

8 SUMMARIES

The purpose of this thesis is to find the RMS and reflector gain for the TTU satellite project.

To solve this problematic we must first know the true shape of our parabola. For this, we used TRITOP, a photogrammetry tool that allowed us to compare the derivation of our reflector with the so-called theoretical perfect form. To do this we had to place targets on our reflector and so take many pictures of it has a height of 4 meters.

When this is done TRITOP gives us our real form of parabola in an orthonormal plane.

Then we compare the derivation of all these points with the theoretical form.

We now have all the data necessary to know the RMS and then determine the gain that the reflector will provide.

Calculations allowed us to determine that indeed reflector performance was acceptable for the task it must perform during the satellite project.

This thesis solved 2 problematics, the first and the most important, knowing if the reflector is performant enough and enter in the constructor standards and secondly to know if photogrammetry can be use on such a big structure. (the second problematic was mandatory to solve the first main problematic)