



Jefferson Lab Alignment Group

Data Transmittal

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DATE: 10 Oct 2005

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Checked:

: L1013

DETAILS:

Below are the results of the recent measurements performed in the 500Kev region of the Injector upstream of the 1/4 cryo unit. Differences from ideal beamline are shown in millimeters (DX, DY), in a right handed system (+X is beam left, +Y is high). The distance from the Yao cavity is shown (in meters) as well as the Z coordinate of the component in the in the survey system (machine center = 80,000). With the exception of the quarter cryomodule, the accuracy of the survey is estimated at +/- 1mm.

Component	DX	DY	Yao Z dist	Z (m)	
Buncher (u/s face)	-0.4	0.2	-2.3581	79745.795	
Buncher (d/s face)	0.2	-0.1	-2.2323	79745.921	
Buncher (ctr)	-0.1	0.0	-2.2952	79745.858	
Capture (u/s face)	**	**	-1.4140	79746.739	
Capture (d/s face)	**	**	-1.0048	79747.149	
Capture (ctr)	**	**	-1.2094	79746.944	
MBO0L06 (ctr)	-9.5	-1.9	-0.8098	79747.344	
MBO0L06 (y, p, r)	-16.5deg yaw	0.0deg pitch	-0.15deg roll		
ITV0L06A (u/s)	-0.2	-1.0	-0.7049	79747.449	
ITV0L06A (d/s)	0.5	-0.9	-0.6059	79747.548	
ITV0L06A (ctr)	0.2	-0.9	-0.6554	79747.498	
A3 (u/s)	0.4	-0.8	-0.5771	79747.576	
A3 (d/s)	0.4	-0.8	-0.5611	79747.592	
A3 (ctr)	0.4	-0.8	-0.5691	79747.584	
ICY0L01 (u/s)	-1.3	0.8	-0.0172	79748.136	
ICY0L01 (d/s)	-1.6	0.9	0.0172	79748.171	
ICY0L01 (ctr)	-1.4	0.8	0.0000	79748.153	
A4 (u/s)	-2.0	0.5	0.0994	79748.253	
A4 (d/s)	-1.9	0.2	0.1161	79748.269	
A4 (ctr)	-1.9	0.3	0.1078	79748.261	
Quarter Cryo (u/s)	**	**	0.4996	79748.653	(Mar 2003 survey) (+/- 5mm)
RF output (u/s)	**	**	1.5330	79749.686	
RF output (d/s)	**	**	1.7193	79749.873	
Top Of Girder	**	-254.0	-1.2584	79746.895	