

Virginia Tech Ceres File 0252-EX-CN-2018 Additional Technical Data

7. Transmitter Antenna

- Location:

Apogee: **408** (in km)

Perigee: **399** (in km)

- Polarization : **Right-Hand Circular (cross dipole/turnstile)**

- Orientation: – **Z face**

- Dimension:

Gain (dbi): **-0.2**

Beamwidth (degree): **130°**

Azimuth (degree clockwise from True North): **0 - 360 deg**

8. Receiver Antenna

- Location (lat/long, city, state): **37° 13' 48" N/80° 26' 22" W, Blacksburg, VA**

- Polarization: **Right-Hand Circular**

- Orientation: **Horizontal 0 - 360 degrees**

Vertical 0 - 90 degrees

- Dimension:

Gain (dbi): **13.5 dBi**

Beamwidth (degree): **30°**

Azimuth (degree clockwise from True North):**0 - 360 degrees**

Elevation (in meter above MSL): **610m**

Height (in meter above MSL): **613m (antenna is 3m)**

9. Orbital characteristics

- Inclination angle: **51.60** (in degree)

- Apogee: **408** (in km)

- Perigee: **399** (in km)

- Period: **1.55** (in hour)

- Number of satellite in the system: **1**

- Number of transmitting satellite: **1**

- Number of receiving satellite: **1**