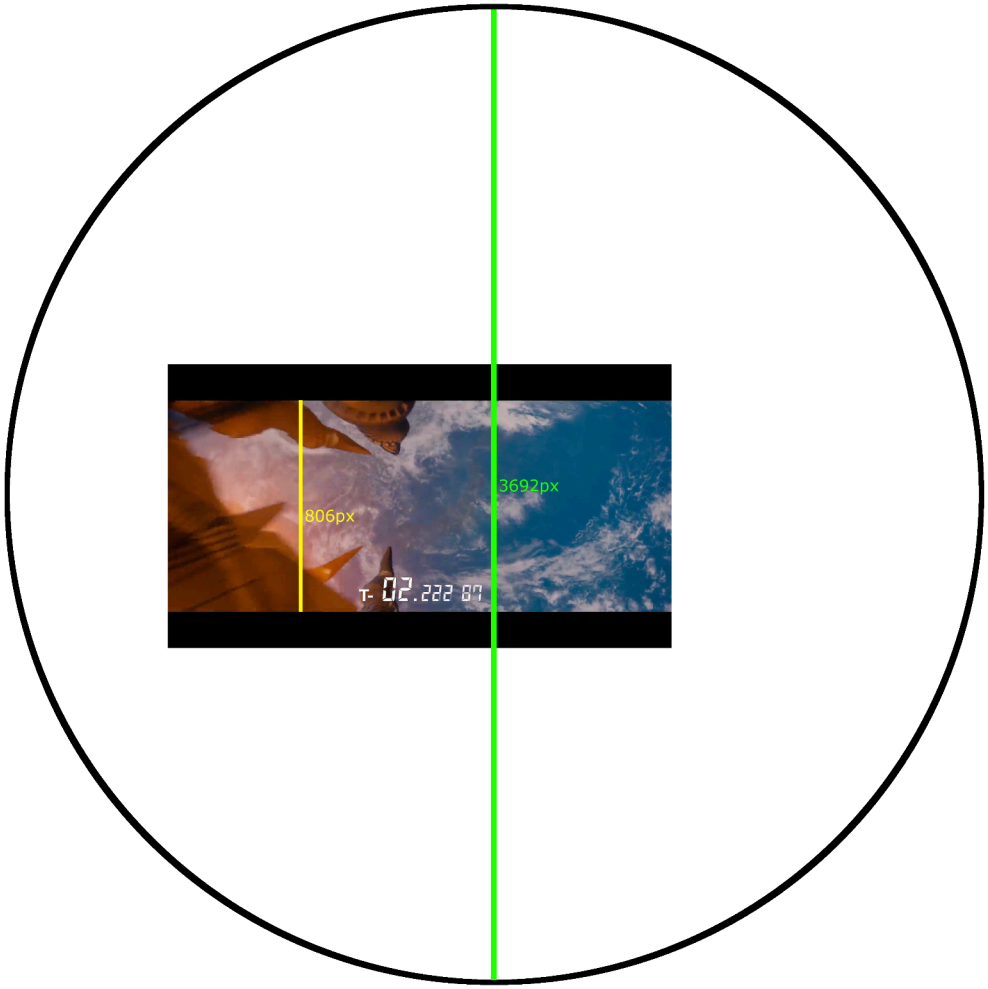
Shin Ultraman Calculation

I'll be making two methods on this calculation; One is where we angsize the distance from Zetton's fireball to Earth, and the other is where we use an assumption based on the outermost layer of the Earth's atmosphere (https://en.wikipedia.org/wiki/Exosphere).

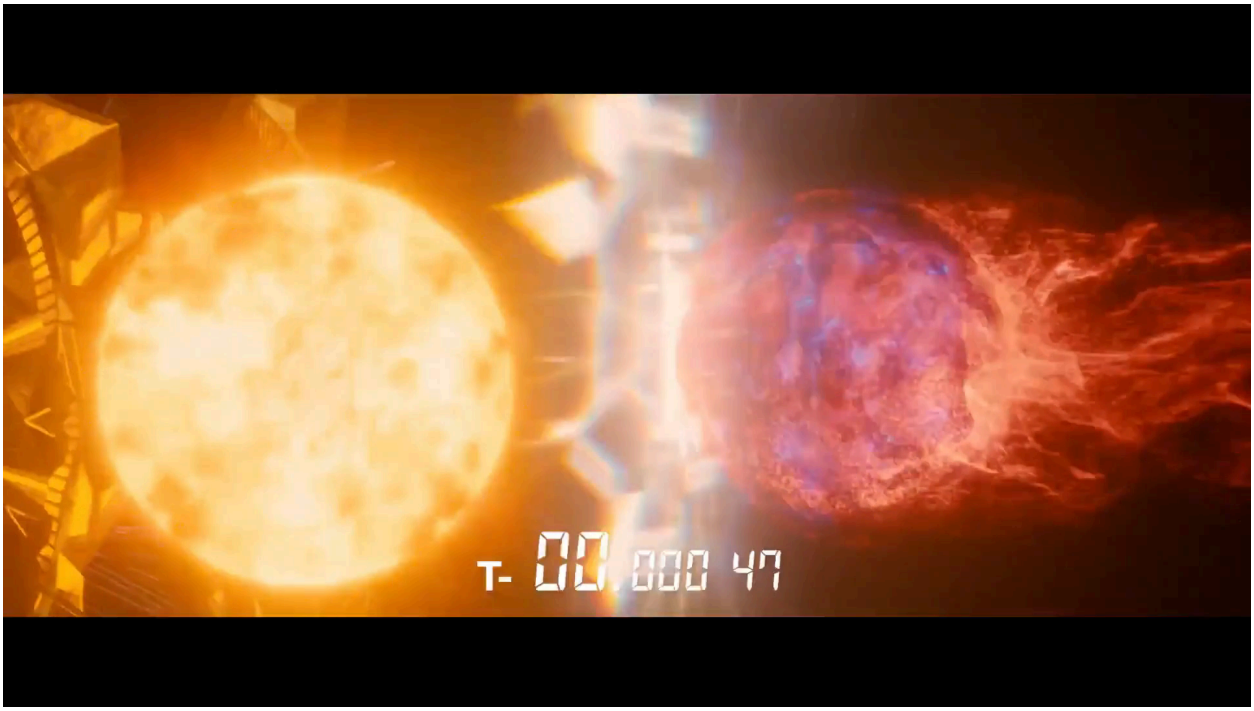
1. Angsize Method



- Earth's Diameter (Real): 12,742 km (https://coolcosmos.ipac.caltech.edu/ask/57-How-large-is-Earth)
- Screen/Panel Size: 806 px
- Earth's Diameter (Pixel): 3692 px

-> (Object's real size x Panel size)/(Object's pixel size x 2tan(35deg)
-> (12742 x 806) / (3692 x 2tan(35deg) = 2935.435 km

Now for the timeframe, we'll use the one that's already presented to us on screen.



So that means that the time it took him to reach Zetton is 4.80152 seconds.

-> 2935.435 km / 5.23387 seconds = 560,770.519711 m/s |

2. Exosphere Method

I'll be using the average distance from Earth to the exosphere which is:

10,000 km + 1,000 km / 2 = 5,500 km

And if you're wondering why this method exists, it's because we're shown that Ripia manages to exit the outermost layer of atmosphere and still not being able to get close to Zetton, and Zetton is massive as he can be seen from even the naked eye on Earth.

The timeframe this time around is a bit different since we're not calculating the speed it took him to Zetton's fireball, and since this makes more sense because Ripia had slowed down to prepare his Beta System.

-> So the time it took for him to reach the exosphere is 0.569 seconds.

-> 5,500 km / 0.569 seconds = 9,666,080 m/s