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Silicon Tracker

Hardware effort contact person: Wolfgang Klempt

Software implementation: Nikiforos Nikiforou

Supporting material: CLICdp-Note-? for tracker mechanics, slides [↗](#) (F. Duarte Ramos)

Barrel

Module size: 97.79 mm x 97.79 mm (sensitive 92.031 mm x 92.031 mm)

layer	inner r[mm]	half z[mm]	No. sections
1	230	430	13
2	535	730	17
3	840	1030	23
4	1145	1130	29
5	1450	1630	35

Module structure

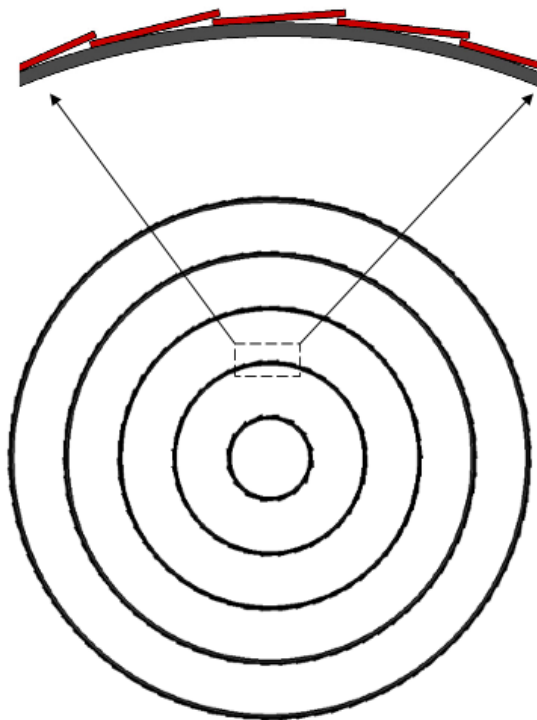
Layer	thickness [μm]
PEEK	200
Carbon Fiber	160
Rohacell	1800
glue (epoxy)	175
Carbon Fibre	160
silicon (sensitive)	300
silicon (ASIC)	4.8
Kpaton (1,2,3,4,5 layer)	38, 51, 64, 78, 91
Copper (1,2,3,4,5 layer)	3.8, 5.2, 6.5, 7.9, 9.3



Support structure in documentation that is not implemented in simulation

Layer	thickness [μm]
CFRP	500
glue (epoxy)	100
Rohacel	15.000

glue (epoxy)	100
CFRP	500



Inner Endcap

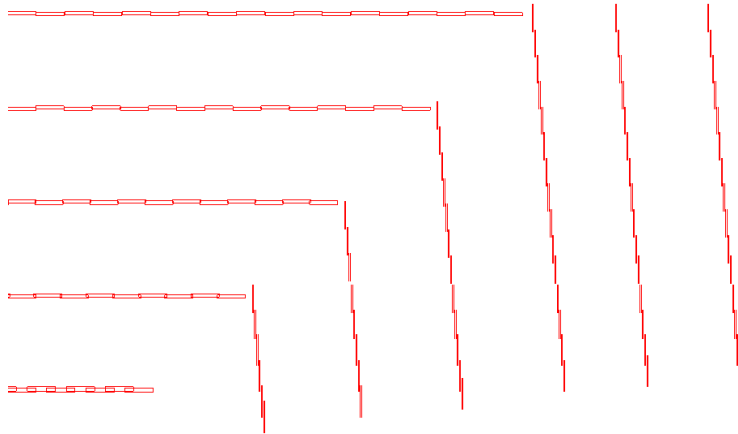
The radius is with respect to the middle of the module

disk	outer r[mm]	inner r[mm]	inner z[mm]	No. rings	No. modules
1	530	382	750	6	36 36 30 26 16 14
2	530	332	1050	5	36 36 30 26 16
3	530	250	1350	5	36 36 30 26 16
4	530	232	1660	4	36 36 30 26
5	530	232	1930	4	36 36 30 26
6	530	232	2230	4	36 36 30 26

Outer Endcap

The radius is with respect to the middle of the module

disk	outer r[mm]	inner r[mm]	inner z[mm]	No. rings	No. modules
1	800	633	1050	3	54 48 44
2	1125	625	1350	7	68 64 58 54 48 40 40
3	1440	624	1660	11	84 78 72 68 64 58 54 48 48 44 44
4	1440	624	1930	11	84 78 72 68 64 58 54 48 48 44 44
5	1440	624	2230	11	84 78 72 68 64 58 54 48 48 44 44



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