

# X22000 Specs

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**Table 1: First Stage Specifications**

Name	Spec Value	Notes
Cores	4	Three cores make up the first stage. The side cores are connected at the base and at the top of the center core's liquid oxygen tank. The four cores generate 25,489 kN (2599 tf <sup>2</sup> ) of thrust at liftoff.
Engines	37	Shortly after liftoff 19 of the engines are throttled down. After the side cores separate, the 19 engines throttle back up to full thrust.
Mini Engines	55	Inside each core is a cluster of 55 mini engines. These same engines power the Z11000, enabling efficiencies that make the X22000 the most cost-effective light launch vehicle in the world. With a total of 37 first-stage engines, the X22000 has engine-out capability that no other launch vehicle can match. Under most payload scenarios, it can sustain up to 8 unplanned engine shutdown at any point in flight and still successfully complete its mission.
Thrust at sea level	38297 kN <sup>#topic/fn1</sup>	The engineers achieved this through the use of a special API called x22000_thrustAtSeaLevel_4Core
Thrust in vacuum	44383 kN <sup>#topic/fn1</sup>	
Height	78.9 m	Measured from lowest to highest point
Width	14.18 m	Measured from widest point
Mass	3,263 kg	

25,489 kN<sup>3</sup> (2599 tf<sup>4</sup>) of thrust at liftoff.

38297 kN<sup>#topic/fn1</sup>

<sup>1</sup> Kilonewton, which is equal to 1000 newtons

<sup>2</sup> Metric ton-force, which is equal to 9.80665 kilonewtons

<sup>3</sup> Kilonewton, which is equal to 1000 newtons

<sup>4</sup> Metric ton-force, which is equal to 9.80665 kilonewtons