

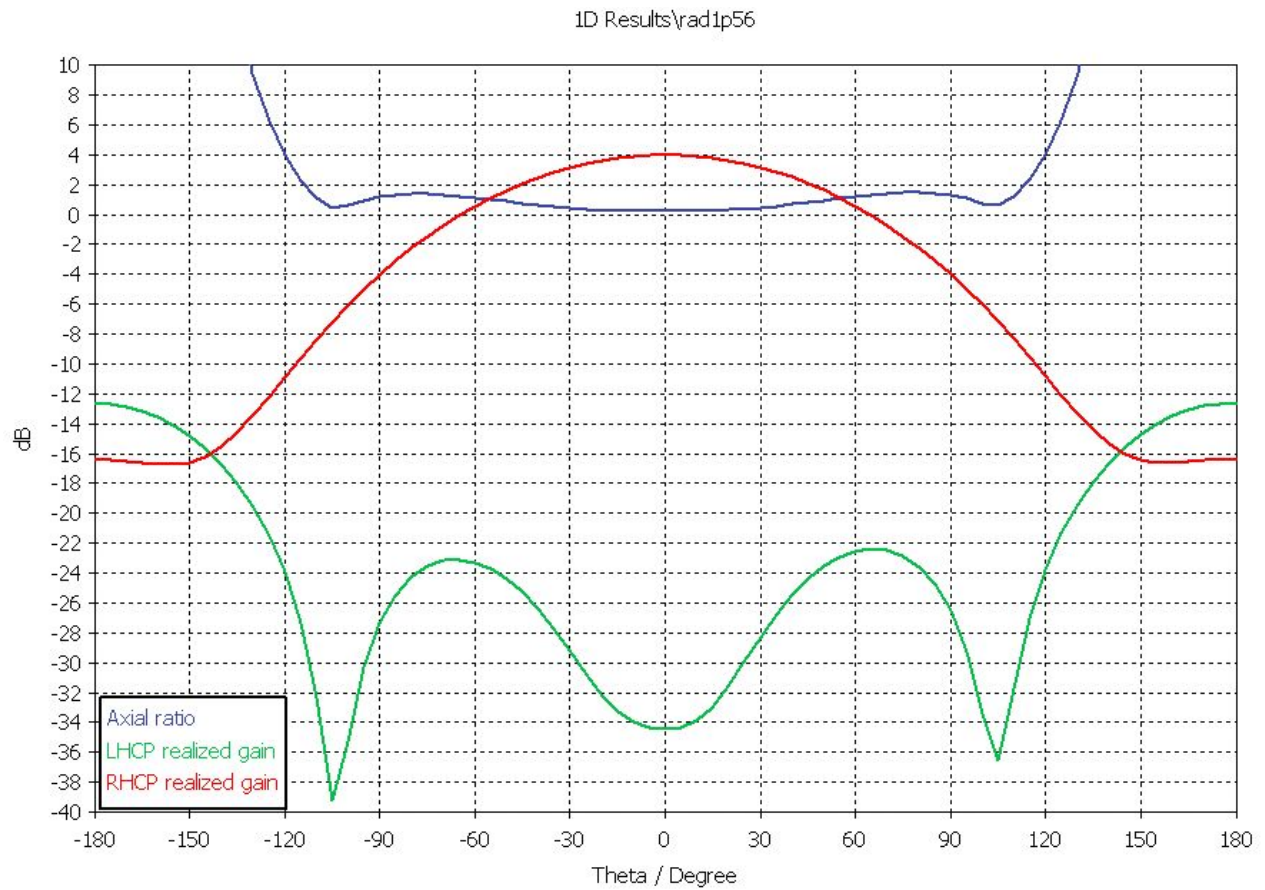


Figure 3: C-band Helical Antenna Gain Pattern (simulation)



645 Harrison street, 4th floor
San Francisco, CA 94107
www.planet.com

Summary of Radio Frequency Parameters

LEO Tx Terminal (broadbeam Low-Gain Transmit antenna):

- Frequency: 6295.0 MHz – 6298.0 MHz, center frequency to be assigned.
- Frequency Tolerance: +/- 0.001%
- Bandwidth: 1 MHz
- Antenna gain: 4 dBi peak, see radiation pattern in Figure 4
- Antenna beamwidth: Hemispherical
- Power at antenna input: 0.8 Watt maximum
- EIRP: 3 dBW maximum (at boresight)
- Power Spectral Density: -21 dBW/4kHz maximum
- Emission designator: 1M00W1D
- Transmitter Location: 985 Terra Bella Ave. Mountain View California, 94043
37°24'29.1"N 122°04'21.6"W

Ground Hub Terminal (commercial VSAT antenna):

- Frequency: 6295.0 MHz – 6298.0 MHz, center frequency to be assigned.
- Frequency Tolerance: +/- 0.001%
- Bandwidth: 1 MHz
- Antenna gain: 42 dBi
- Antenna beamwidth: 1.3 degrees (3 dB beamwidth)
- Power at antenna input: 50 Watts maximum
- EIRP: 59 dBW maximum
- Power Spectral Density: 35 dBW/4kHz maximum
- Emission designator: 1M00W1D
- Transmitter Location: 985 Terra Bella Ave. Mountain View California, 94043
37°24'29.1"N 122°04'21.6"W

GEO Satellite Space to Earth beam (ground receive beam) (already licensed to GEO Satellite Operator):

- Frequency: 4070.0 MHz – 4073.0 MHz, center frequency to be assigned.
- Frequency Tolerance: +/- 0.001%
- Bandwidth: 1 MHz
- Antenna beamwidth: (coverage over California)
- EIRP Density: 14 dBW/MHz
- Emission designator: 1M00W1D
- Satellite Location: 177 deg West GSO
- Ground Coverage: Visible Earth