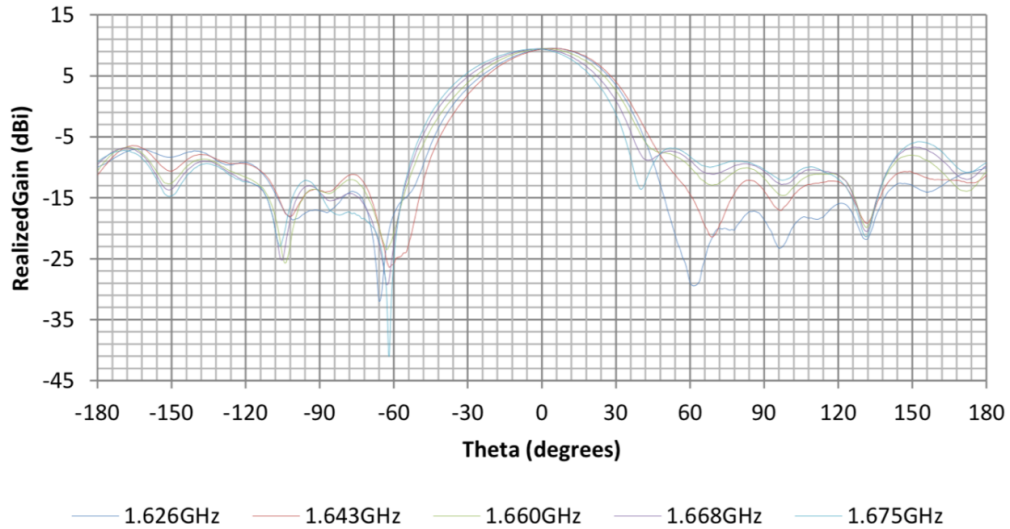


# Antenna Gain Patterns for New/Modified Transmissions

0228-EX-CN-2020

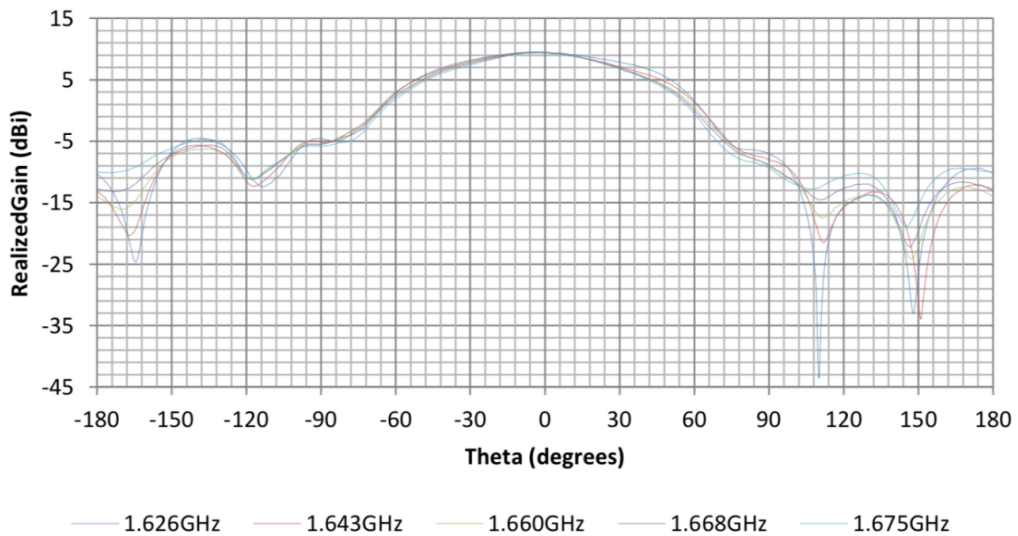
## 1665-1675 MHz / 1626.5 – 1660.5 MHz — LEO to GEO

### Radiation Patterns of RHCP in the E-plane at TX

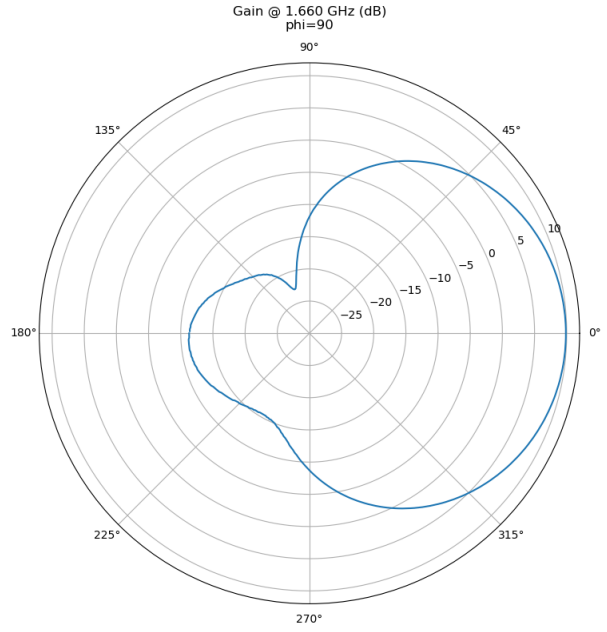
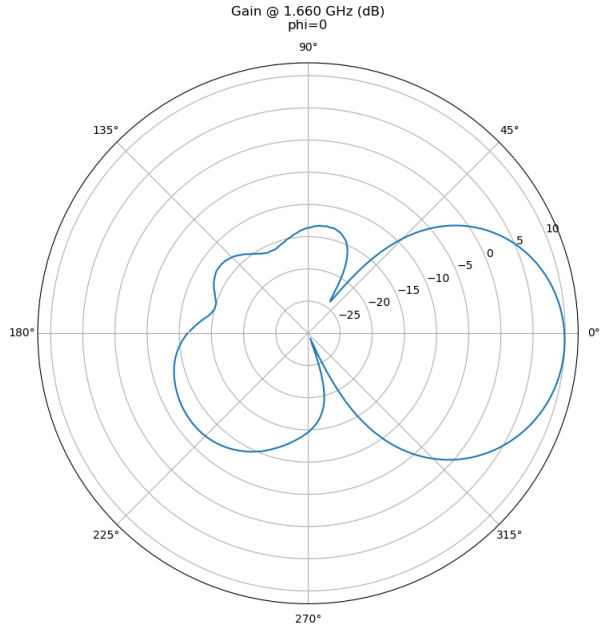


Capella Space-to-Space Downlink E-Plane Gain Pattern

### Radiation Patterns of RHCP in the H-plane at TX

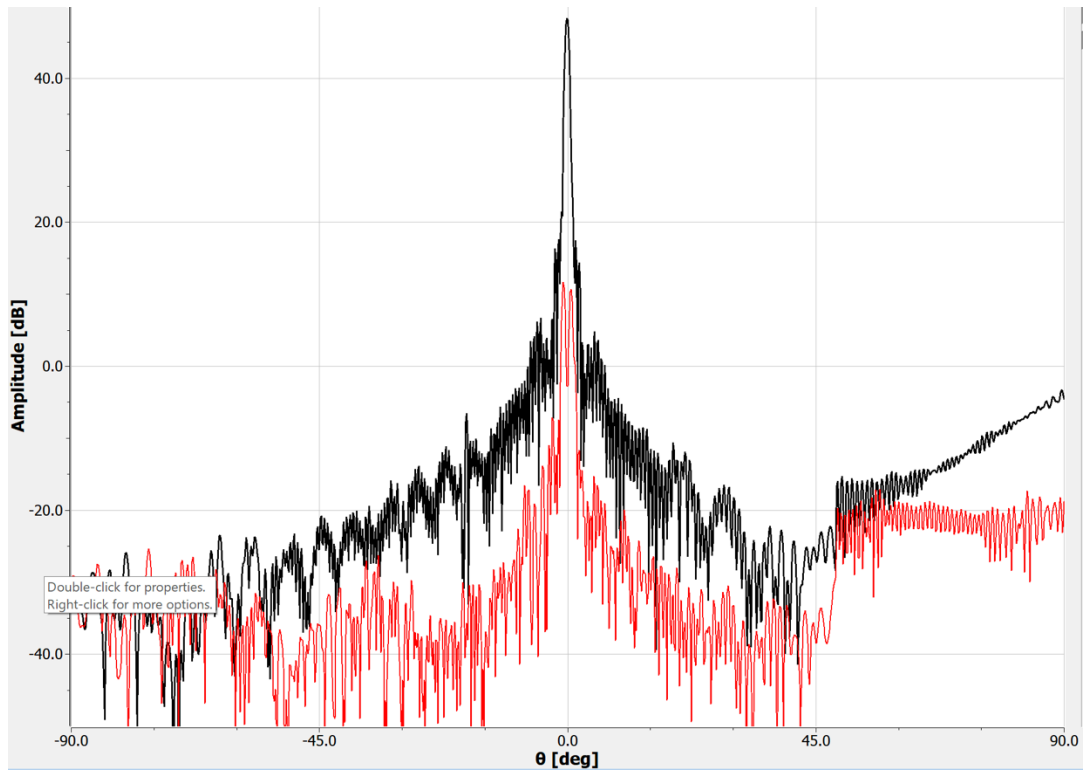


Capella Space-to-Space Downlink H-Plane Gain Pattern

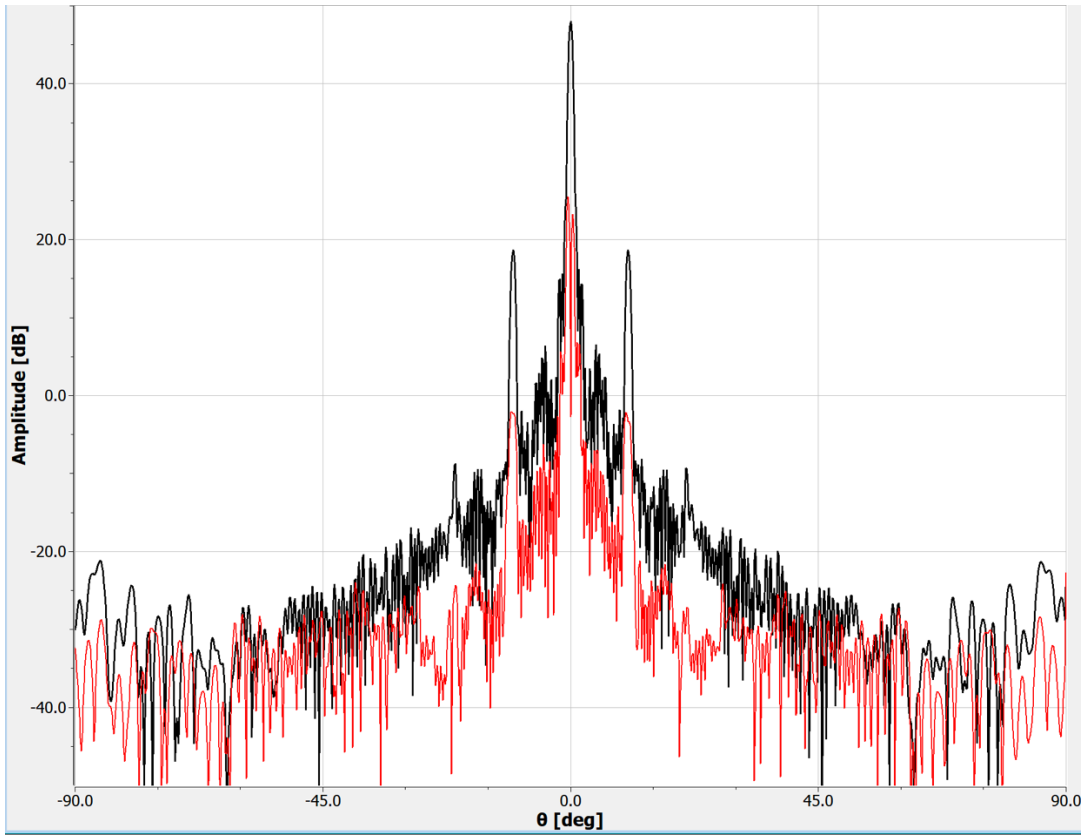


Capella L-Band Space-to-Space (Inmarsat) Downlink Gain Patterns (Polar plot version)

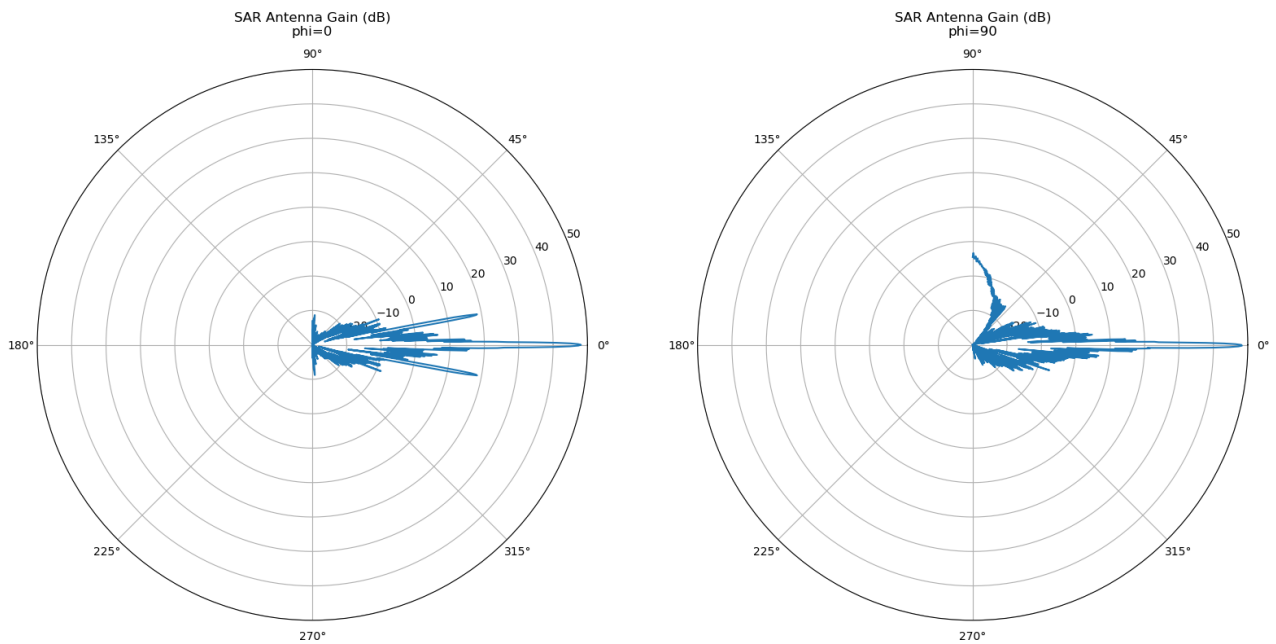
### 9650 MHz — SAR



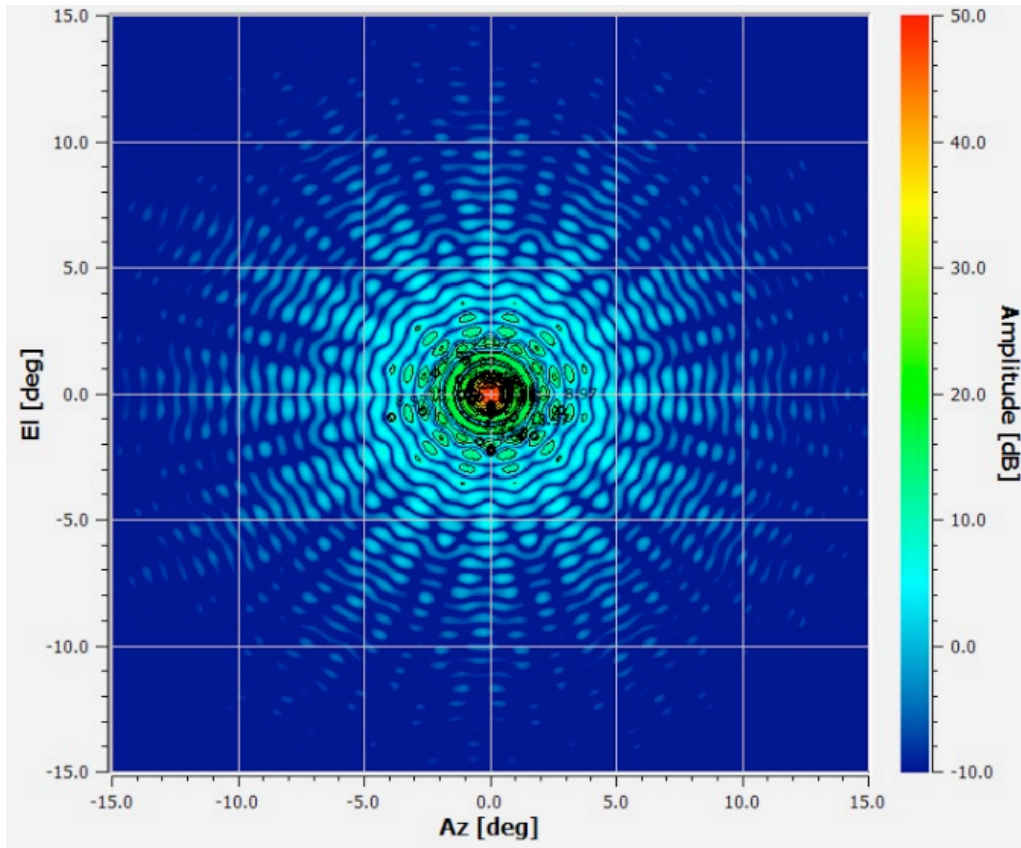
Capella X-Band SAR Antenna Gain Pattern, 9.65Ghz, phi = 0 deg,  $E_{co}$  (black) and  $E_{cx}$  (red)



Capella X-Band SAR Antenna Gain Pattern, 9.65Ghz,  $\phi = 90$  deg,  $E_{co}$  (black) and  $E_{cx}$  (red)

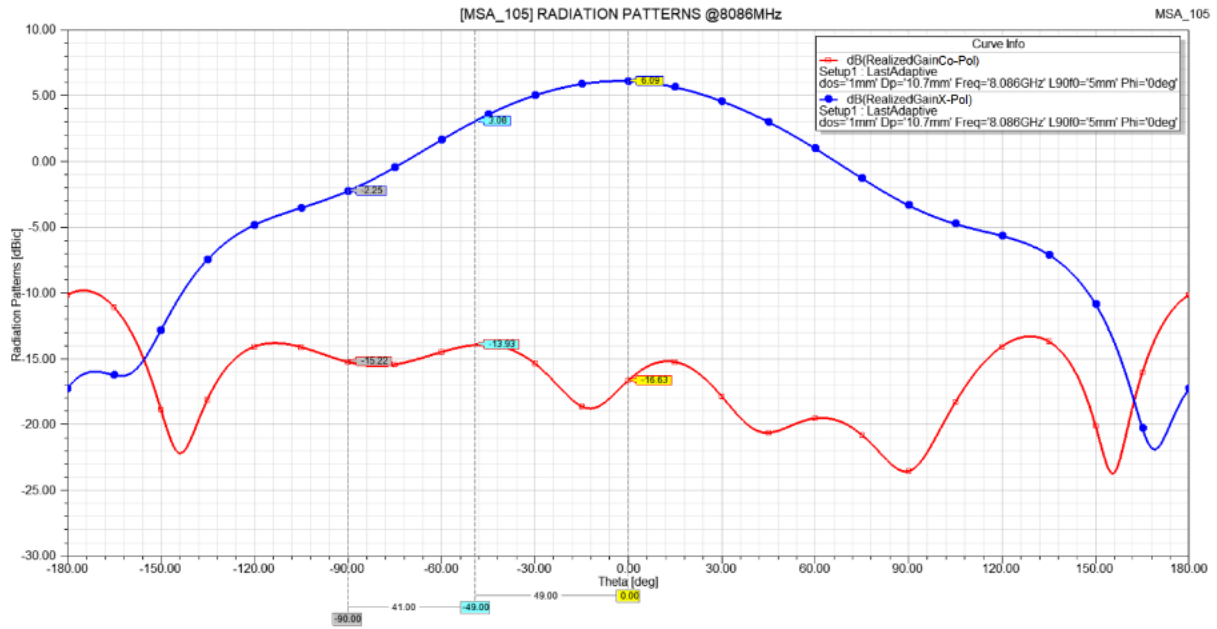


Capella X-Band SAR Antenna Gain Pattern, 9.65Ghz,  $\phi = 0$  deg (left) and  $90$  deg (right) (polar)

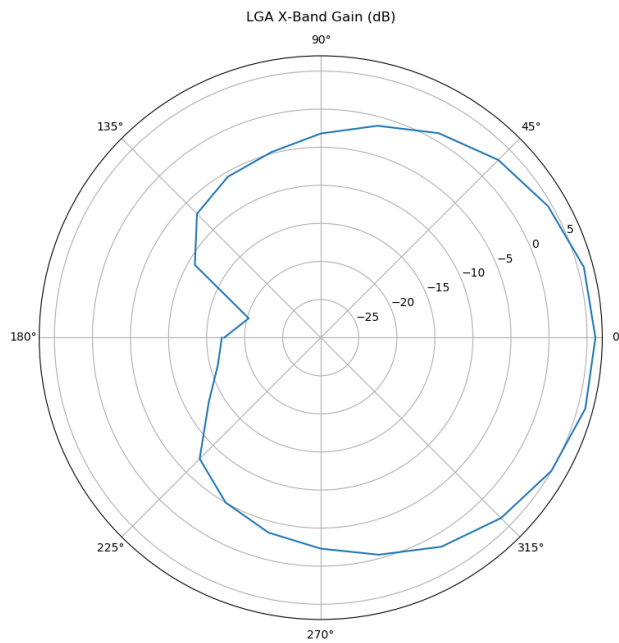


Capella X-Band SAR Antenna Gain Contours, AZ/EL plot of beam.

## 8025-8029 MHz — TT&C Downlink

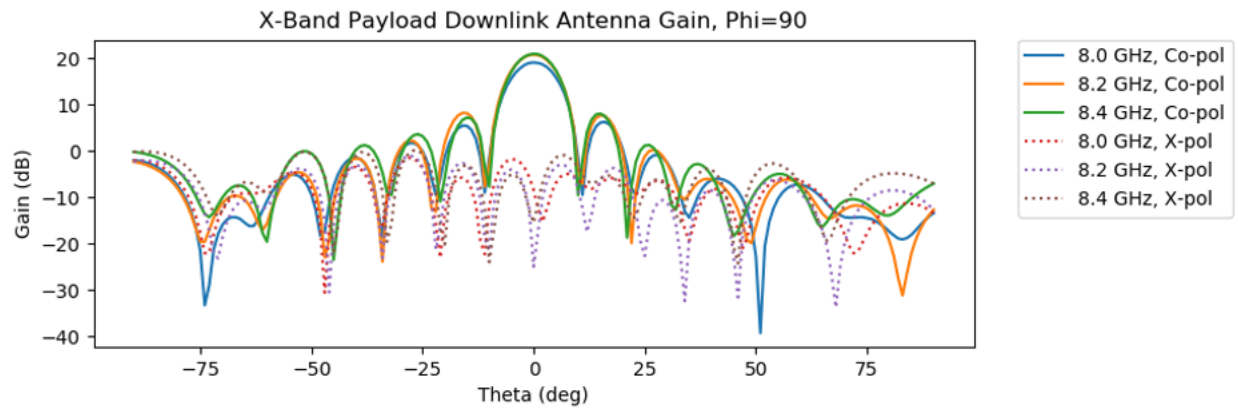
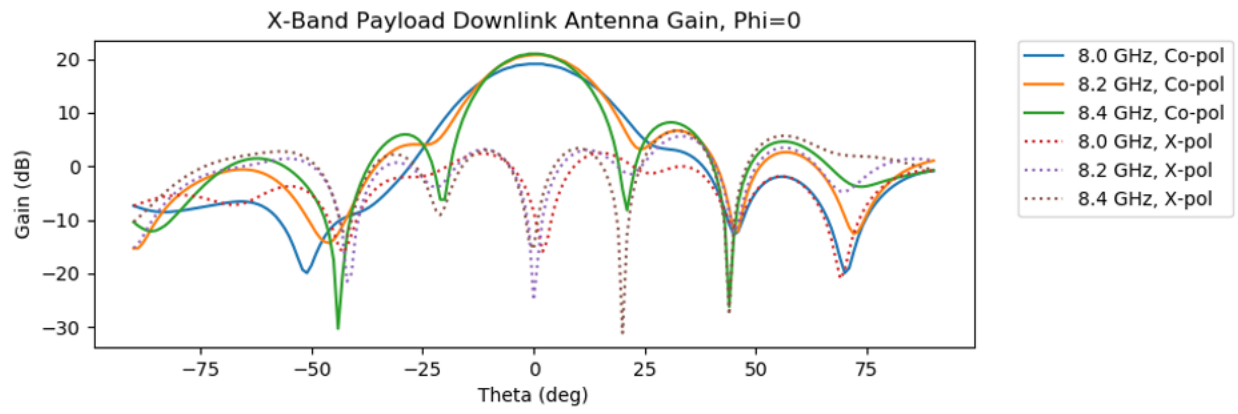


Capella TT&C Downlink Gain Pattern

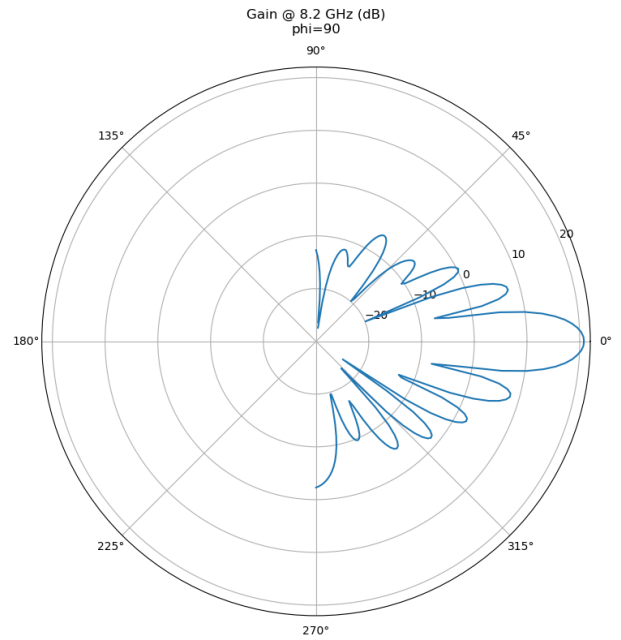
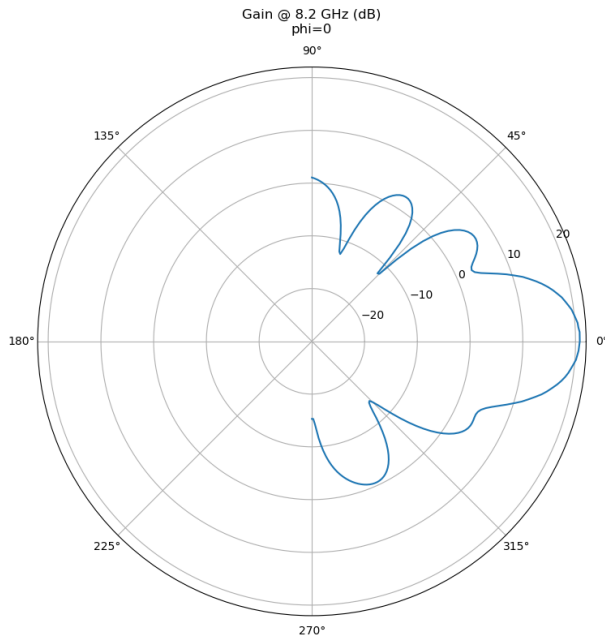


Capella TT&C Downlink Gain Pattern (polar plot version) – Beam is axi-symmetric

## 8025-8400 MHz — High Data Rate X-Band Downlink



Capella High Data Rate Downlink Gain Pattern



Capella High Data Rate Downlink Gain Pattern, phi = 0 deg (left) and 90 deg (right) (polar)