



HERD-TRD探测器设计与实验测试

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THGEM结构调整

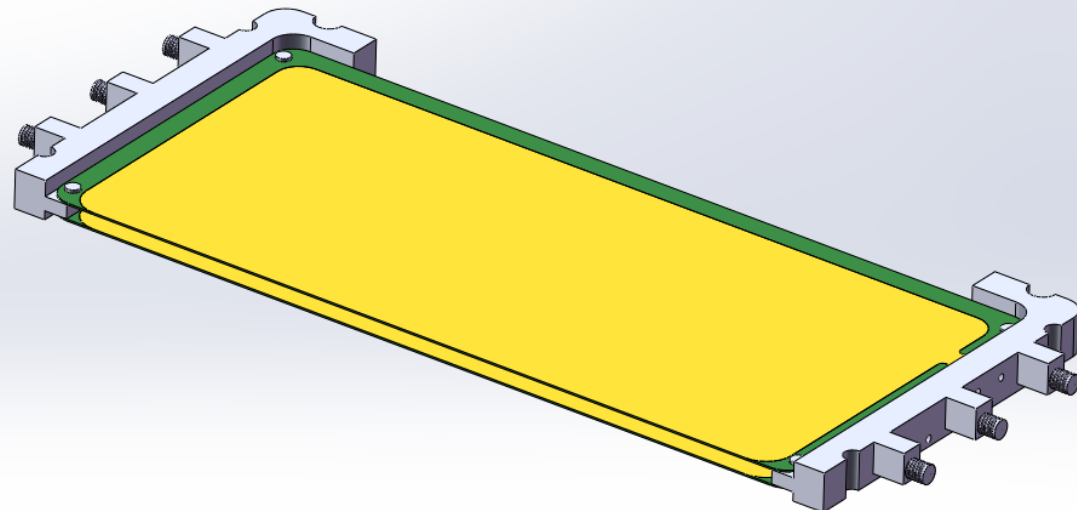
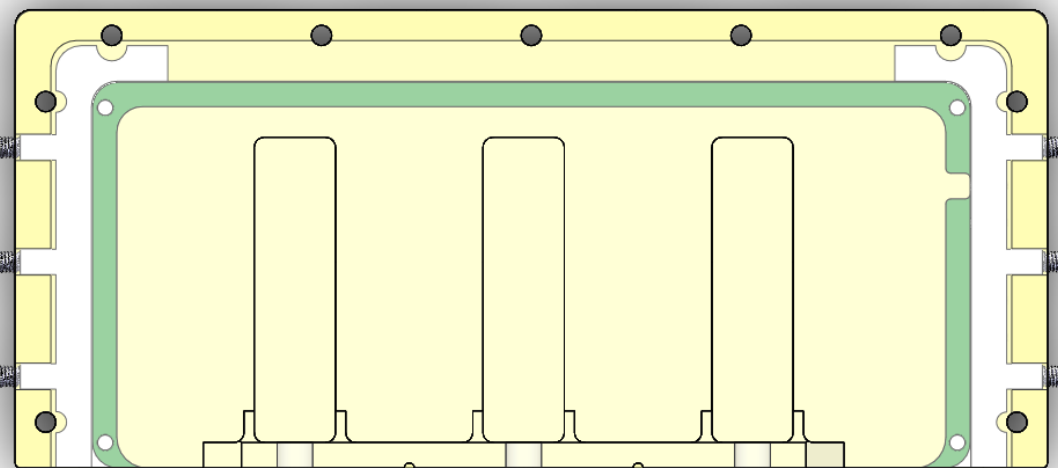
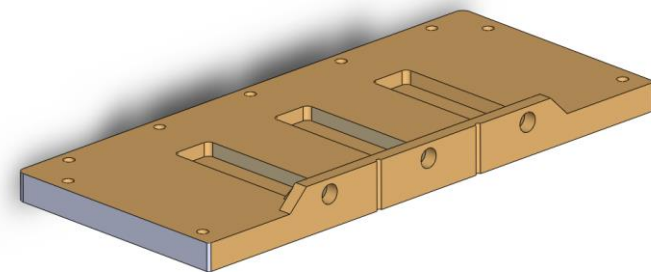
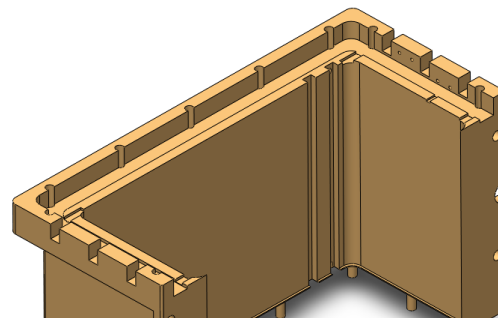
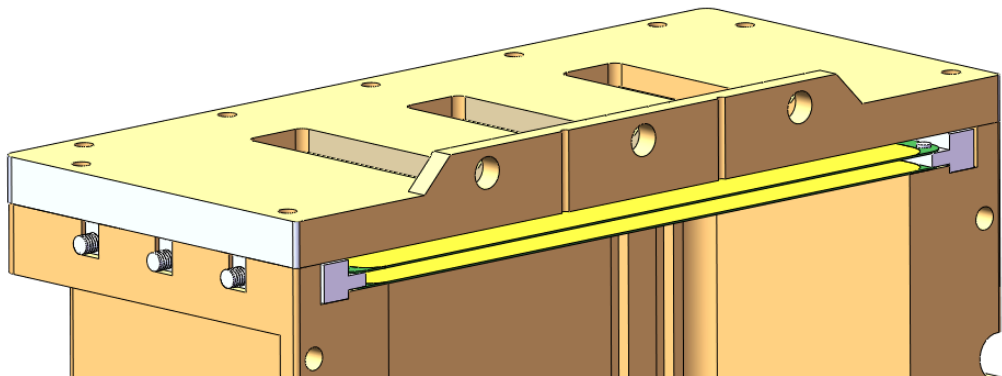
- 原2023年束流样机的THGEM固定通过螺孔固定在PEEK安装框上，在安装时出现膜形变





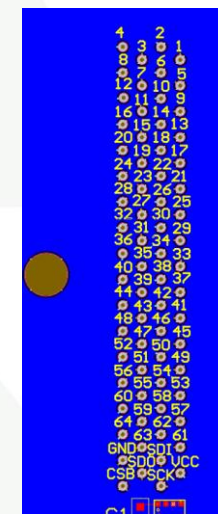
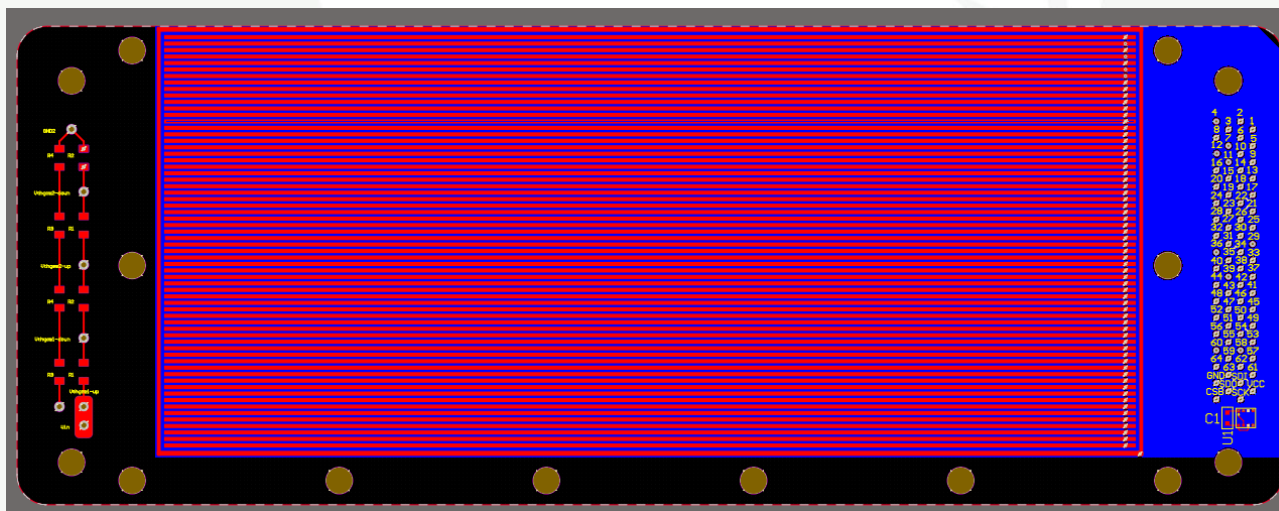
THGEM结构调整

- 将原THGEM上开螺孔的安装方式调整为：PEEK框限位安装方式，并在THGEM两端设计拉伸

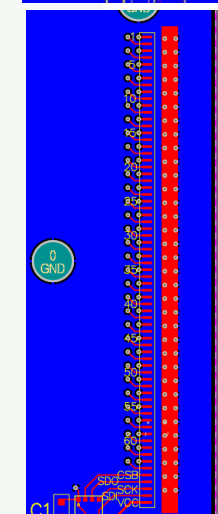
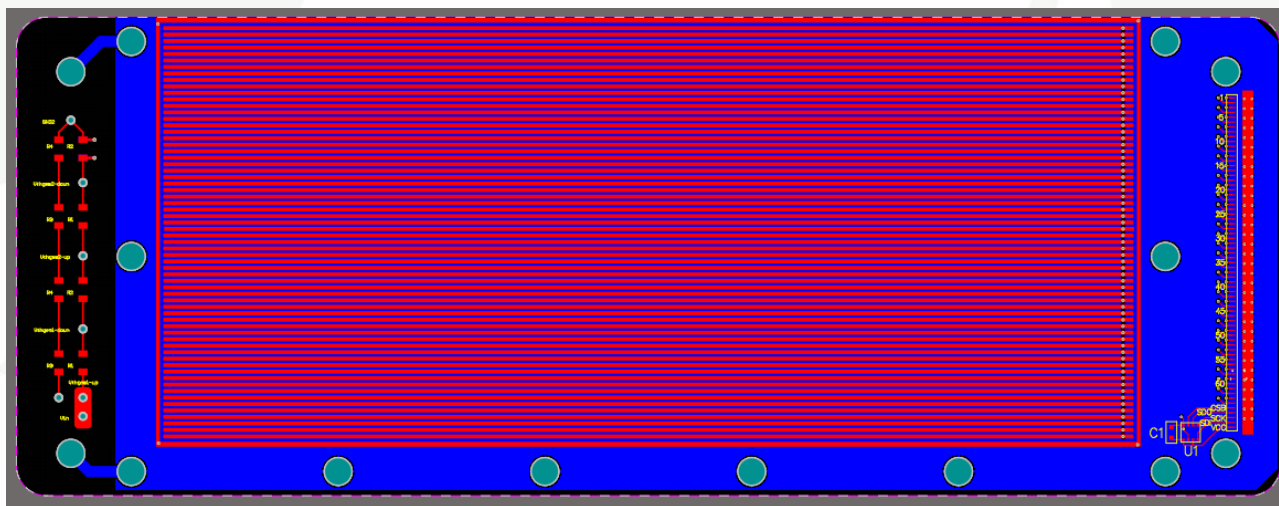




阳极信号输出



原：引线+转接板

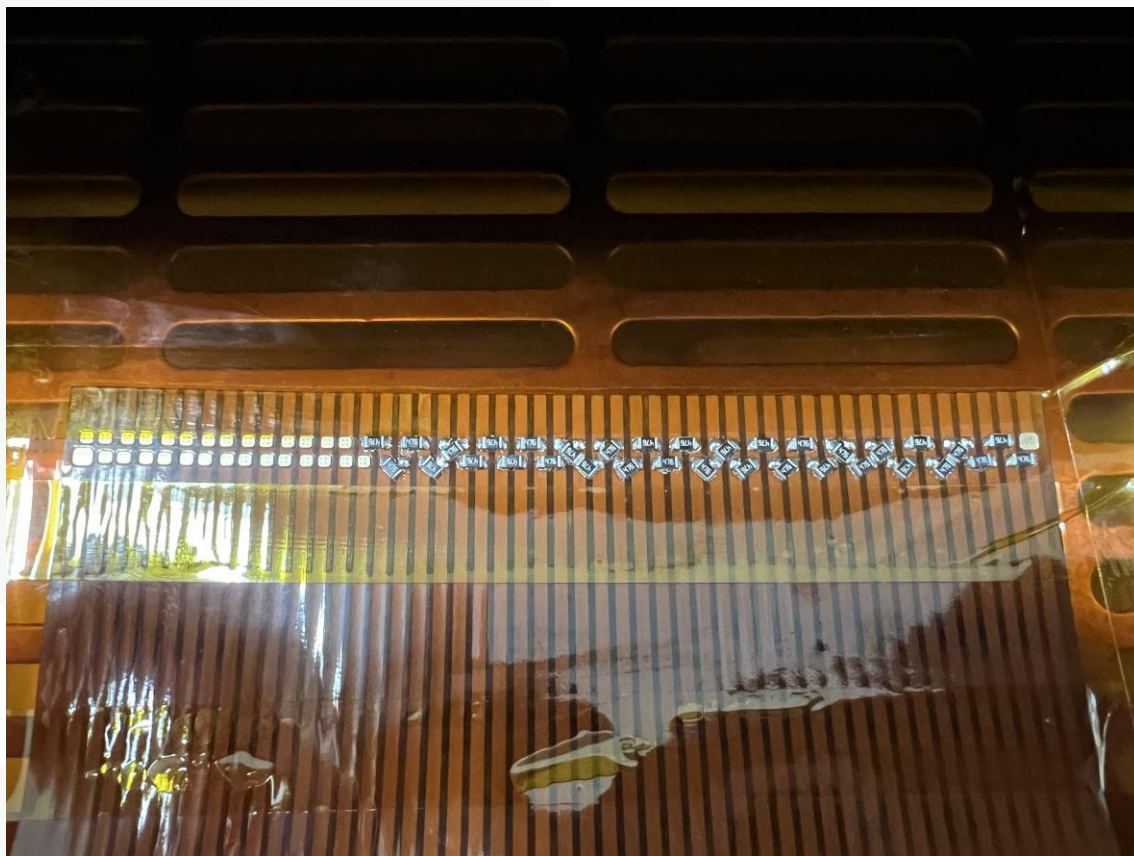


“同轴线”信号引出



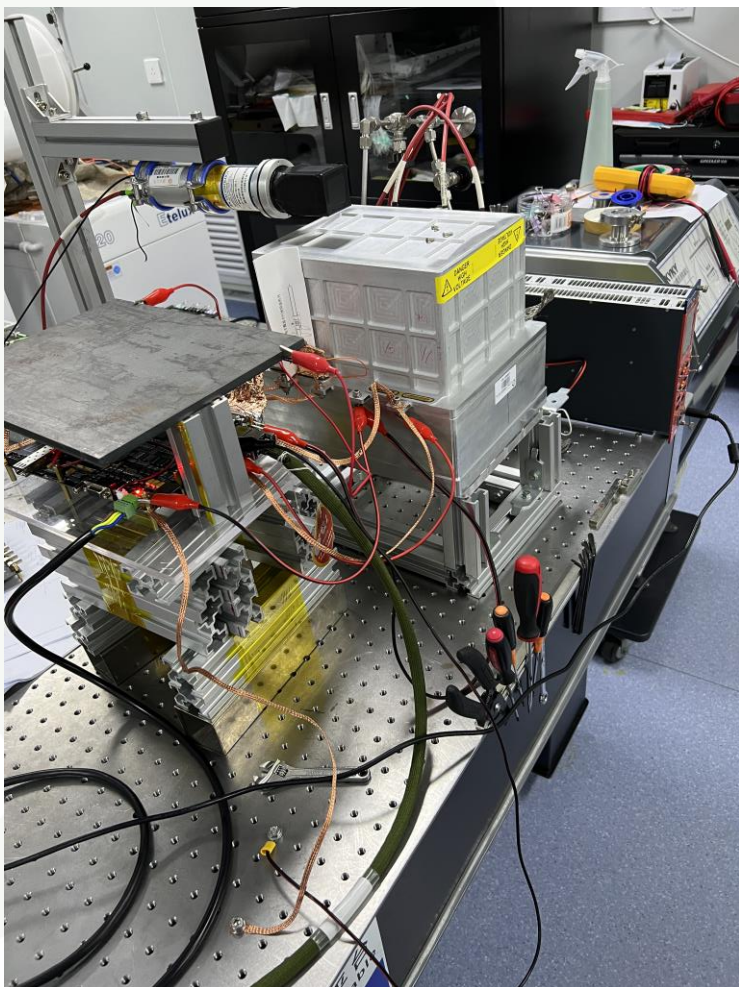
场笼焊接测试

➤ 回炉焊接过程中，部分贴片电阻出现错位





电子学与23束流样机联调



baseline_noiseL.txt (-/LuXW/2023 beam test detector/SAMPA/b

打开(O) 文件

channel	mean	std		
0	85.83	6.59	6.59	
1	72.55	6.94	6.76	
2	84.55	6.68	6.74	
3	79.42	6.48	6.67	
4	92.83	6.80	6.70	
5	79.86	6.71	6.70	
6	97.11	6.59	6.68	
7	73.88	6.72	6.69	
8	100.17	6.80	6.70	
9	67.09	6.62	6.69	
10	64.36	6.88	6.71	
11	73.26	6.69	6.71	
12	88.99	6.95	6.73	
13	82.67	6.73	6.73	
14	77.85	6.77	6.73	
15	101.11	6.14	6.69	
16	76.81	7.08	6.72	
17	79.09	6.96	6.73	
18	69.76	6.99	6.74	
19	78.61	6.71	6.74	
20	91.59	7.32	6.77	
21	99.23	7.01	6.78	
22	87.59	7.11	6.79	
23	82.33	6.72	6.79	
24	71.77	7.26	6.81	
25	85.72	7.10	6.82	
26	80.45	7.08	6.83	
27	88.05	7.01	6.84	
28	100.02	6.66	6.83	
29	75.62	7.17	6.84	
30	72.72	7.39	6.86	
31	79.15	7.21	6.87	
32	23.00	0.00	6.66	
33	86.42	7.13	6.68	
34	86.85	7.74	6.71	
35	96.83	8.56	6.76	
36	64.02	8.14	6.80	
37	85.06	7.66	6.82	
38	84.76	7.80	6.84	
39	80.26	8.05	6.87	
40	90.82	7.87	6.90	
41	89.27	8.77	6.94	
42	103.27	8.04	6.97	
43	79.68	7.63	6.98	
44	82.49	7.78	7.00	
45	97.74	7.97	7.02	
46	81.35	7.74	7.04	
47	96.84	7.64	7.05	
48	79.19	8.05	7.07	

低电压&程序1&自

baseline_TEST_Uray_1.txt (-/LuXW/2023 beam test detecto

打开(O) 文件

channel	mean	std		
0	85.67	9.29	9.29	
1	72.55	9.47	9.38	
2	84.48	9.18	9.31	
3	79.45	9.37	9.33	
4	93.04	9.47	9.35	
5	79.81	9.34	9.35	
6	97.04	9.16	9.32	
7	74.03	9.42	9.34	
8	99.86	9.24	9.33	
9	67.24	9.24	9.32	
10	64.90	9.36	9.32	
11	73.48	9.36	9.32	
12	88.88	9.40	9.33	
13	82.52	9.27	9.33	
14	77.79	9.22	9.32	
15	101.11	8.20	9.25	
16	76.77	9.42	9.26	
17	78.81	9.59	9.28	
18	69.94	9.53	9.29	
19	78.61	9.29	9.29	
20	91.36	9.67	9.32	
21	99.05	9.40	9.32	
22	87.25	9.49	9.33	
23	82.31	9.27	9.33	
24	71.81	9.57	9.34	
25	85.66	9.48	9.34	
26	80.28	9.48	9.35	
27	87.81	9.63	9.36	
28	107.75	8.47	9.33	
29	75.55	10.01	9.35	
30	72.61	9.68	9.36	
31	79.88	9.78	9.37	
32	62.31	38.12	10.24	
33	86.21	9.73	10.23	
34	86.87	8.66	10.18	
35	96.59	9.39	10.16	
36	64.13	9.01	10.13	
37	85.09	8.55	10.09	
38	84.00	8.76	10.06	
39	80.24	8.62	10.03	
40	96.75	8.73	10.00	
41	89.24	9.68	9.99	
42	103.03	8.90	9.96	
43	79.59	8.38	9.93	
44	82.31	8.43	9.90	
45	97.72	8.79	9.88	
46	81.39	8.60	9.85	
47	96.87	8.53	9.83	
48	79.20	8.95	9.81	

工作电压&程序1&外

baseline_TEST_Uray_1.txt (-/LuXW/2023 beam test detecto

打开(O) 文件

channel	mean	std		
0	85.67	16.66		
1	72.66	16.85		
2	84.51	16.48		
3	79.49	17.05		
4	92.99	16.97		
5	79.07	16.80		
6	96.02	16.39		
7	74.13	16.94		
8	99.70	16.45		
9	67.37	16.48		
10	65.04	16.69		
11	73.56	16.76		
12	88.88	16.81		
13	82.53	16.52		
14	77.91	16.41		
15	101.03	14.30		
16	76.85	16.64		
17	78.81	17.05		
18	70.03	17.02		
19	78.66	16.57		
20	91.36	17.47		
21	98.91	16.49		
22	87.39	16.81		
23	82.34	16.45		
24	71.92	16.78		
25	85.66	16.83		
26	80.37	16.72		
27	87.82	17.16		
28	107.55	14.47		
29	75.71	18.09		
30	72.67	16.91		
31	79.12	17.33		
32	51.27	33.72		
33	86.24	16.86		
34	86.95	13.10		
35	96.61	13.91		
36	64.15	13.57		
37	85.10	12.95		
38	84.83	13.72		
39	80.28	13.72		
40	90.76	13.14		
41	89.31	14.36		
42	103.00	13.36		
43	79.62	13.20		
44	82.33	13.02		
45	97.70	13.38		
46	81.43	12.98		
47	96.90	13.40		
48	79.27	13.40		
49	101.34	13.41		

工作电压&程序2&外