.428	9.70	0.12	428.08	-0.687	-0.237	4.537
0.580	9.65	0.16	580.09	-0.668	-0.240	4.097
0.711	9.69	-0.14	711.58	-0.704	-0.246	4.262
0.882	9.63	0.13	881.71	-0.686	-0.260	5.413
1.038	9.20	-0.84	1037.82	-0.733	-0.247	3.281
1.211	9.25	2.06	1210.77	-0.518	-0.435	3.355
0.000	7.82	-1.11	1.23	-0.687	-0.196	5.396
0.000	7.76	-0.89	1.35	-0.678	-0.193	5.405

Measurements taken with polarity reversed;

Station (M)	X (mm)	Y (mm)	Z (mm)	PITCH °	YAW °	ROLL °
1.208	9.21	1.11	1208.56	-0.653	-0.257	3.939
1.056	9.79	0.50	1056.57	-0.721	-0.285	4.176
0.904	10.06	1.07	904.93	-0.718	-0.283	5.110
0.754	9.29	-0.75	753.78	-0.791	-0.228	4.987
0.600	9.81	0.24	600.59	-0.734	-0.245	4.915
0.446	9.95	0.56	446.27	-0.709	-0.249	4.553
0.297	9.74	0.34	297.50	-0.701	-0.243	4.104
0.146	9.68	0.37	146.12	-0.690	-0.245	4.690
0.004	9.26	0.25	-3.76	-0.692	-0.231	4.683
-0.156	8.76	-0.07	-156.57	-0.703	-0.223	4.763
-0.296	7.90	-1.21	-296.04	-0.753	-0.185	4.960
-0.447	6.69	-0.71	-447.36	-0.726	-0.163	4.267
-0.600	7.87	0.57	-599.87	-0.672	-0.194	4.388
-0.752	8.48	0.66	-752.25	-0.595	-0.221	4.991
-0.906	8.72	1.17	-905.79	-0.541	-0.229	4.139
-1.058	8.94	1.62	-1058.13	-0.499	-0.231	4.978
-1.210	9.13	2.13	-1210.18	-0.452	-0.241	5.461
-1.407	9.36	2.78	-1407.22	-0.405	-0.256	5.802