## **Directional Antenna Information for AS.MAX MacroMAX (Base Unit)**

The MacroMAX has an antenna beam that is 120 degrees in the horizontal plane and 10 degrees in the vertical plane at the half-power point. EchoStar anticipates testing different horizontal orientations for the MacroMAX, so it requests authority to point the antenna in any direction in the horizontal plane. EchoStar plans on using the MacroMAX with a flat vertical orientation i.e. it will not be angled either up or down.

## **Directional Antenna Information for AS.MAX ProST (Subscriber Unit)**

The ProST has an antenna beam that is 30 degrees in the horizontal plane and 30 degrees in the vertical plane at the half-power point. EchoStar anticipates testing different horizontal orientations for the ProST, so it requests authority to point the antenna in any direction in the horizontal plane. EchoStar plans on using the ProST with a flat vertical orientation i.e. it will not be angled either up or down.

## **Directional Antenna Information for AS.MAX EasyST (Subscriber Unit)**

The standard EasyST antenna has an antenna beam that is 90 degrees in the horizontal plane and 45 degrees in the vertical plane at the half-power point. The optional higher gain EasyST antenna has an antenna beam that is 140 degrees in the horizontal plane and 12 degrees in the vertical plane at the half-power point. EchoStar anticipates testing different horizontal orientations for the EasyST, so it requests authority to point the antenna in any direction in the horizontal plane. EchoStar plans on using the EasyST with a flat vertical orientation i.e. it will not be angled either up or down.