

Pseudo-rapidity coverage	$2.4 < \eta < 4.0$
Thickness in z	75 mm (+50 mm moderator)
Position of active layers in z	$z = \pm 3.5$ m
Radial extension:	
Total	$110 \text{ mm} < r < 1000 \text{ mm}$
Active area	$120 \text{ mm} < r < 640 \text{ mm}$
Pad size	$1.3 \text{ mm} \times 1.3 \text{ mm}$
Active sensor thickness	$50 \mu\text{m}$
Number of channels	3.59 M
Active area	6.4 m^2
Average number of hits per track	
$2.4 < \eta < 3.1$	≈ 2
$3.1 < \eta < 4.0$	≈ 3
Average time resolution per hit (start and end of operational lifetime)	
$2.4 < \eta < 3.1$	$\approx 40 \text{ ps}$ (start) $\approx 70 \text{ ps}$ (end)
$3.1 < \eta < 4.0$	$\approx 40 \text{ ps}$ (start) $\approx 85 \text{ ps}$ (end)
Average time resolution per track (start and end of operational lifetime)	$\approx 30 \text{ ps}$ (start) $\approx 50 \text{ ps}$ (end)

Table: Main design parameters of the HGTD.