CESIUM

FCC Form 442, Exhibit: Antenna Beam Patterns

FRN: 0029768140

CesiumAstro, Inc.
13412 Galleria Circle Suite H-100
Austin, Texas 78738

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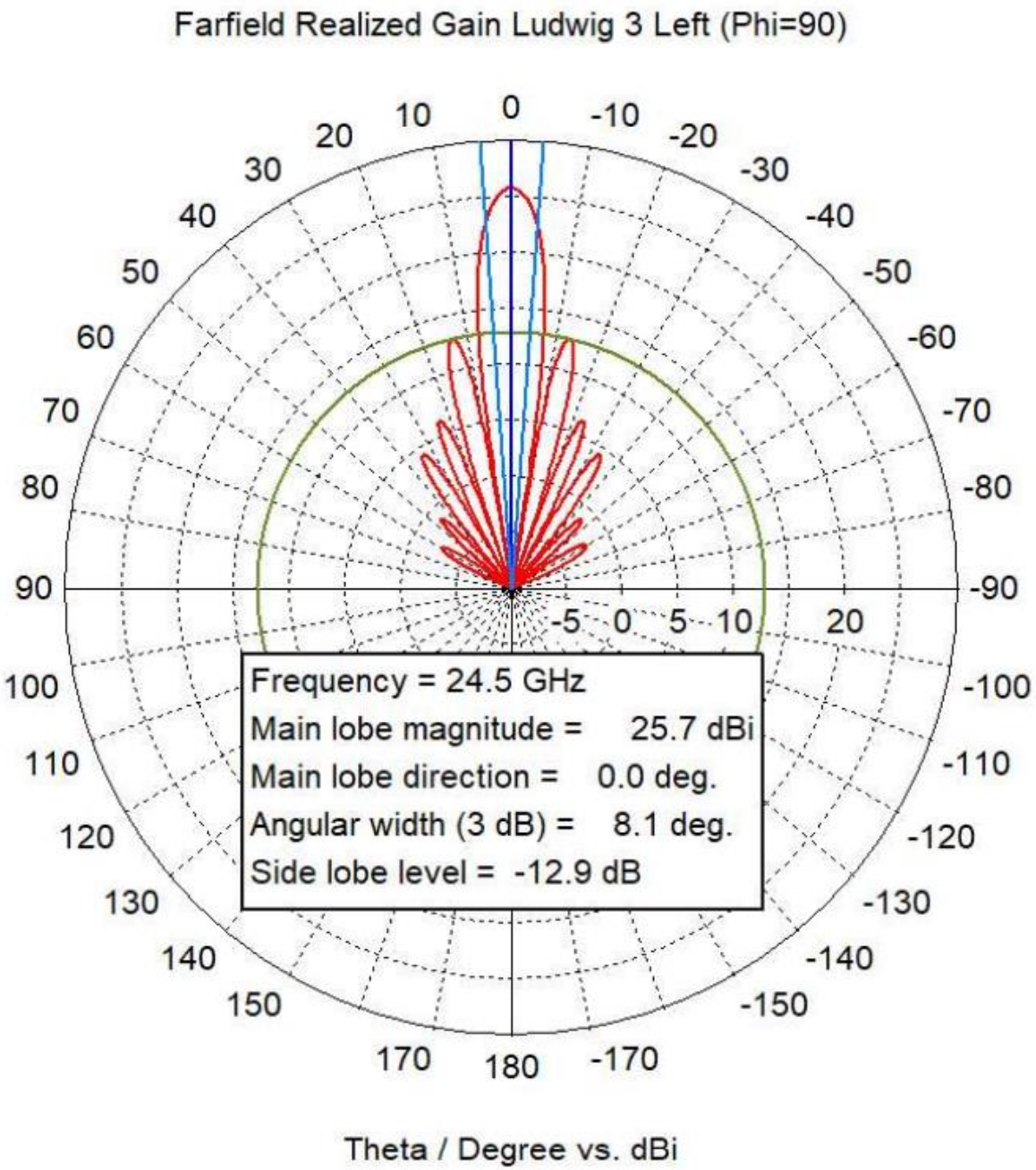
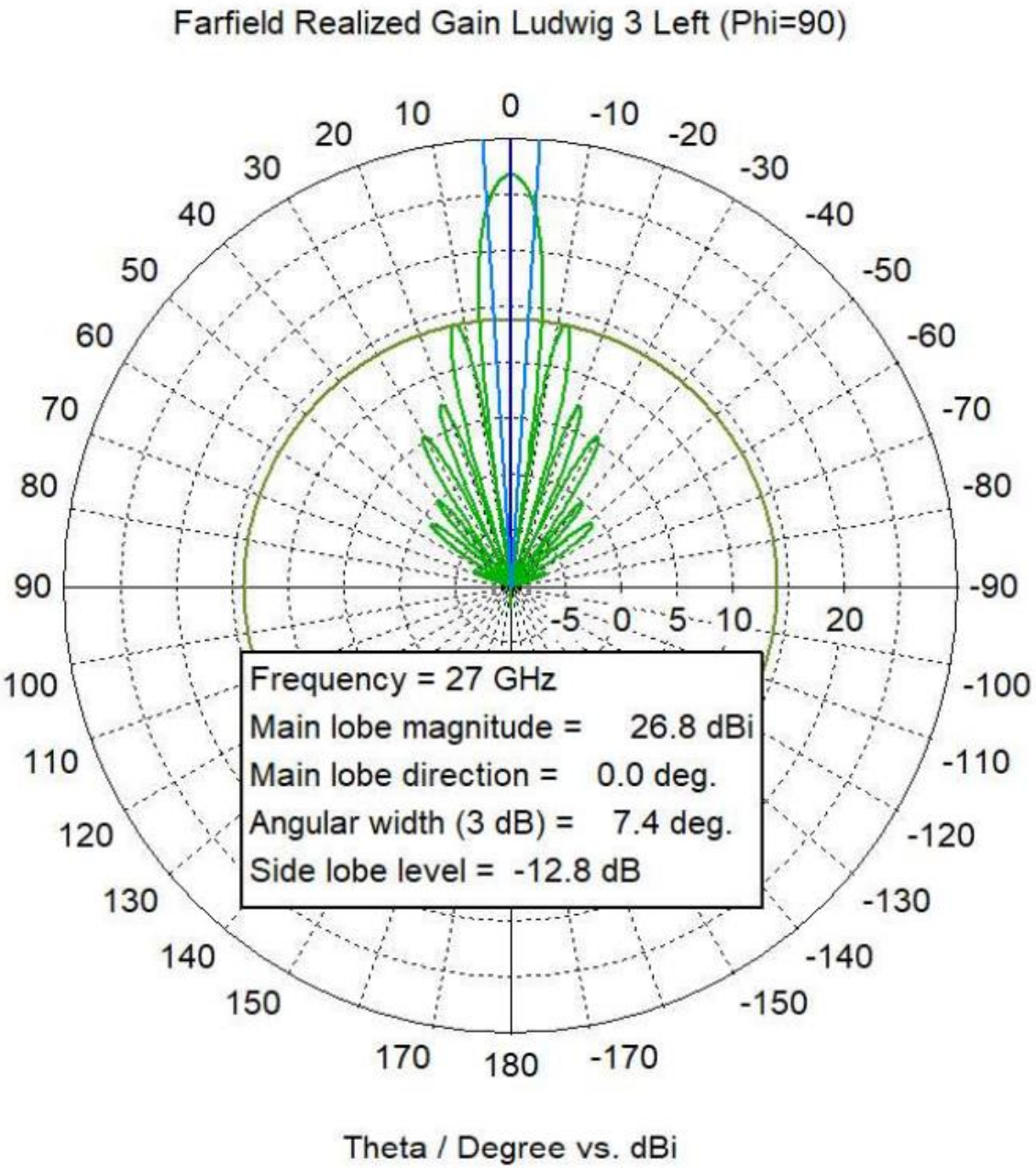
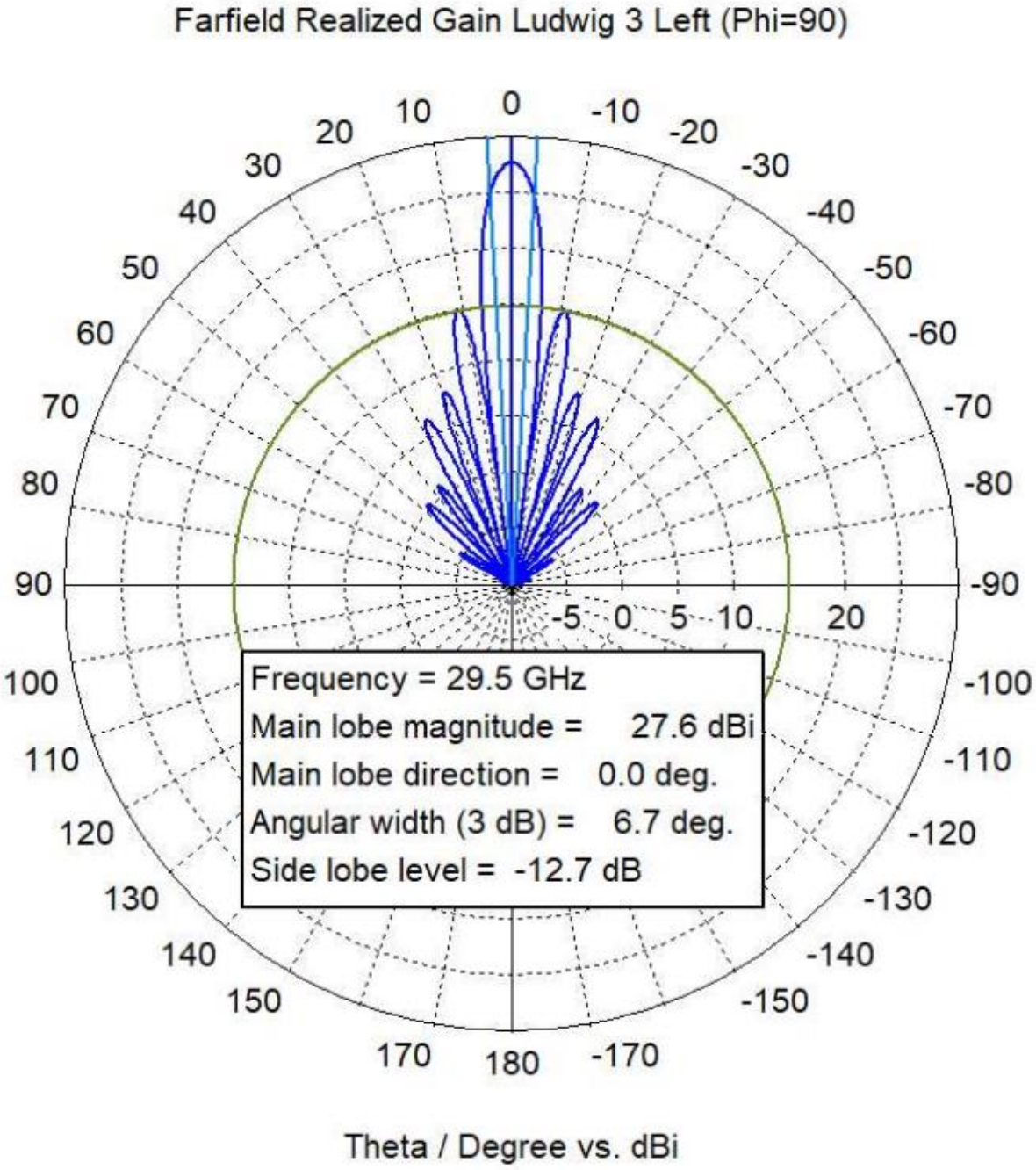
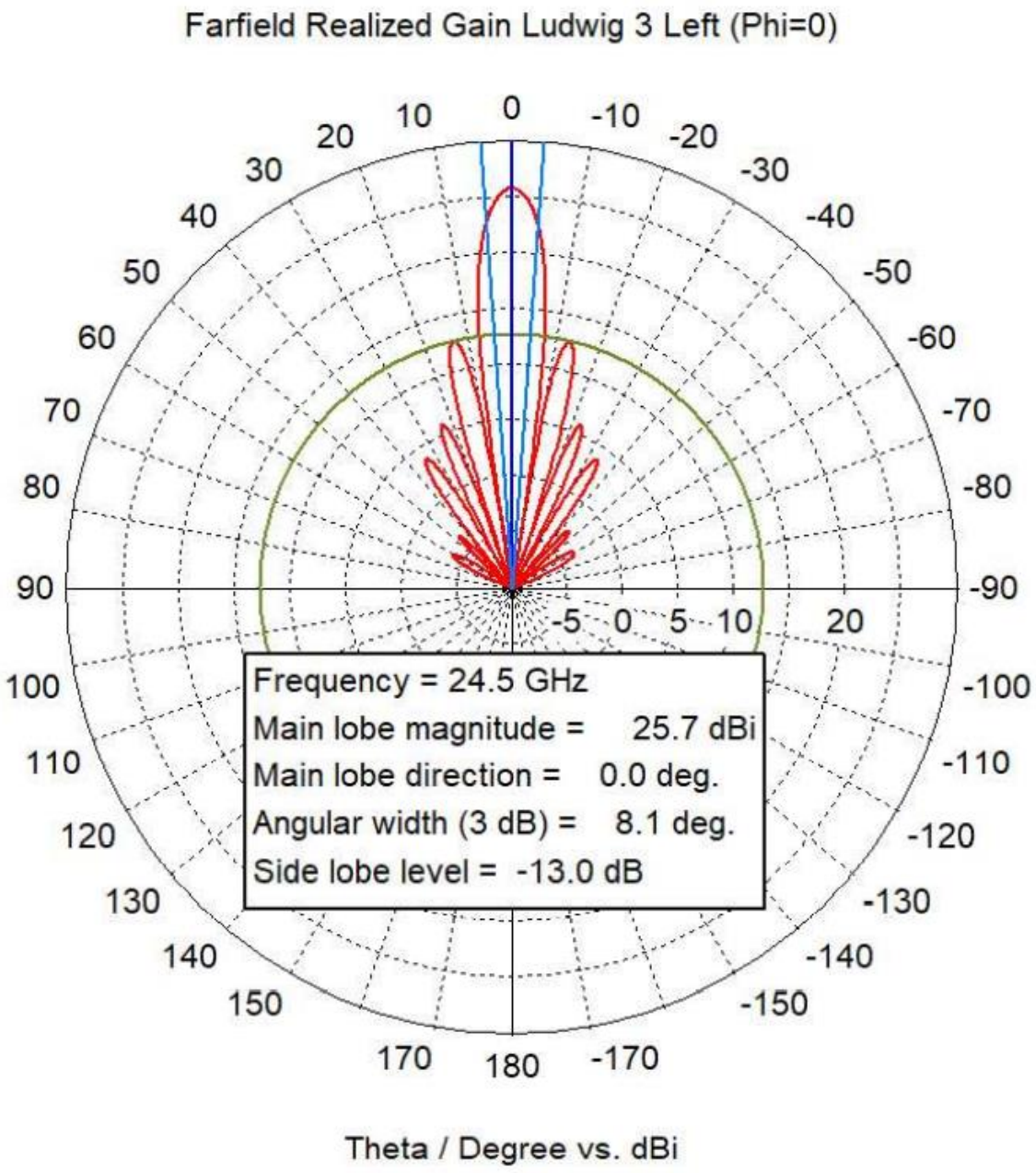
Nightingale 1 APA Antenna Beam Patterns

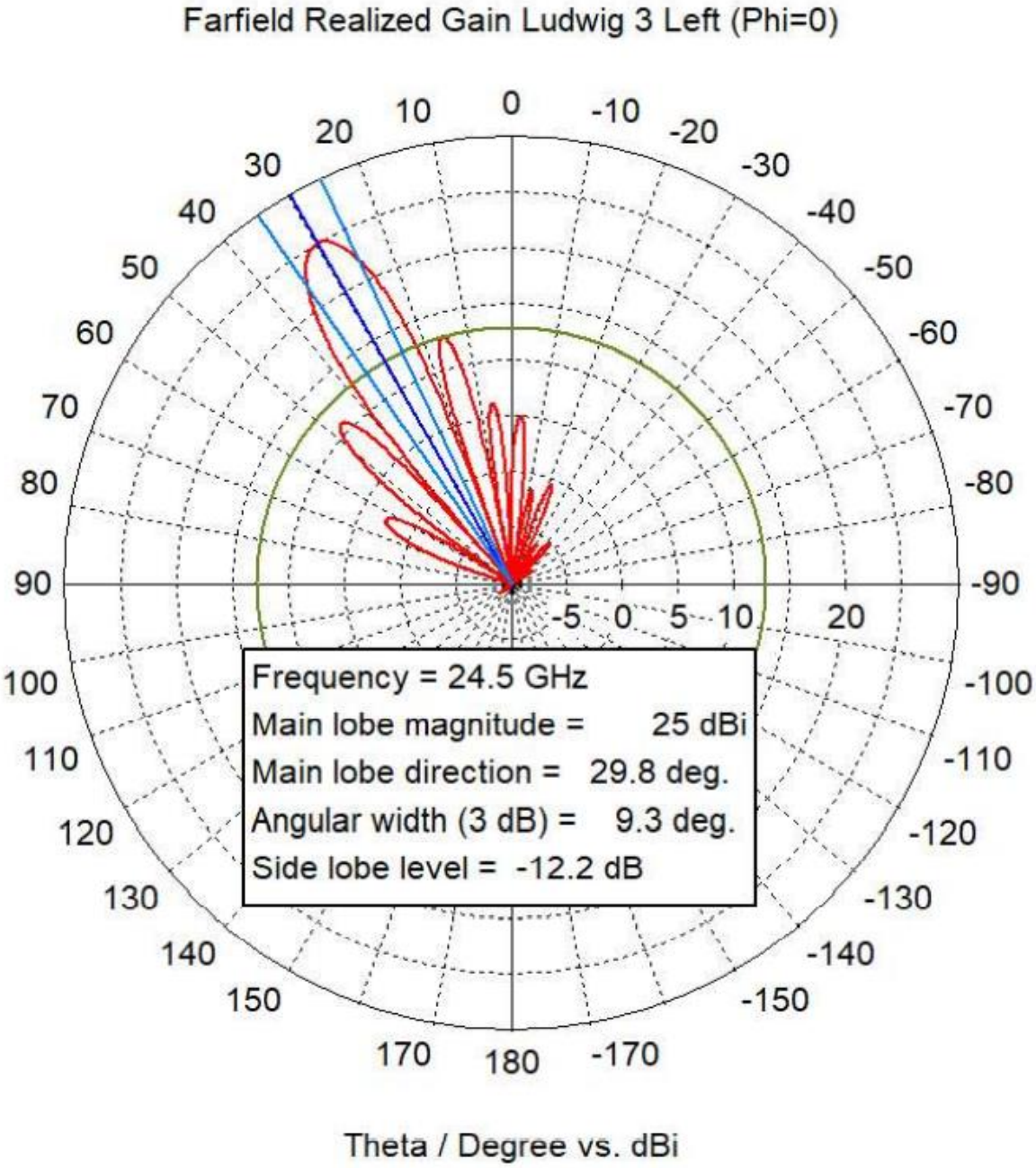
These patterns characterize the Nightingale 1 APA antenna for transmit and receive for its full range of operation (from 24.5 – 29.5 GHz, boresight to max steering).

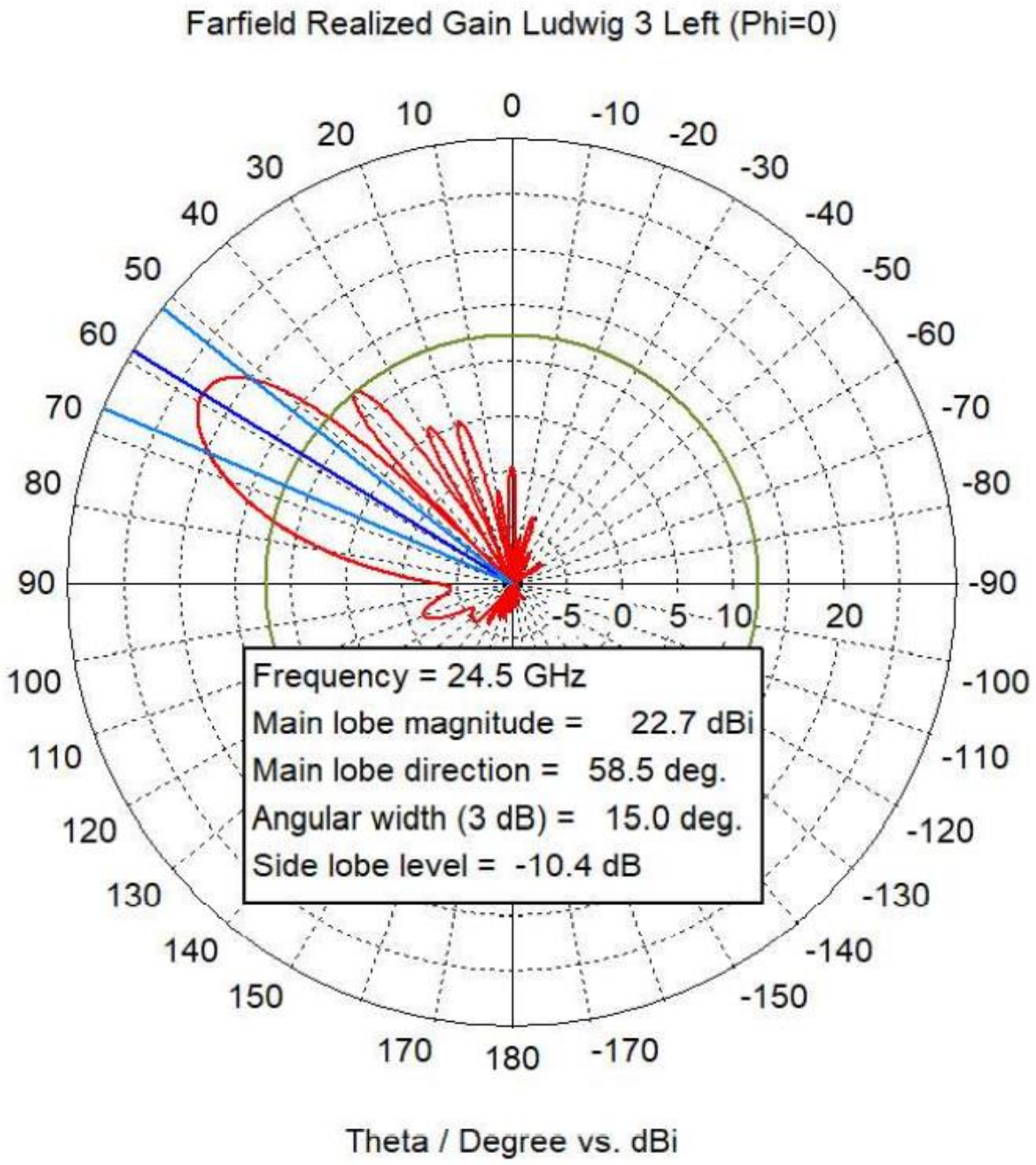


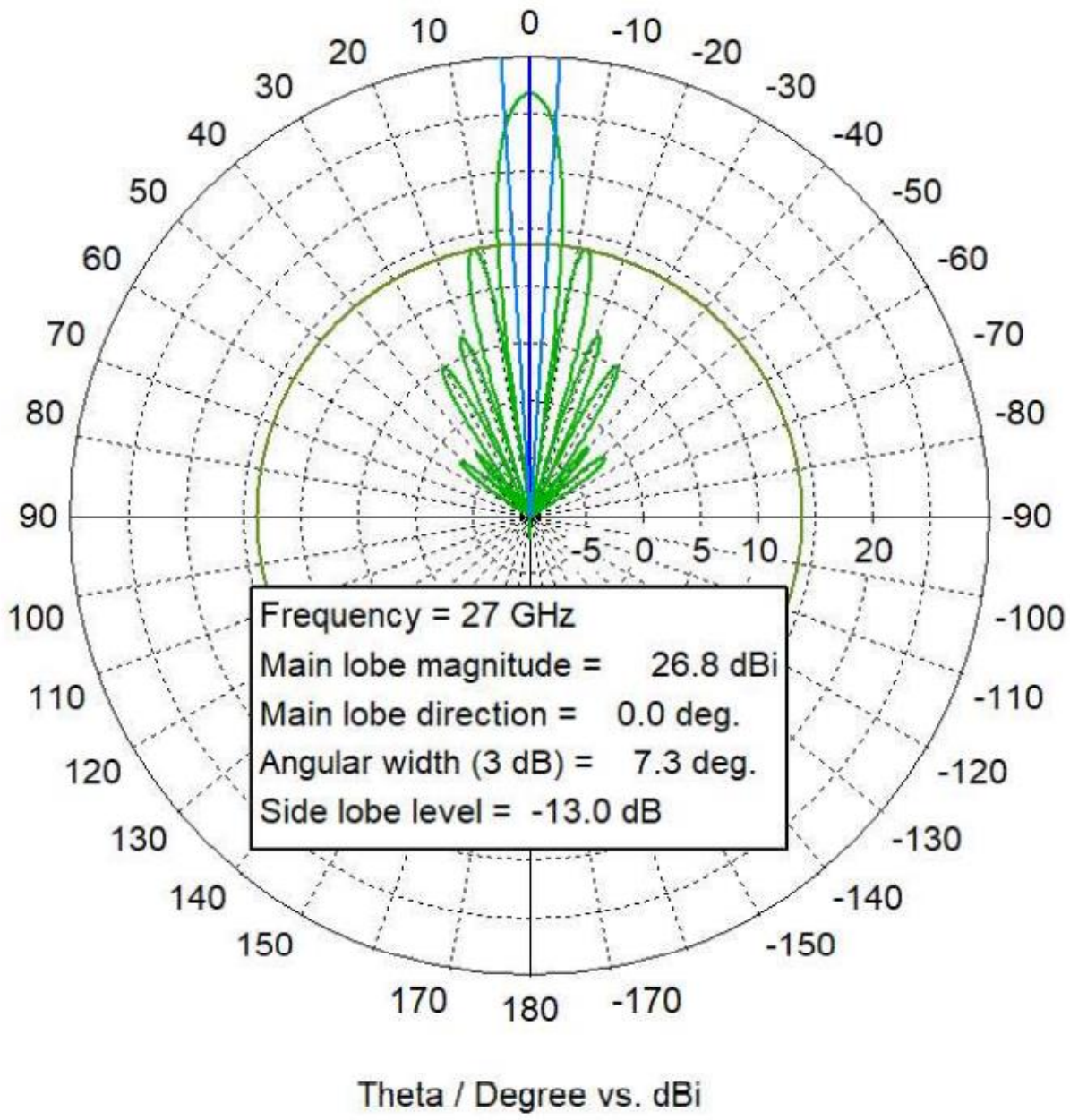


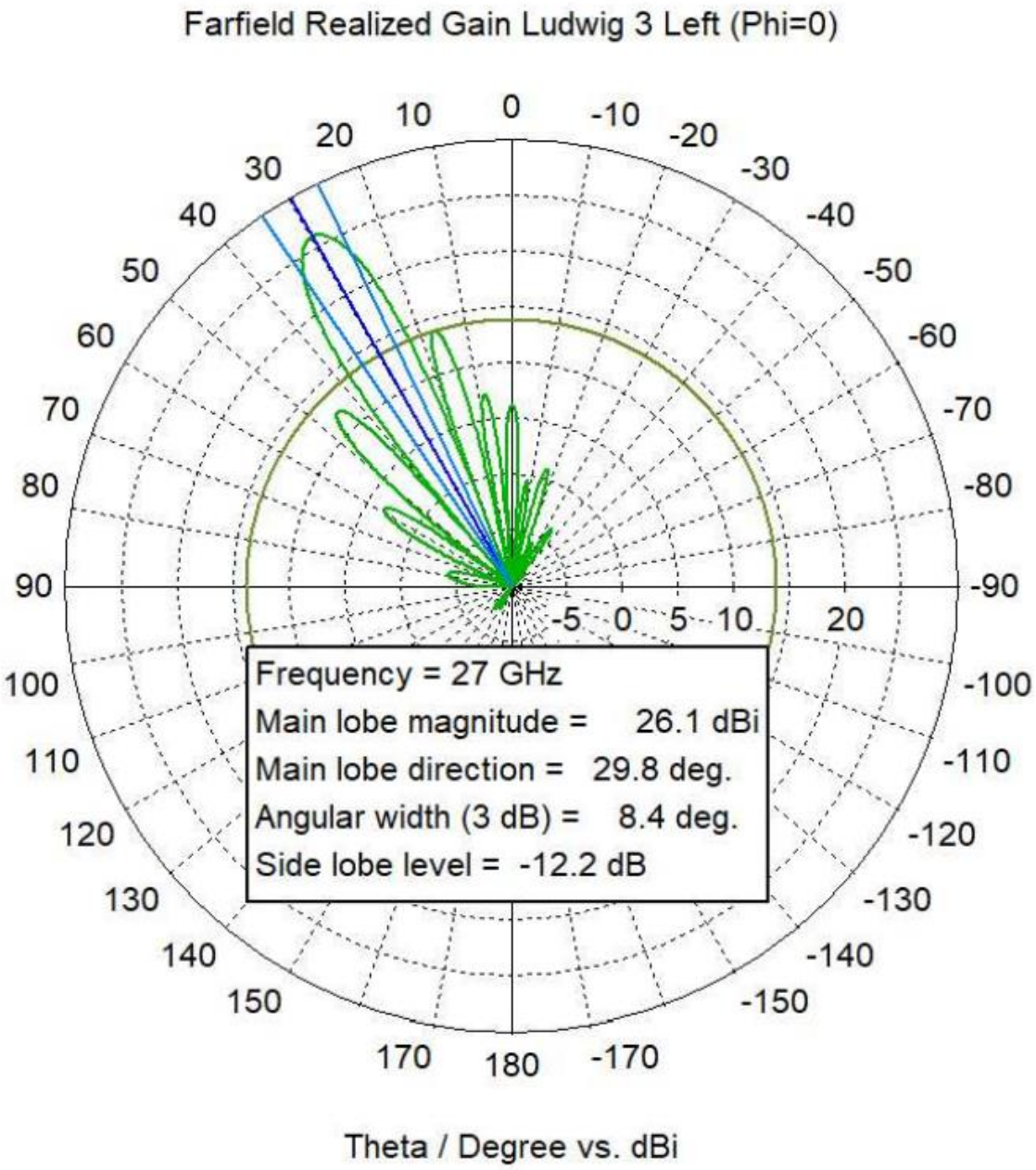


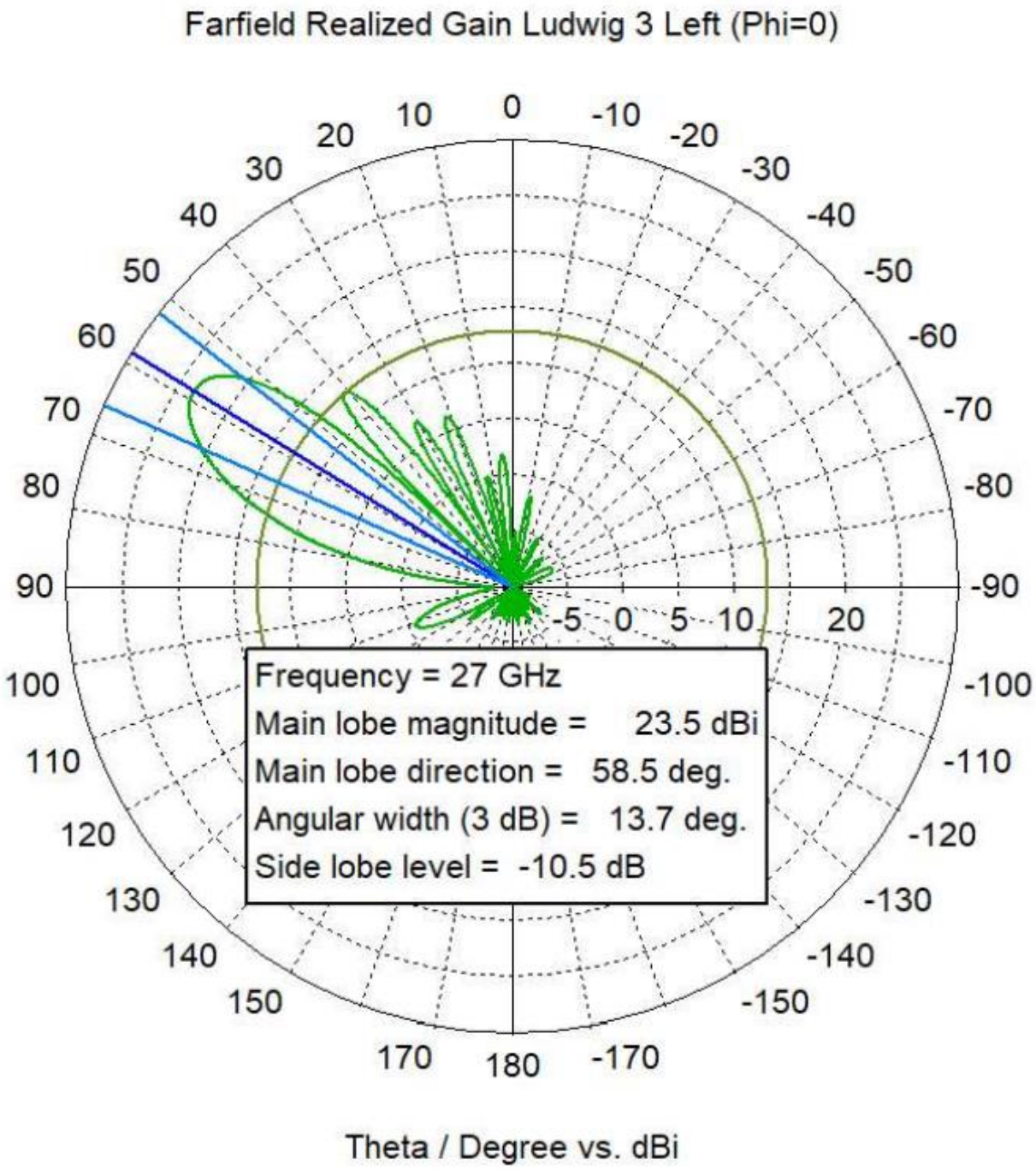


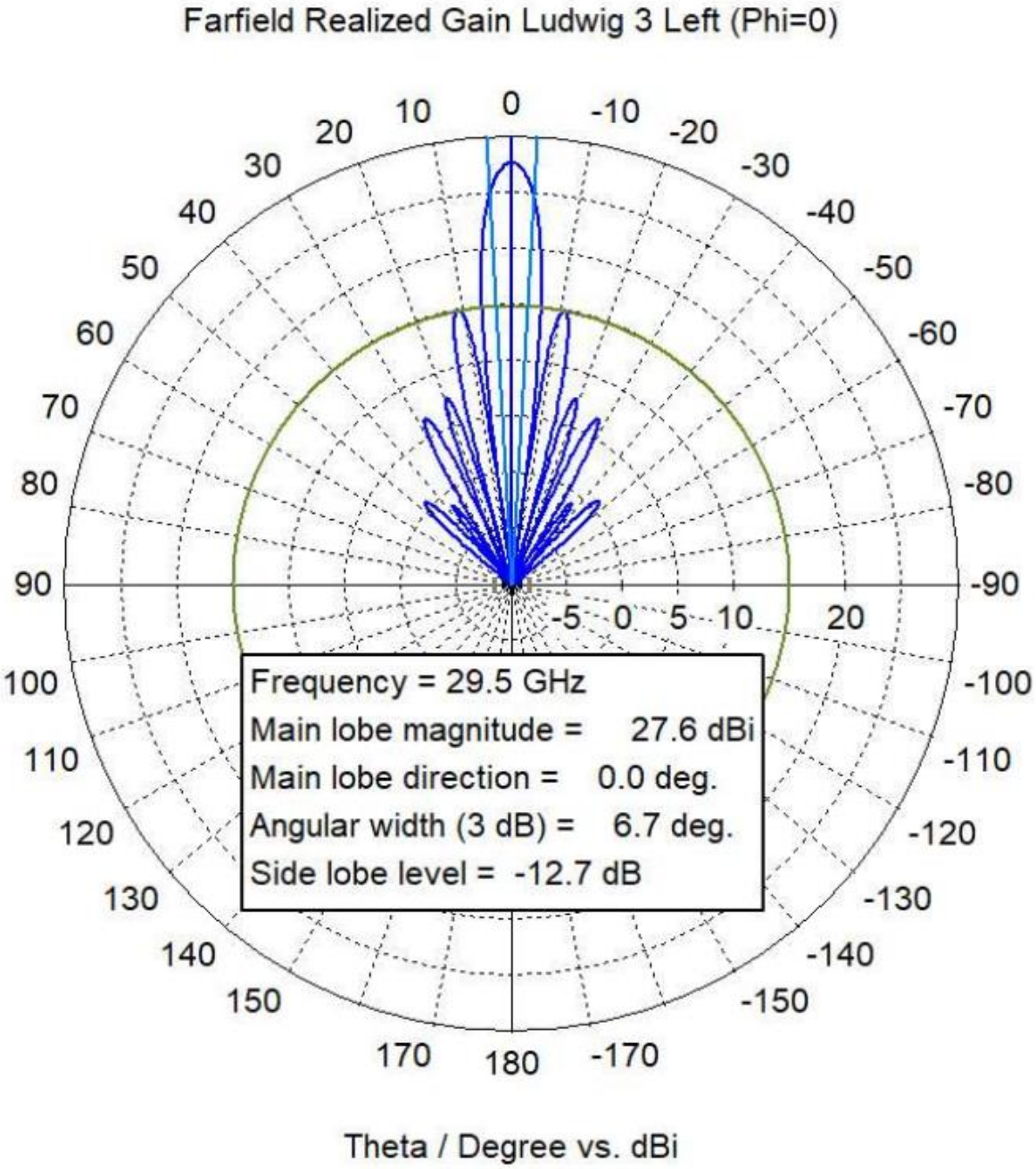


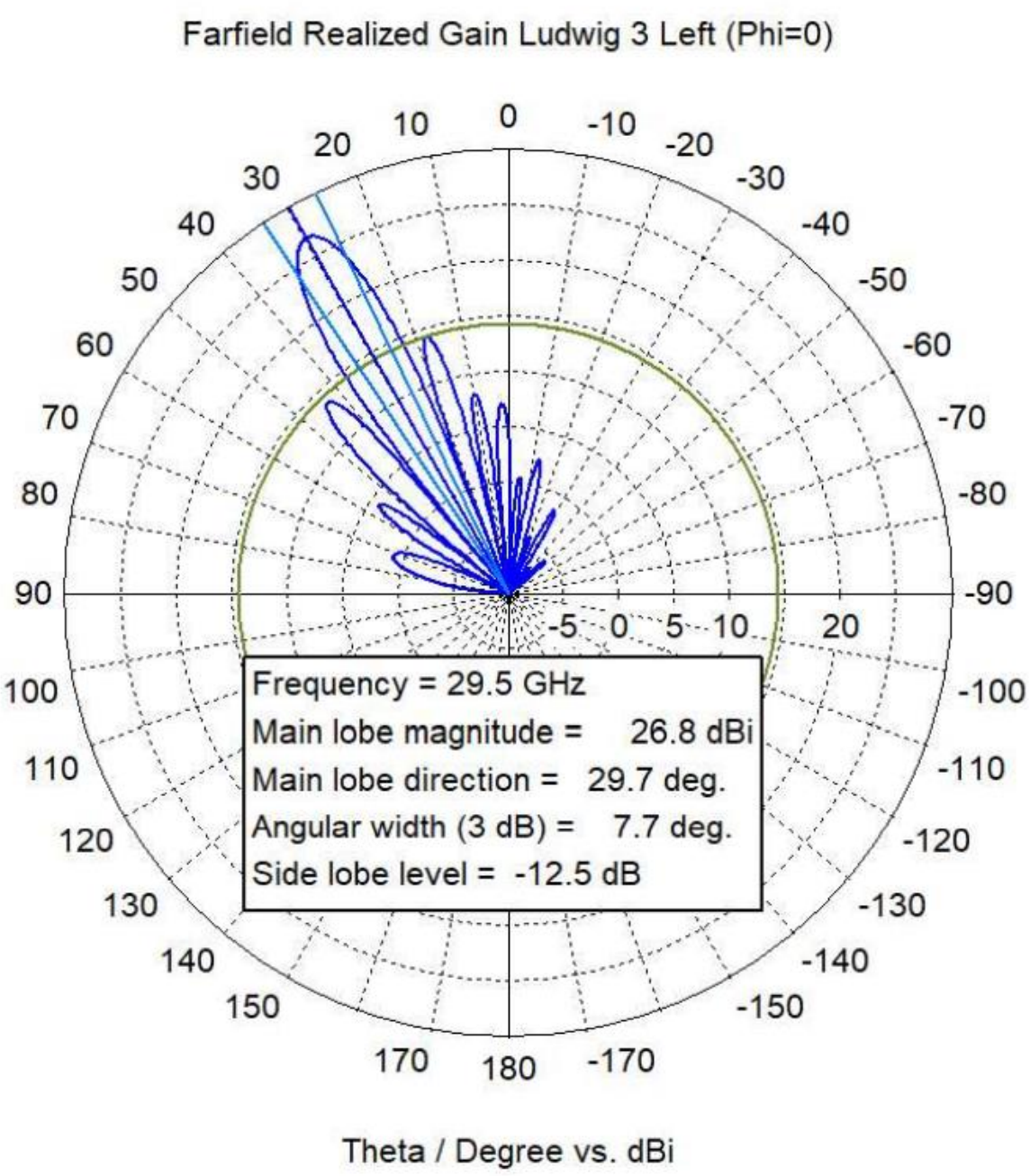


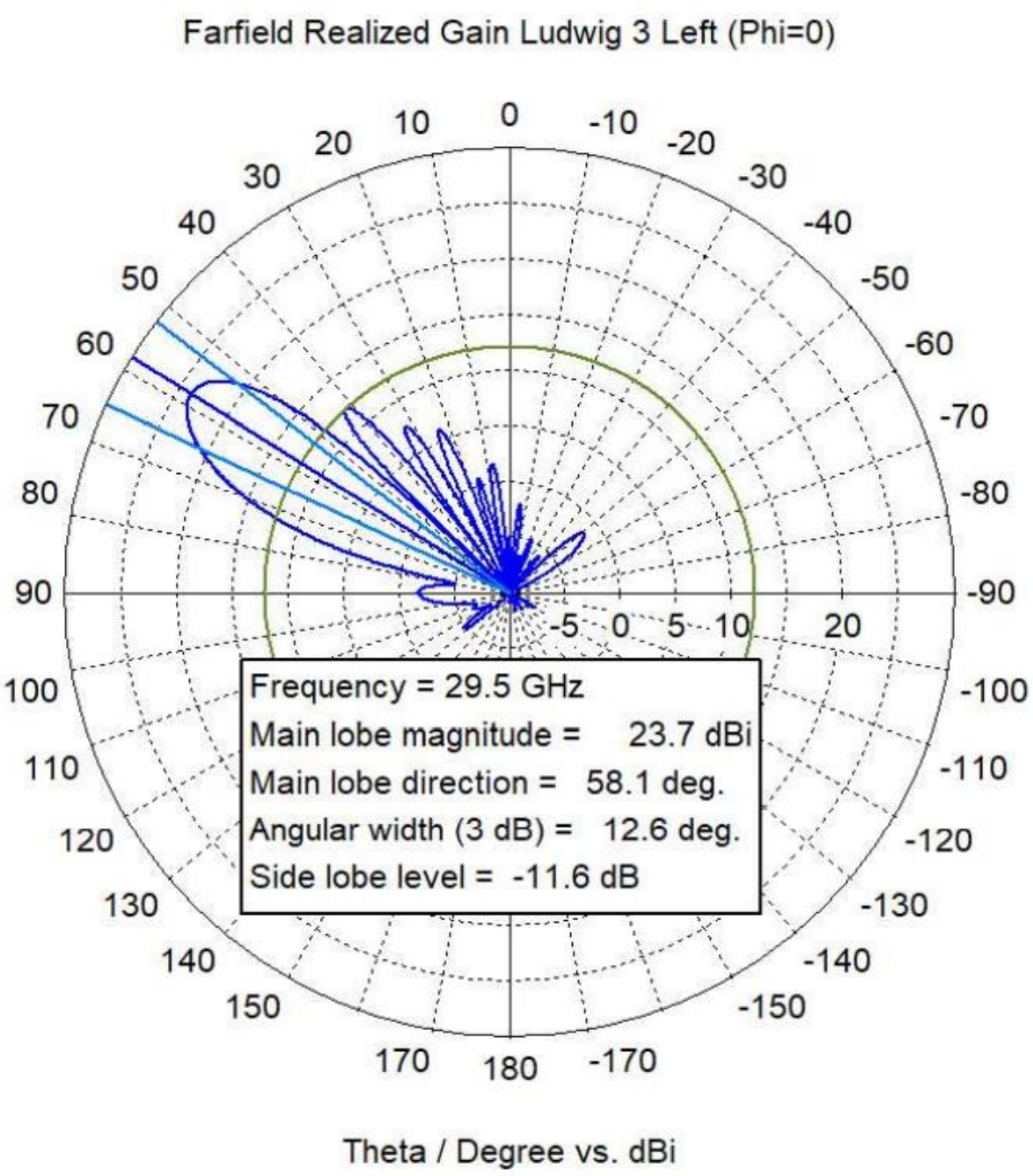






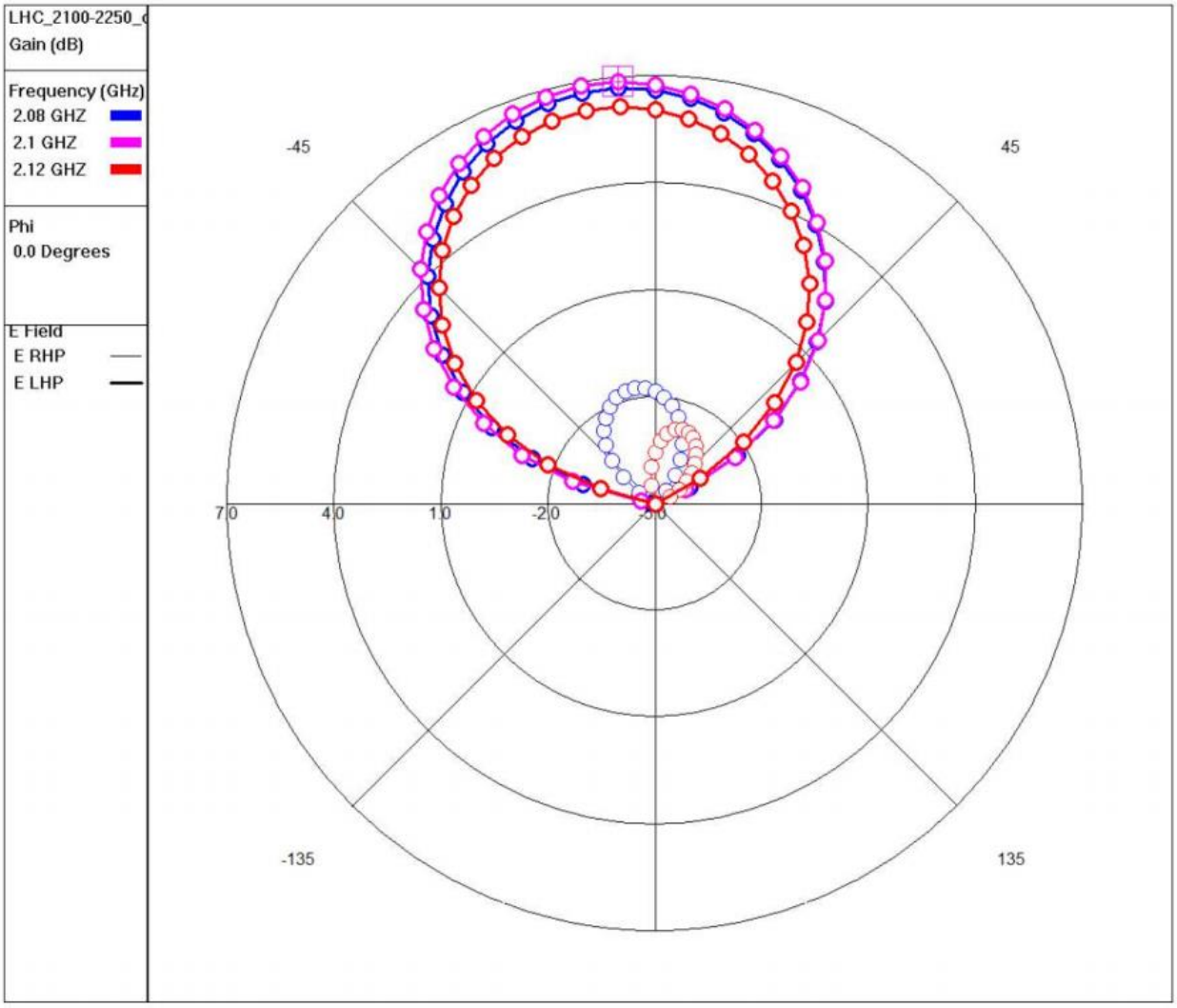




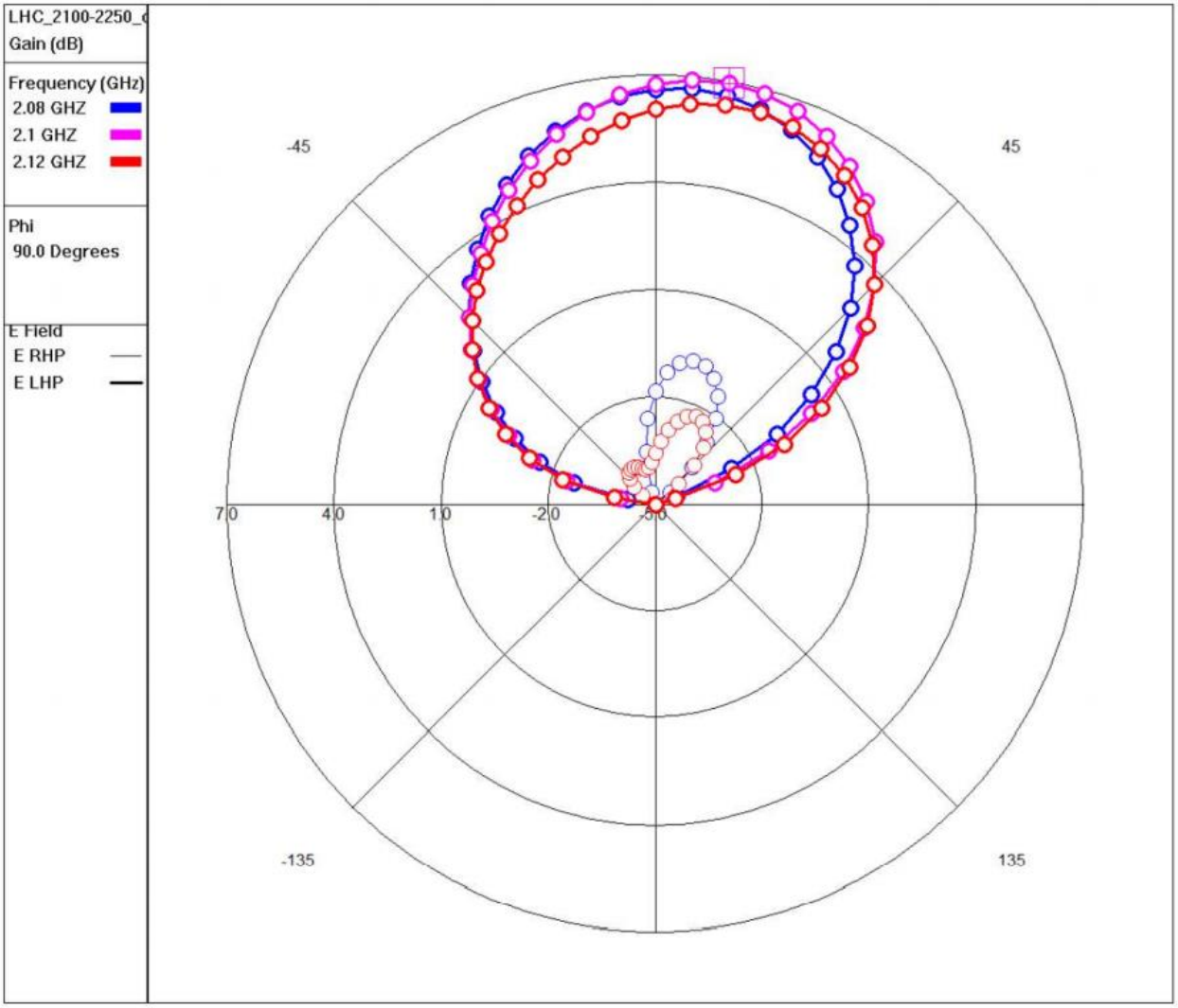


IQ Spacecom Antenna Beam Patterns

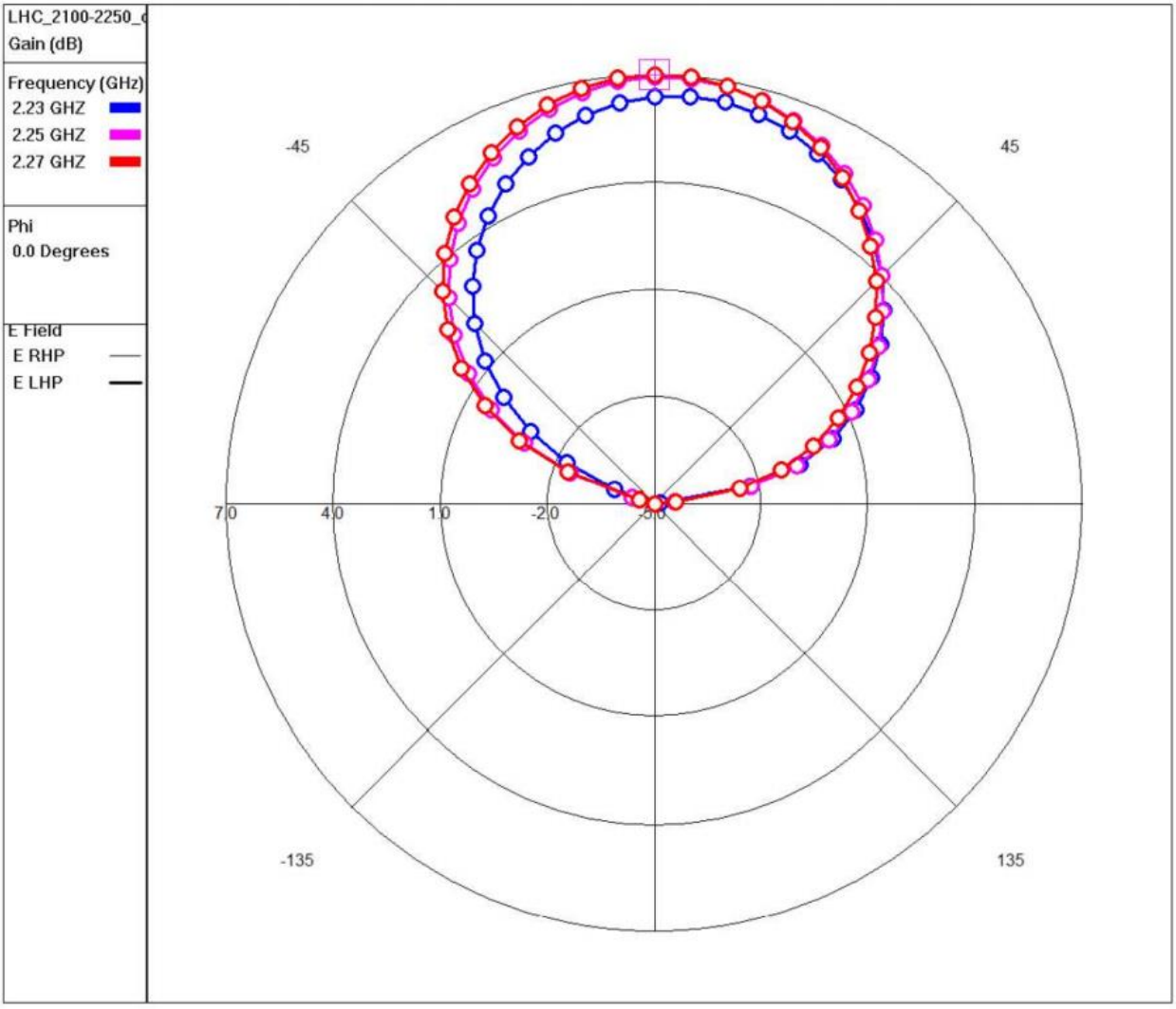
These are the antenna beam patterns for the SRS-3 IQ Spacecom, both transmit and receive



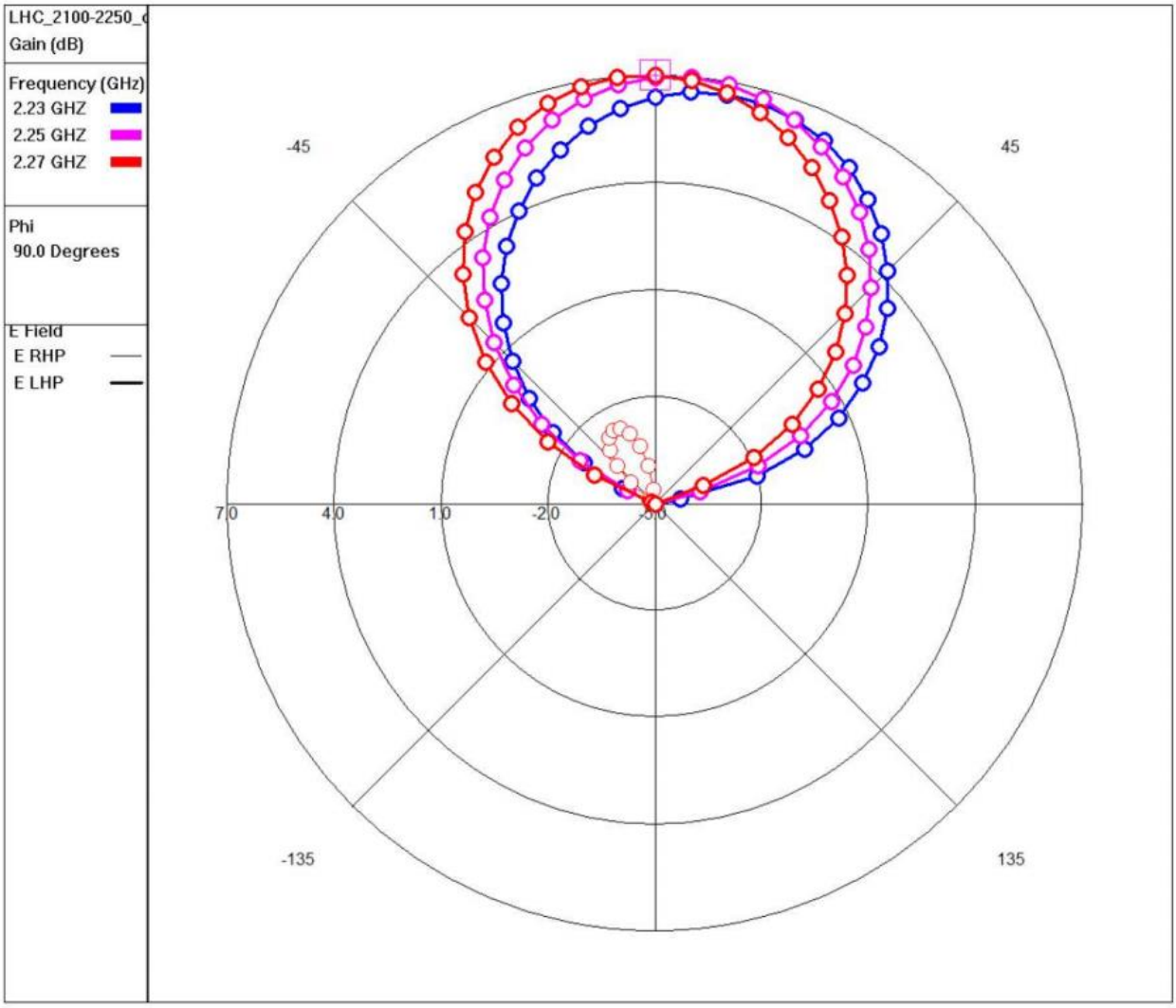
Simulation results of Rx antenna pattern 0 degrees, RHC vs. LHC (bold)



Simulation results of Rx antenna pattern, 90 degrees RHC vs. LHC (bold)



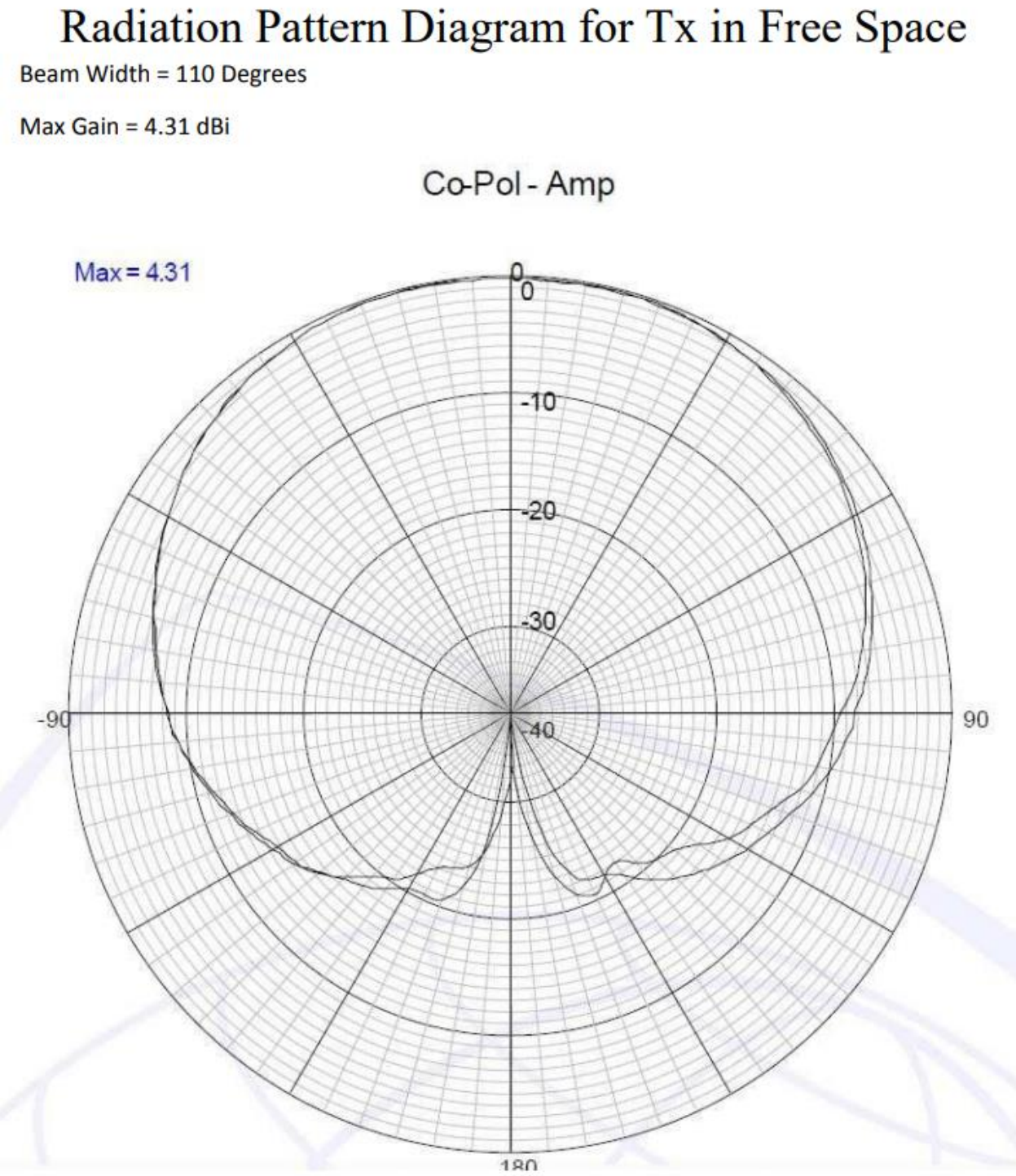
Simulation results of Tx antenna pattern, 0 degrees RHC vs. LHC (bold)



Simulation results of Tx antenna pattern, 90 degrees RHC vs. LHC (bold)

EyeStar-D2 Antenna Beam Patterns

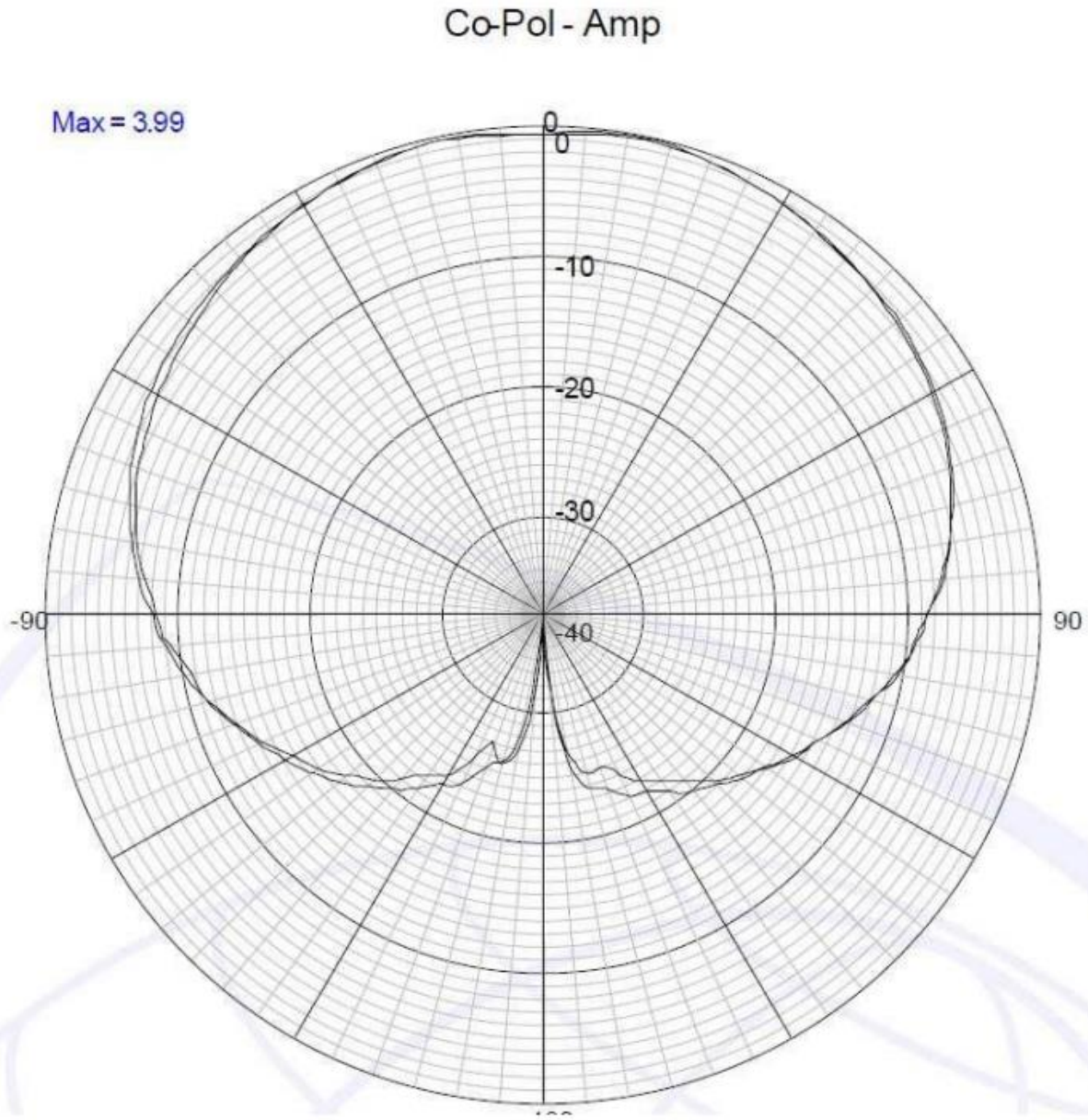
These are the antenna beam patterns for the EyeStar-D2 duplex, both transmit and receive.



Radiation Pattern Diagram for Rx in free Space

Beam Width = 110 degrees

Max Gain = 3.99 dBi

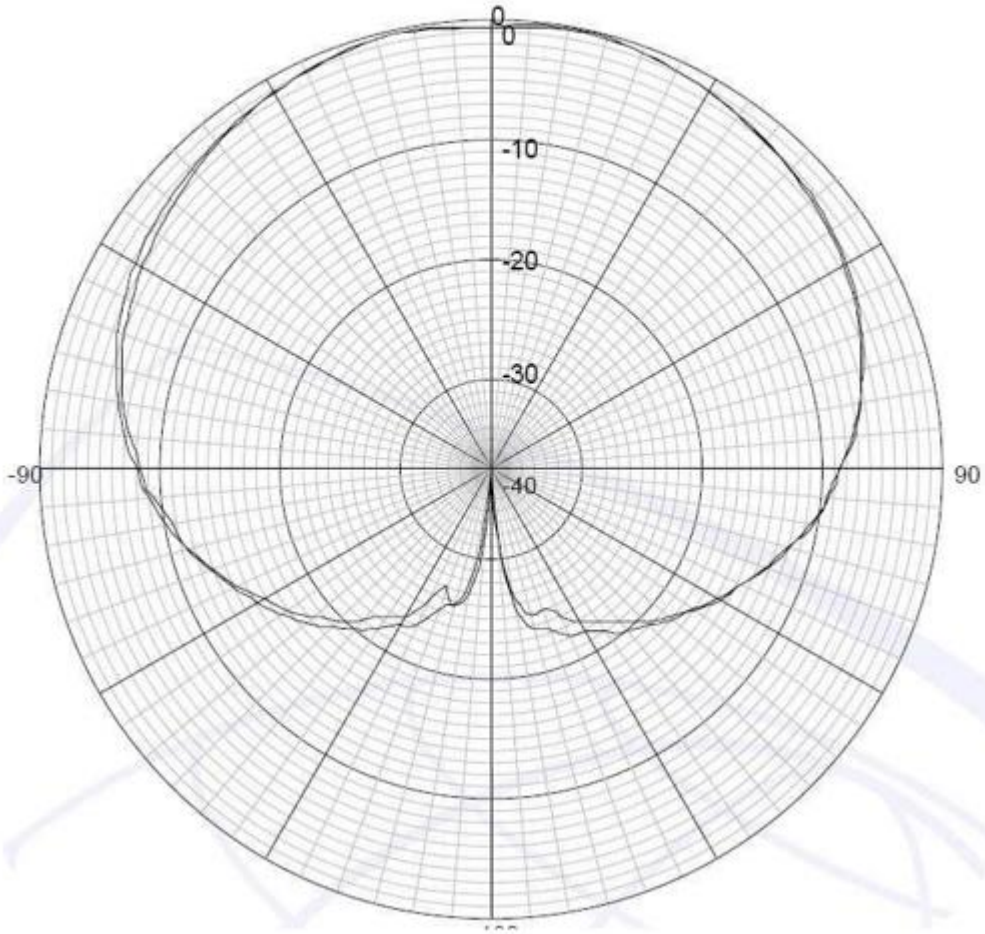


EyeStar-S3 Antenna Beam Pattern

This is the antenna beam pattern for the EyeStar-S3 simplex, transmit only.

Beam Width = 100 degrees

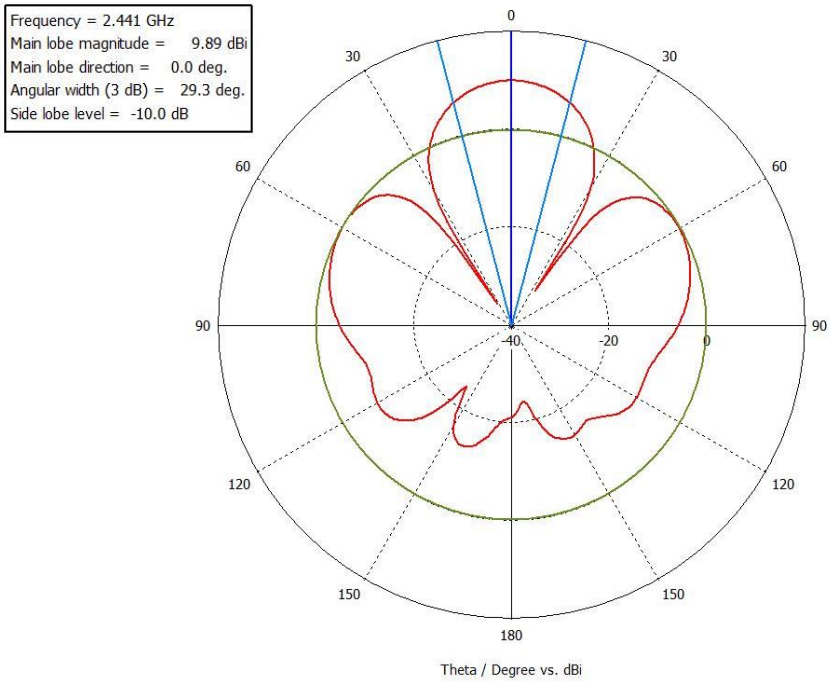
Max Gain = 4 dBi



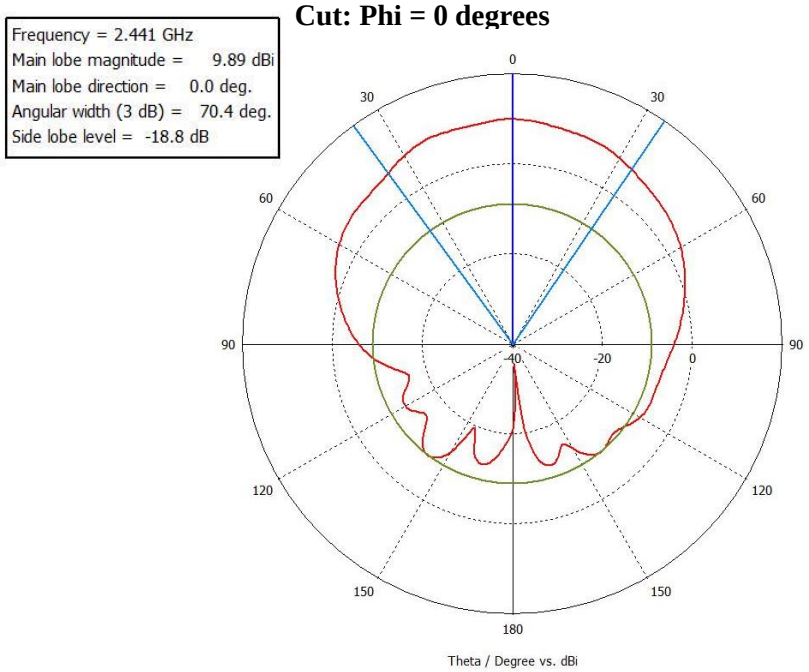
CommPack Antenna Beam Pattern

This is the antenna beam pattern for the CommPack antennas, both transmit and receive.

Cut: Phi = 90 degrees

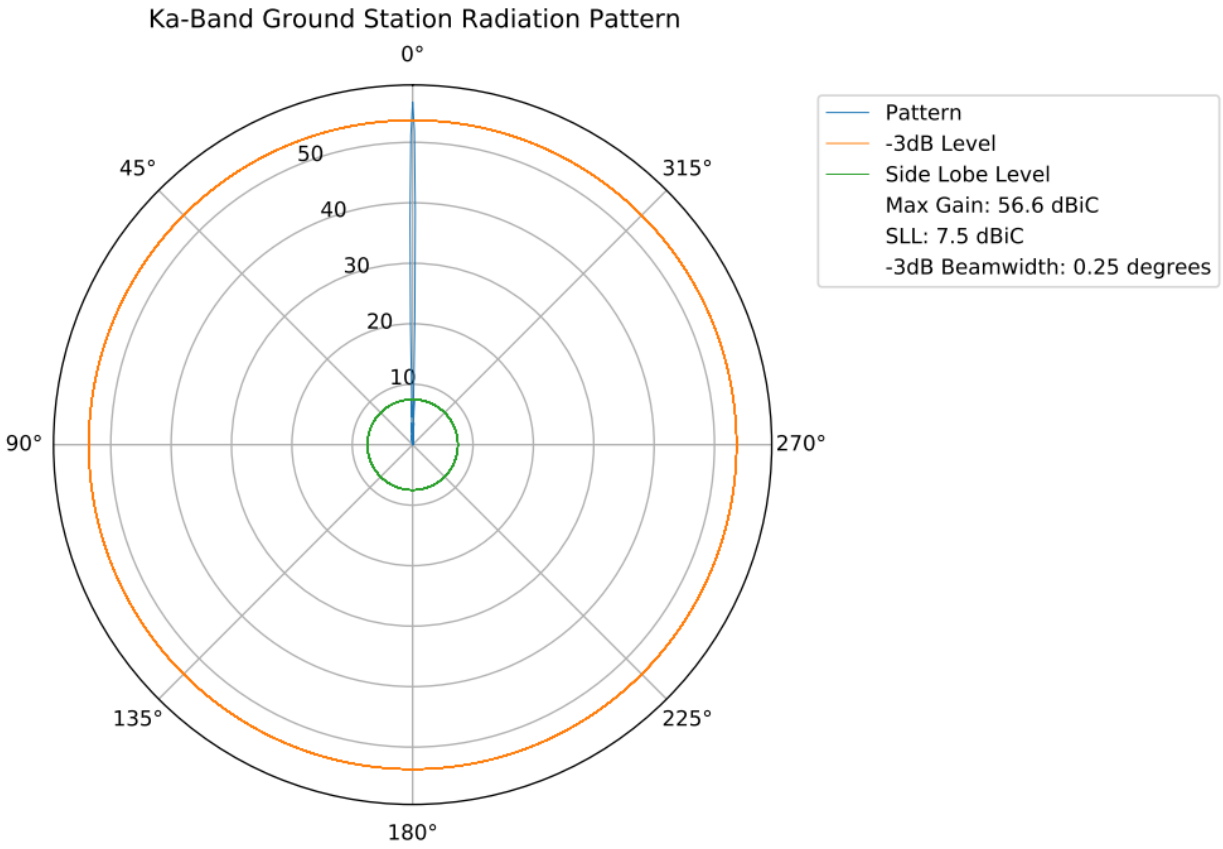


Cut: Phi = 0 degrees



Cesium Ka-Band Ground Station Antenna Beam Pattern

This is the simulated antenna beam pattern for the Cesium Ka-band ground stations, both transmit and receive.



Cesium S-Band Ground Station Antenna Beam Patterns

This is the simulated antenna beam pattern for the Cesium S-band ground stations, for both transmit and receive.