

Appendix C

Introduction

This appendix supplements the information provided during the online Special Temporary Authority application process. The following gain pattern was produced using a numerical simulation engine, NEC. This antenna represents the anticipated design of the ground station antenna. The antenna will track the satellite as it moves across the sky.

Antenna Design

The Earth Station antenna will be constructed using a 12 foot parabolic dish reflector and a custom-design helical feed antenna. The estimated maximum gain is 23dBi with a 20 degree full angle beam width. These specifications are valid for 437MHz. The 3D antenna gain pattern is shown in Figure 1. The horizontal plane is shown in Figure 2 and the vertical plane is shown in Figure 3.

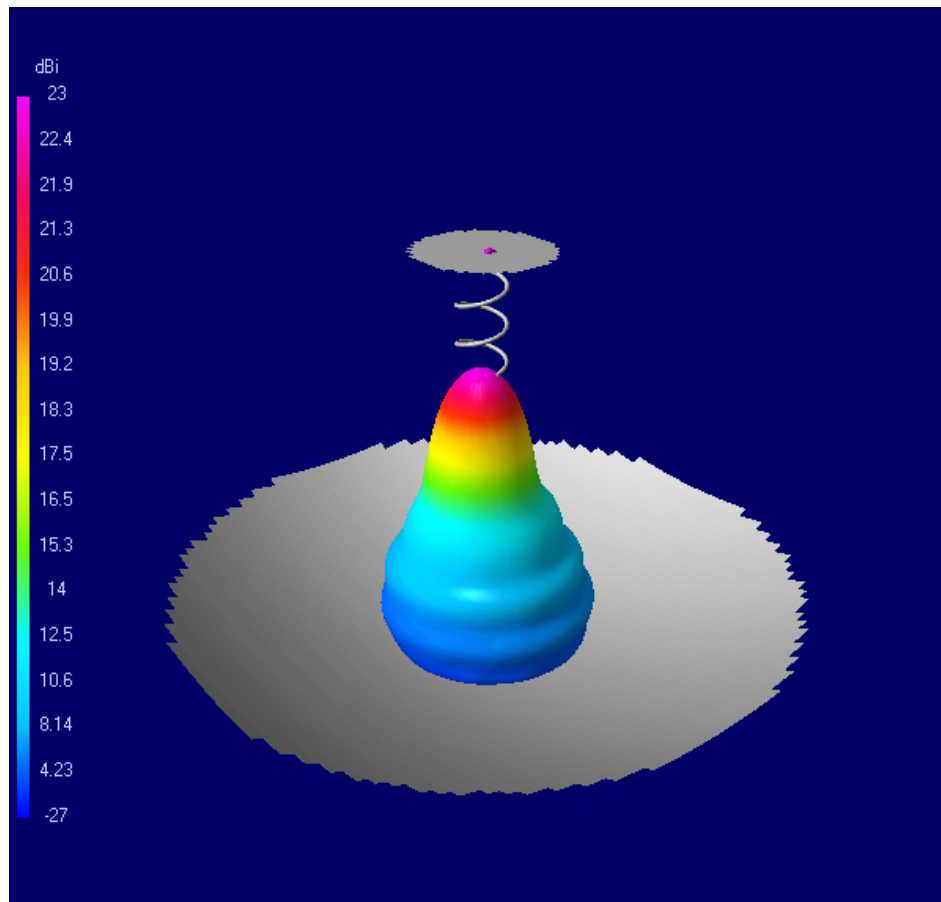


Figure 1

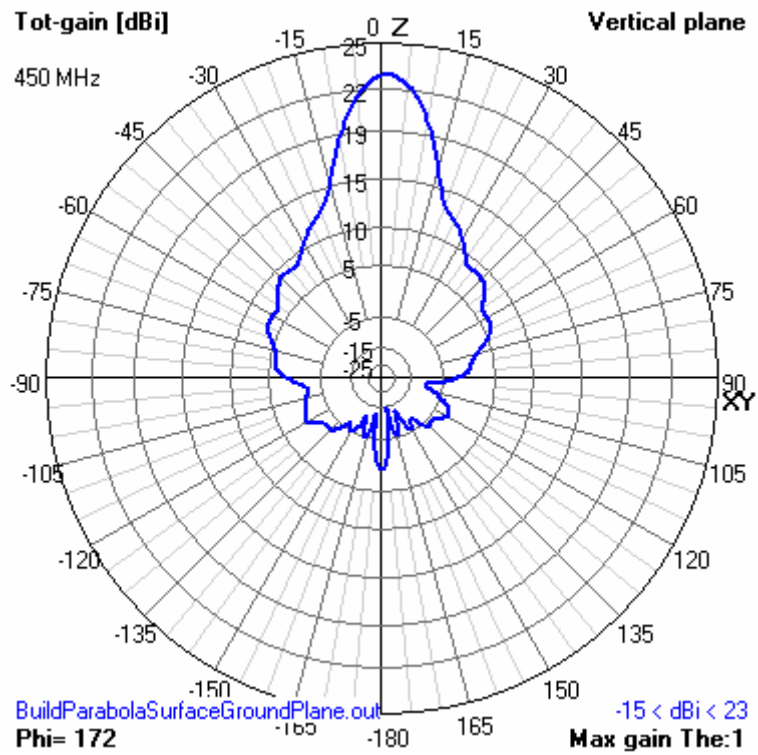


Figure 2

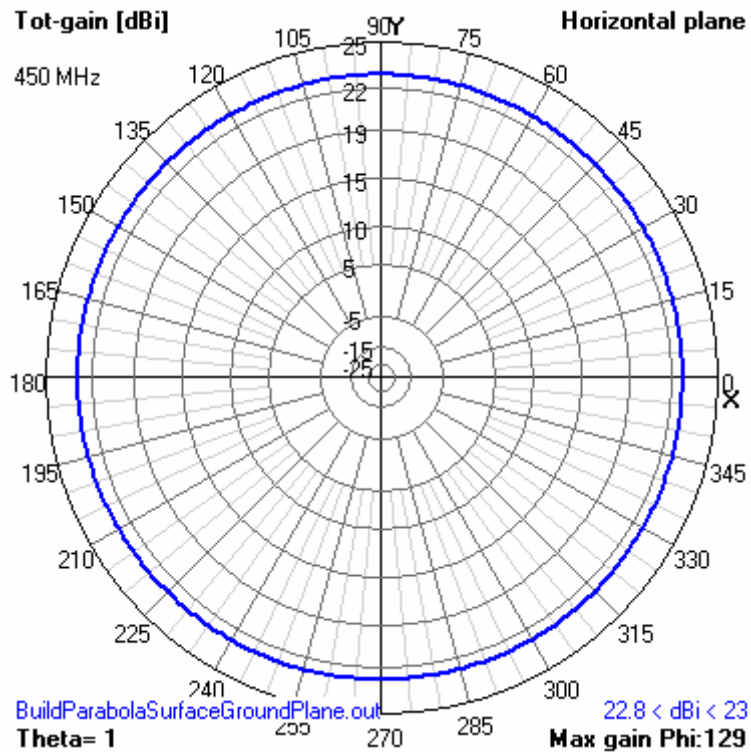


Figure 3