

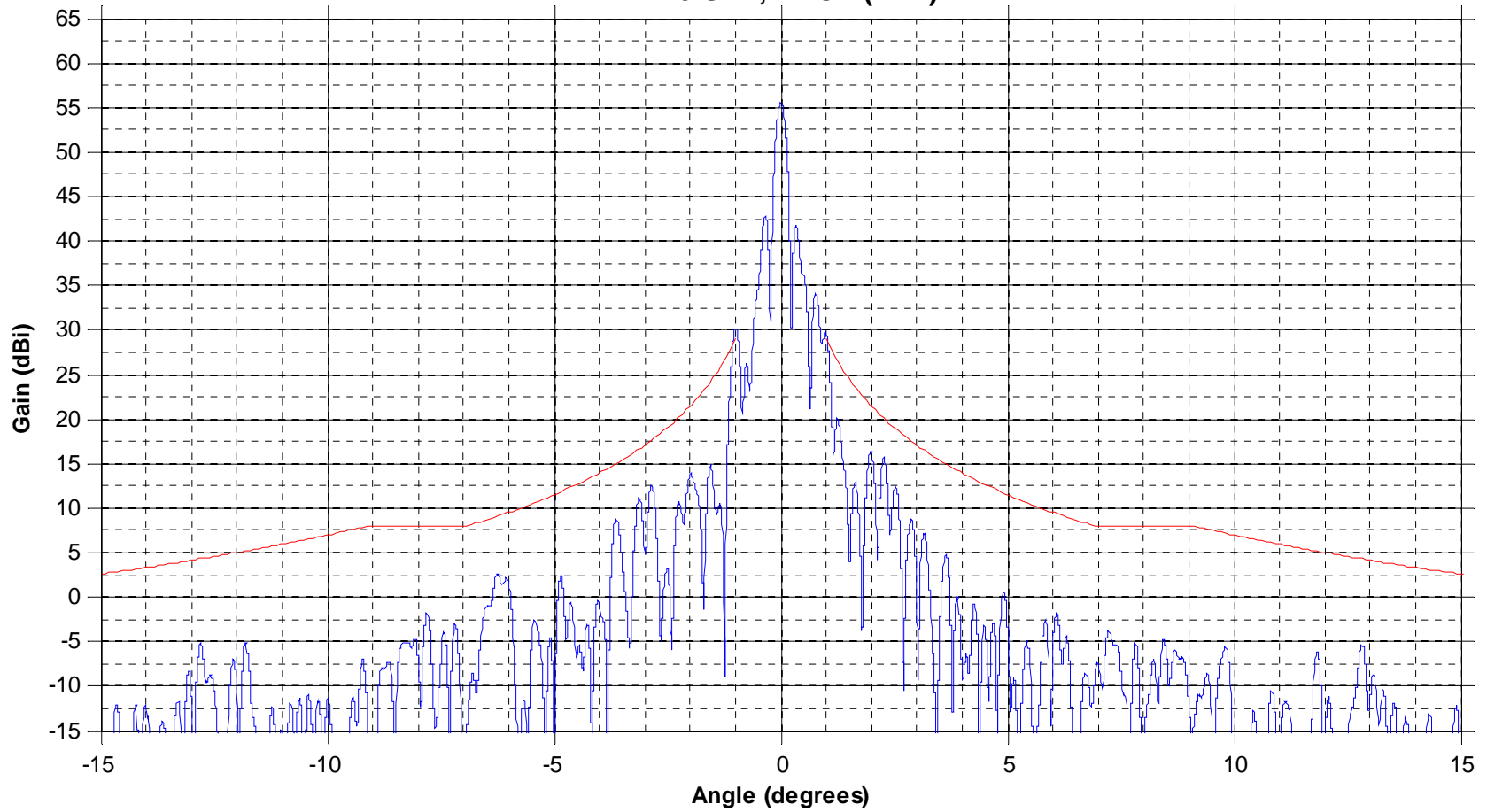
ASC Signal X/Ka-band 4.9 meter Ka-band FCC Receive and Transmit Patterns

Patrick T. Reilly
Harris Corp.
Antenna Engineering
321-727-6383
6/16/2014

Plot 13a

Reflector: 4.9m
FCC 25.209
Gain: 55.45 dBi
3dB Beamwidth: 0.21°

**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Azimuth Radiation Pattern, ±15°
17.70 GHz, RHCP (RX2)**



Plot 13b

Reflector: 4.9m

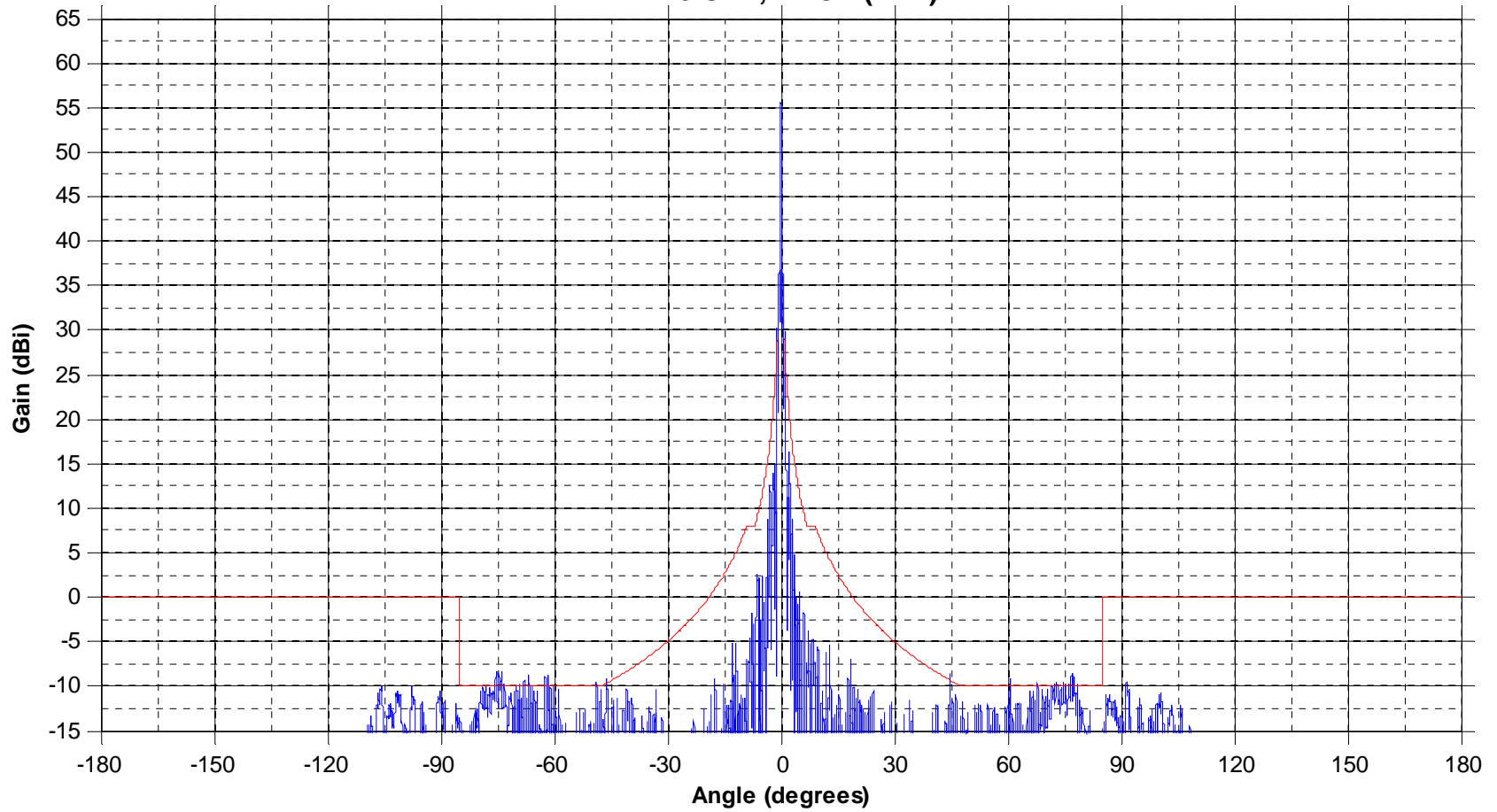
FCC 25.209

Gain: 55.45 dBi

3dB Beamwidth: 0.21°

Excursions: 1.0%

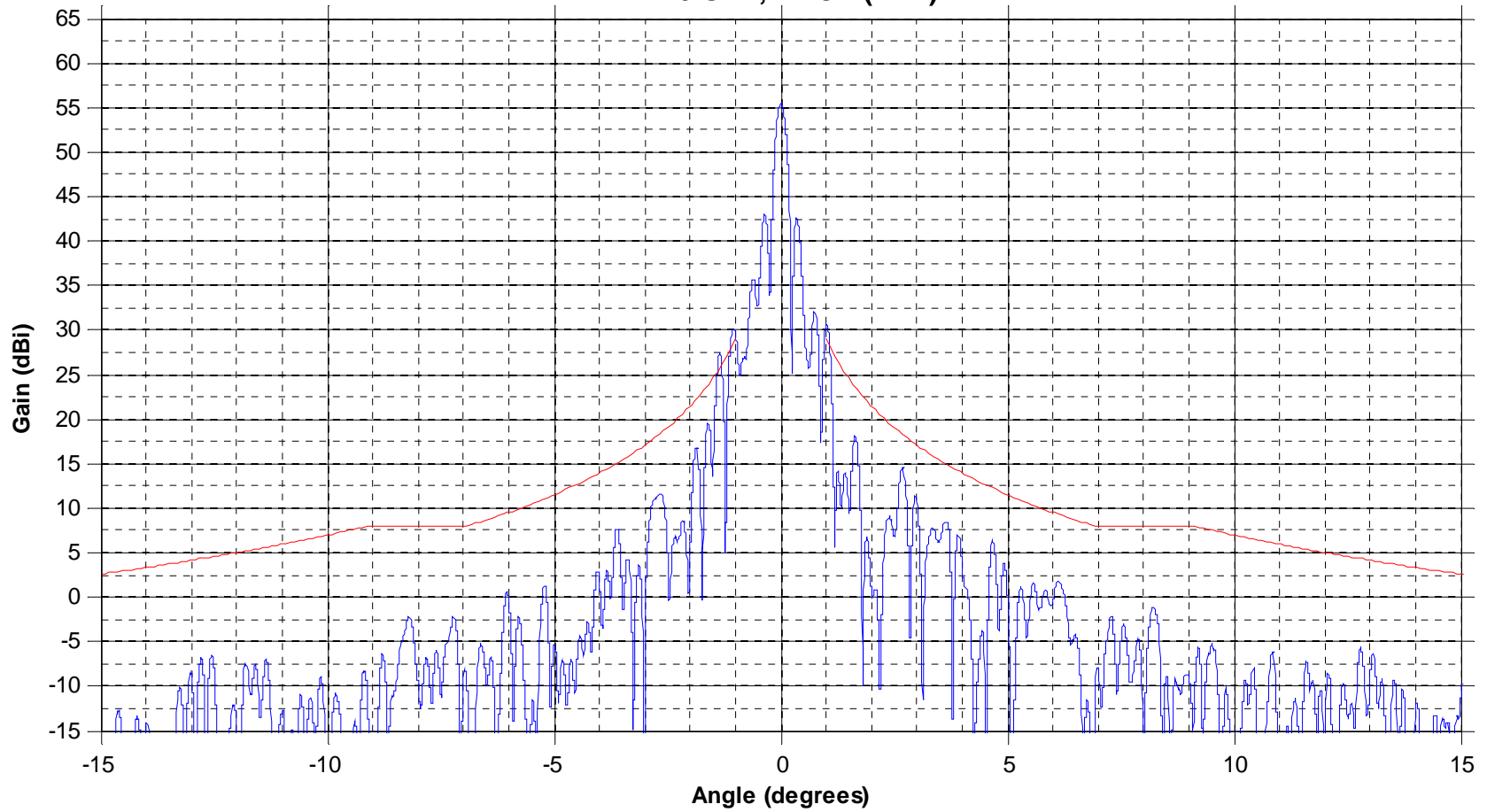
**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Azimuth Radiation Pattern, ±180°
17.70 GHz, RHCP (RX2)**



Plot 14a

Reflector: 4.9m
FCC 25.209
Gain: 55.45 dBi
3dB Beamwidth: 0.21°

**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Elevation Radiation Pattern, ±15°
17.70 GHz, RHCP (RX2)**



Plot 14b

Reflector: 4.9m

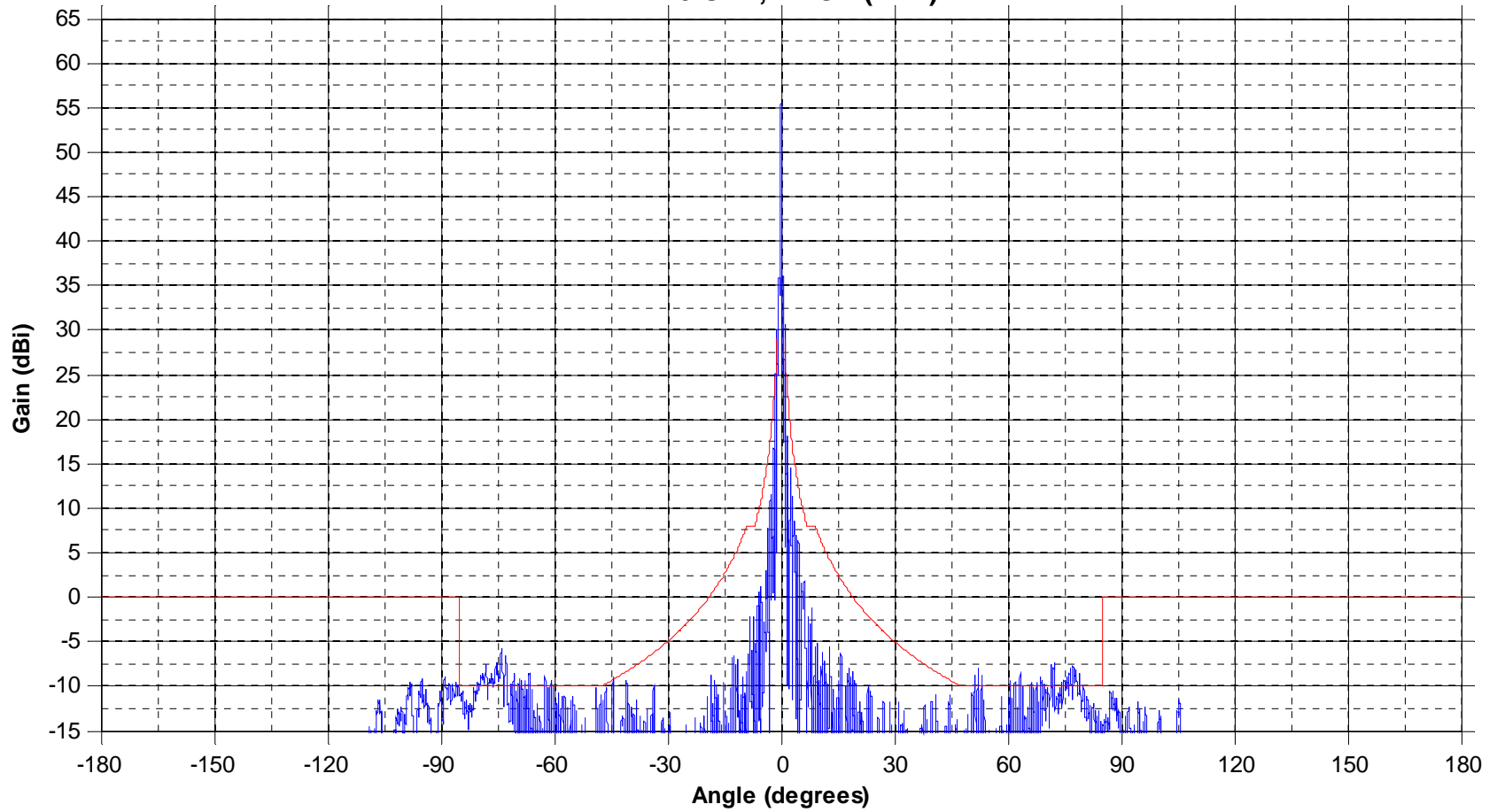
FCC 25.209

Gain: 55.45 dBi

3dB Beamwidth: 0.21°

Excursions: 3.8%

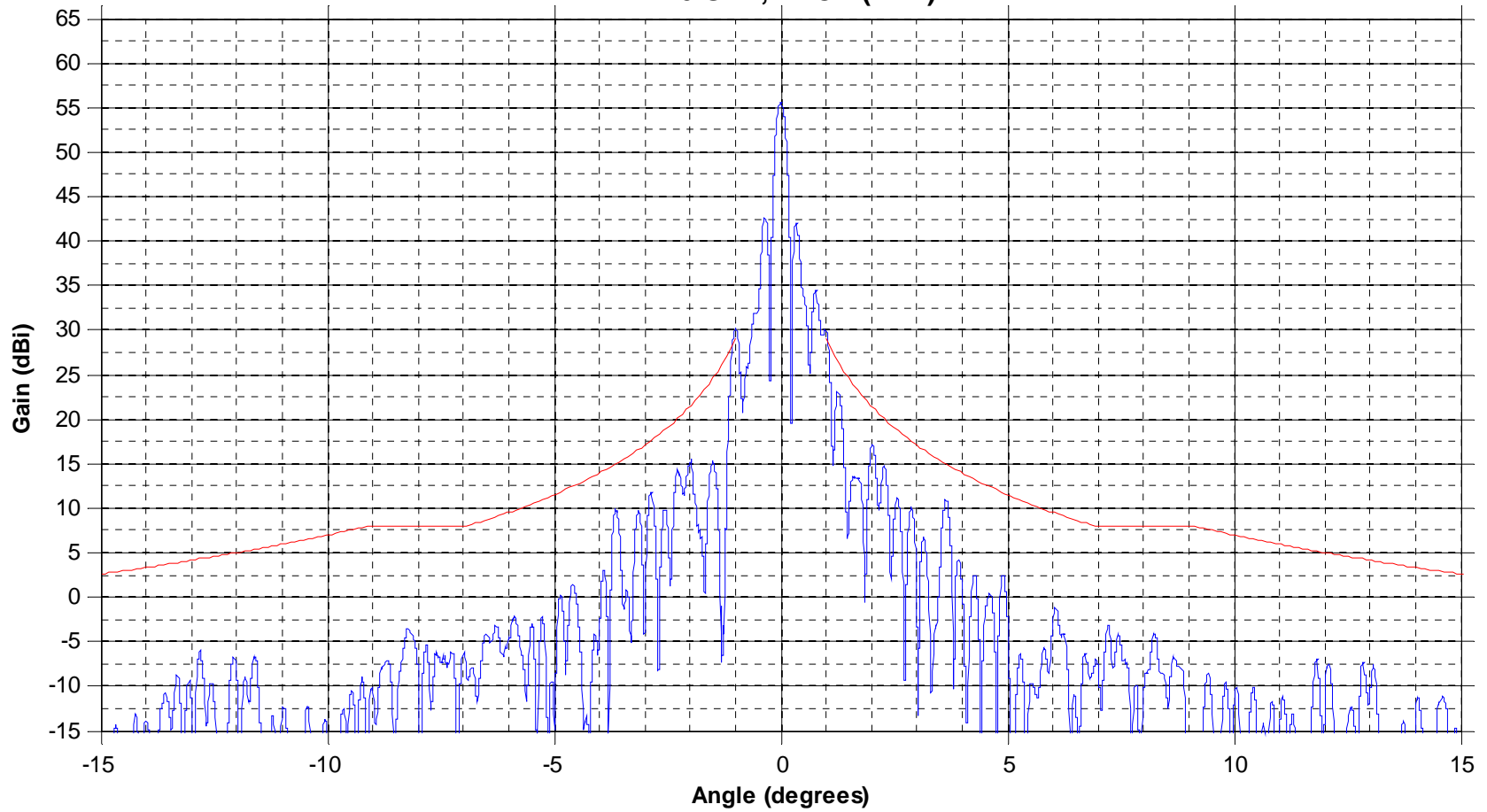
**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Elevation Radiation Pattern, ±180°
17.70 GHz, RHCP (RX2)**



Plot 15a

Reflector: 4.9m
FCC 25.209
Gain: 55.45 dBi
3dB Beamwidth: 0.20°

**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Azimuth Radiation Pattern, ±15°
17.70 GHz, LHCP (RX1)**



Plot 15b

Reflector: 4.9m

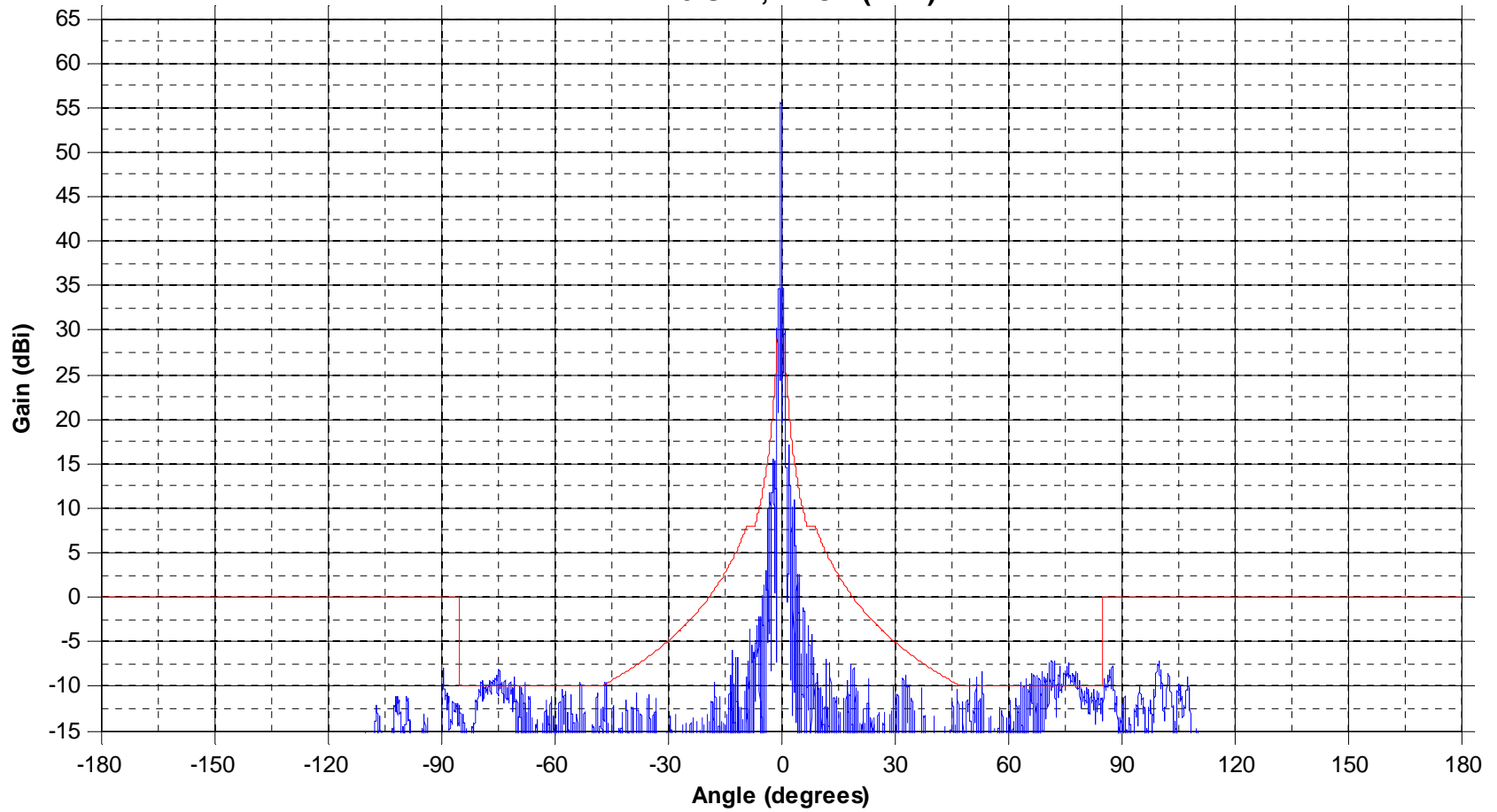
FCC 25.209

Gain: 55.45 dBi

3dB Beamwidth: 0.20°

Excursions: 3.5%

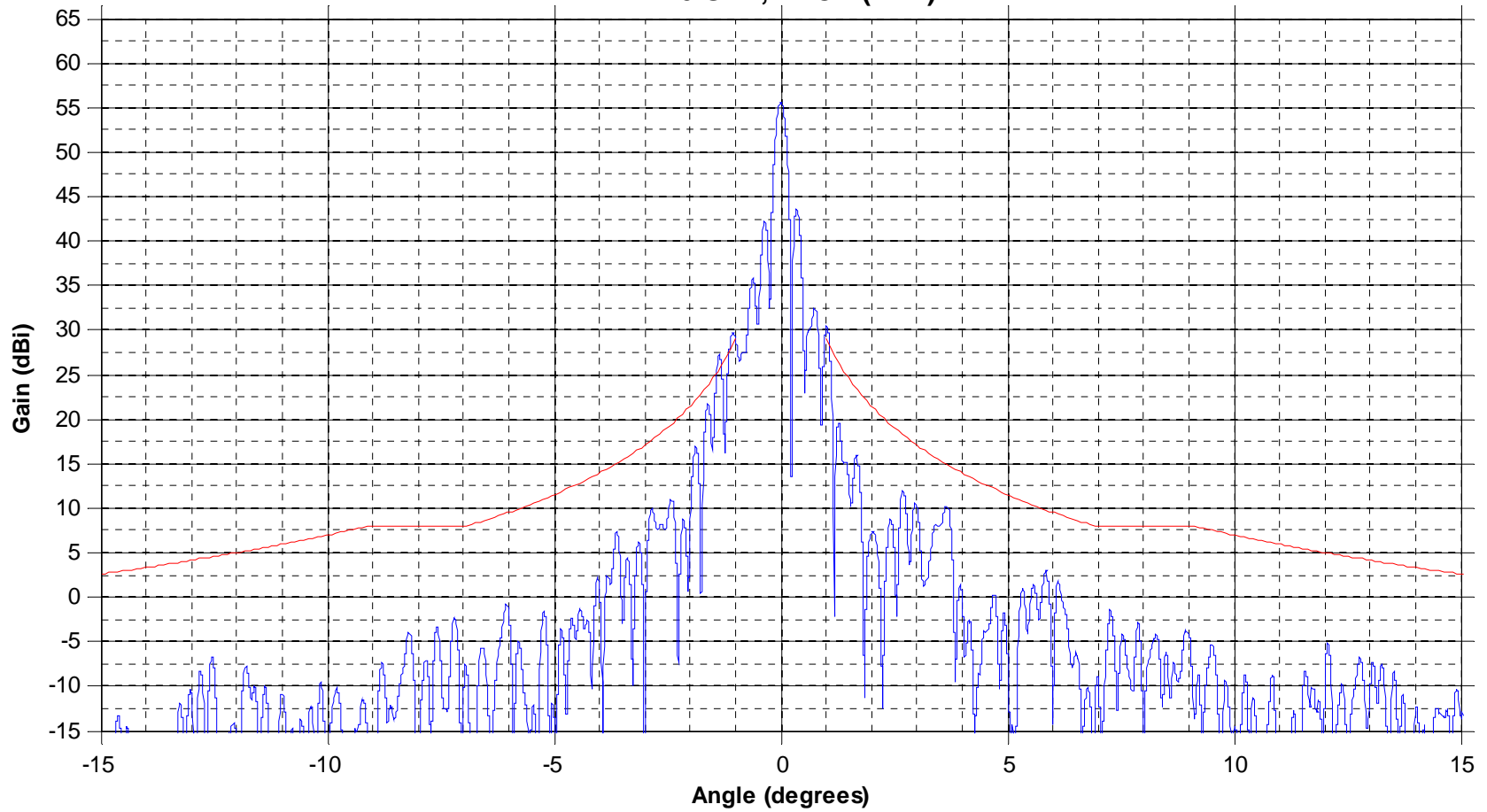
**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Azimuth Radiation Pattern, ±180°
17.70 GHz, LHCP (RX1)**



Plot 16a

Reflector: 4.9m
FCC 25.209
Gain: 55.45 dBi
3dB Beamwidth: 0.21°

**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Elevation Radiation Pattern, ±15°
17.70 GHz, LHCP (RX1)**



Plot 16b

Reflector: 4.9m

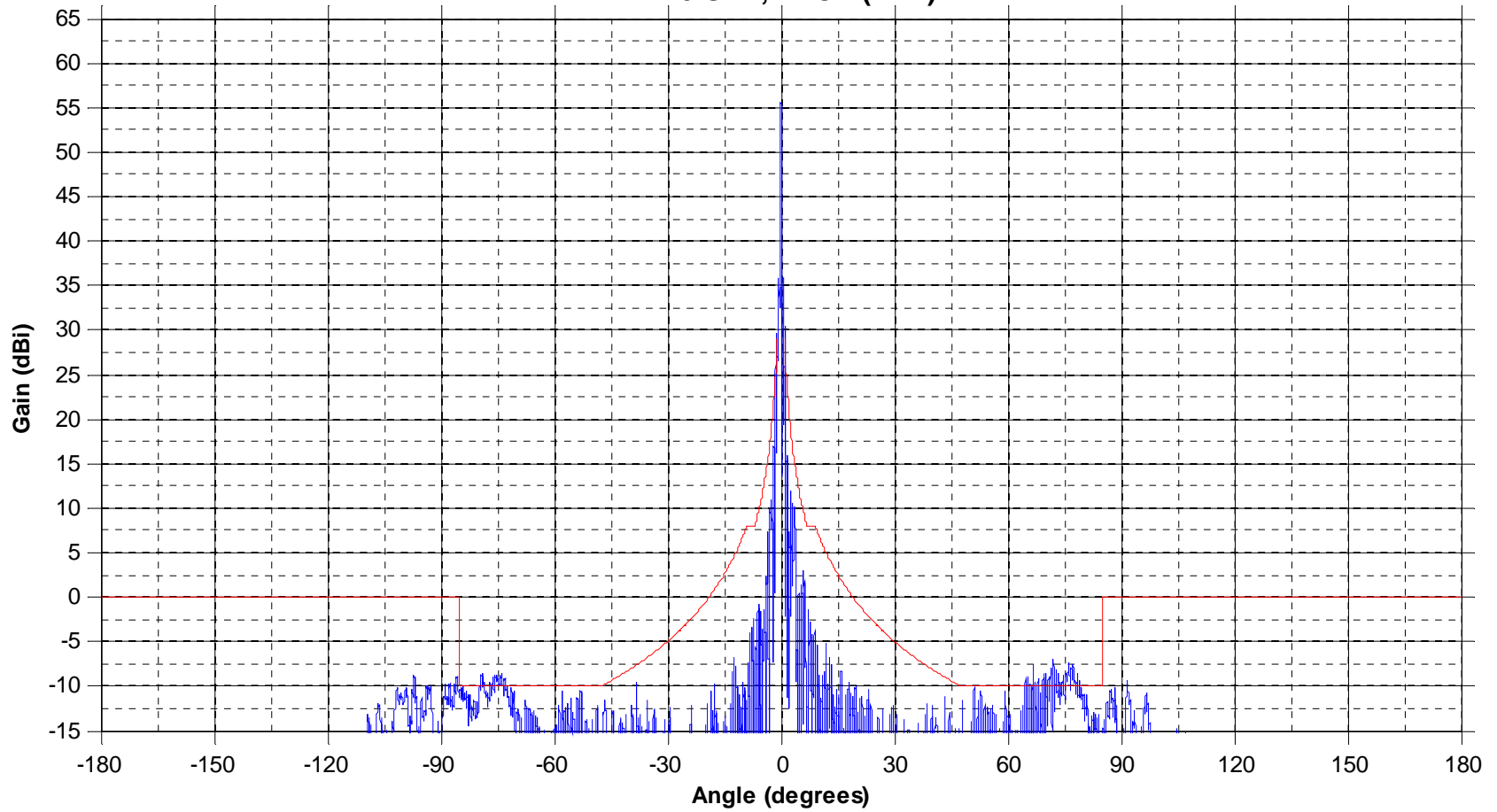
FCC 25.209

Gain: 55.45 dBi

3dB Beamwidth: 0.21°

Excursions: 3.1%

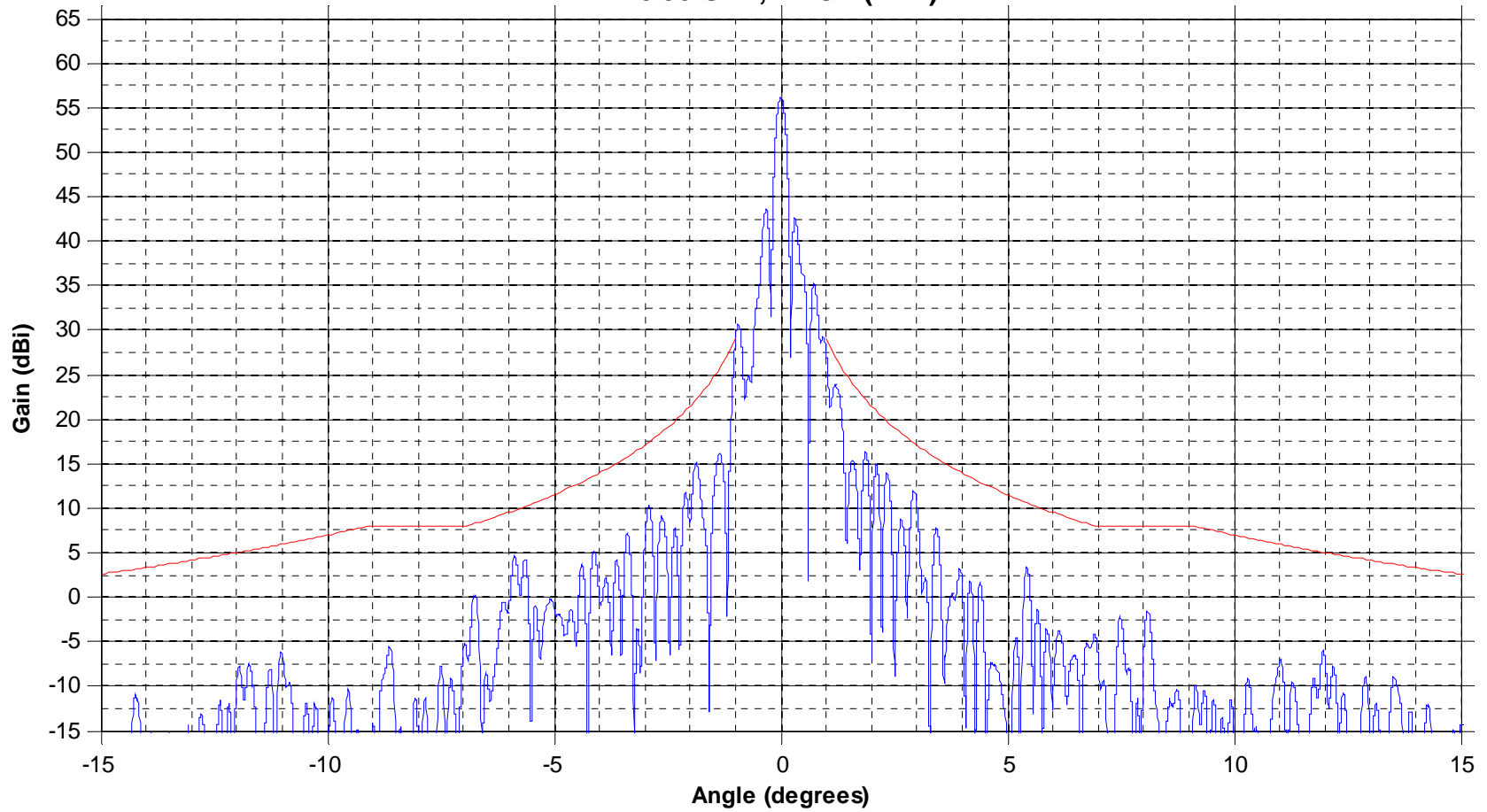
**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Elevation Radiation Pattern, ±180°
17.70 GHz, LHCP (RX1)**



Plot 17a

Reflector: 4.9m
FCC 25.209
Gain: 56.14 dBi
3dB Beamwidth: 0.19°

**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Azimuth Radiation Pattern, ±15°
18.95 GHz, RHCP (RX2)**



Plot 17b

Reflector: 4.9m

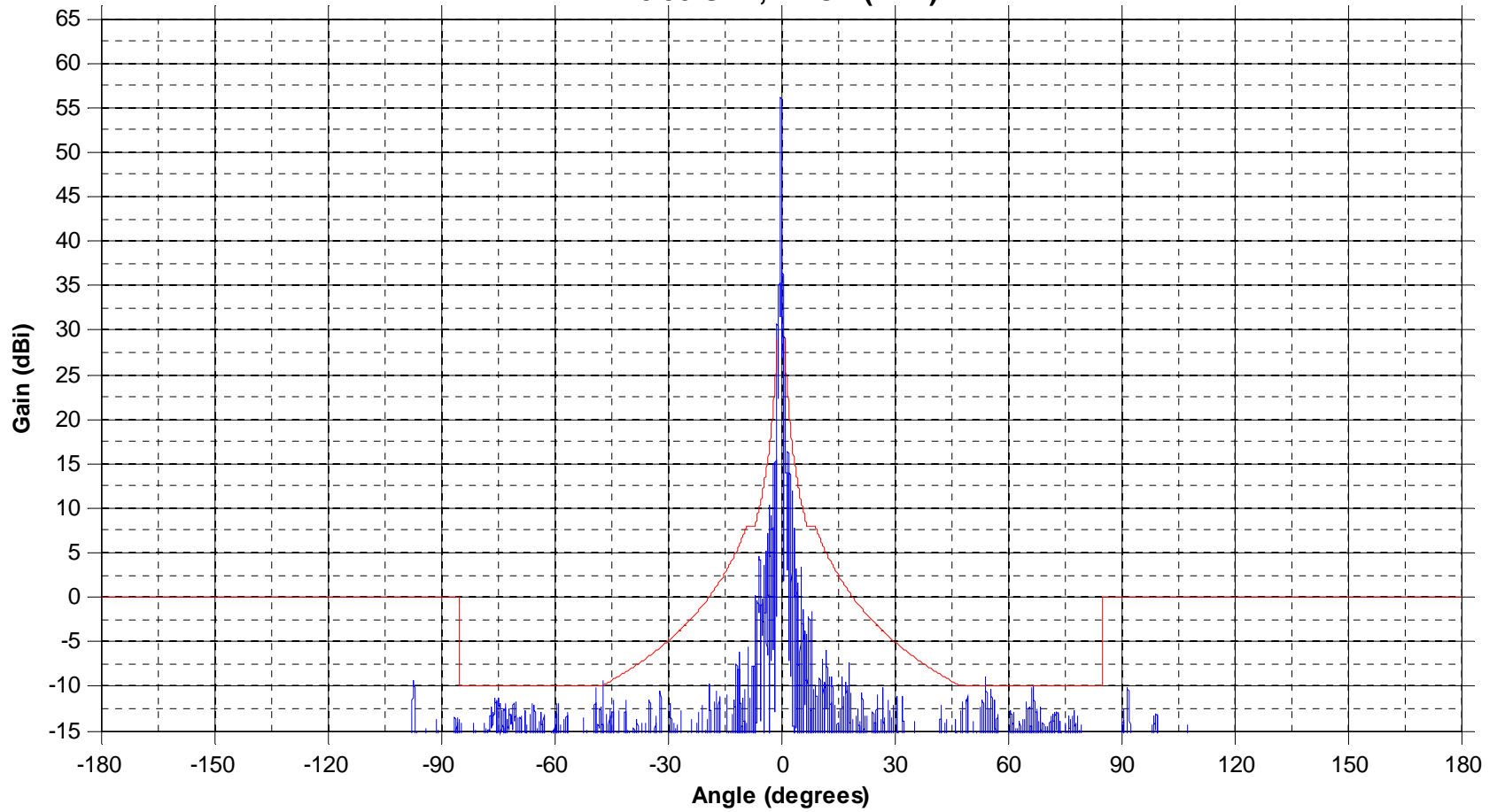
FCC 25.209

Gain: 56.14 dBi

3dB Beamwidth: 0.19°

Excursions: 0.1%

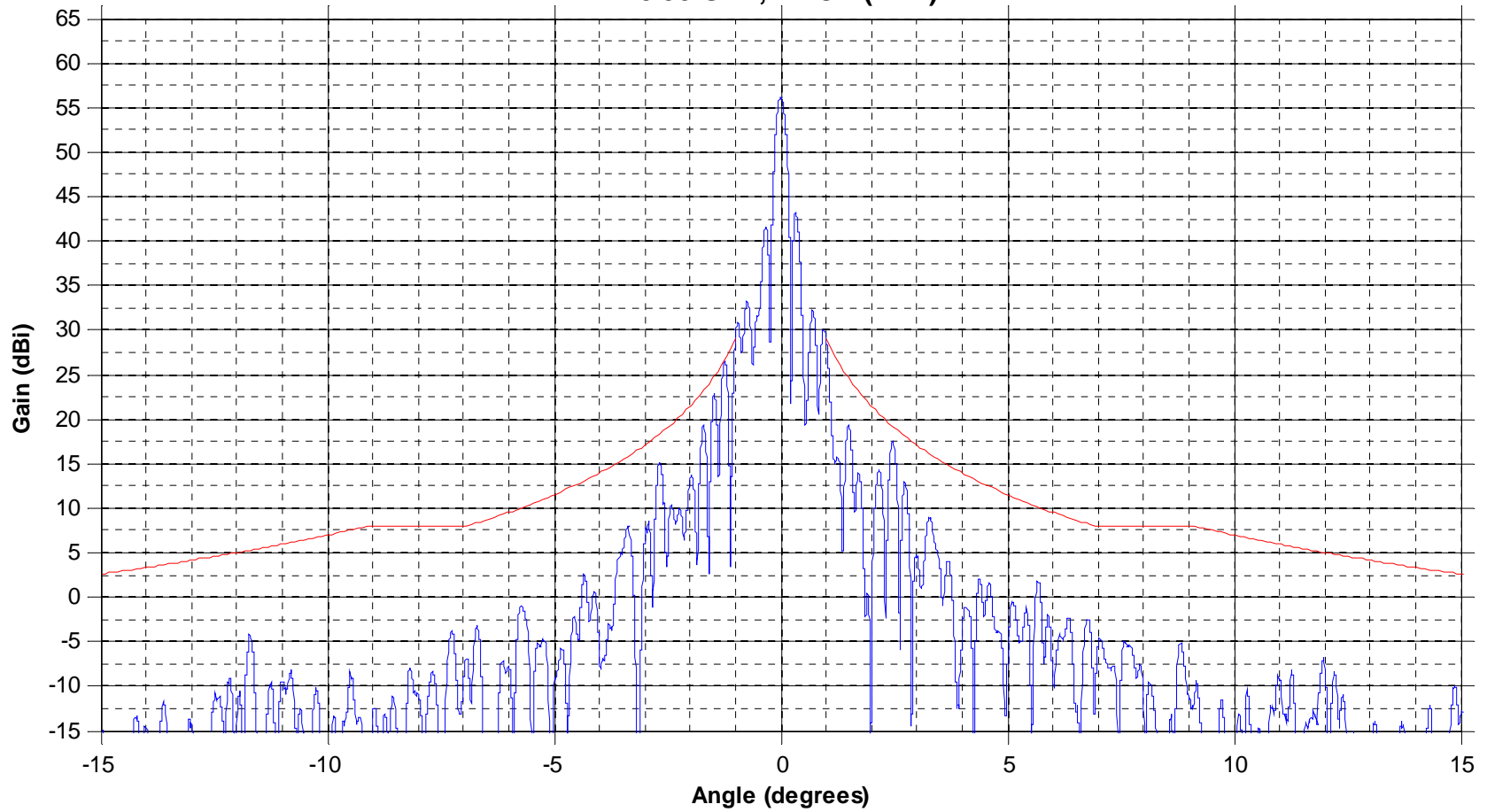
**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Azimuth Radiation Pattern, ±180°
18.95 GHz, RHCP (RX2)**



Plot 18a

Reflector: 4.9m
FCC 25.209
Gain: 56.14 dBi
3dB Beamwidth: 0.20°

**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Elevation Radiation Pattern, ±15°
18.95 GHz, RHCP (RX2)**



Plot 18b

Reflector: 4.9m

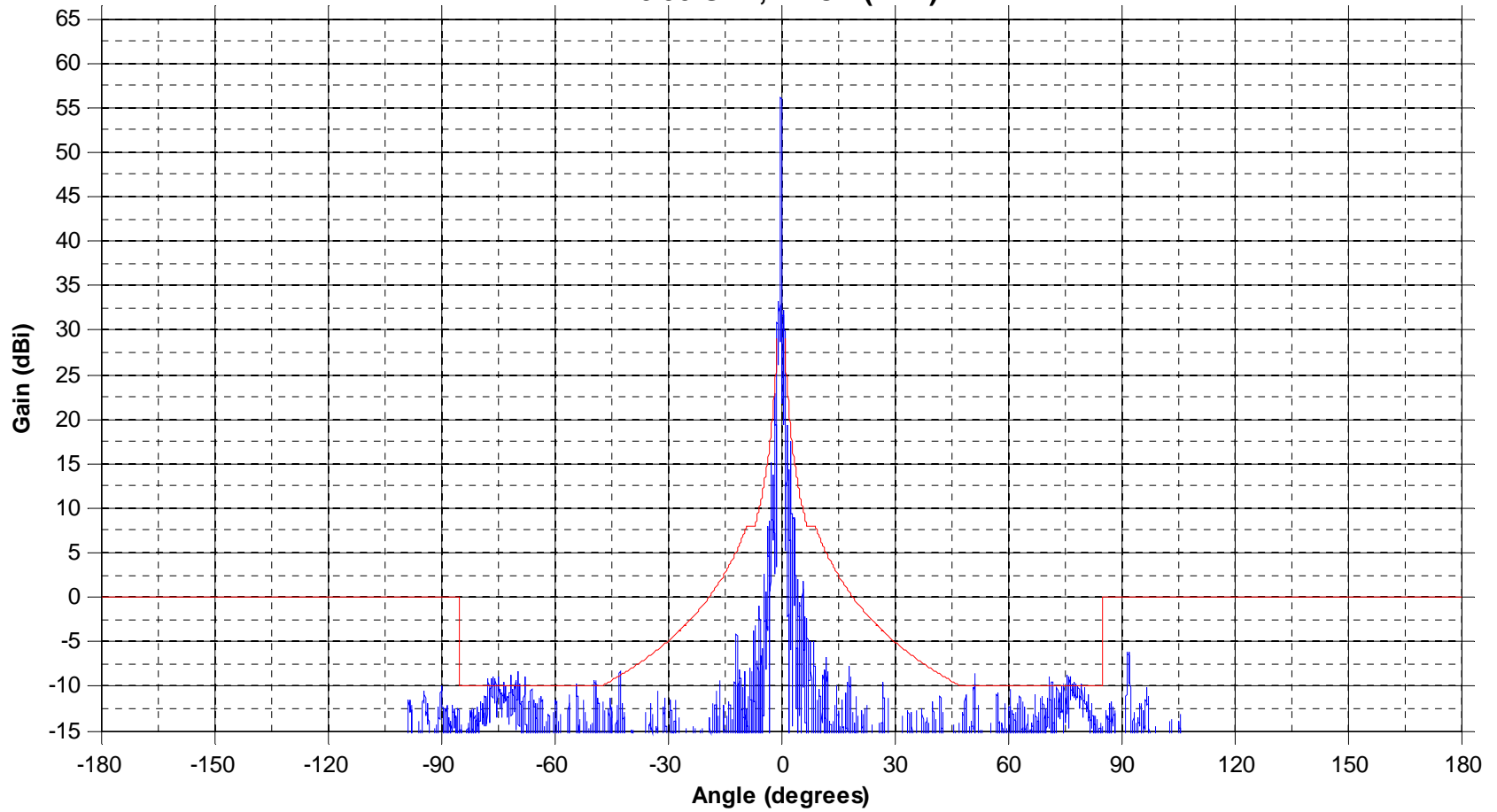
FCC 25.209

Gain: 56.14 dBi

3dB Beamwidth: 0.20°

Excursions: 1.1%

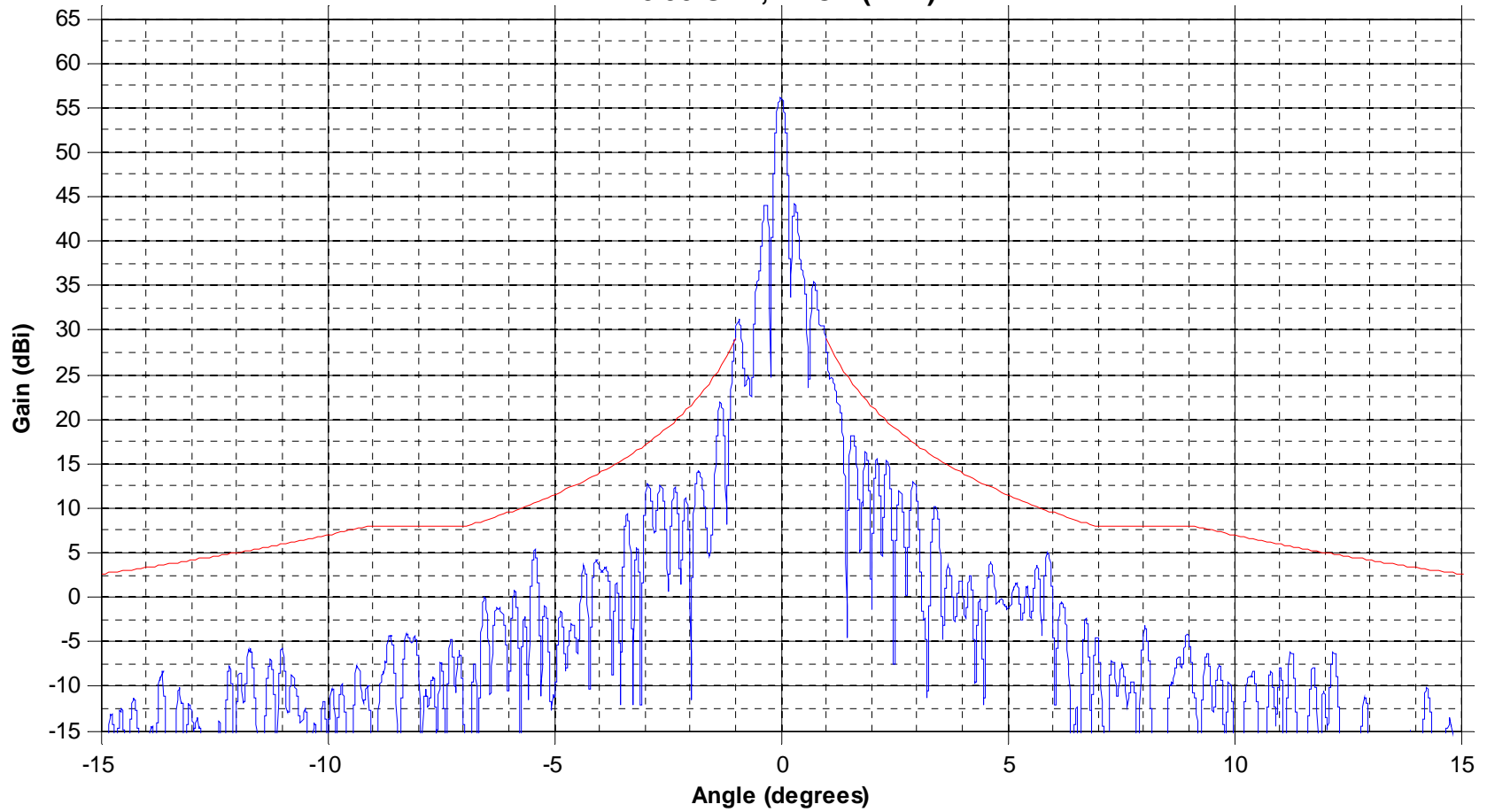
**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Elevation Radiation Pattern, $\pm 180^\circ$
18.95 GHz, RHCP (RX2)**



Plot 19a

Reflector: 4.9m
FCC 25.209
Gain: 56.14 dBi
3dB Beamwidth: 0.20°

**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Azimuth Radiation Pattern, ±15°
18.95 GHz, LHCP (RX1)**



Plot 19b

Reflector: 4.9m

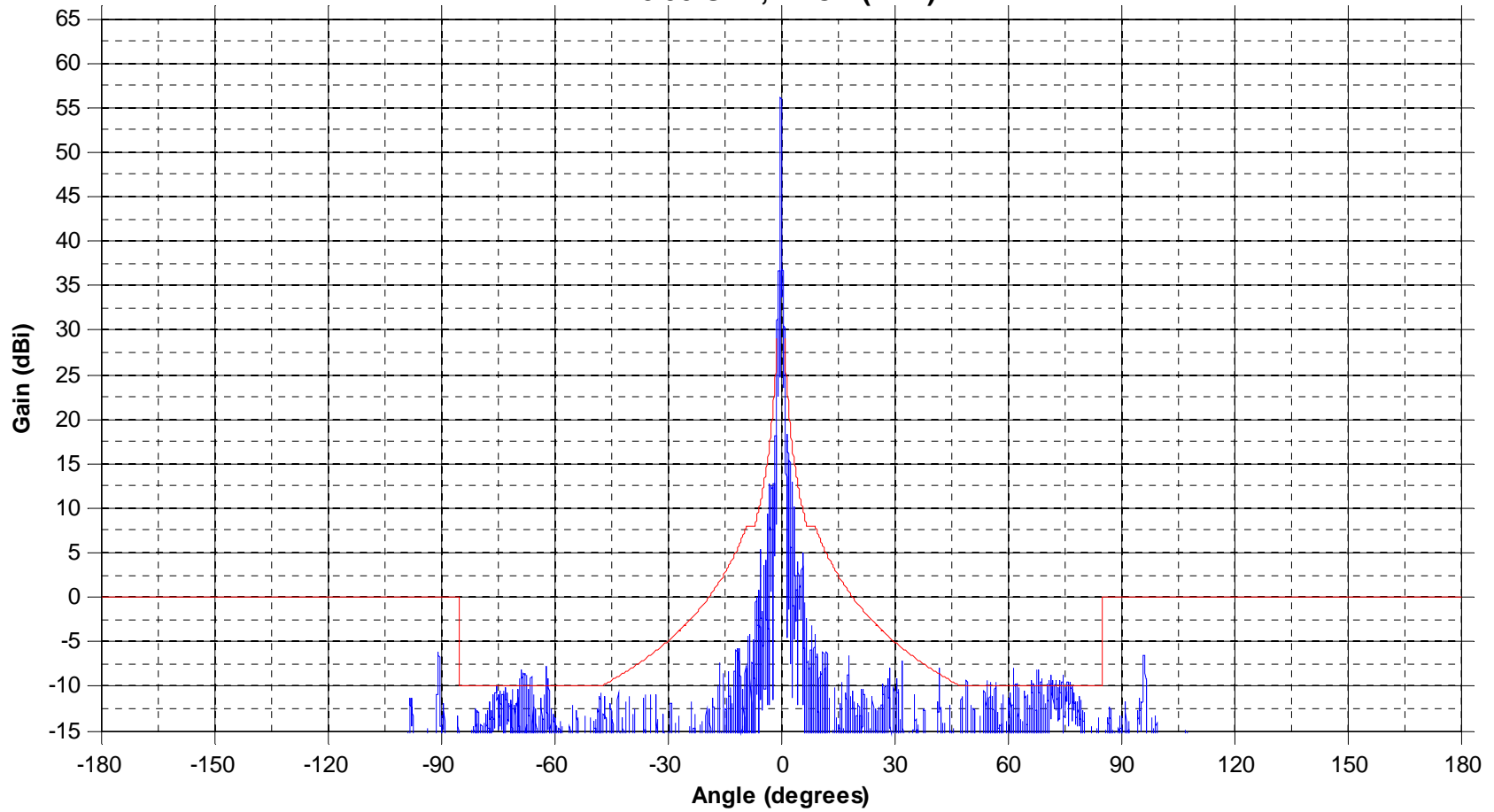
FCC 25.209

Gain: 56.14 dBi

3dB Beamwidth: 0.20°

Excursions: 1.0%

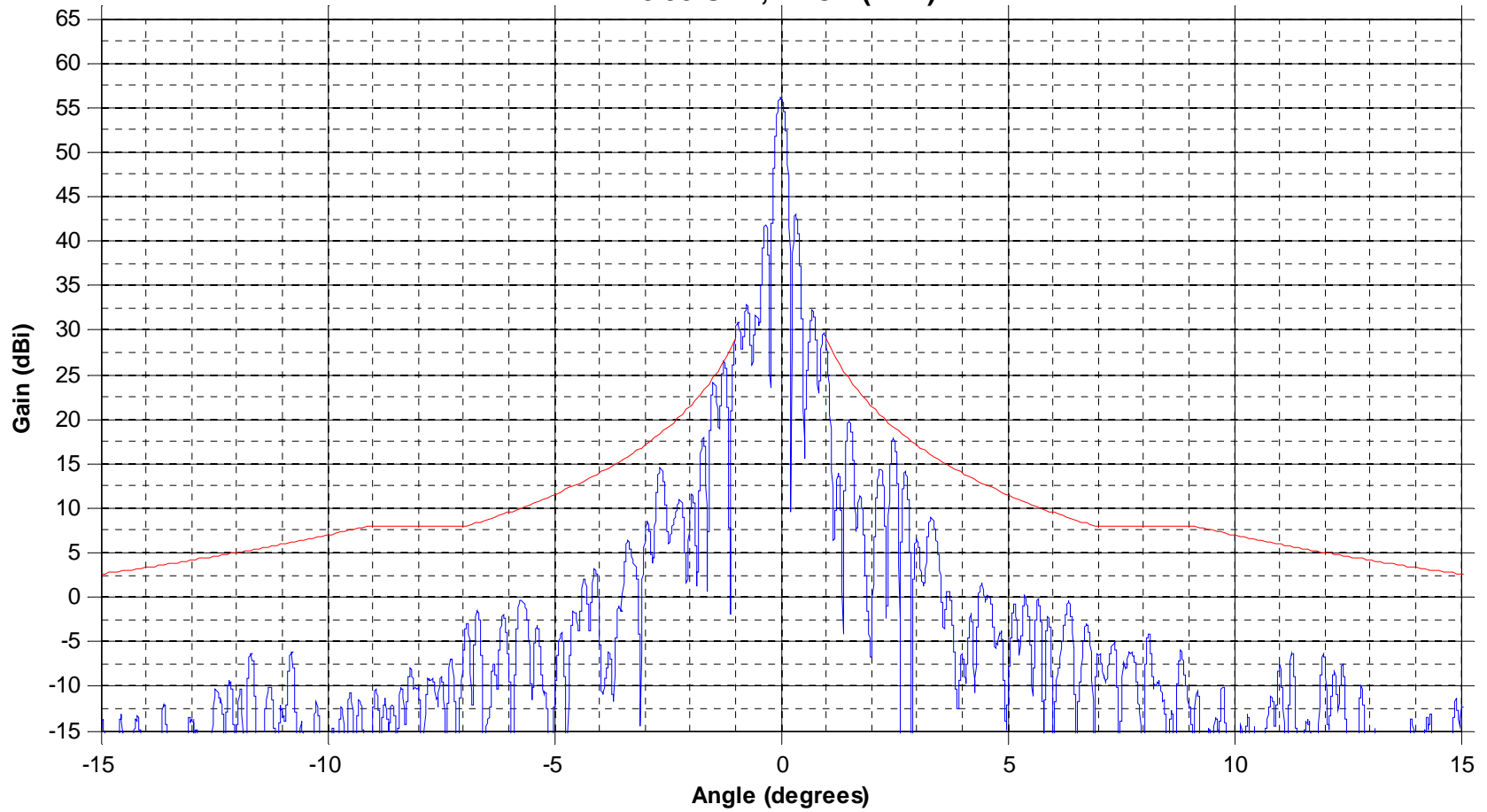
**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Azimuth Radiation Pattern, ±180°
18.95 GHz, LHCP (RX1)**



Plot 20a

Reflector: 4.9m
FCC 25.209
Gain: 56.14 dBi
3dB Beamwidth: 0.20°

**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Elevation Radiation Pattern, ±15°
18.95 GHz, LHCP (RX1)**



Plot 20b

Reflector: 4.9m

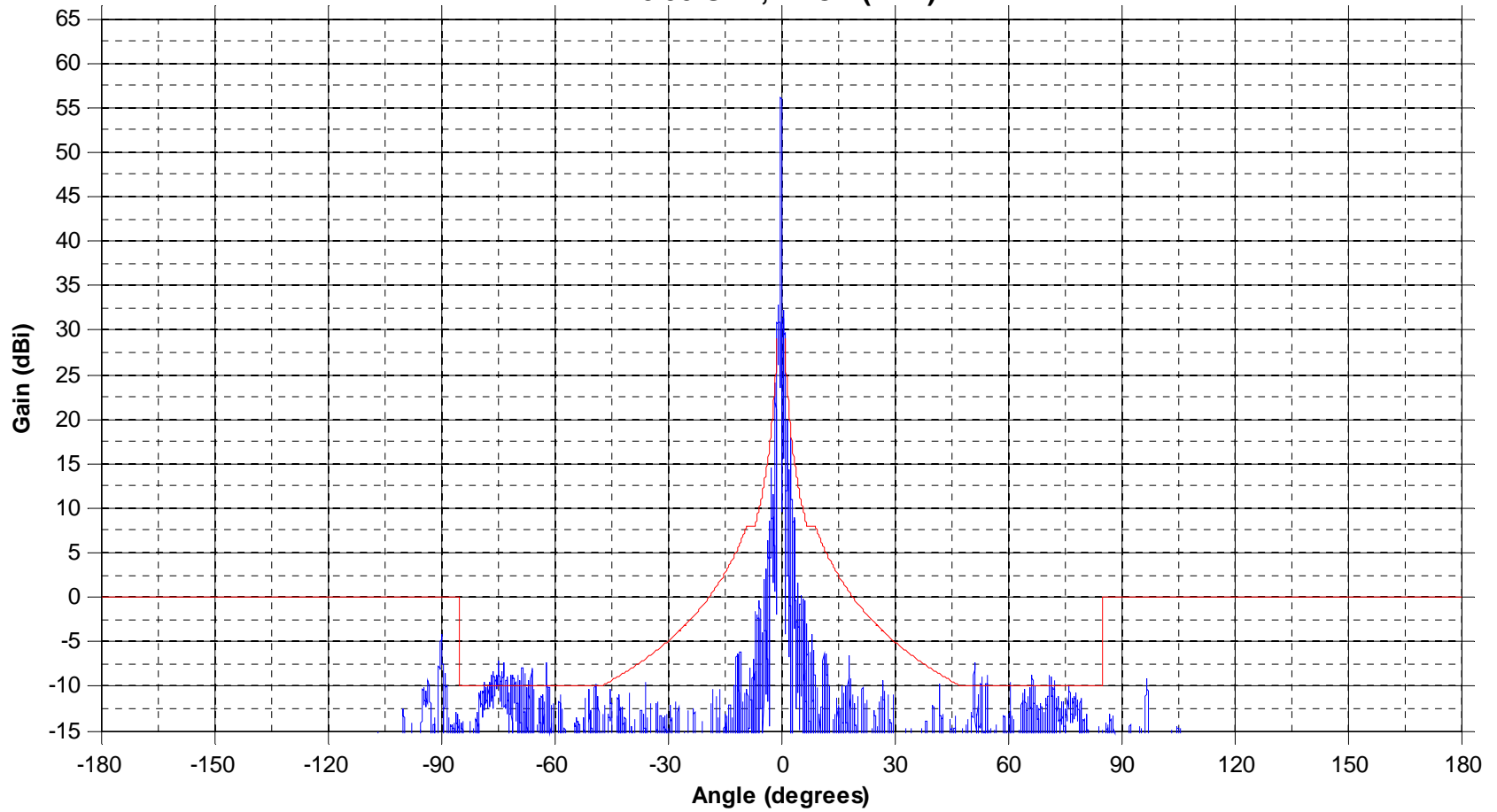
FCC 25.209

Gain: 56.14 dBi

3dB Beamwidth: 0.20°

Excursions: 1.7%

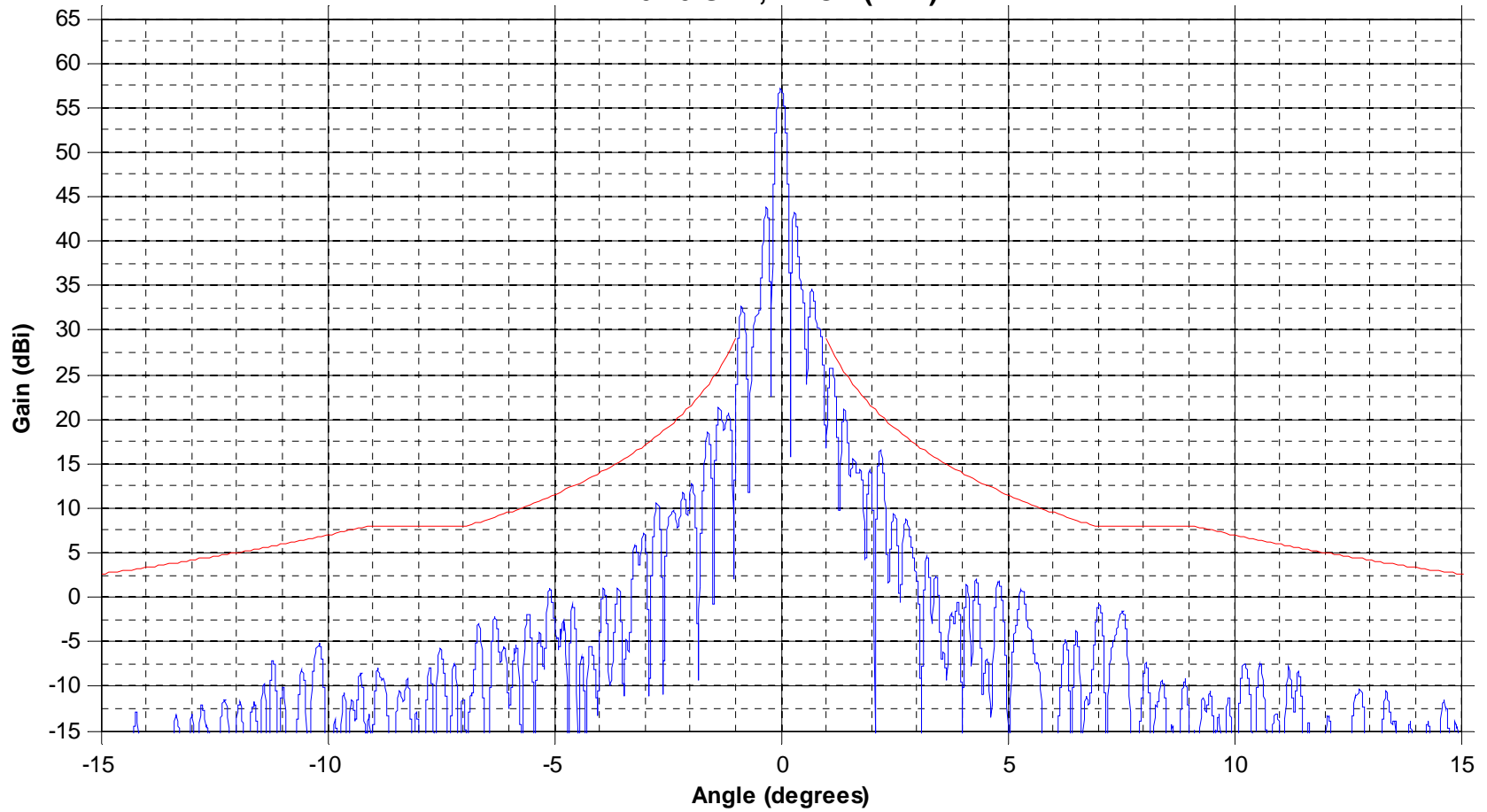
**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Elevation Radiation Pattern, ±180°
18.95 GHz, LHCP (RX1)**



Plot 21a

Reflector: 4.9m
FCC 25.209
Gain: 57.09 dBi
3dB Beamwidth: 0.19°

**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Azimuth Radiation Pattern, ±15°
20.20 GHz, RHCP (RX2)**



Plot 21b

Reflector: 4.9m

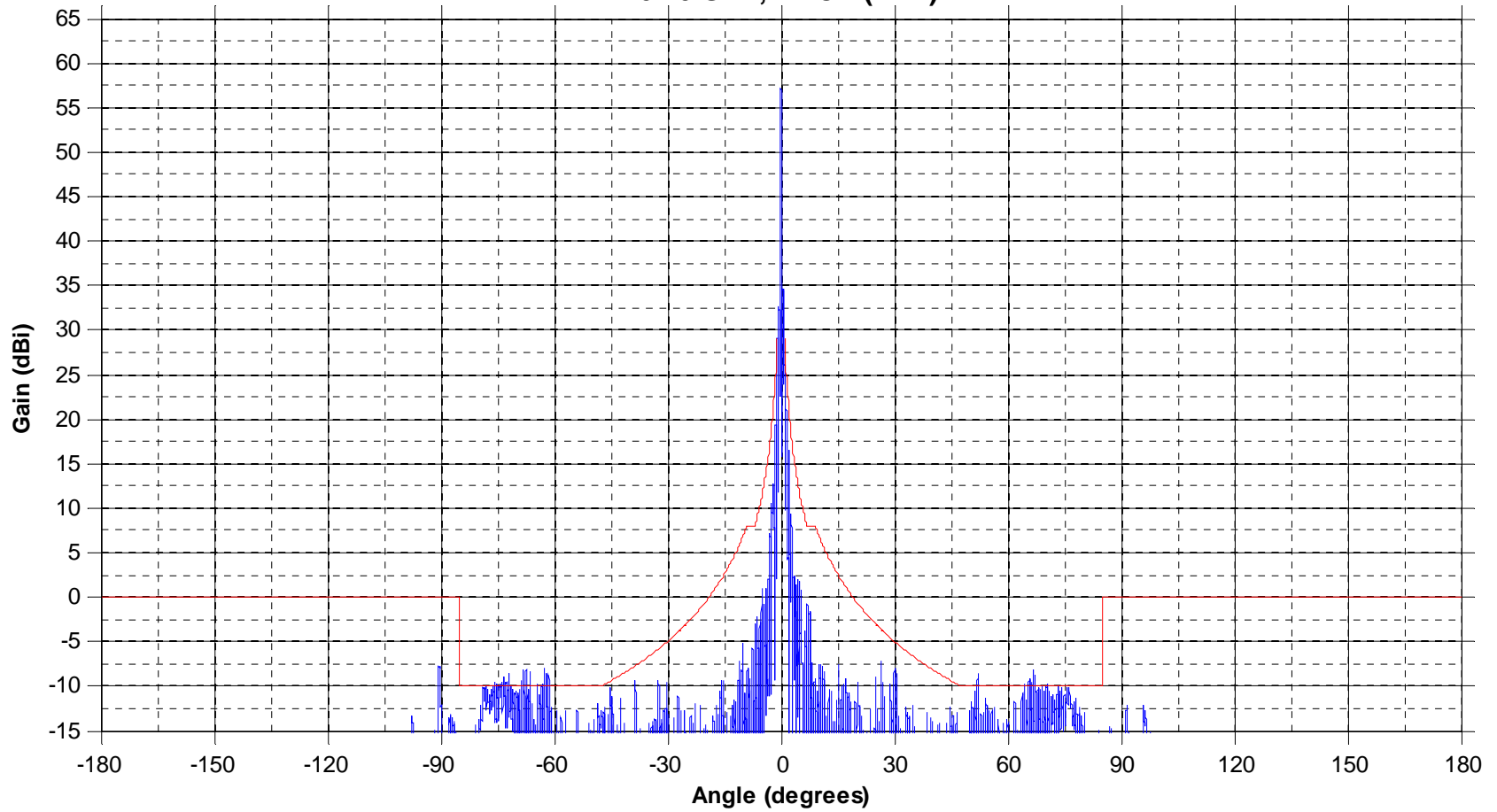
FCC 25.209

Gain: 57.09 dBi

3dB Beamwidth: 0.19°

Excursions: 1.0%

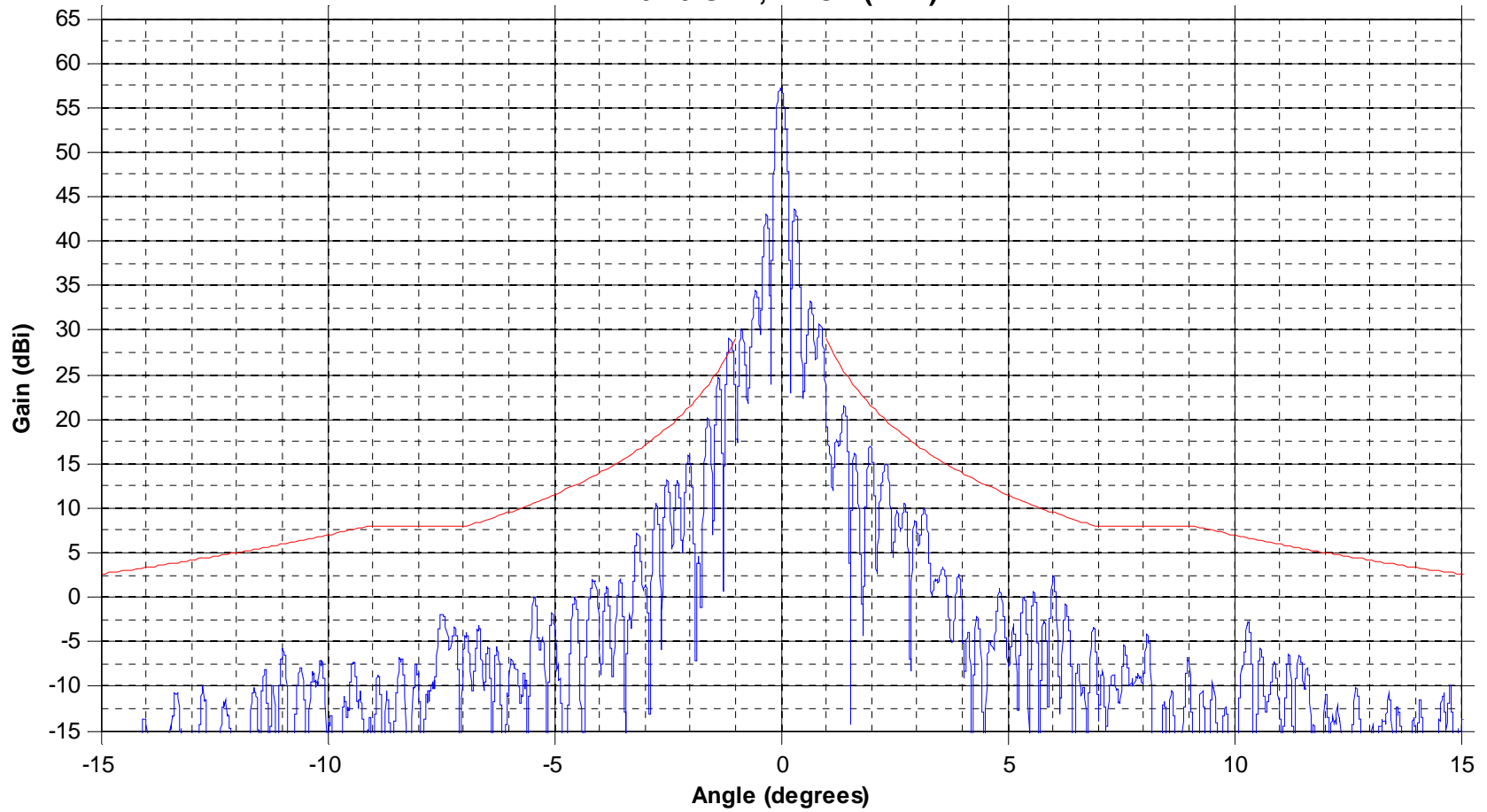
**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Azimuth Radiation Pattern, ±180°
20.20 GHz, RHCP (RX2)**



Plot 22a

Reflector: 4.9m
FCC 25.209
Gain: 57.09 dBi
3dB Beamwidth: 0.19°

**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Elevation Radiation Pattern, ±15°
20.20 GHz, RHCP (RX2)**



Plot 22b

Reflector: 4.9m

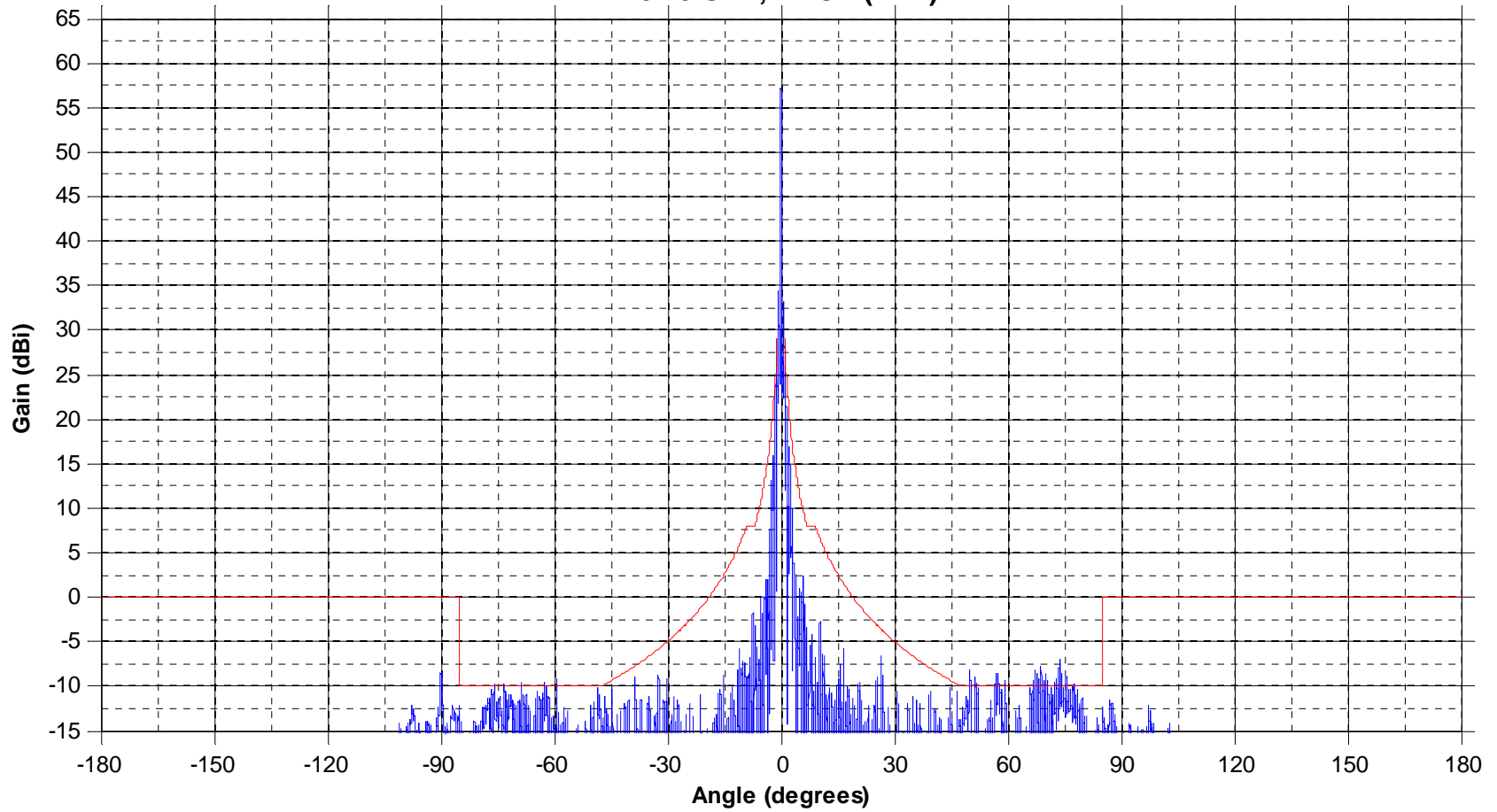
FCC 25.209

Gain: 57.09 dBi

3dB Beamwidth: 0.19°

Excursions: 1.1%

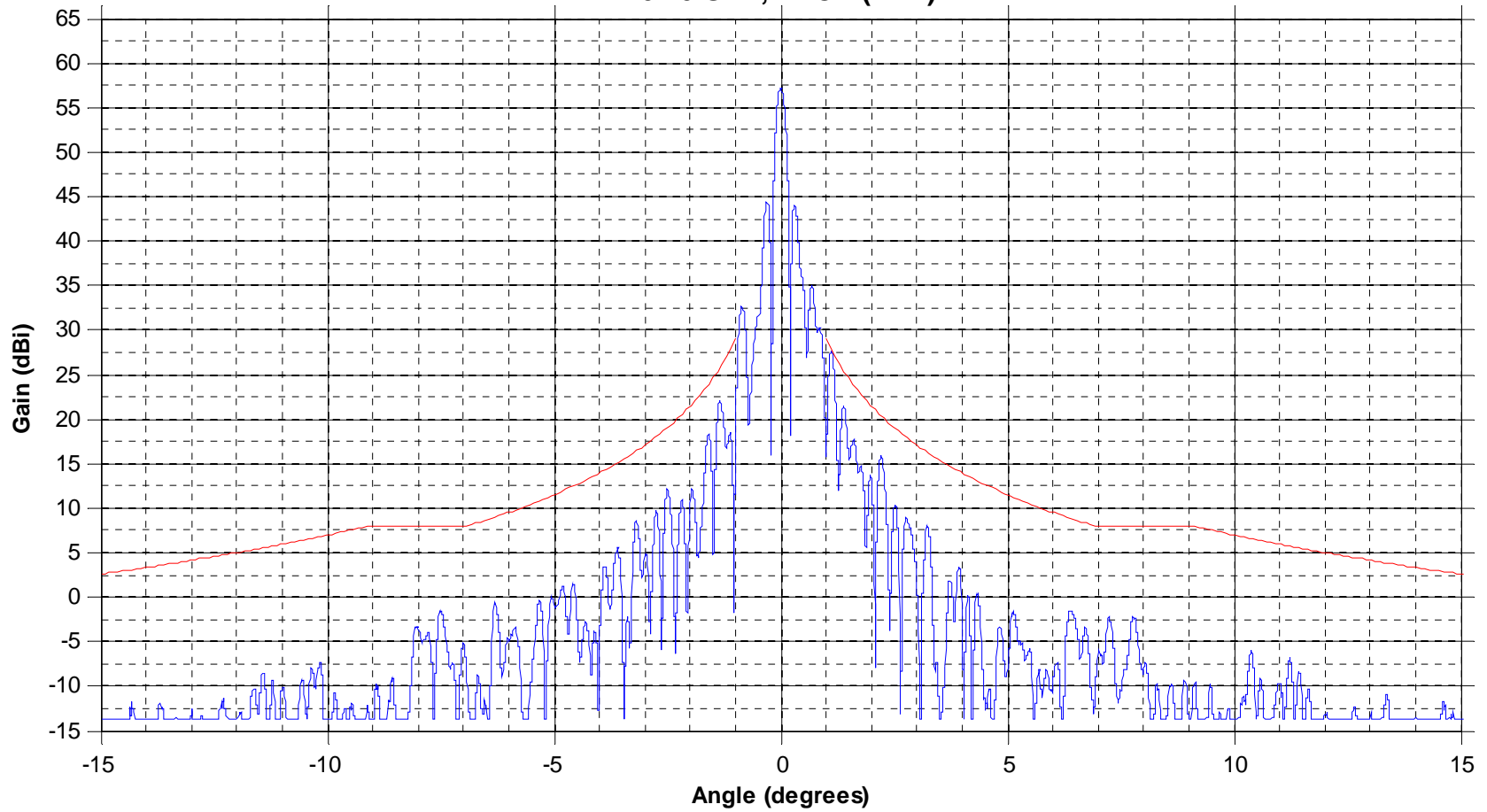
**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Elevation Radiation Pattern, ±180°
20.20 GHz, RHCP (RX2)**



Plot 23a

Reflector: 4.9m
FCC 25.209
Gain: 57.09 dBi
3dB Beamwidth: 0.19°

**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Azimuth Radiation Pattern, ±15°
20.20 GHz, LHCP (RX1)**



Plot 23b

Reflector: 4.9m

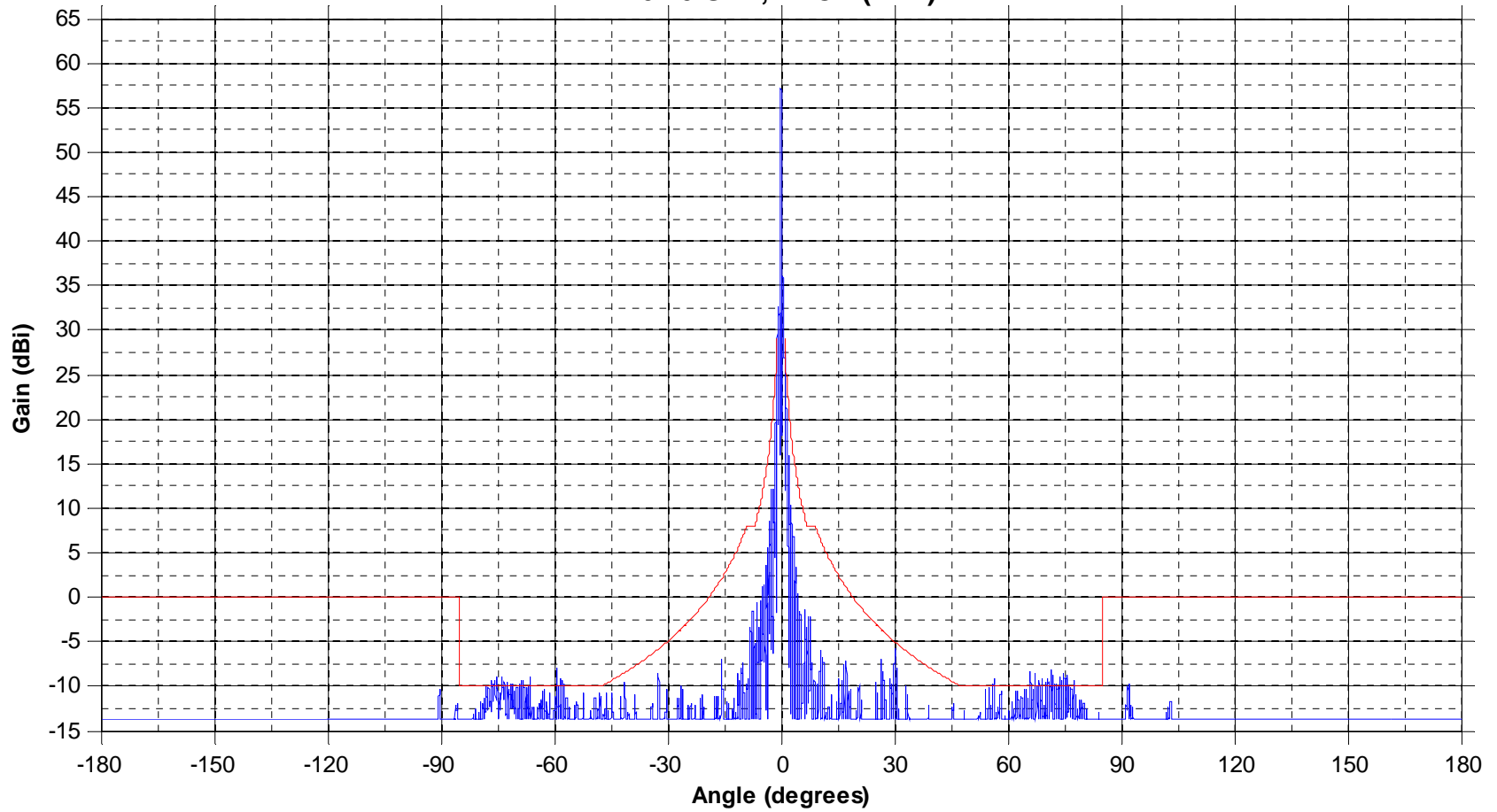
FCC 25.209

Gain: 57.09 dBi

3dB Beamwidth: 0.19°

Excursions: 1.1%

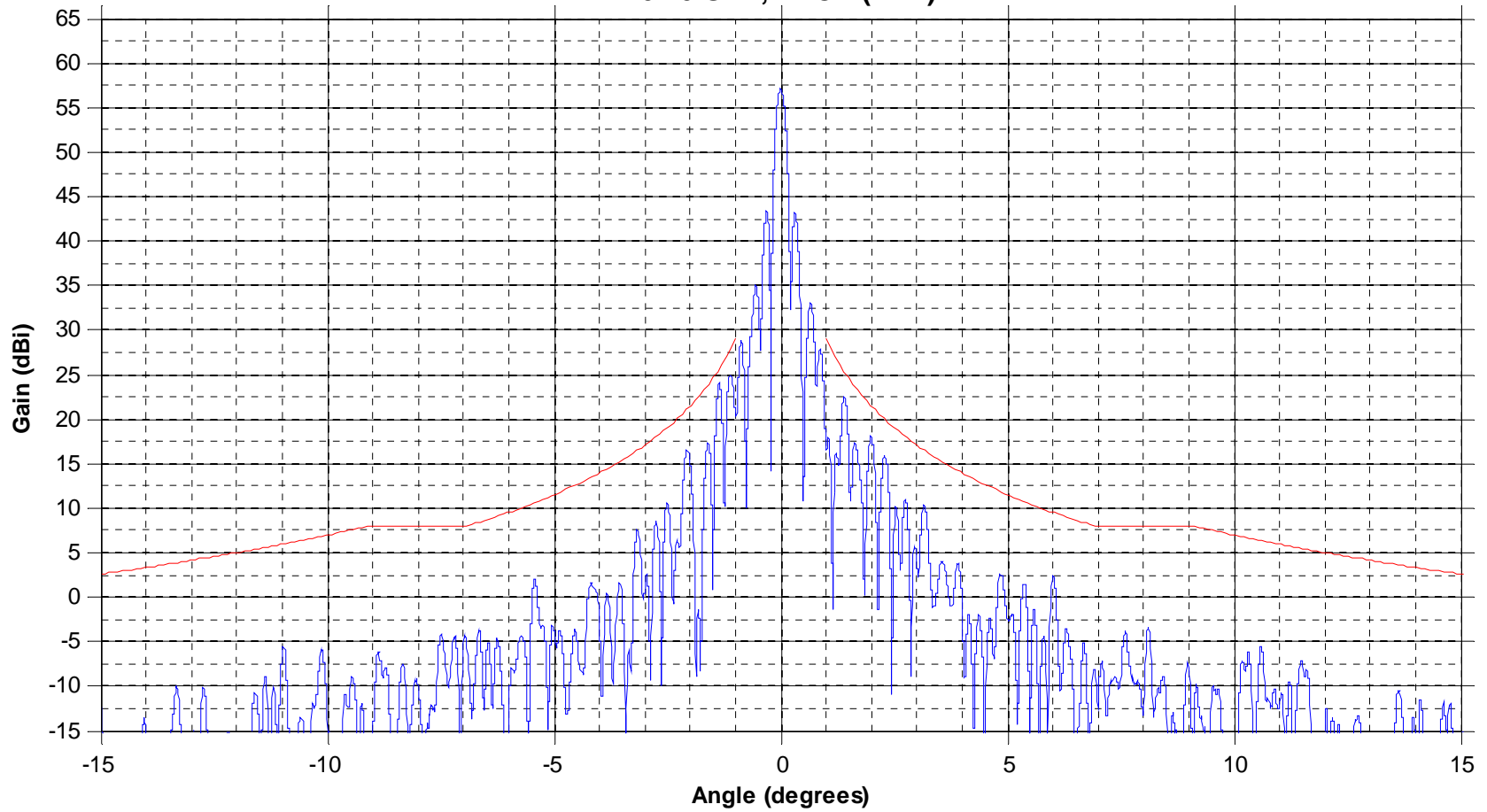
**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Azimuth Radiation Pattern, ±180°
20.20 GHz, LHCP (RX1)**



Plot 24a

Reflector: 4.9m
FCC 25.209
Gain: 57.09 dBi
3dB Beamwidth: 0.19°

**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Elevation Radiation Pattern, ±15°
20.20 GHz, LHCP (RX1)**



Plot 24b

Reflector: 4.9m

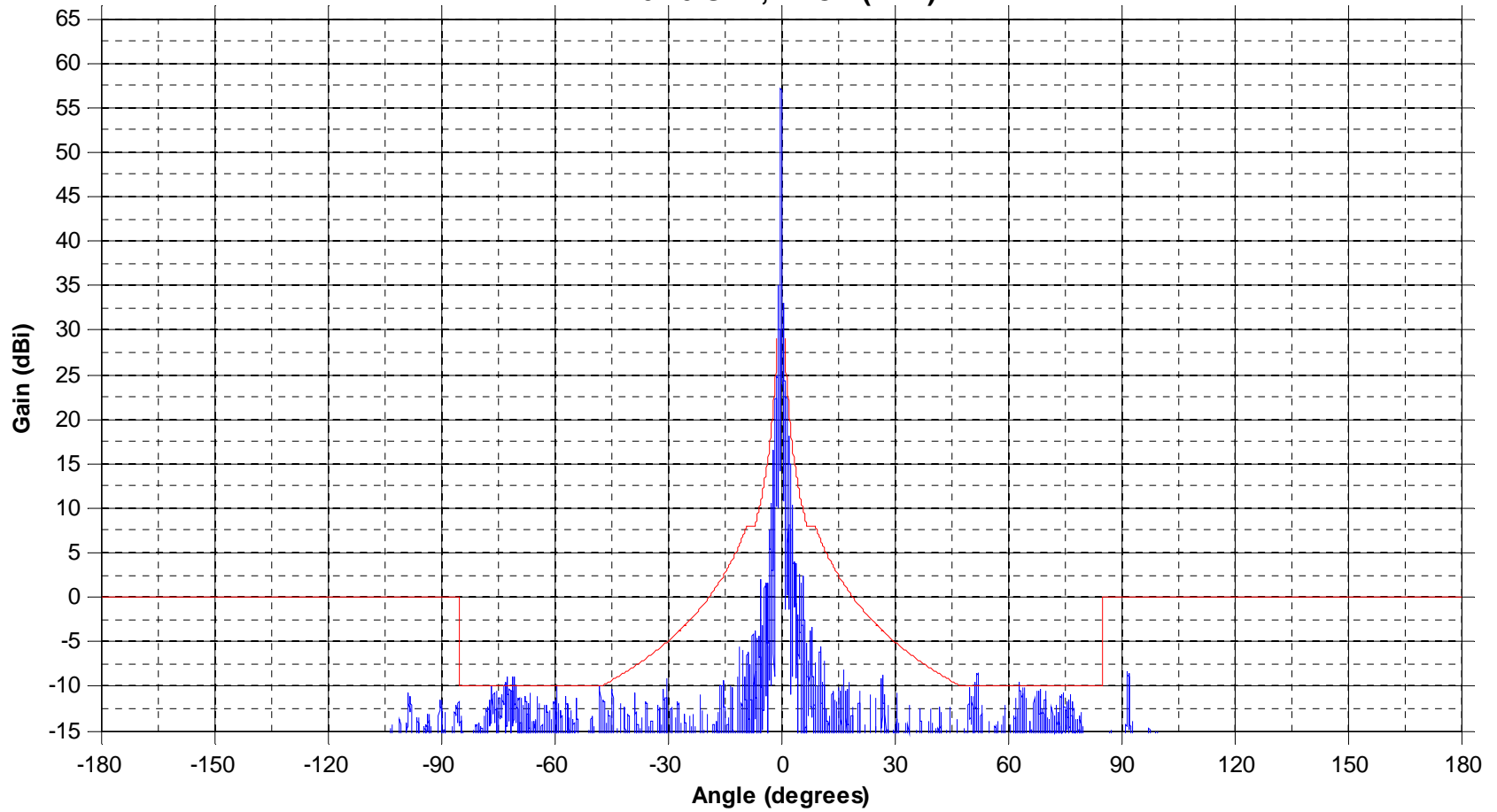
FCC 25.209

Gain: 57.09 dBi

3dB Beamwidth: 0.19°

Excursions: 0.3%

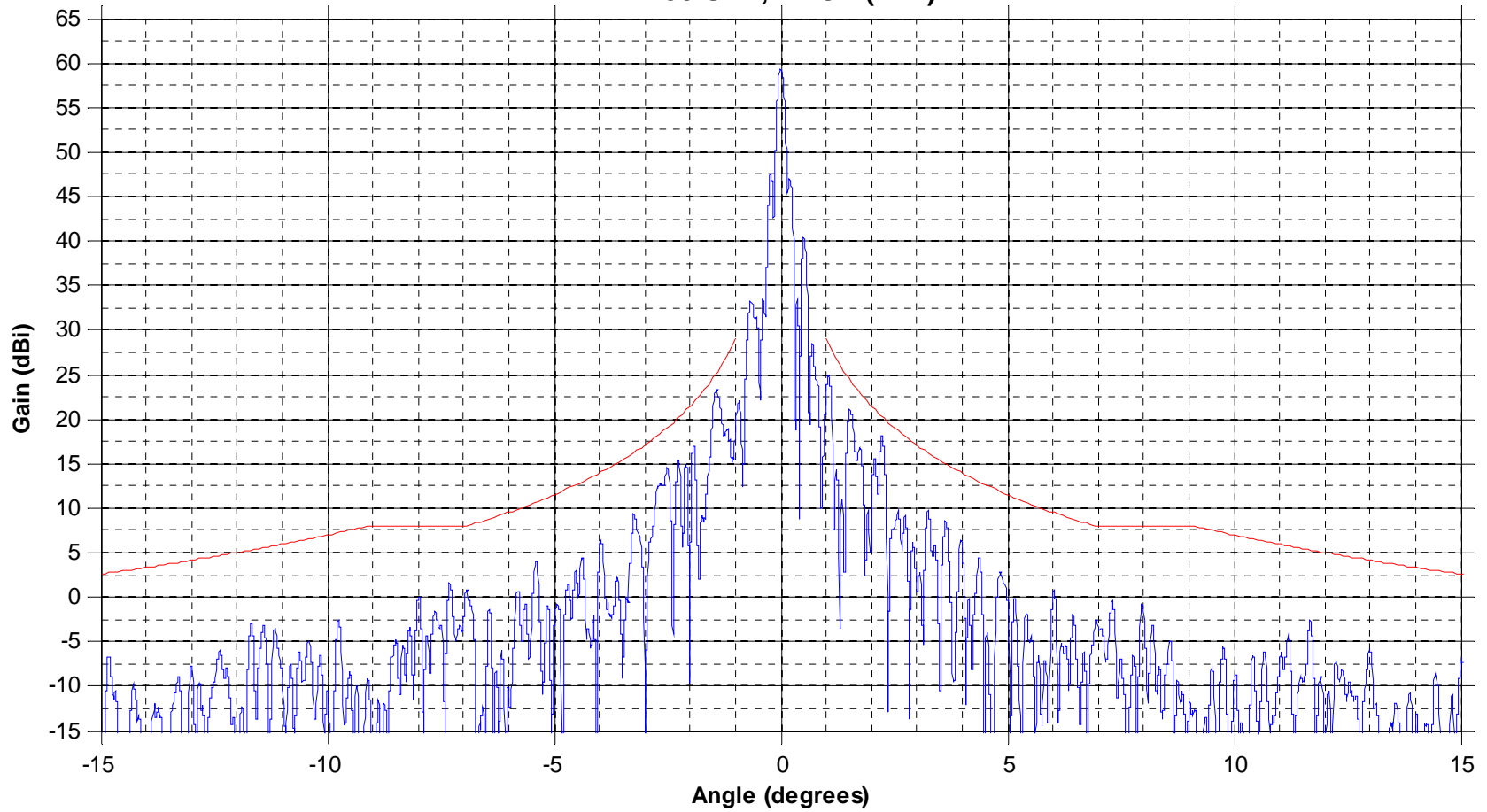
**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Elevation Radiation Pattern, ±180°
20.20 GHz, LHCP (RX1)**



Plot 37a

Reflector: 4.9m
FCC 25.209
Gain: 59.32 dBi
3dB Beamwidth: 0.14°

**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Azimuth Radiation Pattern, ±15°
27.50 GHz, RHCP (TX1)**



Plot 37b

Reflector: 4.9m

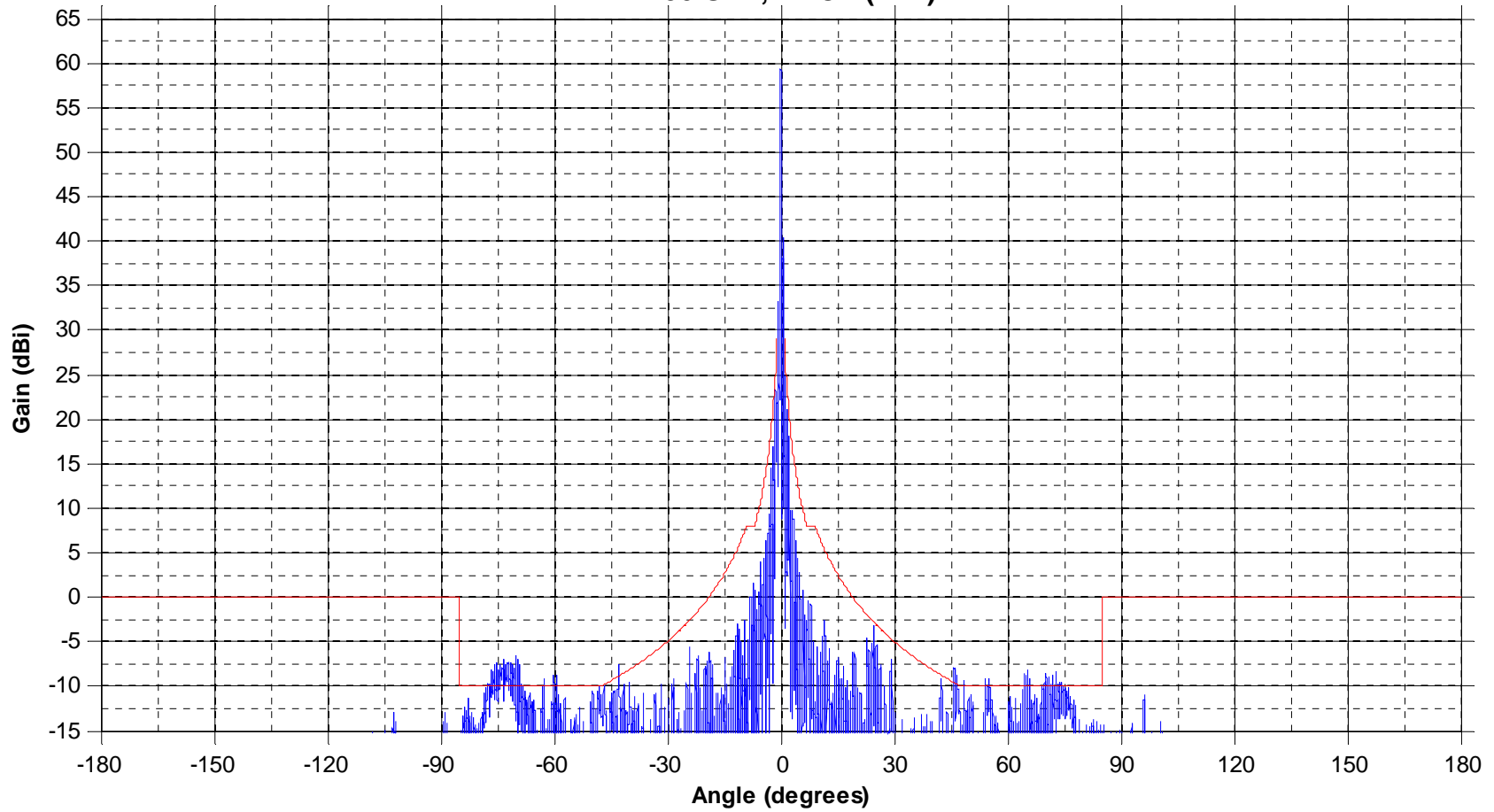
FCC 25.209

Gain: 59.32 dBi

3dB Beamwidth: 0.14°

Excursions: 2.4%

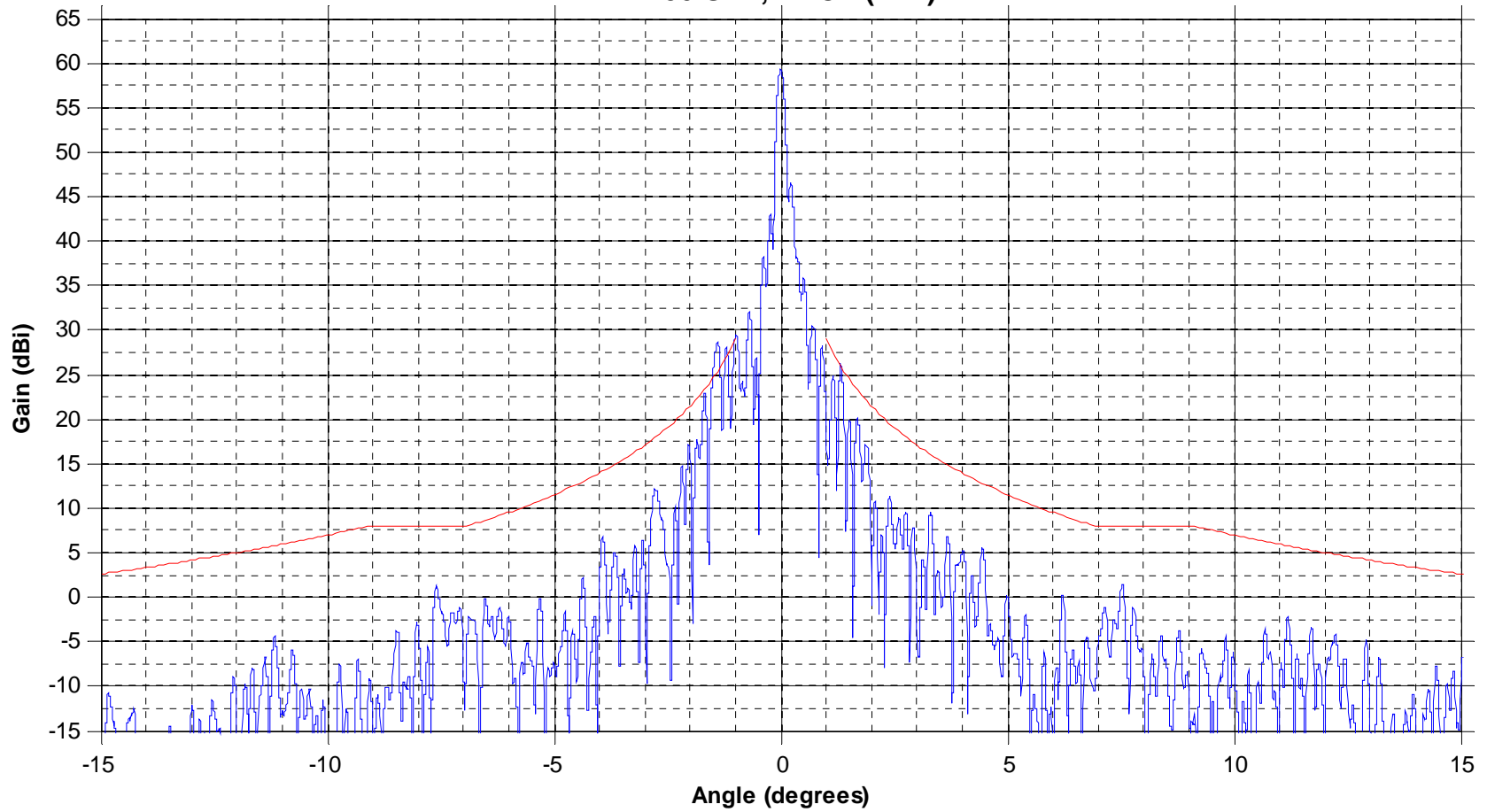
**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Azimuth Radiation Pattern, ±180°
27.50 GHz, RHCP (TX1)**



Plot 38a

Reflector: 4.9m
FCC 25.209
Gain: 59.32 dBi
3dB Beamwidth: 0.15°

**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Elevation Radiation Pattern, ±15°
27.50 GHz, RHCP (TX1)**



Plot 38b

Reflector: 4.9m

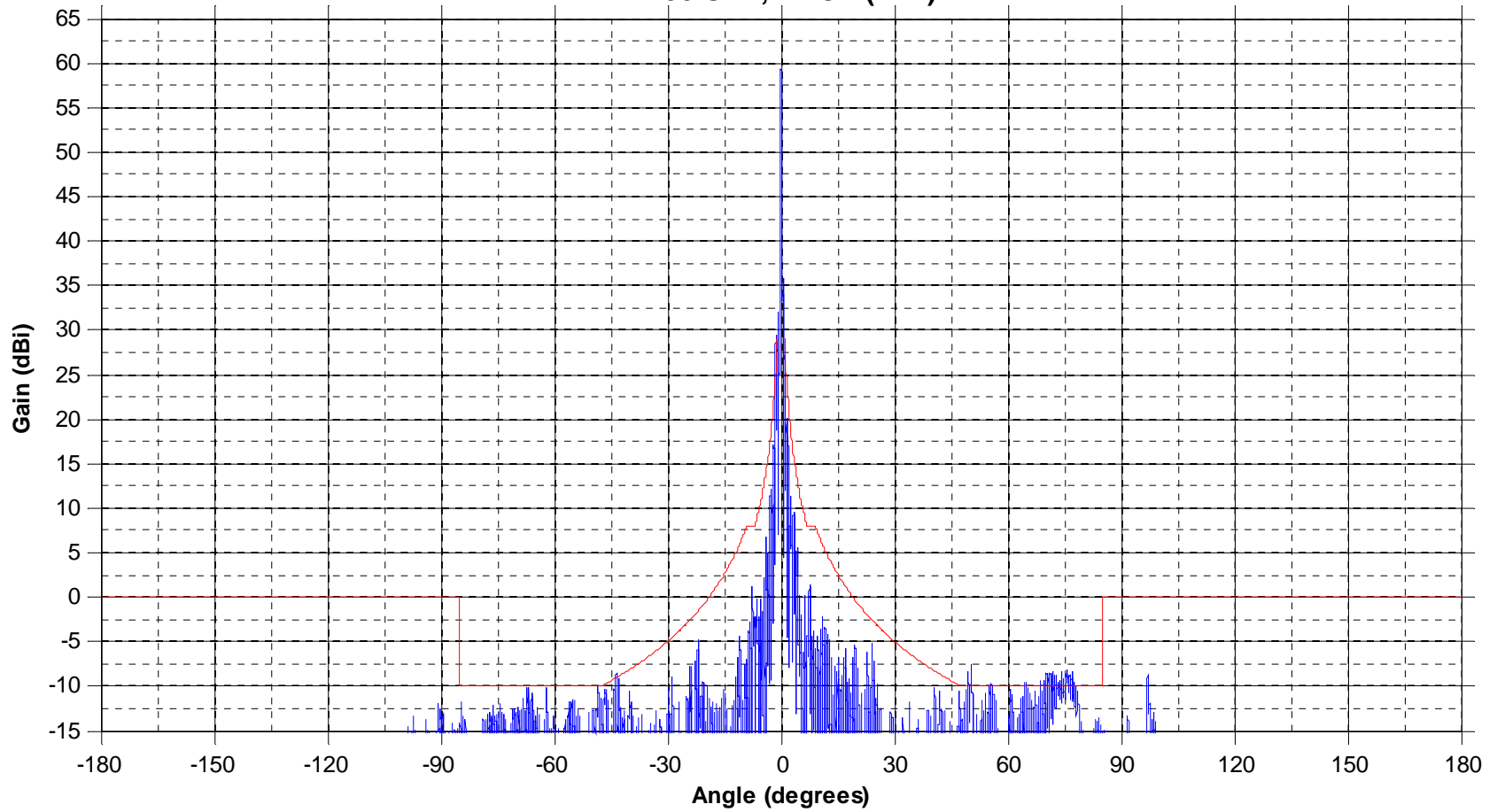
FCC 25.209

Gain: 59.32 dBi

3dB Beamwidth: 0.15°

Excursions: 1.3%

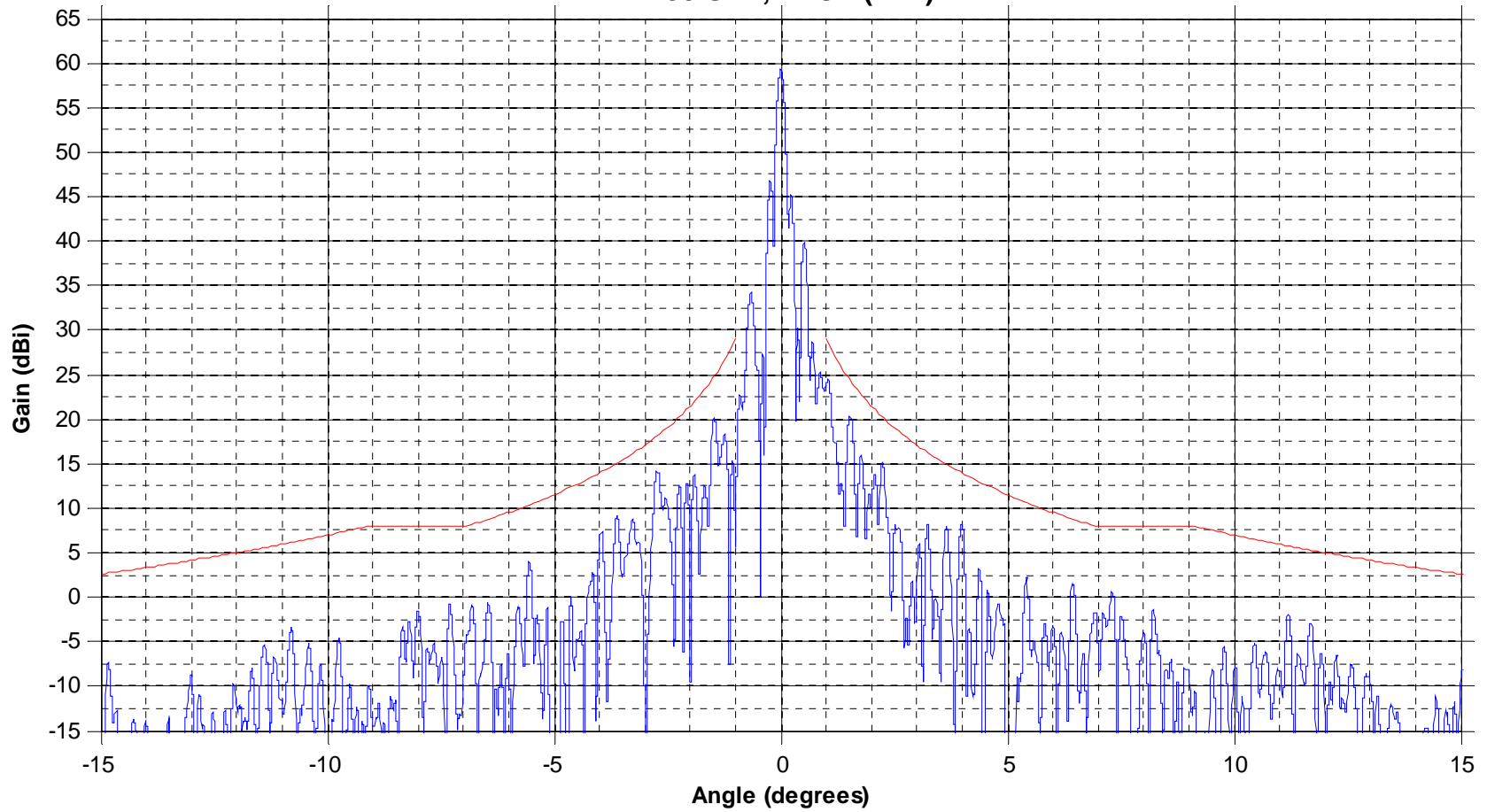
**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Elevation Radiation Pattern, ±180°
27.50 GHz, RHCP (TX1)**



Plot 39a

Reflector: 4.9m
FCC 25.209
Gain: 59.32 dBi
3dB Beamwidth: 0.13°

**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Azimuth Radiation Pattern, ±15°
27.50 GHz, LHCP (TX2)**



Plot 39b

Reflector: 4.9m

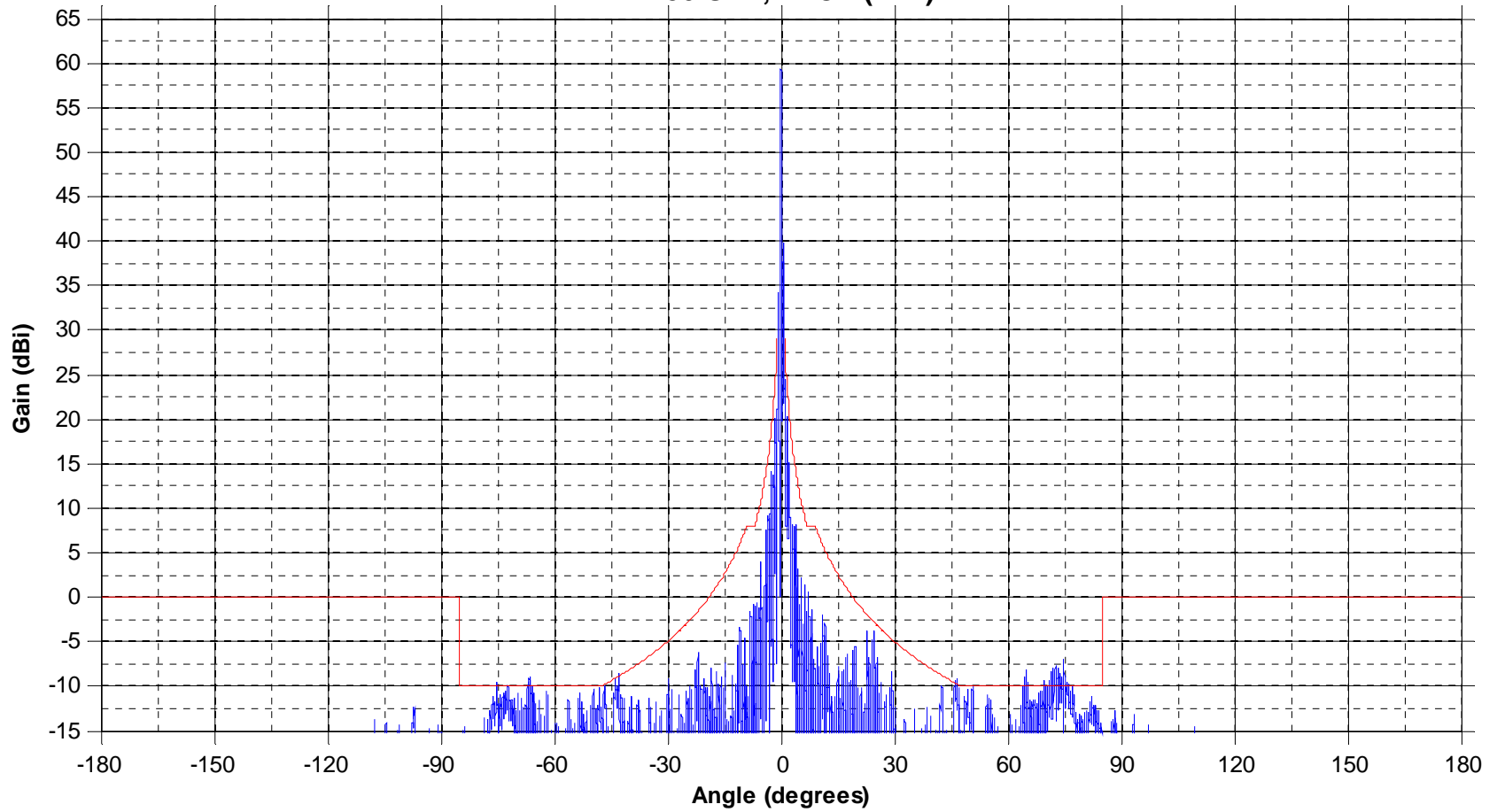
FCC 25.209

Gain: 59.32 dBi

3dB Beamwidth: 0.13°

Excursions: 0.9%

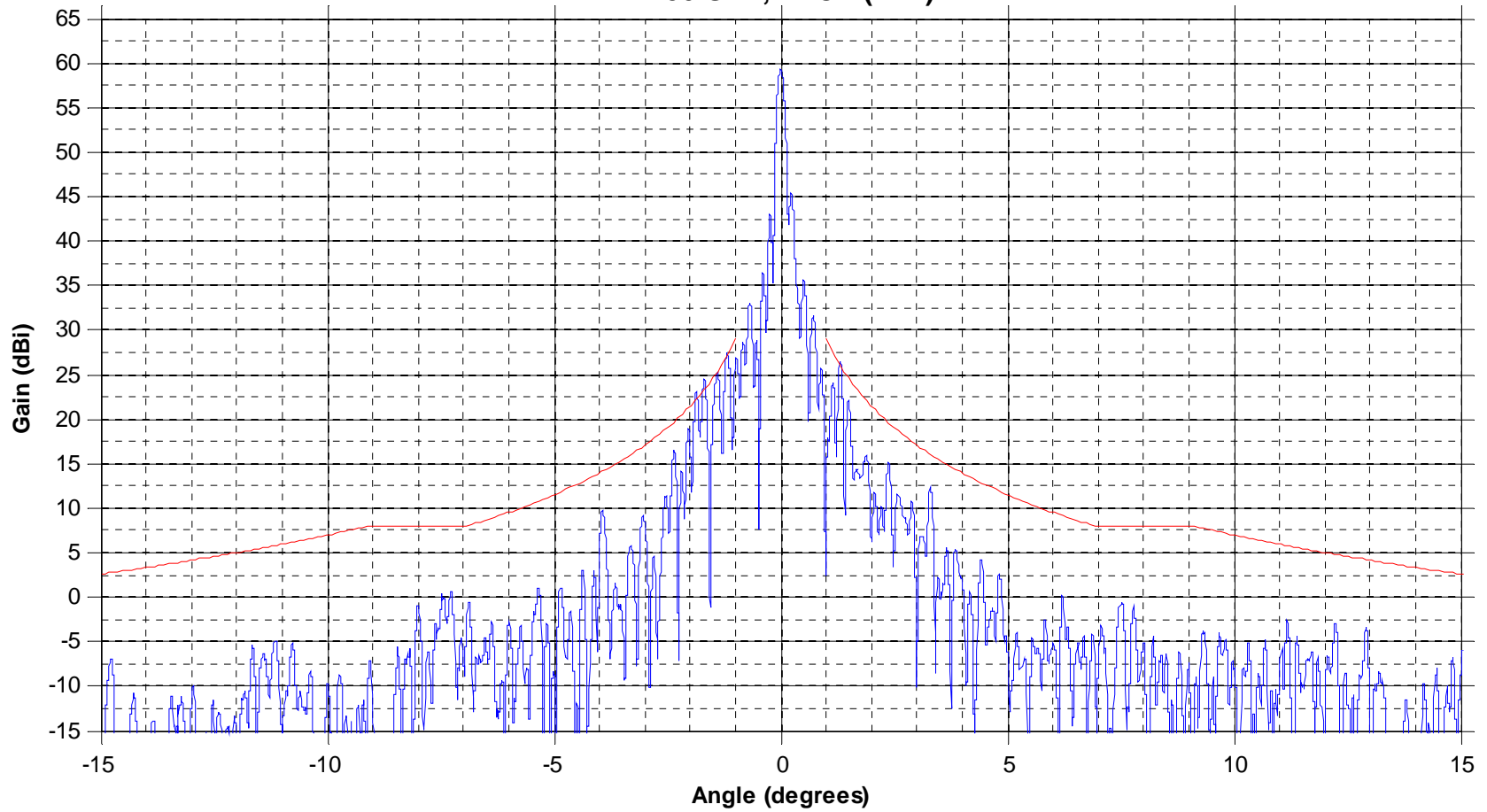
**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Azimuth Radiation Pattern, ±180°
27.50 GHz, LHCP (TX2)**



Plot 40a

Reflector: 4.9m
FCC 25.209
Gain: 59.32 dBi
3dB Beamwidth: 0.15°

**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Elevation Radiation Pattern, ±15°
27.50 GHz, LHCP (TX2)**



Plot 40b

Reflector: 4.9m

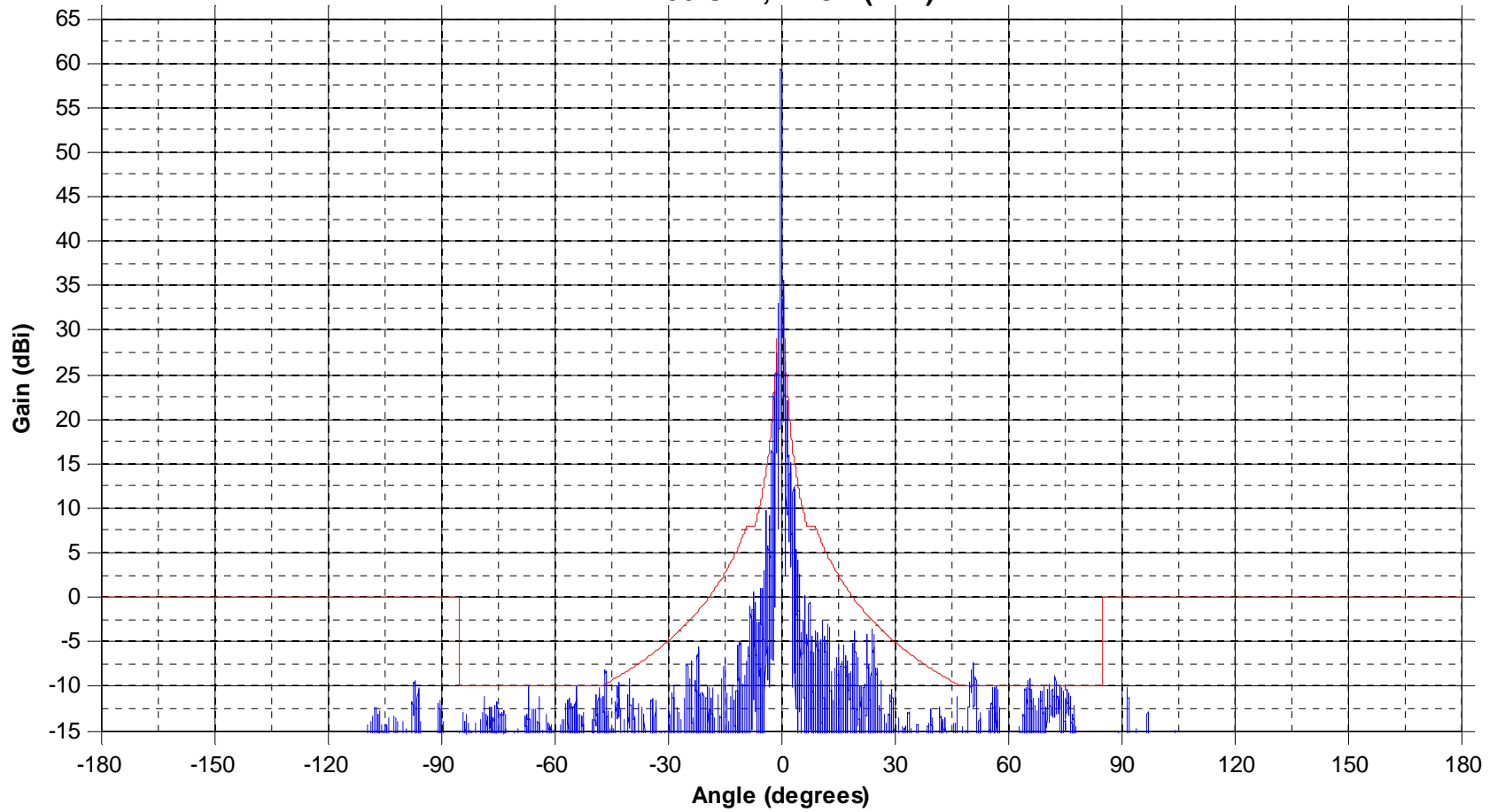
FCC 25.209

Gain: 59.32 dBi

3dB Beamwidth: 0.15°

Excursions: 0.6%

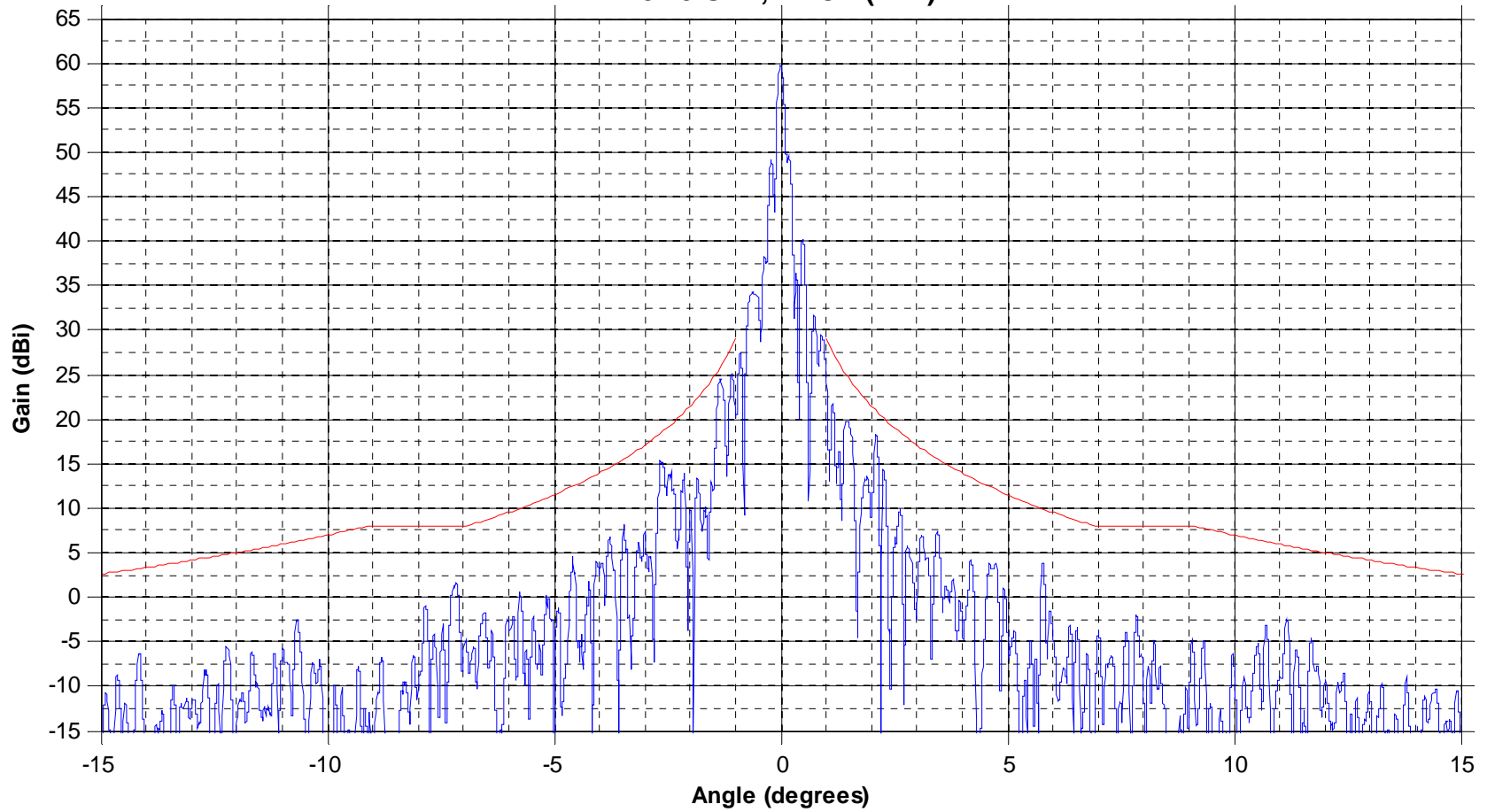
**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Elevation Radiation Pattern, ±180°
27.50 GHz, LHCP (TX2)**



Plot 41a

Reflector: 4.9m
FCC 25.209
Gain: 59.65 dBi
3dB Beamwidth: 0.14°

**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Azimuth Radiation Pattern, ±15°
28.75 GHz, RHCP (TX1)**



Plot 41b

Reflector: 4.9m

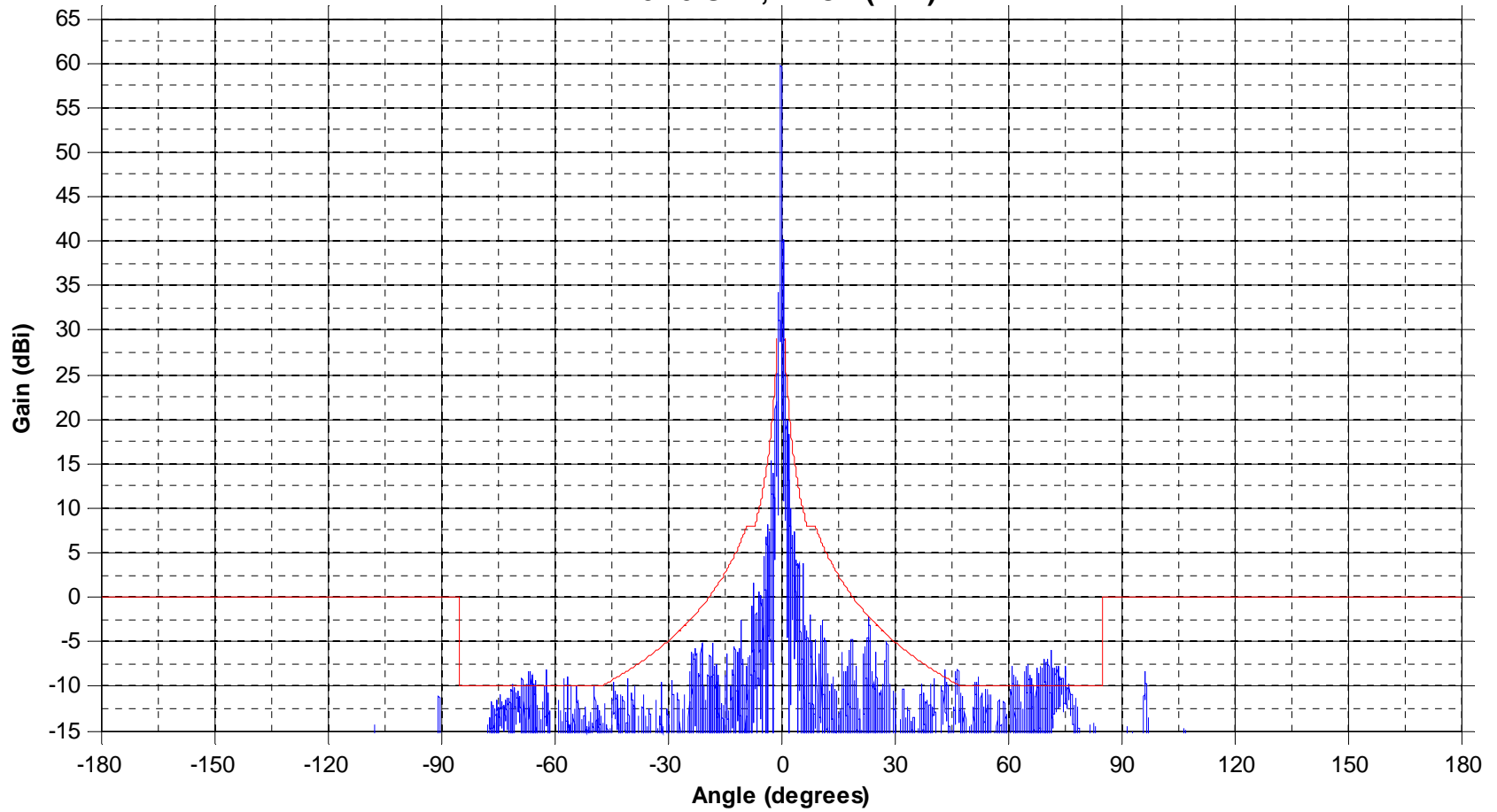
FCC 25.209

Gain: 59.65 dBi

3dB Beamwidth: 0.14°

Excursions: 2.1%

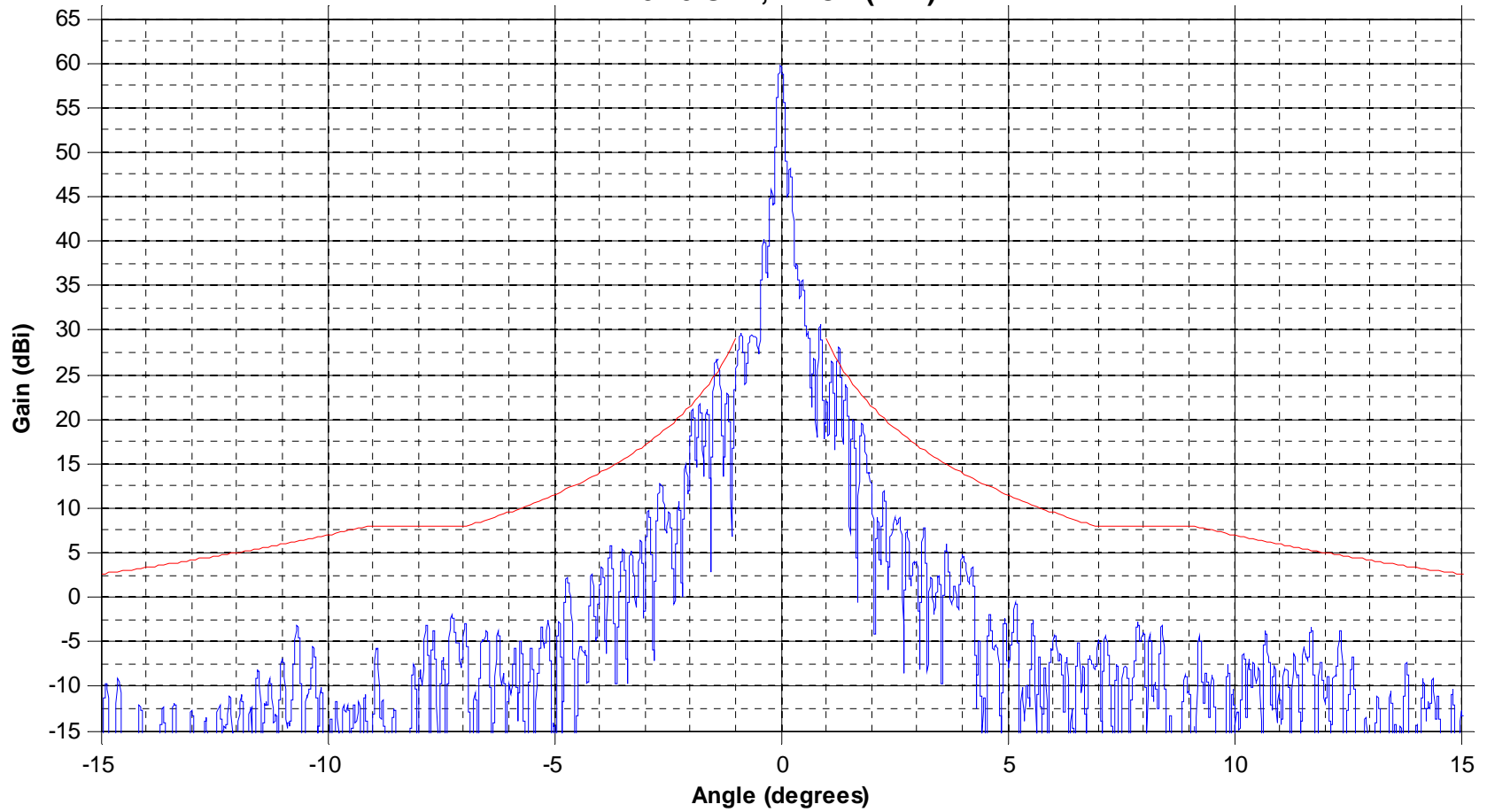
**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Azimuth Radiation Pattern, ±180°
28.75 GHz, RHCP (TX1)**



Plot 42a

Reflector: 4.9m
FCC 25.209
Gain: 59.65 dBi
3dB Beamwidth: 0.14°

**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Elevation Radiation Pattern, ±15°
28.75 GHz, RHCP (TX1)**



Plot 42b

Reflector: 4.9m

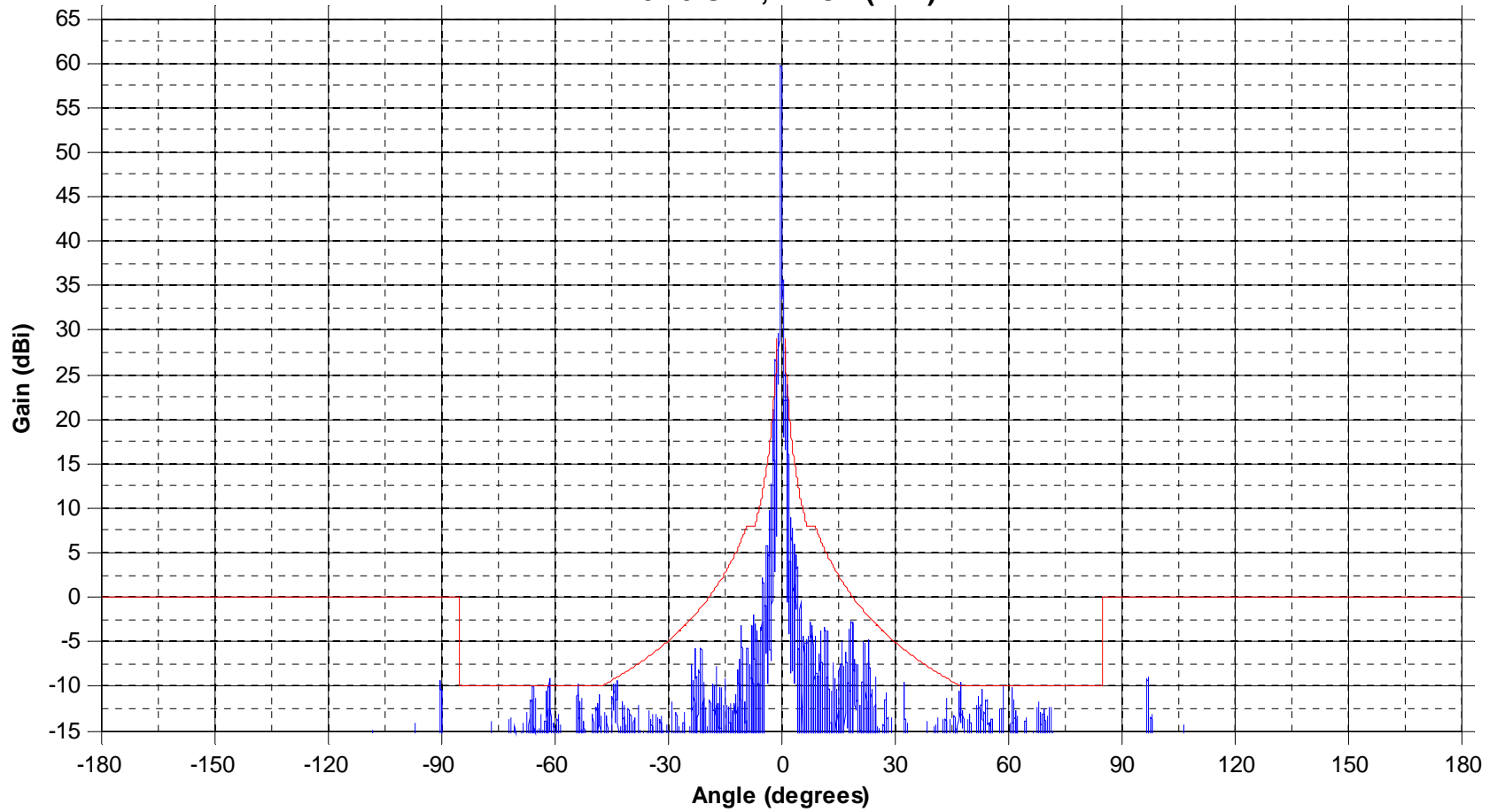
FCC 25.209

Gain: 59.65 dBi

3dB Beamwidth: 0.14°

Excursions: 0.2%

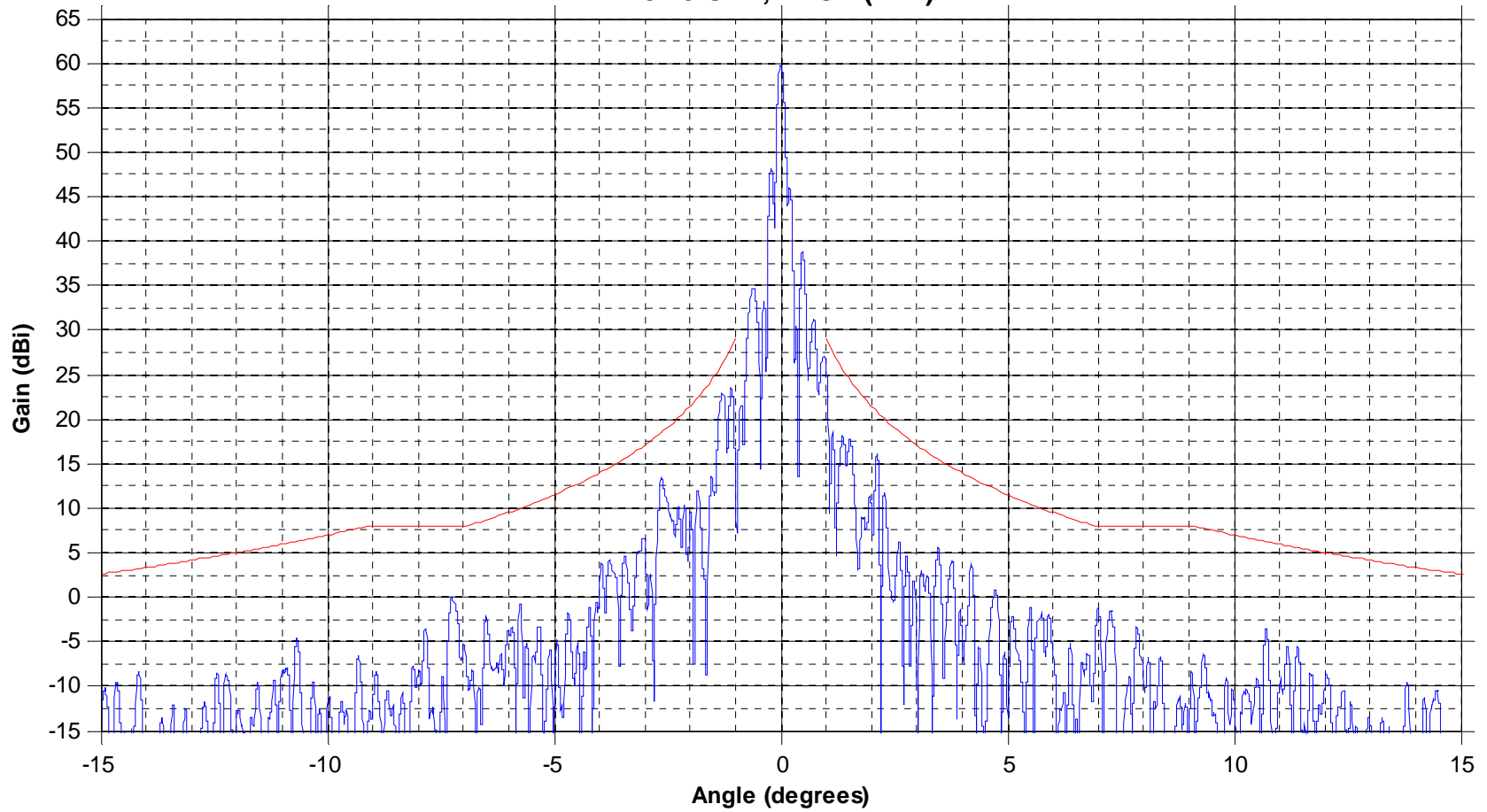
**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Elevation Radiation Pattern, ±180°
28.75 GHz, RHCP (TX1)**



Plot 43a

Reflector: 4.9m
FCC 25.209
Gain: 59.65 dBi
3dB Beamwidth: 0.14°

**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Azimuth Radiation Pattern, ±15°
28.75 GHz, LHCP (TX2)**



Plot 43b

Reflector: 4.9m

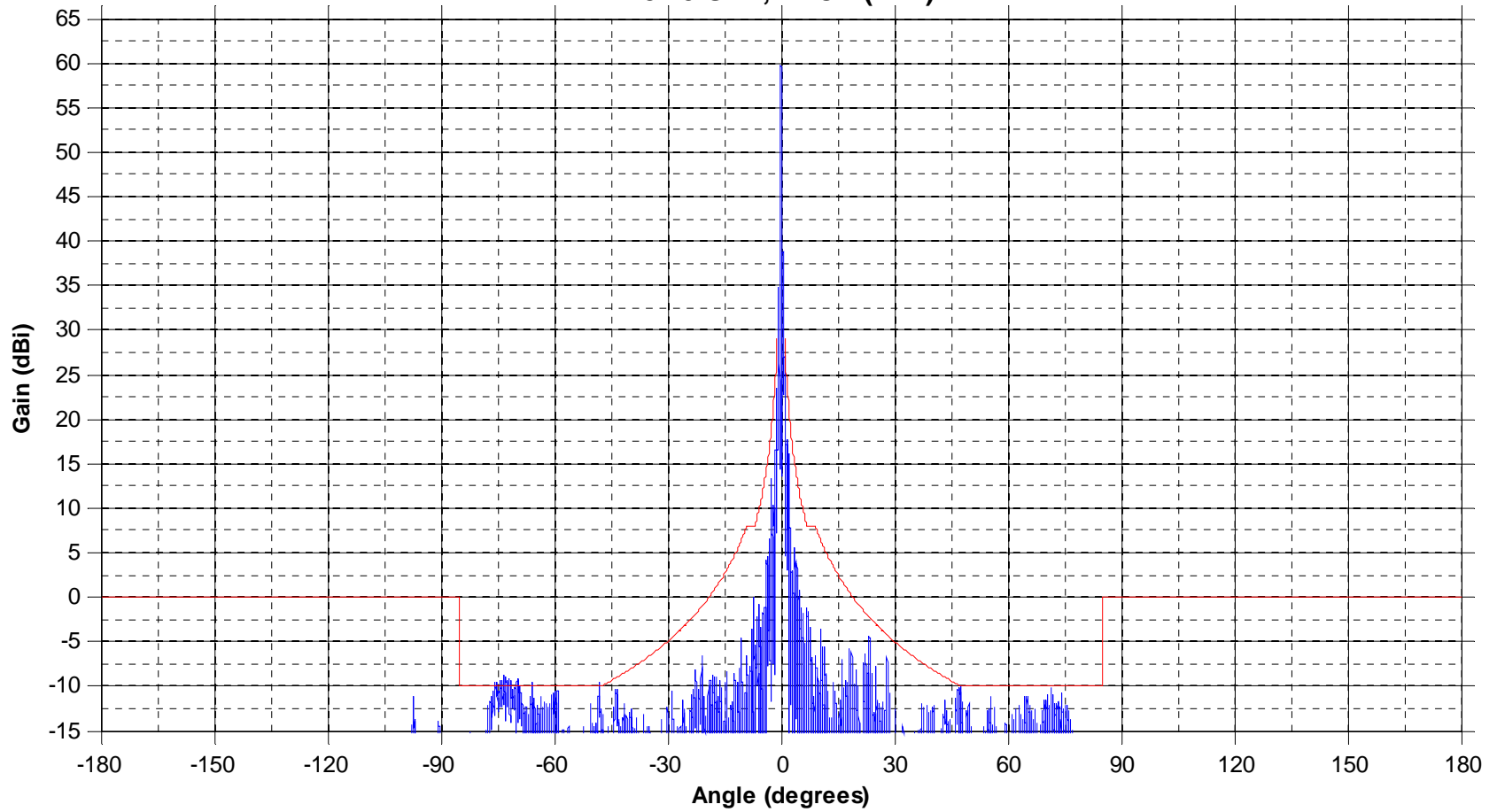
FCC 25.209

Gain: 59.65 dBi

3dB Beamwidth: 0.14°

Excursions: 0.4%

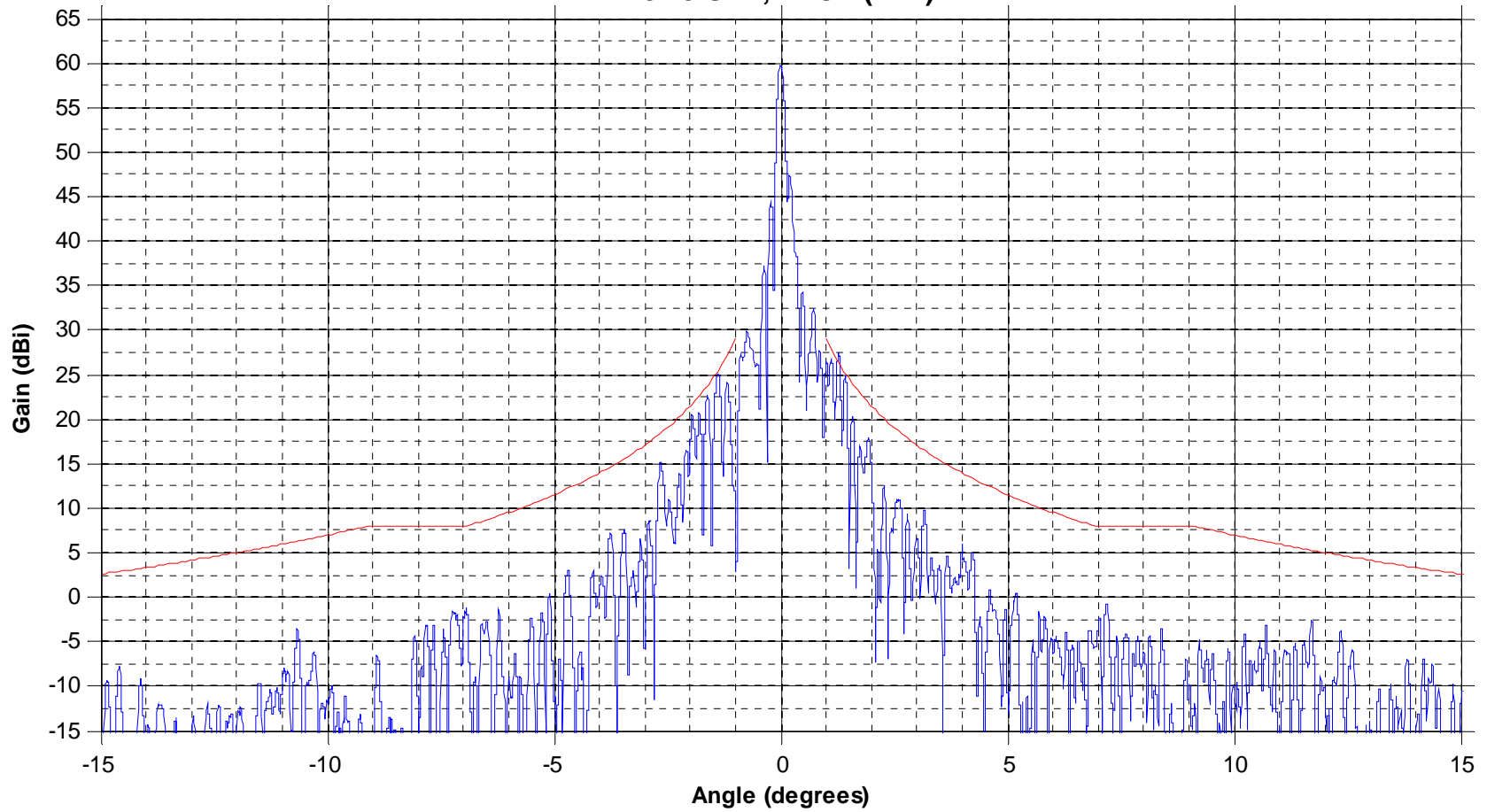
**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Azimuth Radiation Pattern, ±180°
28.75 GHz, LHCP (TX2)**



Plot 44a

Reflector: 4.9m
FCC 25.209
Gain: 59.65 dBi
3dB Beamwidth: 0.13°

**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Elevation Radiation Pattern, ±15°
28.75 GHz, LHCP (TX2)**



Plot 44b

Reflector: 4.9m

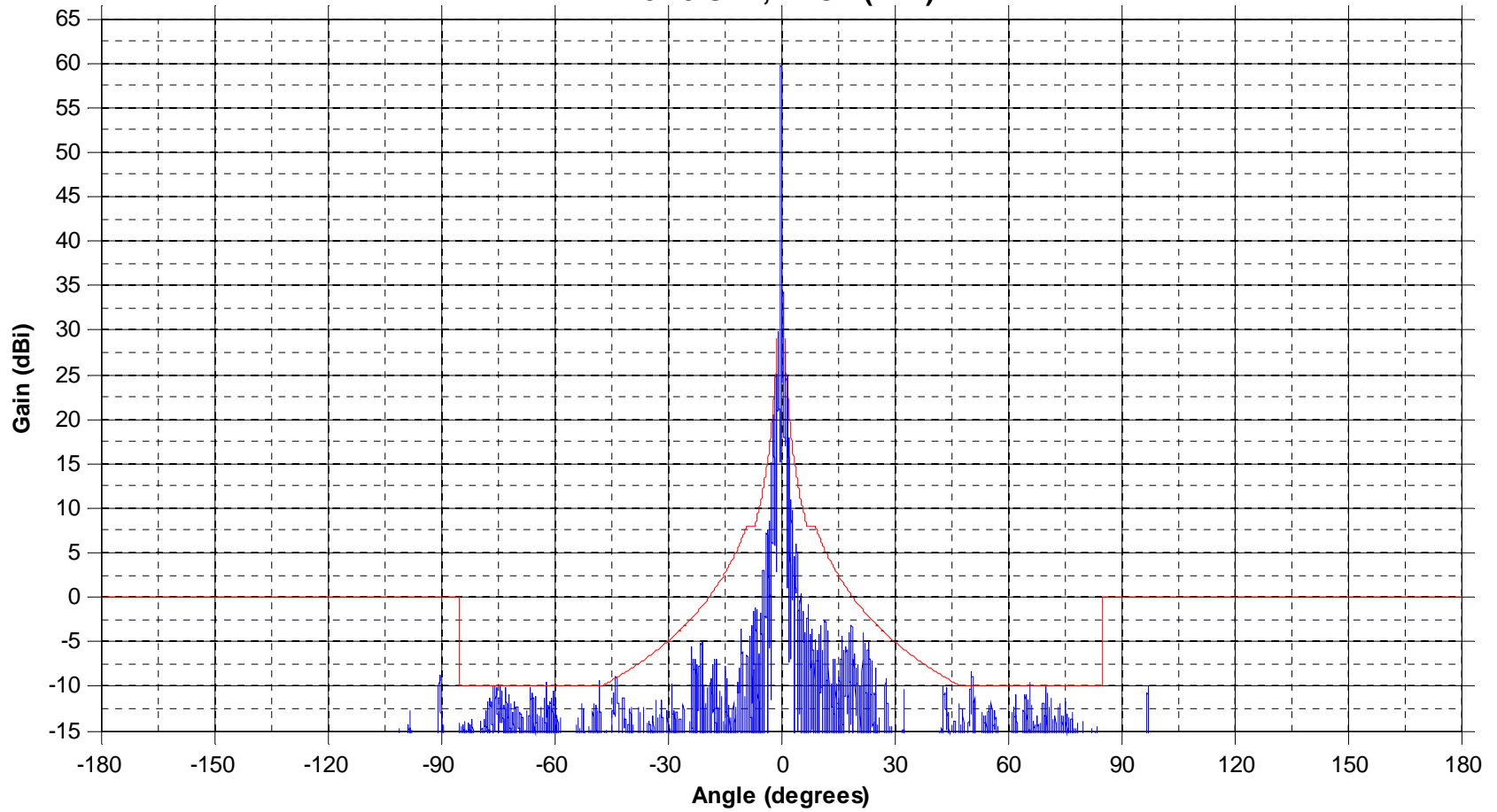
FCC 25.209

Gain: 59.65 dBi

3dB Beamwidth: 0.13°

Excursions: 0.1%

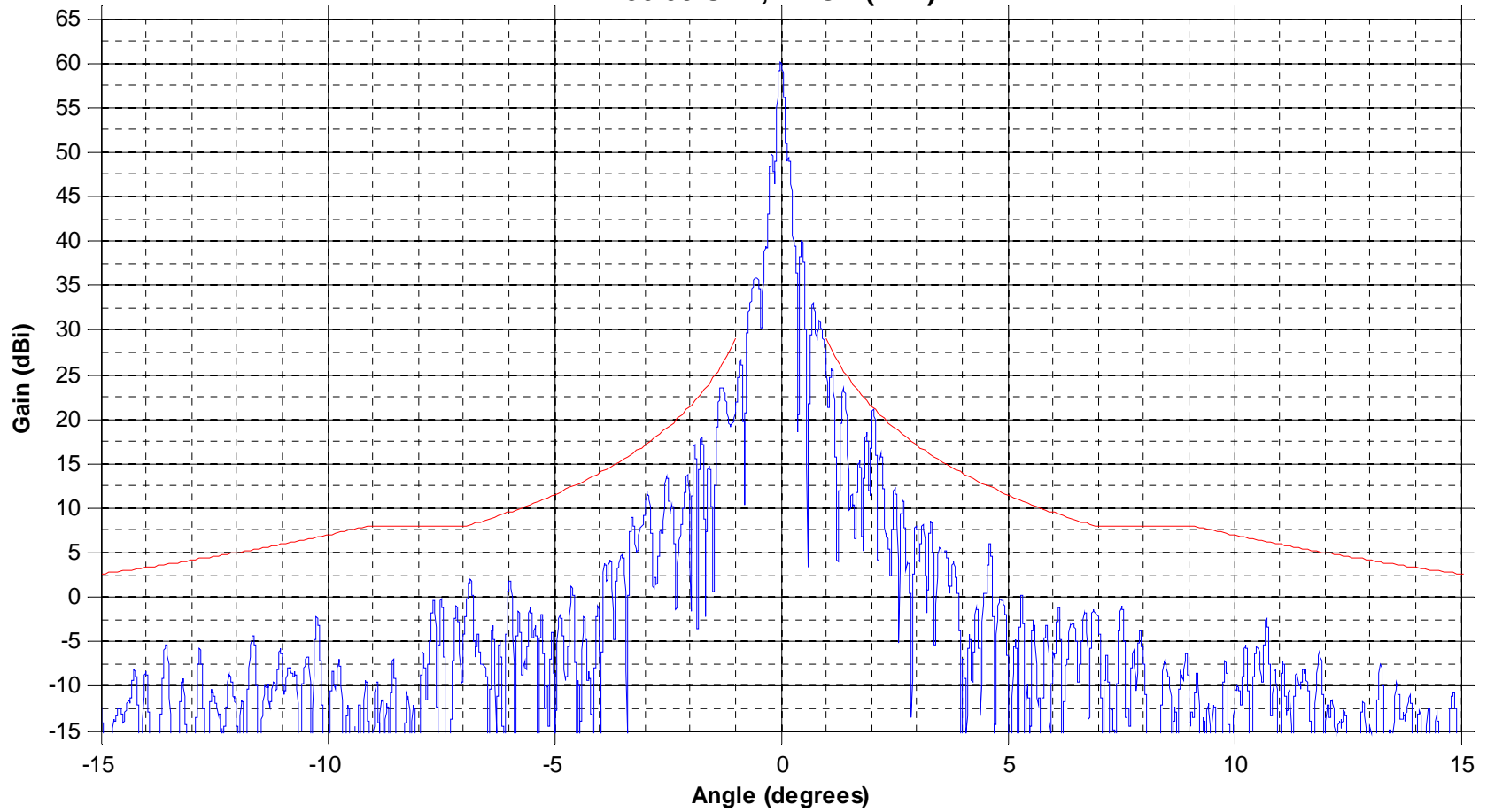
**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Elevation Radiation Pattern, ±180°
28.75 GHz, LHCP (TX2)**



Plot 45a

Reflector: 4.9m
FCC 25.209
Gain: 60.14 dBi
3dB Beamwidth: 0.13°

**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Azimuth Radiation Pattern, ±15°
30.00 GHz, RHCP (TX1)**



Plot 45b

Reflector: 4.9m

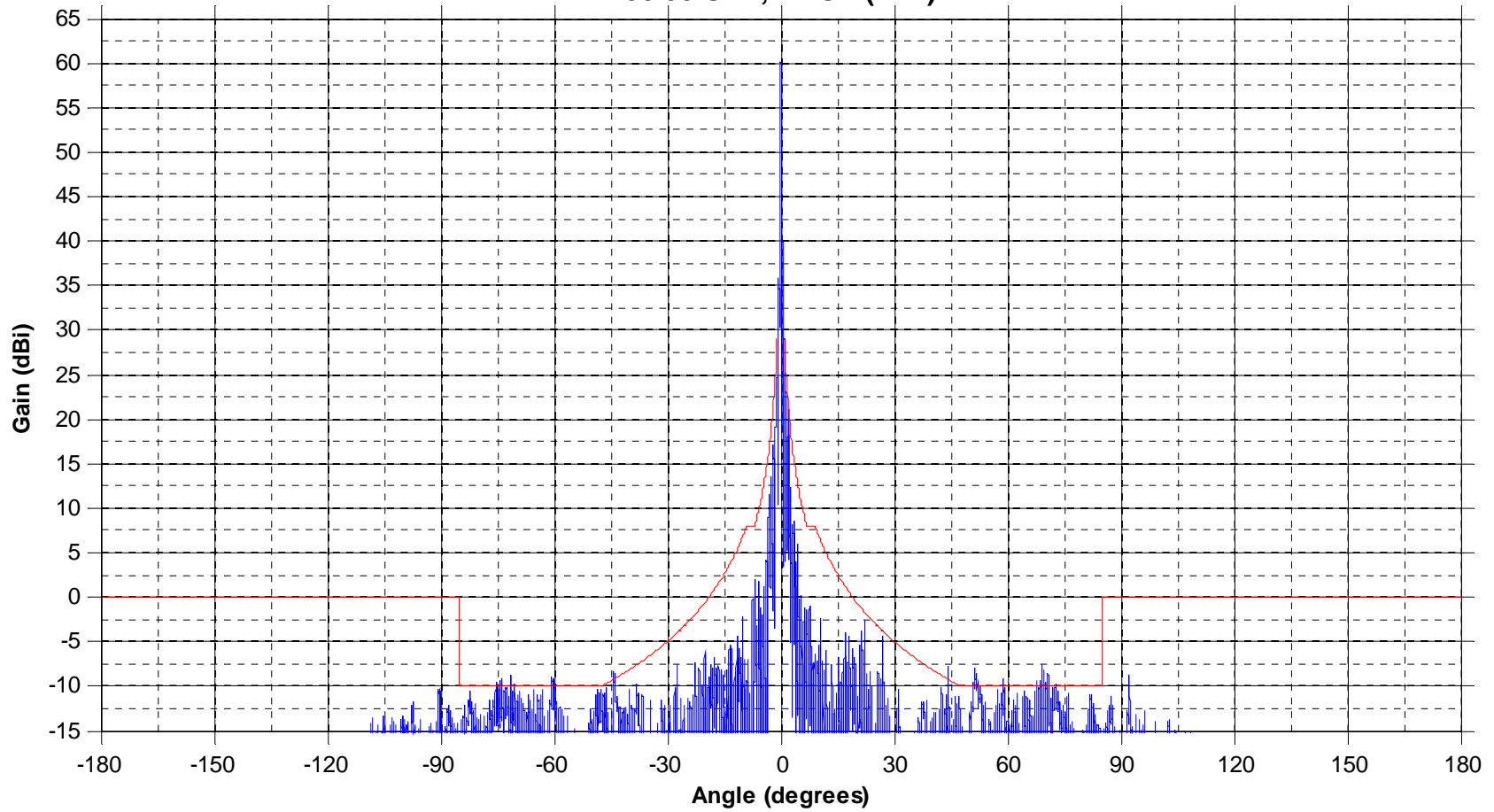
FCC 25.209

Gain: 60.14 dBi

3dB Beamwidth: 0.13°

Excursions: 0.9%

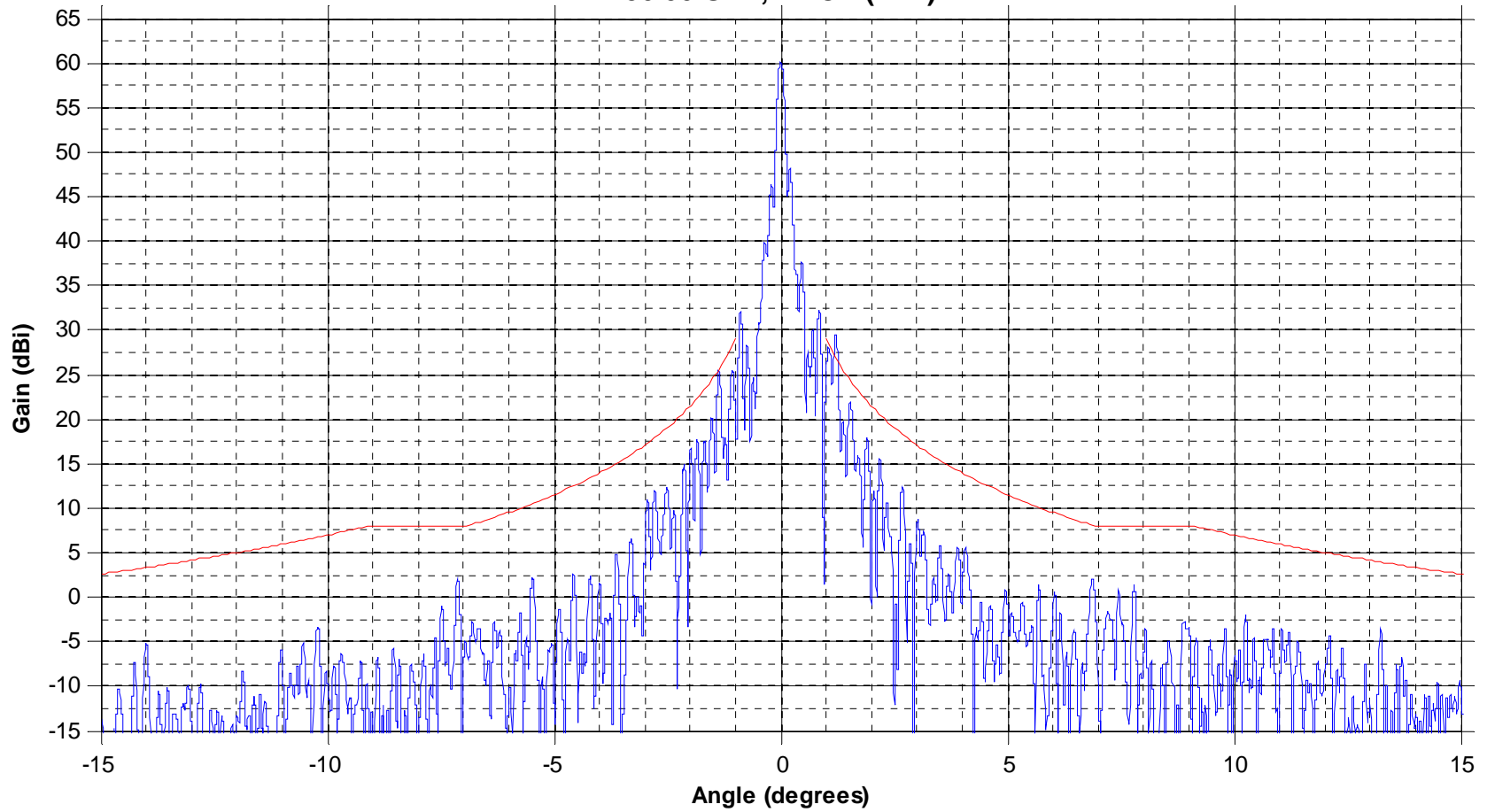
**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Azimuth Radiation Pattern, ±180°
30.00 GHz, RHCP (TX1)**



Plot 46a

Reflector: 4.9m
FCC 25.209
Gain: 60.14 dBi
3dB Beamwidth: 0.13°

**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Elevation Radiation Pattern, ±15°
30.00 GHz, RHCP (TX1)**



Plot 46b

Reflector: 4.9m

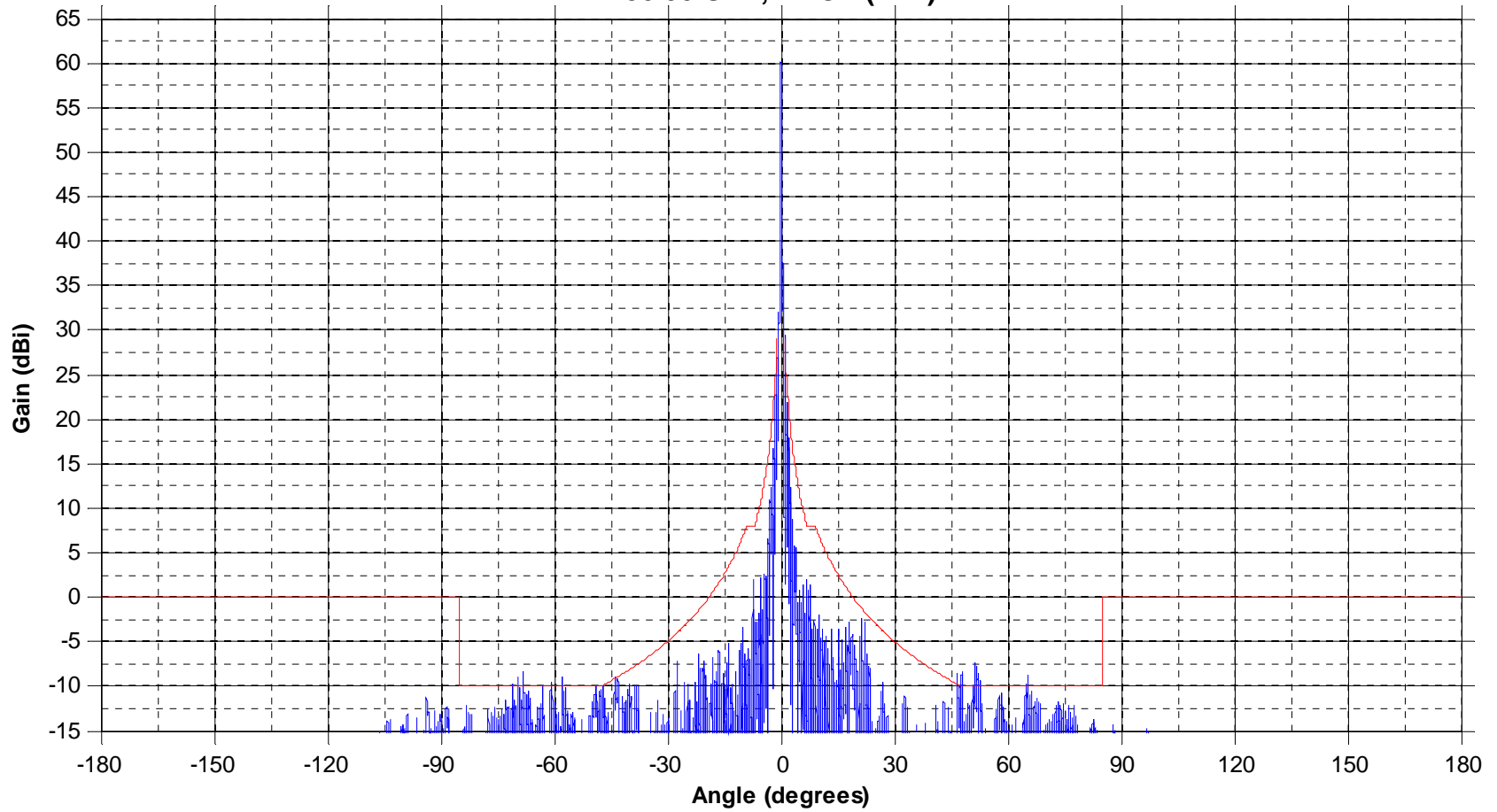
FCC 25.209

Gain: 60.14 dBi

3dB Beamwidth: 0.13°

Excursions: 0.6%

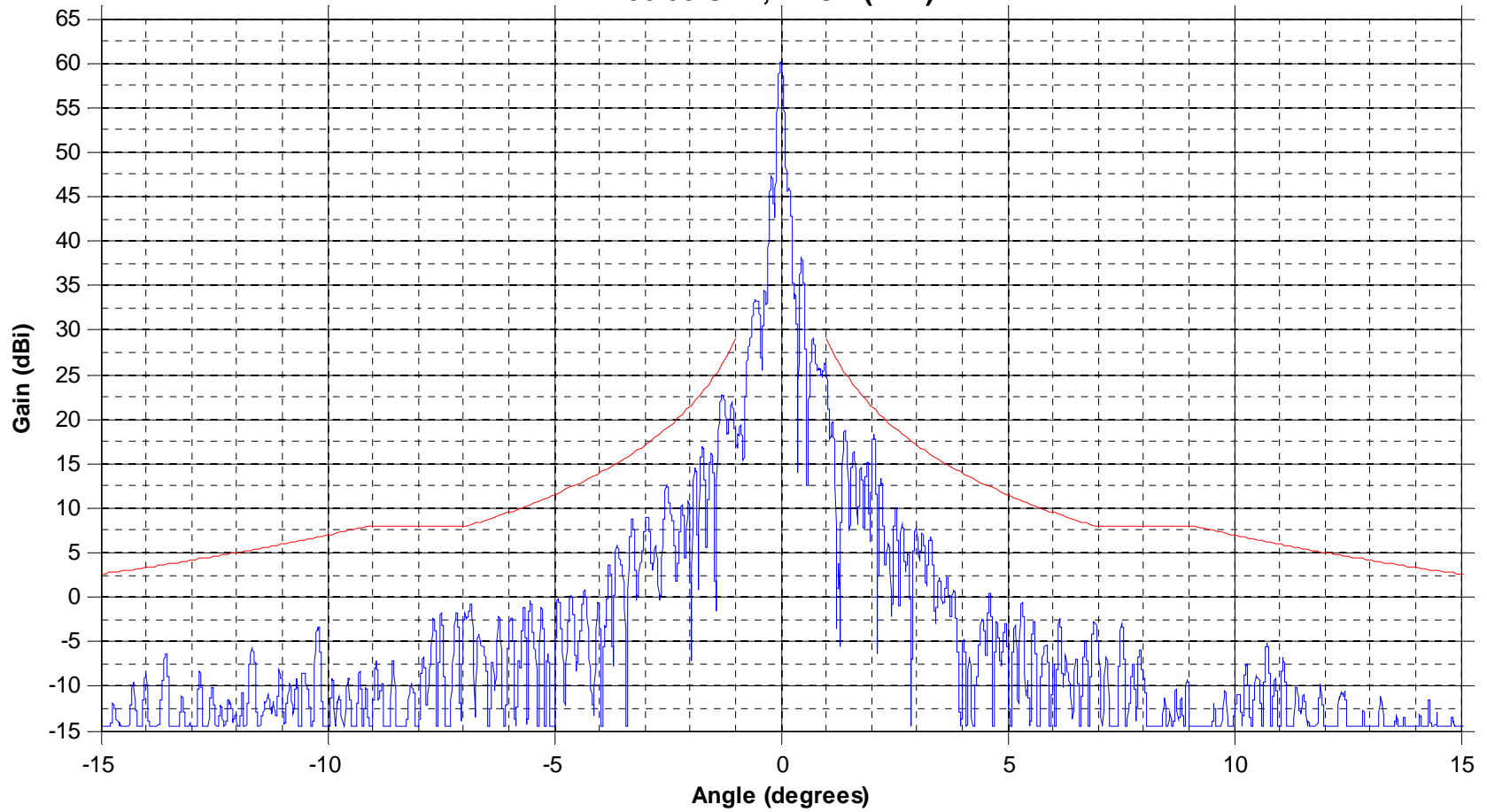
**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Elevation Radiation Pattern, ±180°
30.00 GHz, RHCP (TX1)**



Plot 47a

Reflector: 4.9m
FCC 25.209
Gain: 60.14 dBi
3dB Beamwidth: 0.11°

**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Azimuth Radiation Pattern, ±15°
30.00 GHz, LHCP (TX2)**



Plot 47b

Reflector: 4.9m

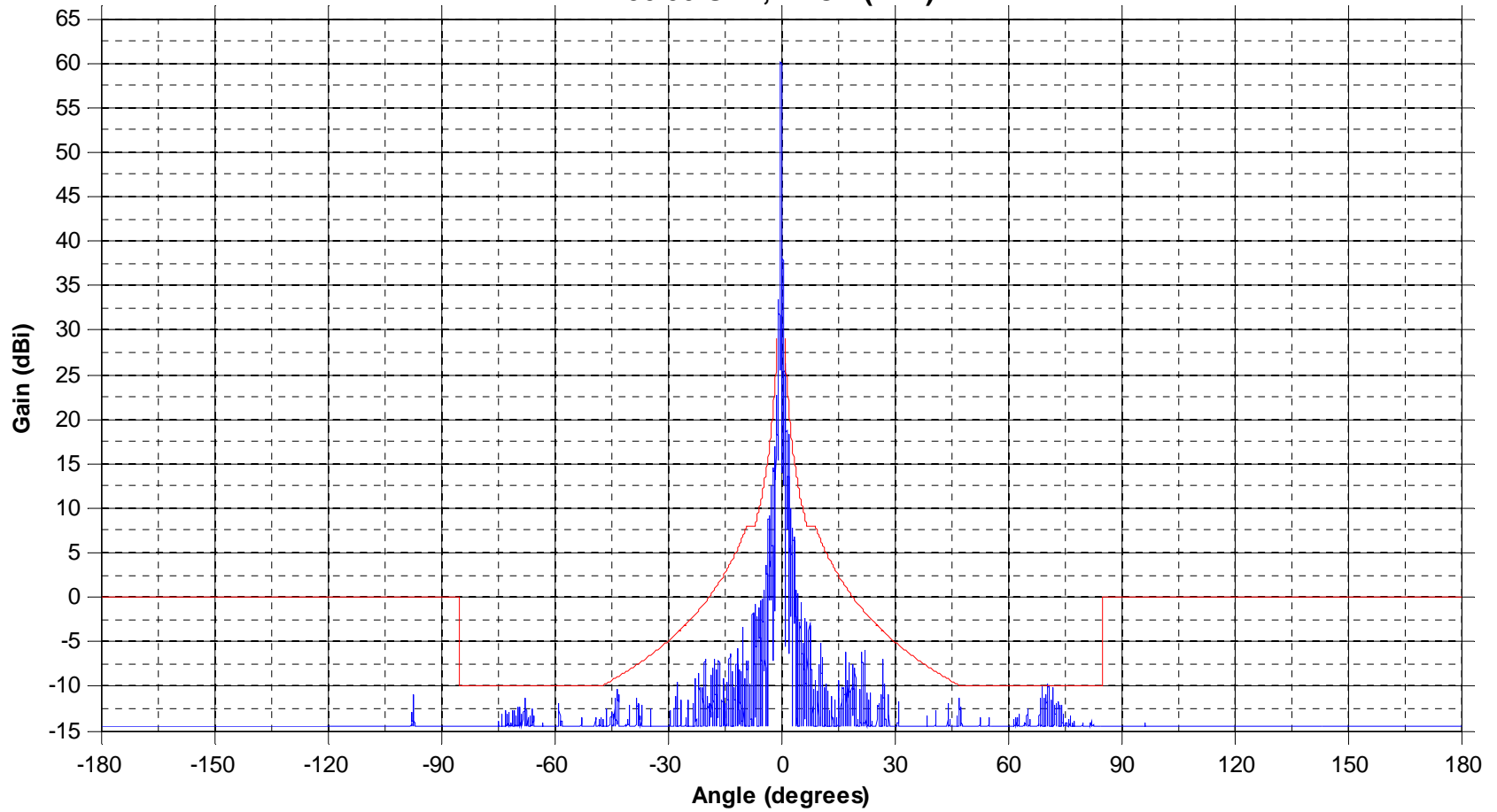
FCC 25.209

Gain: 60.14 dBi

3dB Beamwidth: 0.11°

Excursions: 0.0%

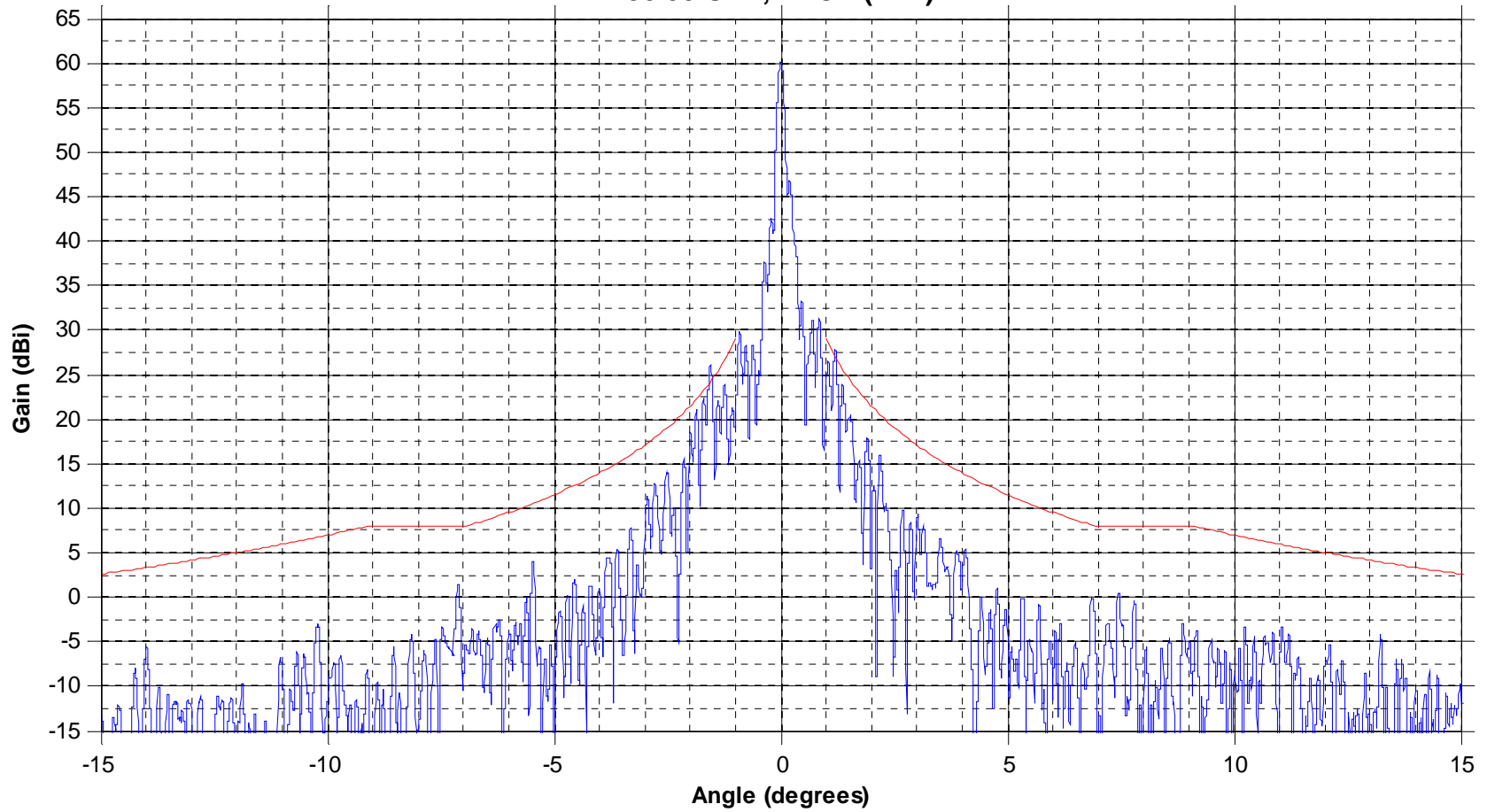
**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Azimuth Radiation Pattern, ±180°
30.00 GHz, LHCP (TX2)**



Plot 48a

Reflector: 4.9m
FCC 25.209
Gain: 60.14 dBi
3dB Beamwidth: 0.12°

**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Elevation Radiation Pattern, ±15°
30.00 GHz, LHCP (TX2)**



Plot 48b

Reflector: 4.9m

FCC 25.209

Gain: 60.14 dBi

3dB Beamwidth: 0.12°

Excursions: 0.4%

**4.9m X/Ka-Band Earth Station Antenna
Co-Pol Elevation Radiation Pattern, ±180°
30.00 GHz, LHCP (TX2)**

