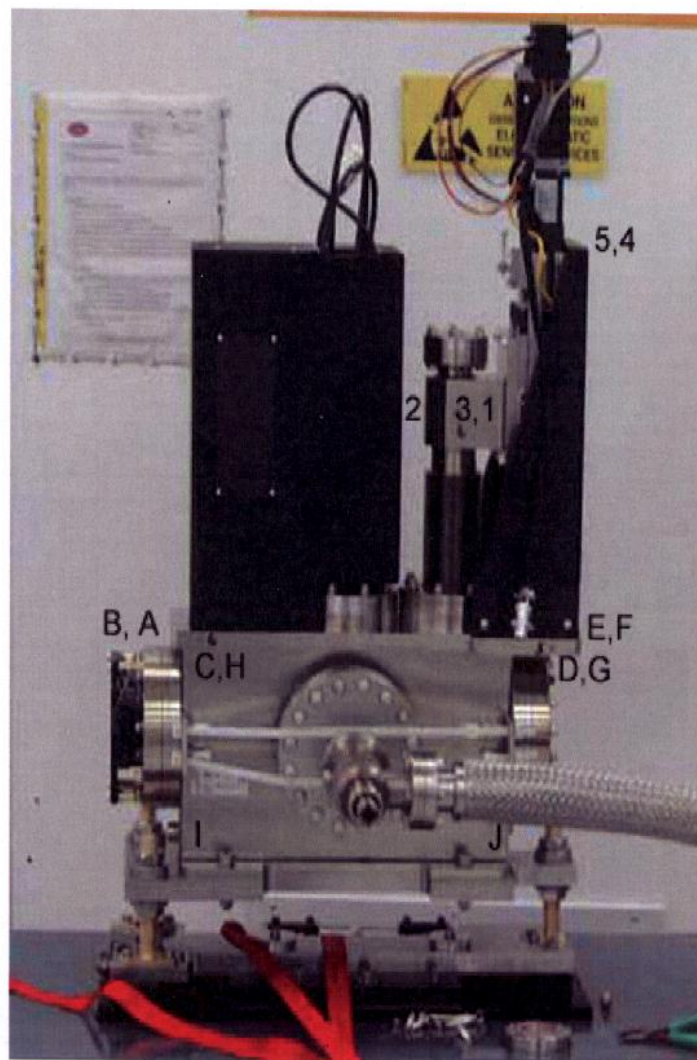


LCLS

LUSI

PMI TOP ASSY SN 0002



Looking up beam



LCLS LUSI

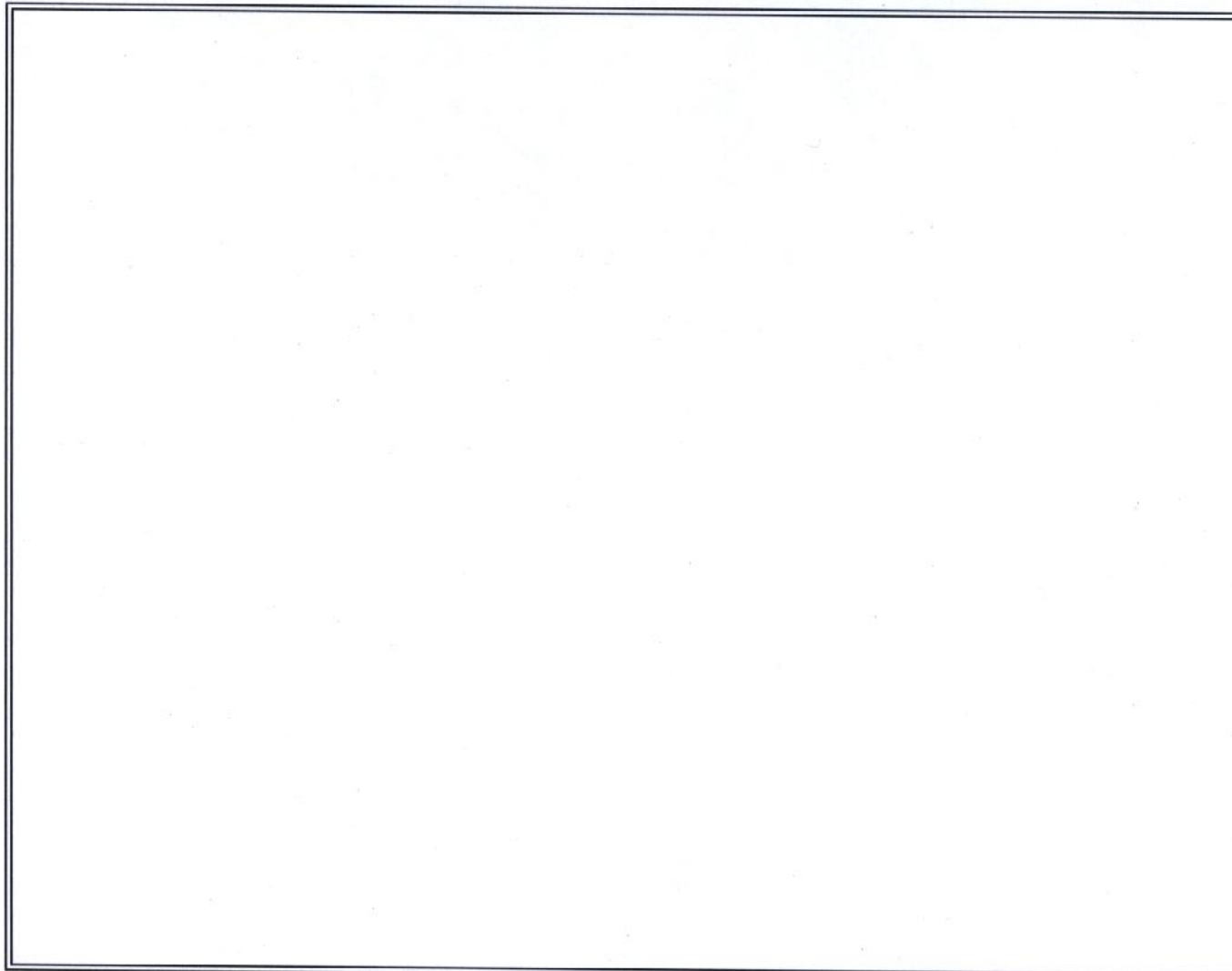
PMI TOP ASSY SN 0002

TB	X	Y	Z	NOTES
A	-8.372	3.680	-2.006	
B	-8.374	3.682	1.994	
C	-6.125	3.682	3.496	
D	8.388	3.680	4.378	
E	10.643	3.676	2.876	
F	10.647	3.673	-2.874	
G	8.394	3.669	-4.370	
H	-6.121	3.678	-3.501	
I	-8.436	-3.764	0.752	
J	8.426	-3.769	-0.749	
1	4.517	11.806	-2.263	YAG on beam line
2	2.262	11.813	-0.010	YAG on beam line
3	4.507	11.815	2.233	YAG on beam line
1	4.517	12.926	-2.263	Diode on beam line
2	2.262	12.925	-0.010	Diode on beam line
3	4.507	12.916	2.233	Diode on beam line
4	9.221	18.991	-2.010	
5	9.213	18.990	1.989	

FINAL NUMBERS

TB	X	Y	Z	NOTES
A	-8.387	3.680	-2.006	X offset -.015" to put YAG on B/L
B	-8.389	3.682	1.994	X offset -.015" to put YAG on B/L
C	-6.140	3.682	3.496	X offset -.015" to put YAG on B/L
D	8.373	3.680	4.378	X offset -.015" to put YAG on B/L
E	10.628	3.676	2.876	X offset -.015" to put YAG on B/L
F	10.632	3.673	-2.874	X offset -.015" to put YAG on B/L
G	8.379	3.669	-4.370	X offset -.015" to put YAG on B/L
H	-6.136	3.678	-3.501	X offset -.015" to put YAG on B/L
I	-8.451	-3.764	0.752	X offset -.015" to put YAG on B/L
J	8.411	-3.769	-0.749	X offset -.015" to put YAG on B/L
1	4.502	11.806	-2.263	YAG on beam line, X offset -.015" to put YAG on B/L
2	2.247	11.813	-0.010	YAG on beam line, X offset -.015" to put YAG on B/L
3	4.492	11.815	2.233	YAG on beam line, X offset -.015" to put YAG on B/L
1	4.502	12.926	-2.263	Diode on beam line, X offset -.015" to put YAG on B/L
2	2.247	12.925	-0.010	Diode on beam line, X offset -.015" to put YAG on B/L
3	4.492	12.916	2.233	Diode on beam line, X offset -.015" to put YAG on B/L
4	9.206	18.991	-2.010	X offset -.015" to put YAG on B/L
5	9.198	18.990	1.989	X offset -.015" to put YAG on B/L

	Operator : LG, MR Part Name : PIM Part Serial Number : 0002 Device Serial Number : Controller Version : 0.00 Certification Date : Time & Date : 8:12:23 4/21/2010 Units : Inches	
---	---	---



M TBA (Measured Point , number of points 5)

	<u>Measured</u>	<u>Nominal</u>	<u>+Tol</u>	<u>-Tol</u>	<u>Dev</u>	<u>Out of Tol</u>
X	-0008.3720					
Center Y	0003.6803					
Z	-0002.0058					
Form	0000.0015		0000.0500		0000.0015	*****

M_TBB (Measured Point , number of points 5)

	<u>Measured</u>	<u>Nominal</u>	<u>+Tol</u>	<u>-Tol</u>	<u>Dev</u>	<u>Out of Tol</u>
X	-0008.3742					
Center Y	0003.6818					
Z	0001.9939					
Form	0000.0001		0000.0500		0000.0001	*****

M_TBC (Measured Point , number of points 5)

	<u>Measured</u>	<u>Nominal</u>	<u>+Tol</u>	<u>-Tol</u>	<u>Dev</u>	<u>Out of Tol</u>
X	-0006.1250					
Center Y	0003.6816					
Z	0003.4960					
Form	0000.0005		0000.0500		0000.0005	*****

M_TBD (Measured Point , number of points 4)

	<u>Measured</u>	<u>Nominal</u>	<u>+Tol</u>	<u>-Tol</u>	<u>Dev</u>	<u>Out of Tol</u>
X	0008.3884					
Center Y	0003.6796					
Z	0004.3780					
Form	0000.0003		0000.0500		0000.0003	*****

M_TBE (Measured Point , number of points 5)

	<u>Measured</u>	<u>Nominal</u>	<u>+Tol</u>	<u>-Tol</u>	<u>Dev</u>	<u>Out of Tol</u>
X	0010.6434					
Center Y	0003.6762					
Z	0002.8763					
Form	0000.0007		0000.0500		0000.0007	*****

M_TBF (Measured Point , number of points 6)

	<u>Measured</u>	<u>Nominal</u>	<u>+Tol</u>	<u>-Tol</u>	<u>Dev</u>	<u>Out of Tol</u>
X	0010.6468					
Center Y	0003.6730					
Z	-0002.8739					
Form	0000.0003		0000.0500		0000.0003	*****

M_TBG (Measured Point , number of points 5)

	<u>Measured</u>	<u>Nominal</u>	<u>+Tol</u>	<u>-Tol</u>	<u>Dev</u>	<u>Out of Tol</u>
X	0008.3939					
Center Y	0003.6687					
Z	-0004.3696					
Form	0000.0003		0000.0500		0000.0003	*****

M_TBH (Measured Point , number of points 6)

	<u>Measured</u>	<u>Nominal</u>	<u>+Tol</u>	<u>-Tol</u>	<u>Dev</u>	<u>Out of Tol</u>
X	-0006.1209					
Center Y	0003.6780					
Z	-0003.5012					
Form	0000.0007		0000.0500		0000.0007	*****

M_TBI (Measured Point , number of points 5)

	<u>Measured</u>	<u>Nominal</u>	<u>+Tol</u>	<u>-Tol</u>	<u>Dev</u>	<u>Out of Tol</u>
X	-0008.4357					
Center Y	-0003.7643					
Z	0000.7517					
Form	0000.0004		0000.0500		0000.0004	*****

M_TBJ (Measured Point , number of points 6)

	<u>Measured</u>	<u>Nominal</u>	<u>+Tol</u>	<u>-Tol</u>	<u>Dev</u>	<u>Out of Tol</u>
X	0008.4256					
Center Y	-0003.7688					
Z	-0000.7490					
Form	0000.0006		0000.0500		0000.0006	*****

M_TB1A (Measured Point , number of points 5)

	<u>Measured</u>	<u>Nominal</u>	<u>+Tol</u>	<u>-Tol</u>	<u>Dev</u>	<u>Out of Tol</u>
X	0004.5173					
Center Y	0011.8065					
Z	-0002.2629					
Form	0000.0009		0000.0500		0000.0009	*****

M_TB2A (Measured Point , number of points 7)

	<u>Measured</u>	<u>Nominal</u>	<u>+Tol</u>	<u>-Tol</u>	<u>Dev</u>	<u>Out of Tol</u>
X	0002.2620					
Center Y	0011.8130					
Z	-0000.0097					
Form	0000.0006		0000.0500		0000.0006	*****

M_TB3A (Measured Point , number of points 6)

	<u>Measured</u>	<u>Nominal</u>	<u>+Tol</u>	<u>-Tol</u>	<u>Dev</u>	<u>Out of Tol</u>
X	0004.5070					
Center Y	0011.8061					
Z	0002.2334					
Form	0000.0037		0000.0500		0000.0037	*****

M_TB4 (Measured Point , number of points 5)

	<u>Measured</u>	<u>Nominal</u>	<u>+Tol</u>	<u>-Tol</u>	<u>Dev</u>	<u>Out of Tol</u>
X	0009.2214					
Center Y	0018.9906					
Z	-0002.0104					
Form	0000.0008		0000.0500		0000.0008	*****

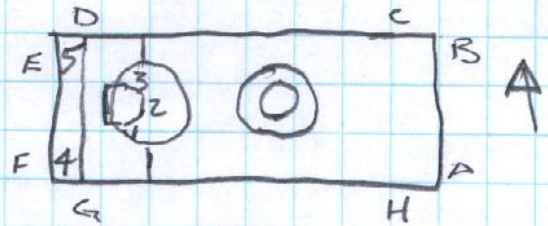
M_TB5 (Measured Point , number of points 5)

	<u>Measured</u>	<u>Nominal</u>	<u>+Tol</u>	<u>-Tol</u>	<u>Dev</u>	<u>Out of Tol</u>
X	0009.2130					
Center Y	0018.9902					
Z	0001.9890					
Form	0000.0018		0000.0500		0000.0018	*****

LCLS - LUSI
 PIM TOP ASSY
 SA-391-738-00 REV1
 SN 0002

4-20-10
 MR, LG

(X)



B) -8.374
 A) -8.372

1,000 +1	
1,051 +1	
5,100 +1	
4,997 +1	3,105
3,305 -1	3,107
3,307 -1	2,300 +1
-11,679 LOS	-11,479 LOS

20,000 REF
 11,479 LOS

 8,521 = ϕ

YAG +.015

DIODE

(+)
 8.521
 0.515

 8,006 S/R

-
 8.521
 1.515

 9,036 S/R

+012

+024

+.018

7.994 8.503 9.012

LCS LUS1
PIM TOP ASSY
SN0002

4-20-10
MR, LG

①

18.566 HI

YAG ON B/L

$$\begin{array}{r} 1) \ 5.760 \\ \underline{1.} \\ 6.760 \\ 18.566 \\ \hline 11.806 \end{array}$$

$$\begin{array}{r} 2) \ 5.753 \\ \underline{1.} \\ 6.753 \\ 18.566 \\ \hline 11.813 \end{array}$$

$$\begin{array}{r} 3) \ 5.751 \\ \underline{1.} \\ 6.751 \\ 18.566 \\ \hline 11.815 \end{array}$$

DIODE ON B/L

TOP 2) 5.156

BOT 2) 4.126

1.030

TOP LIMIT

2) 3.805

4.641 s/r

$$\begin{array}{r} 1) \ 4.640 \\ \underline{1.} \\ 5.640 \\ 18.566 \\ \hline 12.926 \end{array}$$

$$\begin{array}{r} 2) \ 4.641 \\ \underline{1.} \\ 5.641 \\ 18.566 \\ \hline 12.925 \end{array}$$

$$\begin{array}{r} 3) \ 4.650 \\ \underline{1.} \\ 5.650 \\ 18.566 \\ \hline 12.916 \end{array}$$

LCLS LUSI
PIM TOP ASSY
SN0002

4-20-10

Y

16.172 REF,
10.000 = ϕ

6.172 HI ✓

$$\begin{array}{r} \text{C) } 6.172 \\ \underline{3.682} \\ 2.490 \checkmark \\ \underline{1} \\ 1.490 \text{ s/r} \checkmark \end{array}$$

$$\begin{array}{r} \text{D) } 6.172 \\ \underline{3.680} \\ 2.492 \checkmark \\ \underline{1} \\ 1.492 \text{ s/r} \checkmark \end{array}$$

$$\begin{array}{r} \text{G) } 6.172 \\ \underline{3.669} \\ 2.503 \checkmark \\ \underline{1} \\ 1.503 \text{ s/r} \checkmark \end{array}$$

$$\begin{array}{r} \text{H) } 6.172 \\ \underline{3.678} \\ 2.494 \checkmark \\ \underline{1} \\ 1.494 \text{ s/r} \checkmark \end{array}$$

UPPER LIMIT

BOTTOM T.027

21420

$$\begin{array}{r} 6.172 \\ \underline{2.984} \\ 3.188 \text{ s/r} \checkmark \end{array}$$

$$\begin{array}{r} \text{C) } 13.883 \\ \underline{1} \\ 14.883 \\ \underline{3.682} \\ 18.565 \end{array}$$

$$\begin{array}{r} \text{D) } 13.884 \\ \underline{1} \\ 14.884 \\ \underline{3.680} \\ 18.564 \end{array}$$

$$\begin{array}{r} \text{G) } 13.898 \\ \underline{1} \\ 14.898 \\ \underline{3.669} \\ 18.567 \end{array}$$

$$\begin{array}{r} \text{H) } 13.888 \\ \underline{1} \\ 14.888 \\ \underline{3.678} \\ 18.566 \end{array}$$

$\bar{M} = 18.566$