

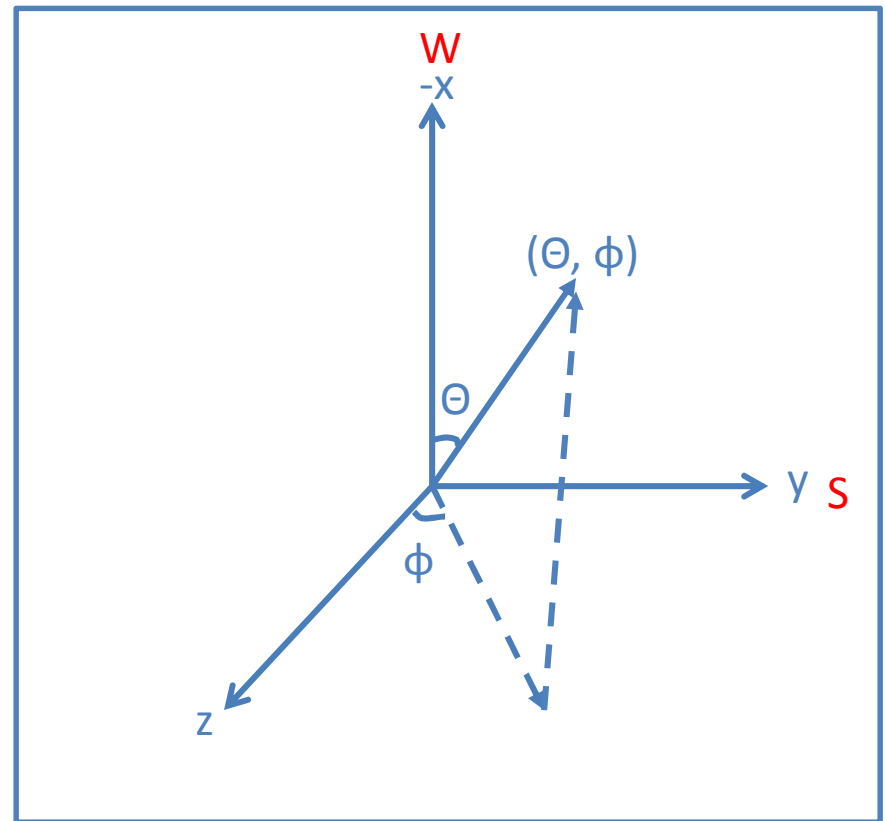
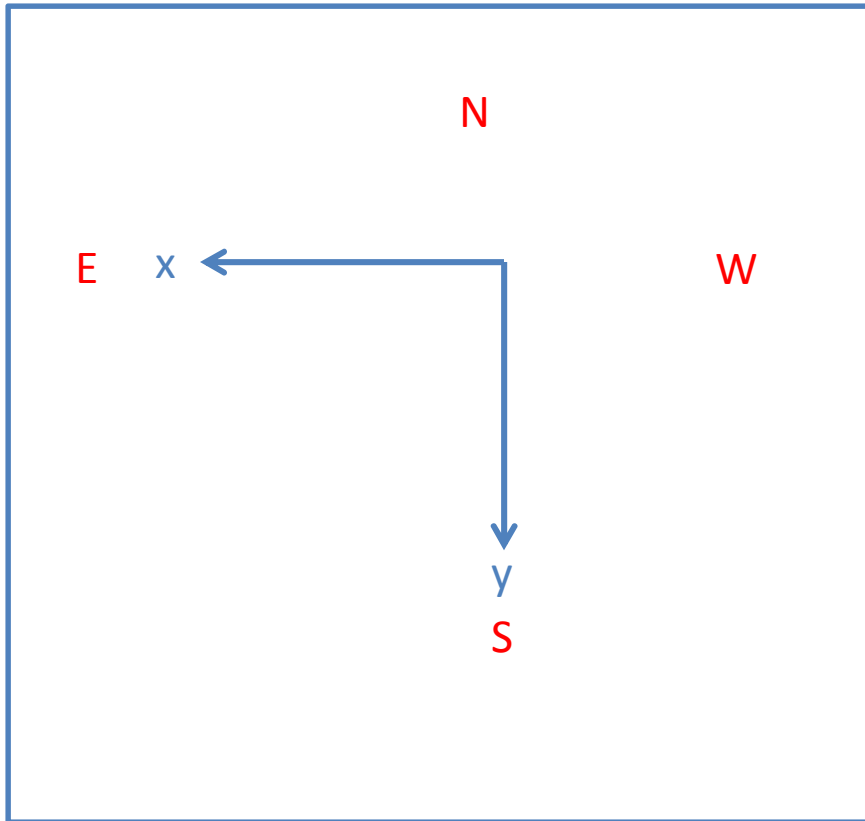
Updated: June 13, 2012

119 West Adjacent Satellite Off Axis Antenna Performance Spot Beam 33

Maximum Allowable EIRP to meet the -117dBW/m²/100 kHz

Maximum EIRP Allowed	
Spec Max flux density, dBW/m ² /100kHz	-117
Desired channel band width, MHz	25.8
Symbol rate band width modification factor	1
Effective channel bandwidth, MHz	25.8
Effective bandwidth, dB-100kHz	24.1
Flux density allowed per channel, dBW/m ²	-92.9
R, radial distance to GEO, km	42164.0
Angle of separation between satellites, deg	0.1
range between satellites, km	73.59
Spreading factor, dB/m ²	-108.3
Atmospheric loss, dB	0
Max satellite EIRP allowed, dBW	15.4

Coordinate System



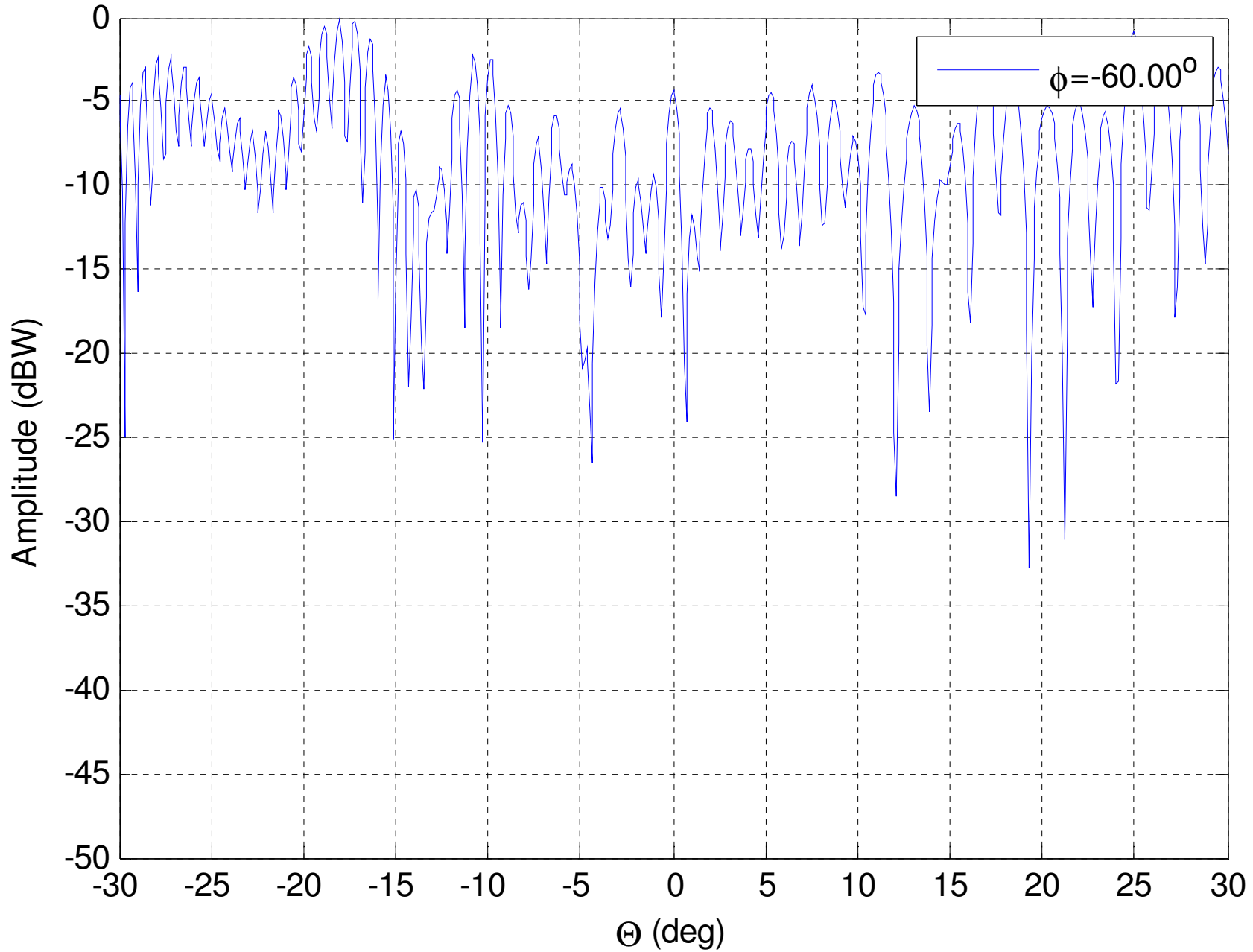
Spot Beam33, -X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: -X -axis)
- $-60 < \phi < 60$
- Freq = 17.305, 17.5, and 17.695 GHz
- The Zero reference line is the maximum EIRP listed in the title of each plot sheet. All levels are below the required 15.4 dBW maximum
- The Zero reference for the maximum antenna gain is the maximum EIRP listed minus the power input to the antenna specified in Table I of the attached narrative.

RHCP at 17.3 GHz

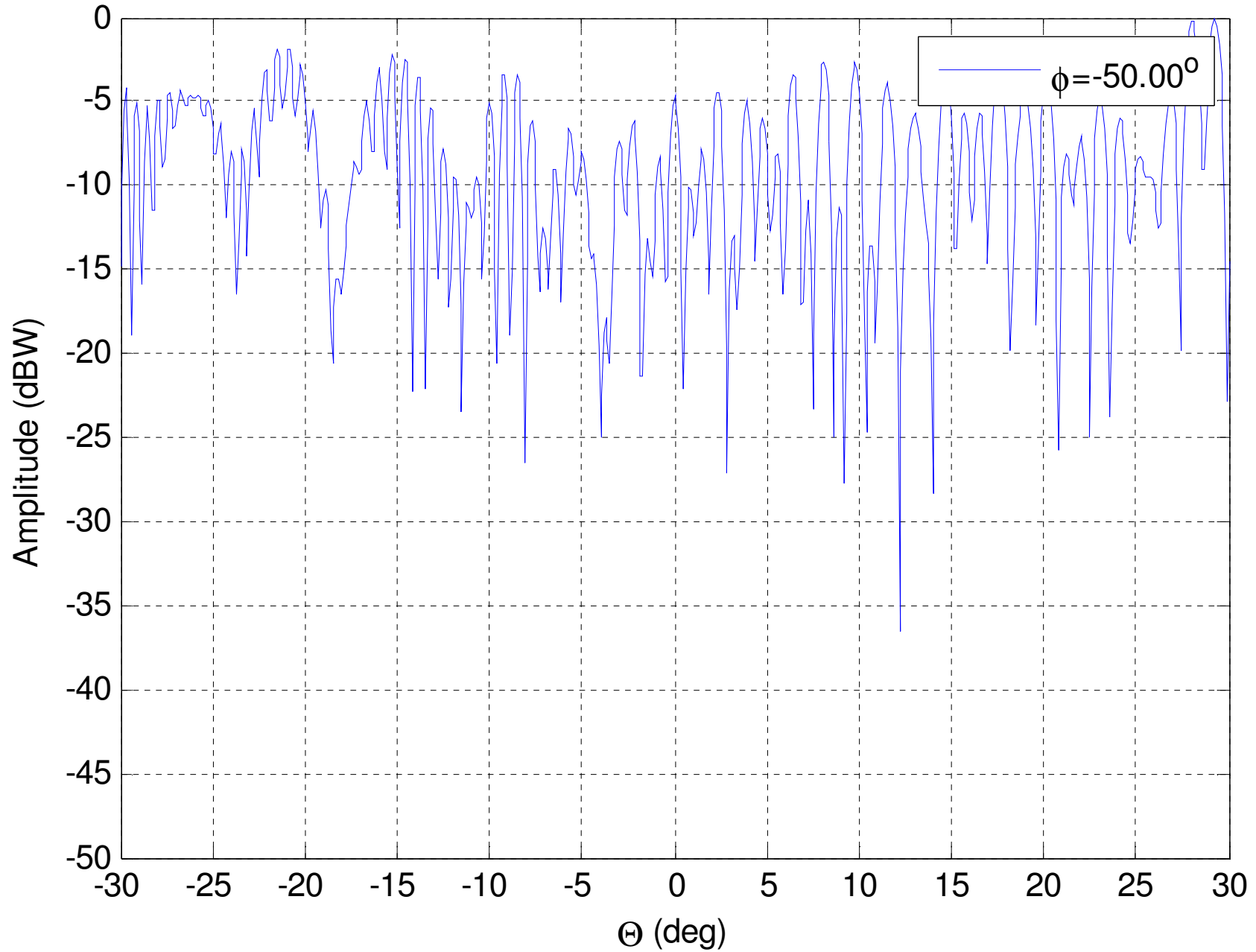
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -9.84 dBW, Date: 15-Dec-2011



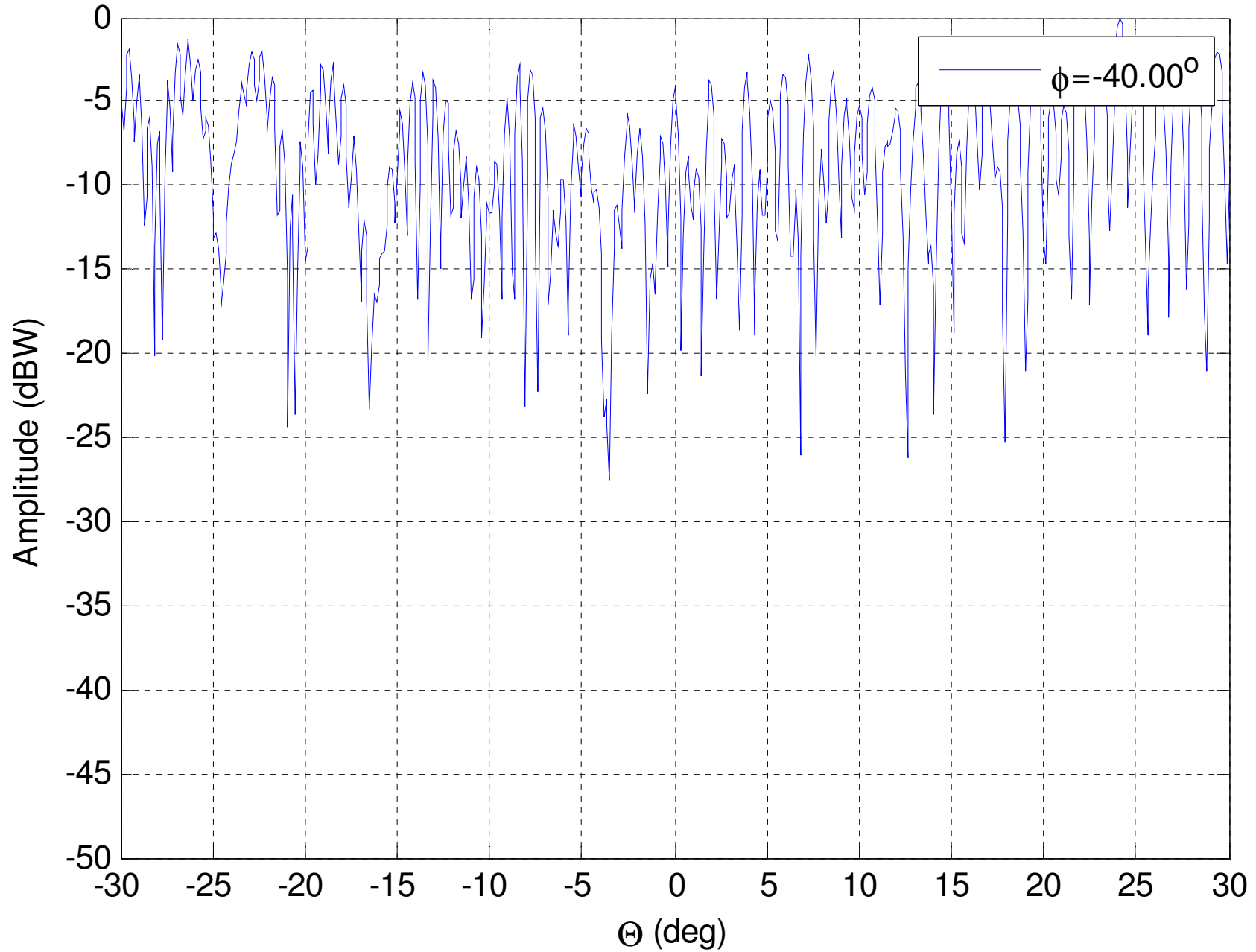
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -9.48 dBW, Date: 15-Dec-2011



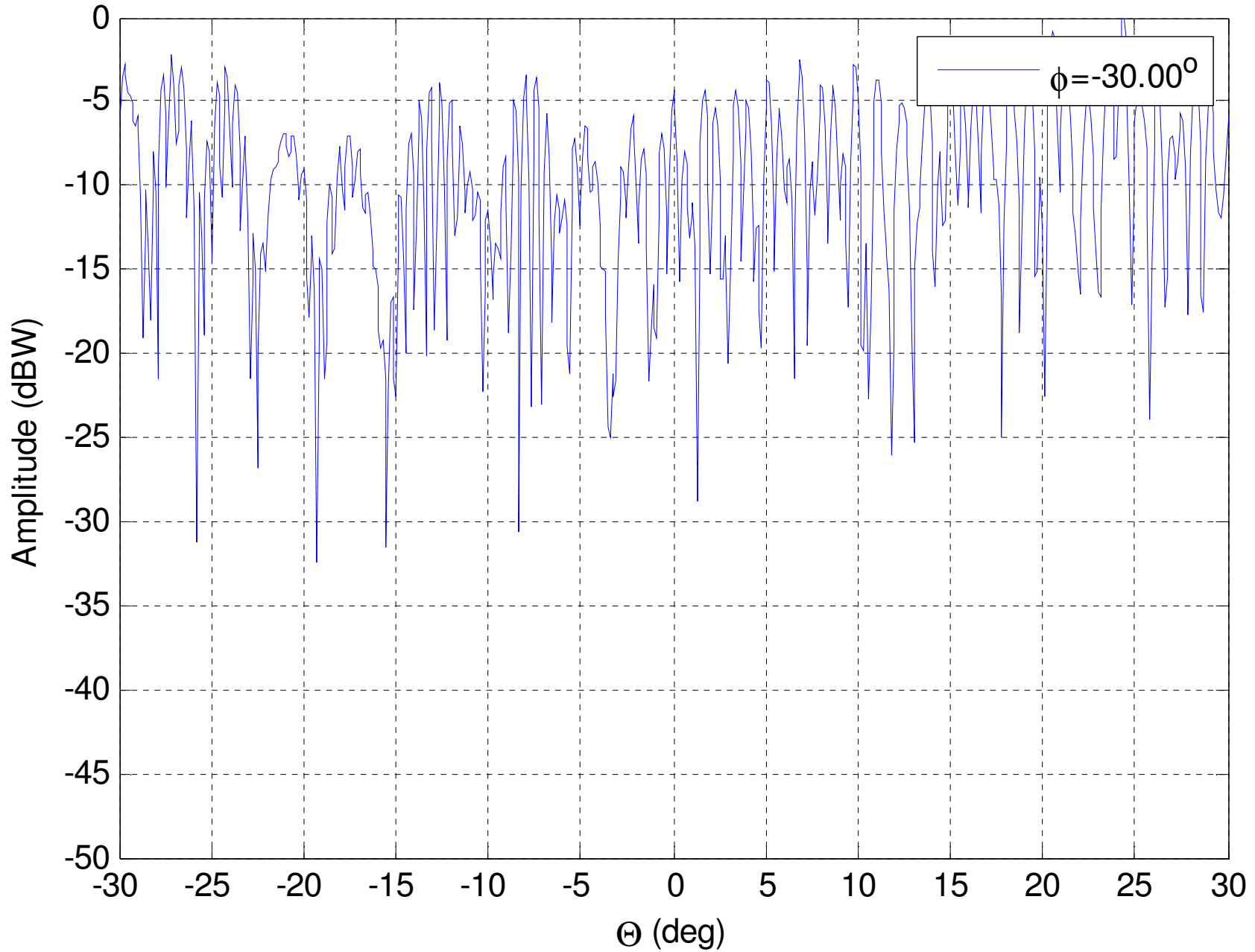
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -10.12 dBW, Date: 15-Dec-2011



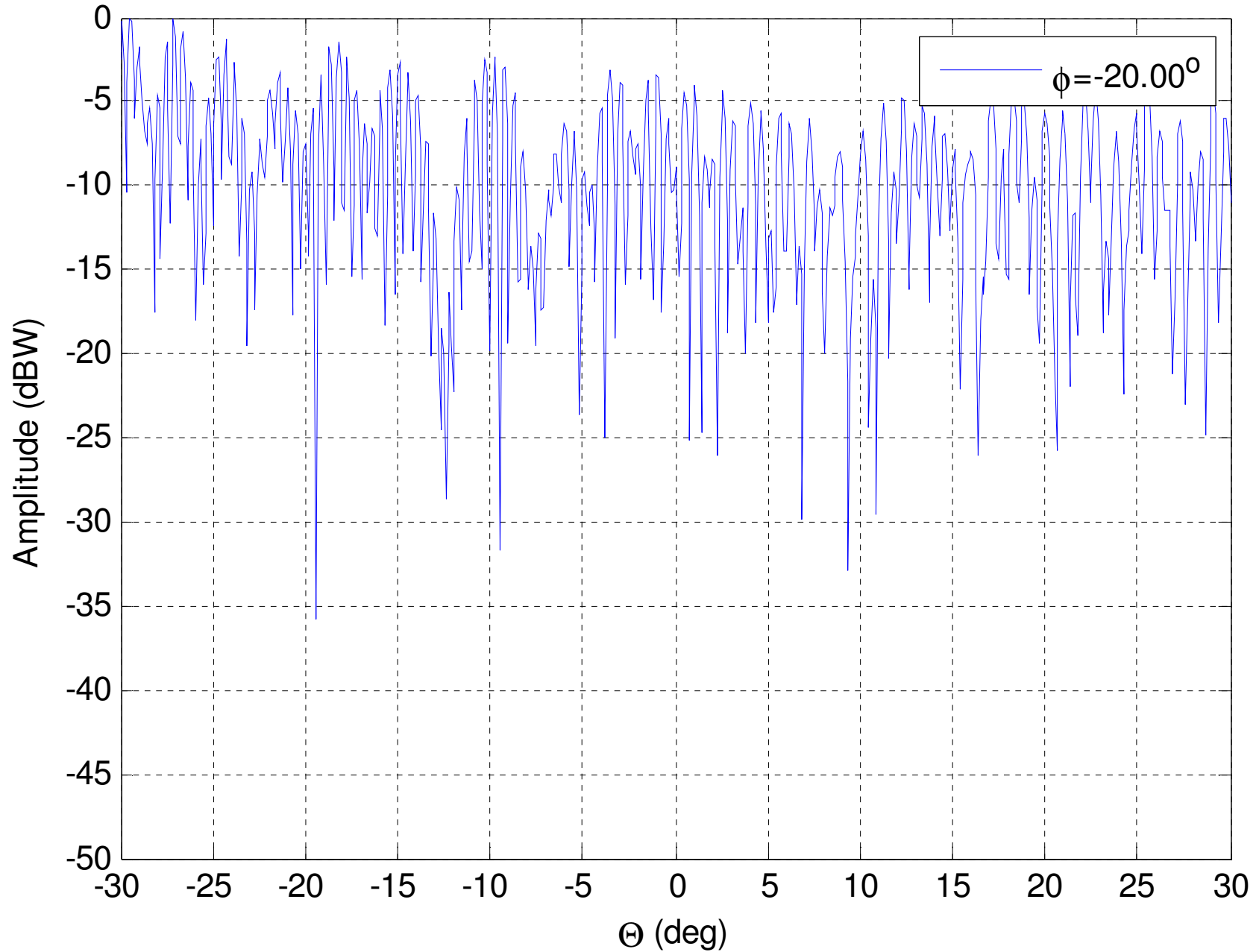
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -9.76 dBW, Date: 15-Dec-2011



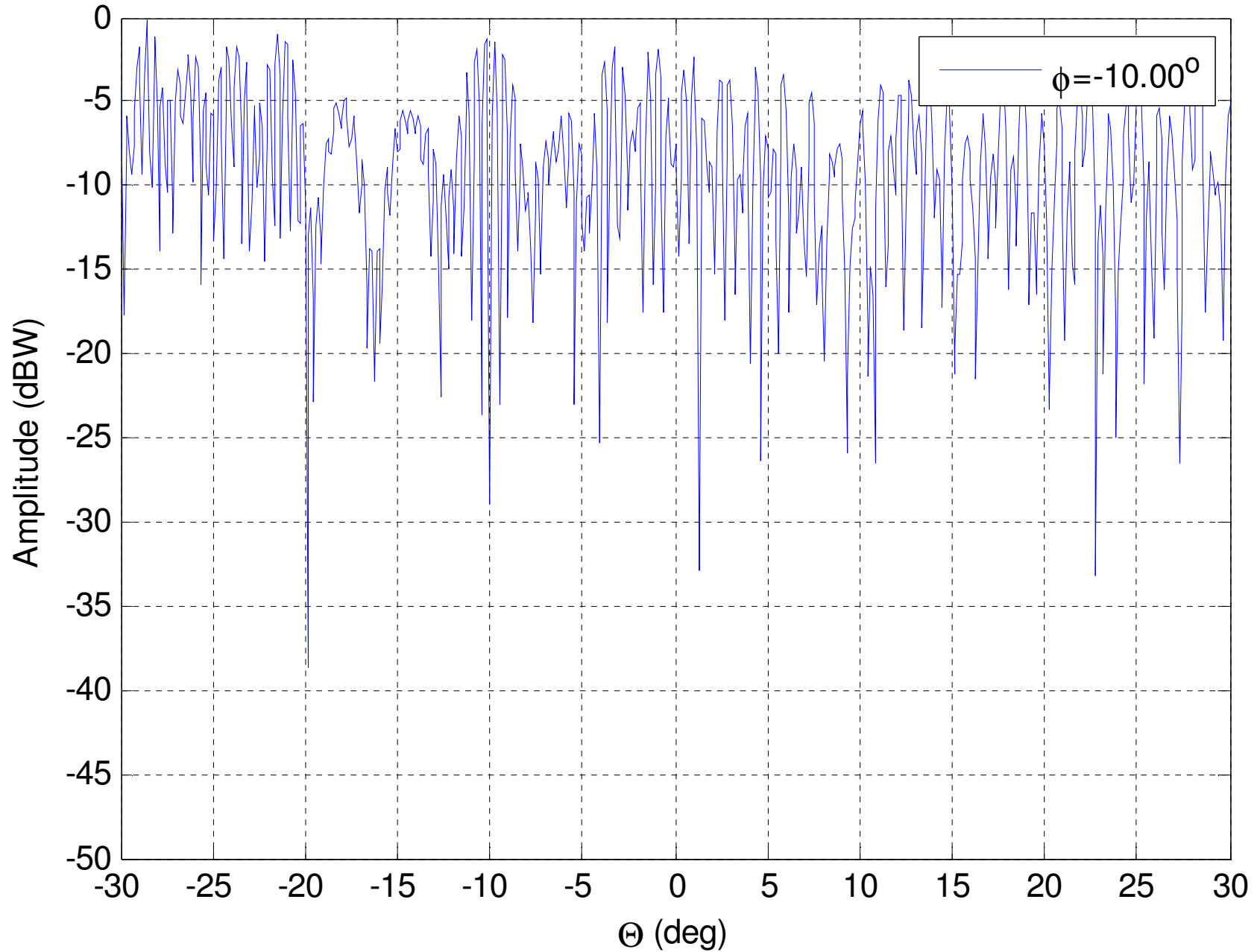
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: -10.51 dBW, Date: 15-Dec-2011



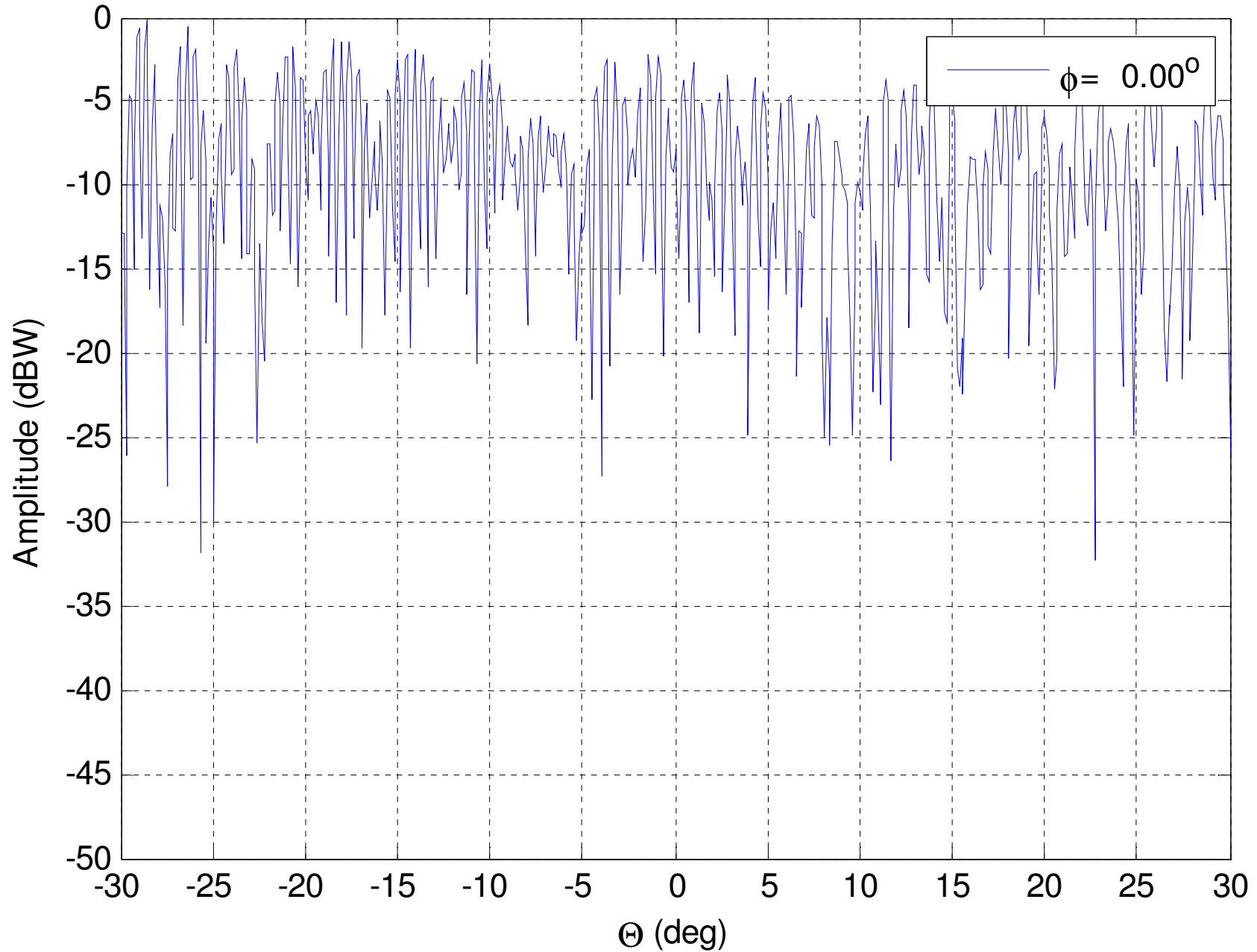
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: -11.94 dBW, Date: 15-Dec-2011



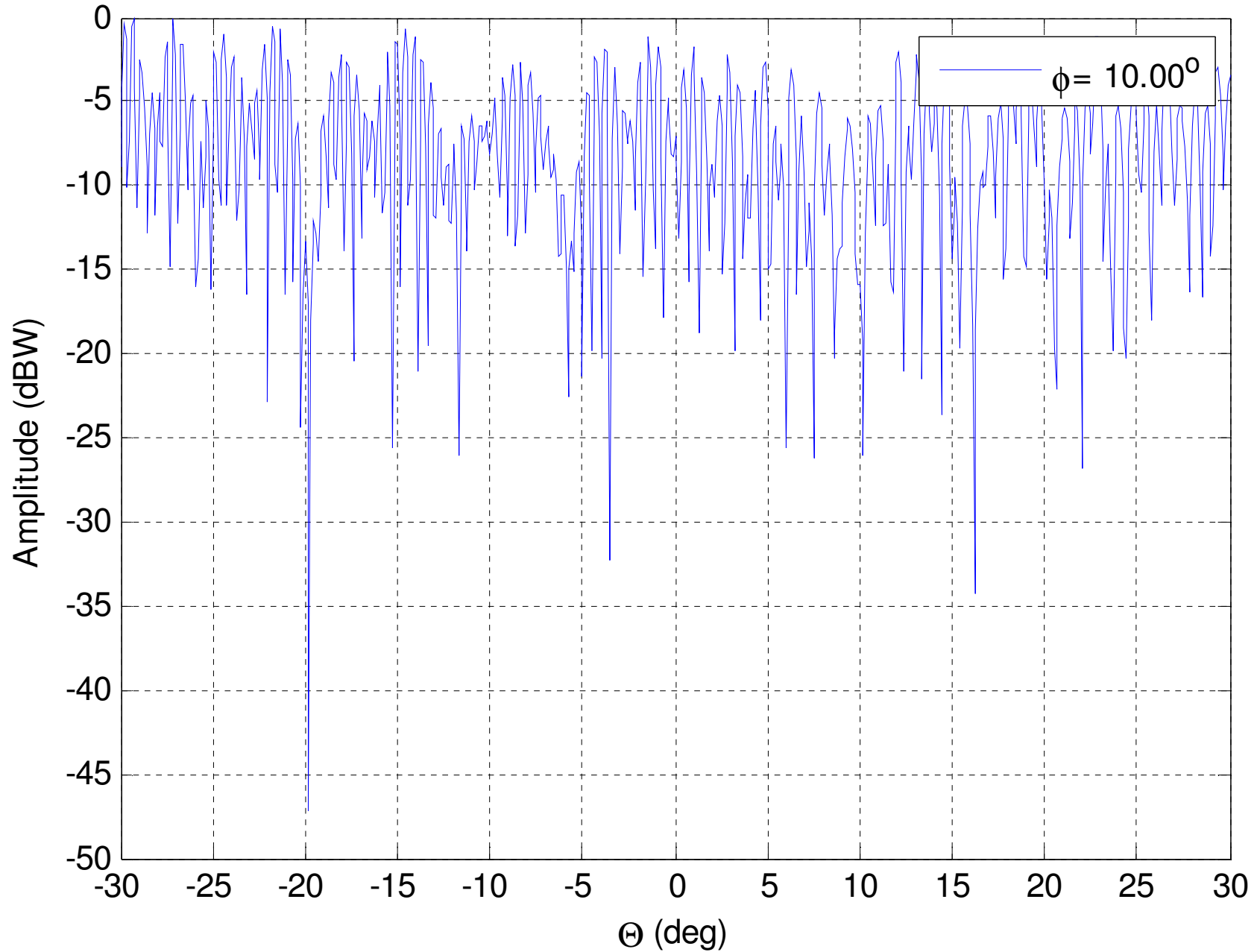
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: -11.61 dBW, Date: 15-Dec-2011



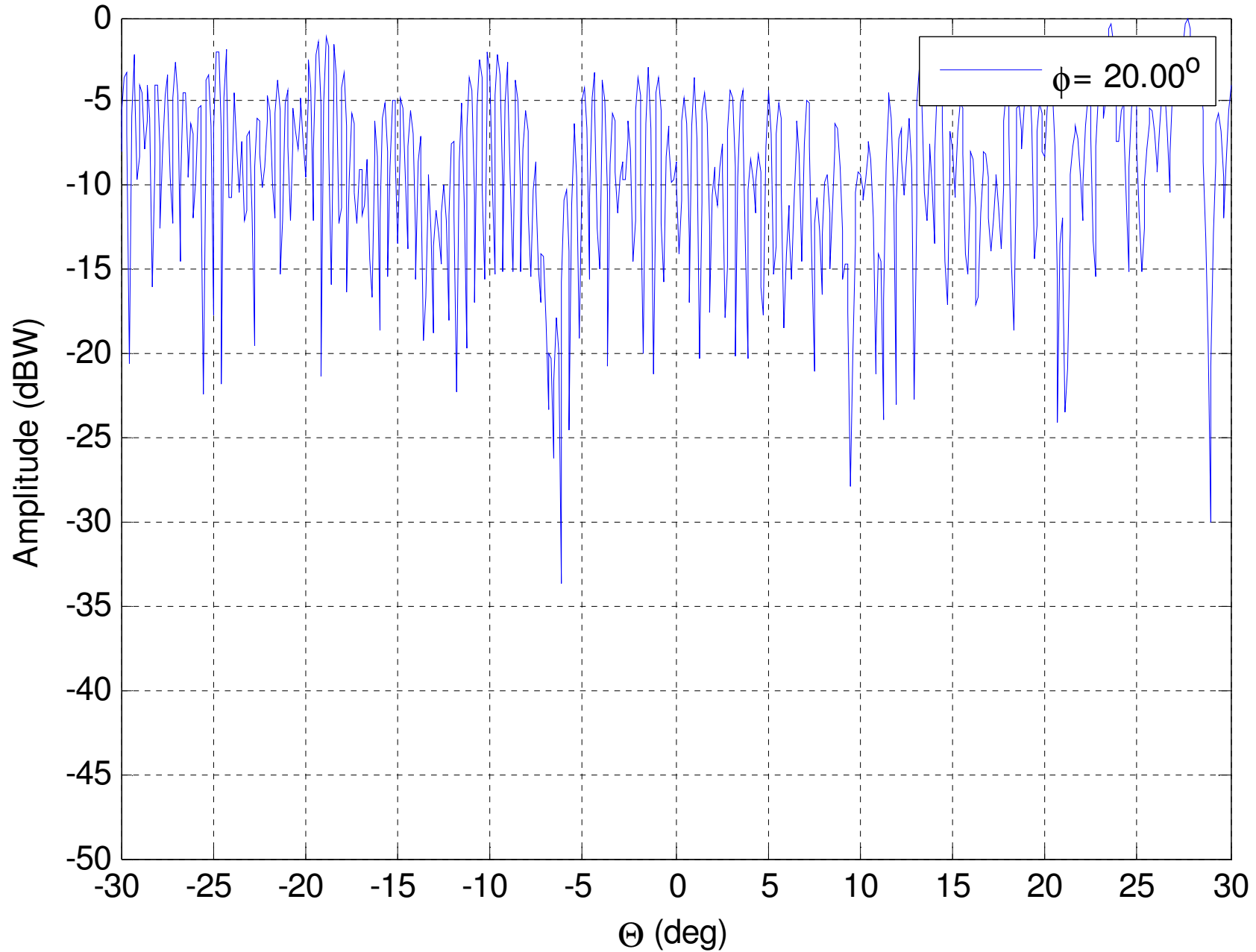
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: -12.41 dBW, Date: 15-Dec-2011



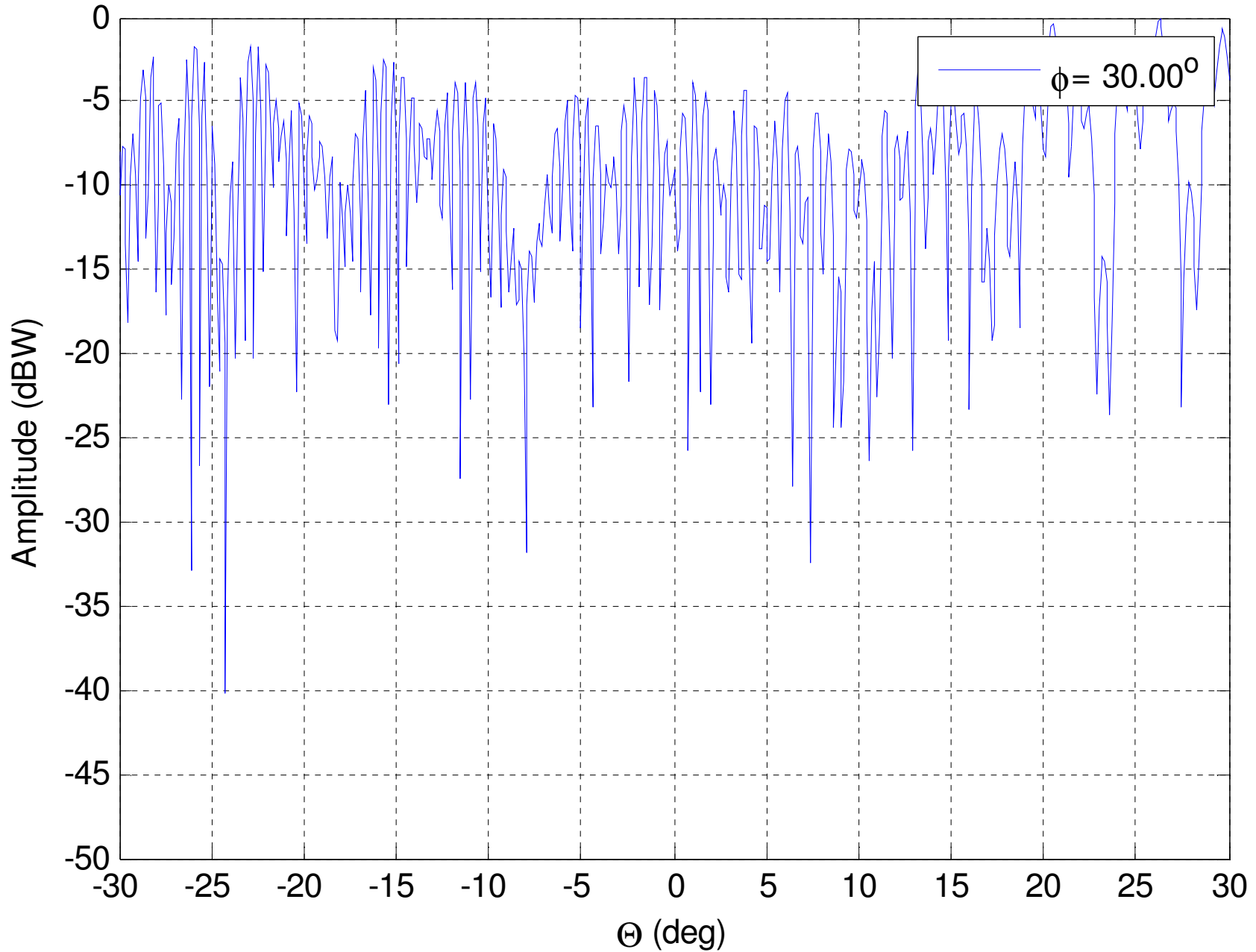
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: -10.91 dBW, Date: 15-Dec-2011



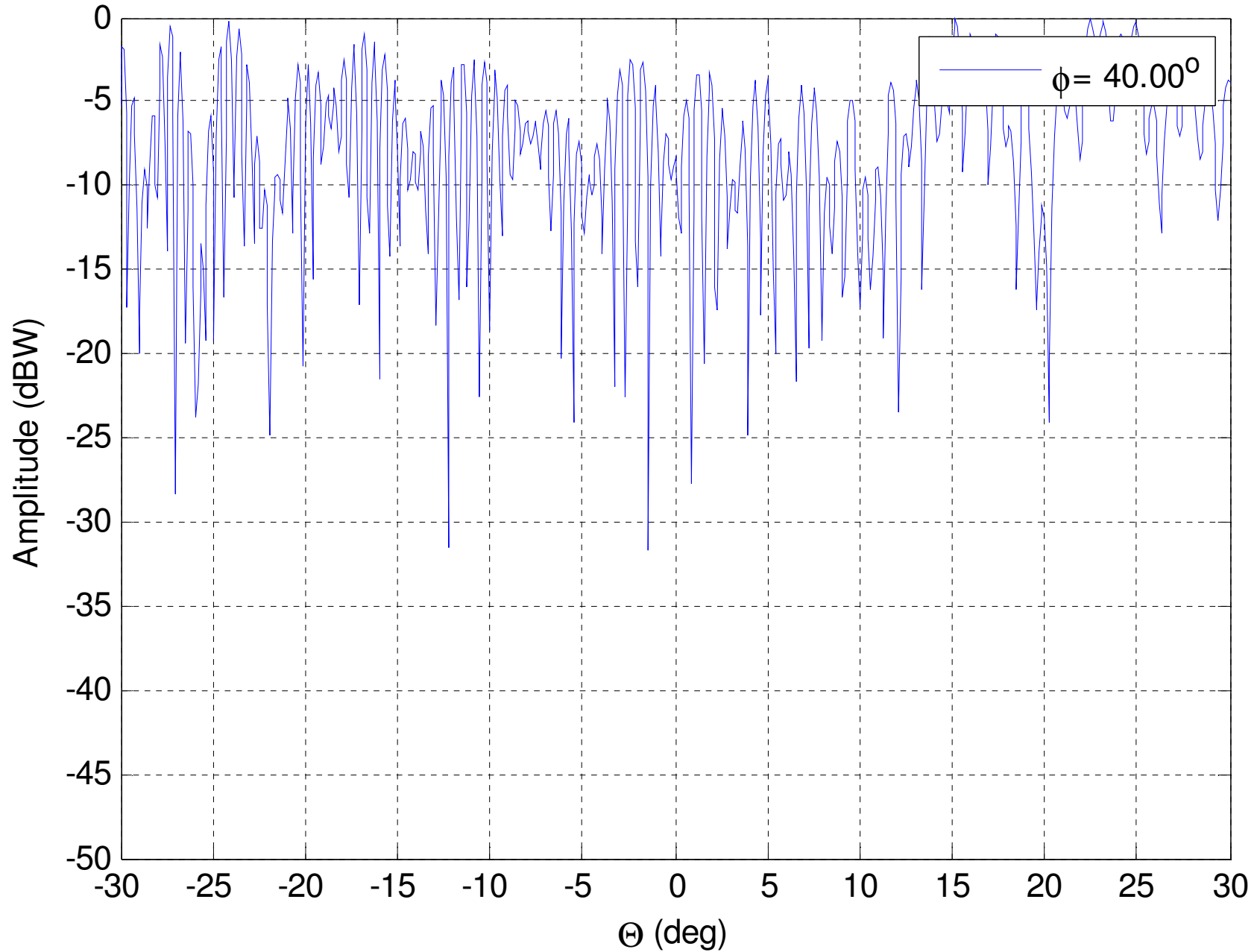
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: -10.34 dBW, Date: 15-Dec-2011



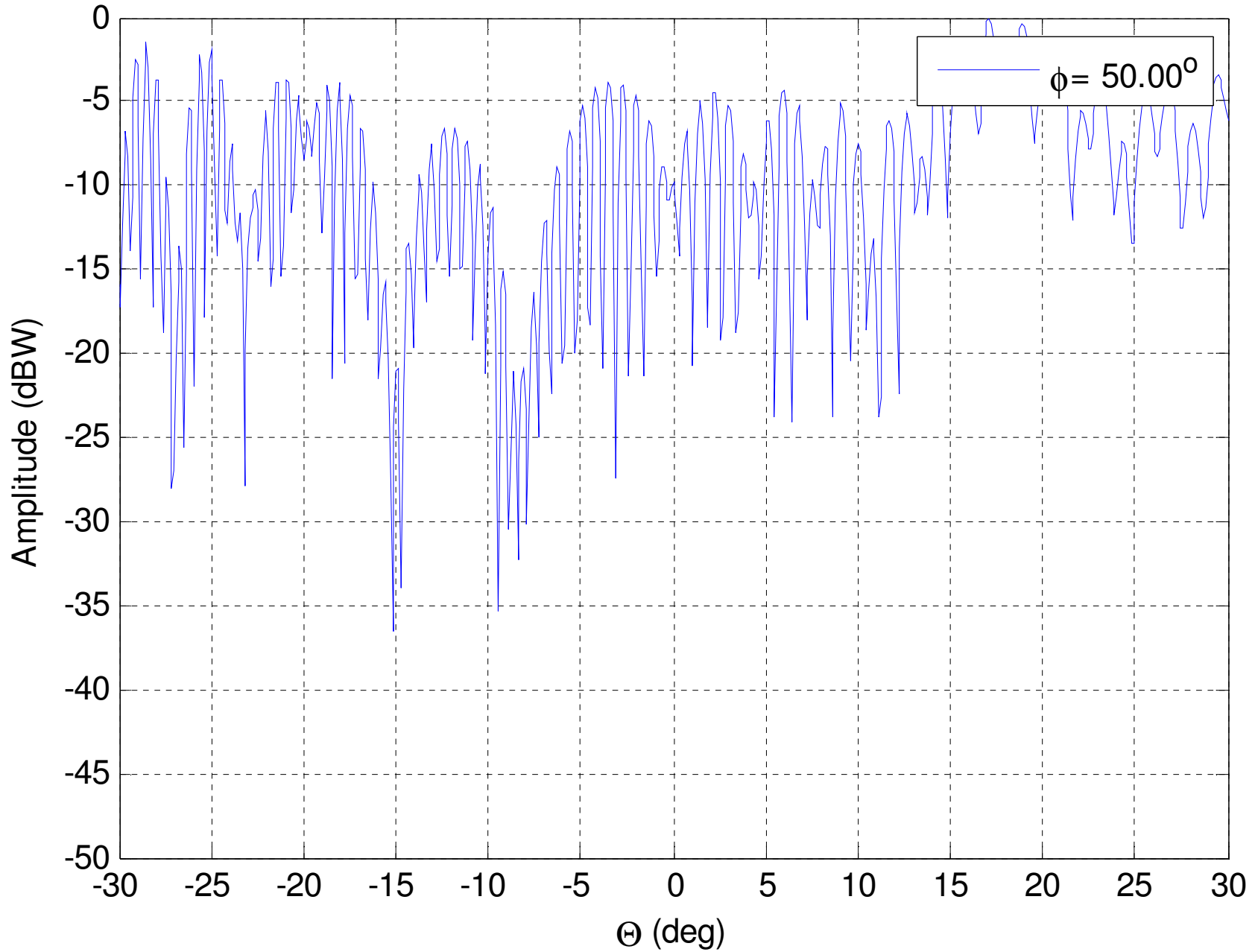
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -11.15 dBW, Date: 15-Dec-2011



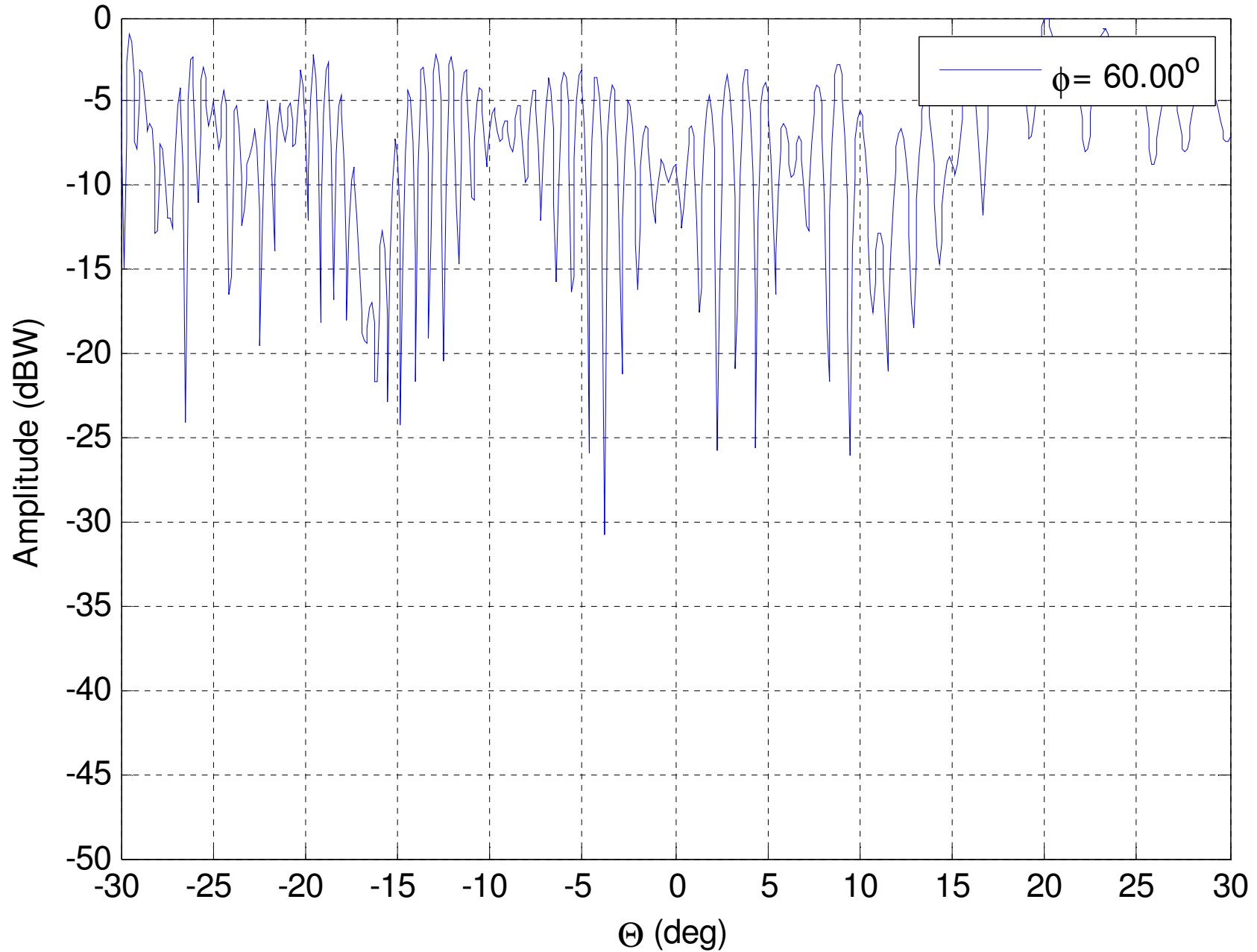
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -9.71 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

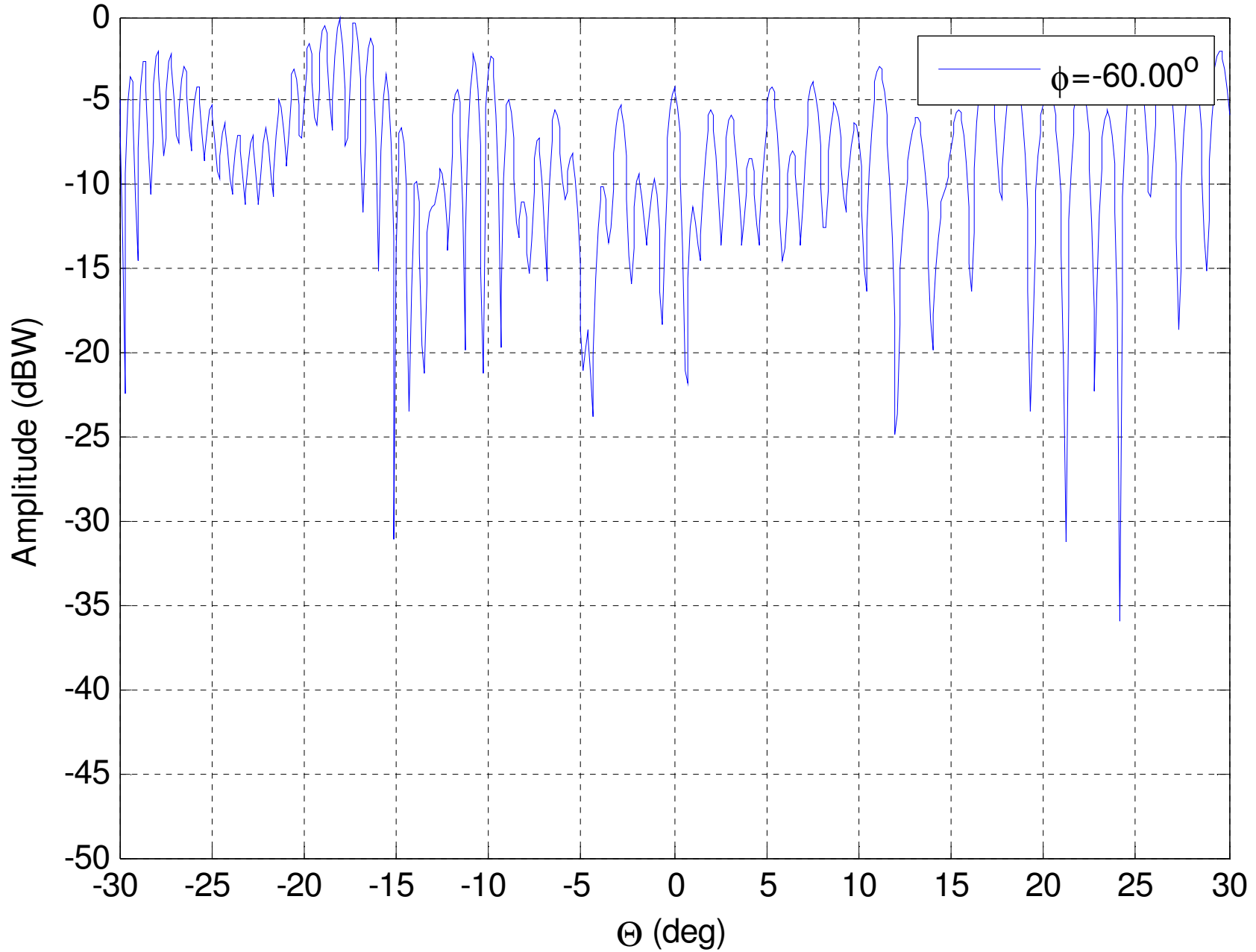
Input file: tx-17.3-rhcp-60.cut, Peak: -10.75 dBW, Date: 15-Dec-2011



LHCP at 17.3 GHz

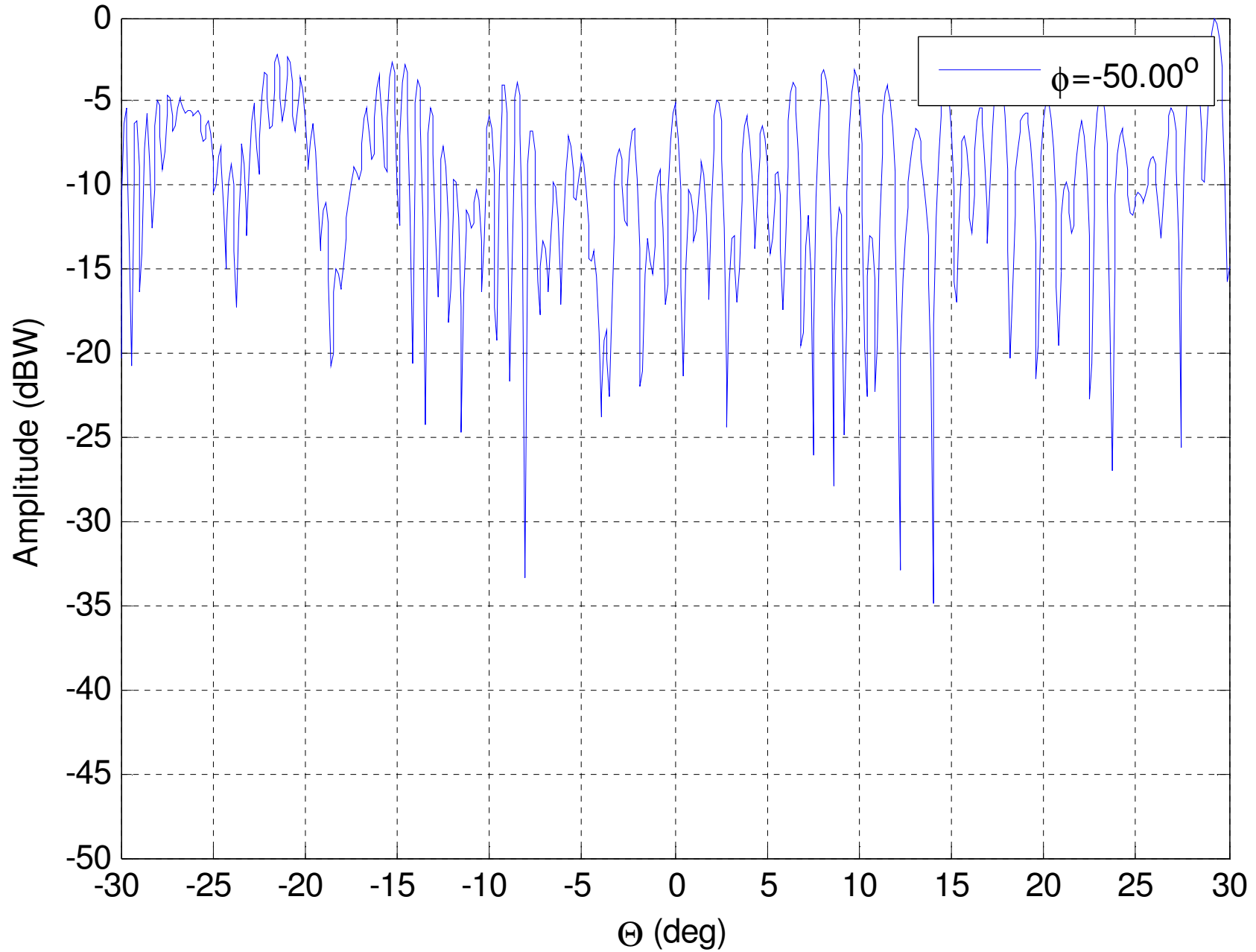
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -9.92 dBW, Date: 15-Dec-2011



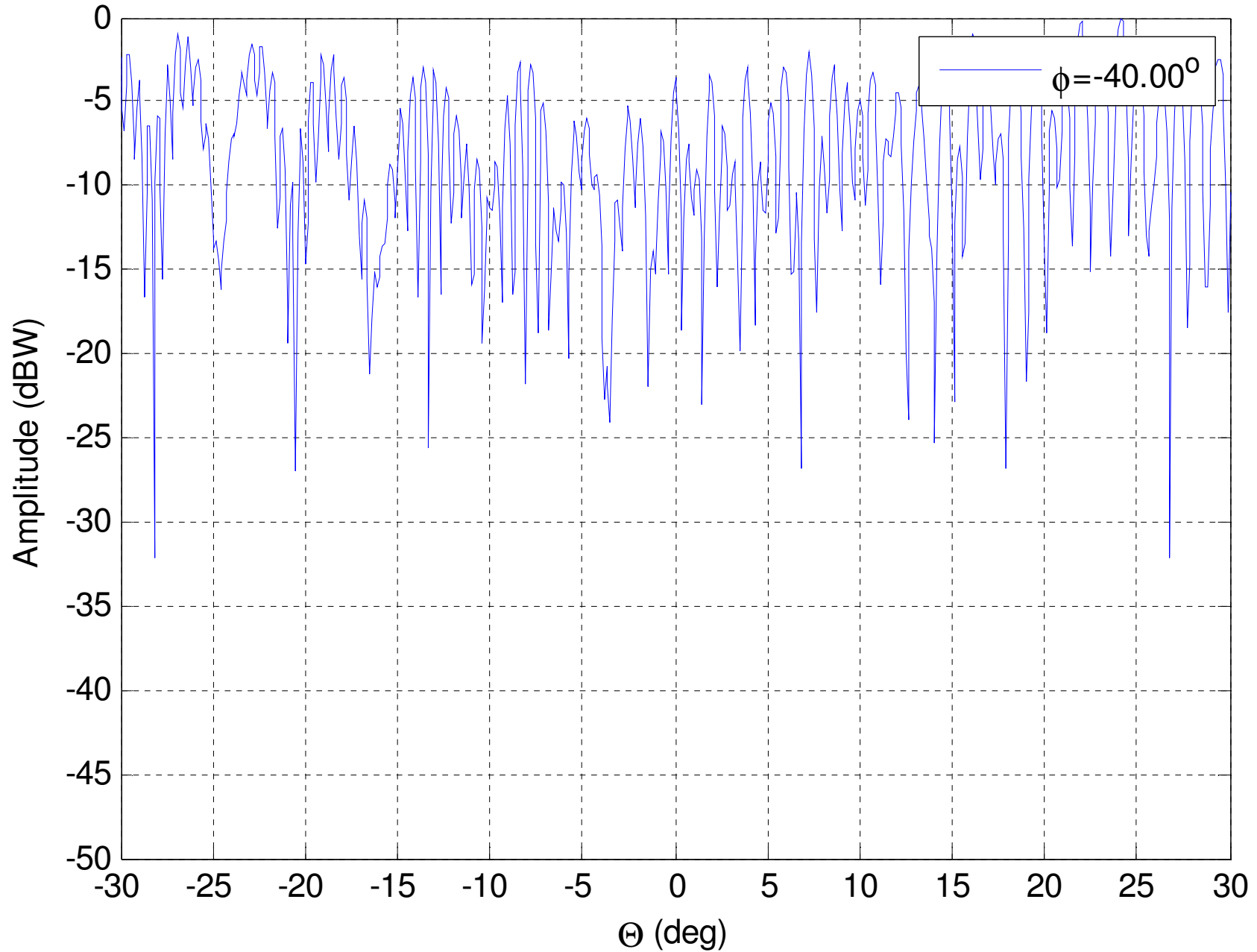
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -9.02 dBW, Date: 15-Dec-2011



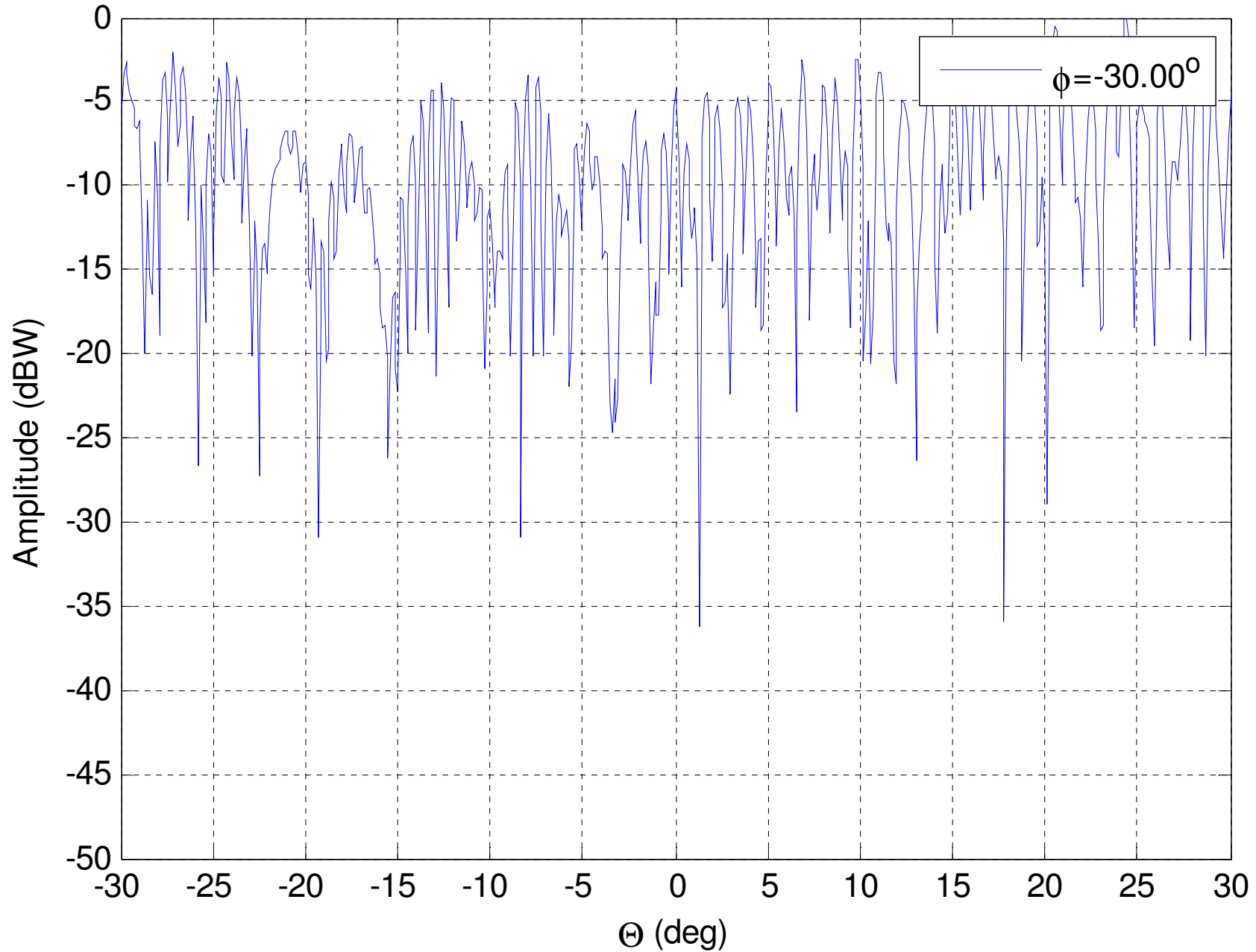
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -10.55 dBW, Date: 15-Dec-2011



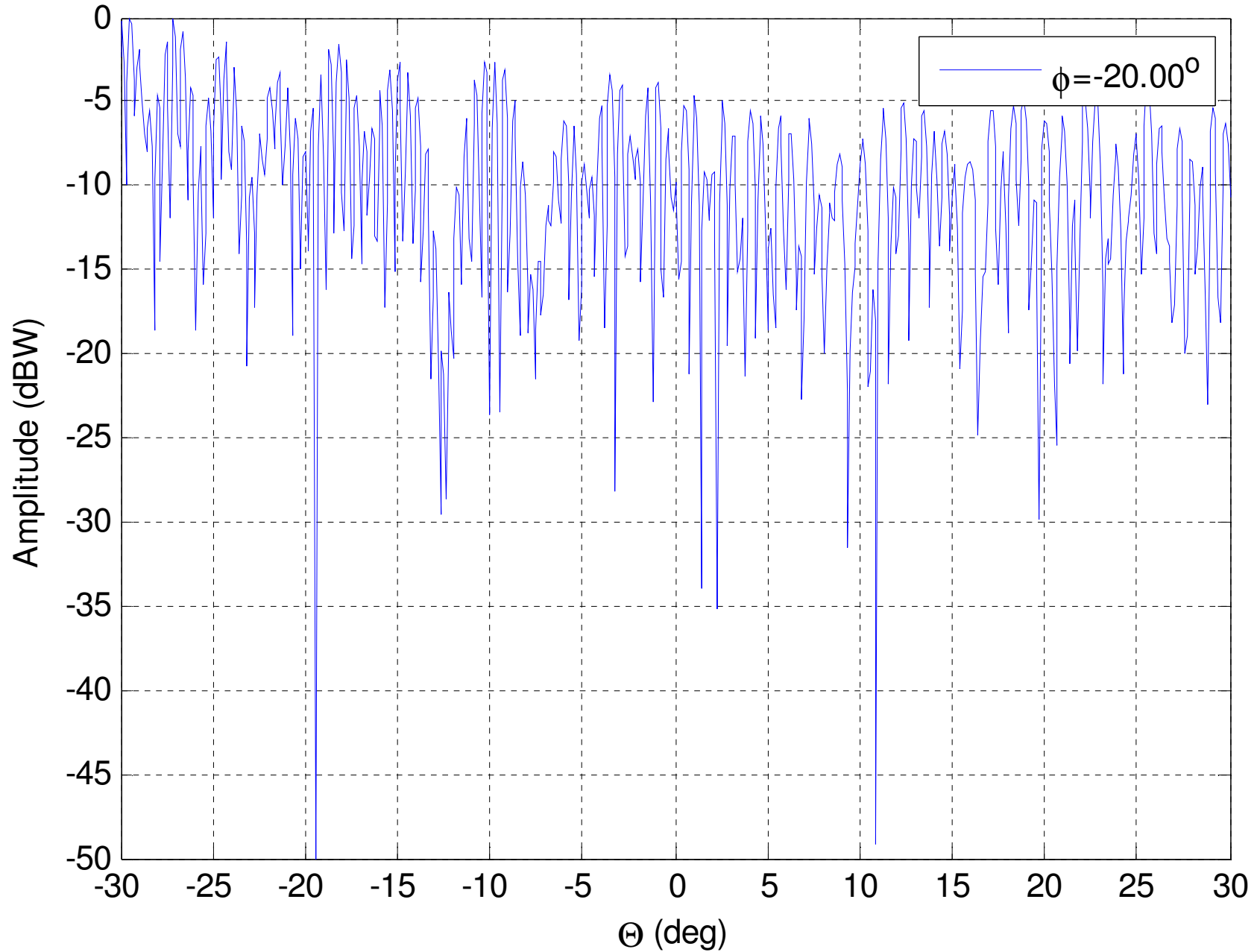
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: -9.93 dBW, Date: 15-Dec-2011



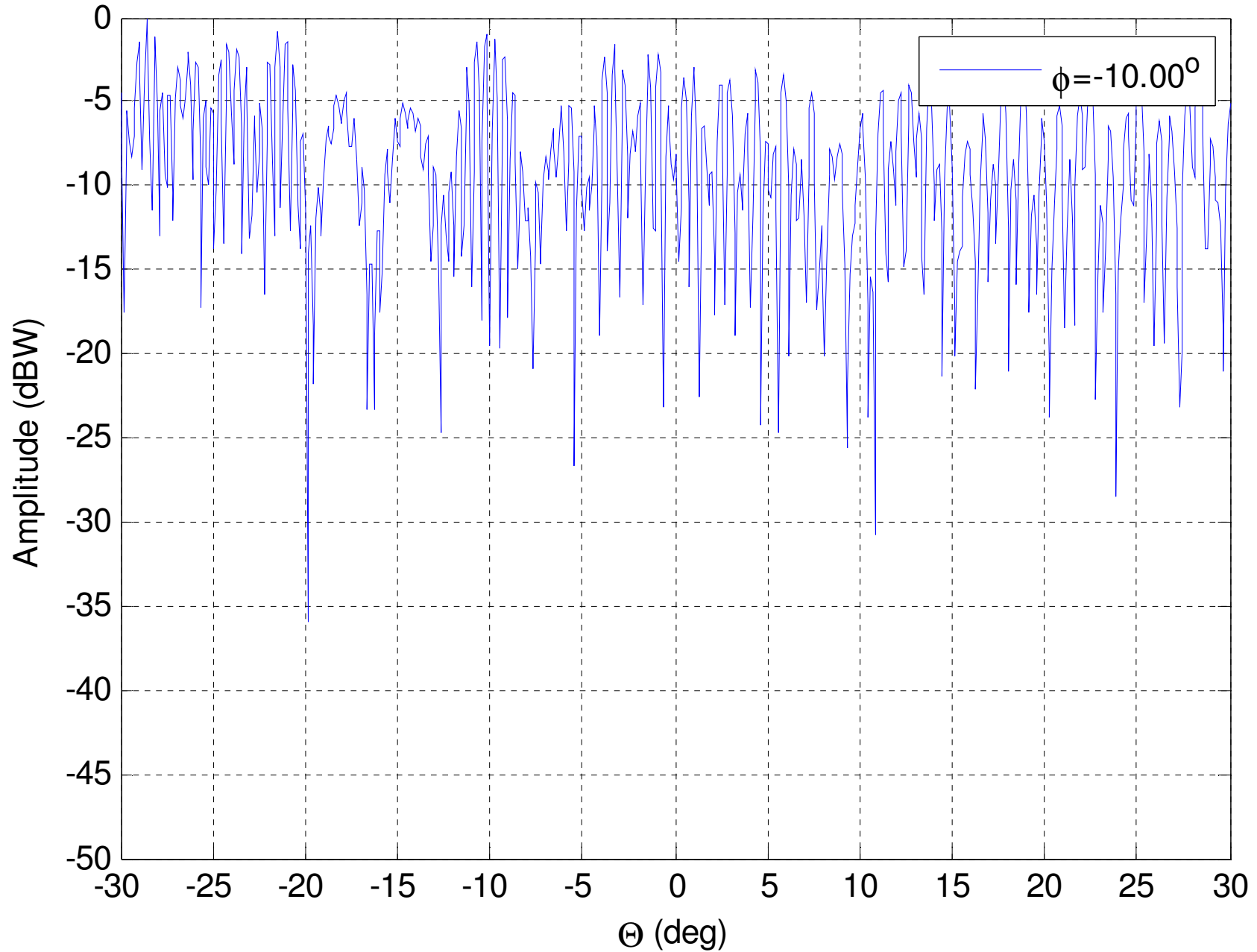
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: -10.30 dBW, Date: 15-Dec-2011



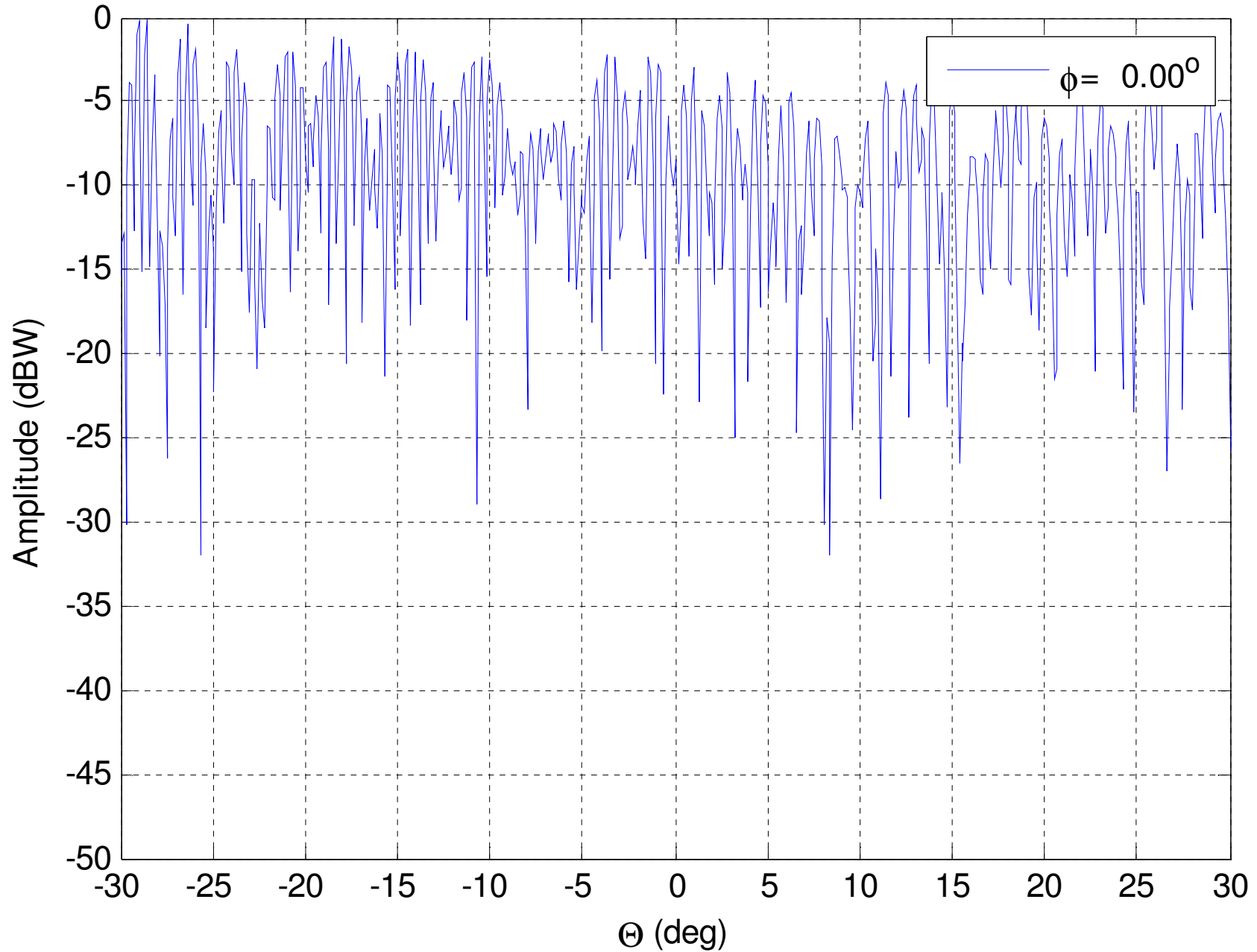
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: -11.98 dBW, Date: 15-Dec-2011



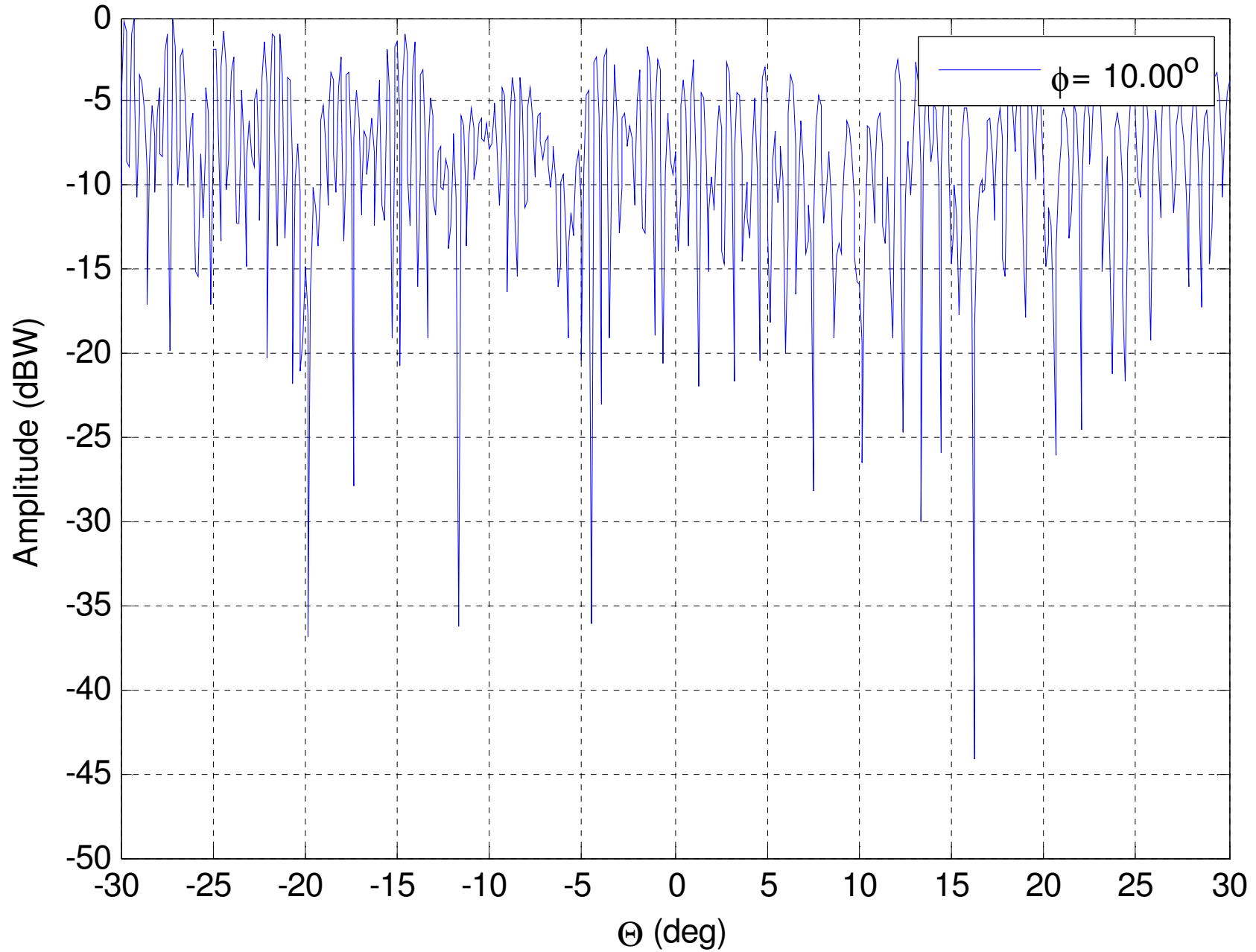
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: -11.69 dBW, Date: 15-Dec-2011



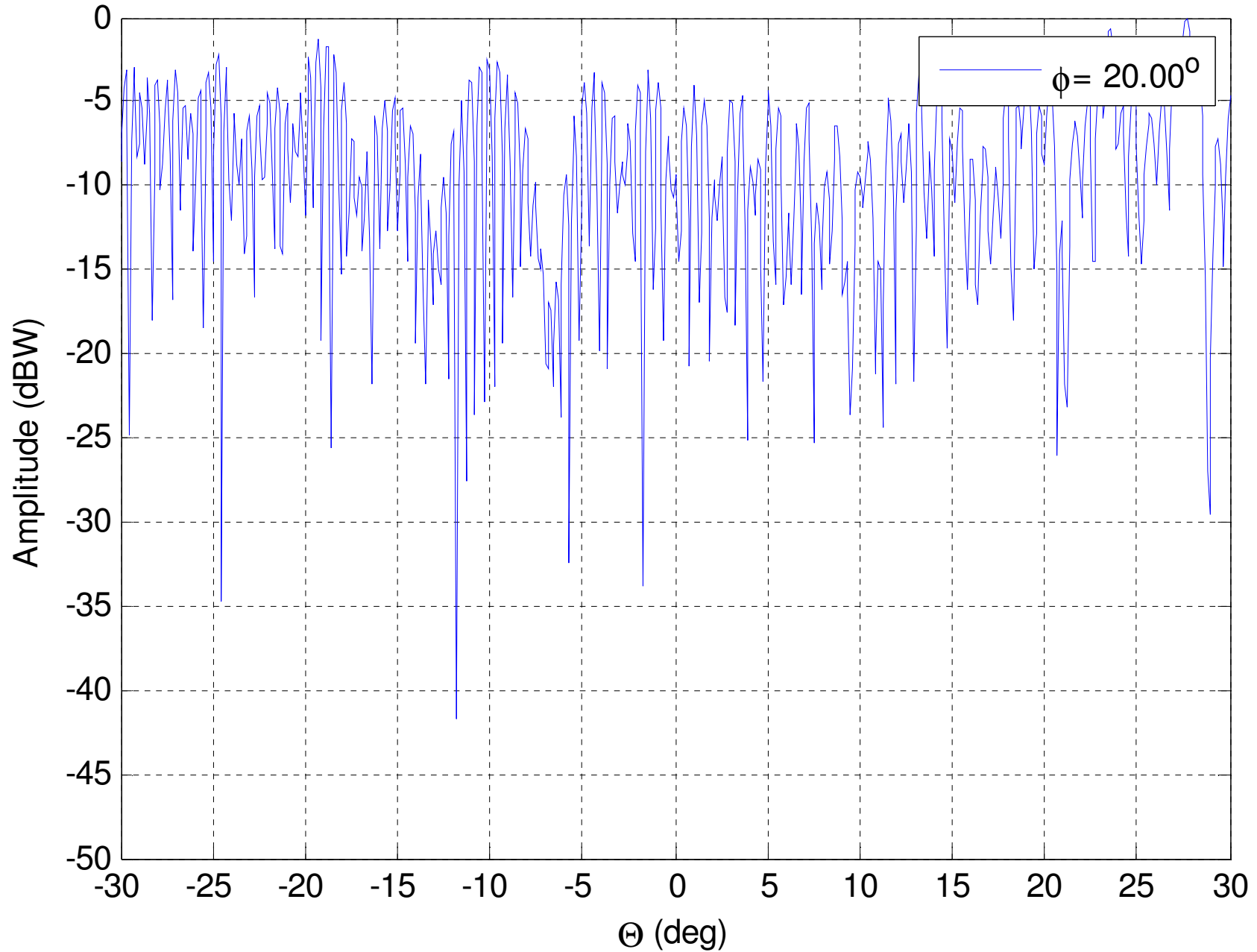
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: -12.15 dBW, Date: 15-Dec-2011



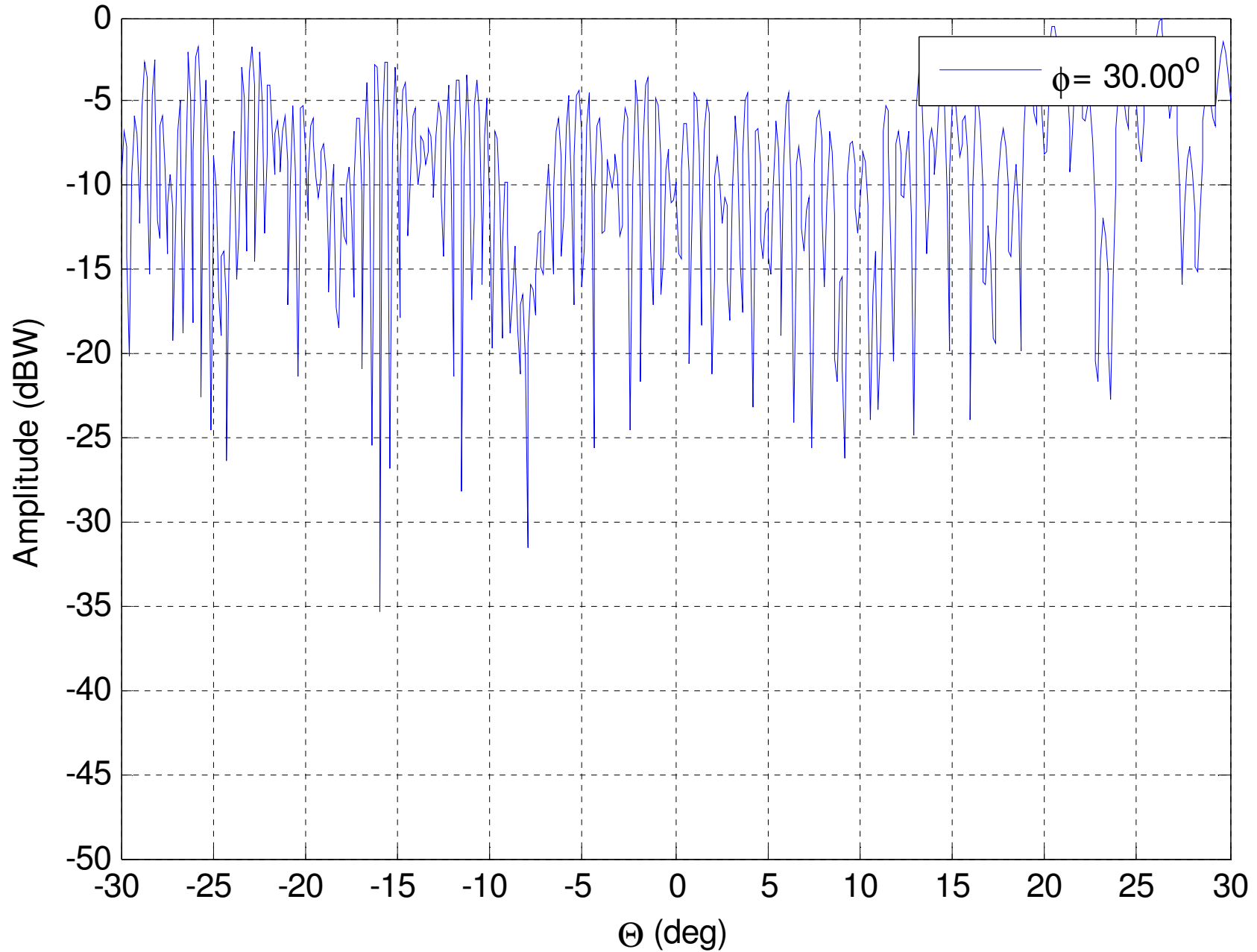
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: -10.76 dBW, Date: 15-Dec-2011



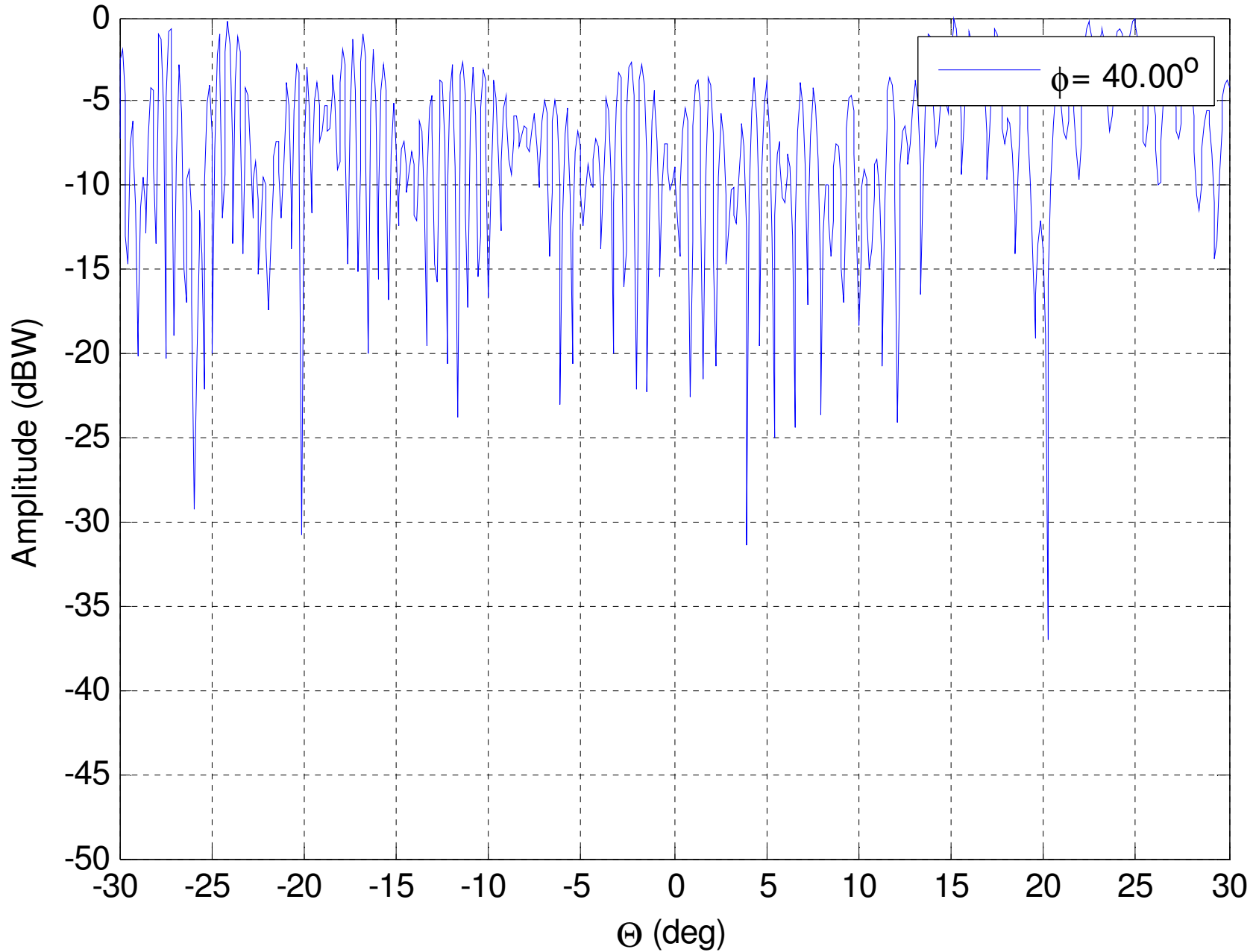
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: -10.33 dBW, Date: 15-Dec-2011



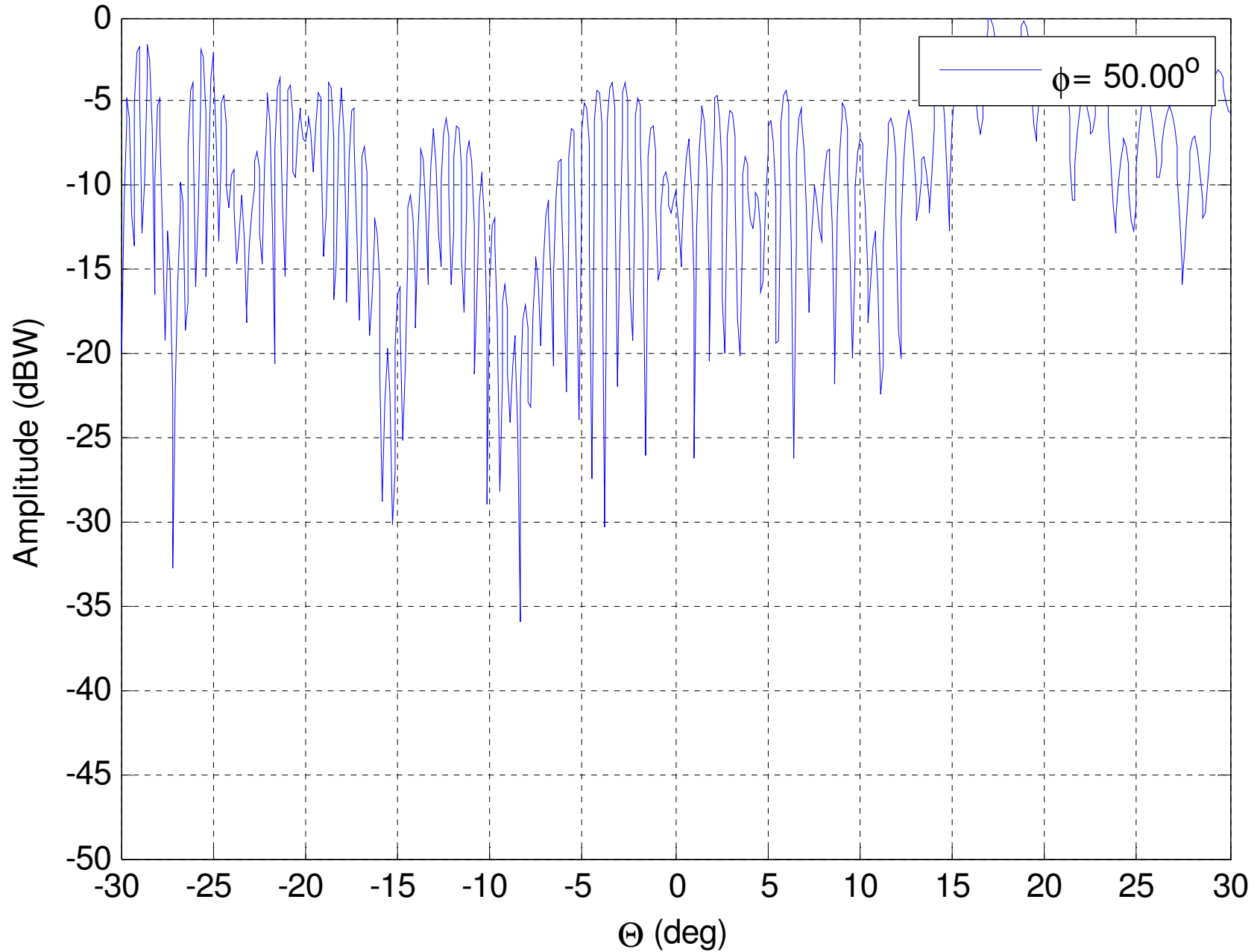
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -11.21 dBW, Date: 15-Dec-2011



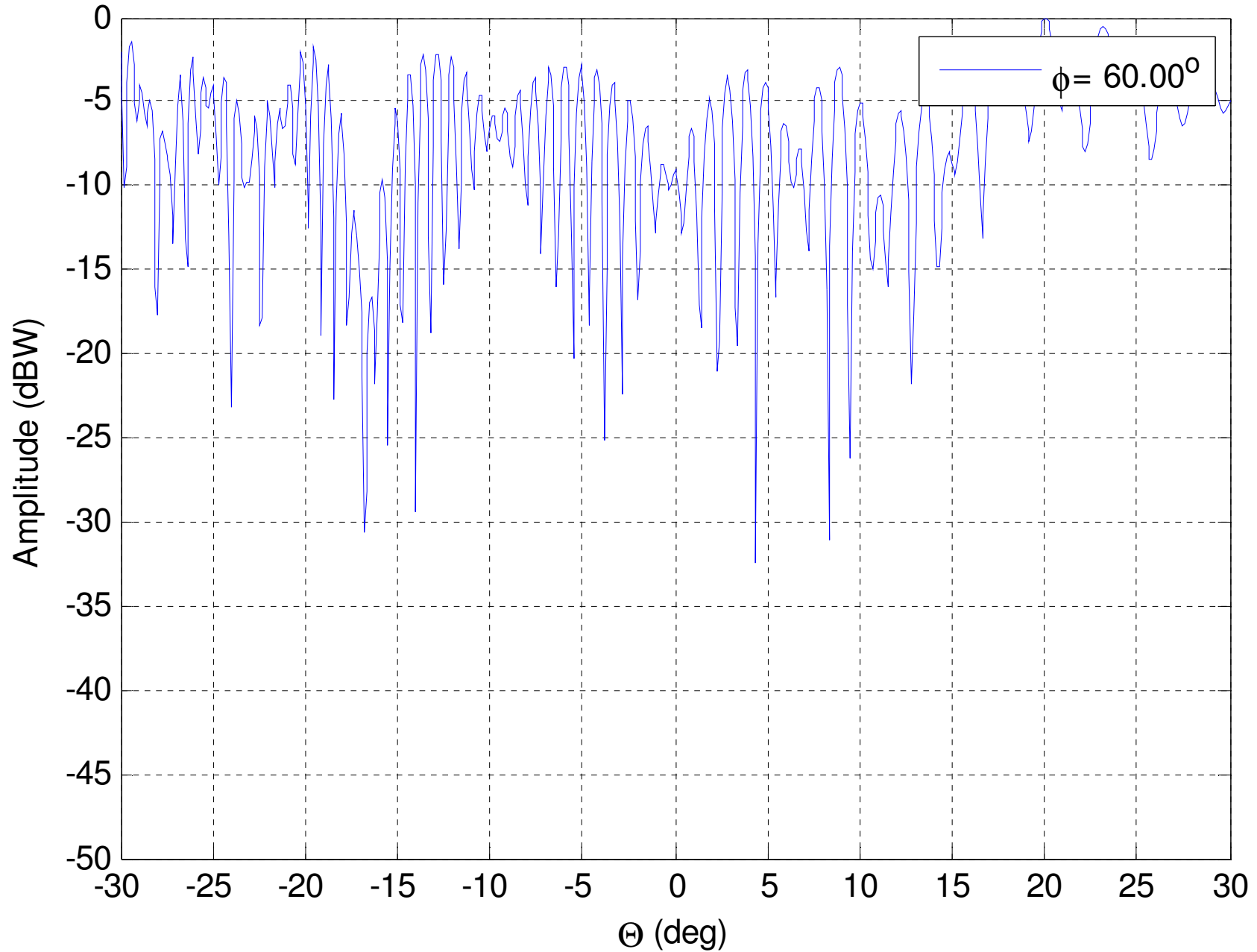
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -9.81 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

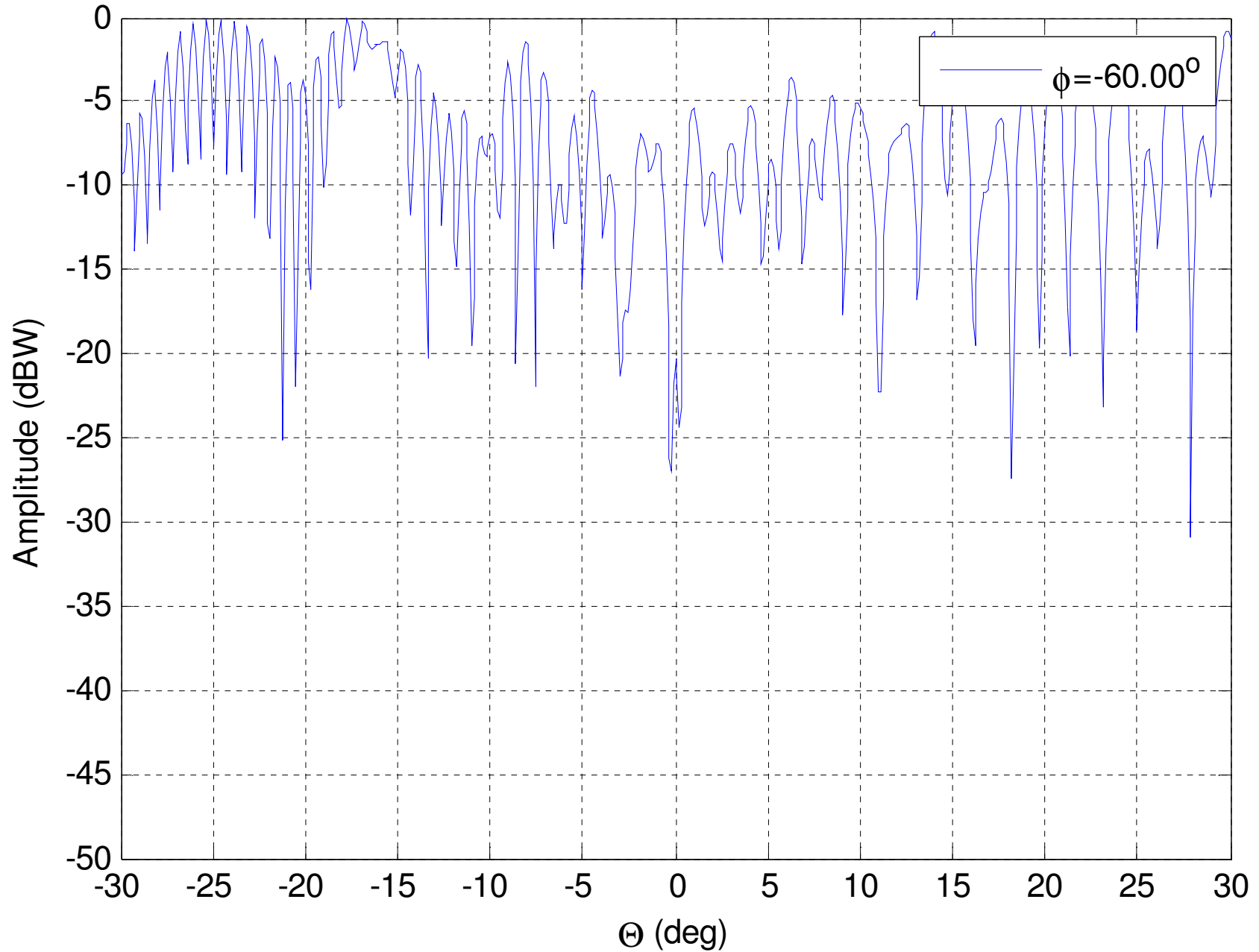
Input file: tx-17.3-lhcp-60.cut, Peak: -11.03 dBW, Date: 15-Dec-2011



RHCP at 17.5 GHz

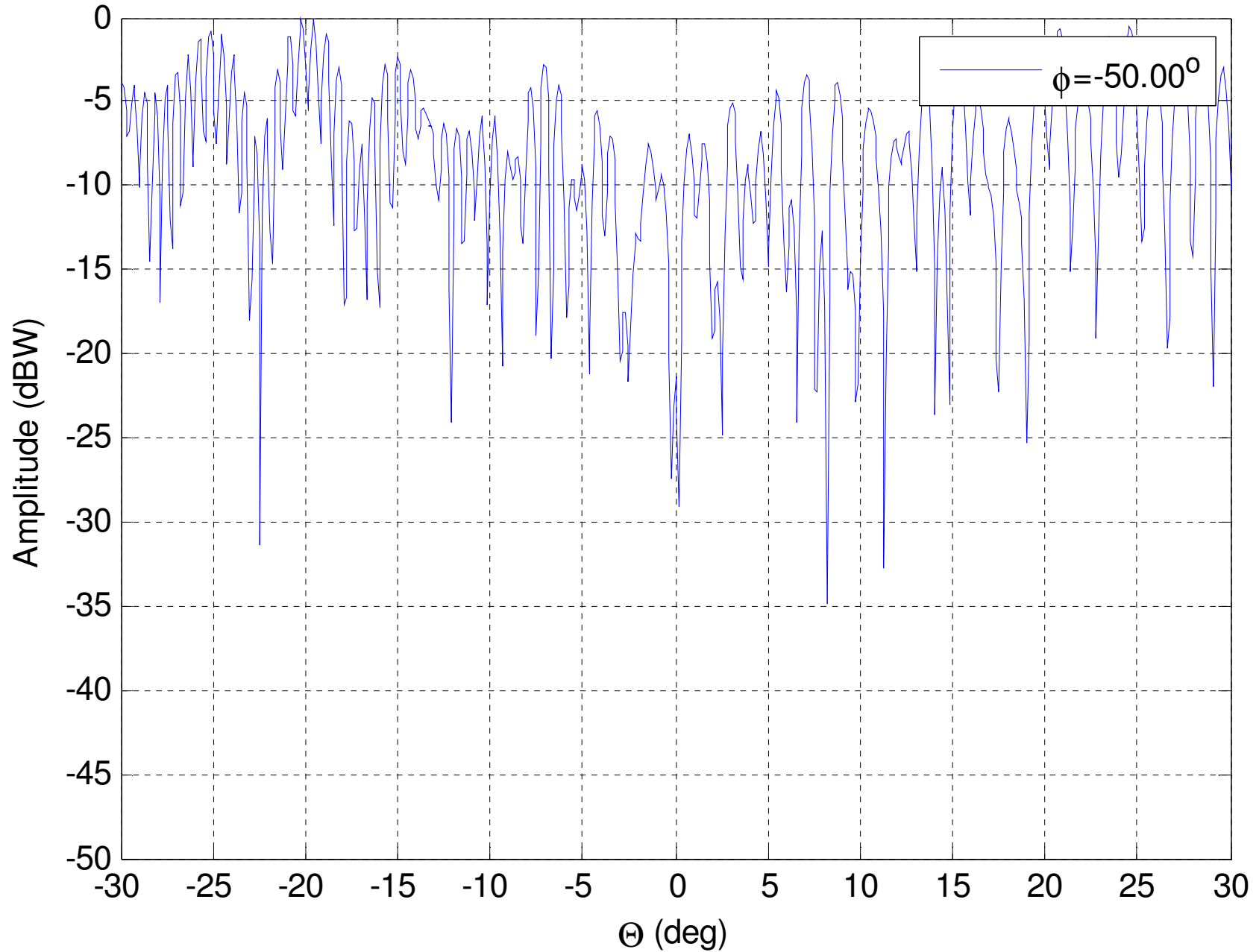
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -11.13 dBW, Date: 15-Dec-2011



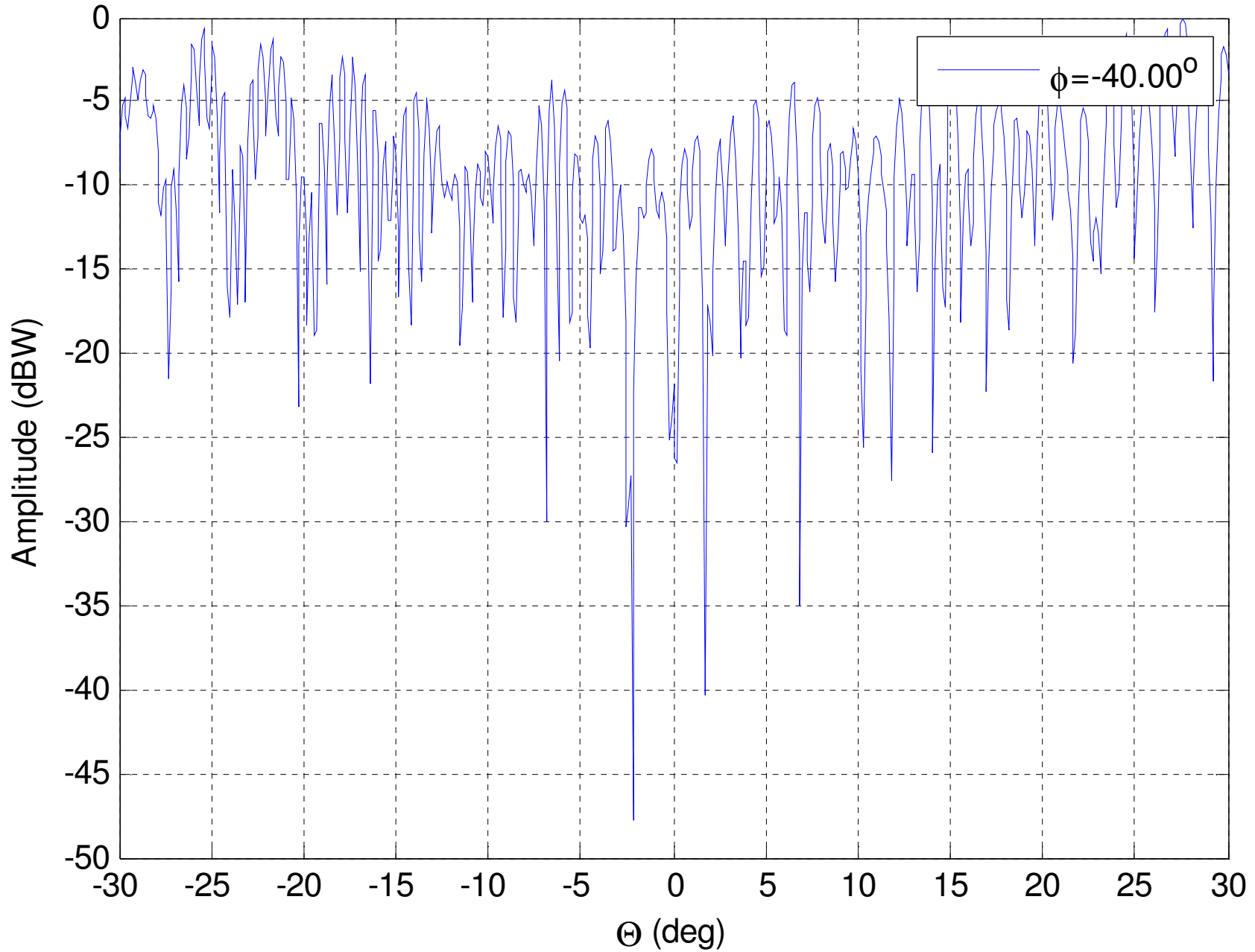
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -10.07 dBW, Date: 15-Dec-2011



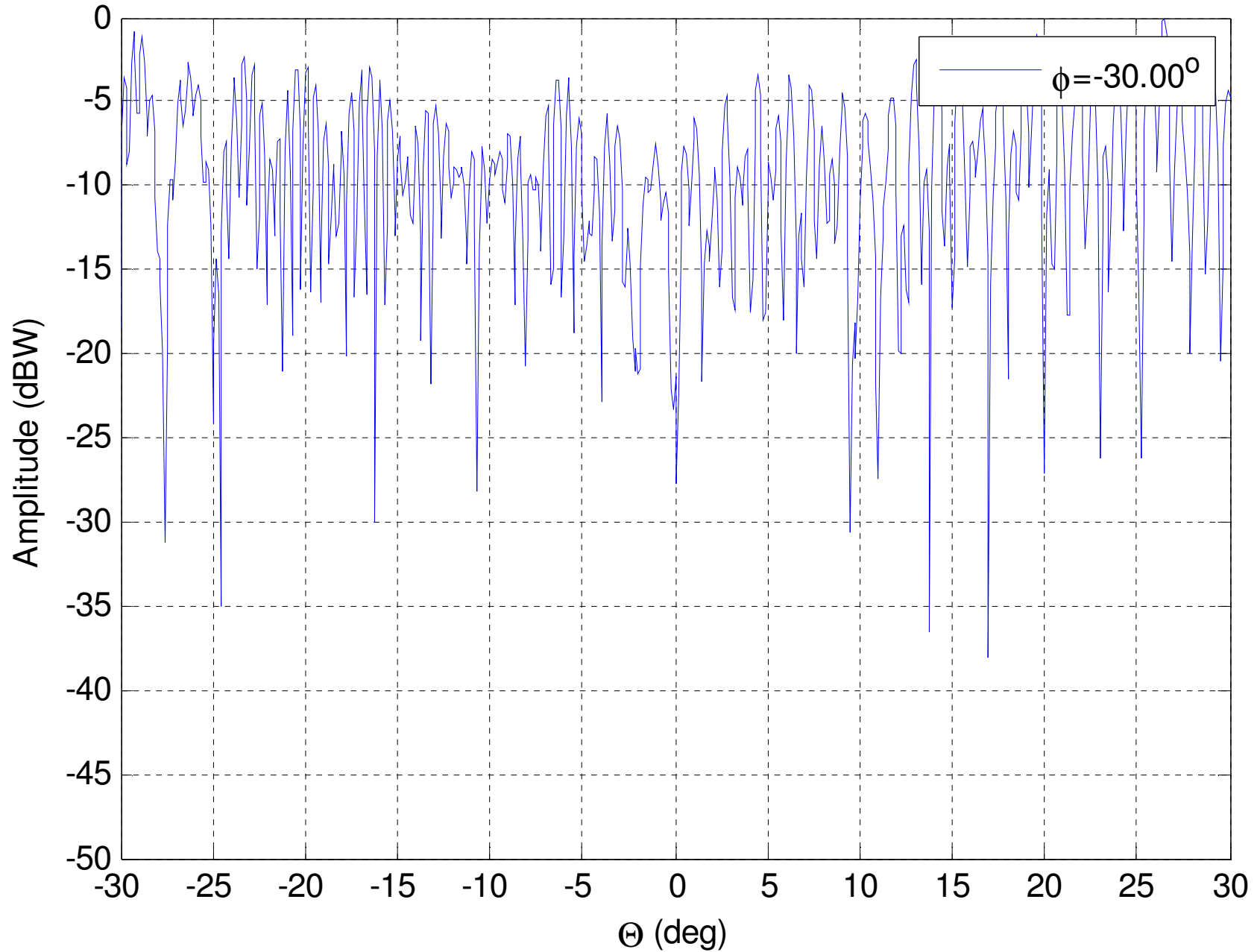
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -9.52 dBW, Date: 15-Dec-2011



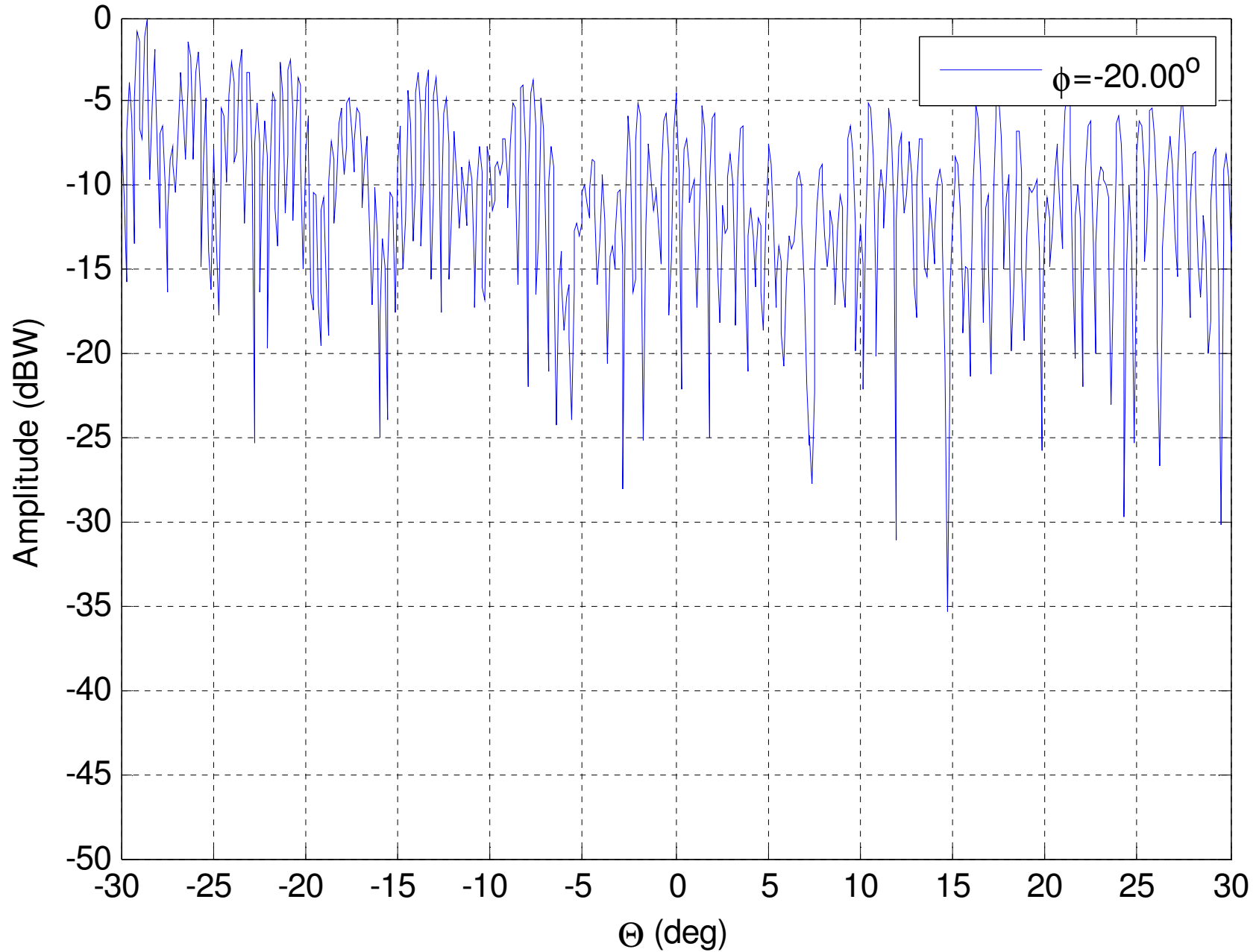
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -10.07 dBW, Date: 15-Dec-2011



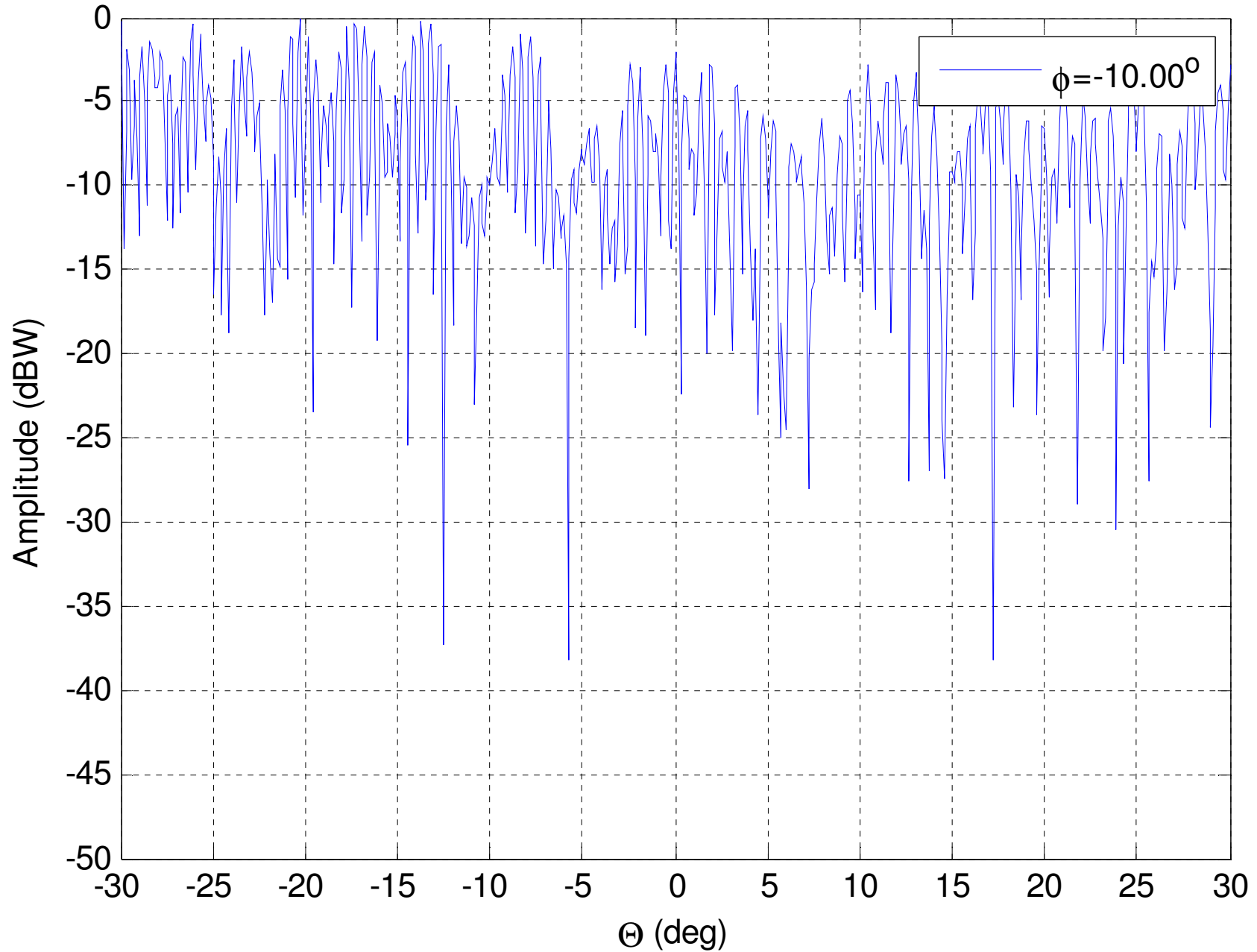
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: -9.85 dBW, Date: 15-Dec-2011



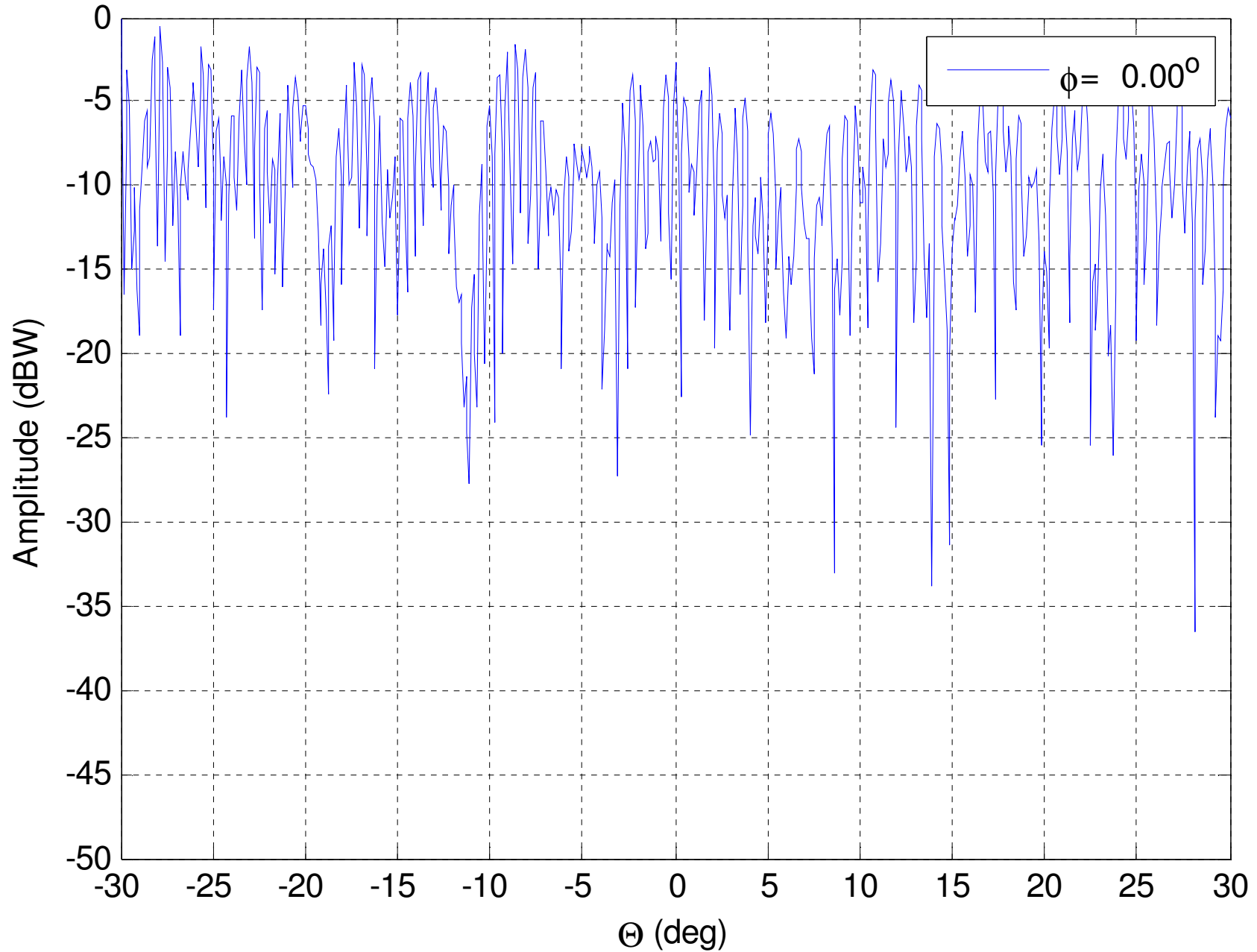
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: -12.39 dBW, Date: 15-Dec-2011



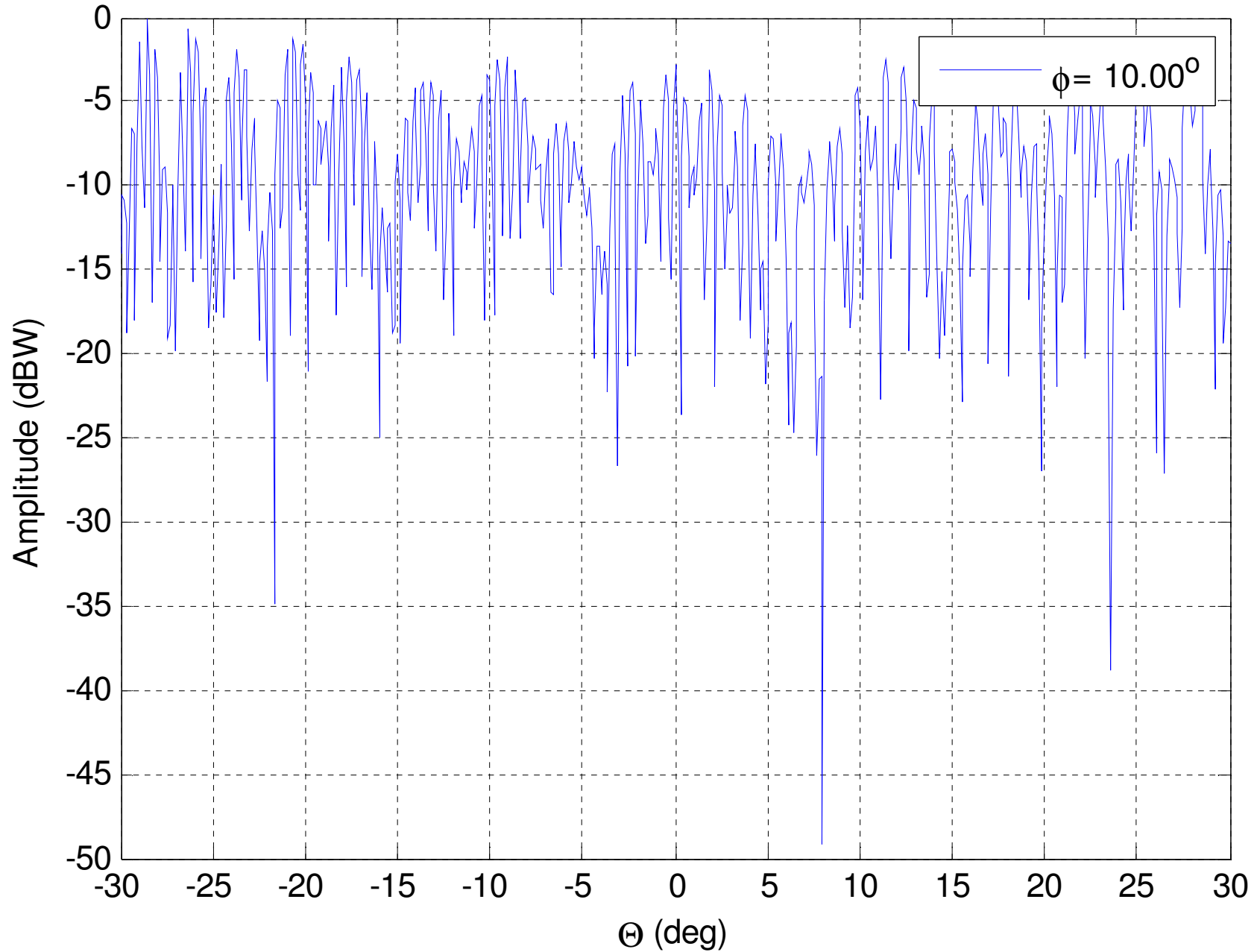
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: -11.71 dBW, Date: 15-Dec-2011



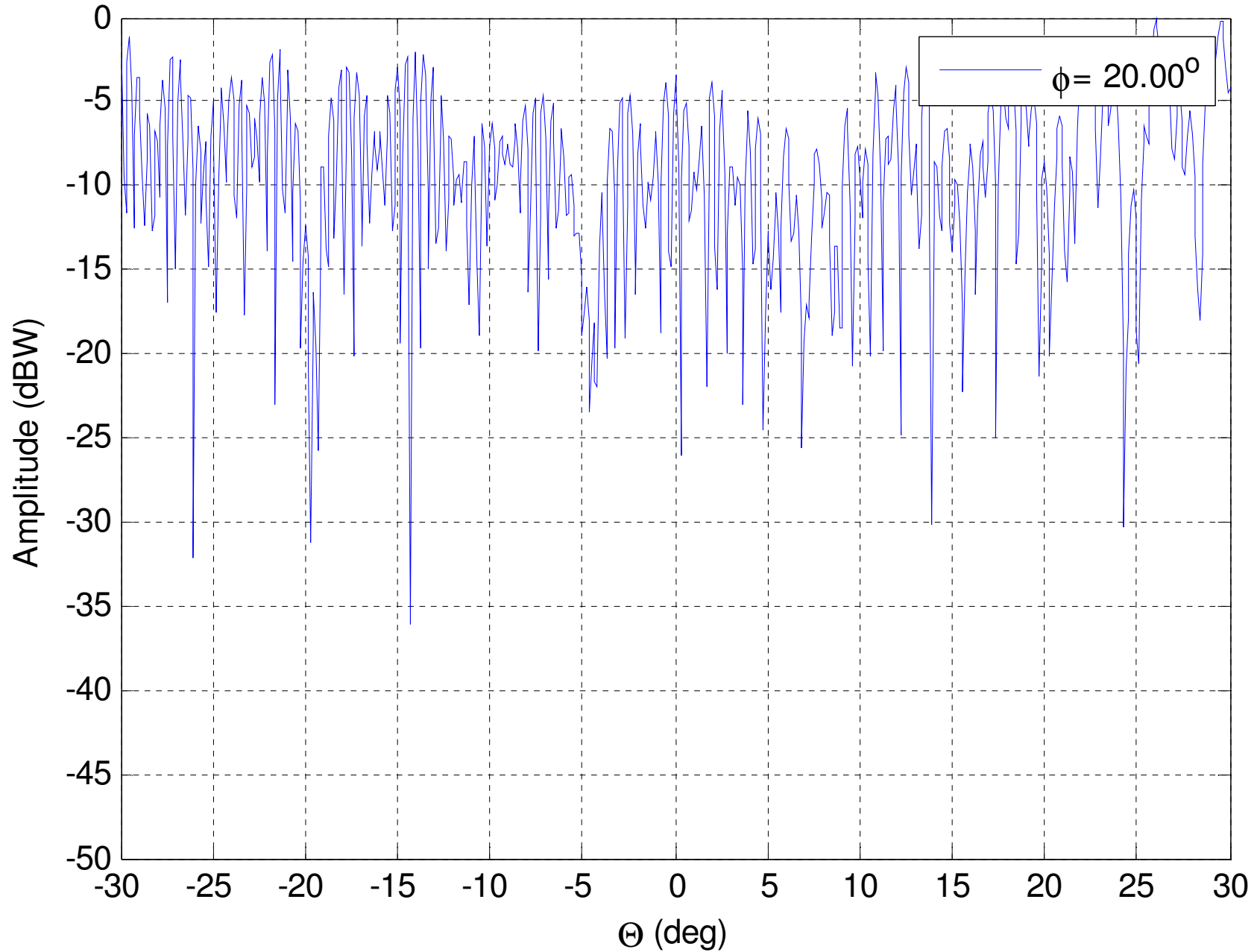
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: -11.51 dBW, Date: 15-Dec-2011



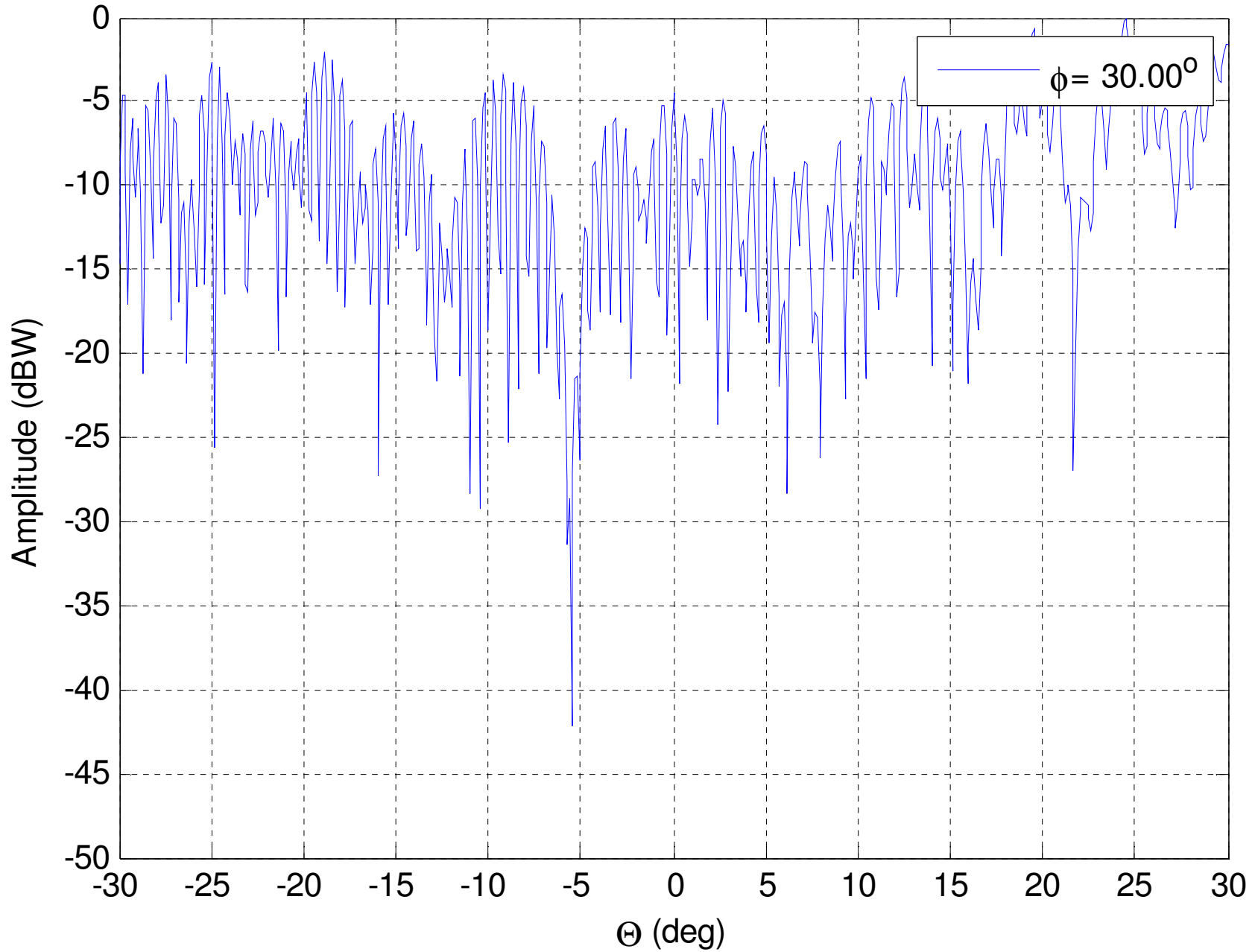
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: -10.96 dBW, Date: 15-Dec-2011



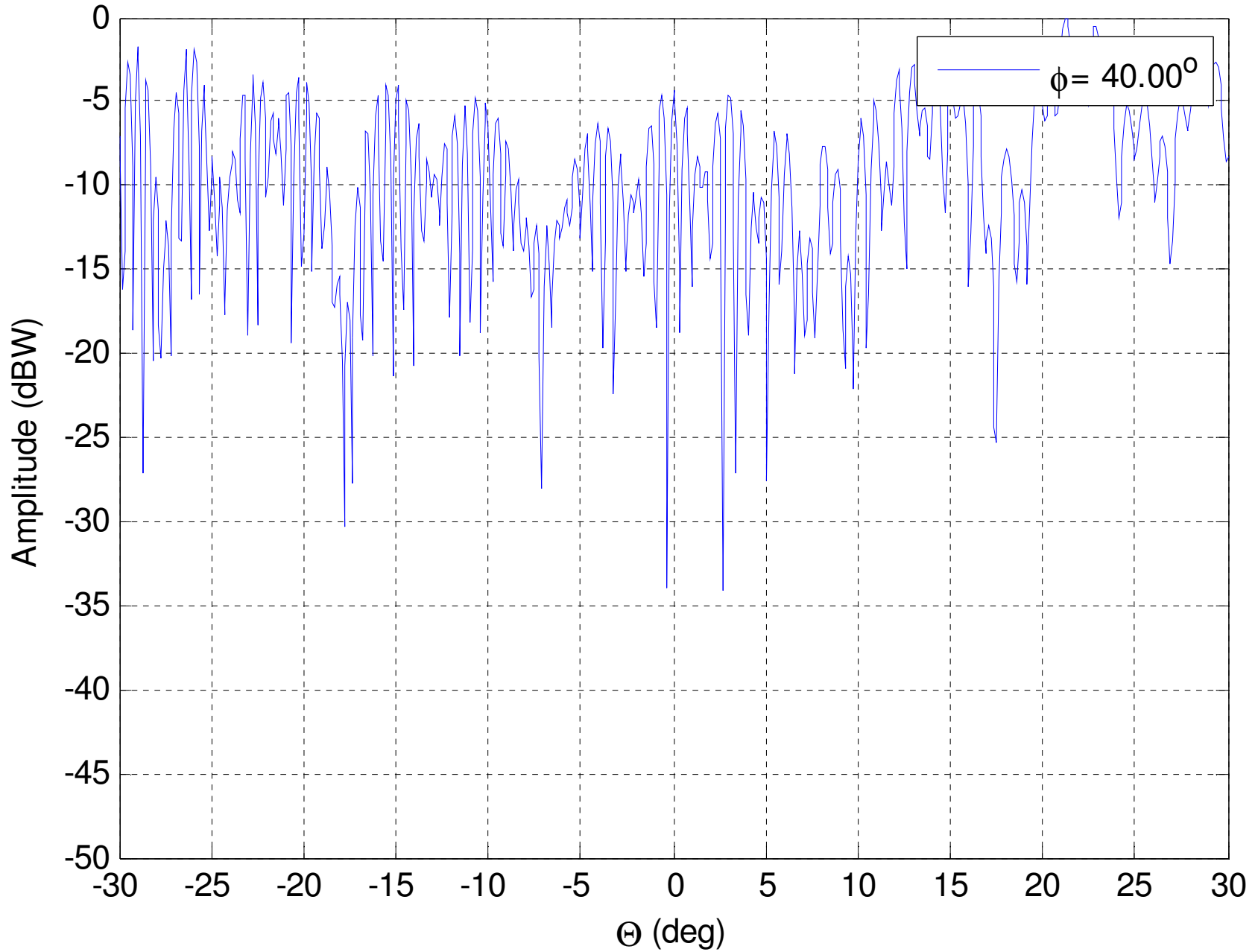
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: -9.84 dBW, Date: 15-Dec-2011



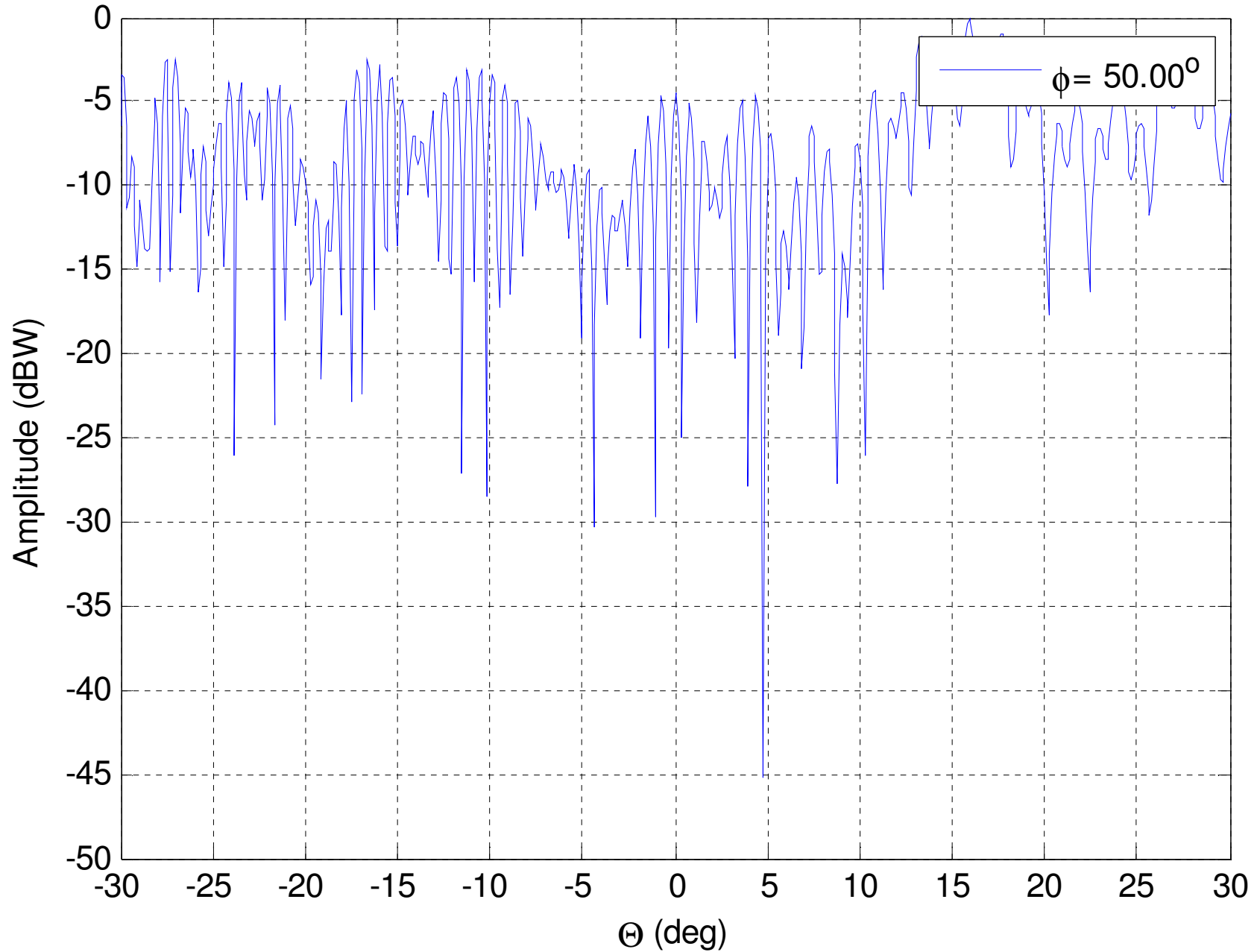
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -10.00 dBW, Date: 15-Dec-2011



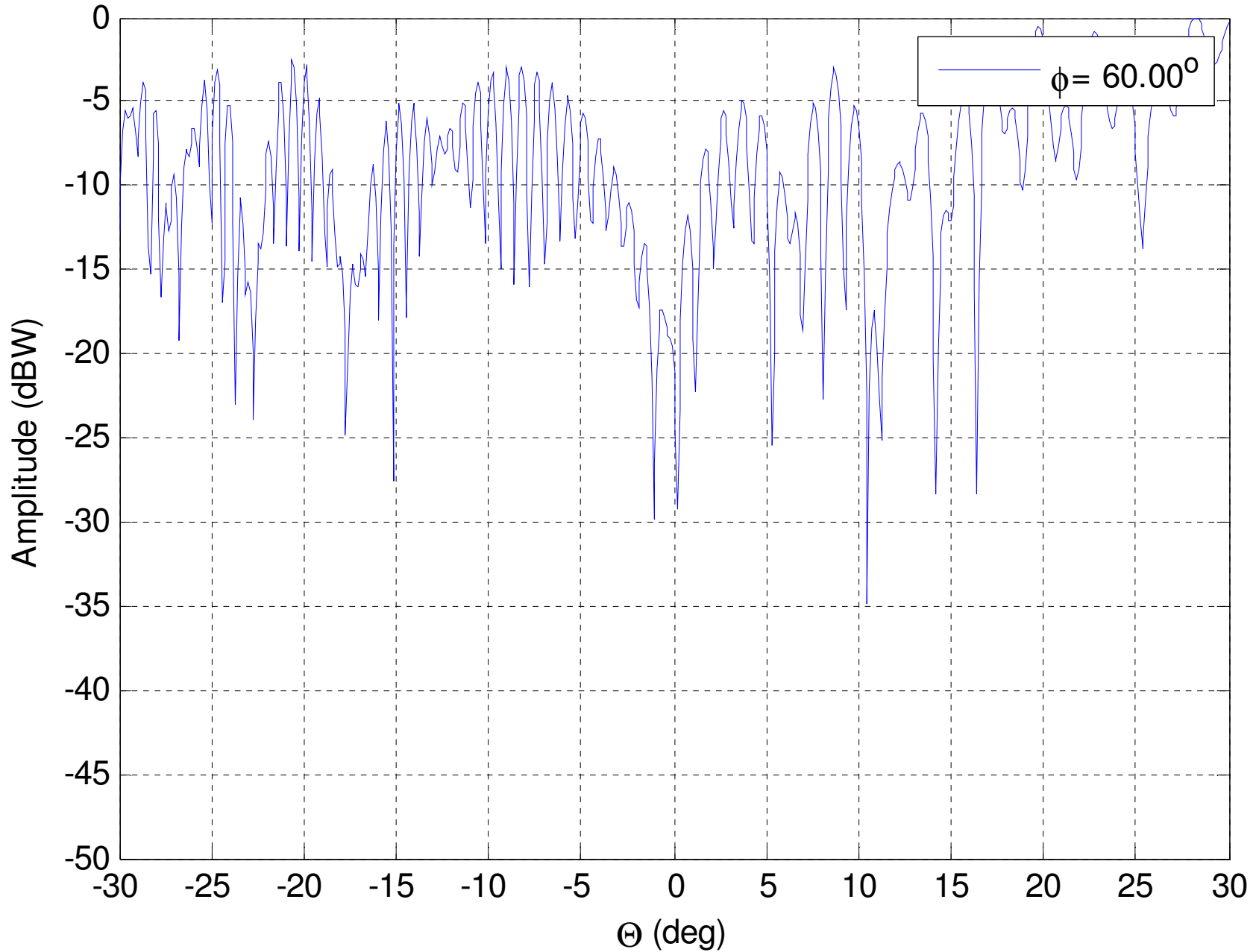
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -9.91 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

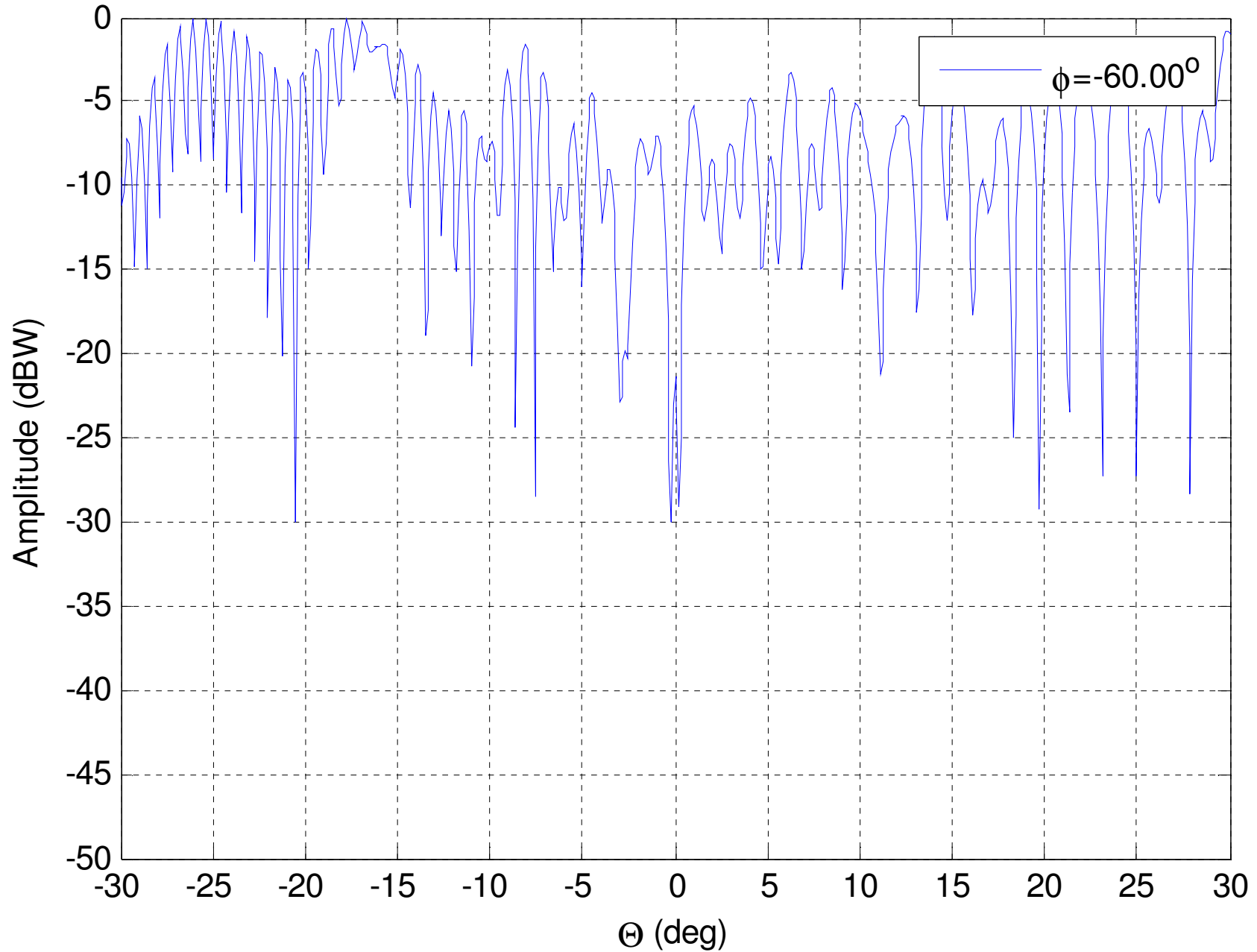
Input file: tx-17.5-rhcp-60.cut, Peak: -10.29 dBW, Date: 15-Dec-2011



LHCP at 17.5 GHz

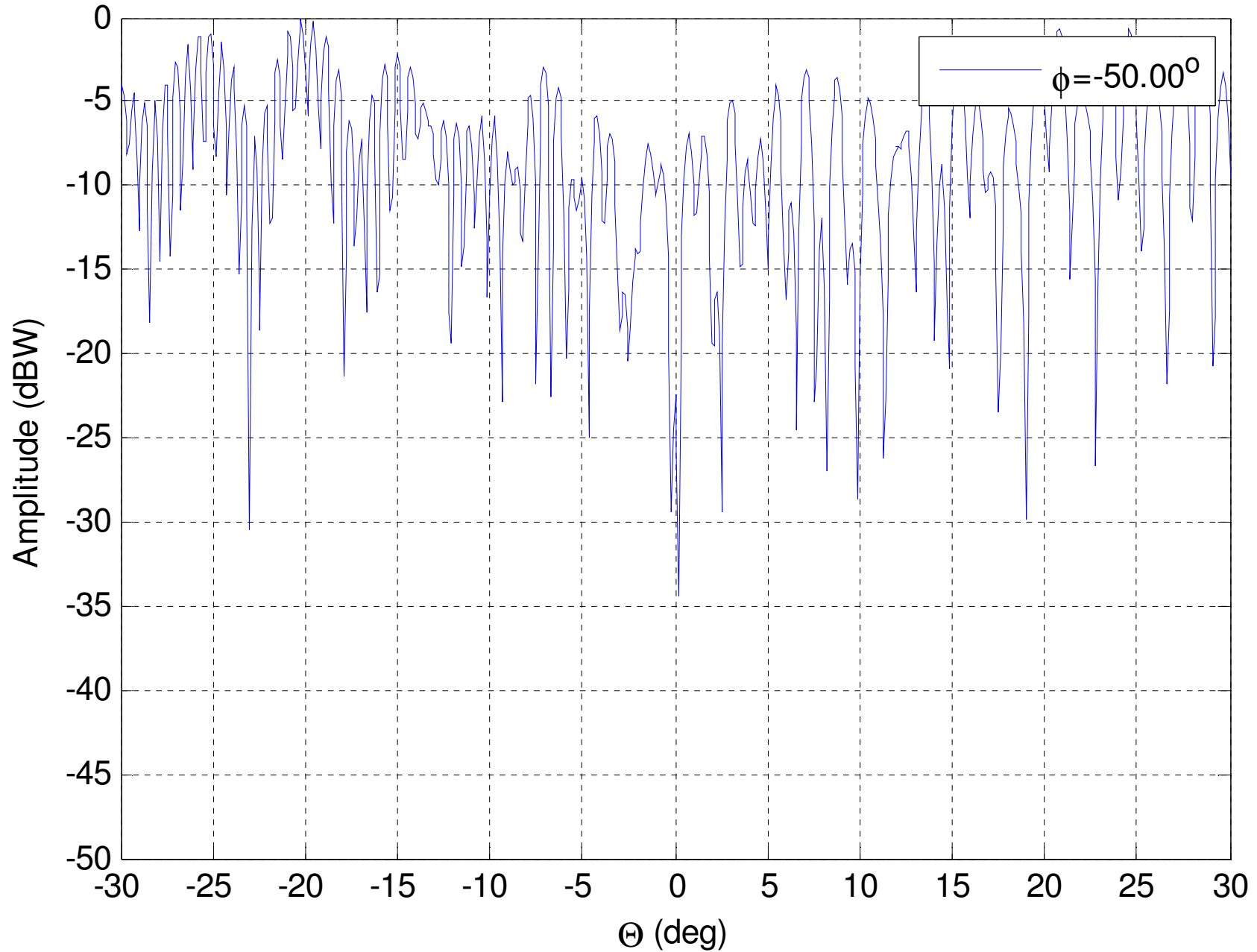
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -11.10 dBW, Date: 15-Dec-2011



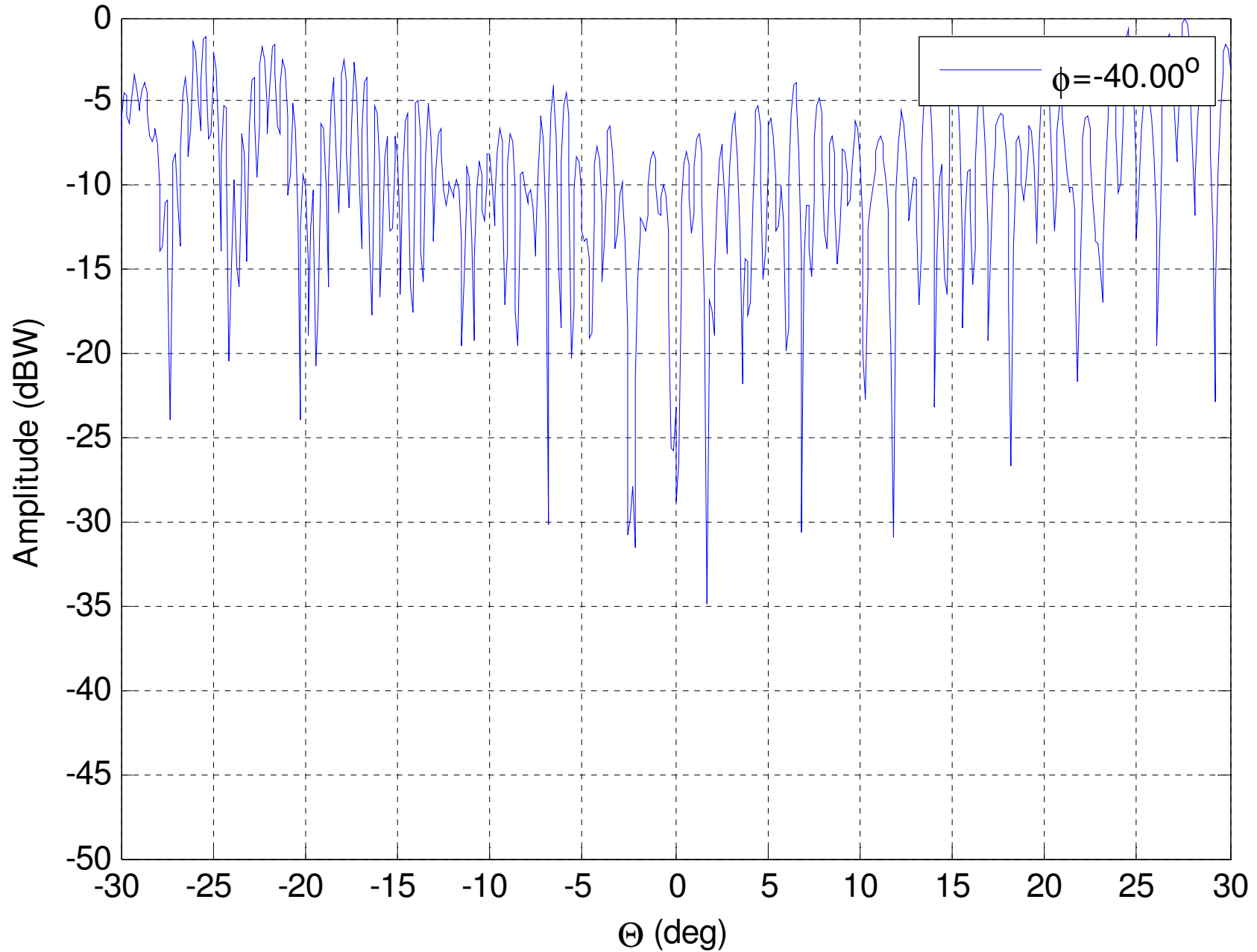
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -10.12 dBW, Date: 15-Dec-2011



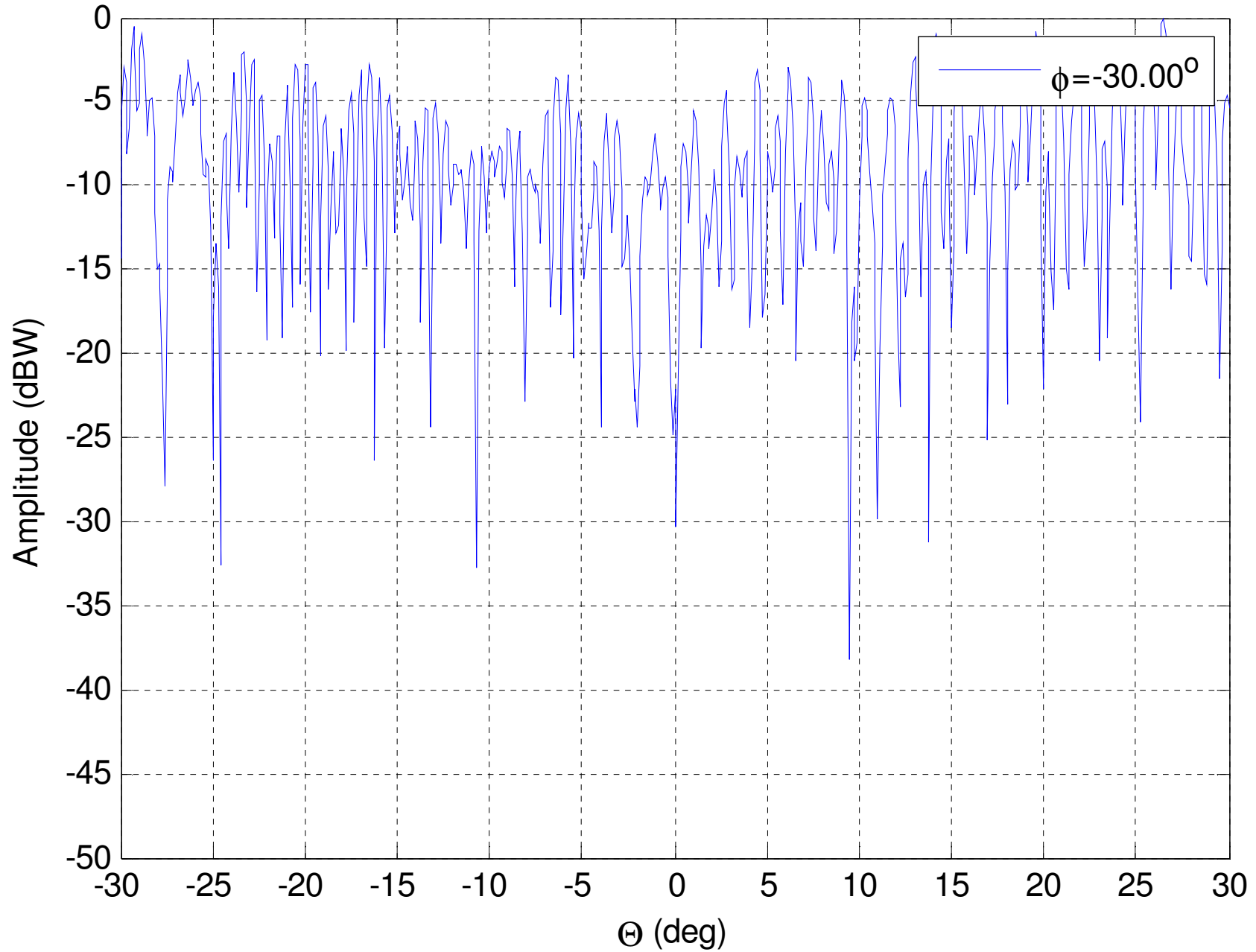
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -9.38 dBW, Date: 15-Dec-2011



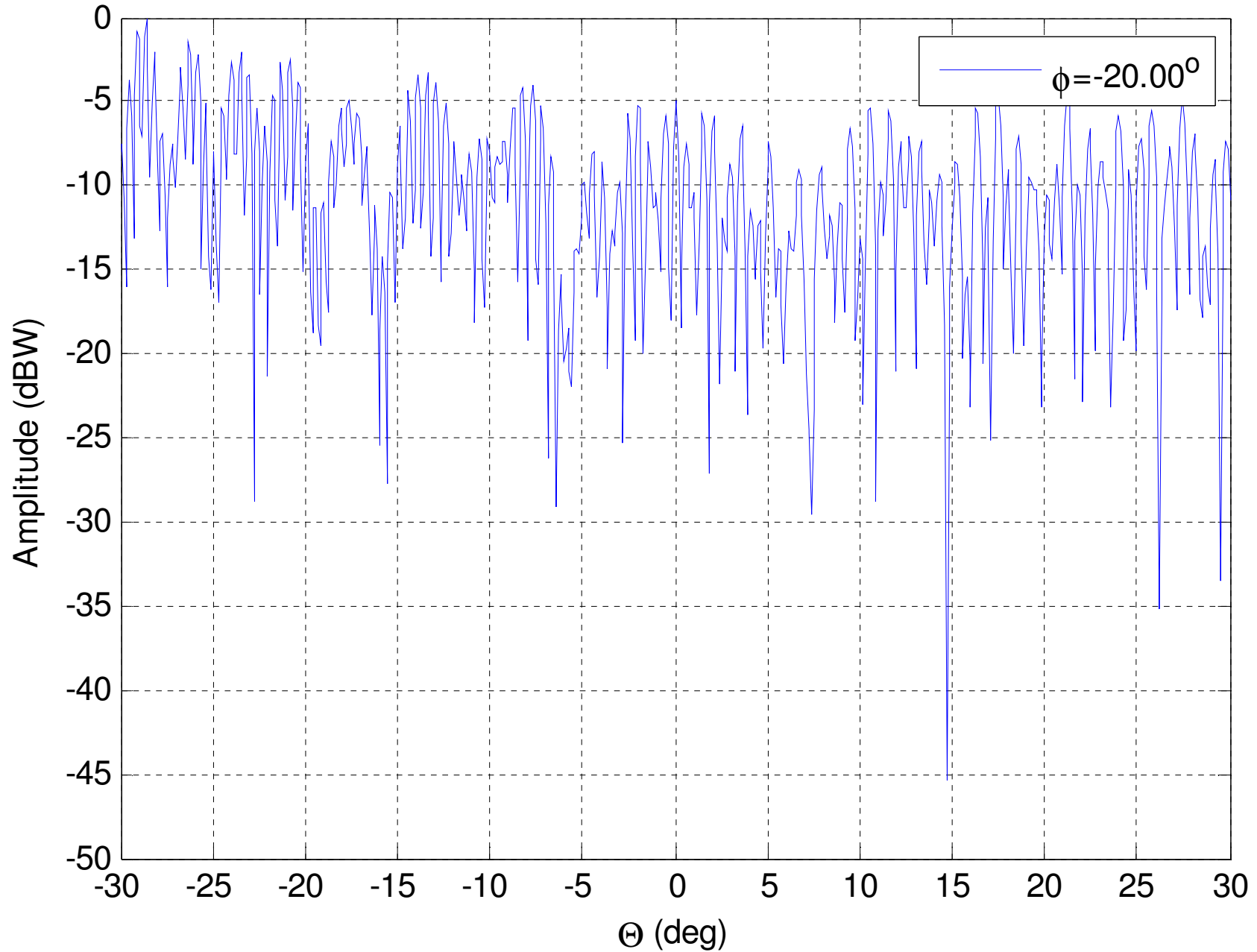
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: -10.37 dBW, Date: 15-Dec-2011



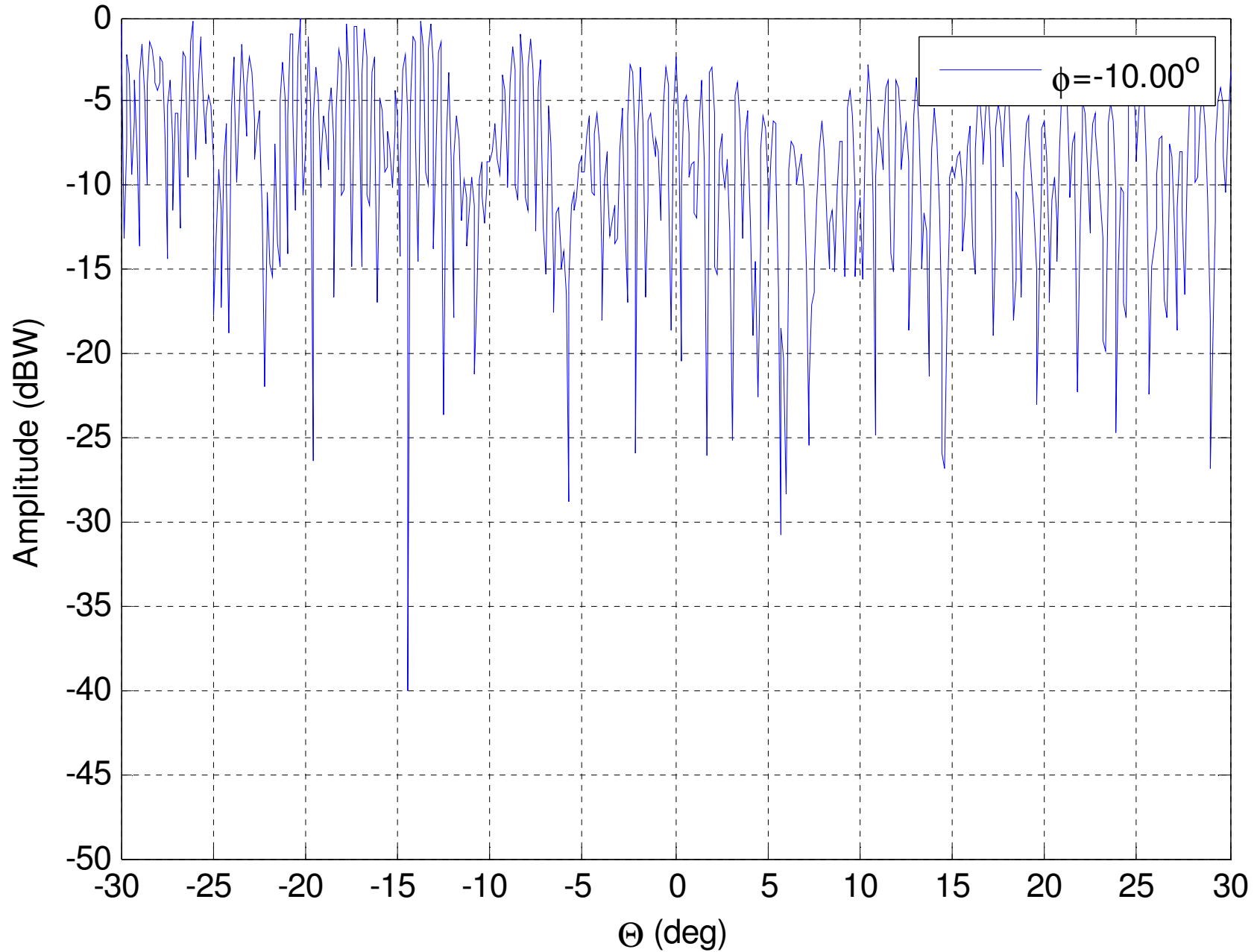
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: -9.68 dBW, Date: 15-Dec-2011



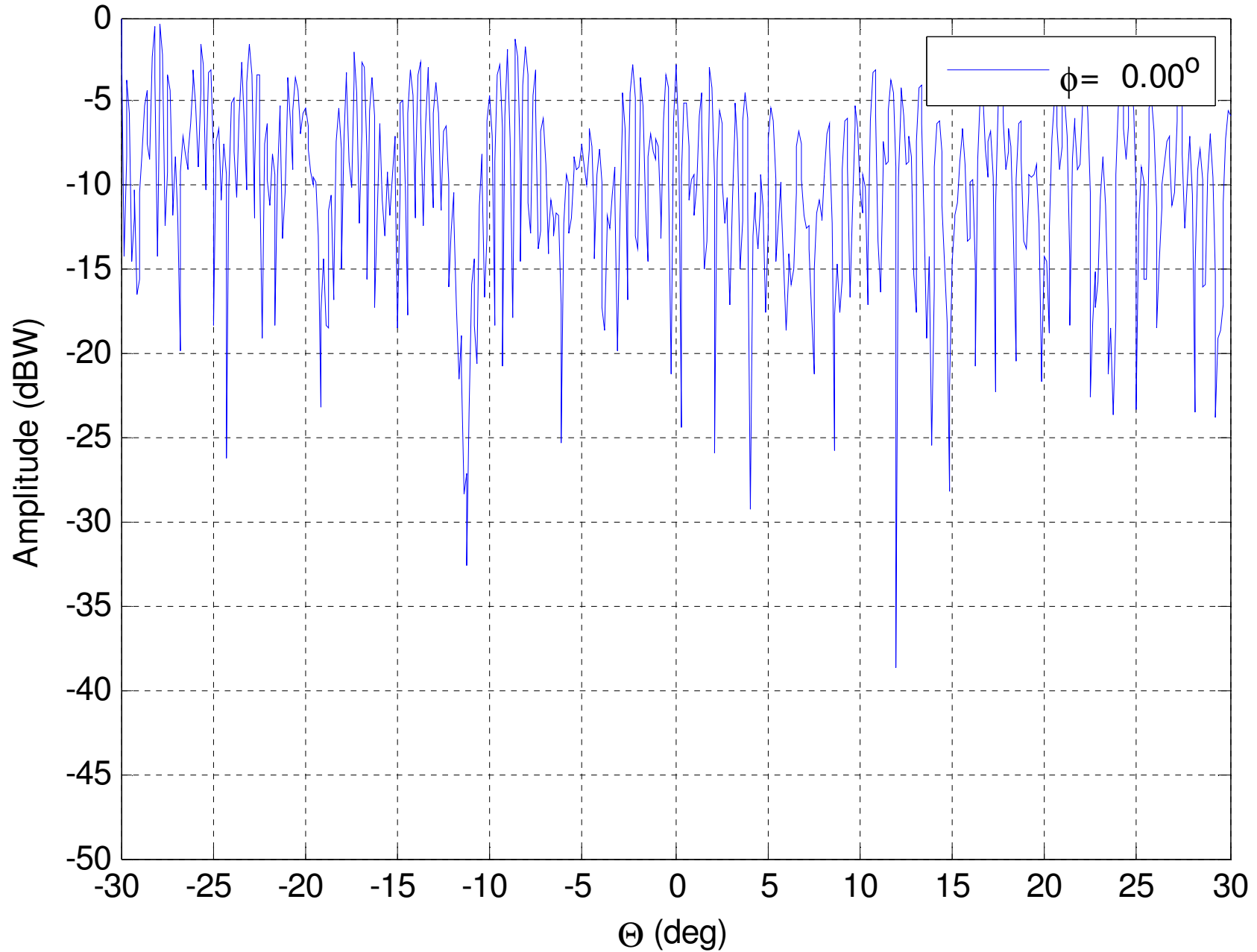
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: -12.34 dBW, Date: 15-Dec-2011



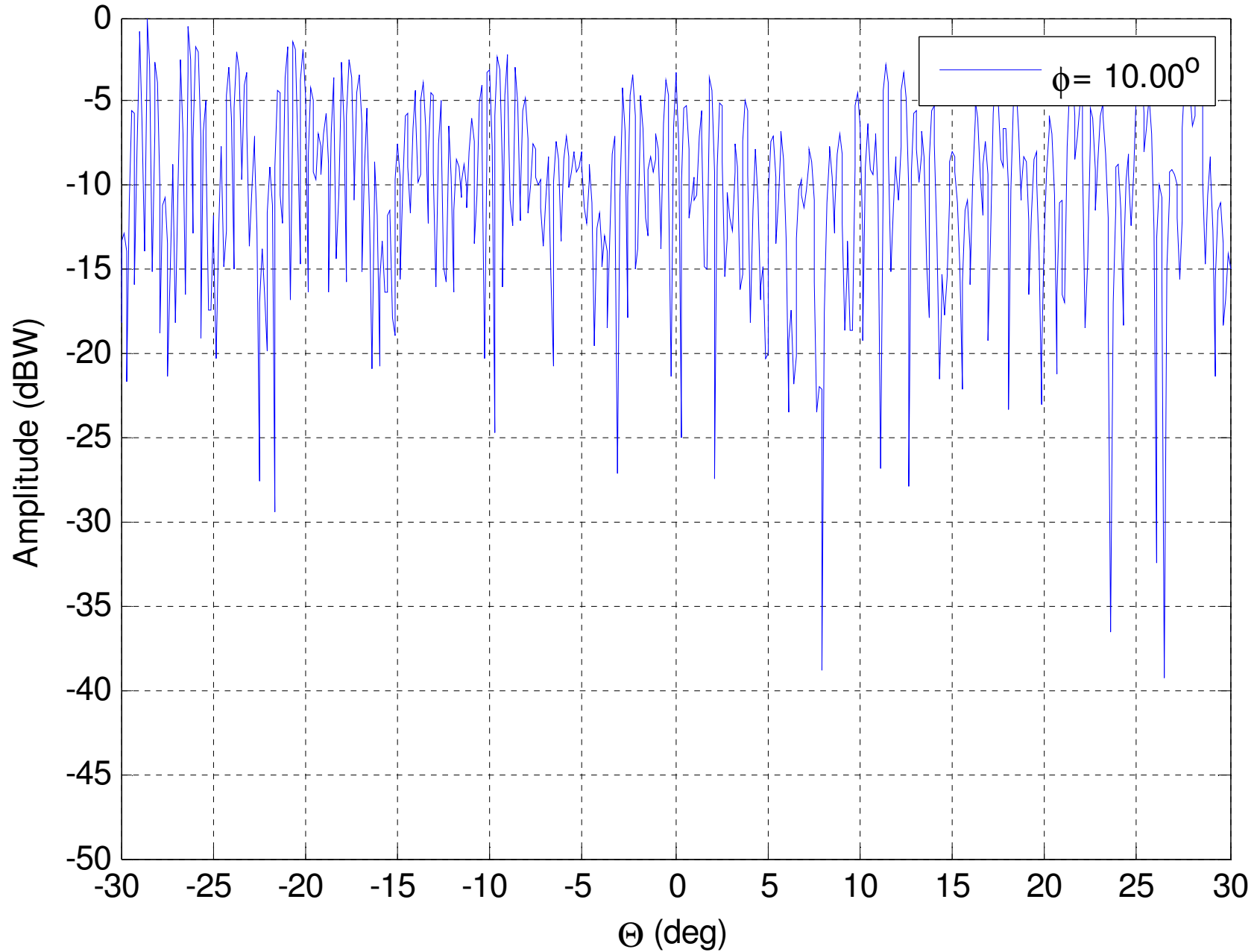
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: -11.87 dBW, Date: 15-Dec-2011



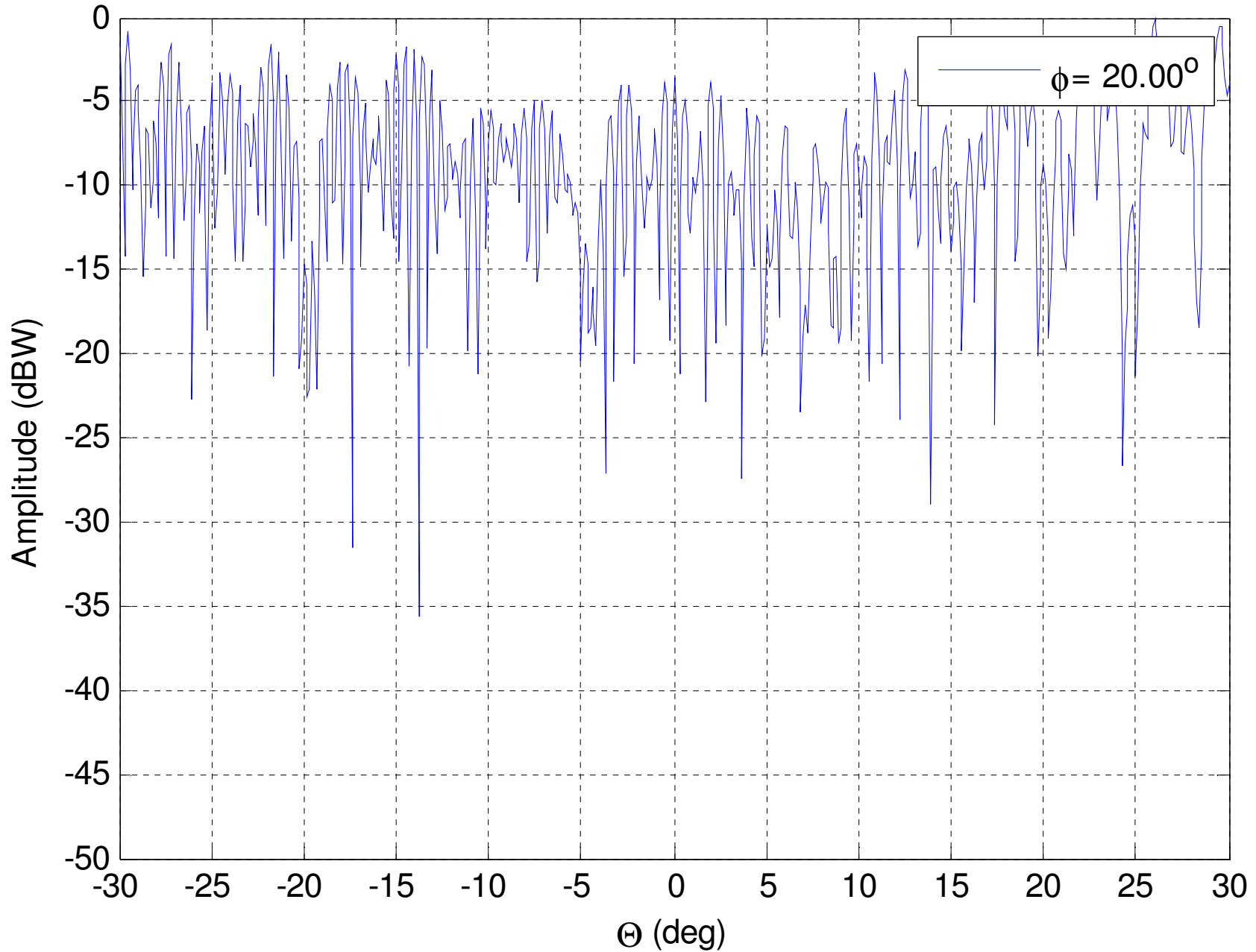
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: -11.37 dBW, Date: 15-Dec-2011



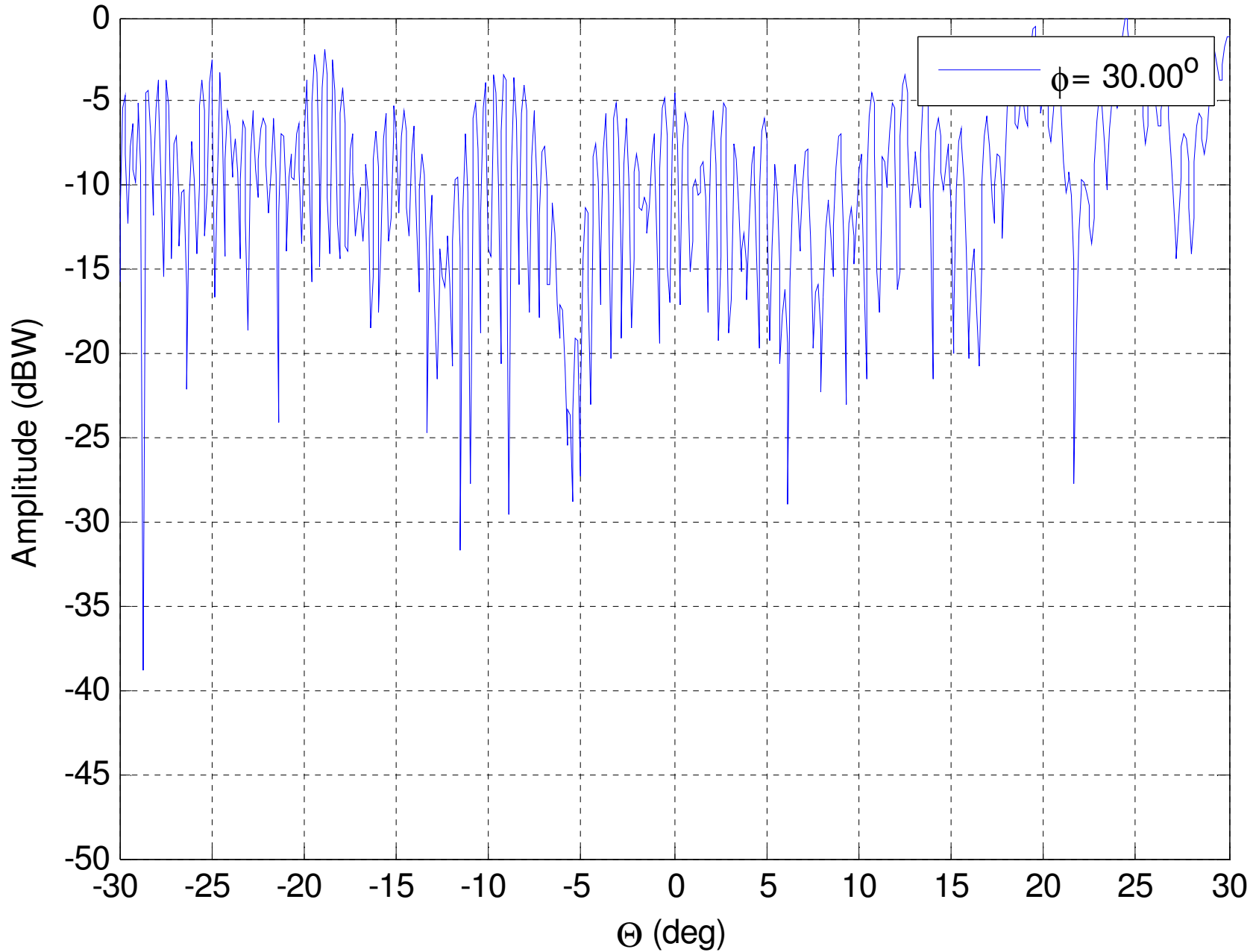
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: -11.10 dBW, Date: 15-Dec-2011



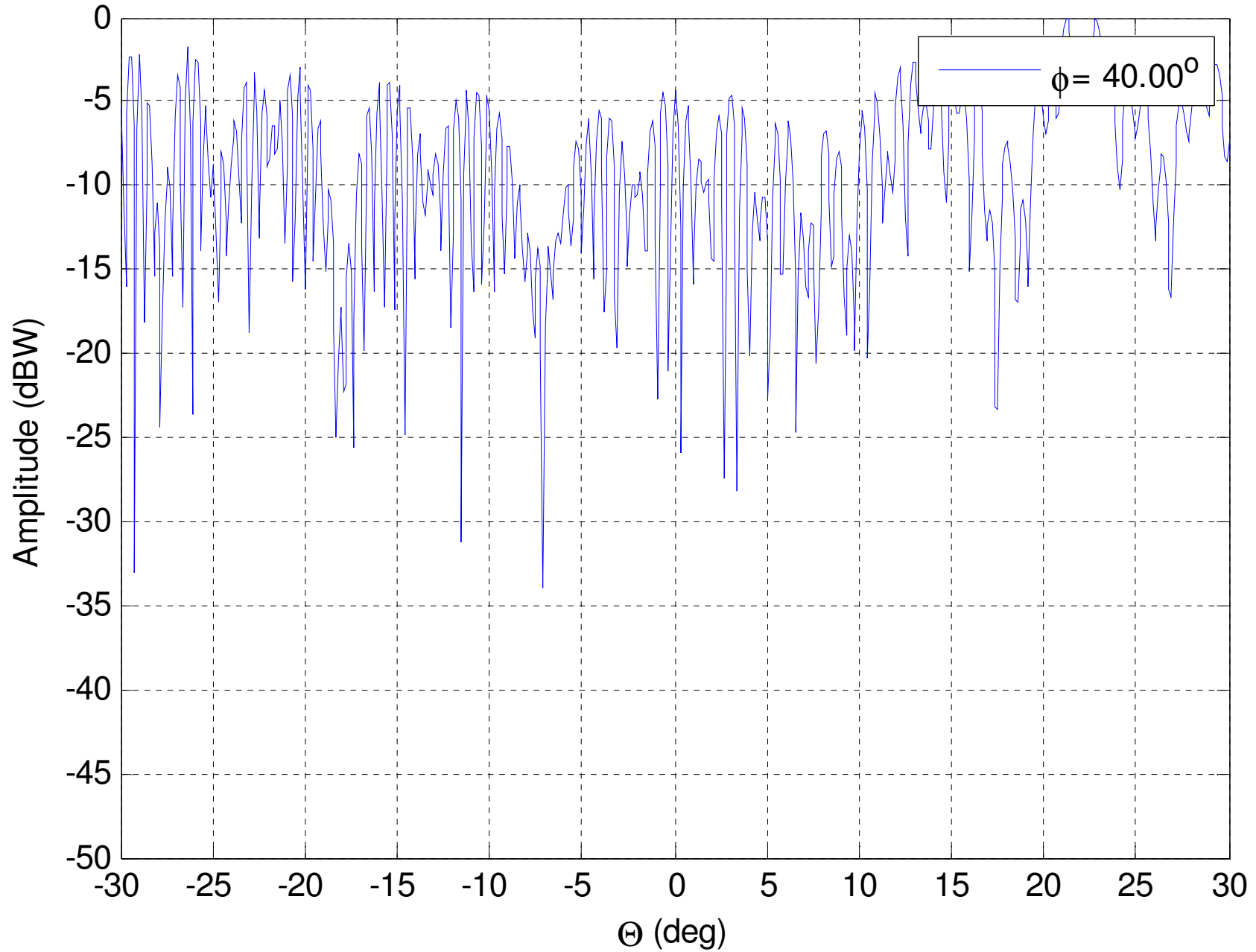
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: -10.08 dBW, Date: 15-Dec-2011



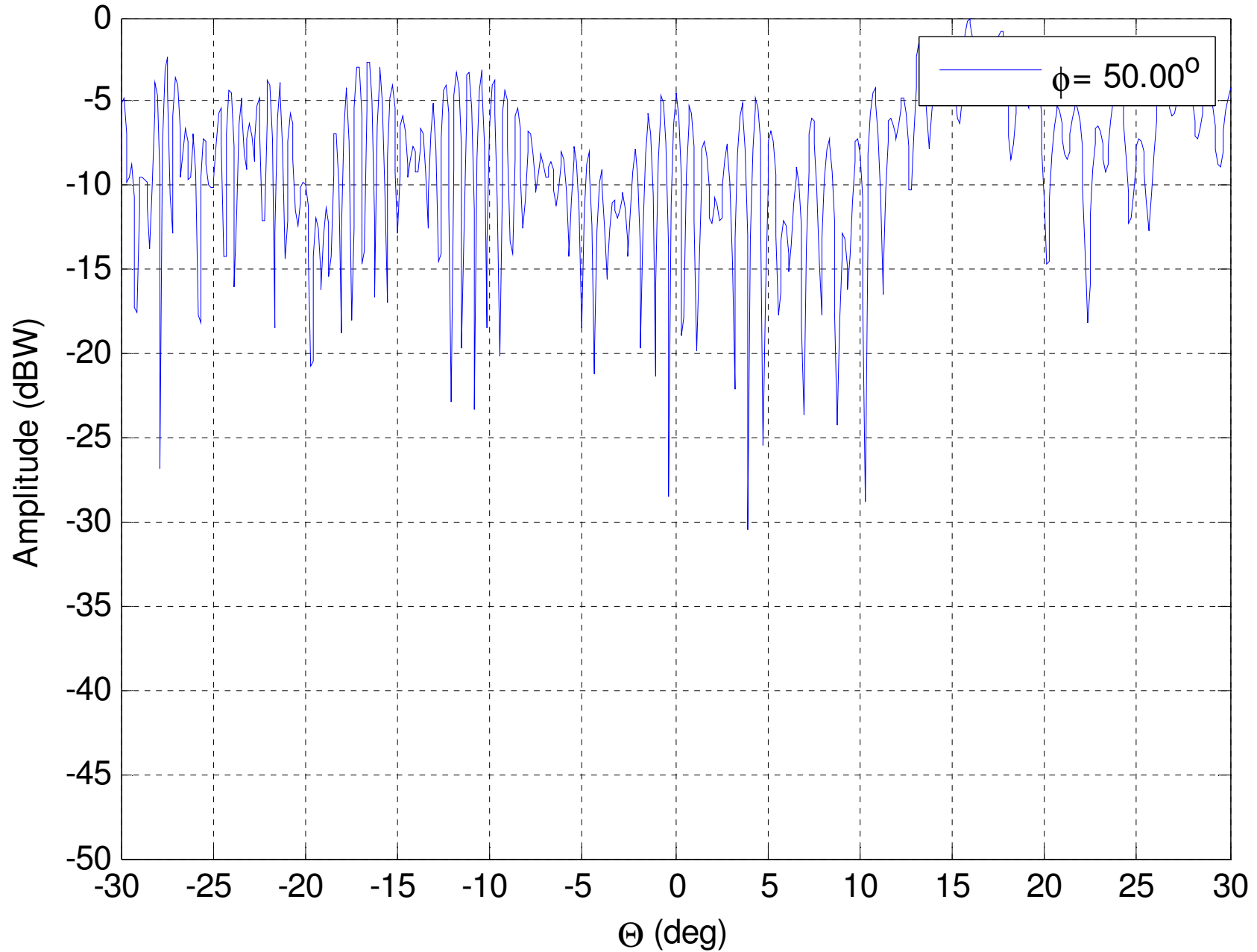
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -10.27 dBW, Date: 15-Dec-2011



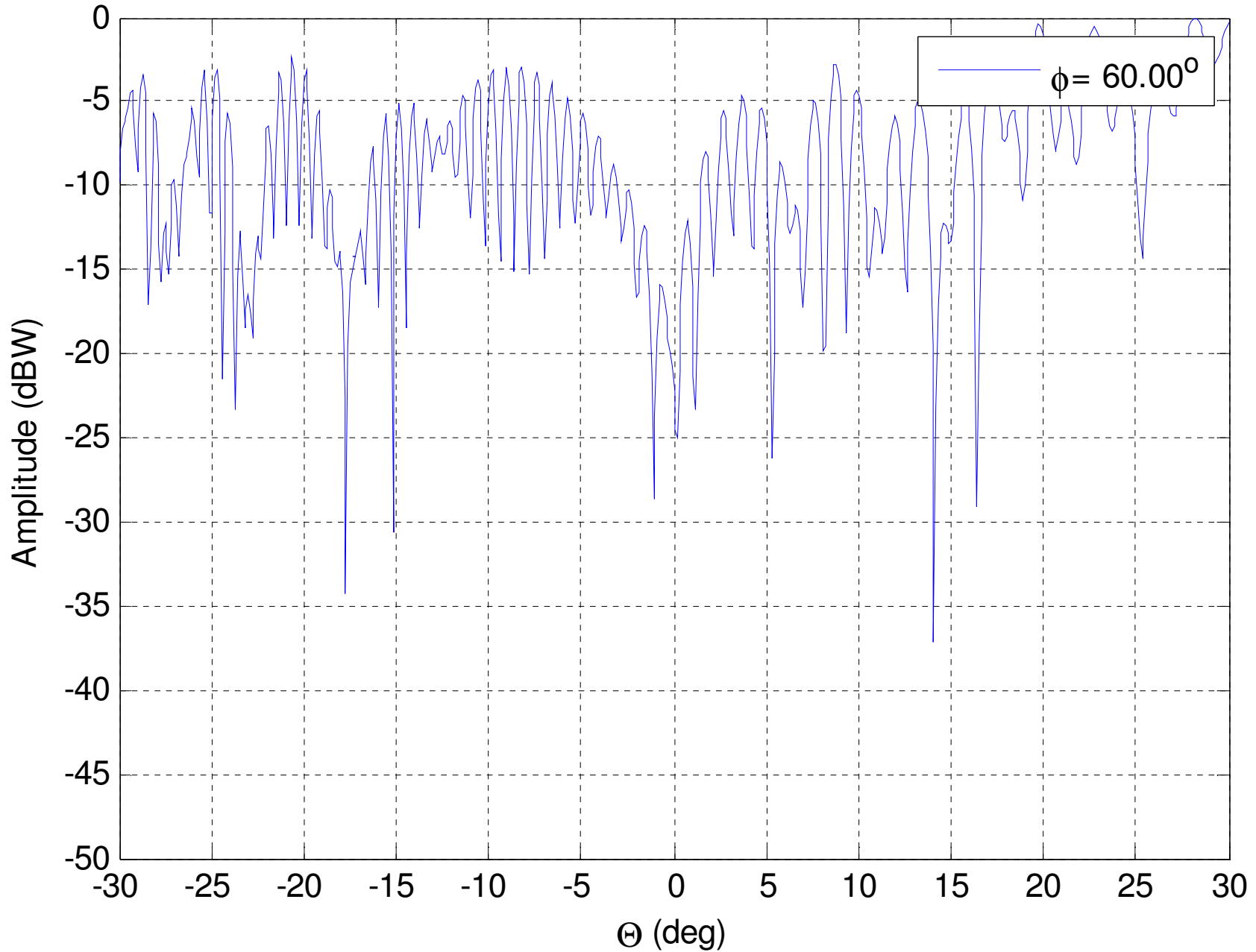
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -9.98 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

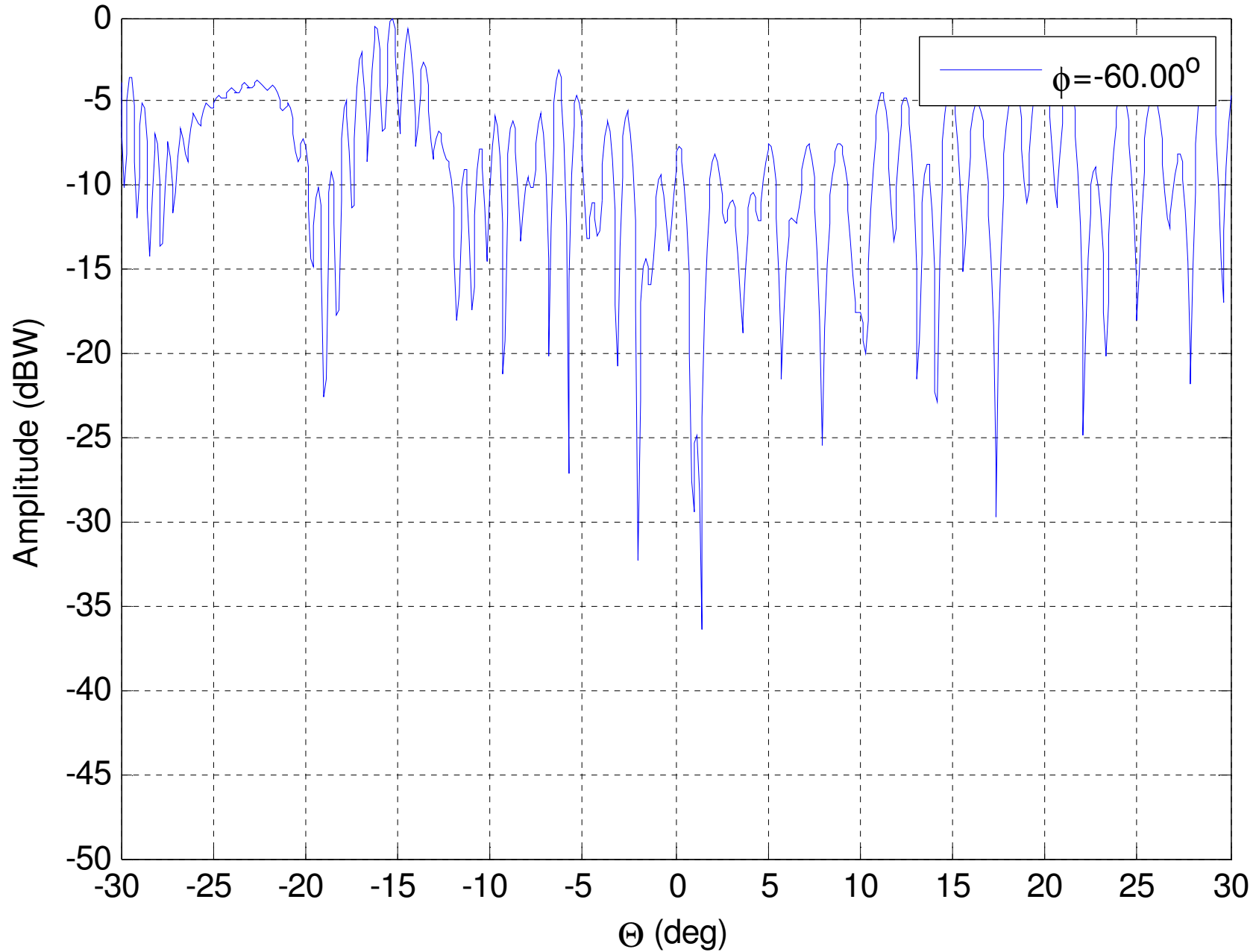
Input file: tx-17.5-lhcp-60.cut, Peak: -10.27 dBW, Date: 15-Dec-2011



RHCP at 17.7 GHz

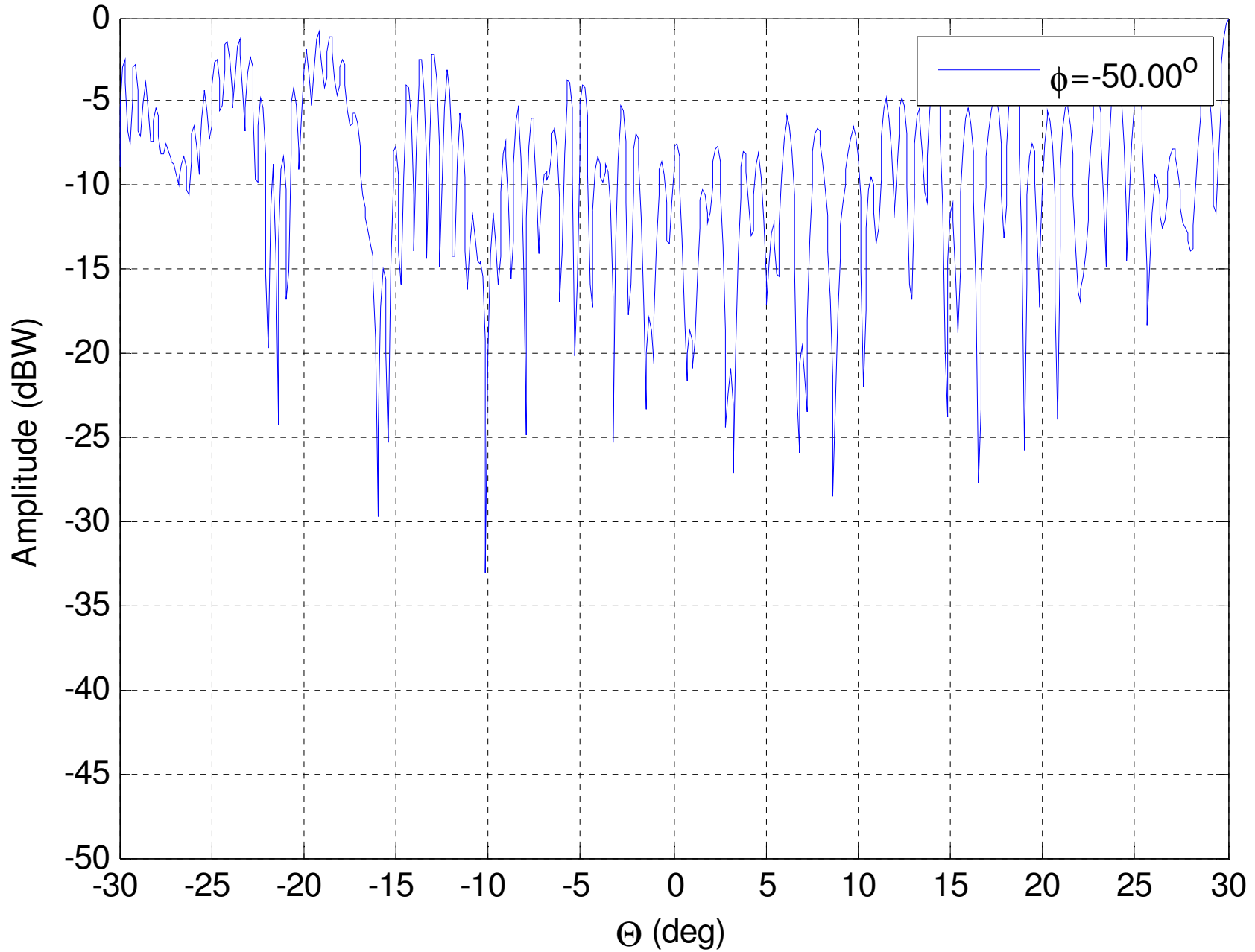
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -9.79 dBW, Date: 15-Dec-2011



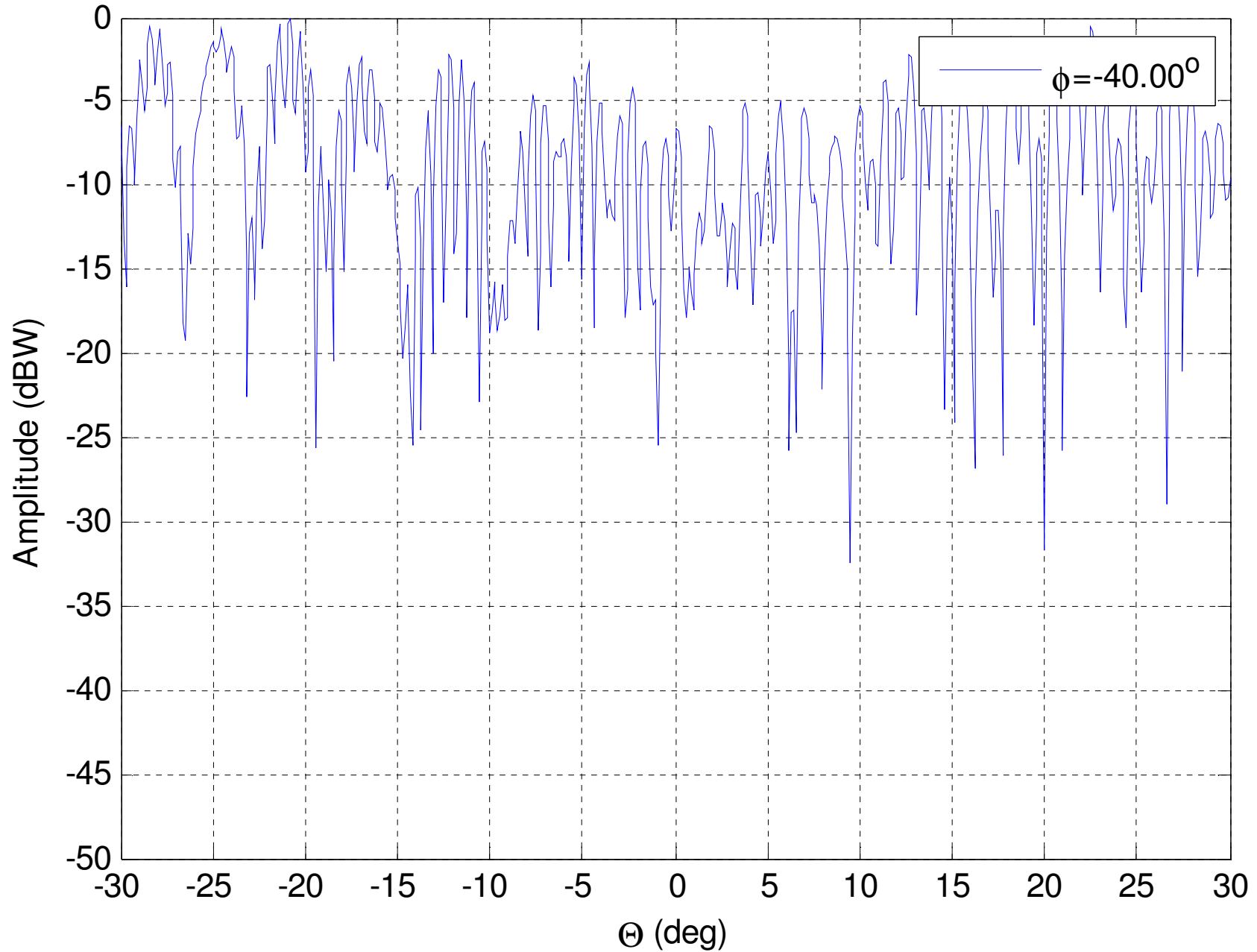
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -9.84 dBW, Date: 15-Dec-2011



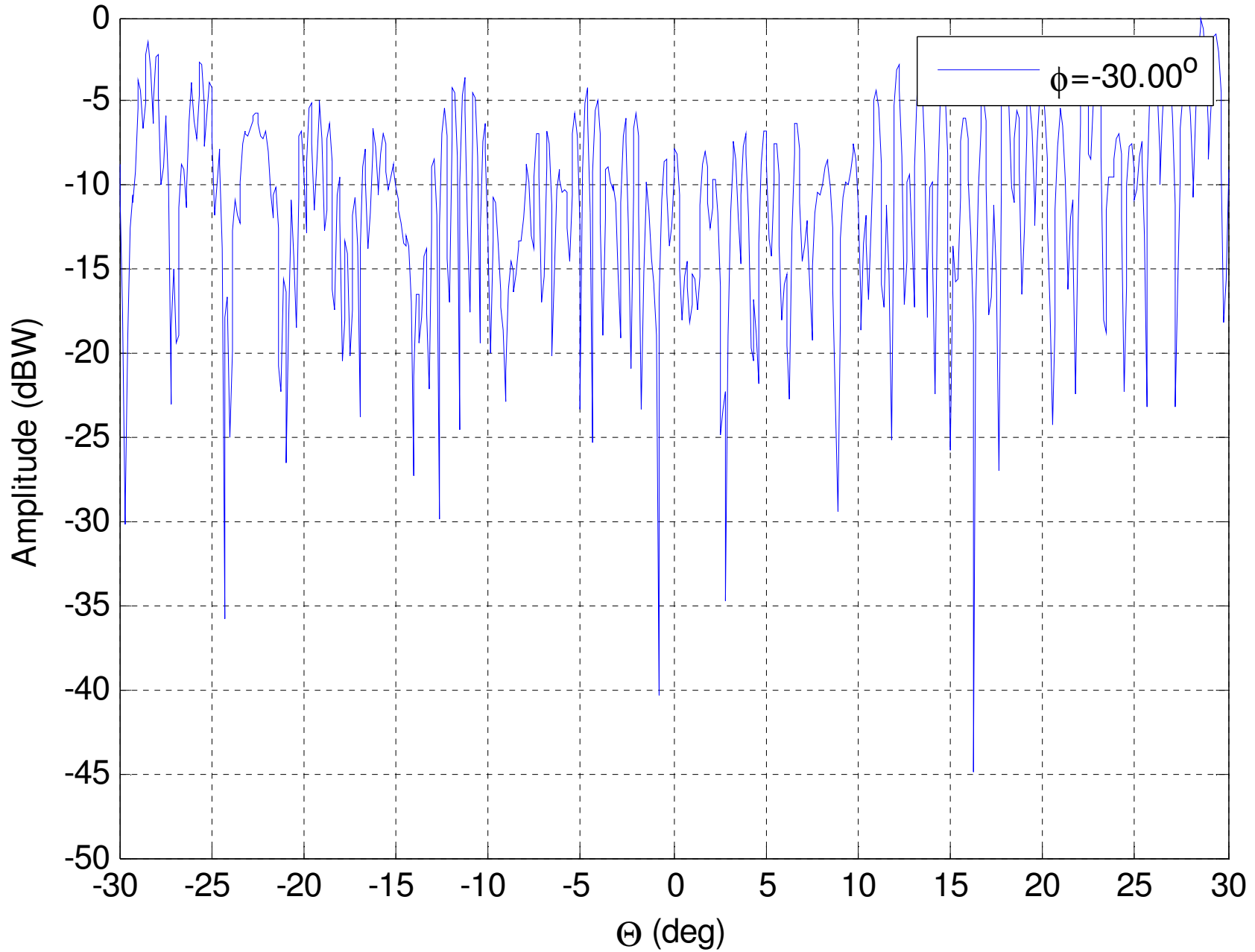
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -10.78 dBW, Date: 15-Dec-2011



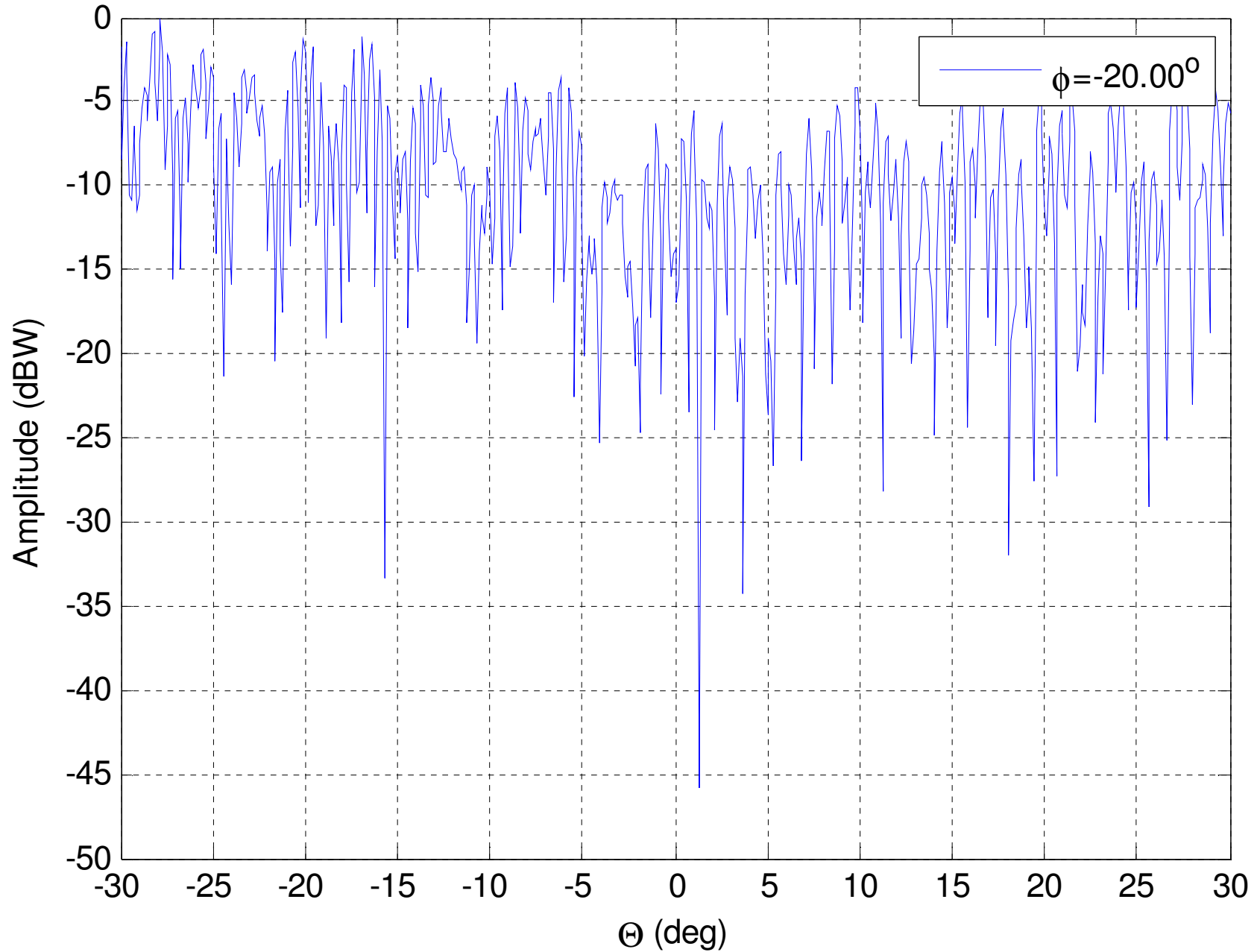
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -9.53 dBW, Date: 15-Dec-2011



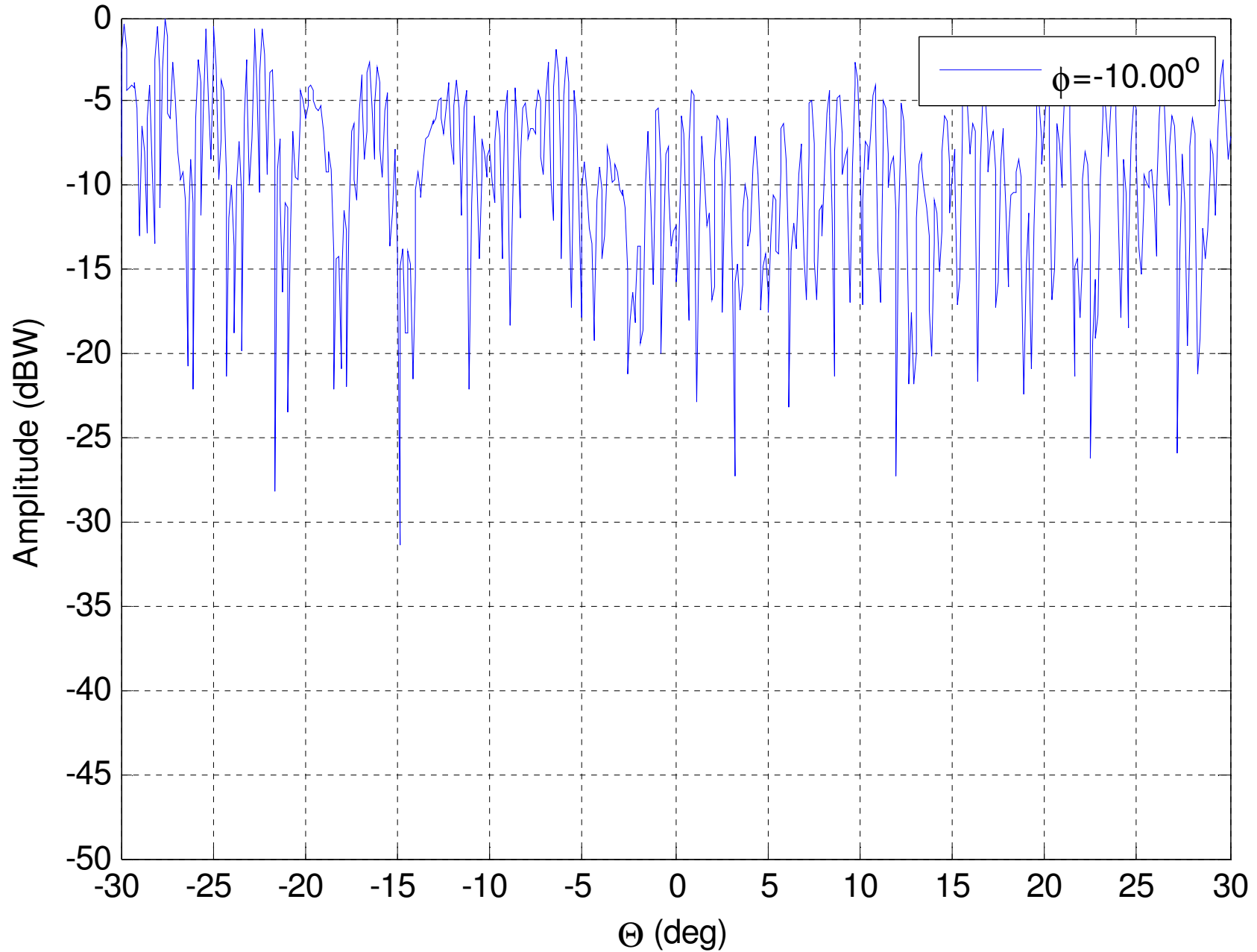
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: -10.70 dBW, Date: 15-Dec-2011



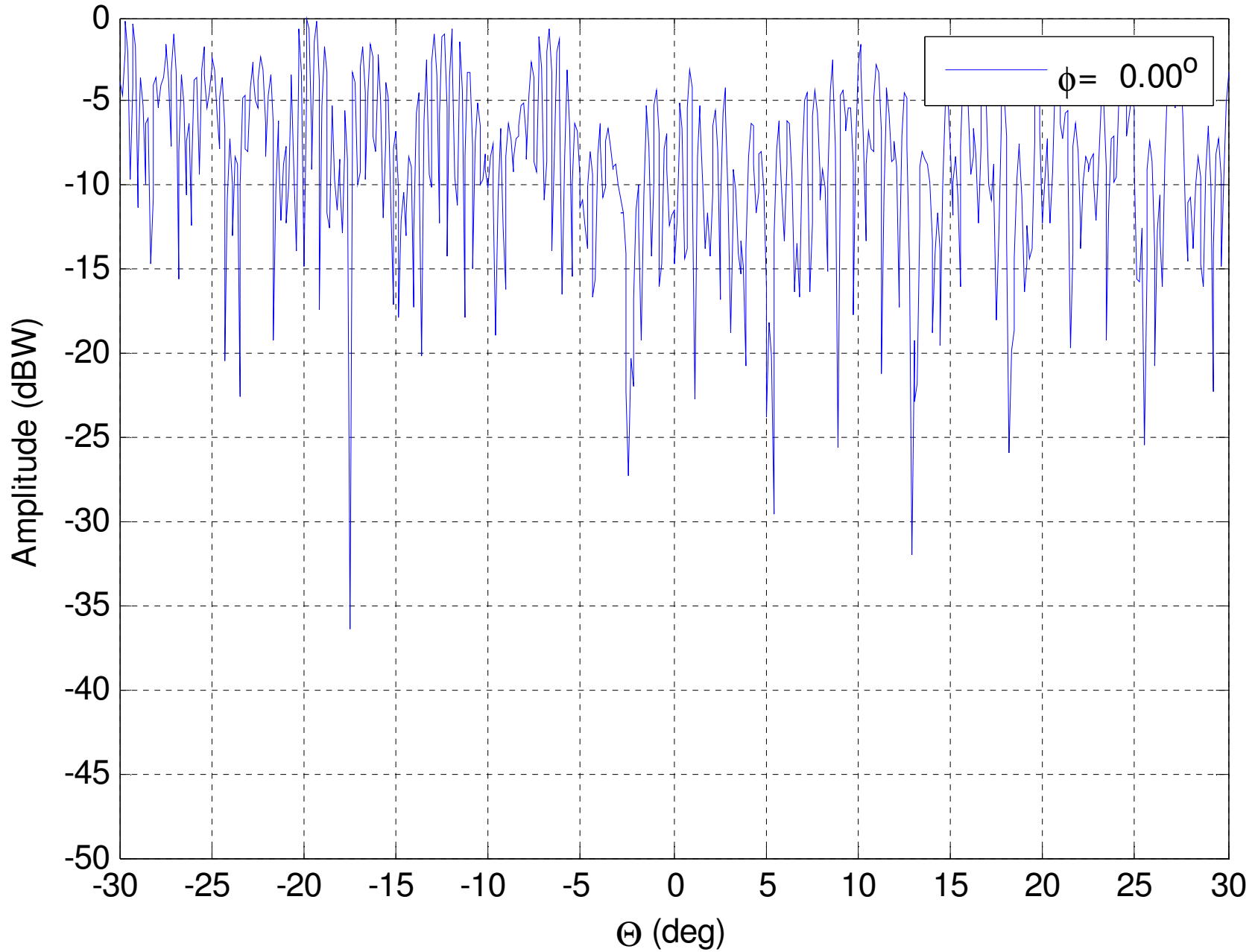
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: -12.03 dBW, Date: 15-Dec-2011



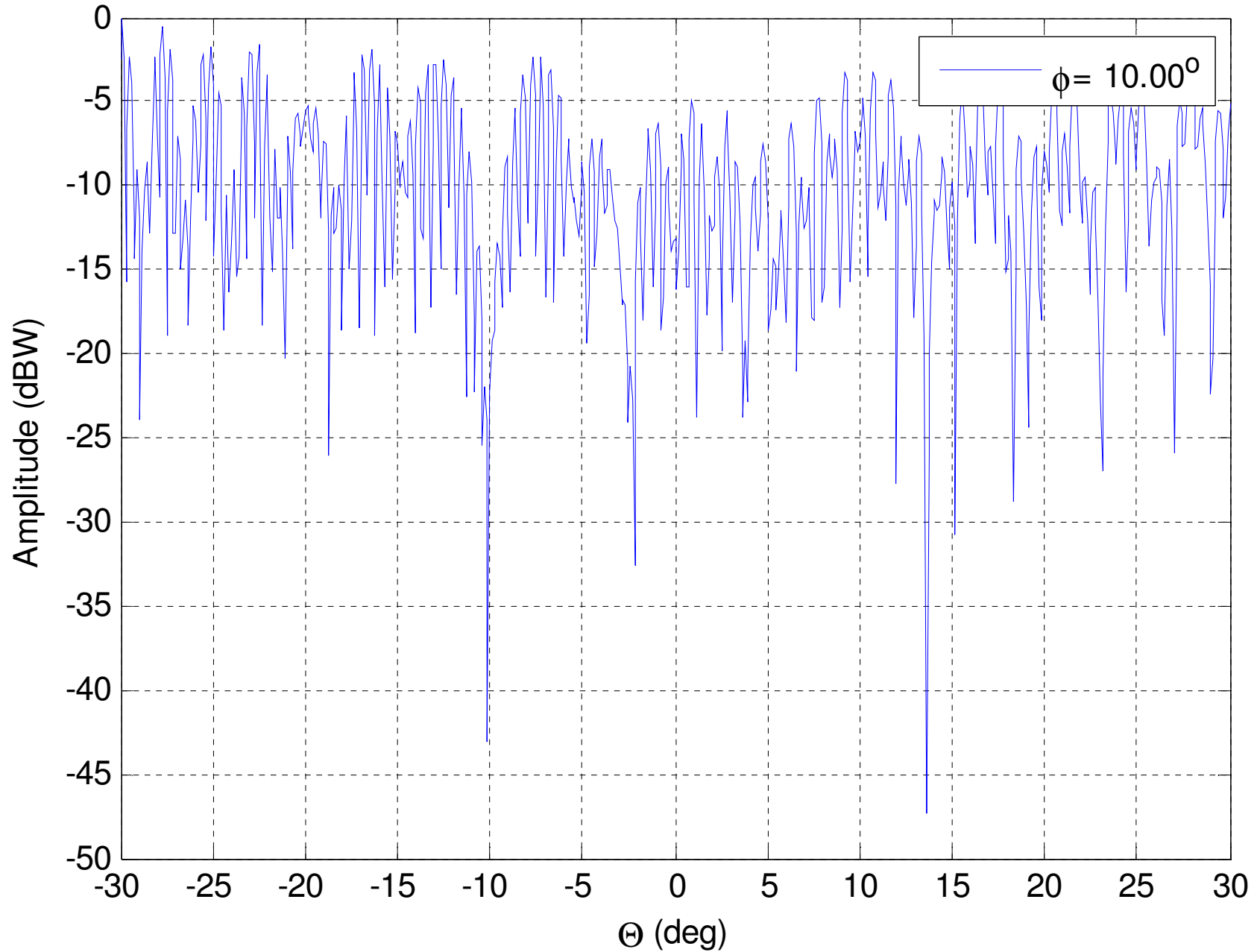
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: -13.00 dBW, Date: 15-Dec-2011



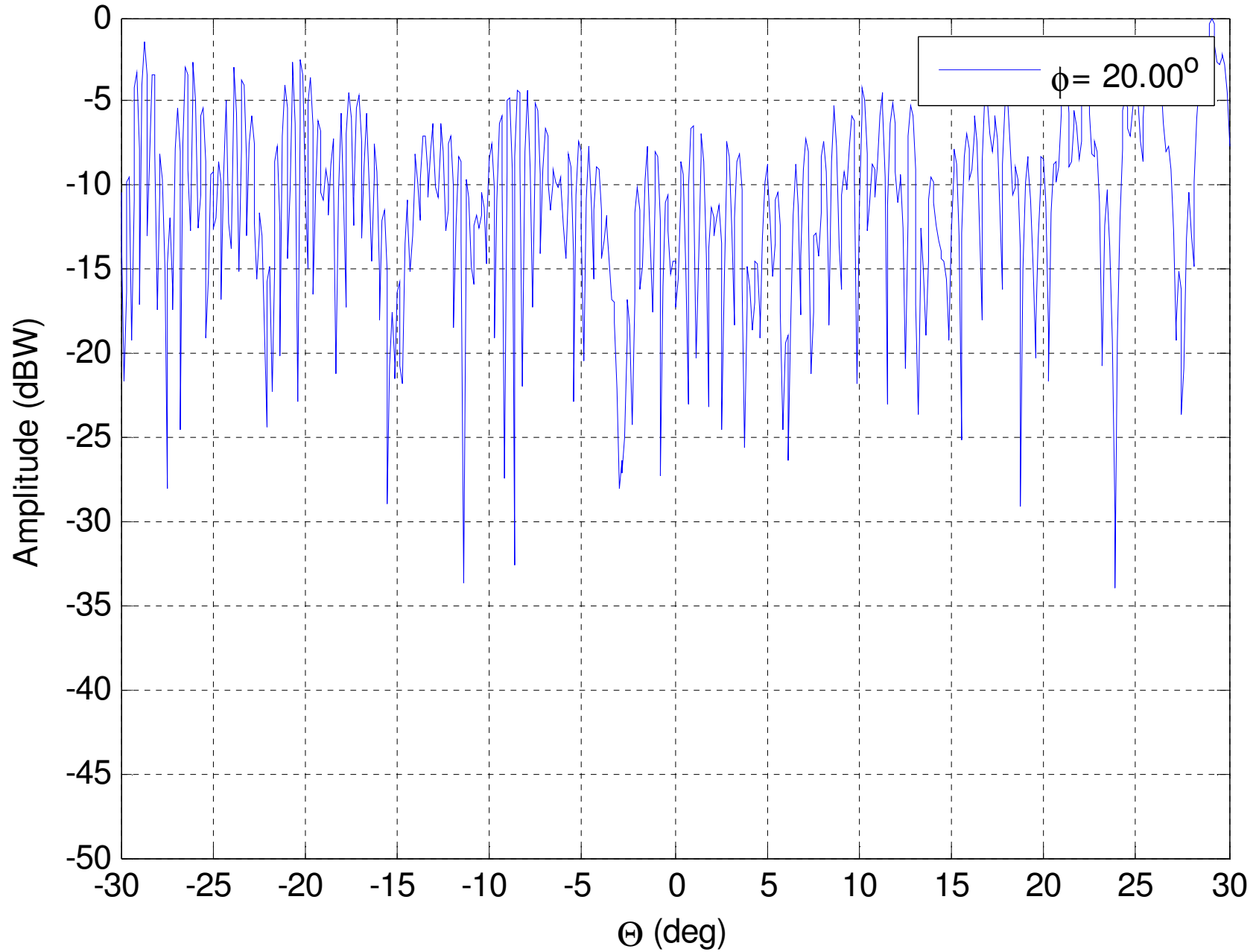
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: -11.32 dBW, Date: 15-Dec-2011



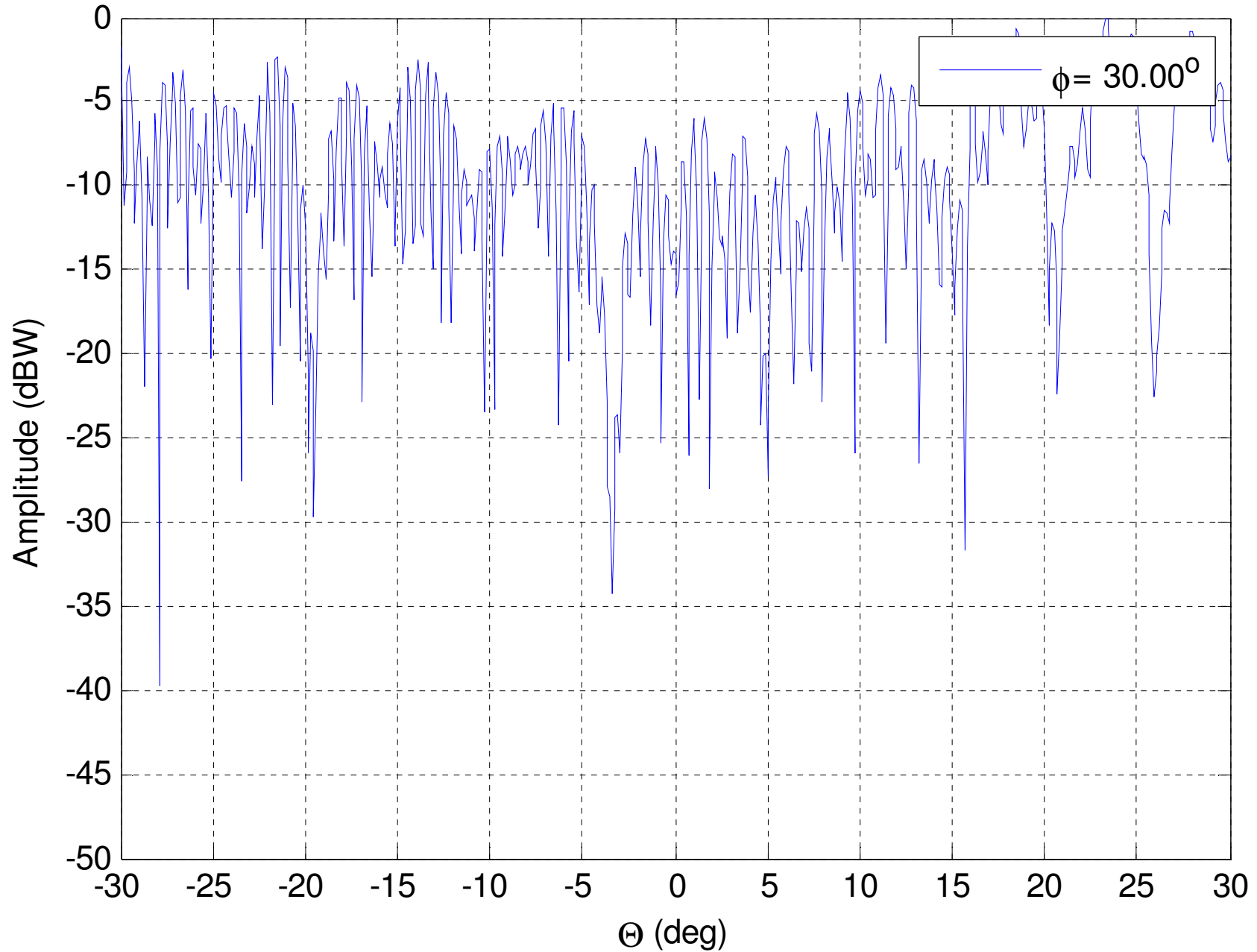
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: -9.96 dBW, Date: 15-Dec-2011



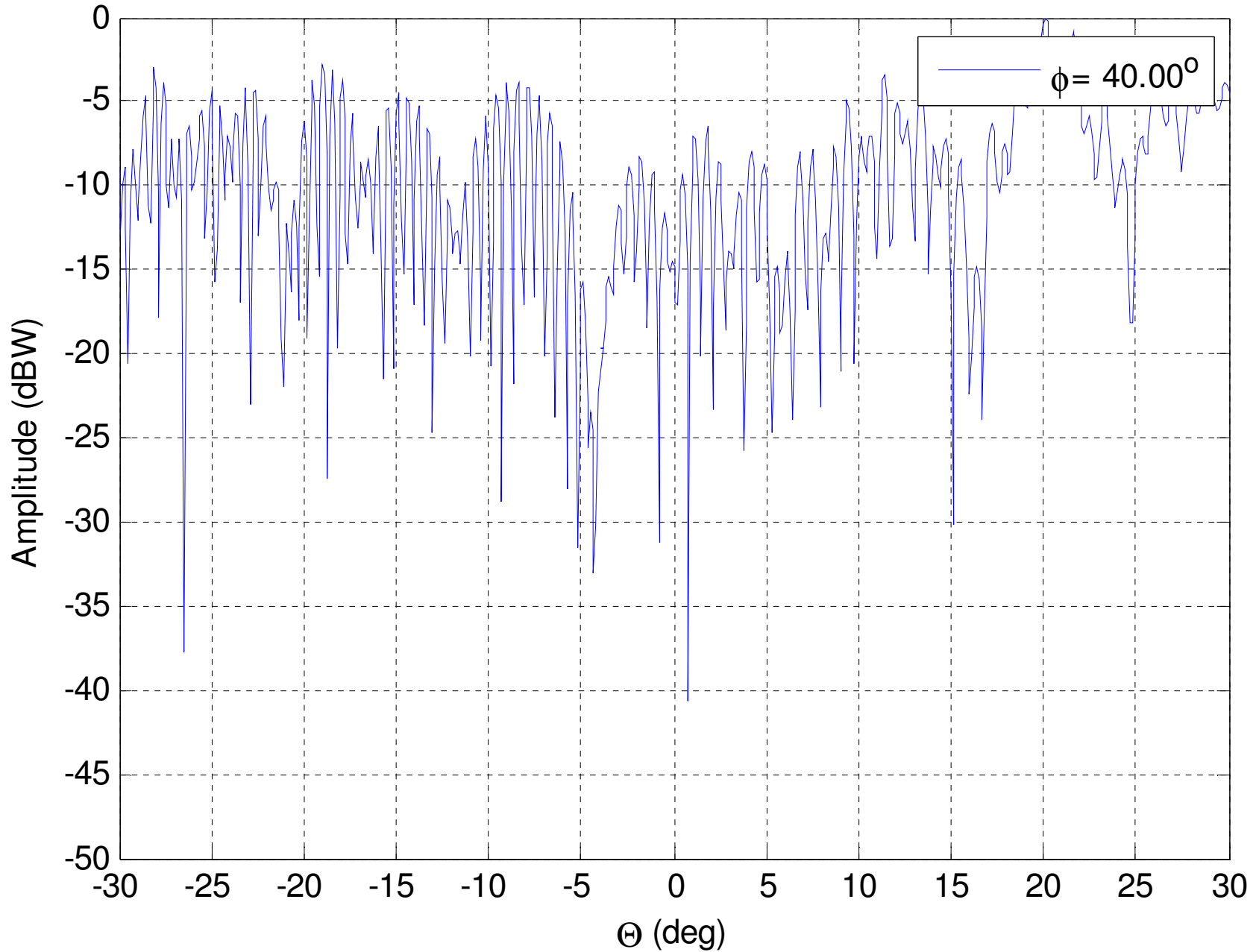
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: -10.39 dBW, Date: 15-Dec-2011



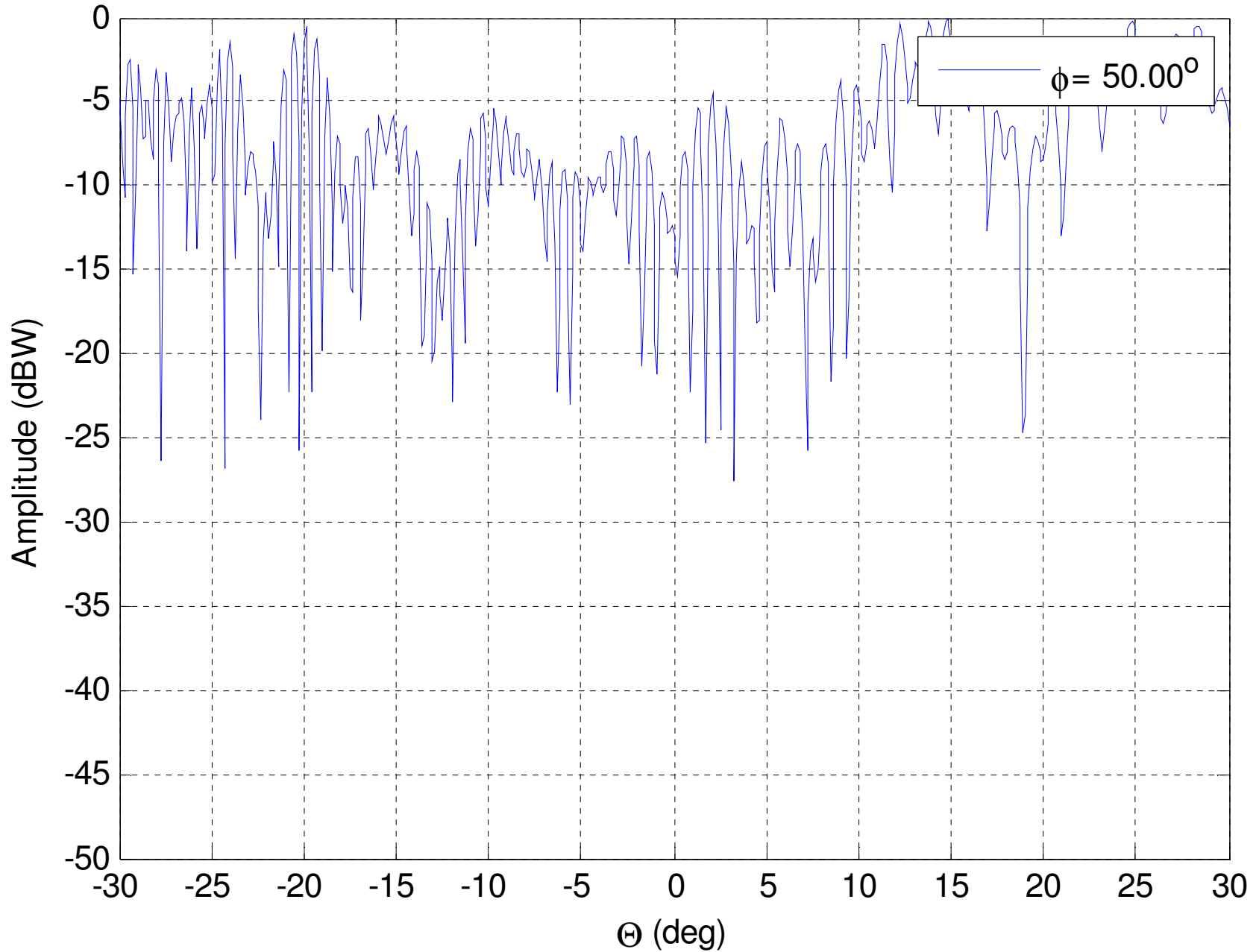
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -9.58 dBW, Date: 15-Dec-2011



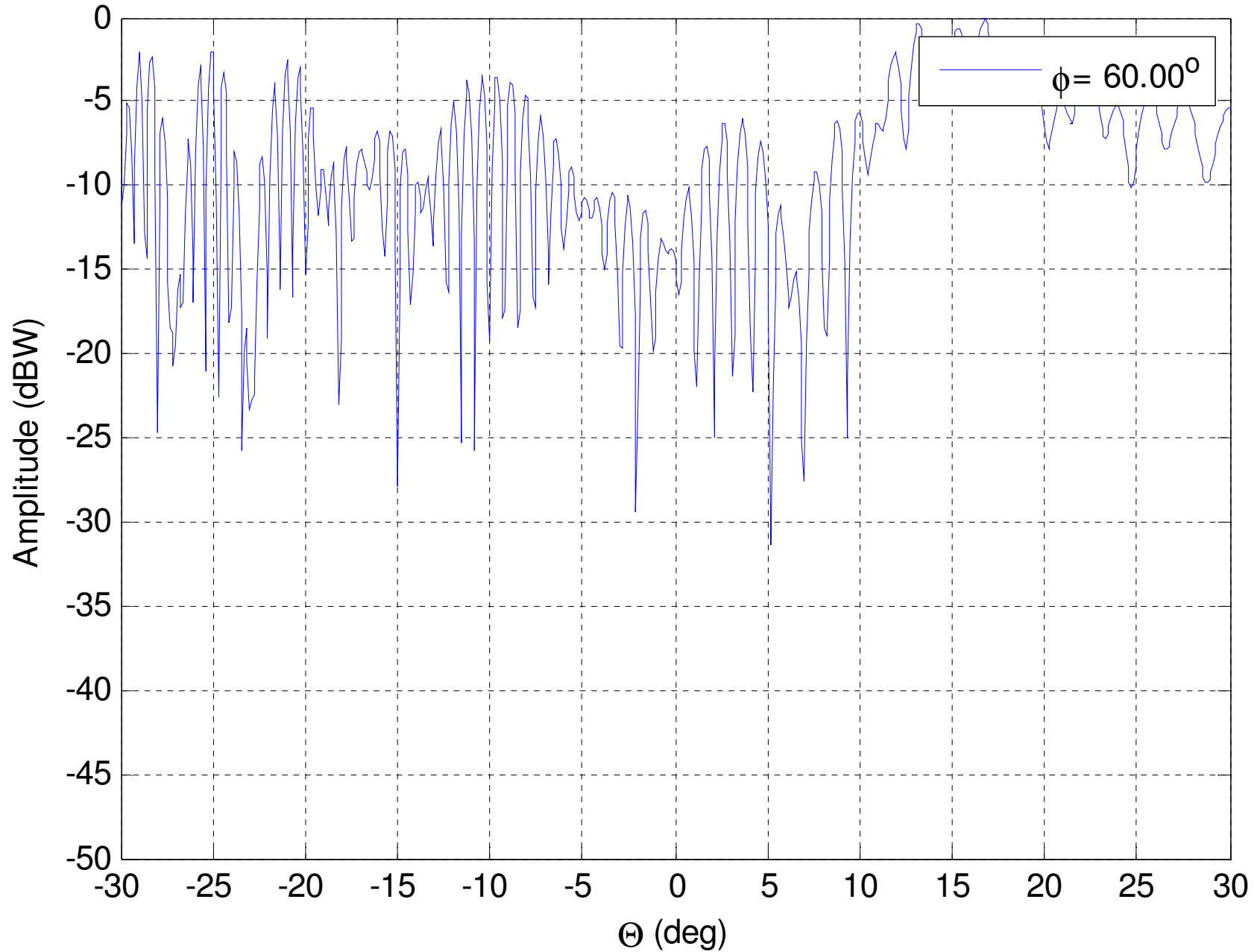
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -11.47 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

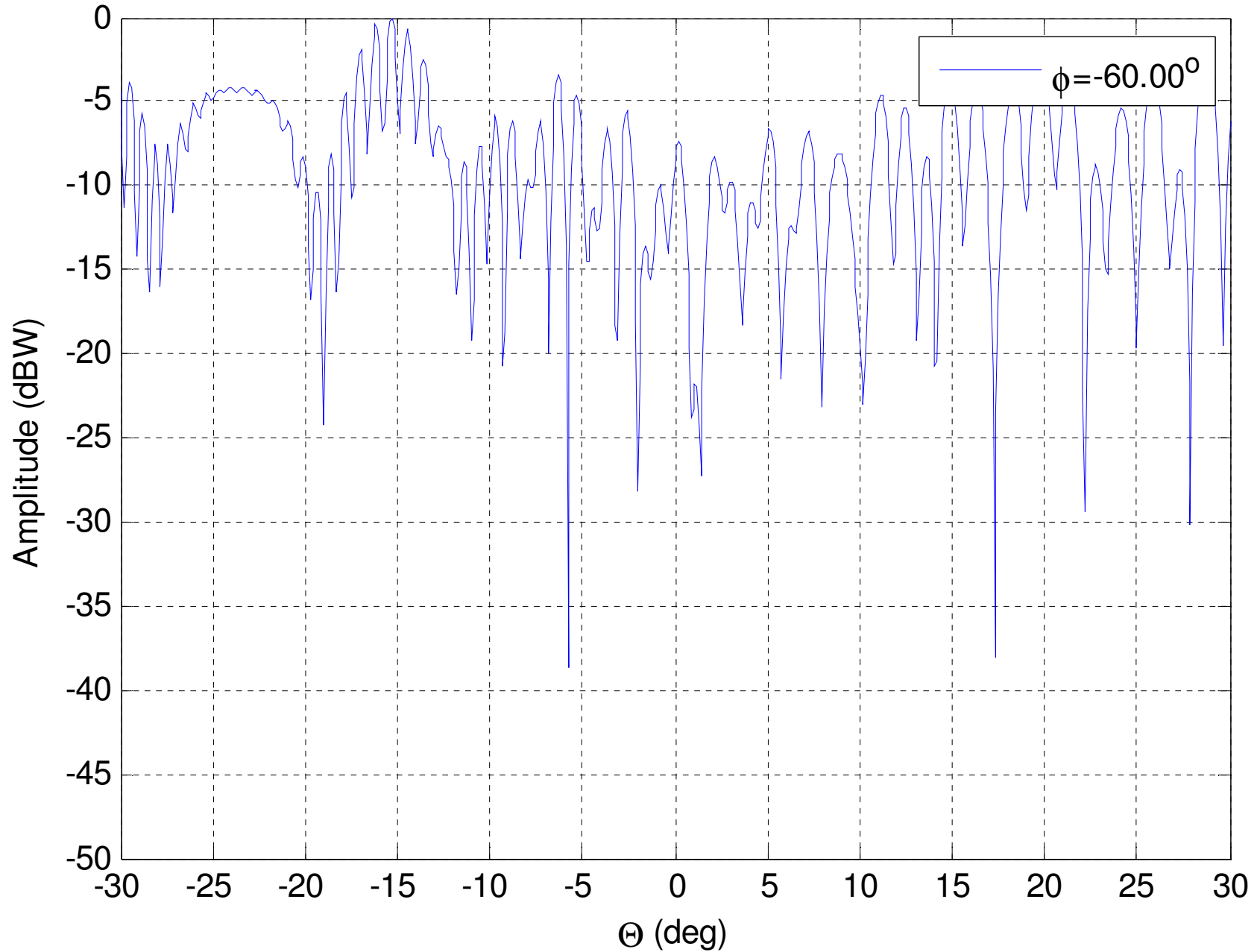
Input file: tx-17.7-rhcp-60.cut, Peak: -9.94 dBW, Date: 15-Dec-2011



LHCP at 17.7 GHz

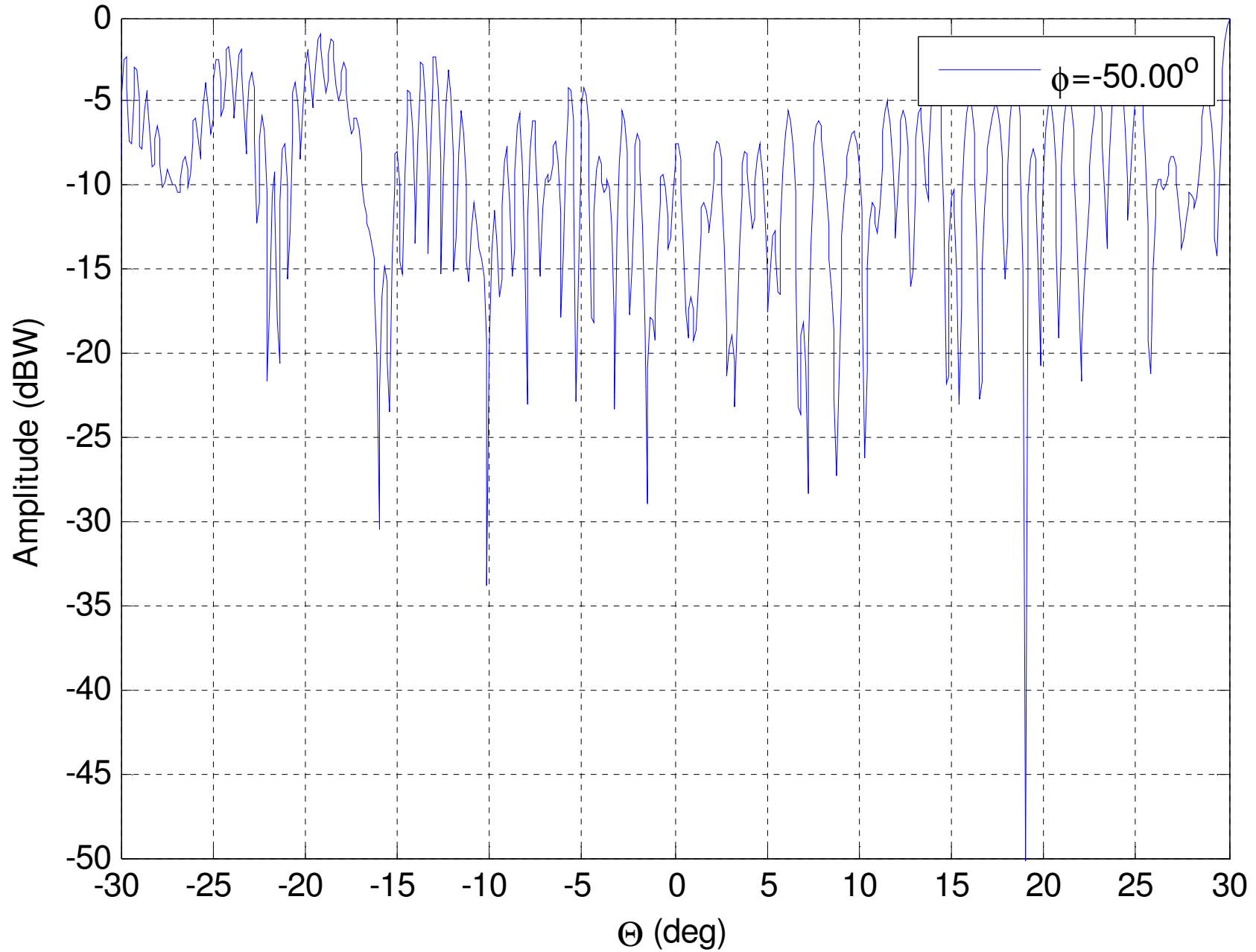
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -9.83 dBW, Date: 15-Dec-2011



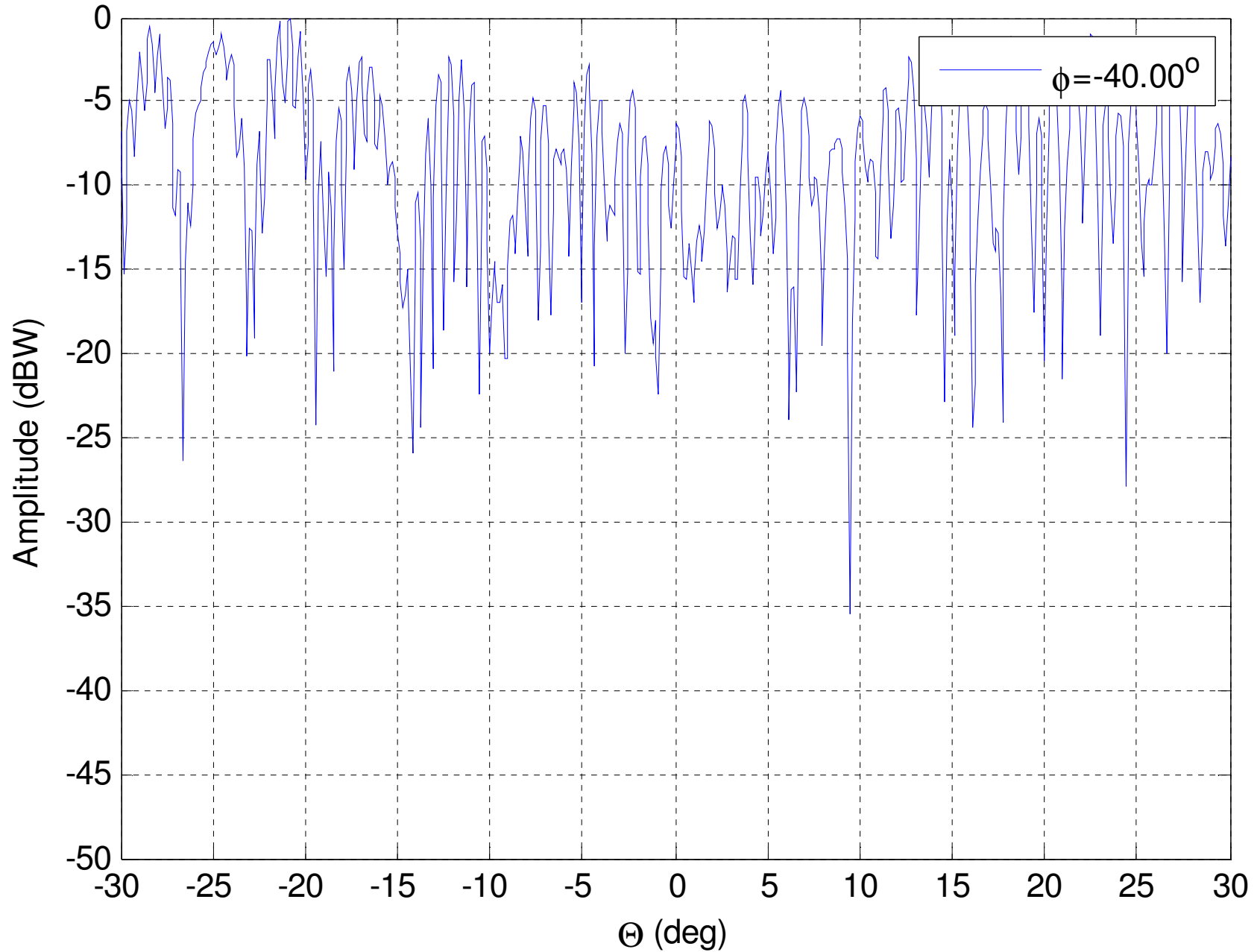
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -9.69 dBW, Date: 15-Dec-2011



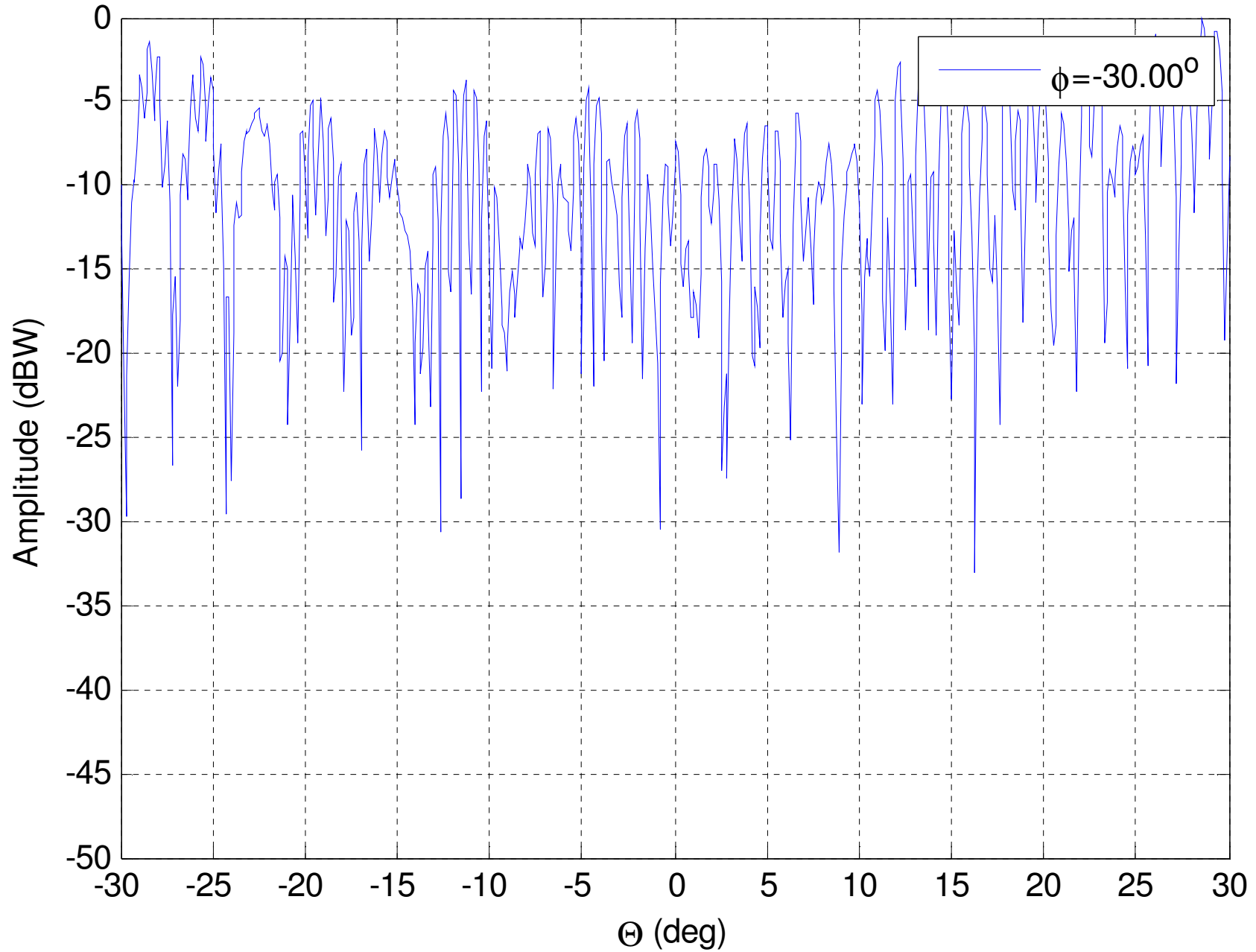
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -10.83 dBW, Date: 15-Dec-2011



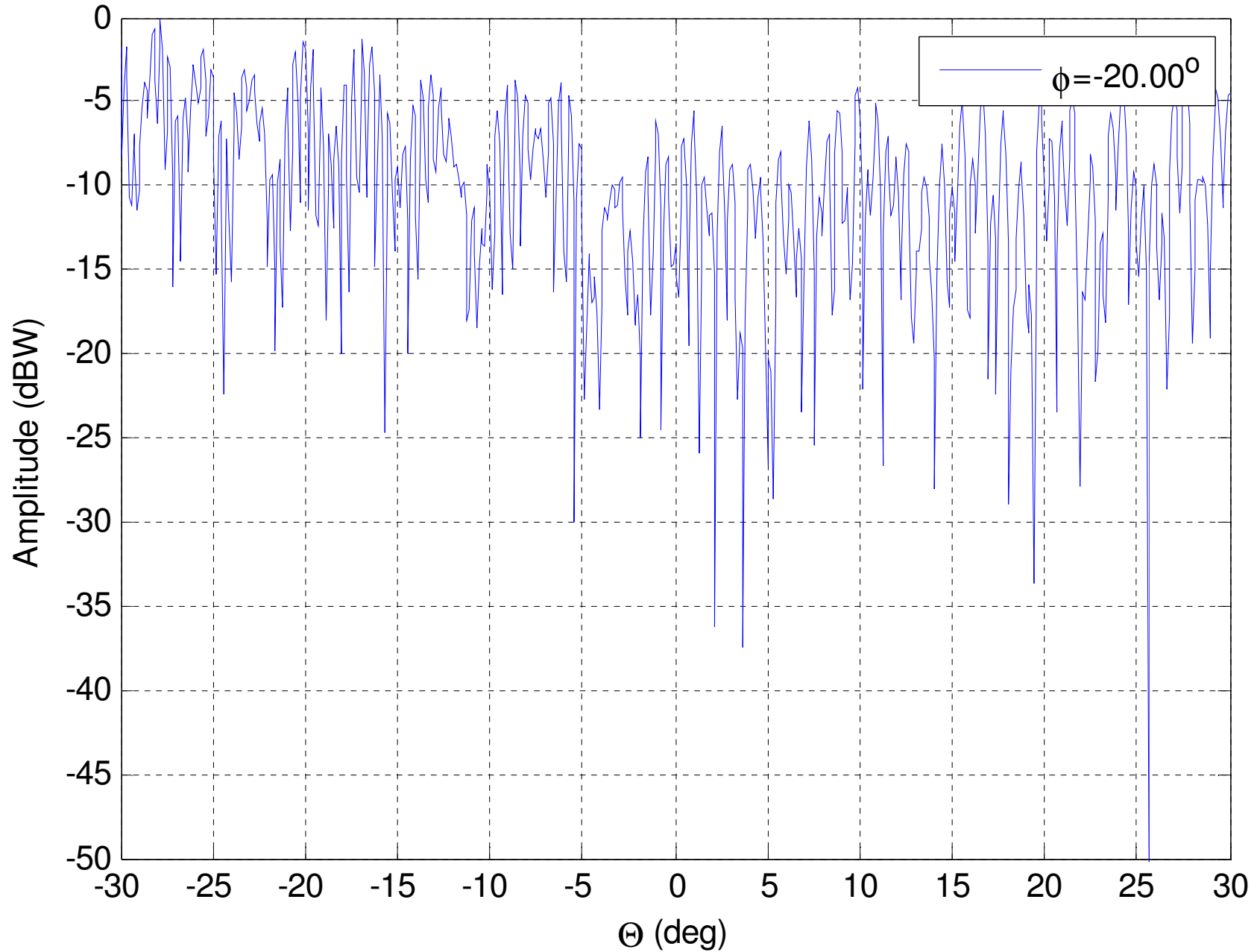
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -9.68 dBW, Date: 15-Dec-2011



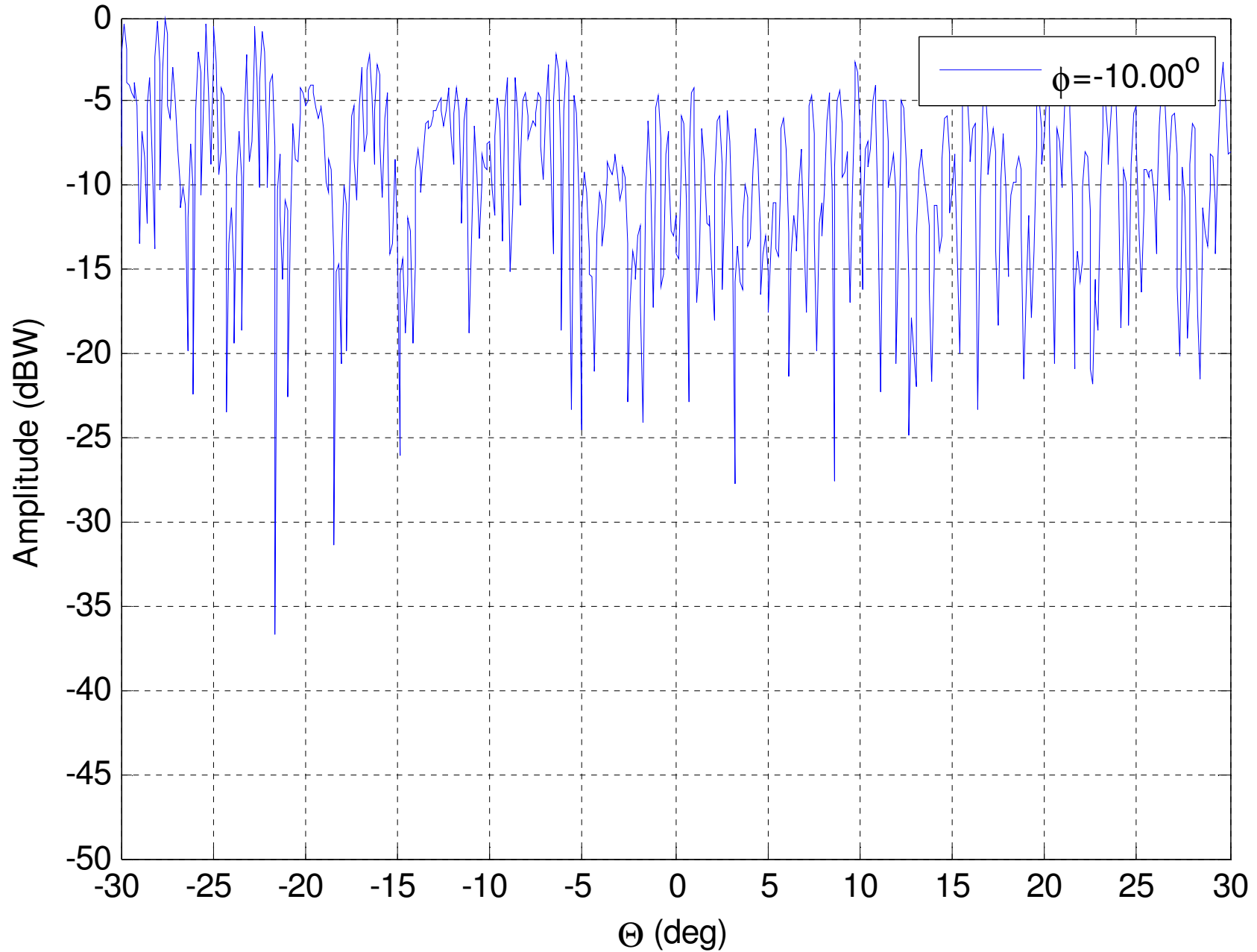
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: -10.51 dBW, Date: 15-Dec-2011



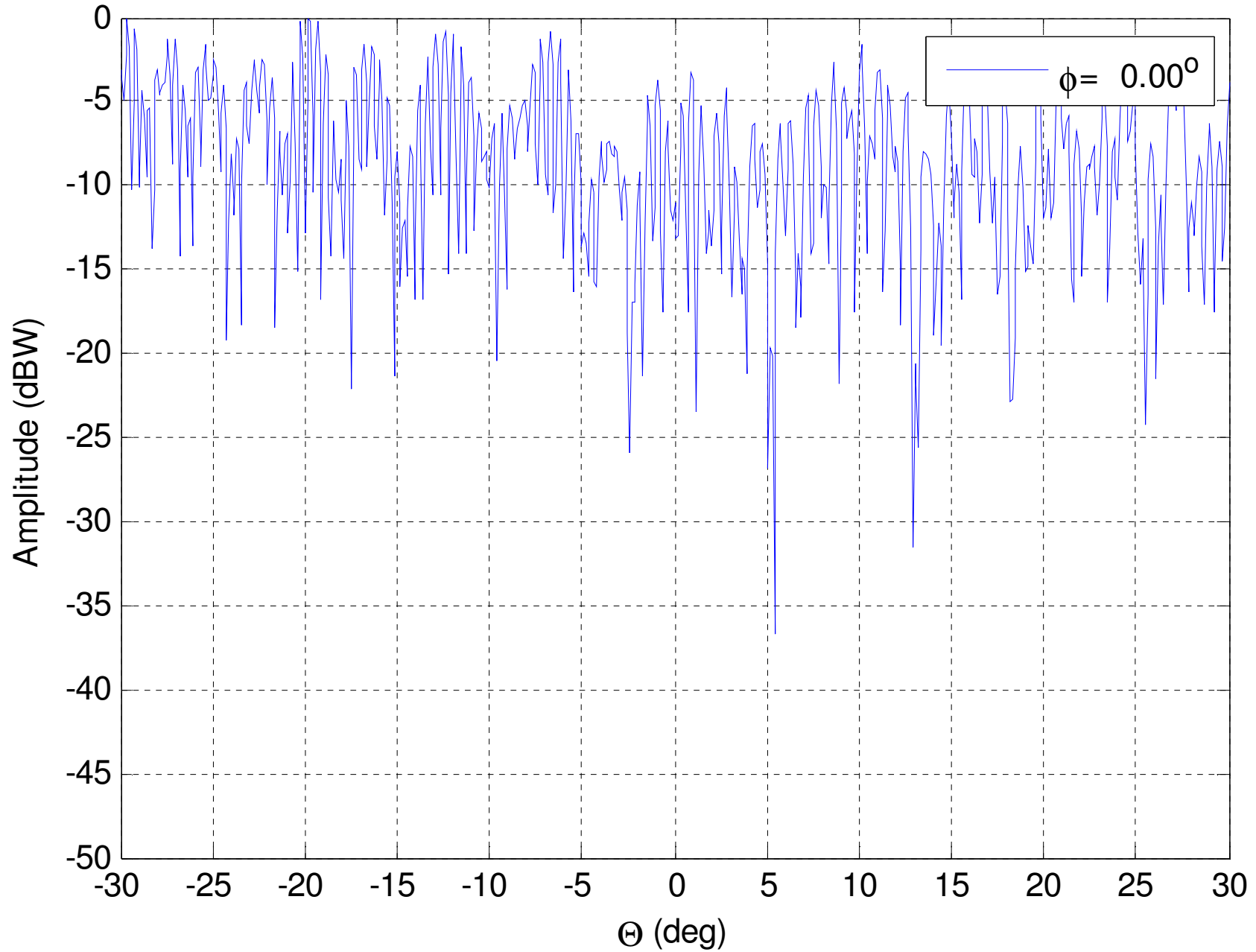
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: -12.07 dBW, Date: 15-Dec-2011



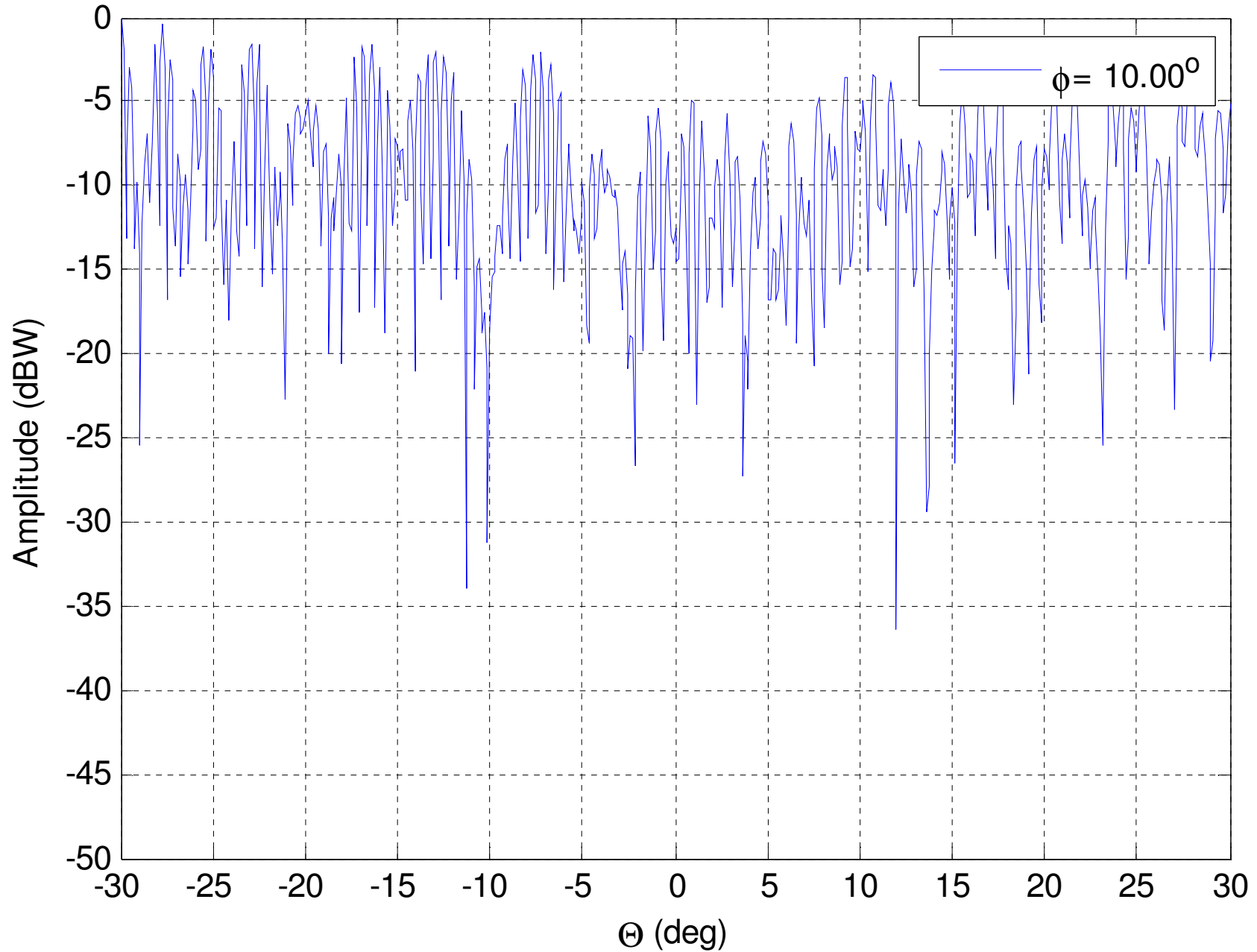
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: -12.94 dBW, Date: 15-Dec-2011



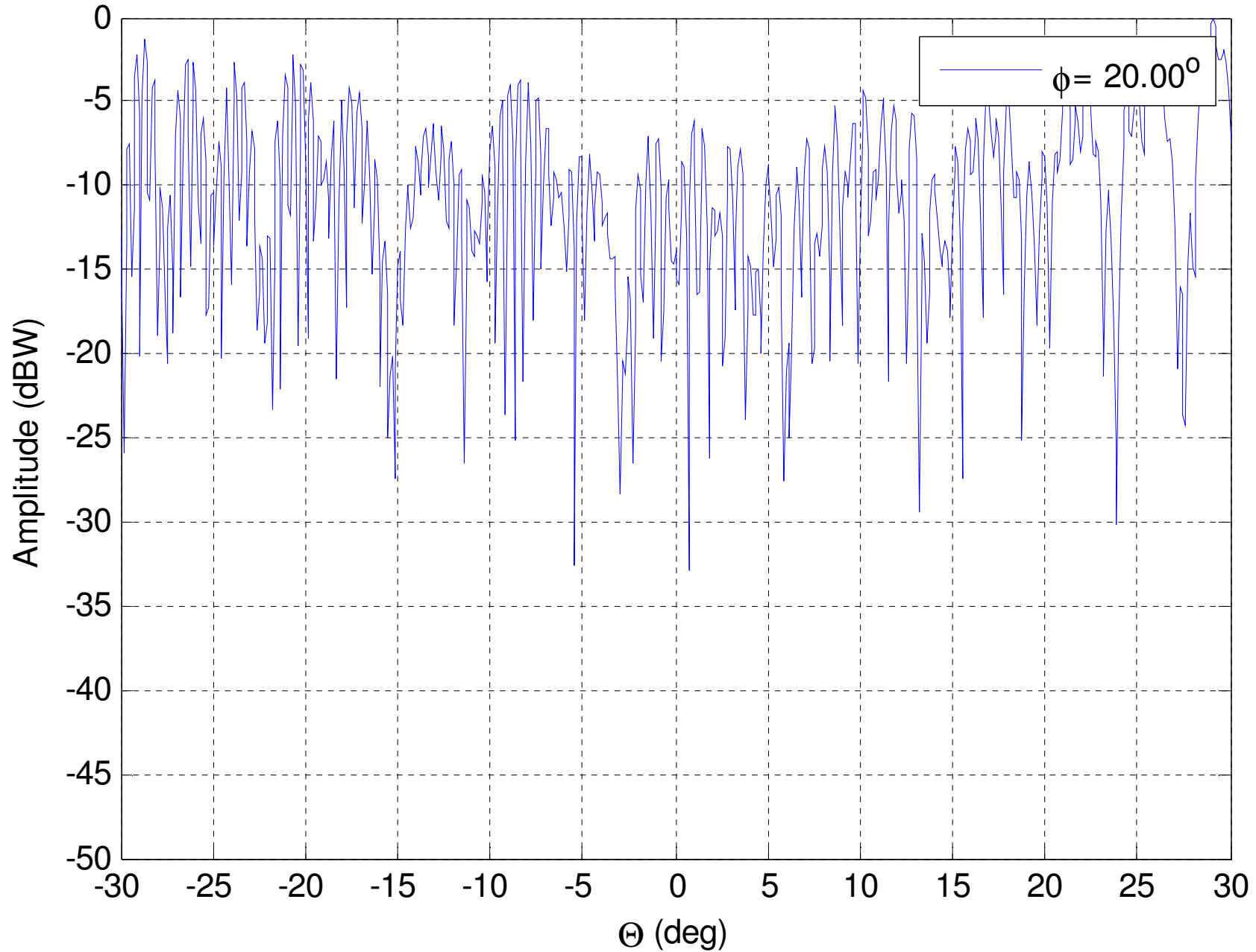
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: -11.40 dBW, Date: 15-Dec-2011



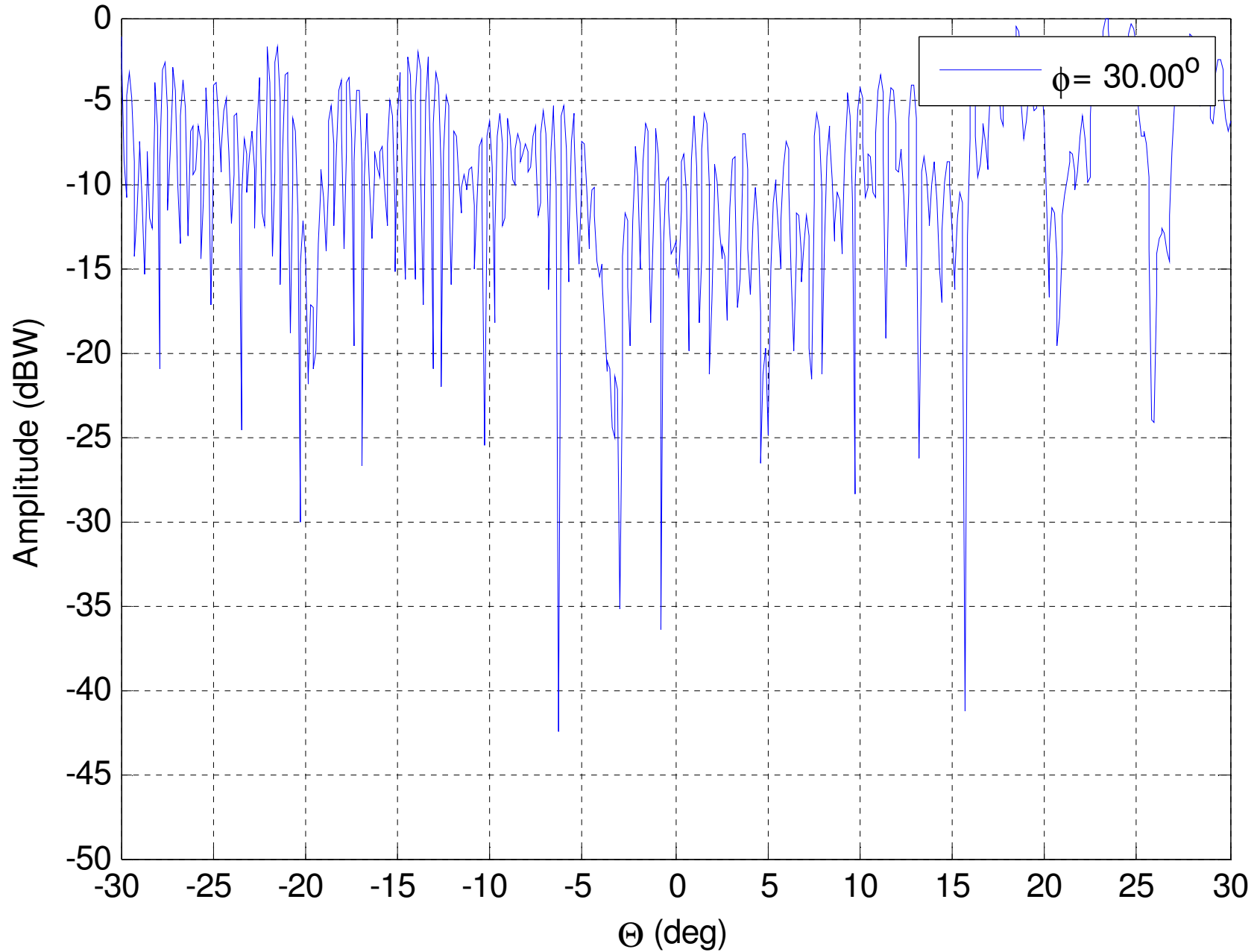
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: -10.09 dBW, Date: 15-Dec-2011



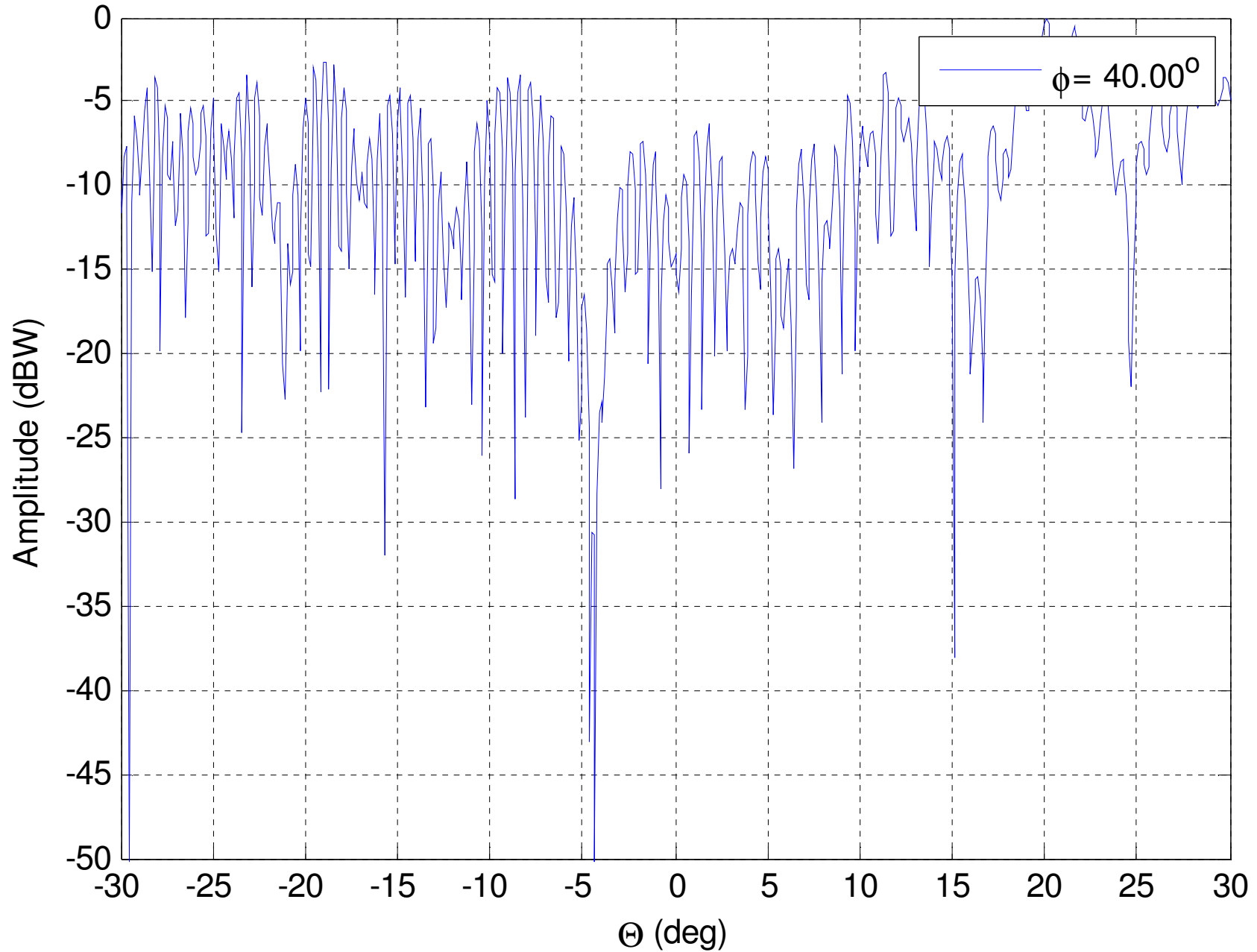
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: -10.68 dBW, Date: 15-Dec-2011



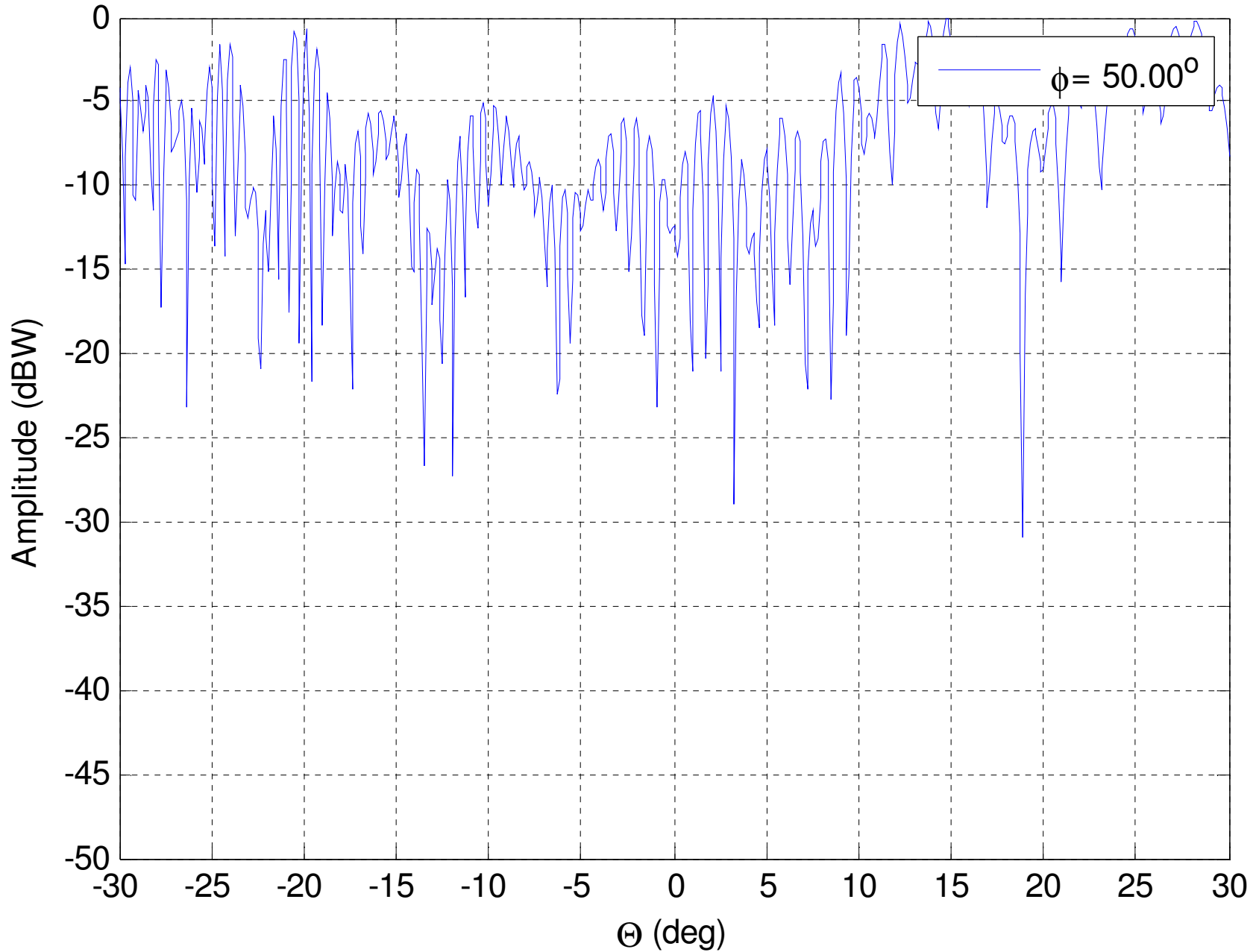
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -9.80 dBW, Date: 15-Dec-2011



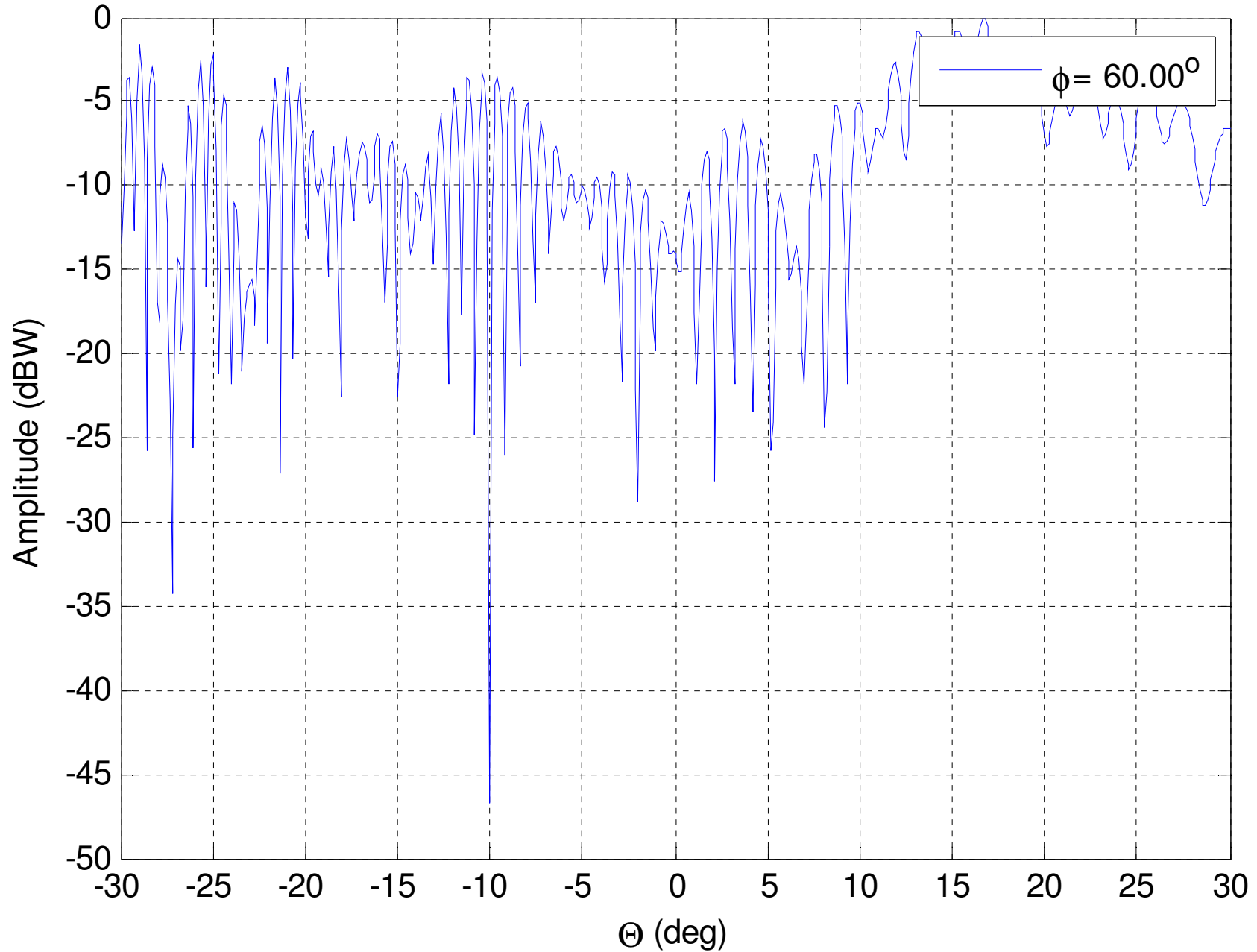
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -11.49 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -9.88 dBW, Date: 15-Dec-2011



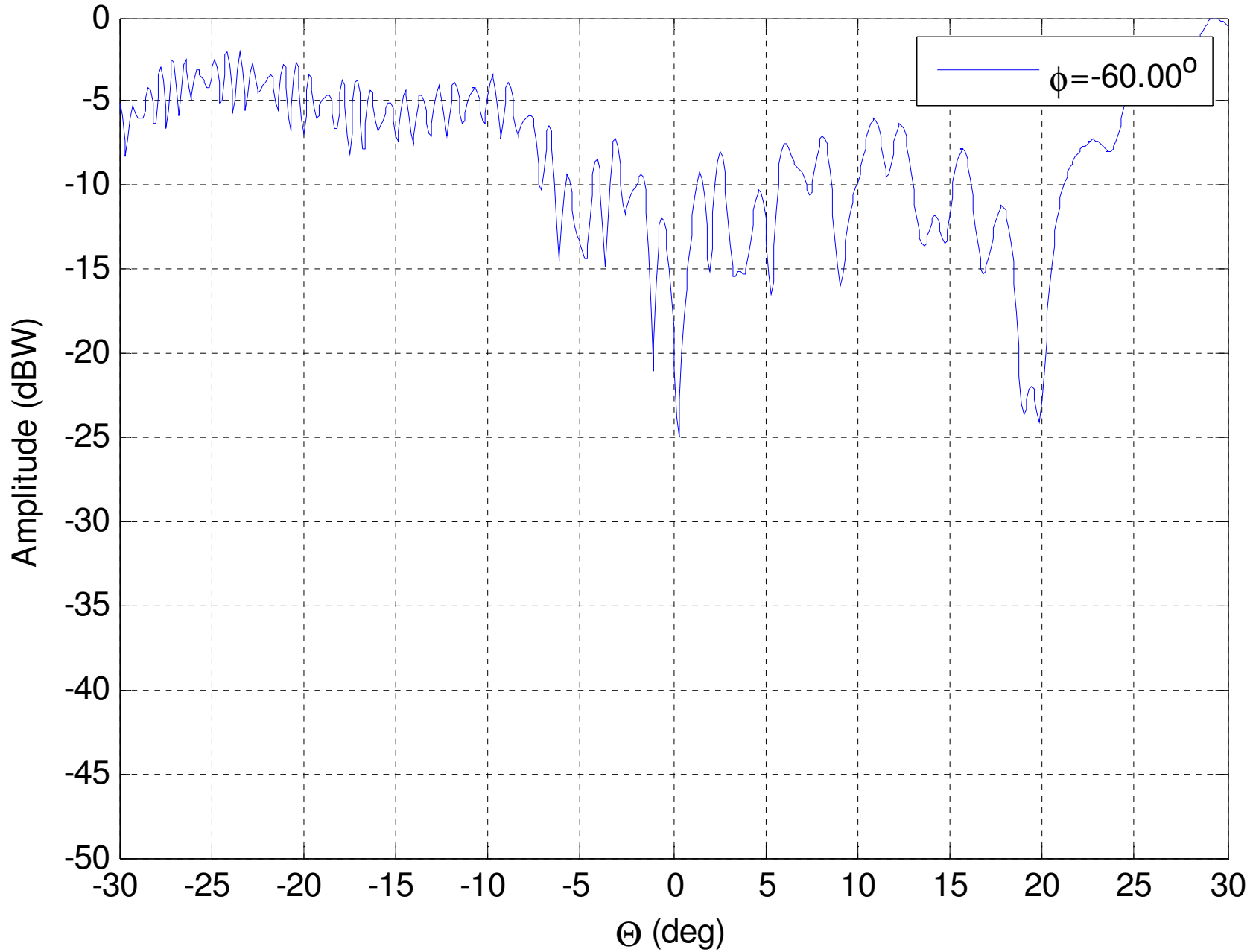
Spot Beam33, +X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: = +X-axis)
- $-60 < \phi < 60$
- Freq = 17.305, 17.5, and 17.695 GHz
- The Zero reference line is the maximum EIRP listed in the title of each plot sheet. All levels are below the required 15.4 dBW maximum
- The Zero reference for the maximum antenna gain is the maximum EIRP listed minus the power input to the antenna specified in Table I of the attached narrative.

RHCP at 17.3 GHz

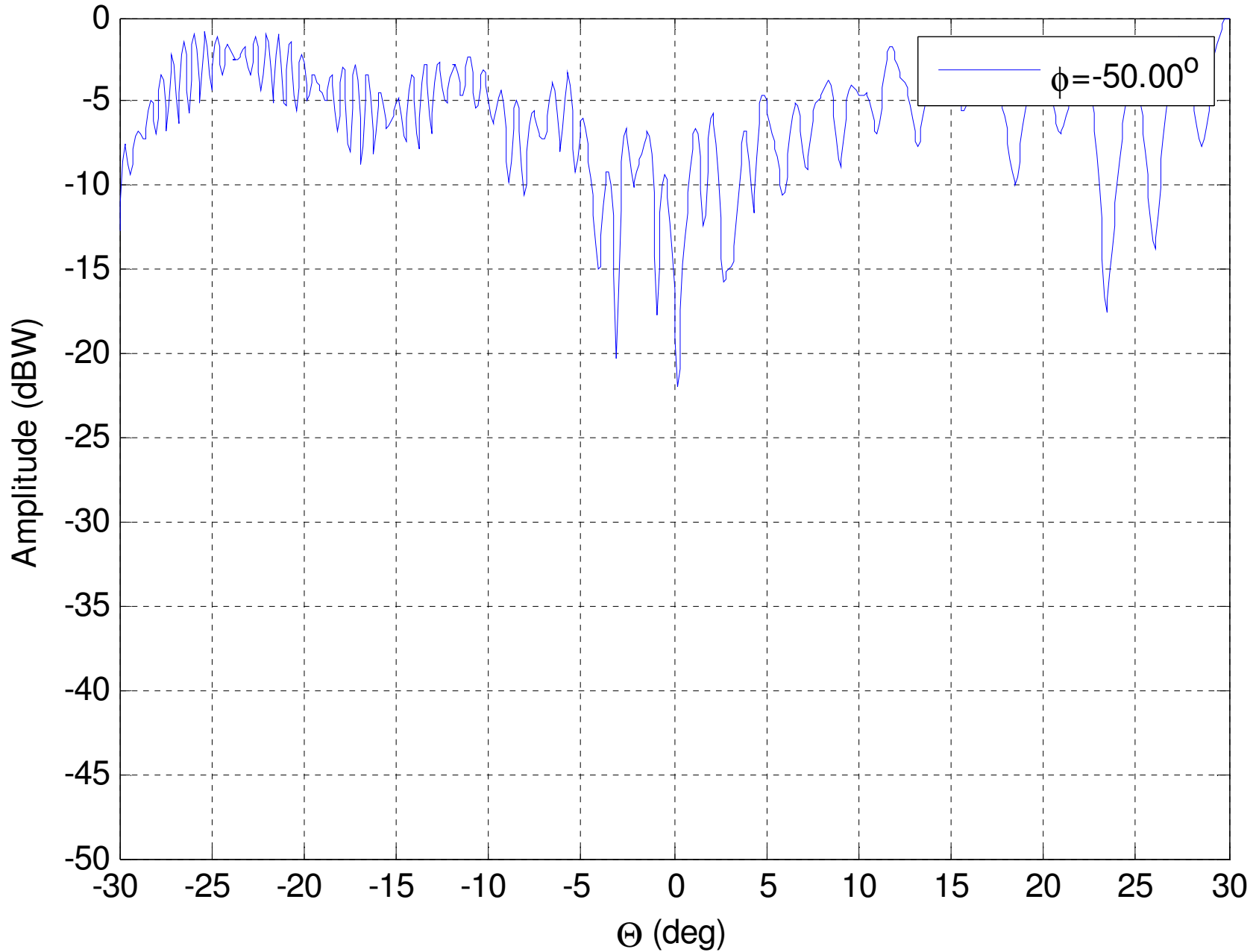
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -9.47 dBW, Date: 15-Dec-2011



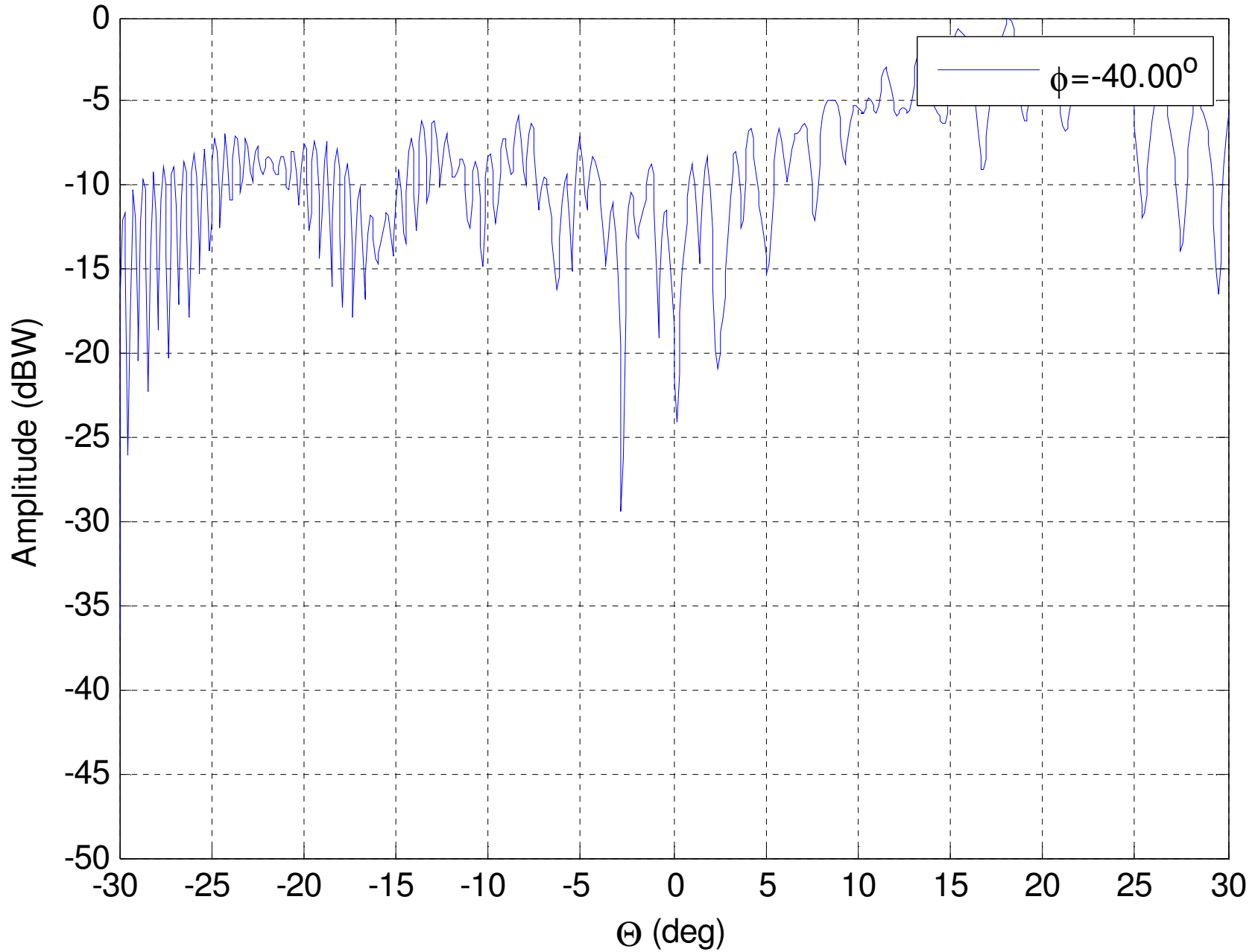
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -11.75 dBW, Date: 15-Dec-2011



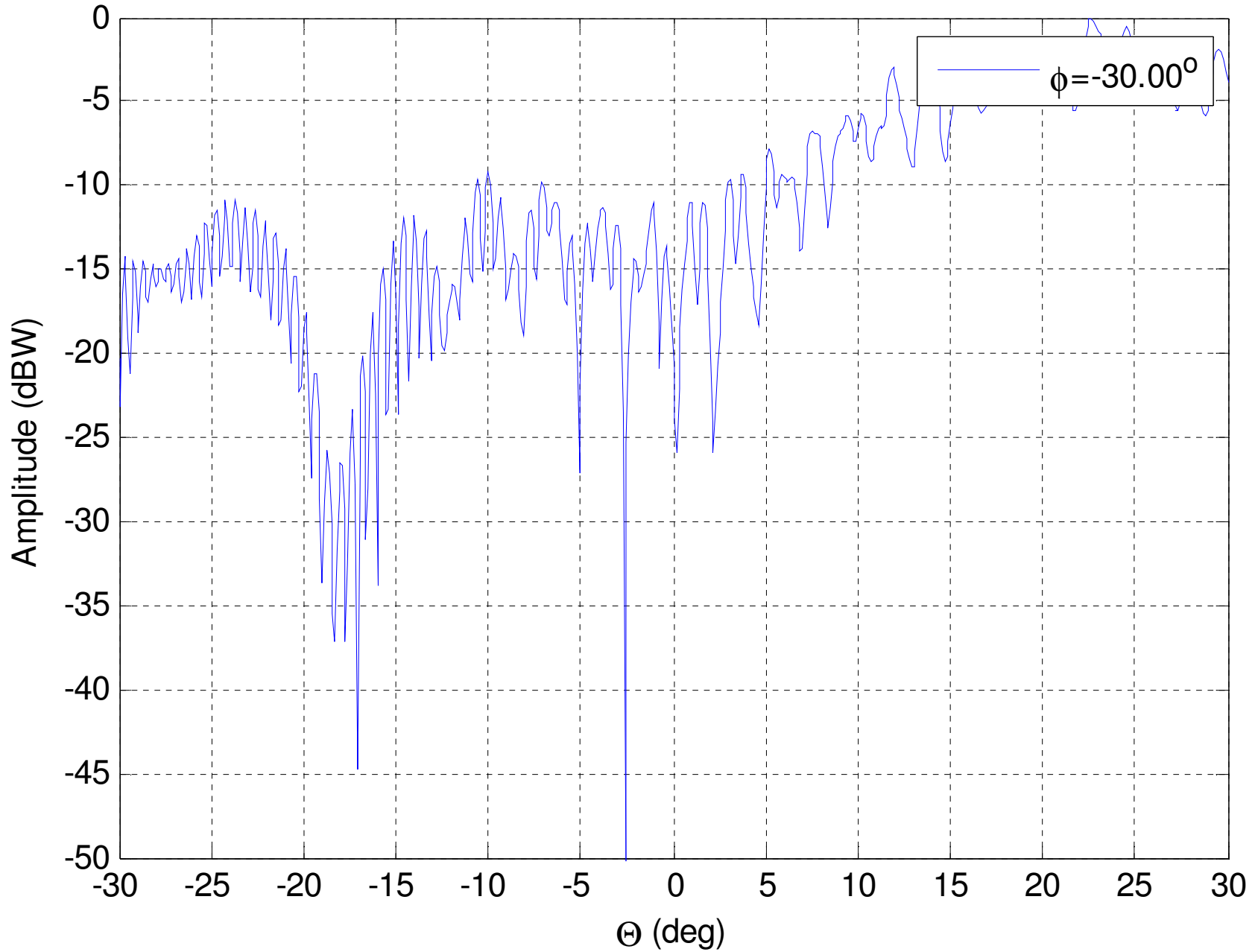
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -9.52 dBW, Date: 15-Dec-2011



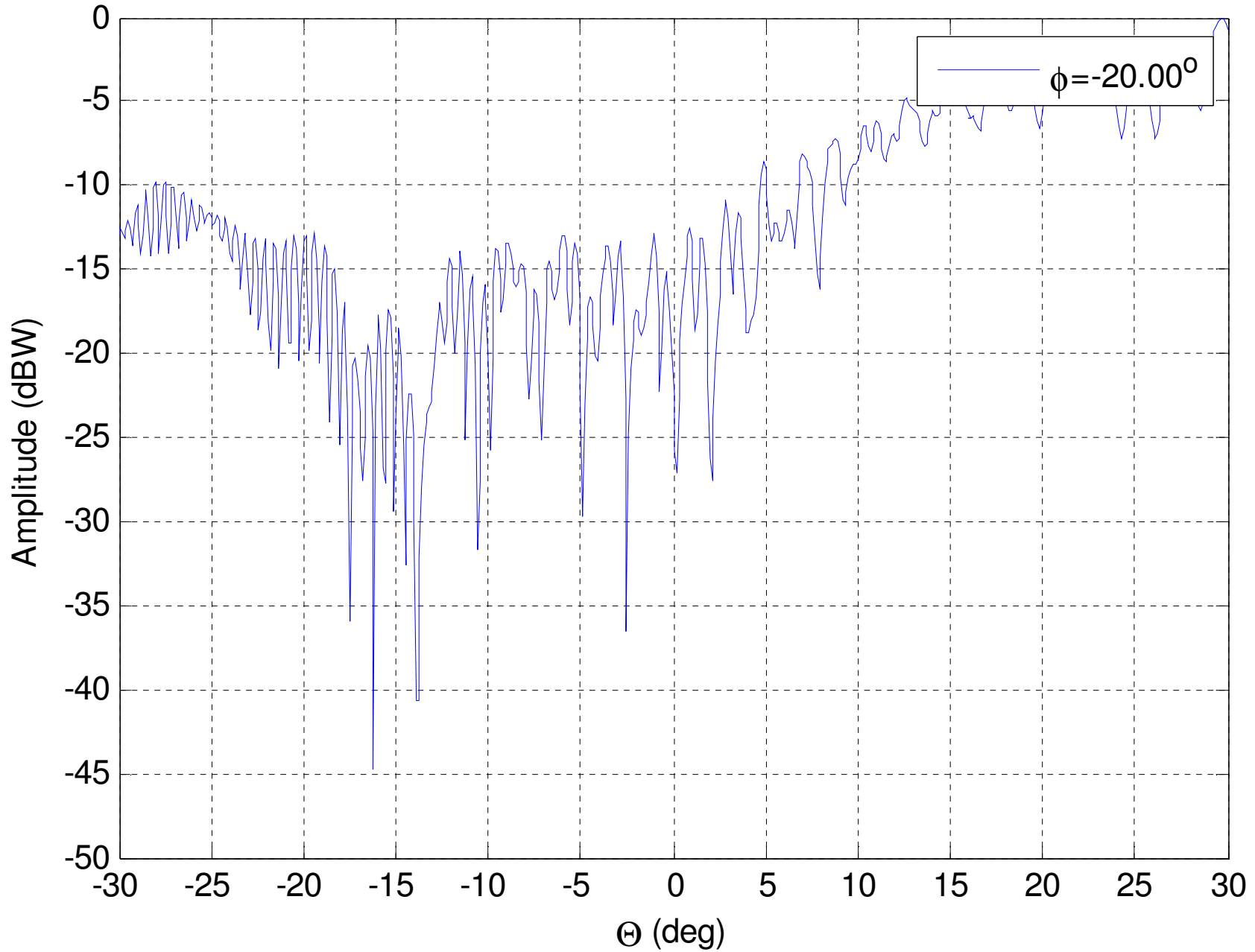
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -7.21 dBW, Date: 15-Dec-2011



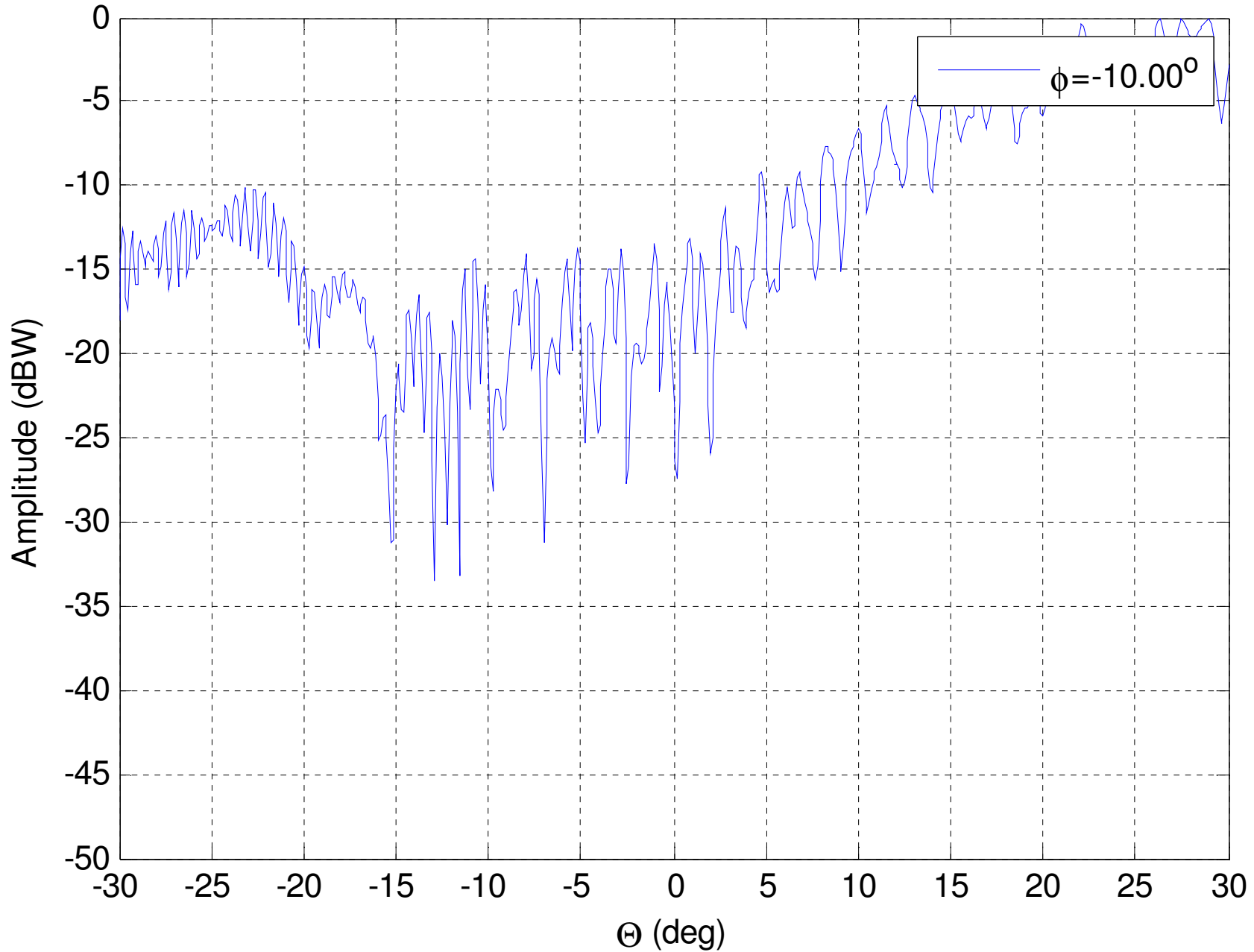
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: -5.52 dBW, Date: 15-Dec-2011



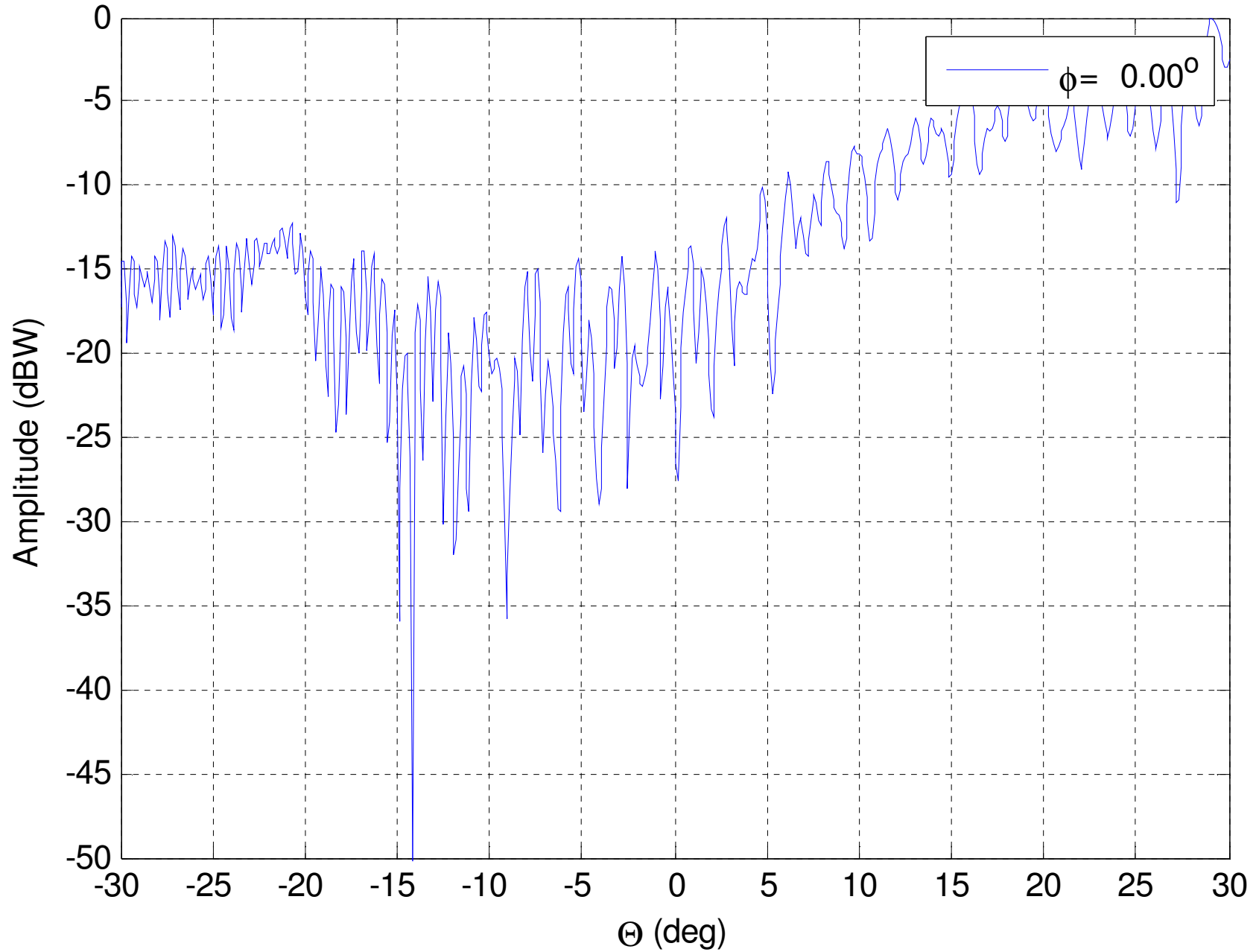
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: -4.85 dBW, Date: 15-Dec-2011



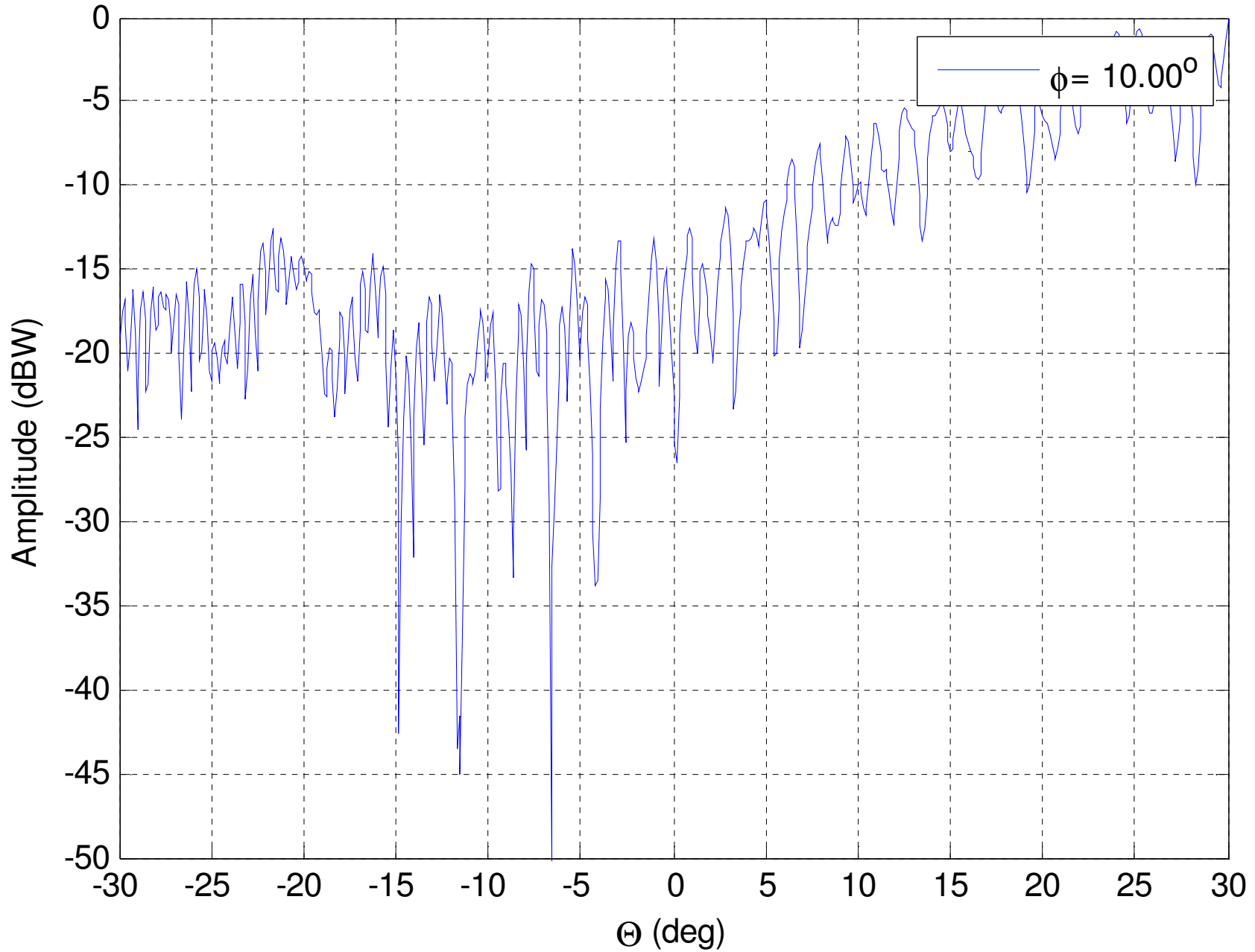
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: -4.42 dBW, Date: 15-Dec-2011



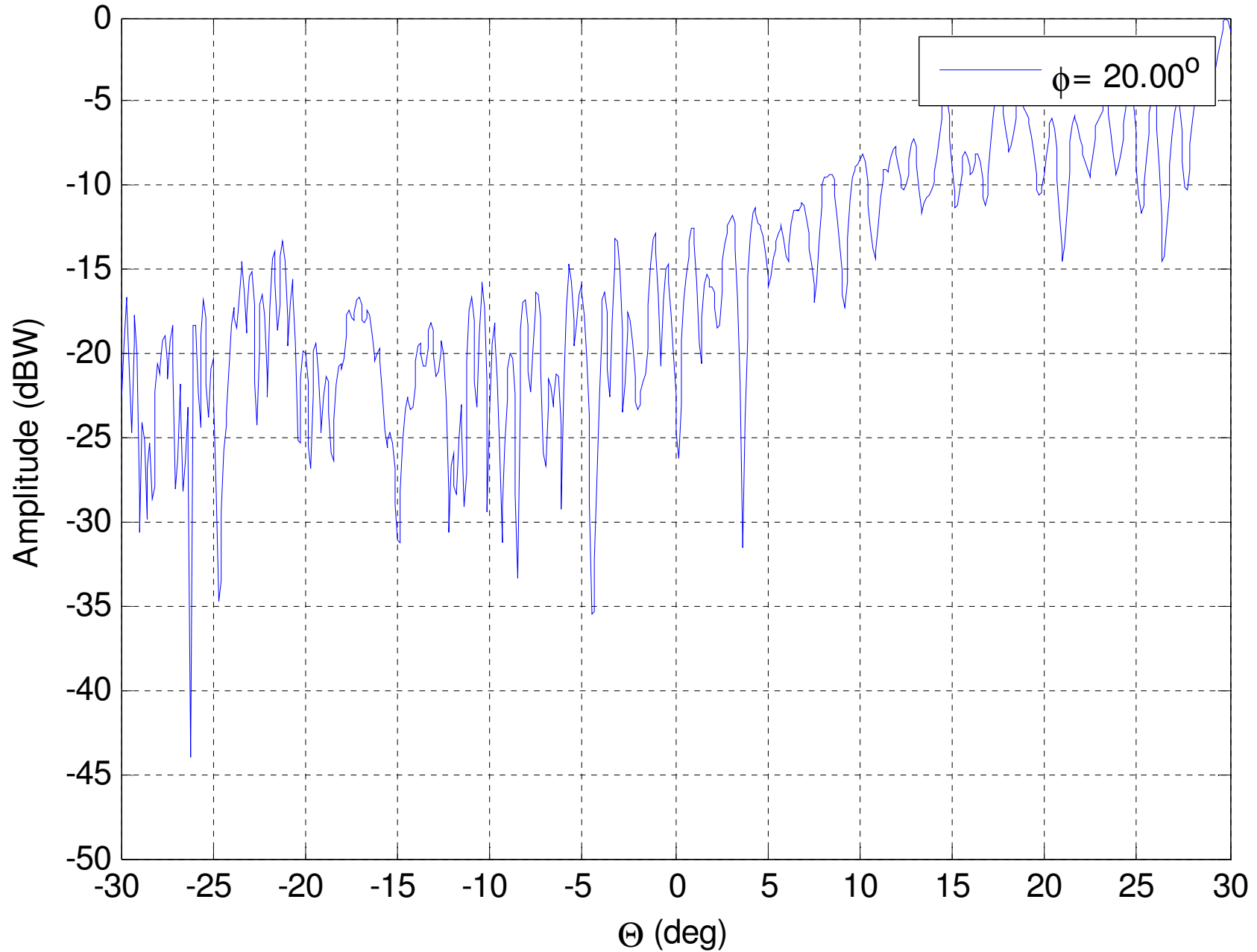
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: -5.38 dBW, Date: 15-Dec-2011



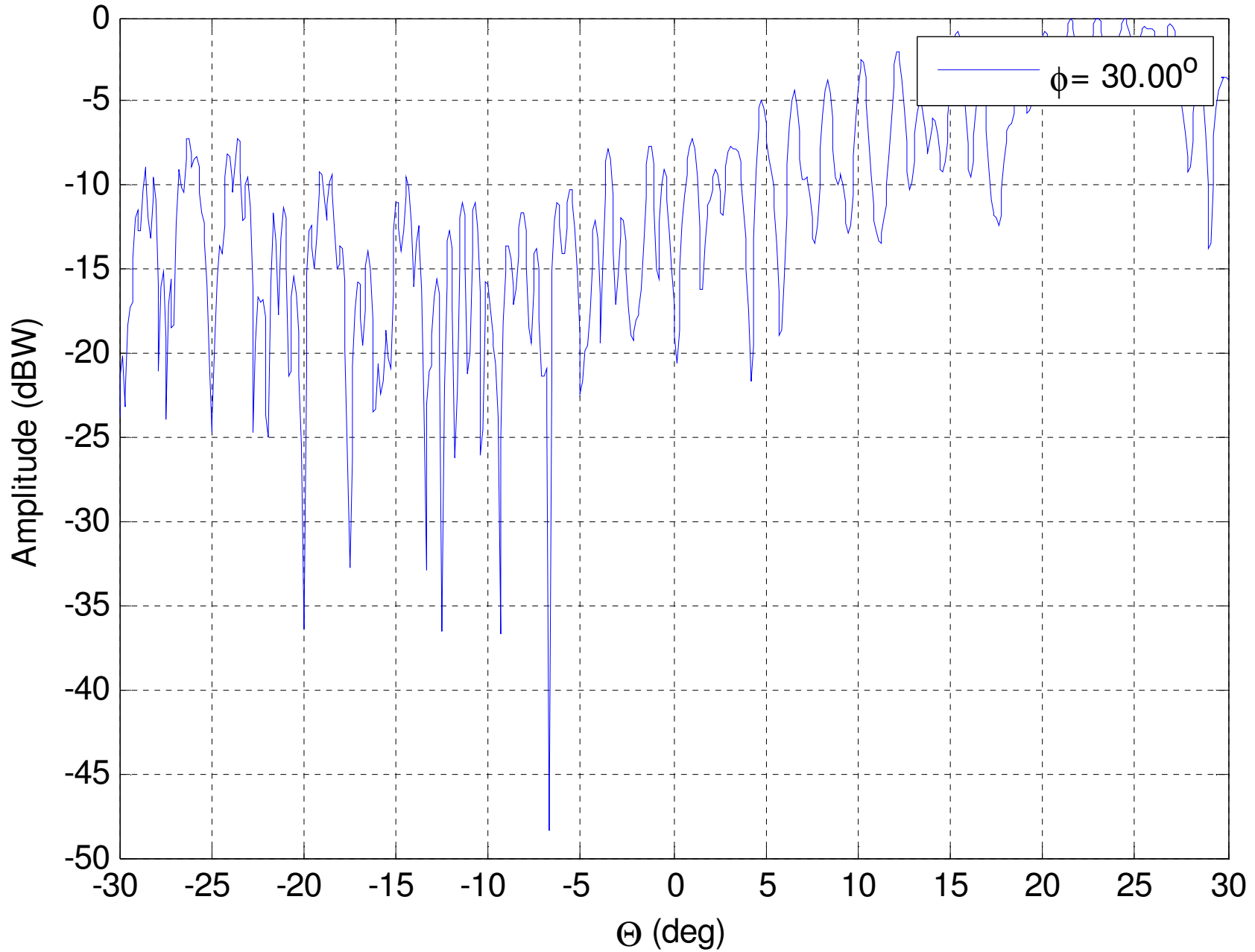
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: -5.57 dBW, Date: 15-Dec-2011



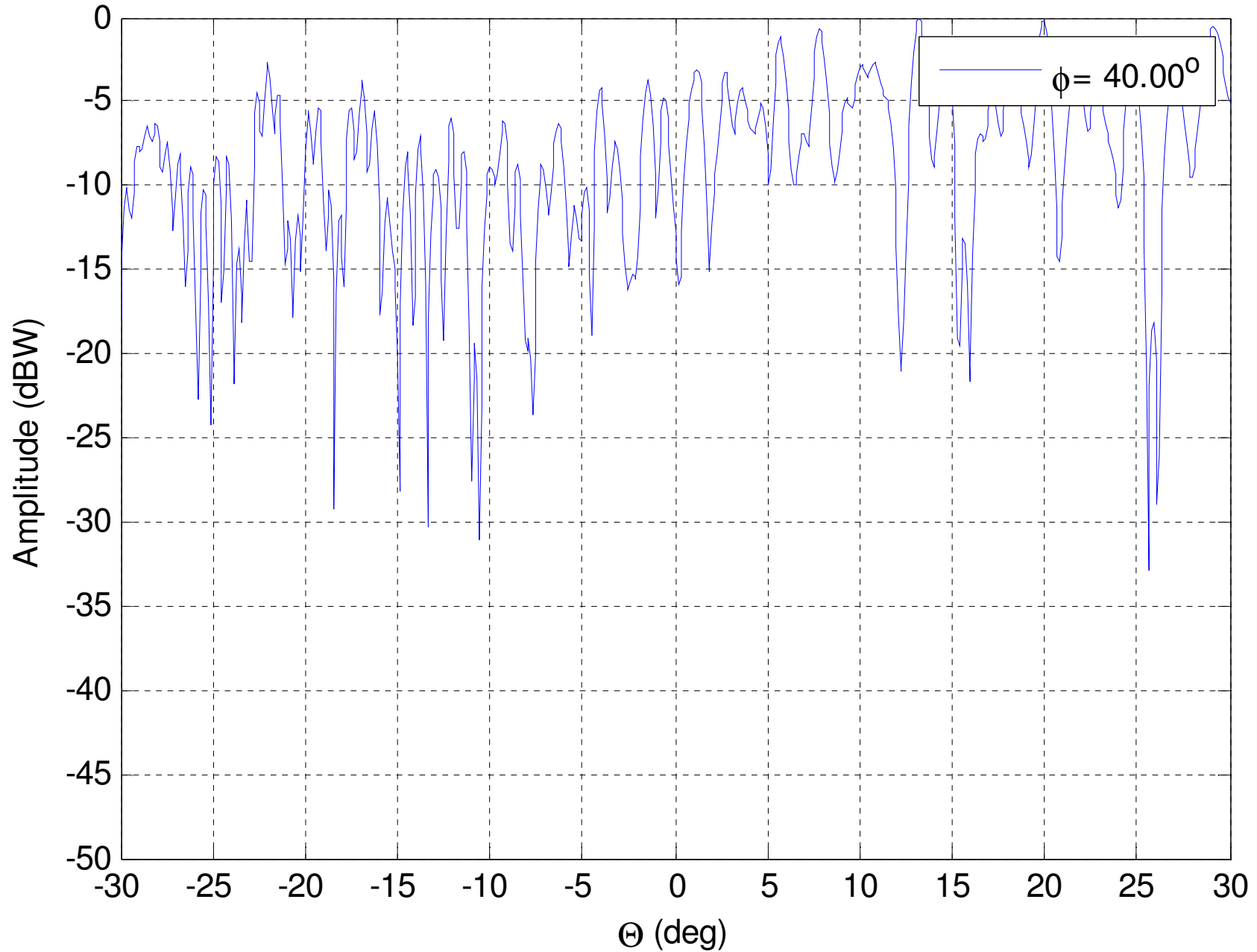
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: -10.94 dBW, Date: 15-Dec-2011



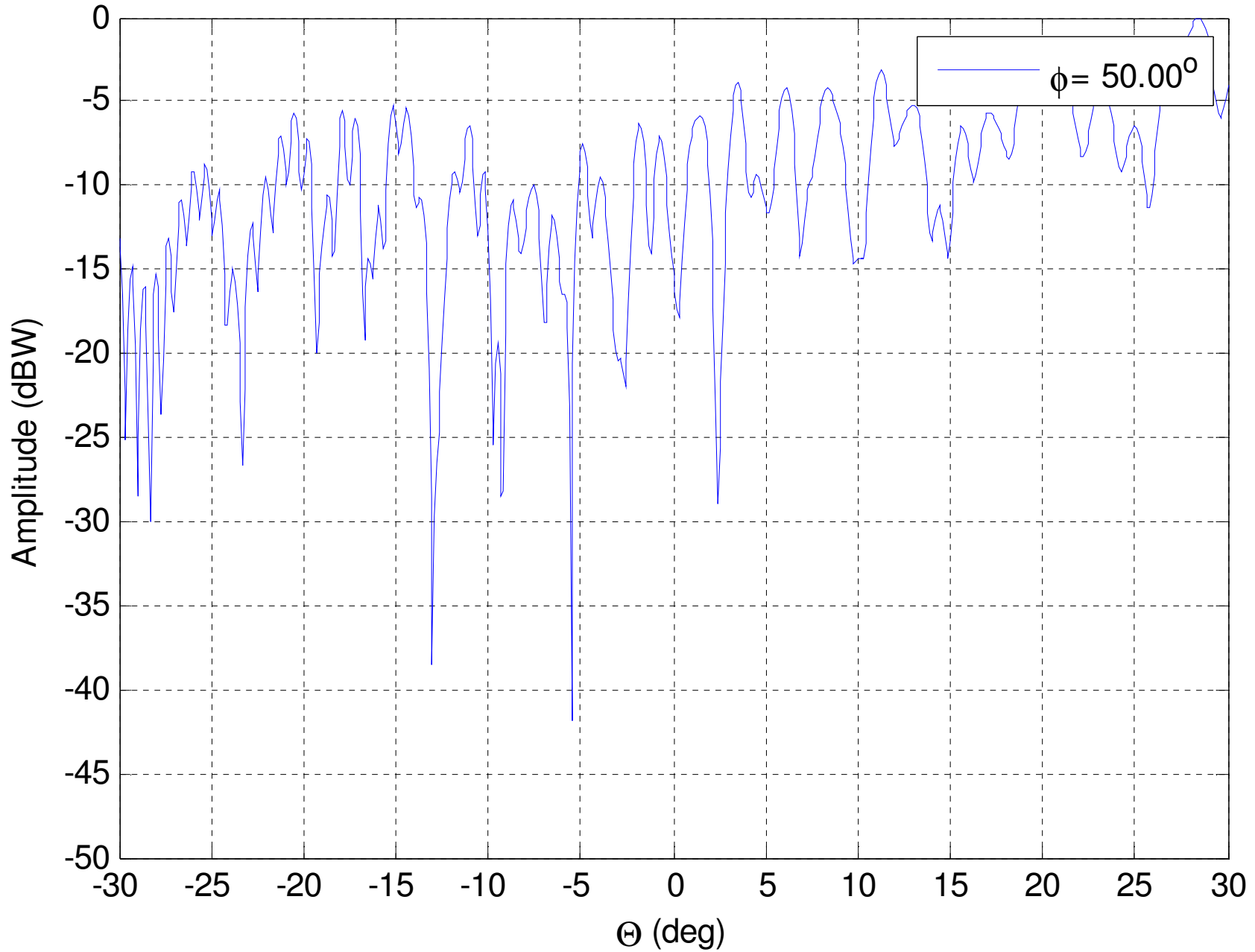
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -15.07 dBW, Date: 15-Dec-2011



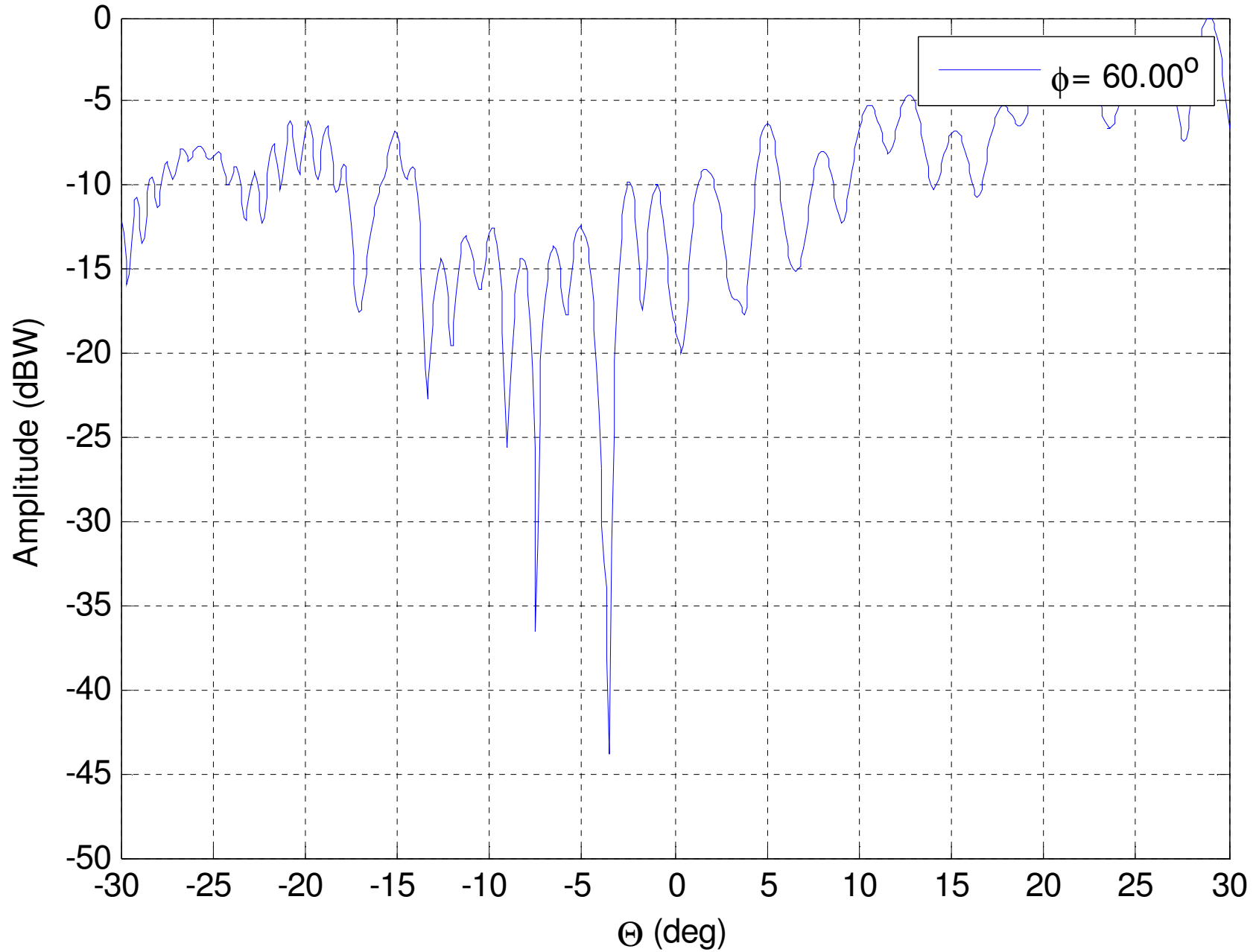
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -12.63 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

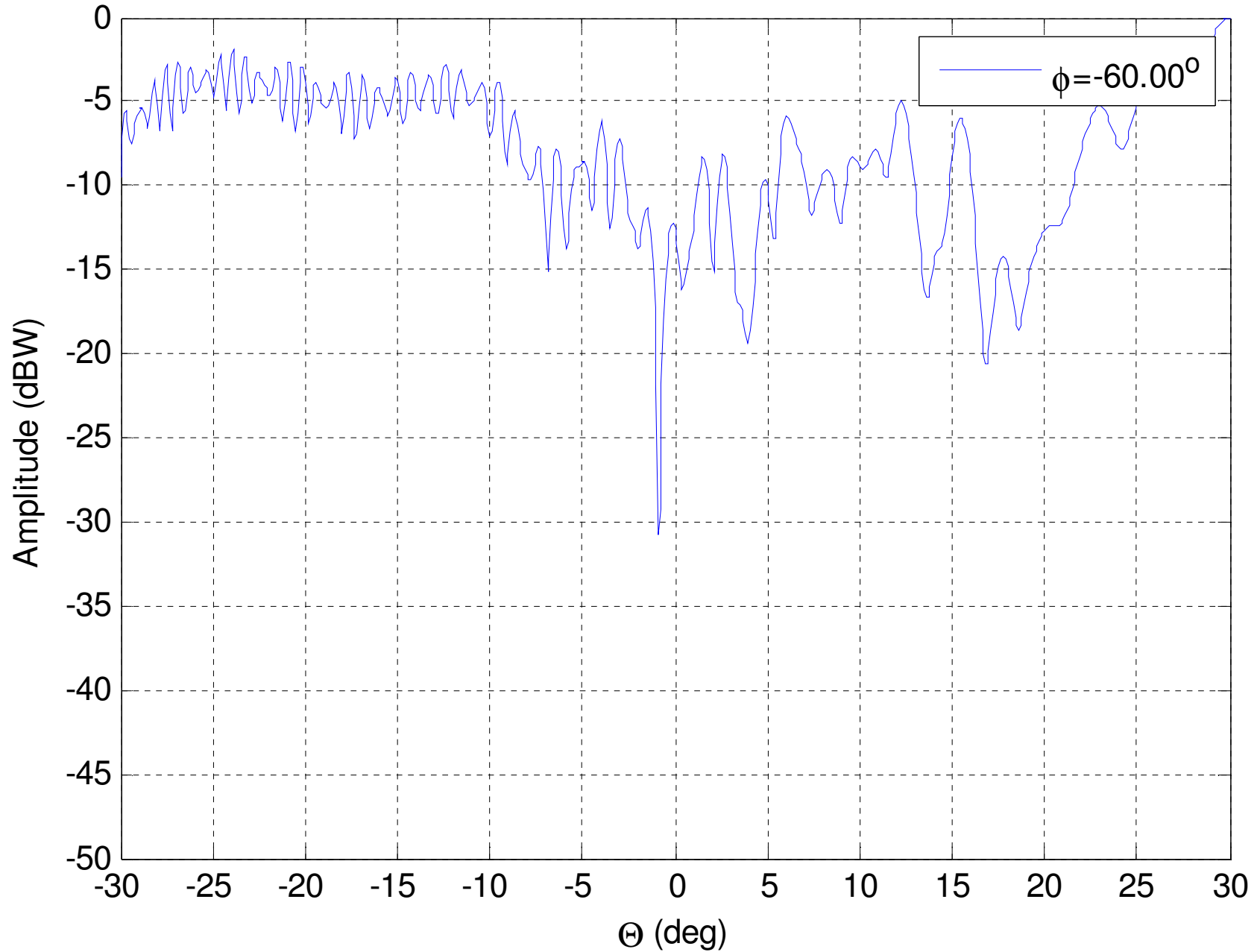
Input file: tx-17.3-rhcp-60.cut, Peak: -9.59 dBW, Date: 15-Dec-2011



LHCP at 17.3 GHz

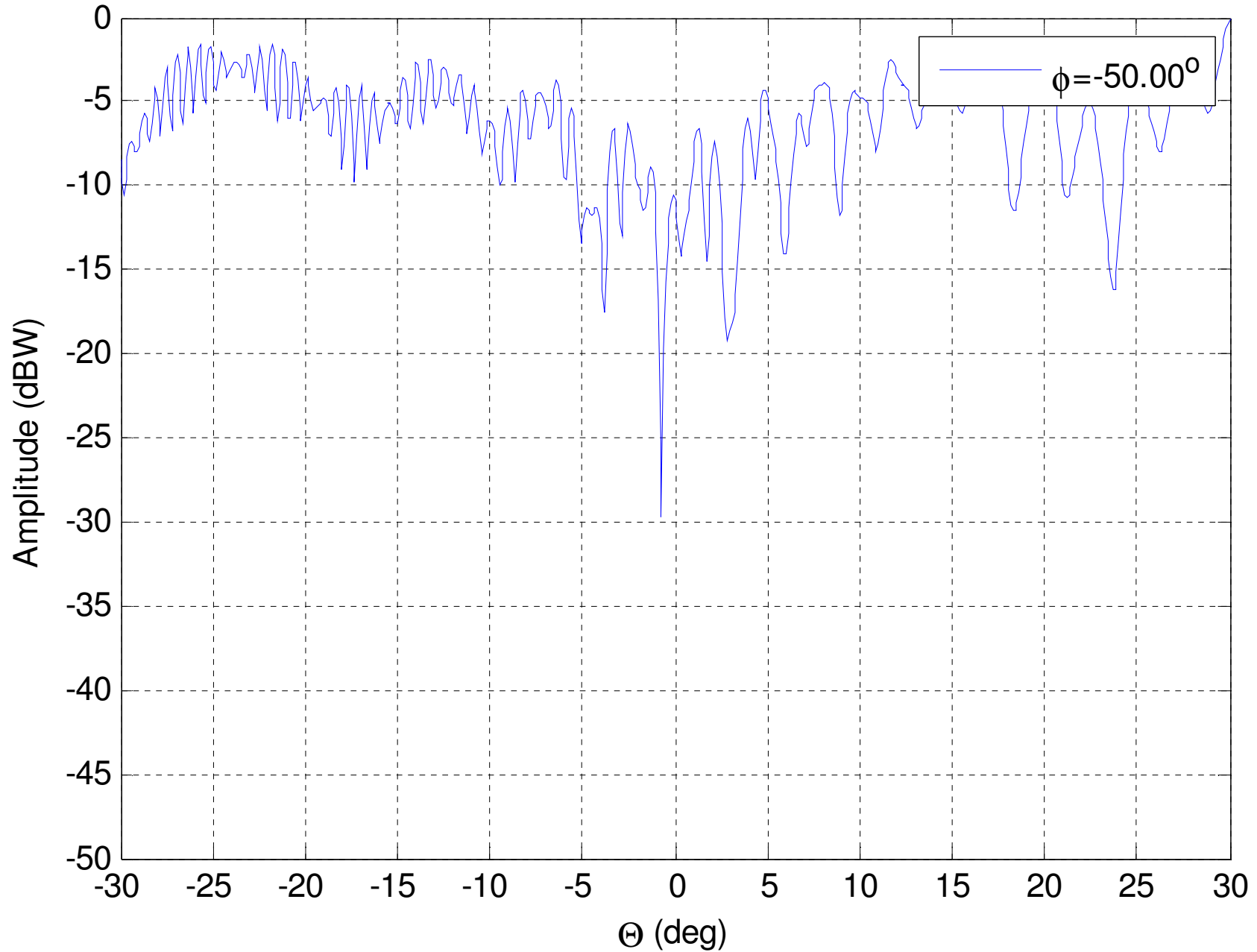
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -9.51 dBW, Date: 15-Dec-2011



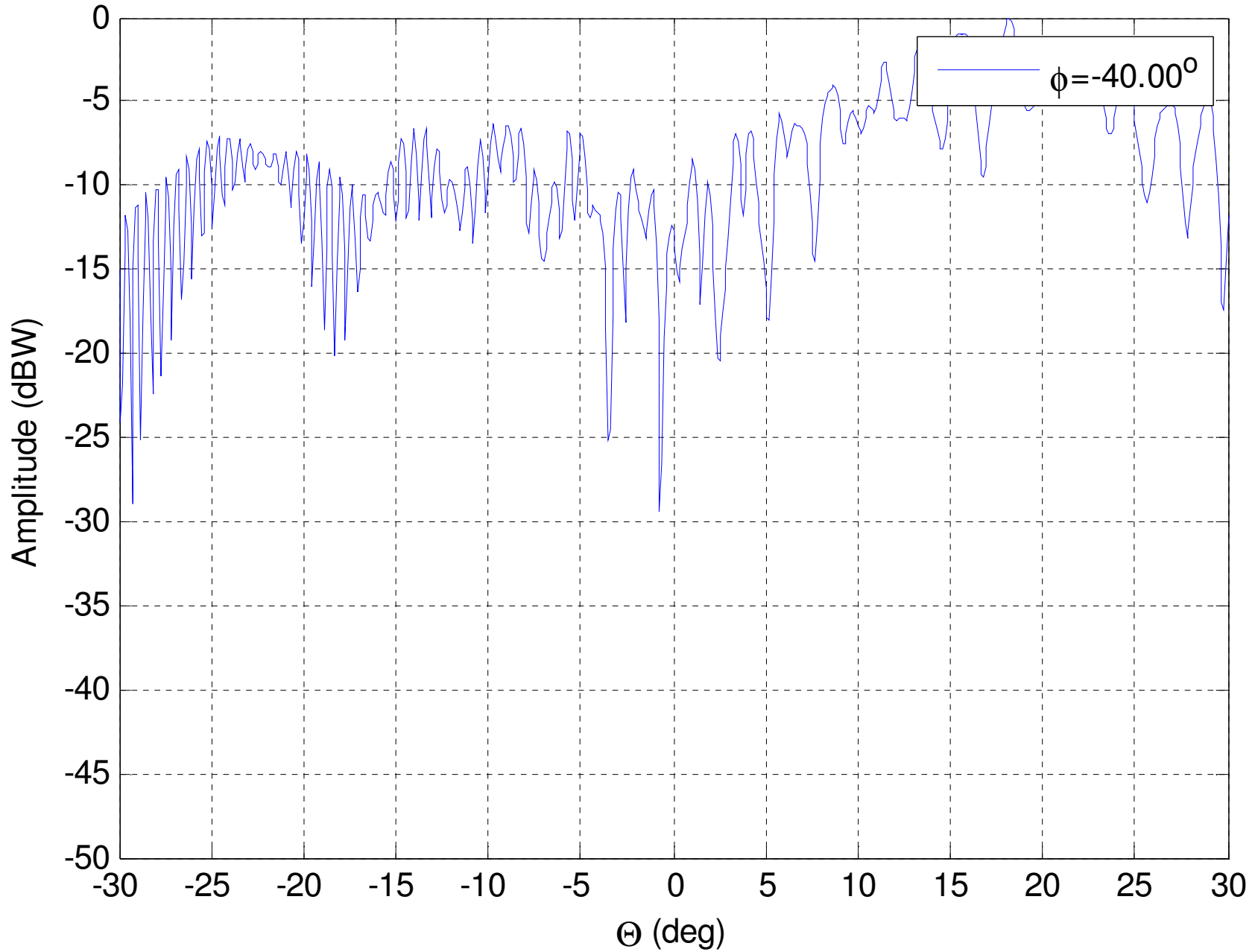
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -11.18 dBW, Date: 15-Dec-2011



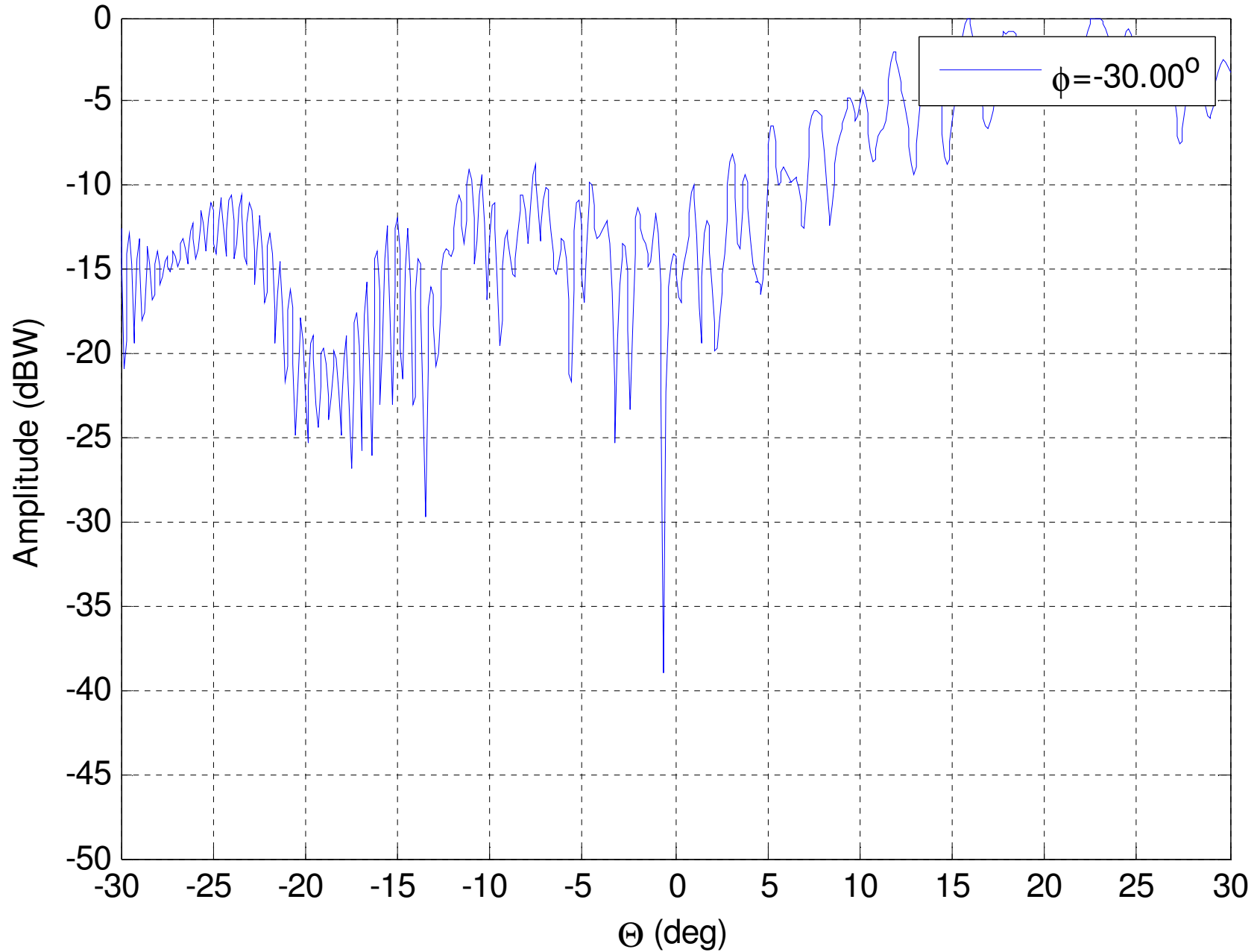
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -9.44 dBW, Date: 15-Dec-2011



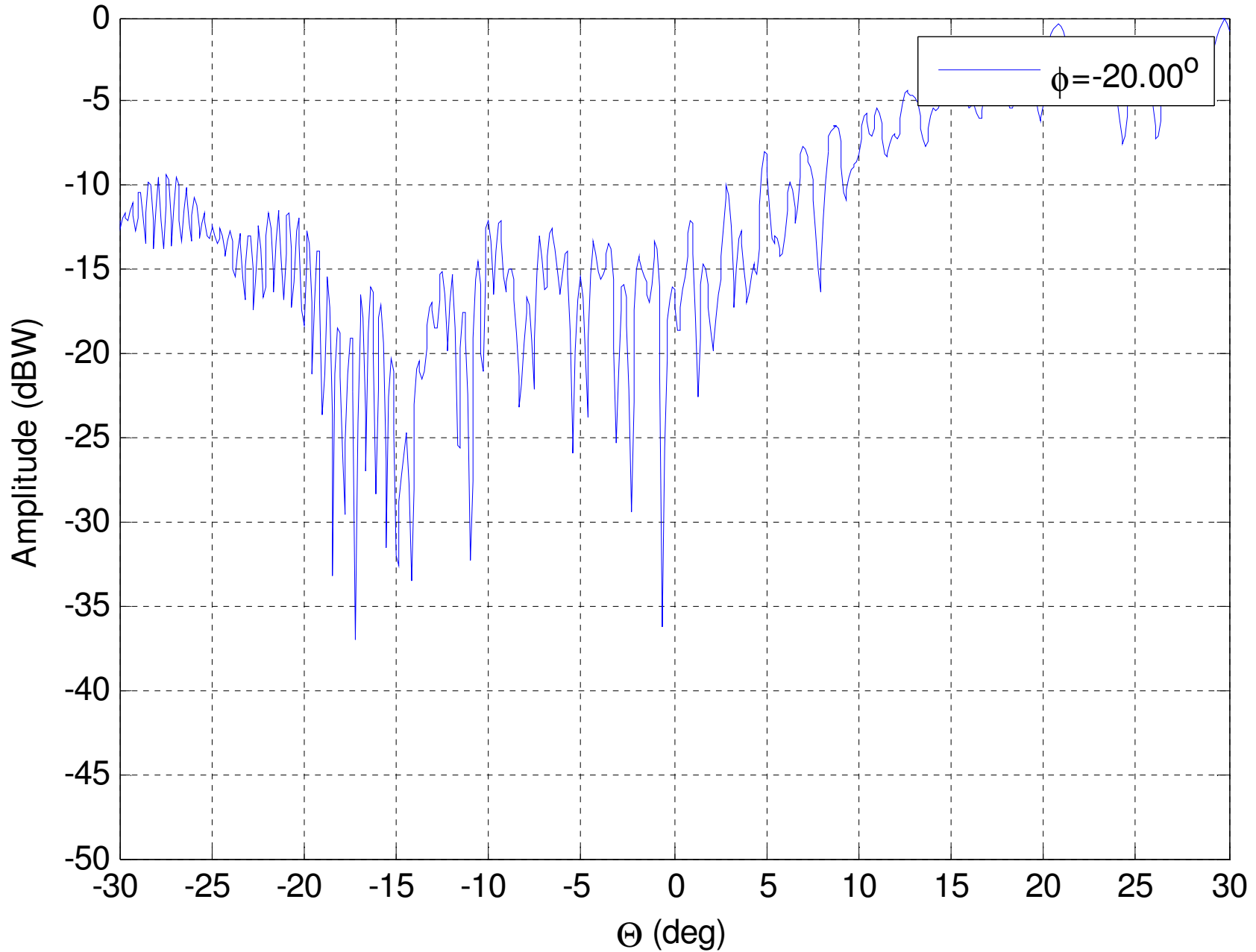
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: -7.90 dBW, Date: 15-Dec-2011



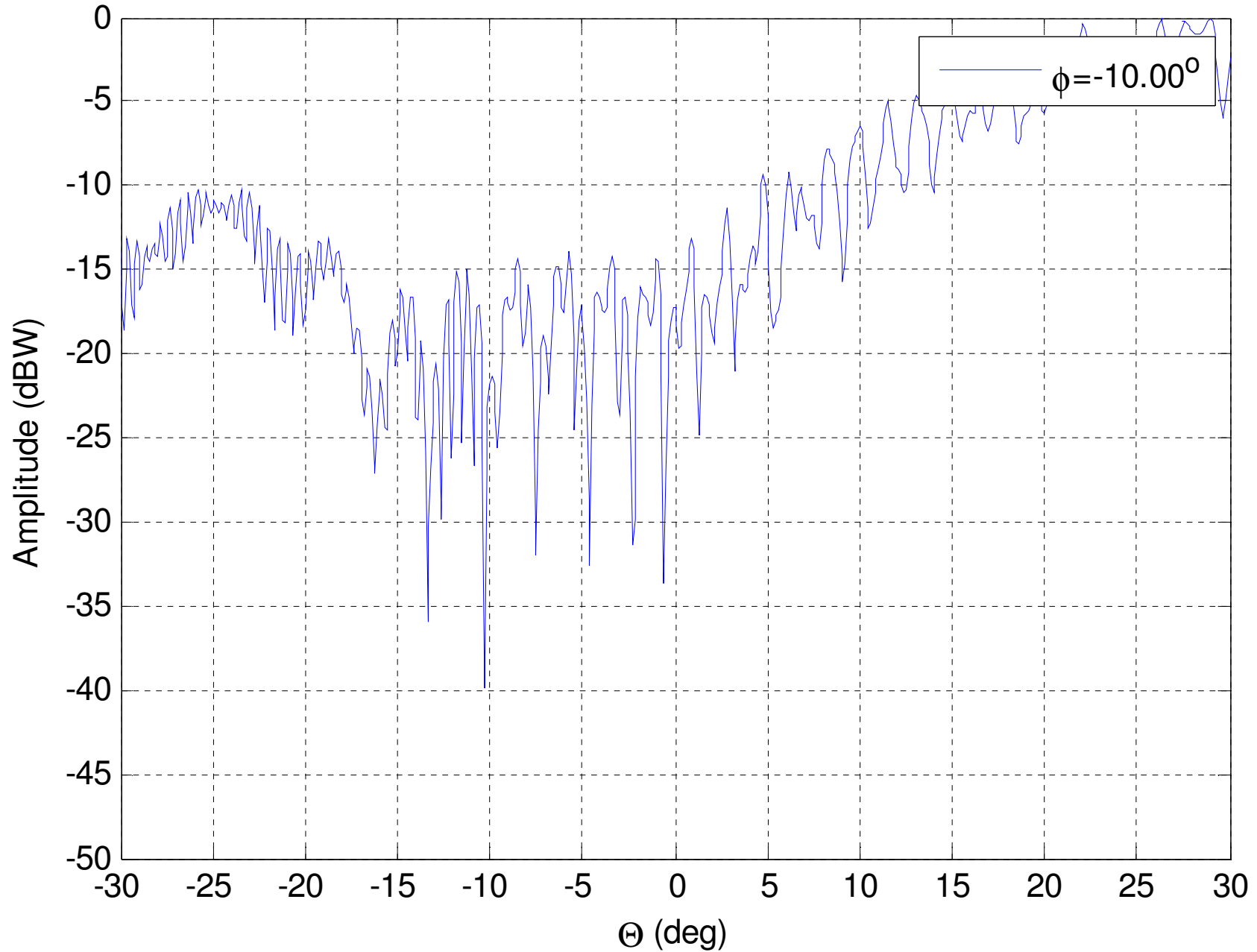
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: -5.96 dBW, Date: 15-Dec-2011



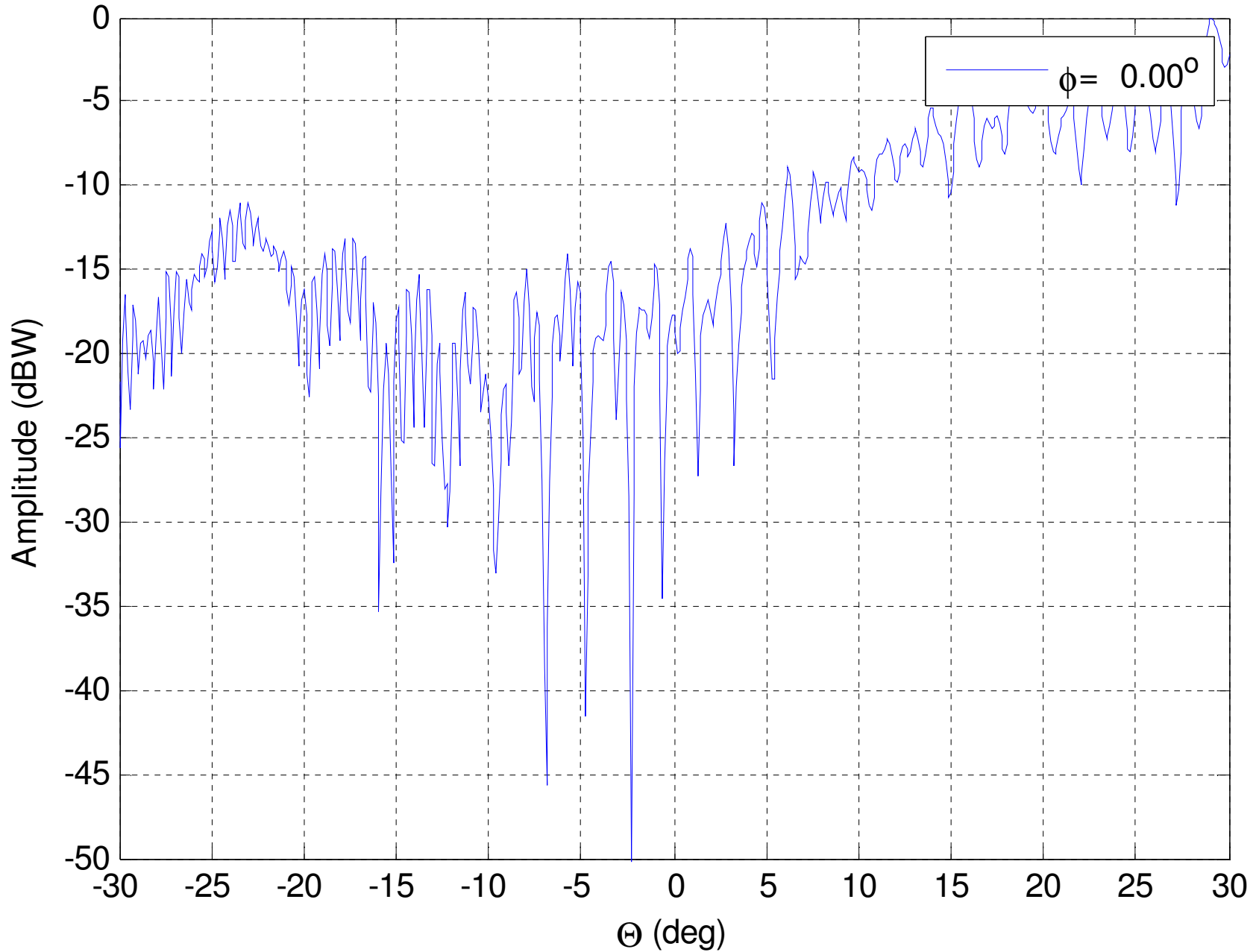
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: -4.82 dBW, Date: 15-Dec-2011



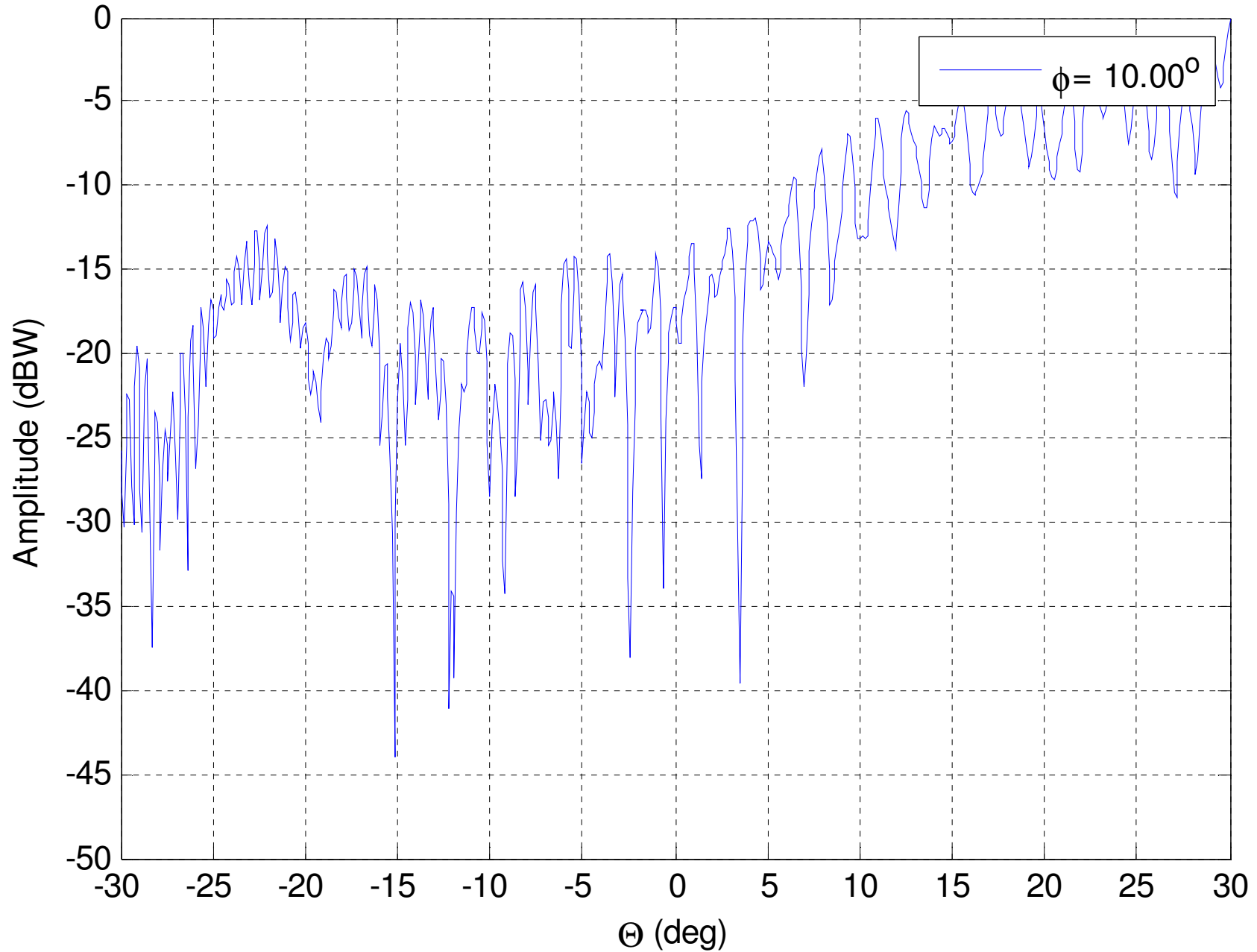
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: -4.39 dBW, Date: 15-Dec-2011



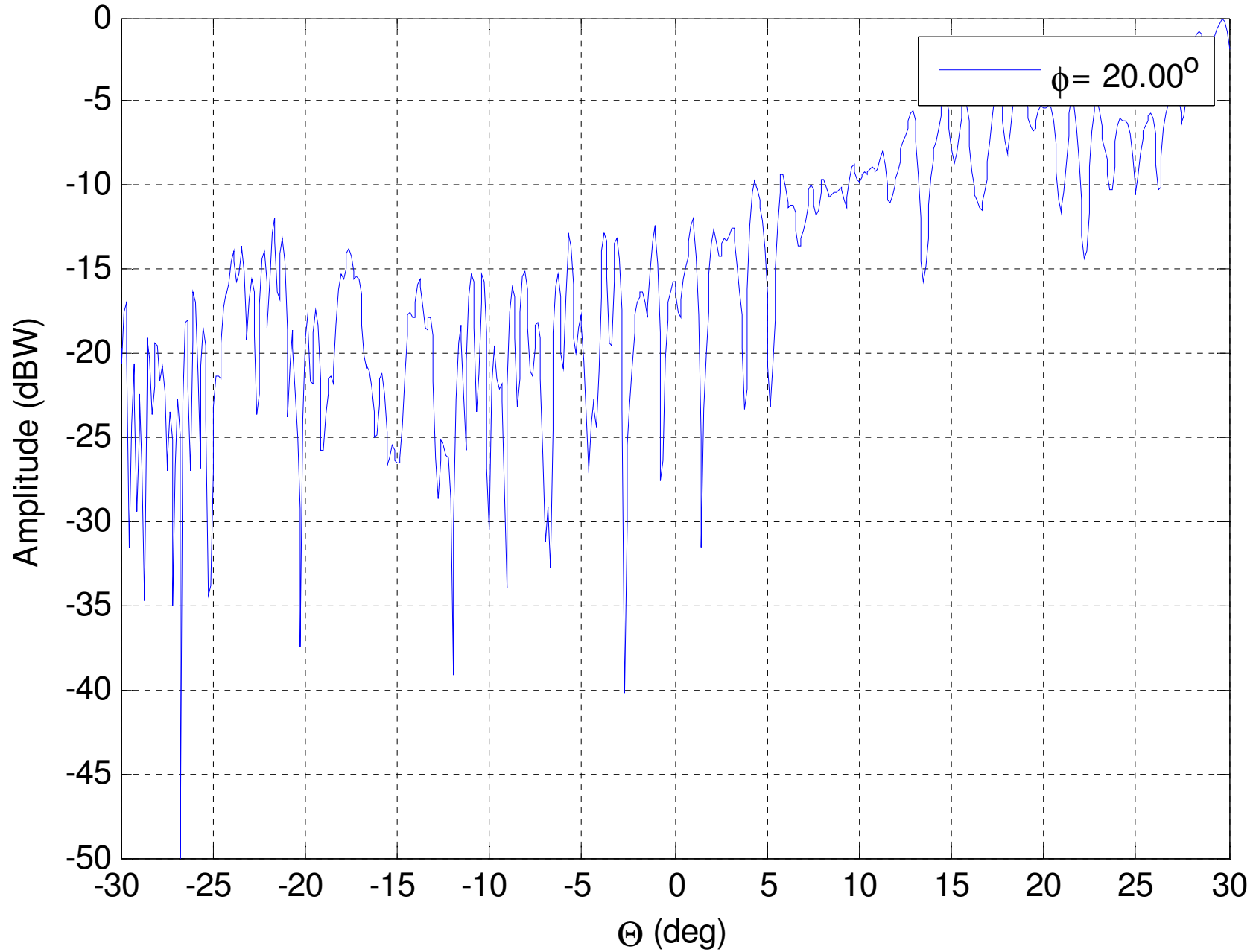
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: -4.88 dBW, Date: 15-Dec-2011



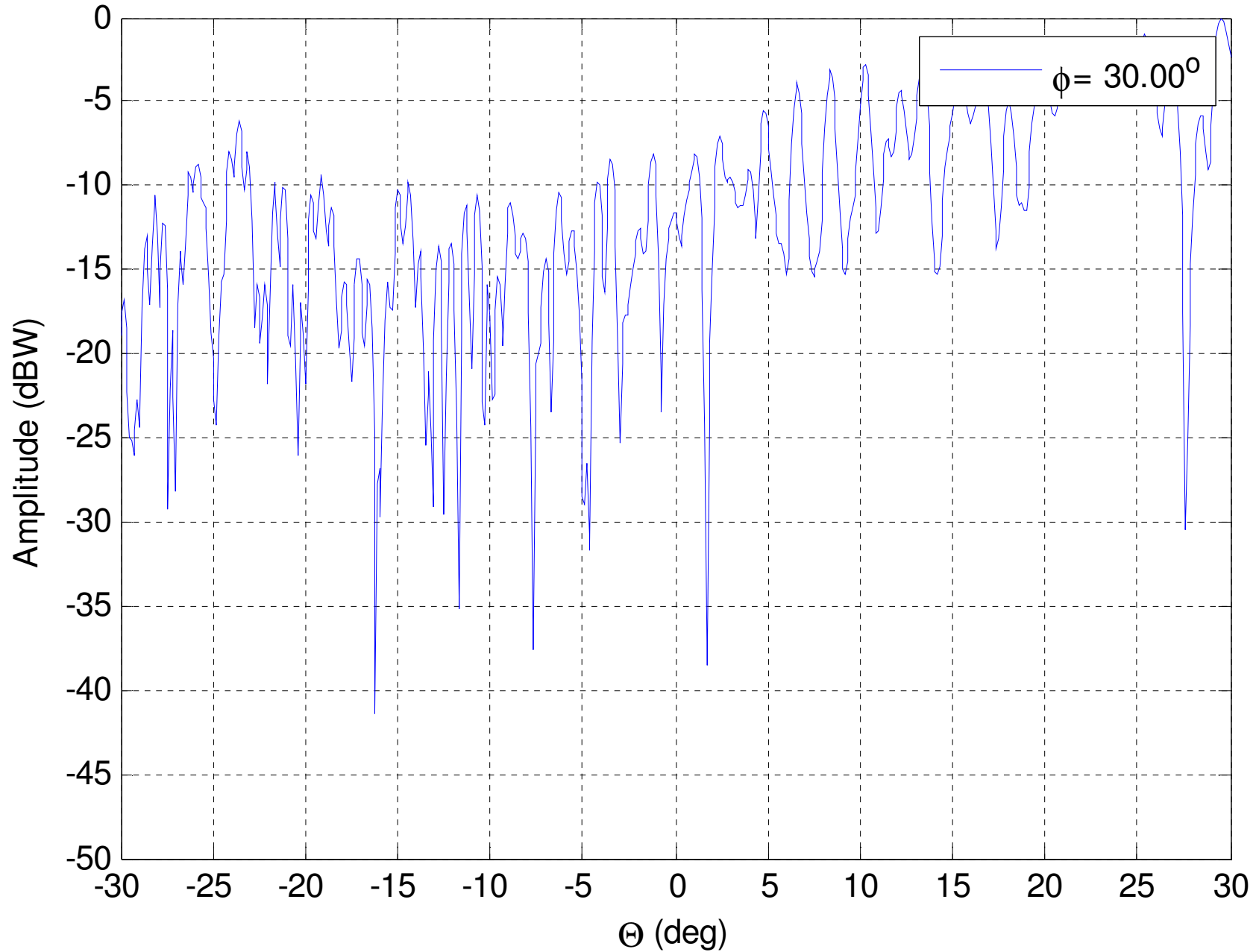
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: -6.36 dBW, Date: 15-Dec-2011



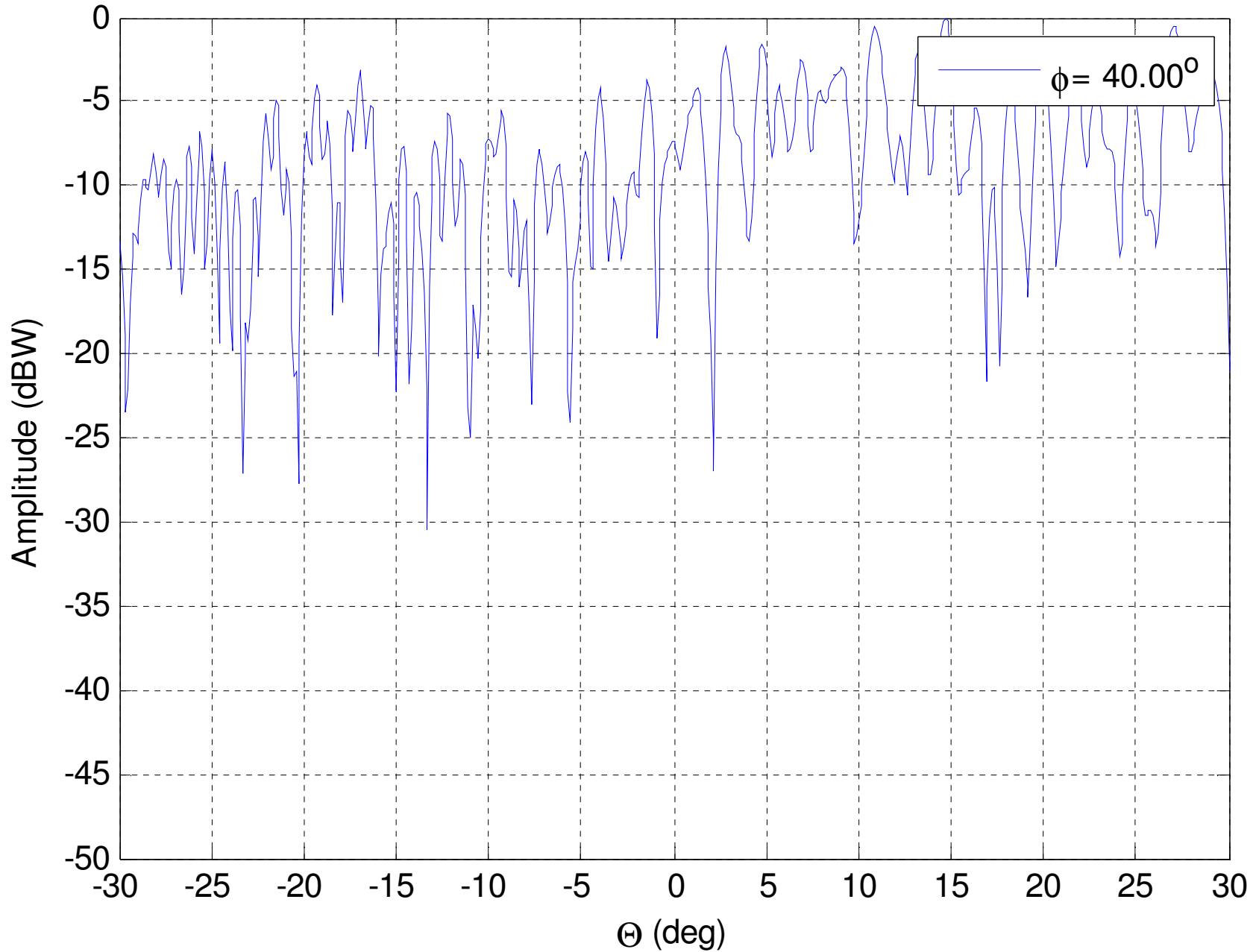
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: -10.52 dBW, Date: 15-Dec-2011



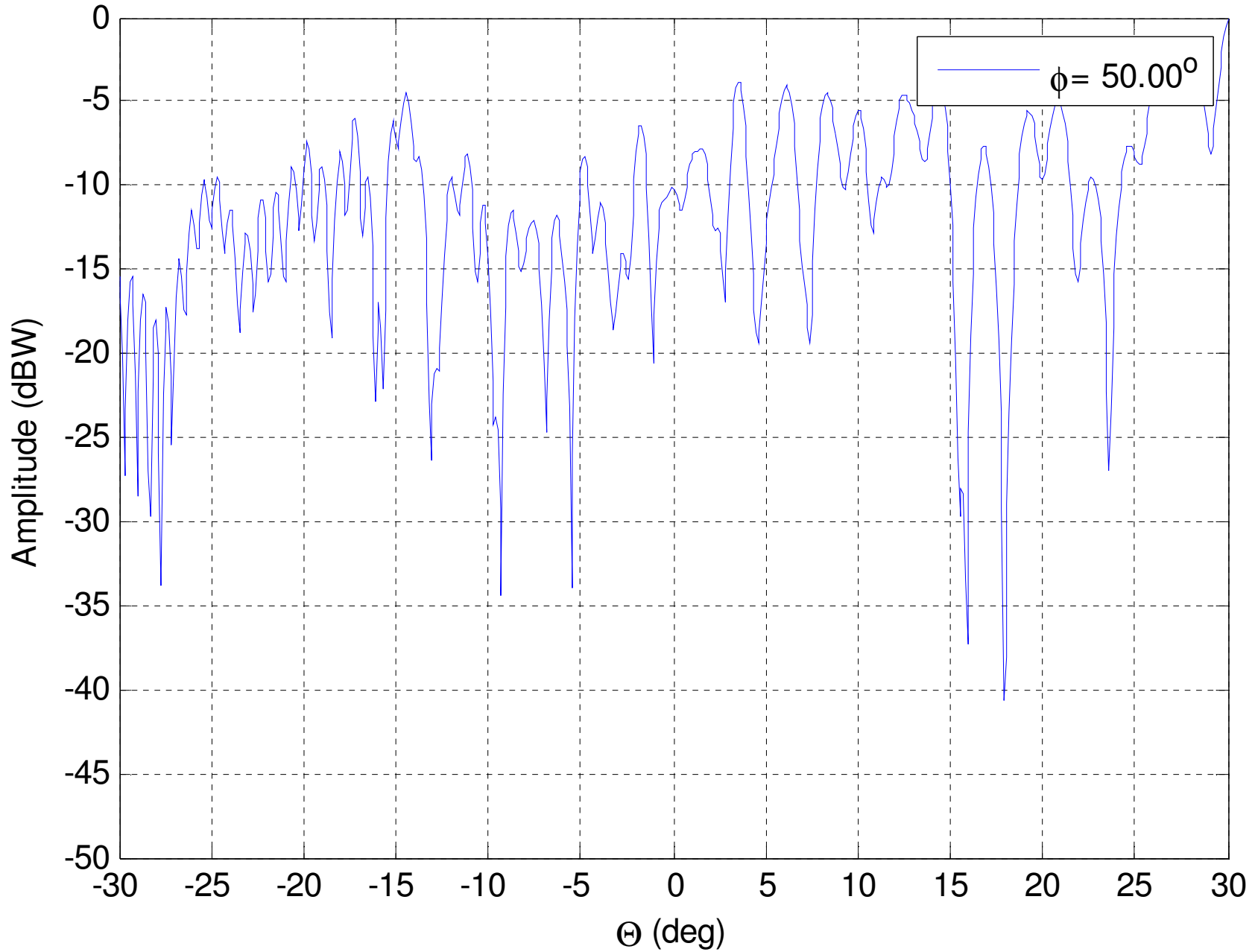
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -14.78 dBW, Date: 15-Dec-2011



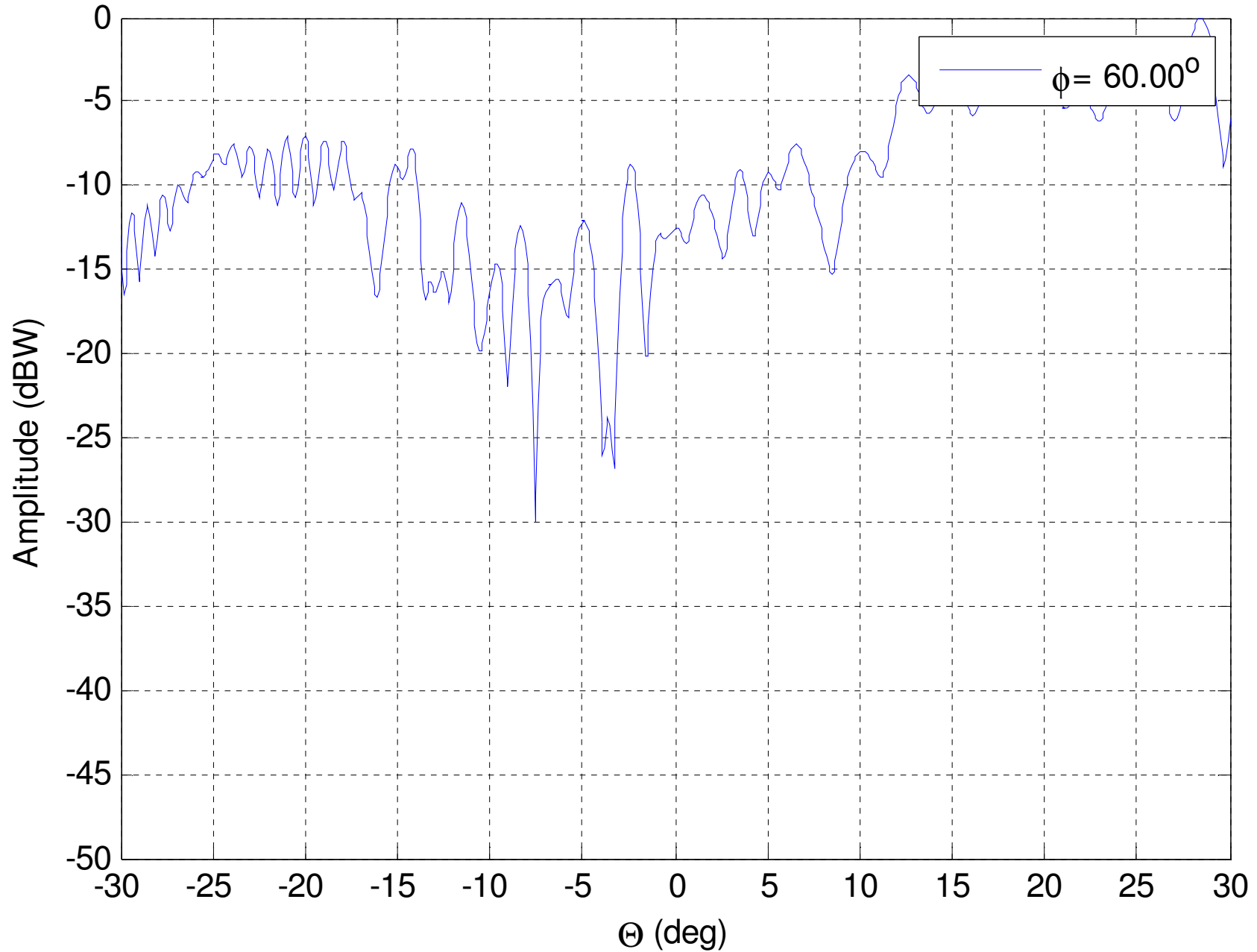
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -12.03 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

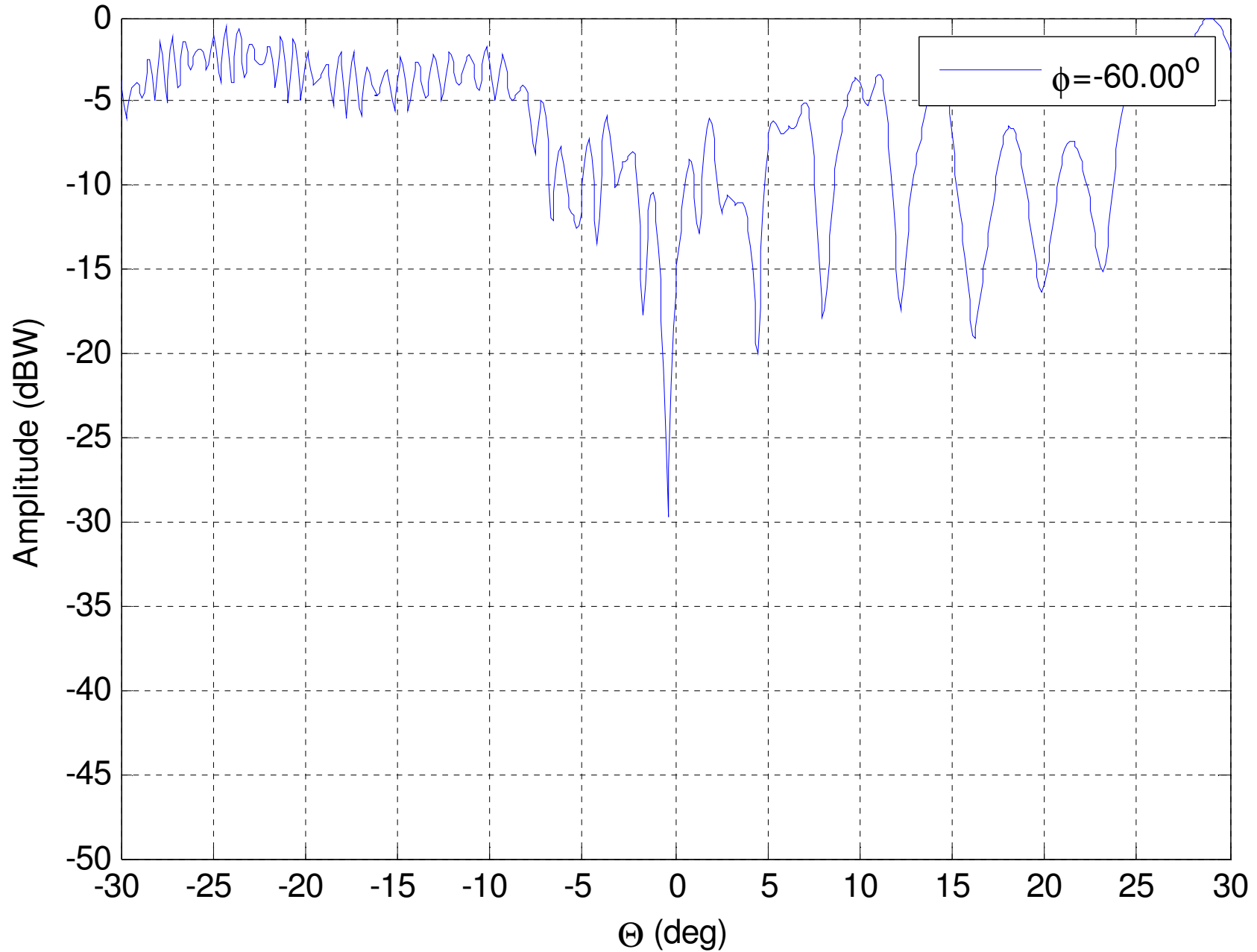
Input file: tx-17.3-lhcp-60.cut, Peak: -9.59 dBW, Date: 15-Dec-2011



RHCP at 17.5 GHz

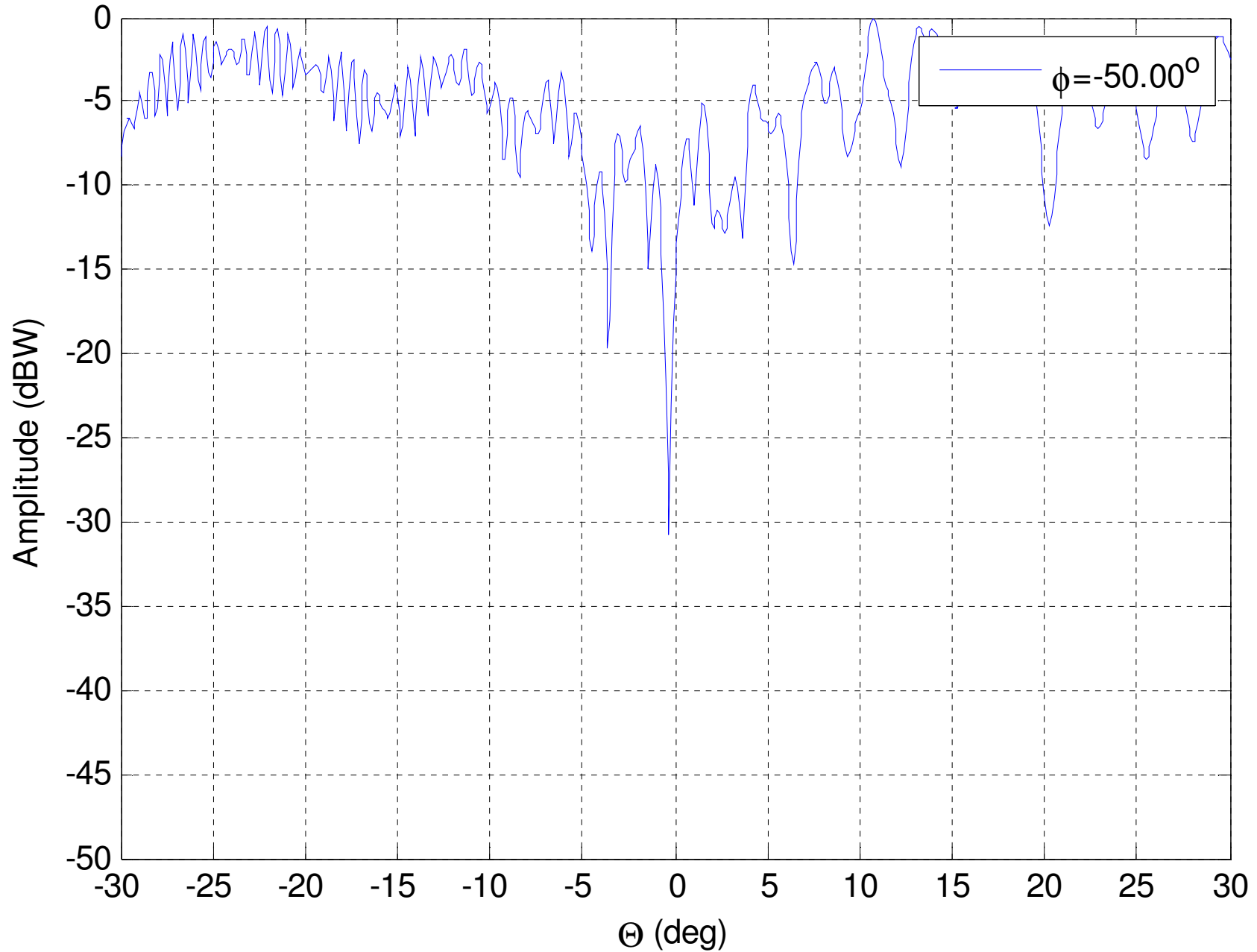
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -10.87 dBW, Date: 15-Dec-2011



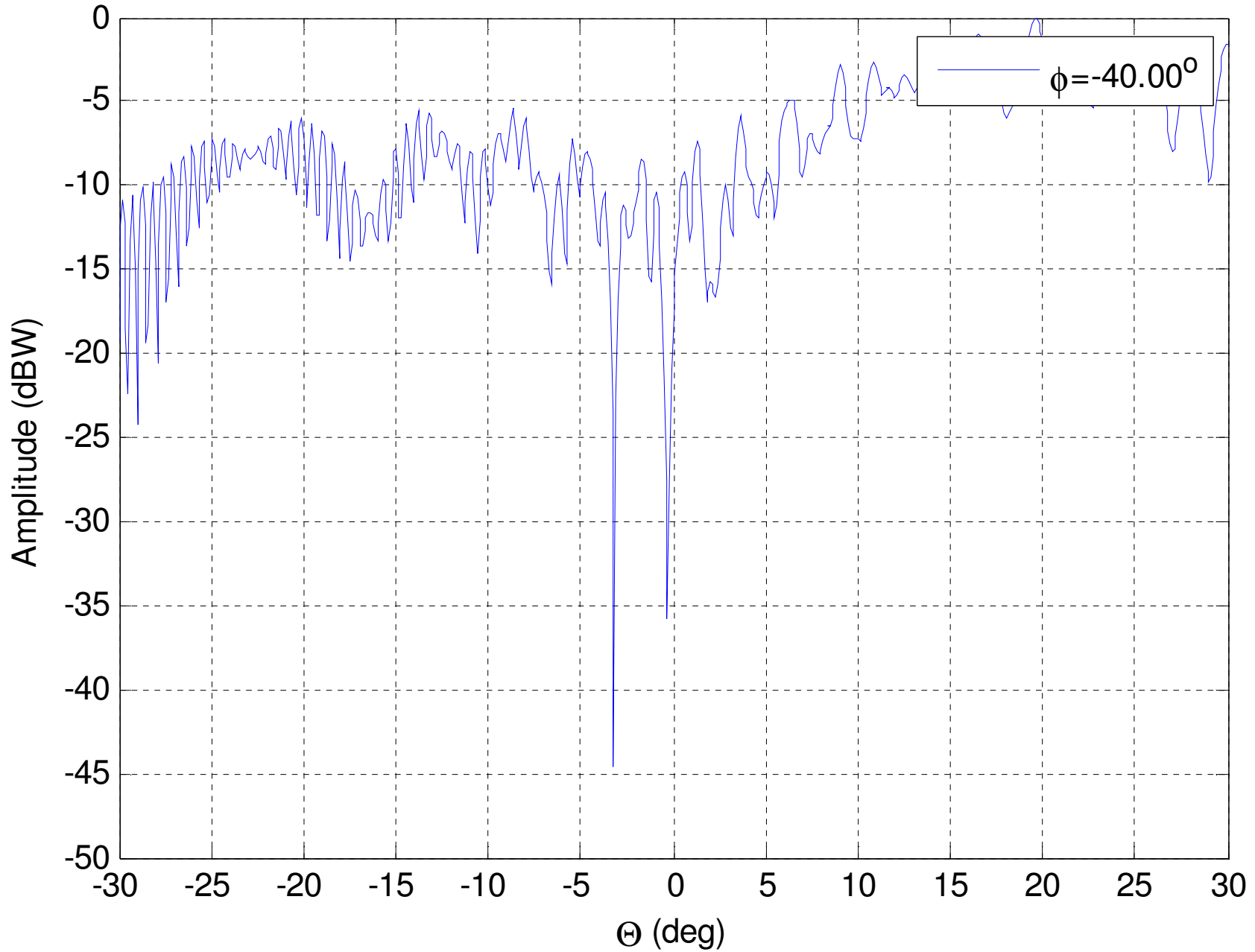
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -11.91 dBW, Date: 15-Dec-2011



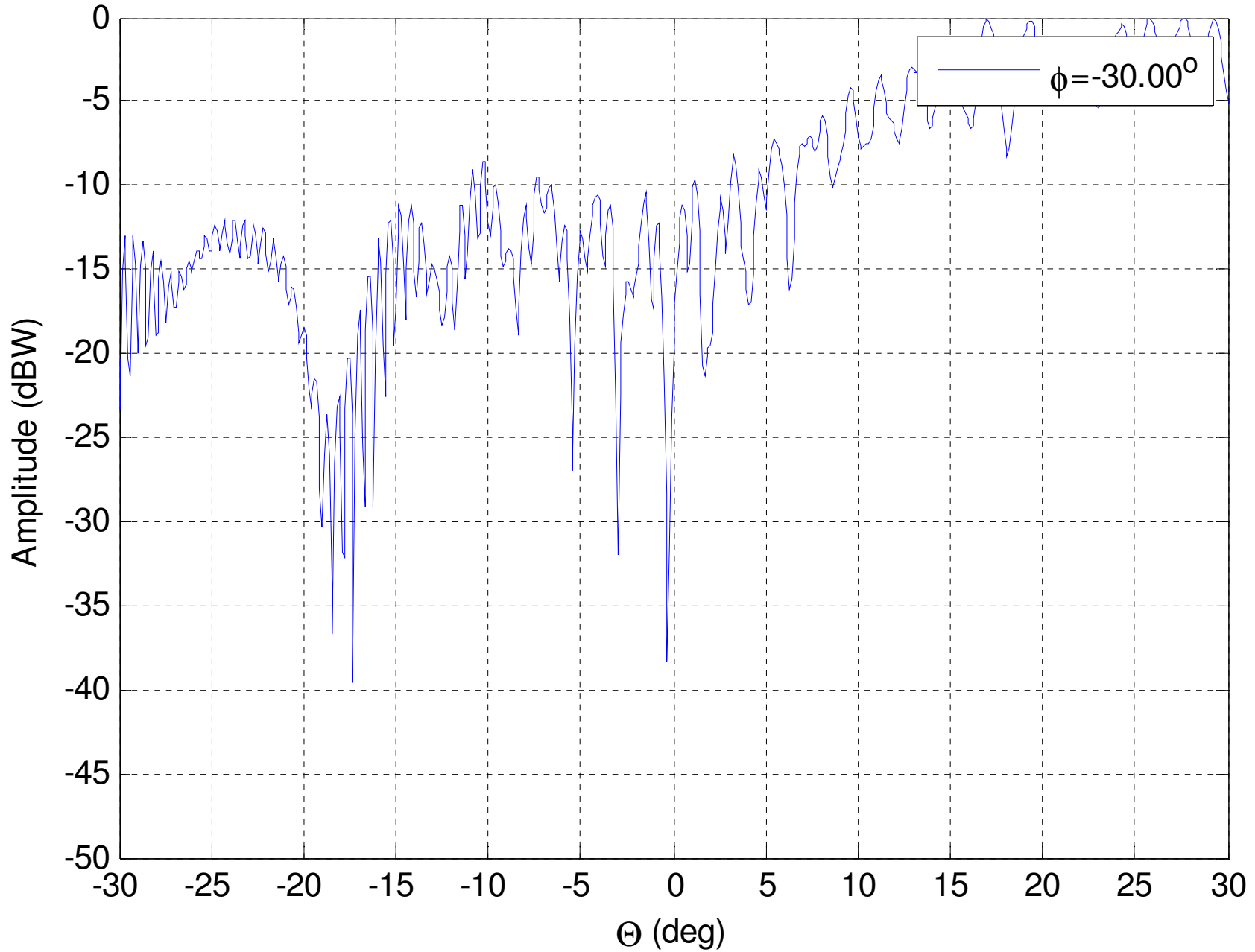
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -9.73 dBW, Date: 15-Dec-2011



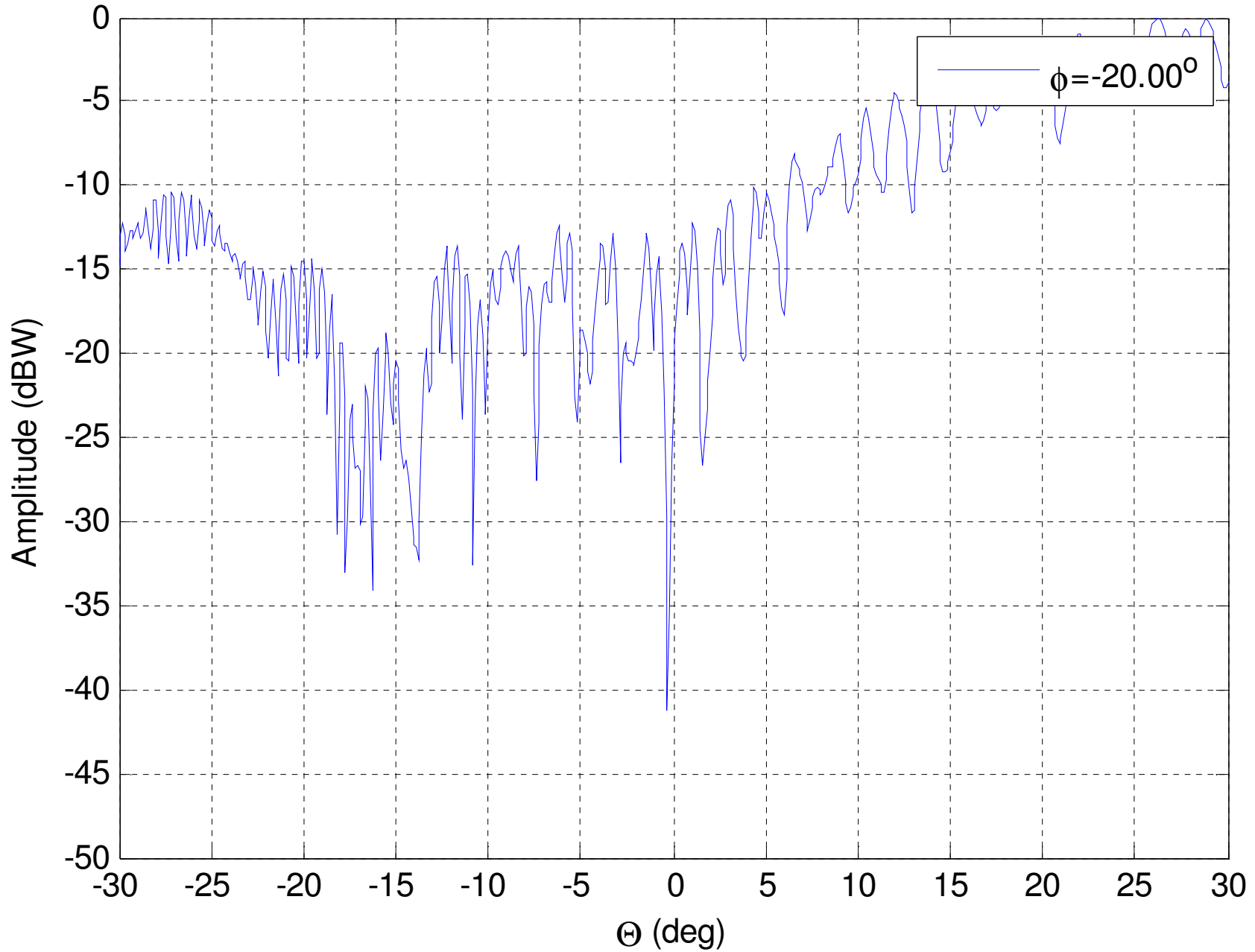
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -7.66 dBW, Date: 15-Dec-2011



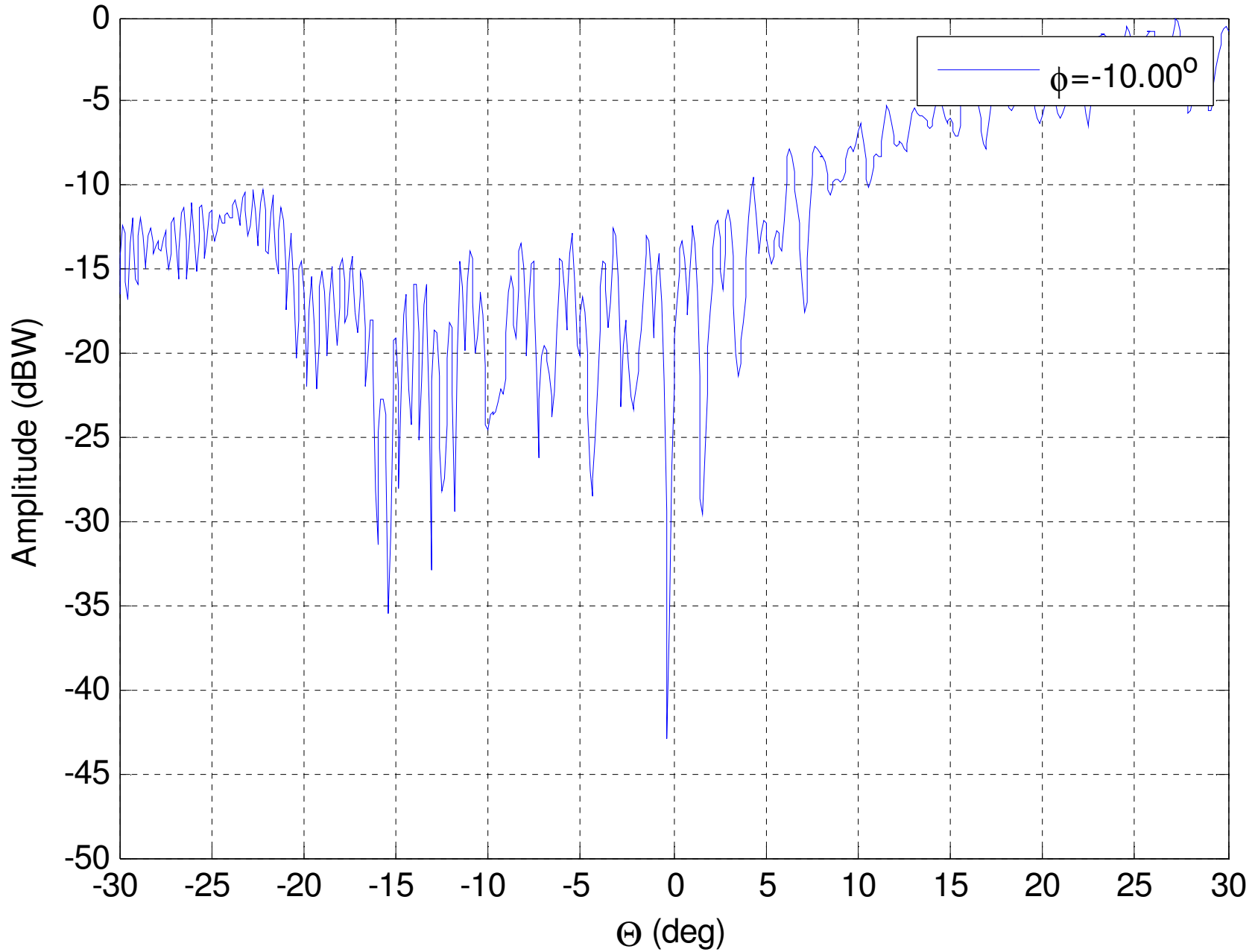
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: -5.33 dBW, Date: 15-Dec-2011



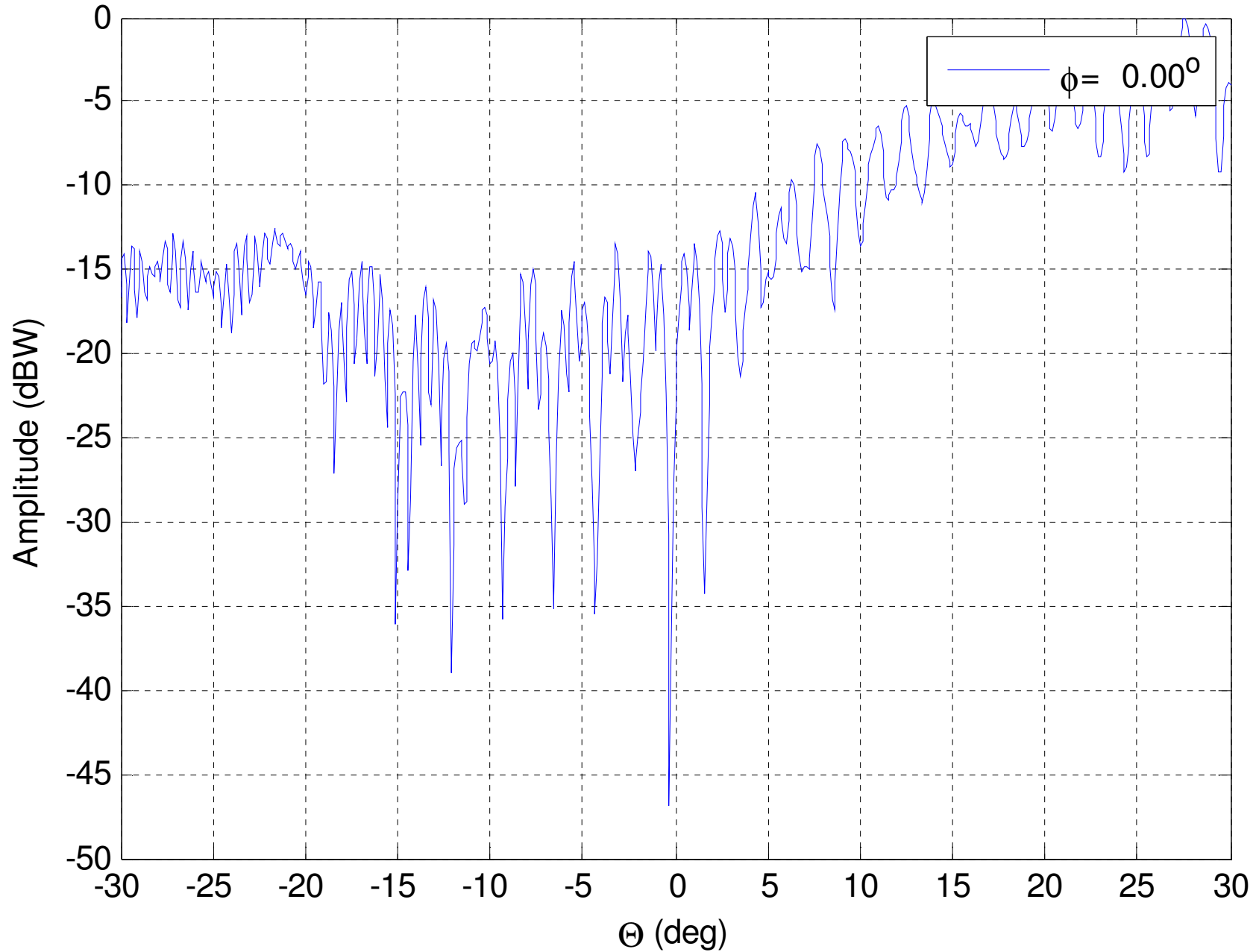
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: -5.32 dBW, Date: 15-Dec-2011



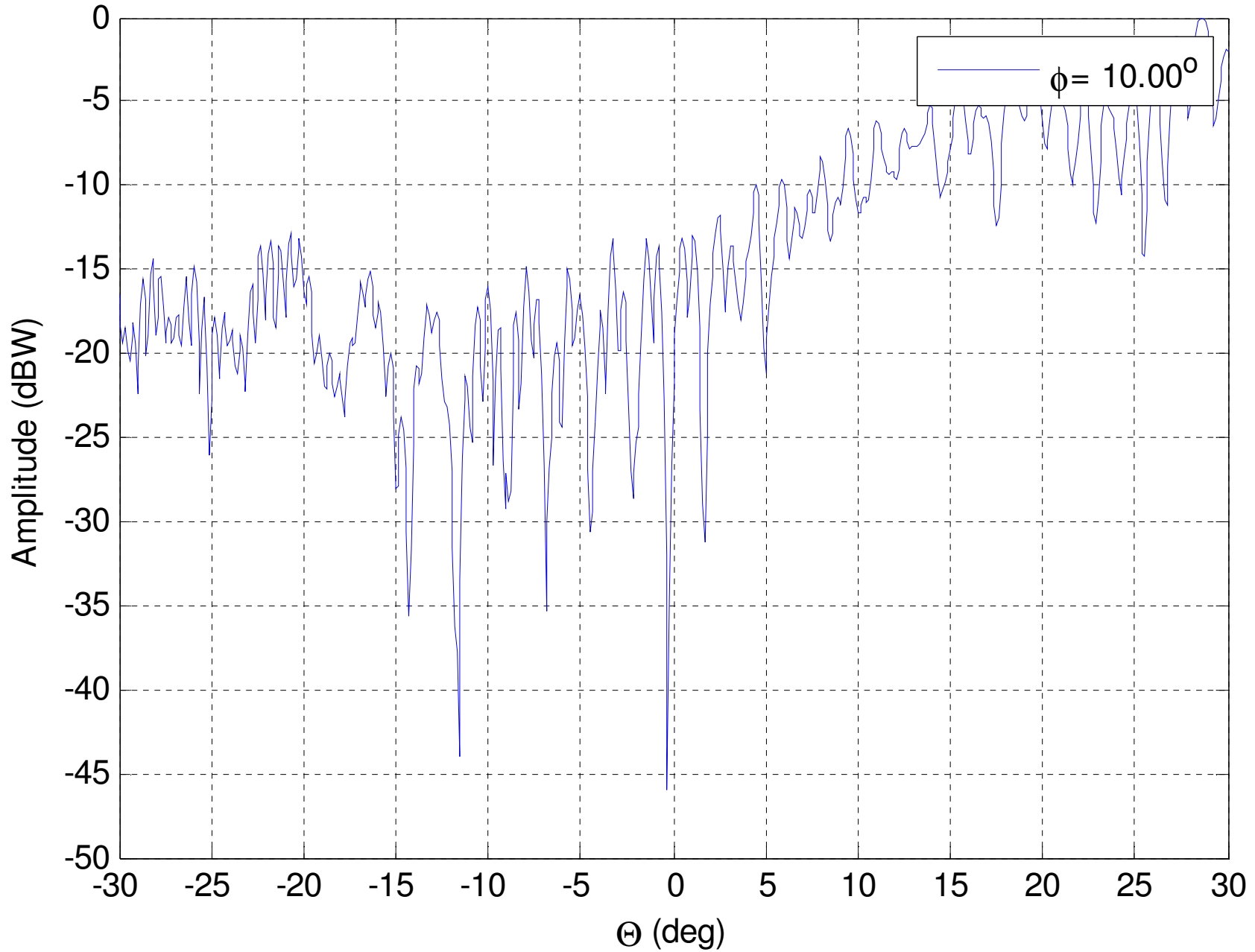
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: -4.53 dBW, Date: 15-Dec-2011



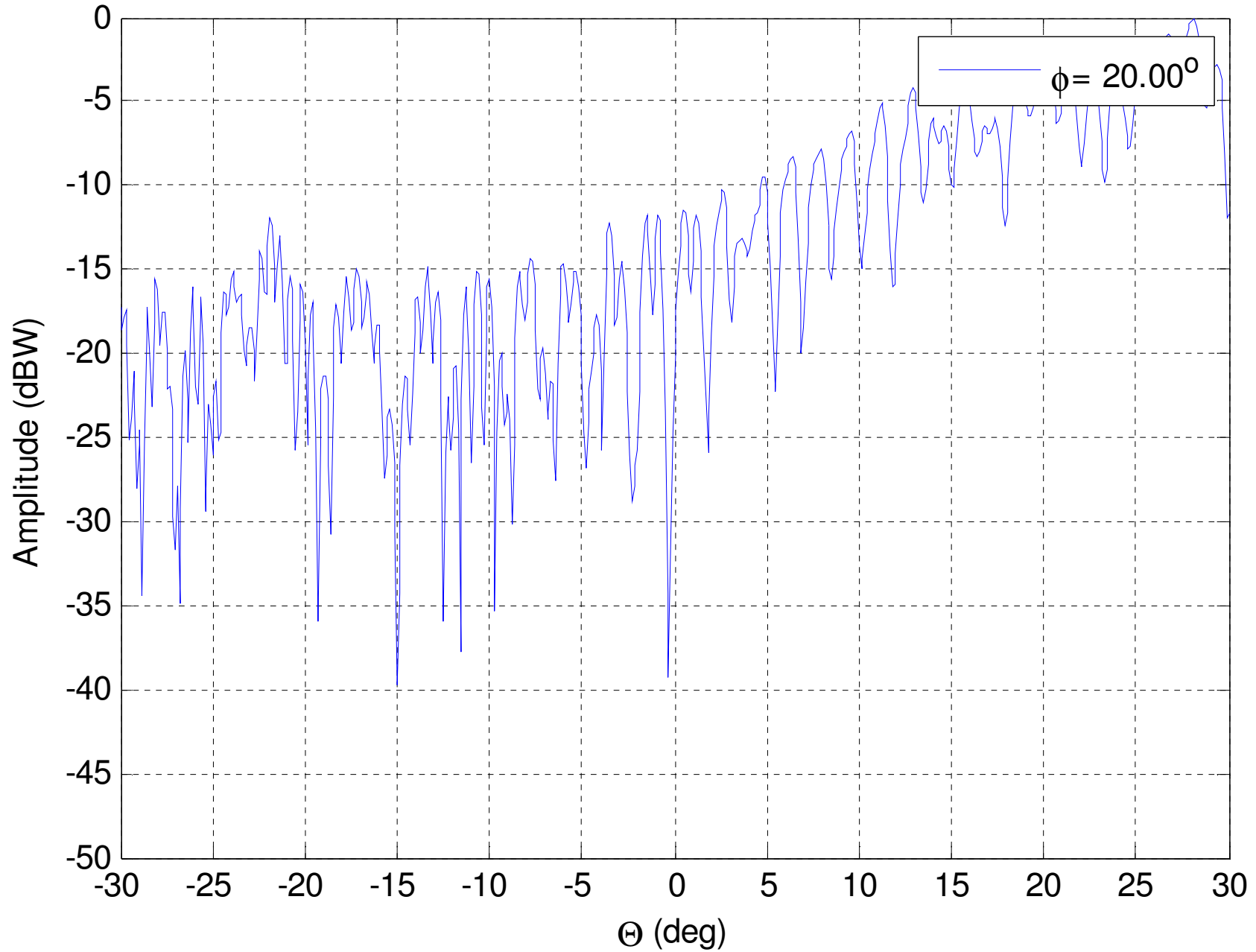
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: -5.39 dBW, Date: 15-Dec-2011



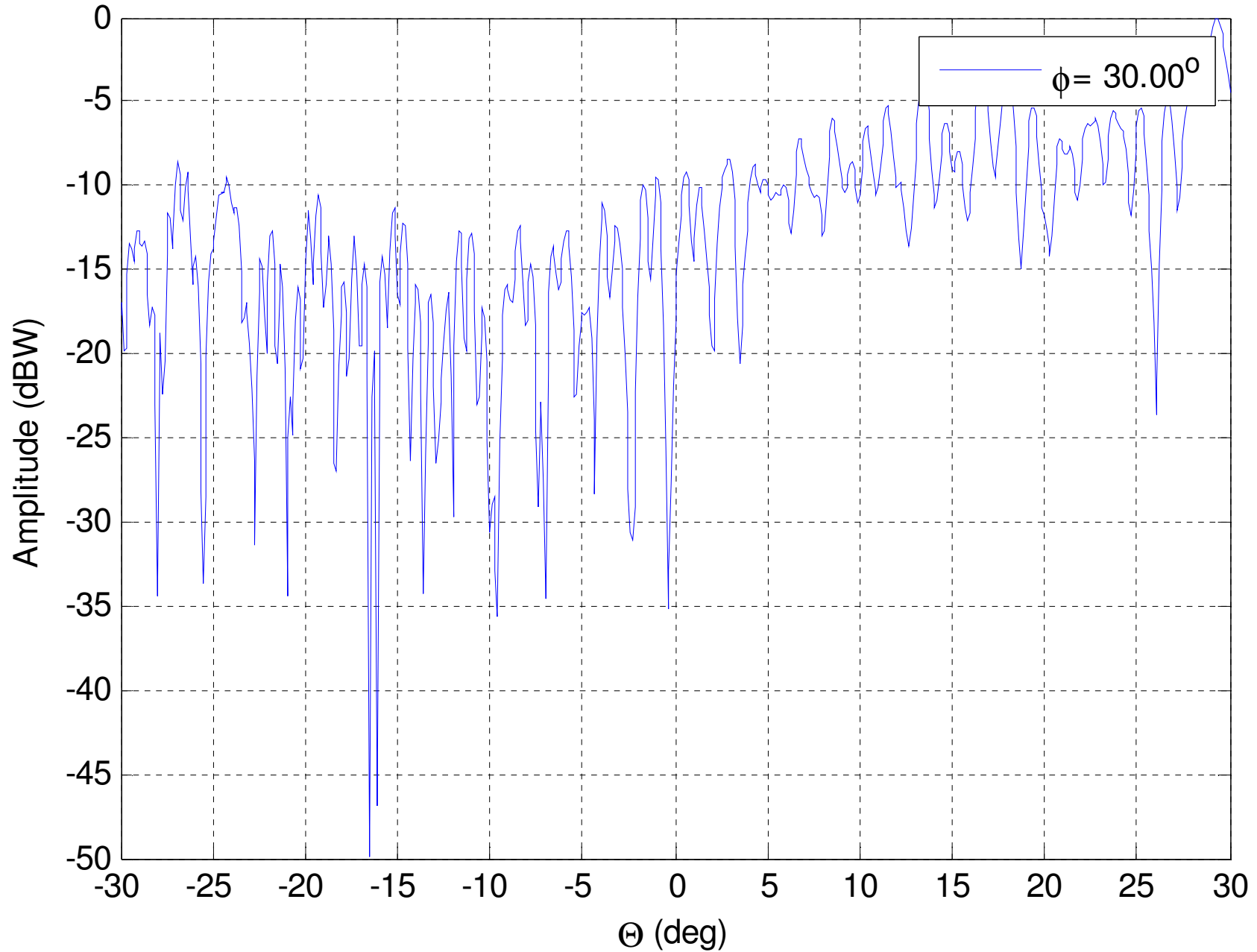
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: -7.04 dBW, Date: 15-Dec-2011



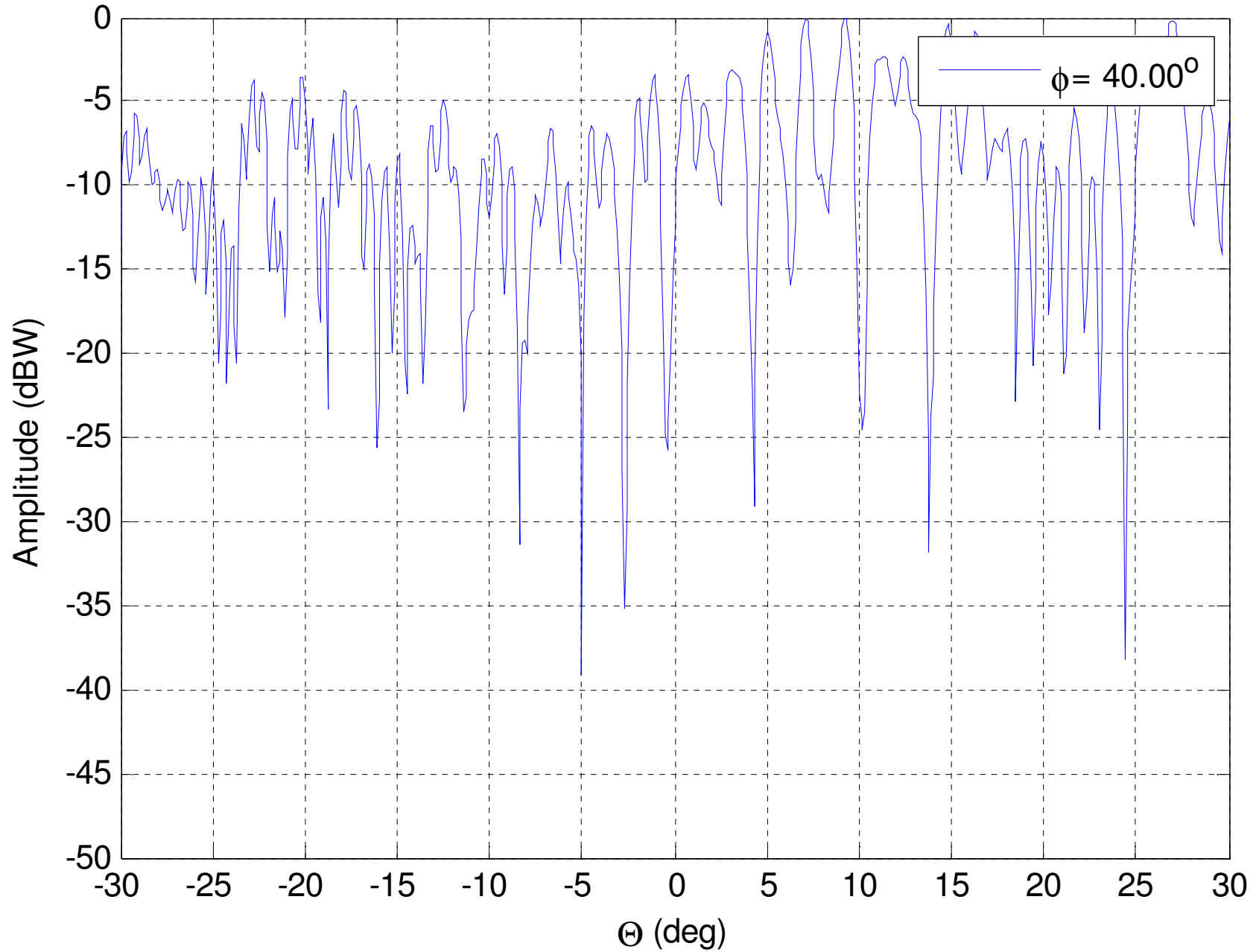
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: -9.23 dBW, Date: 15-Dec-2011



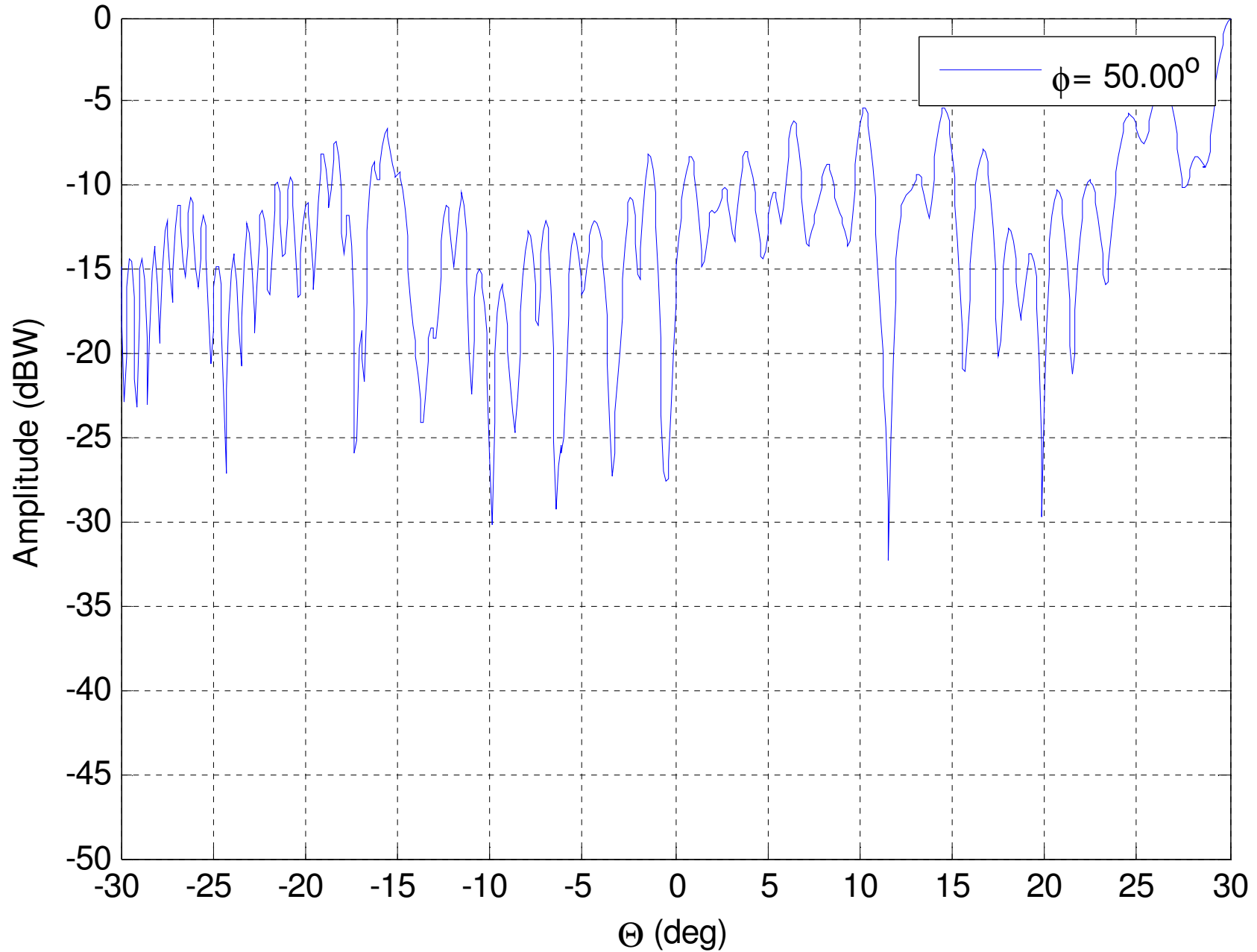
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -15.04 dBW, Date: 15-Dec-2011



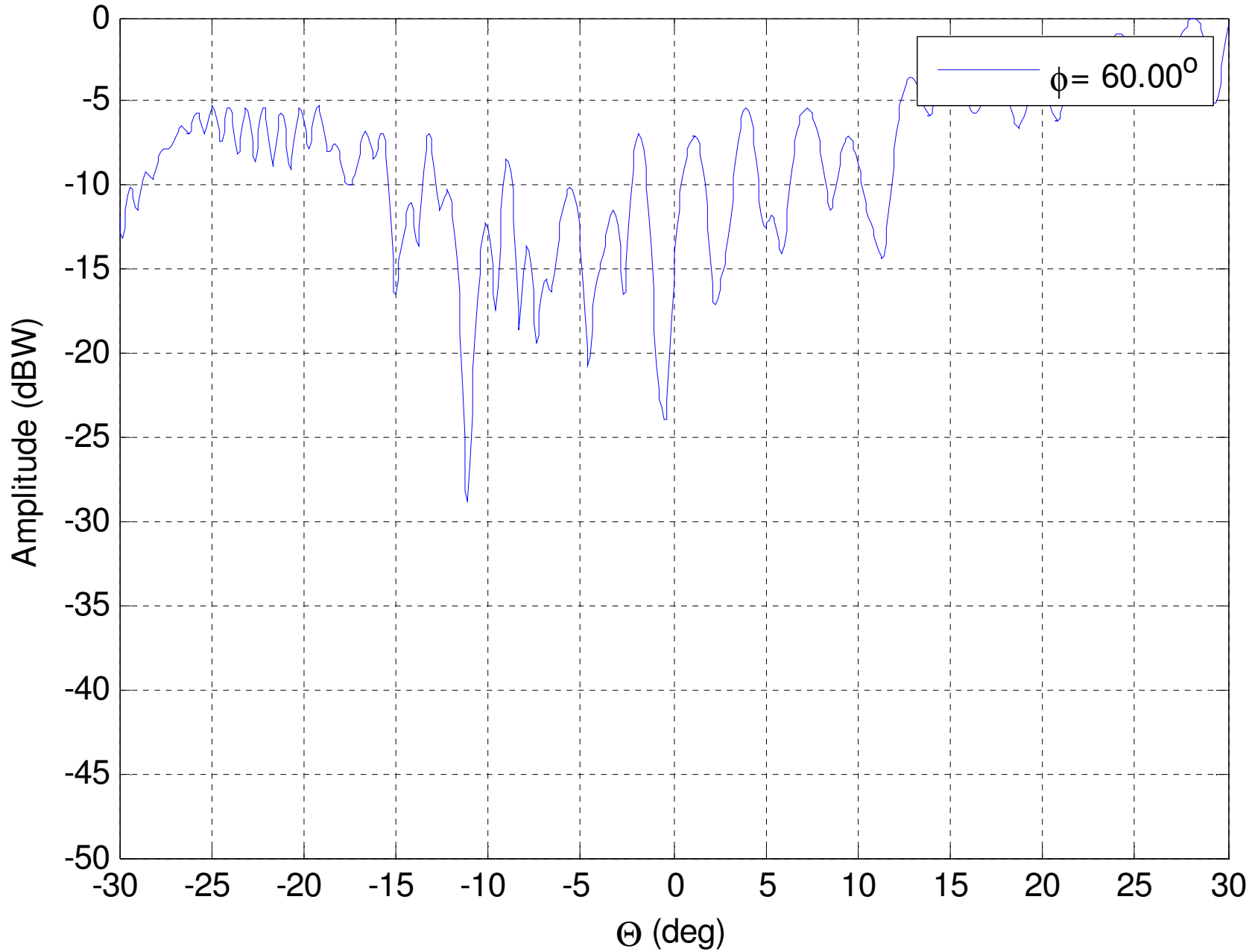
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -10.22 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

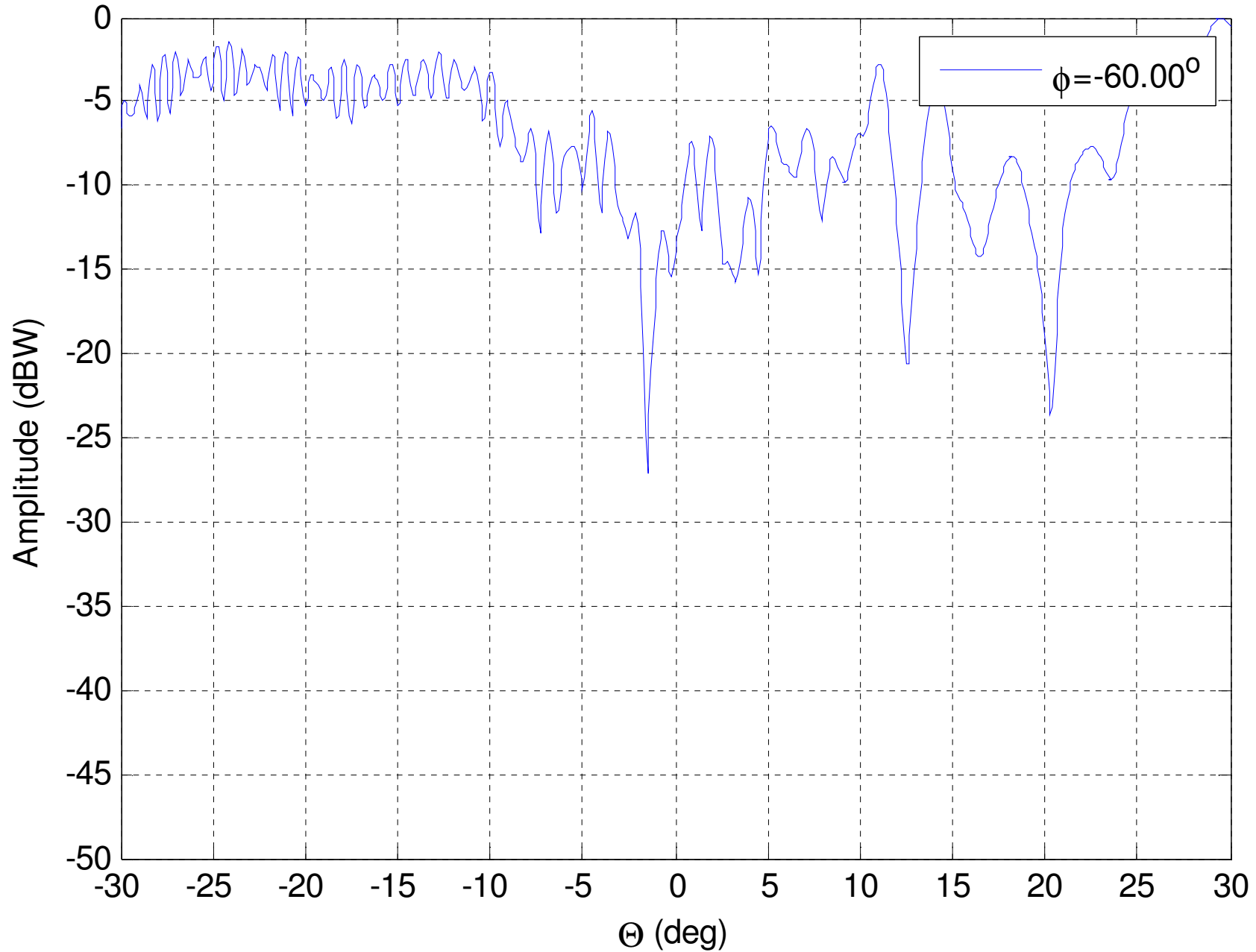
Input file: tx-17.5-rhcp-60.cut, Peak: -11.44 dBW, Date: 15-Dec-2011



LHCP at 17.5 GHz

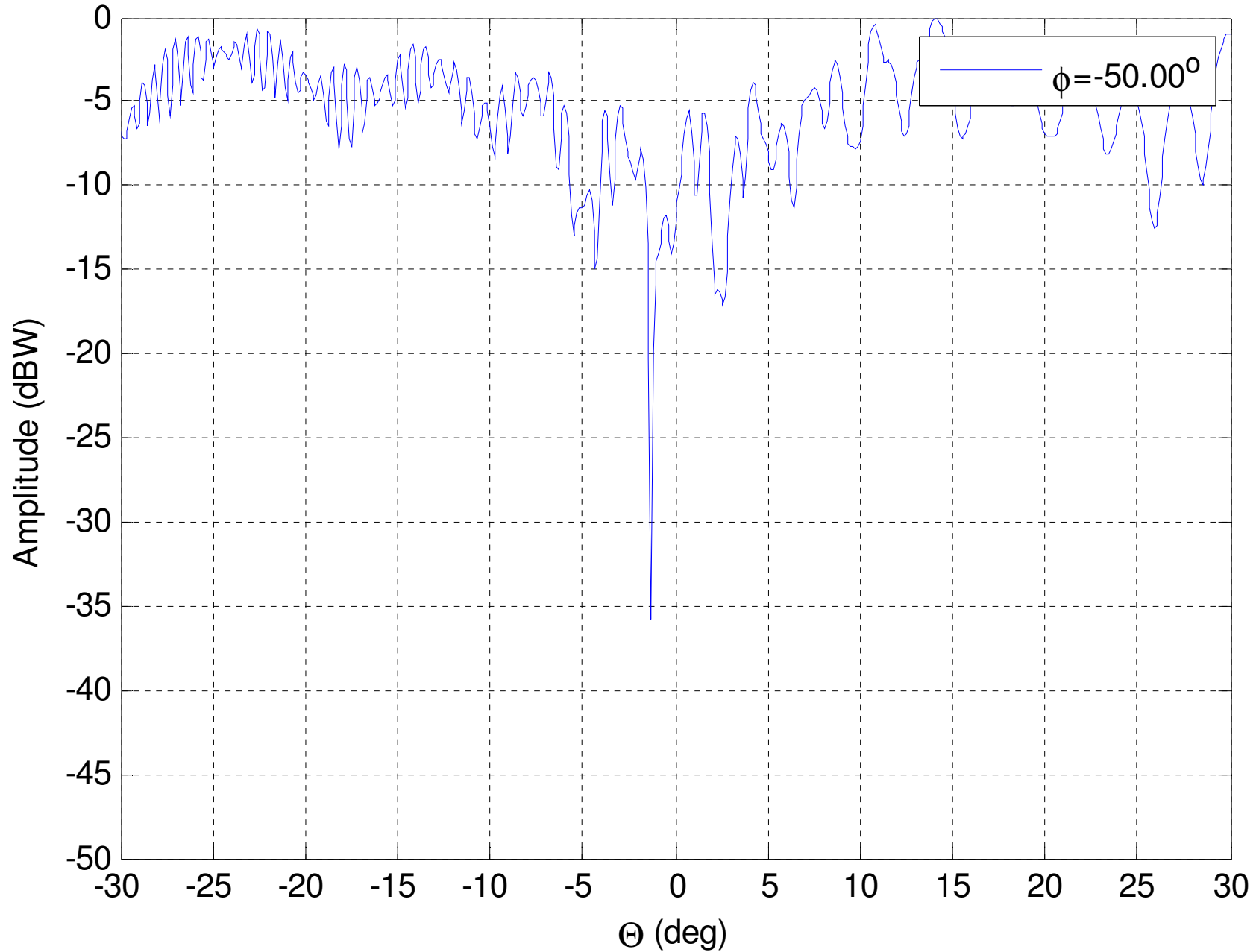
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -10.03 dBW, Date: 15-Dec-2011



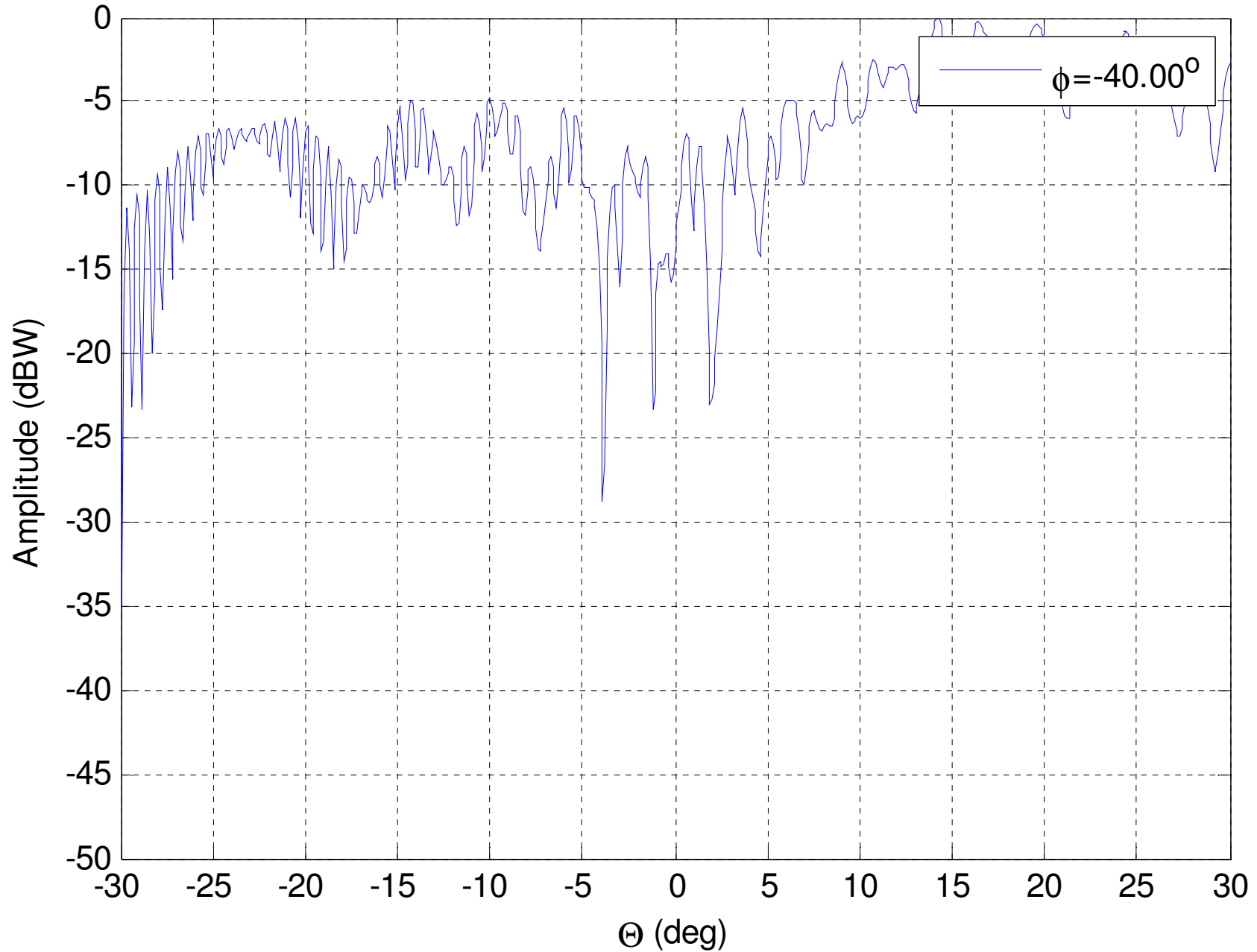
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -11.82 dBW, Date: 15-Dec-2011



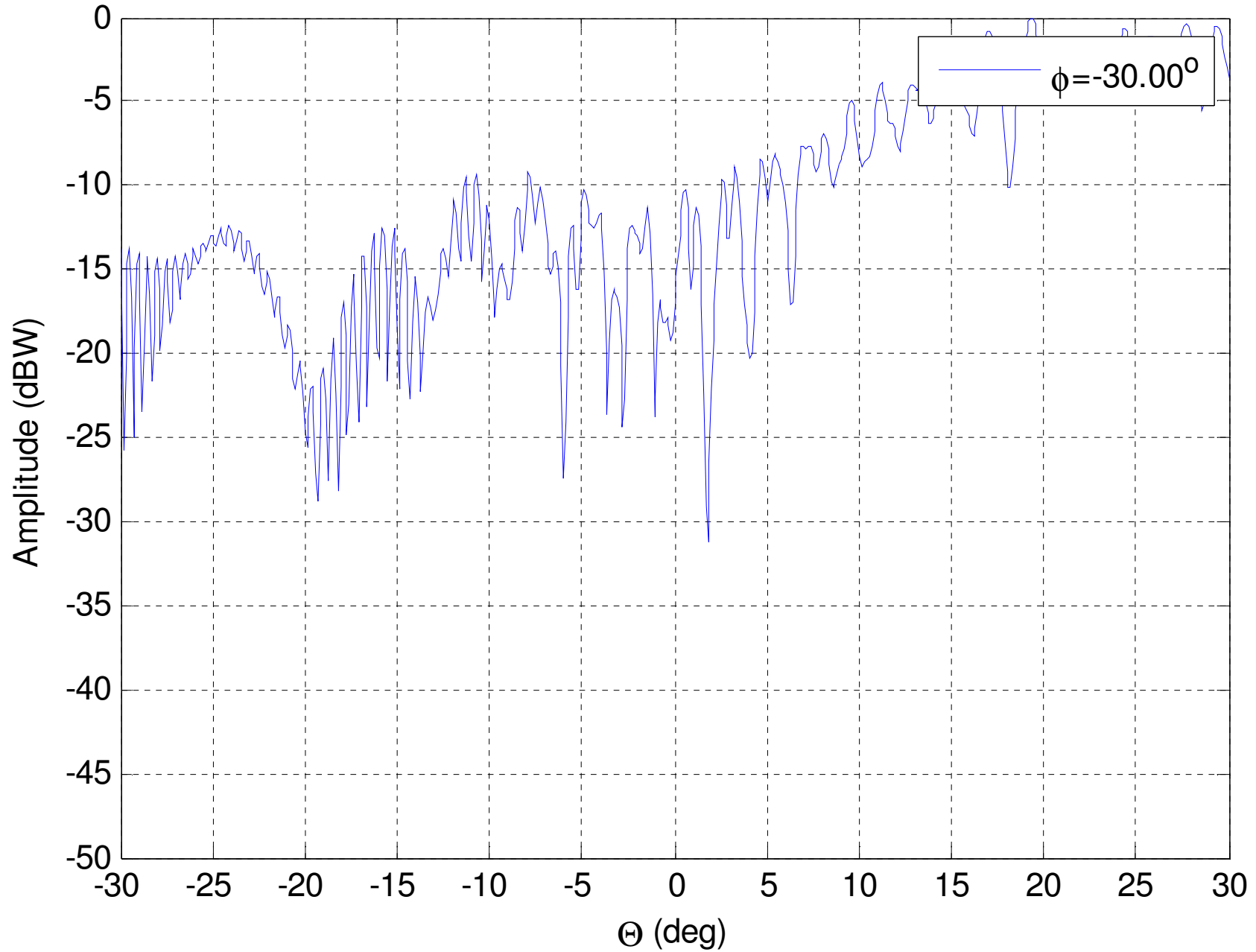
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -10.34 dBW, Date: 15-Dec-2011



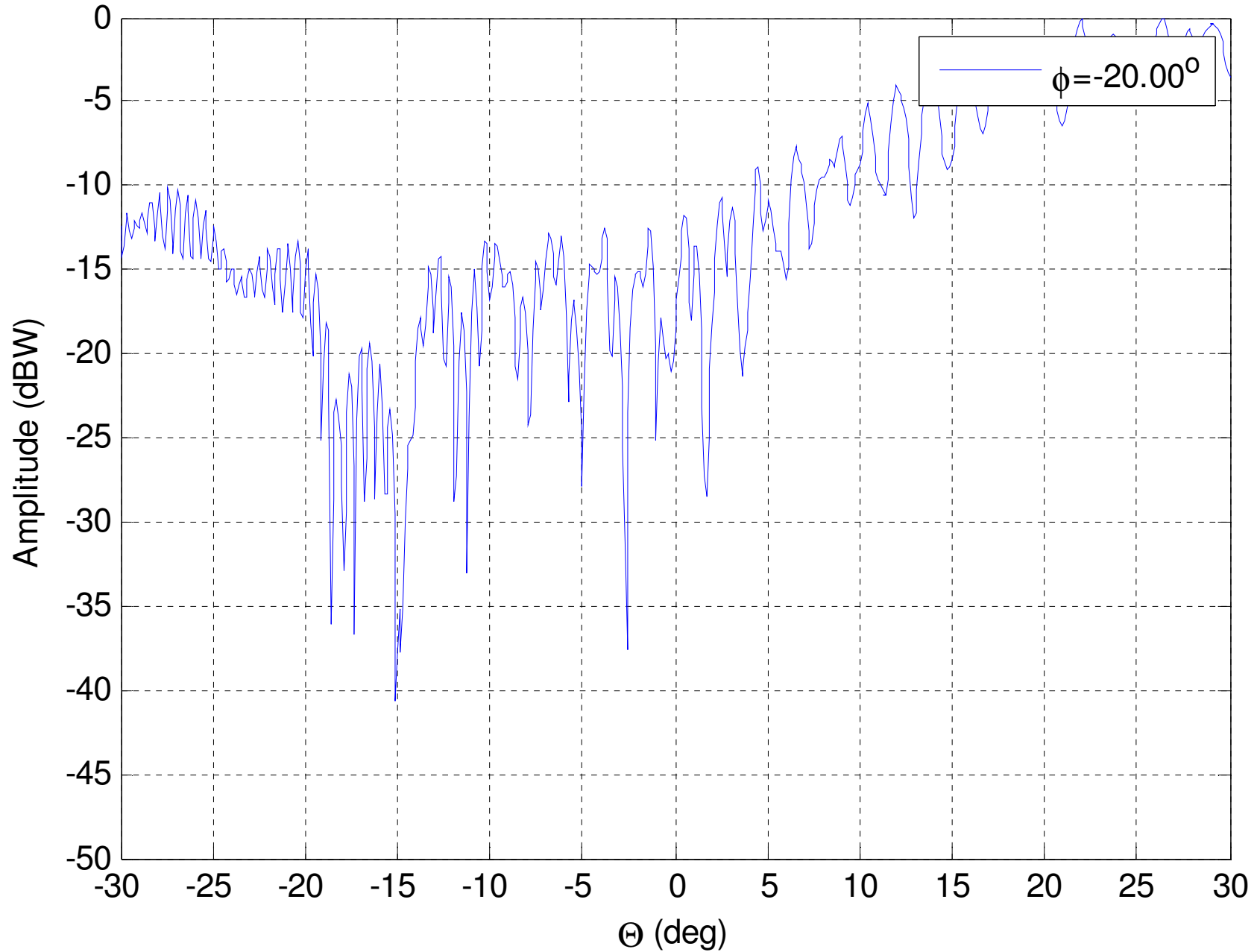
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: -7.06 dBW, Date: 15-Dec-2011



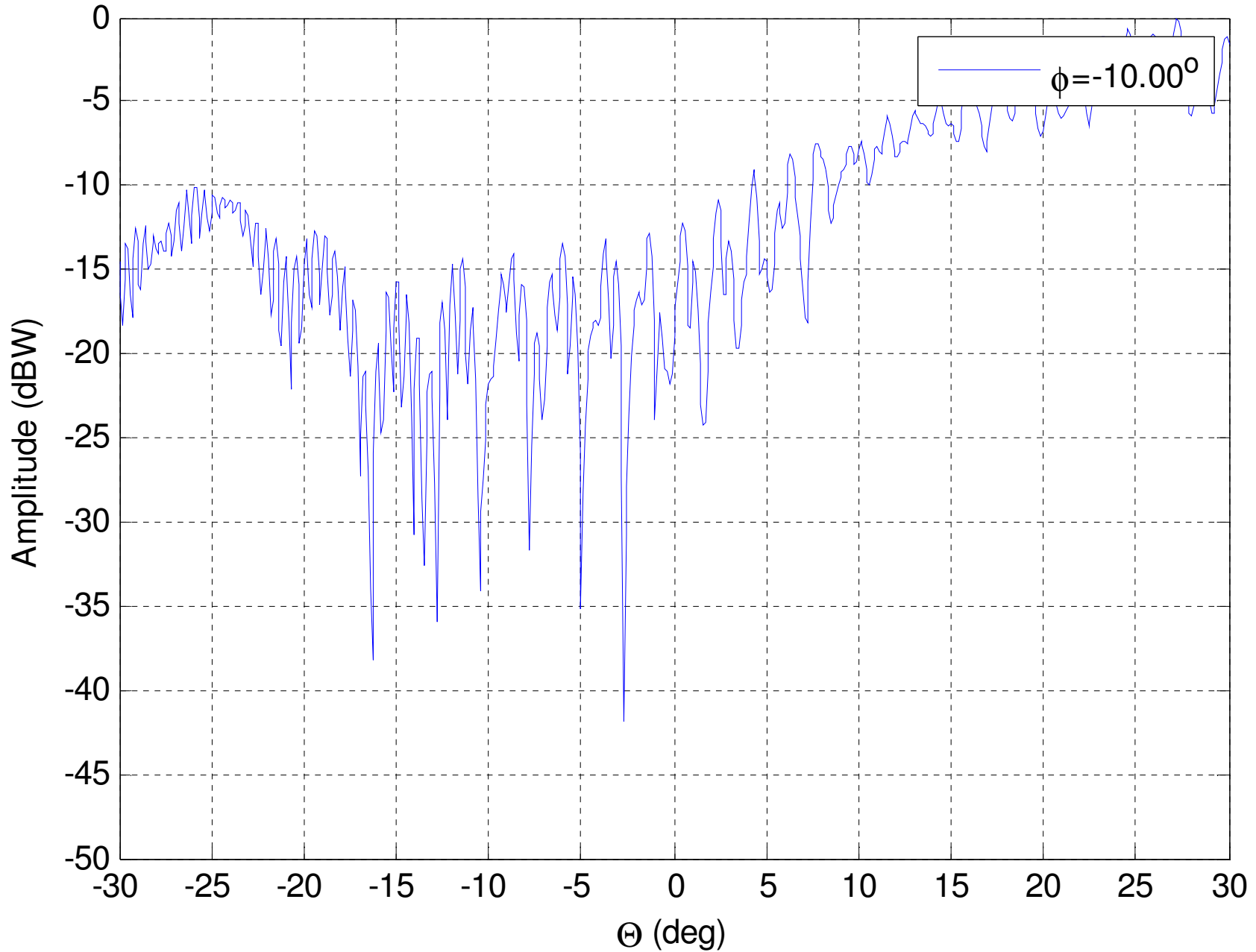
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: -5.48 dBW, Date: 15-Dec-2011



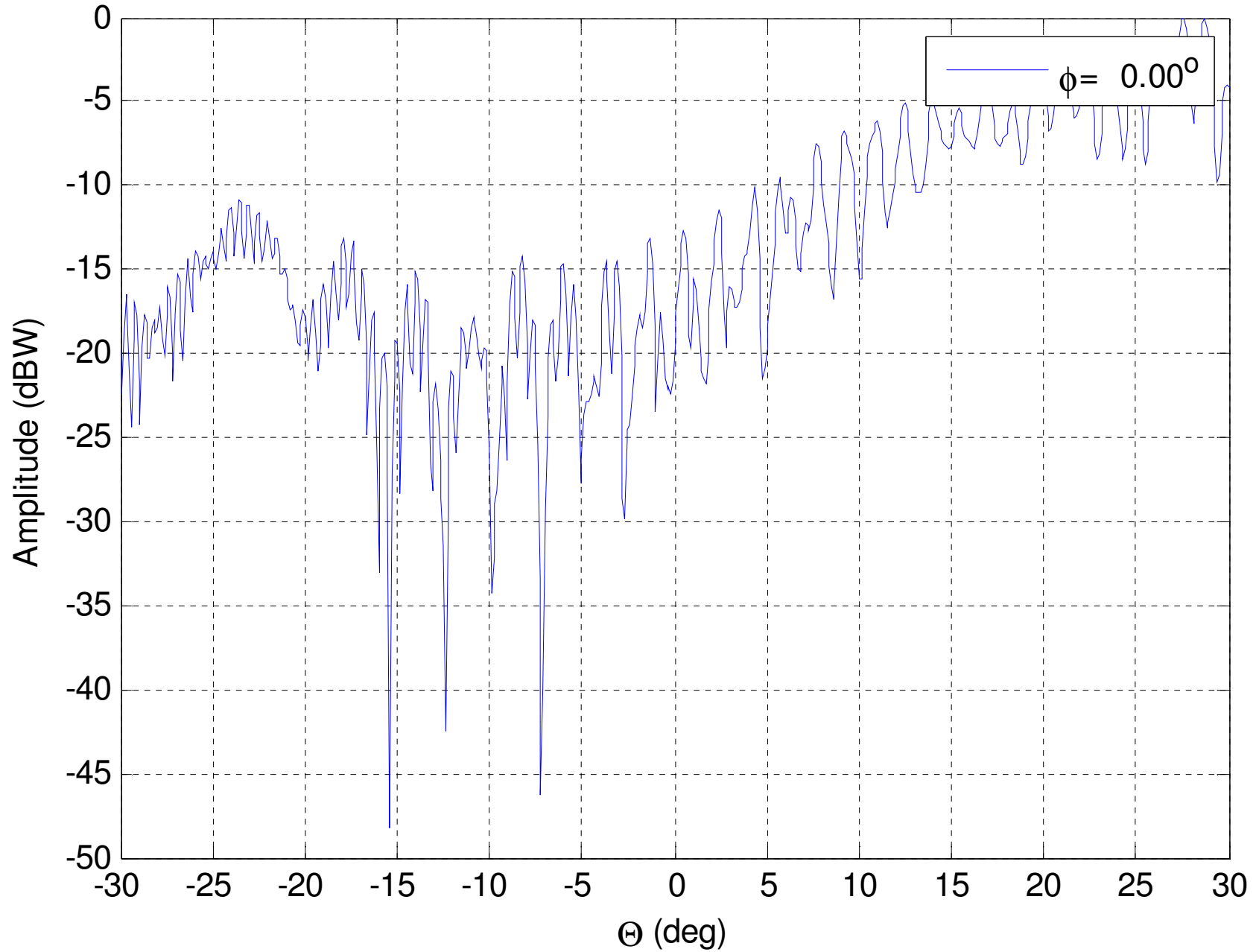
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: -5.00 dBW, Date: 15-Dec-2011



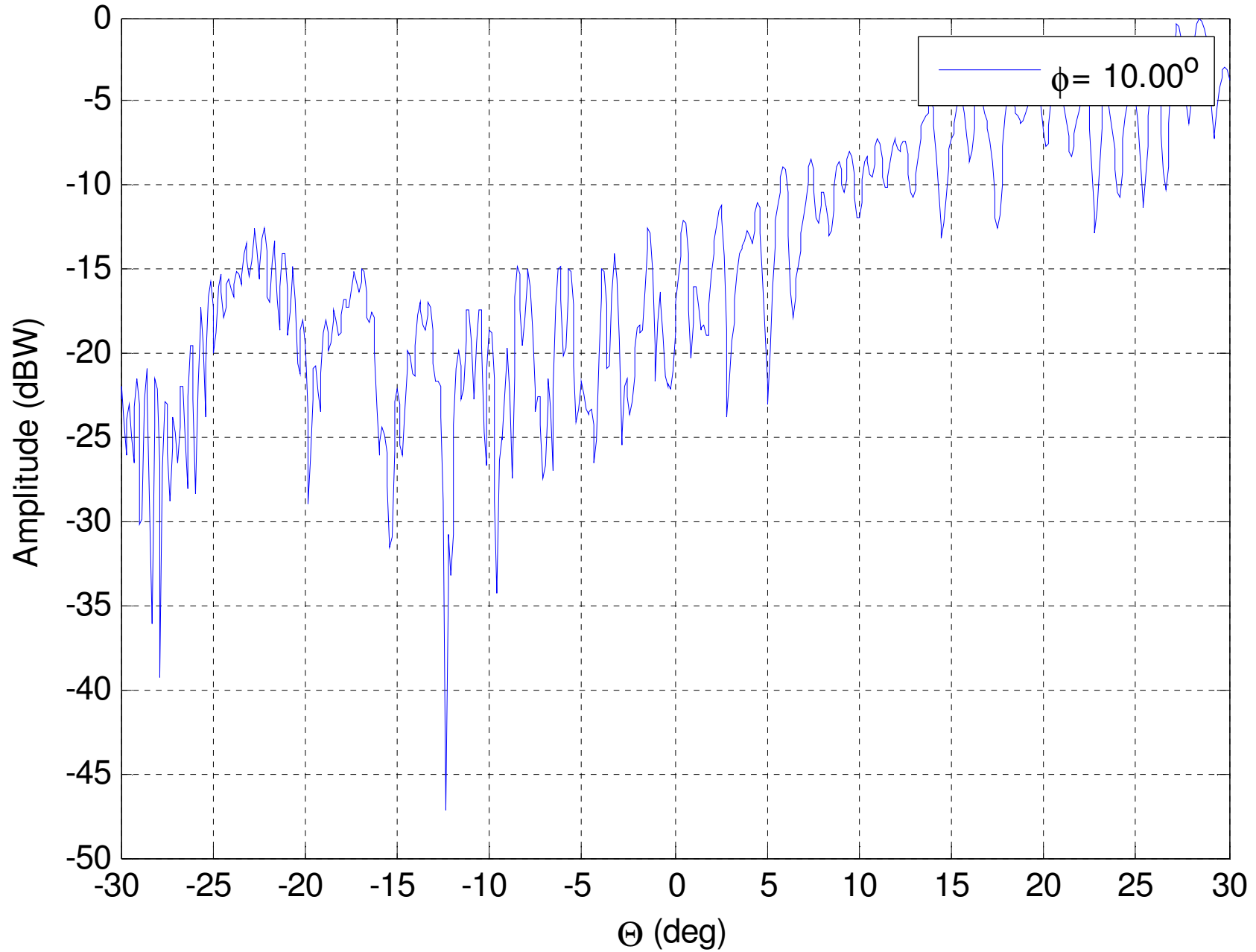
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: -4.58 dBW, Date: 15-Dec-2011



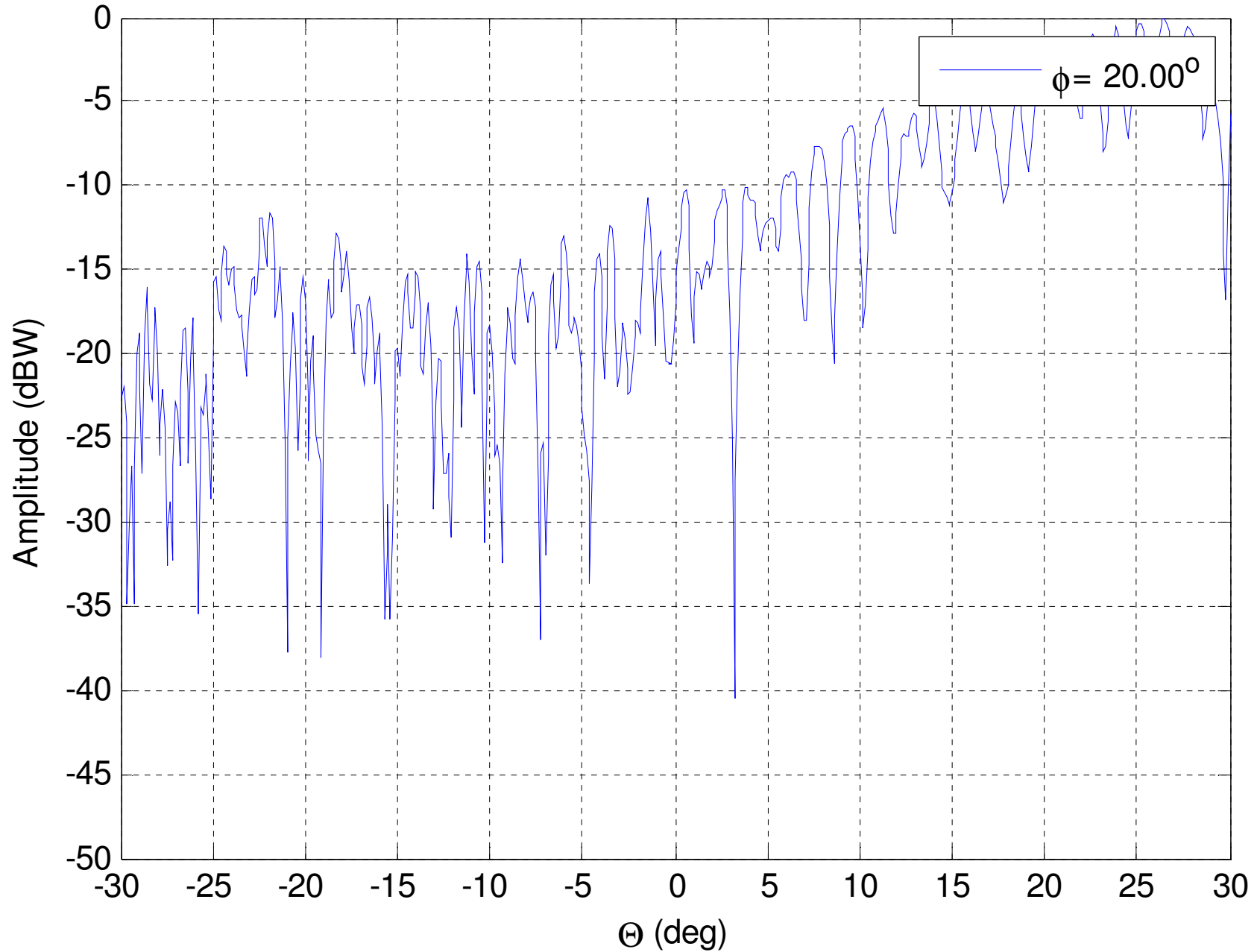
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: -5.20 dBW, Date: 15-Dec-2011



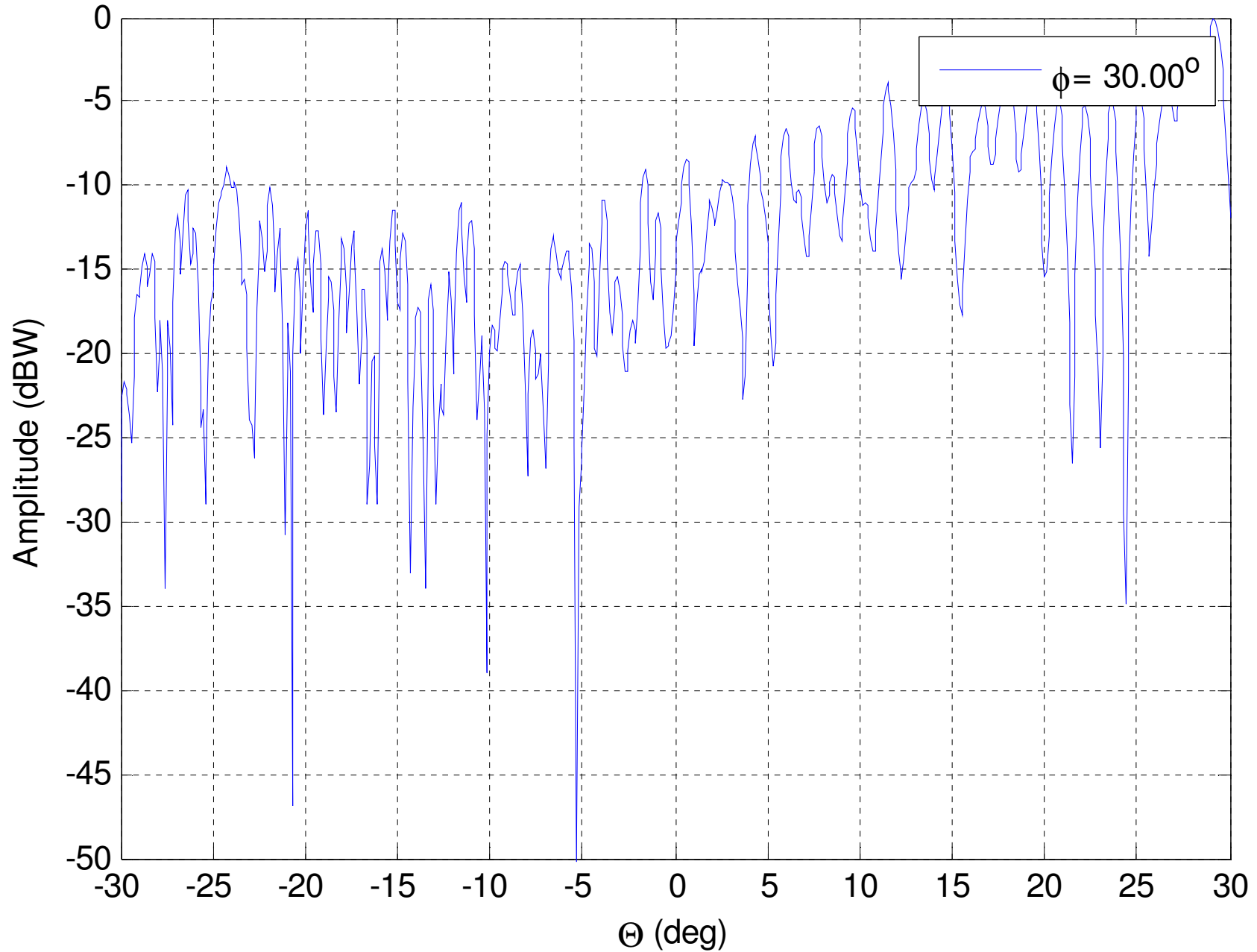
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: -7.07 dBW, Date: 15-Dec-2011



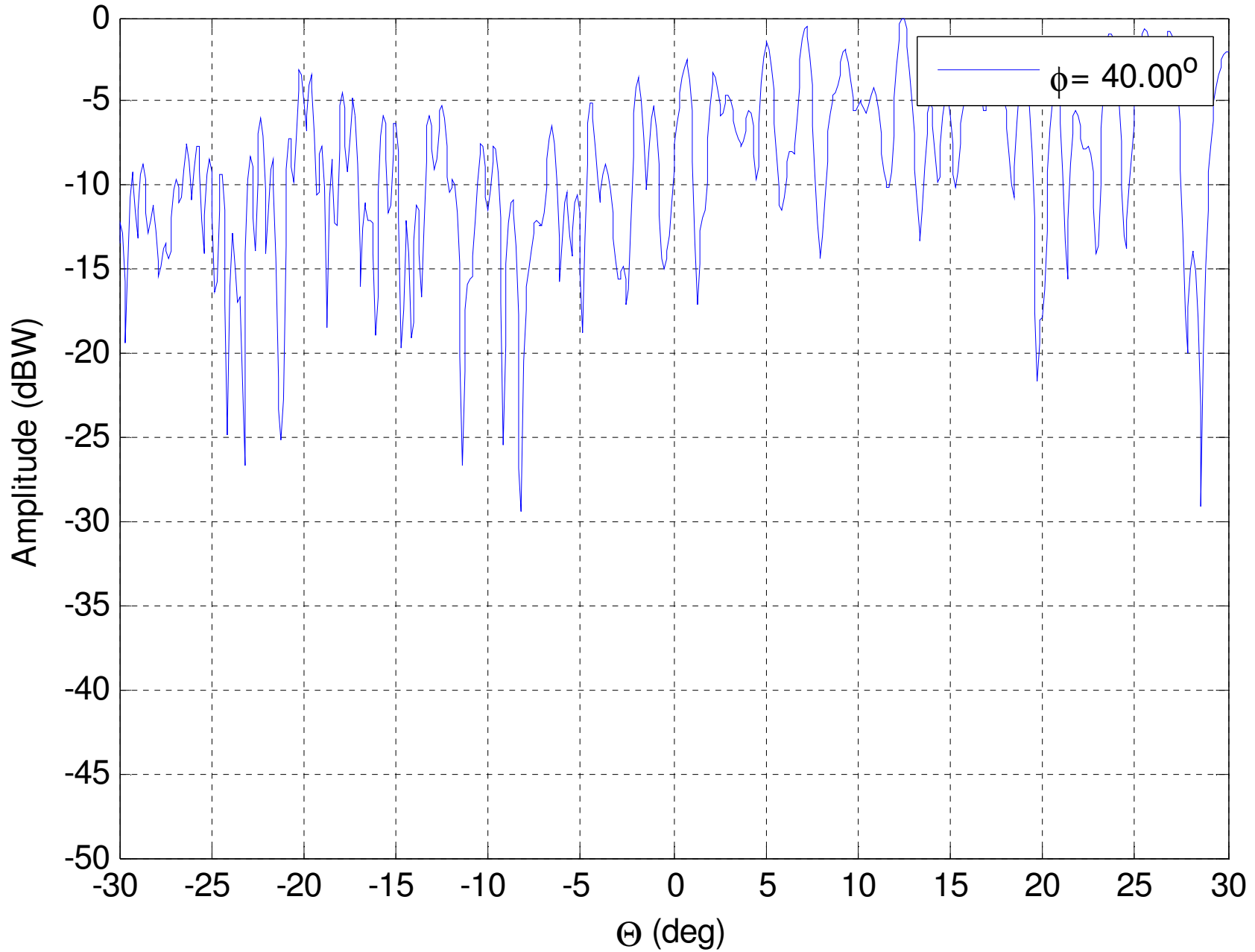
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: -8.93 dBW, Date: 15-Dec-2011



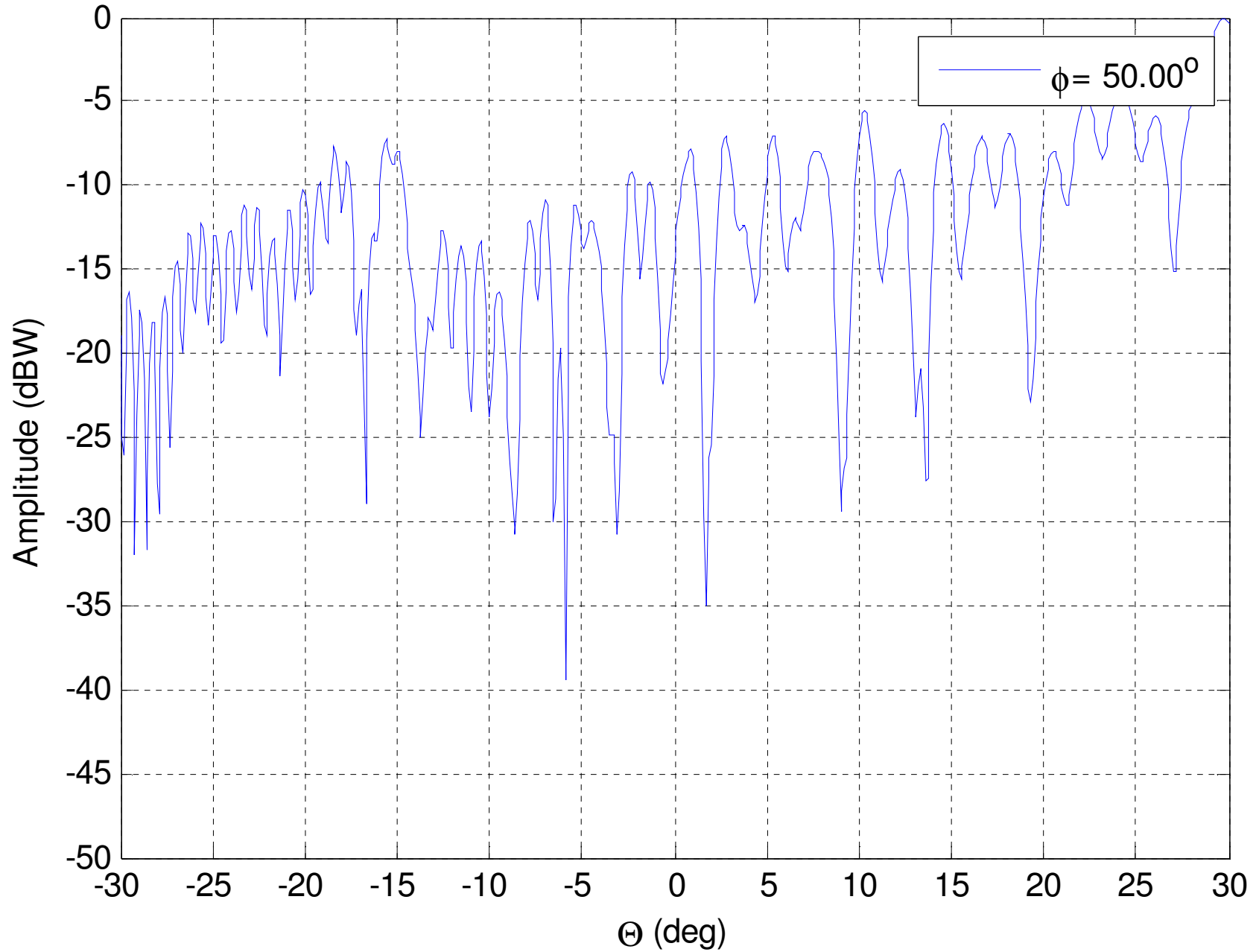
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -14.88 dBW, Date: 15-Dec-2011



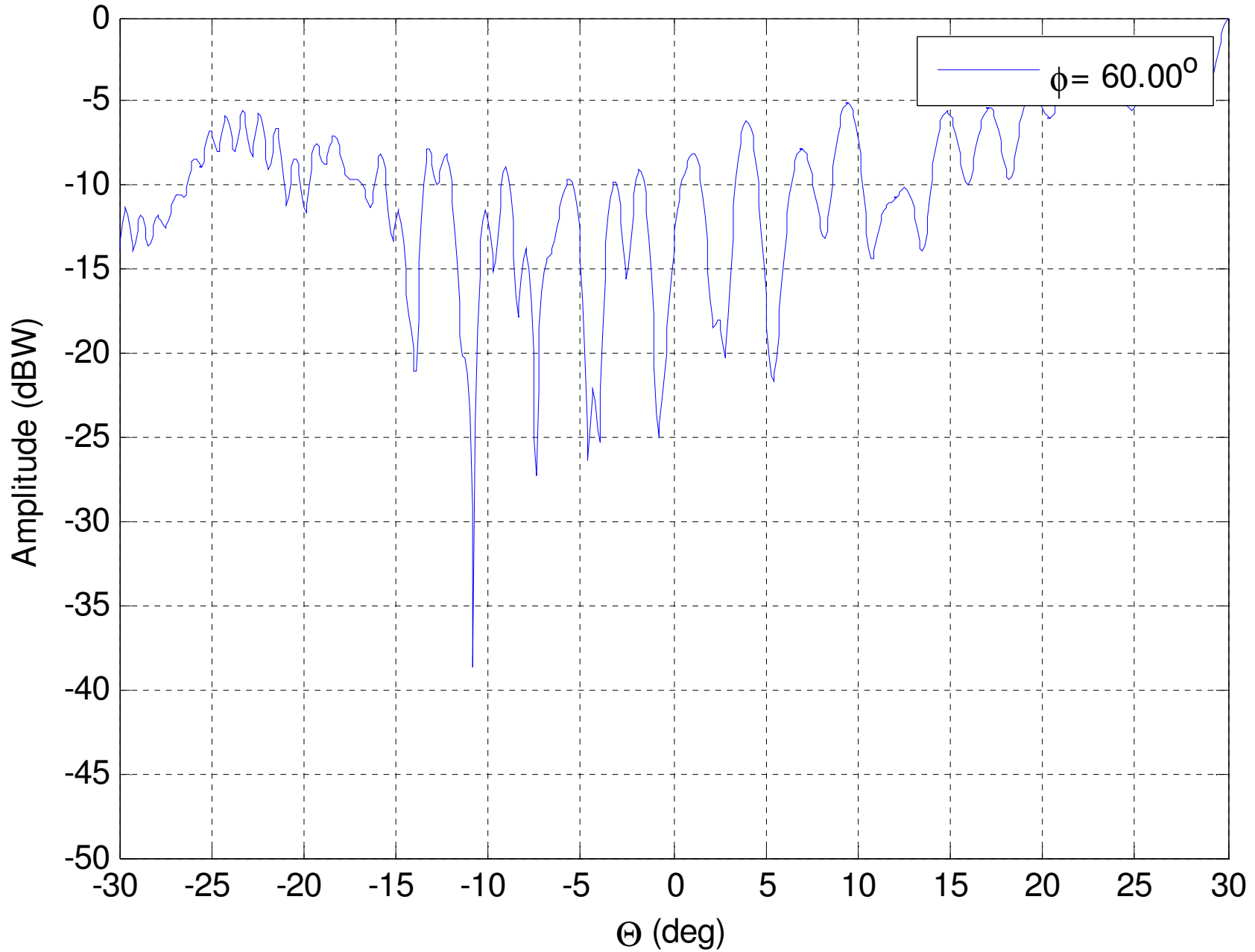
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -9.81 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

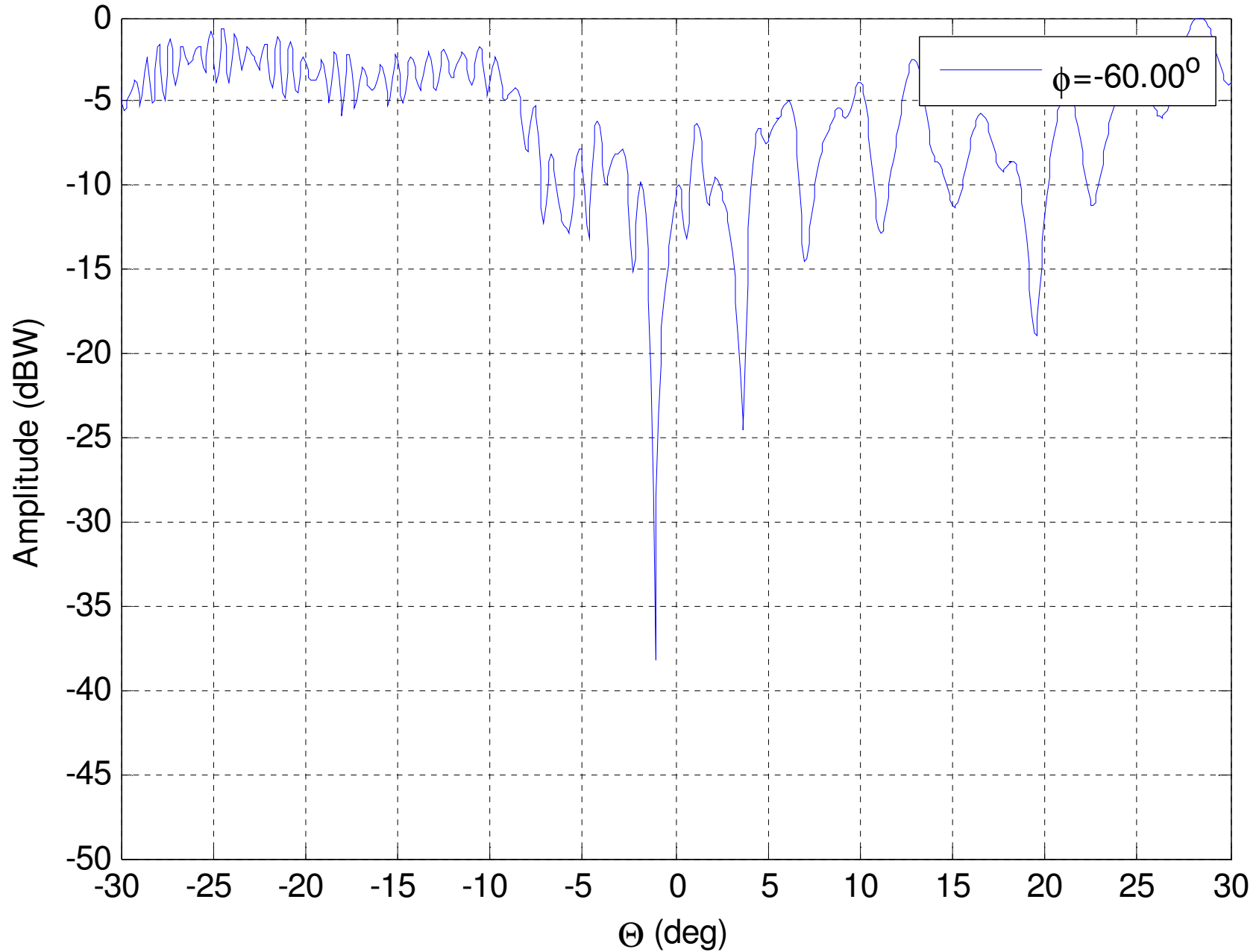
Input file: tx-17.5-lhcp-60.cut, Peak: -10.13 dBW, Date: 15-Dec-2011



RHCP at 17.7 GHz

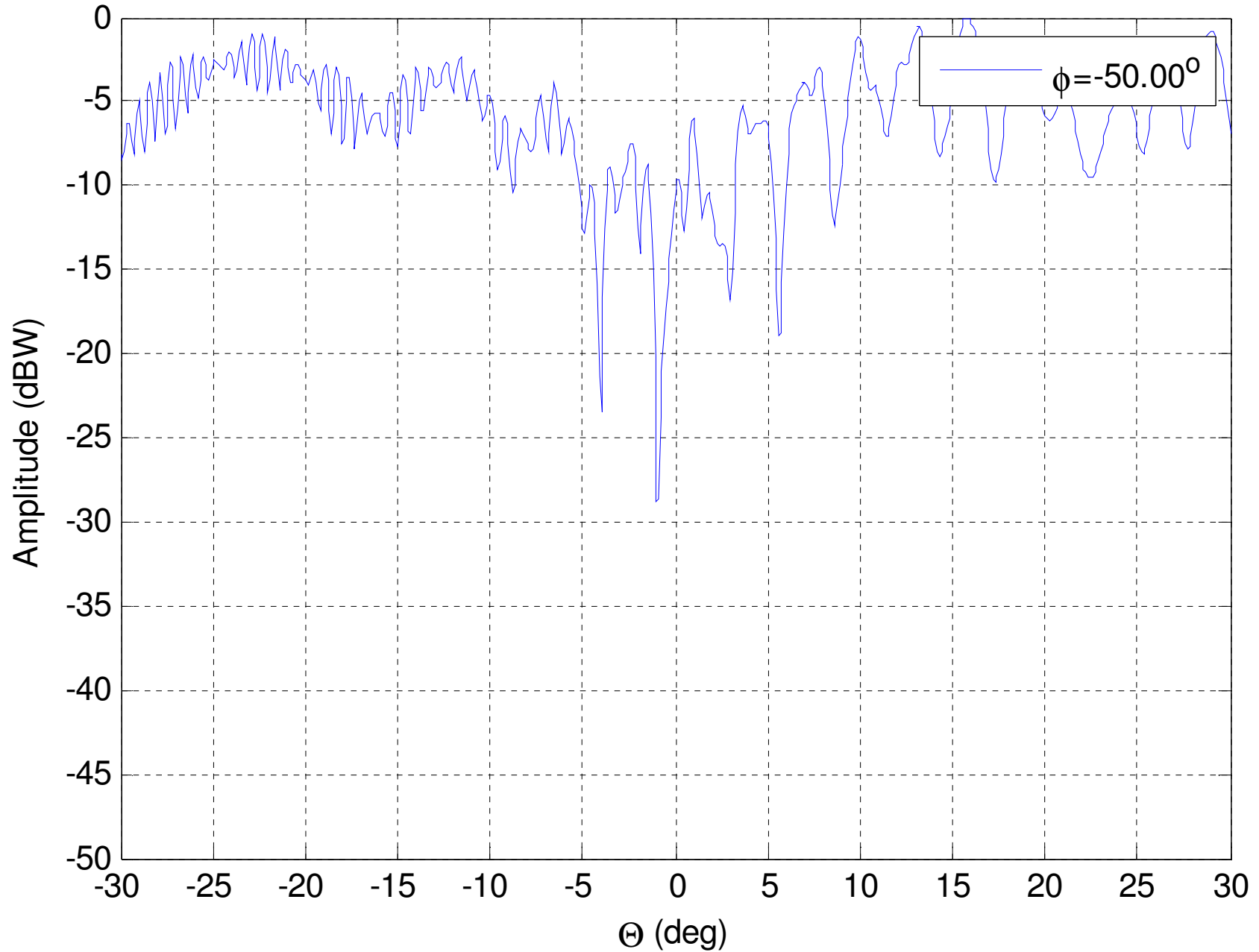
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -10.71 dBW, Date: 15-Dec-2011



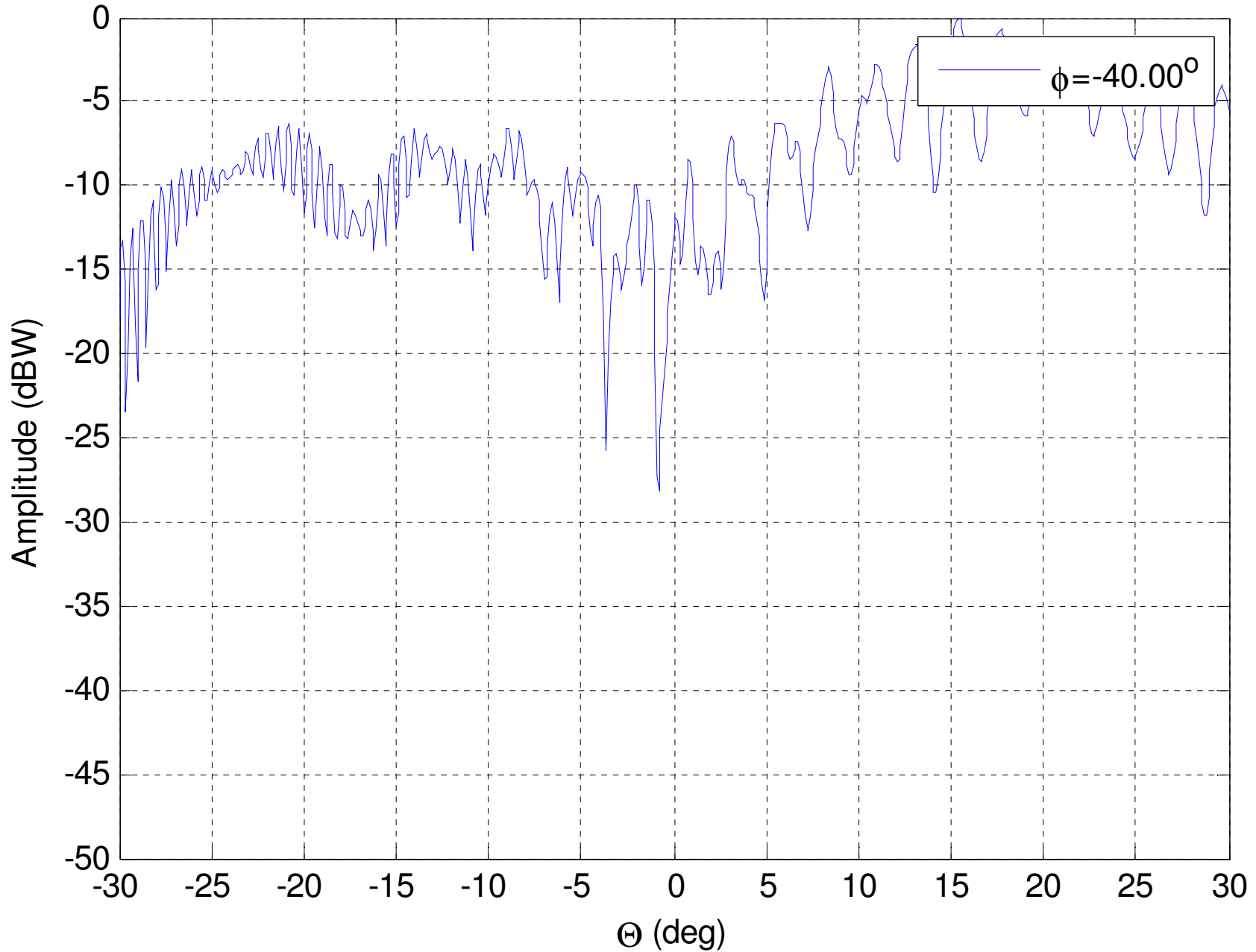
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -11.00 dBW, Date: 15-Dec-2011



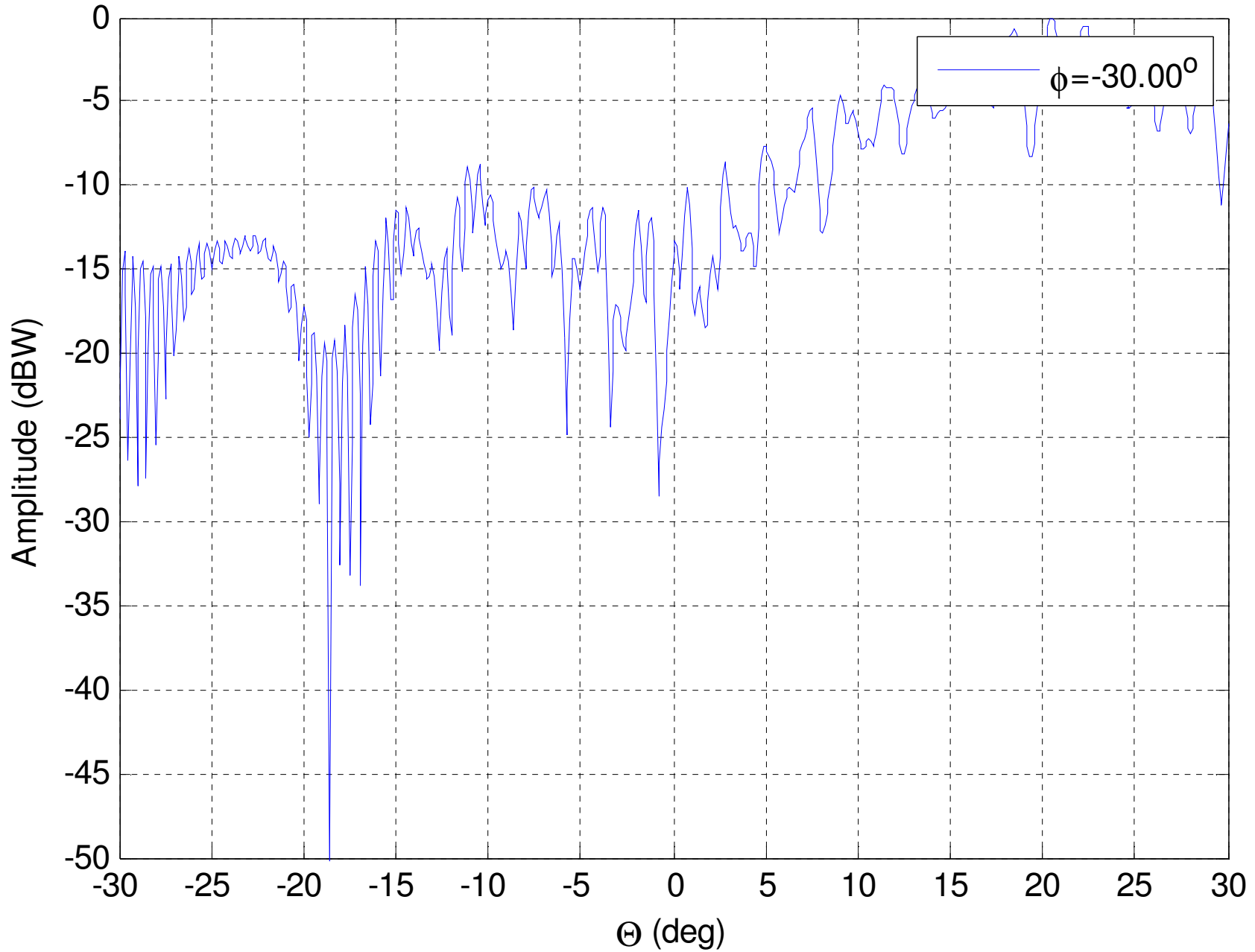
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -8.70 dBW, Date: 15-Dec-2011



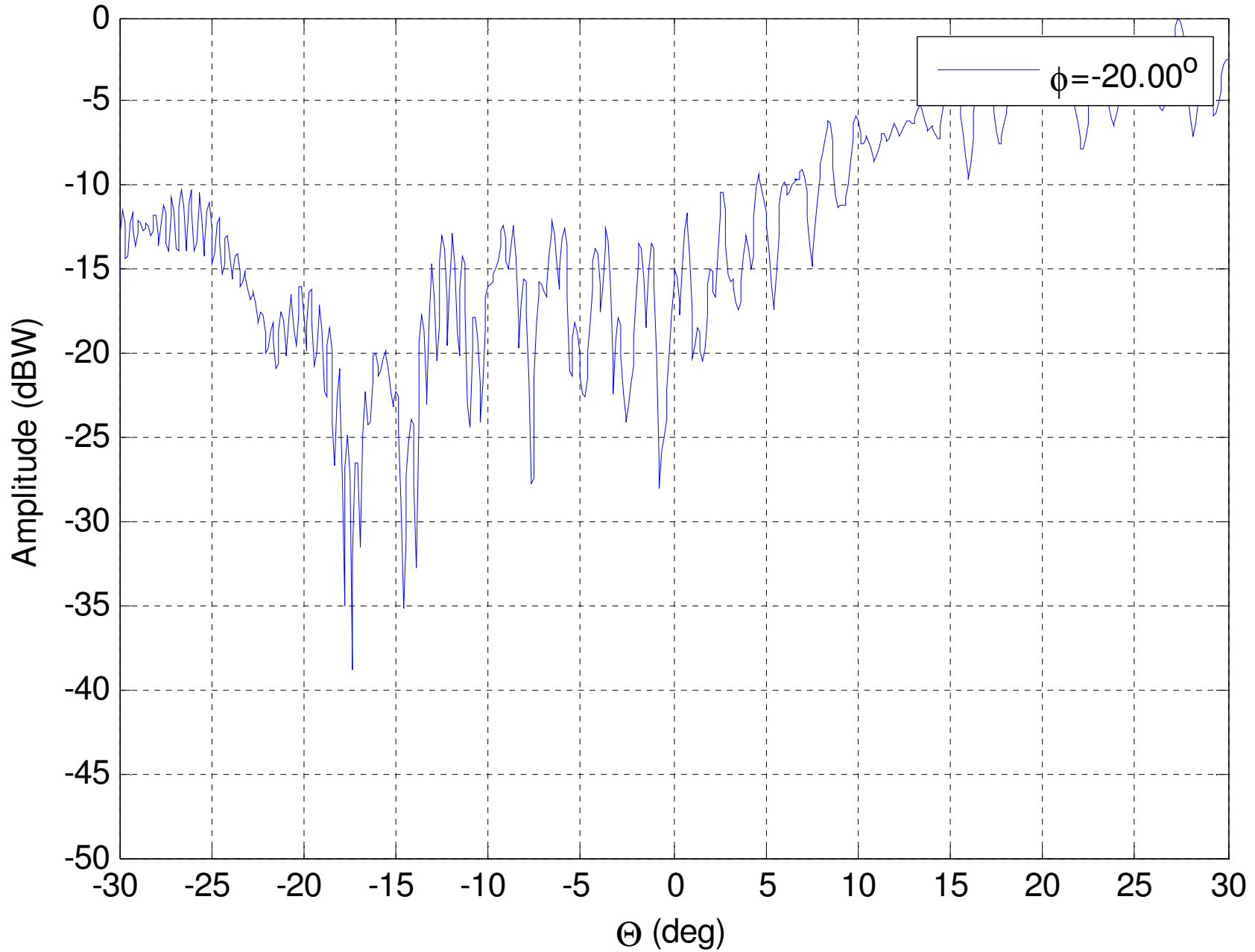
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -7.20 dBW, Date: 15-Dec-2011



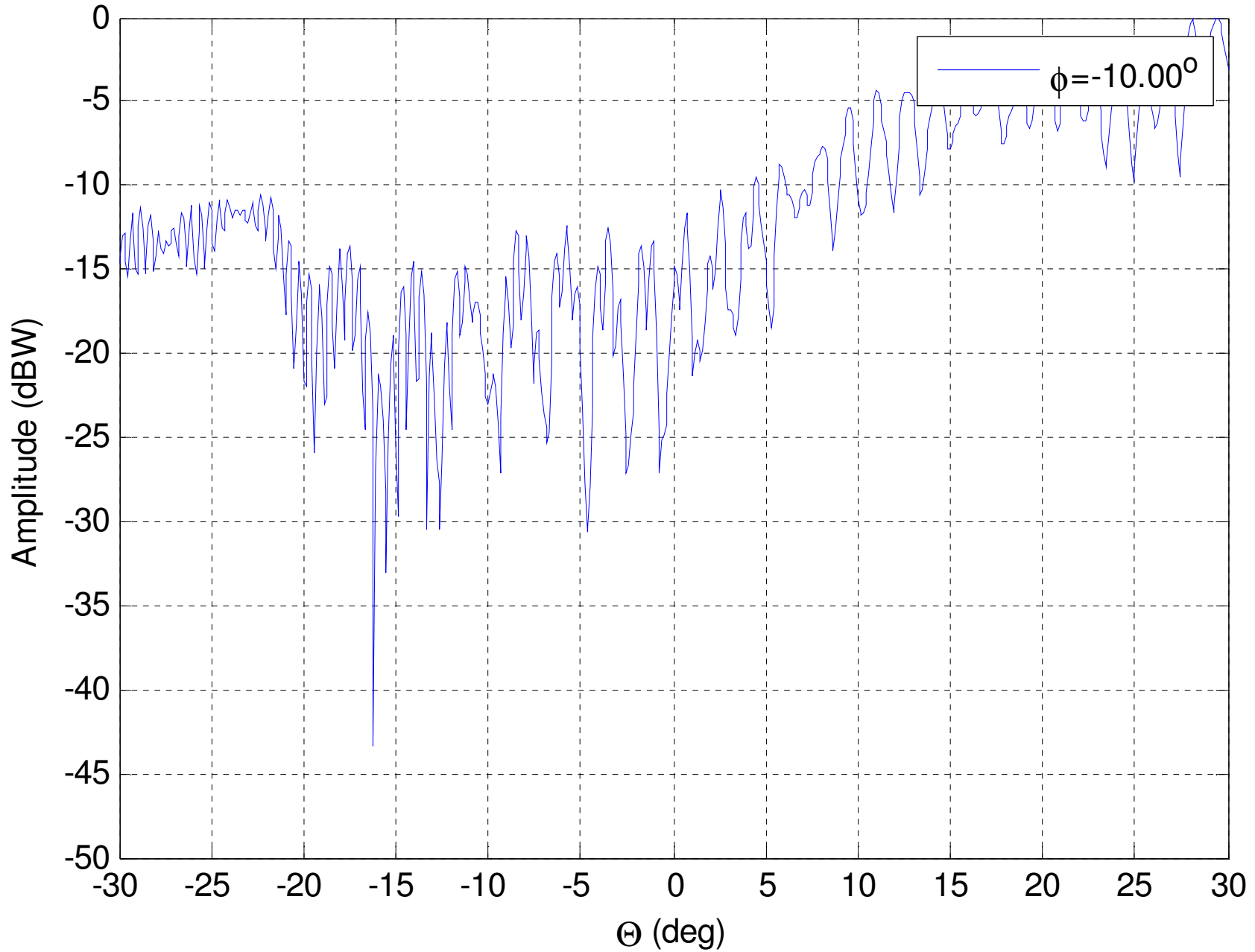
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: -5.55 dBW, Date: 15-Dec-2011



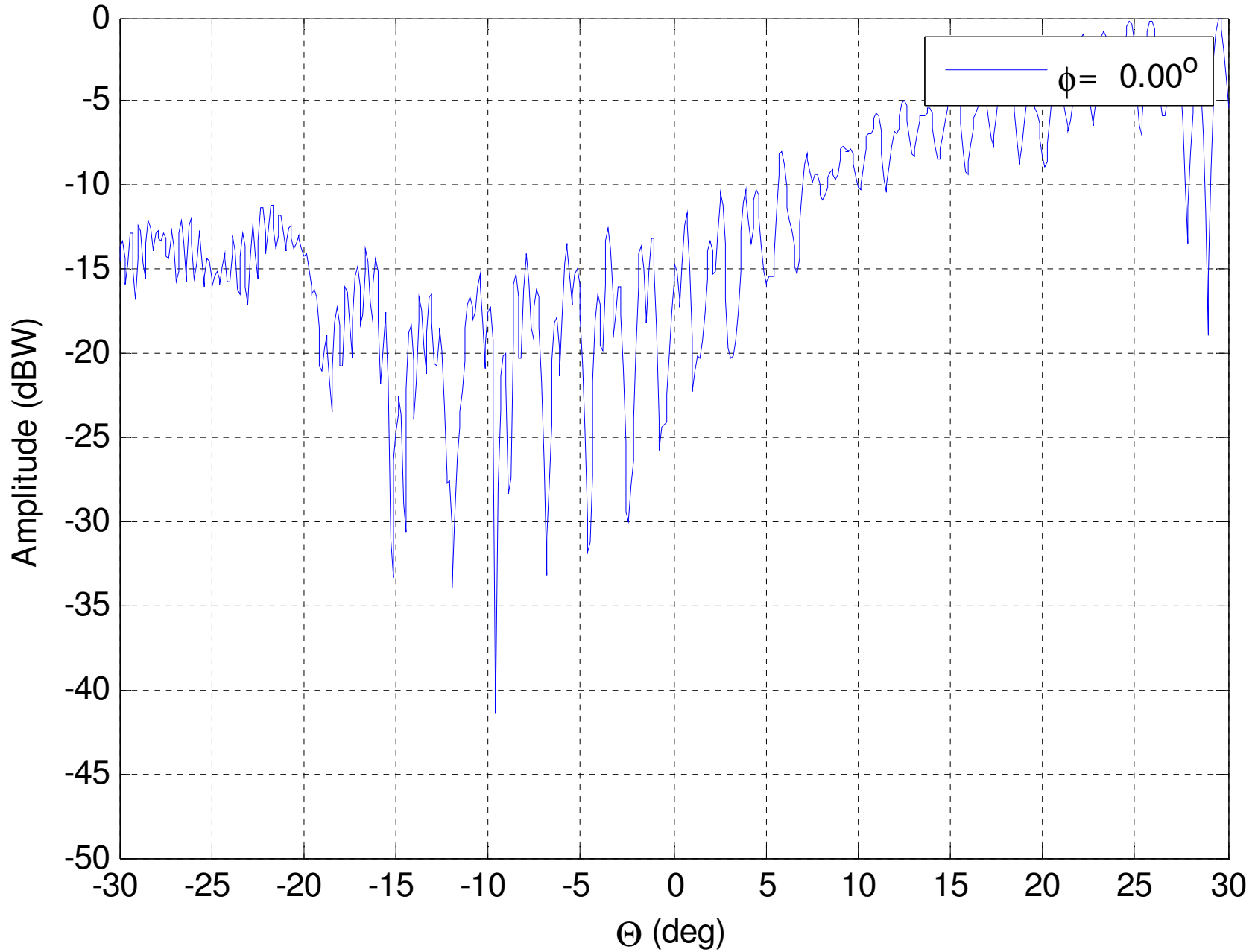
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: -5.59 dBW, Date: 15-Dec-2011



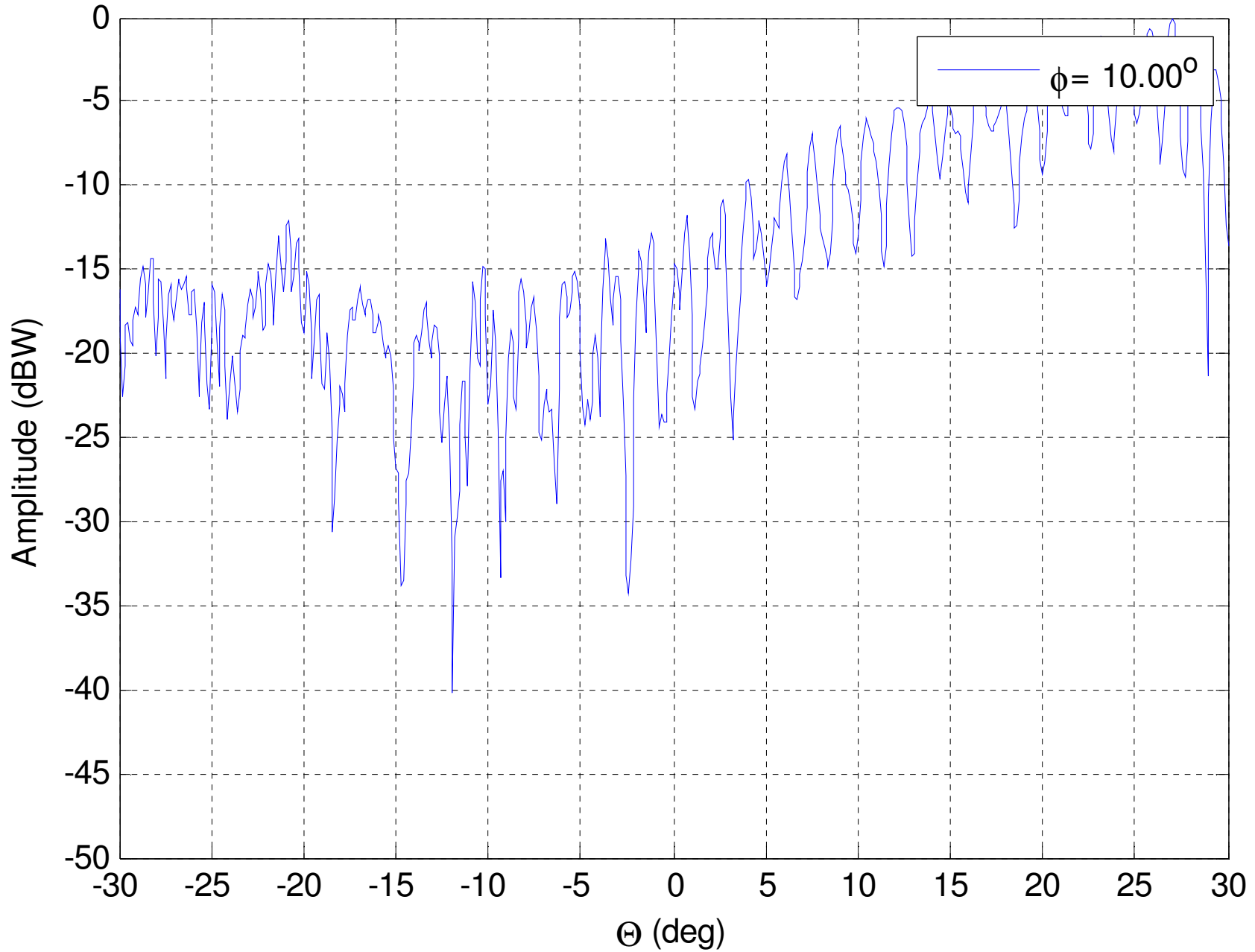
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: -5.75 dBW, Date: 15-Dec-2011



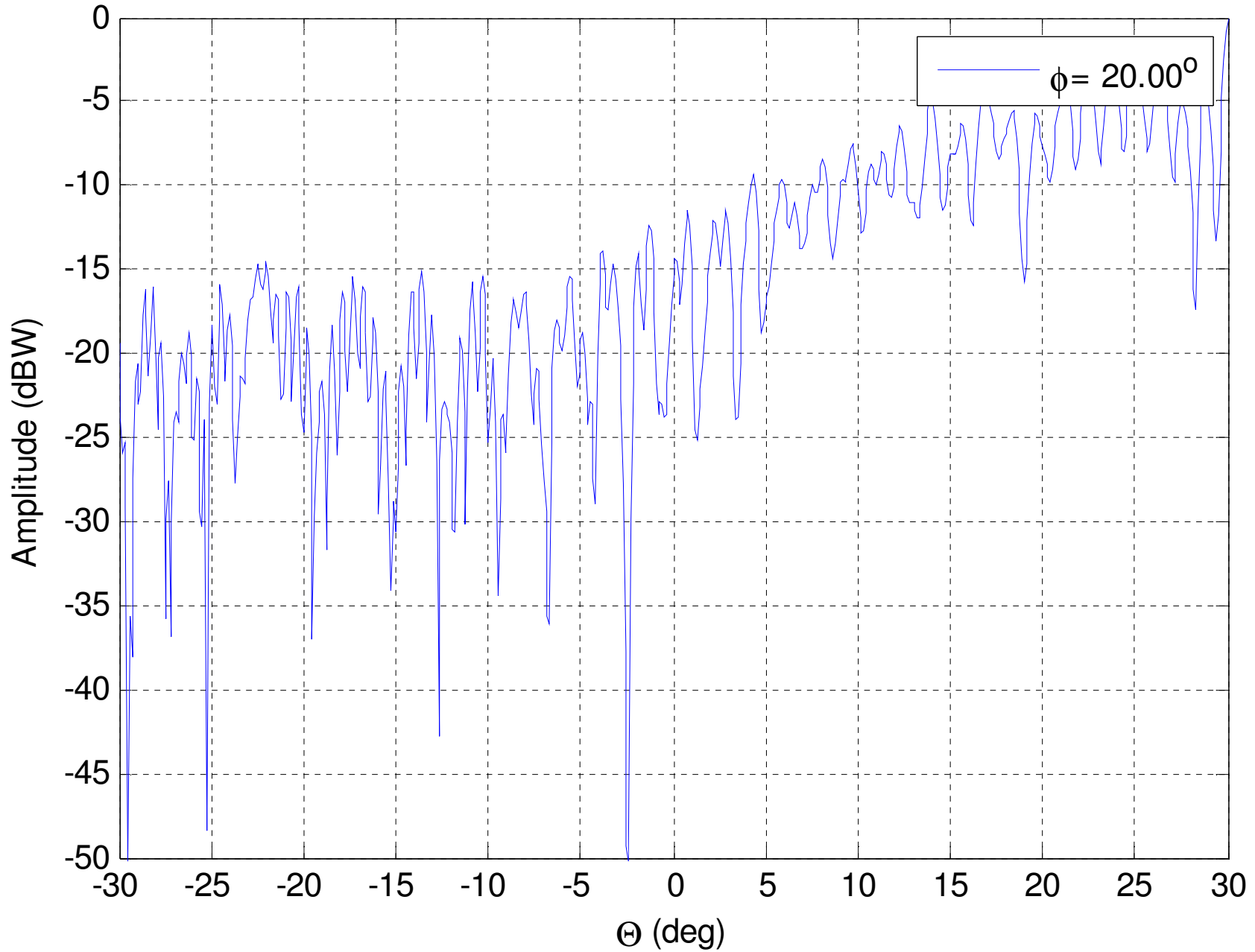
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: -5.74 dBW, Date: 15-Dec-2011



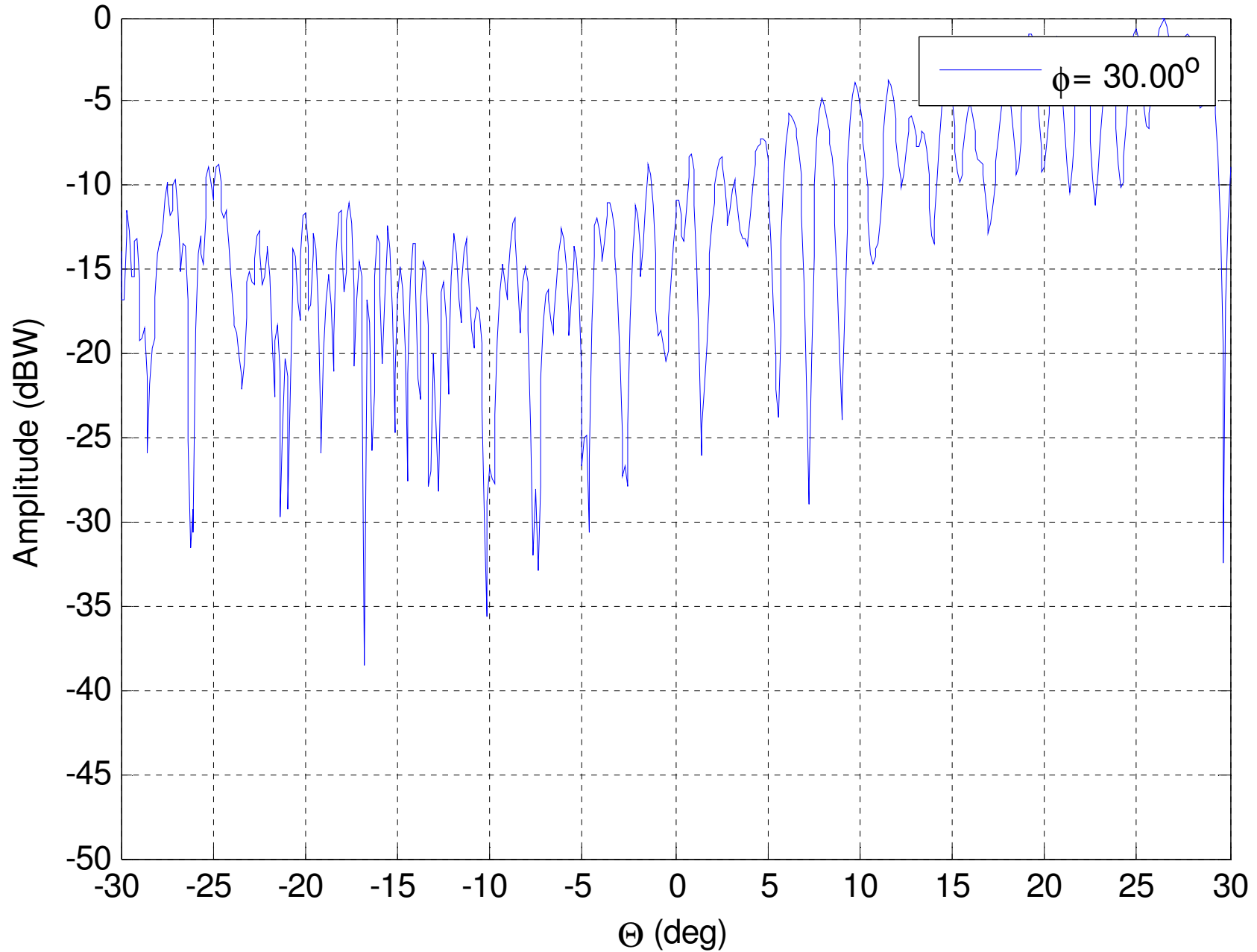
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: -6.02 dBW, Date: 15-Dec-2011



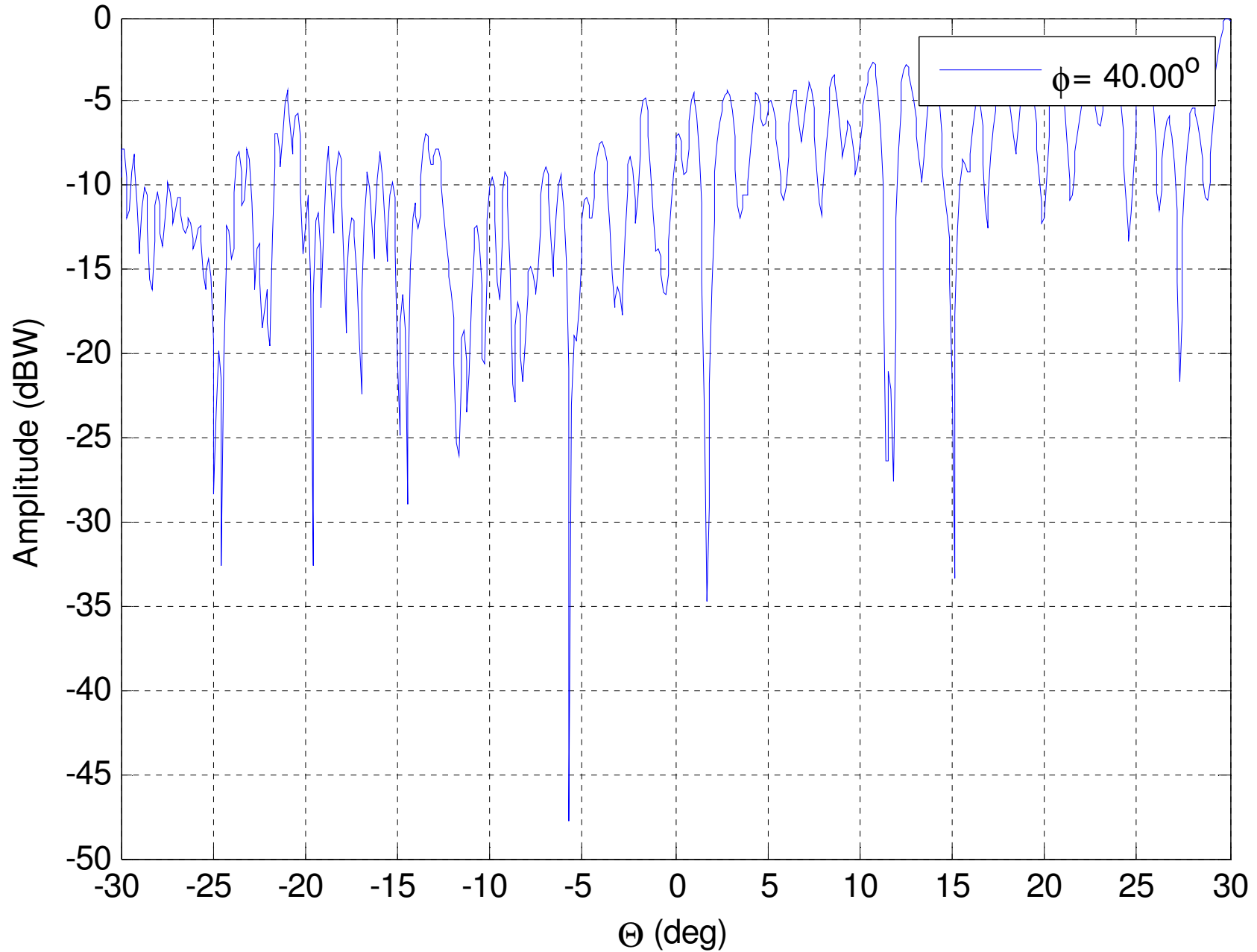
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: -9.54 dBW, Date: 15-Dec-2011



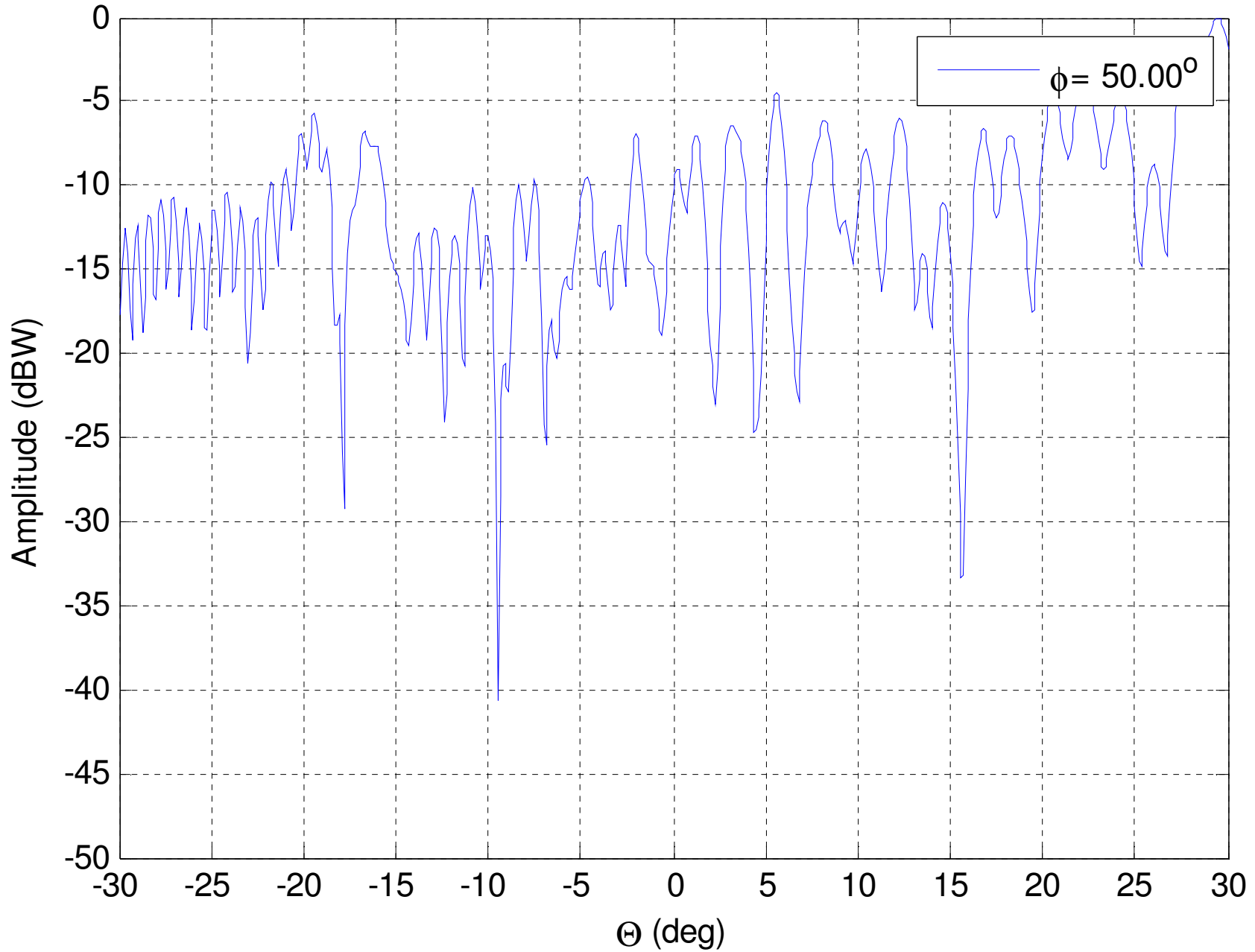
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -13.36 dBW, Date: 15-Dec-2011



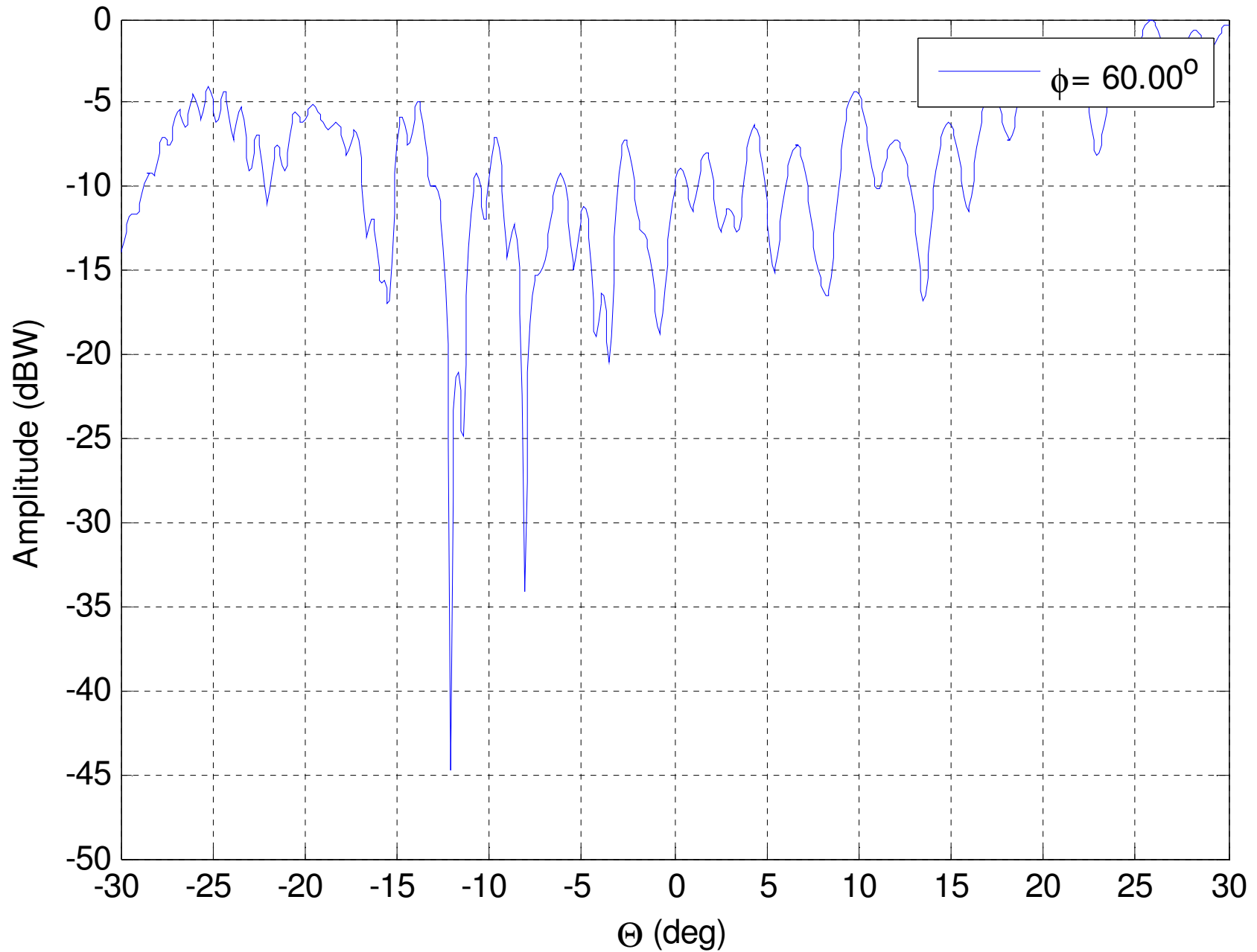
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -11.18 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

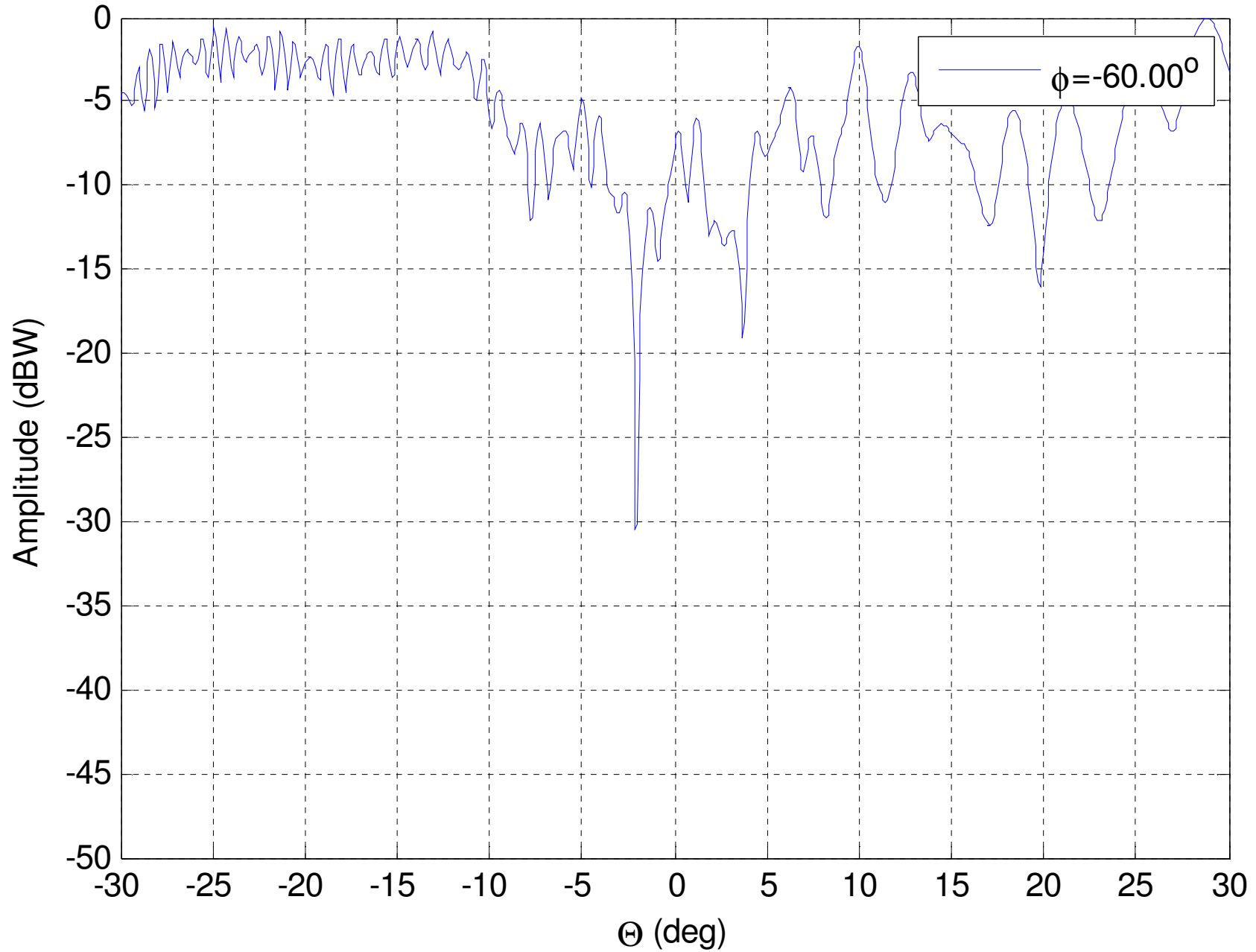
Input file: tx-17.7-rhcp-60.cut, Peak: -11.22 dBW, Date: 15-Dec-2011



LHCP at 17.7 GHz

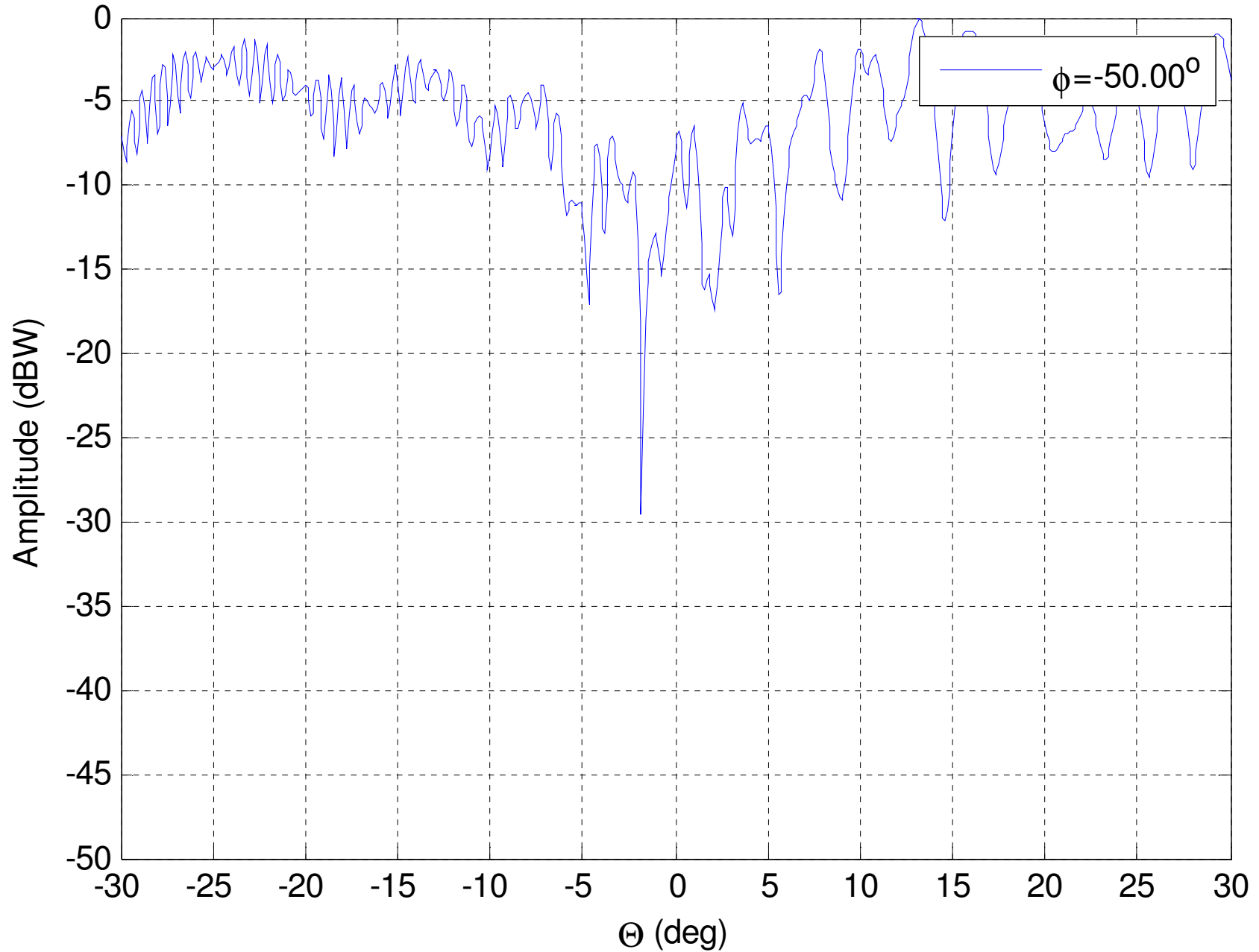
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -10.96 dBW, Date: 15-Dec-2011



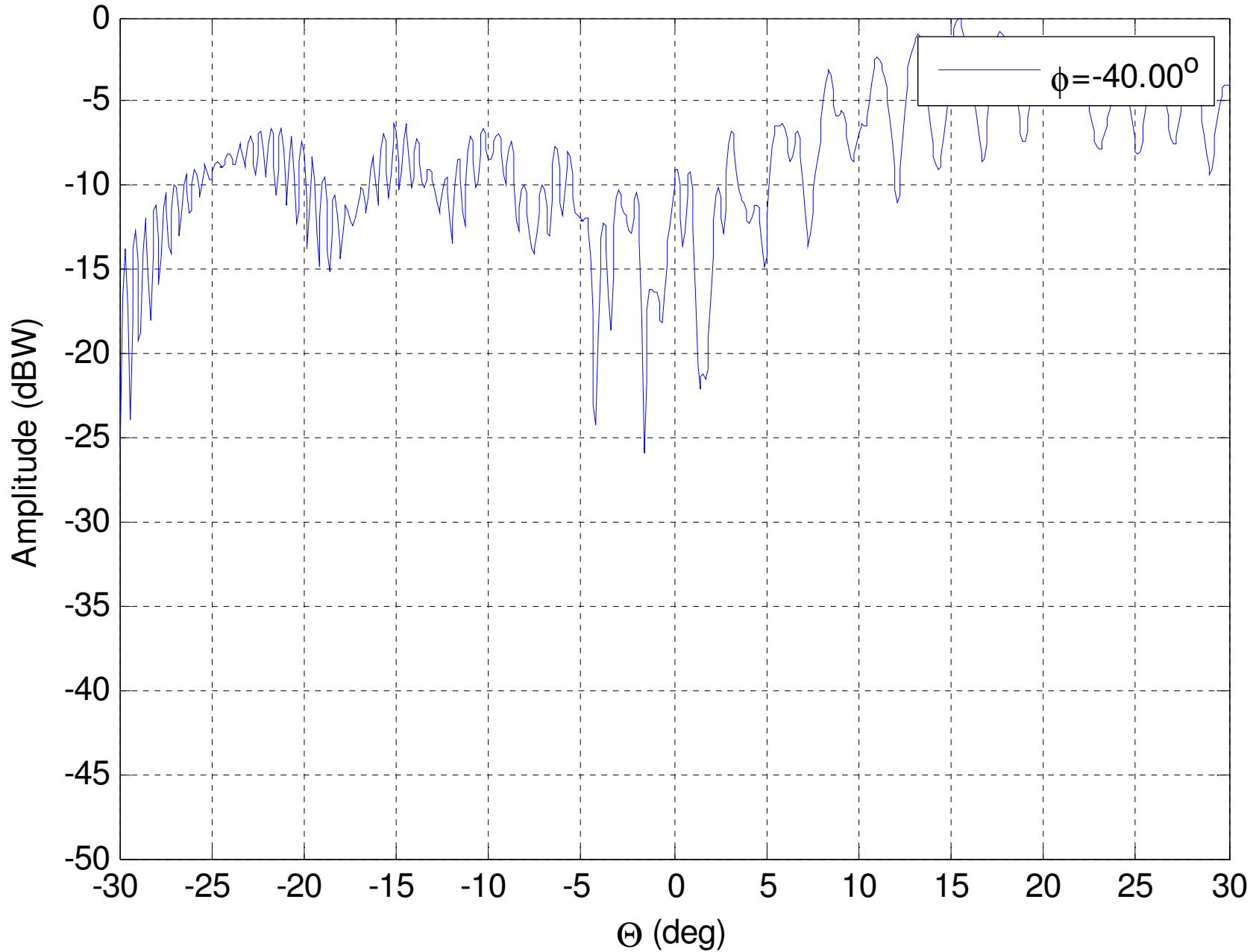
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -10.89 dBW, Date: 15-Dec-2011



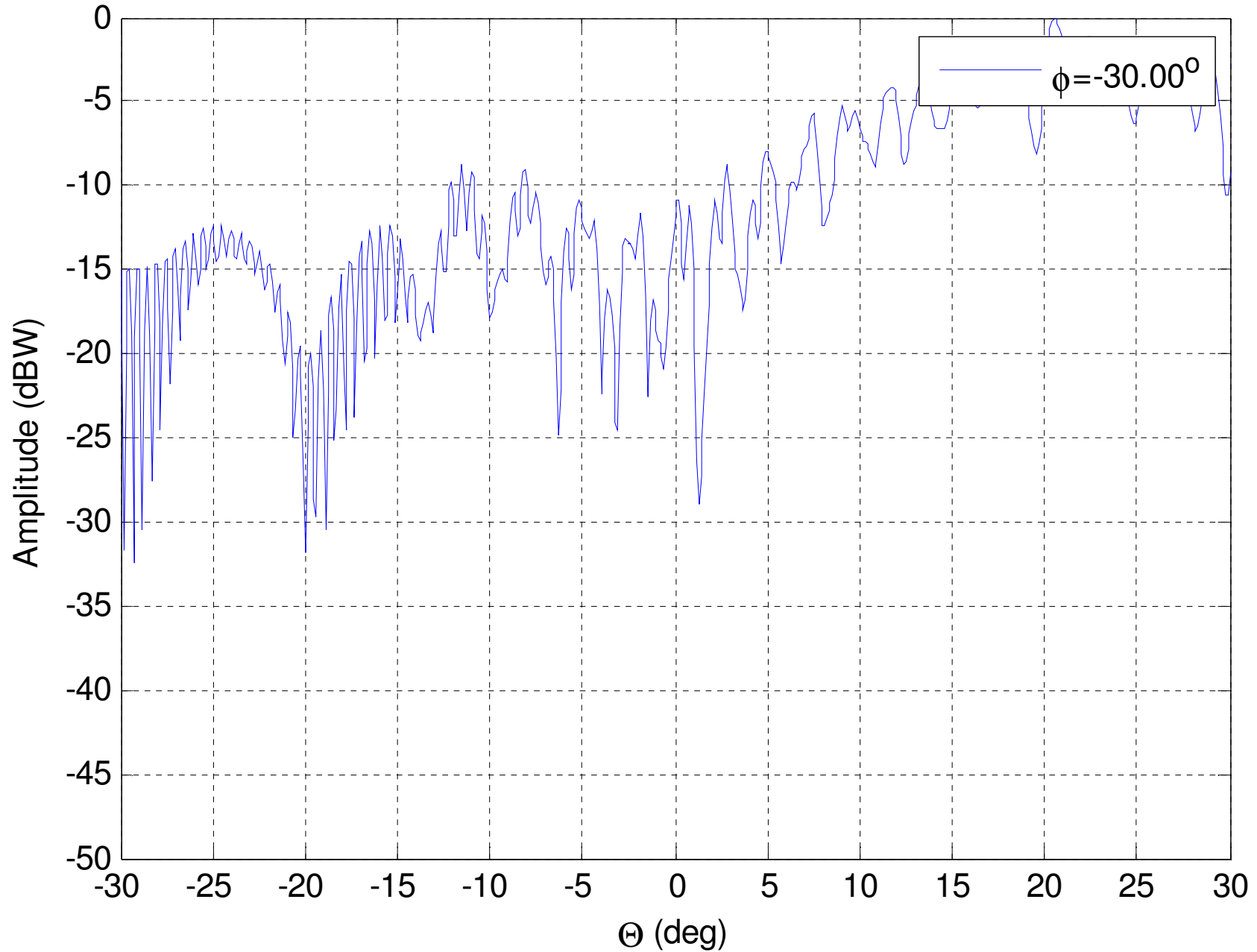
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -8.75 dBW, Date: 15-Dec-2011



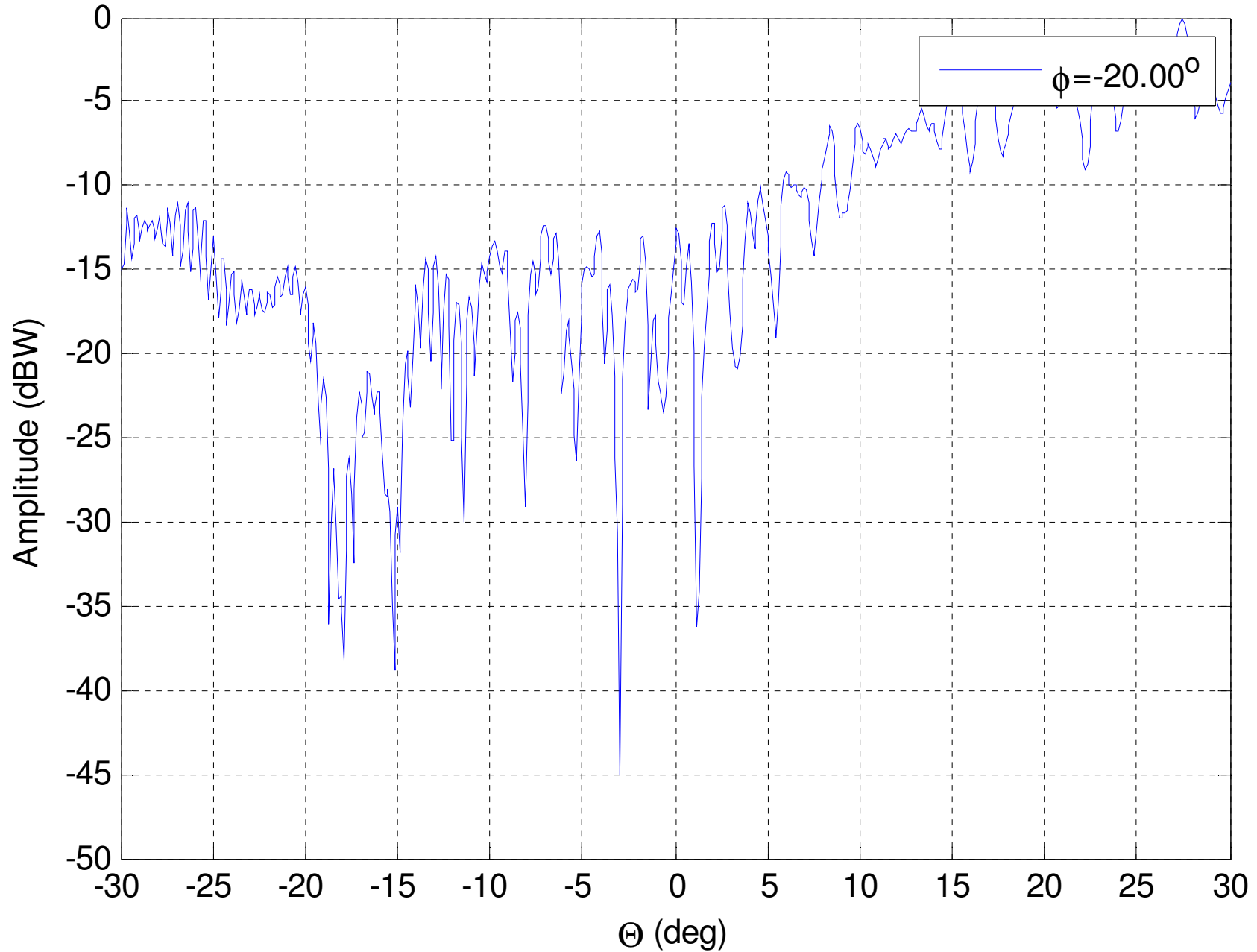
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -6.96 dBW, Date: 15-Dec-2011



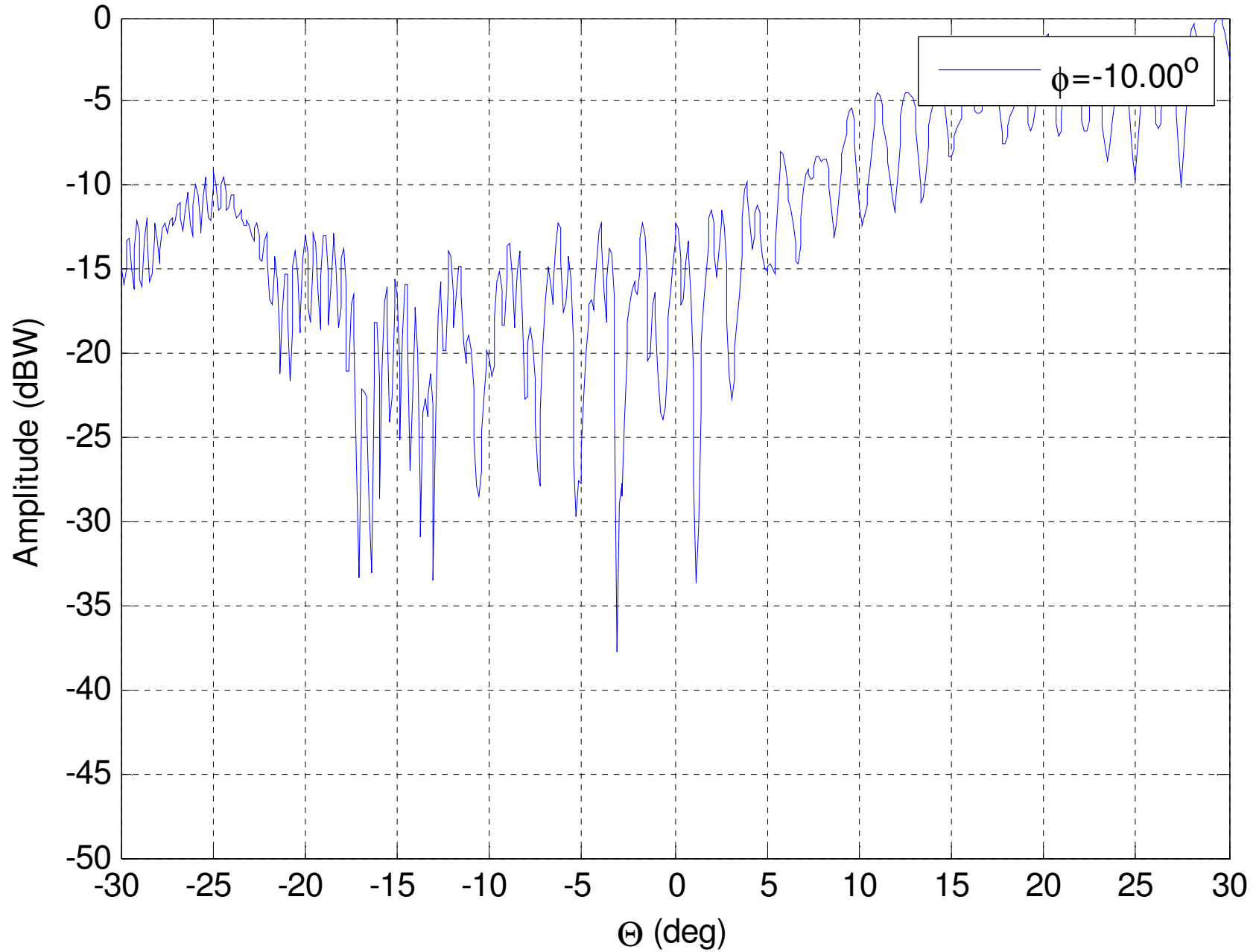
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: -5.18 dBW, Date: 15-Dec-2011



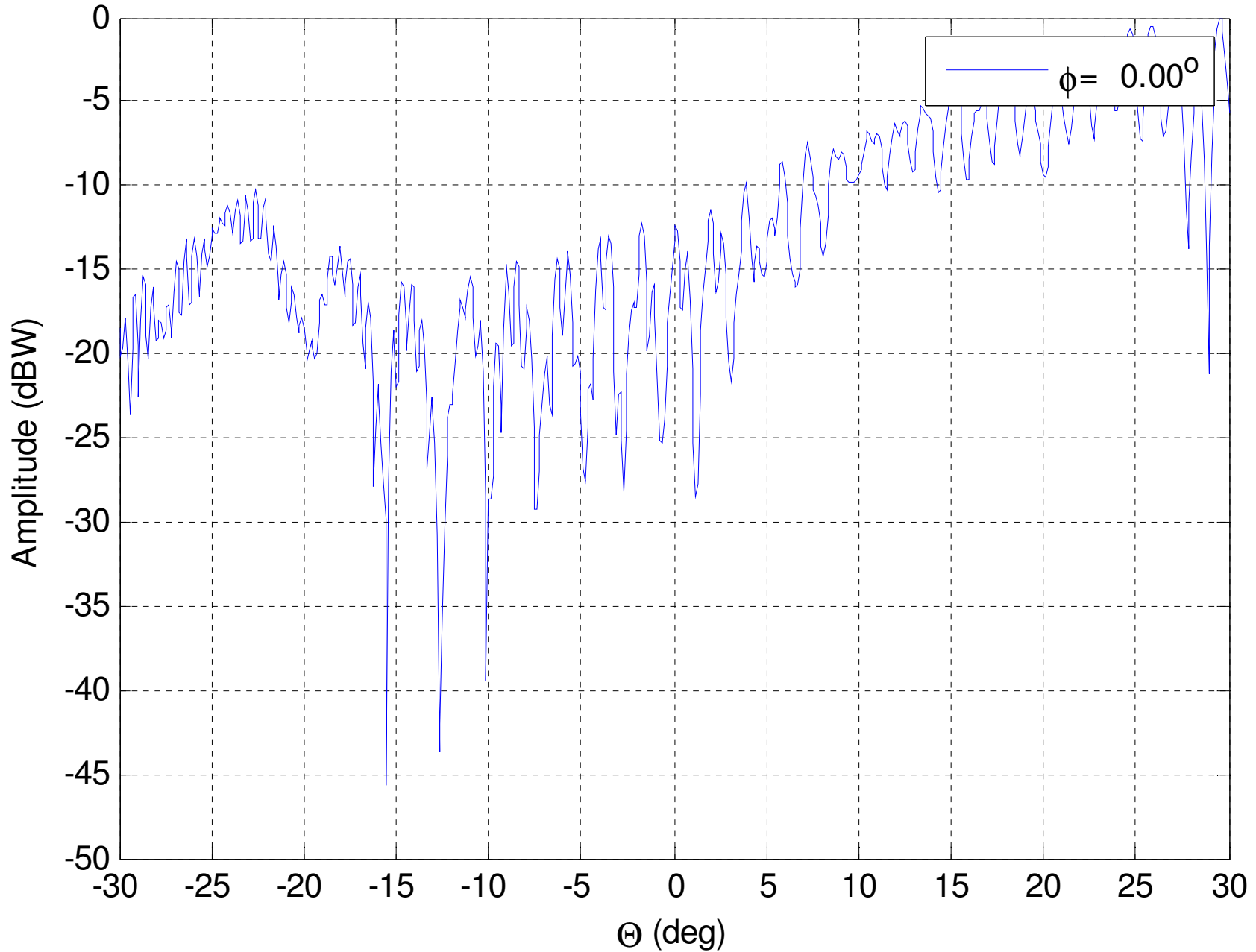
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: -5.51 dBW, Date: 15-Dec-2011



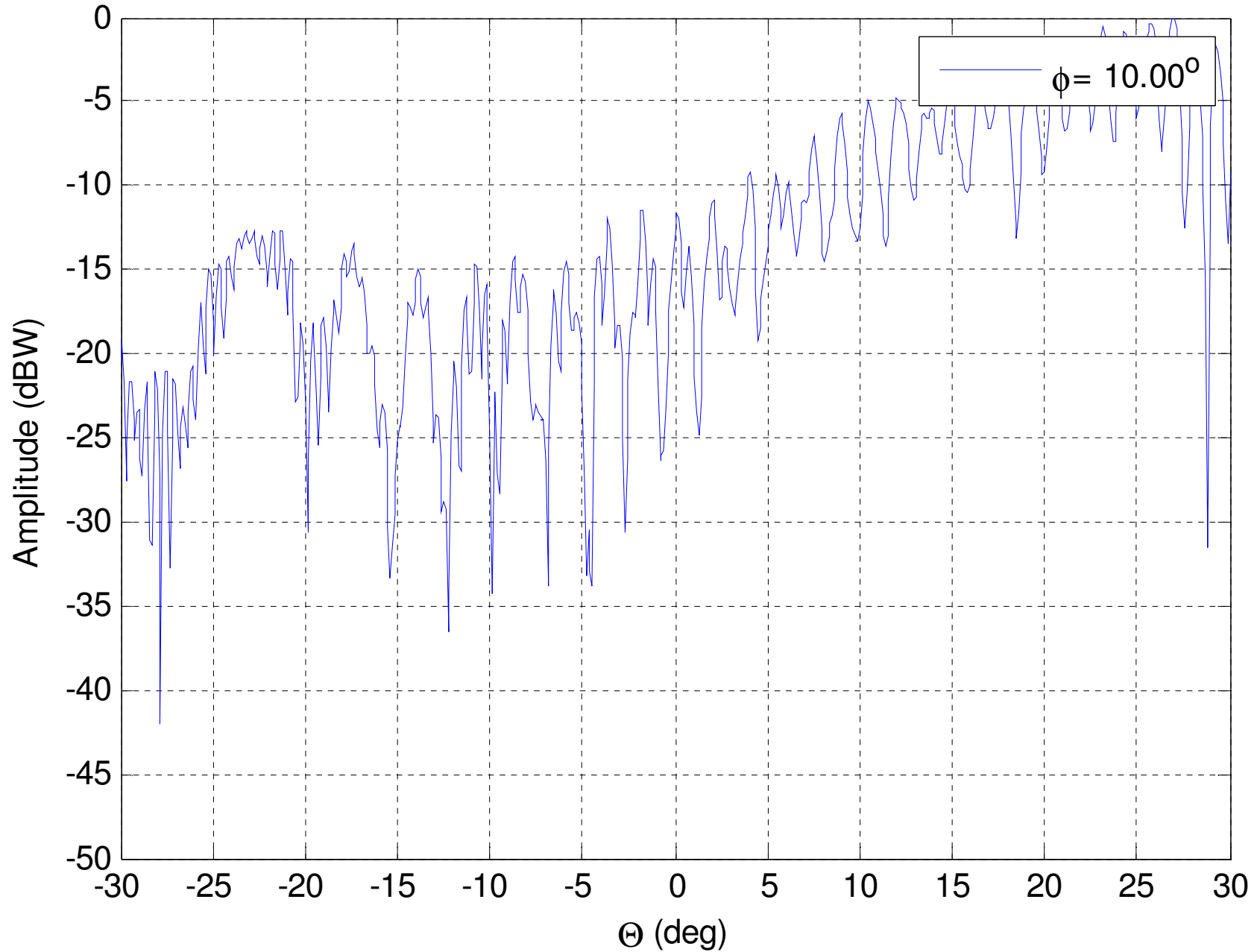
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: -5.33 dBW, Date: 15-Dec-2011



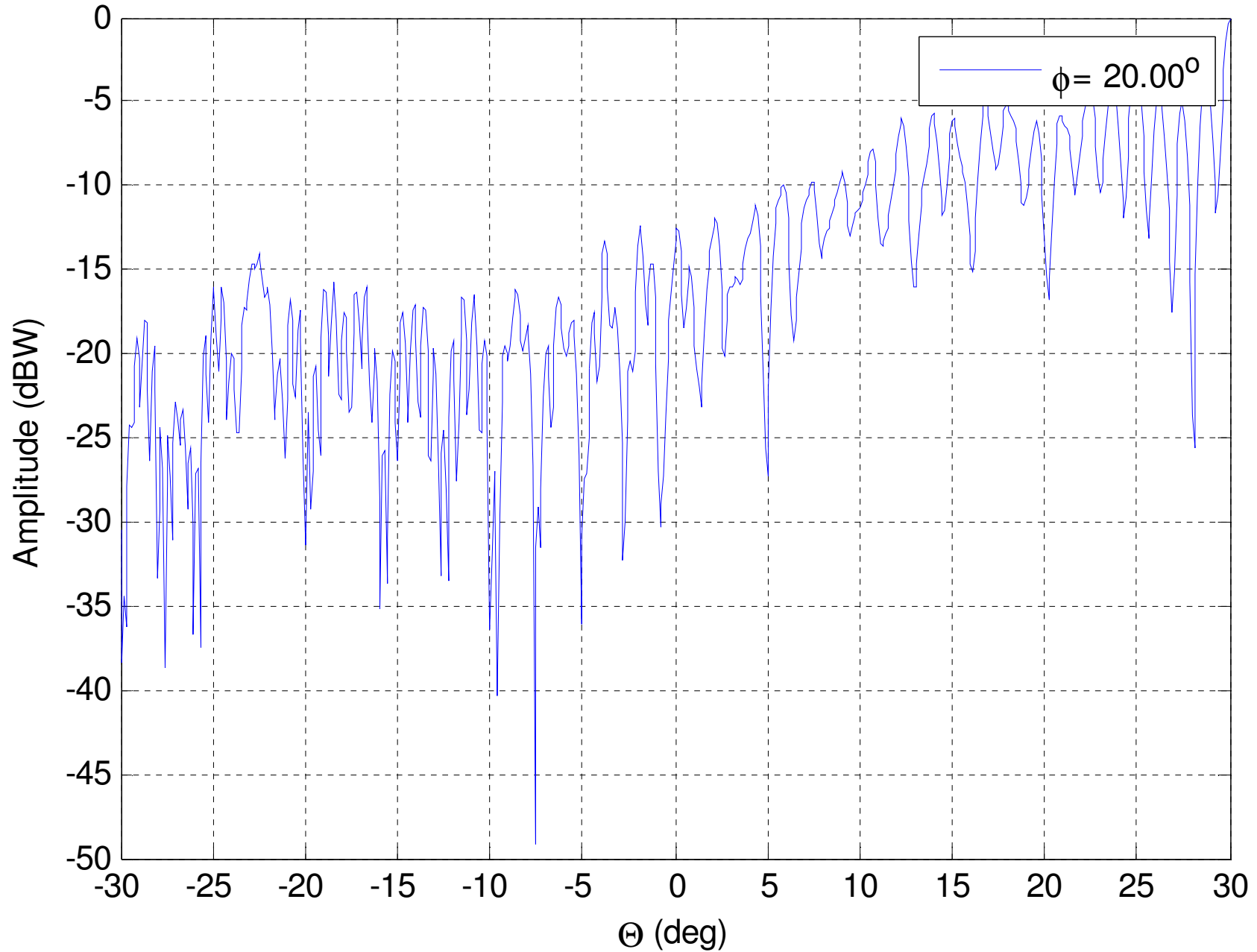
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: -6.13 dBW, Date: 15-Dec-2011



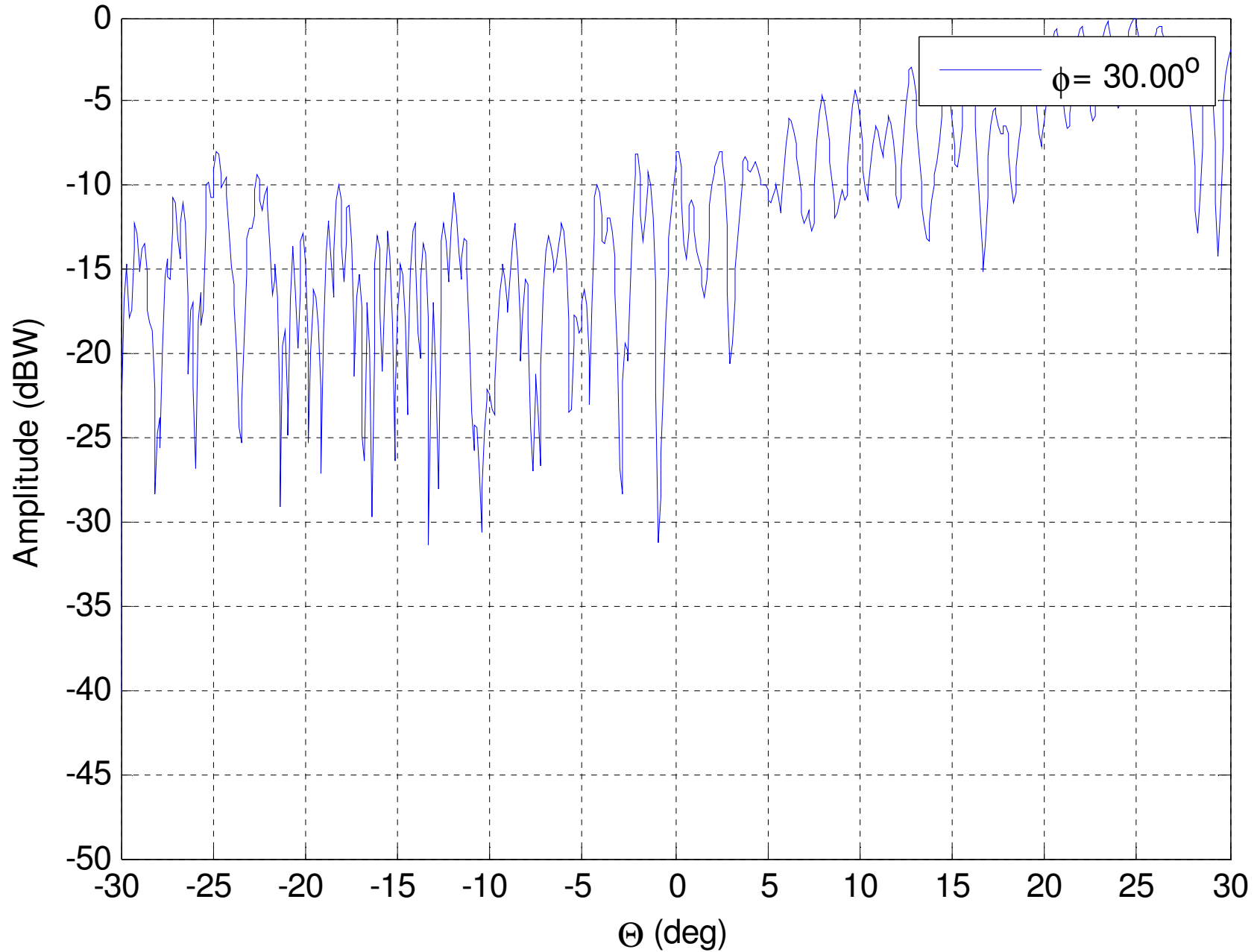
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: -5.31 dBW, Date: 15-Dec-2011



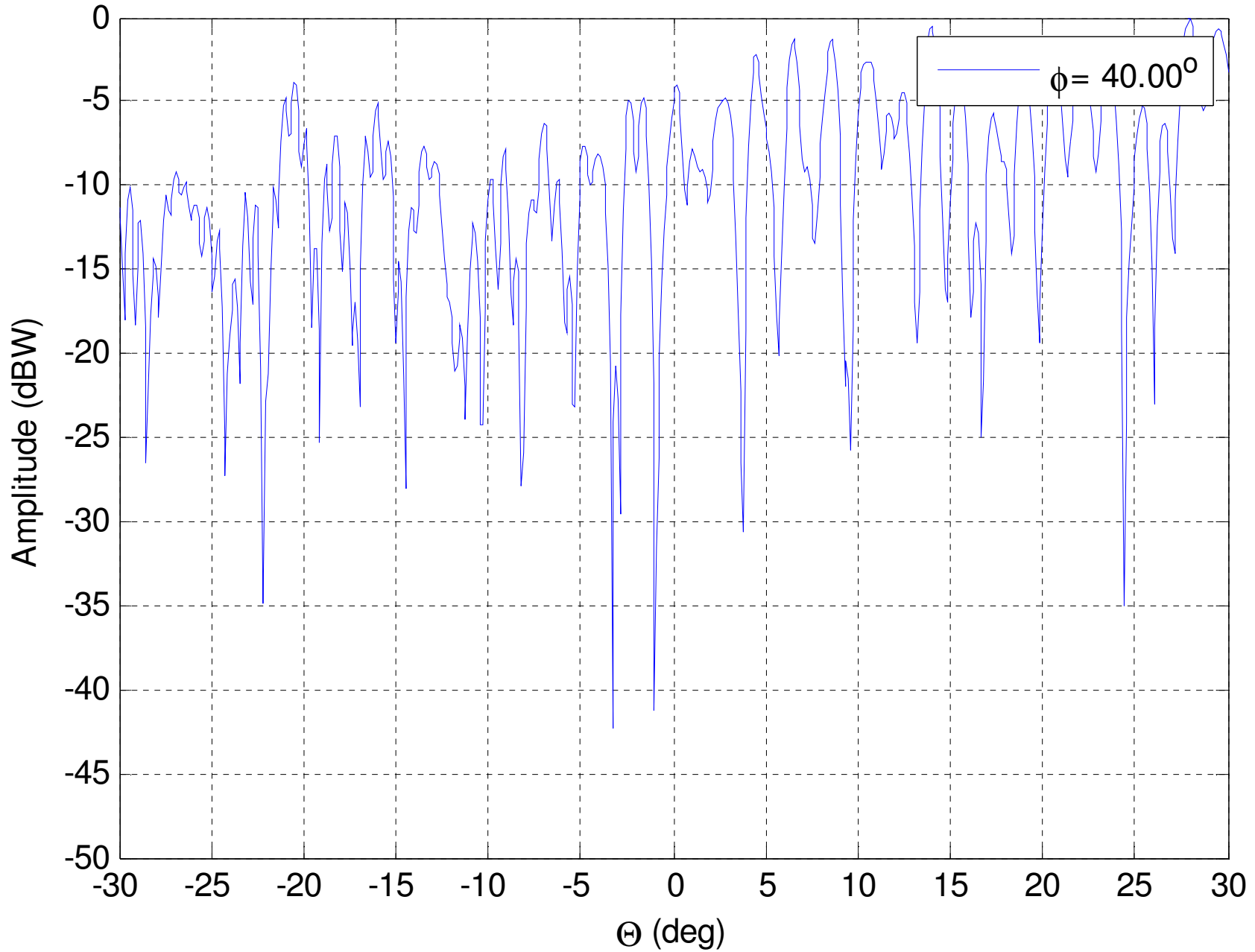
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: -9.86 dBW, Date: 15-Dec-2011



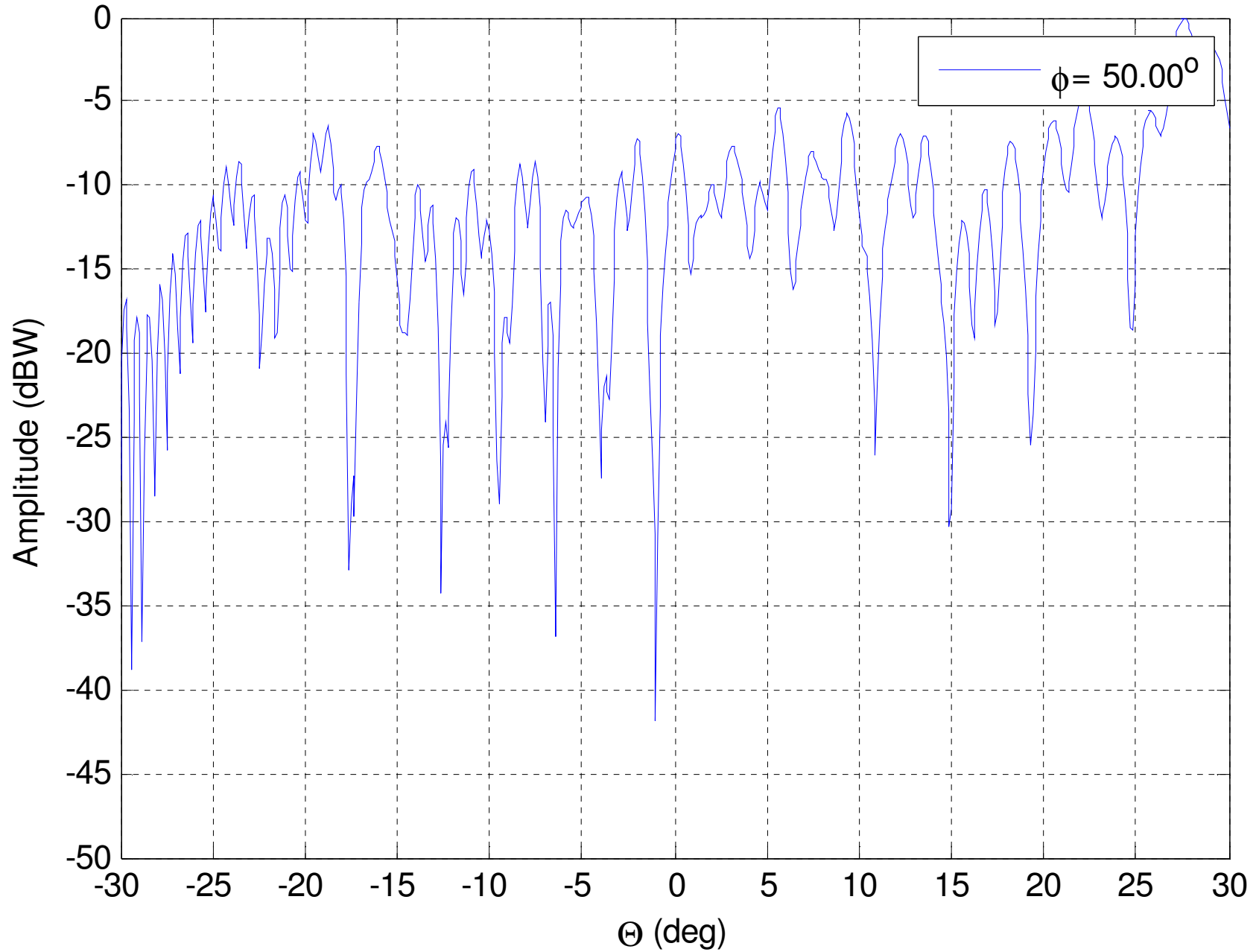
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -13.73 dBW, Date: 15-Dec-2011



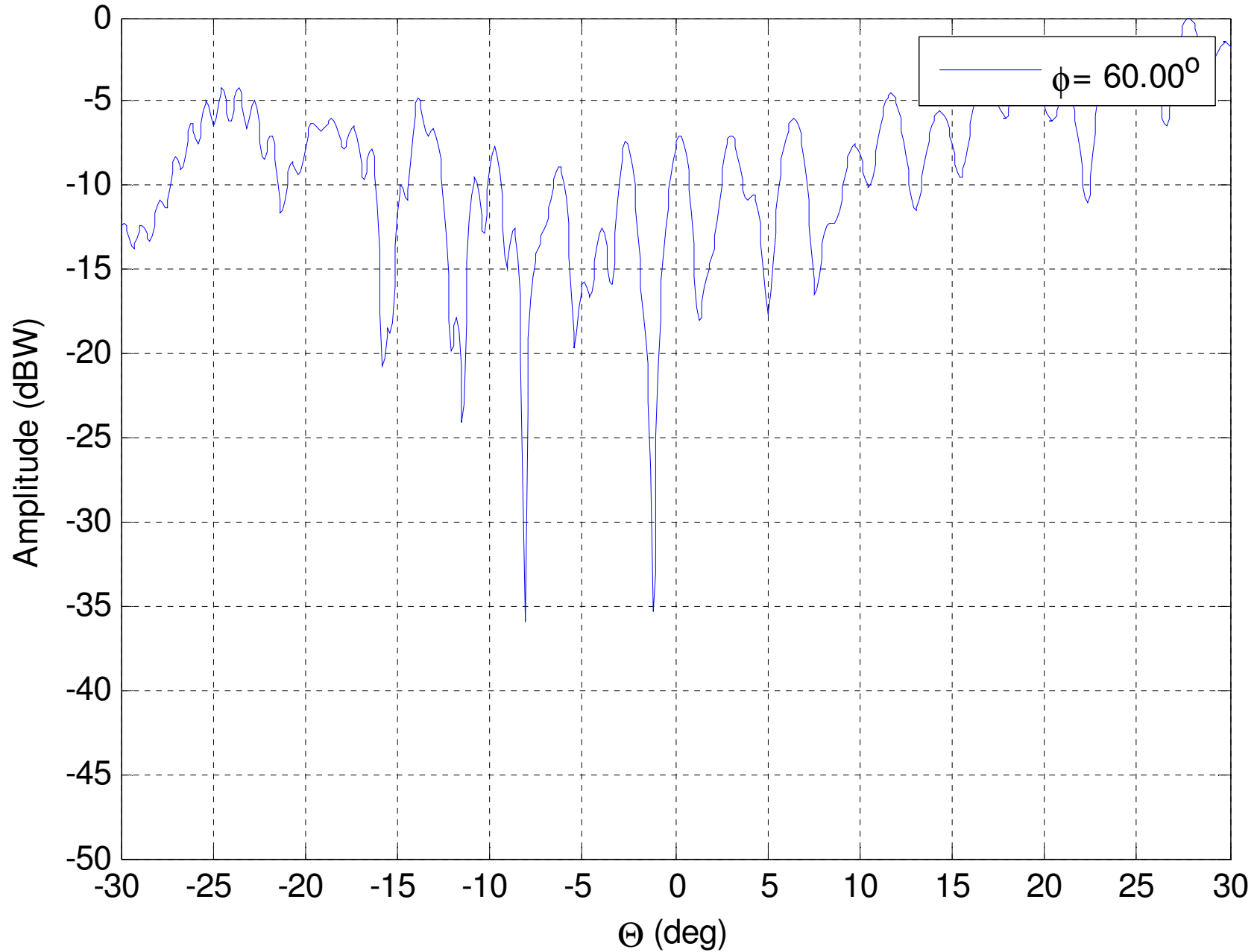
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -10.90 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -10.84 dBW, Date: 15-Dec-2011



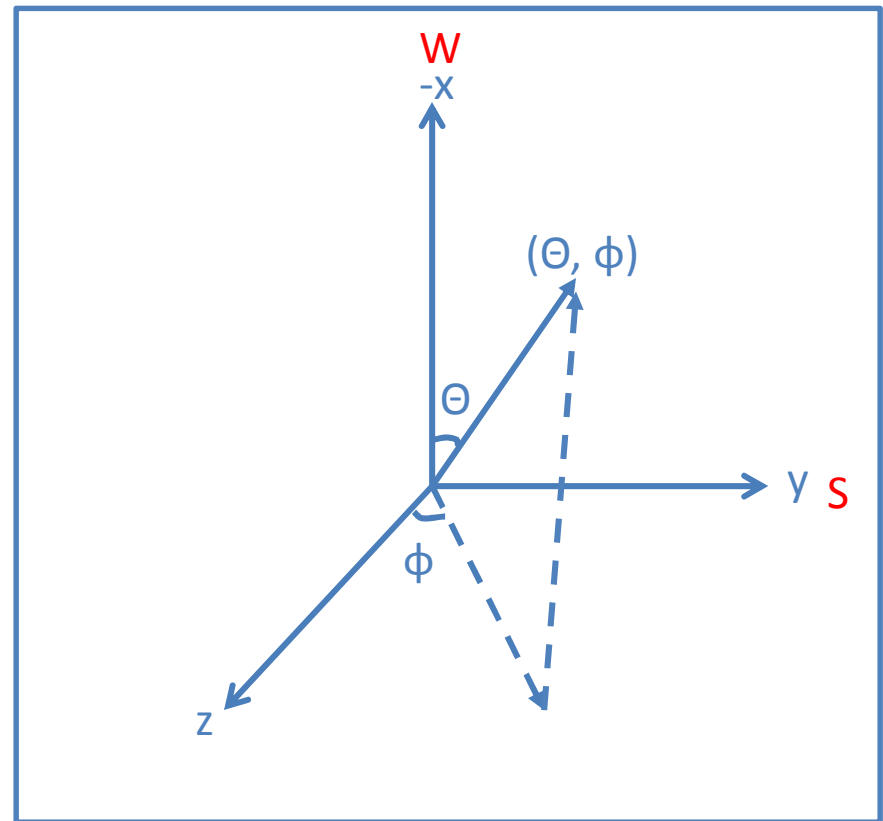
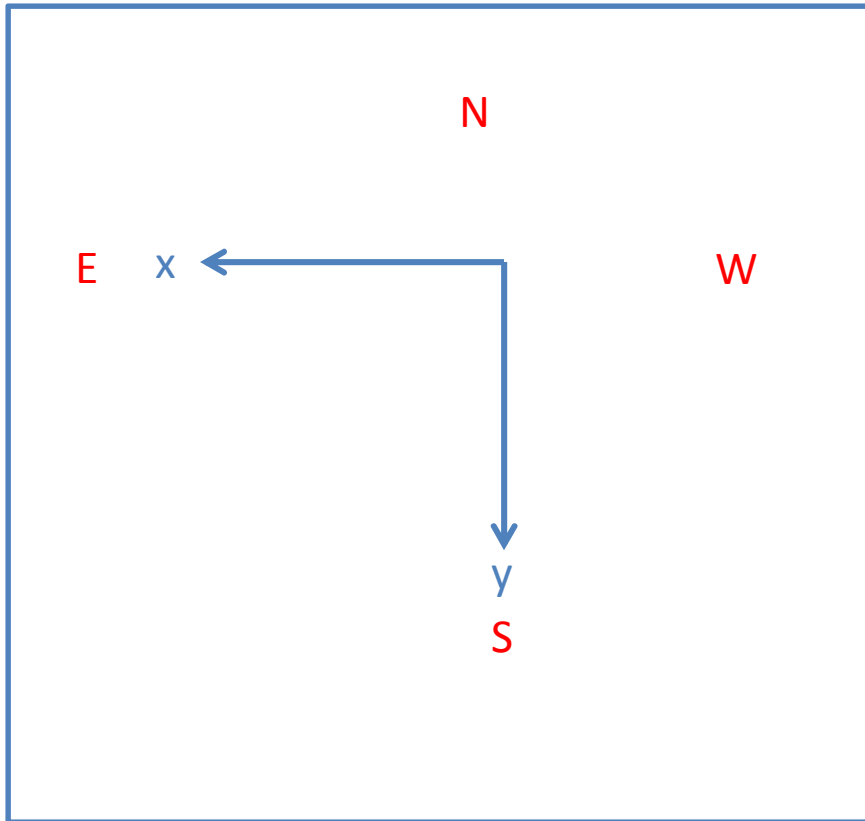
Updated: June 13, 2012

119 West Adjacent Satellite Off Axis Antenna Performance Spot Beam 34

Maximum Allowable EIRP to meet the -117dBW/m²/100 kHz

Maximum EIRP Allowed	
Spec Max flux density, dBW/m ² /100kHz	-117
Desired channel band width, MHz	25.8
Symbol rate band width modification factor	1
Effective channel bandwidth, MHz	25.8
Effective bandwidth, dB-100kHz	24.1
Flux density allowed per channel, dBW/m ²	-92.9
R, radial distance to GEO, km	42164.0
Angle of separation between satellites, deg	0.1
range between satellites, km	73.59
Spreading factor, dB/m ²	-108.3
Atmospheric loss, dB	0
Max satellite EIRP allowed, dBW	15.4

Coordinate System



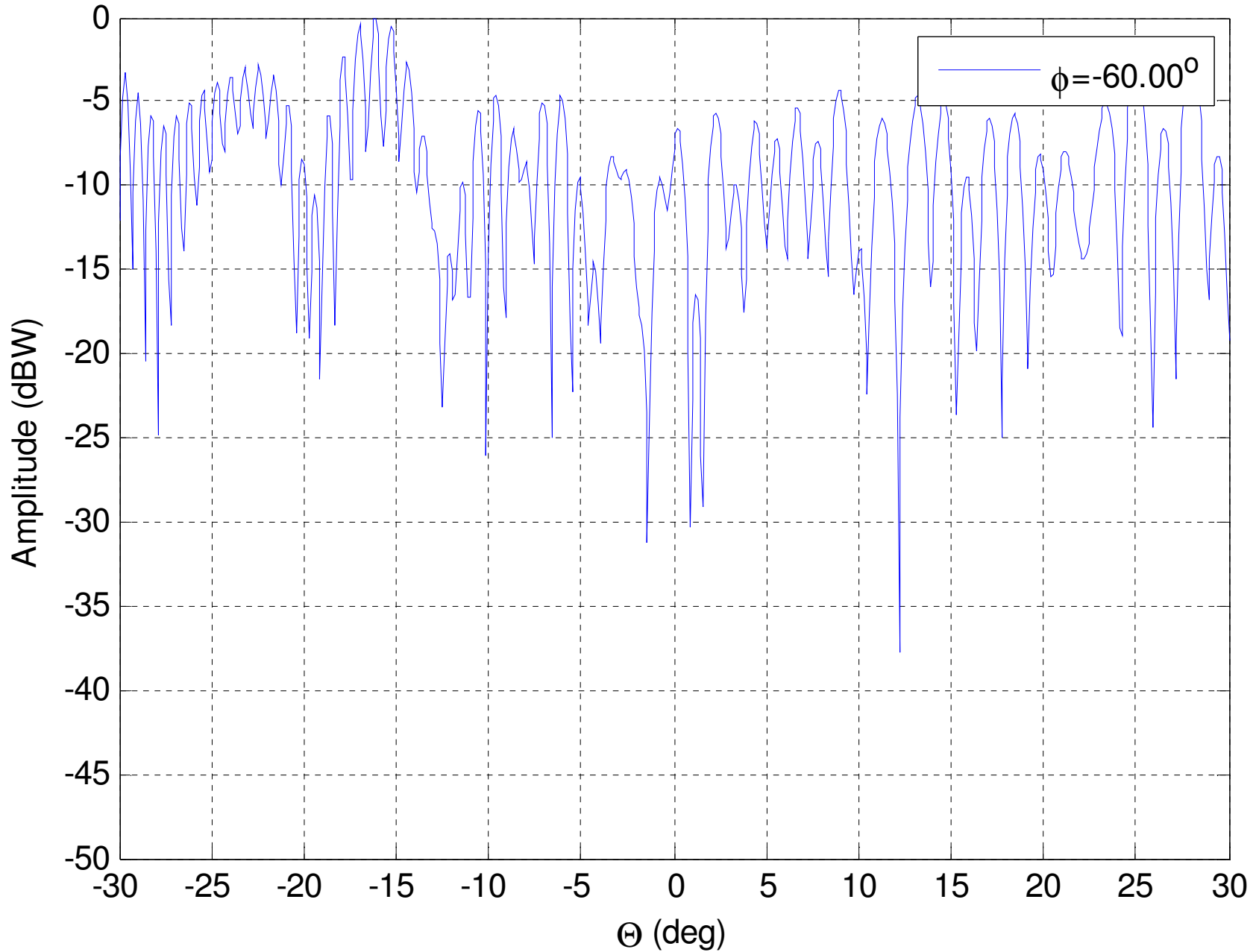
Spot Beam34, -X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: -X -axis)
- $-60 < \phi < 60$
- Freq = 17.305, 17.5, and 17.695 GHz
- The Zero reference line is the maximum EIRP listed in the title of each plot sheet. All levels are below the required 15.4 dBW maximum
- The Zero reference for the maximum antenna gain is the maximum EIRP listed minus the power input to the antenna specified in Table I of the attached narrative.

RHCP at 17.3 GHz

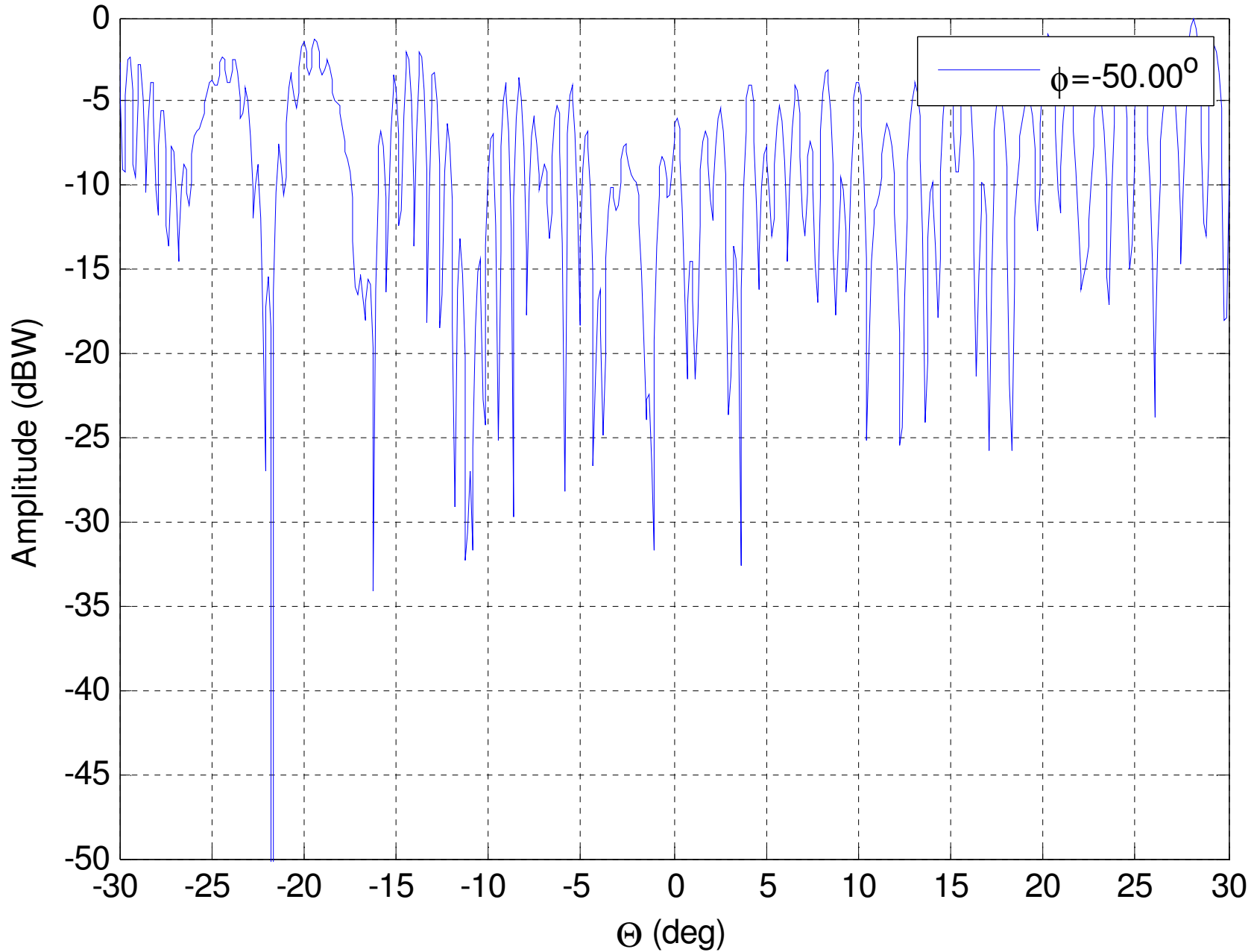
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -6.55 dBW, Date: 15-Dec-2011



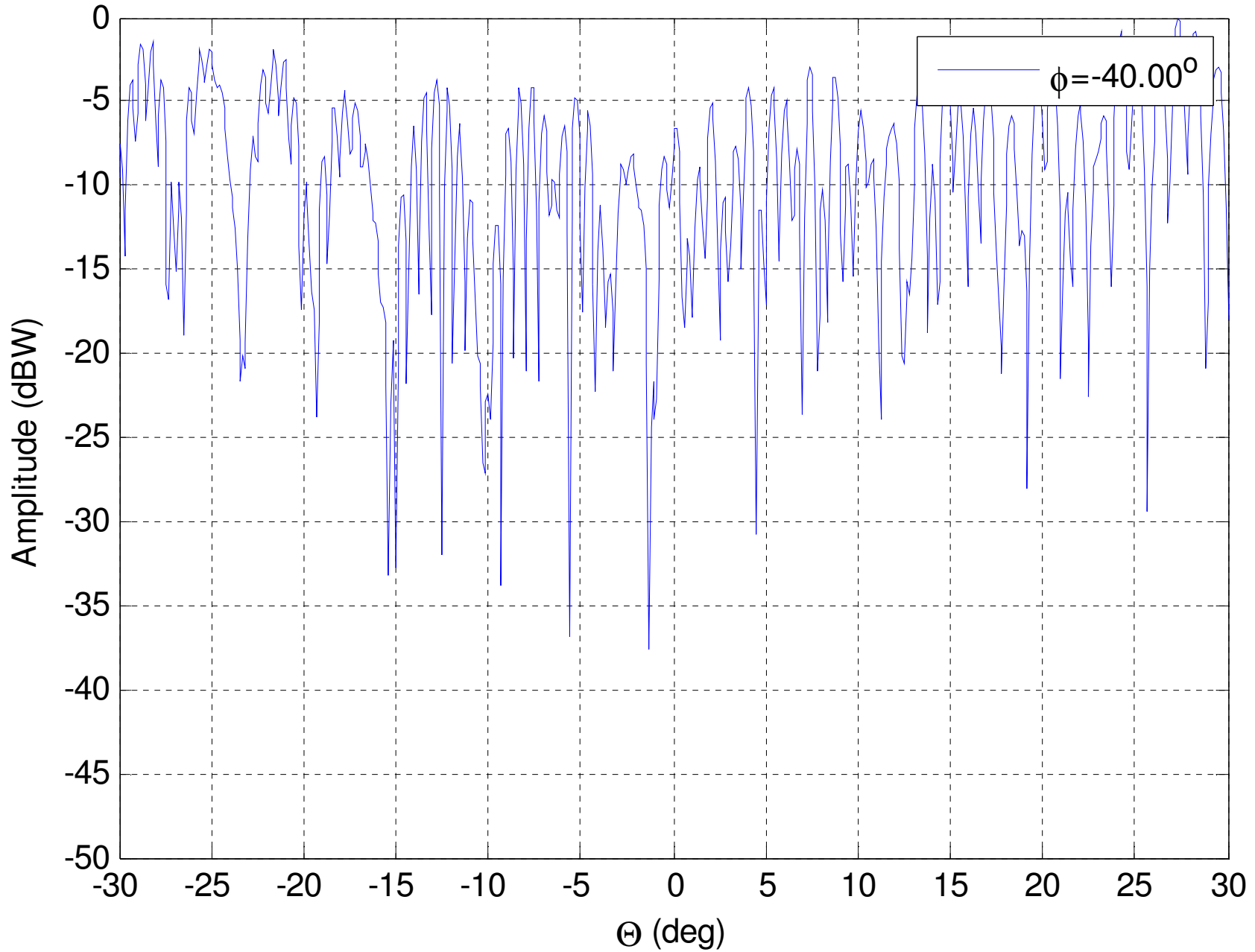
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -7.04 dBW, Date: 15-Dec-2011



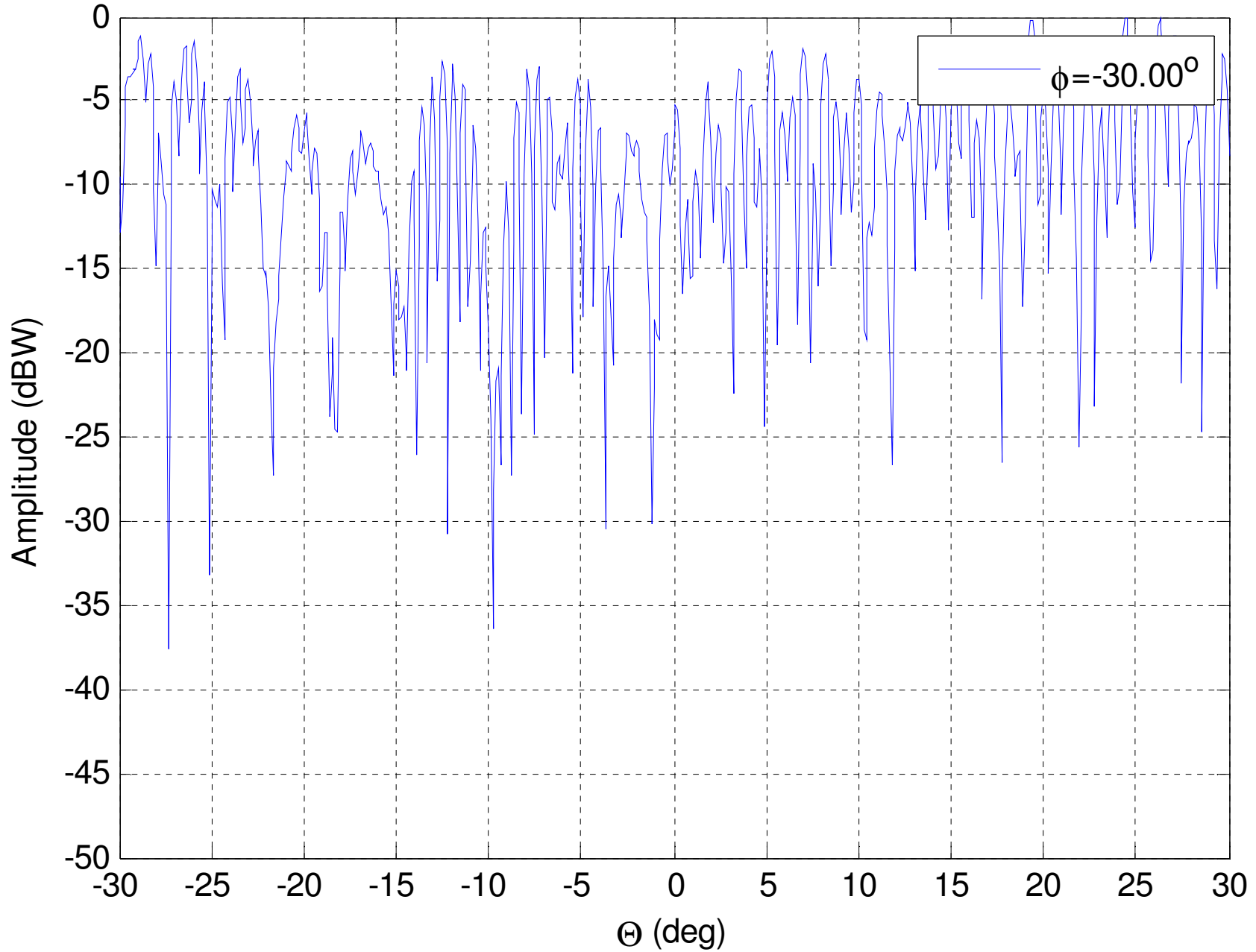
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -6.59 dBW, Date: 15-Dec-2011



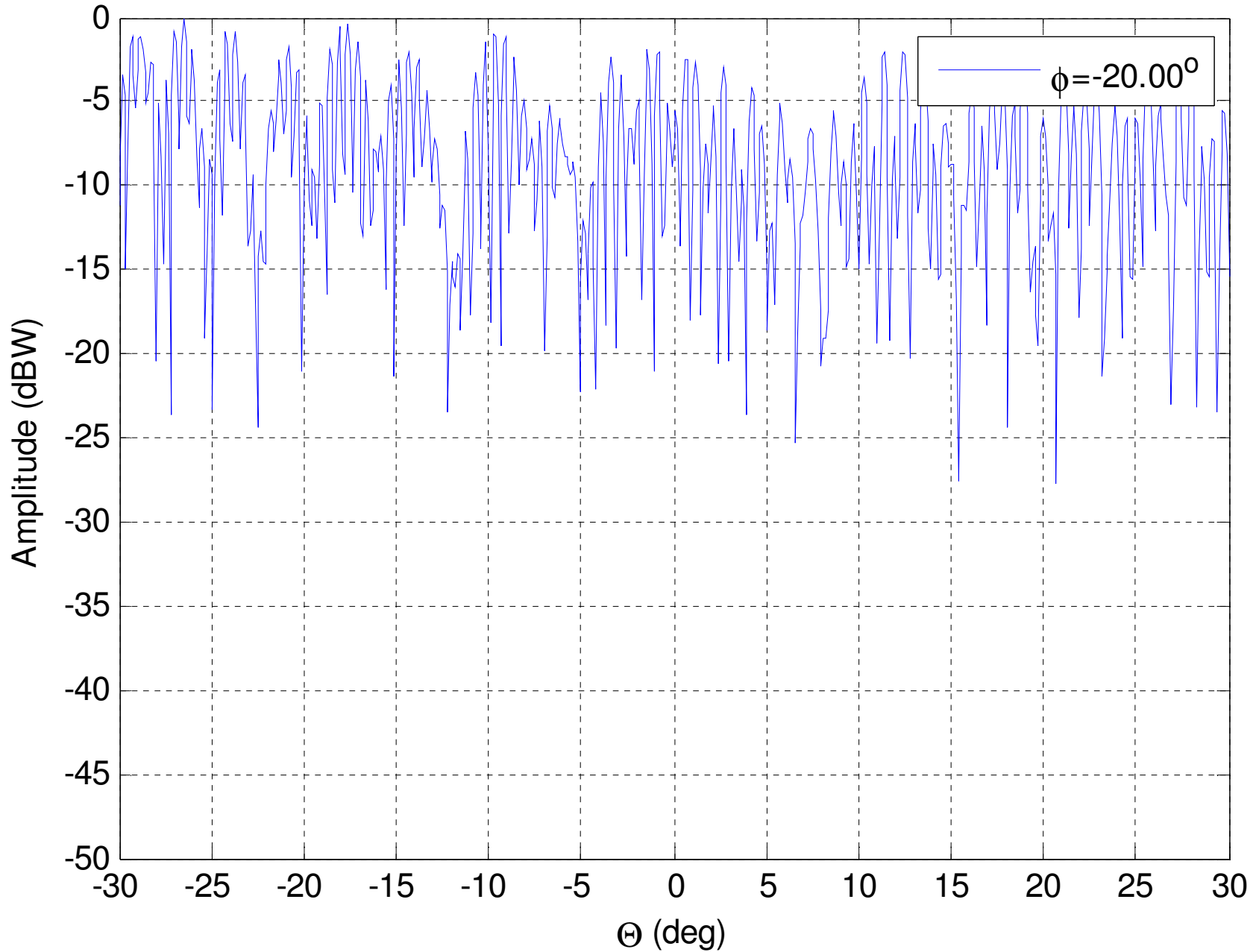
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -7.75 dBW, Date: 15-Dec-2011



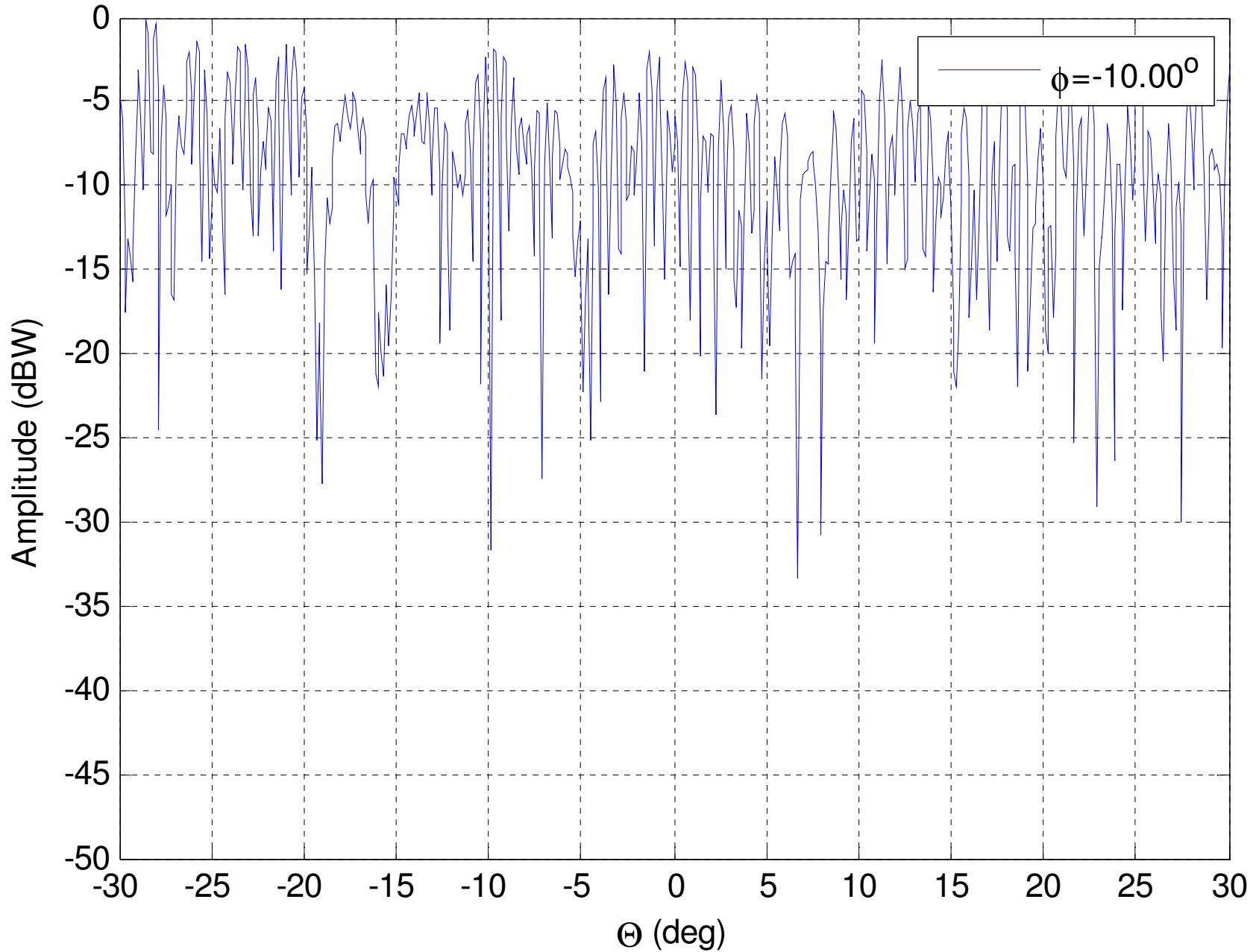
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: -9.01 dBW, Date: 15-Dec-2011



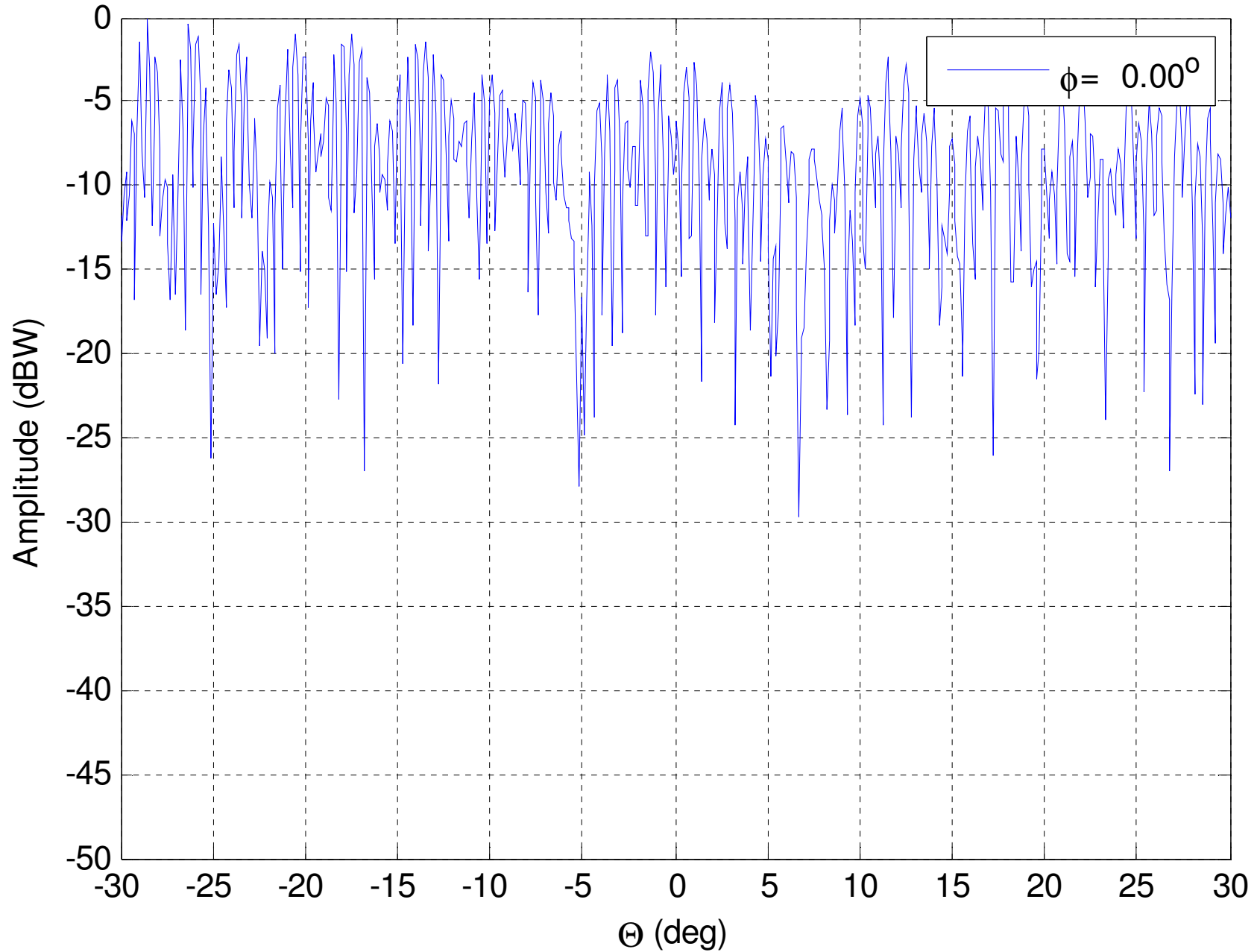
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: -8.65 dBW, Date: 15-Dec-2011



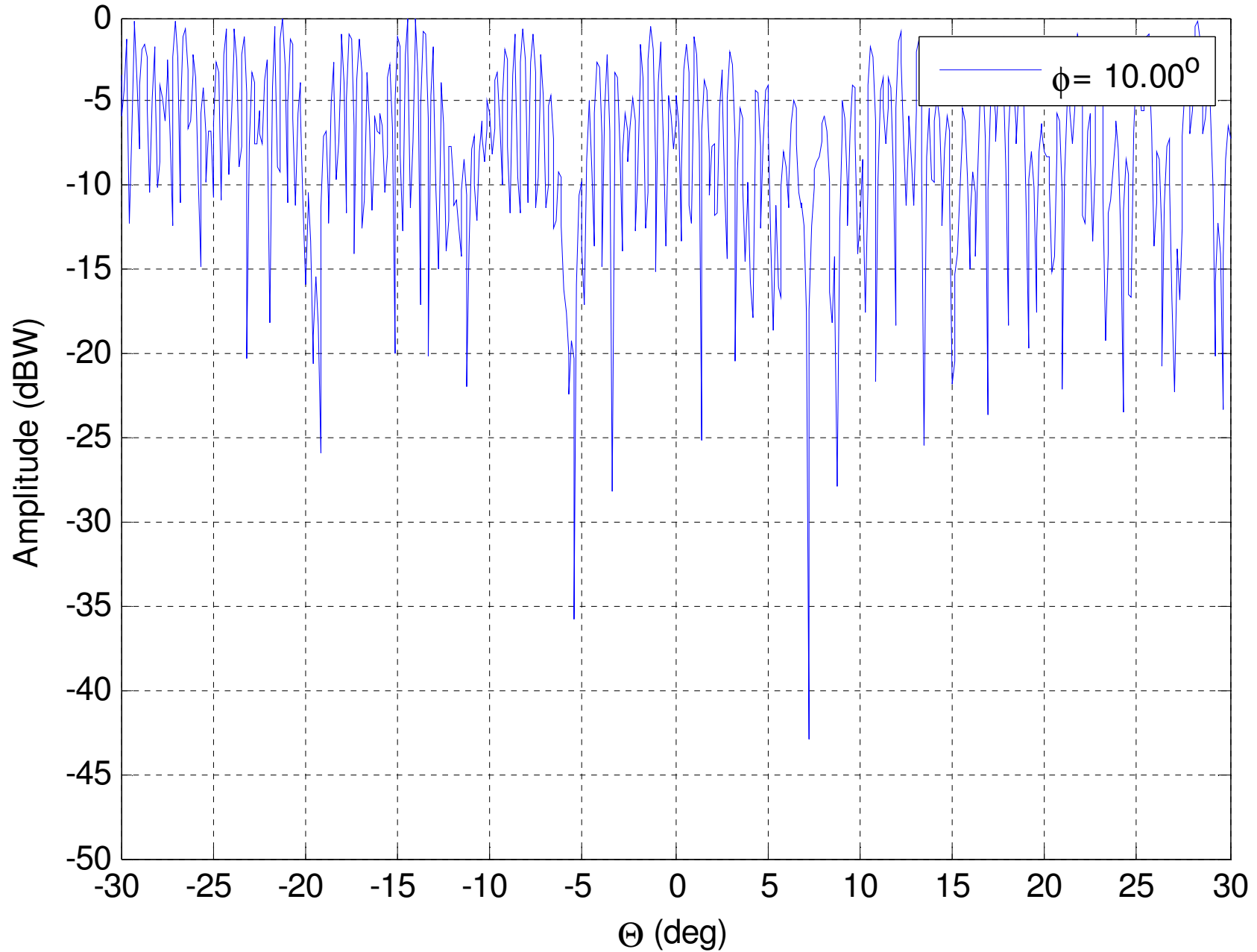
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: -8.48 dBW, Date: 15-Dec-2011



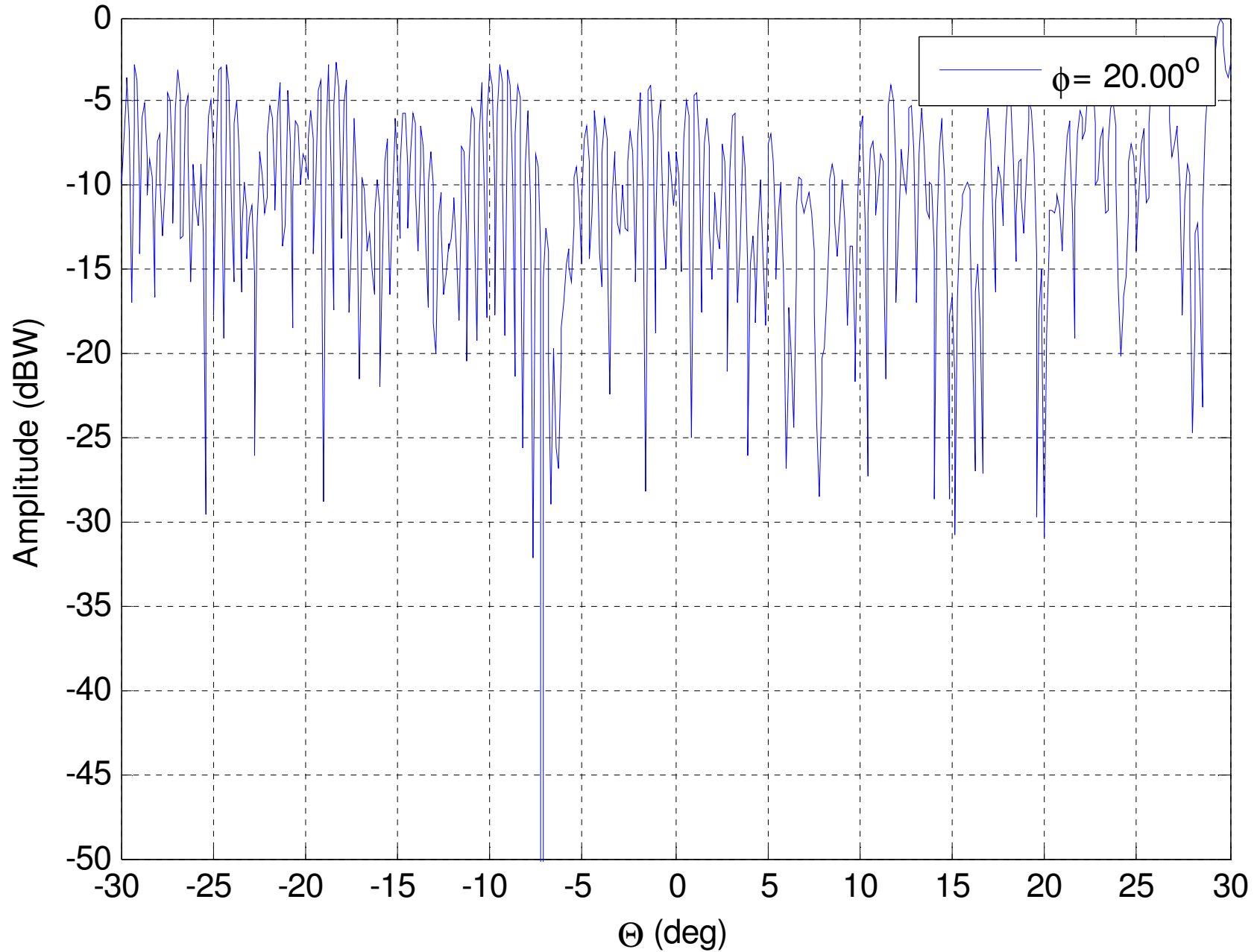
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: -9.98 dBW, Date: 15-Dec-2011



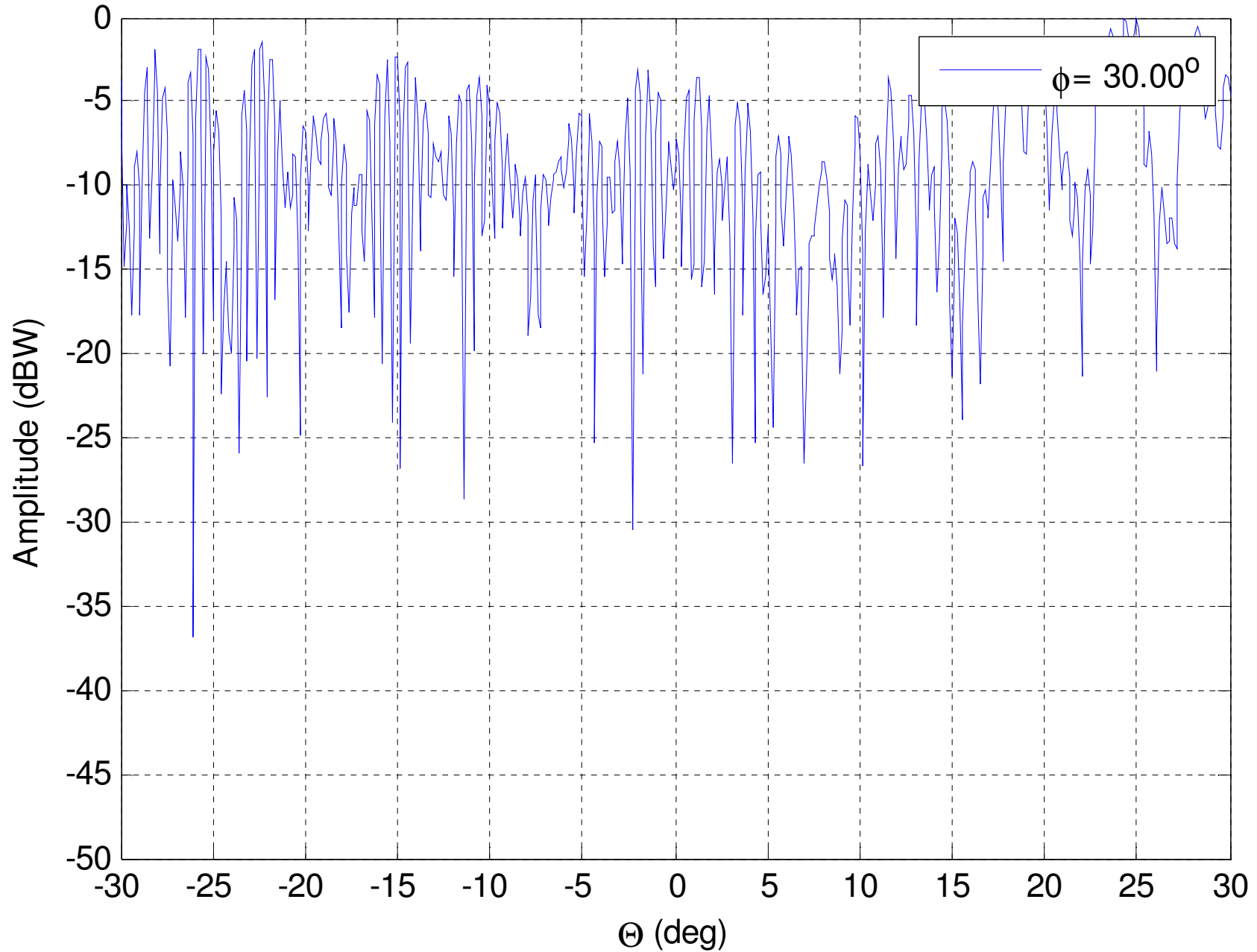
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: -6.76 dBW, Date: 15-Dec-2011



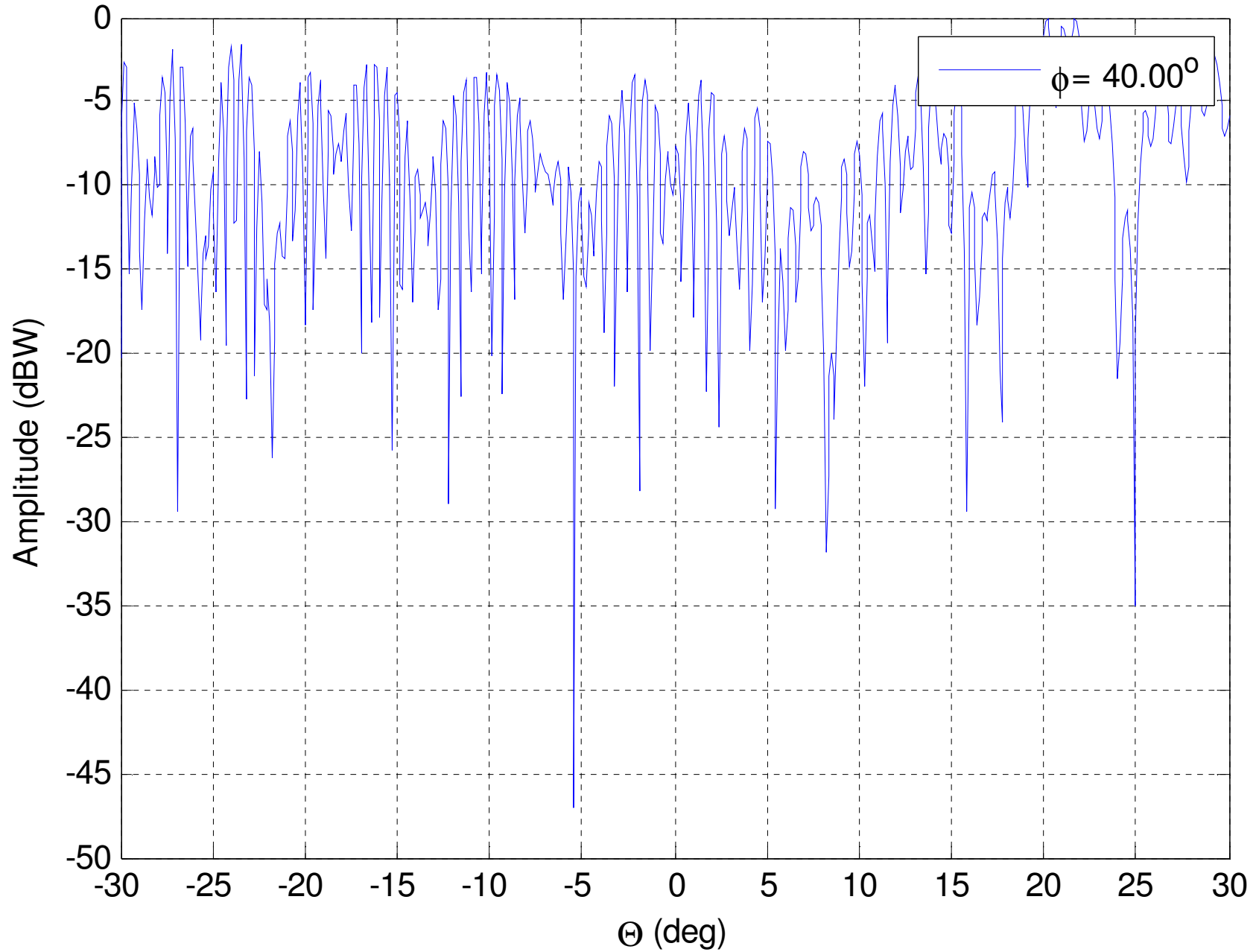
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: -7.64 dBW, Date: 15-Dec-2011



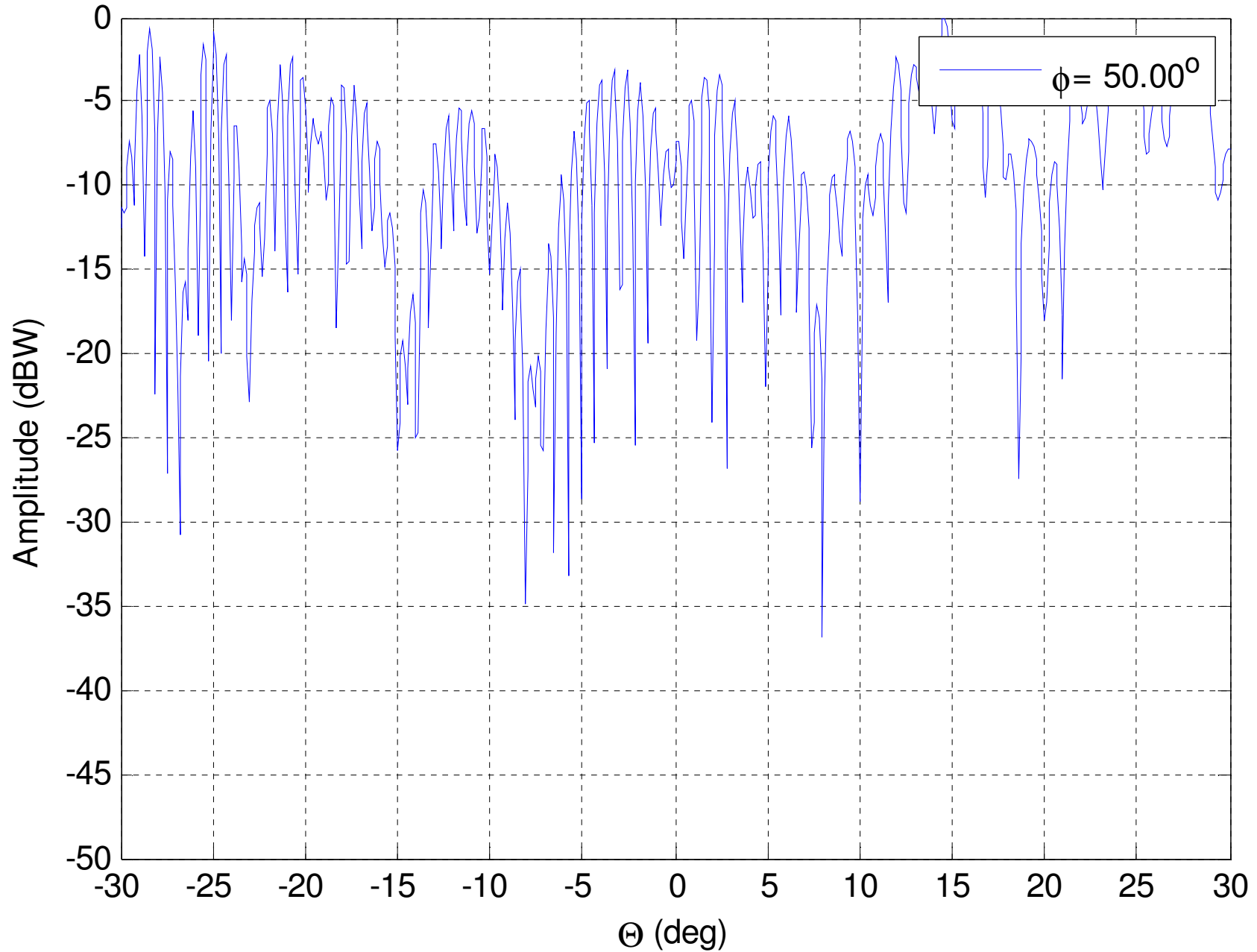
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -7.20 dBW, Date: 15-Dec-2011



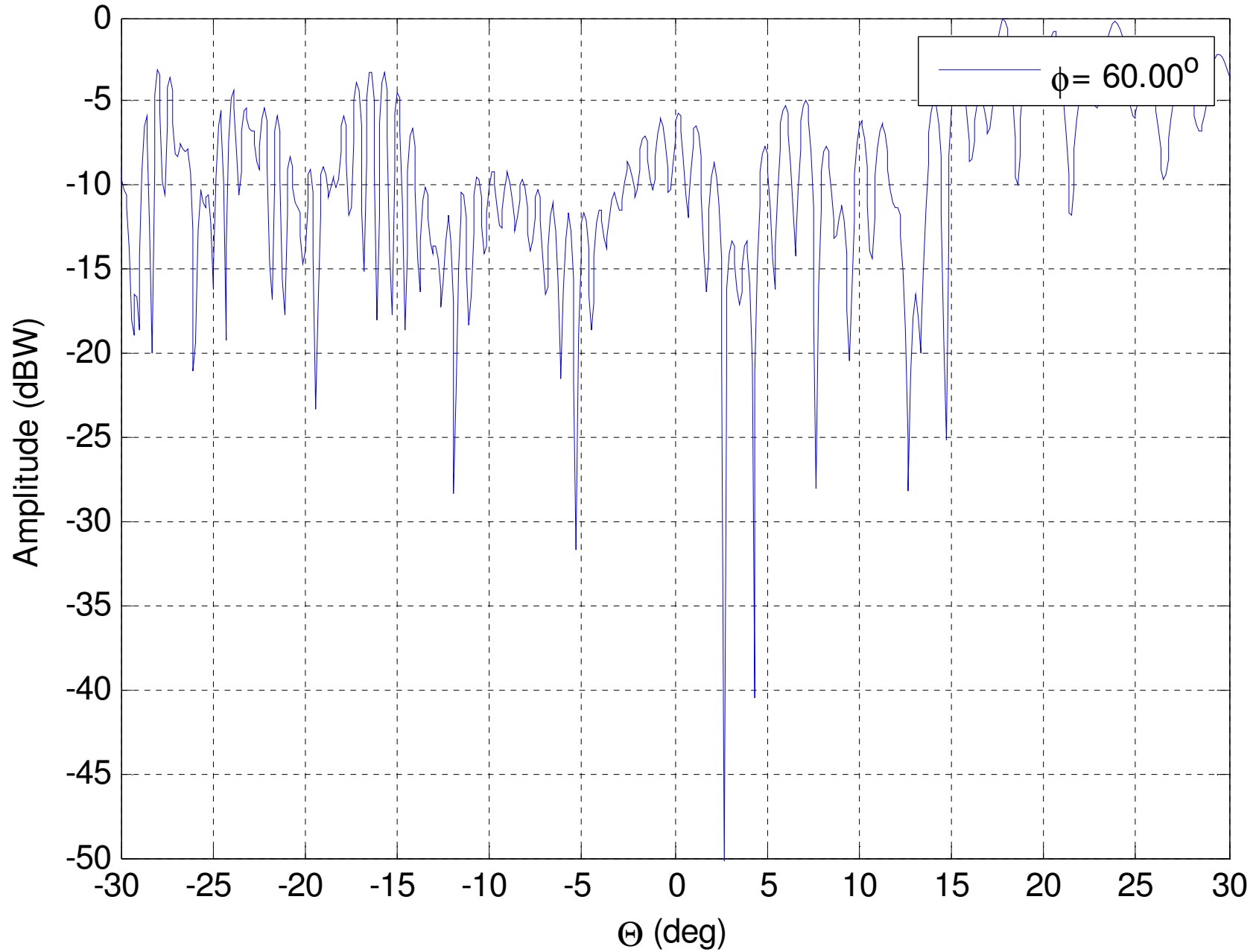
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -7.65 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

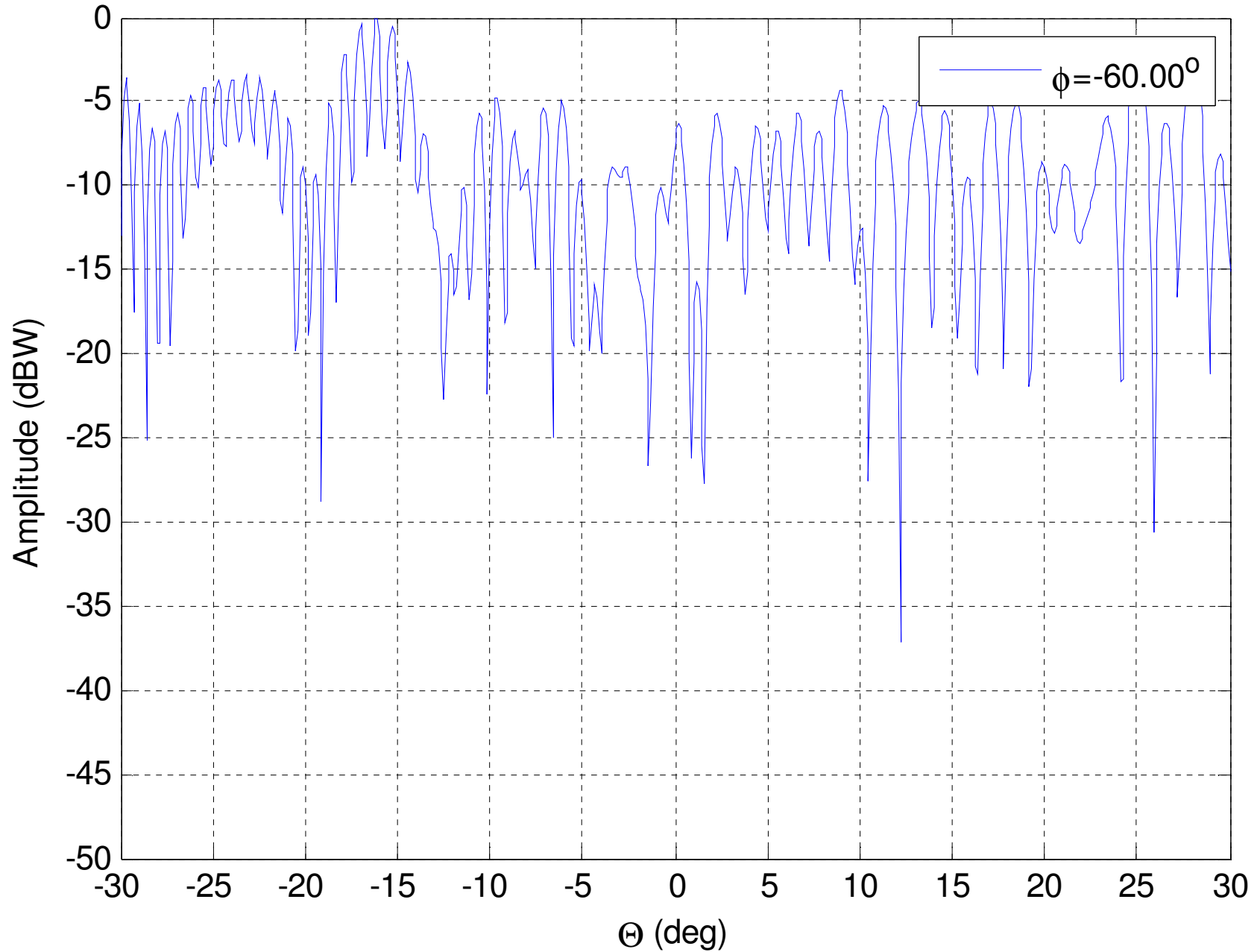
Input file: tx-17.3-rhcp-60.cut, Peak: -7.10 dBW, Date: 15-Dec-2011



LHCP at 17.3 GHz

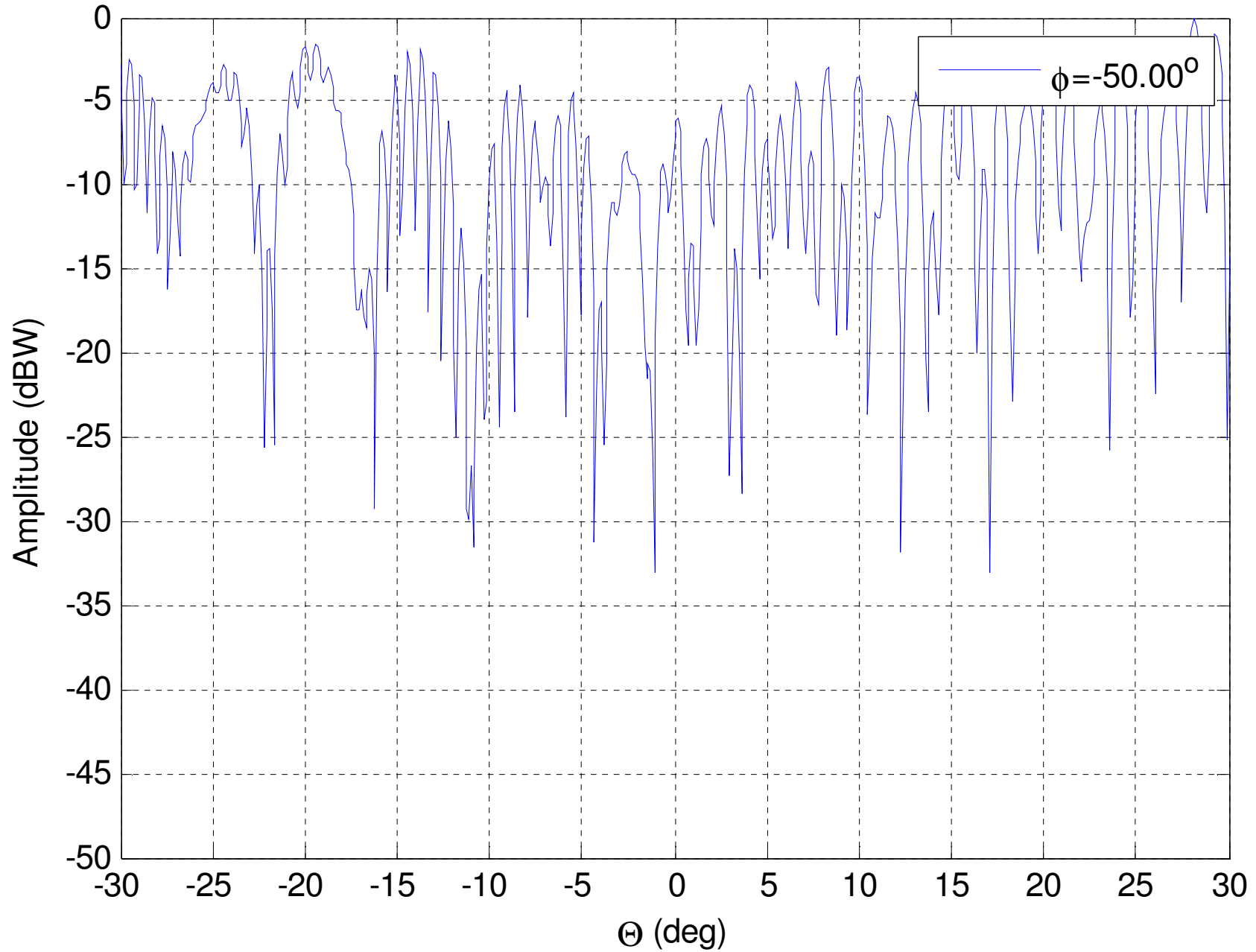
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -6.55 dBW, Date: 15-Dec-2011



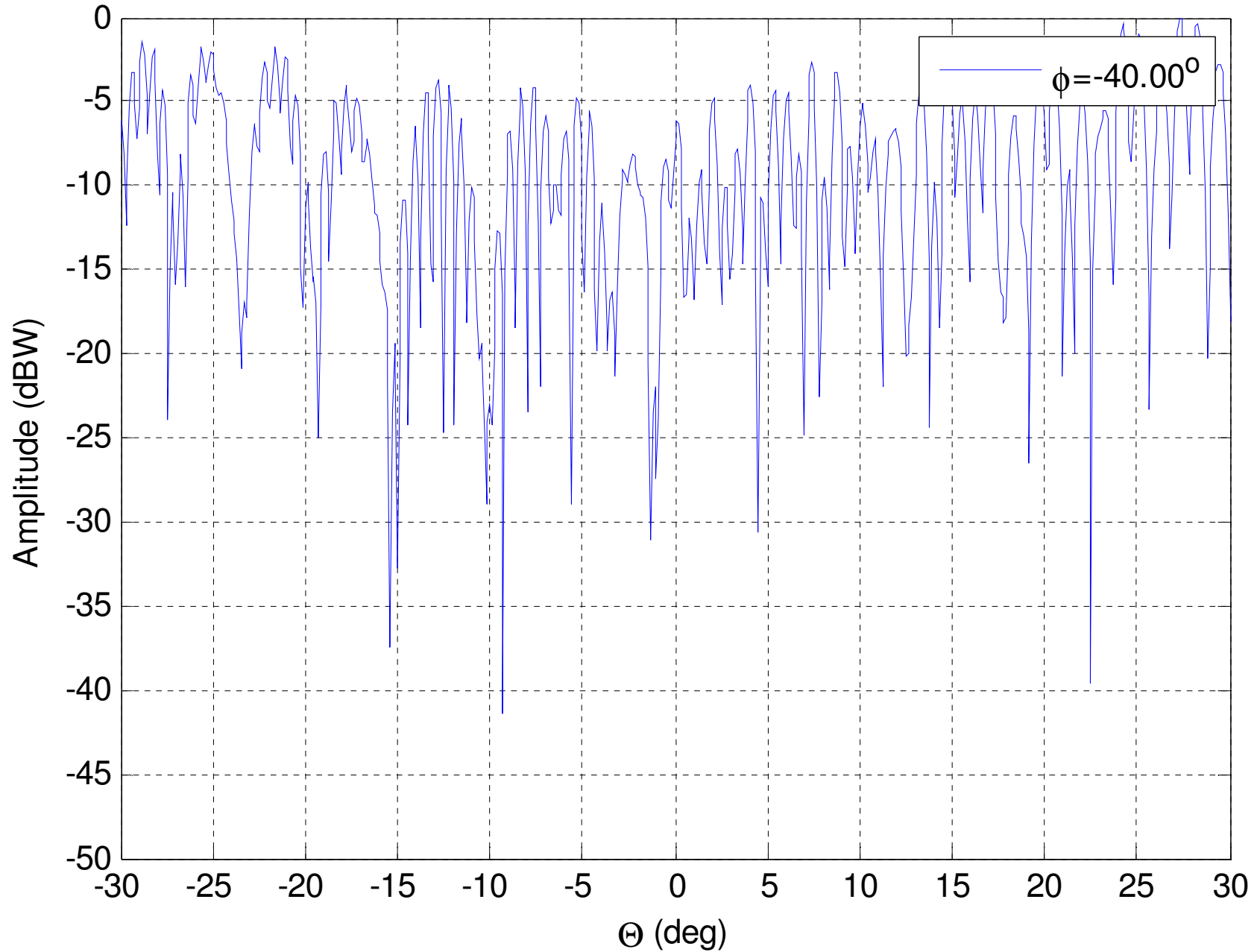
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -6.88 dBW, Date: 15-Dec-2011



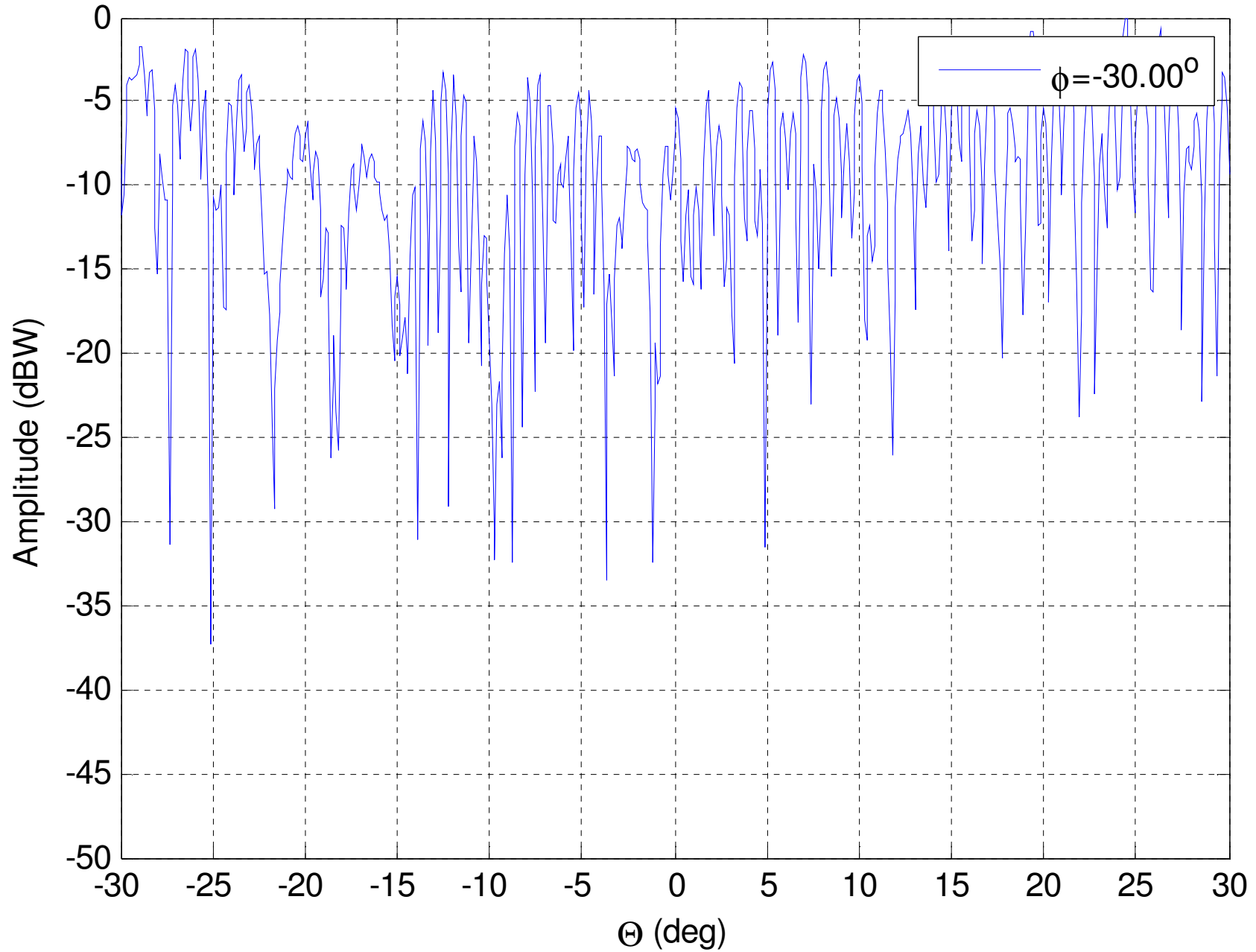
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -6.77 dBW, Date: 15-Dec-2011



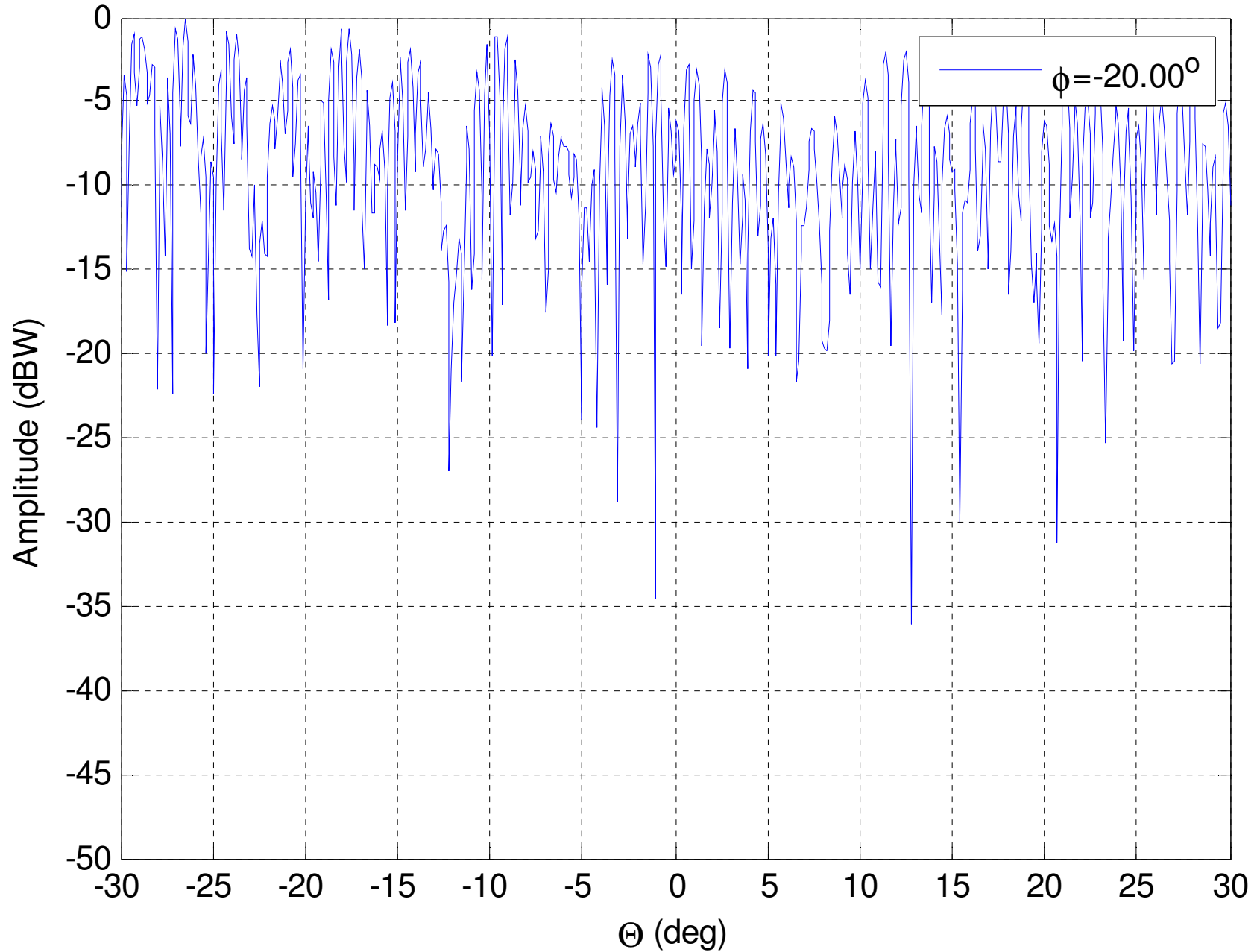
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: -7.33 dBW, Date: 15-Dec-2011



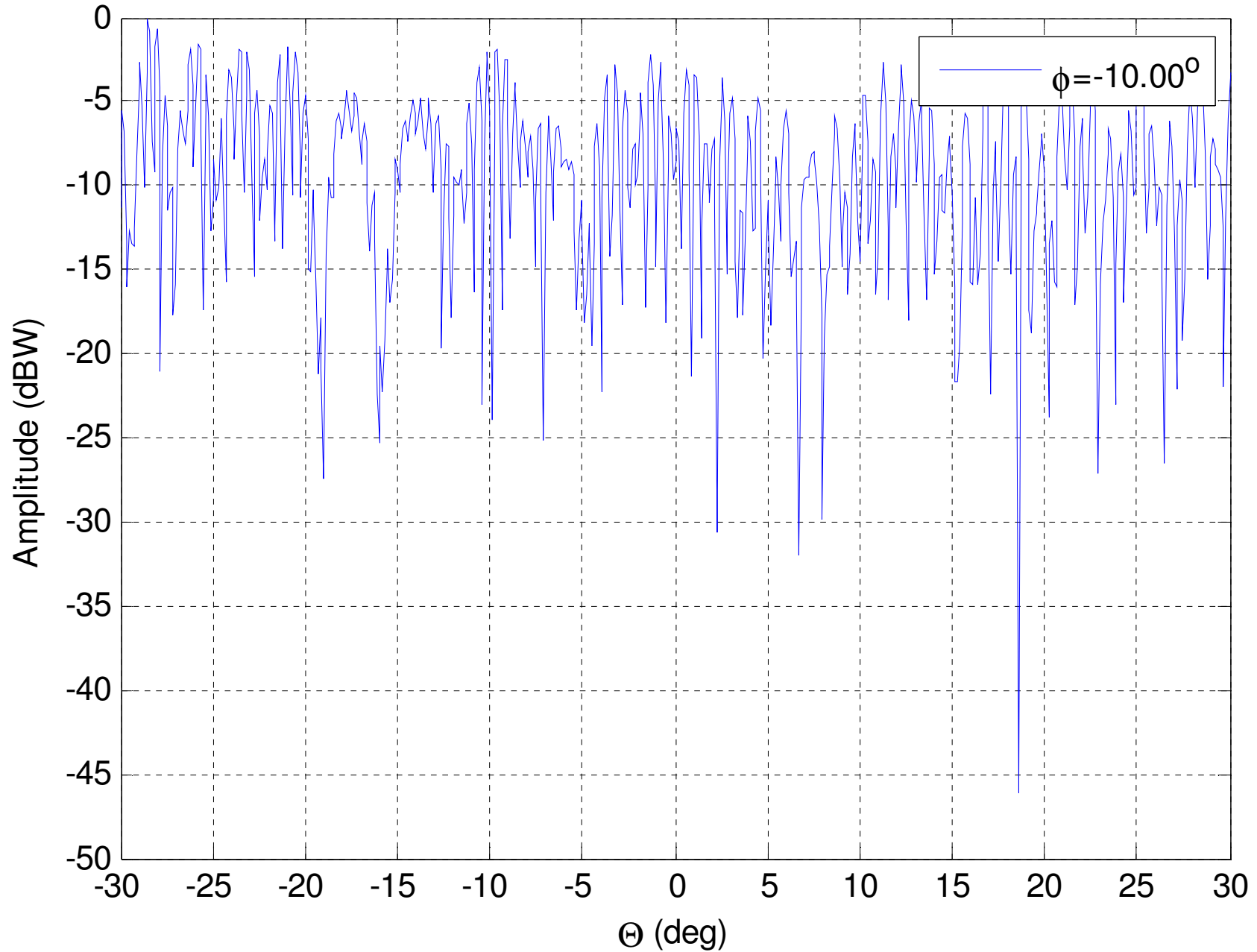
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: -8.88 dBW, Date: 15-Dec-2011



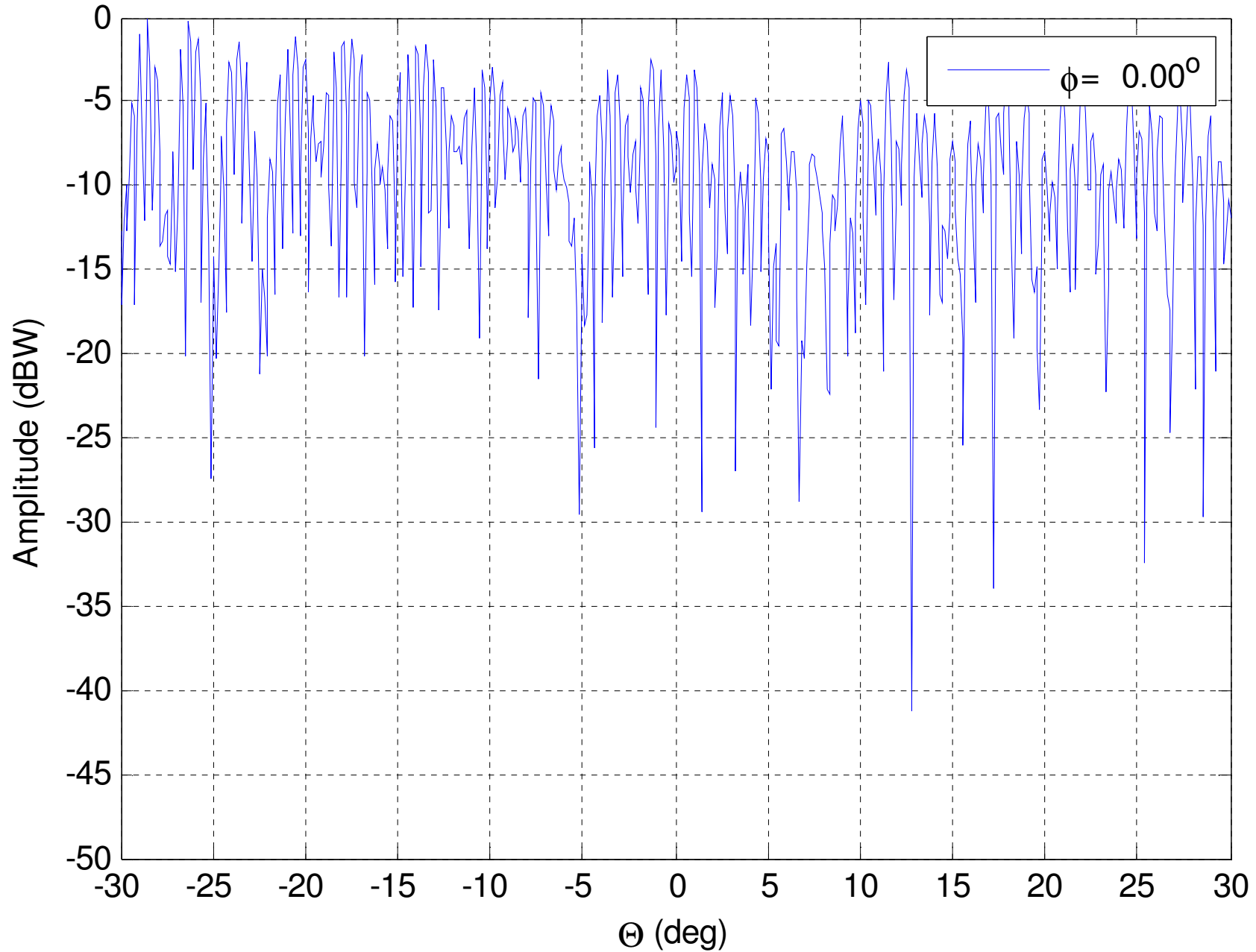
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: -8.57 dBW, Date: 15-Dec-2011



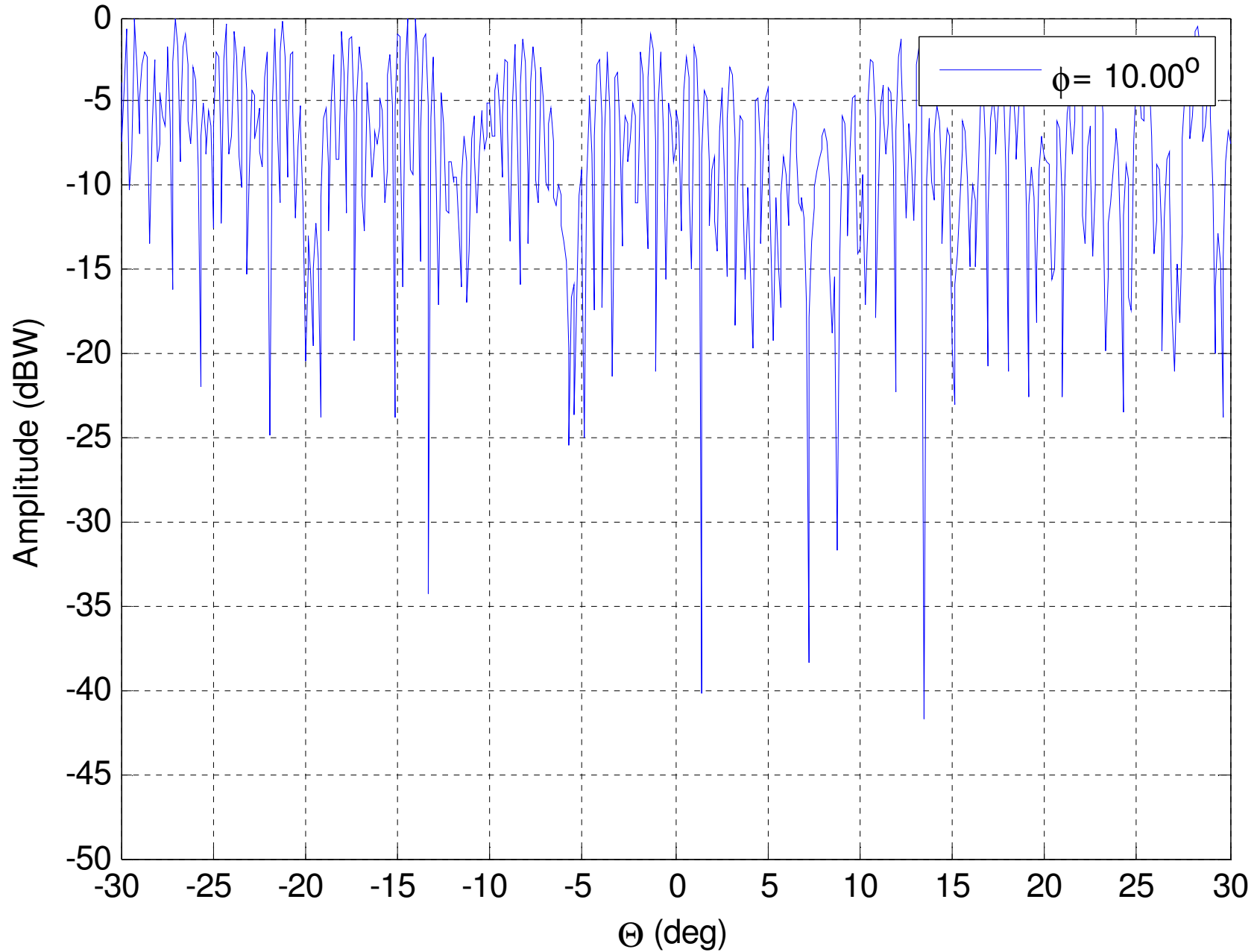
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: -8.39 dBW, Date: 15-Dec-2011



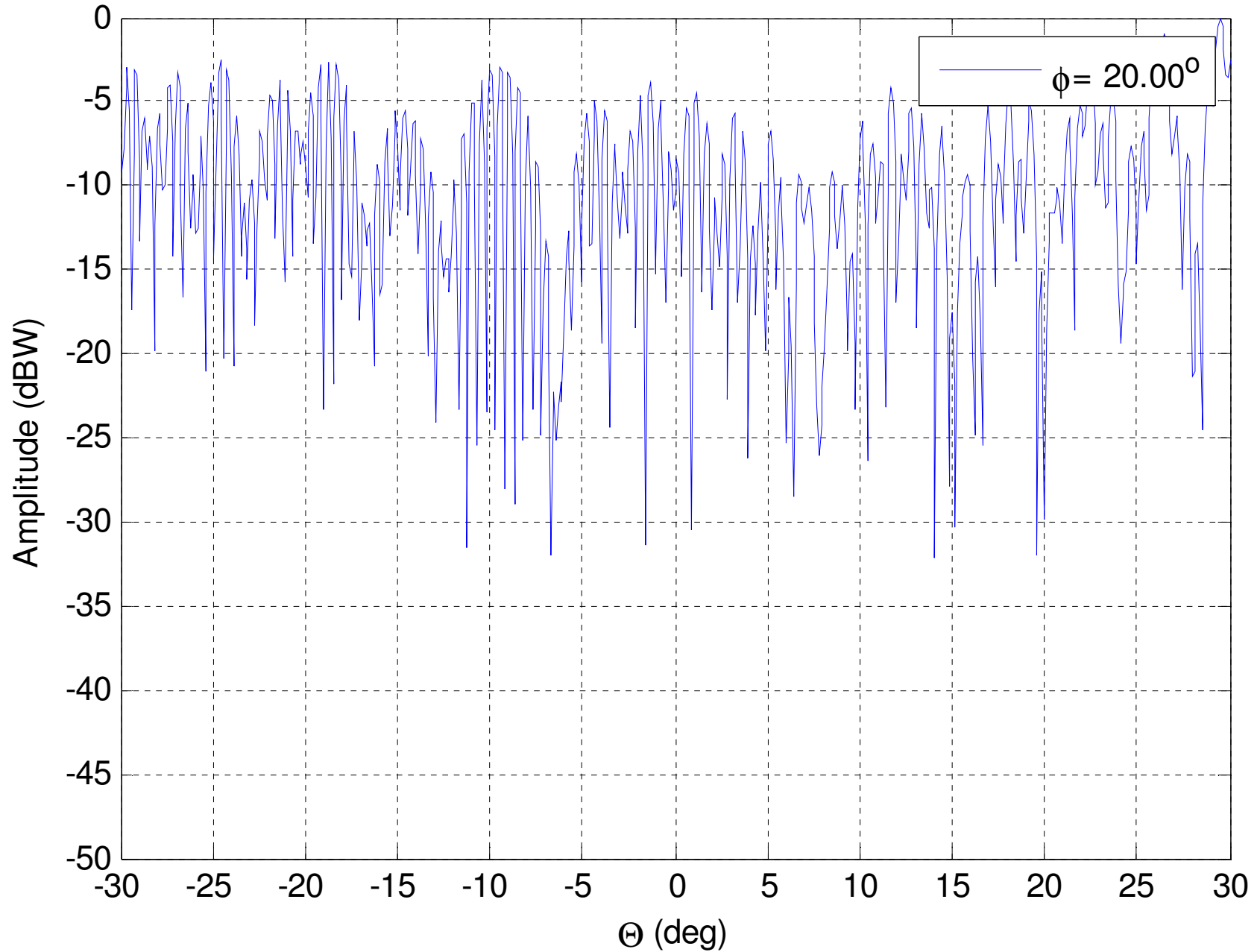
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: -9.70 dBW, Date: 15-Dec-2011



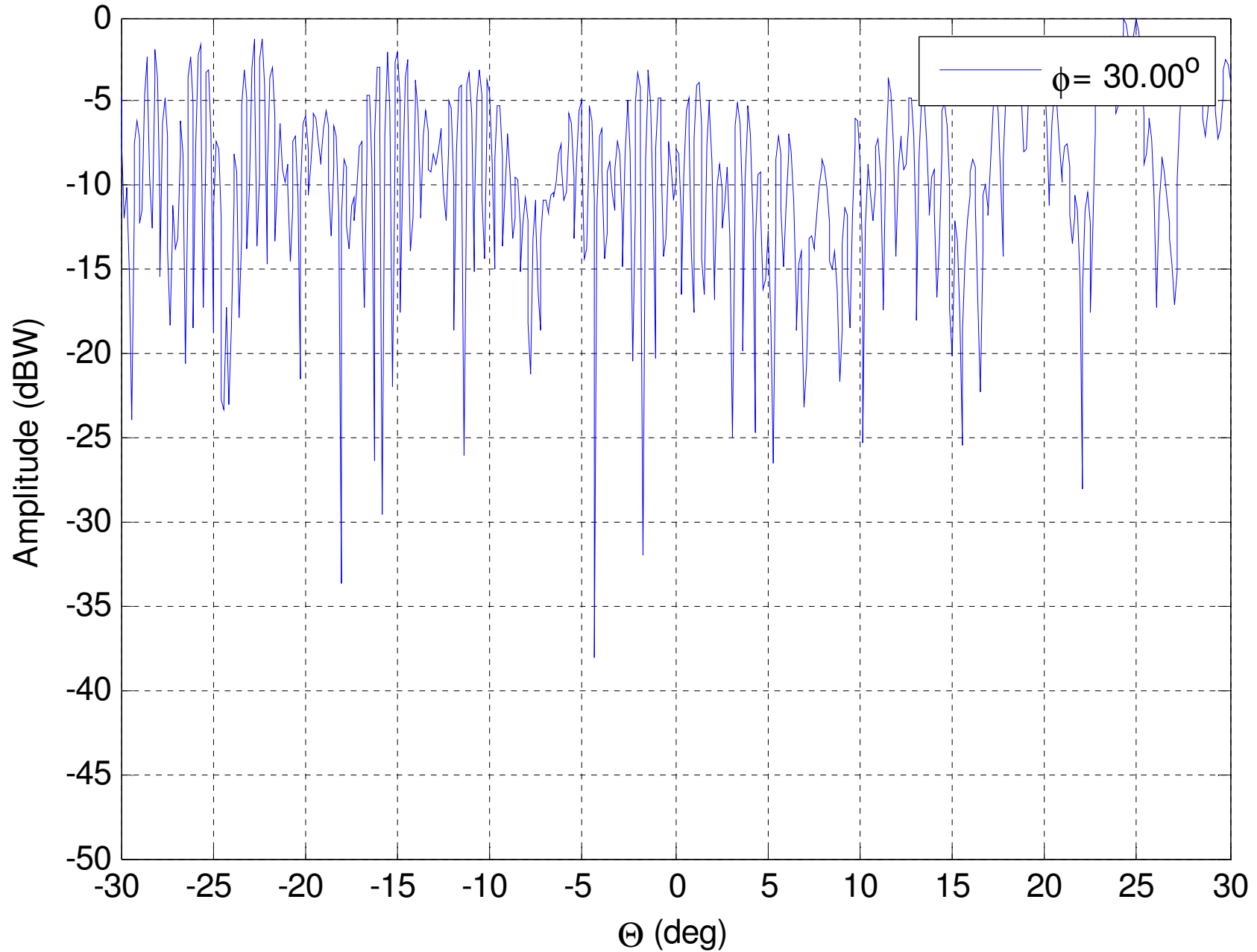
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: -6.87 dBW, Date: 15-Dec-2011



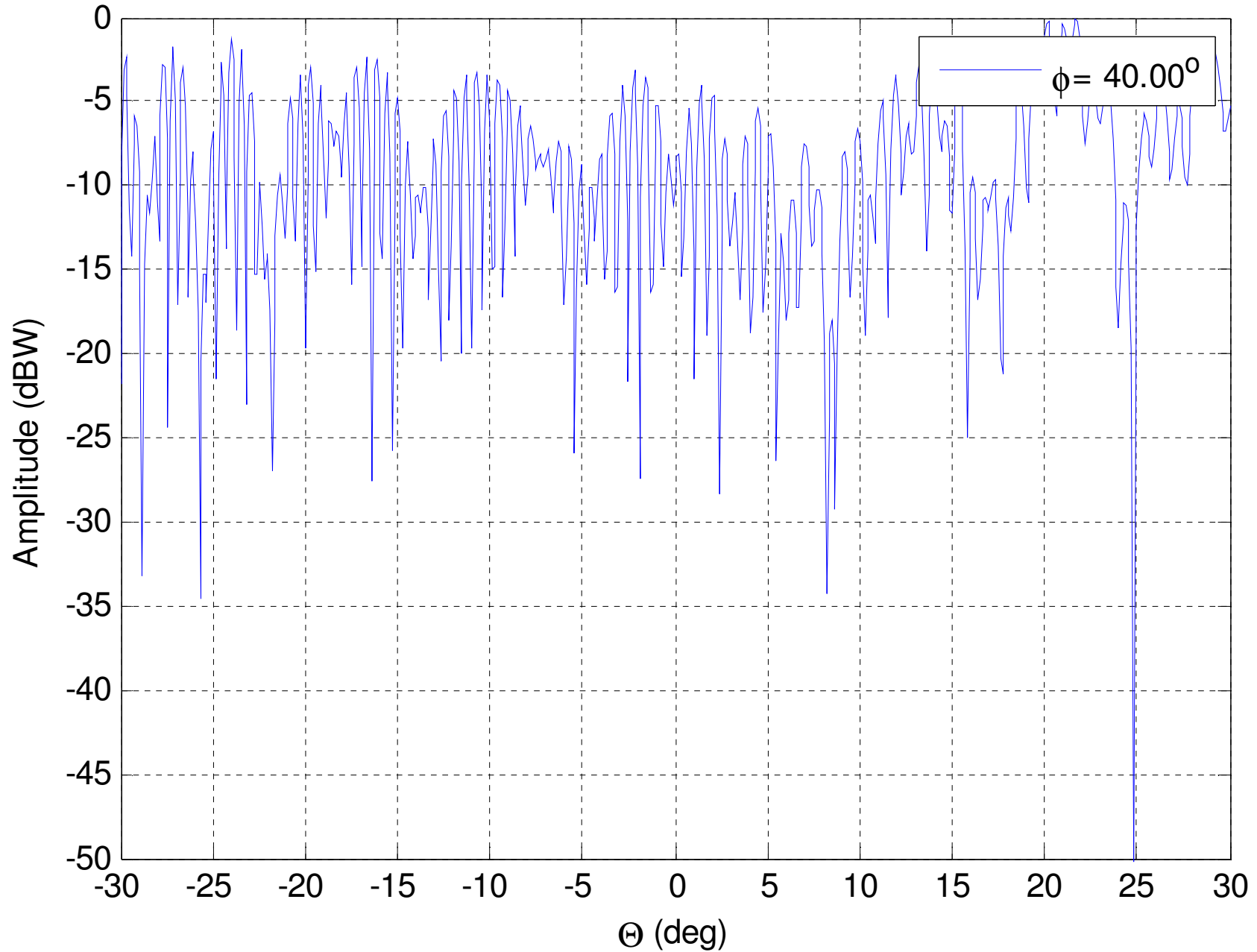
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: -7.61 dBW, Date: 15-Dec-2011



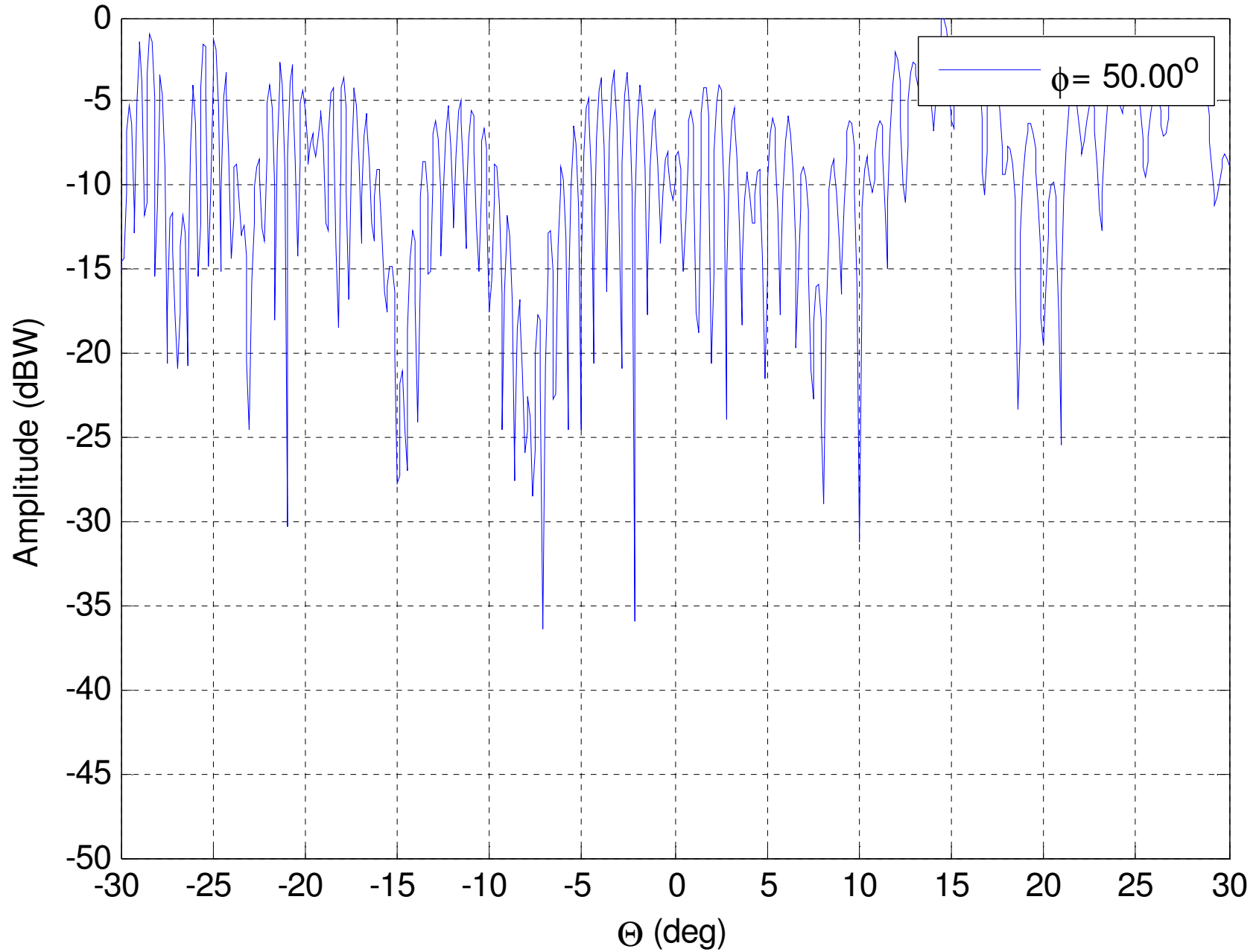
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -7.38 dBW, Date: 15-Dec-2011



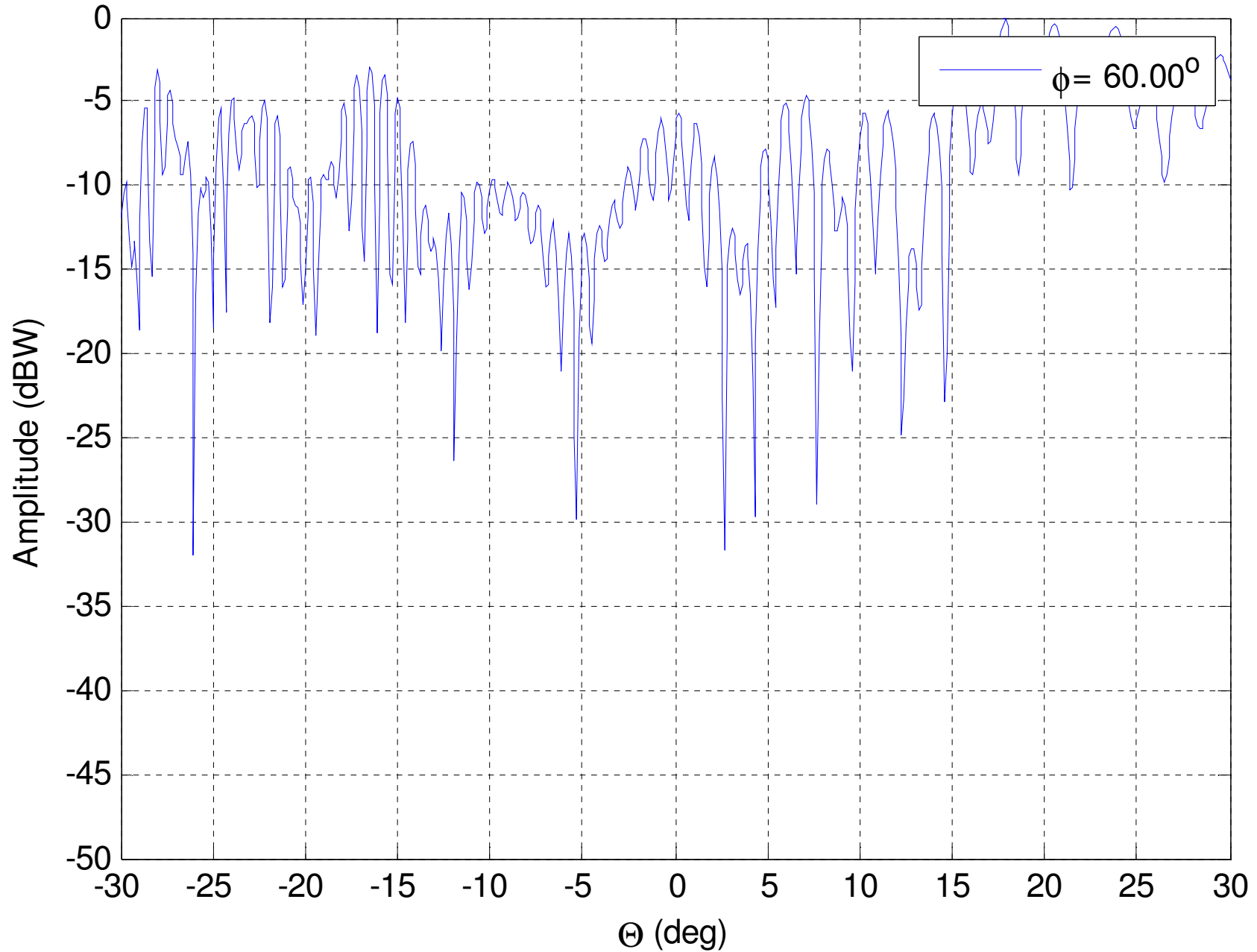
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -7.54 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

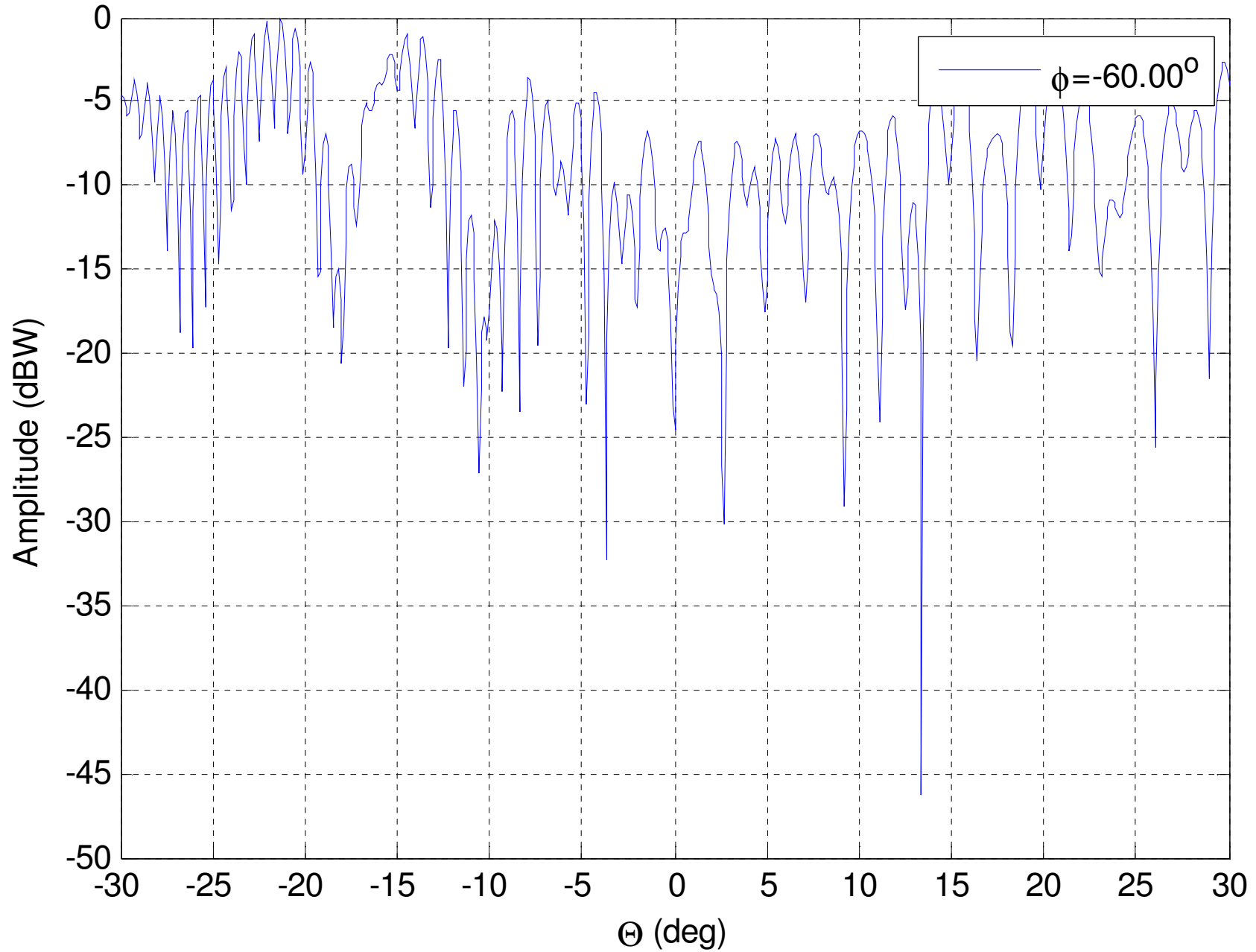
Input file: tx-17.3-lhcp-60.cut, Peak: -7.00 dBW, Date: 15-Dec-2011



RHCP at 17.5 GHz

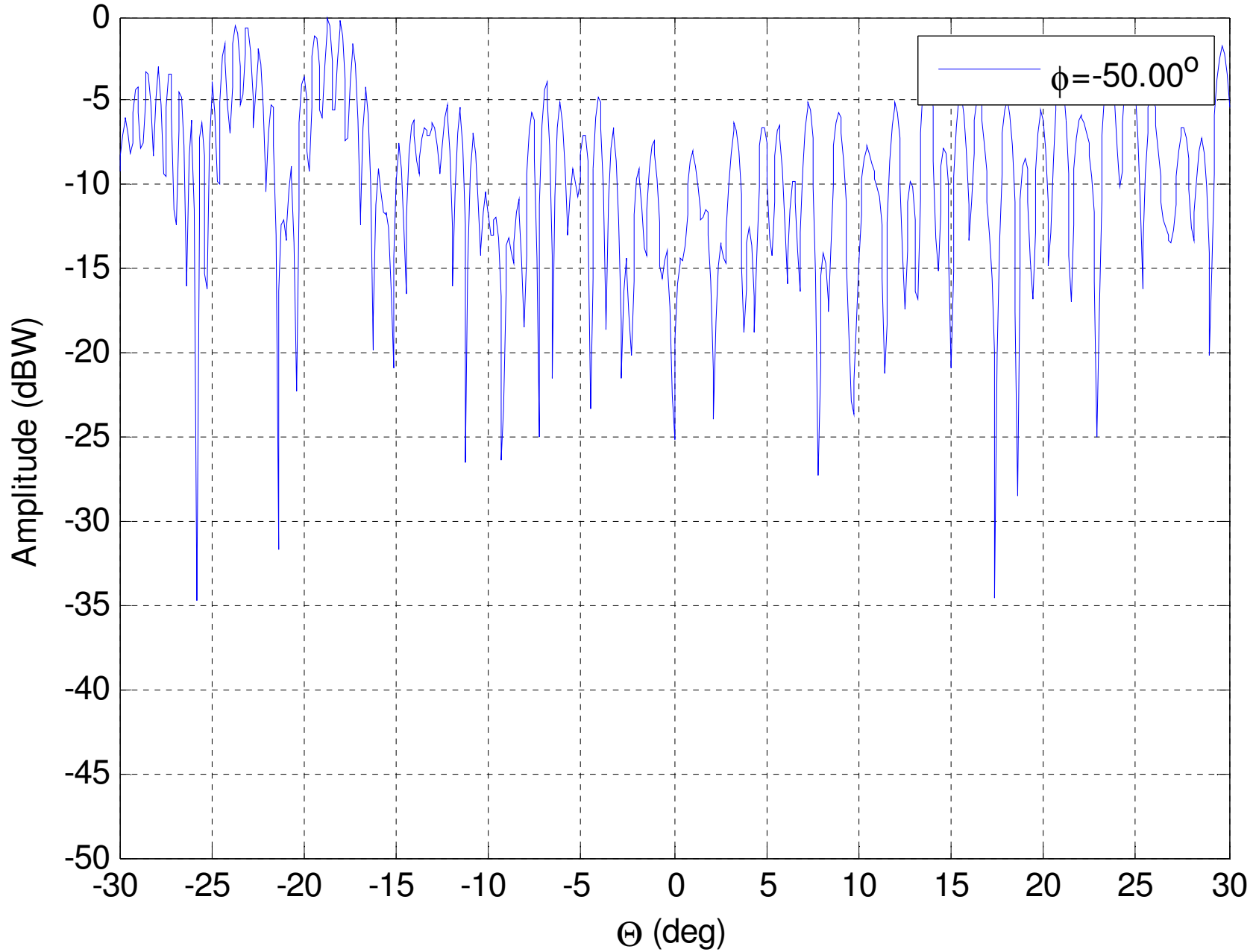
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -7.10 dBW, Date: 15-Dec-2011



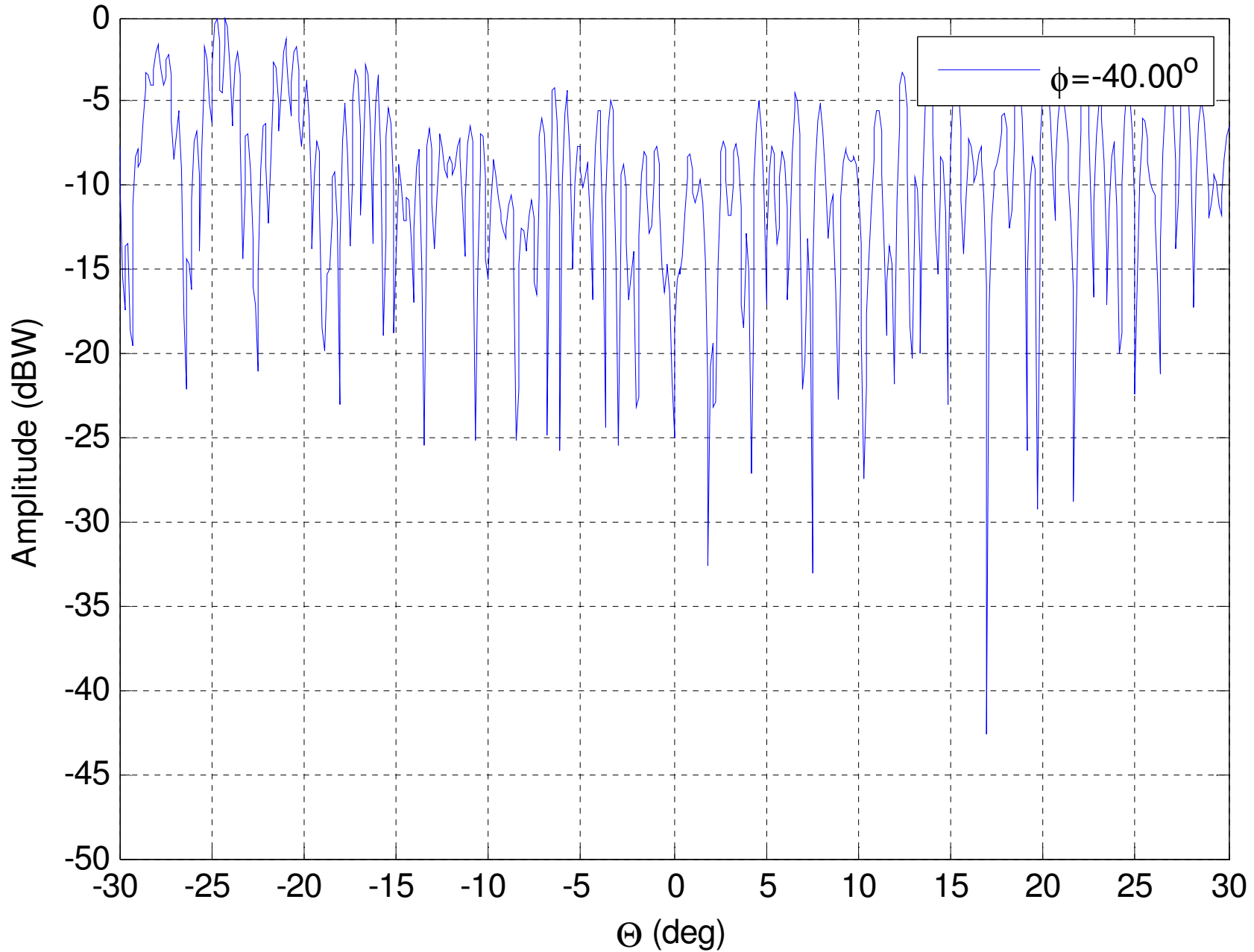
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -6.61 dBW, Date: 15-Dec-2011



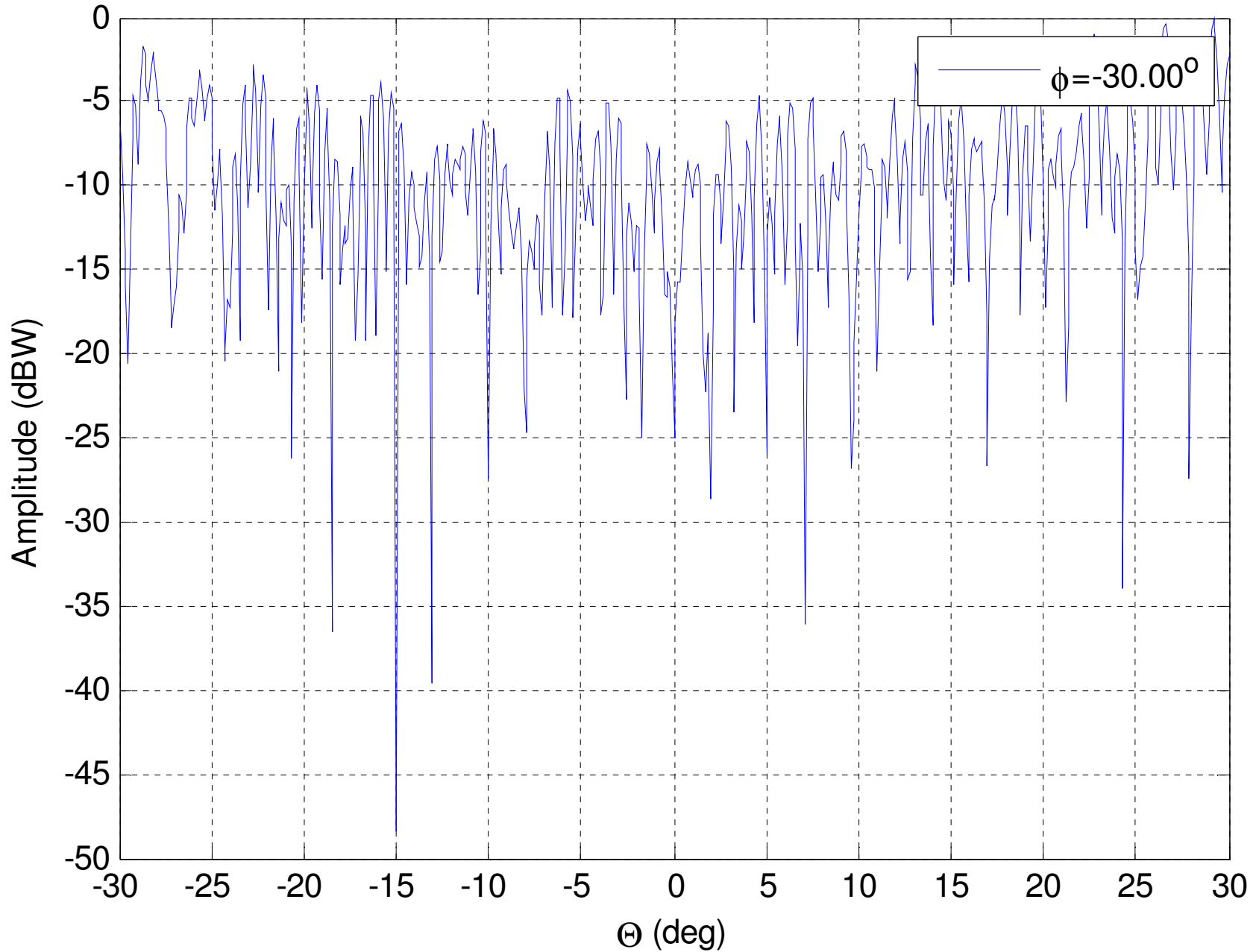
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -6.73 dBW, Date: 15-Dec-2011



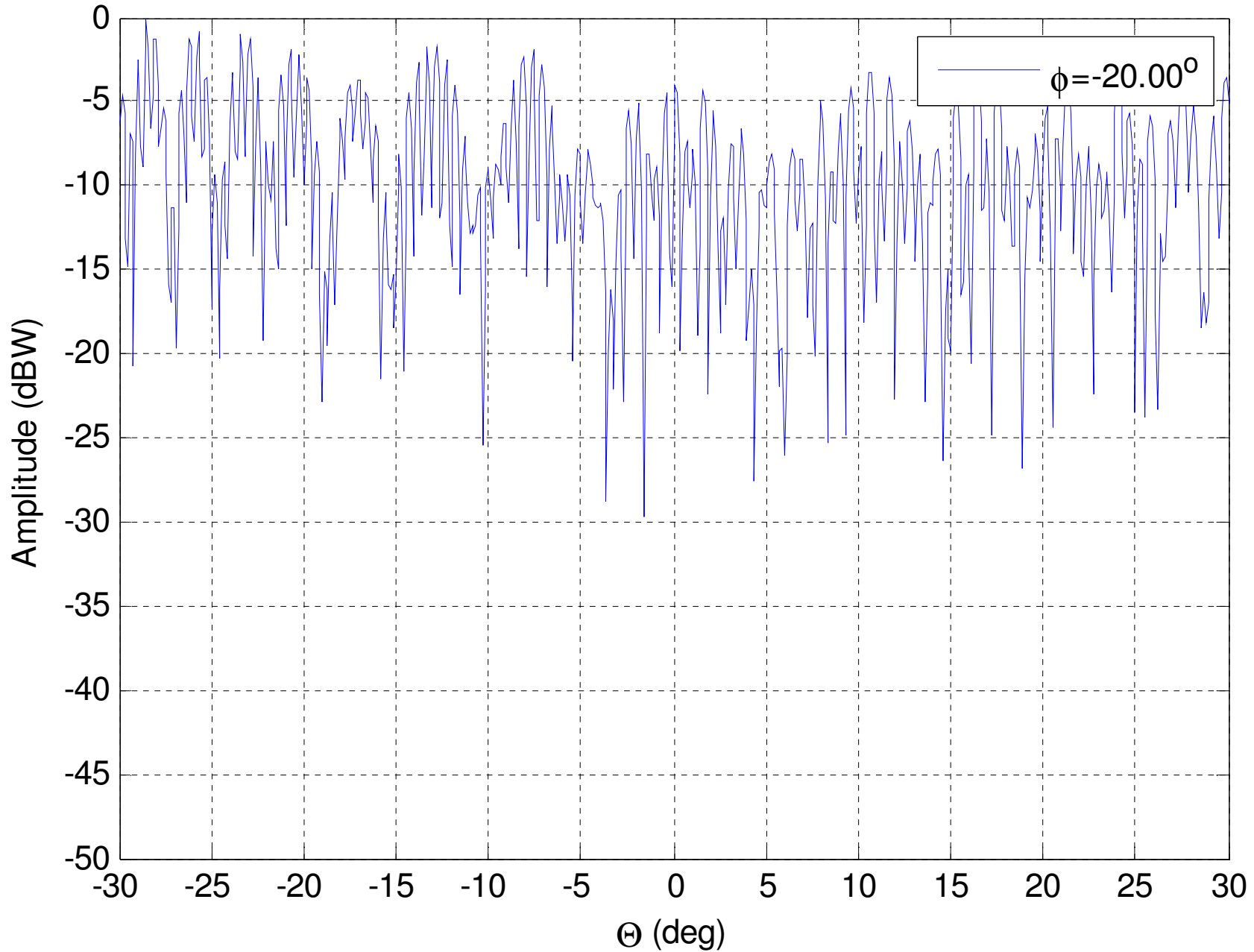
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -6.68 dBW, Date: 15-Dec-2011



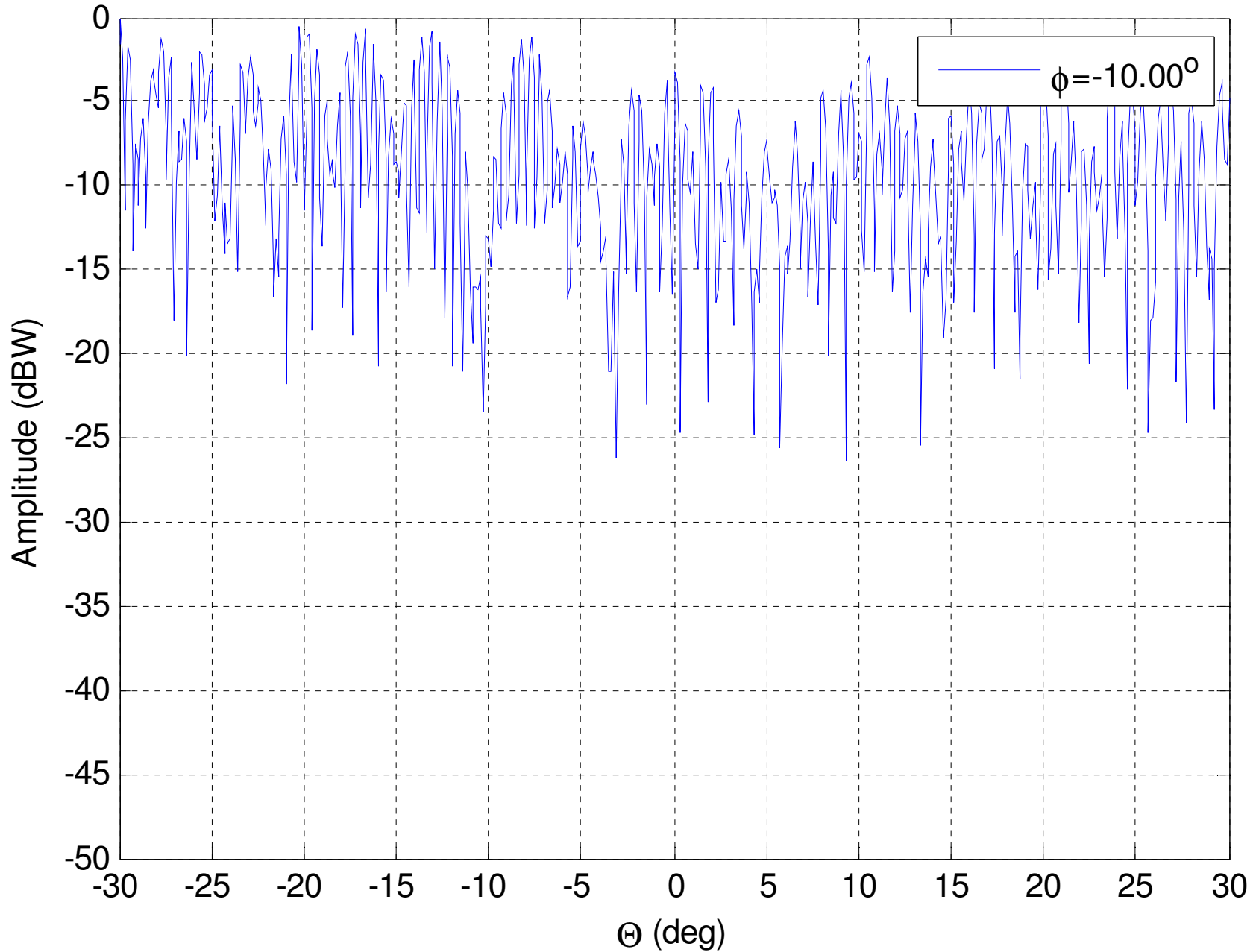
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: -8.18 dBW, Date: 15-Dec-2011



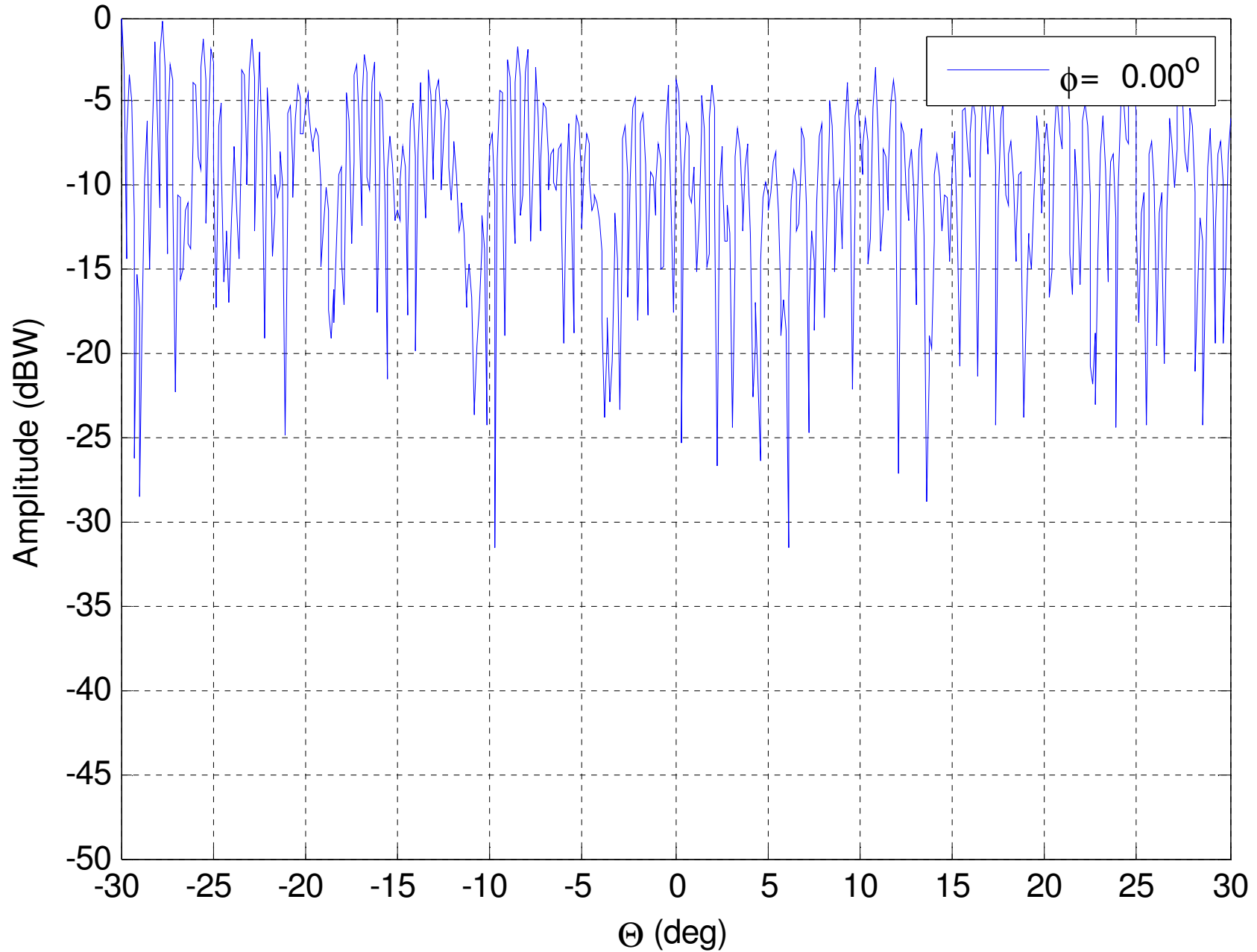
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: -8.94 dBW, Date: 15-Dec-2011



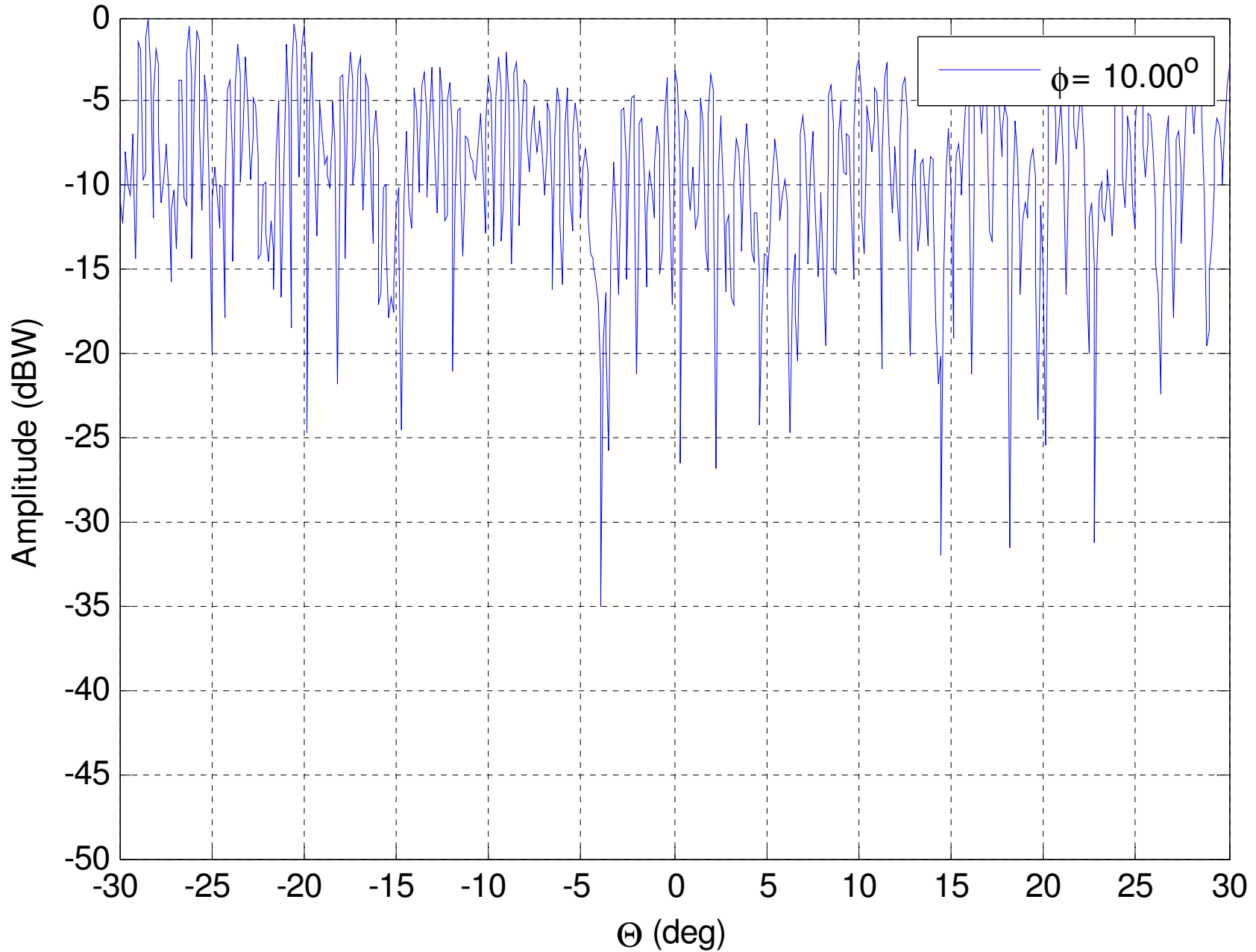
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: -8.49 dBW, Date: 15-Dec-2011



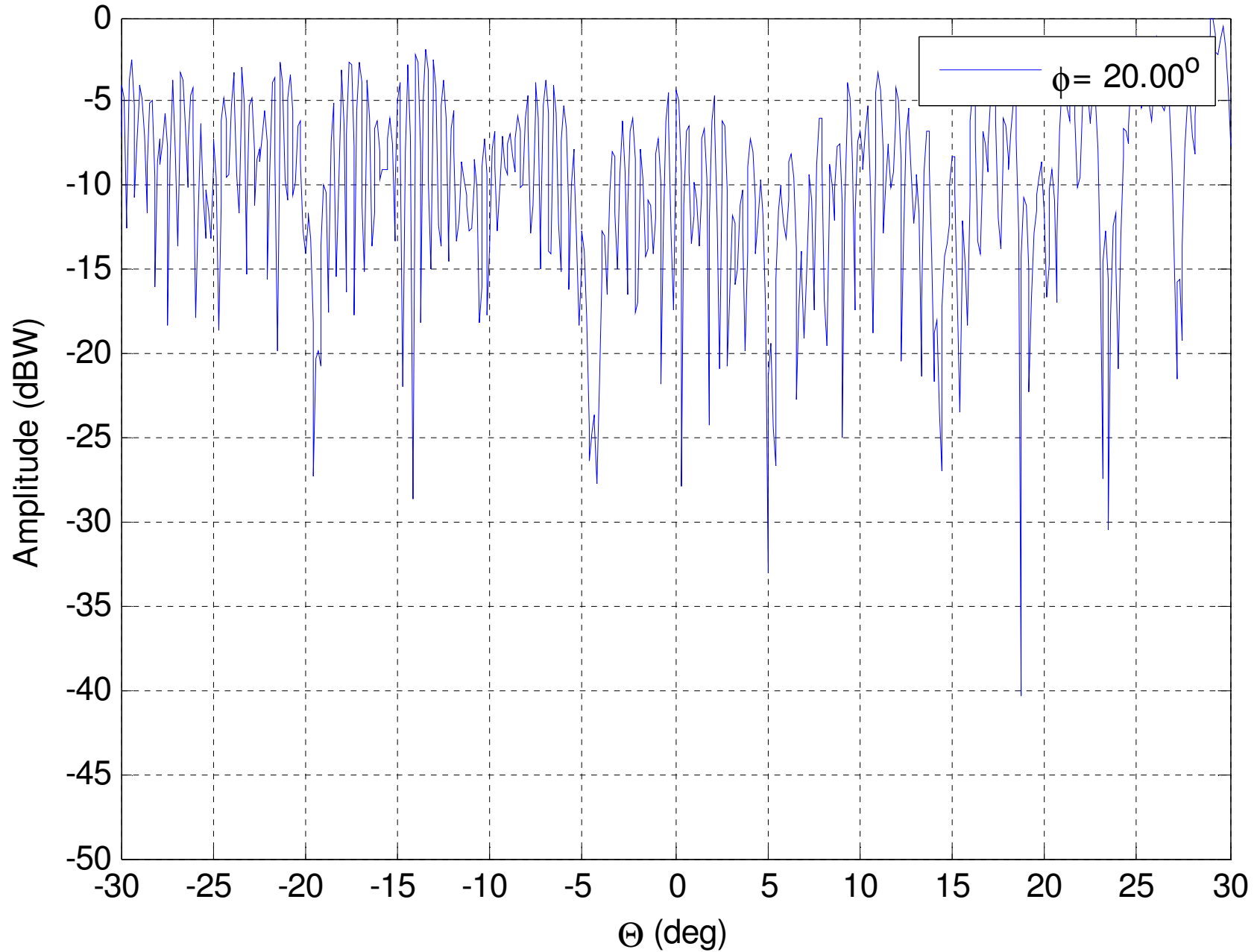
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: -8.95 dBW, Date: 15-Dec-2011



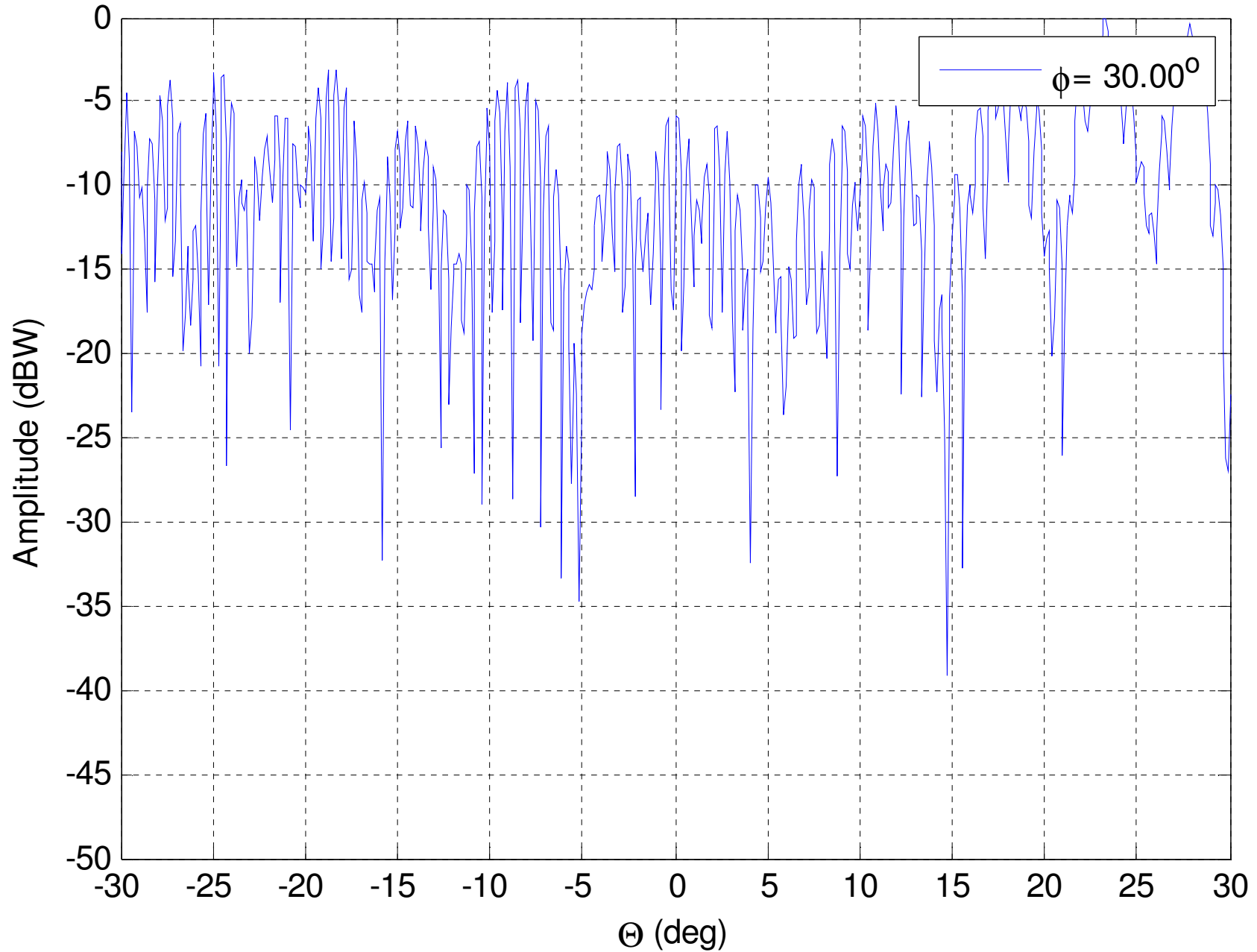
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: -7.80 dBW, Date: 15-Dec-2011



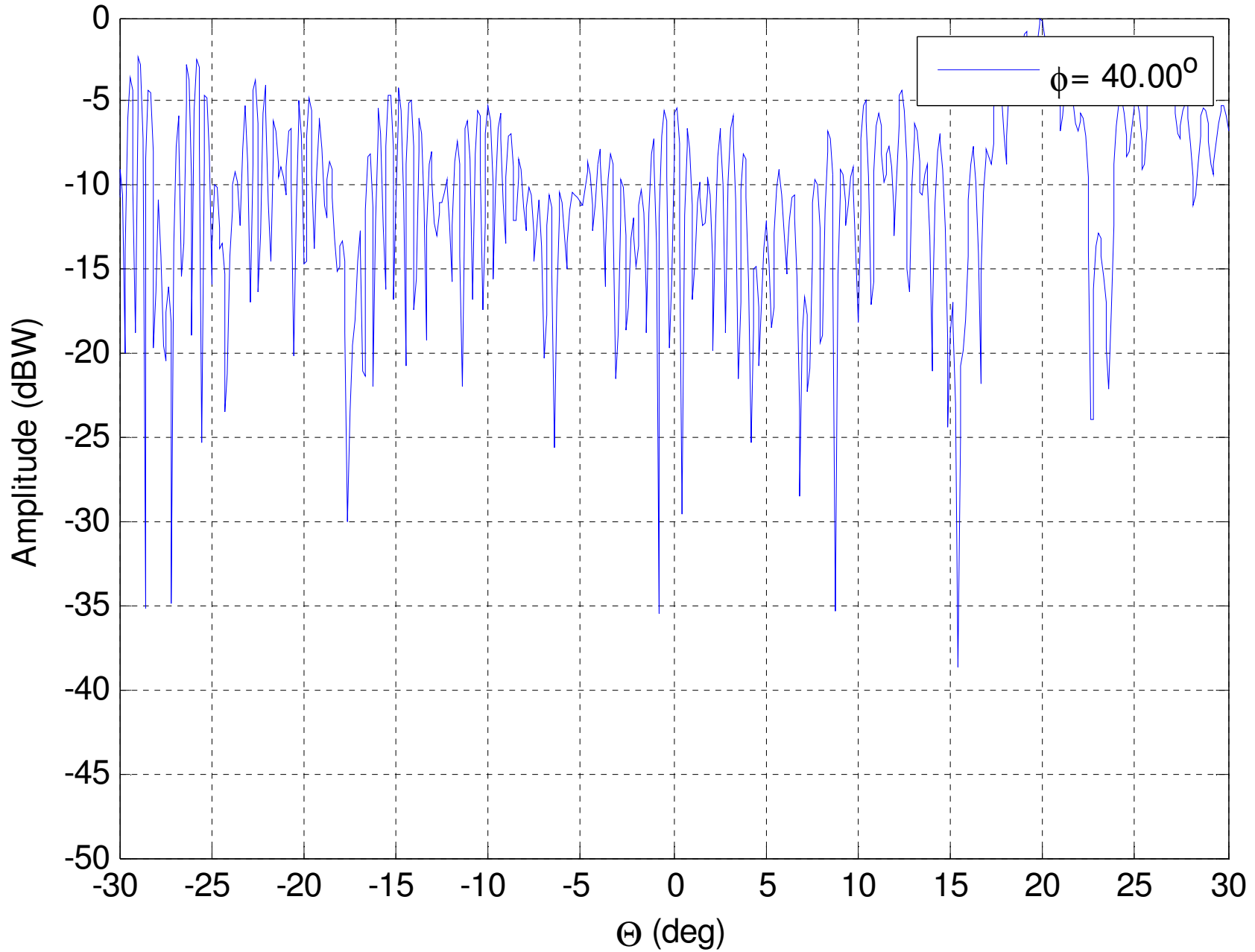
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: -6.45 dBW, Date: 15-Dec-2011



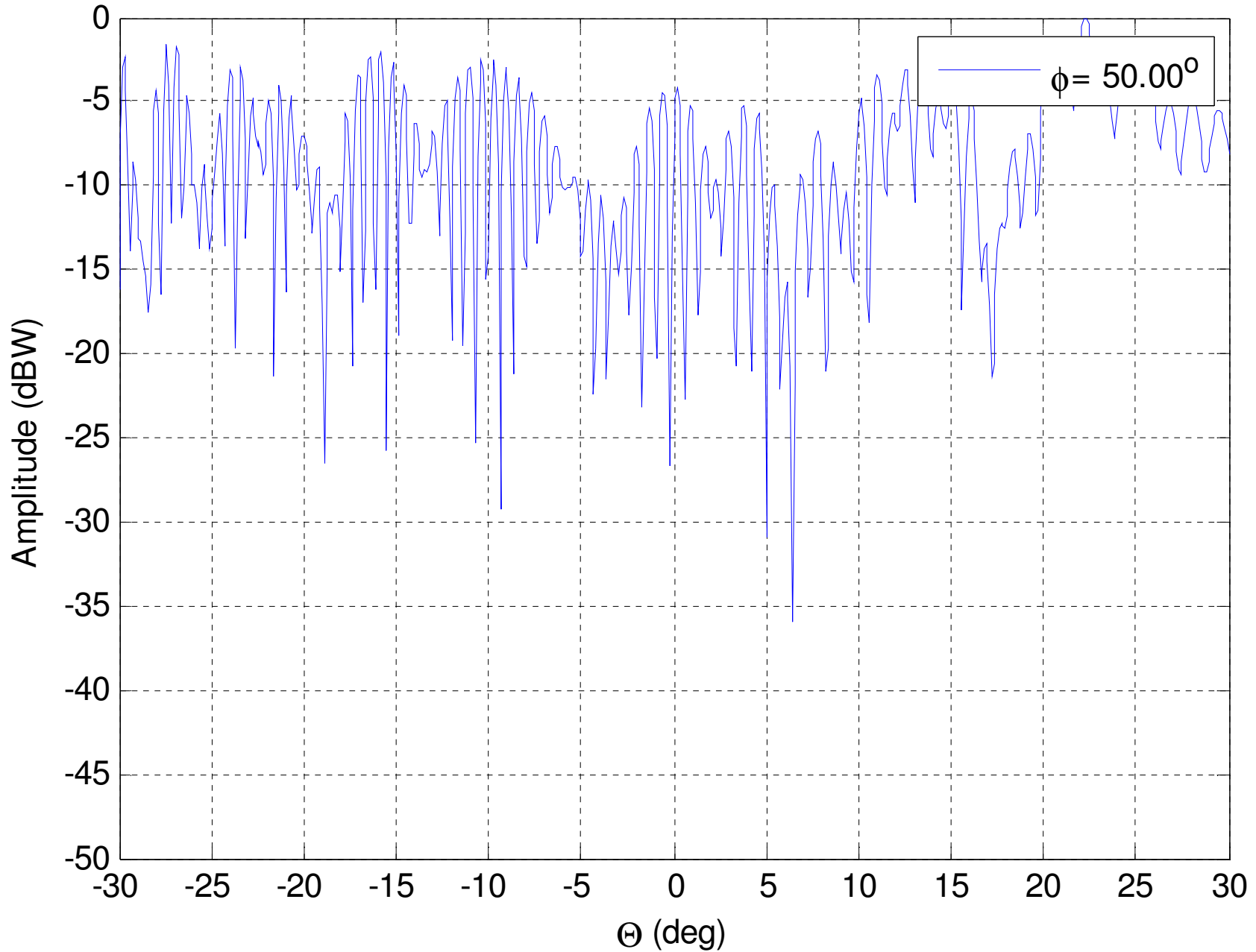
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -6.70 dBW, Date: 15-Dec-2011



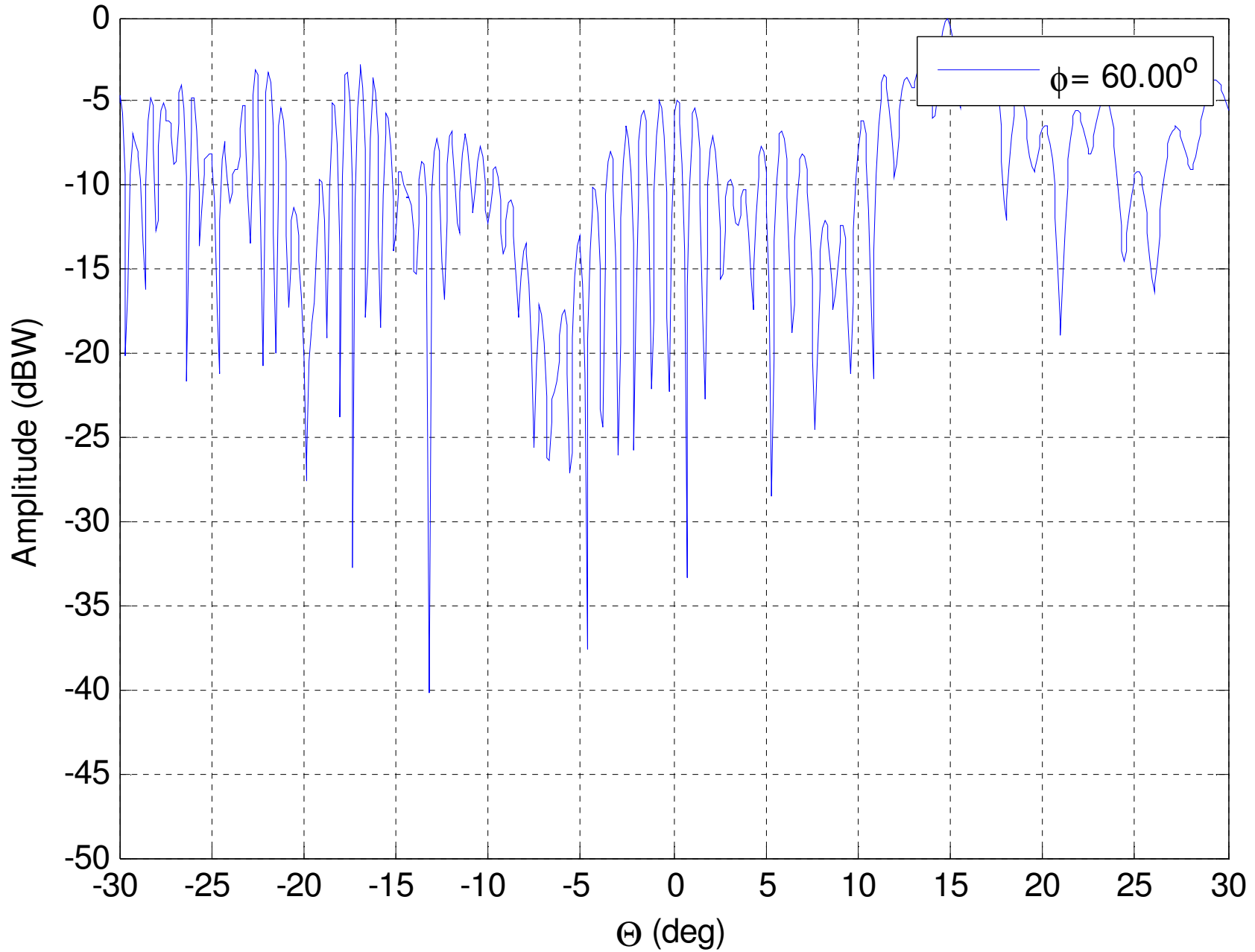
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -7.79 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

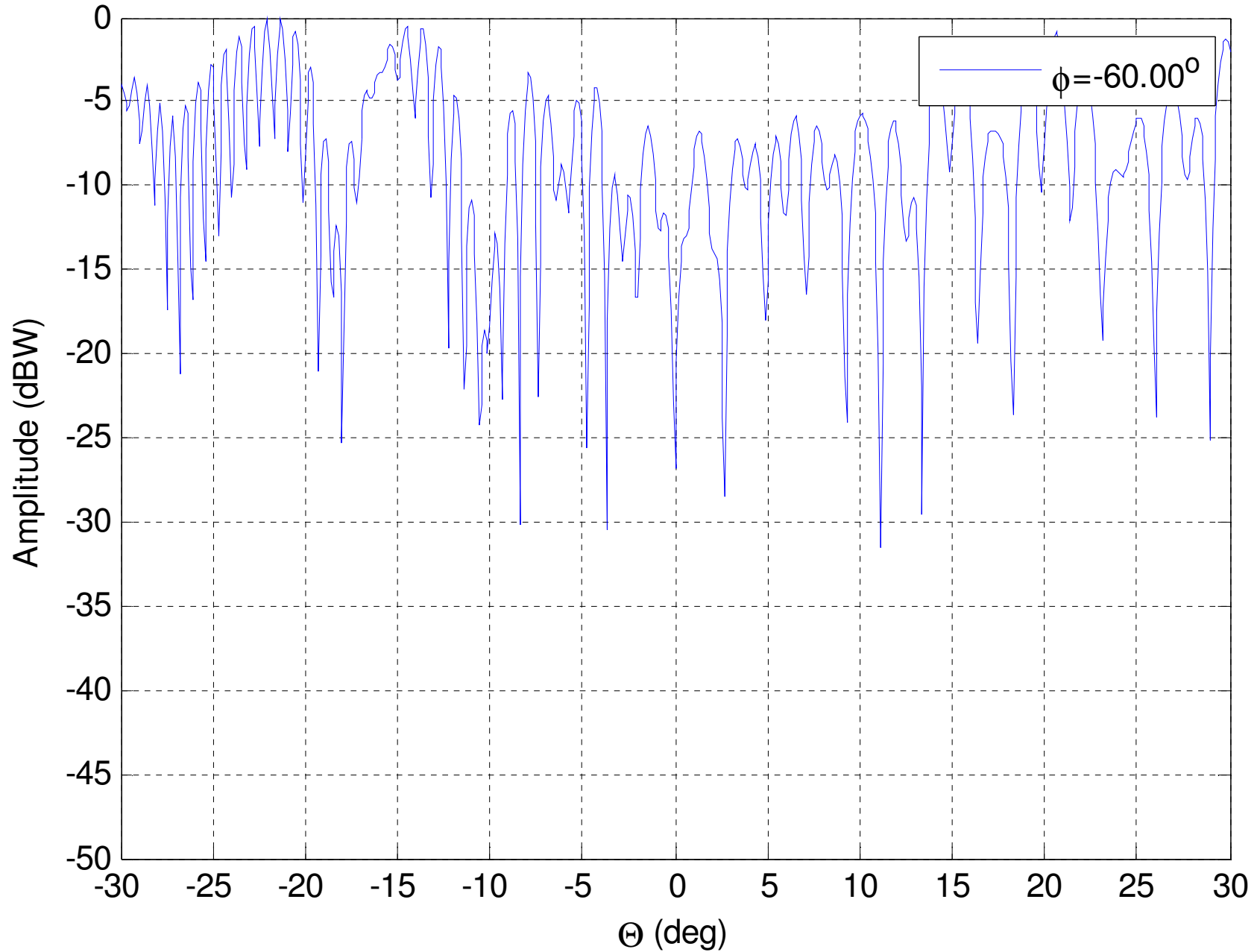
Input file: tx-17.5-rhcp-60.cut, Peak: -7.09 dBW, Date: 15-Dec-2011



LHCP at 17.5 GHz

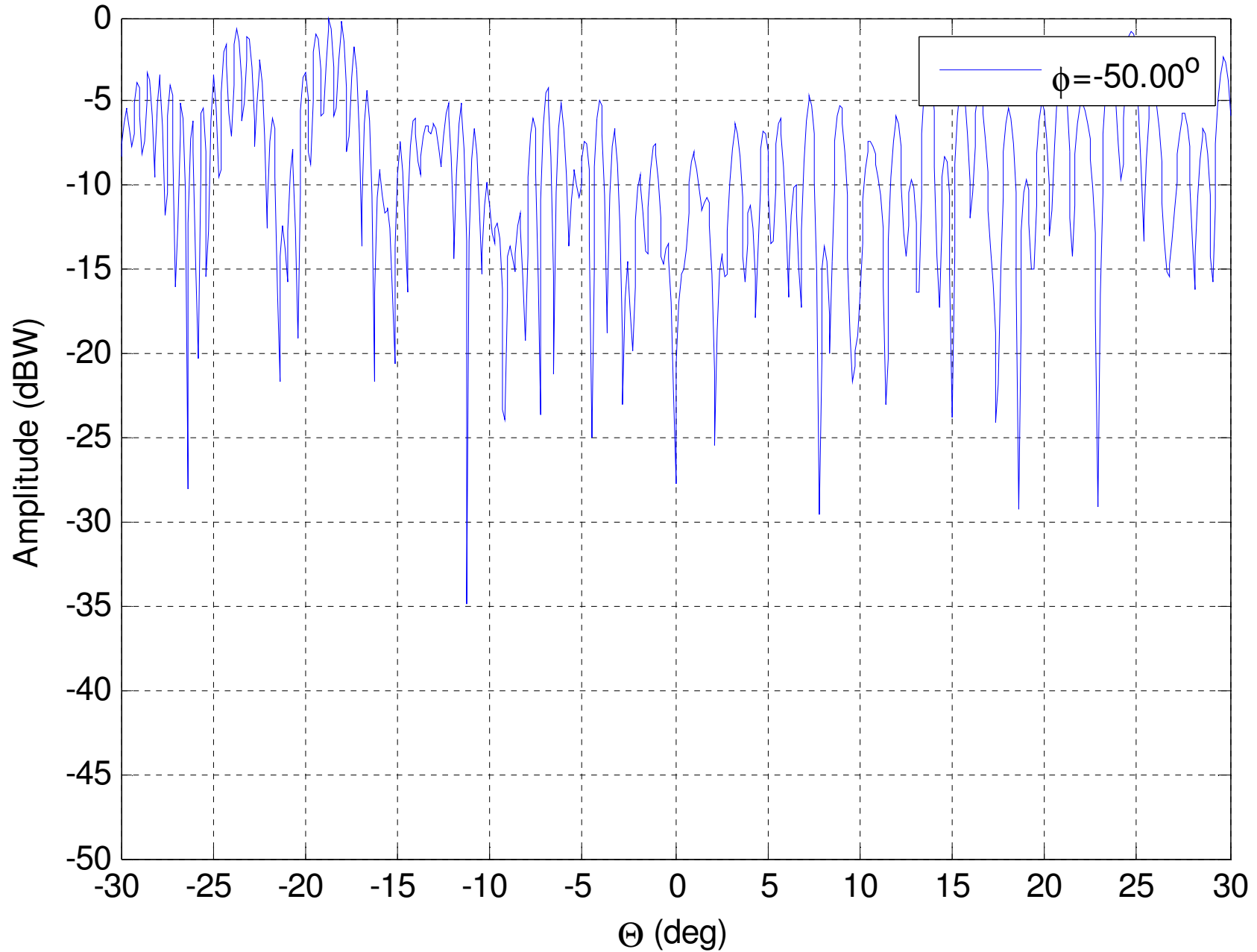
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -7.63 dBW, Date: 15-Dec-2011



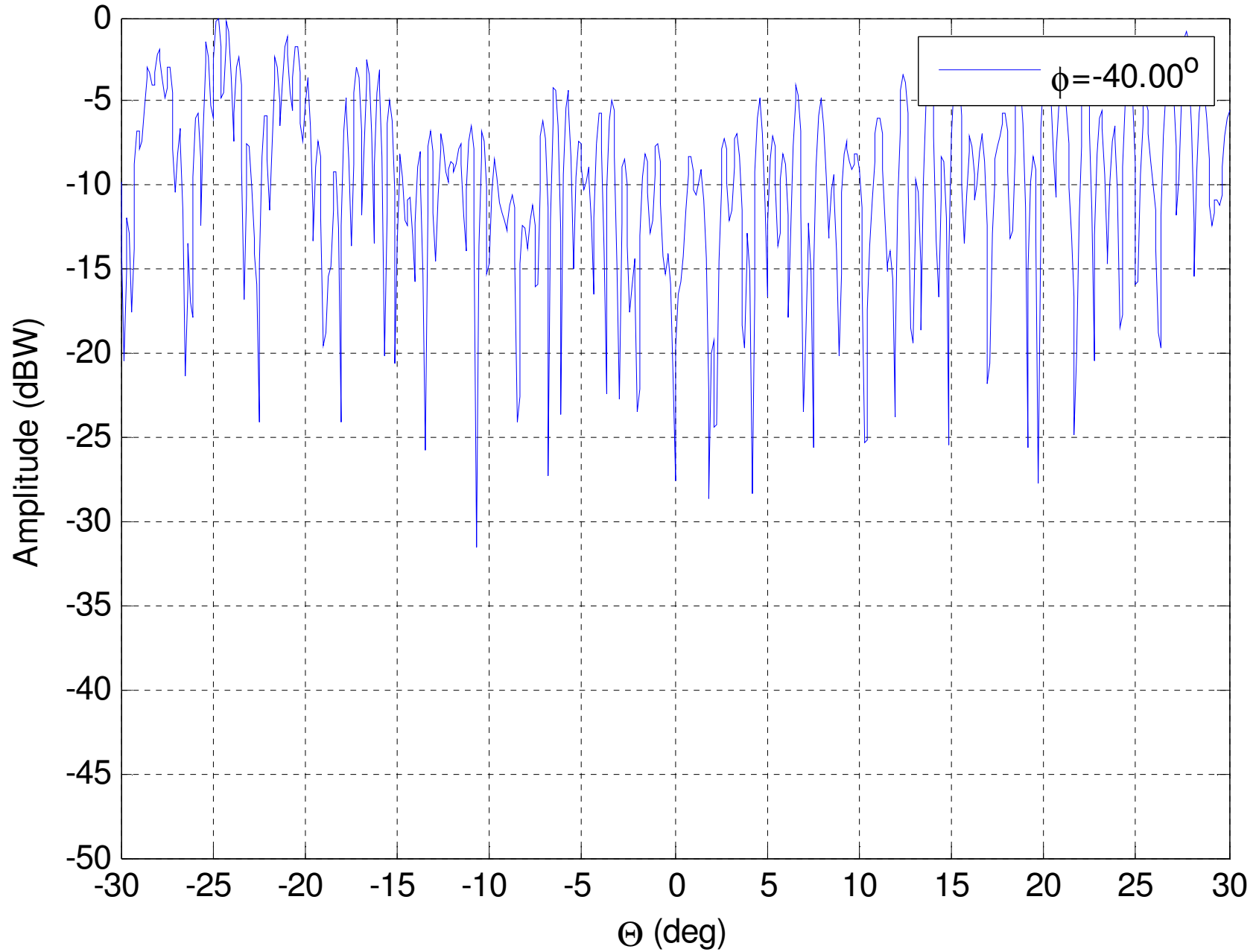
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -6.65 dBW, Date: 15-Dec-2011



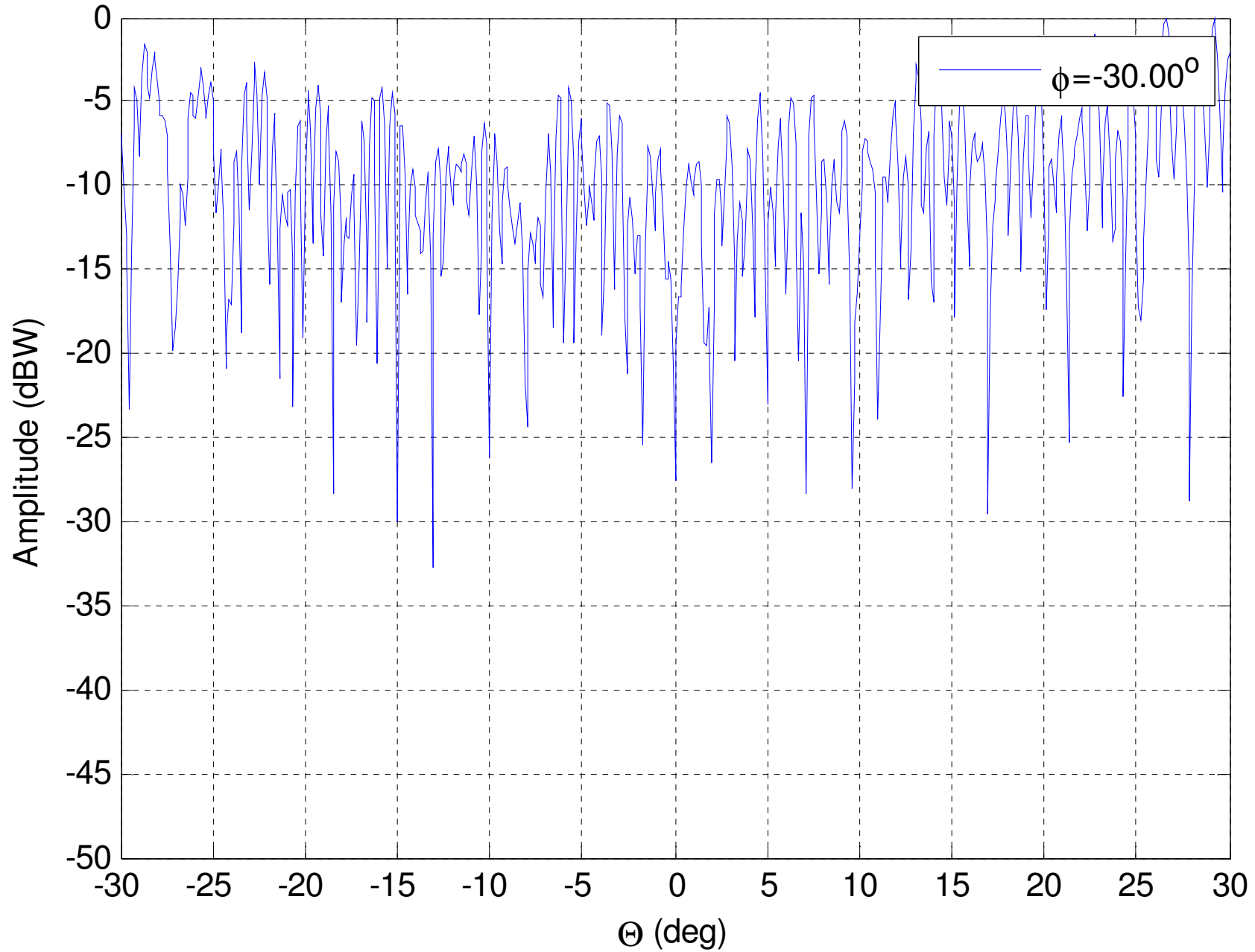
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -6.86 dBW, Date: 15-Dec-2011



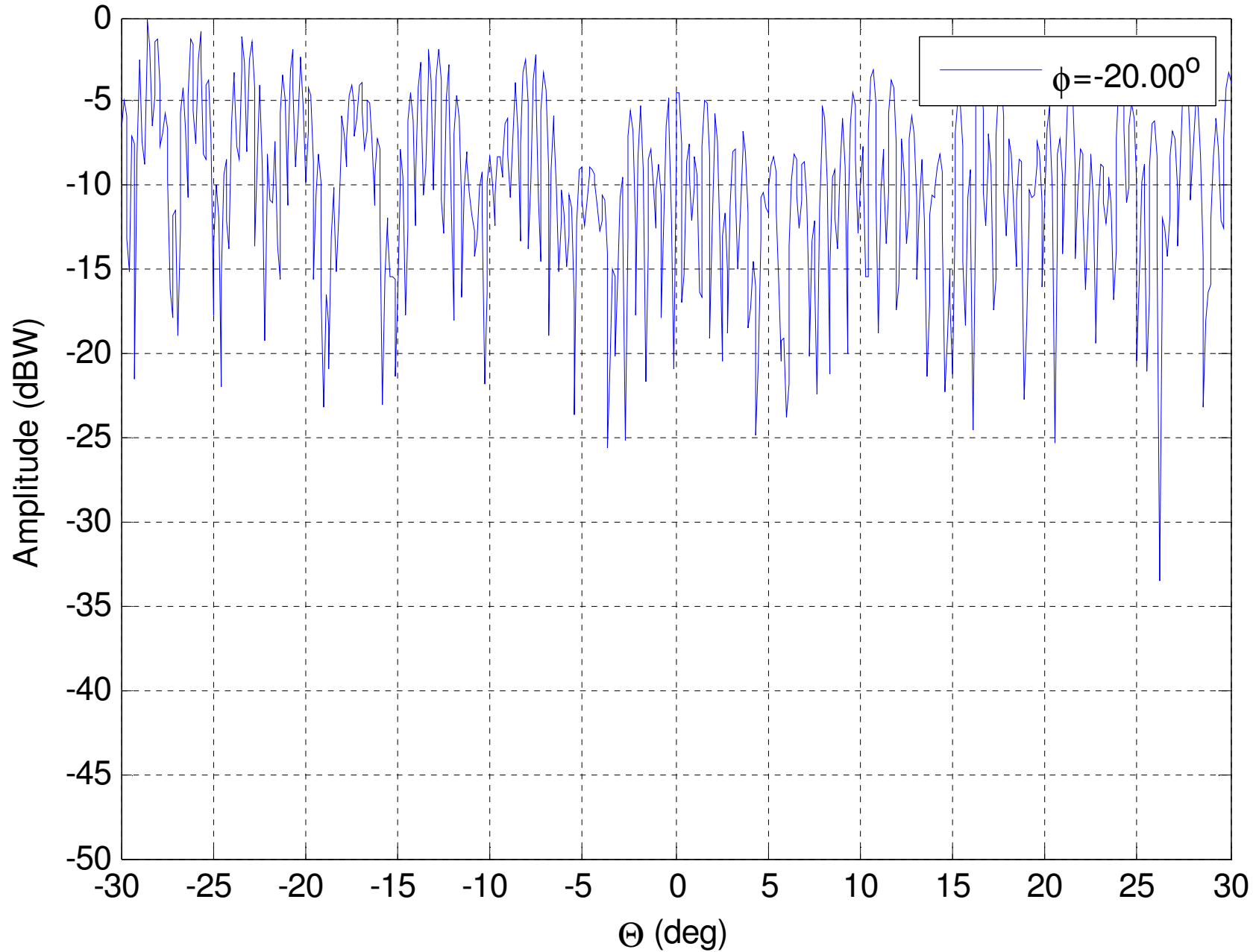
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: -6.73 dBW, Date: 15-Dec-2011



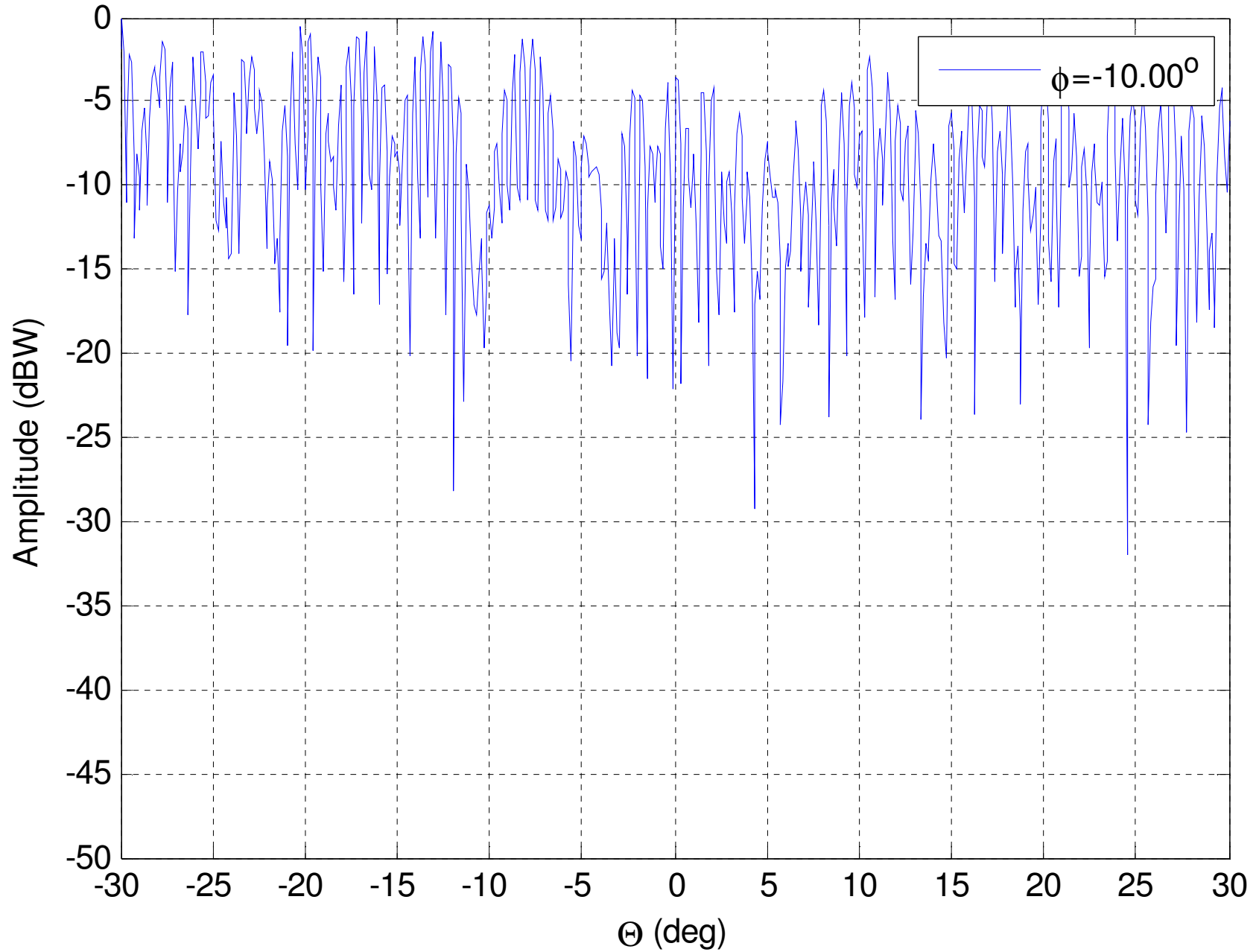
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: -8.04 dBW, Date: 15-Dec-2011



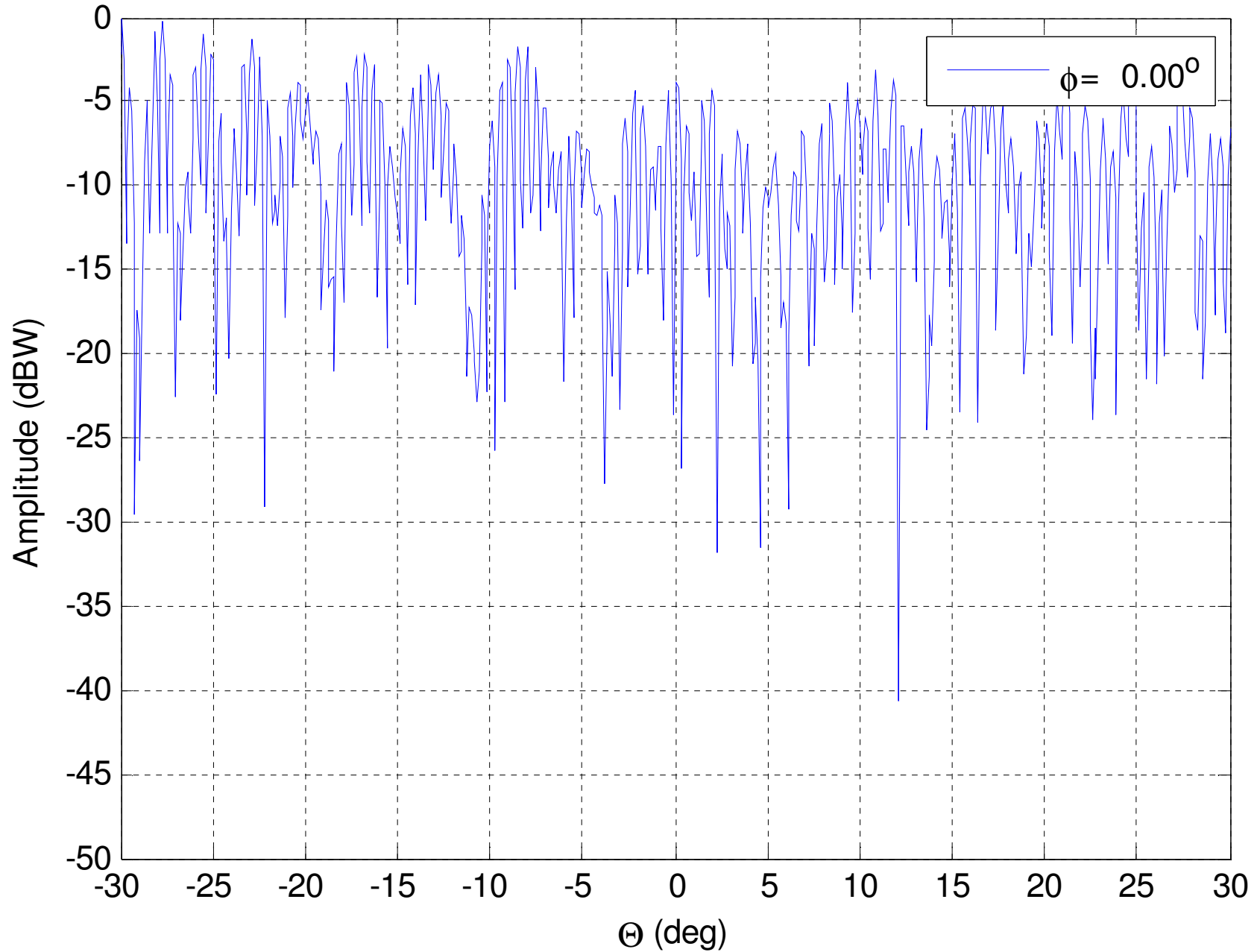
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: -8.92 dBW, Date: 15-Dec-2011



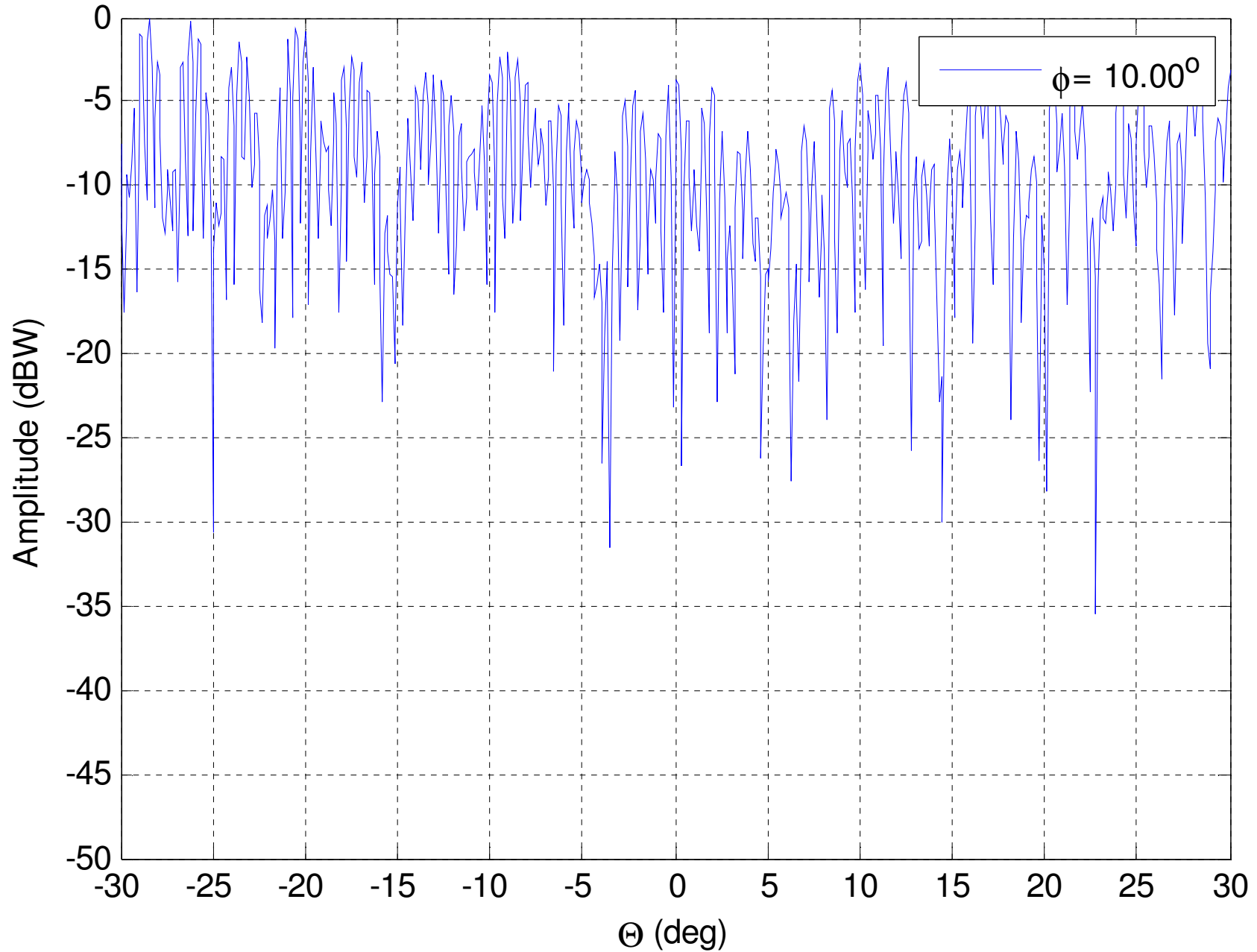
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: -8.51 dBW, Date: 15-Dec-2011



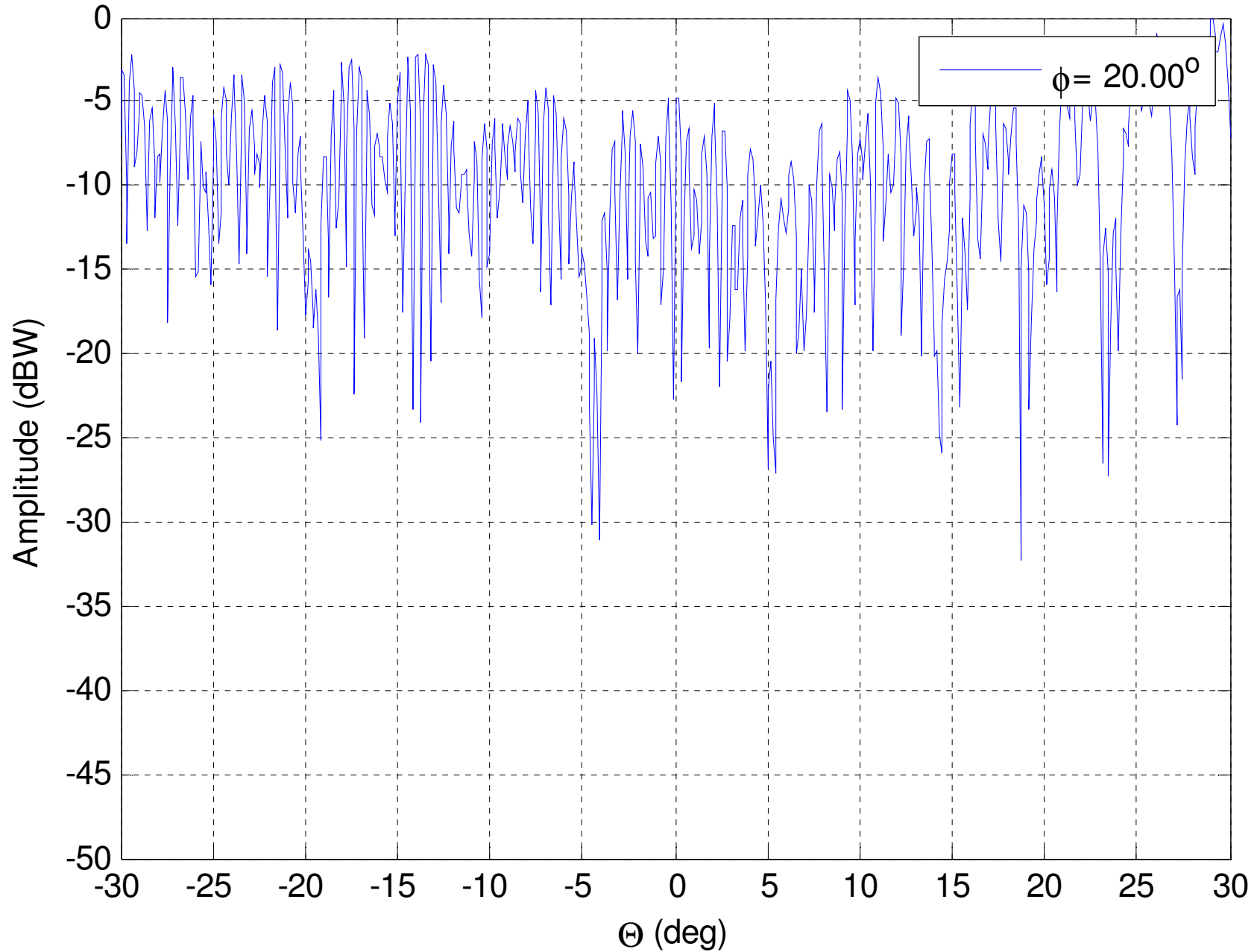
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: -8.72 dBW, Date: 15-Dec-2011



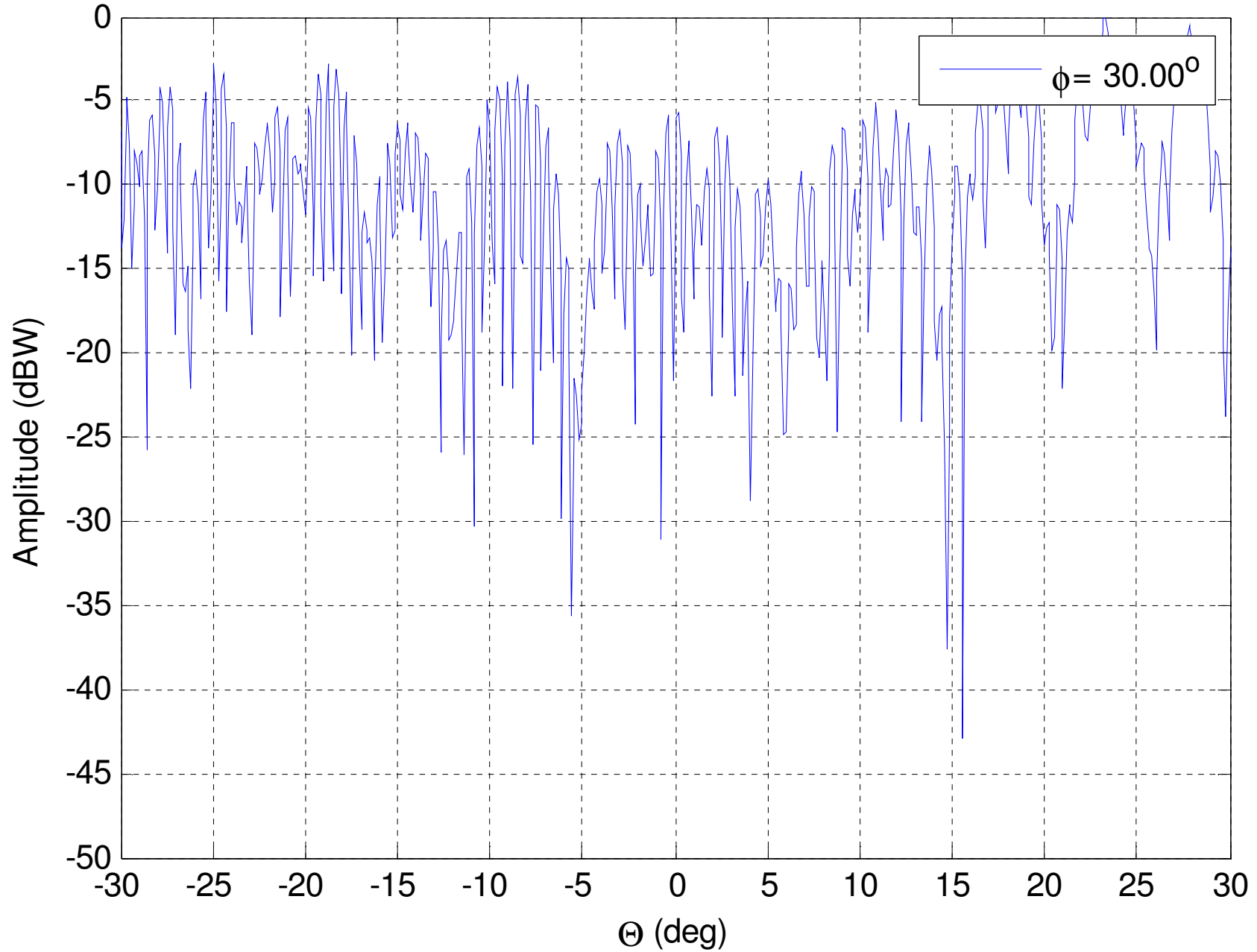
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: -7.72 dBW, Date: 15-Dec-2011



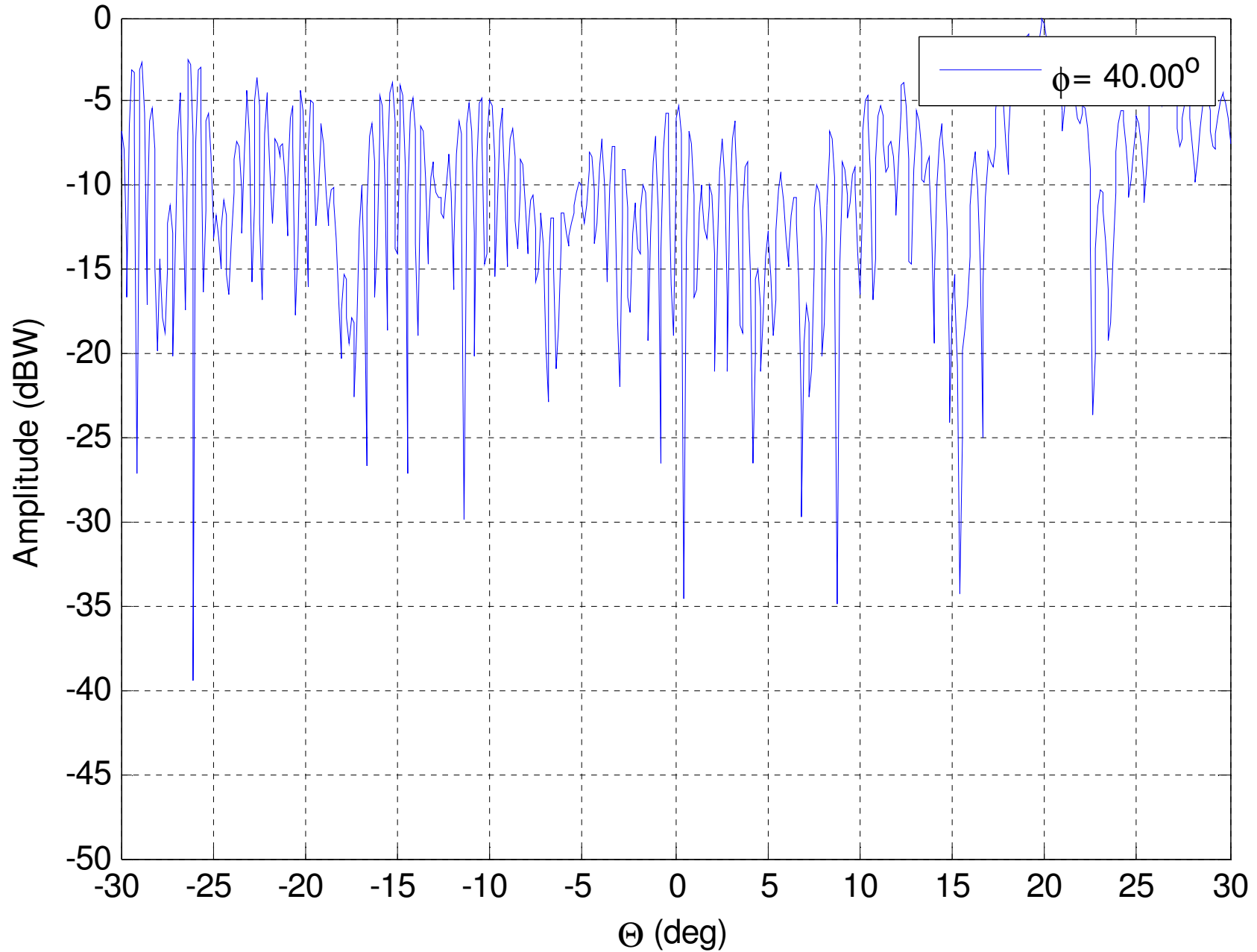
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: -6.56 dBW, Date: 15-Dec-2011



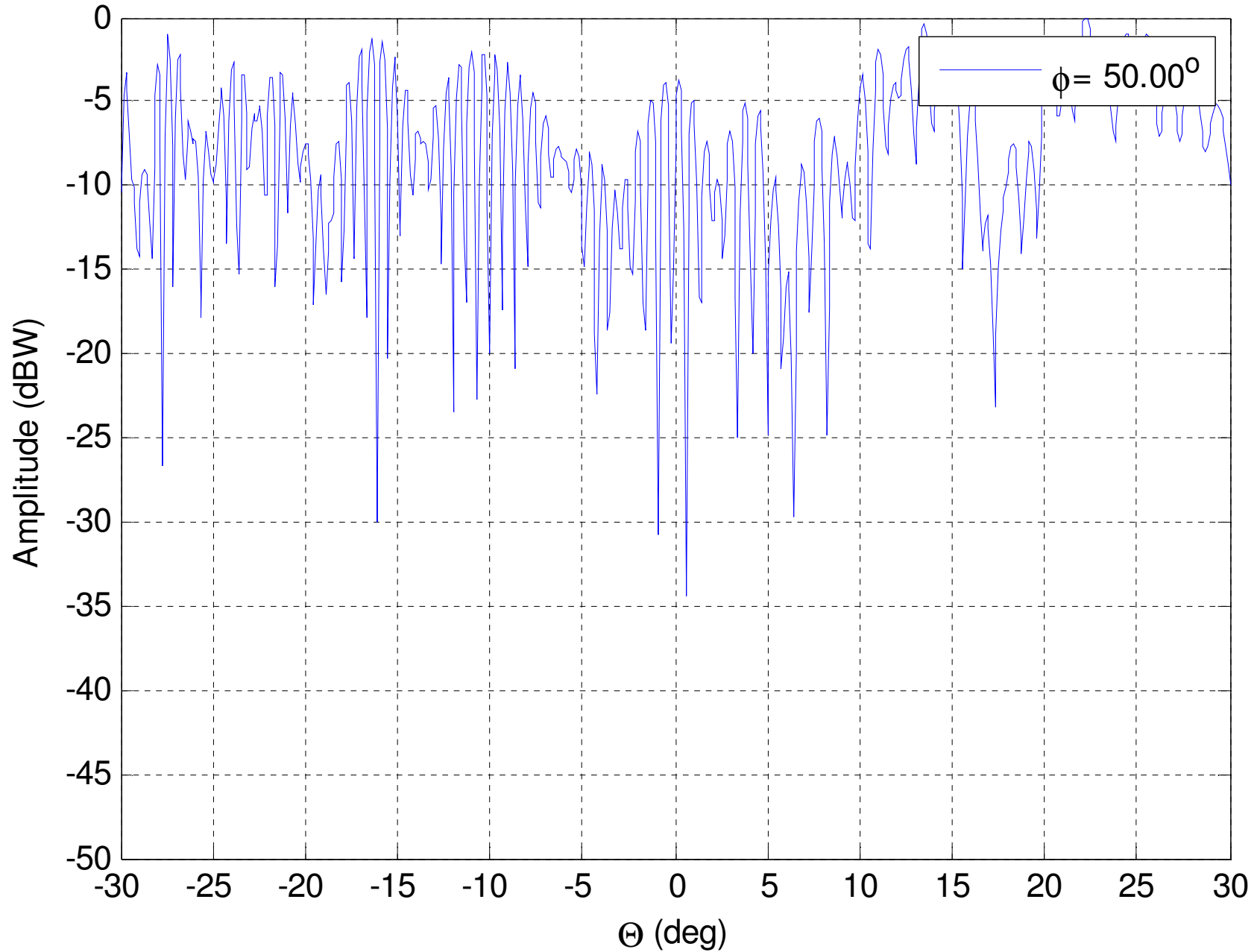
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -6.82 dBW, Date: 15-Dec-2011



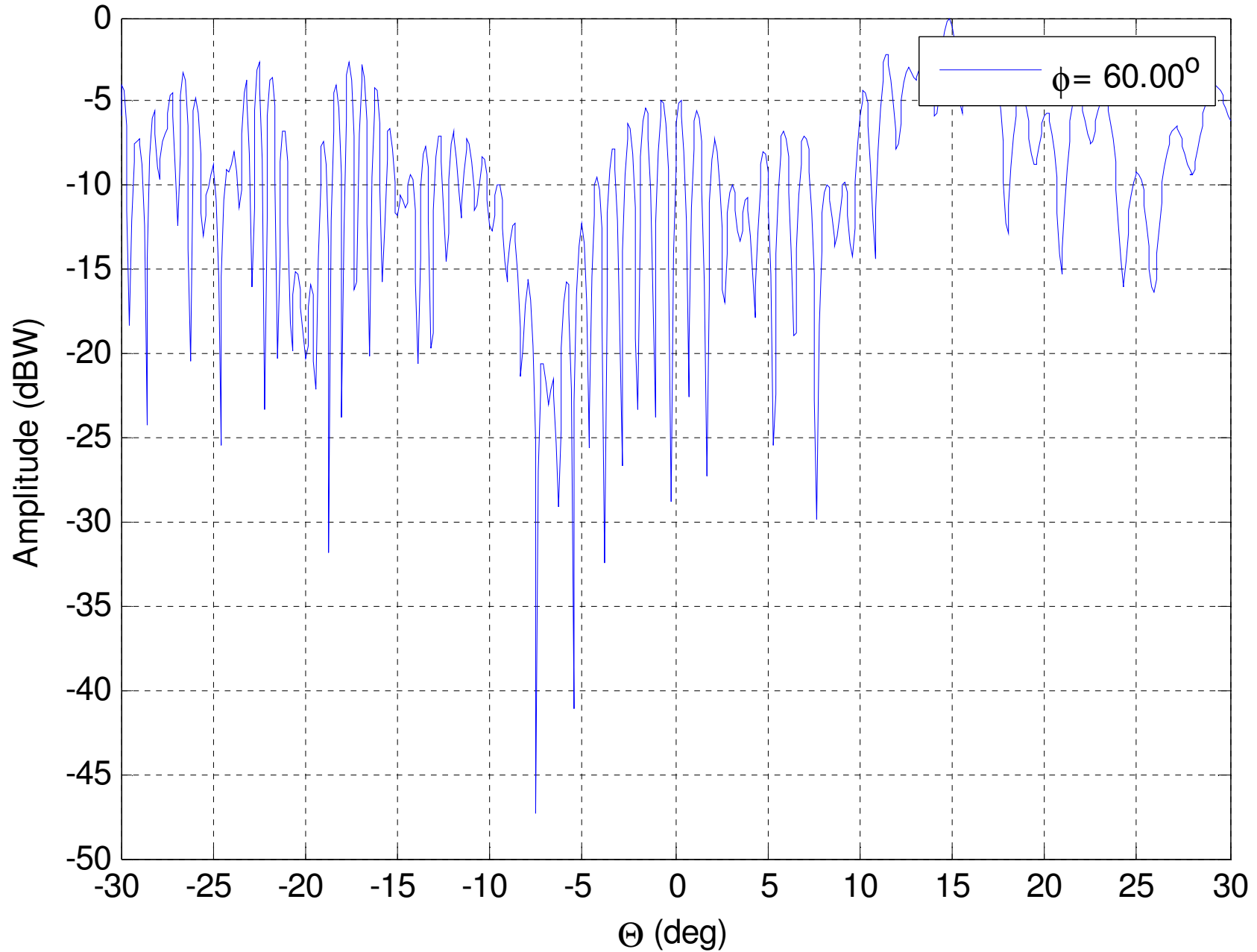
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -8.39 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

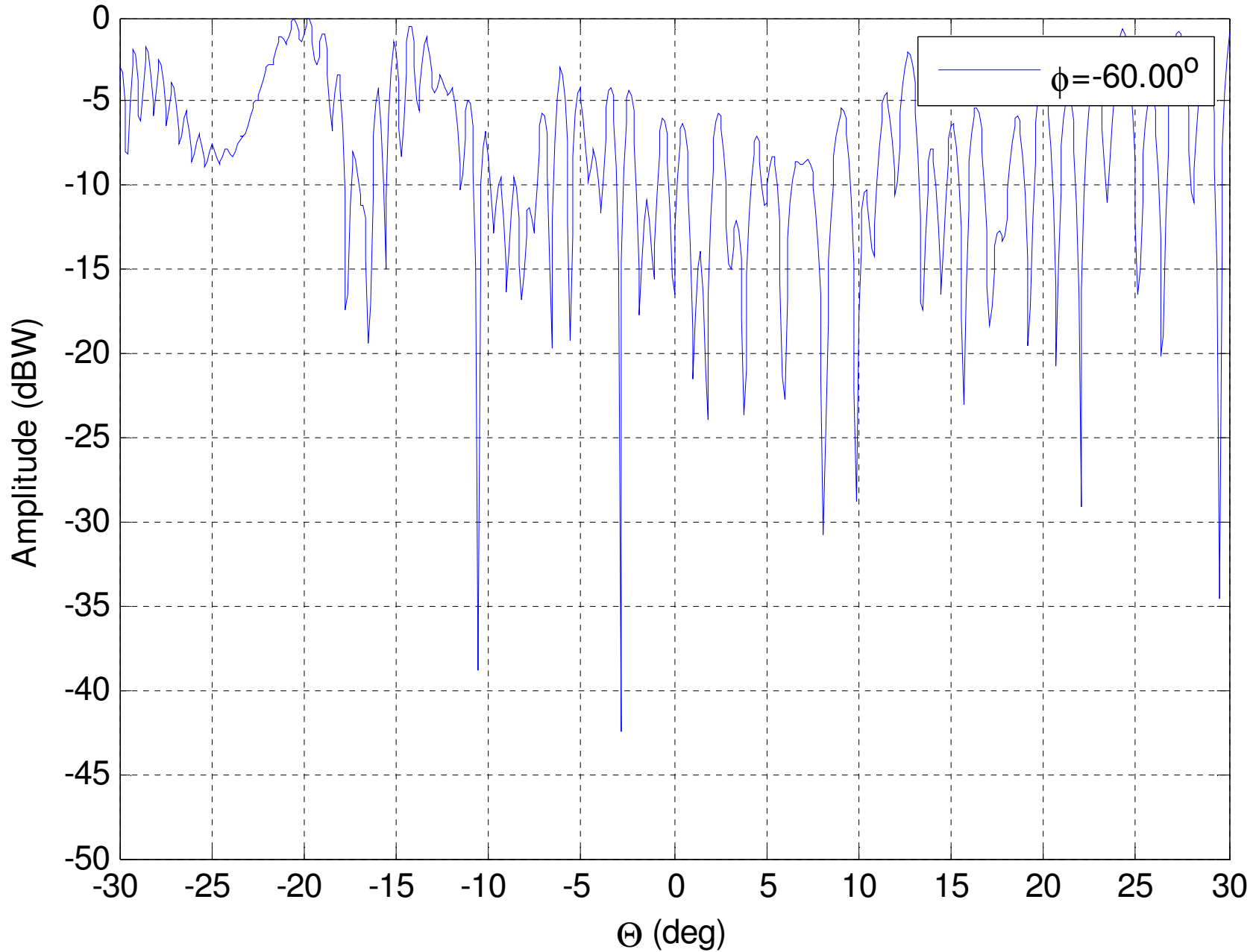
Input file: tx-17.5-lhcp-60.cut, Peak: -7.13 dBW, Date: 15-Dec-2011



RHCP at 17.7 GHz

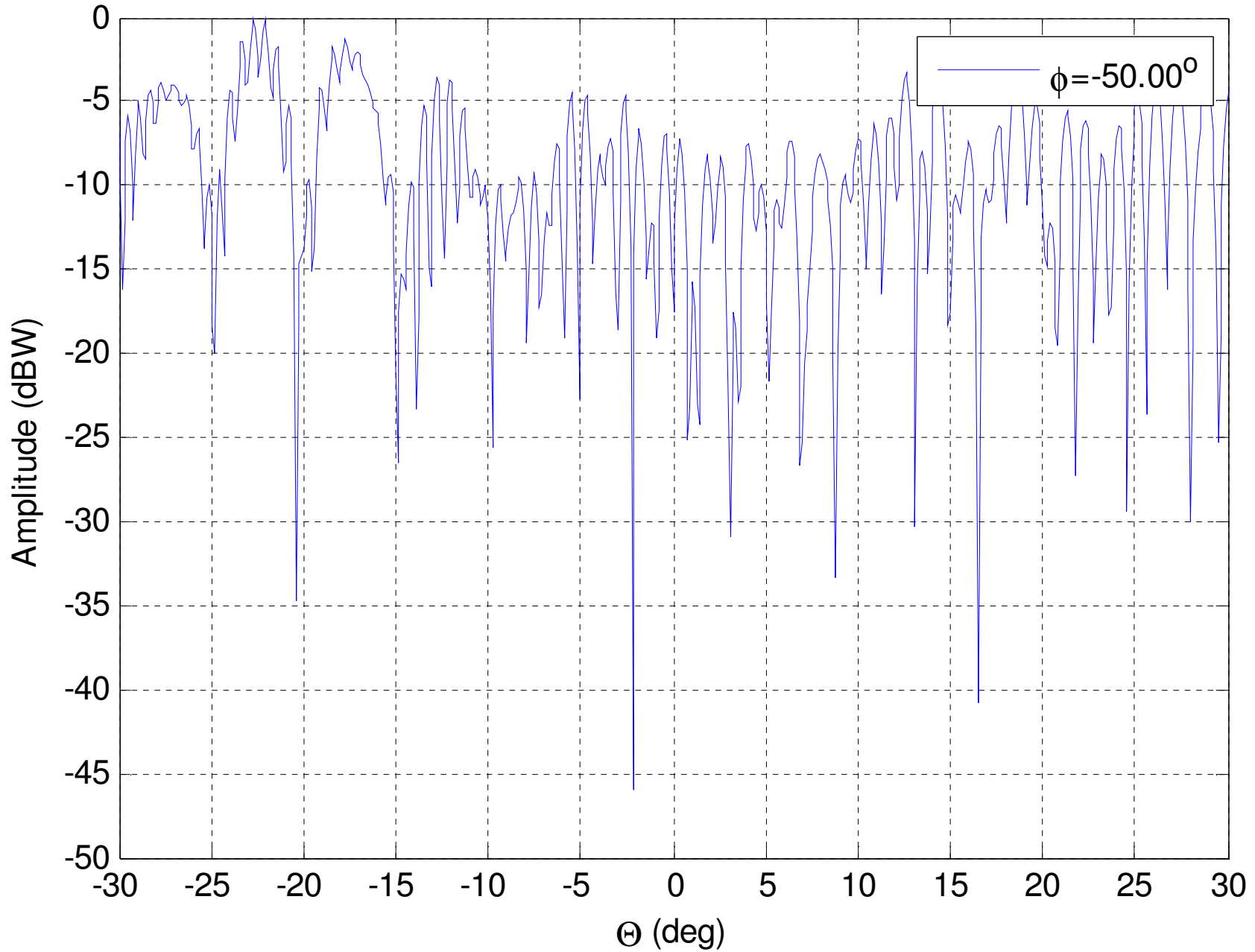
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -8.06 dBW, Date: 15-Dec-2011



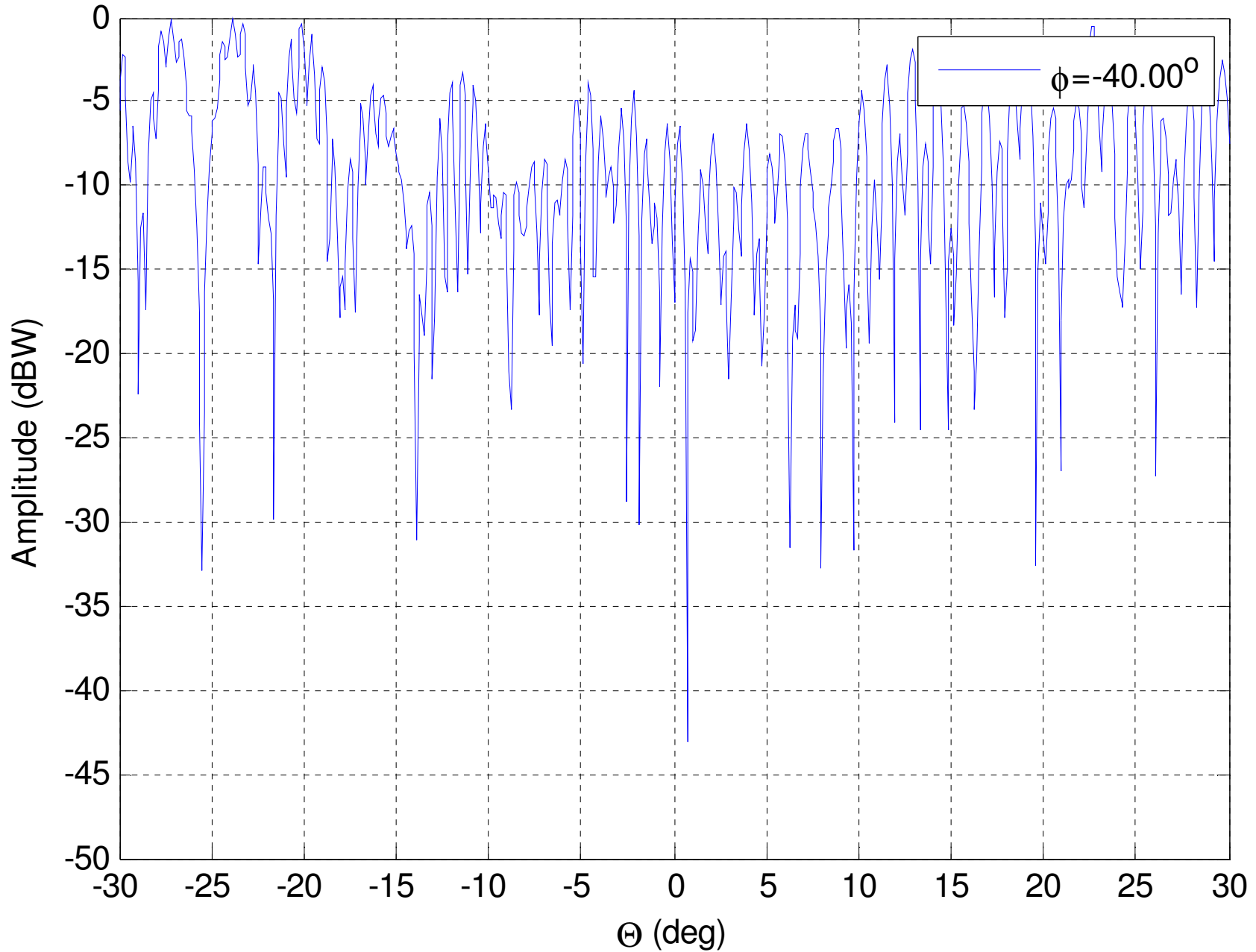
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -6.98 dBW, Date: 15-Dec-2011



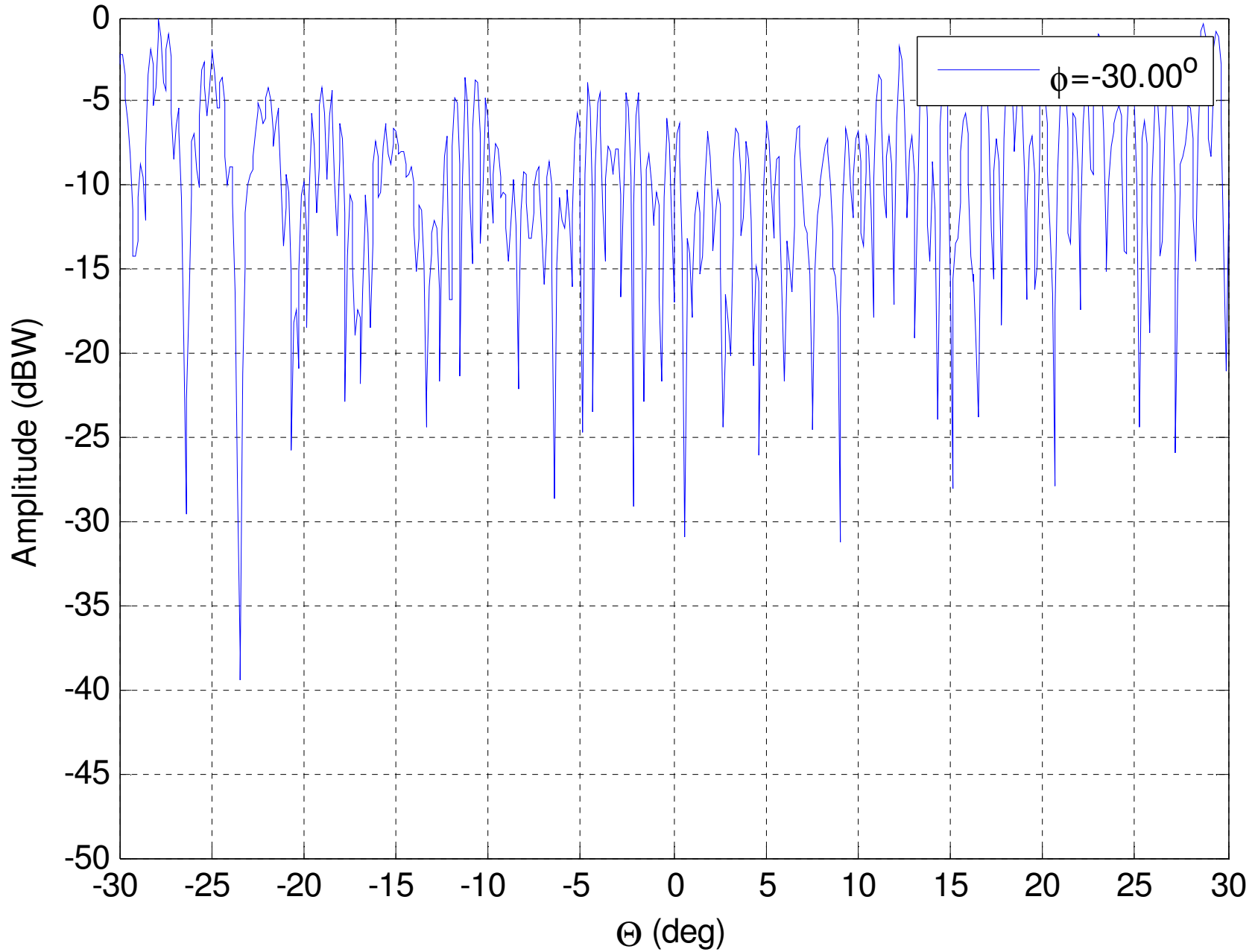
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -7.48 dBW, Date: 15-Dec-2011



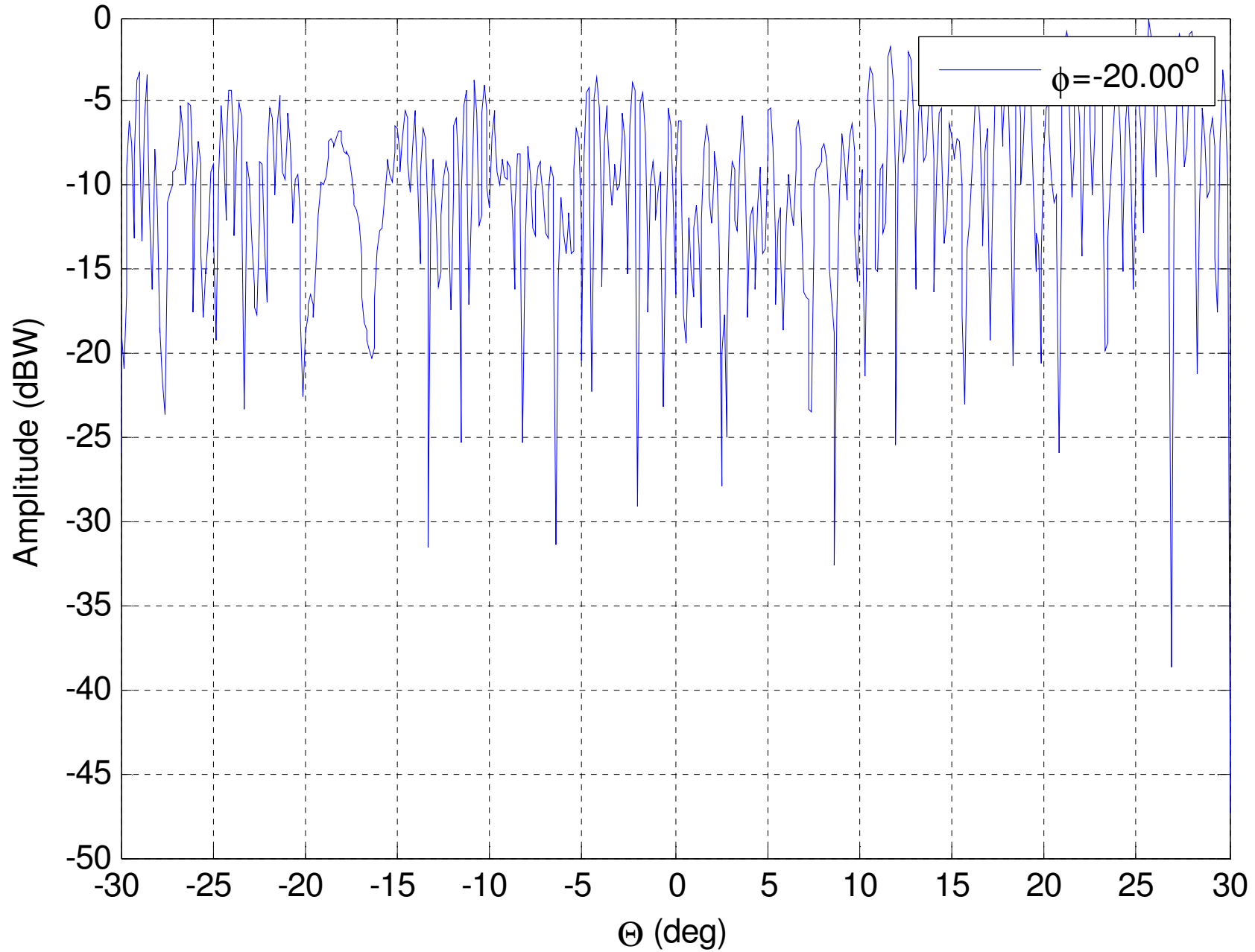
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -7.57 dBW, Date: 15-Dec-2011



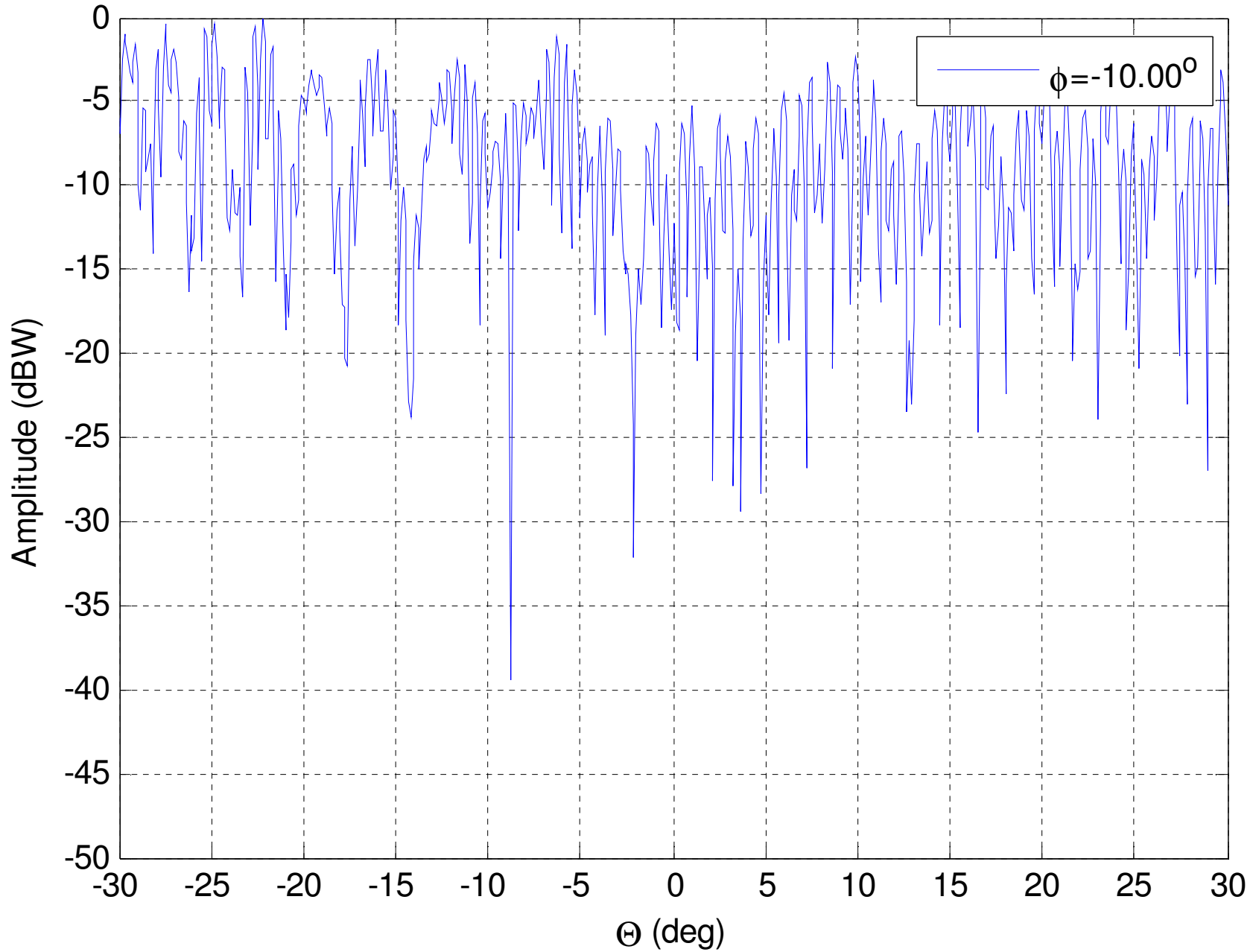
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: -8.03 dBW, Date: 15-Dec-2011



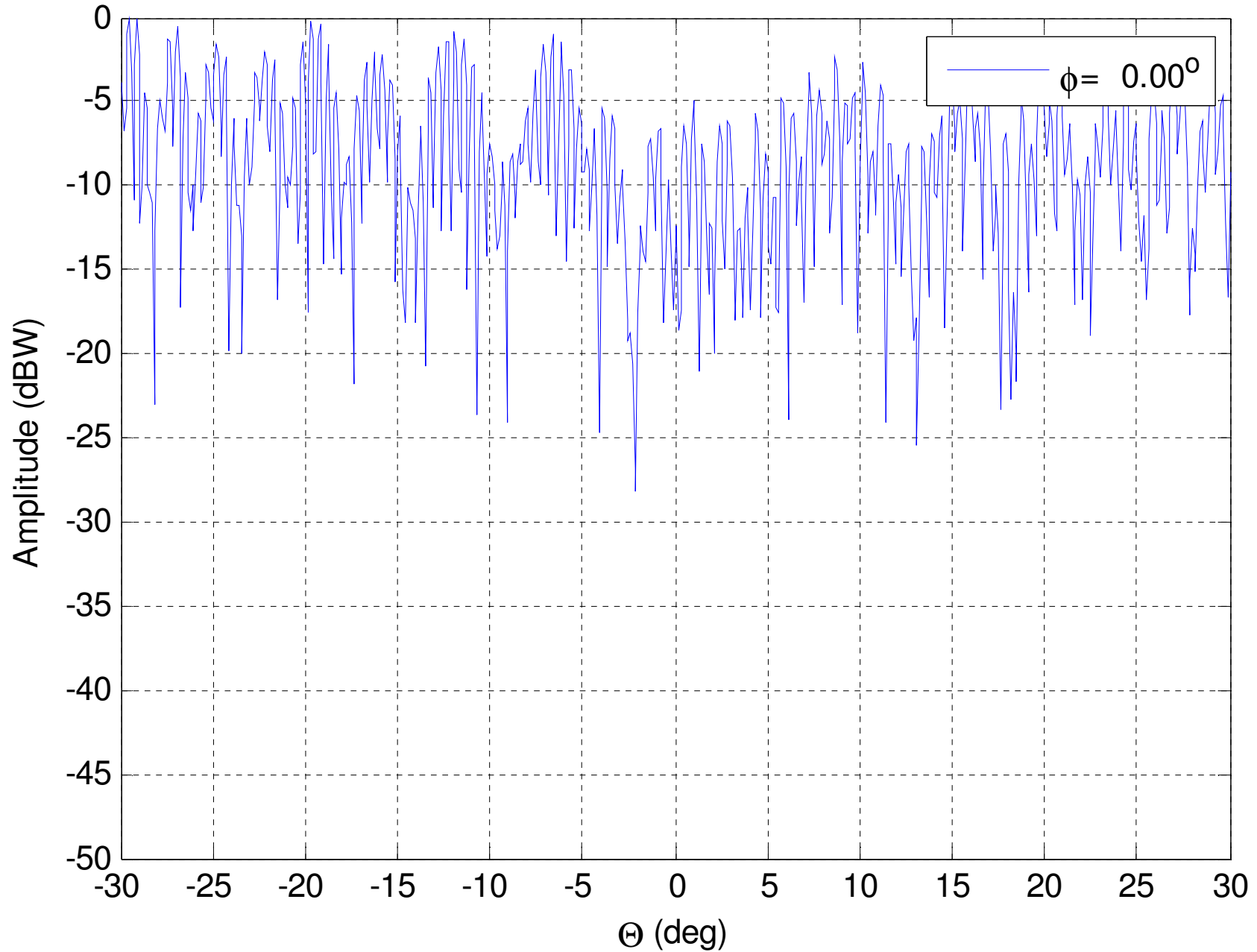
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: -9.66 dBW, Date: 15-Dec-2011



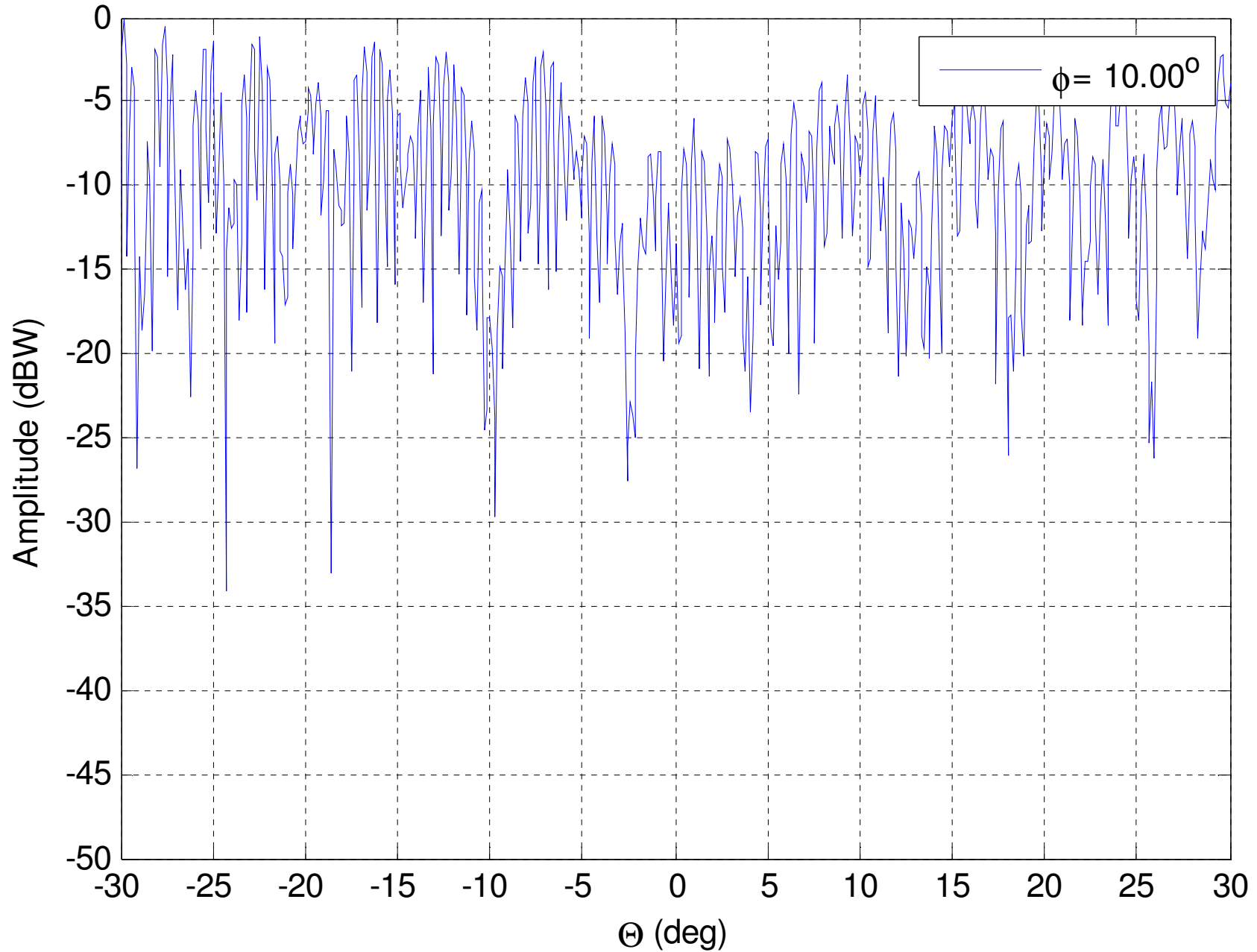
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: -9.65 dBW, Date: 15-Dec-2011



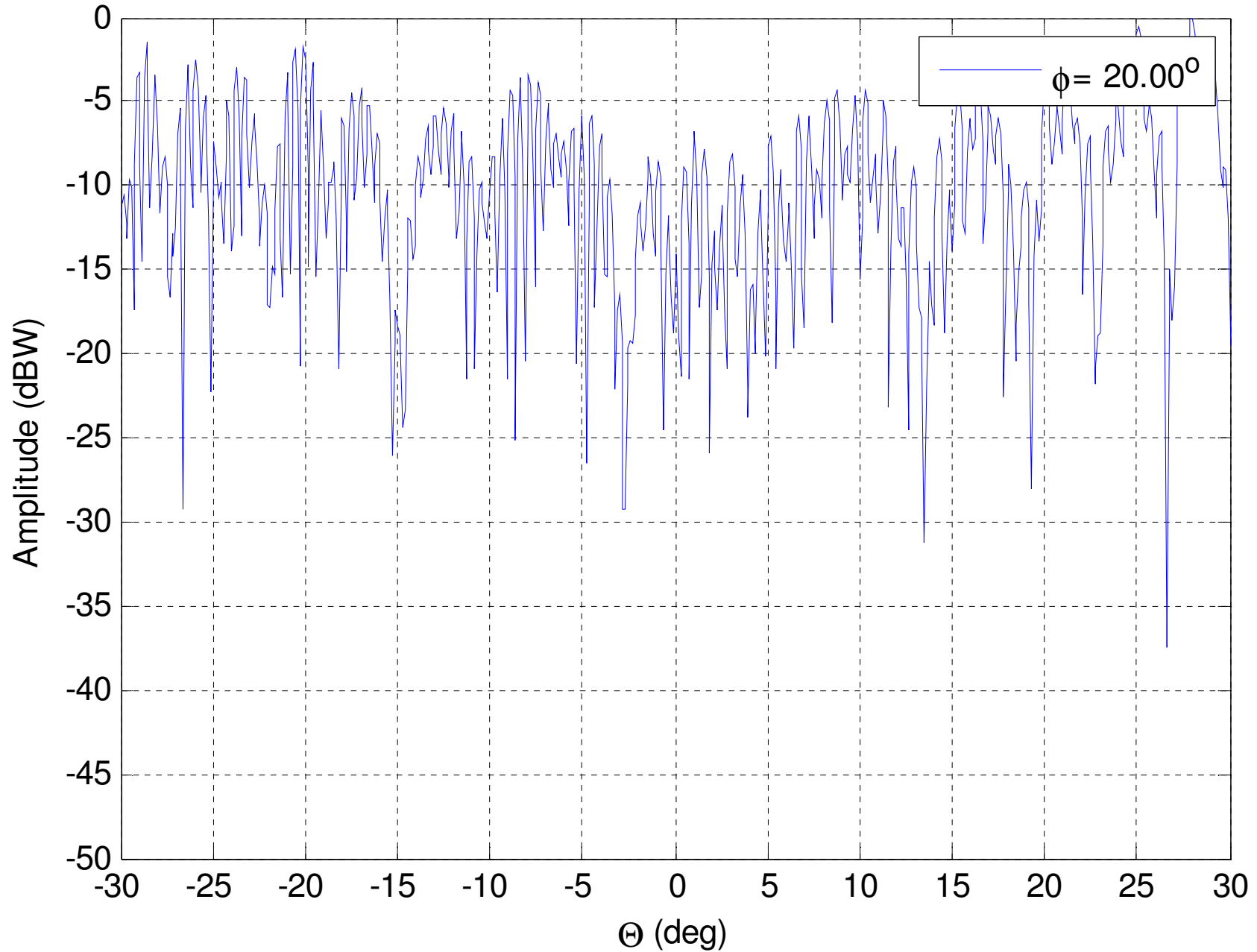
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: -8.54 dBW, Date: 15-Dec-2011



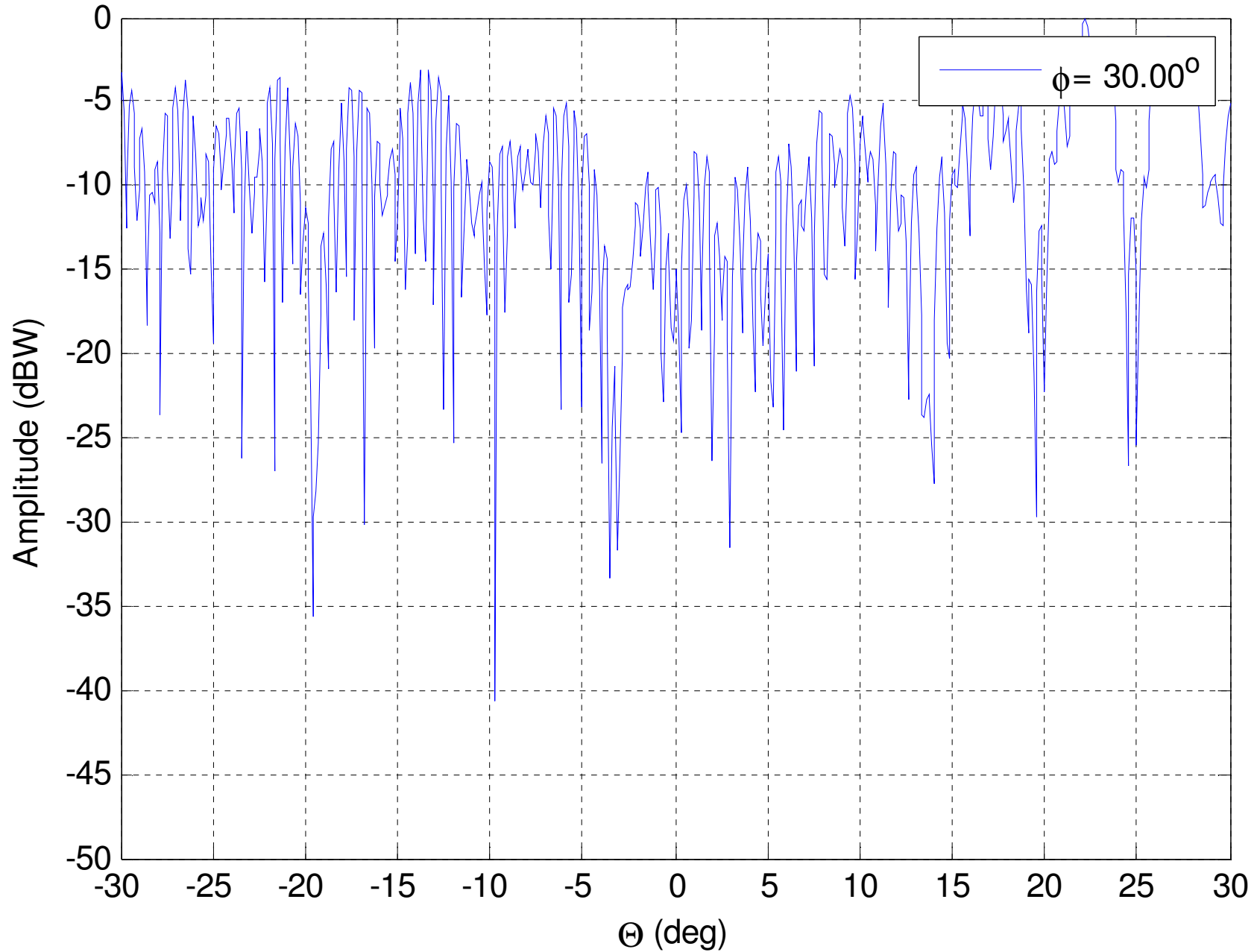
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: -7.84 dBW, Date: 15-Dec-2011



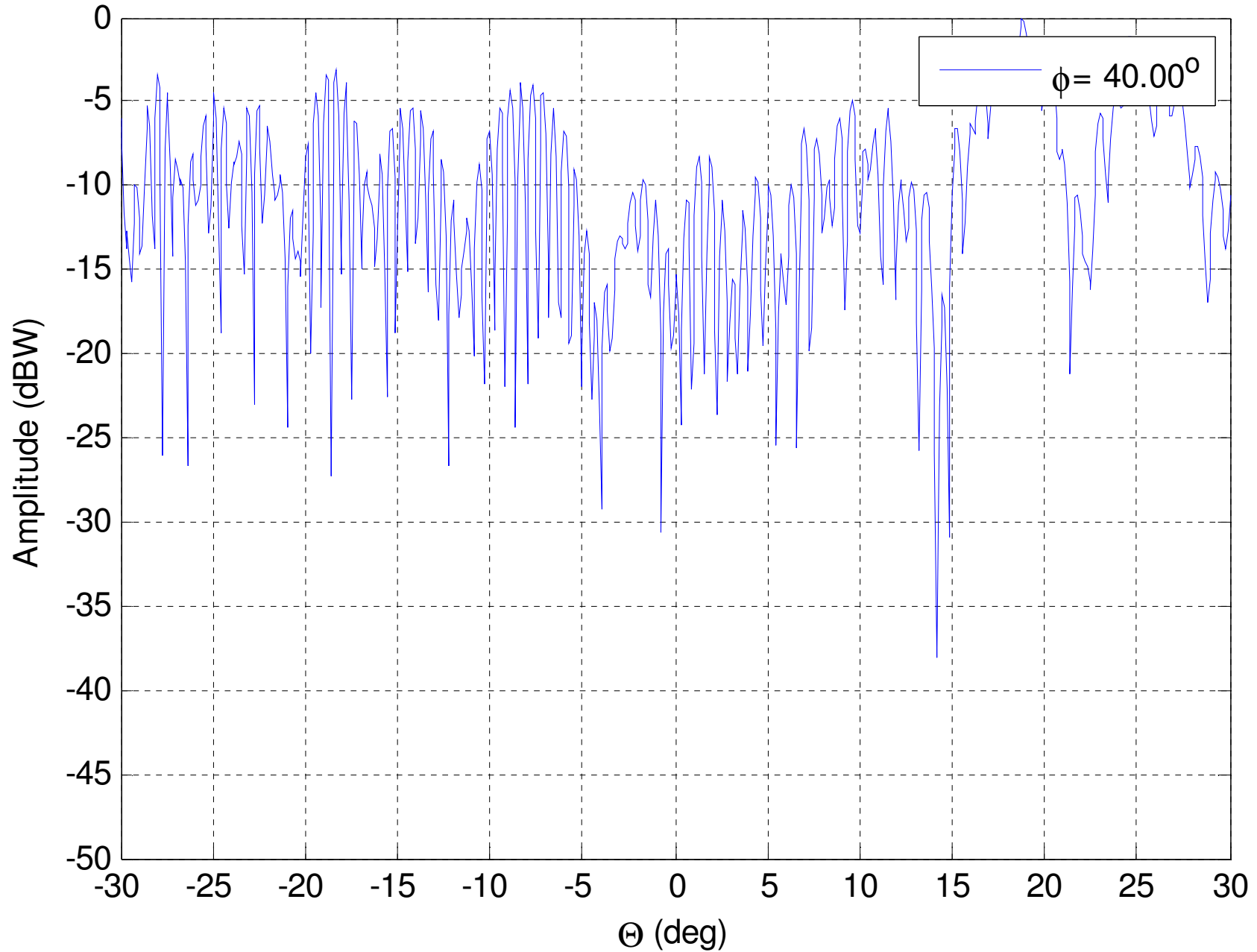
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: -6.88 dBW, Date: 15-Dec-2011



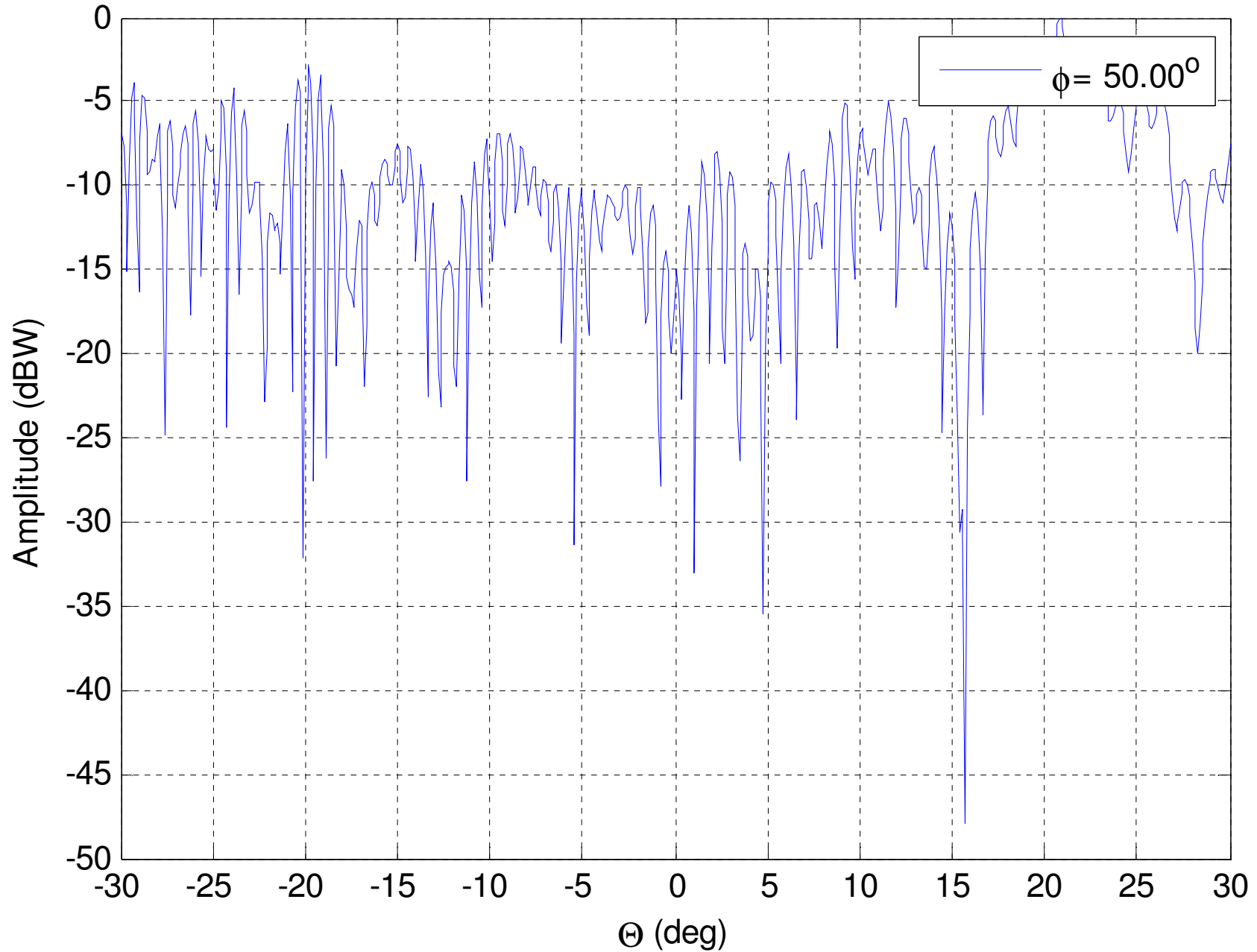
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -6.59 dBW, Date: 15-Dec-2011



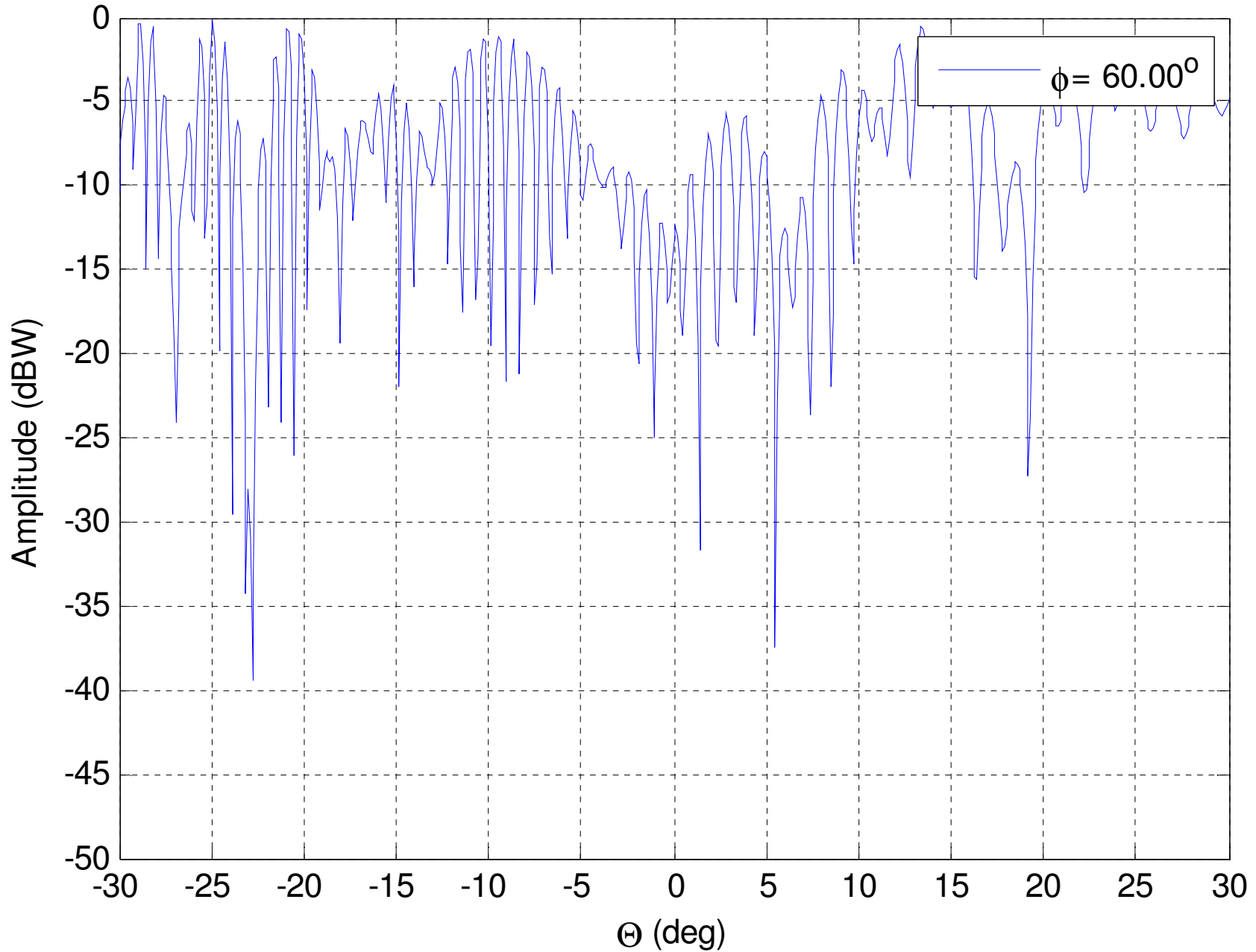
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -6.80 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

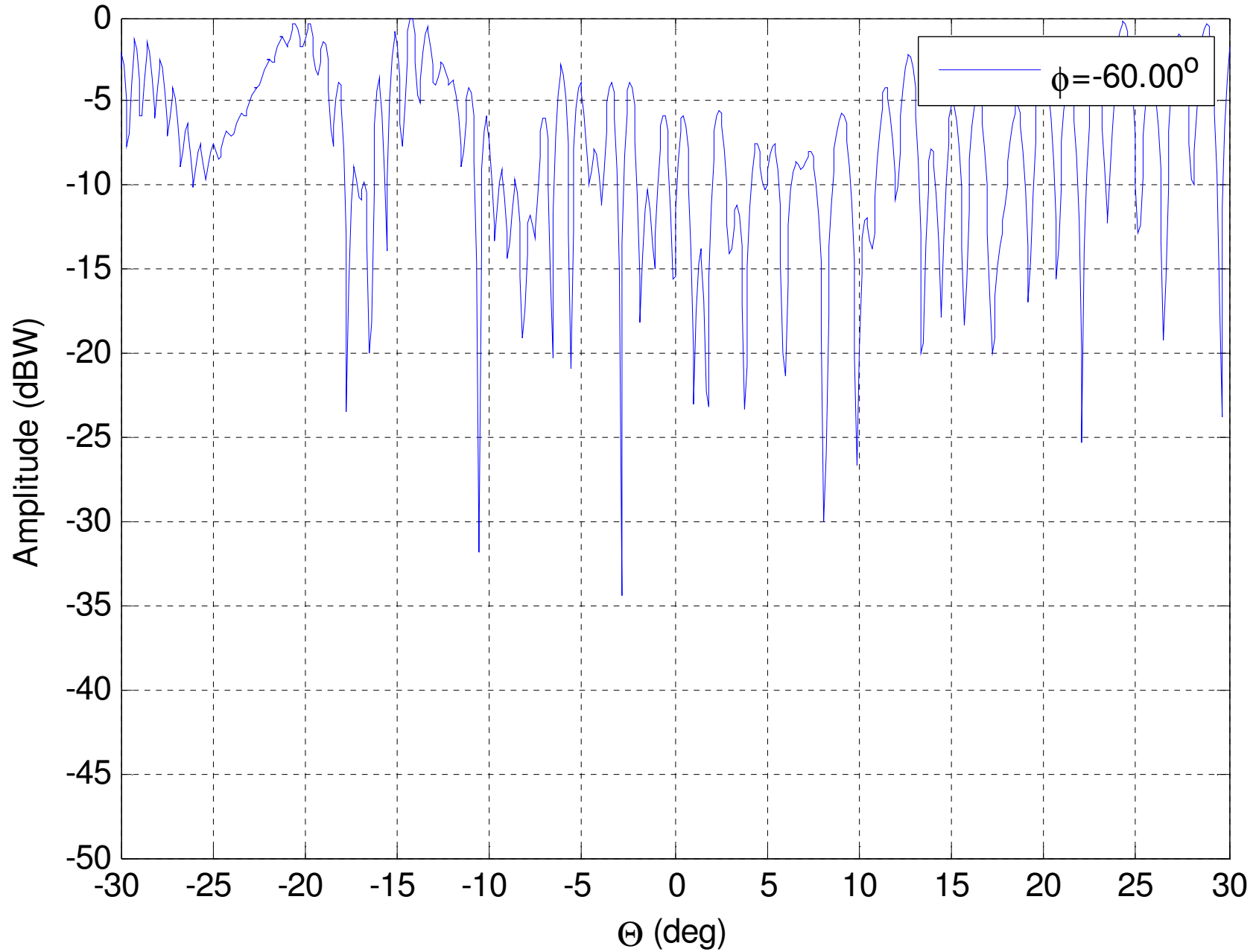
Input file: tx-17.7-rhcp-60.cut, Peak: -9.44 dBW, Date: 15-Dec-2011



LHCP at 17.7 GHz

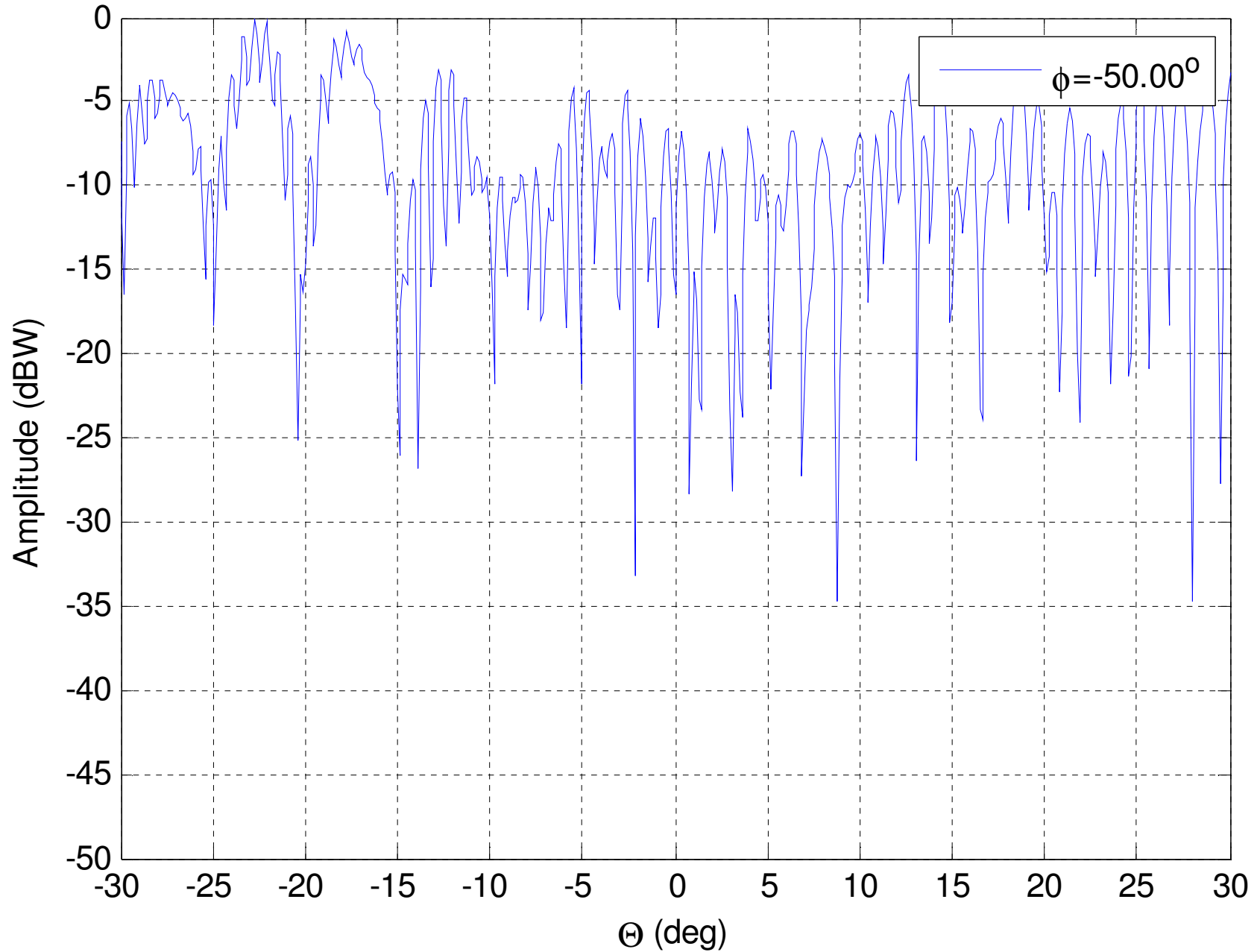
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -8.37 dBW, Date: 15-Dec-2011



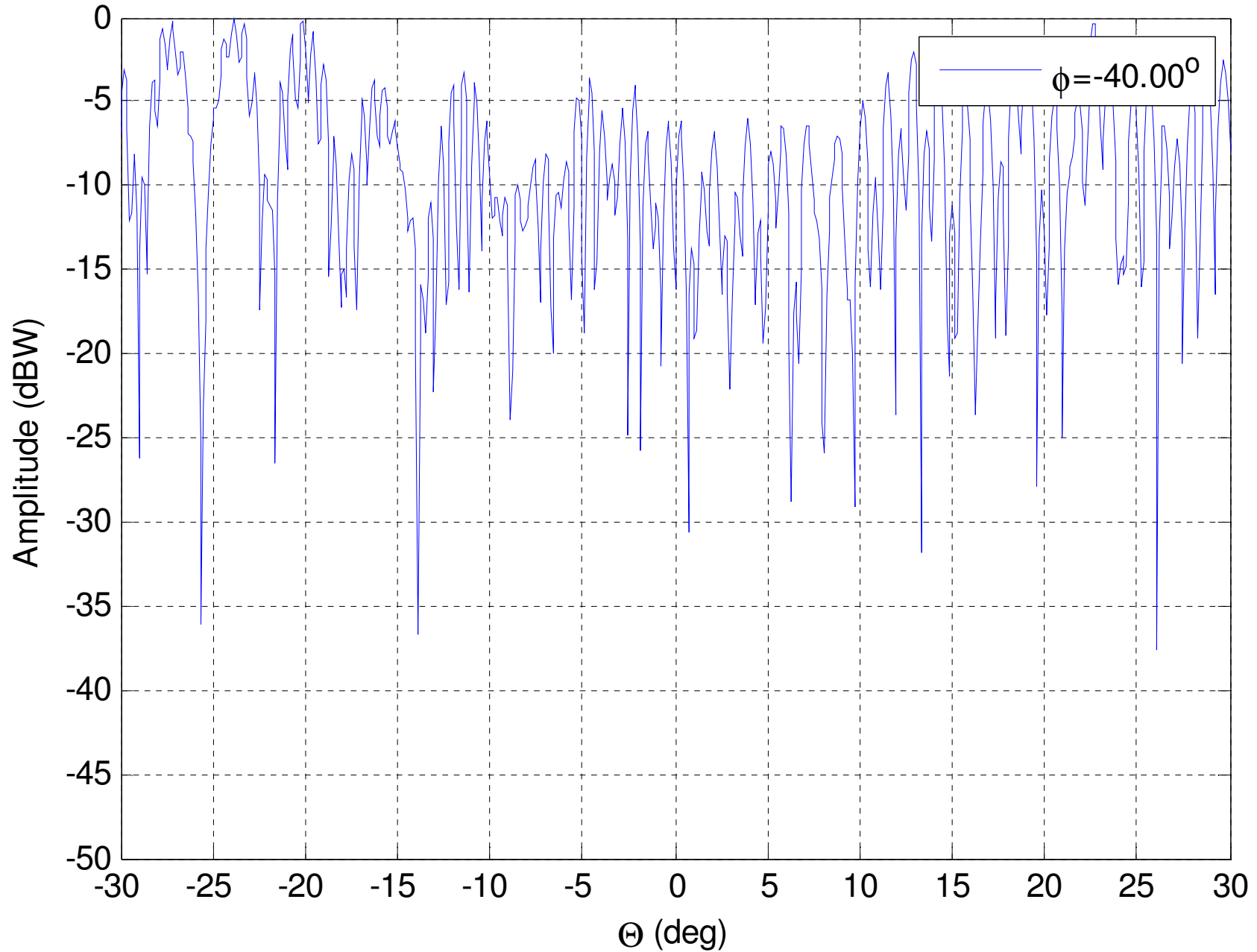
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -7.31 dBW, Date: 15-Dec-2011



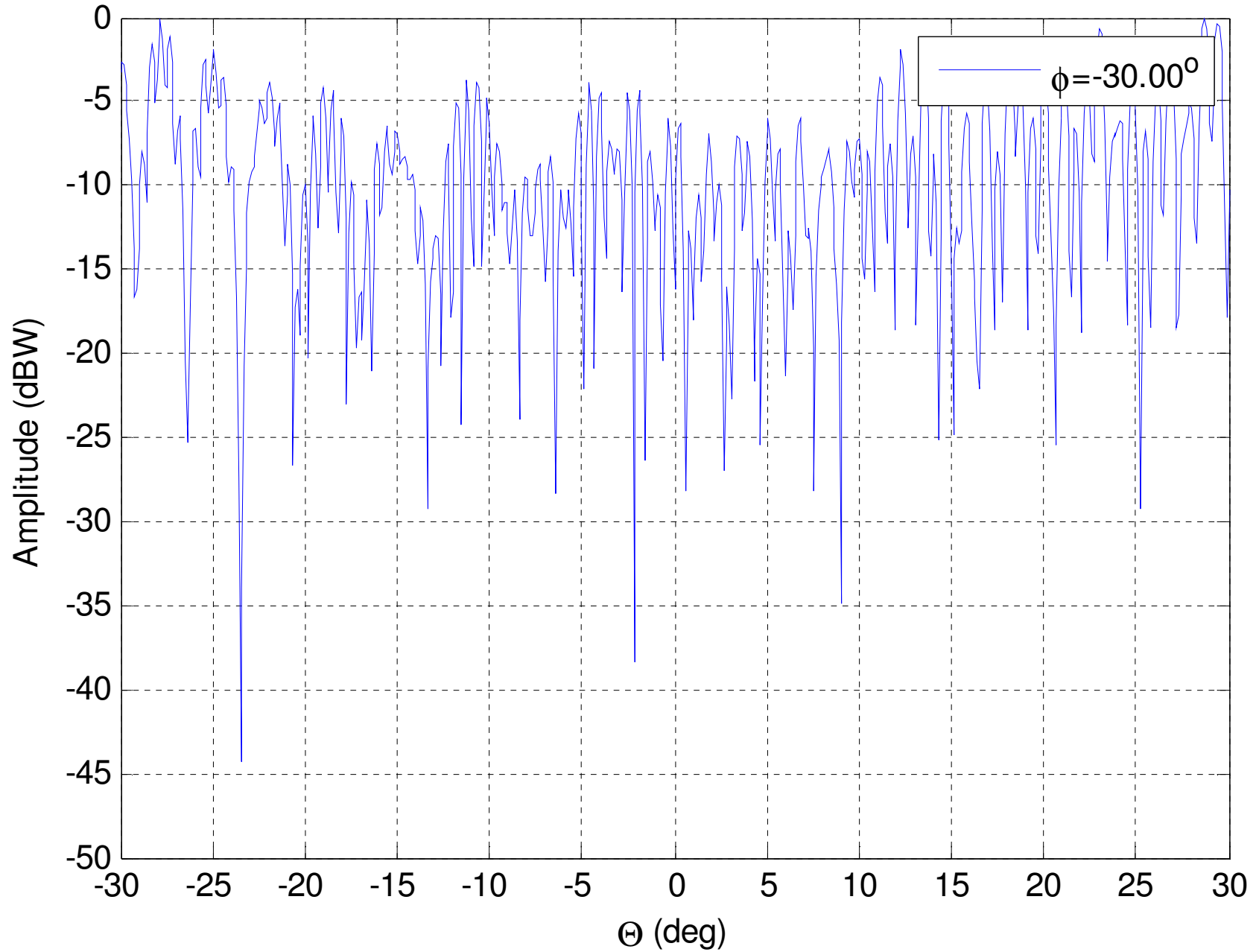
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -7.59 dBW, Date: 15-Dec-2011



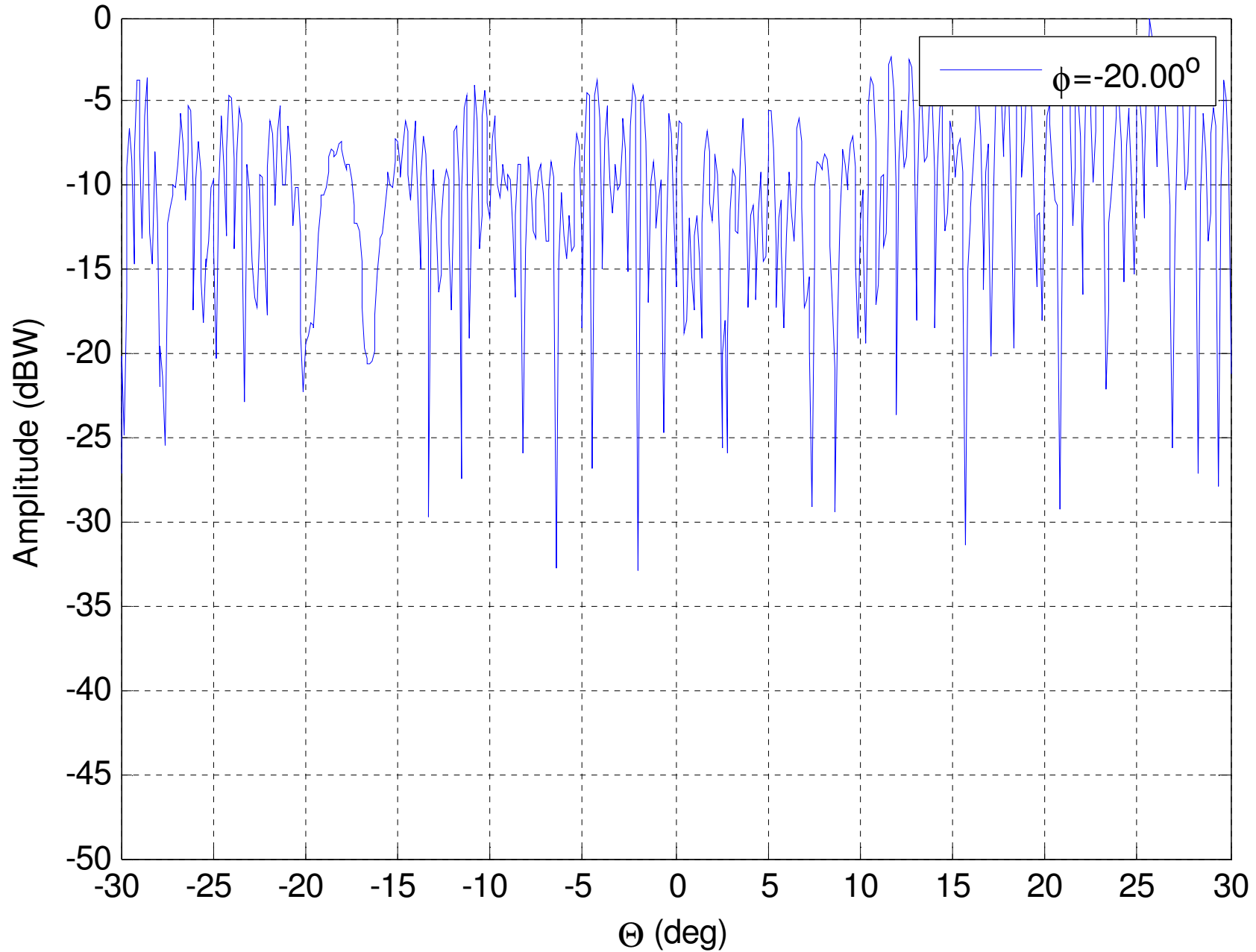
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -7.53 dBW, Date: 15-Dec-2011



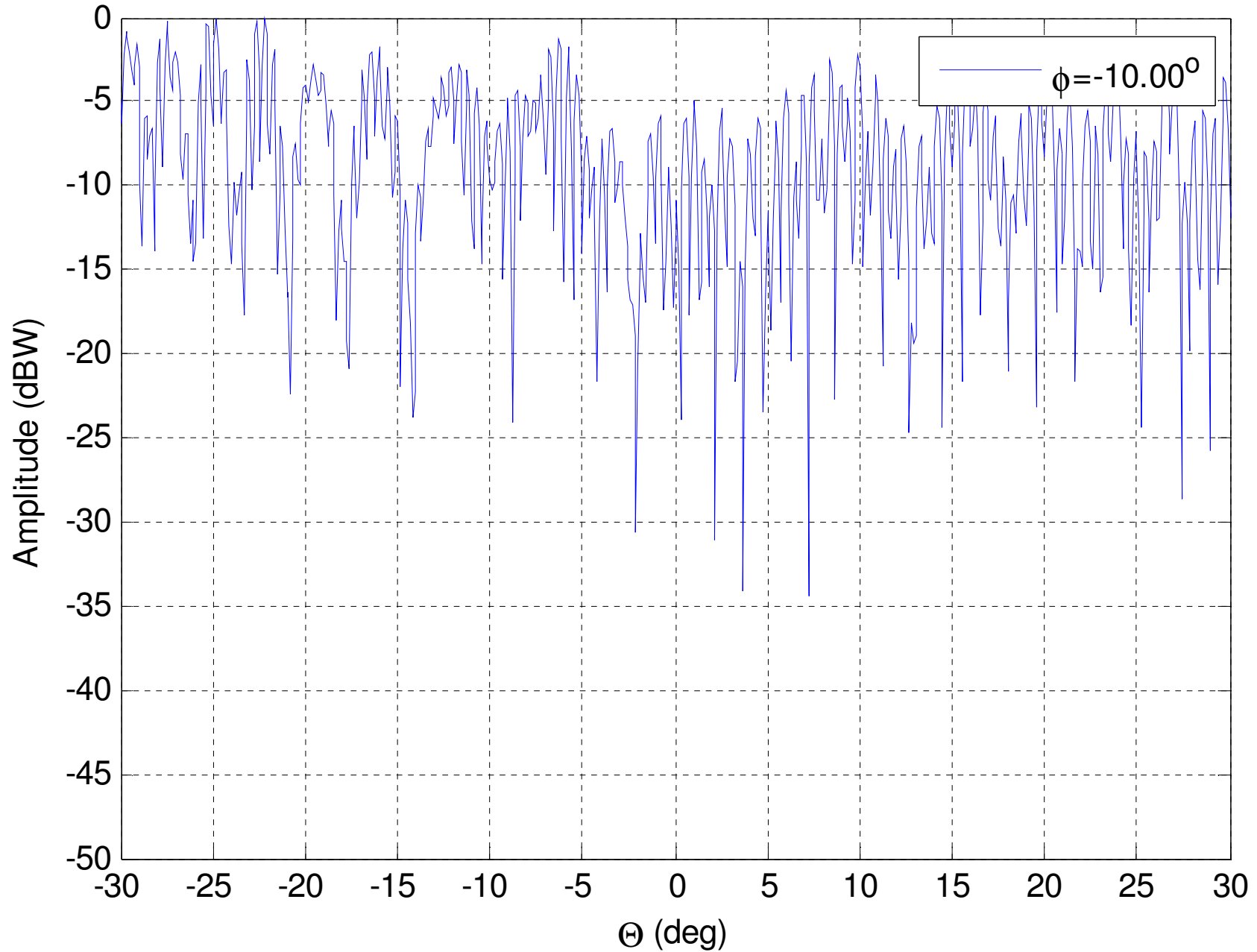
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: -7.71 dBW, Date: 15-Dec-2011



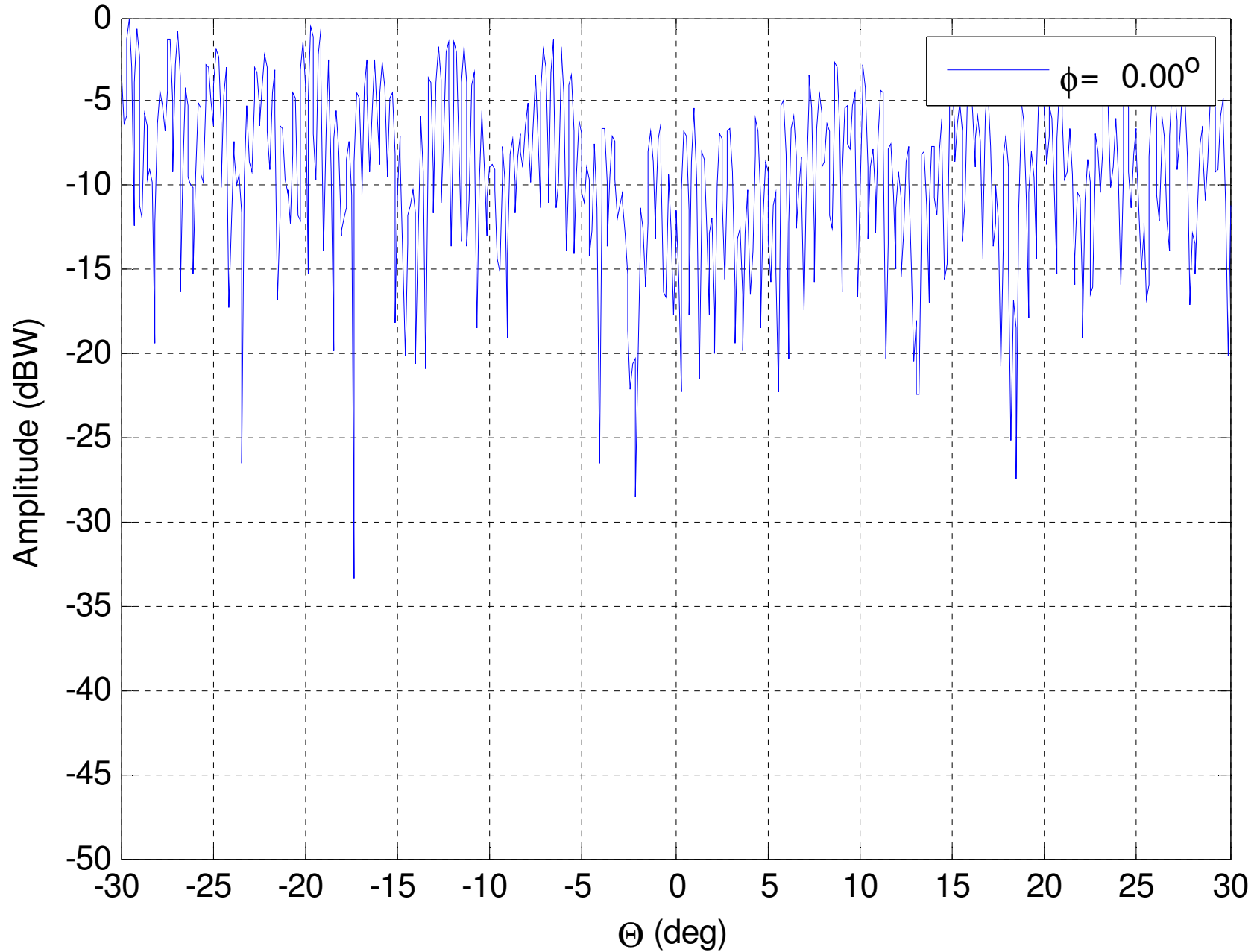
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: -9.81 dBW, Date: 15-Dec-2011



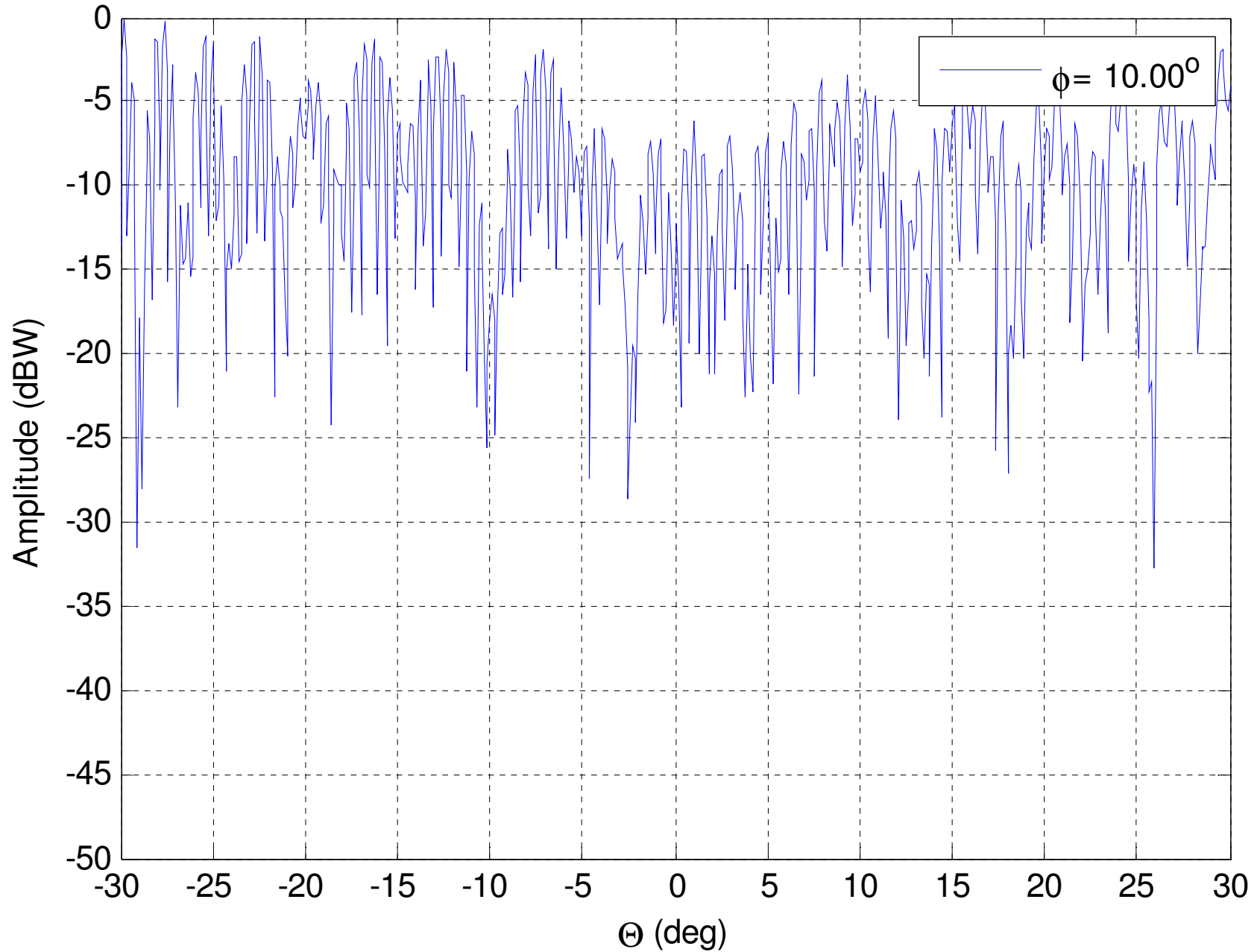
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: -9.36 dBW, Date: 15-Dec-2011



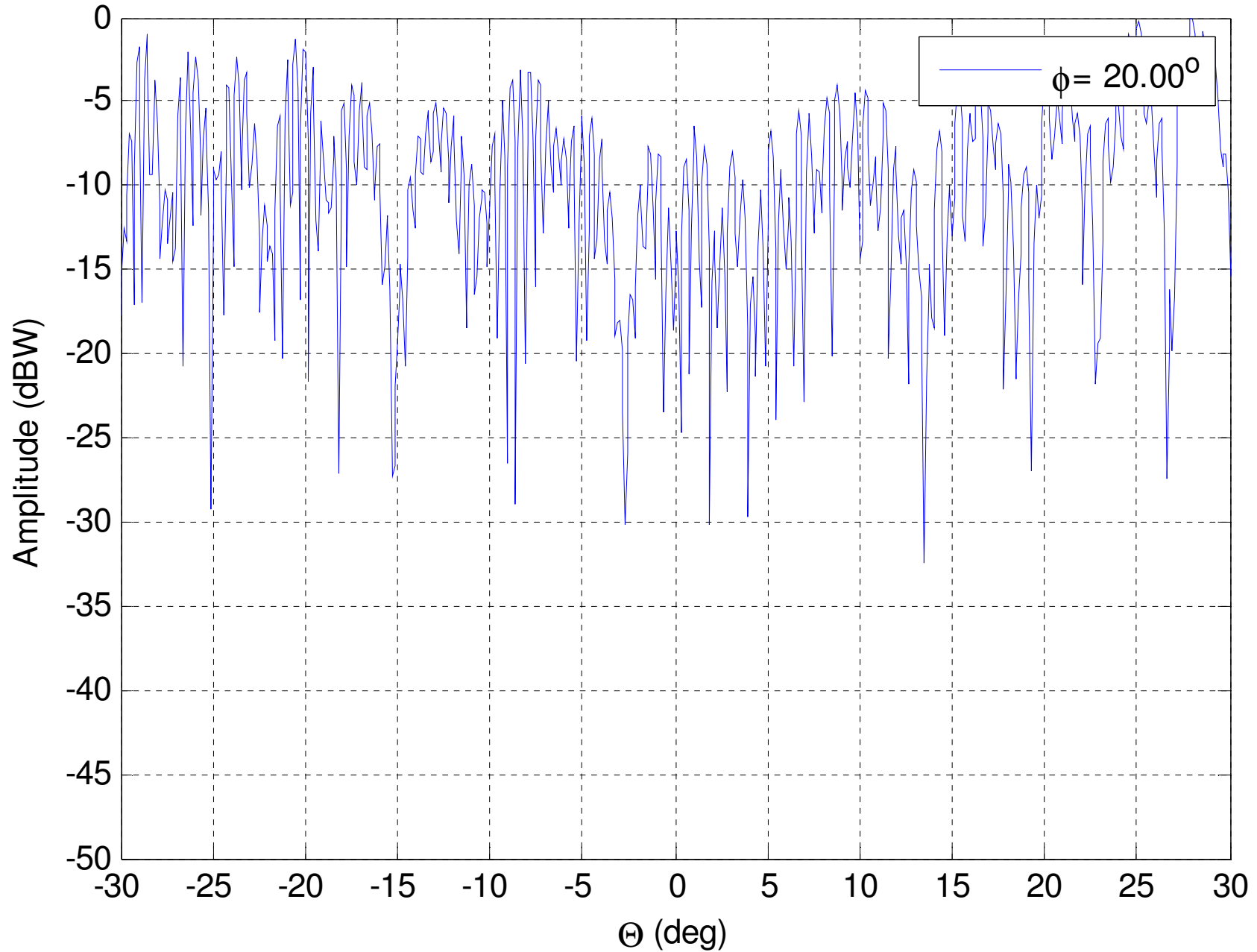
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: -8.60 dBW, Date: 15-Dec-2011



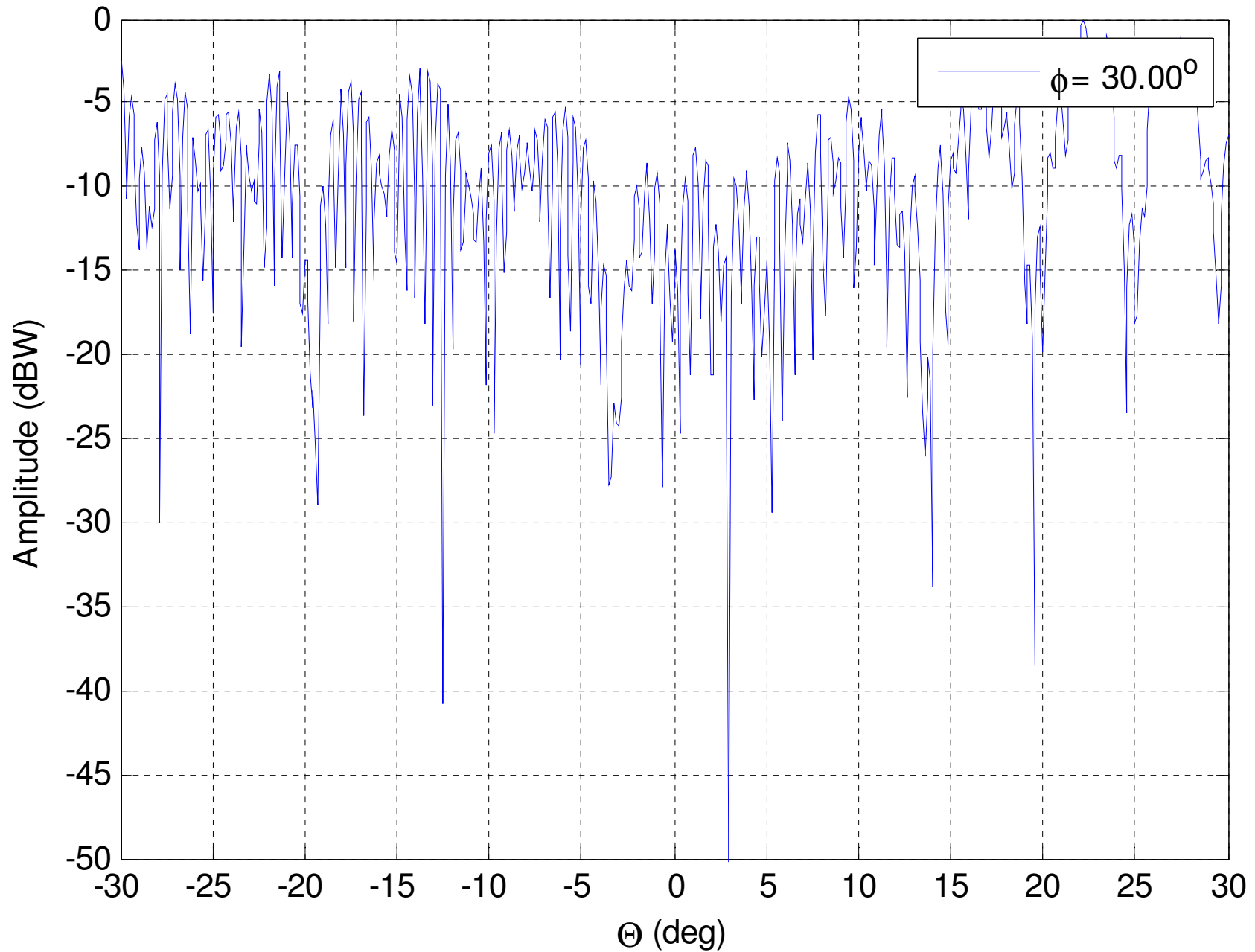
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: -8.12 dBW, Date: 15-Dec-2011



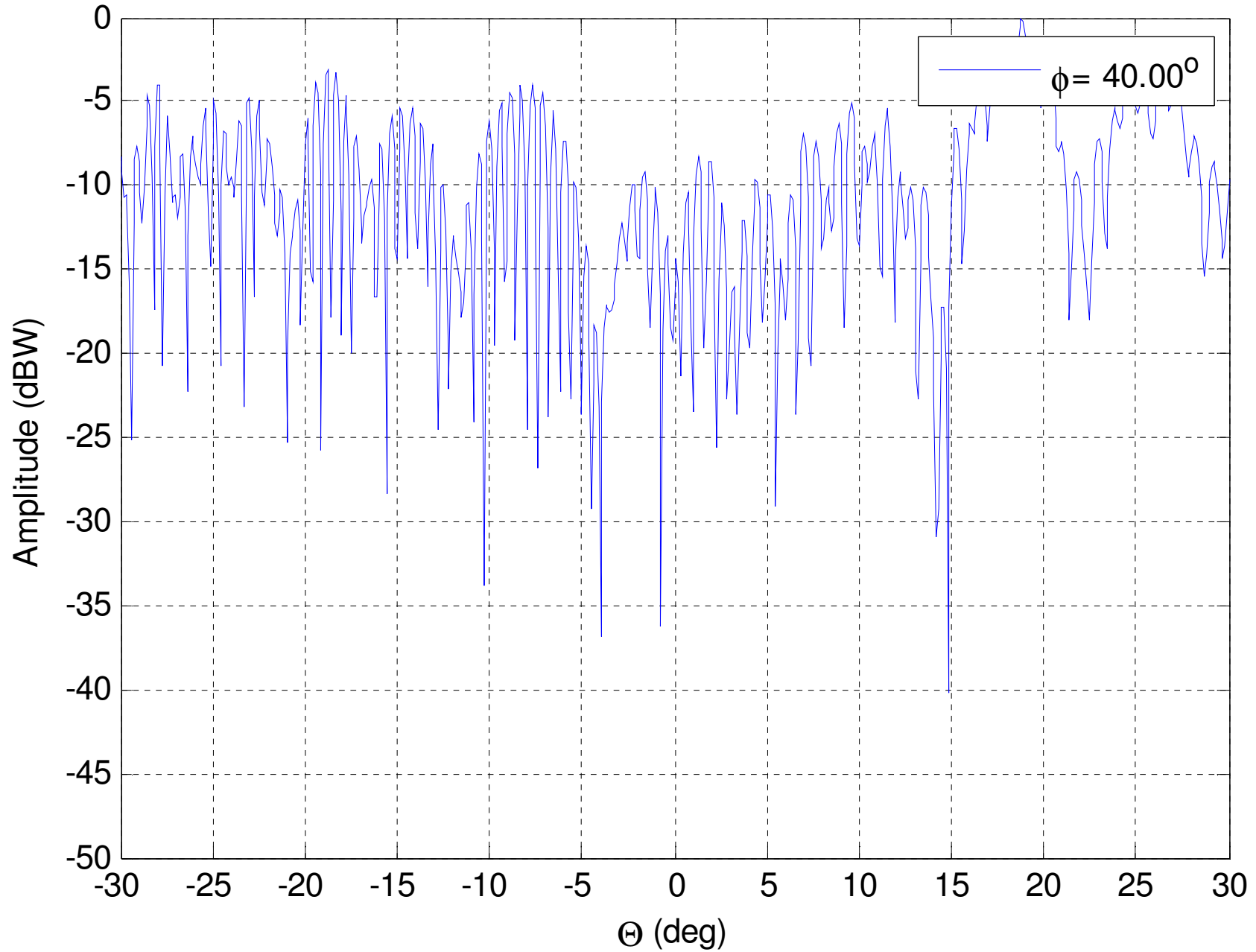
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: -7.10 dBW, Date: 15-Dec-2011



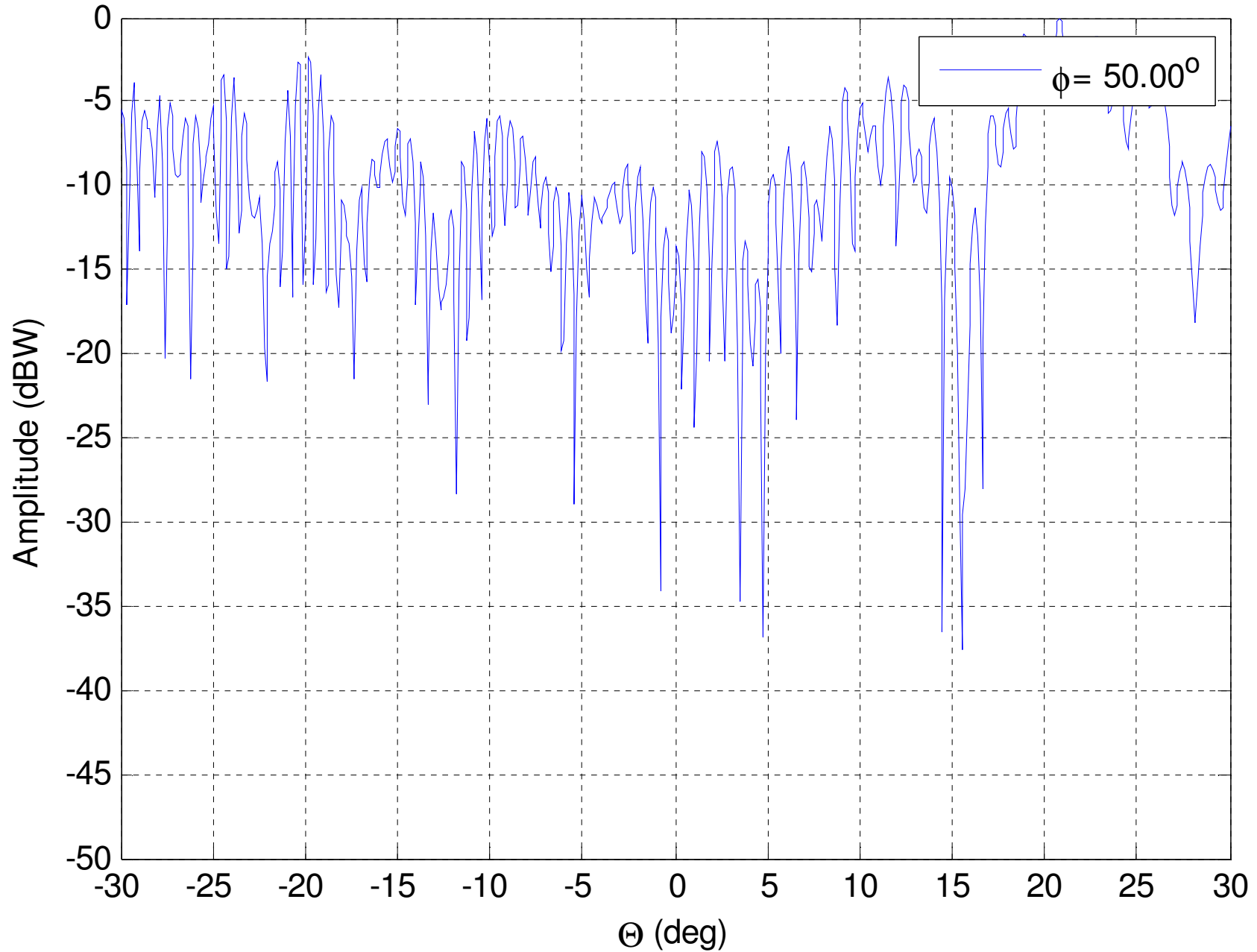
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -6.63 dBW, Date: 15-Dec-2011



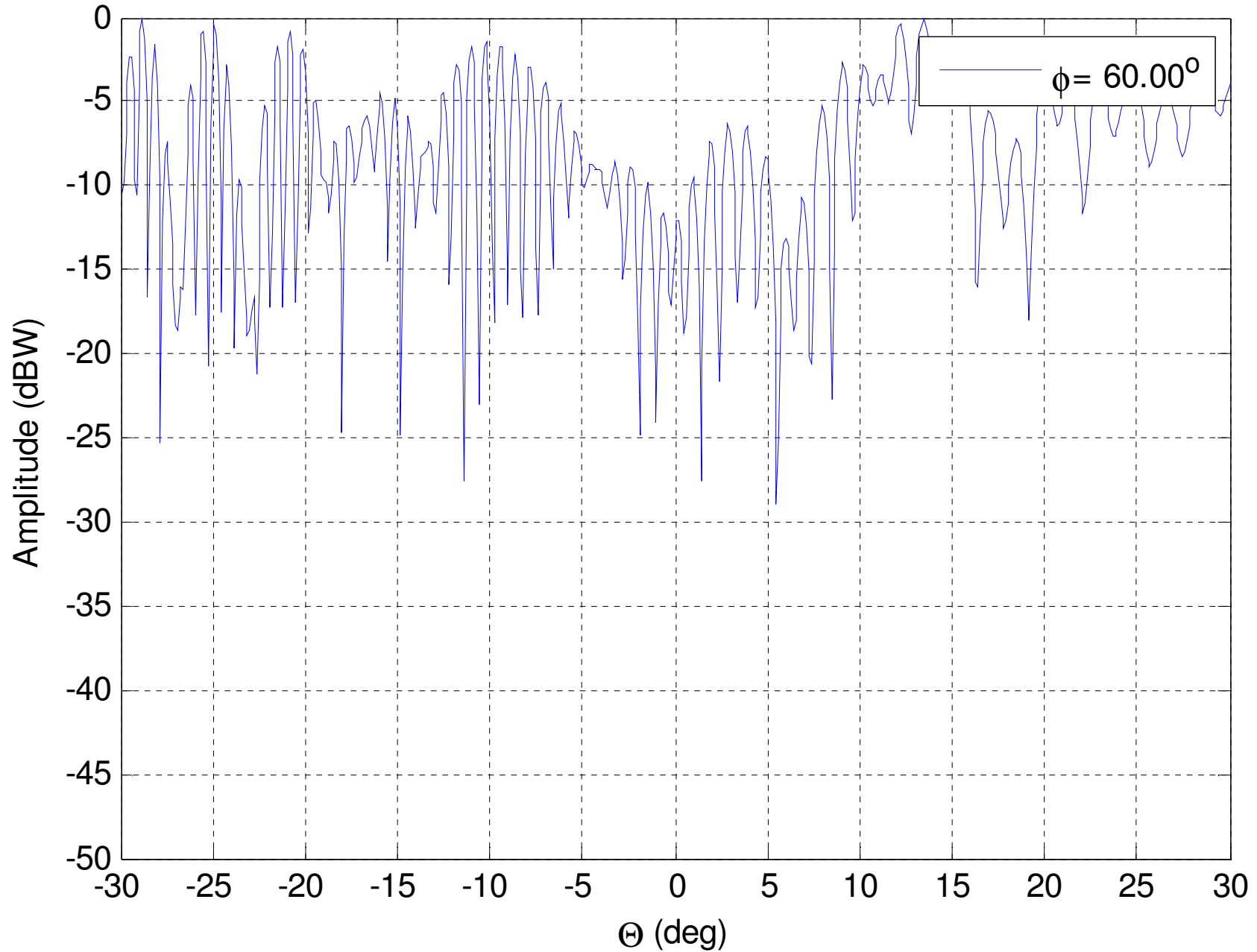
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -7.43 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -9.13 dBW, Date: 15-Dec-2011



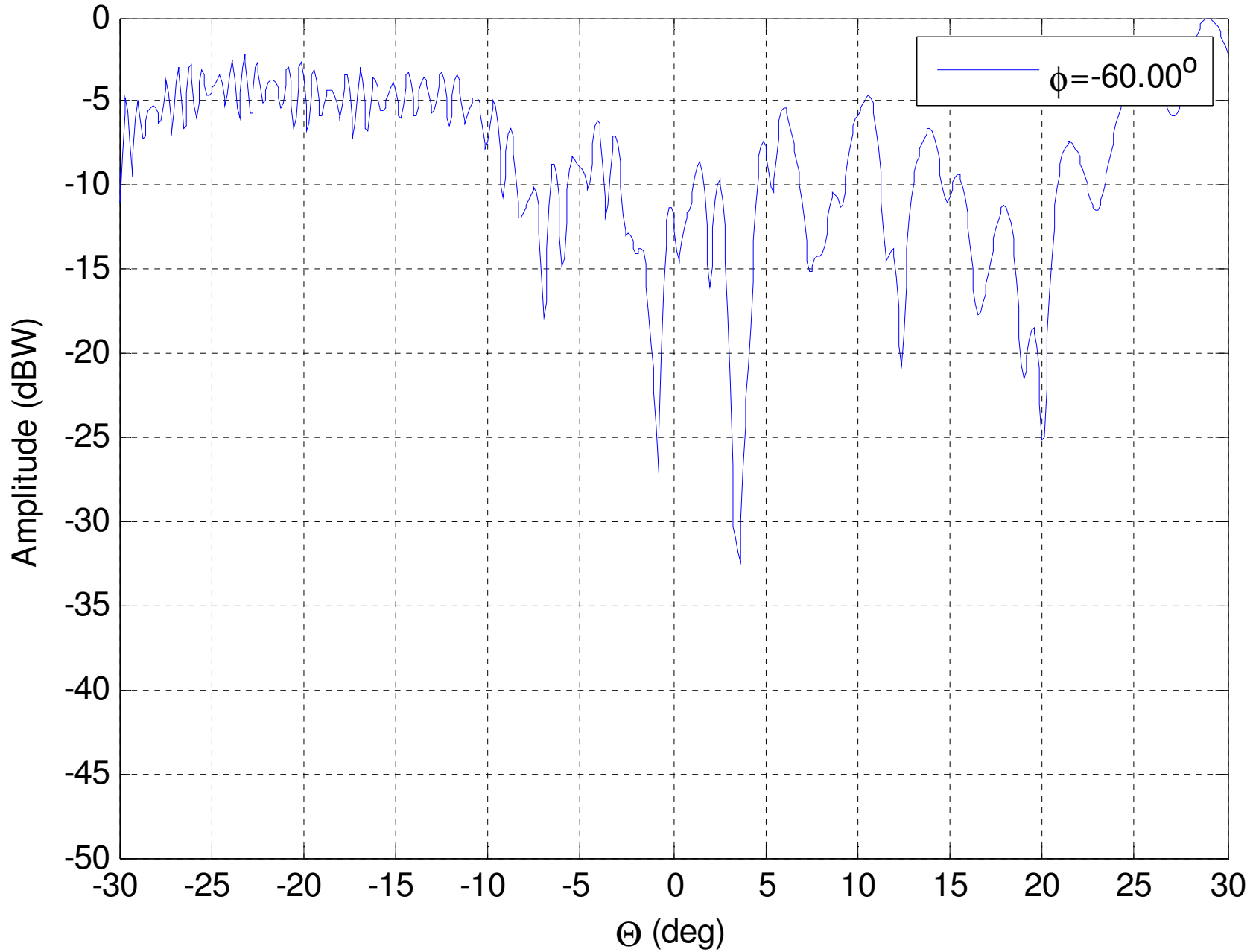
Spot Beam34, +X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: = +X-axis)
- $-60 < \phi < 60$
- Freq = 17.305, 17.5, and 17.695 GHz
- The Zero reference line is the maximum EIRP listed in the title of each plot sheet. All levels are below the required 15.4 dBW maximum
- The Zero reference for the maximum antenna gain is the maximum EIRP listed minus the power input to the antenna specified in Table I of the attached narrative.

RHCP at 17.3 GHz

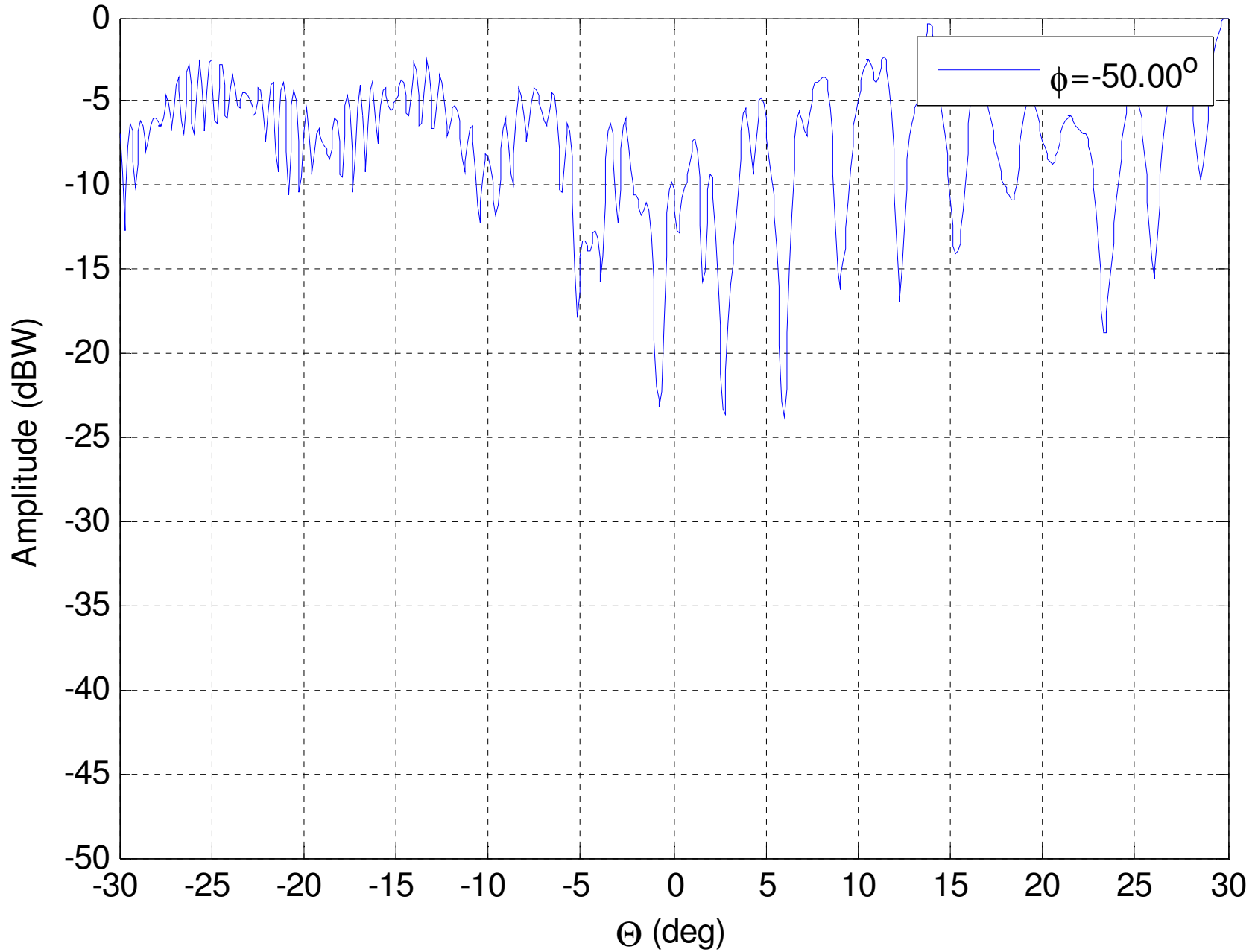
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -6.86 dBW, Date: 15-Dec-2011



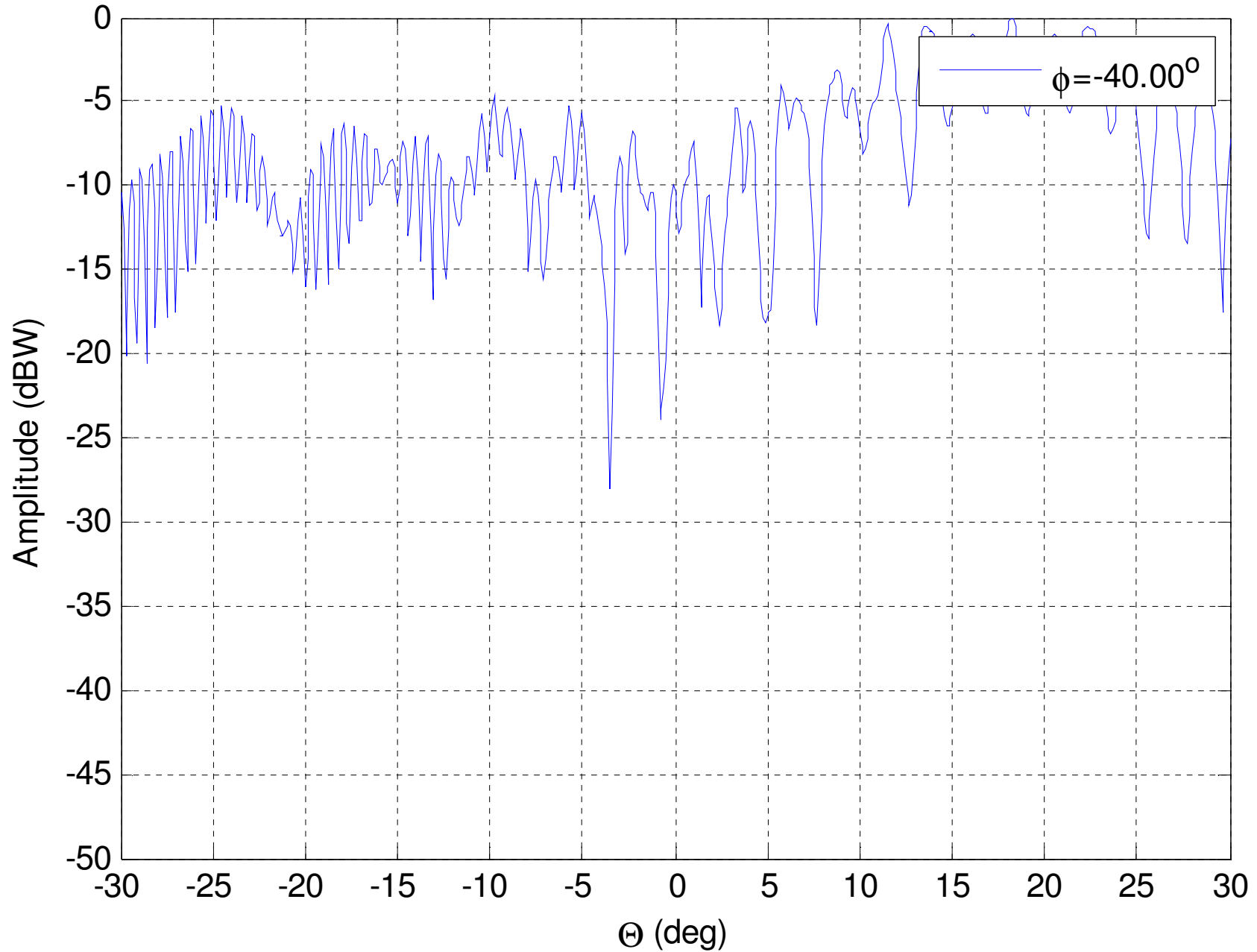
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -8.38 dBW, Date: 15-Dec-2011



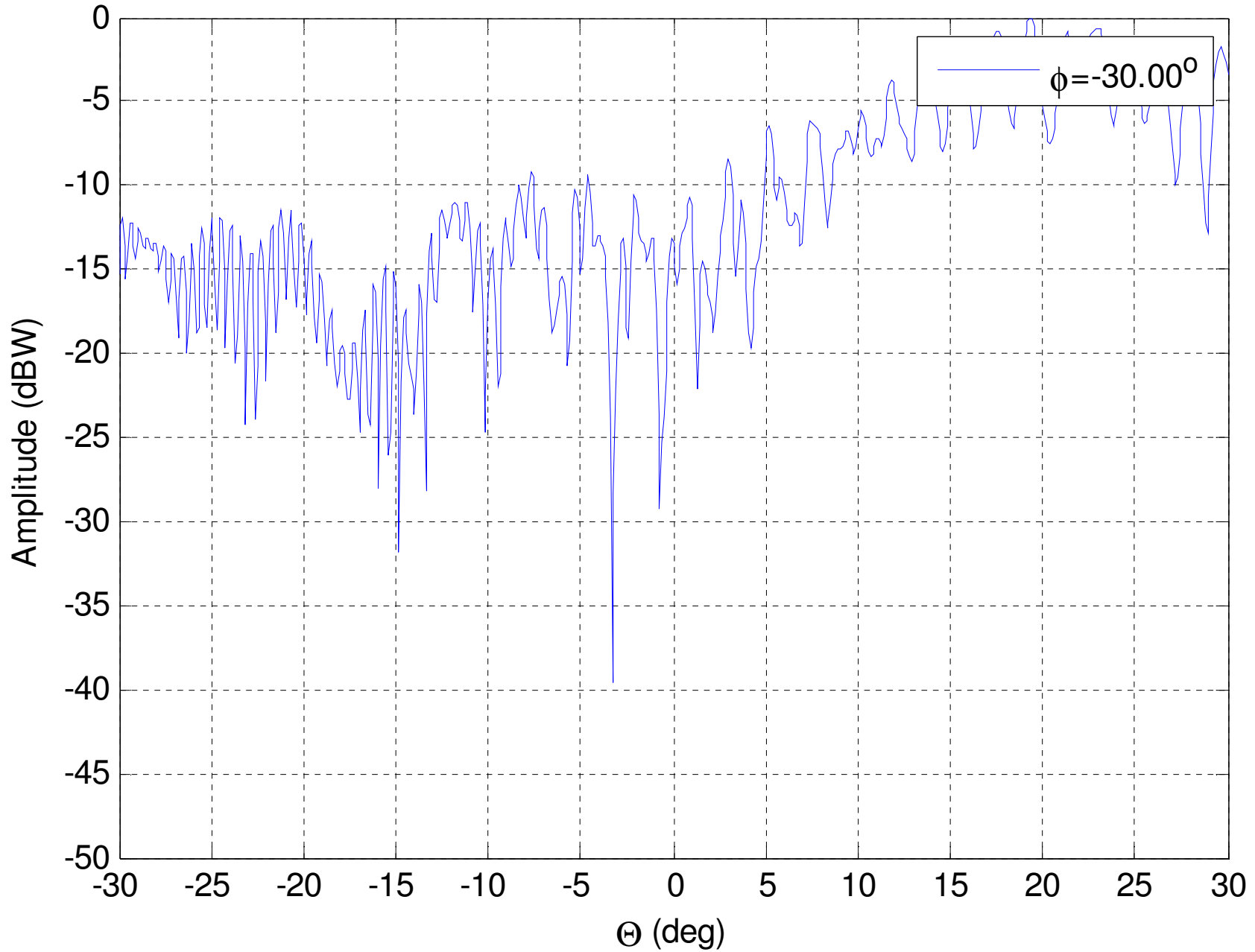
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -8.29 dBW, Date: 15-Dec-2011



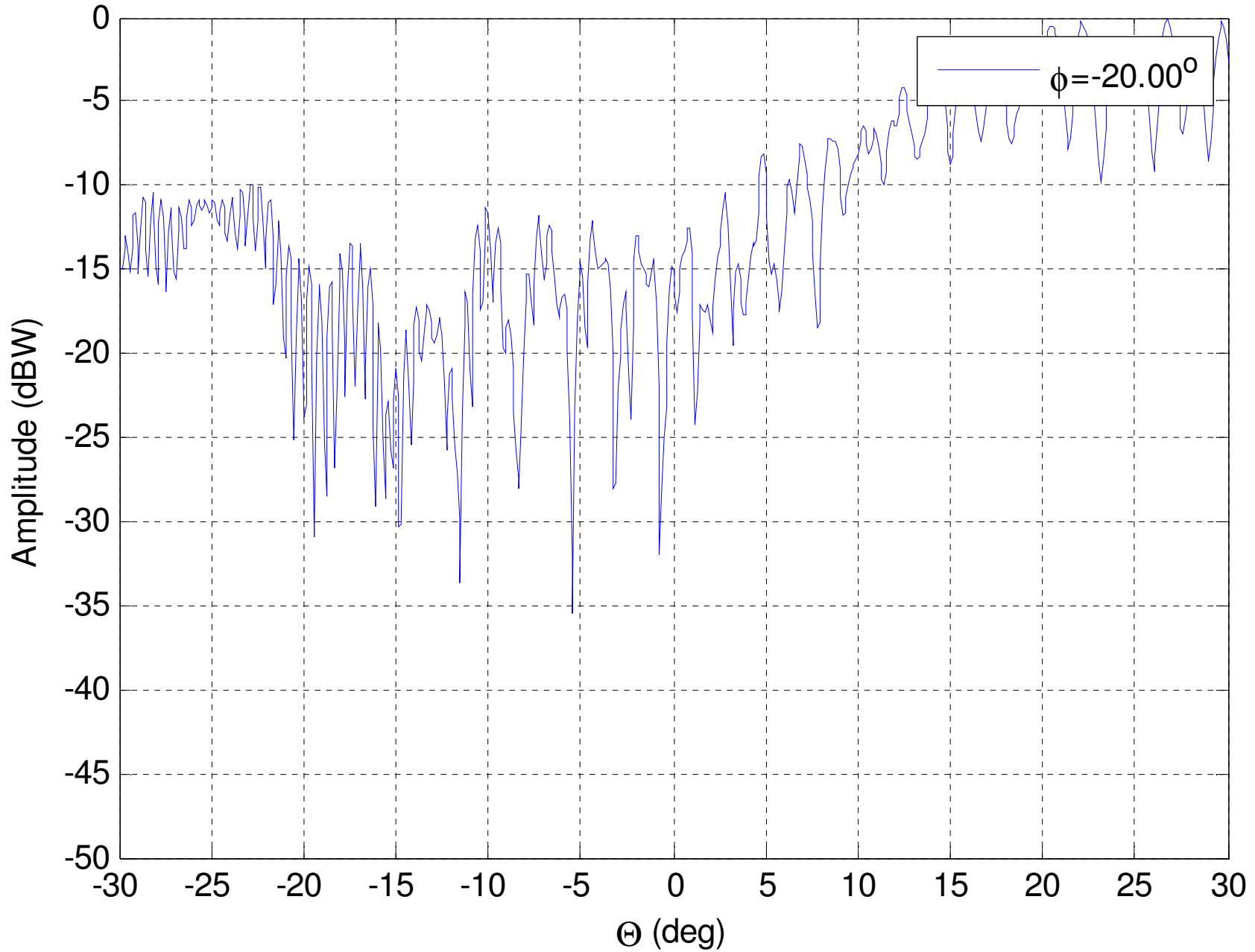
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -5.21 dBW, Date: 15-Dec-2011



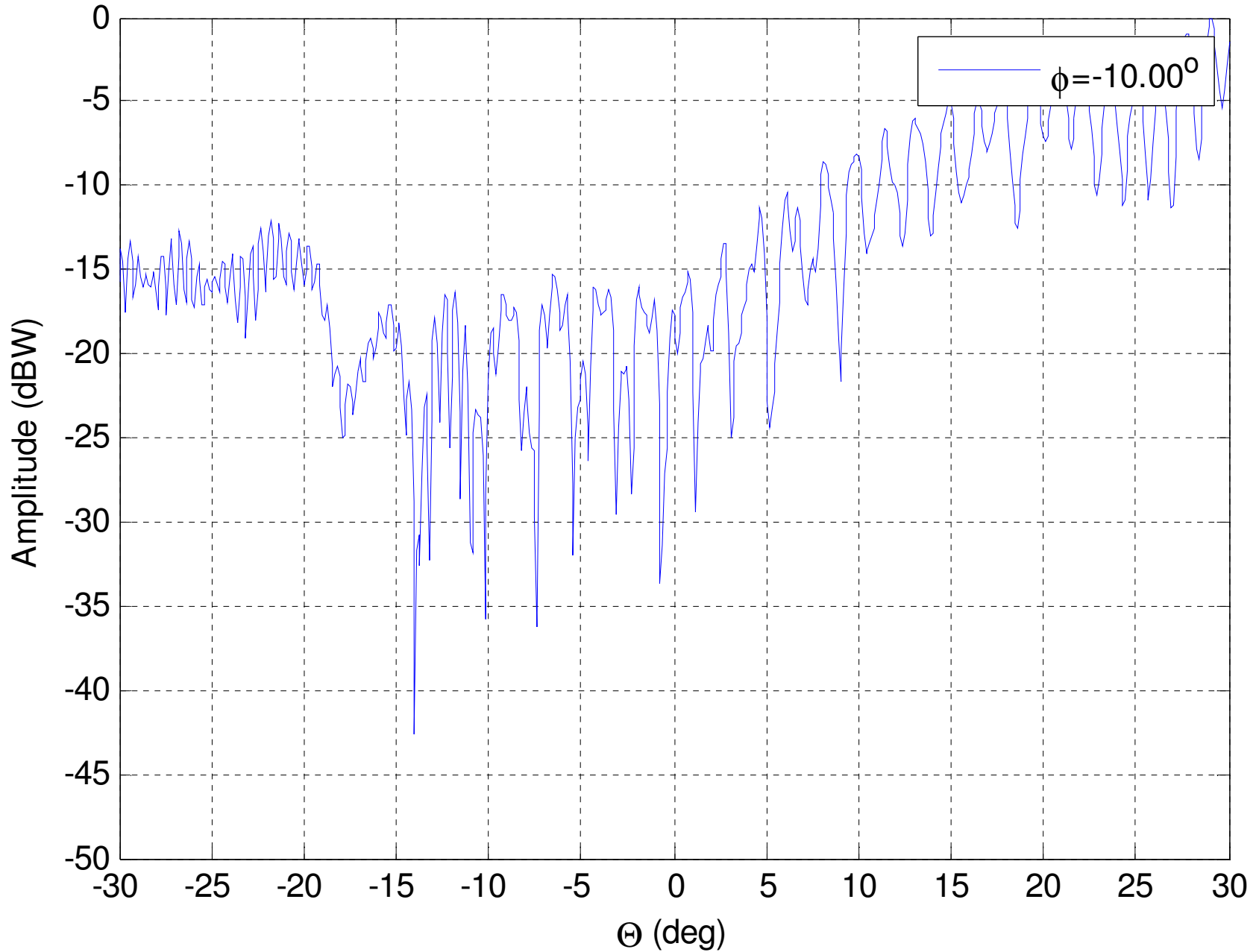
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: -3.54 dBW, Date: 15-Dec-2011



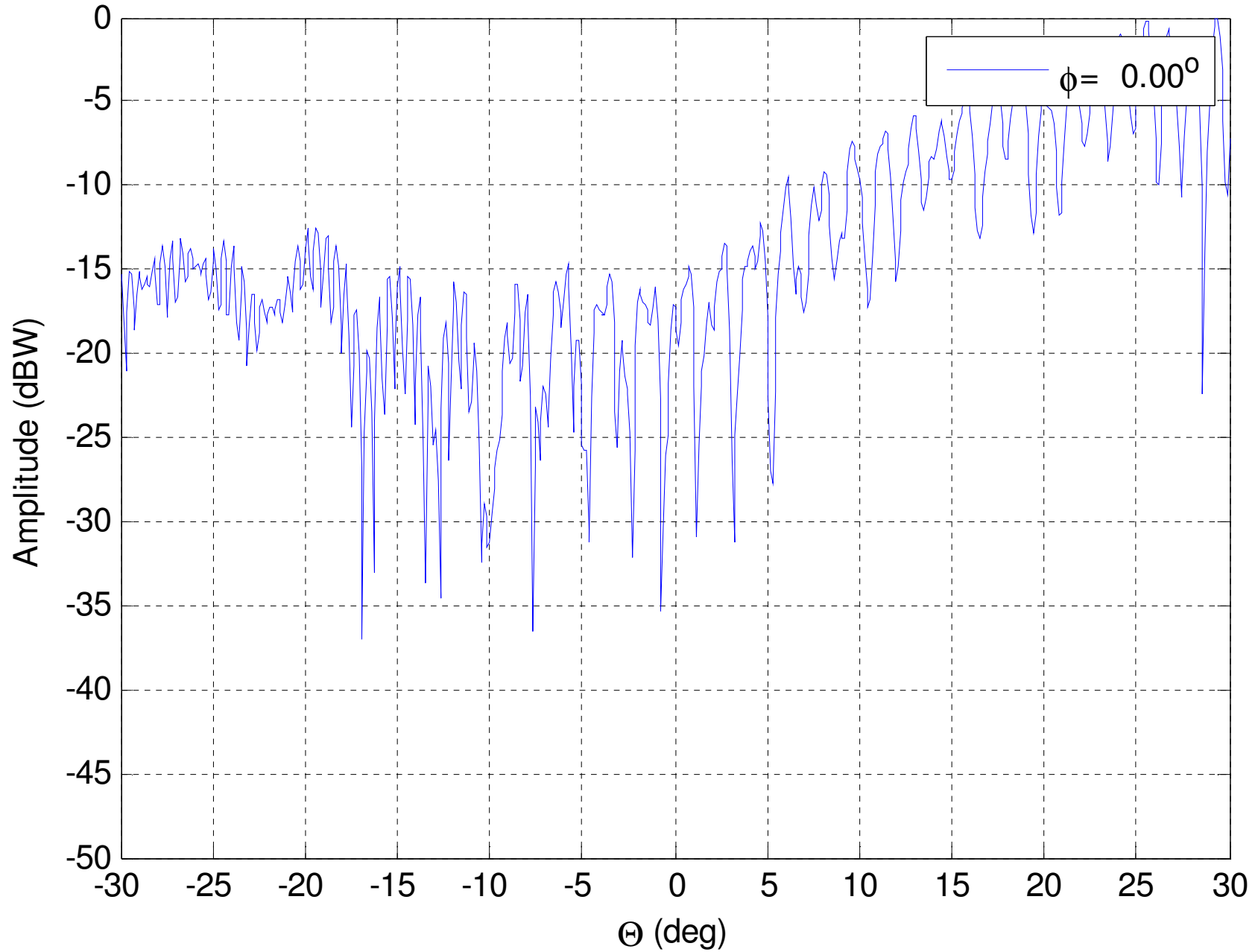
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: -0.99 dBW, Date: 15-Dec-2011



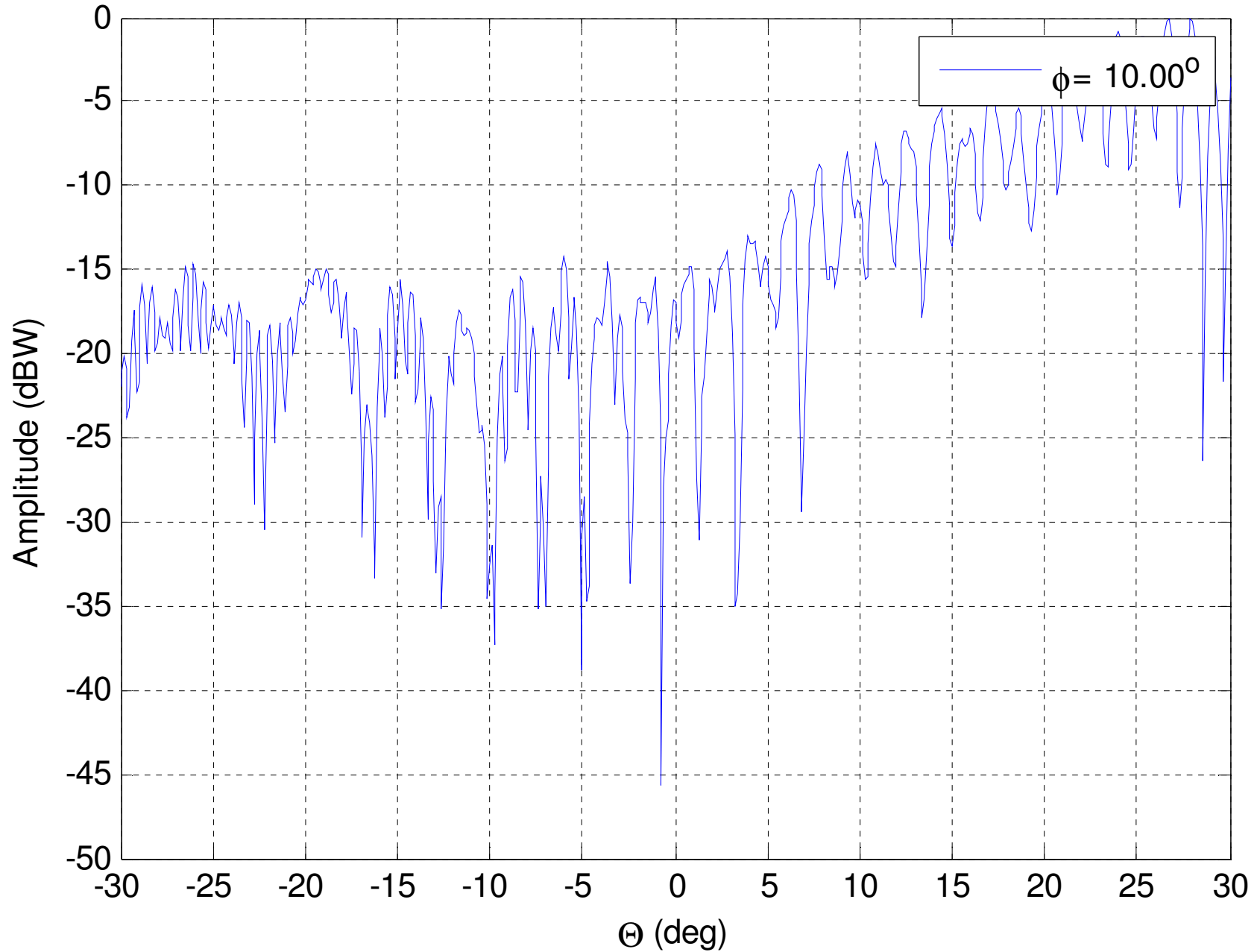
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: -1.43 dBW, Date: 15-Dec-2011



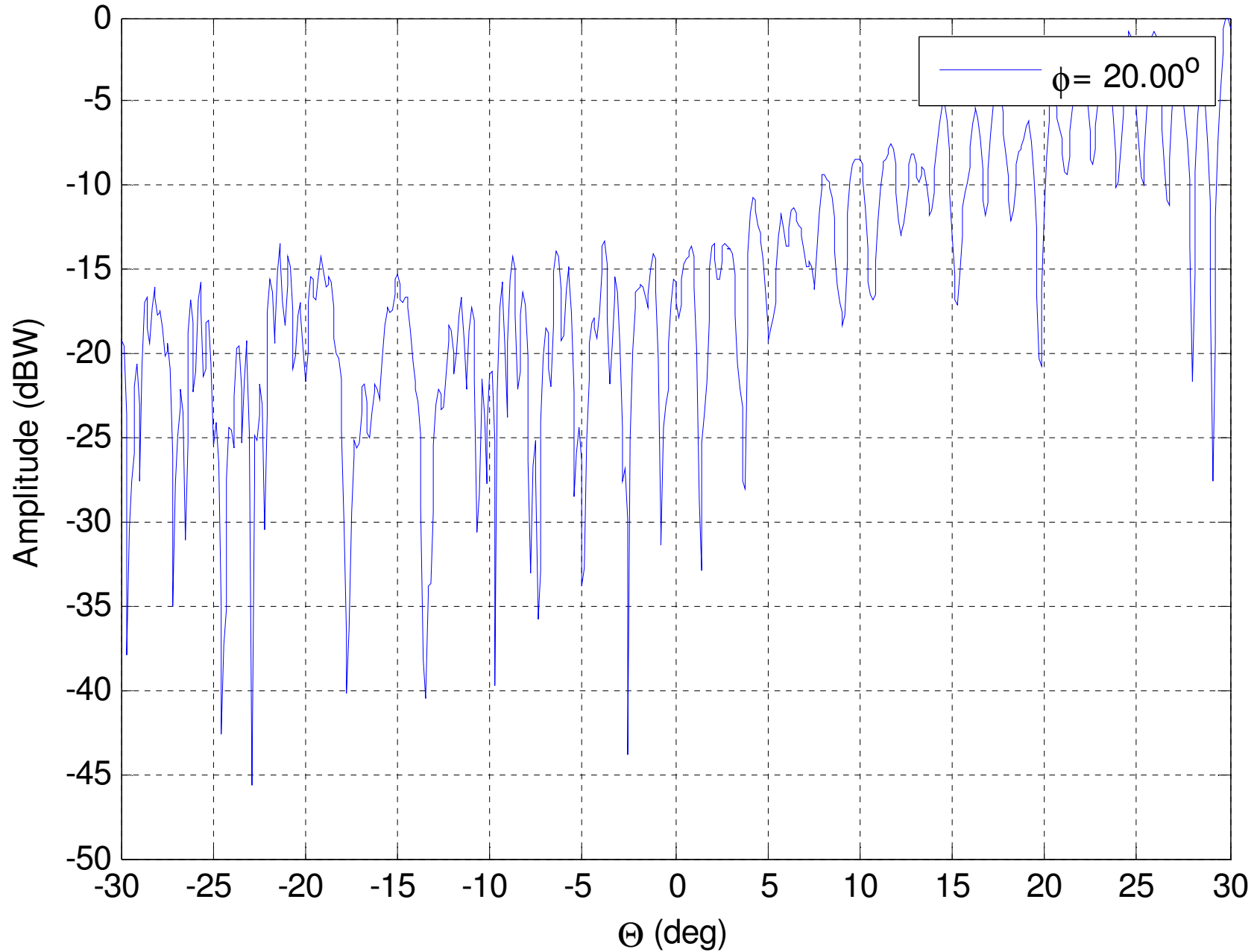
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: -1.73 dBW, Date: 15-Dec-2011



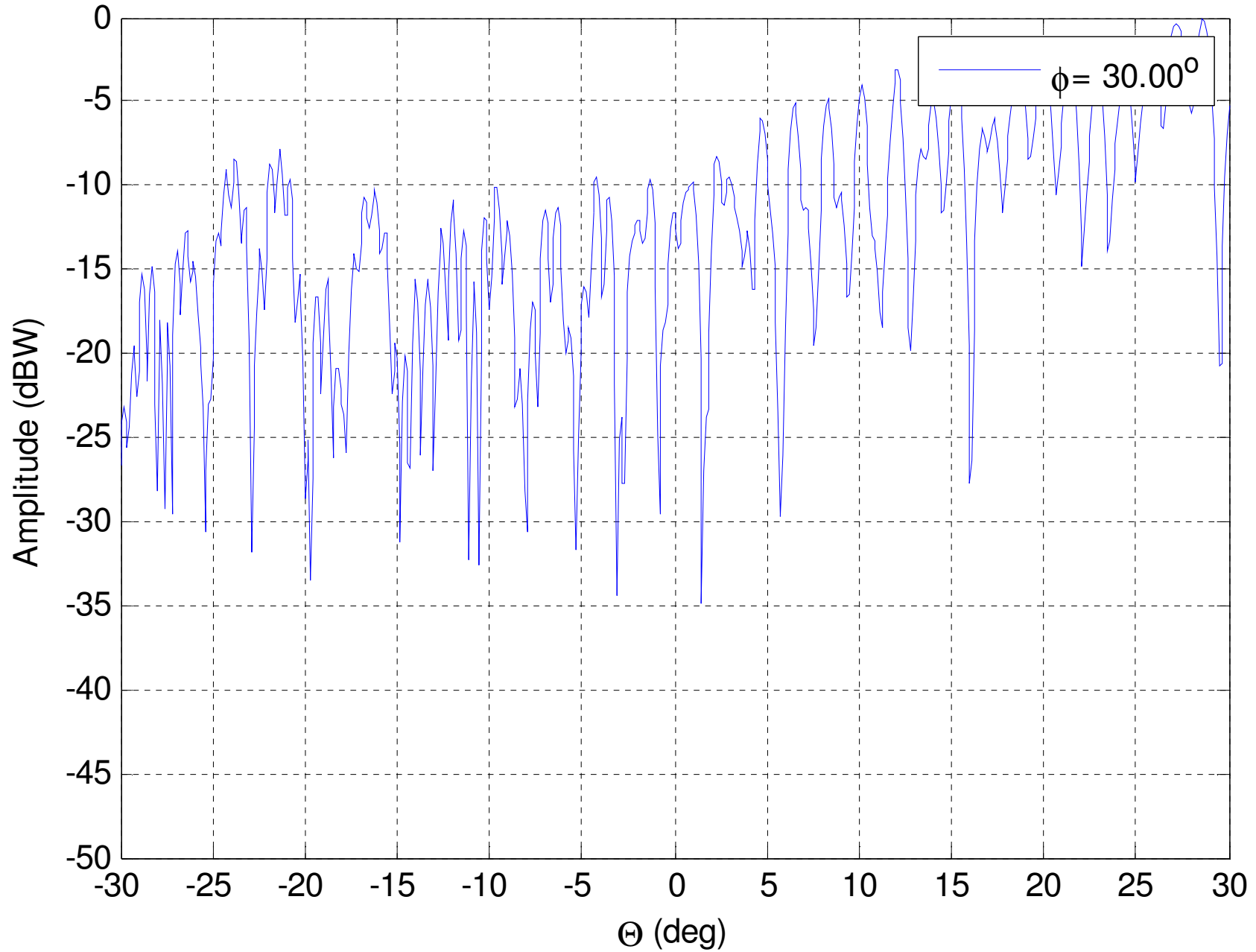
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: -2.91 dBW, Date: 15-Dec-2011



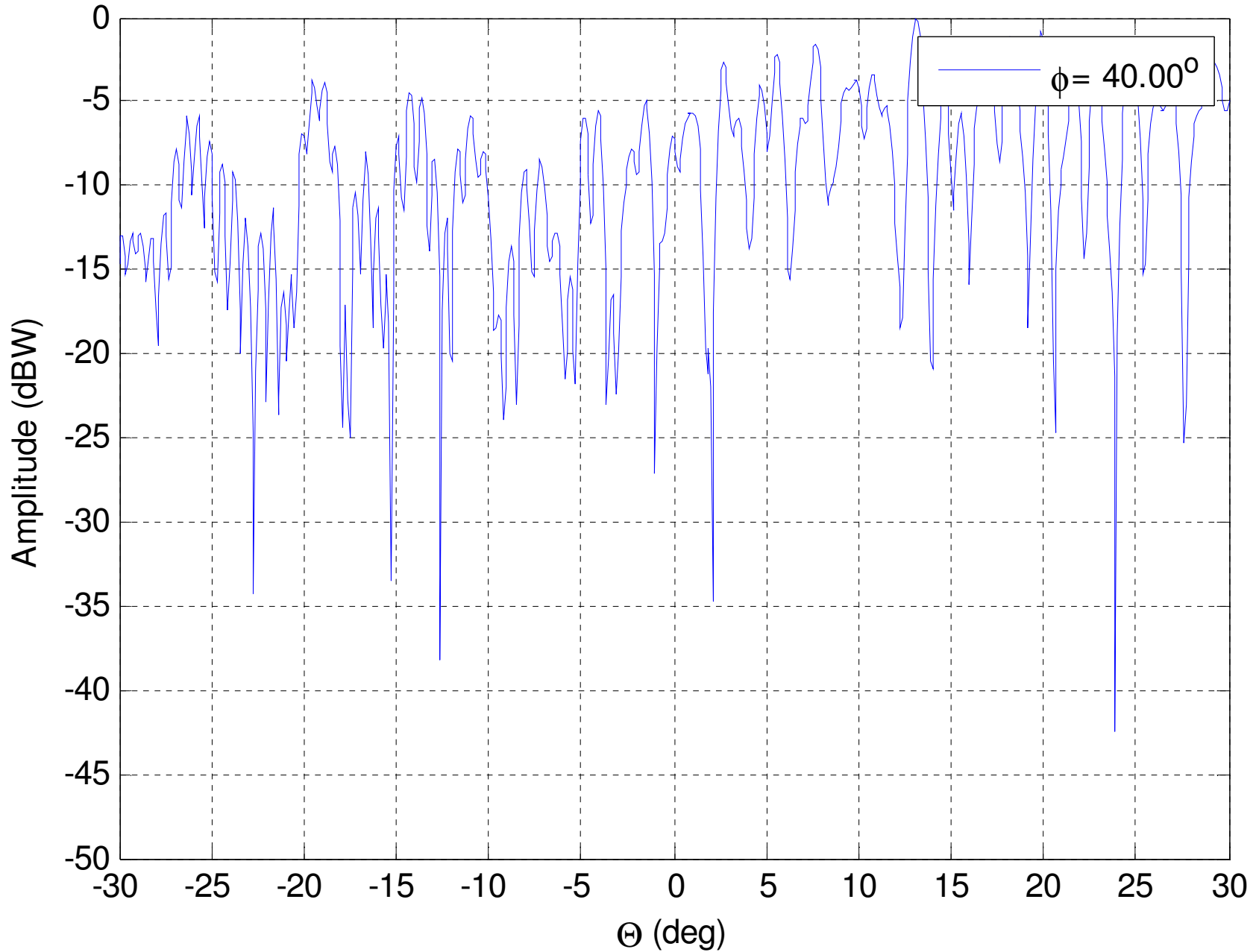
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: -6.94 dBW, Date: 15-Dec-2011



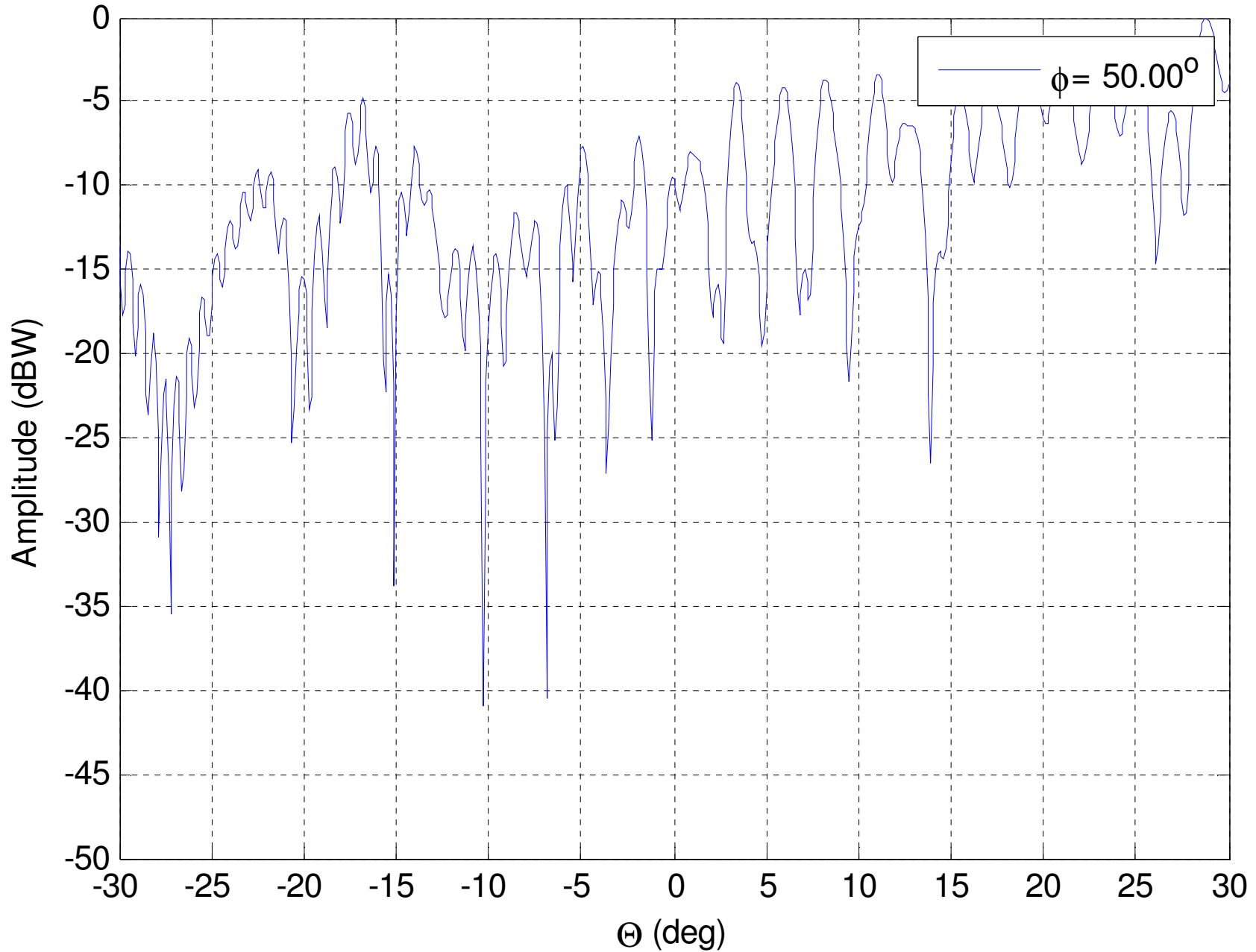
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -11.41 dBW, Date: 15-Dec-2011



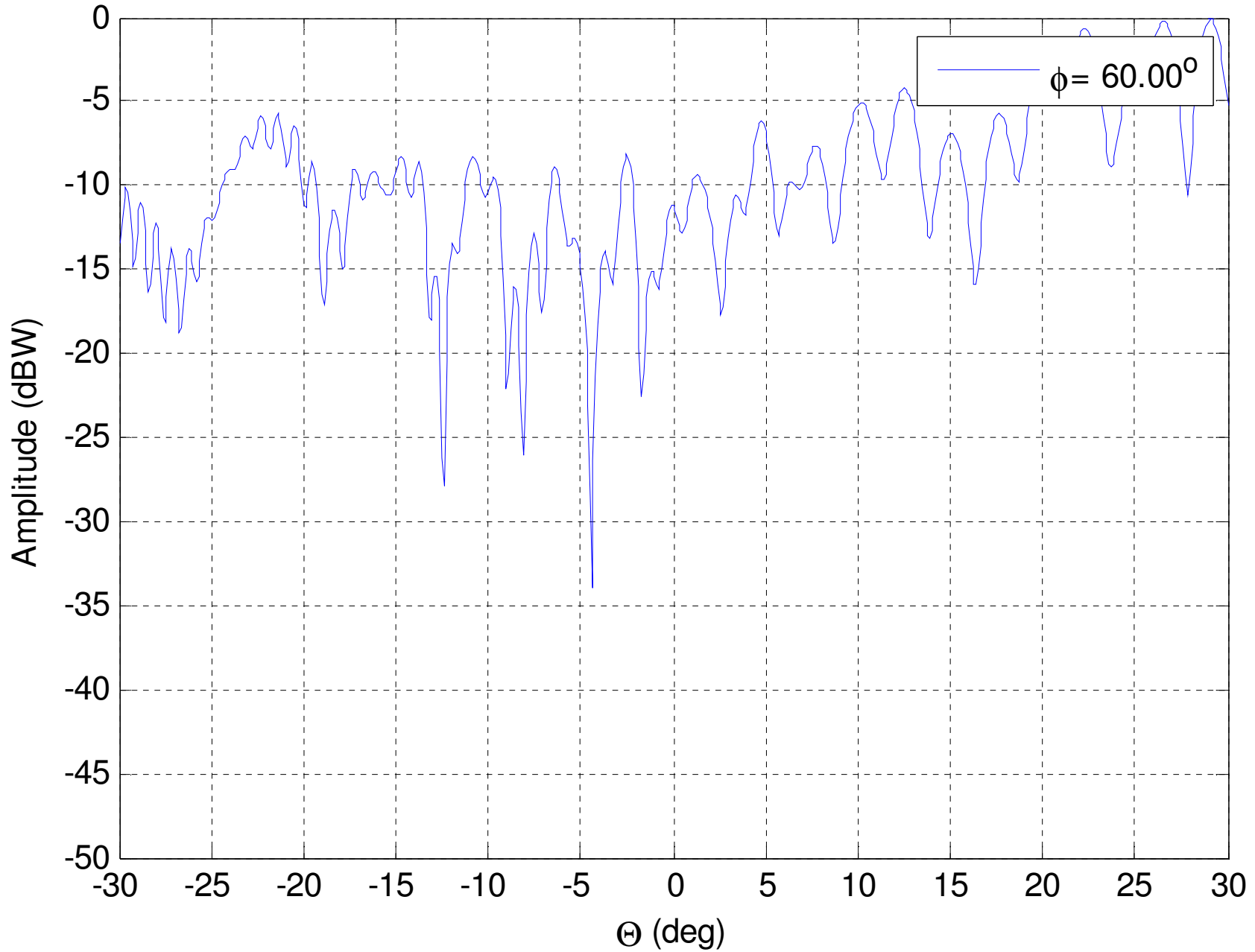
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -9.00 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

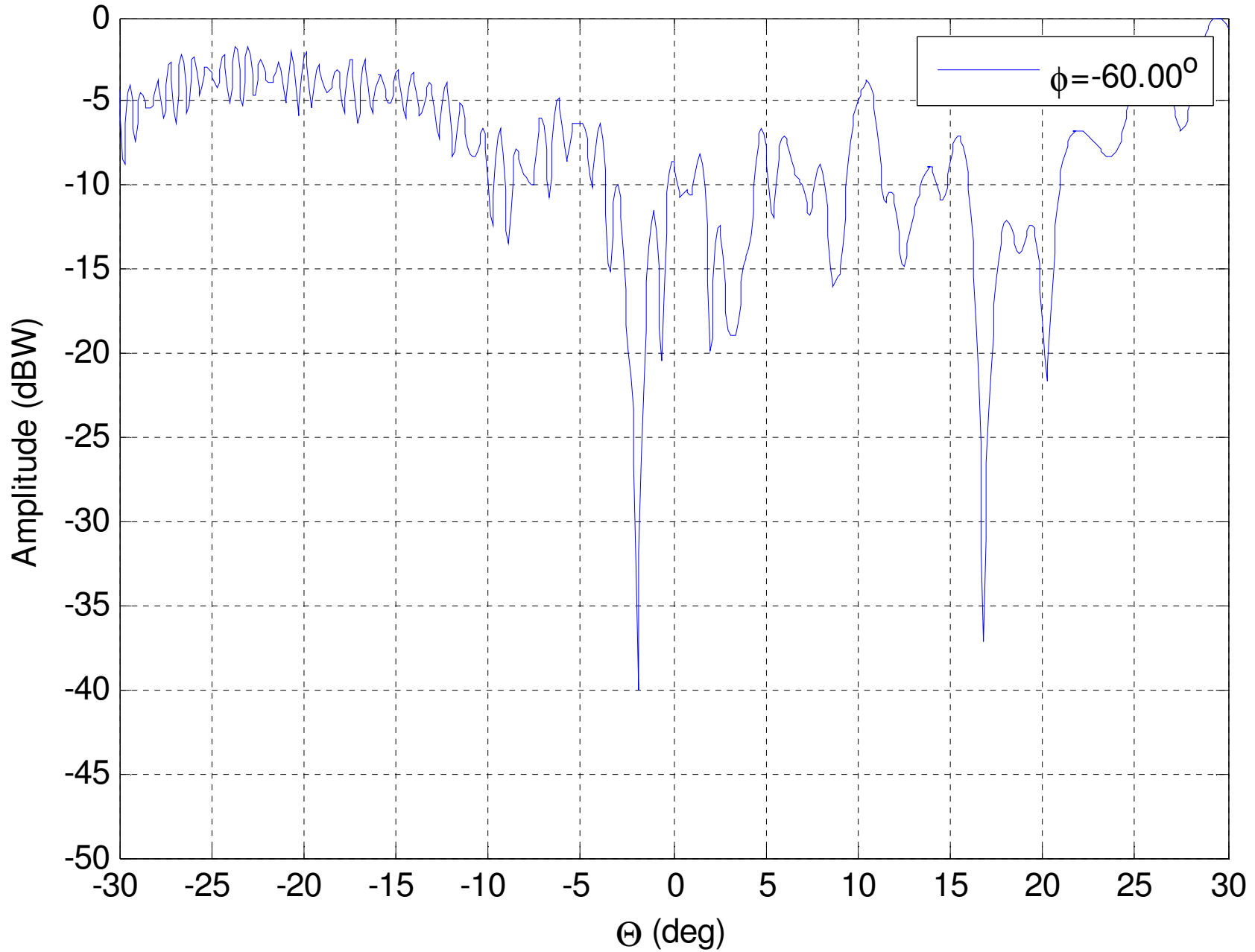
Input file: tx-17.3-rhcp-60.cut, Peak: -7.40 dBW, Date: 15-Dec-2011



LHCP at 17.3 GHz

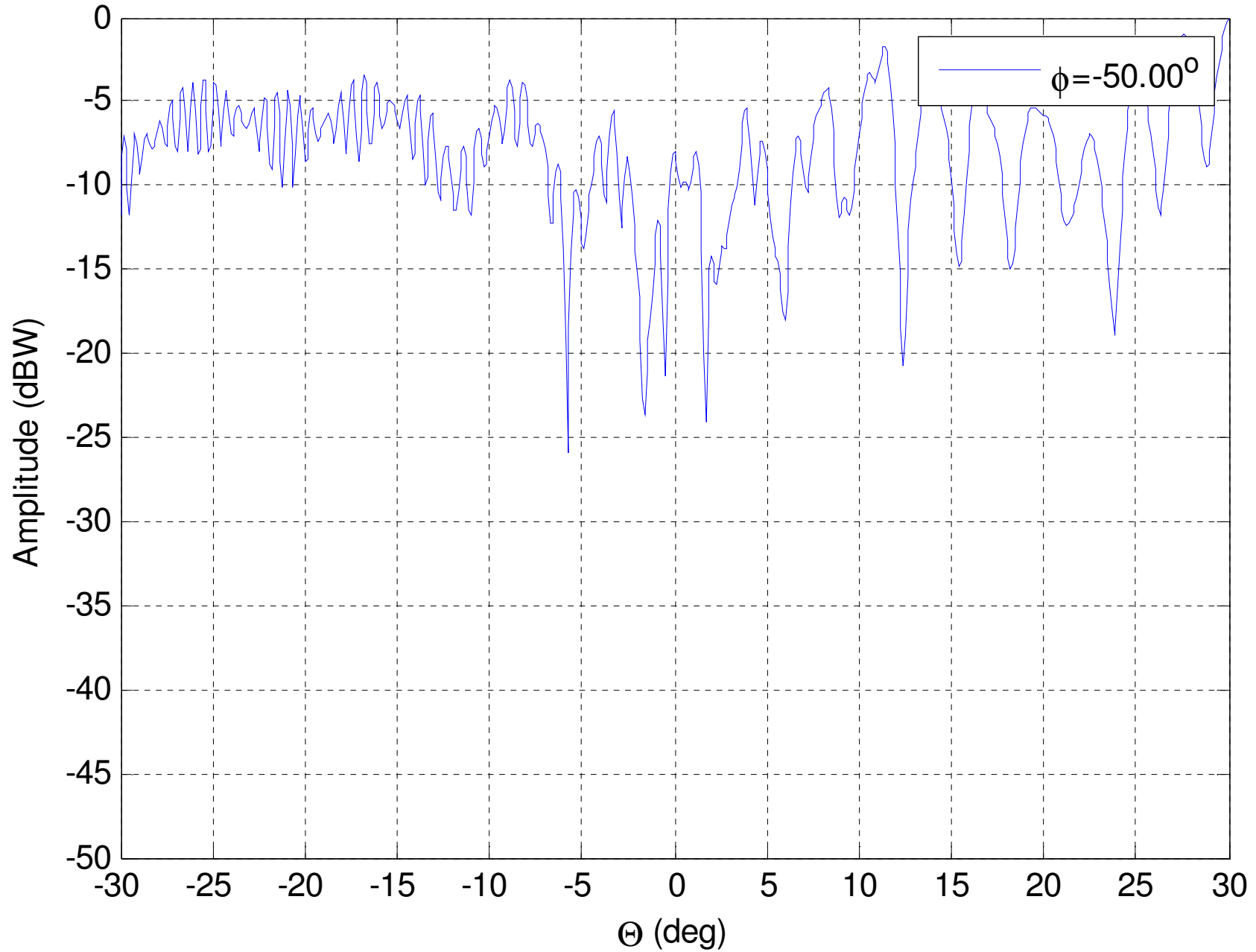
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -7.22 dBW, Date: 15-Dec-2011



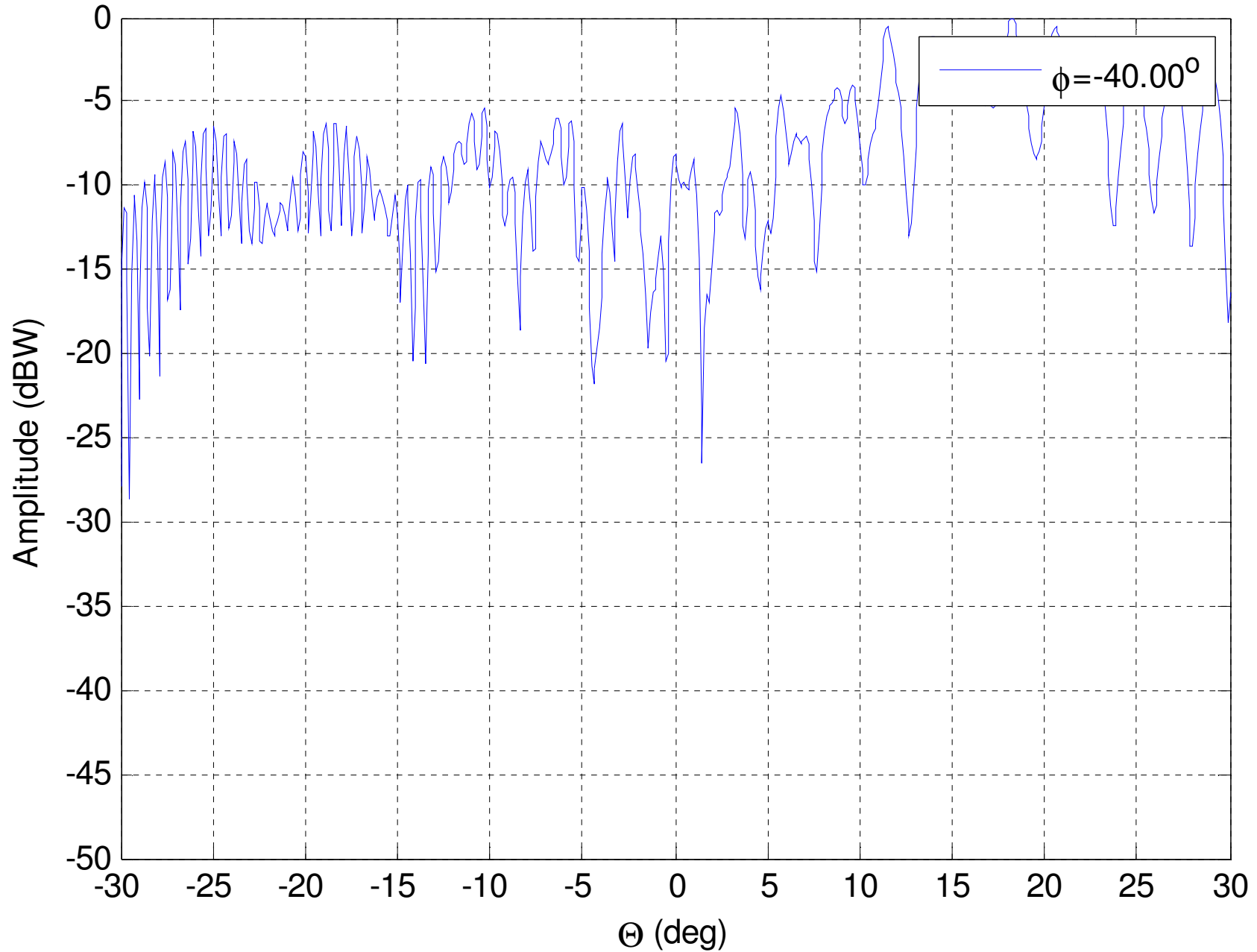
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -7.73 dBW, Date: 15-Dec-2011



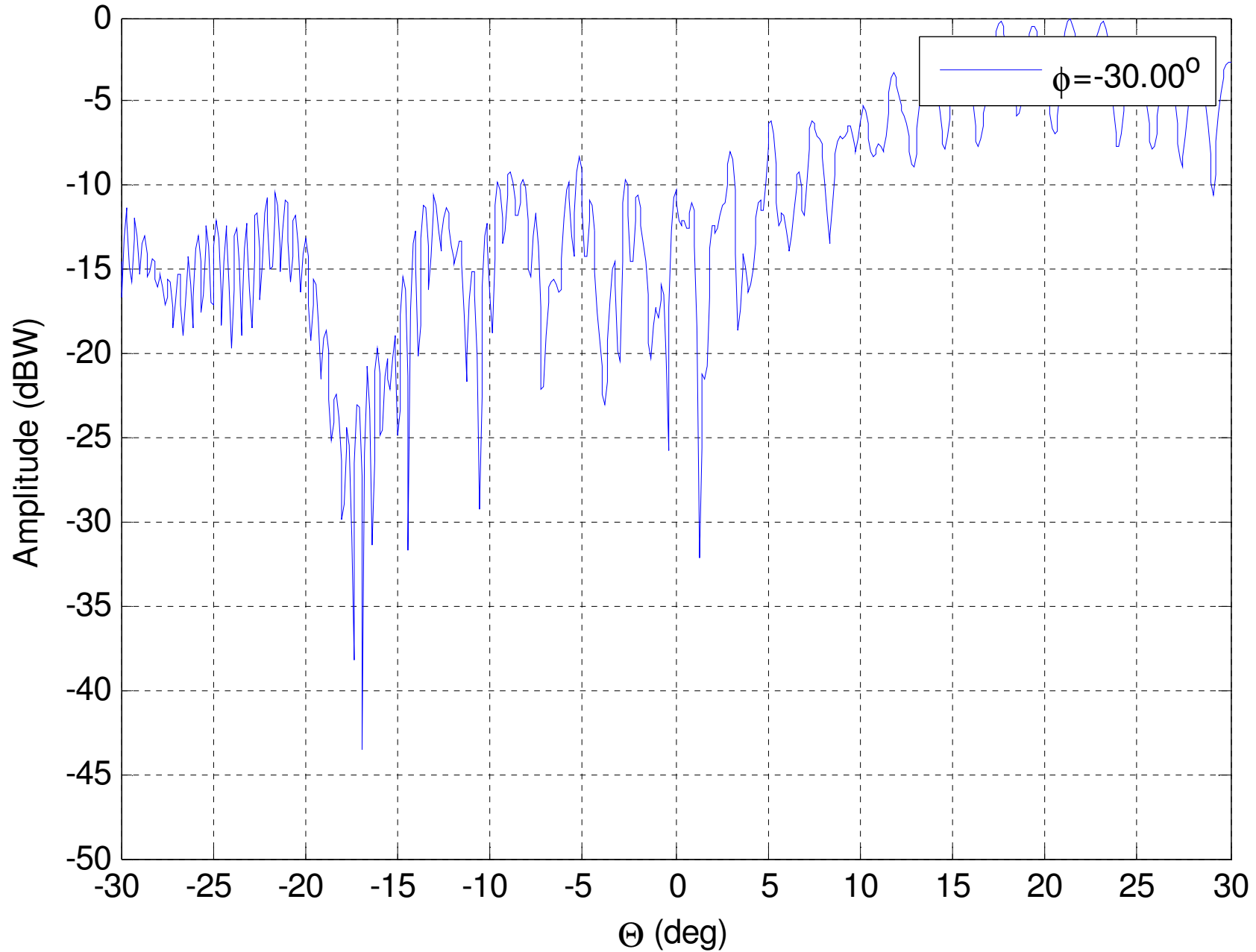
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -7.71 dBW, Date: 15-Dec-2011



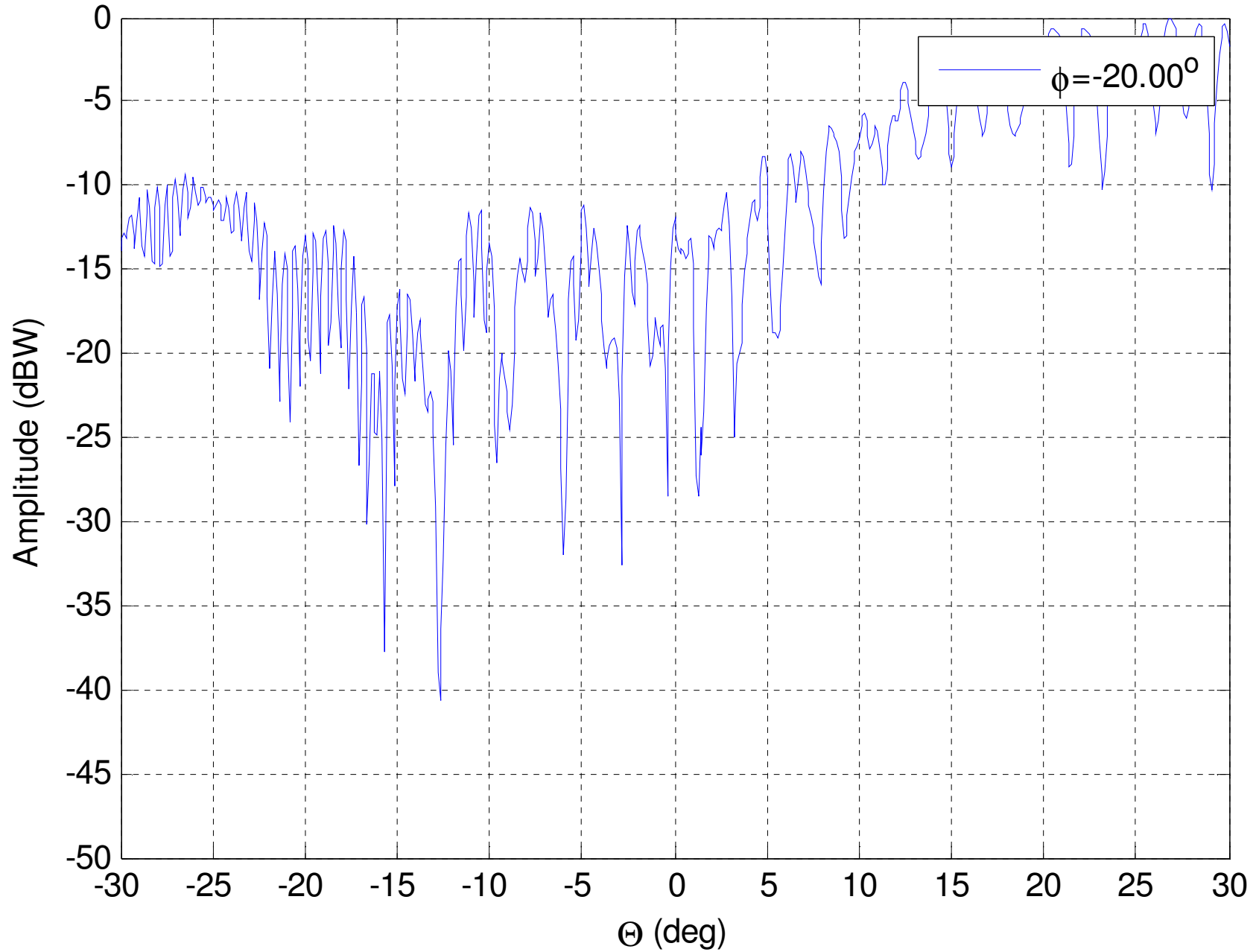
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: -5.45 dBW, Date: 15-Dec-2011



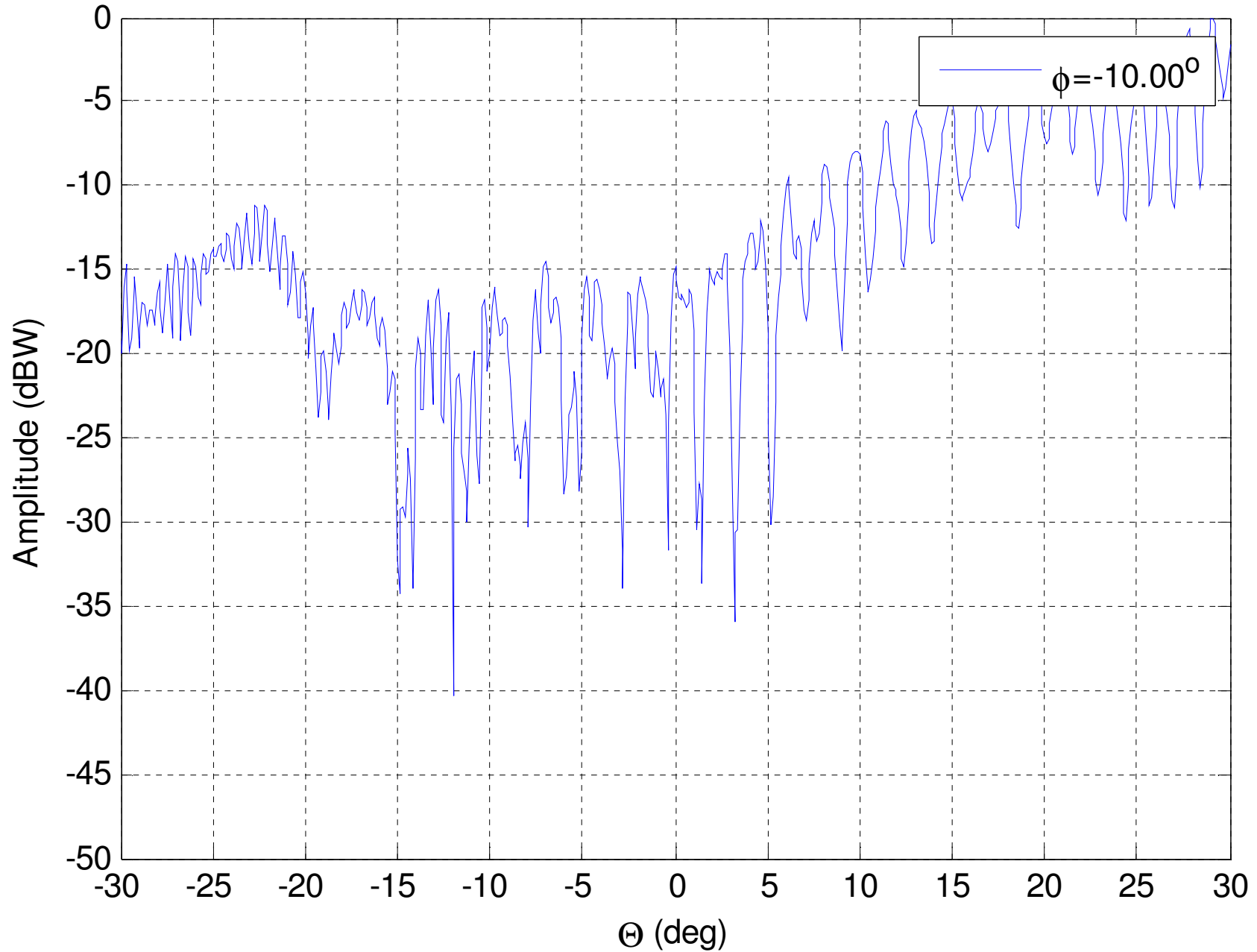
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: -3.77 dBW, Date: 15-Dec-2011



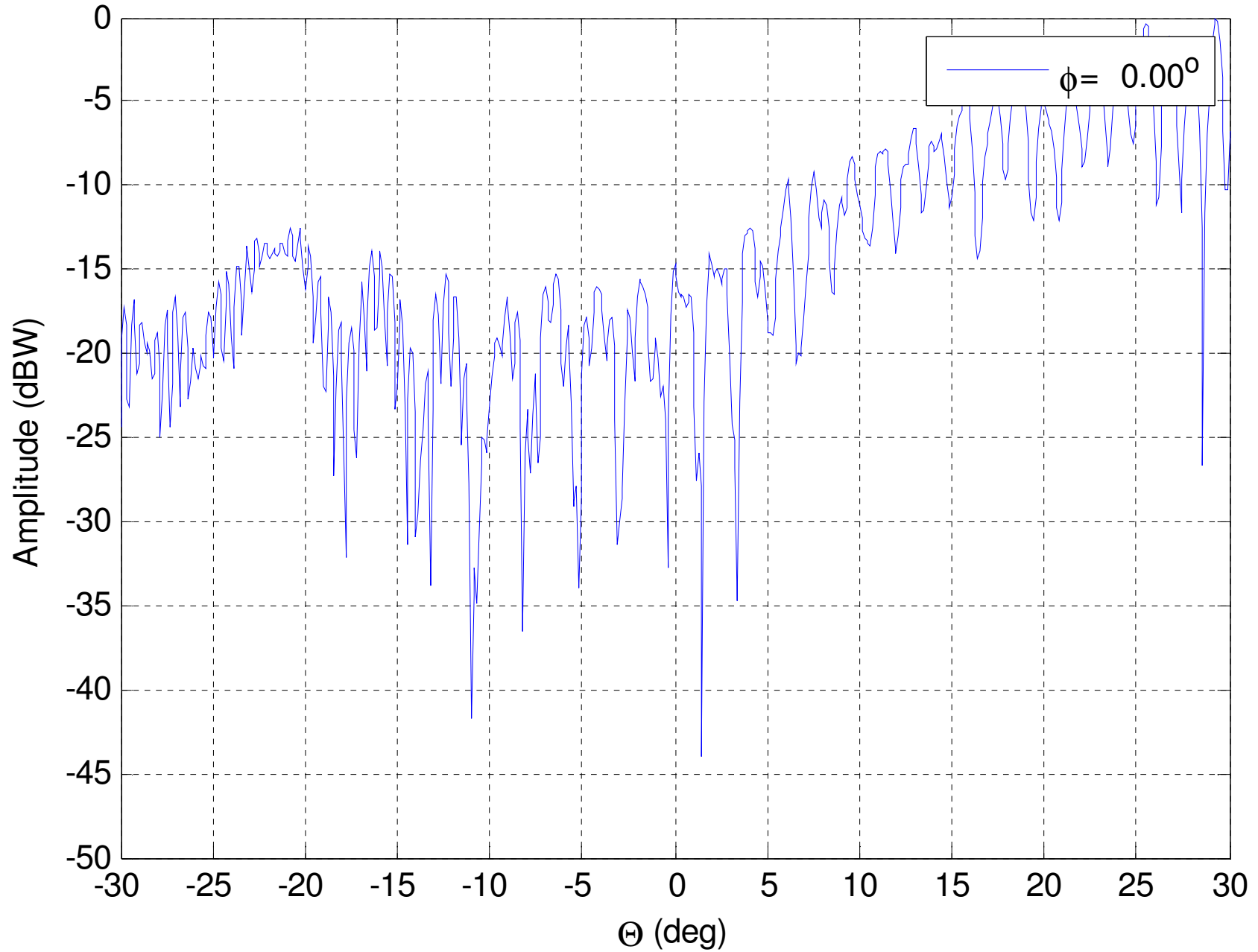
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: -1.01 dBW, Date: 15-Dec-2011



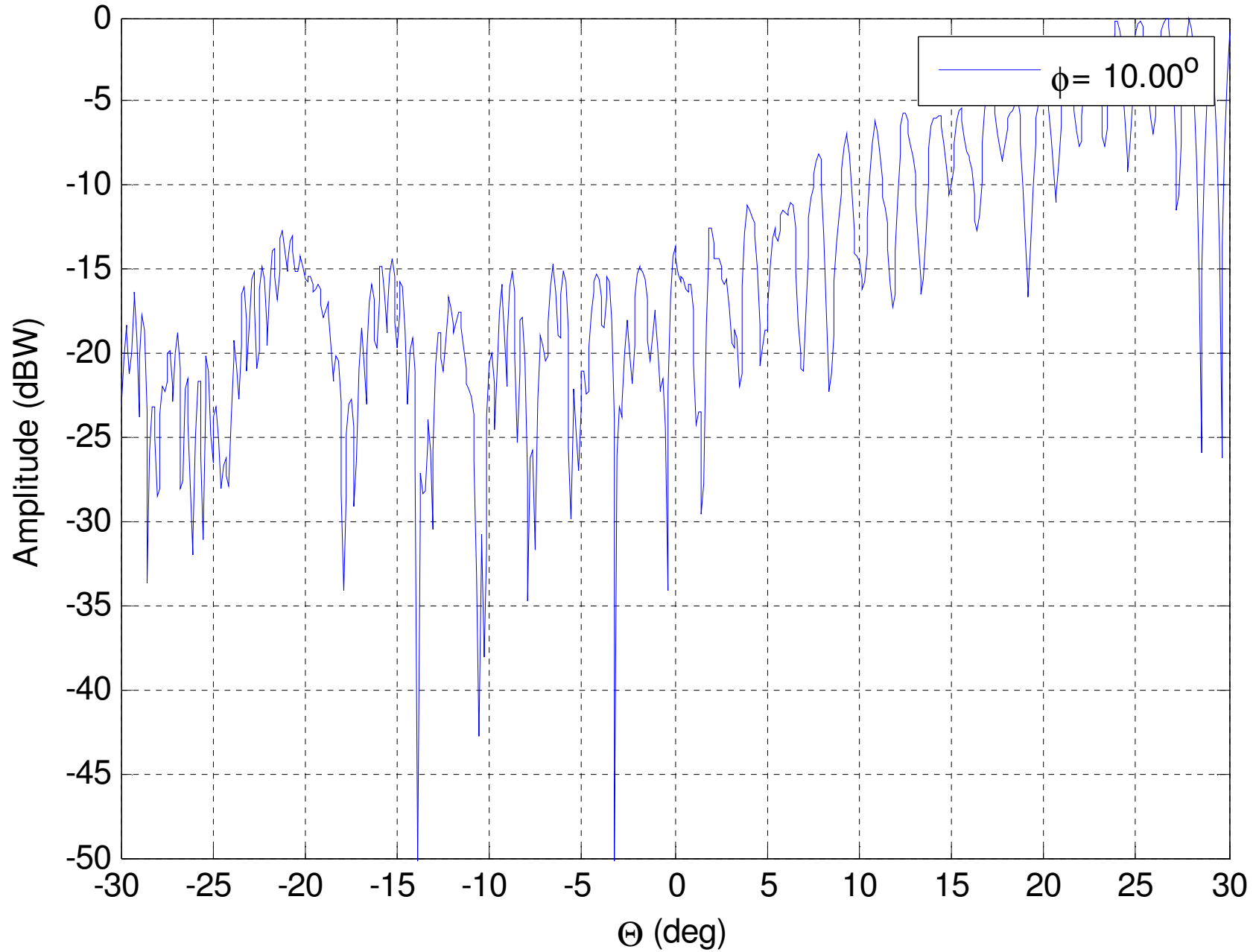
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: -1.16 dBW, Date: 15-Dec-2011



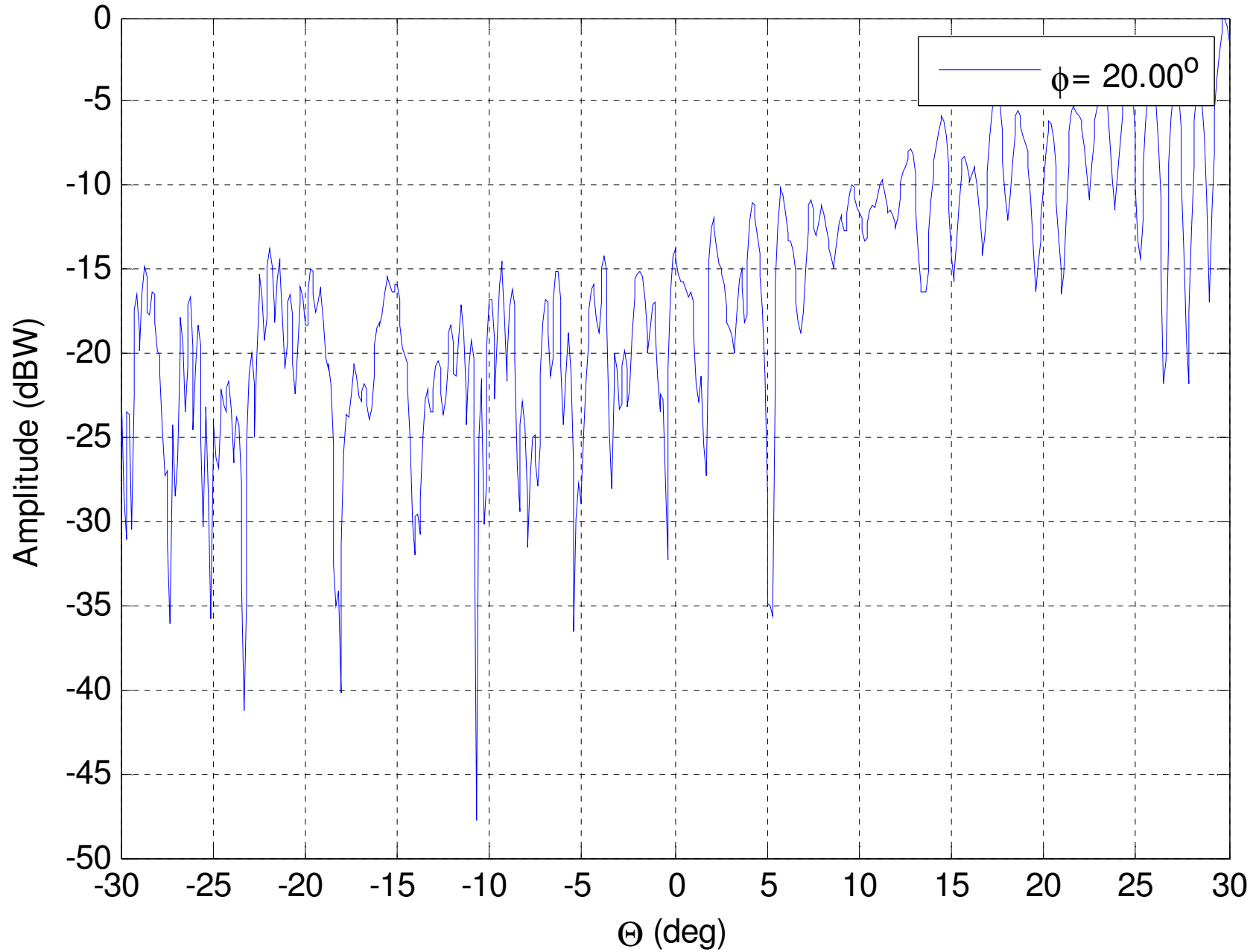
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: -2.16 dBW, Date: 15-Dec-2011



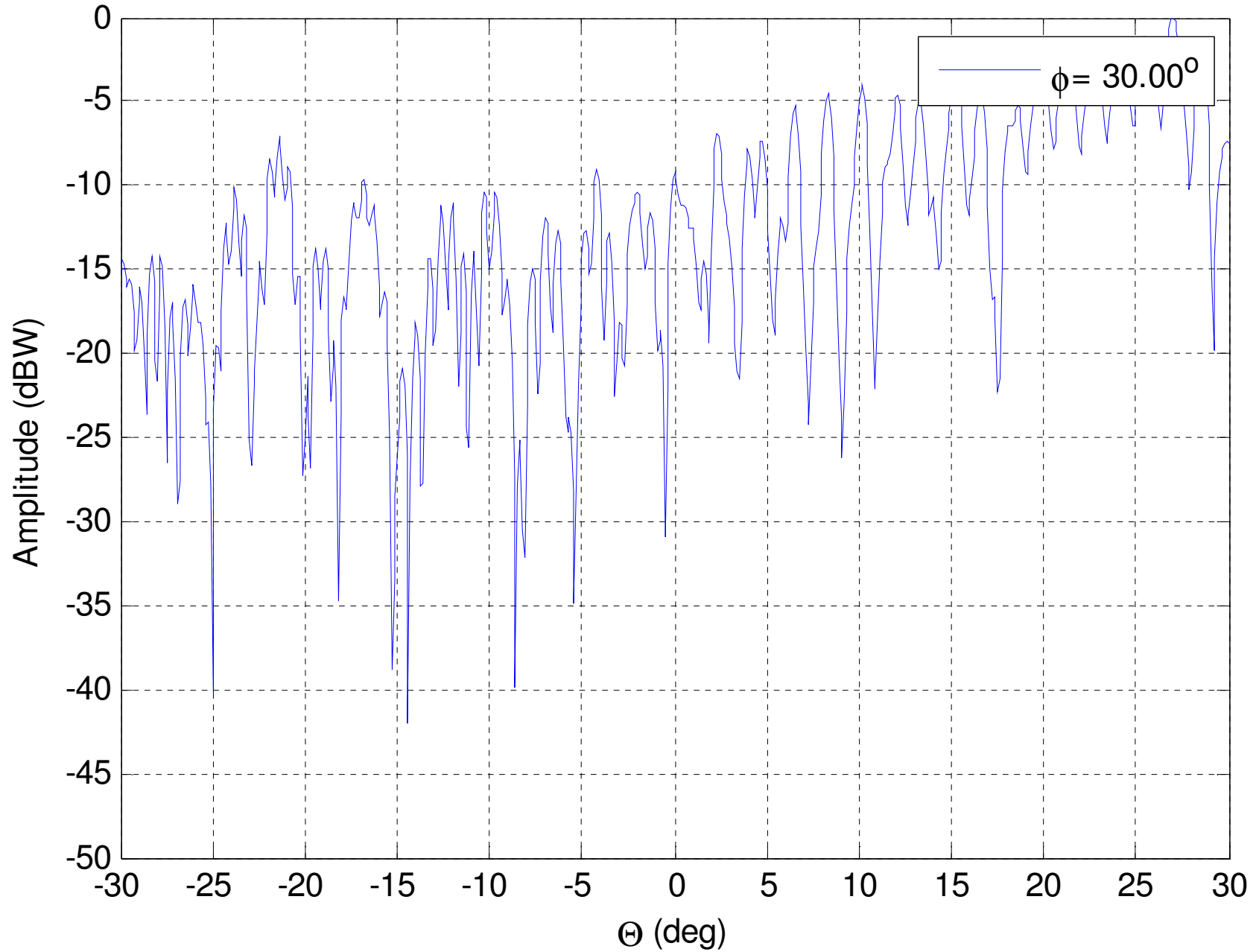
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: -2.05 dBW, Date: 15-Dec-2011



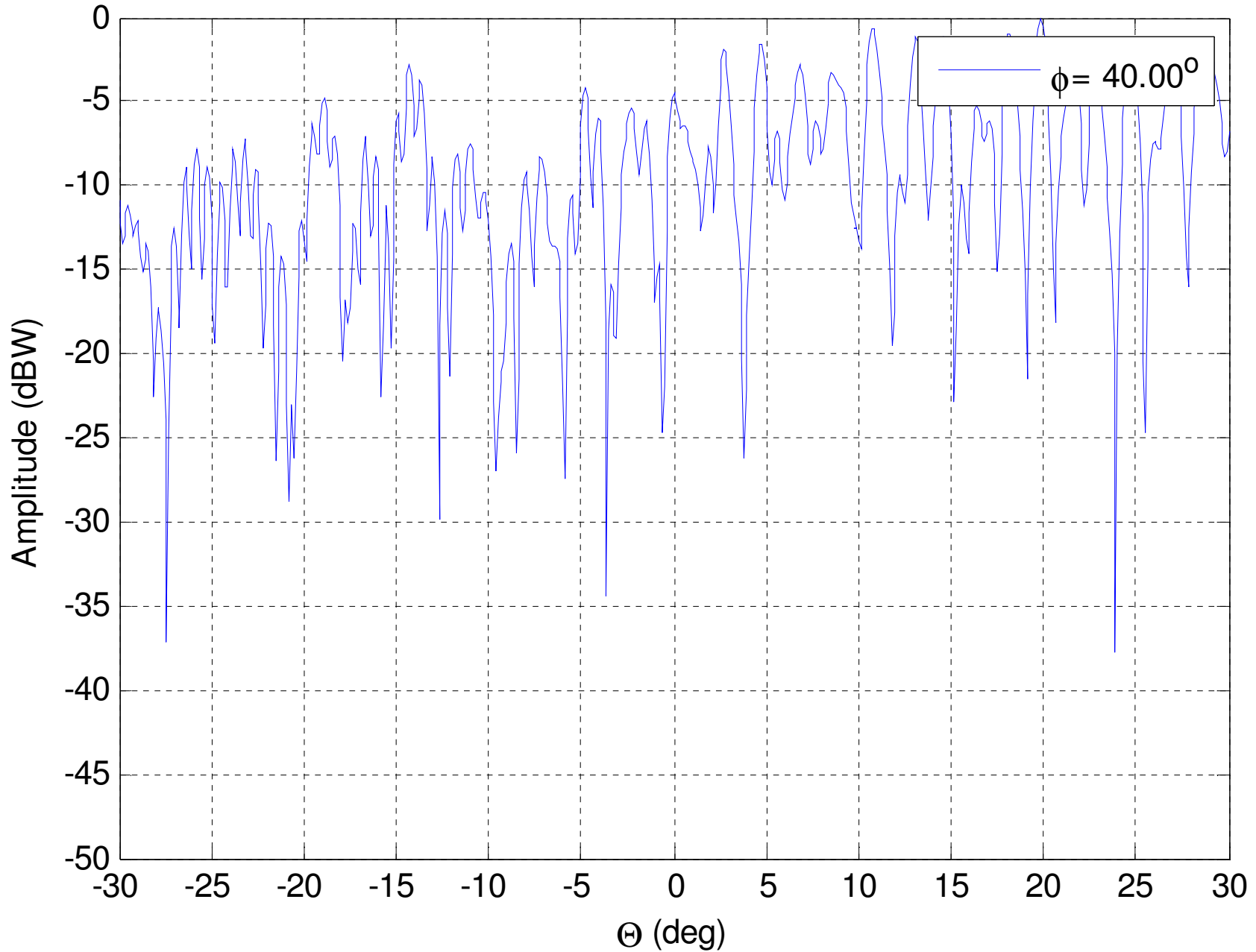
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: -6.58 dBW, Date: 15-Dec-2011



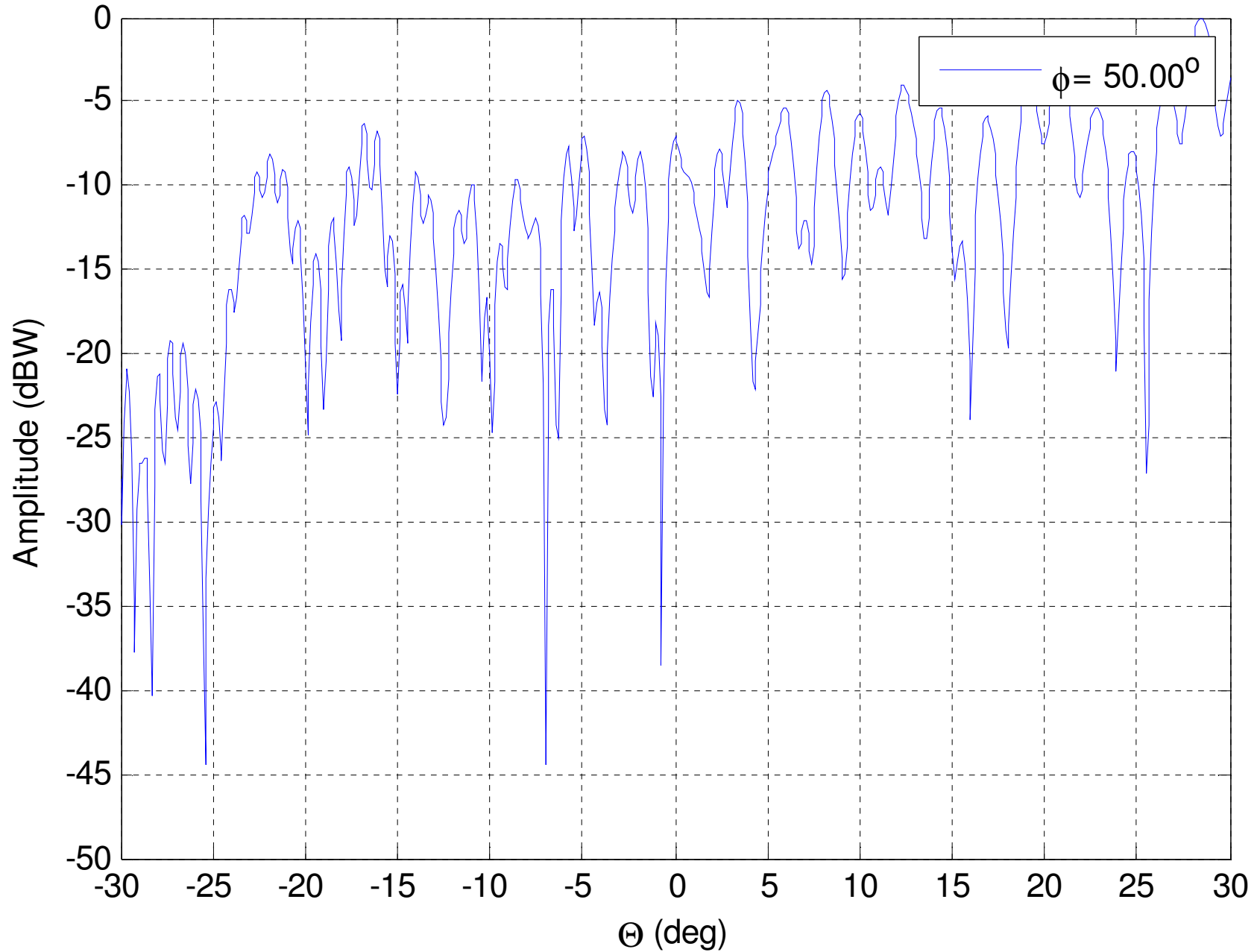
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -11.32 dBW, Date: 15-Dec-2011



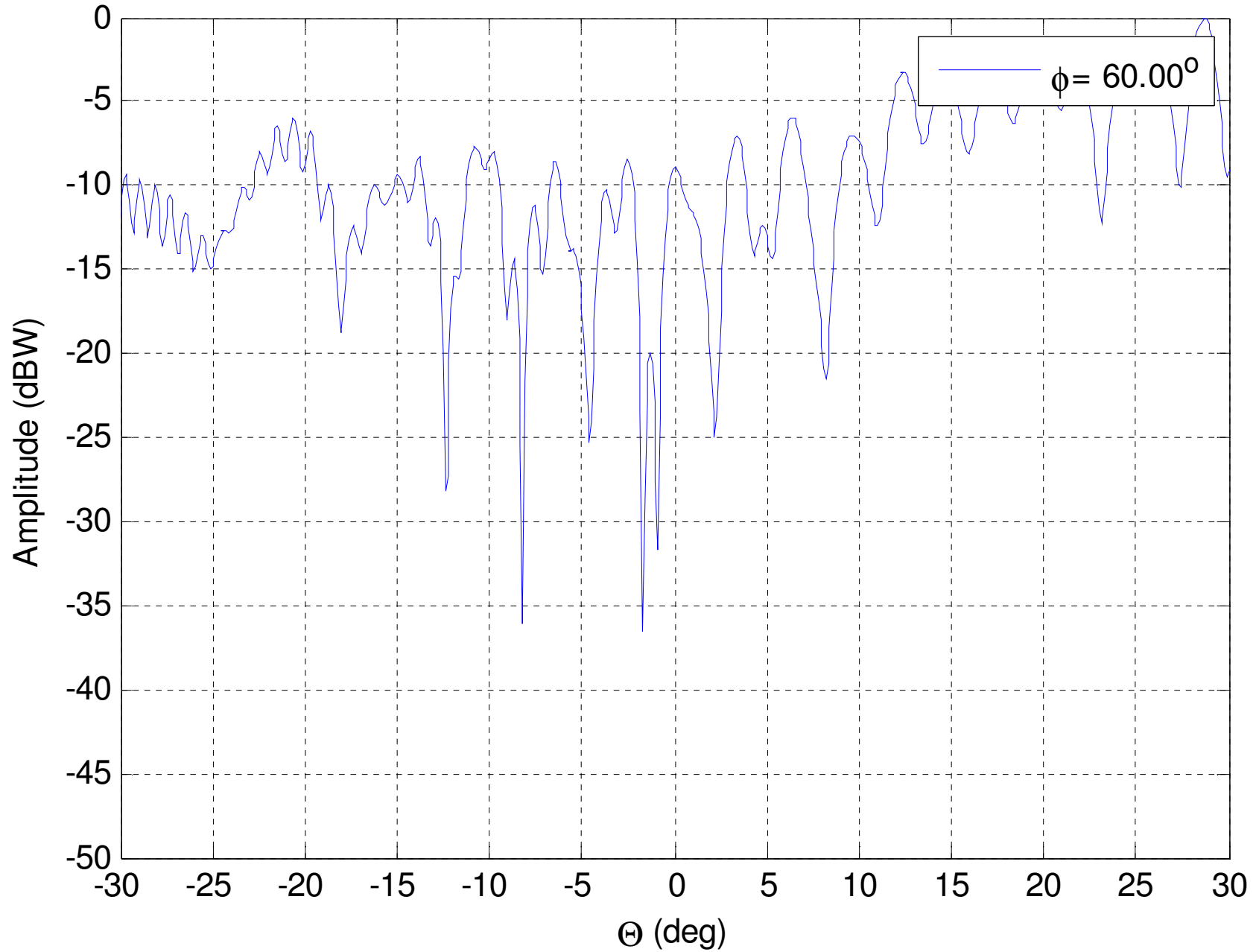
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -8.65 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

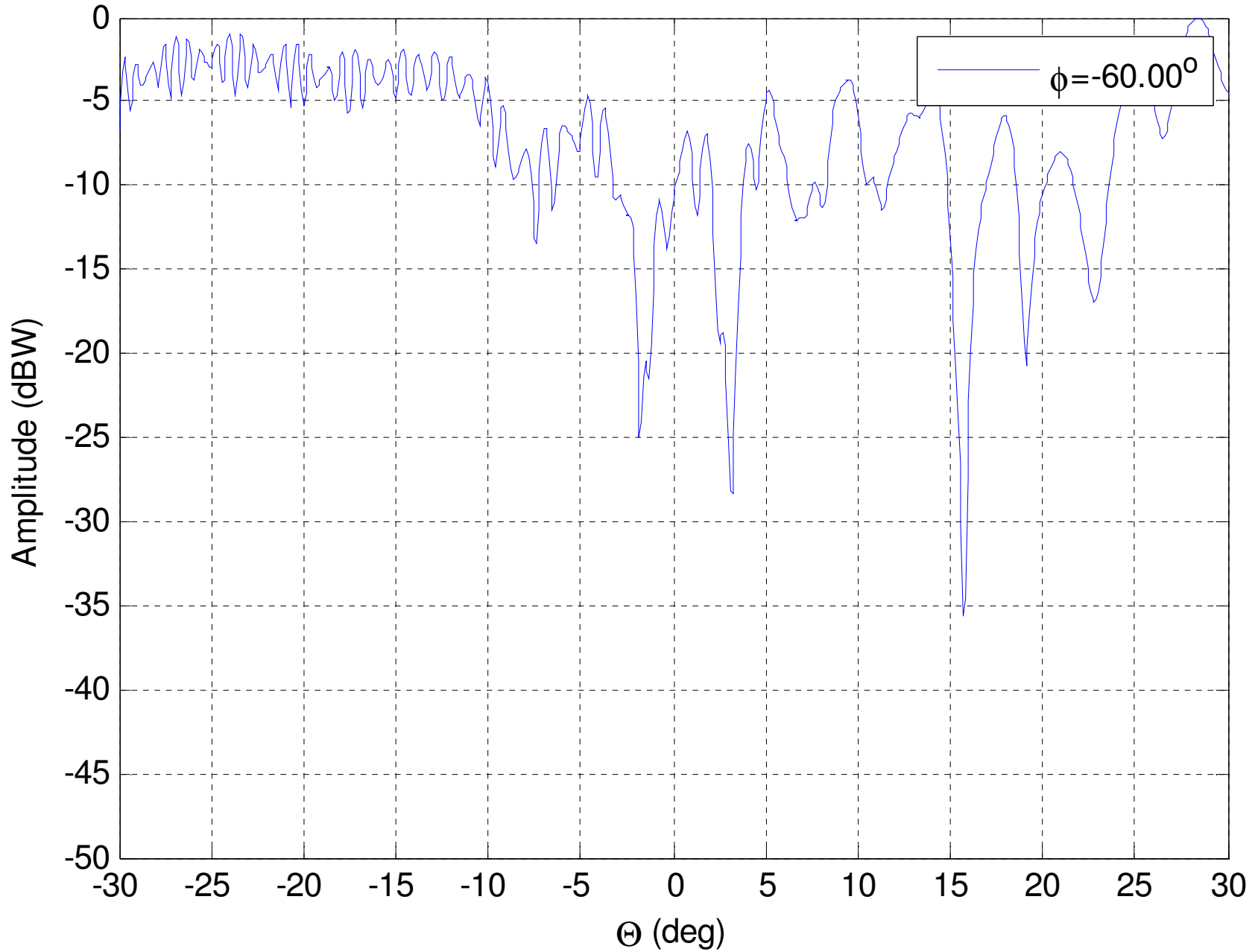
Input file: tx-17.3-lhcp-60.cut, Peak: -6.87 dBW, Date: 15-Dec-2011



RHCP at 17.5 GHz

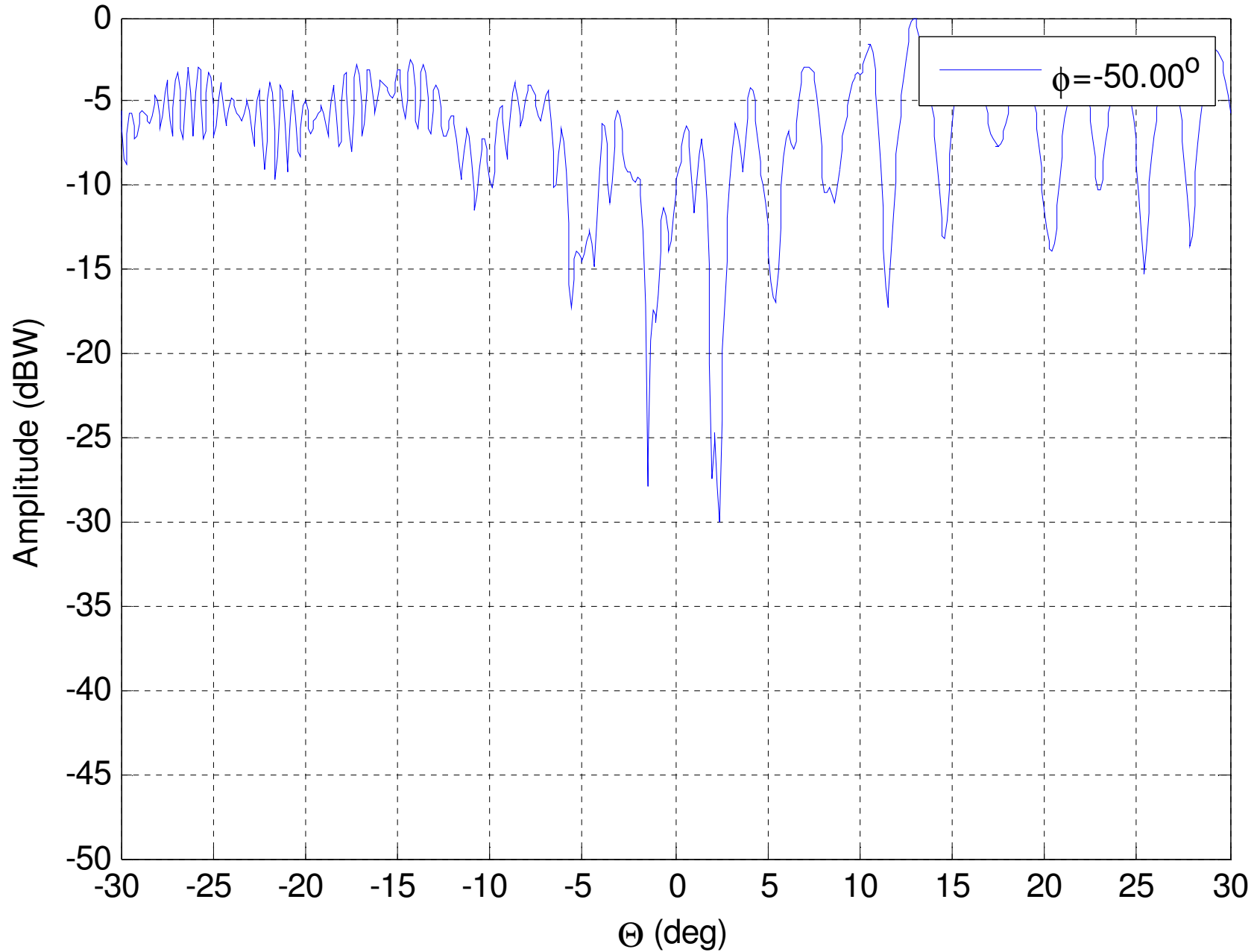
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -8.17 dBW, Date: 15-Dec-2011



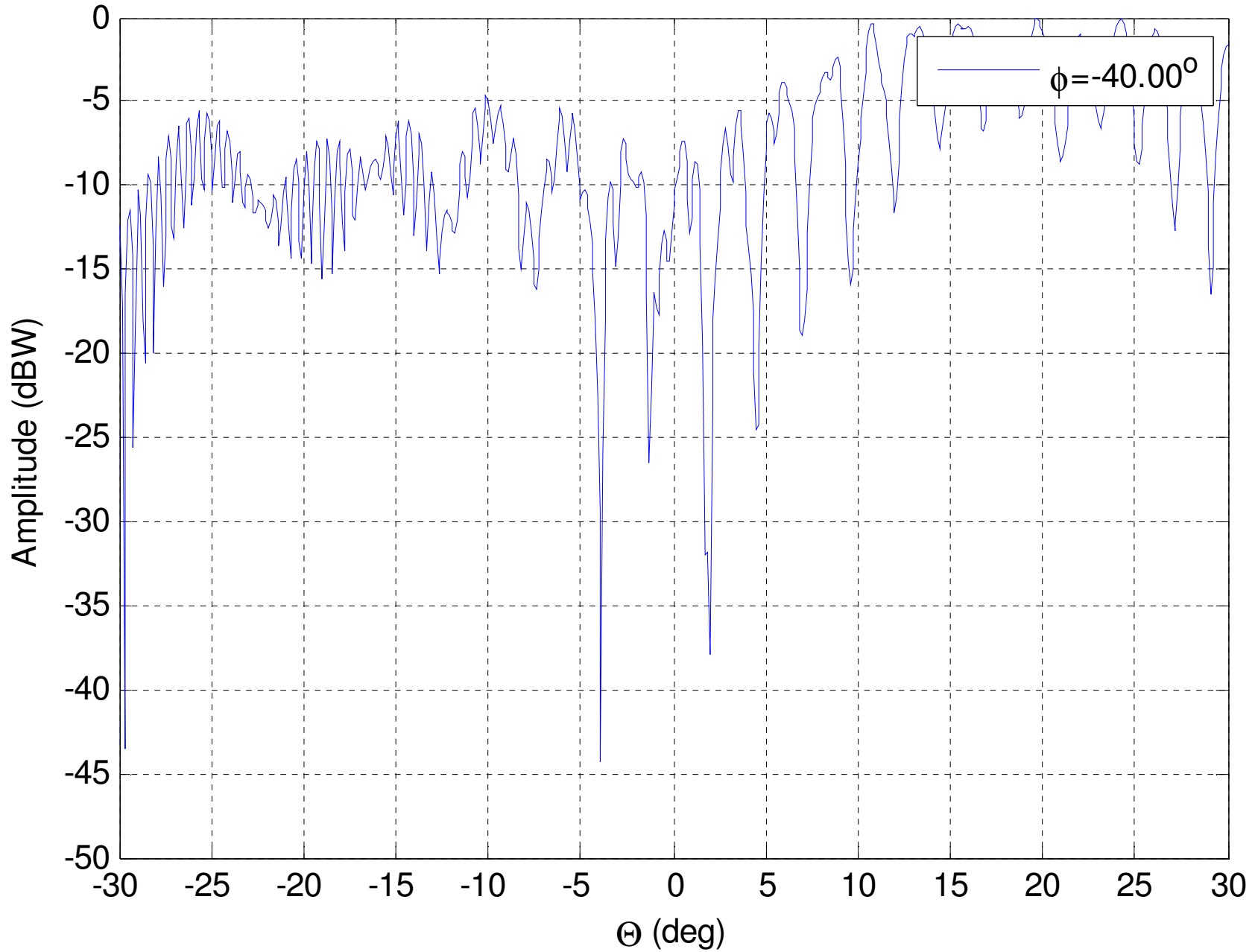
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -8.40 dBW, Date: 15-Dec-2011



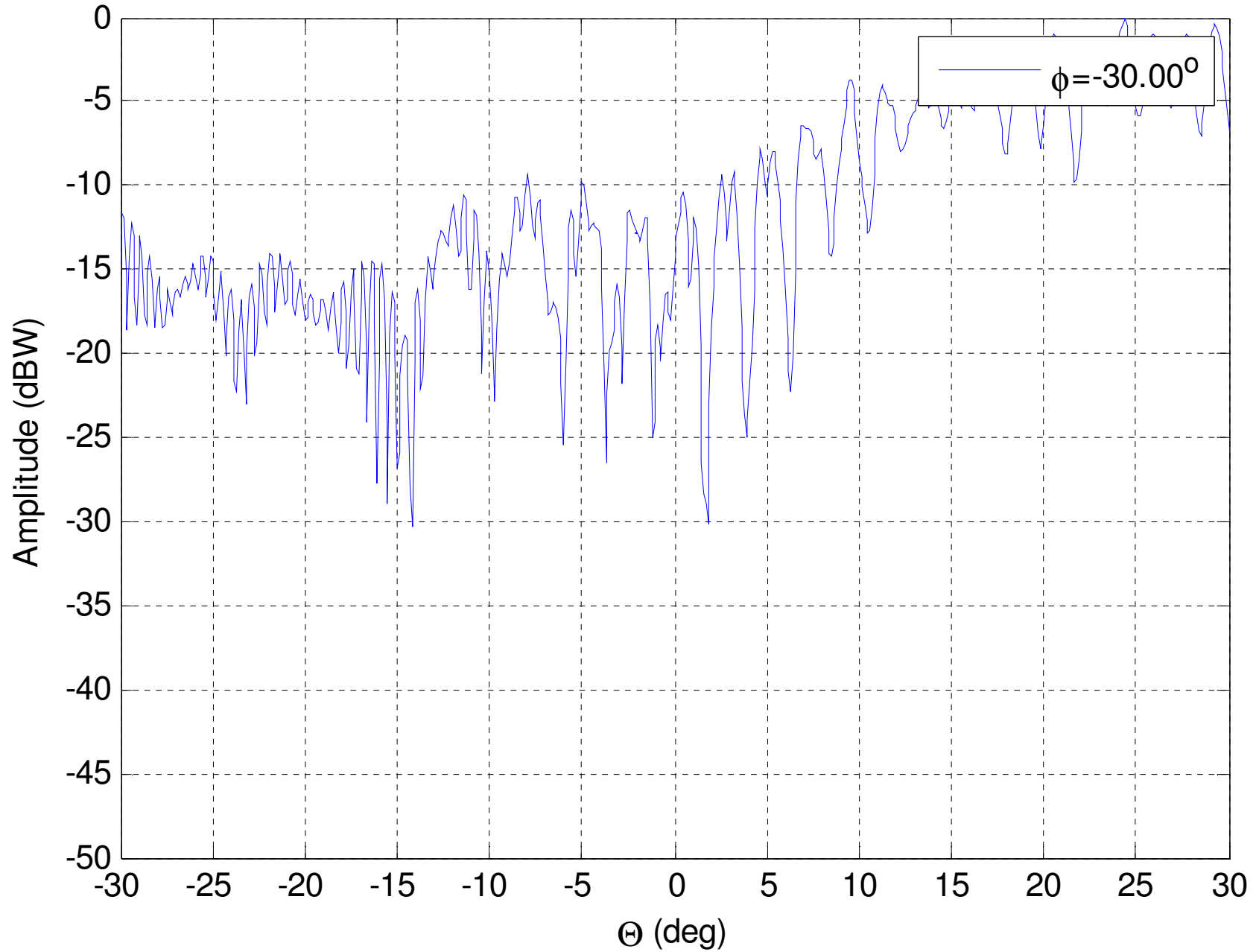
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -7.68 dBW, Date: 15-Dec-2011



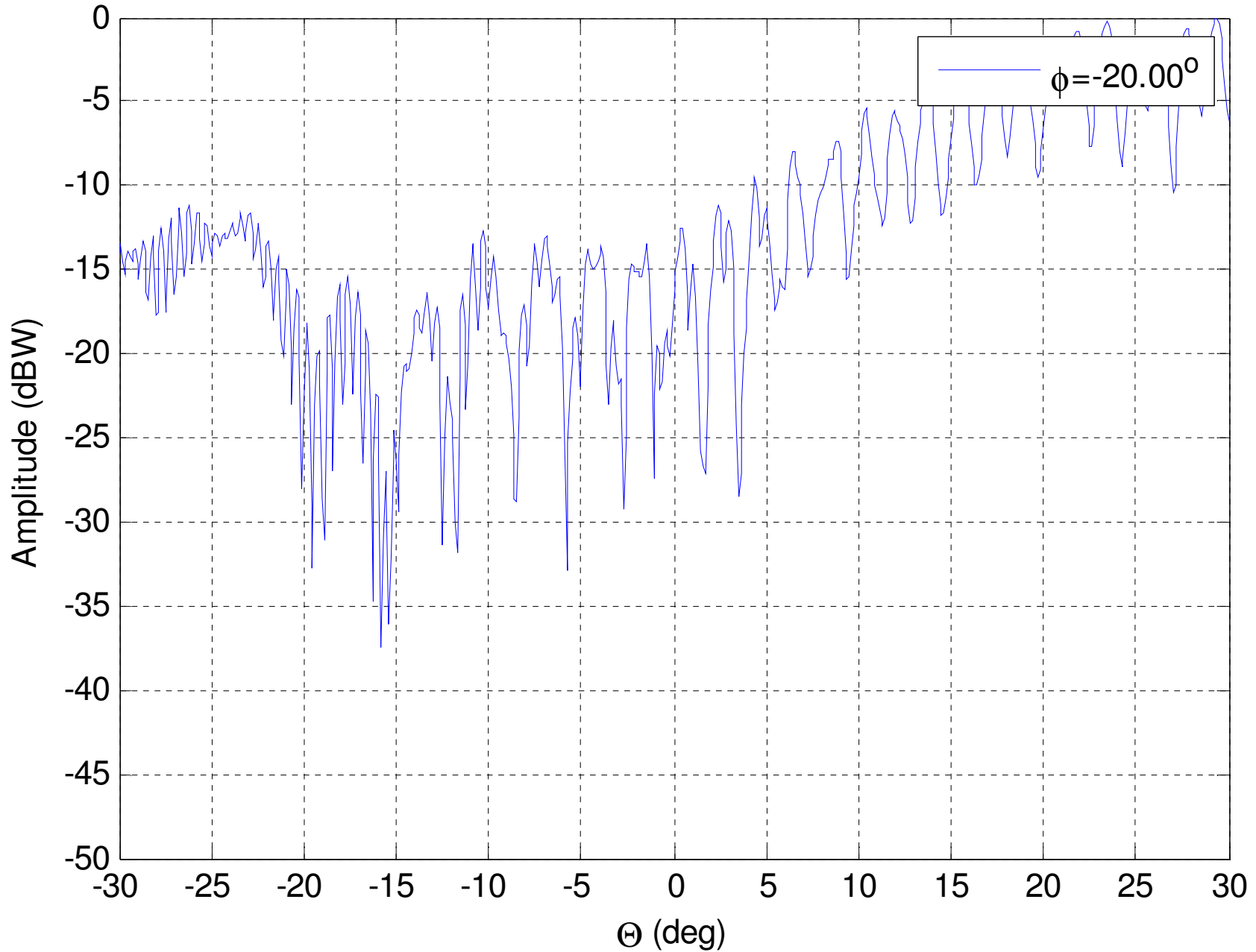
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -4.61 dBW, Date: 15-Dec-2011



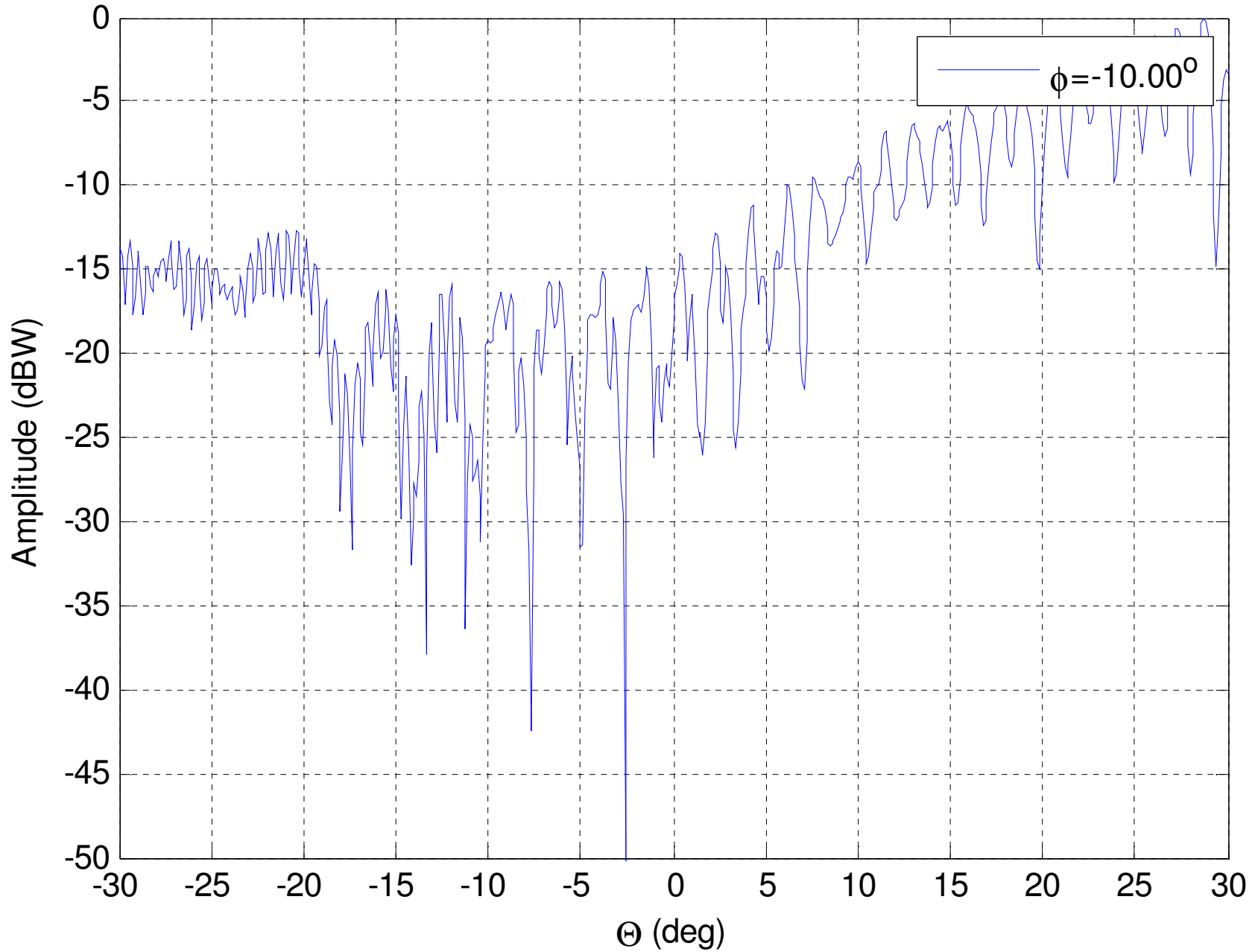
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: -2.63 dBW, Date: 15-Dec-2011



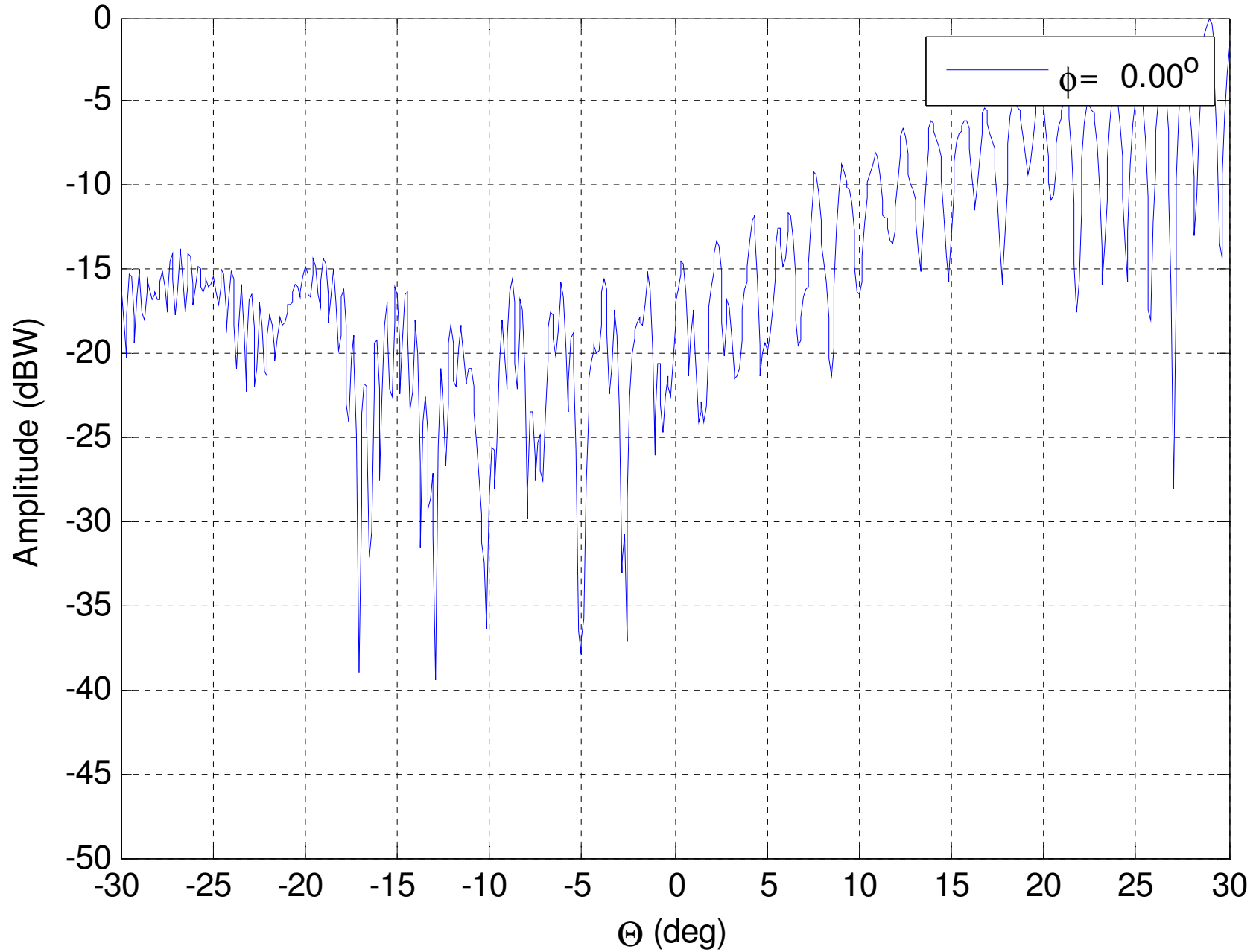
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: -0.99 dBW, Date: 15-Dec-2011



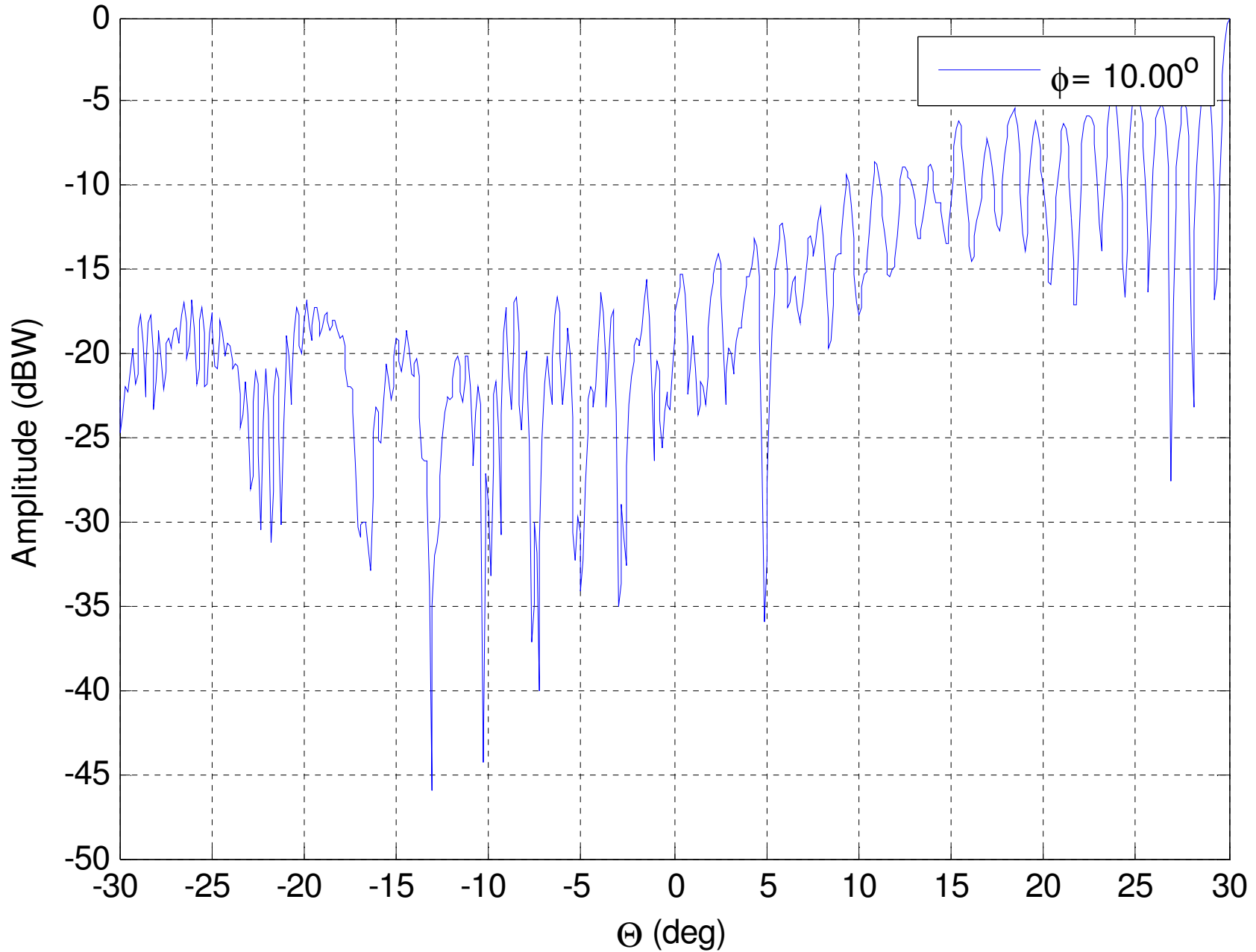
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: -0.57 dBW, Date: 15-Dec-2011



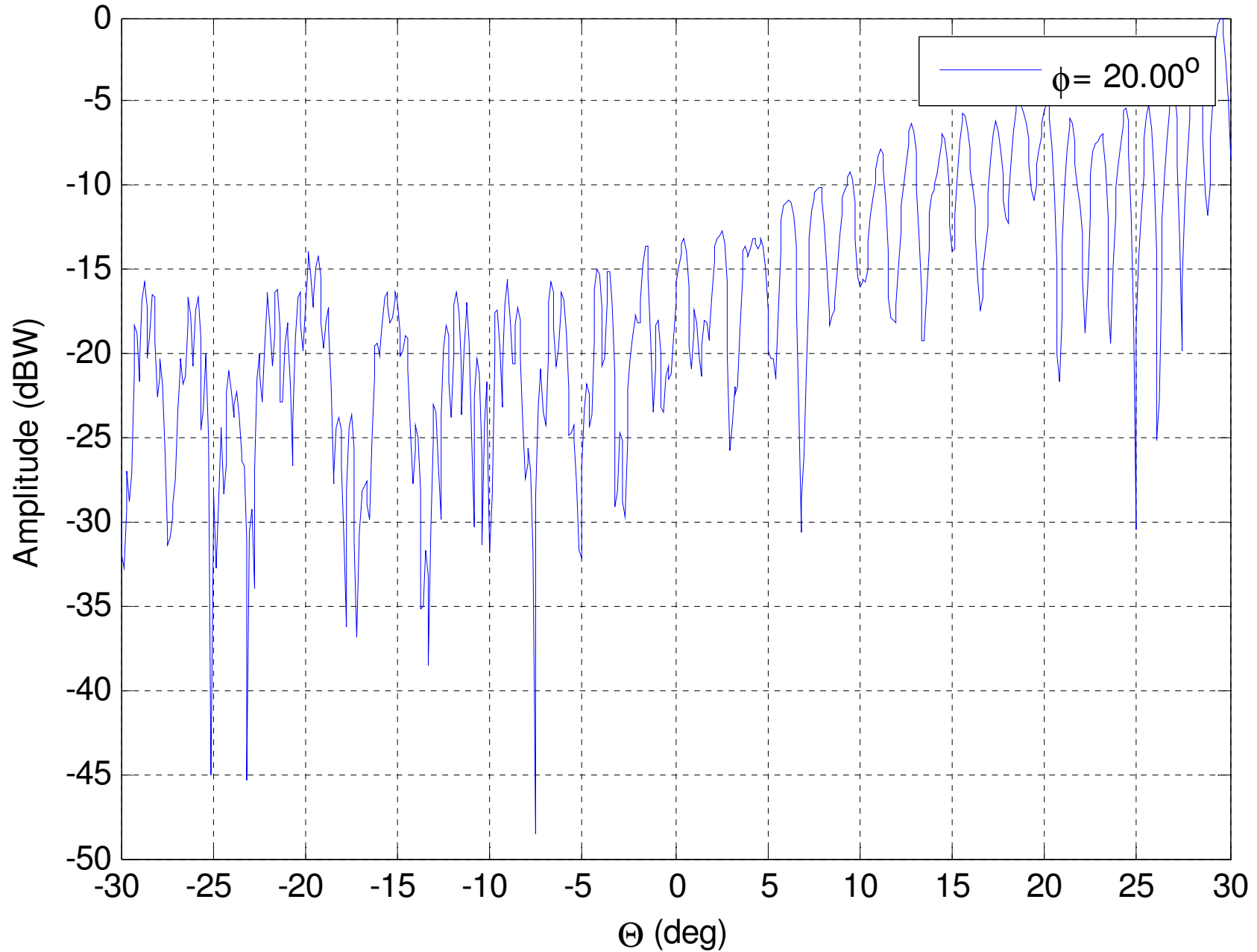
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: 0.04 dBW, Date: 15-Dec-2011



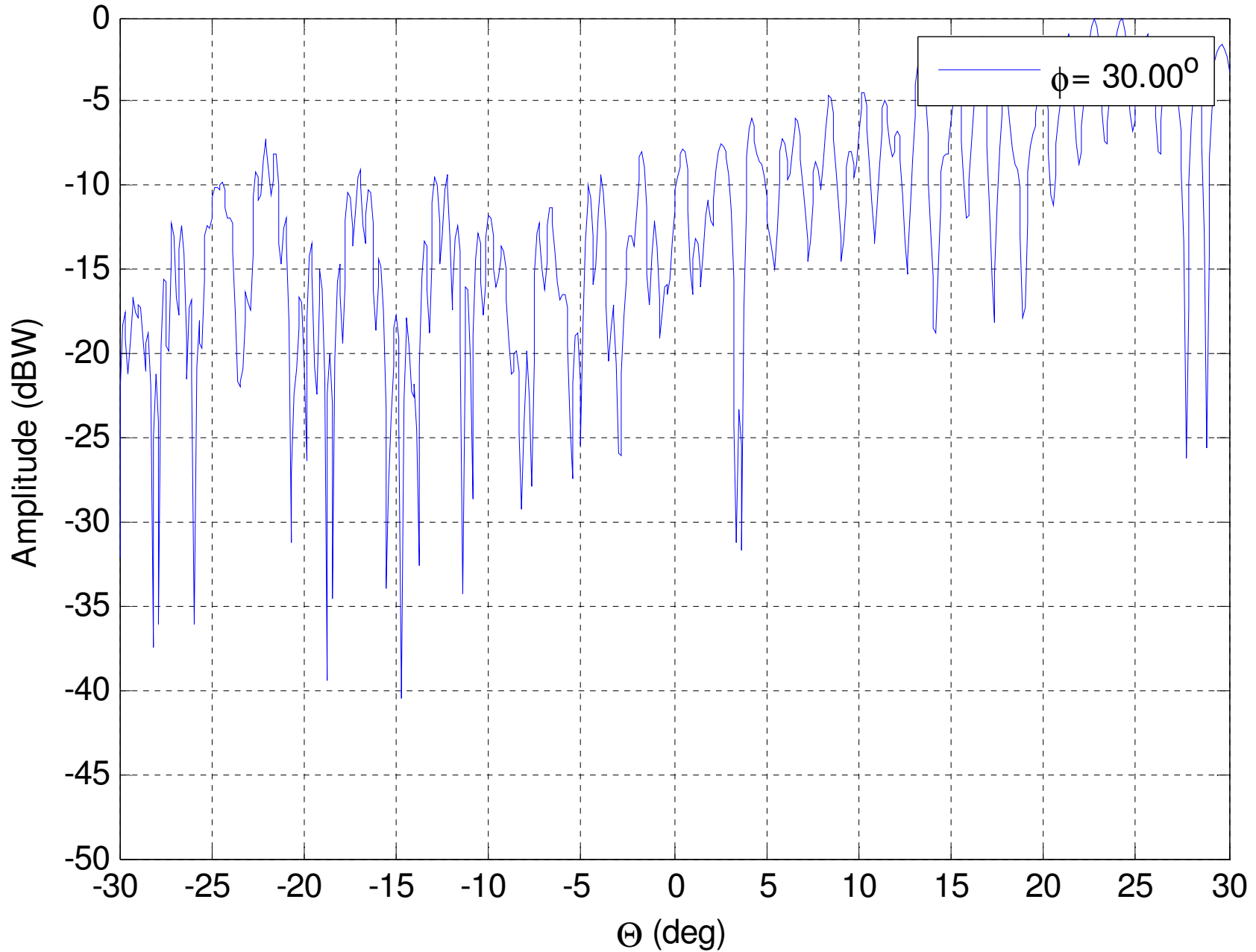
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: -1.95 dBW, Date: 15-Dec-2011



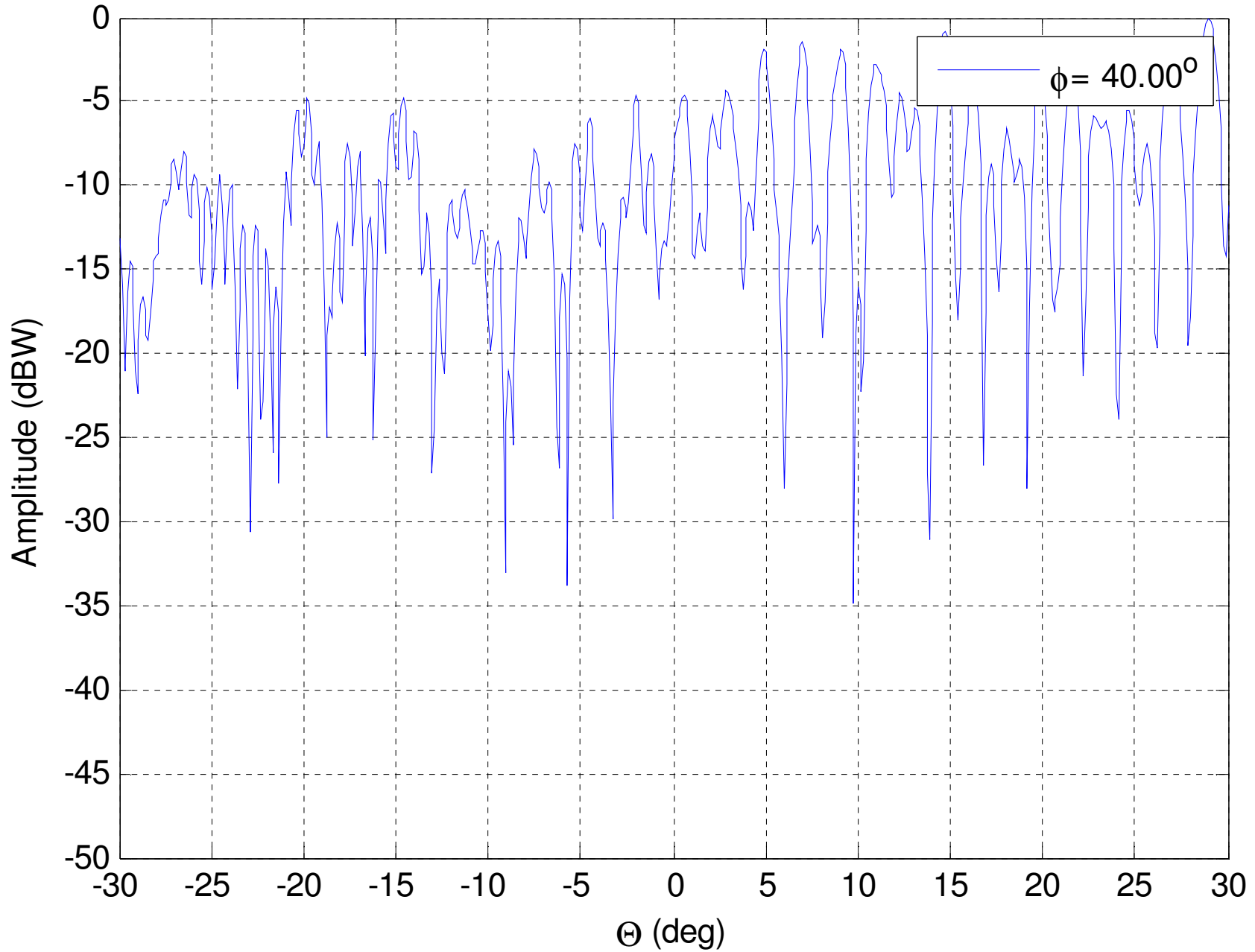
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: -7.41 dBW, Date: 15-Dec-2011



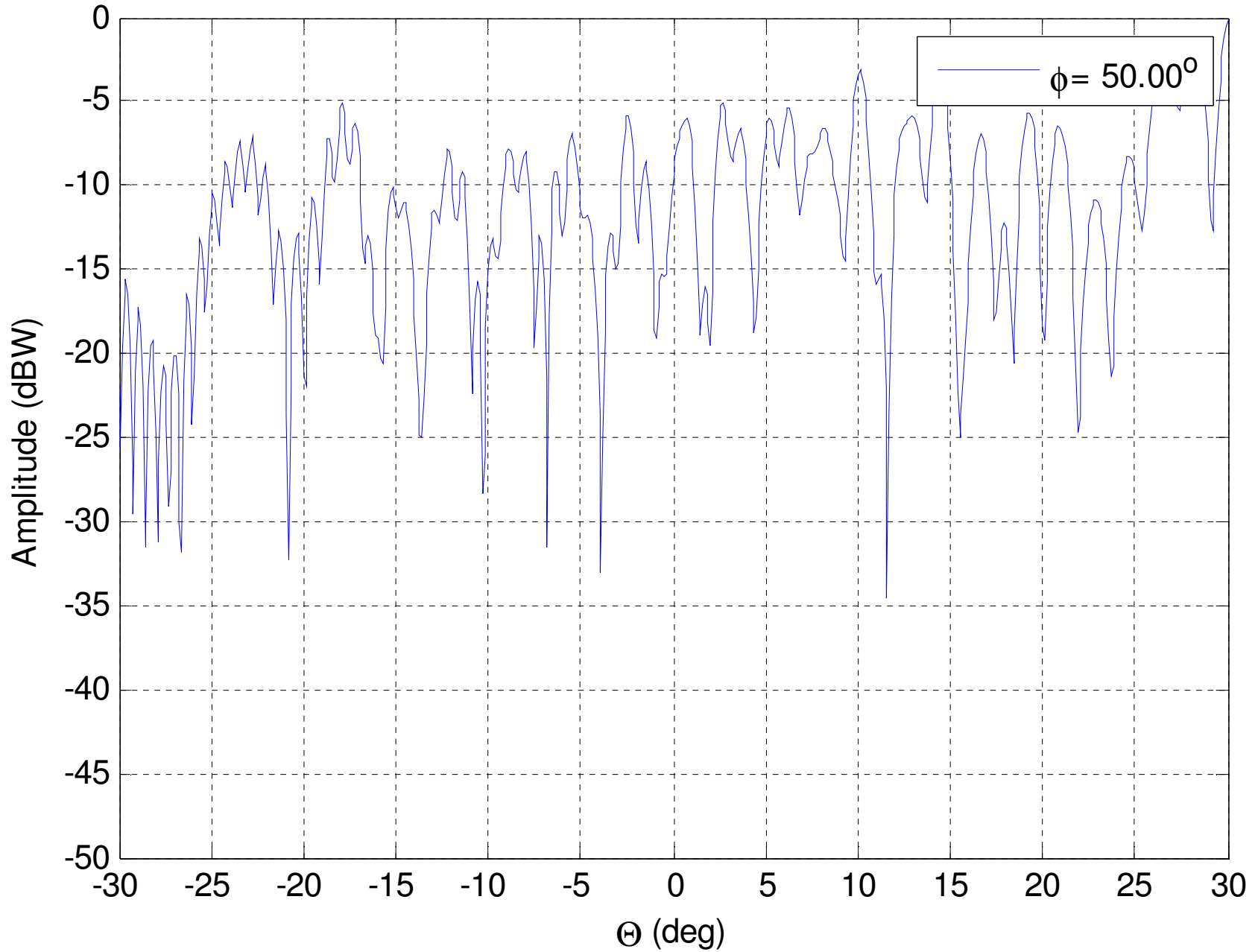
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -10.60 dBW, Date: 15-Dec-2011



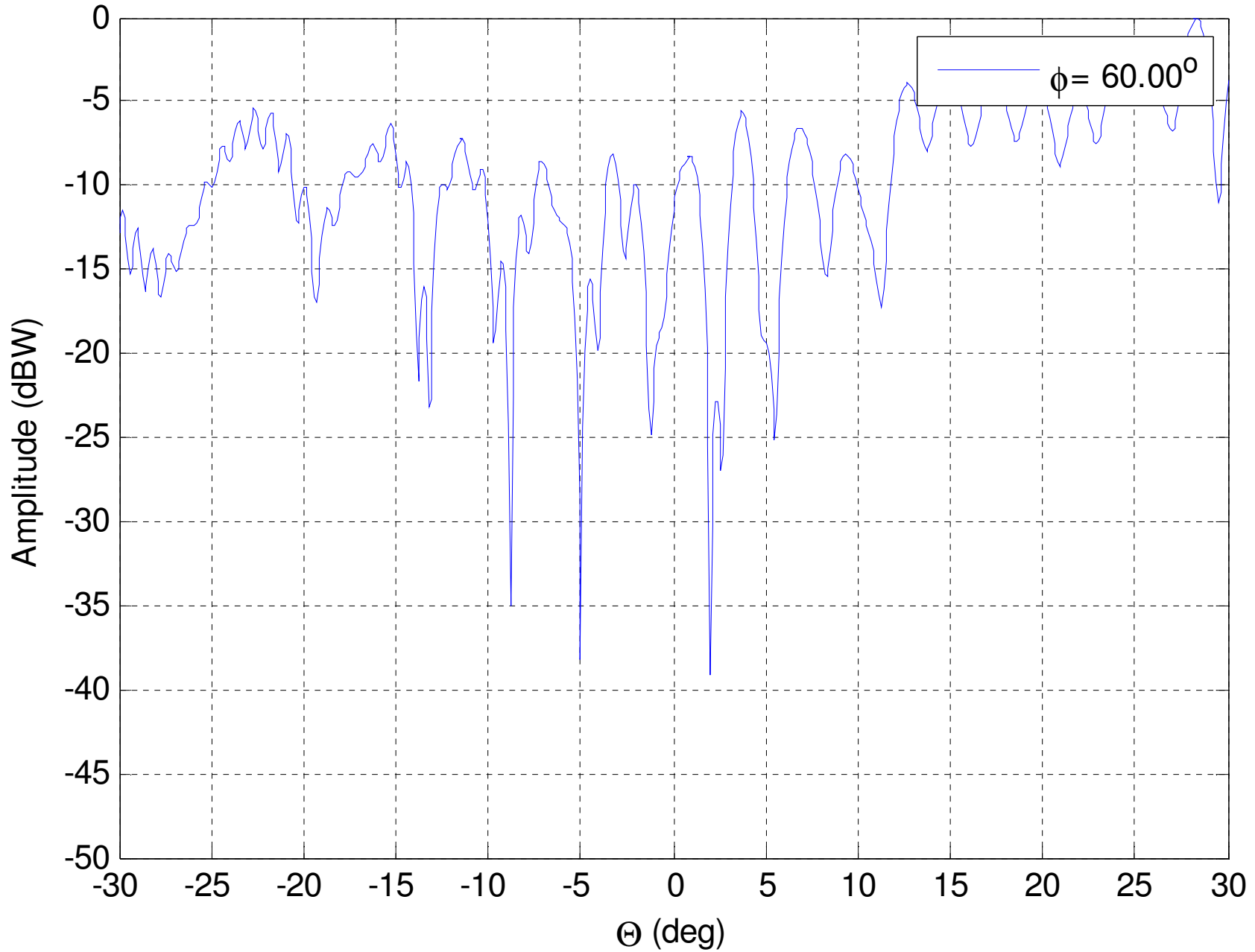
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -9.44 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

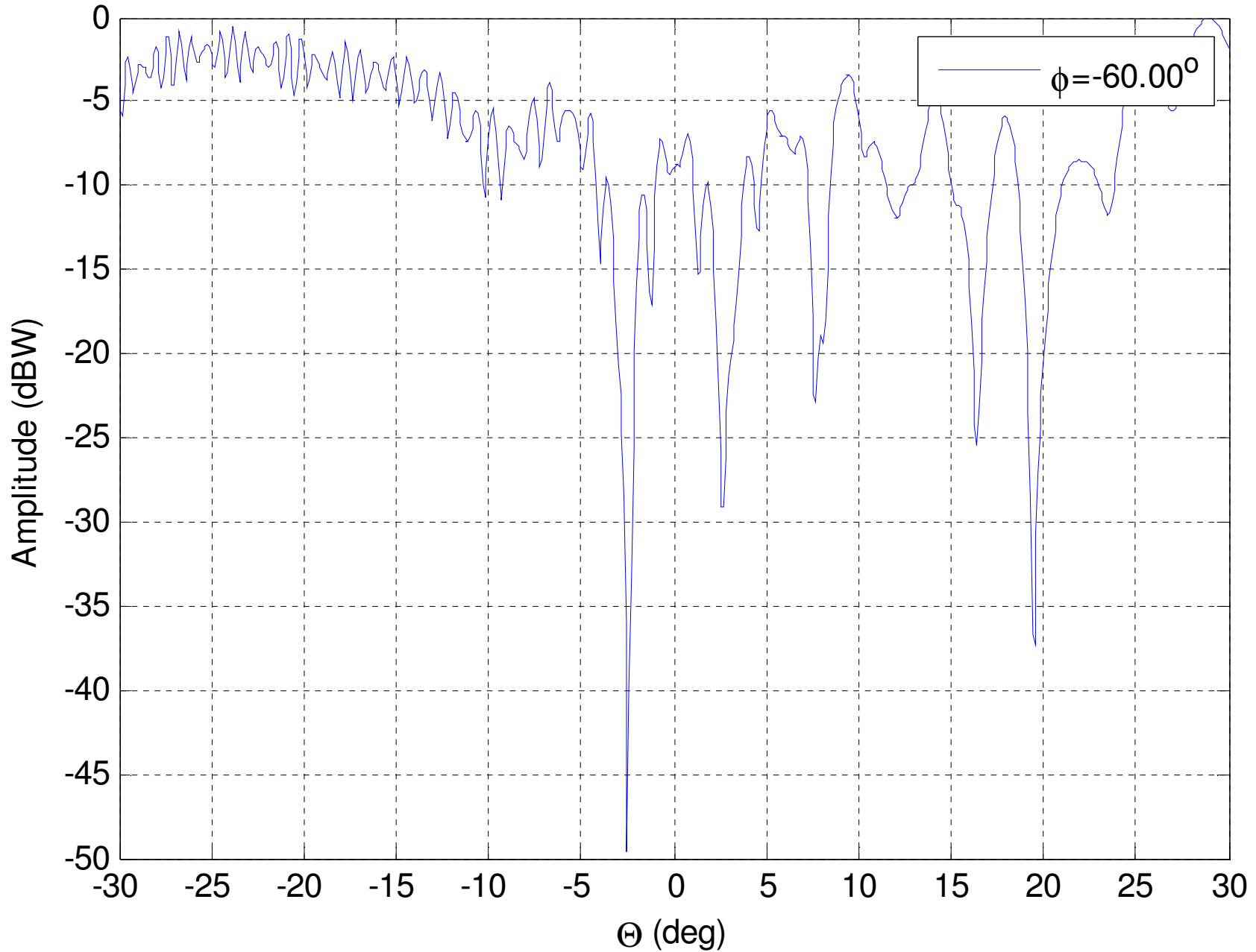
Input file: tx-17.5-rhcp-60.cut, Peak: -7.34 dBW, Date: 15-Dec-2011



LHCP at 17.5 GHz

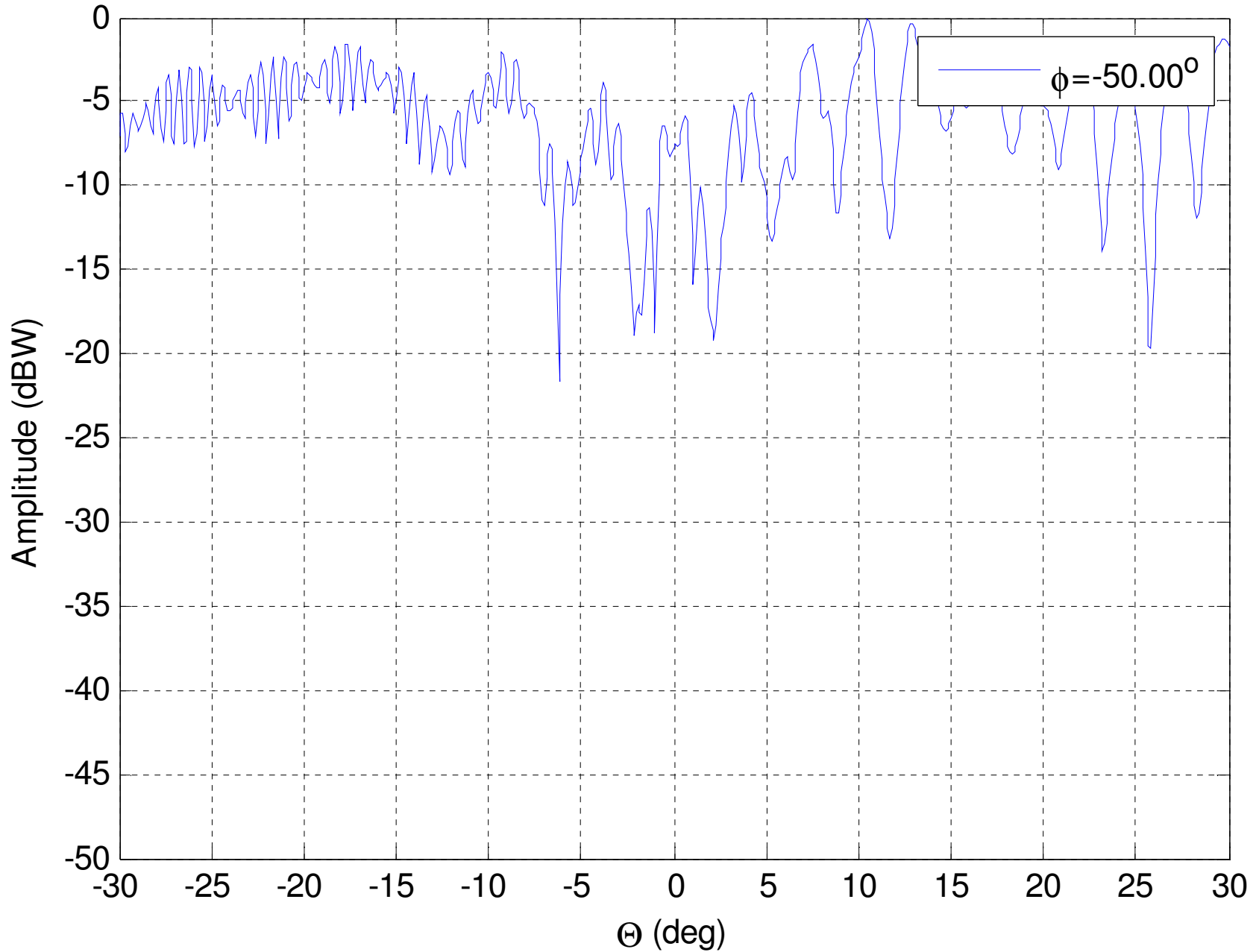
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -8.00 dBW, Date: 15-Dec-2011



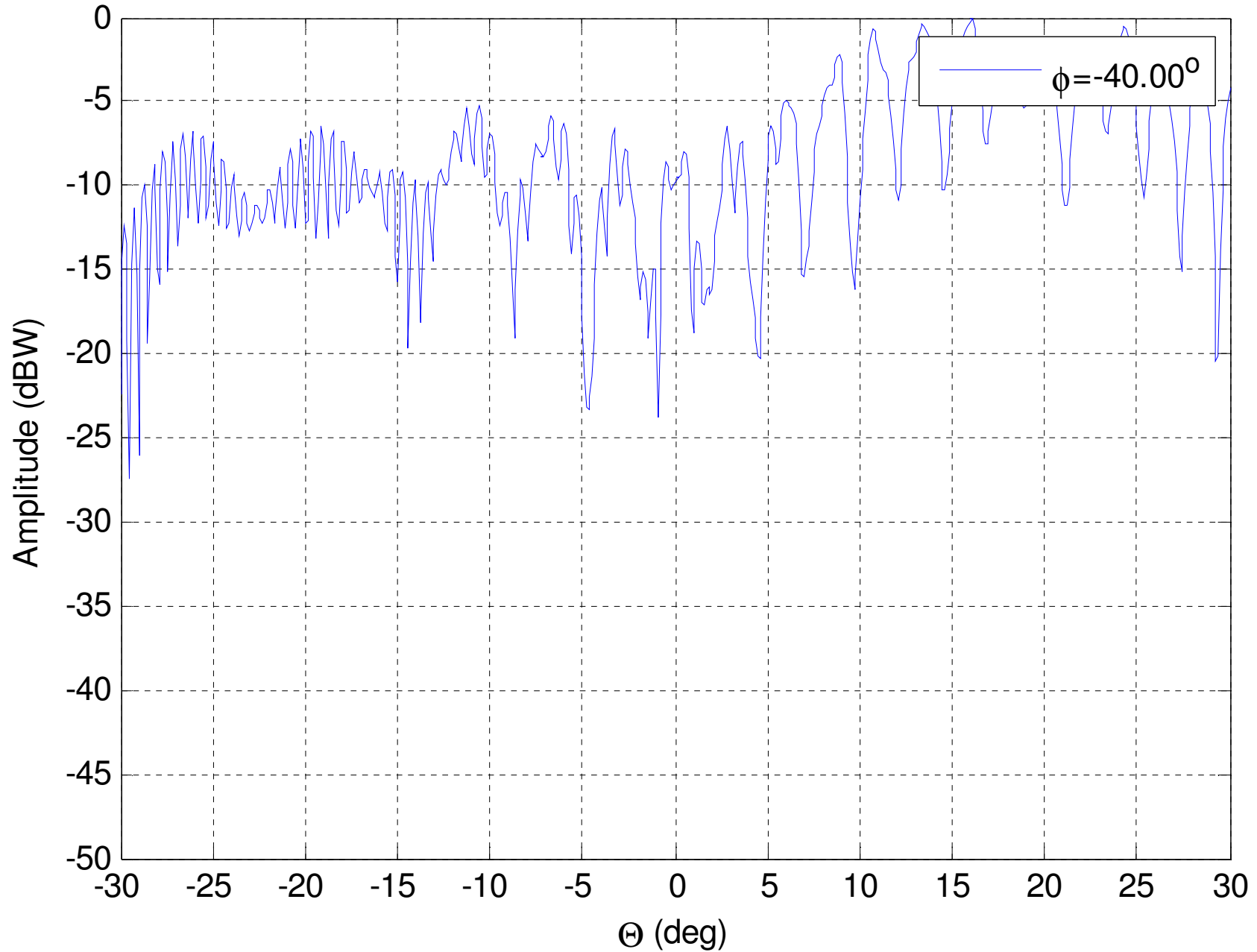
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -9.18 dBW, Date: 15-Dec-2011



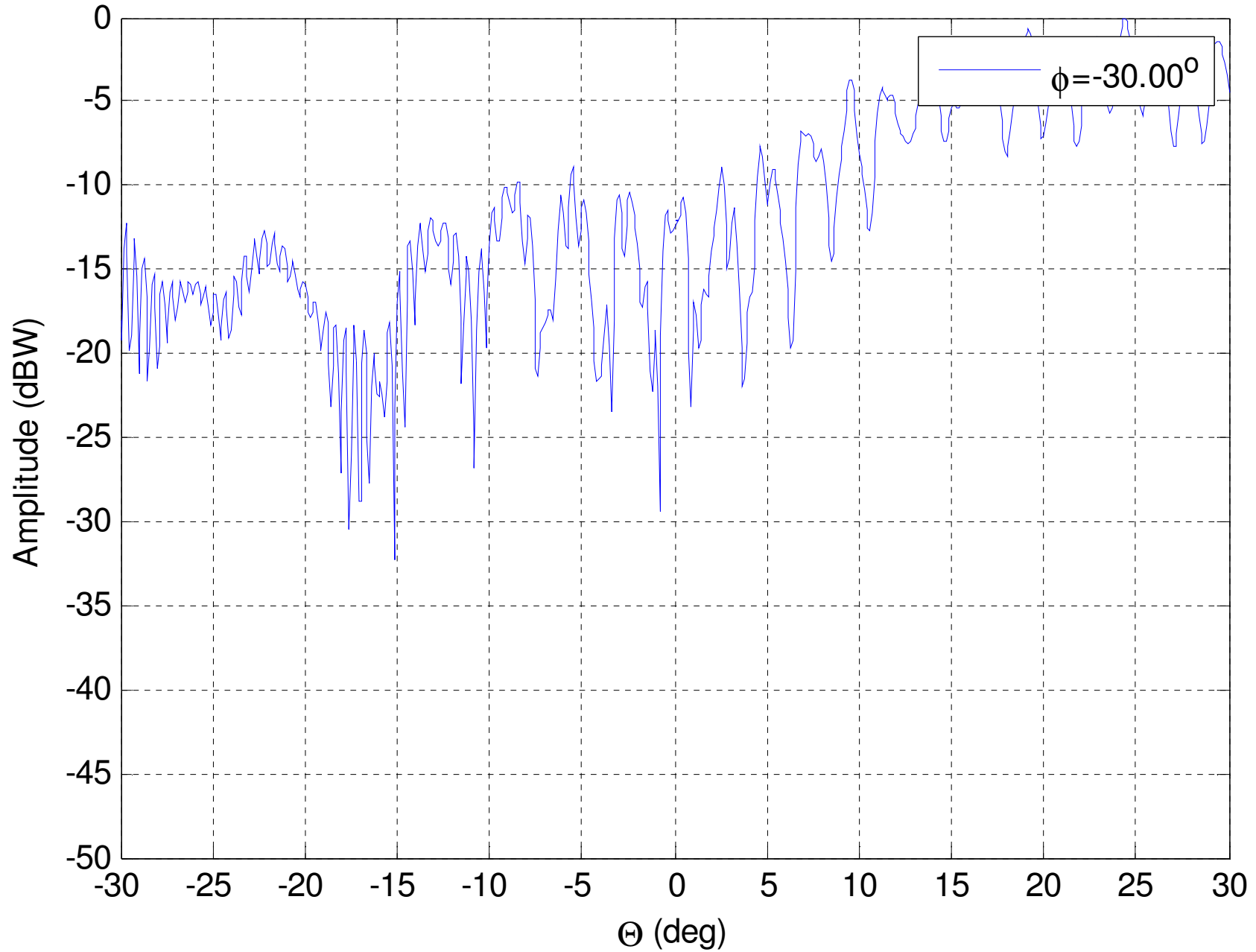
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -7.24 dBW, Date: 15-Dec-2011



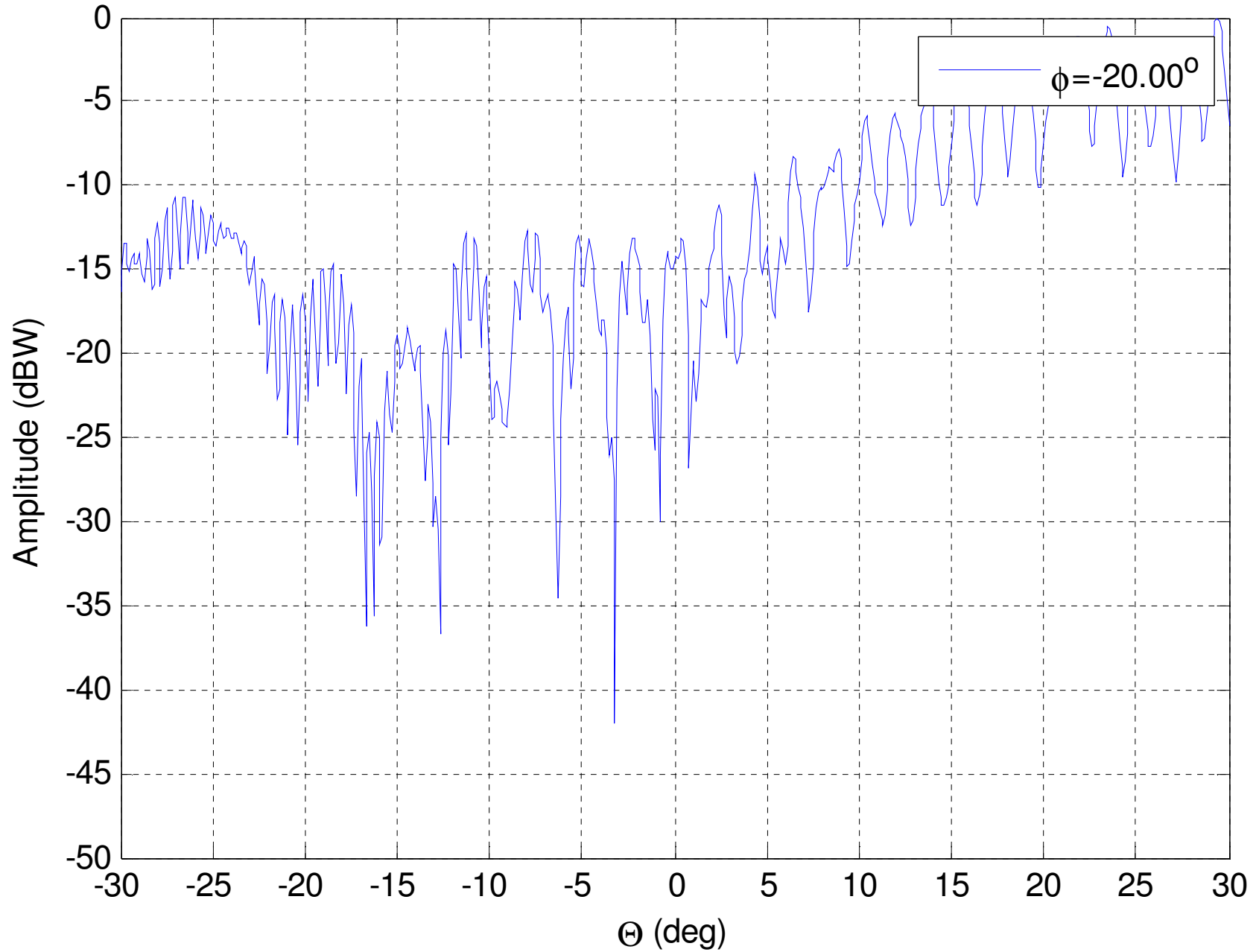
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: -4.64 dBW, Date: 15-Dec-2011



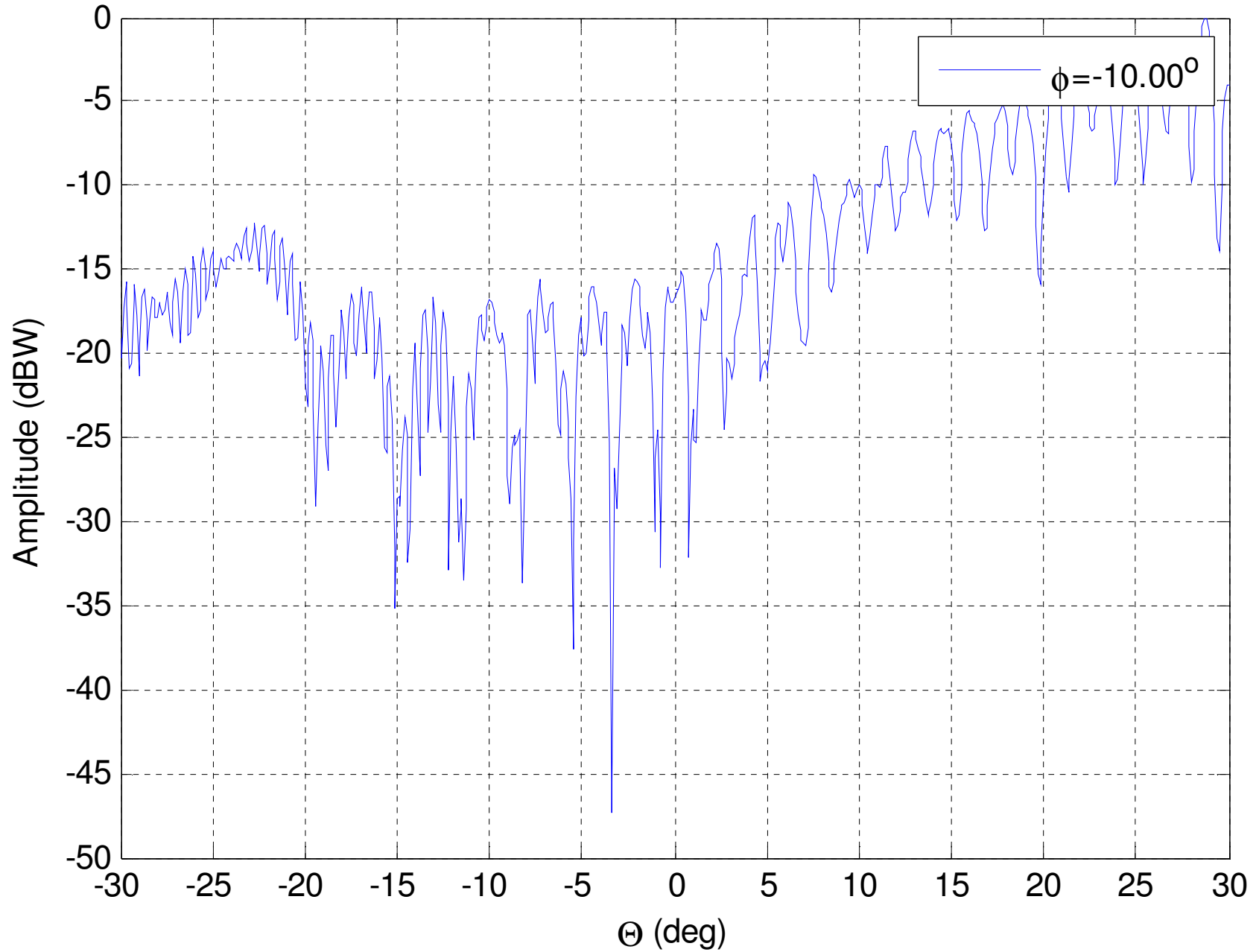
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: -2.43 dBW, Date: 15-Dec-2011



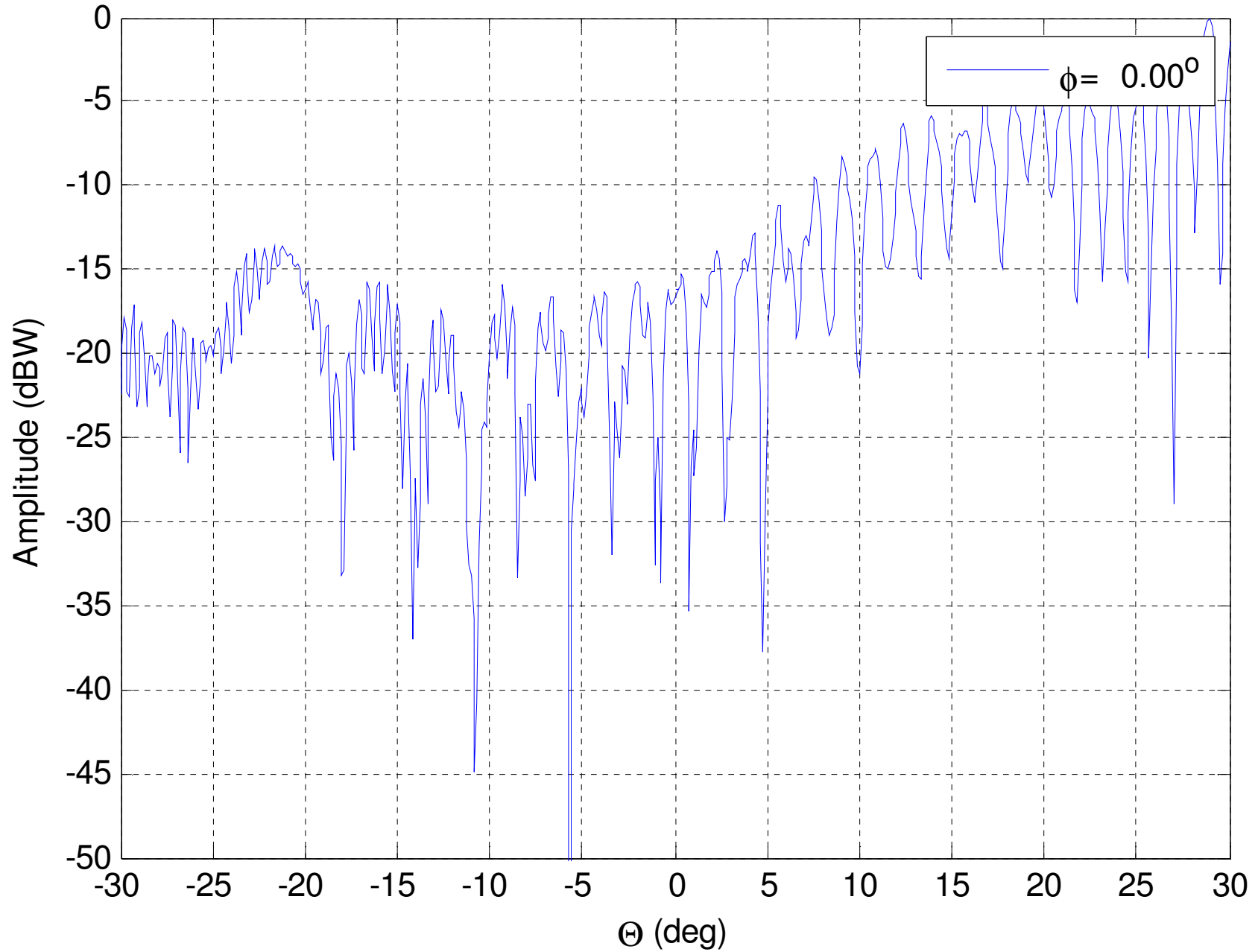
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: -0.51 dBW, Date: 15-Dec-2011



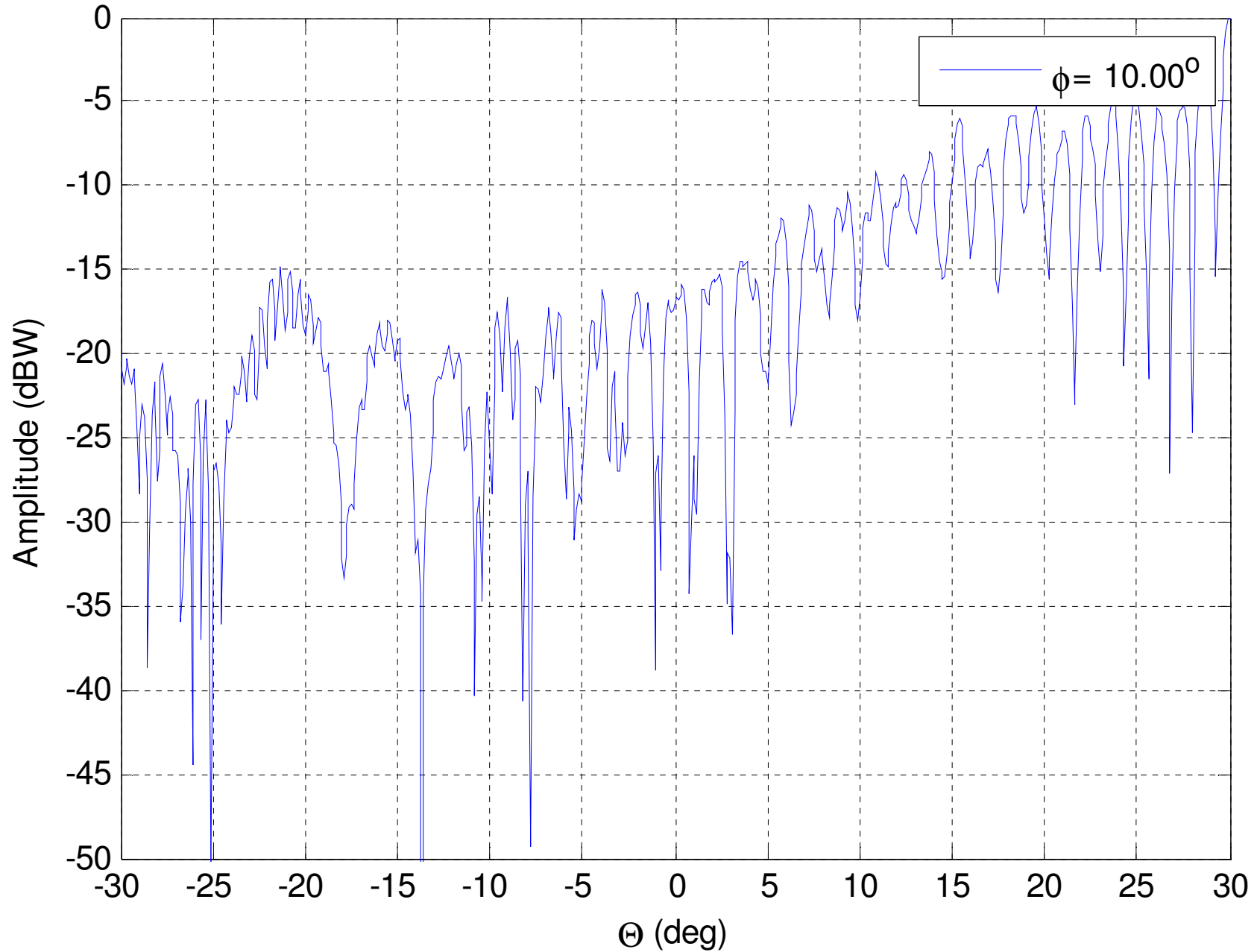
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: -0.50 dBW, Date: 15-Dec-2011



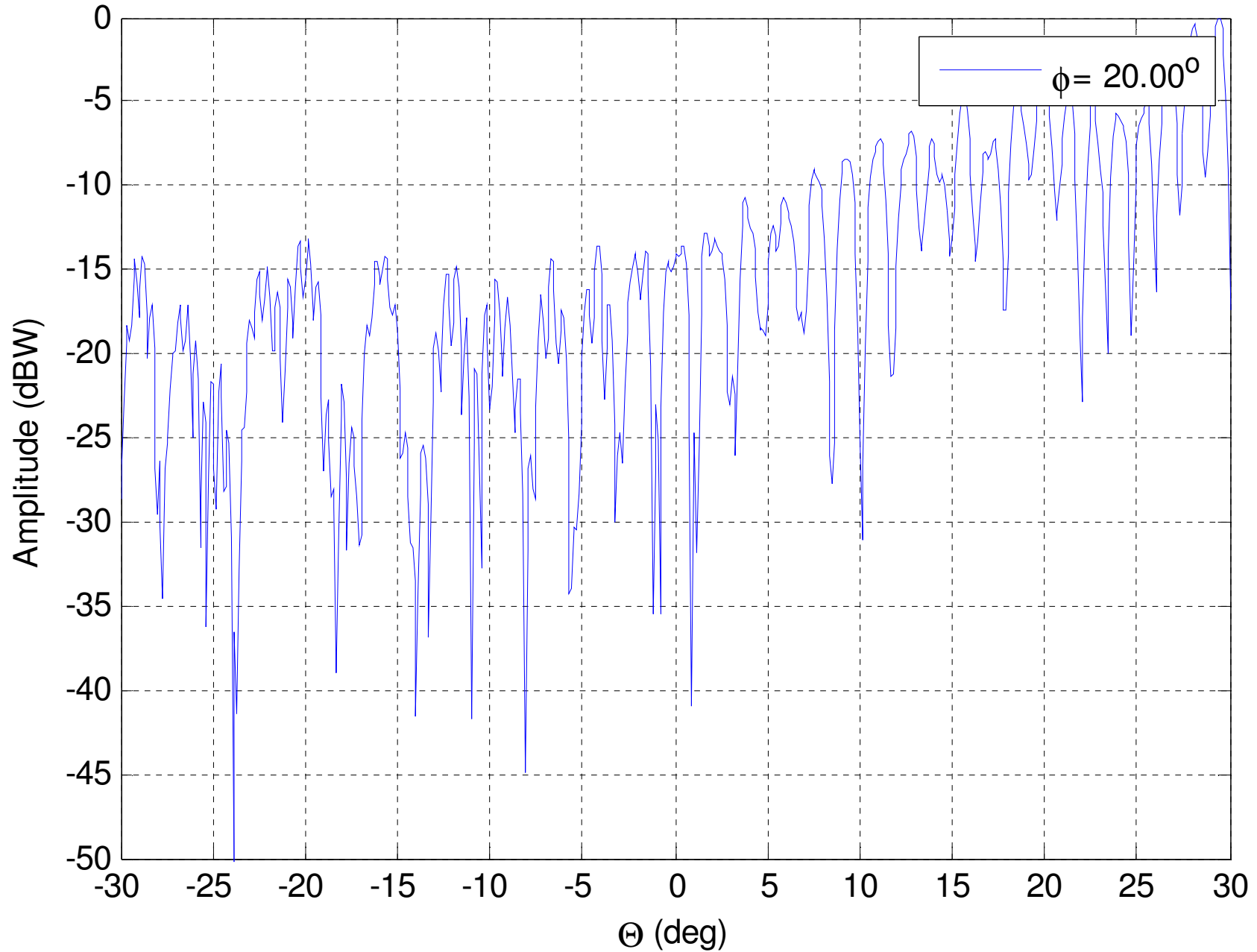
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: -0.02 dBW, Date: 15-Dec-2011



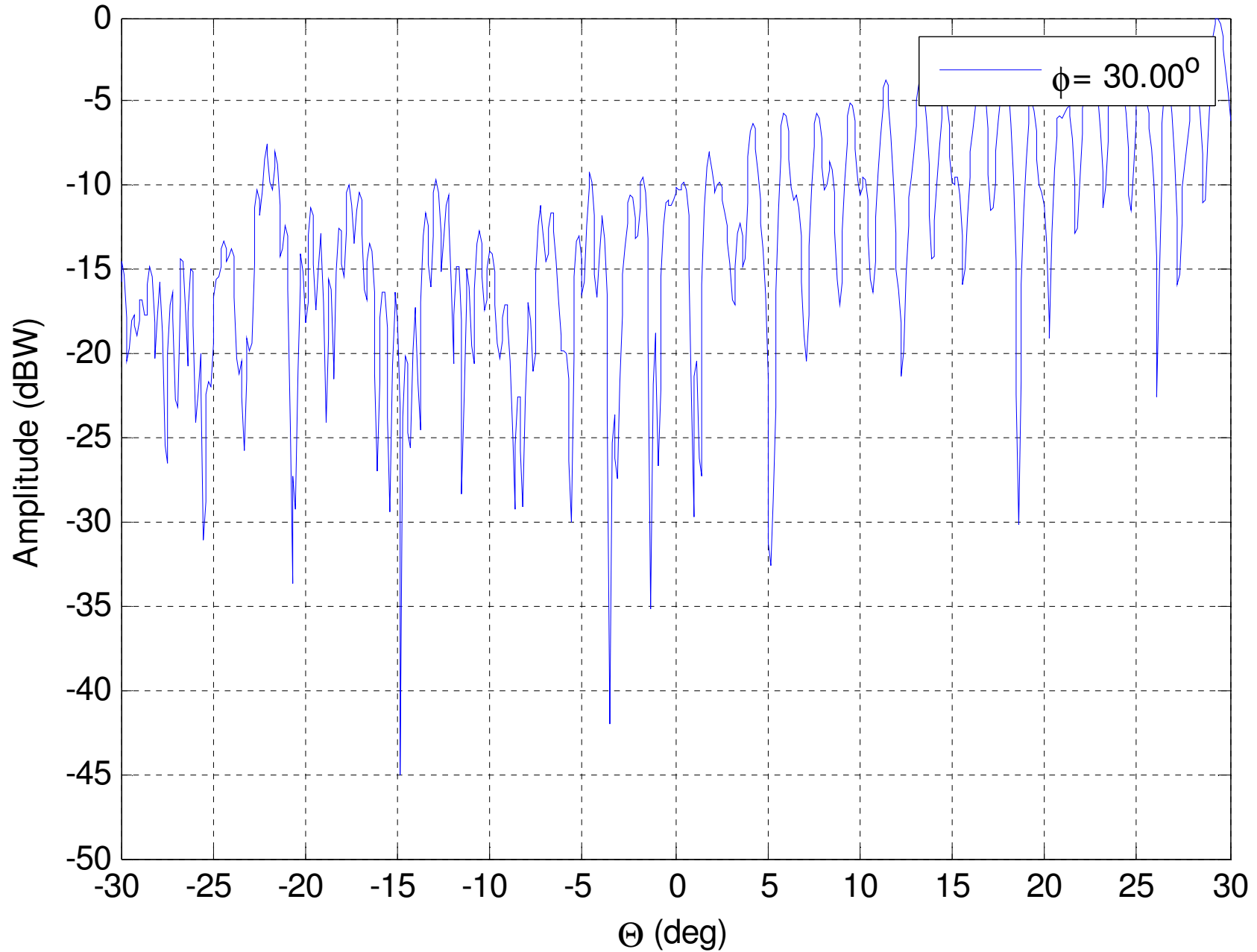
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: -2.59 dBW, Date: 15-Dec-2011



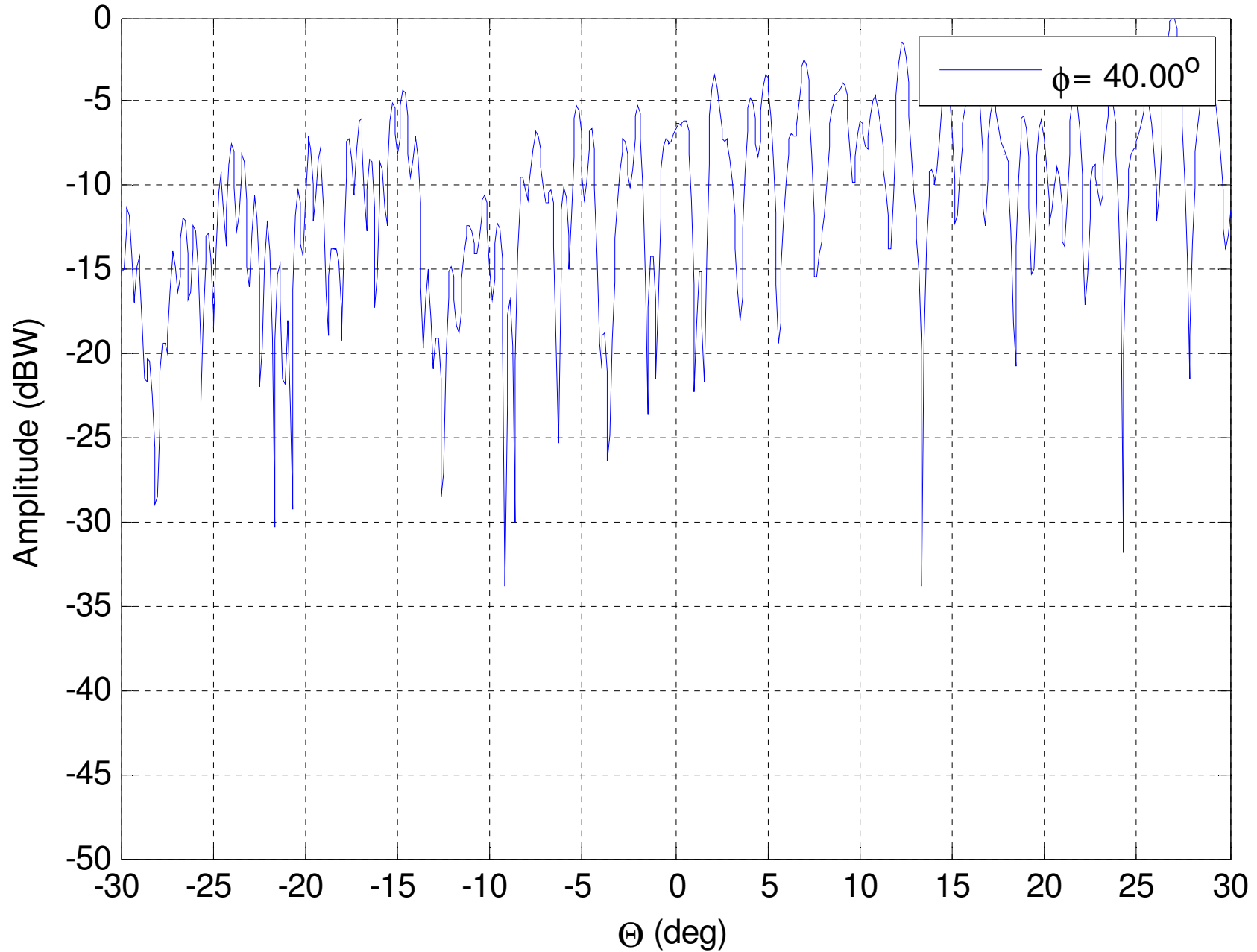
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: -6.50 dBW, Date: 15-Dec-2011



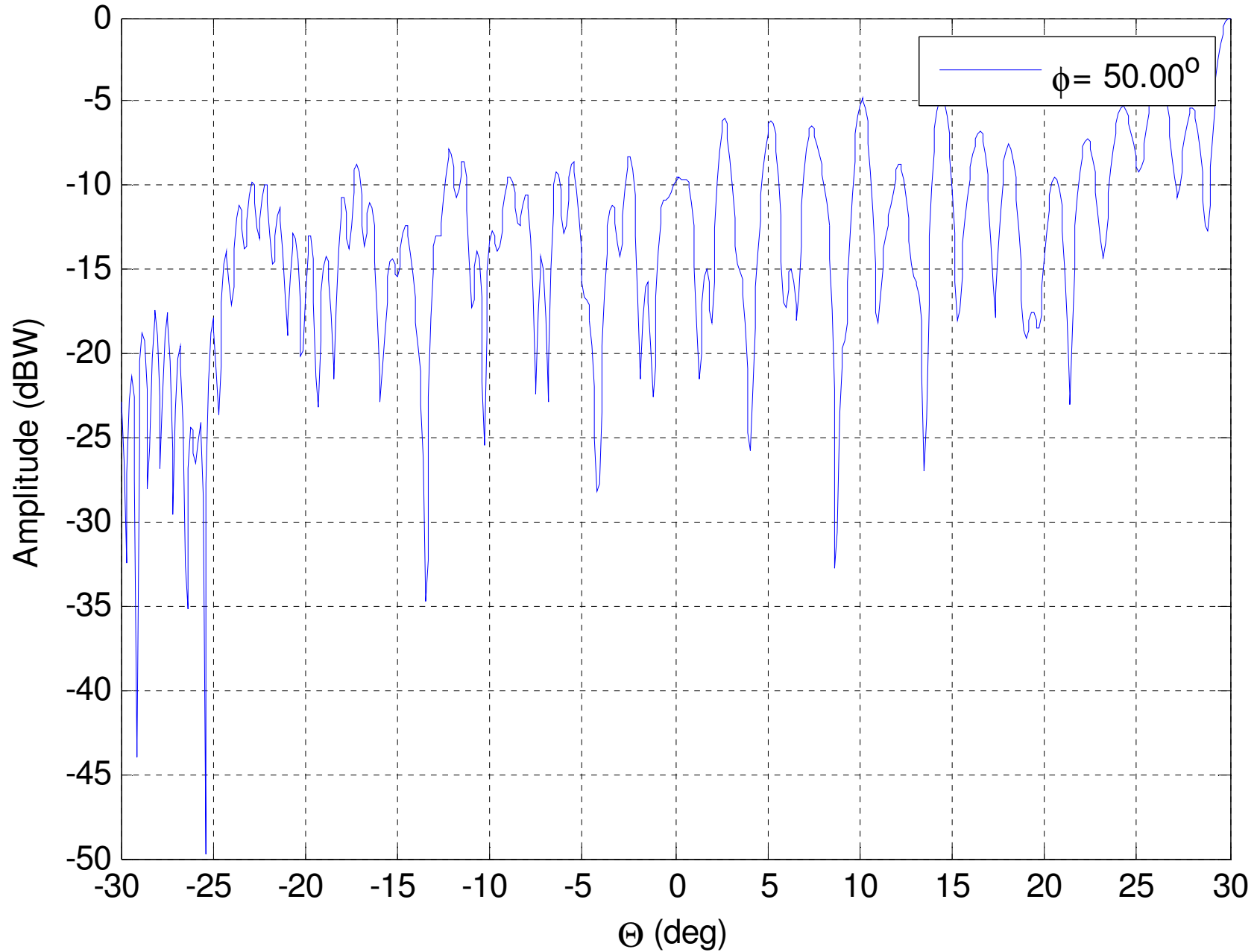
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -10.37 dBW, Date: 15-Dec-2011



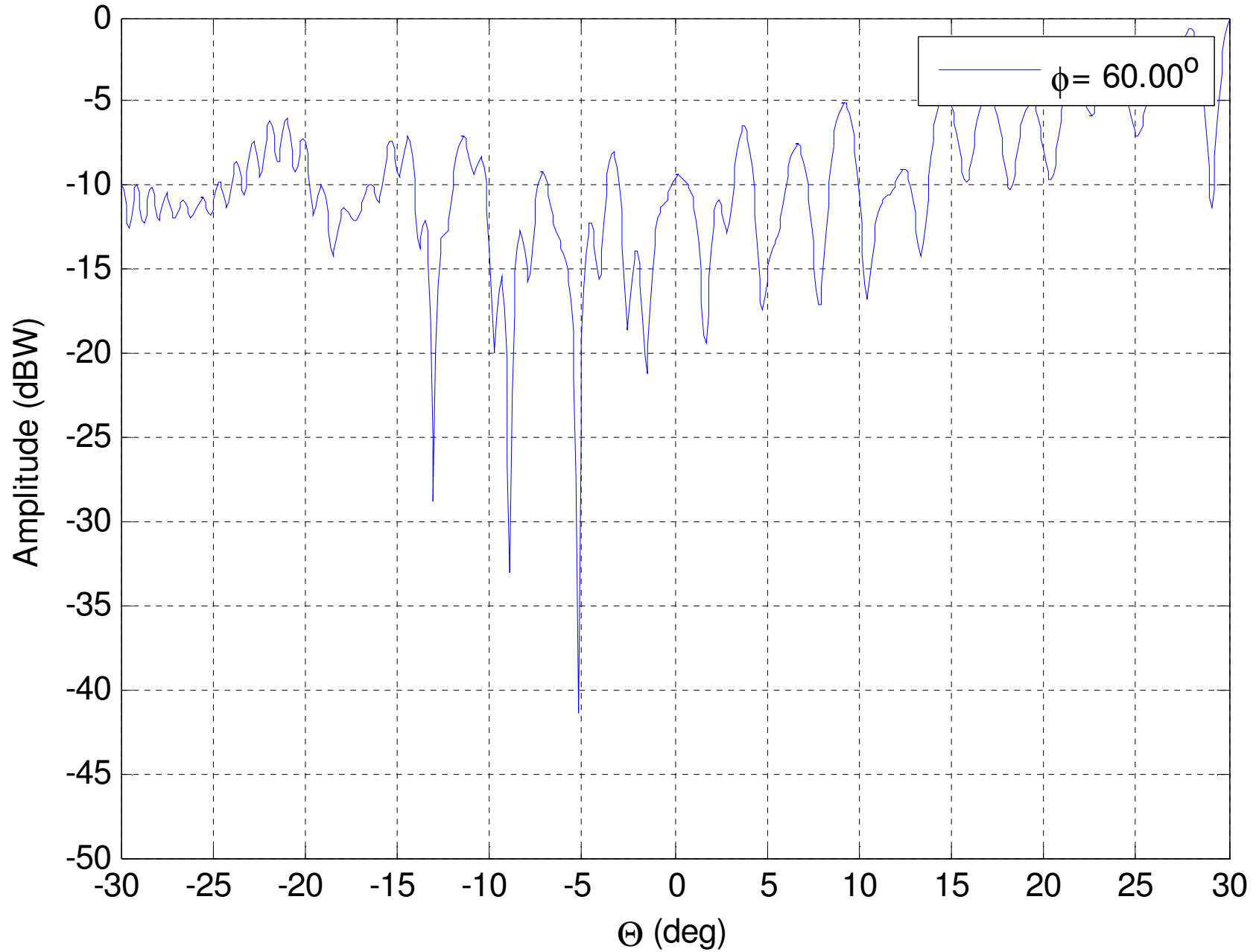
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -7.19 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

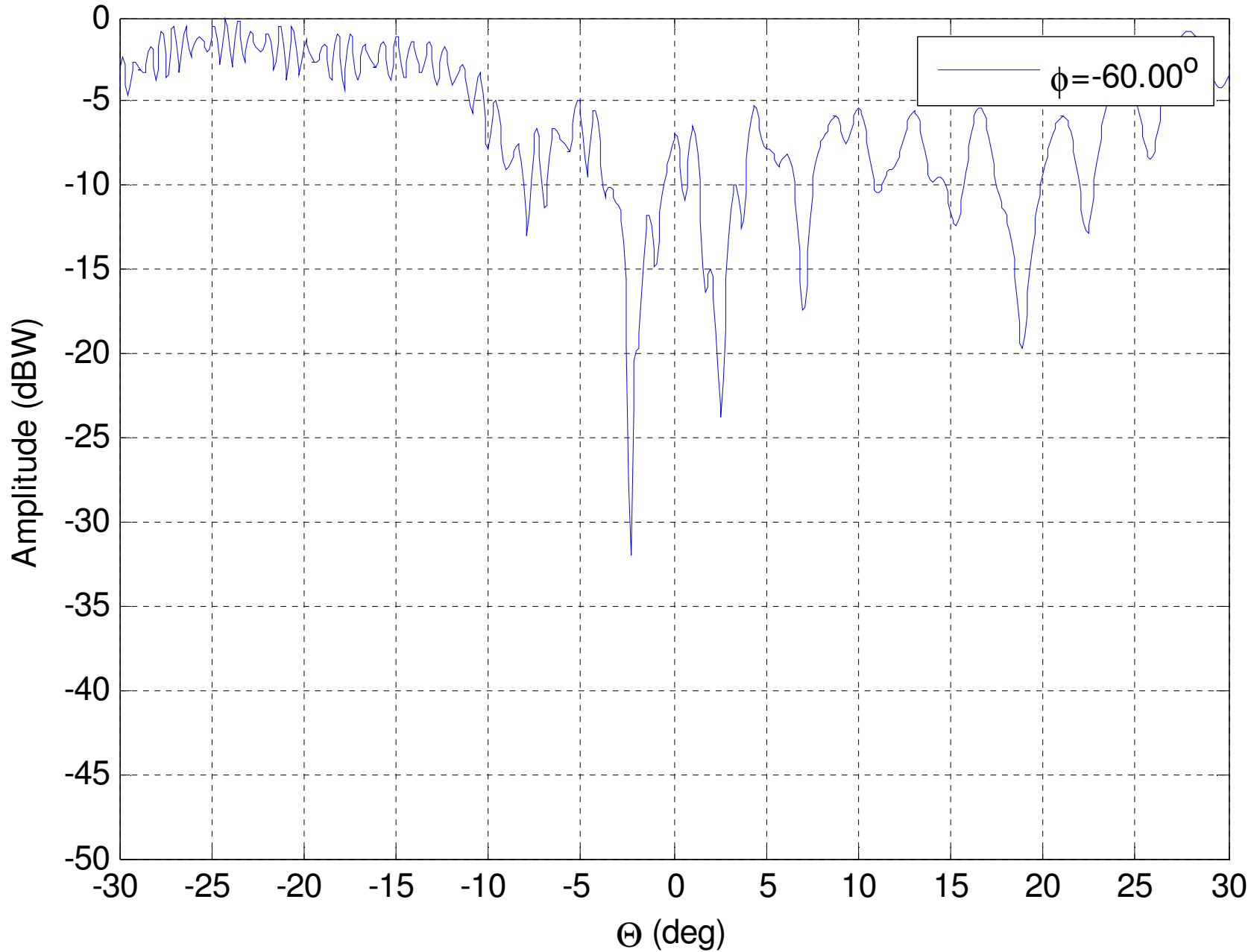
Input file: tx-17.5-lhcp-60.cut, Peak: -7.34 dBW, Date: 15-Dec-2011



RHCP at 17.7 GHz

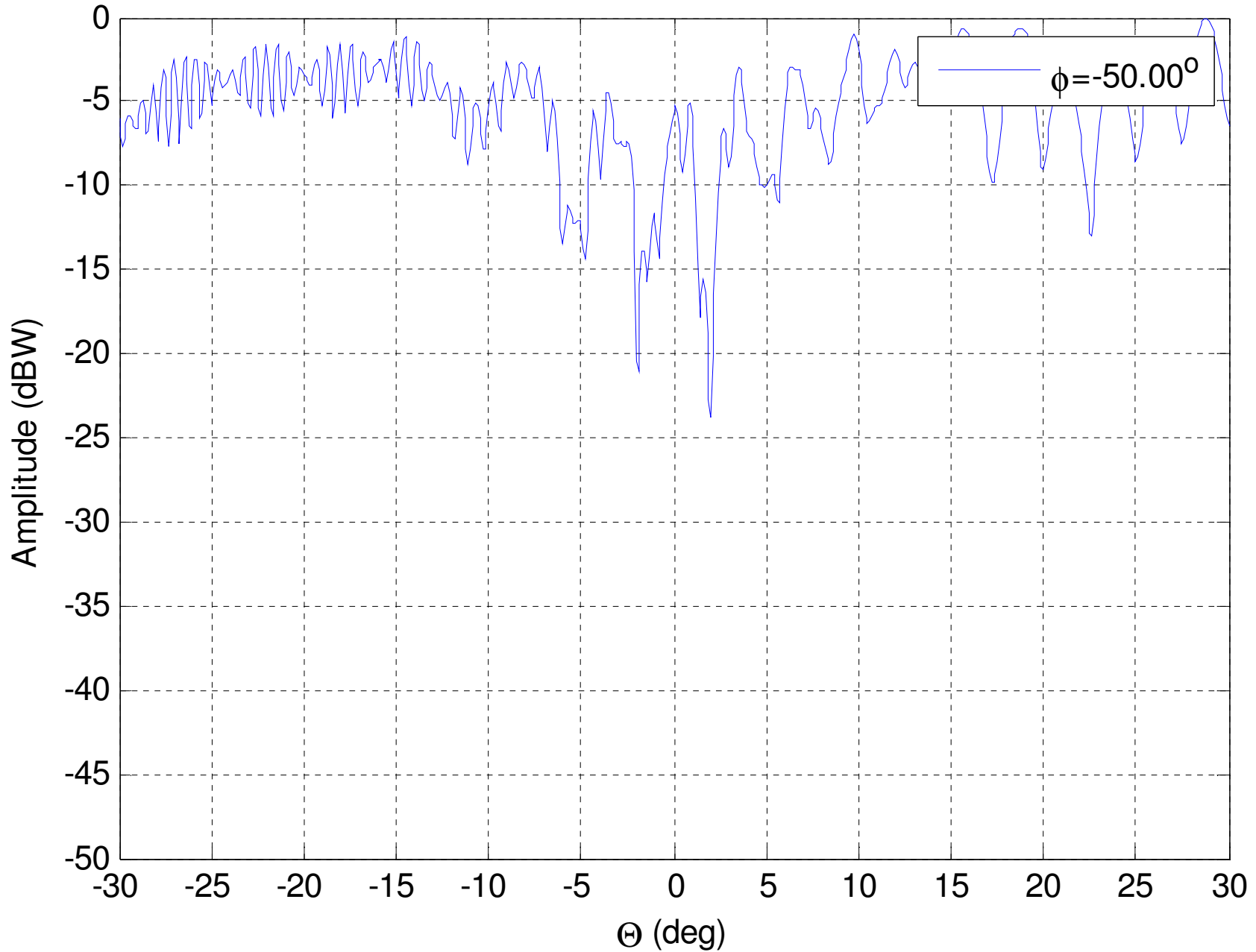
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -8.21 dBW, Date: 15-Dec-2011



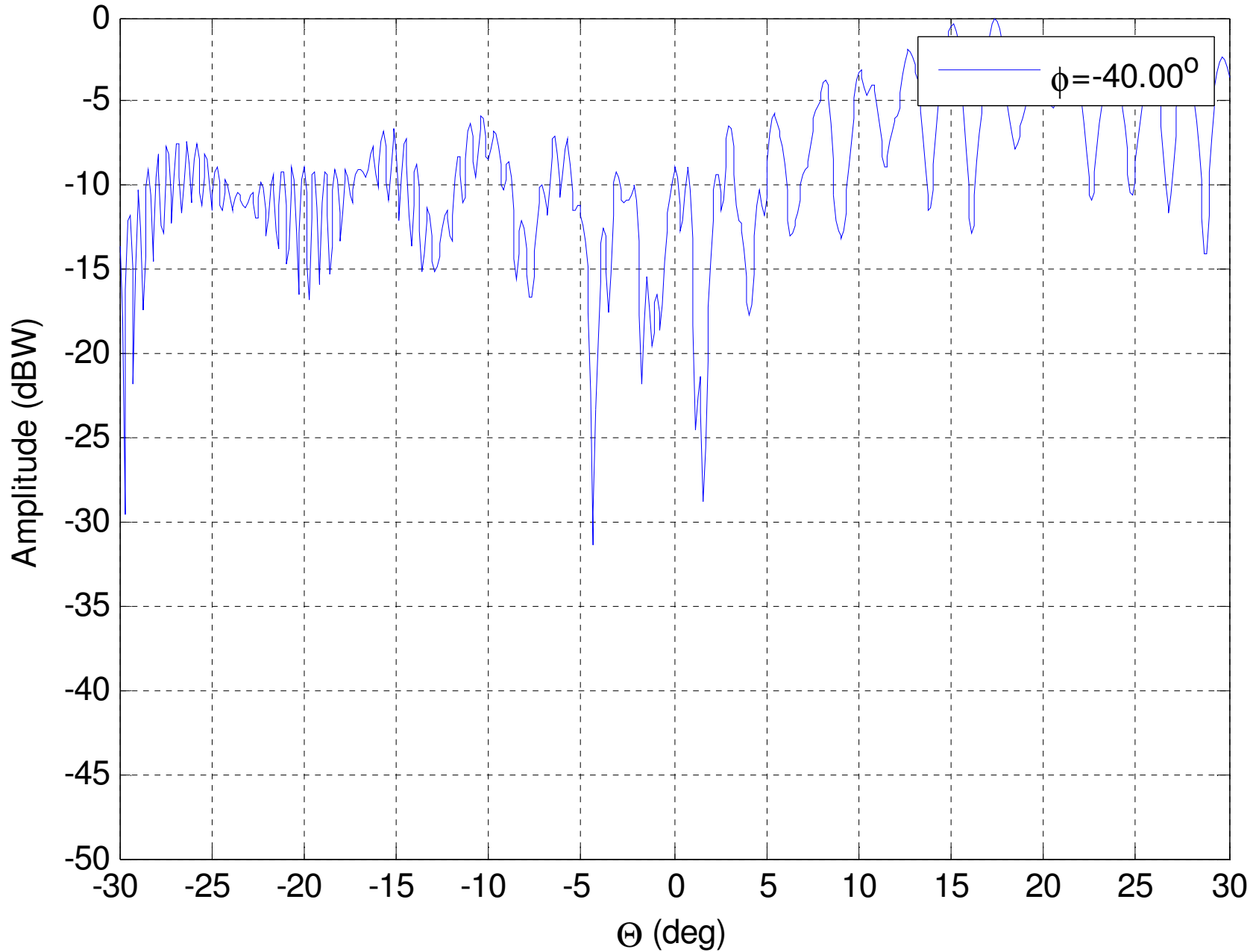
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -9.86 dBW, Date: 15-Dec-2011



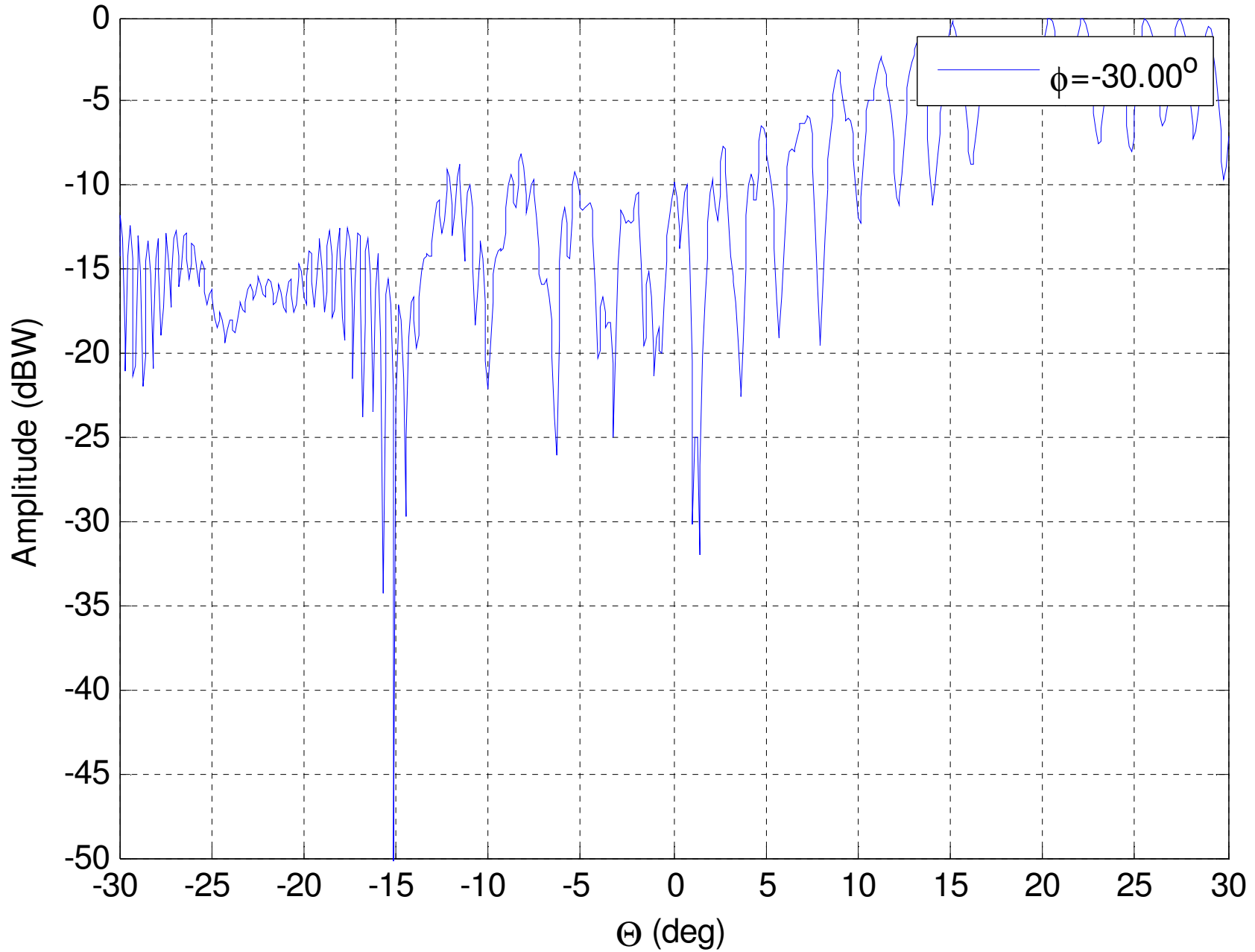
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -6.33 dBW, Date: 15-Dec-2011



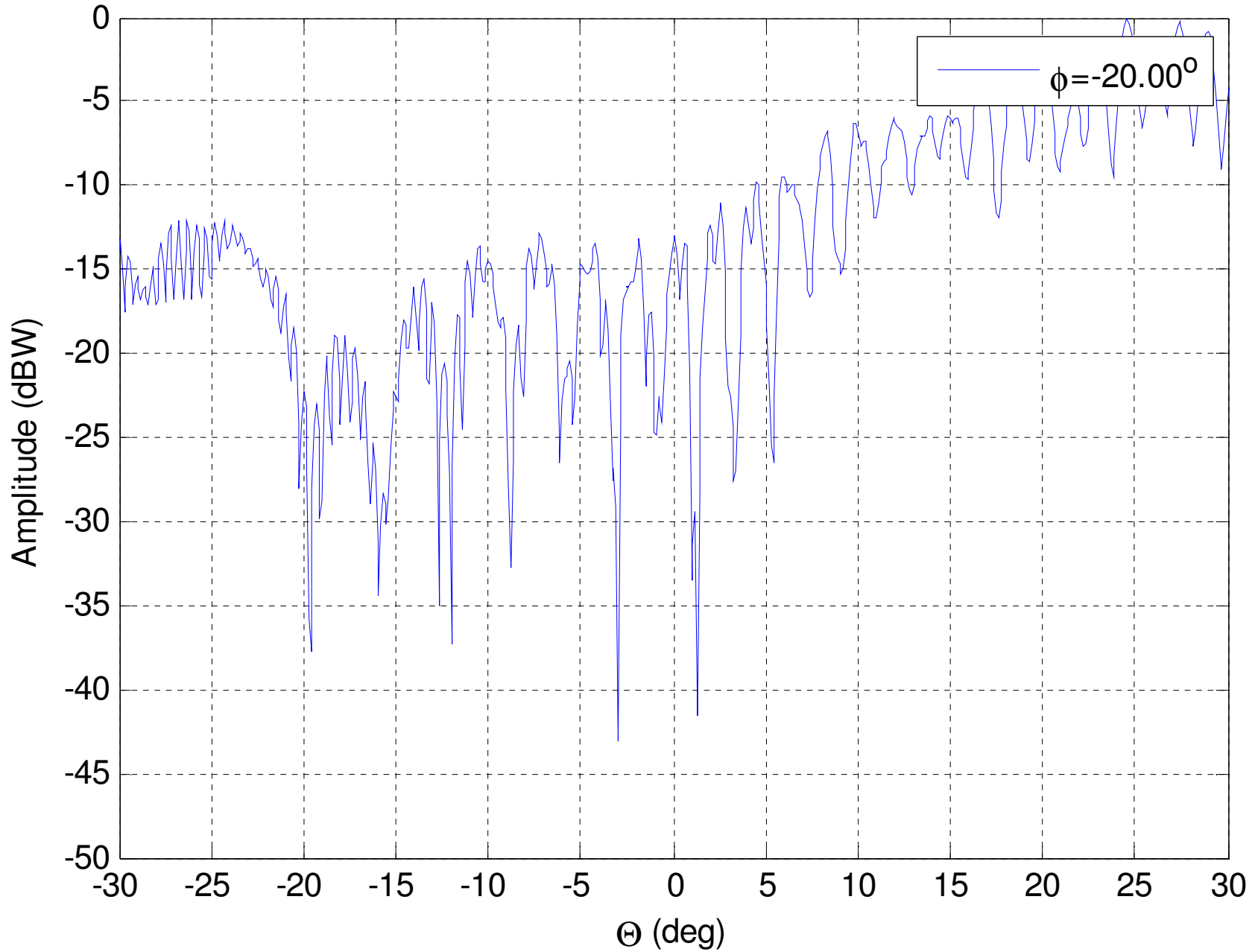
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -5.37 dBW, Date: 15-Dec-2011



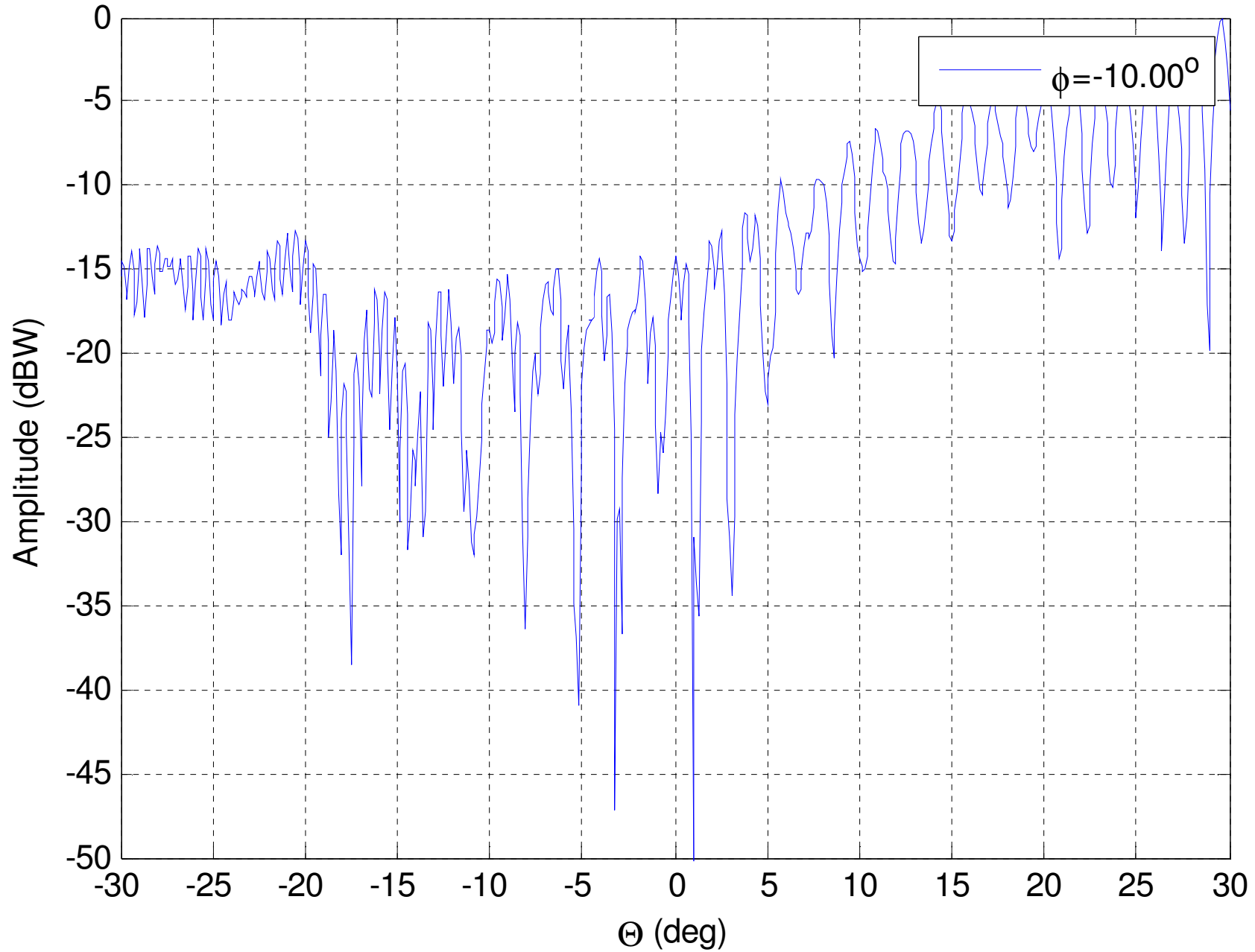
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: -2.27 dBW, Date: 15-Dec-2011



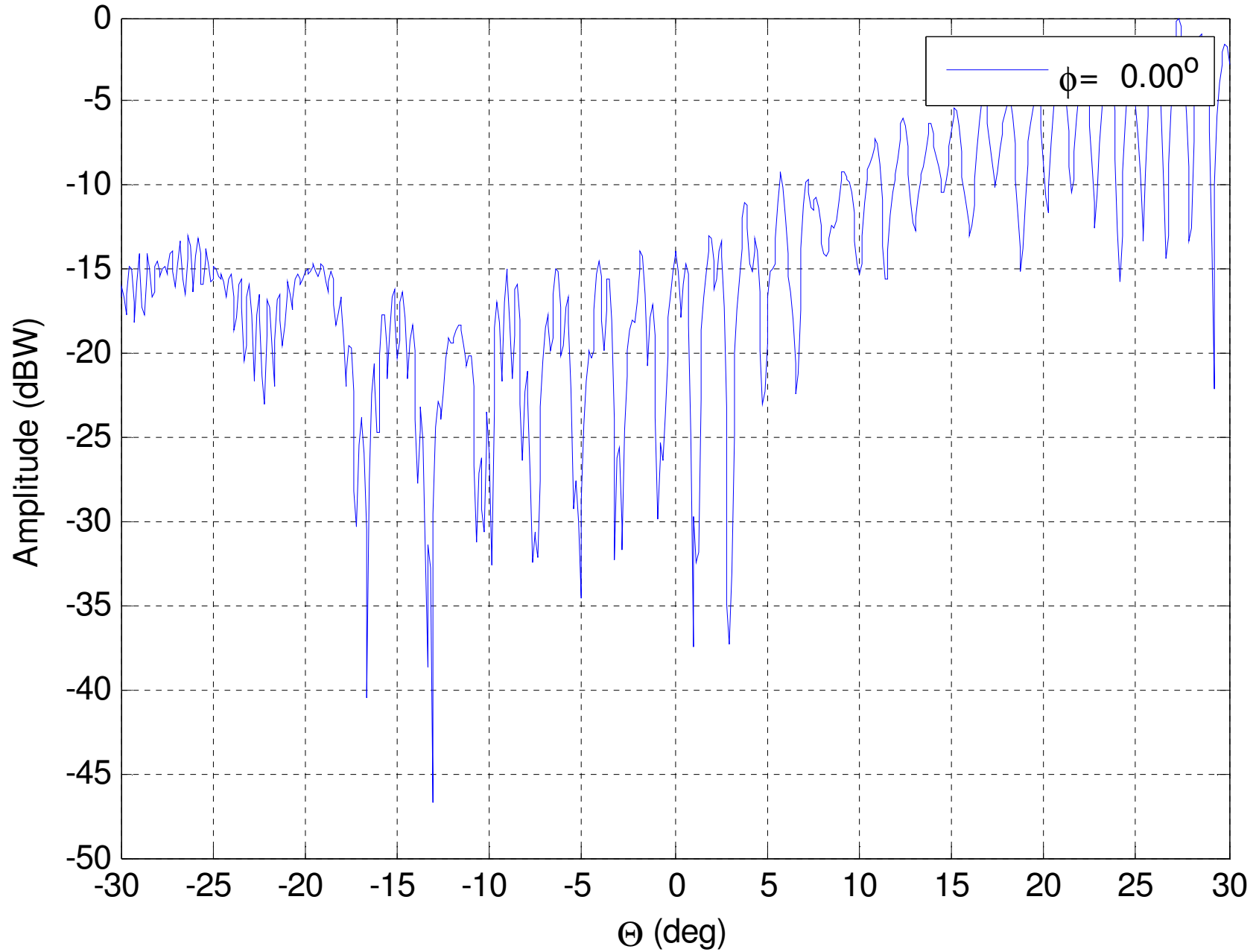
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: -1.10 dBW, Date: 15-Dec-2011



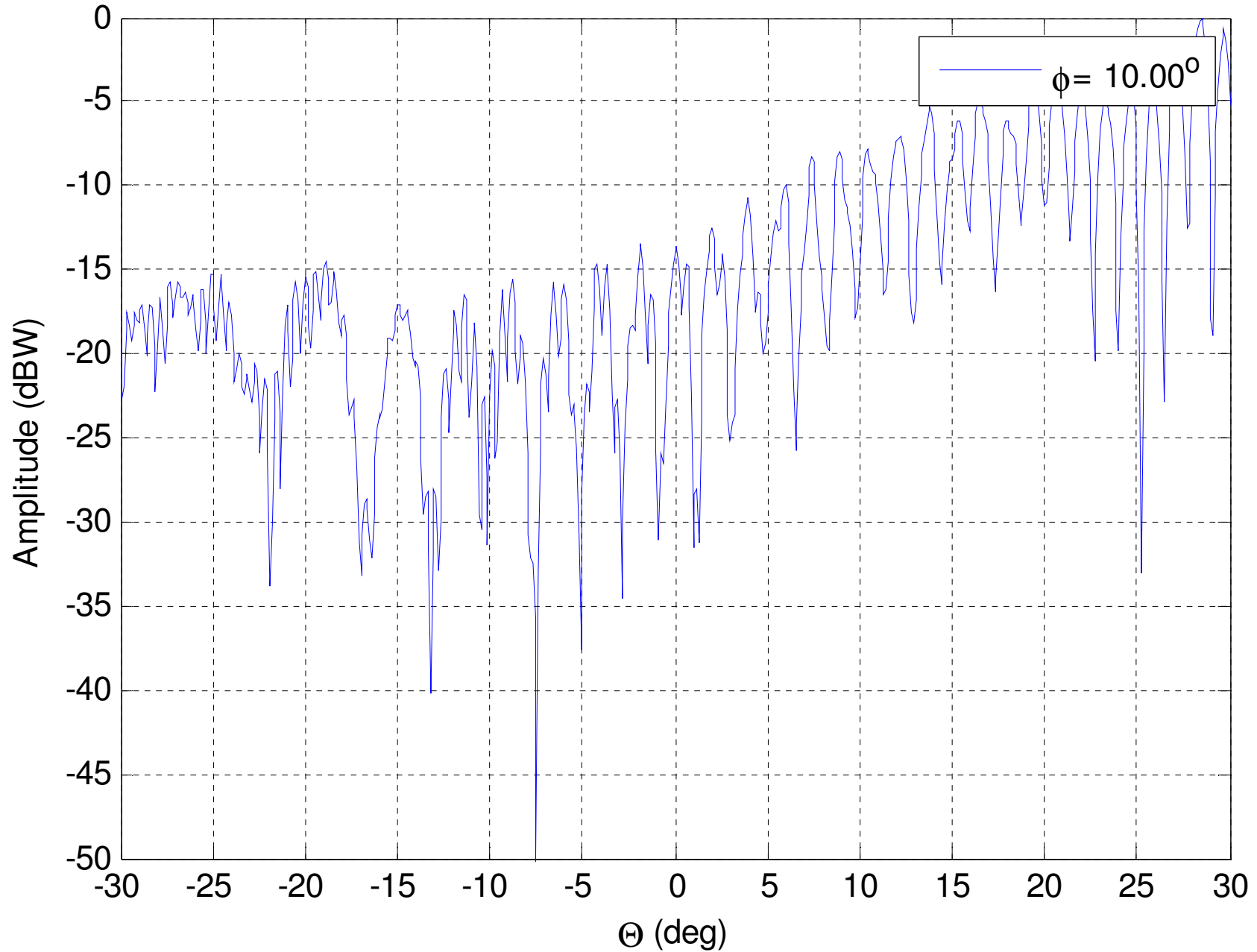
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: -1.30 dBW, Date: 15-Dec-2011



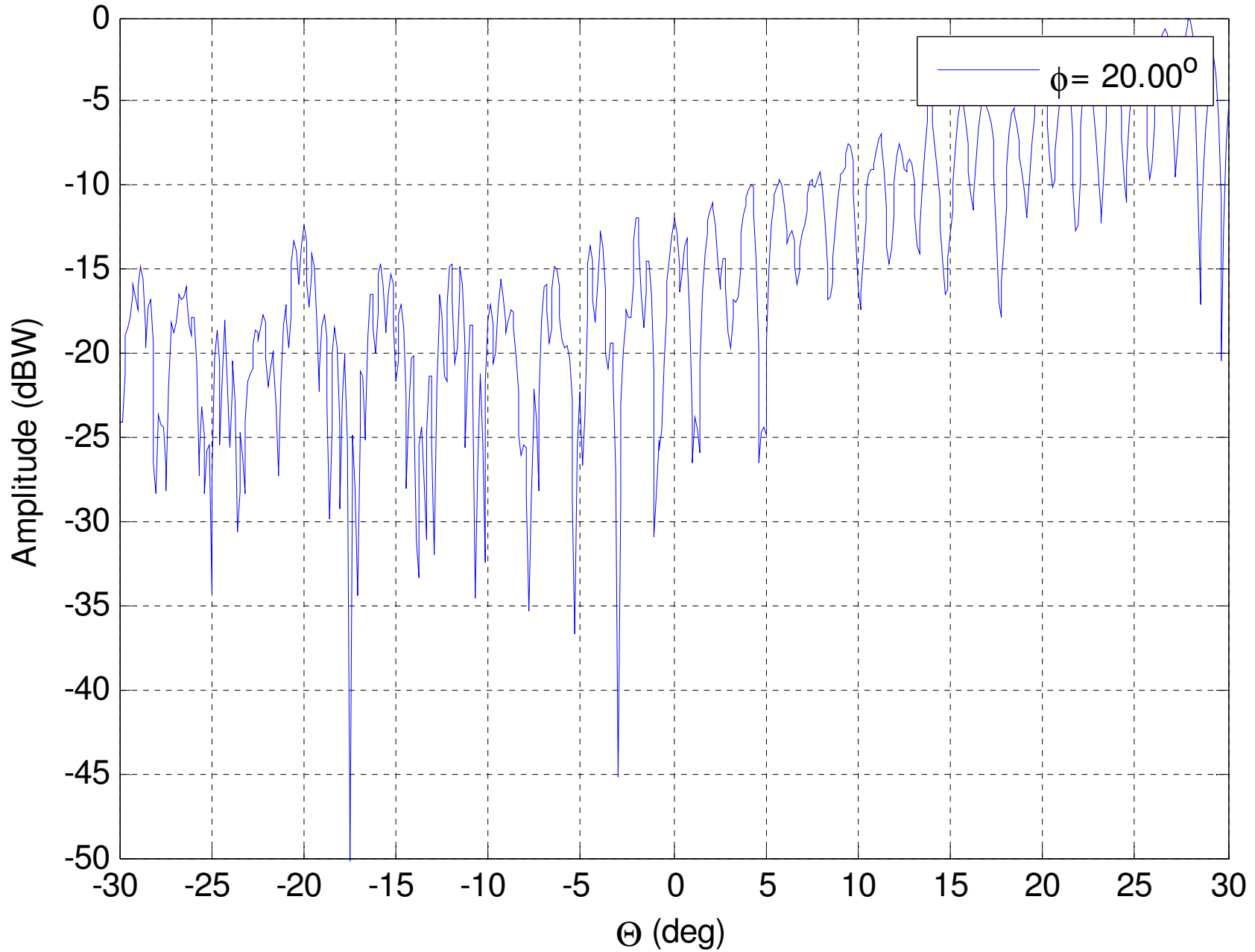
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: -1.65 dBW, Date: 15-Dec-2011



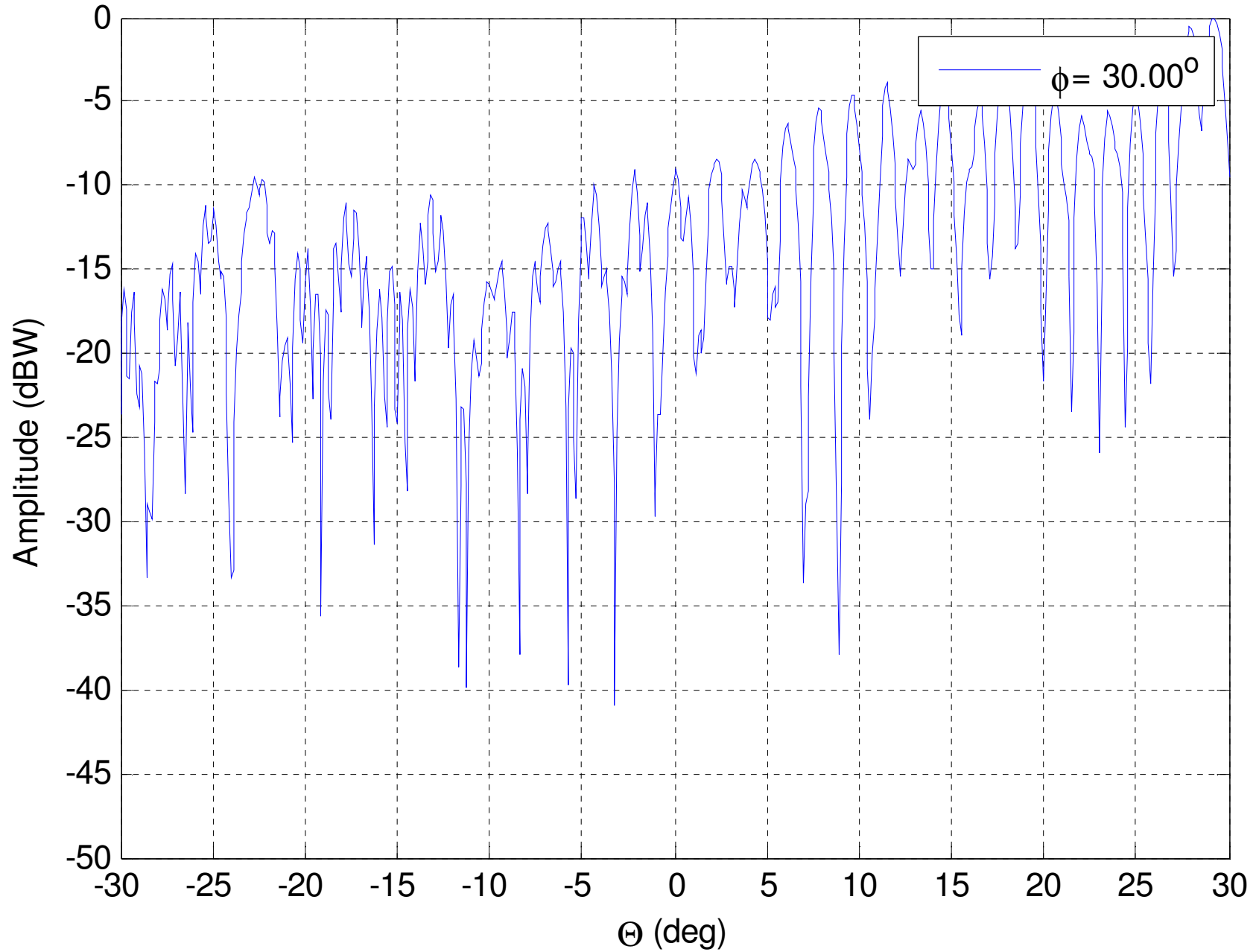
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: -3.28 dBW, Date: 15-Dec-2011



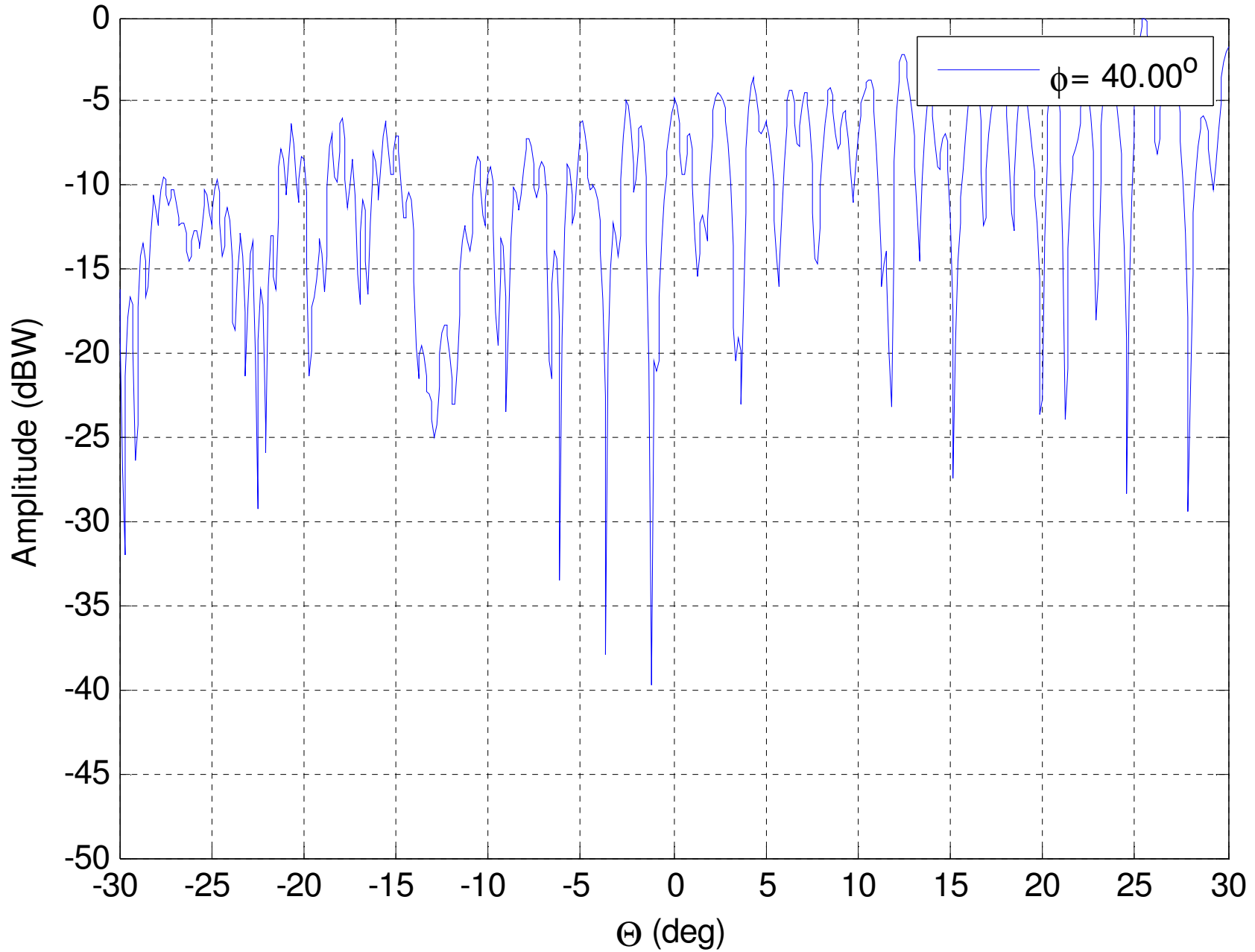
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: -6.14 dBW, Date: 15-Dec-2011



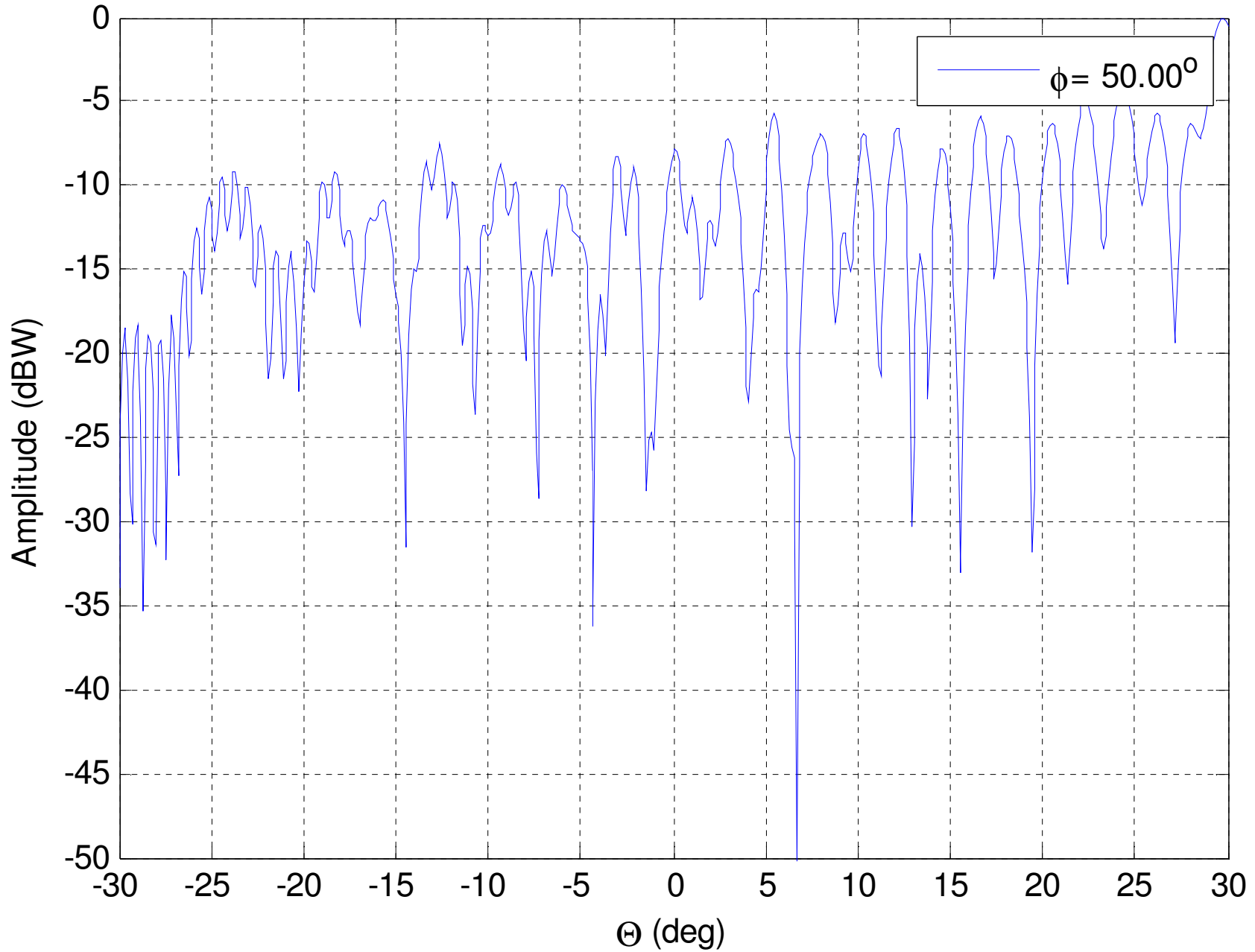
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -10.33 dBW, Date: 15-Dec-2011



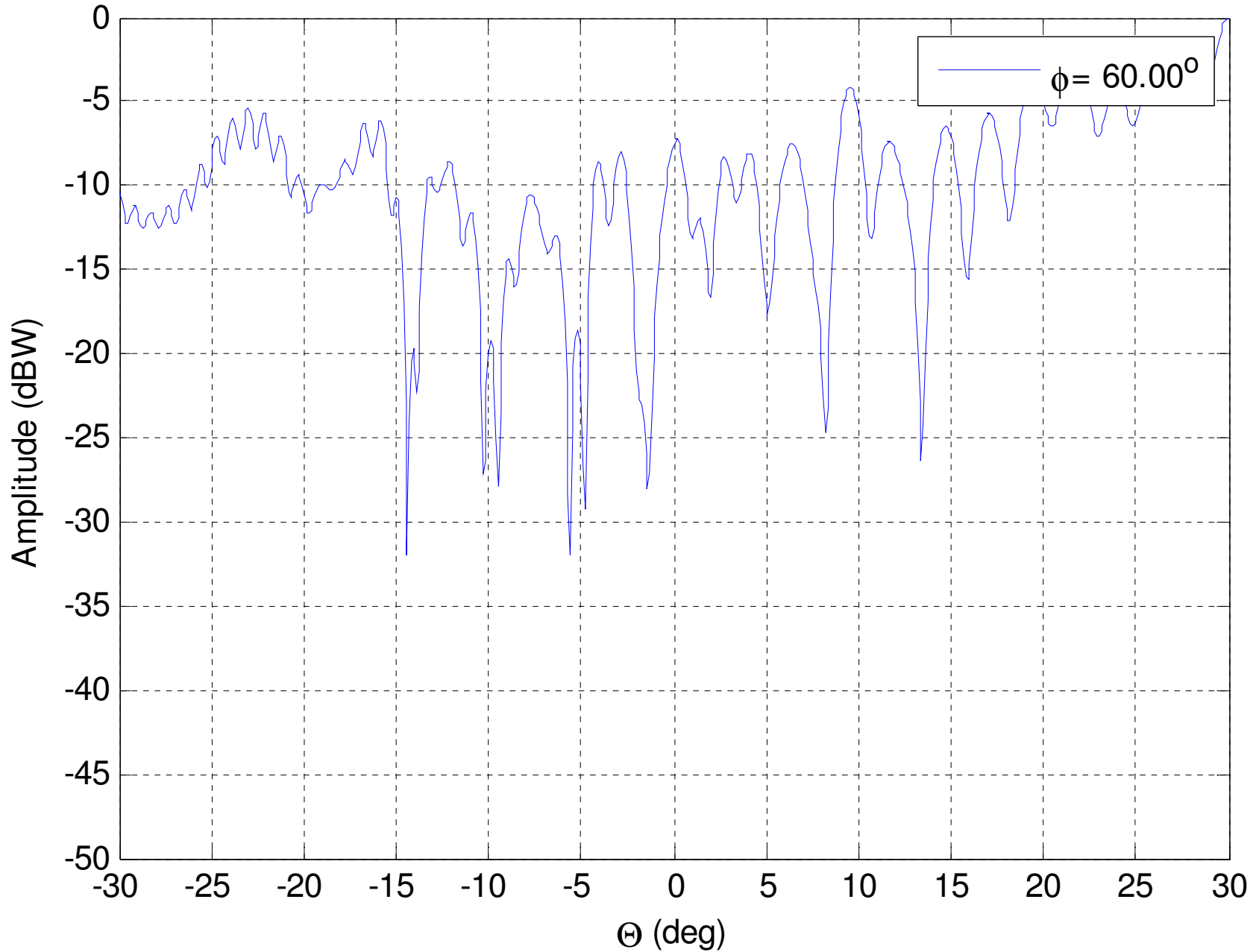
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -7.38 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

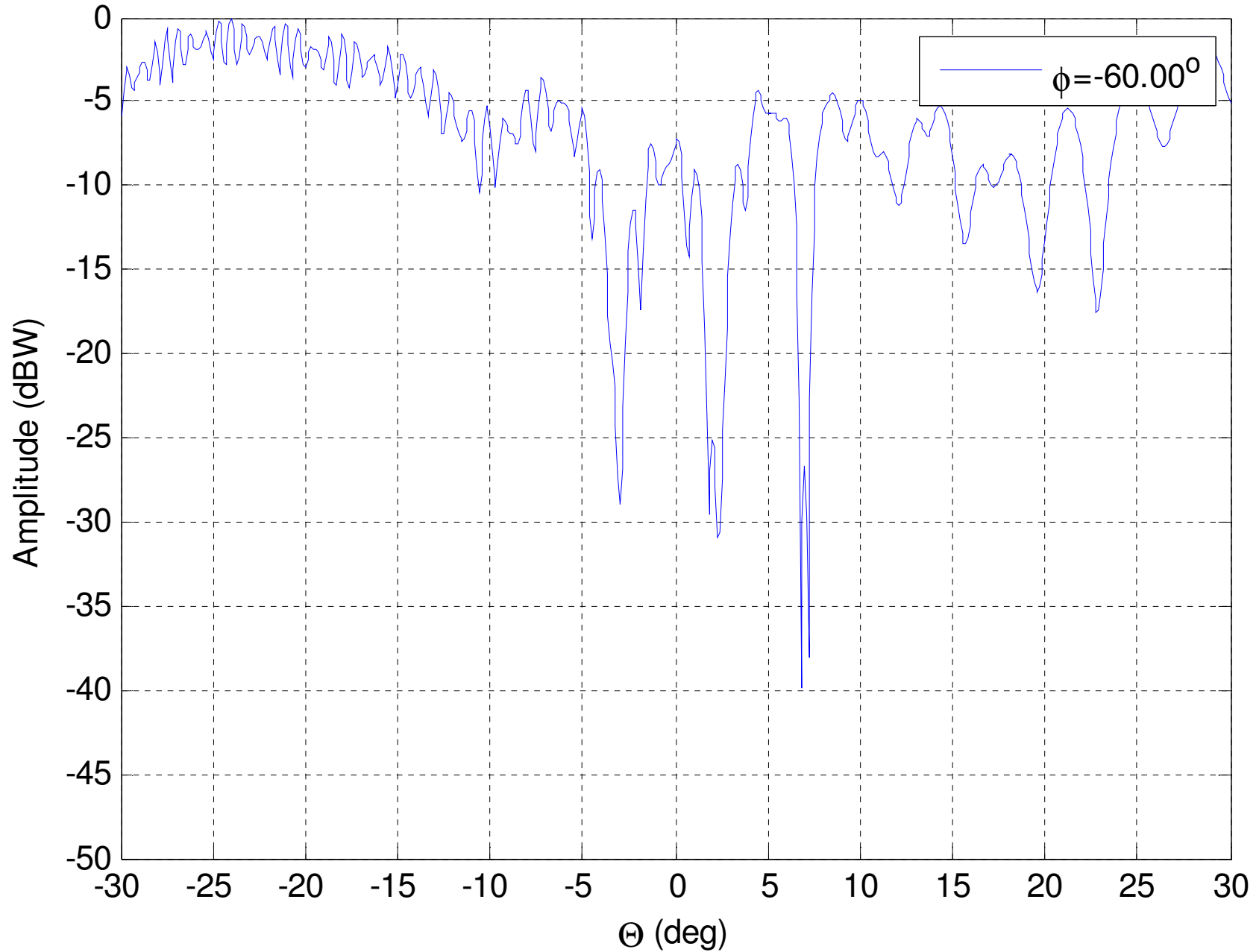
Input file: tx-17.7-rhcp-60.cut, Peak: -7.93 dBW, Date: 15-Dec-2011



LHCP at 17.7 GHz

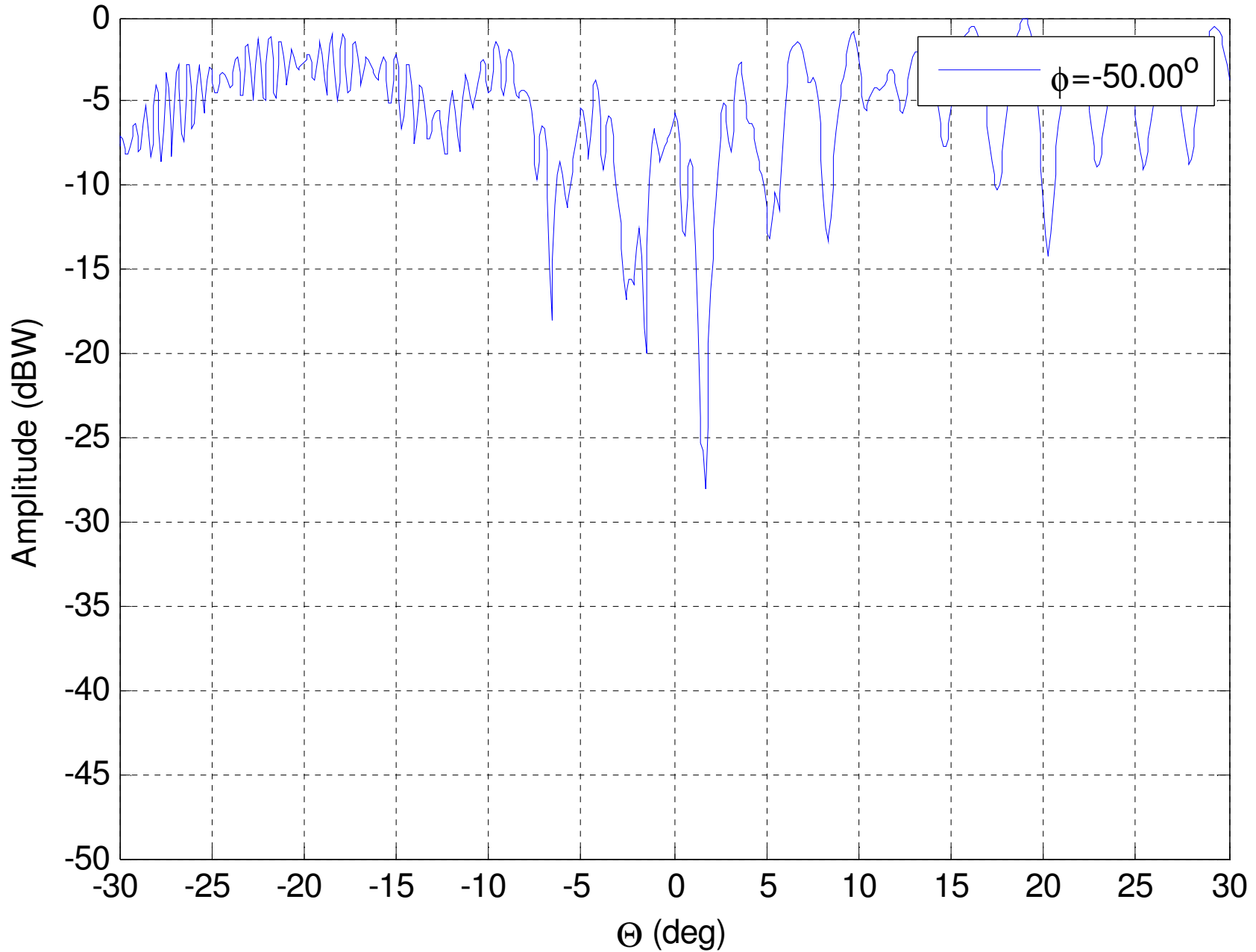
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -8.15 dBW, Date: 15-Dec-2011



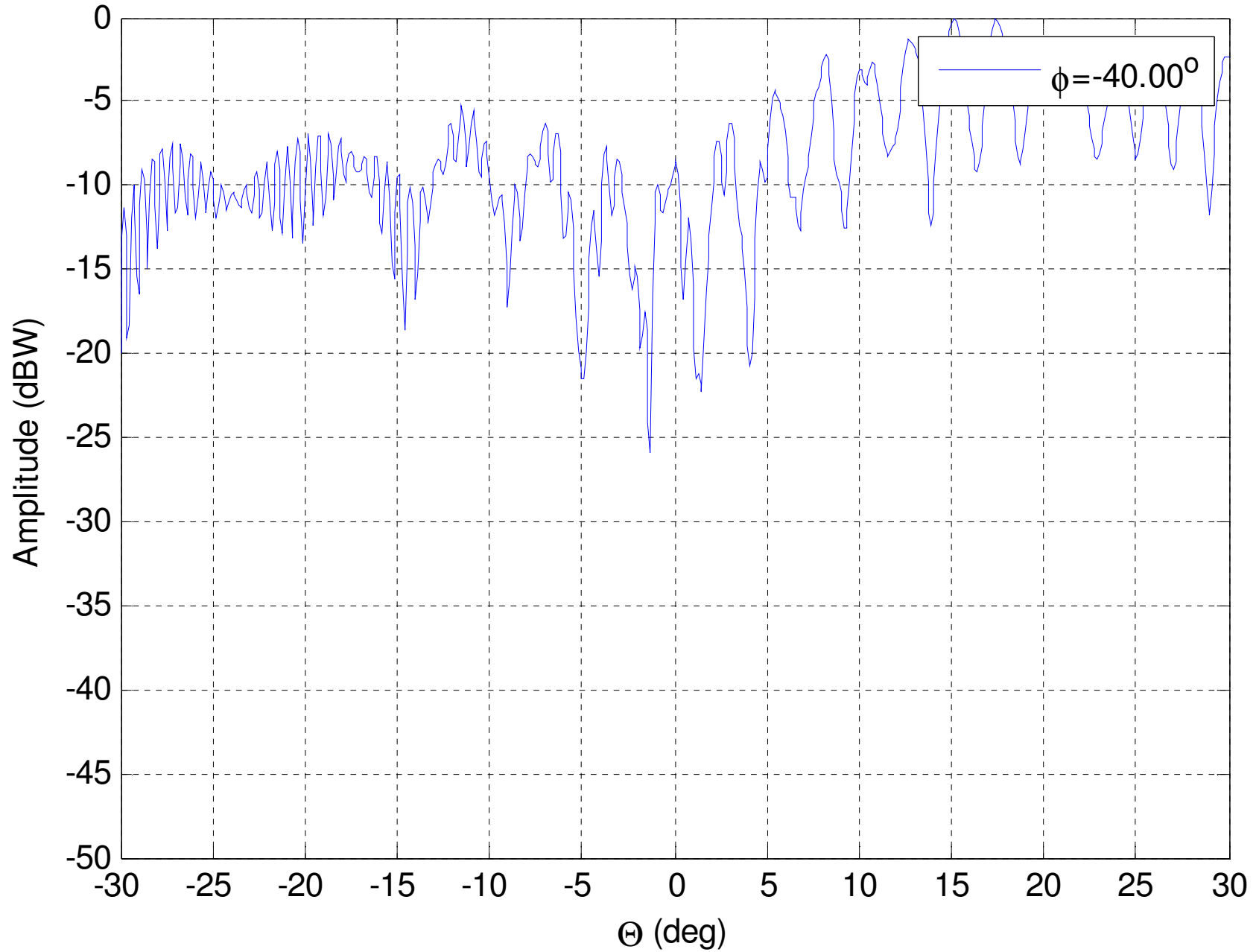
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -9.75 dBW, Date: 15-Dec-2011



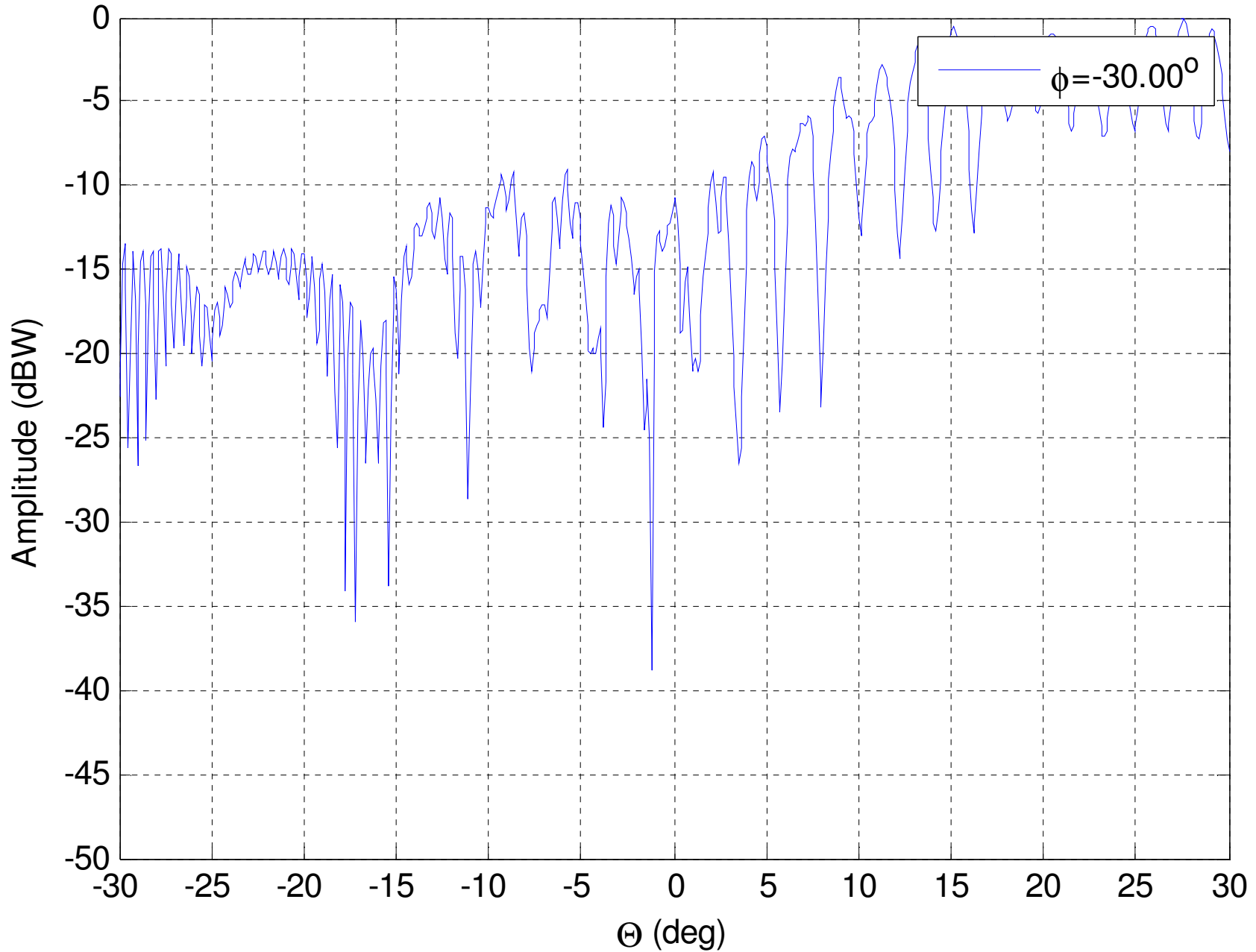
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -6.90 dBW, Date: 15-Dec-2011



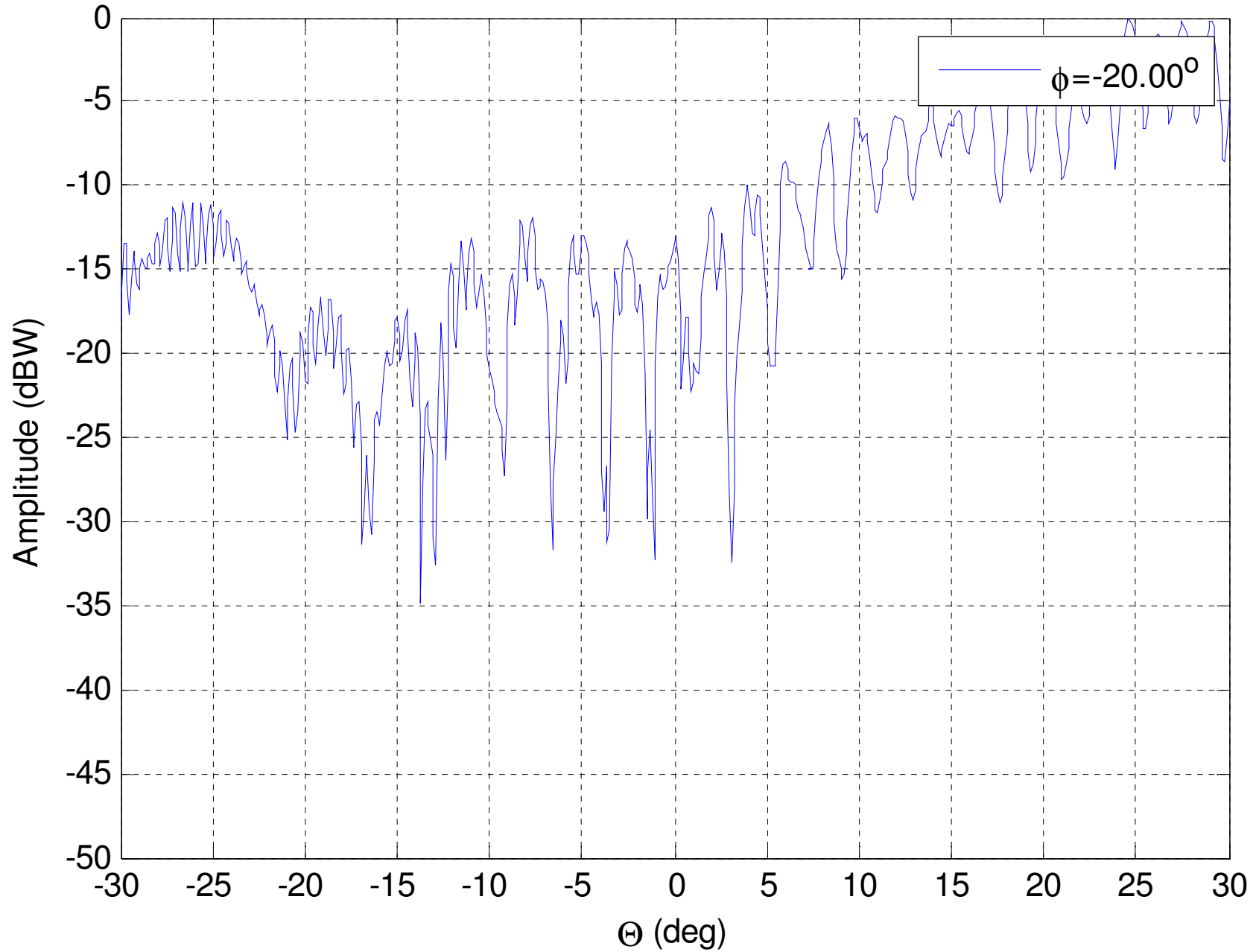
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -4.74 dBW, Date: 15-Dec-2011



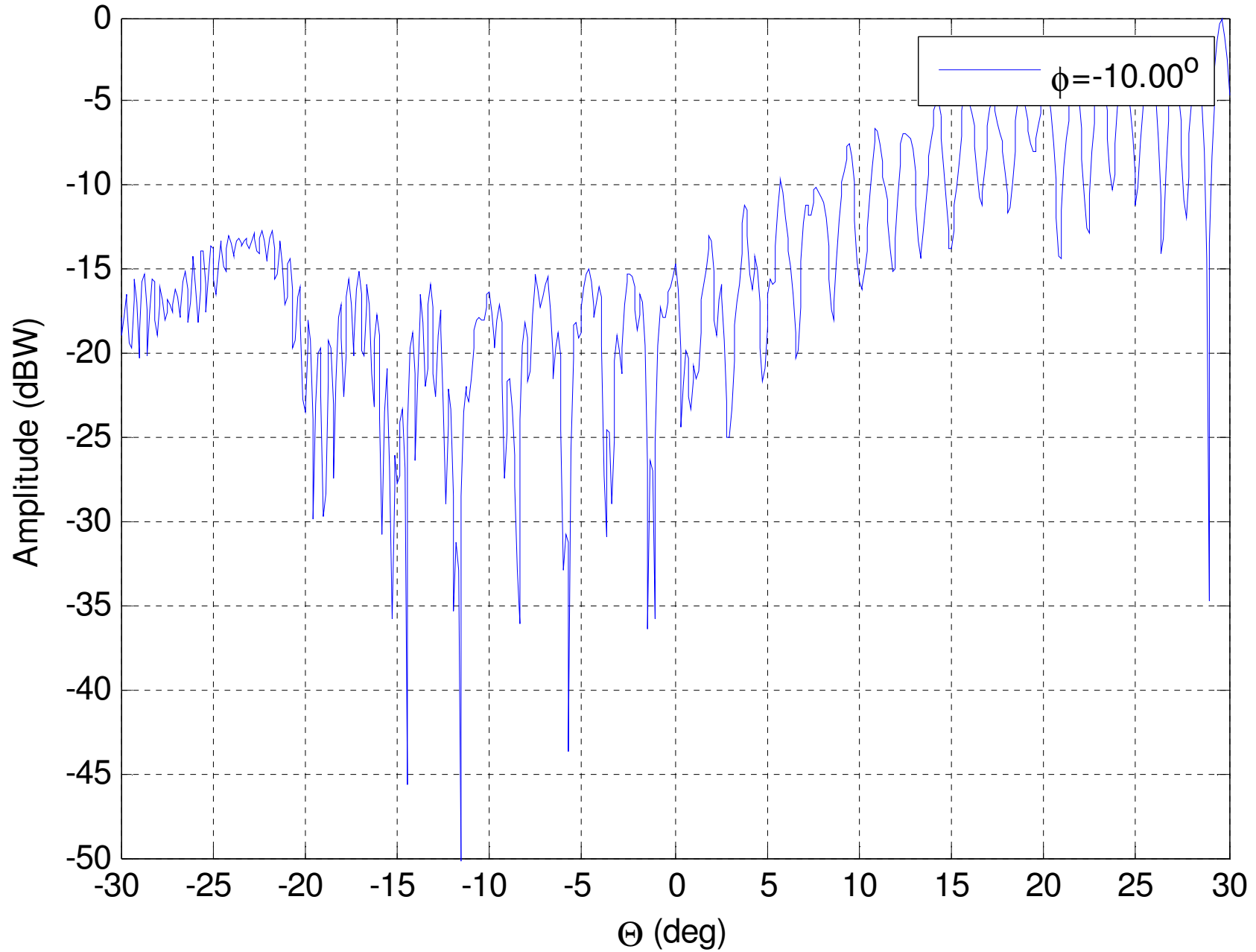
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: -2.50 dBW, Date: 15-Dec-2011



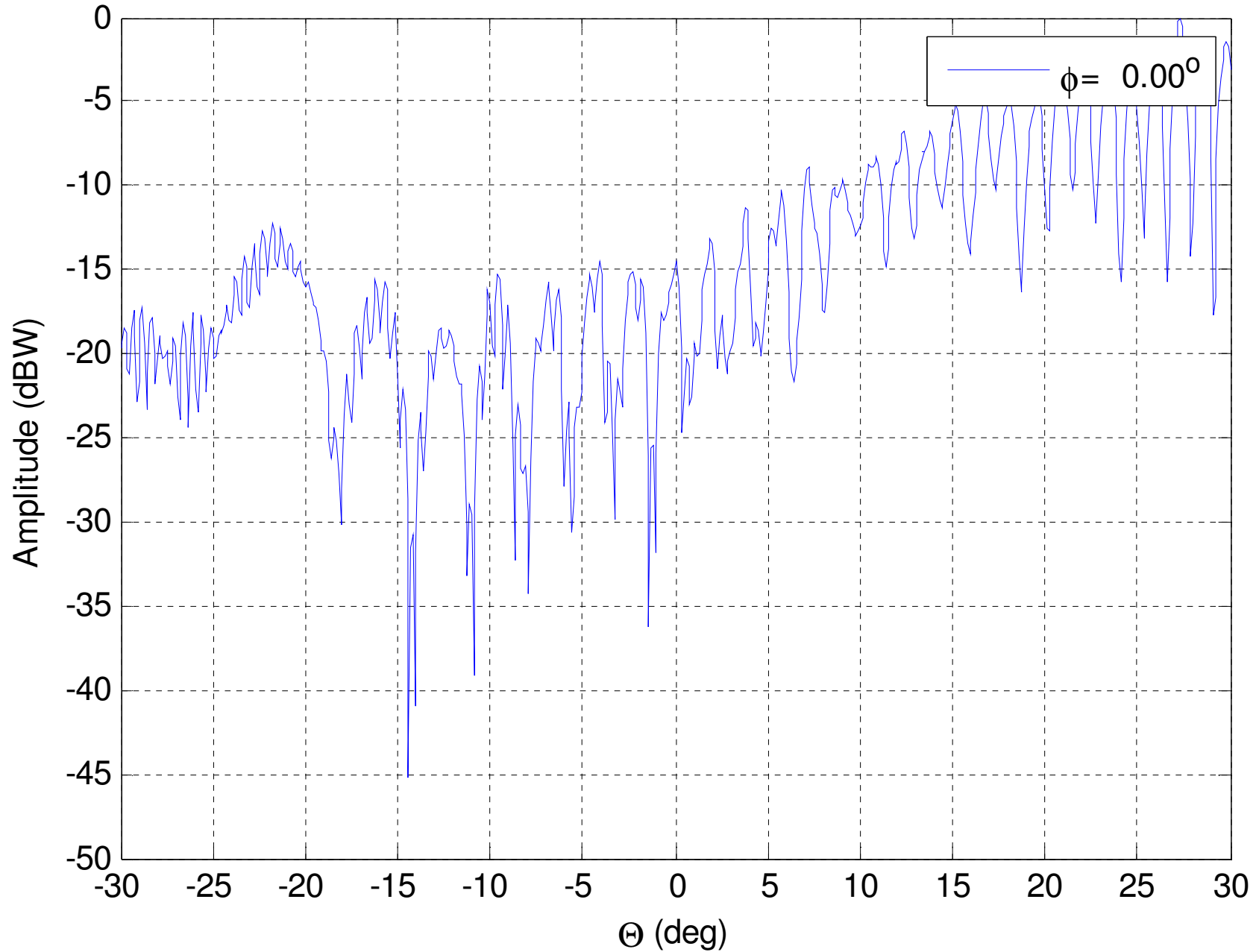
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: -0.96 dBW, Date: 15-Dec-2011



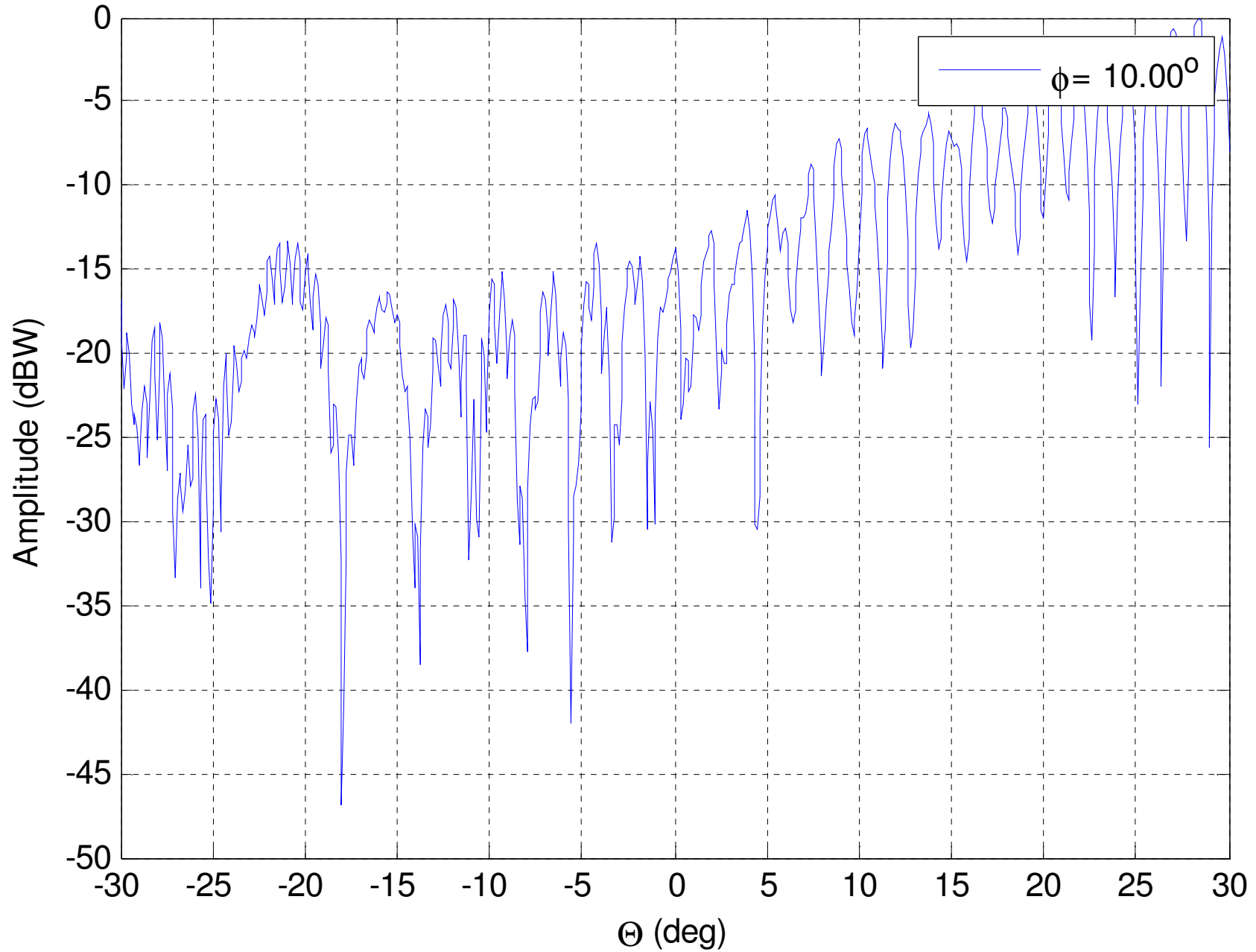
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: -1.11 dBW, Date: 15-Dec-2011



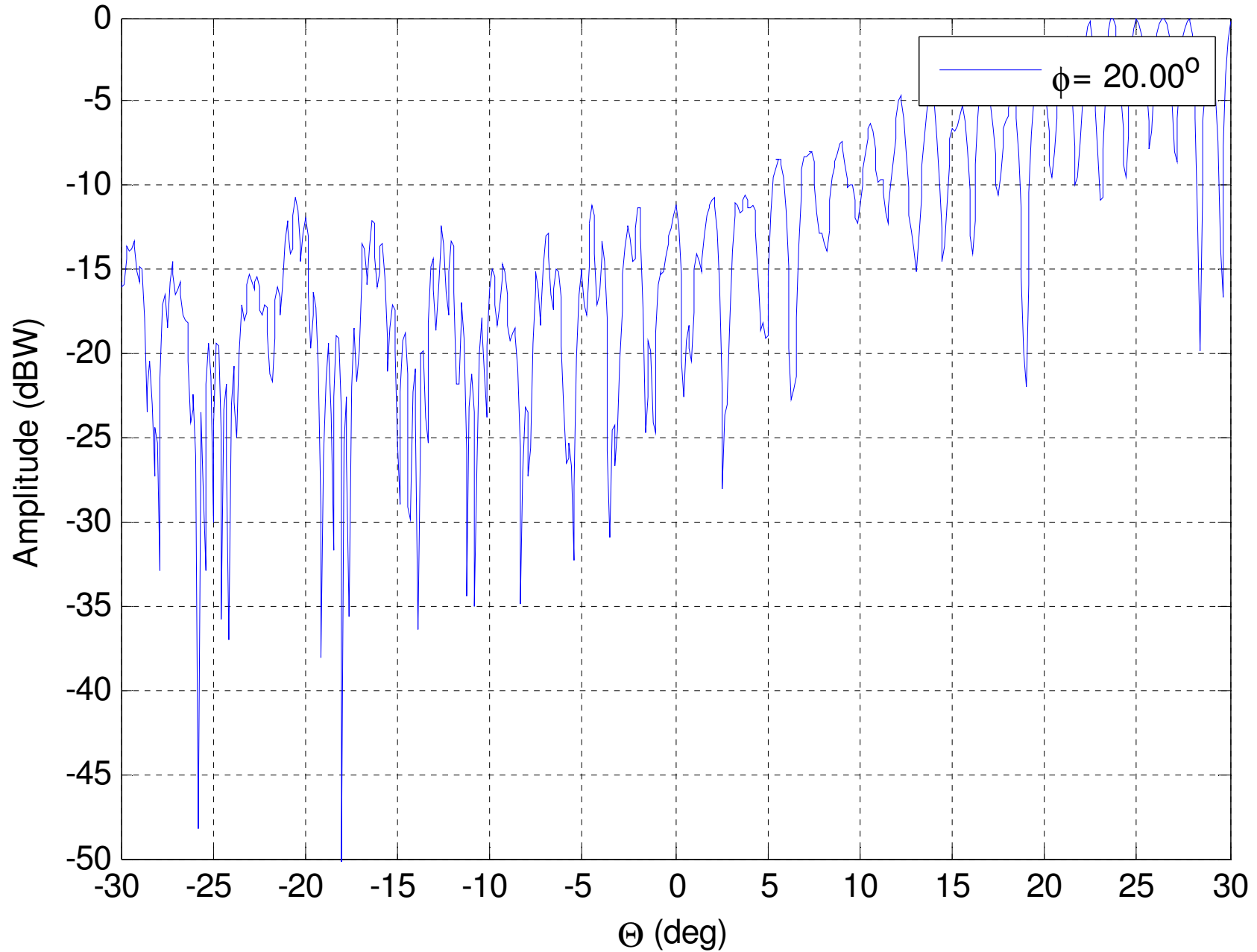
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: -1.89 dBW, Date: 15-Dec-2011



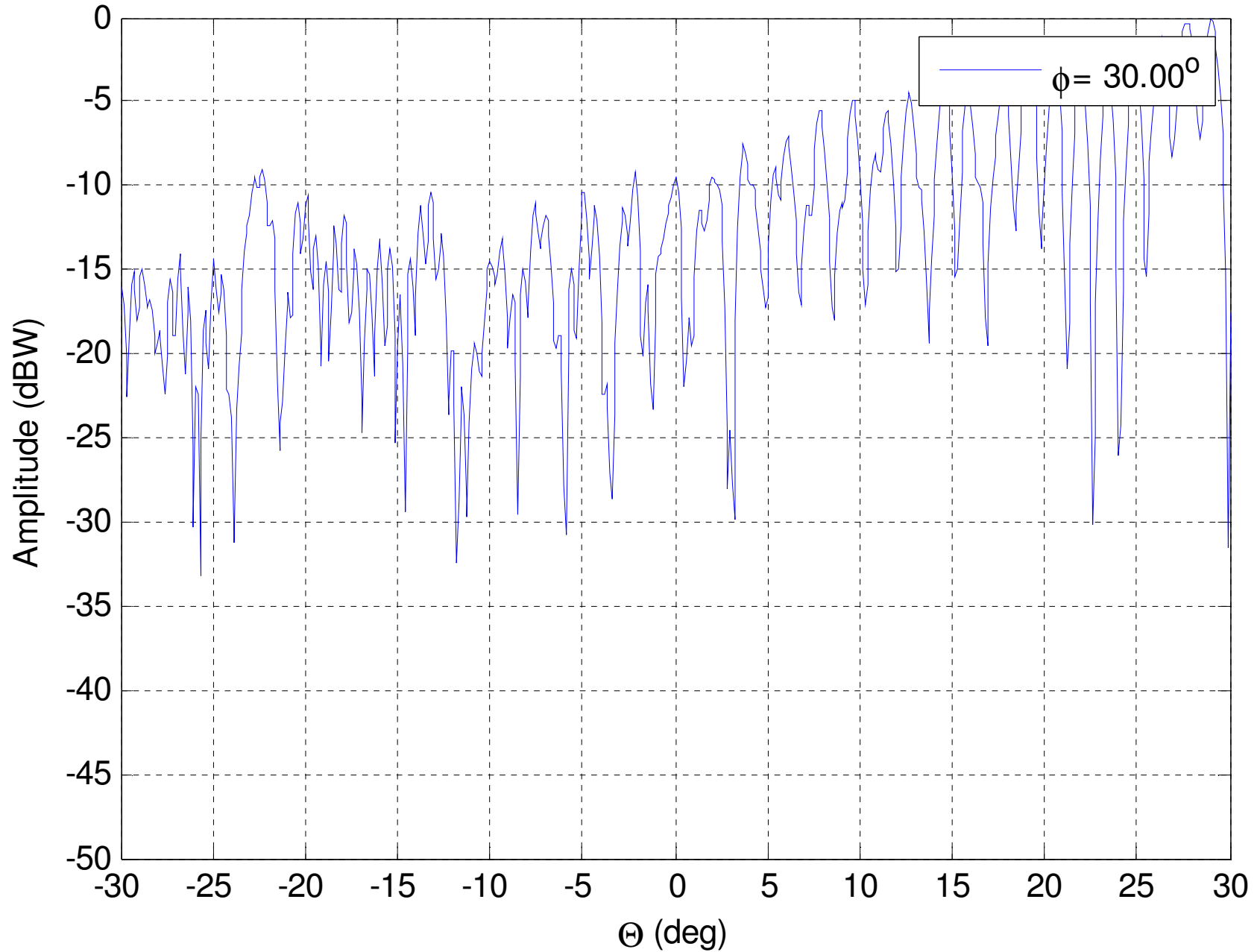
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: -4.45 dBW, Date: 15-Dec-2011



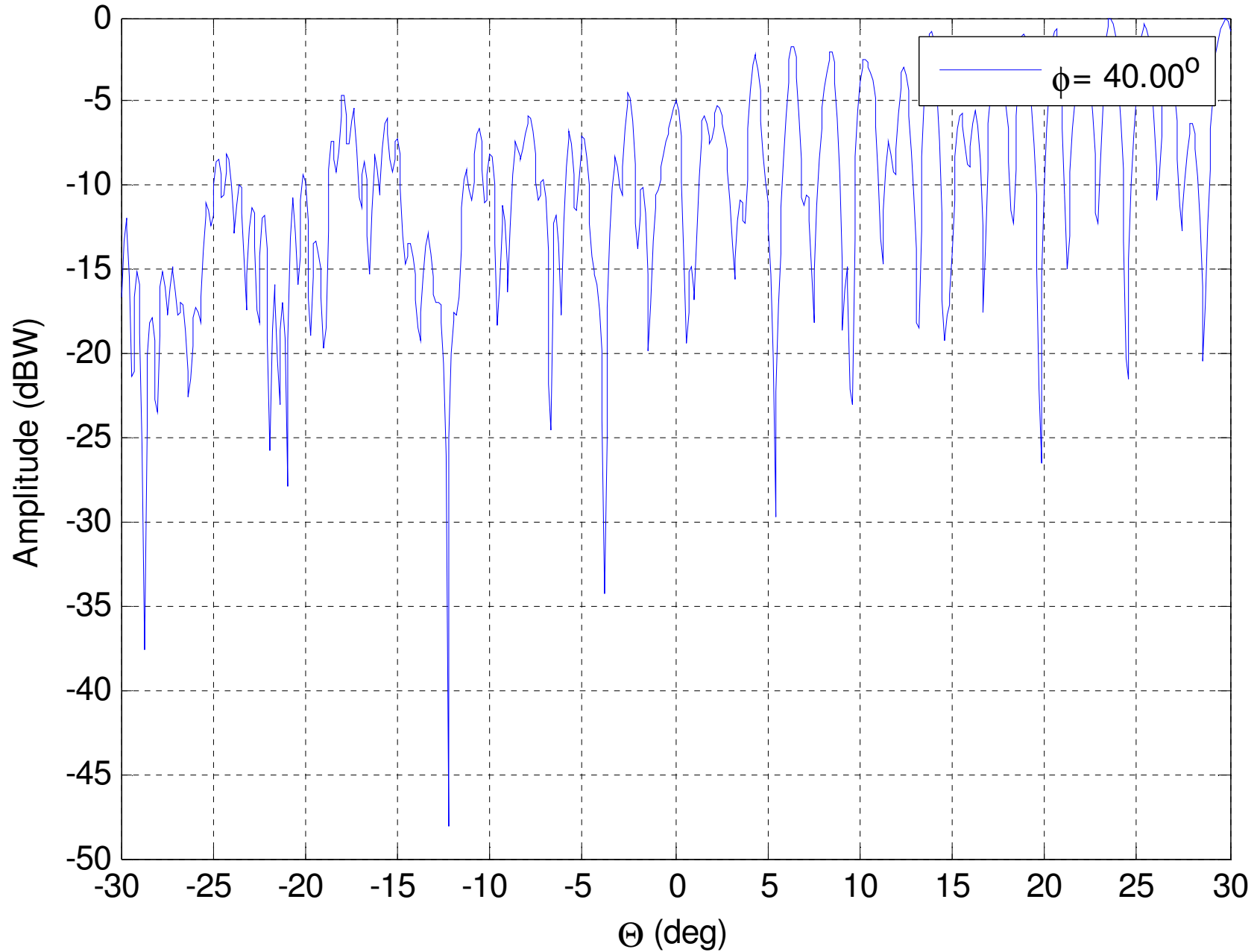
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: -6.16 dBW, Date: 15-Dec-2011



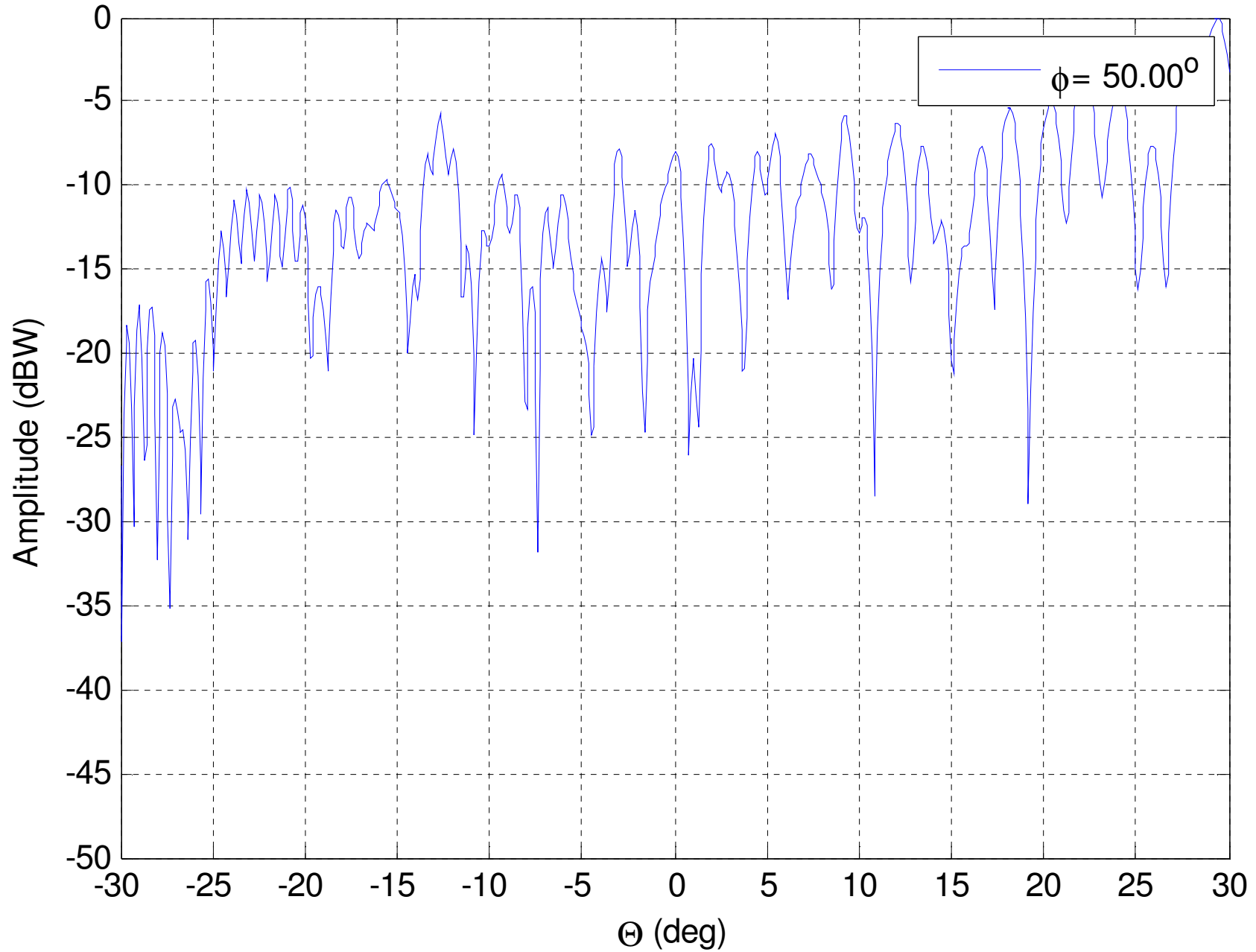
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -10.64 dBW, Date: 15-Dec-2011



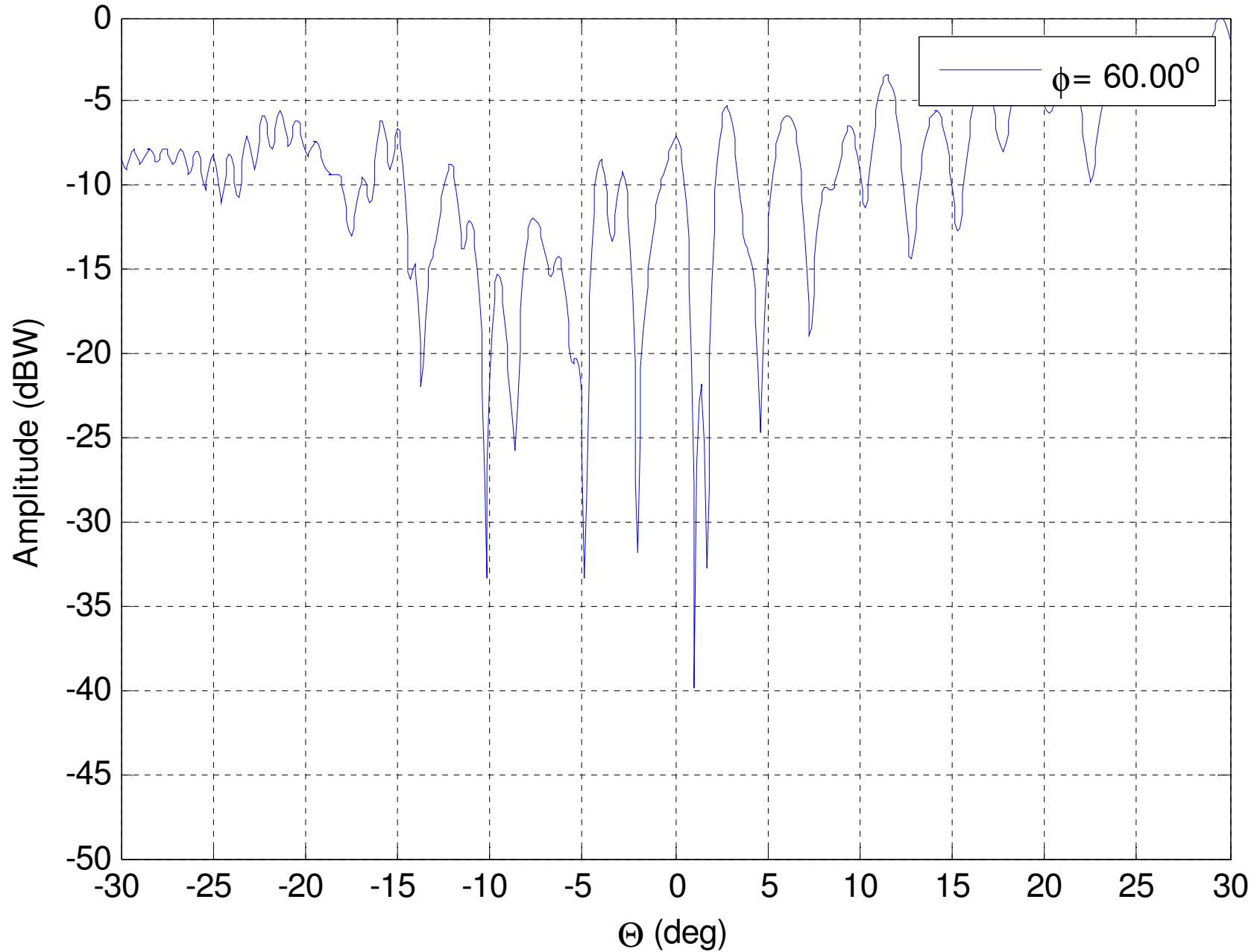
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -7.65 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -8.49 dBW, Date: 15-Dec-2011



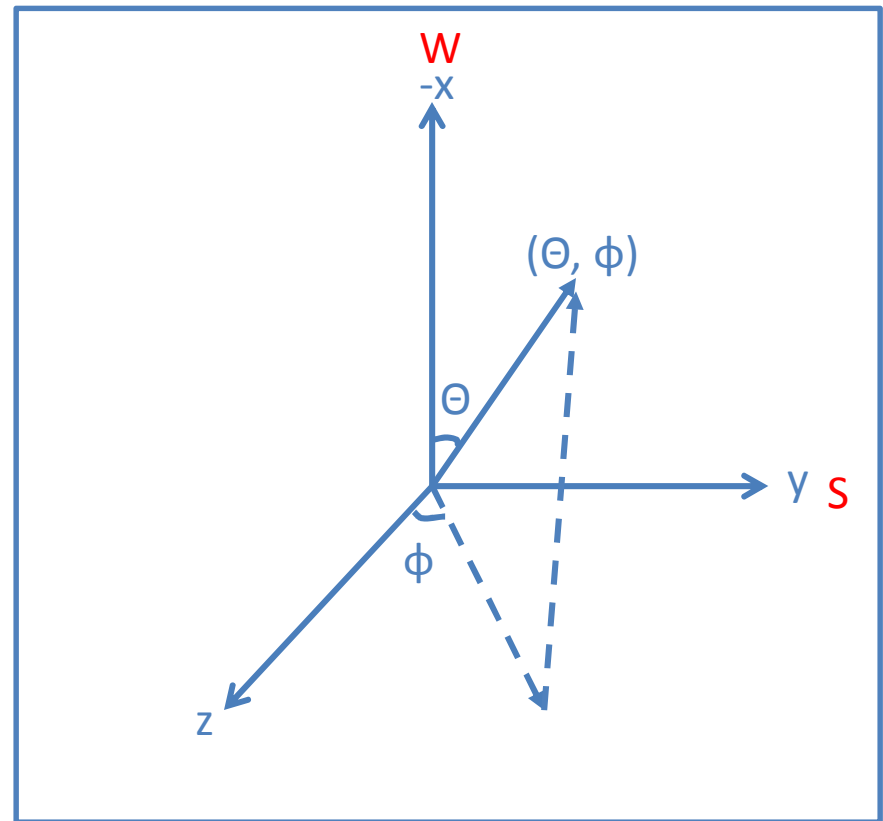
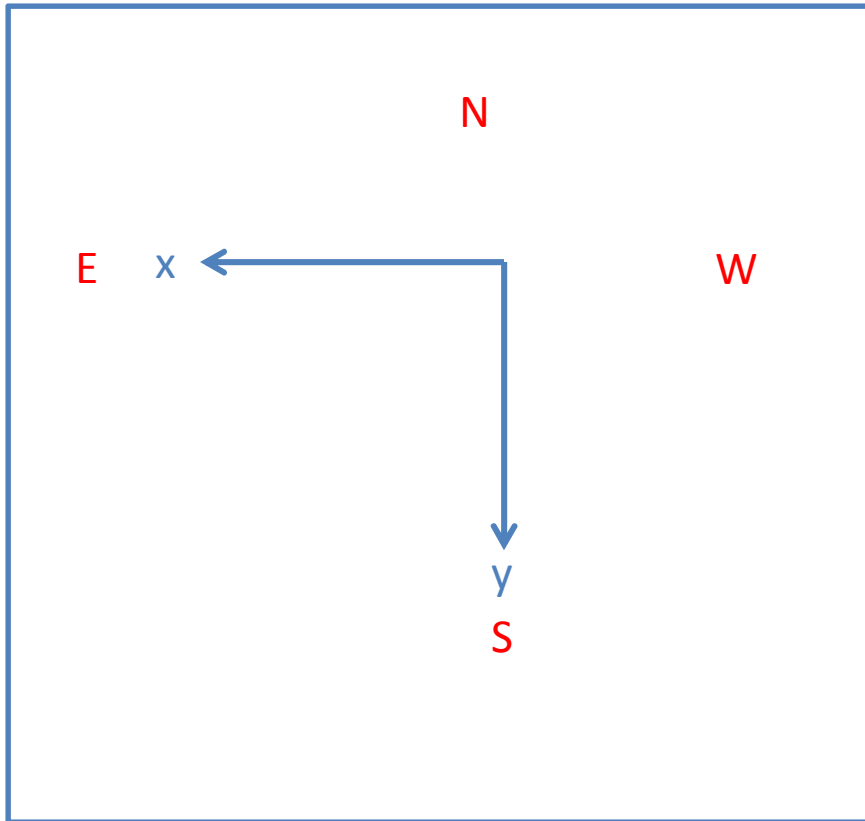
Updated: June 13, 2012

119 West Adjacent Satellite Off Axis Antenna Performance Spot Beam 35

Maximum Allowable EIRP to meet the -117dBW/m²/100 kHz

Maximum EIRP Allowed	
Spec Max flux density, dBW/m ² /100kHz	-117
Desired channel band width, MHz	25.8
Symbol rate band width modification factor	1
Effective channel bandwidth, MHz	25.8
Effective bandwidth, dB-100kHz	24.1
Flux density allowed per channel, dBW/m ²	-92.9
R, radial distance to GEO, km	42164.0
Angle of separation between satellites, deg	0.1
range between satellites, km	73.59
Spreading factor, dB/m ²	-108.3
Atmospheric loss, dB	0
Max satellite EIRP allowed, dBW	15.4

Coordinate System



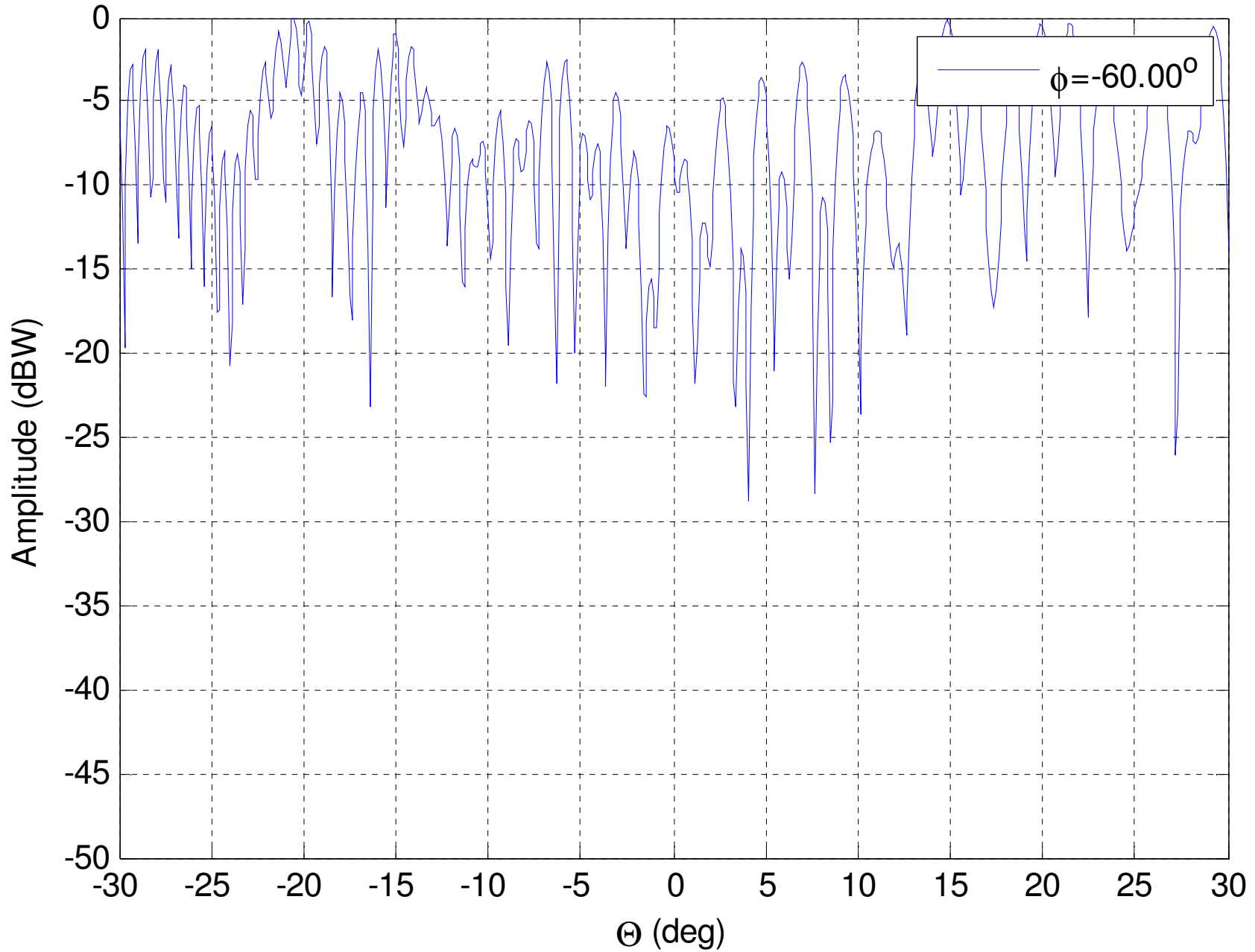
Spot Beam35, -X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: -X -axis)
- $-60 < \phi < 60$
- Freq = 17.305, 17.5, and 17.695 GHz
- The Zero reference line is the maximum EIRP listed in the title of each plot sheet. All levels are below the required 15.4 dBW maximum
- The Zero reference for the maximum antenna gain is the maximum EIRP listed minus the power input to the antenna specified in Table I of the attached narrative.

RHCP at 17.3 GHz

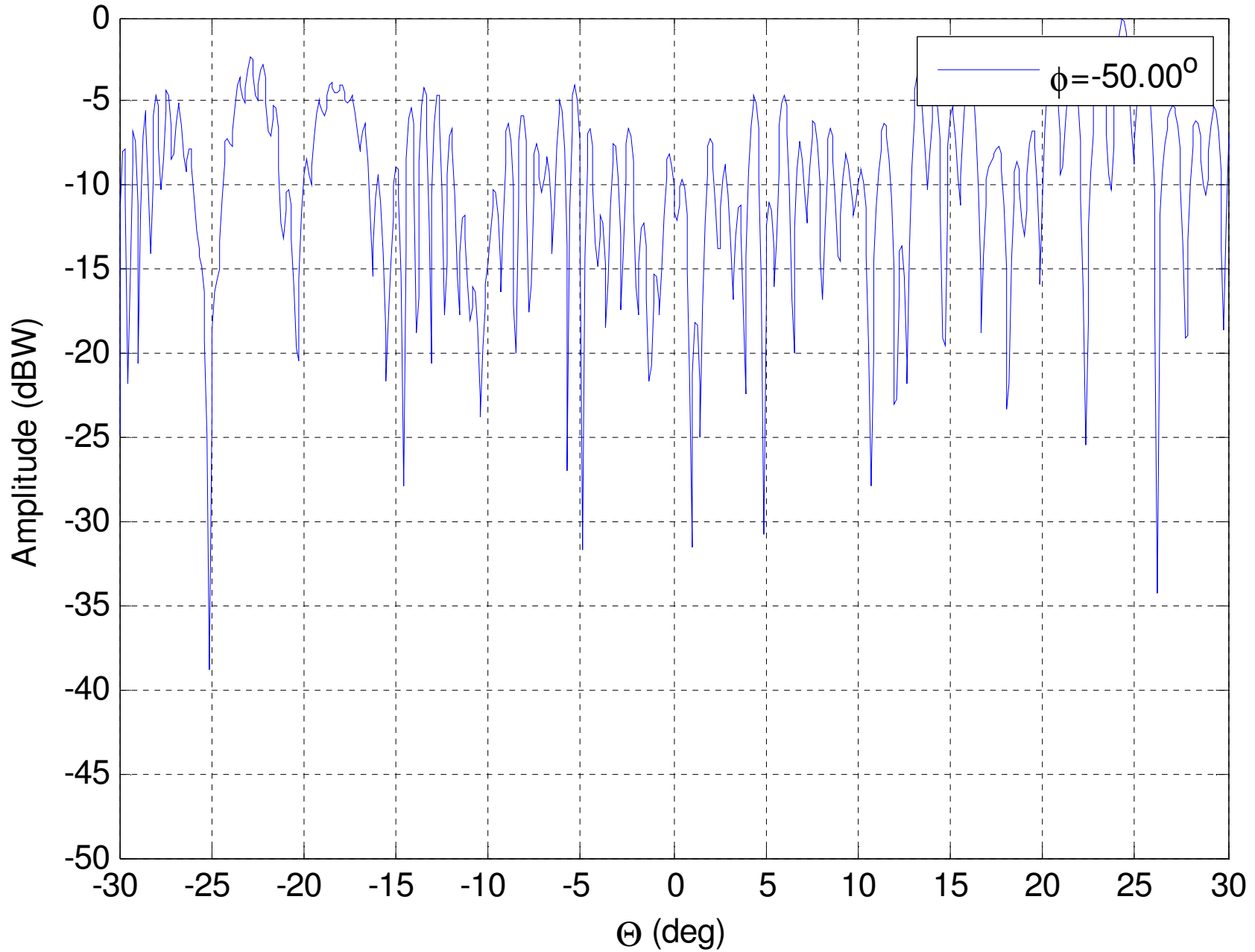
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -6.68 dBW, Date: 15-Dec-2011



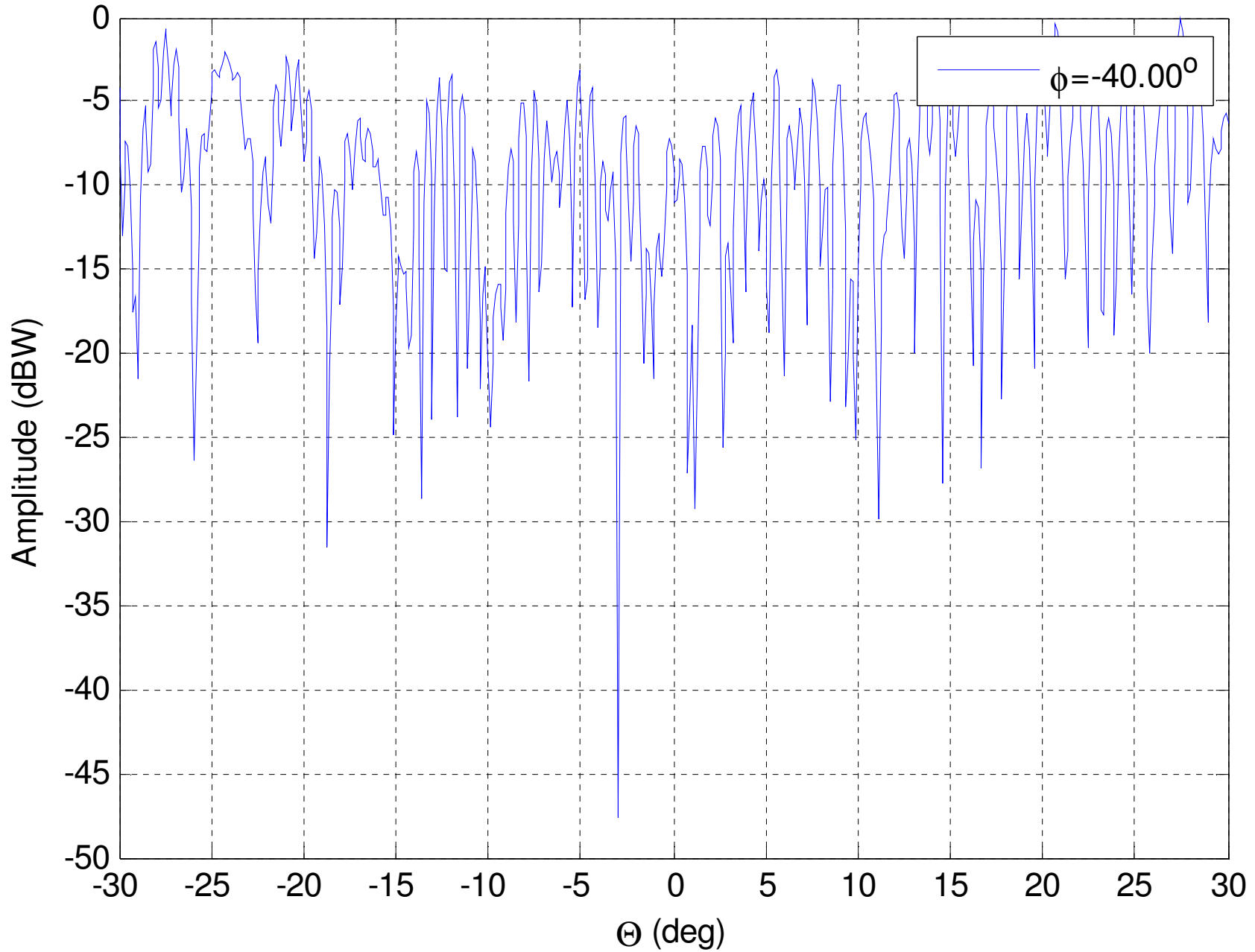
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -4.86 dBW, Date: 15-Dec-2011



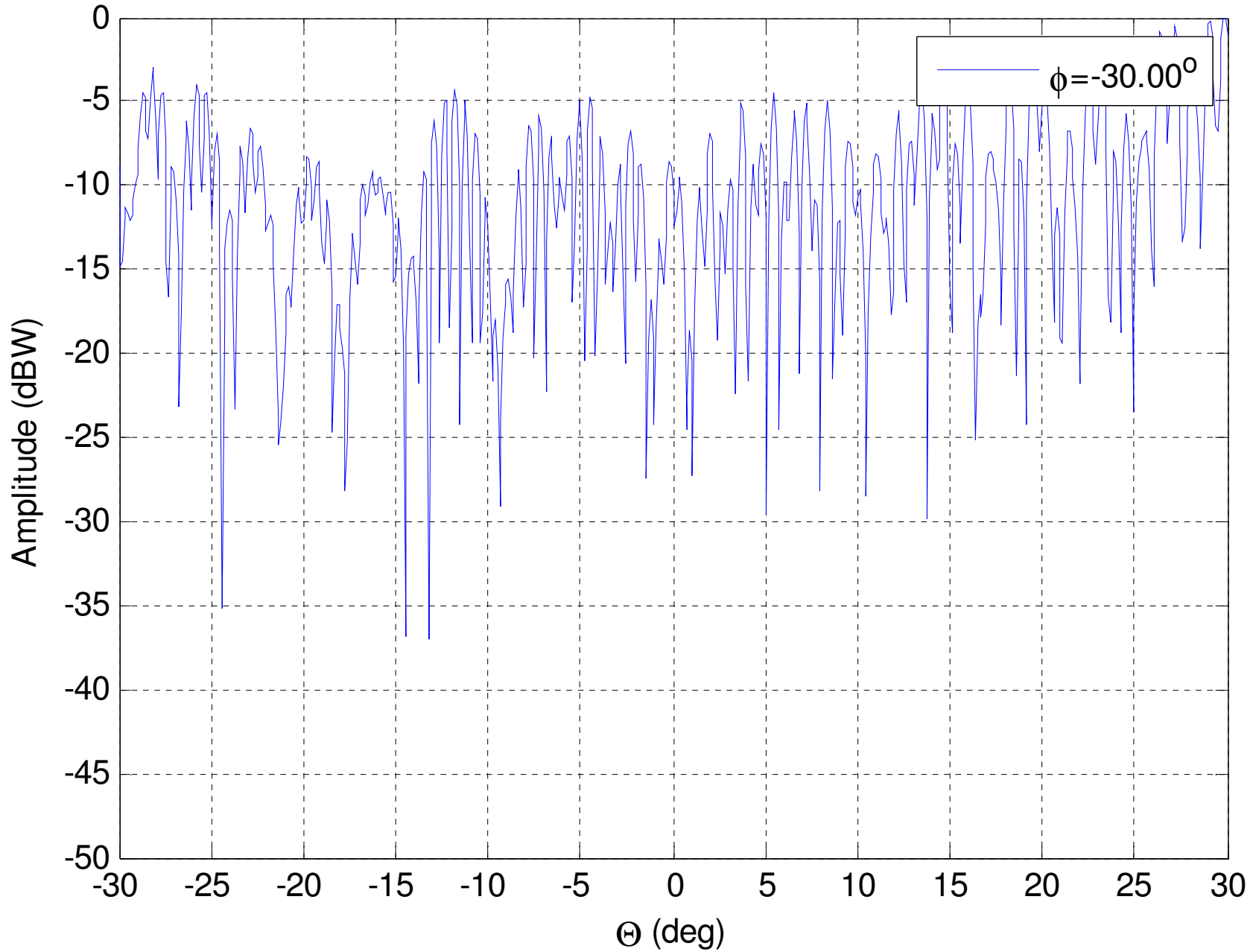
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -5.80 dBW, Date: 15-Dec-2011



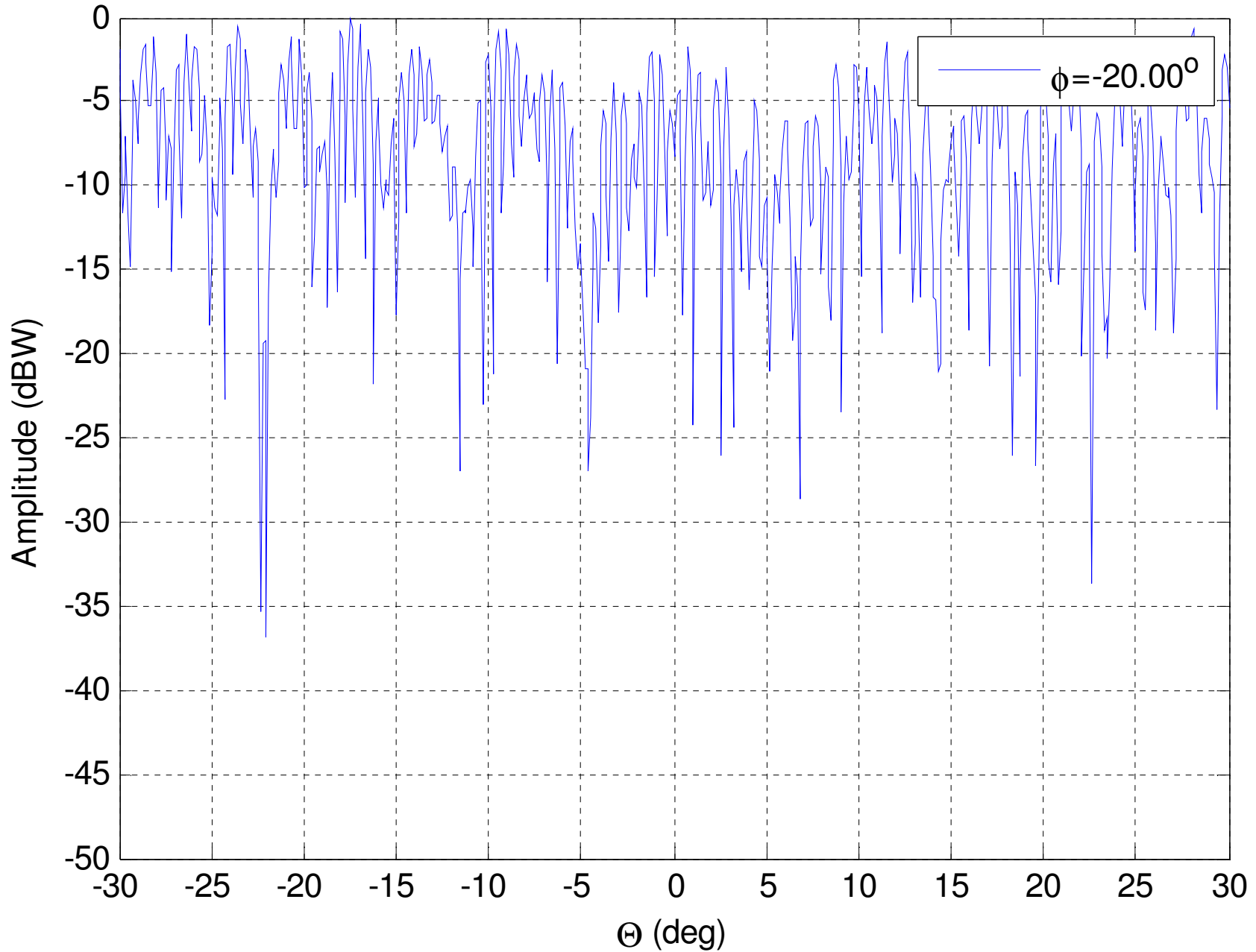
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -4.48 dBW, Date: 15-Dec-2011



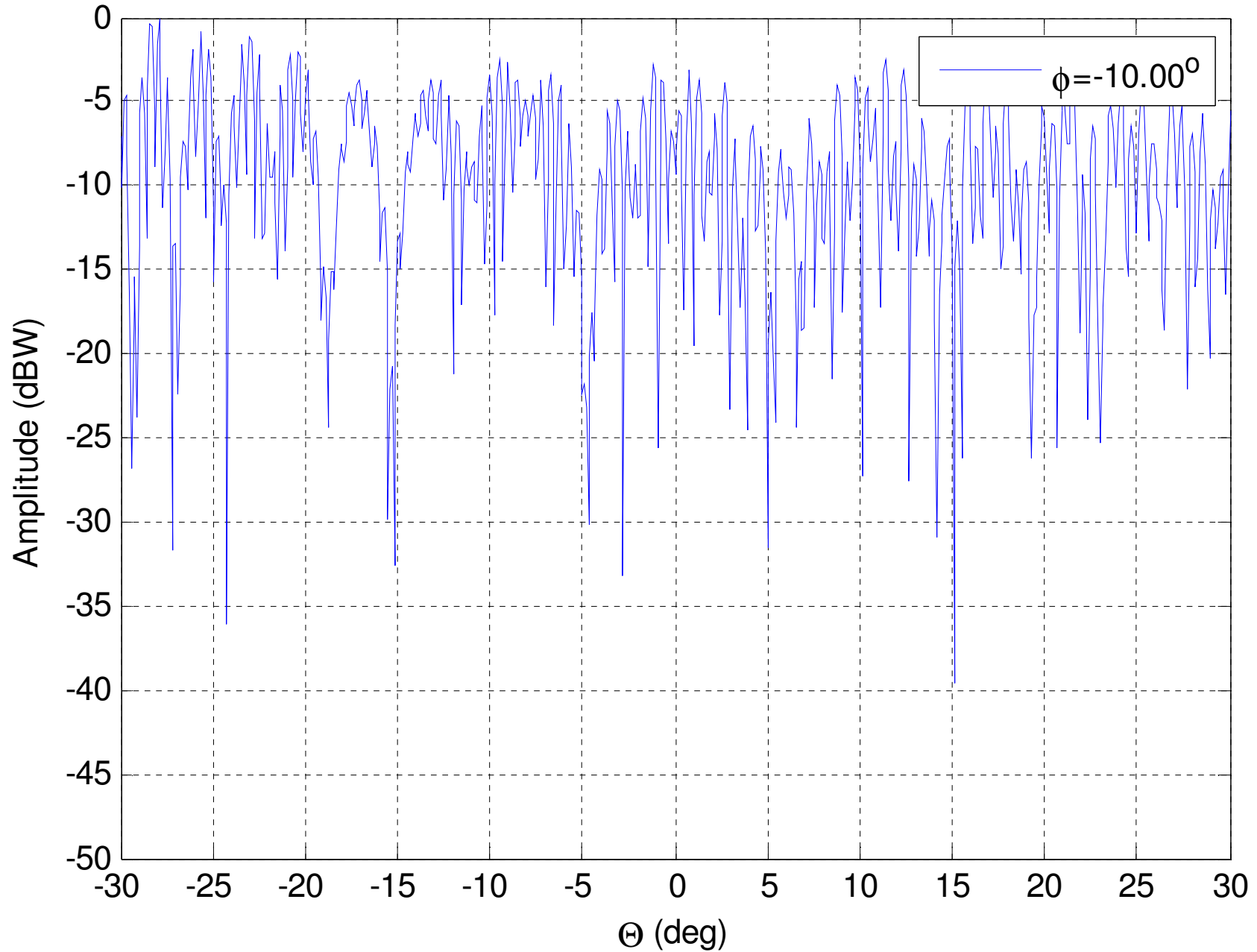
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: -8.04 dBW, Date: 15-Dec-2011



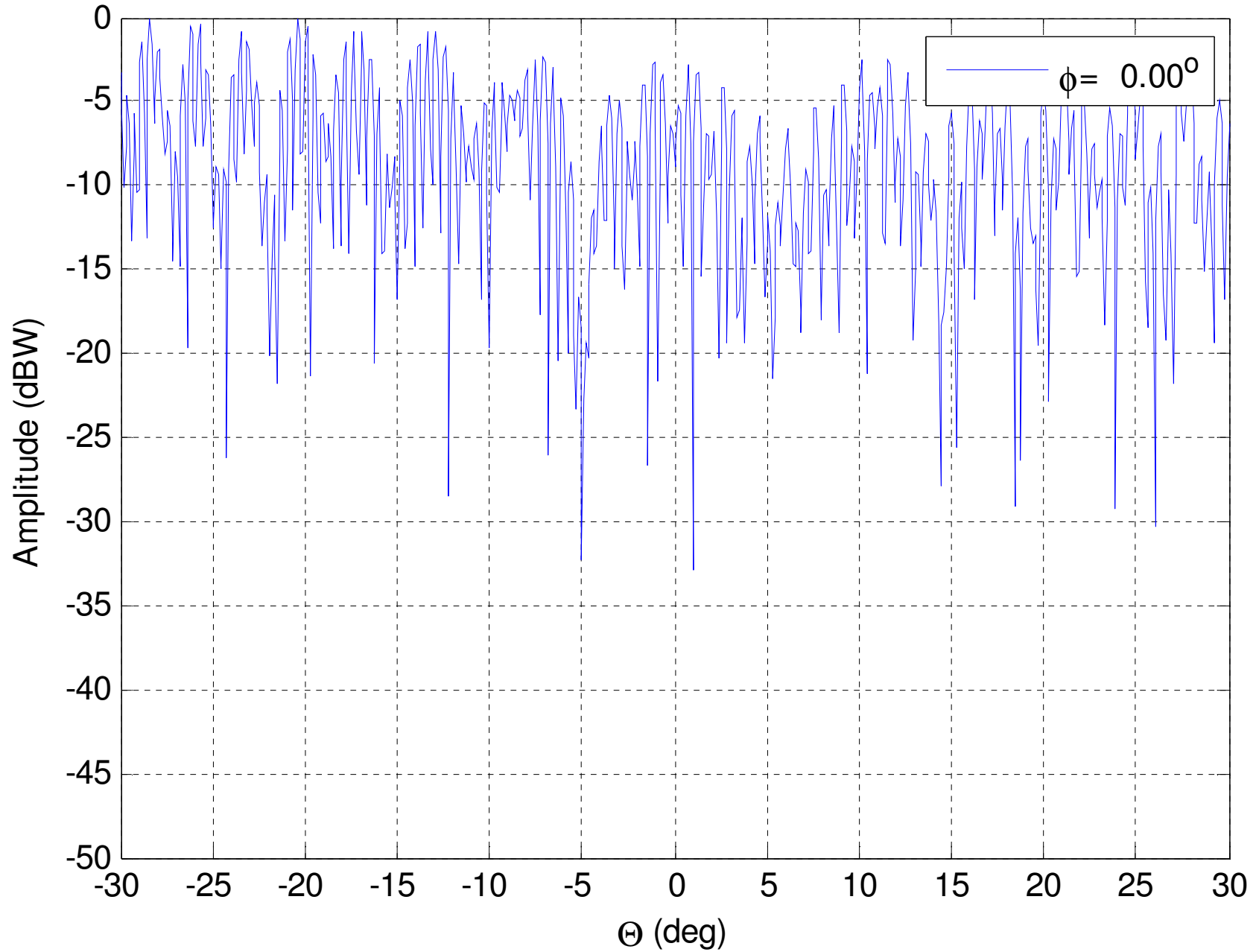
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: -6.96 dBW, Date: 15-Dec-2011



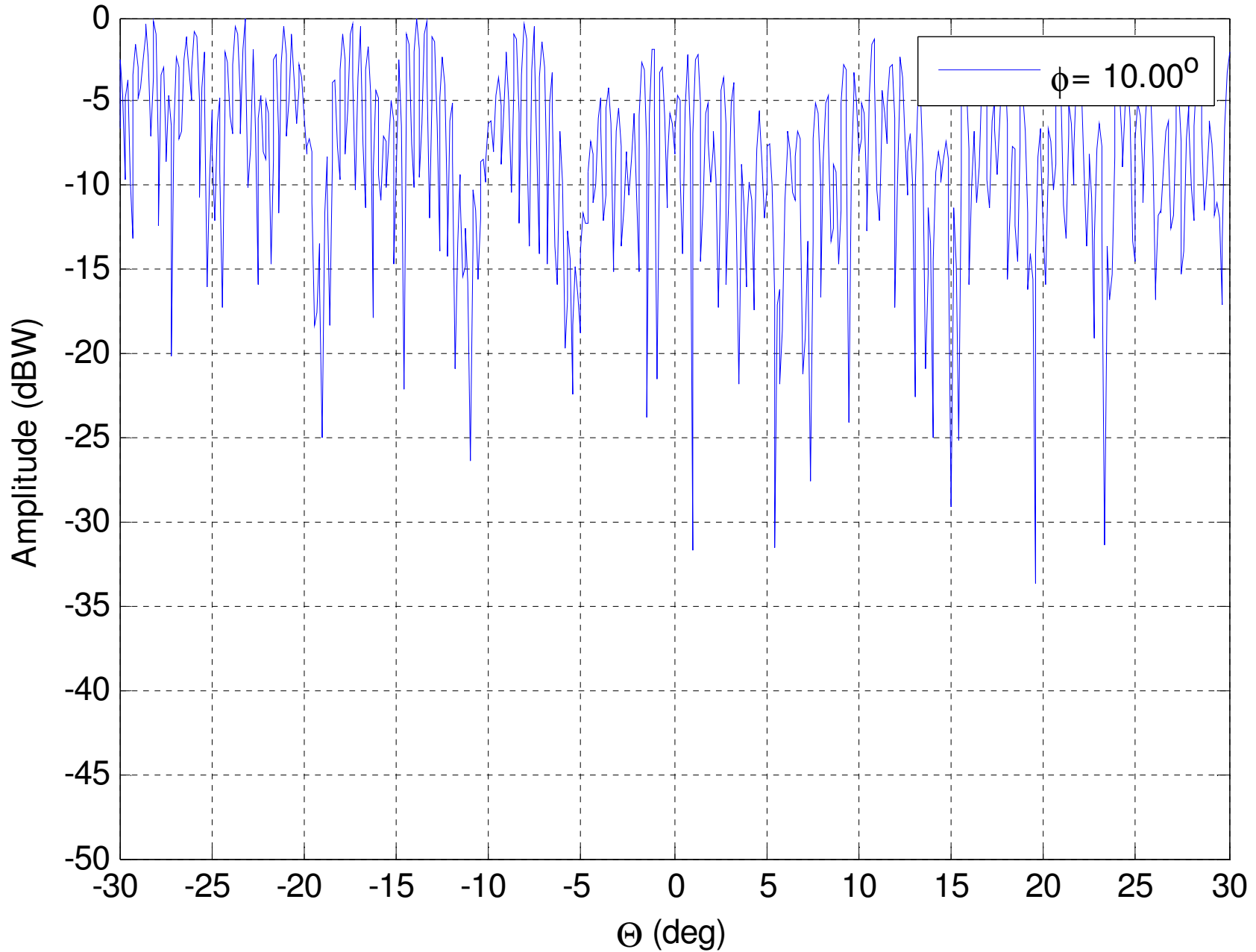
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: -7.39 dBW, Date: 15-Dec-2011



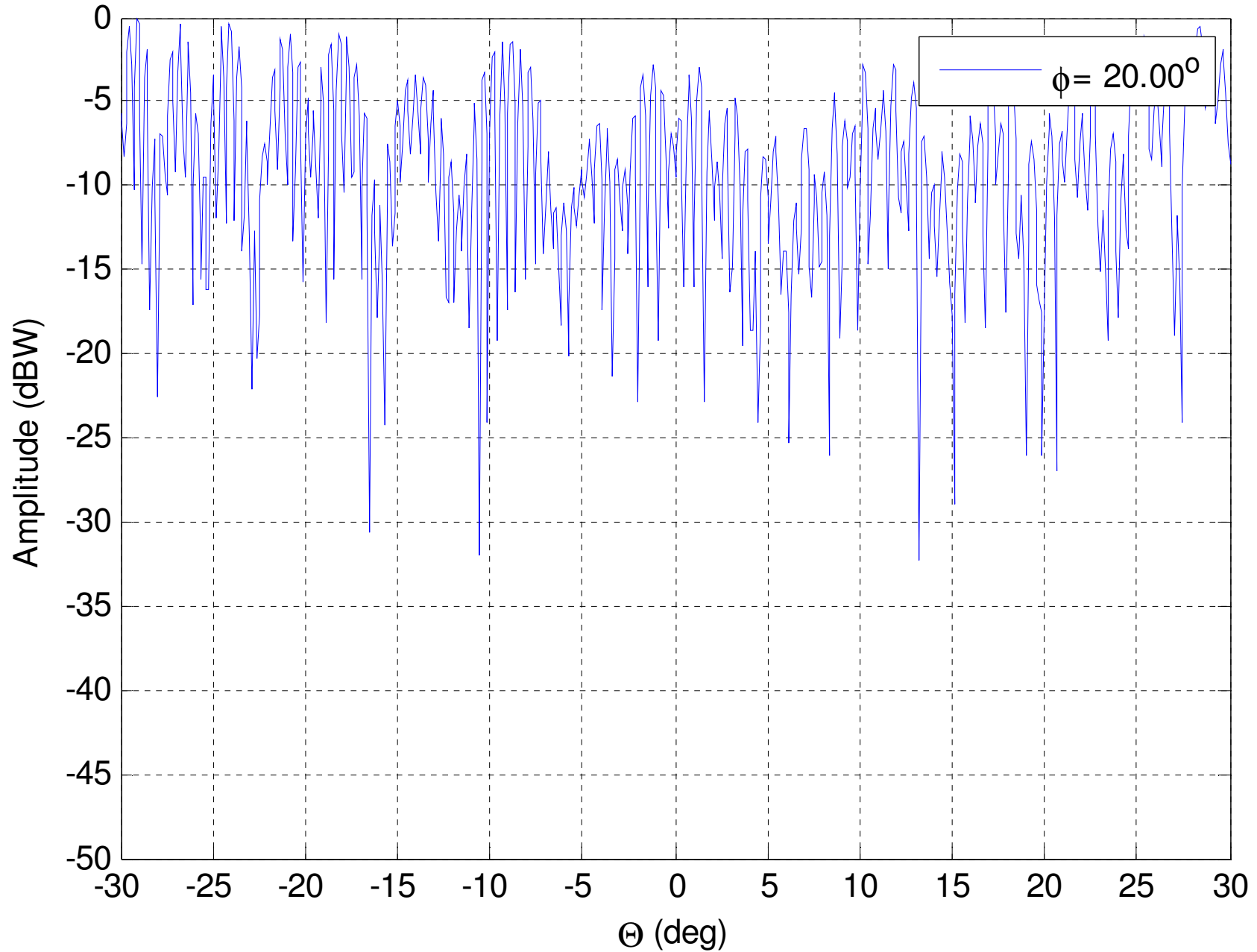
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: -8.14 dBW, Date: 15-Dec-2011



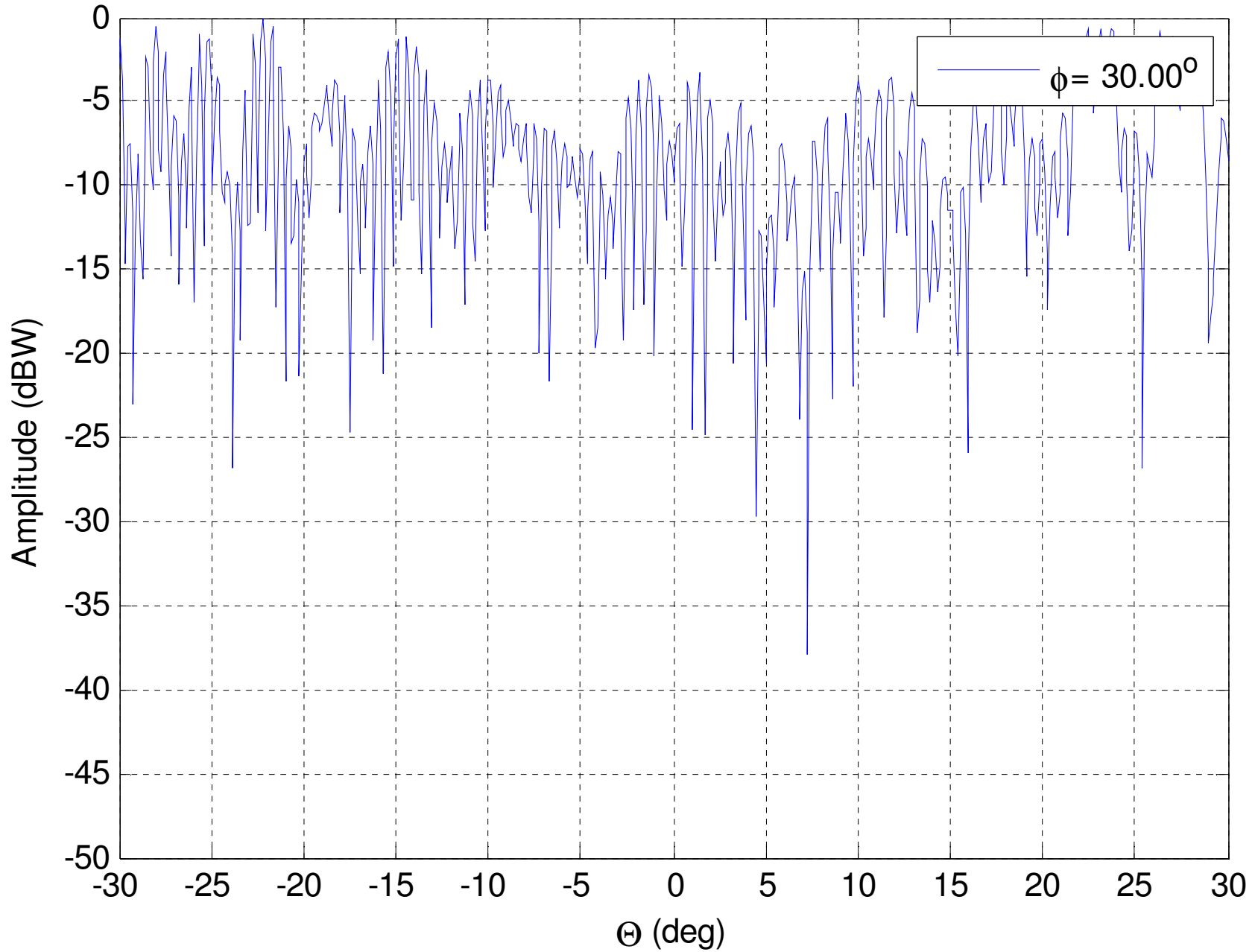
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: -6.91 dBW, Date: 15-Dec-2011



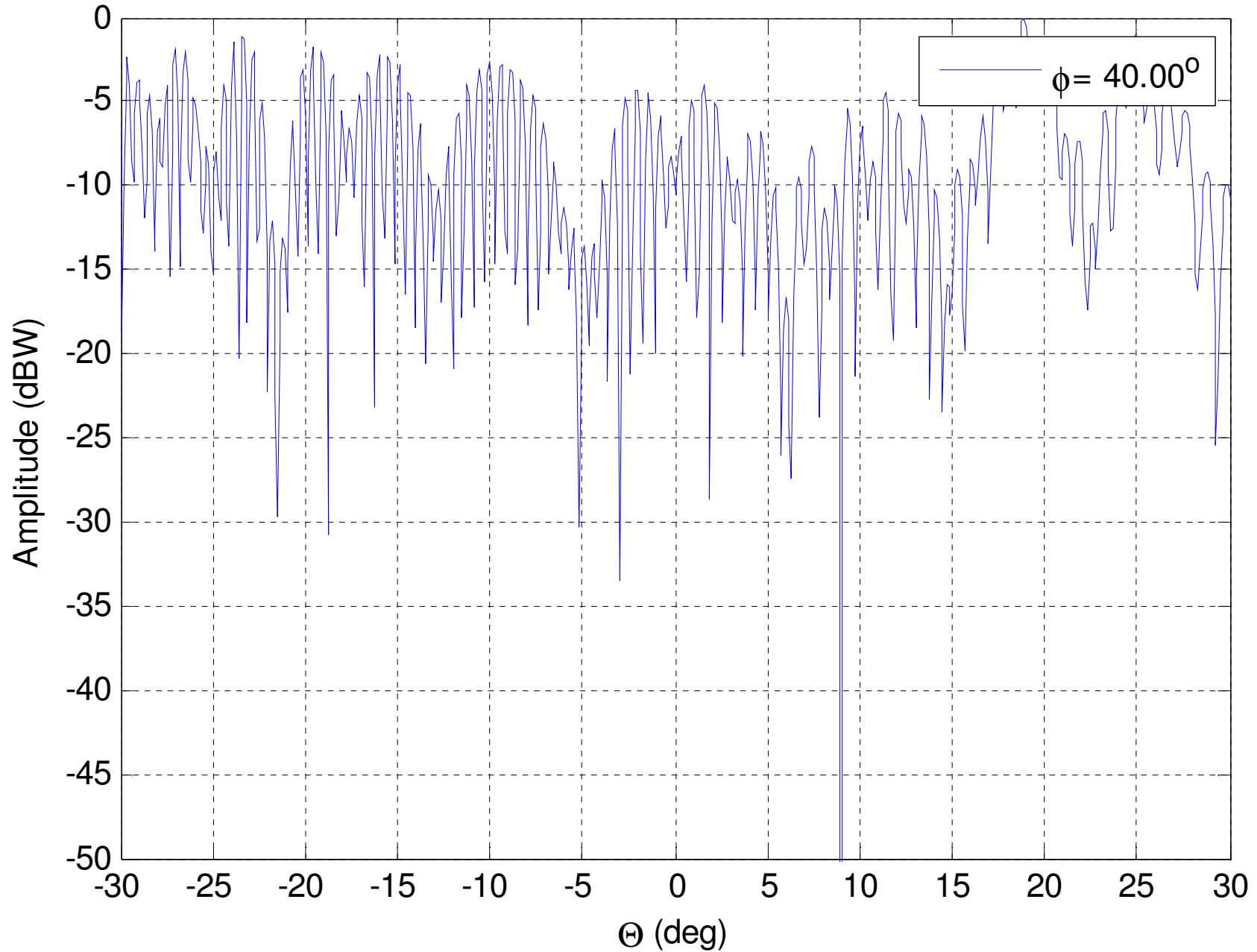
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: -6.55 dBW, Date: 15-Dec-2011



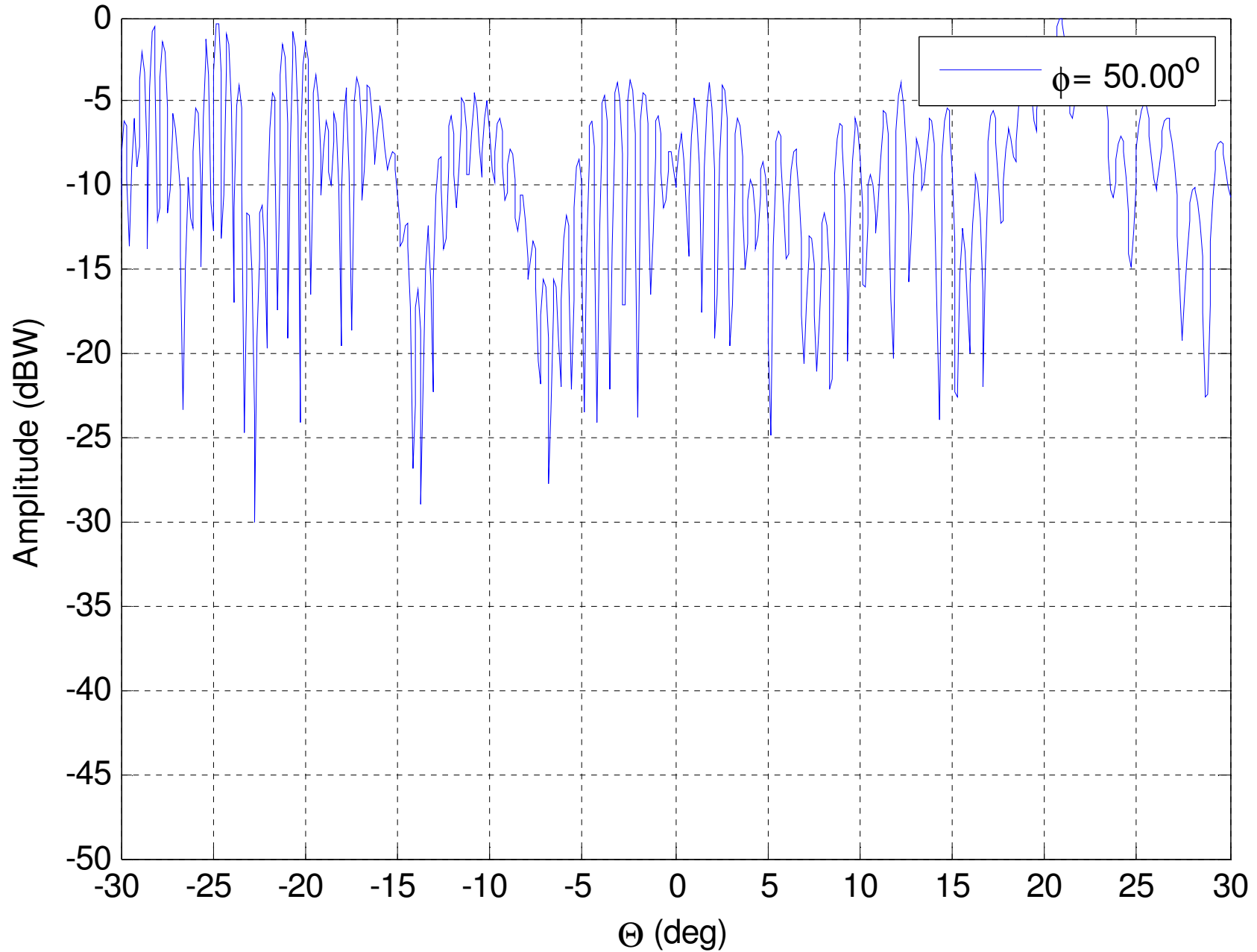
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -5.75 dBW, Date: 15-Dec-2011



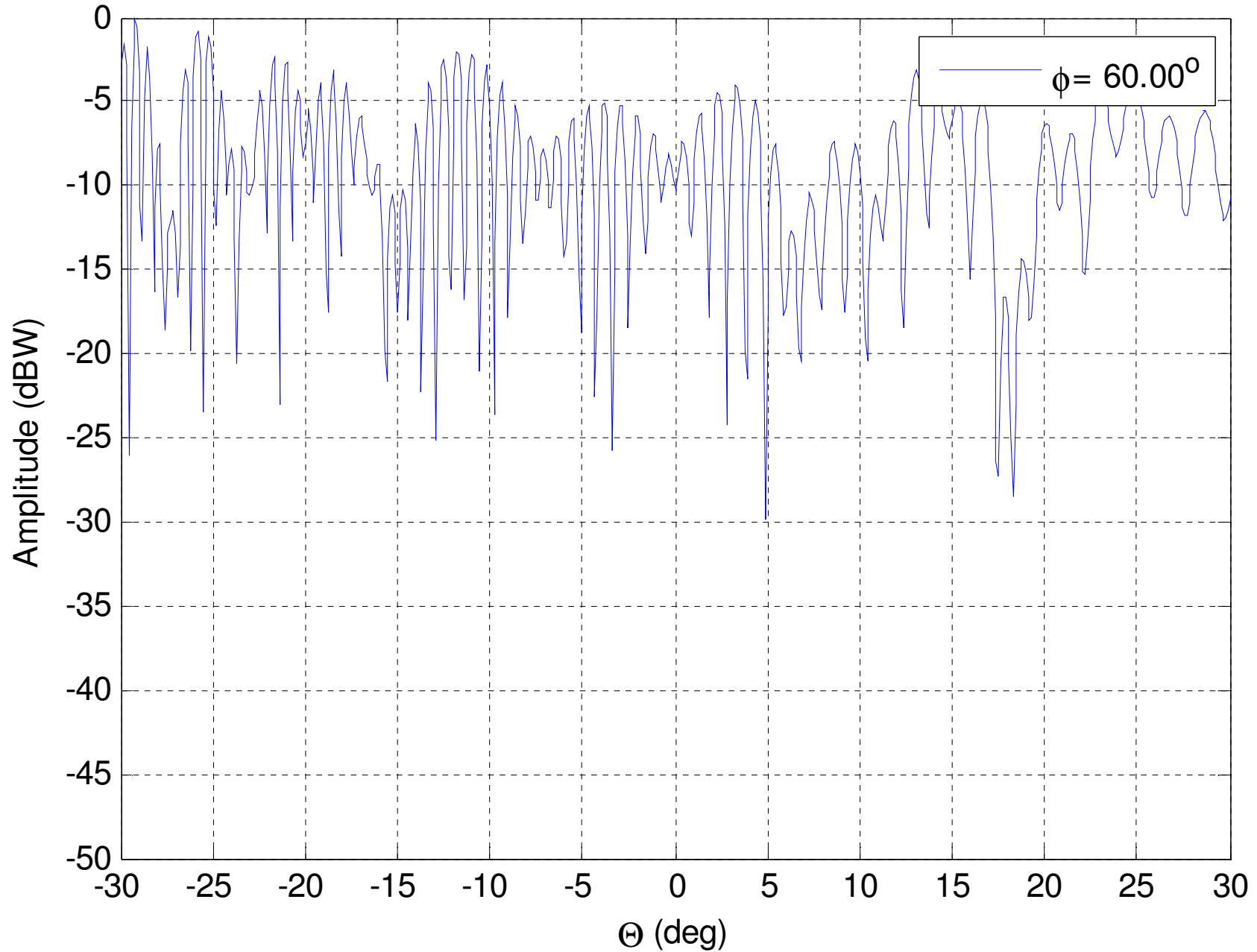
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -6.26 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

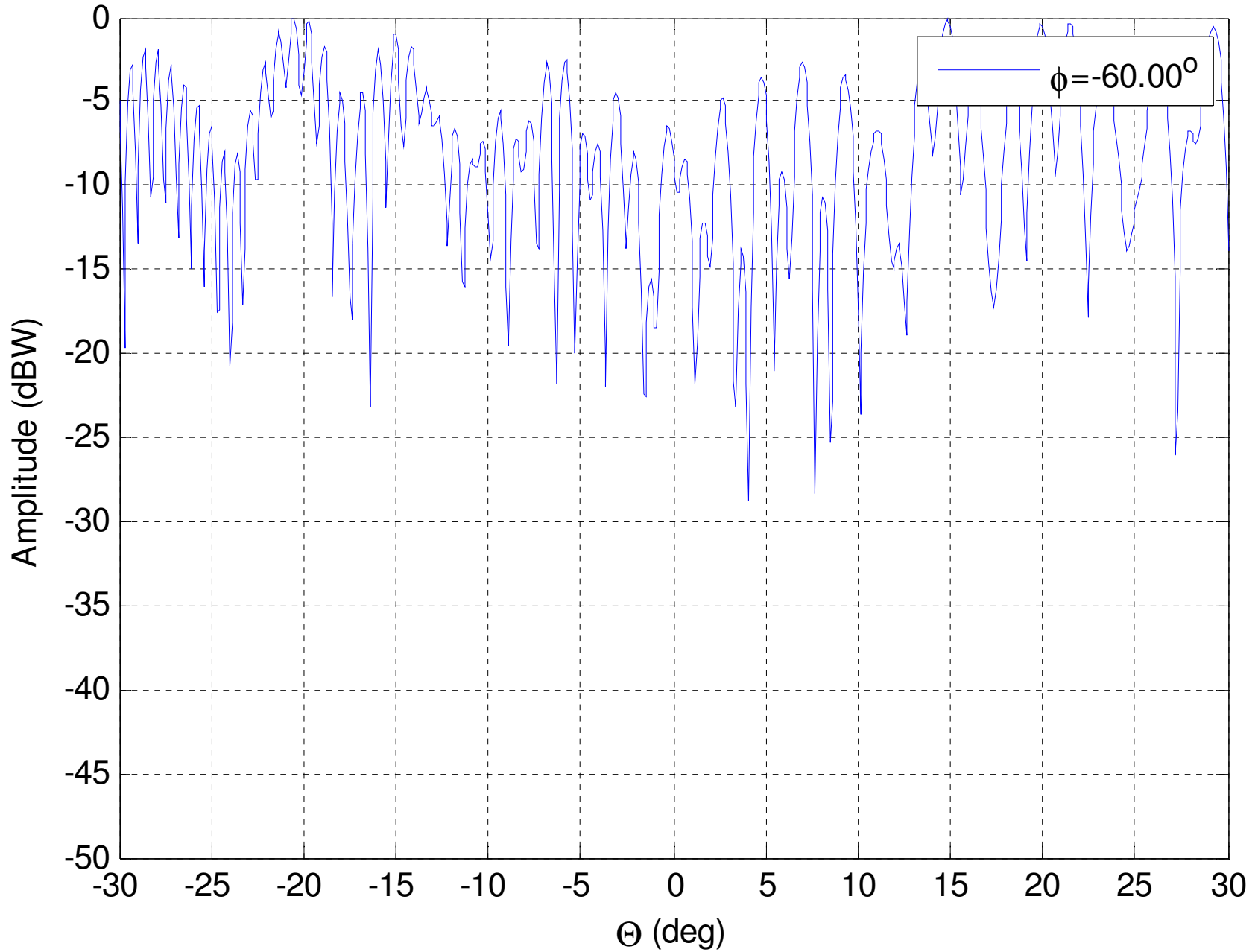
Input file: tx-17.3-rhcp-60.cut, Peak: -6.05 dBW, Date: 15-Dec-2011



LHCP at 17.3 GHz

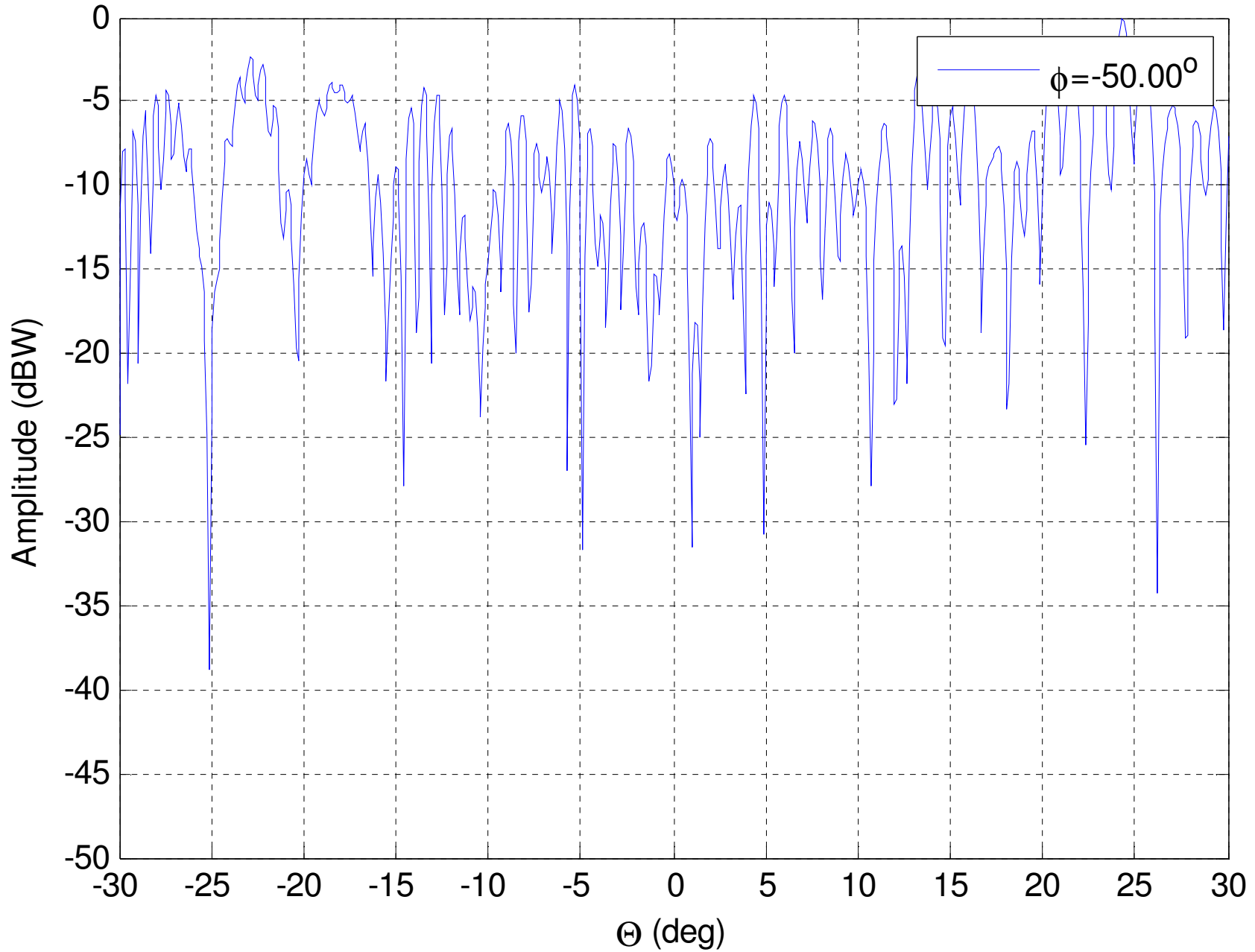
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -6.68 dBW, Date: 15-Dec-2011



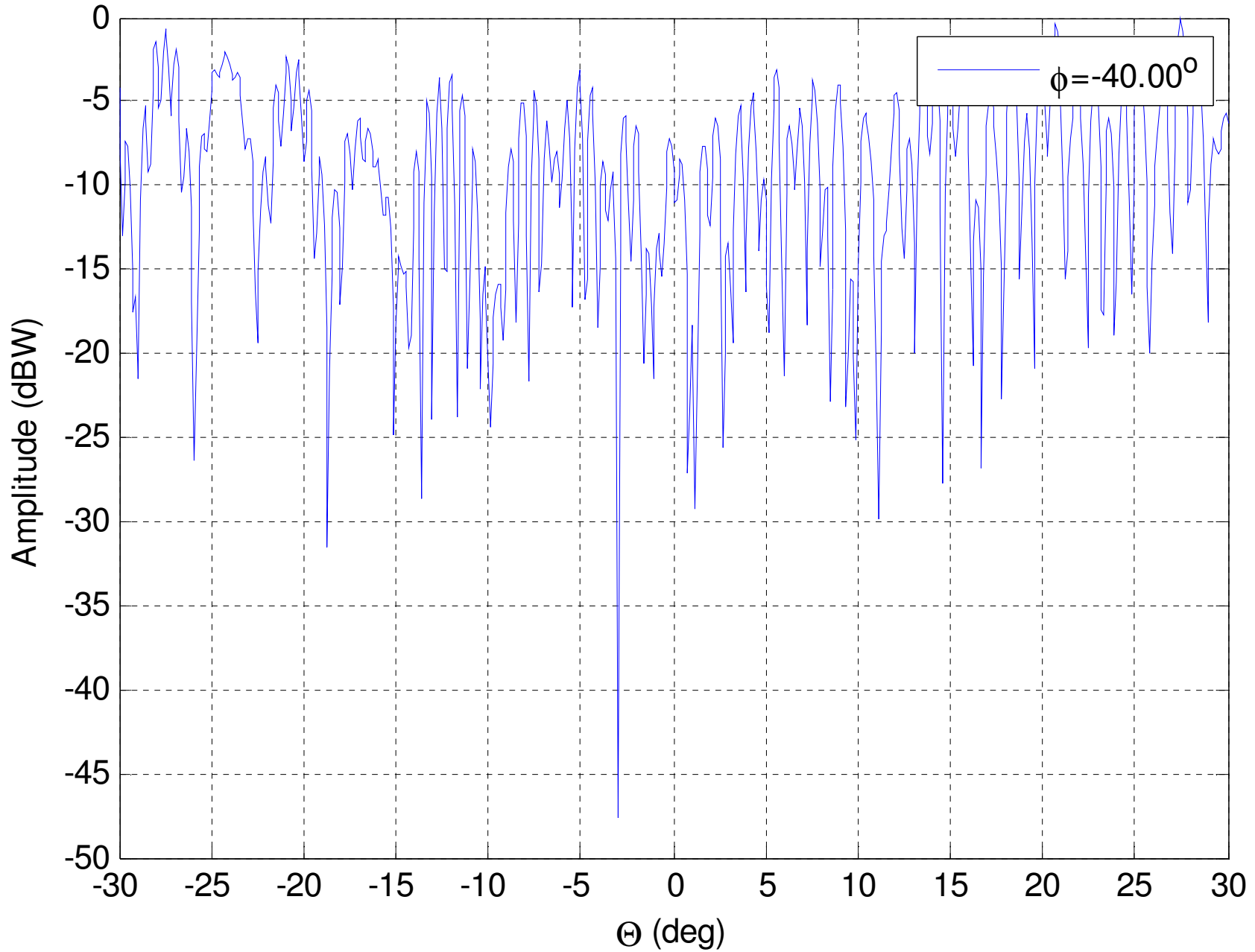
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -4.86 dBW, Date: 15-Dec-2011



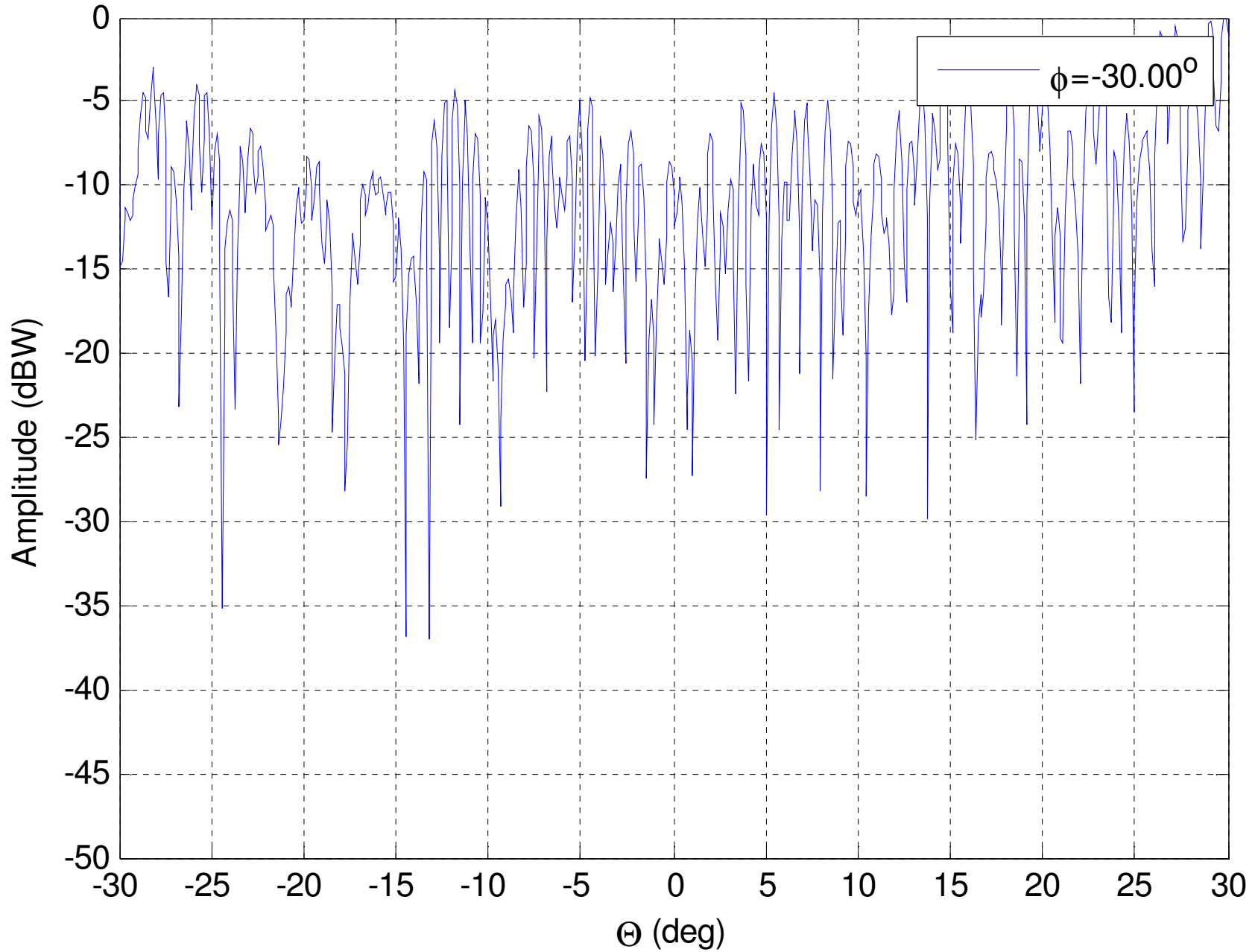
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -5.80 dBW, Date: 15-Dec-2011



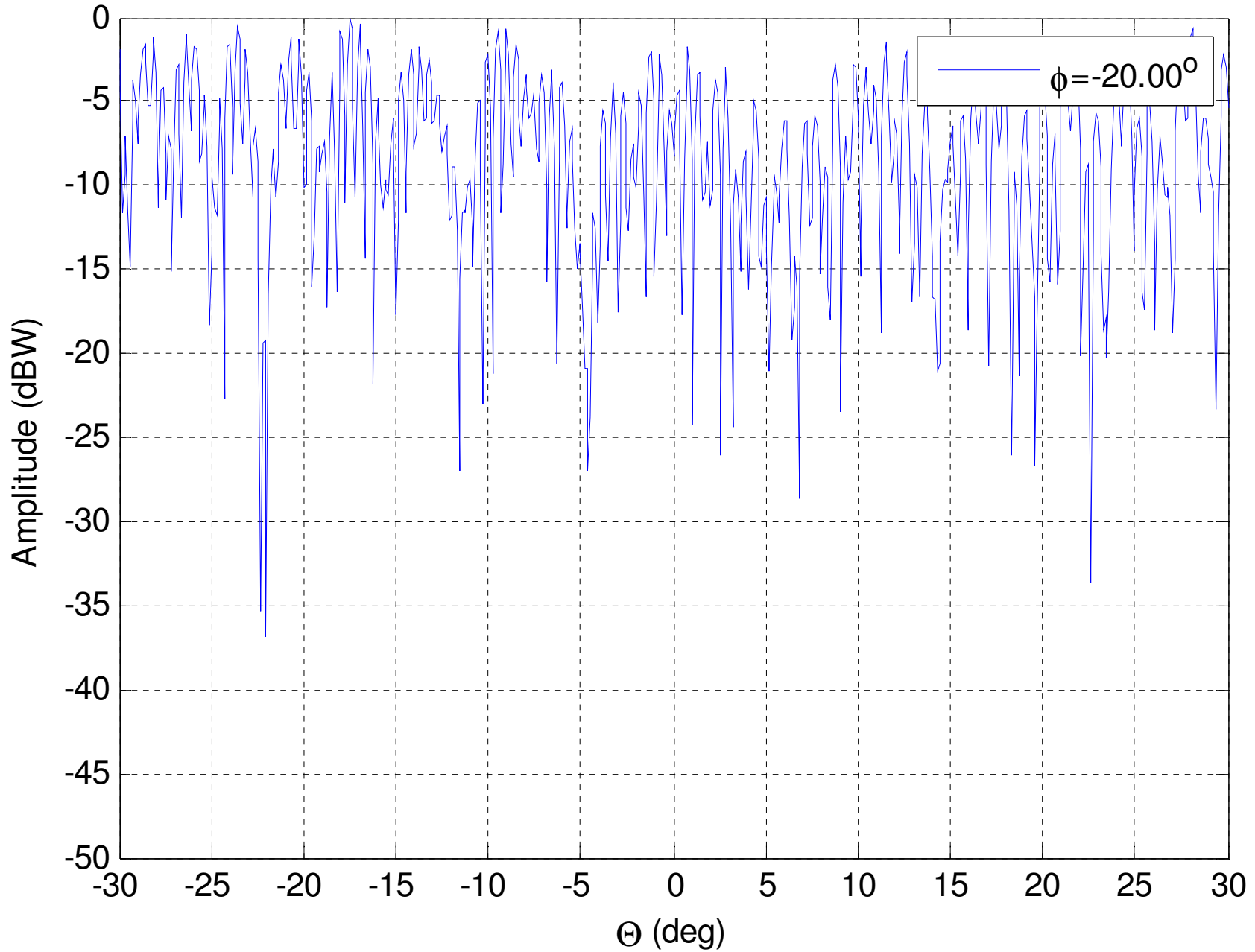
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -4.48 dBW, Date: 15-Dec-2011



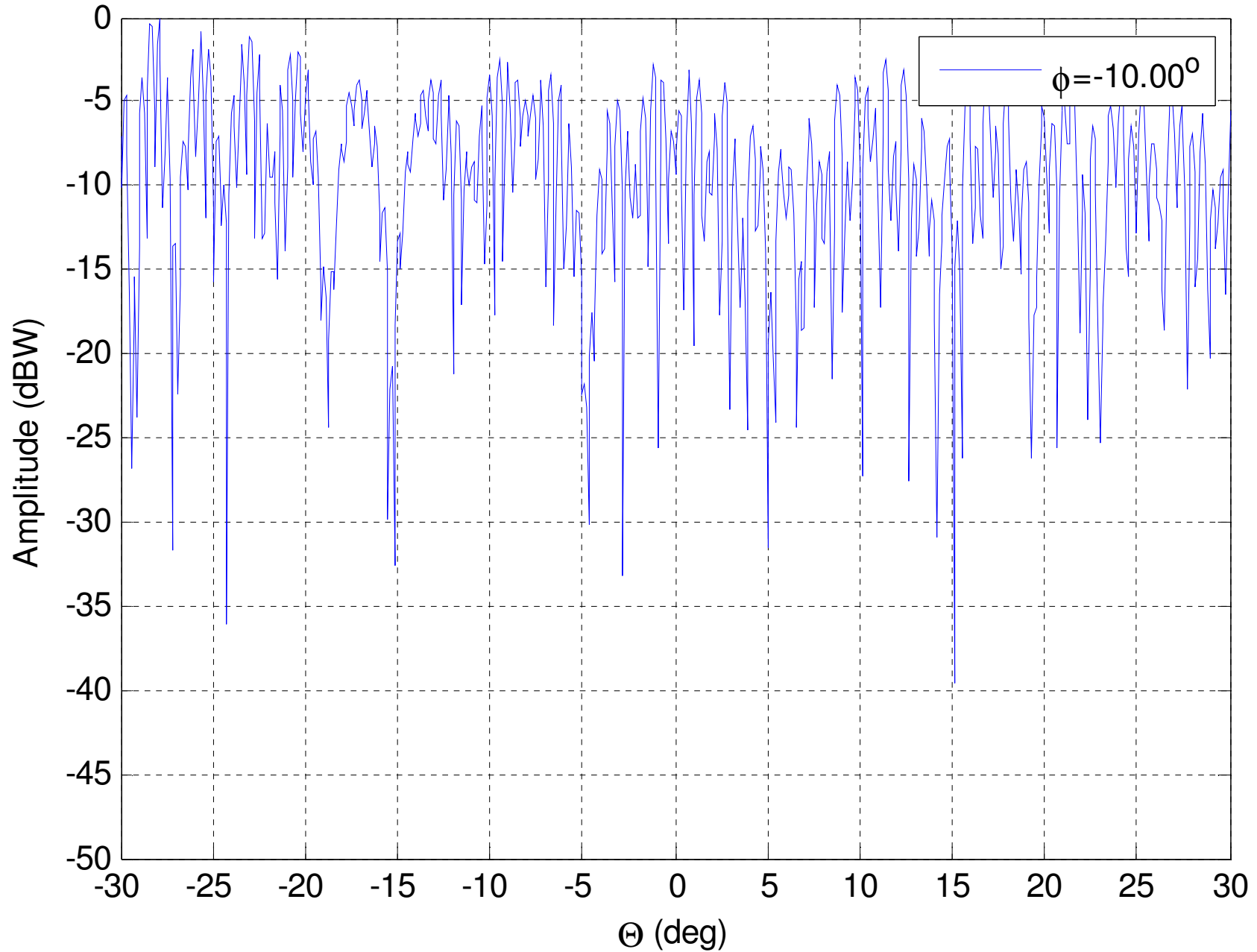
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: -8.04 dBW, Date: 15-Dec-2011



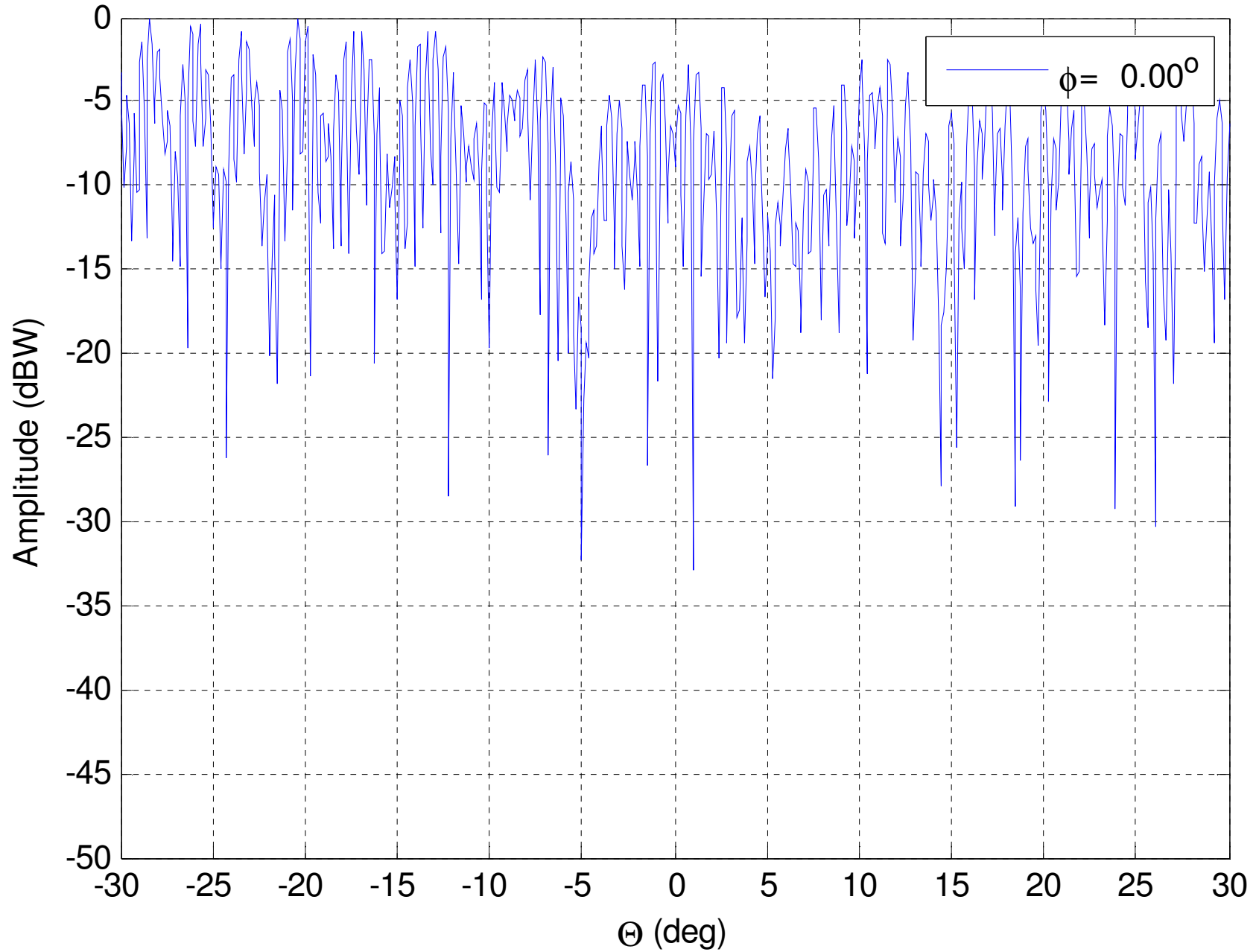
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: -6.96 dBW, Date: 15-Dec-2011



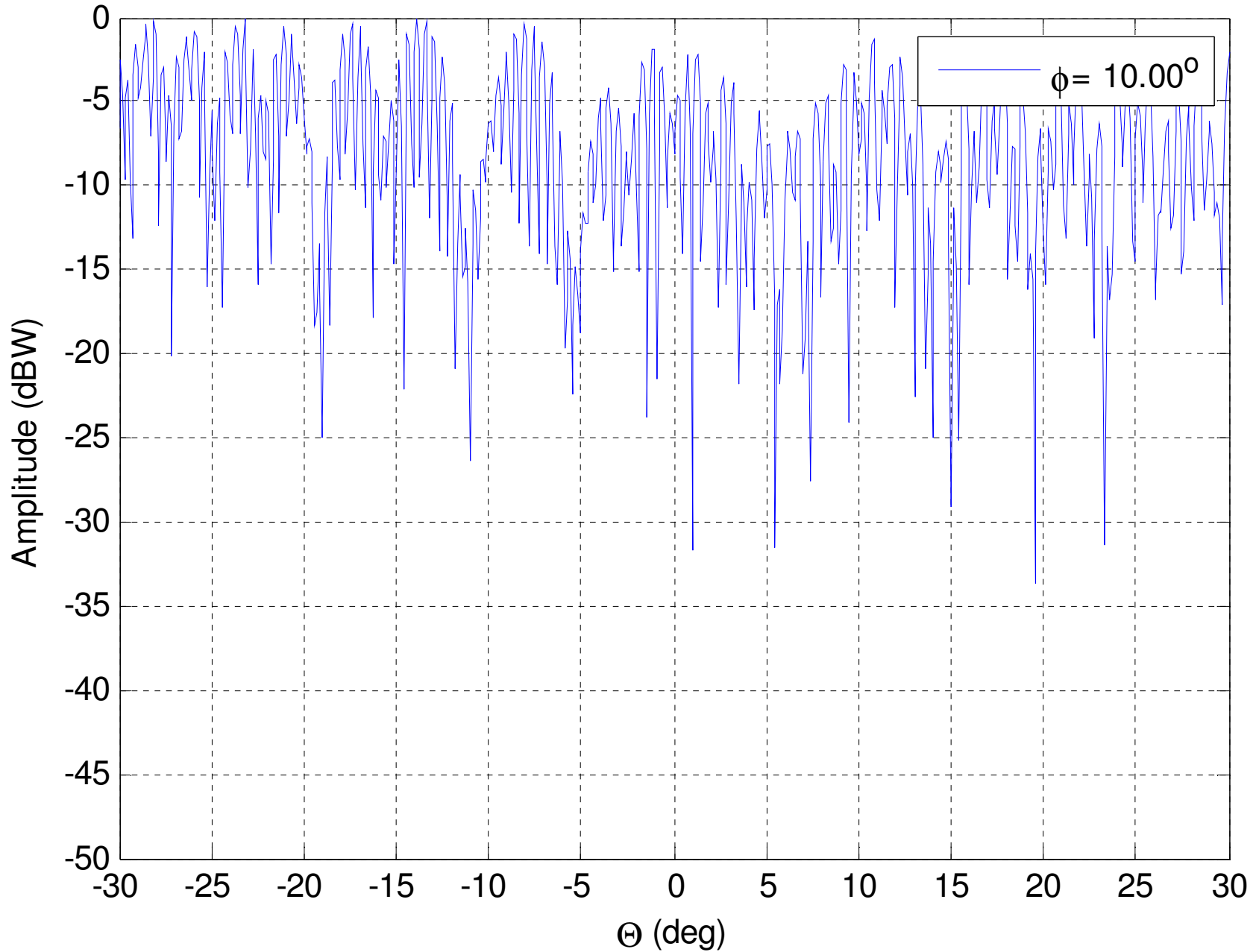
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: -7.39 dBW, Date: 15-Dec-2011



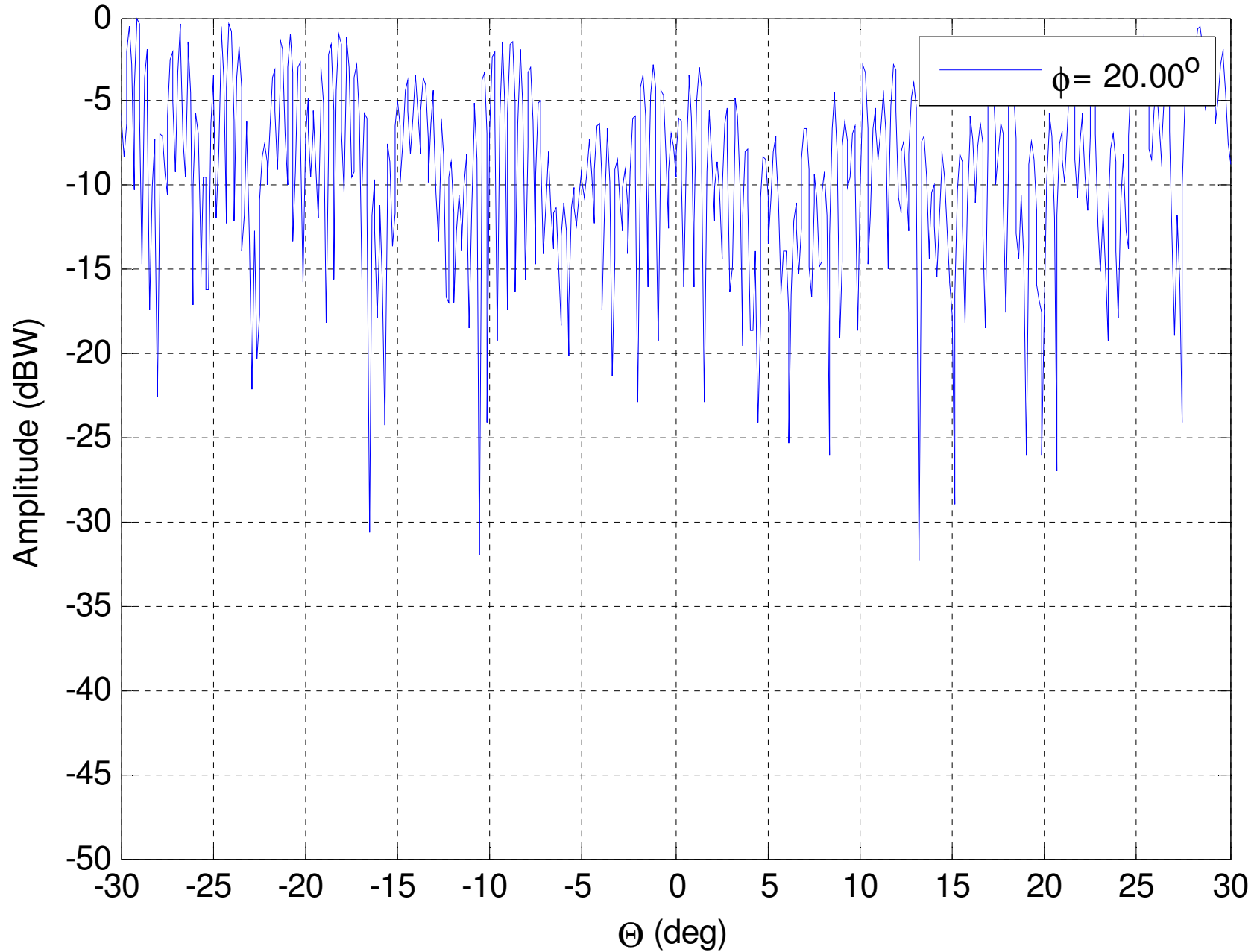
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: -8.14 dBW, Date: 15-Dec-2011



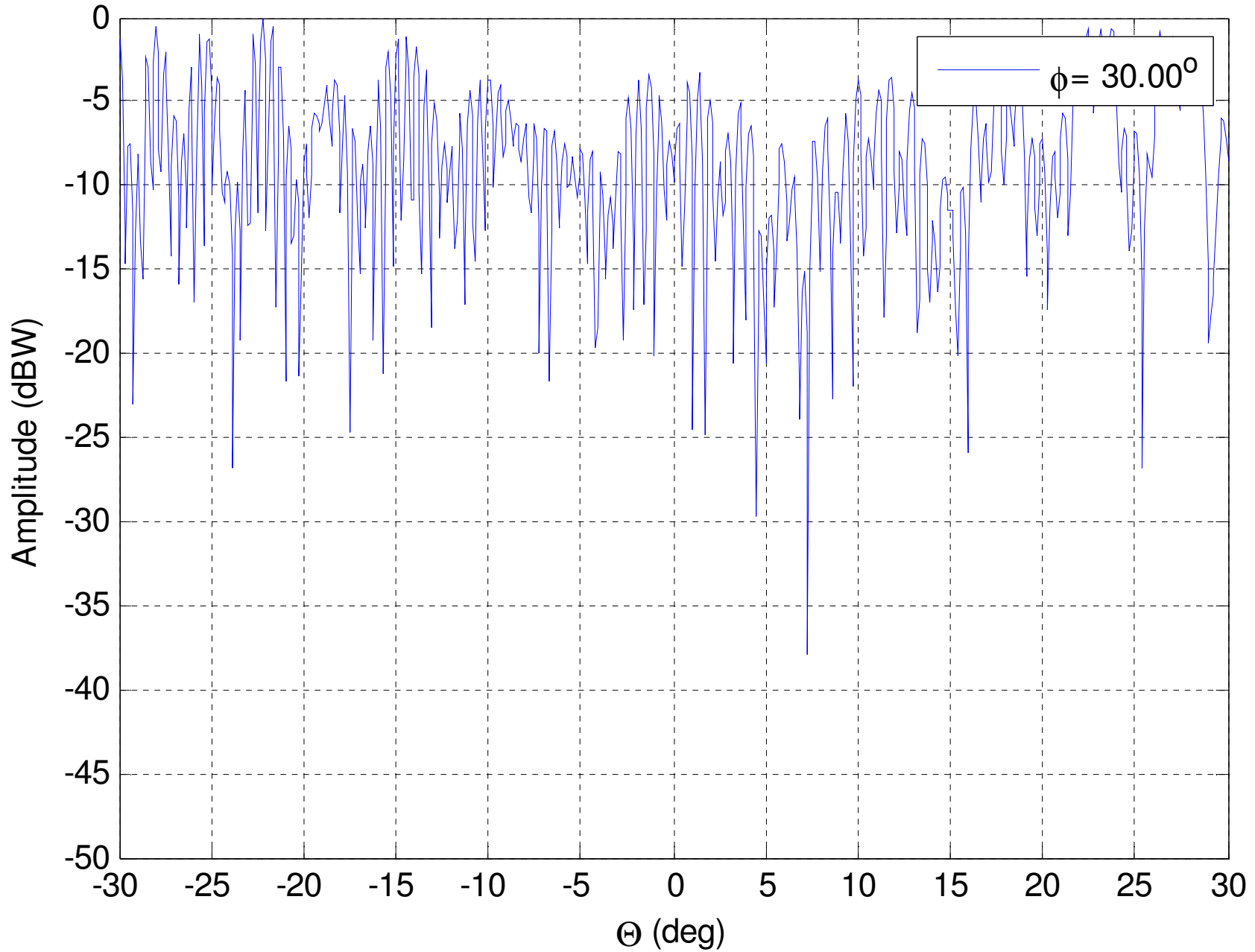
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: -6.91 dBW, Date: 15-Dec-2011



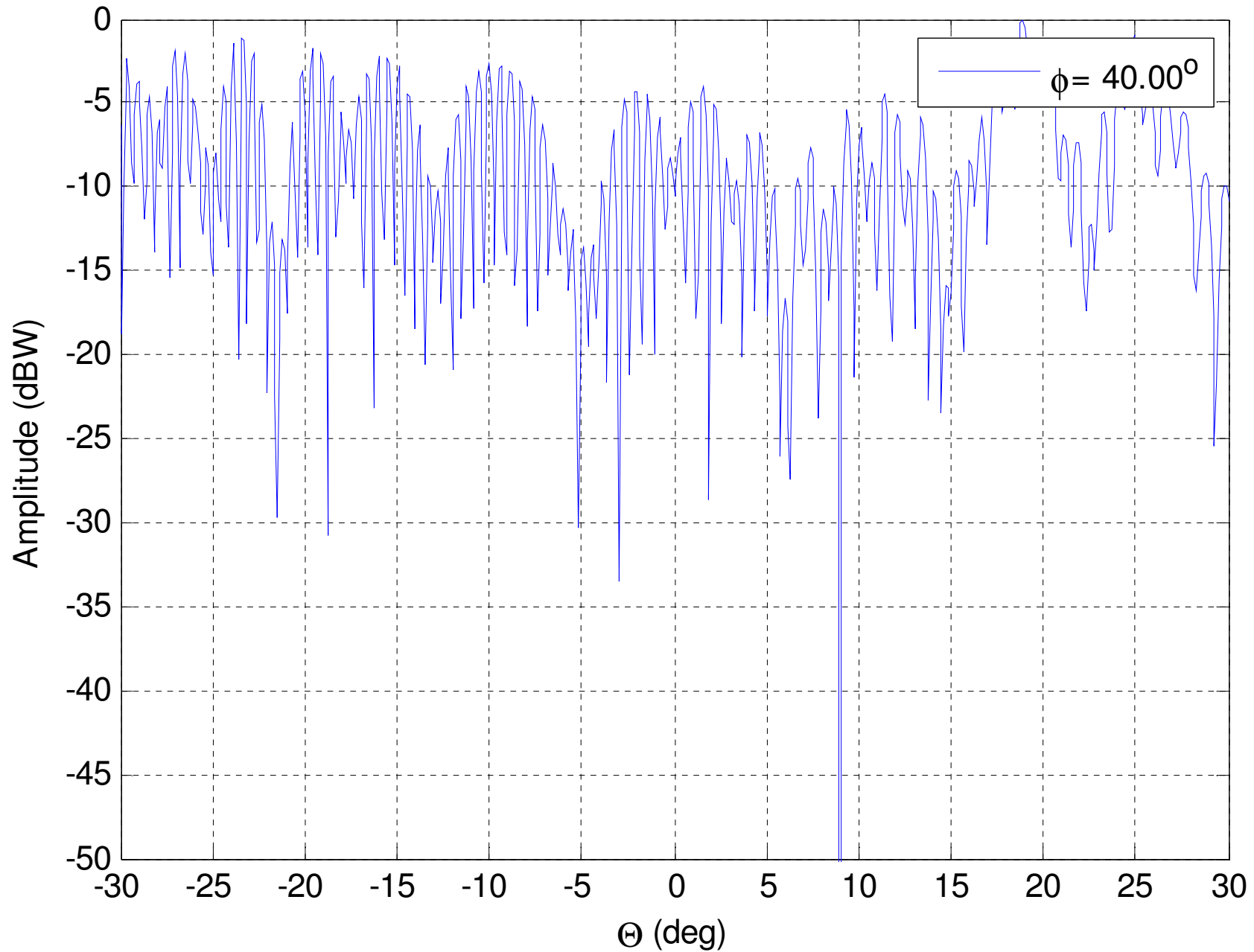
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: -6.55 dBW, Date: 15-Dec-2011



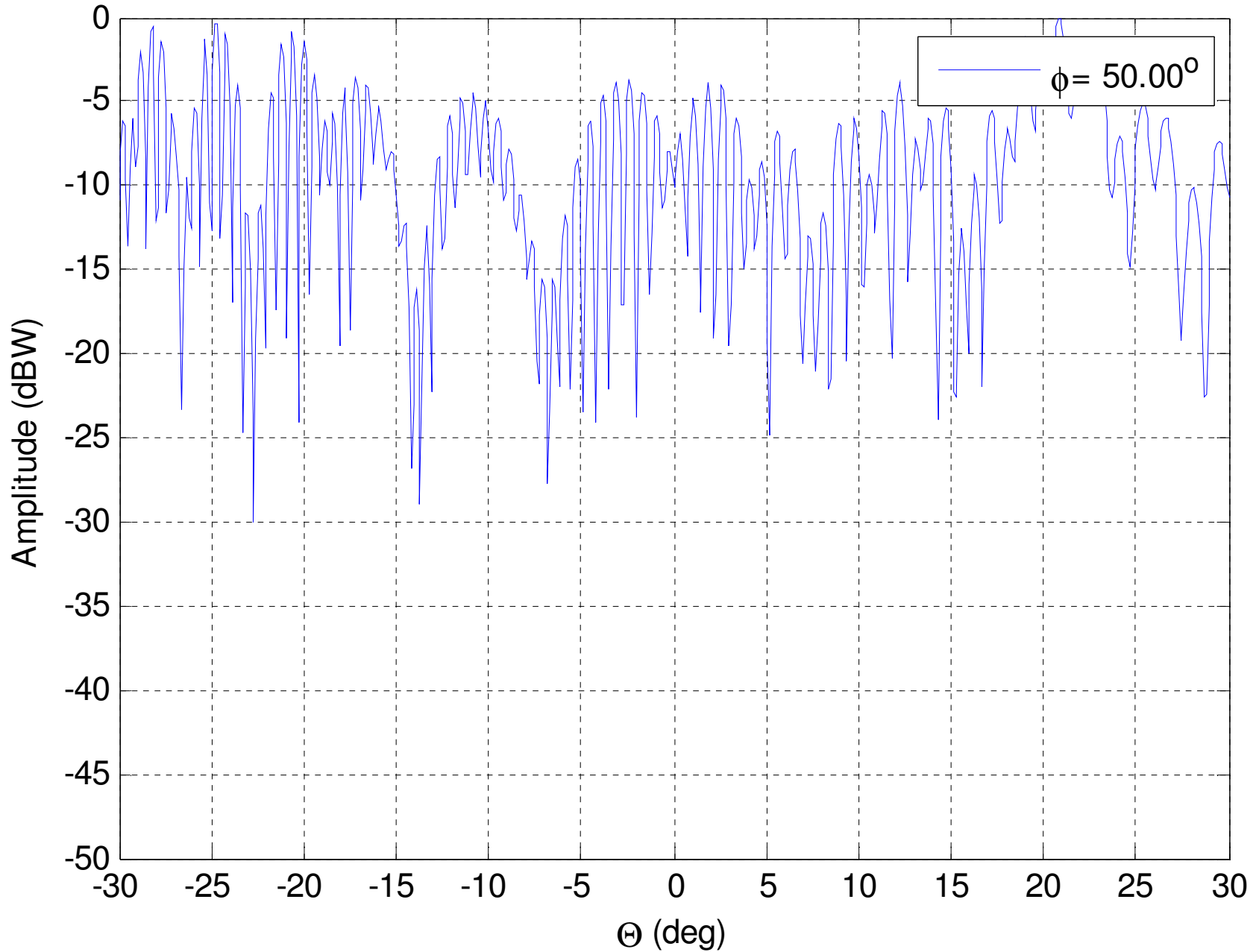
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -5.75 dBW, Date: 15-Dec-2011



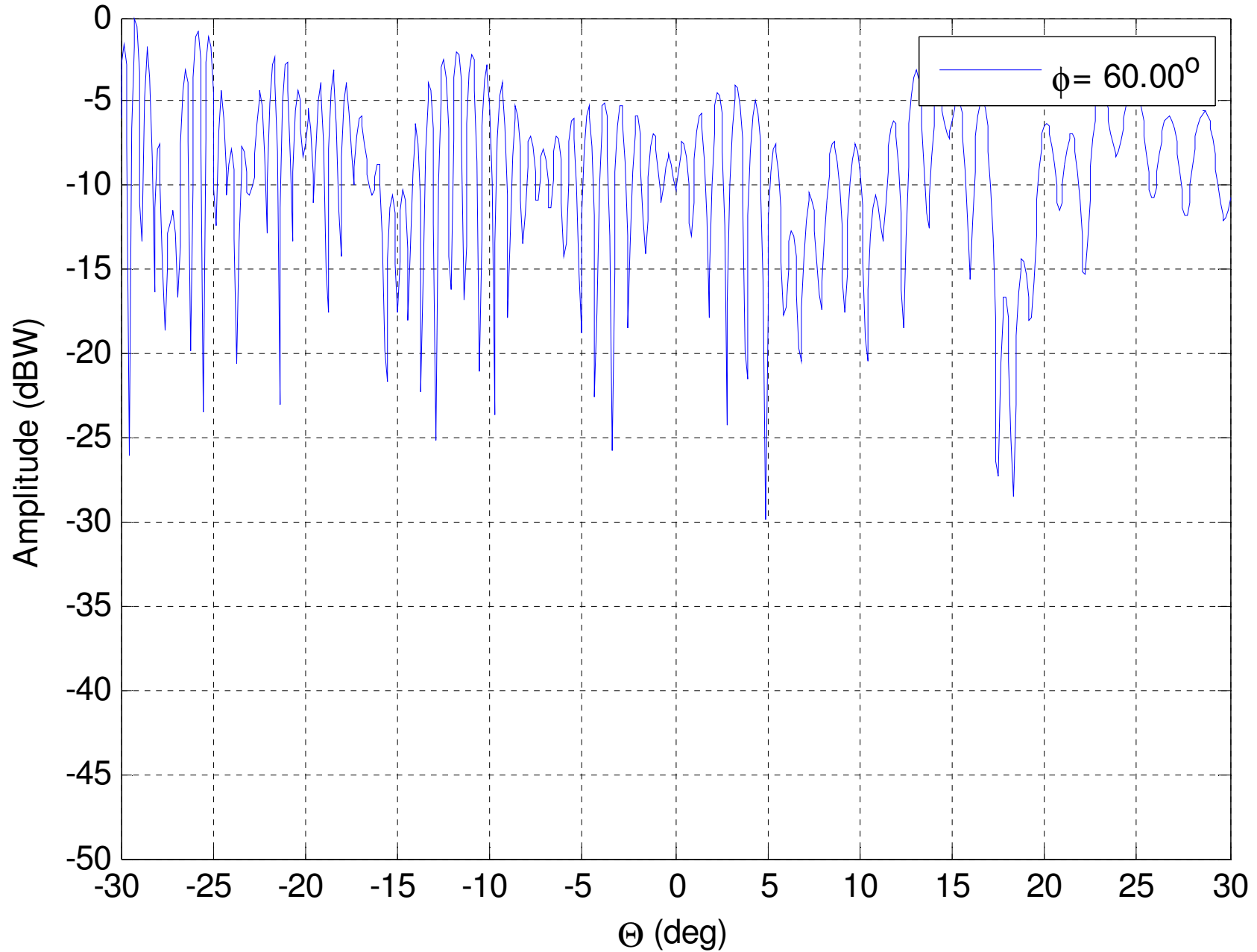
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -6.26 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

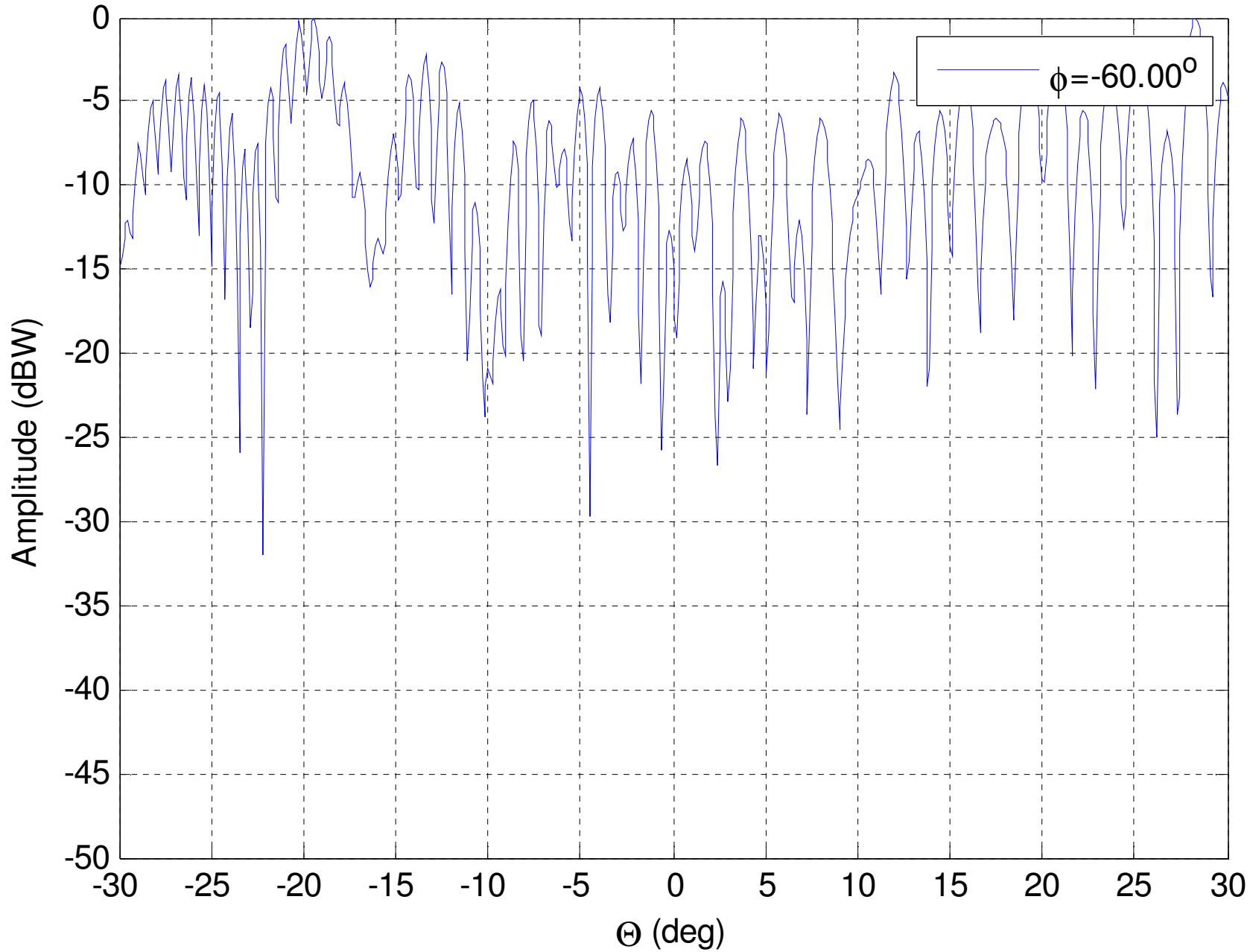
Input file: tx-17.3-rhcp-60.cut, Peak: -6.05 dBW, Date: 15-Dec-2011



RHCP at 17.5 GHz

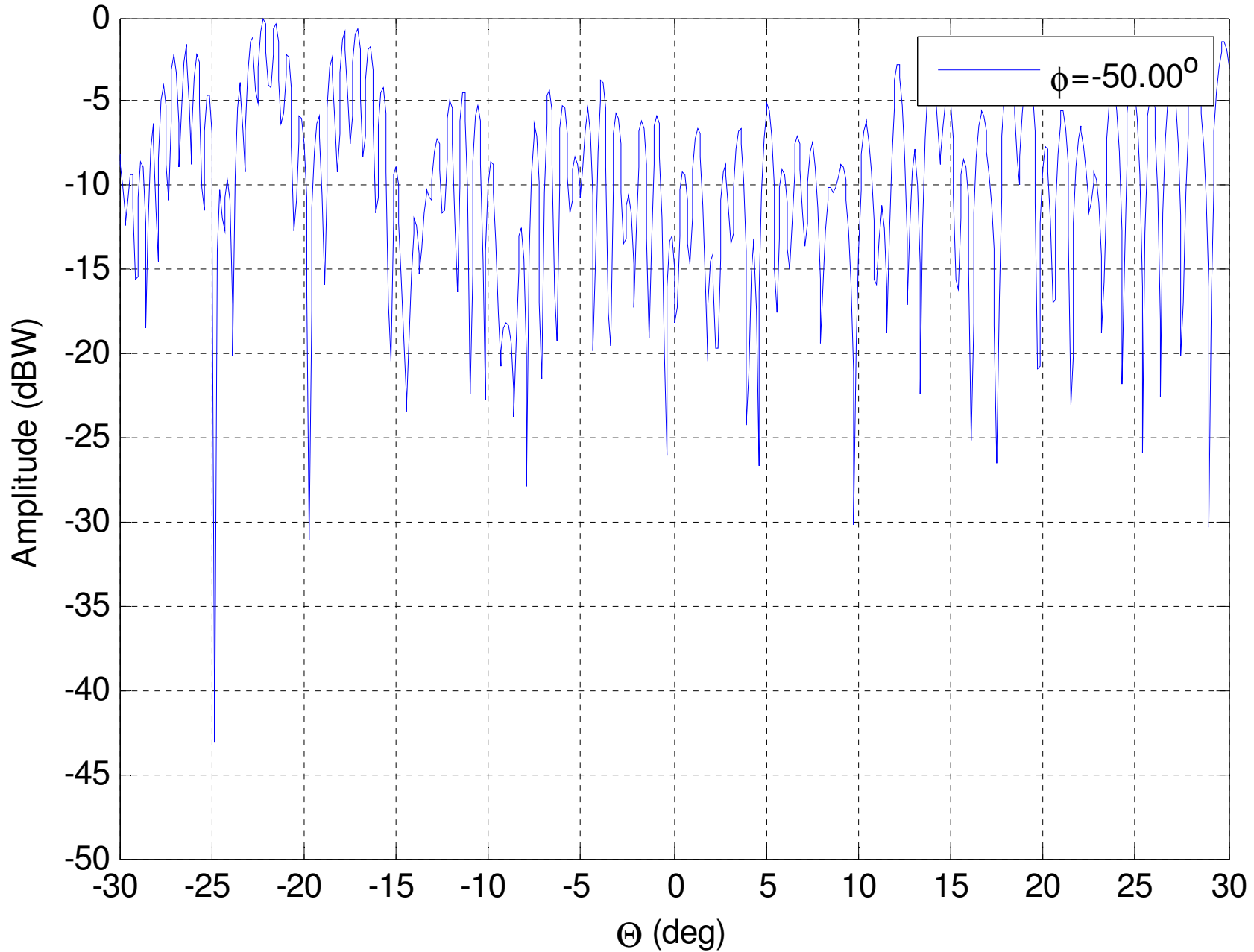
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -5.69 dBW, Date: 15-Dec-2011



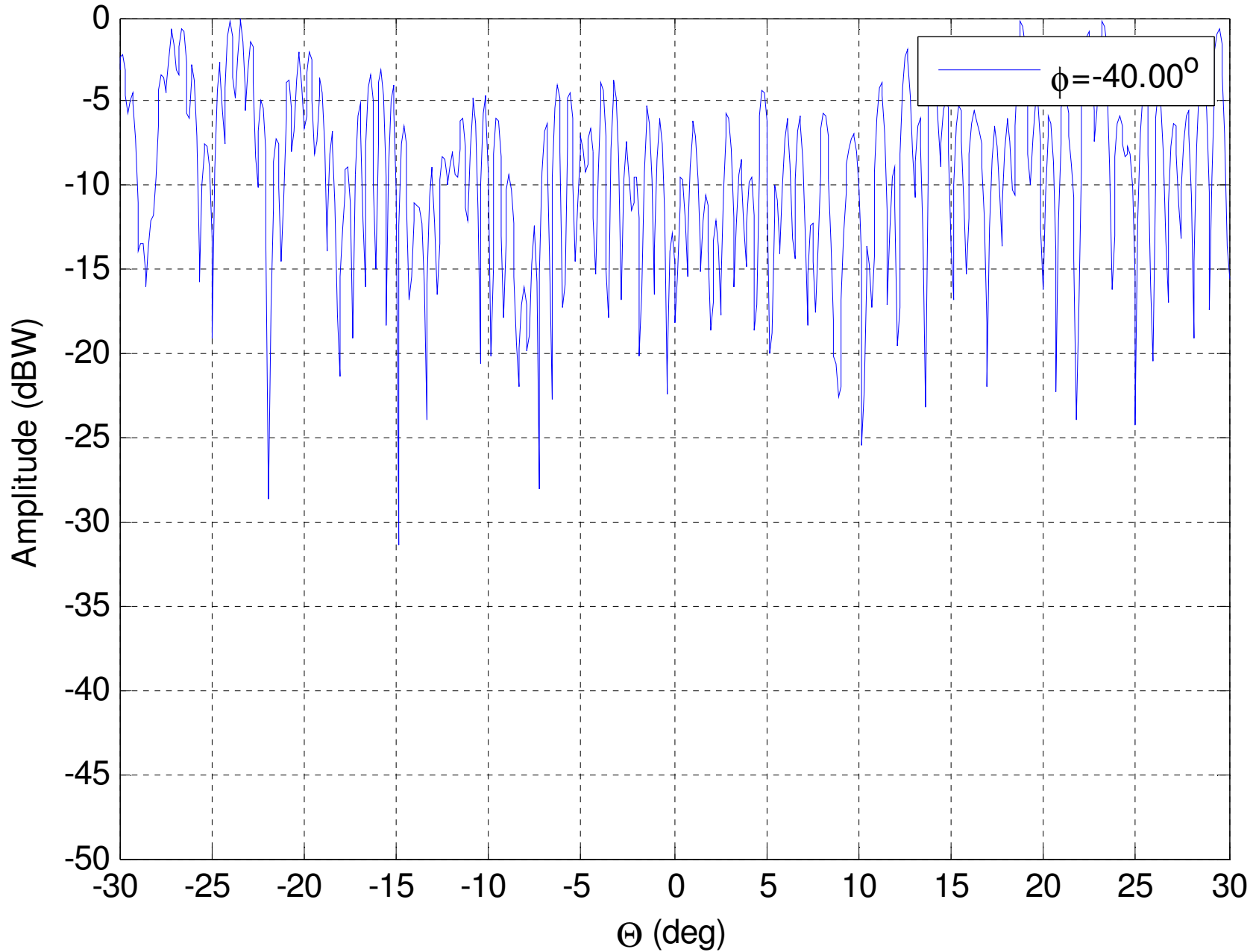
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -5.79 dBW, Date: 15-Dec-2011



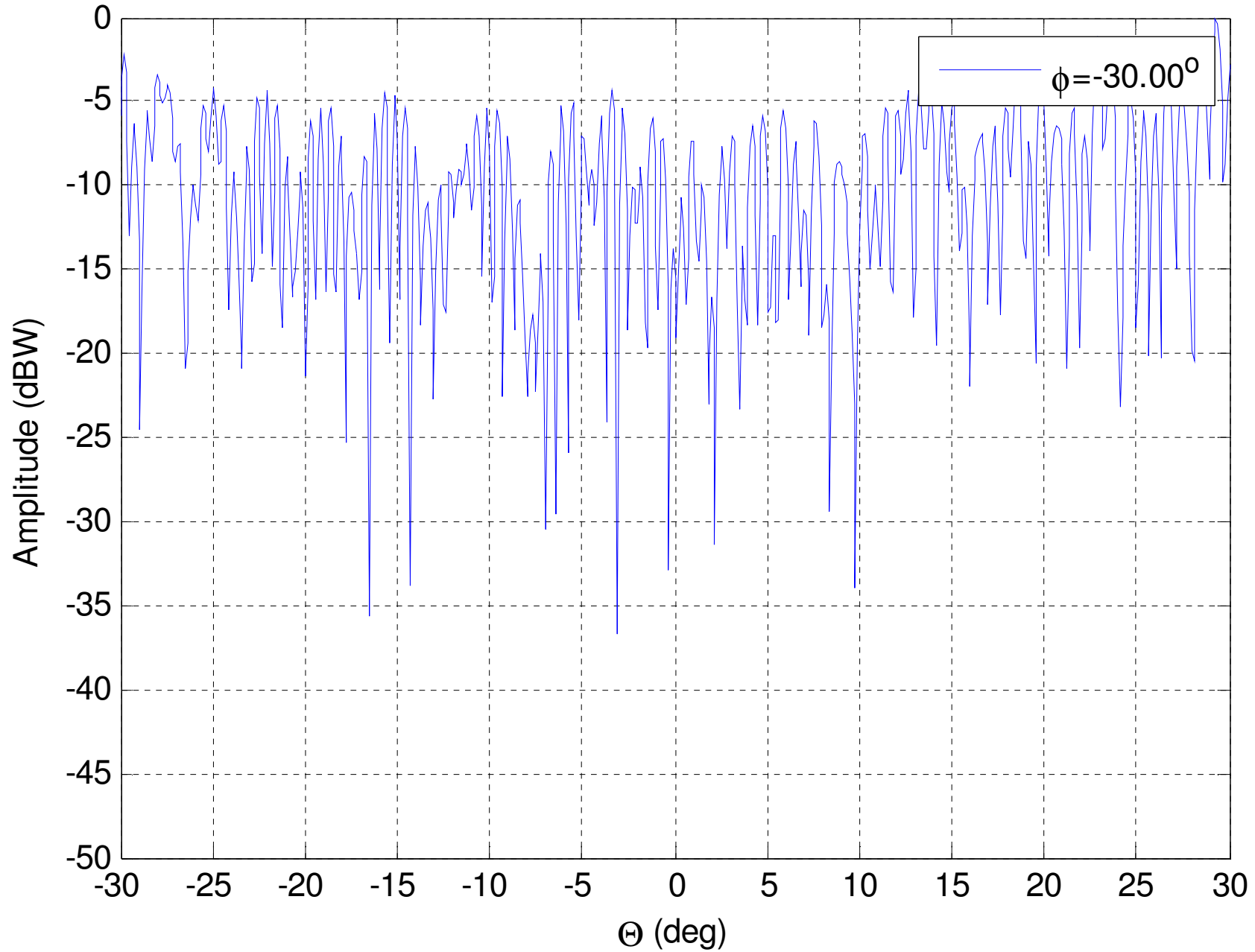
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -6.07 dBW, Date: 15-Dec-2011



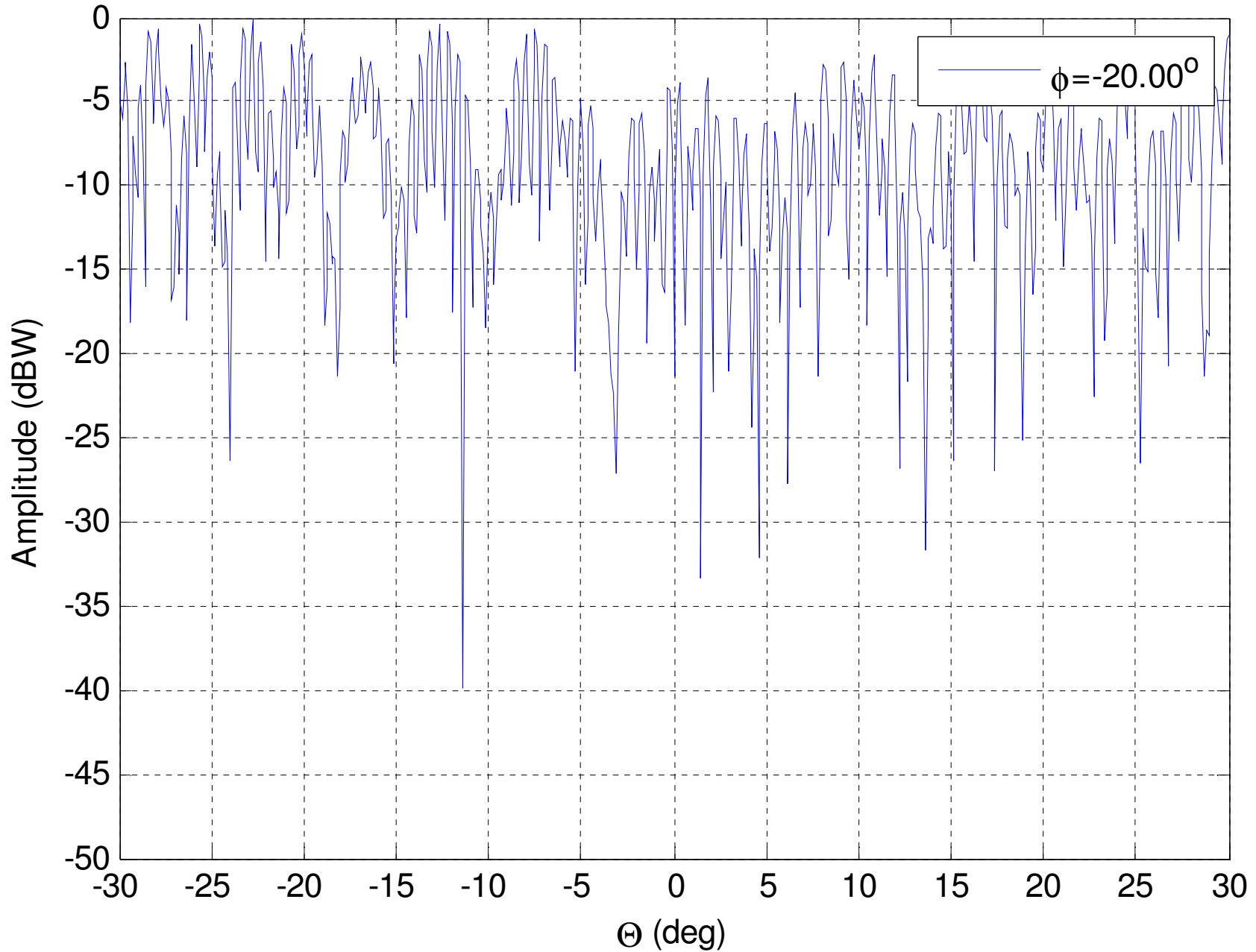
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -5.13 dBW, Date: 15-Dec-2011



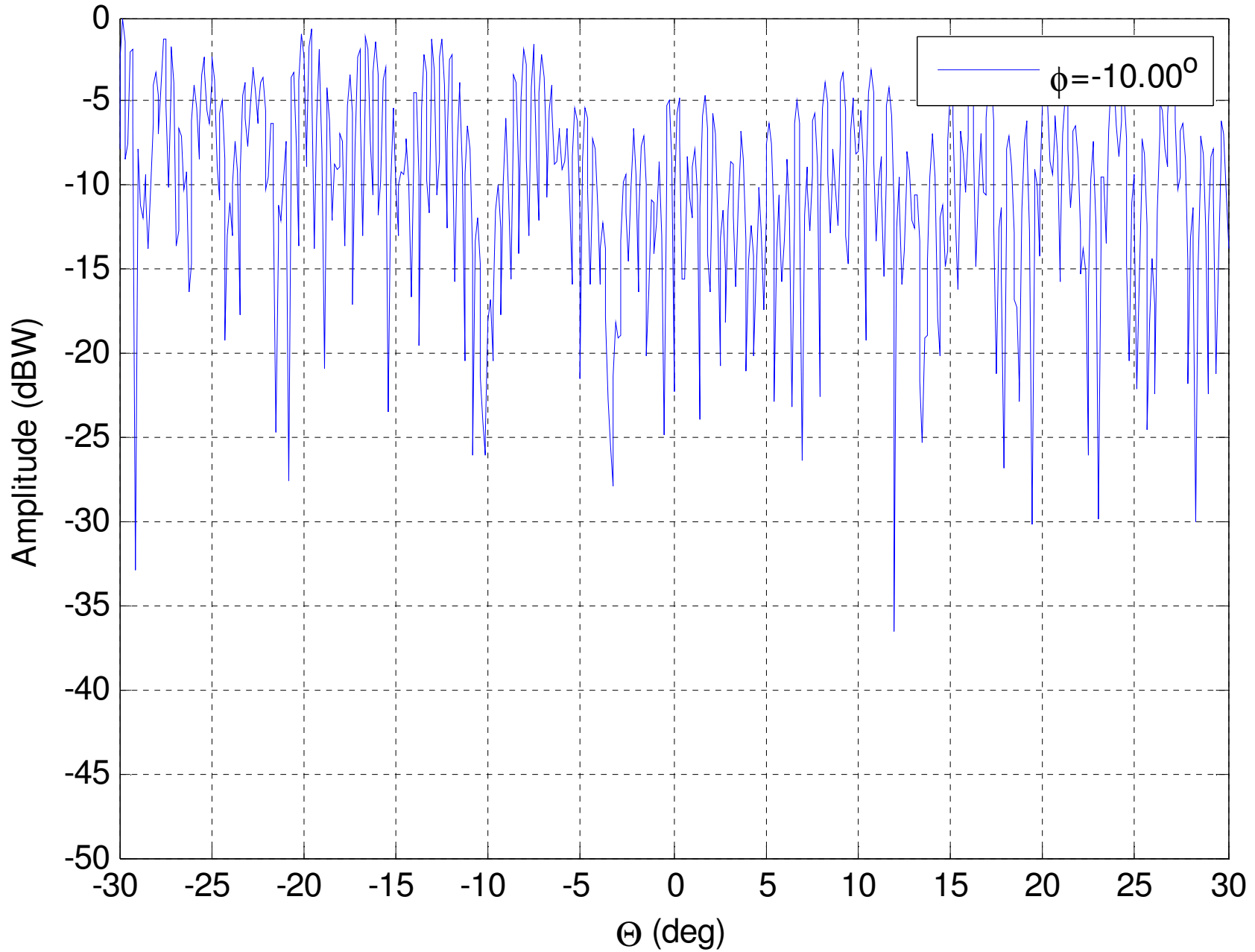
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: -7.92 dBW, Date: 15-Dec-2011



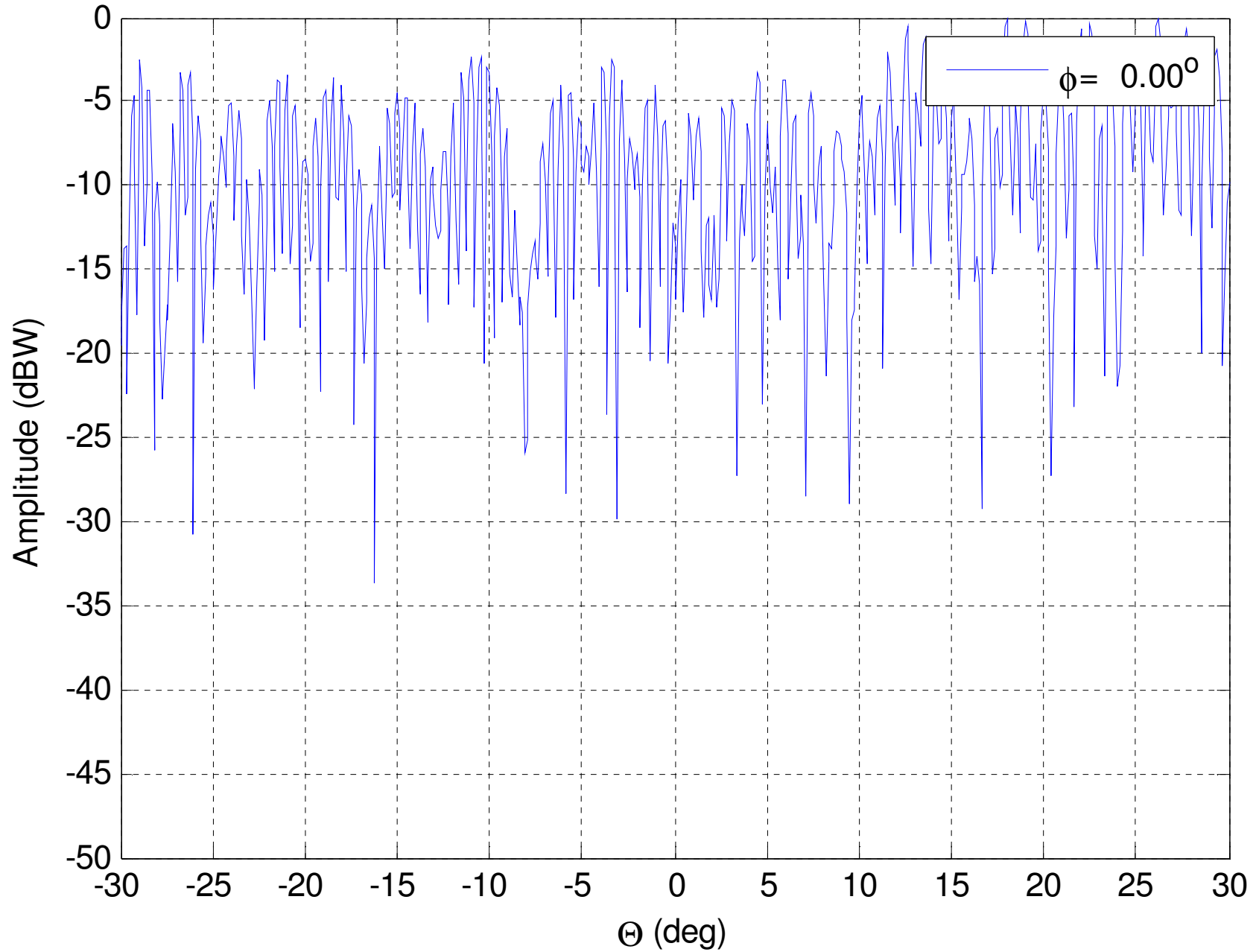
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: -7.02 dBW, Date: 15-Dec-2011



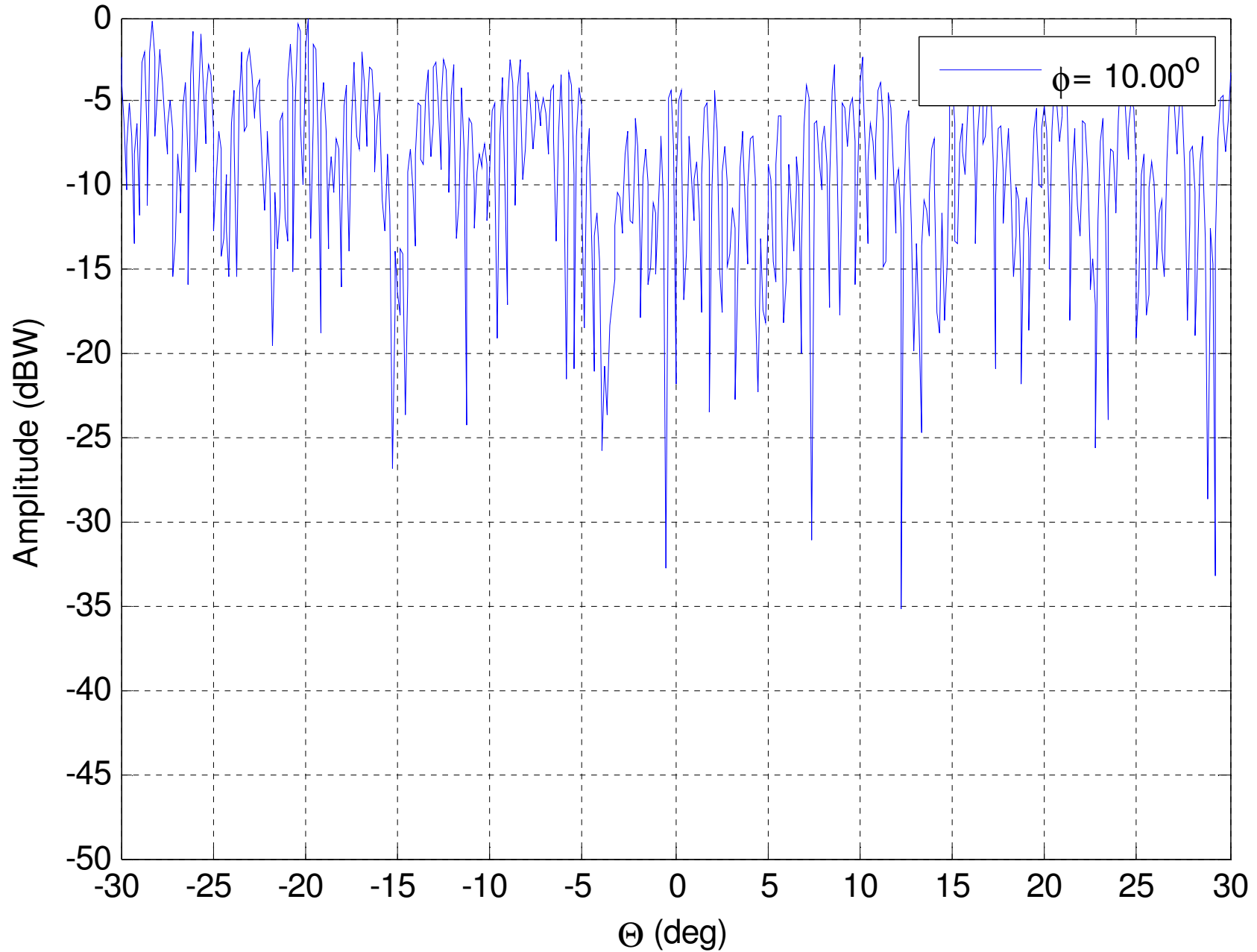
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: -7.04 dBW, Date: 15-Dec-2011



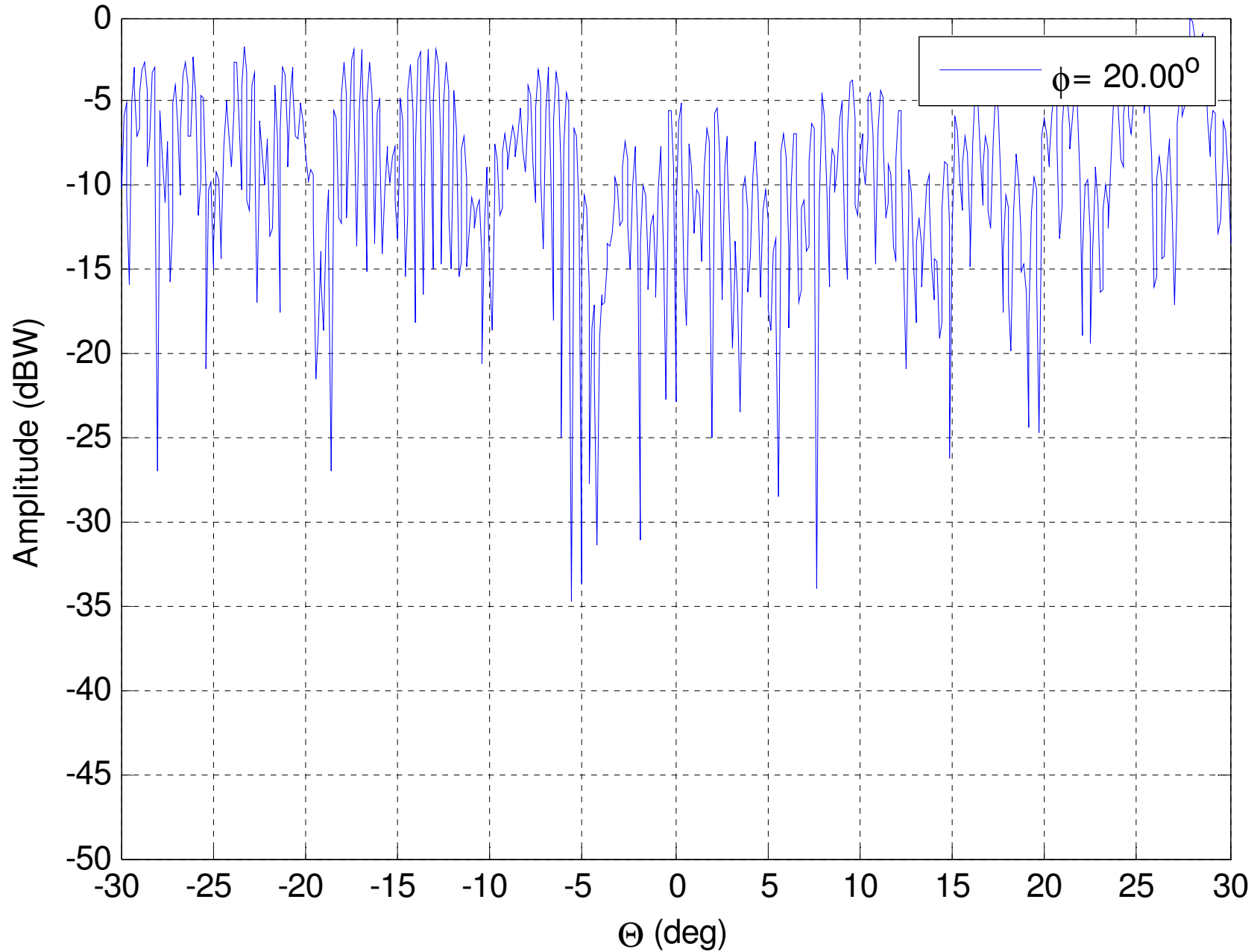
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: -7.51 dBW, Date: 15-Dec-2011



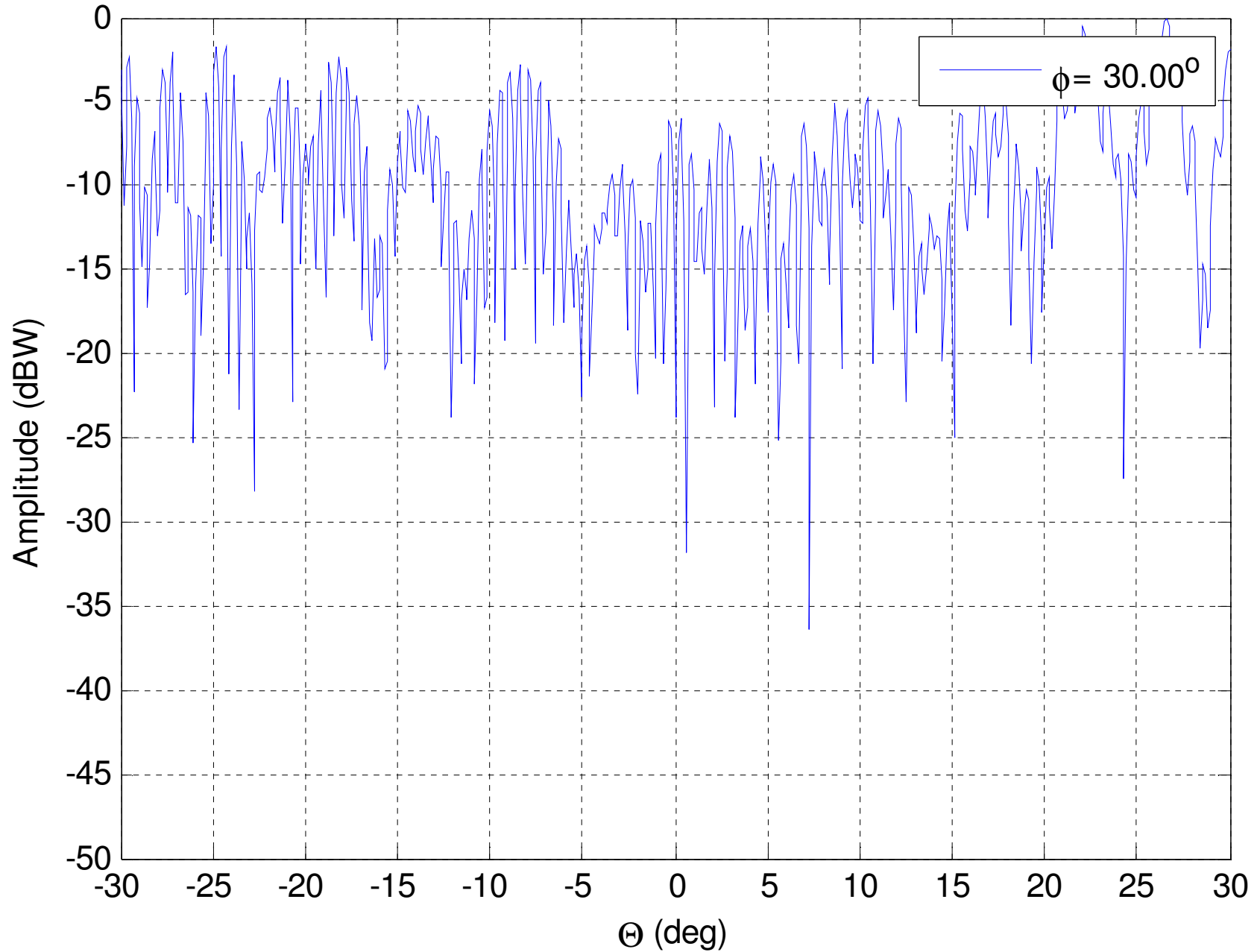
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: -6.50 dBW, Date: 15-Dec-2011



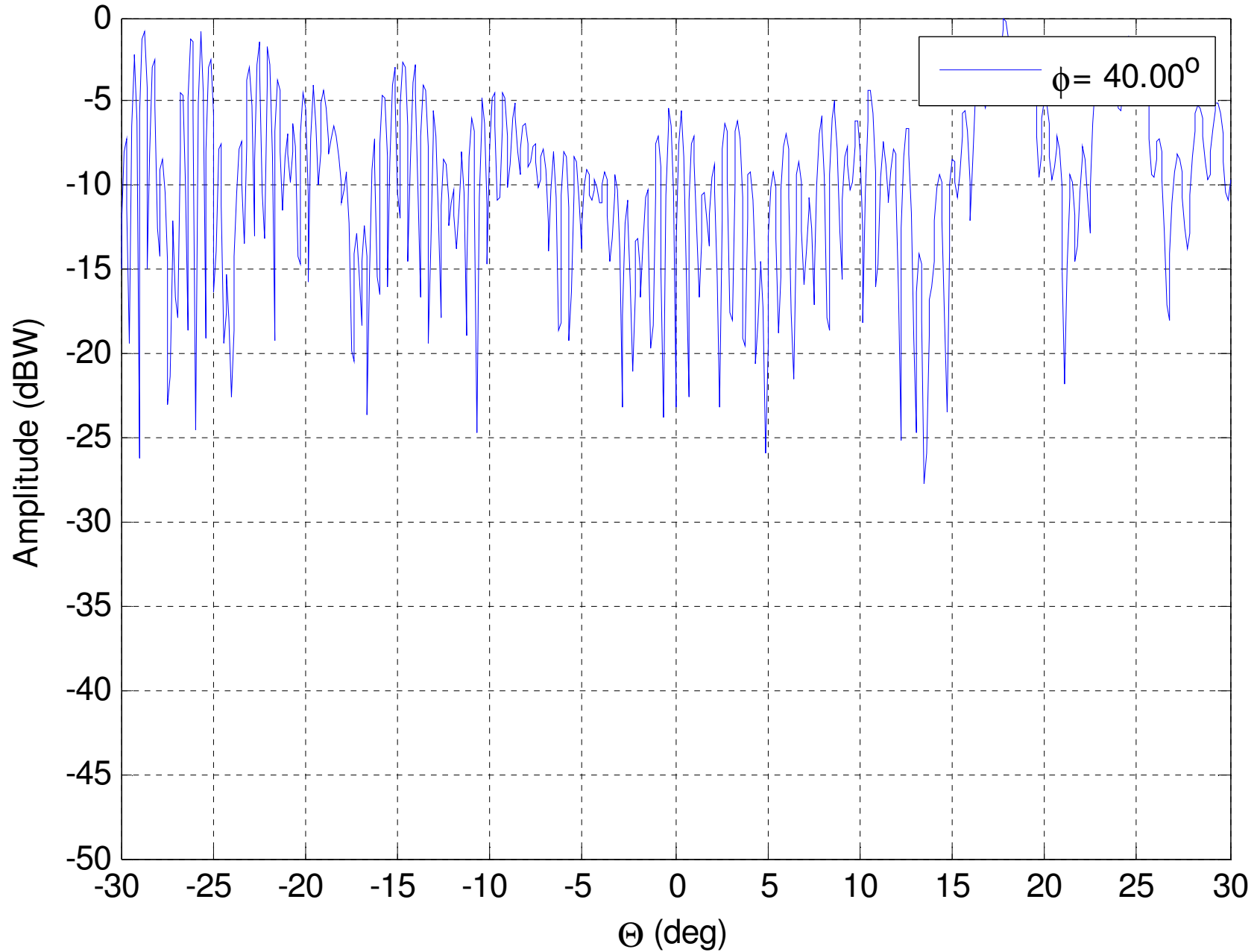
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: -5.56 dBW, Date: 15-Dec-2011



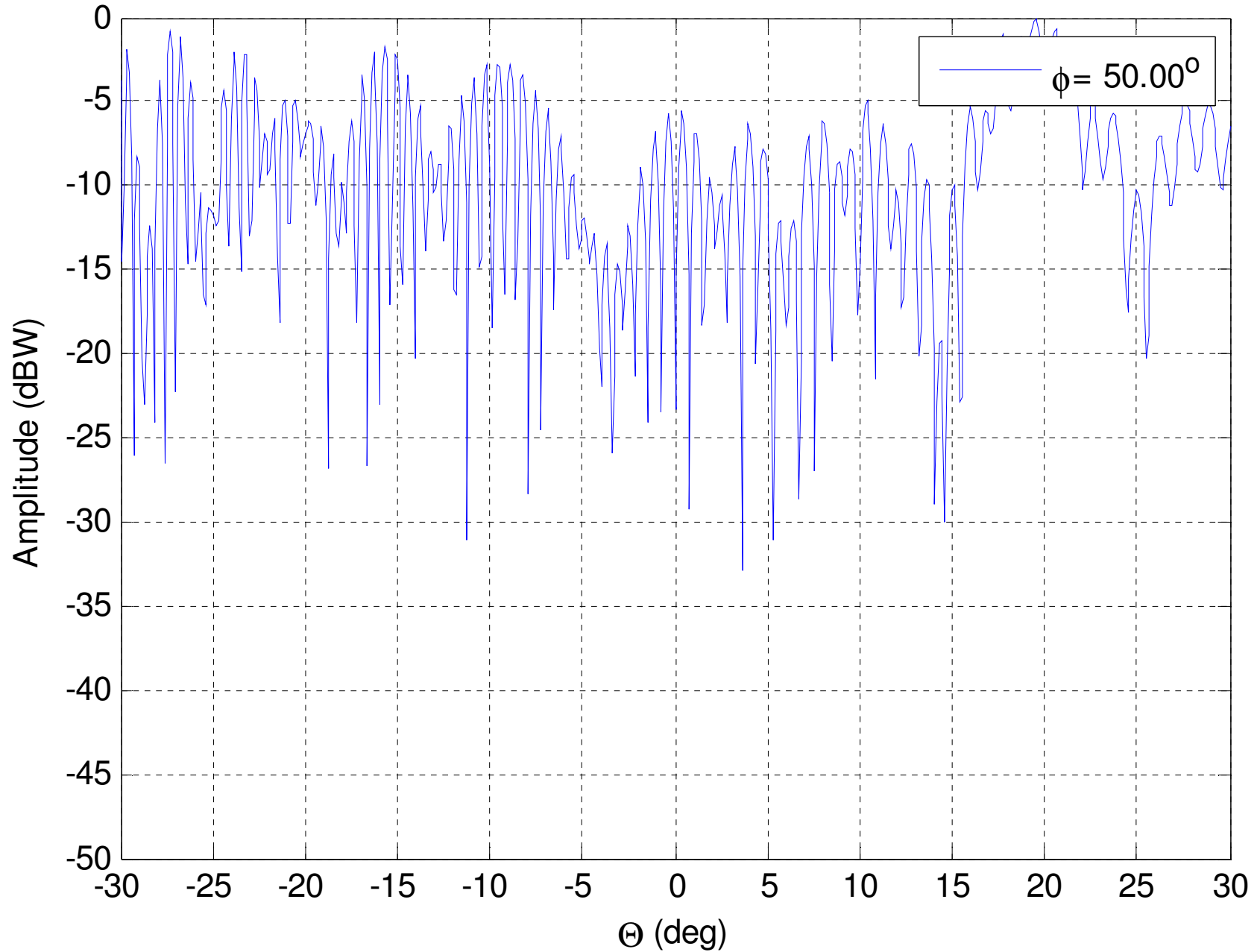
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -6.14 dBW, Date: 15-Dec-2011



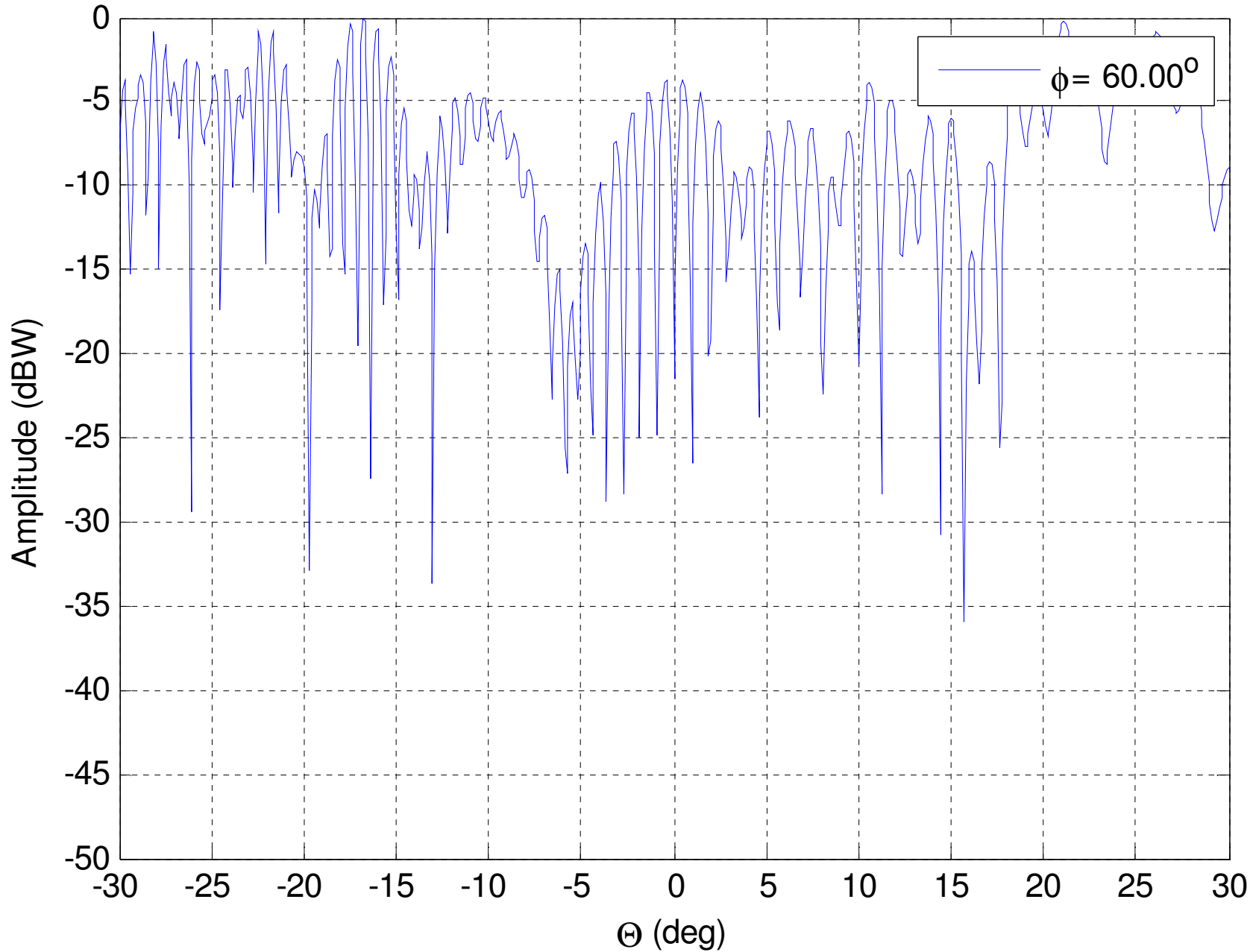
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -5.94 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

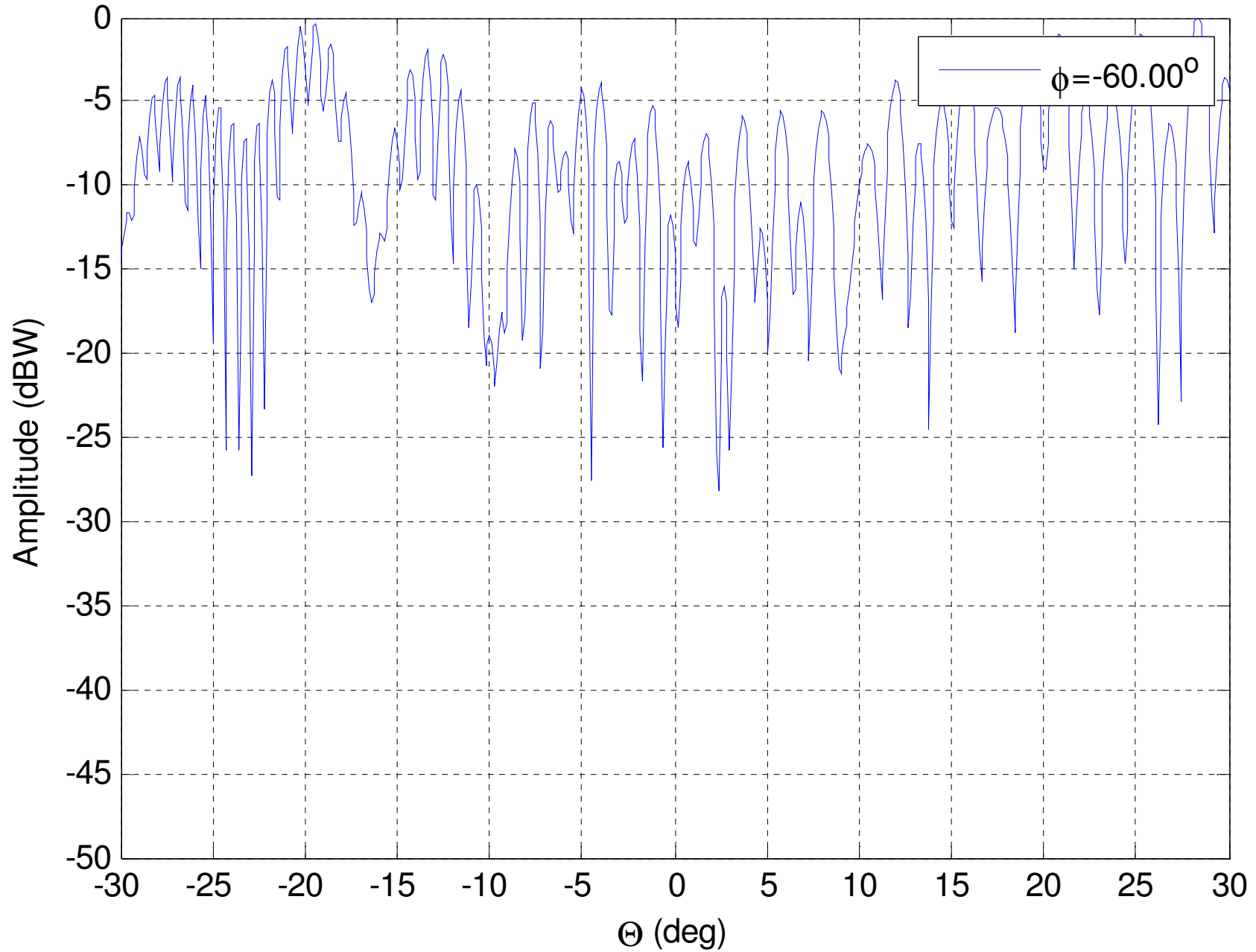
Input file: tx-17.5-rhcp-60.cut, Peak: -7.73 dBW, Date: 15-Dec-2011



LHCP at 17.5 GHz

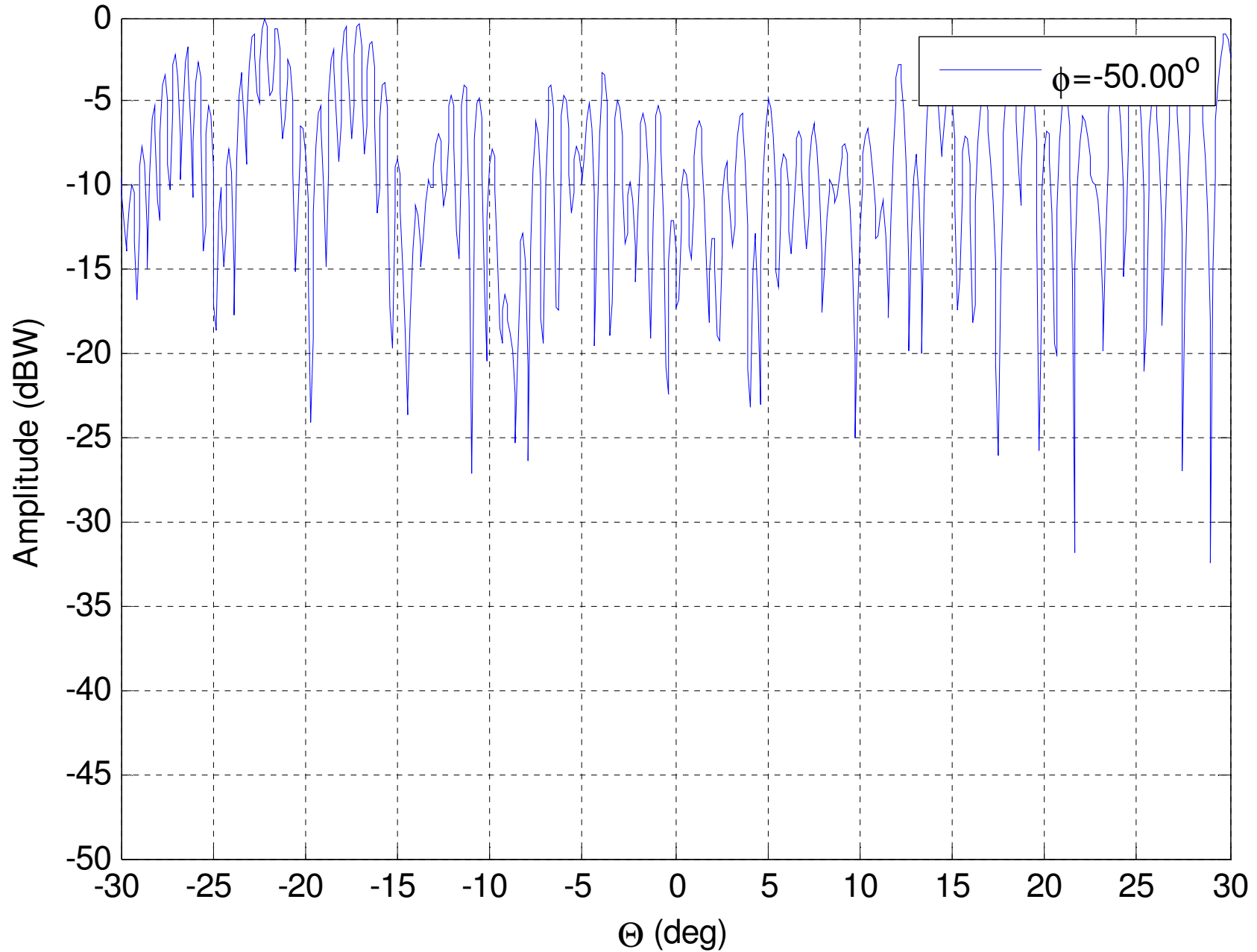
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -5.79 dBW, Date: 15-Dec-2011



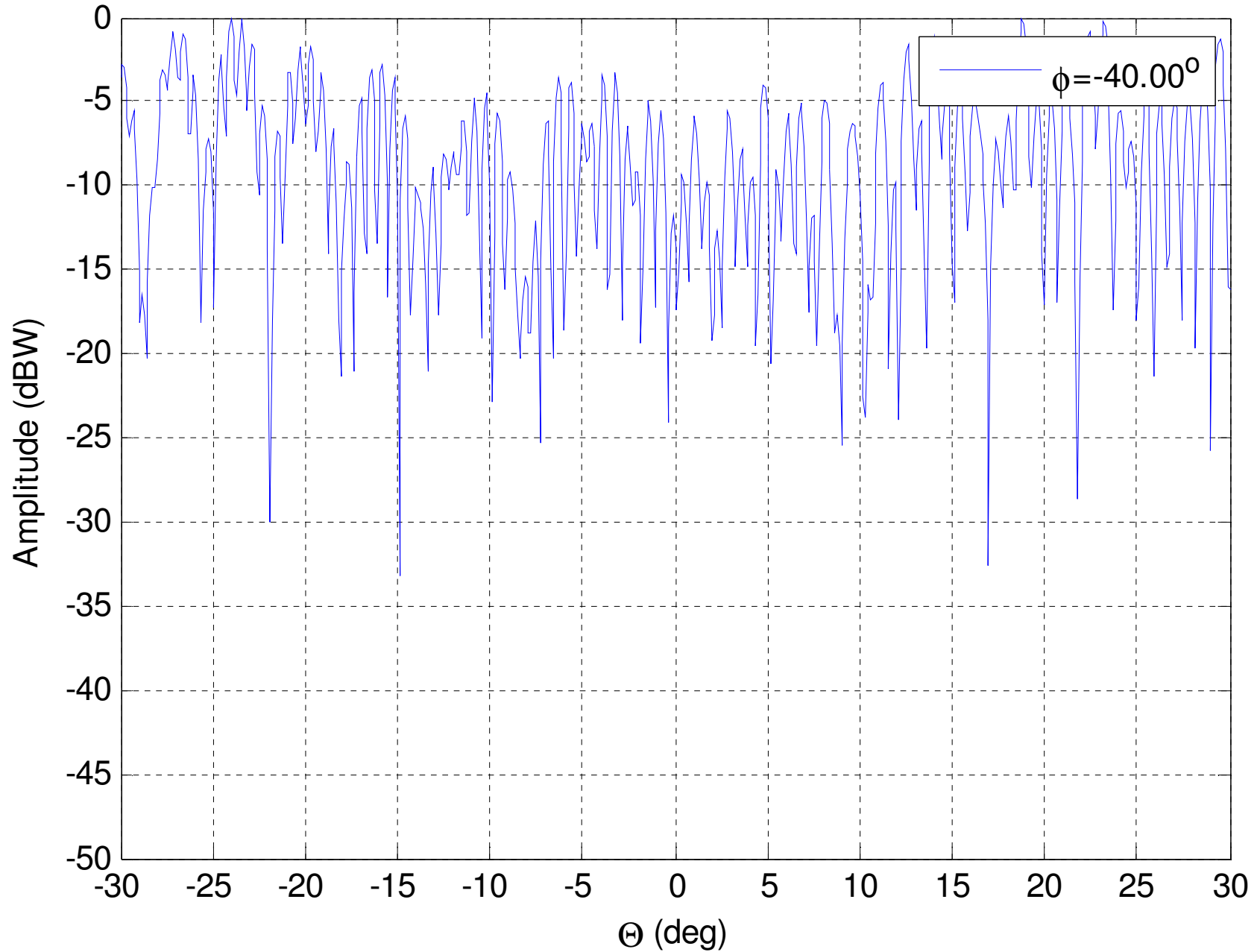
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -6.13 dBW, Date: 15-Dec-2011



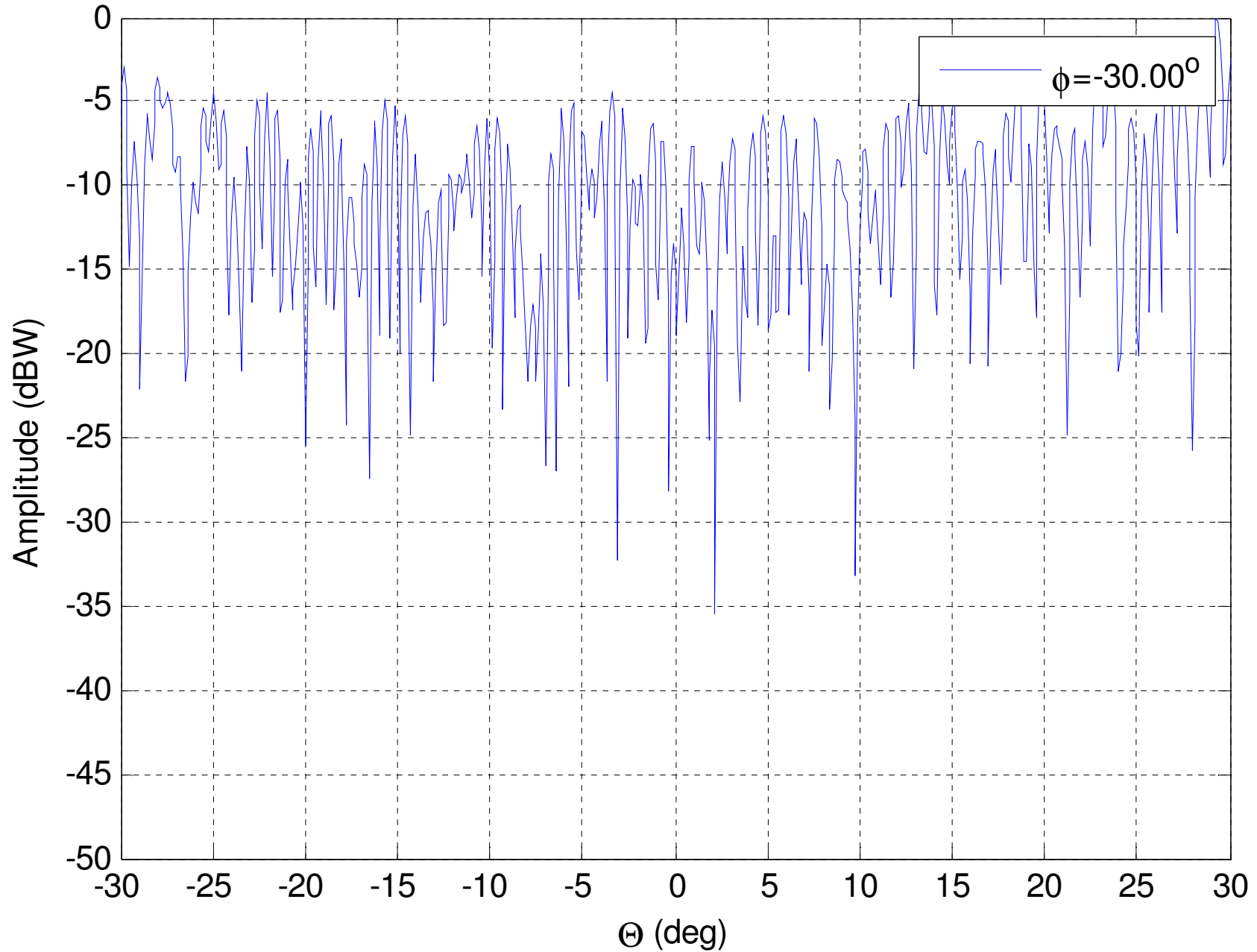
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -6.34 dBW, Date: 15-Dec-2011



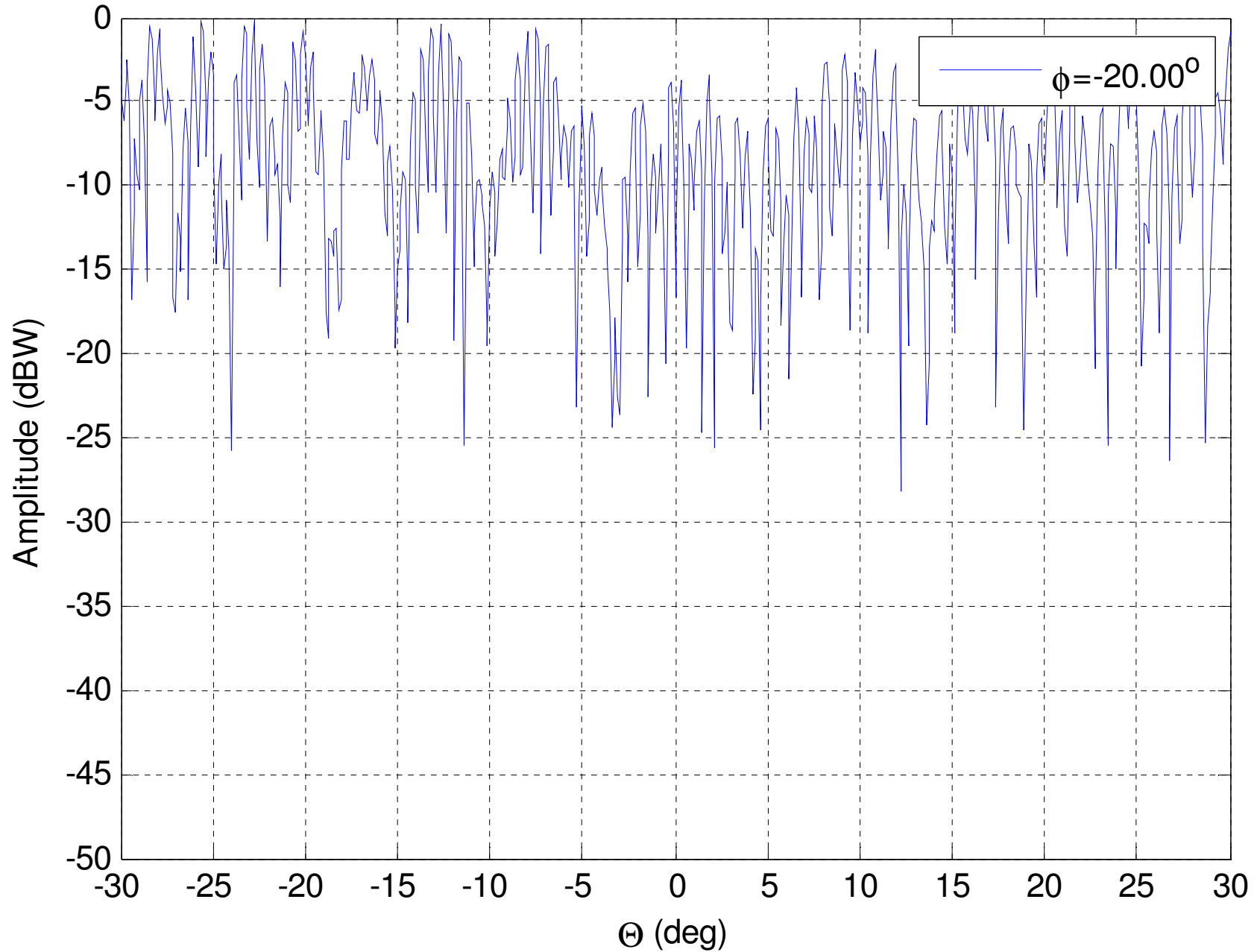
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: -4.80 dBW, Date: 15-Dec-2011



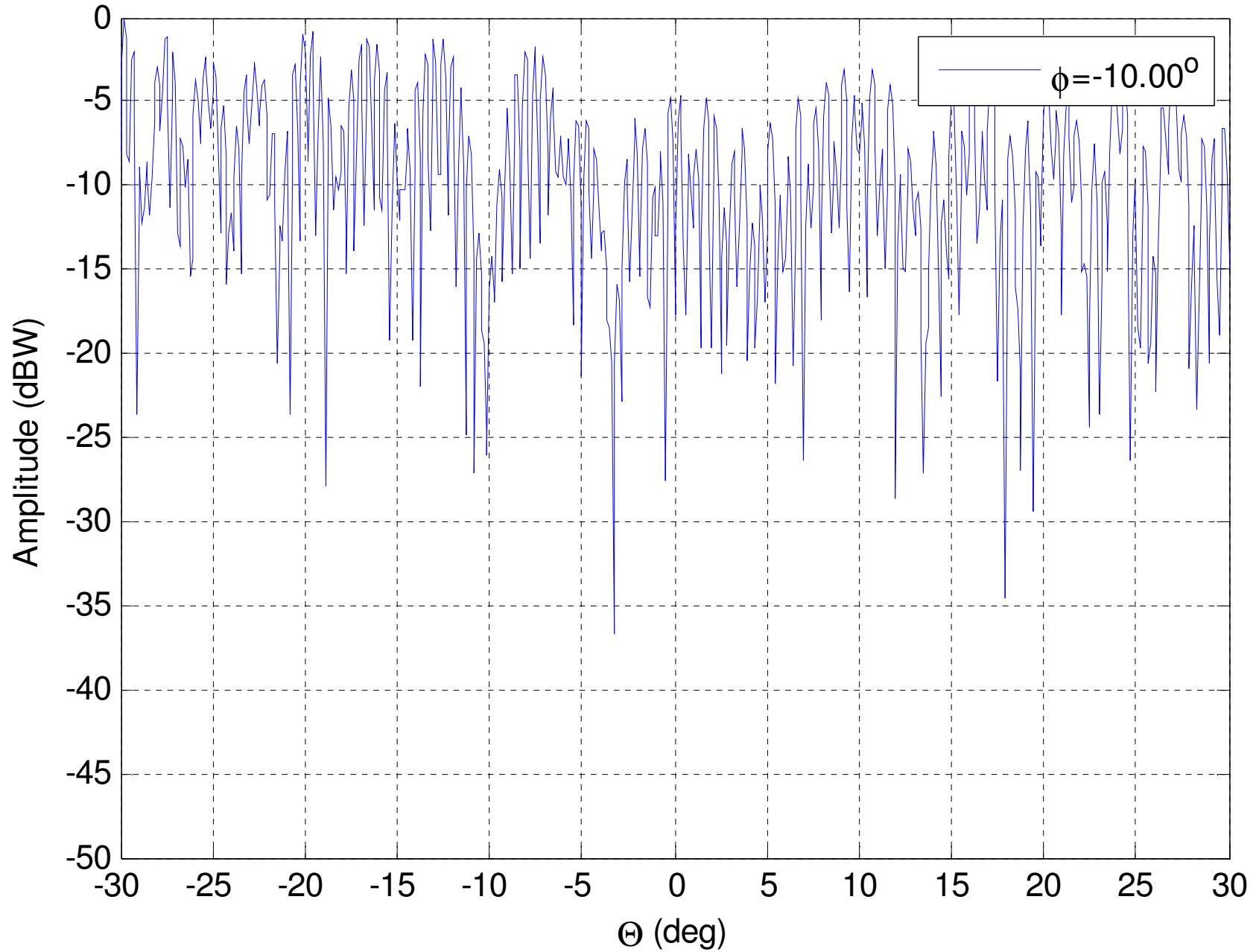
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: -8.02 dBW, Date: 15-Dec-2011



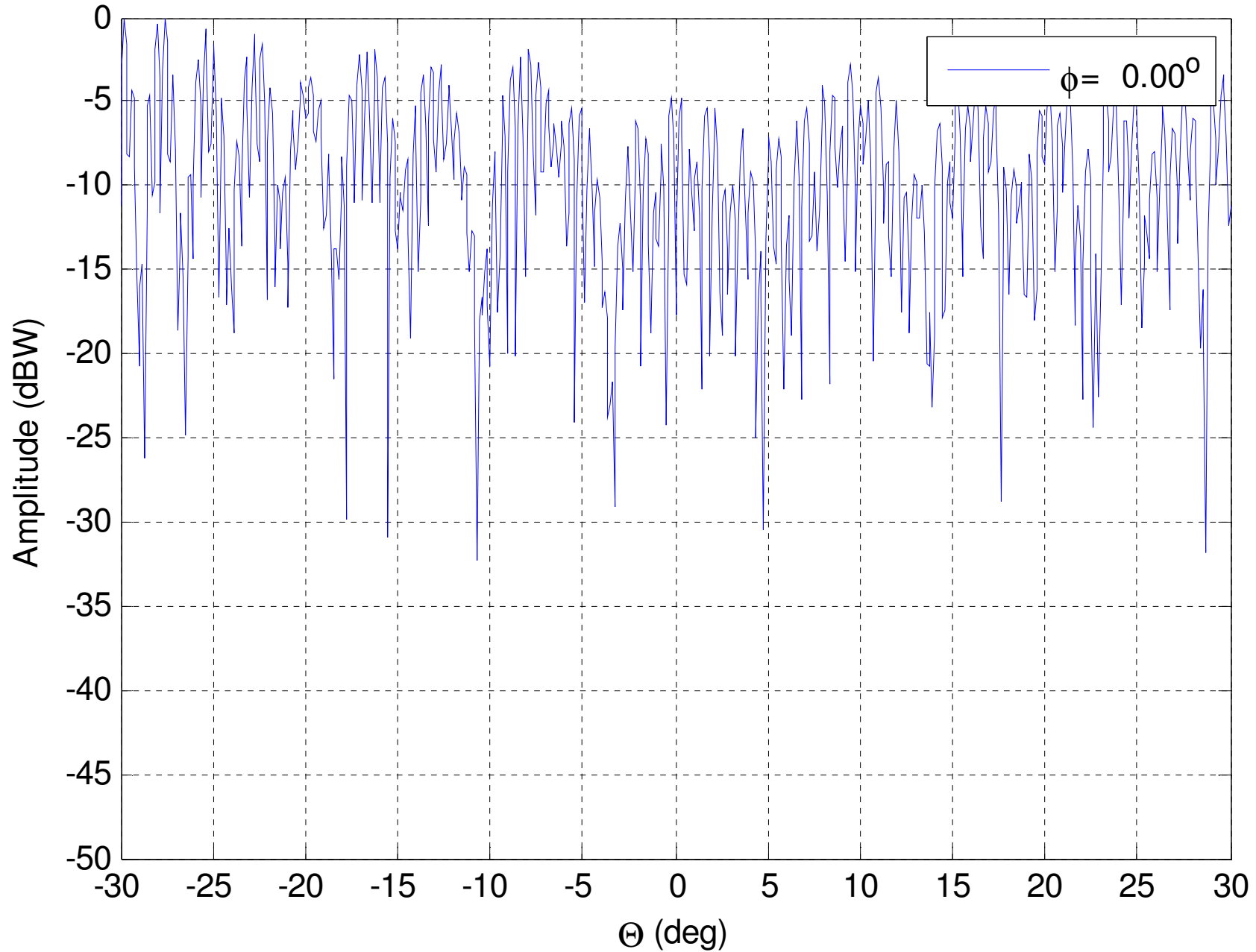
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: -6.93 dBW, Date: 15-Dec-2011



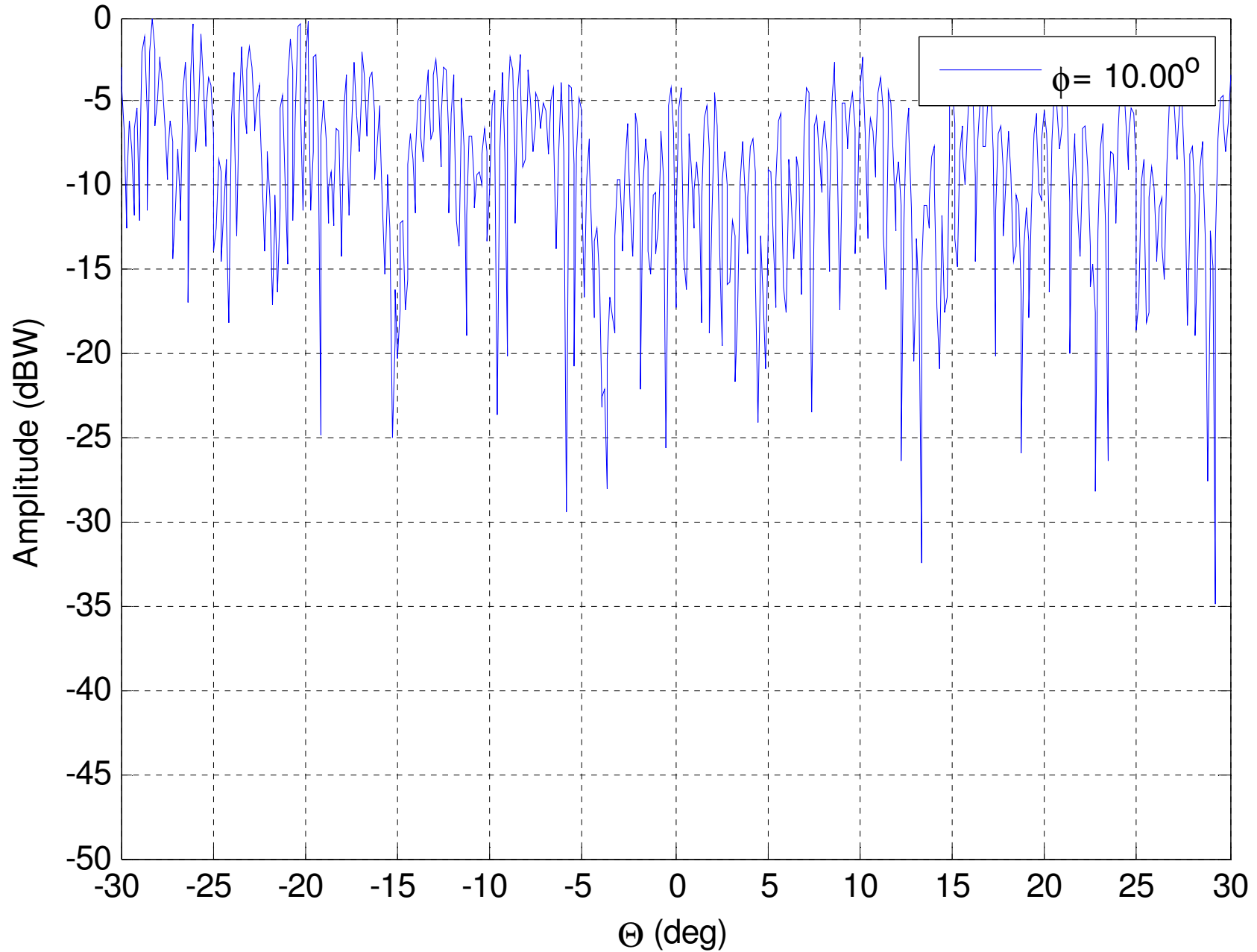
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: -6.89 dBW, Date: 15-Dec-2011



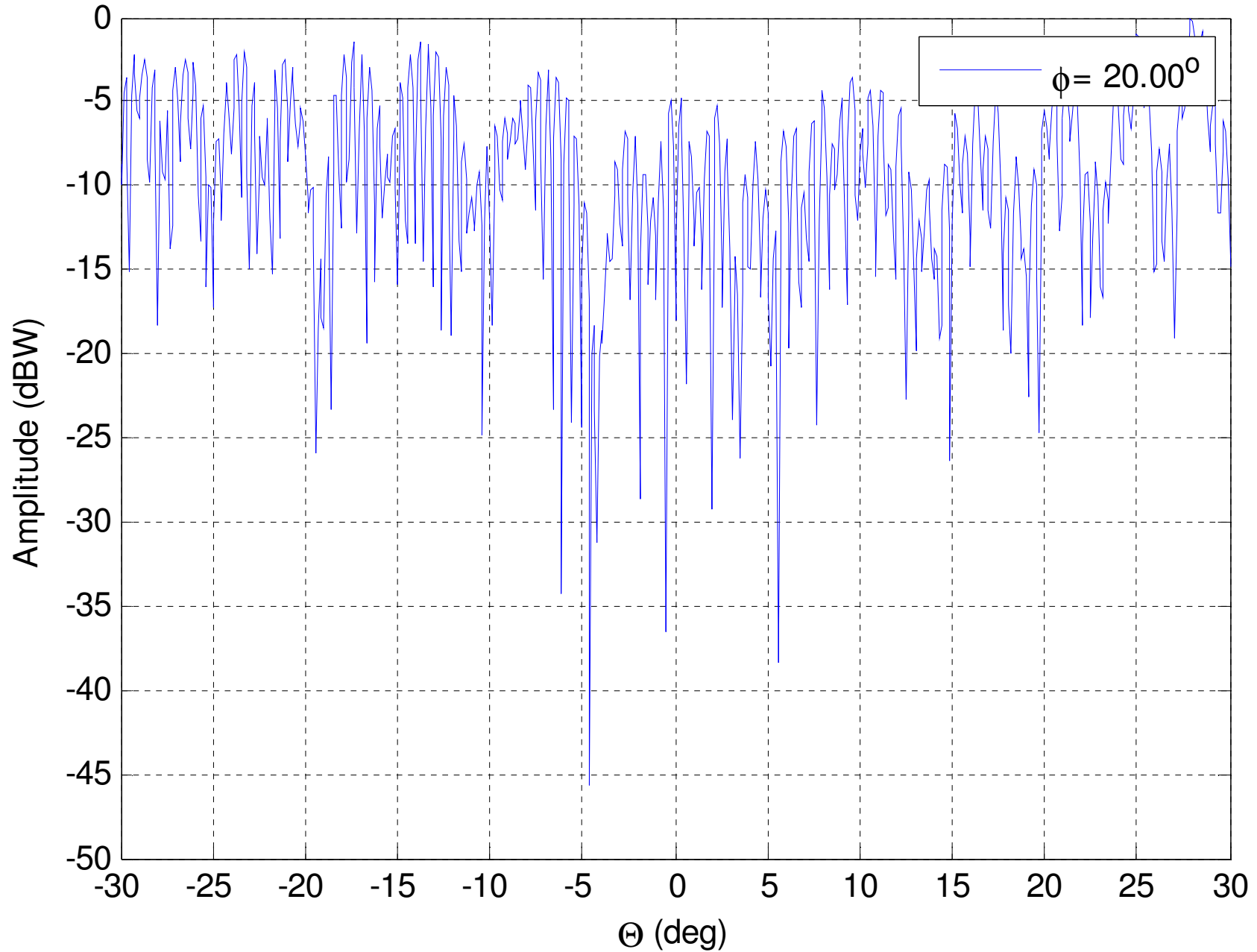
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: -7.40 dBW, Date: 15-Dec-2011



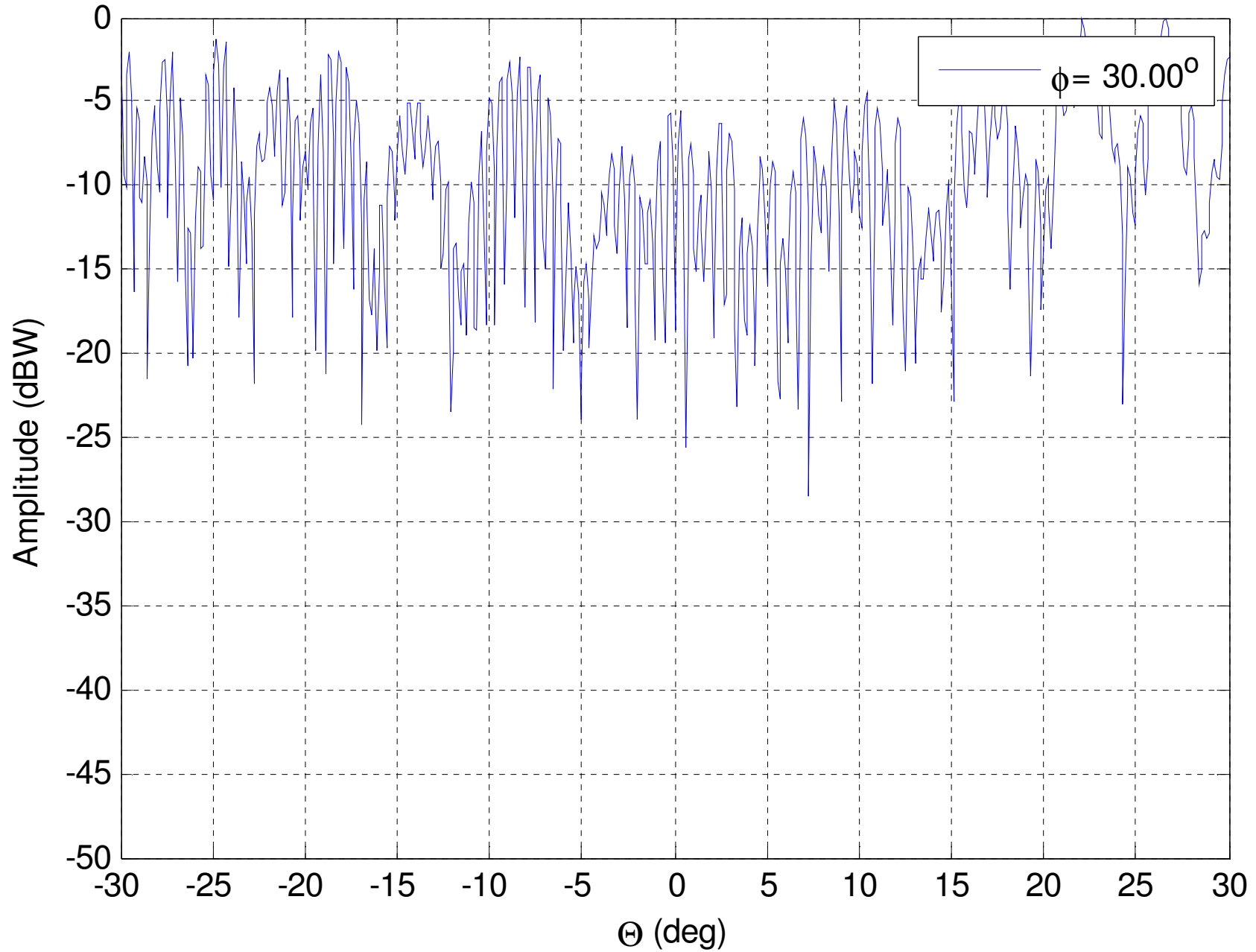
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: -6.63 dBW, Date: 15-Dec-2011



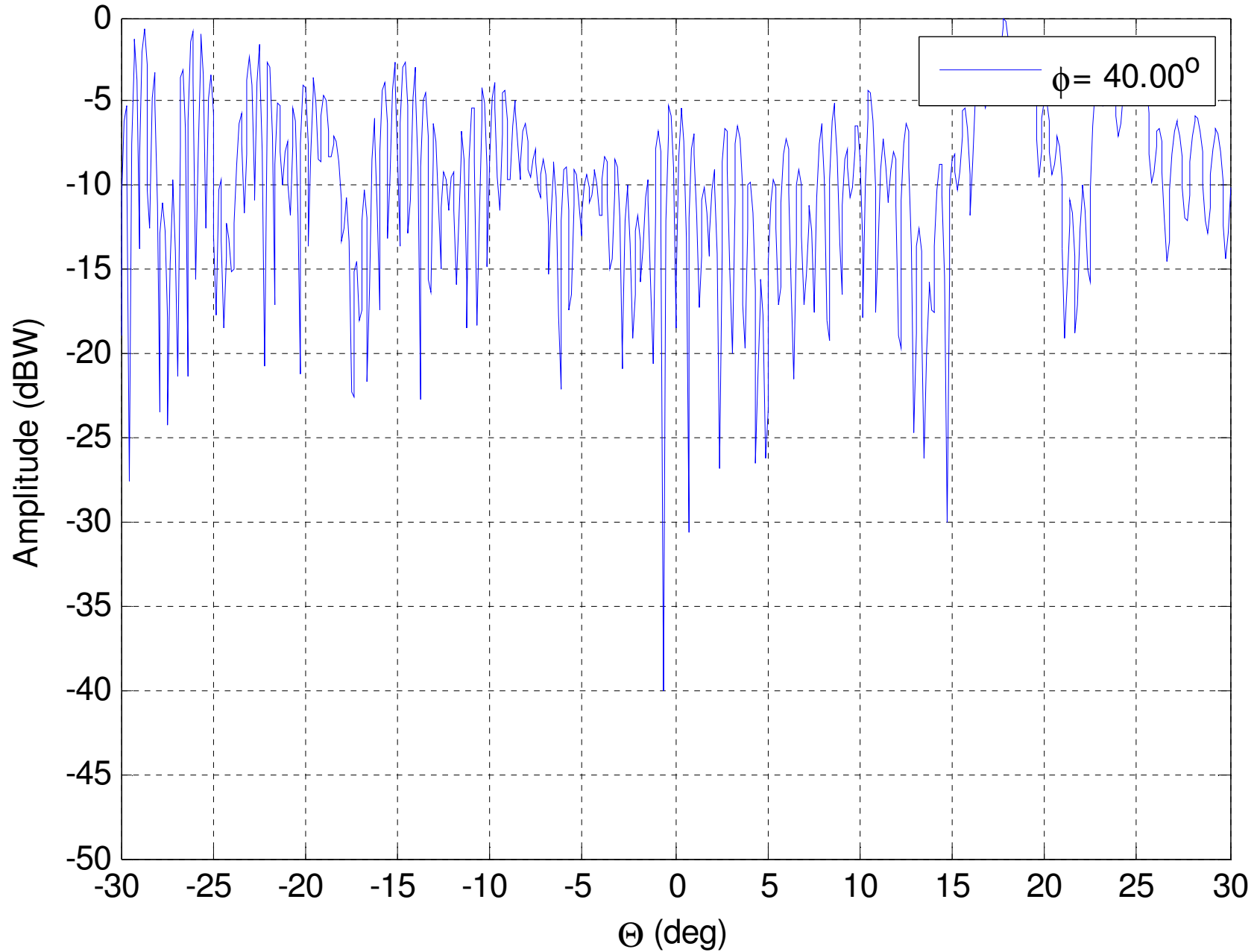
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: -6.01 dBW, Date: 15-Dec-2011



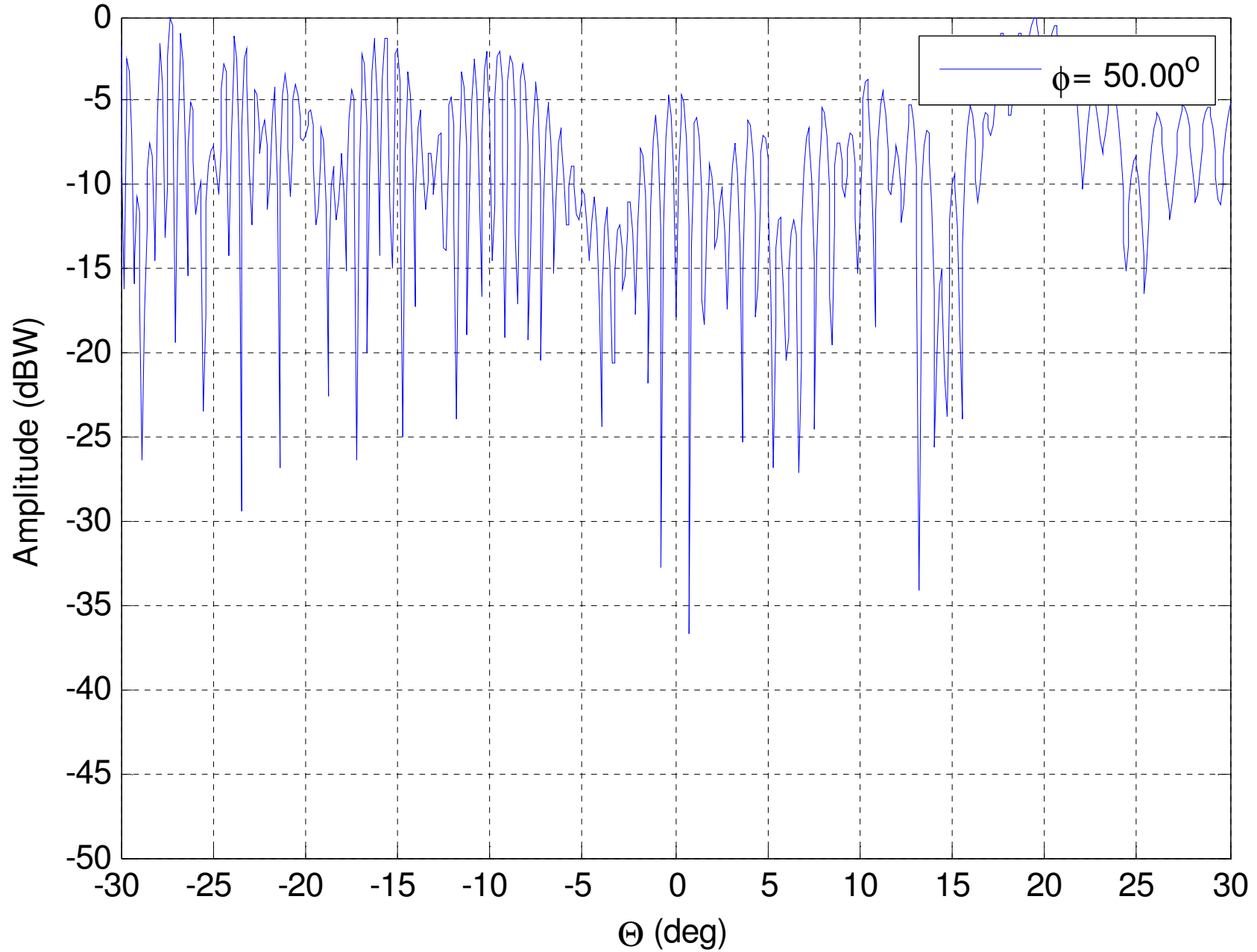
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -6.17 dBW, Date: 15-Dec-2011



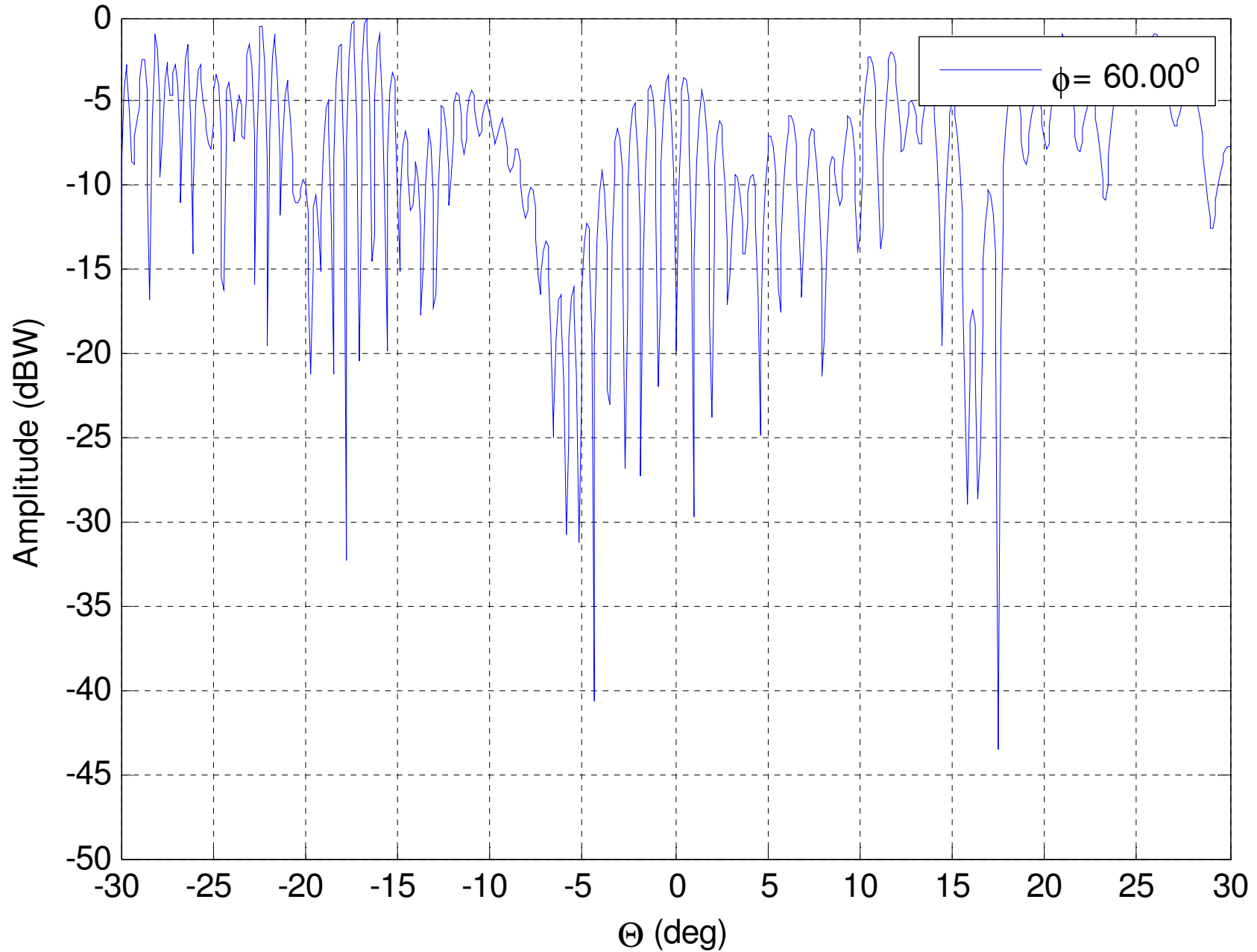
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -6.72 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

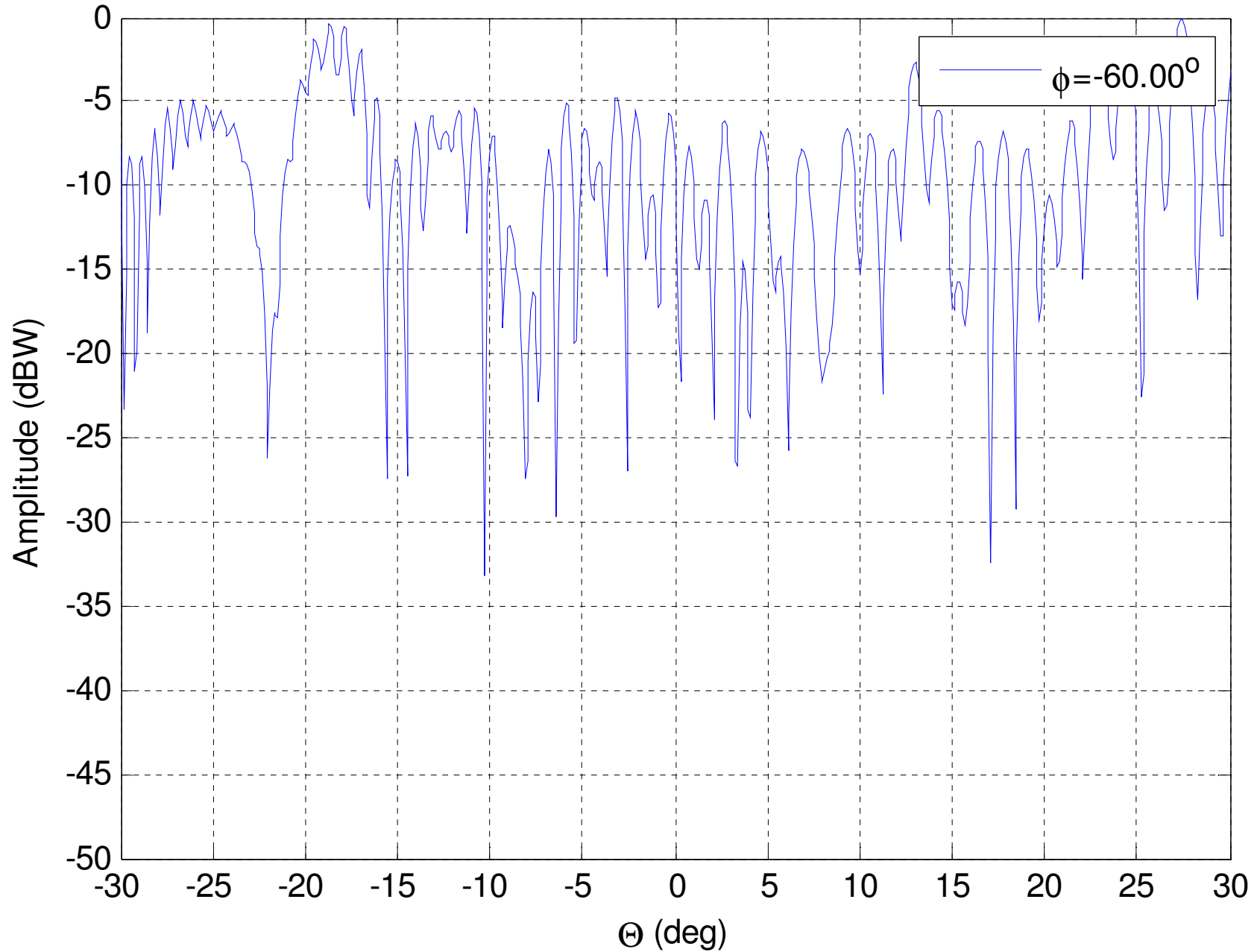
Input file: tx-17.5-lhcp-60.cut, Peak: -7.84 dBW, Date: 15-Dec-2011



RHCP at 17.7 GHz

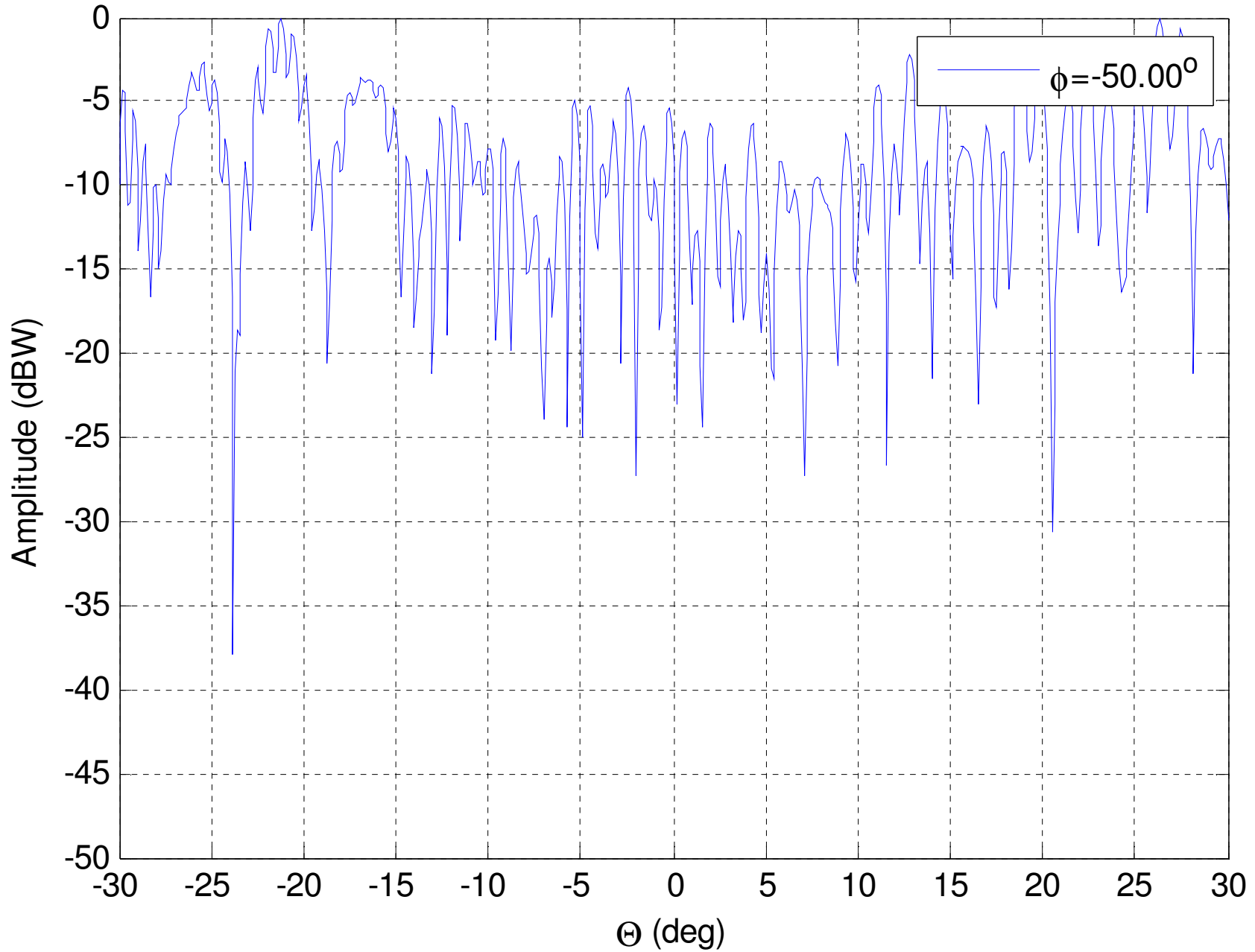
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -5.47 dBW, Date: 15-Dec-2011



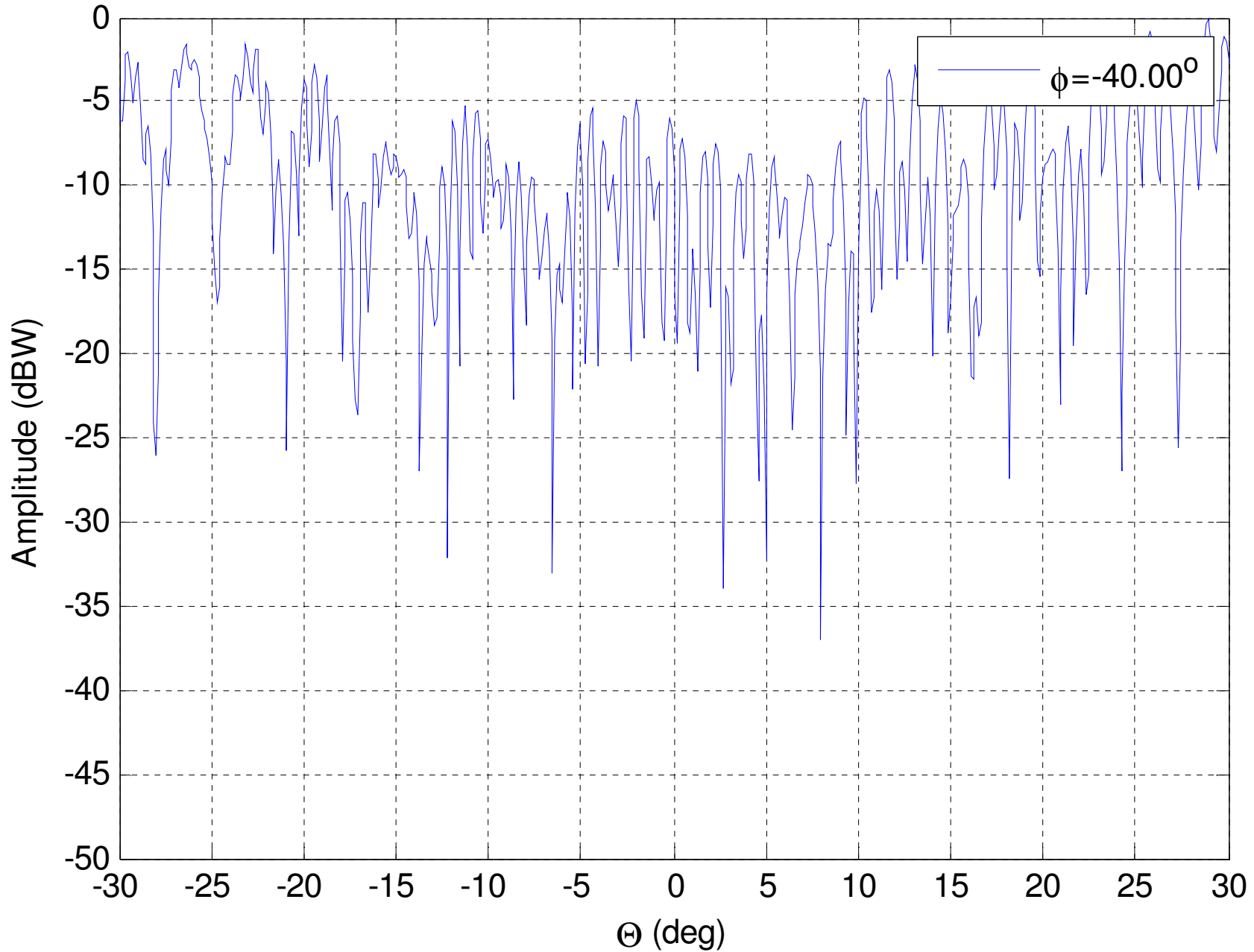
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -5.69 dBW, Date: 15-Dec-2011



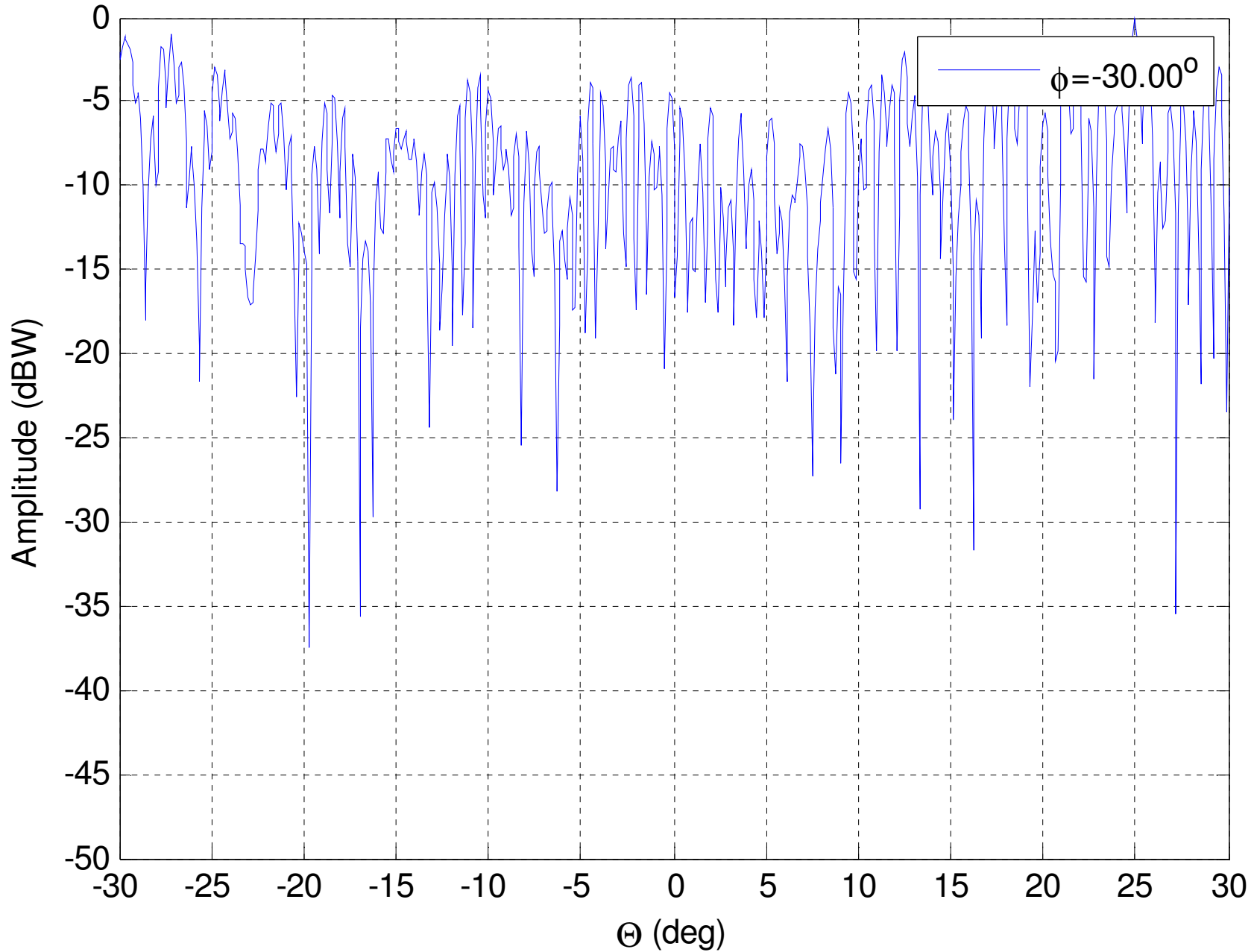
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -5.02 dBW, Date: 15-Dec-2011



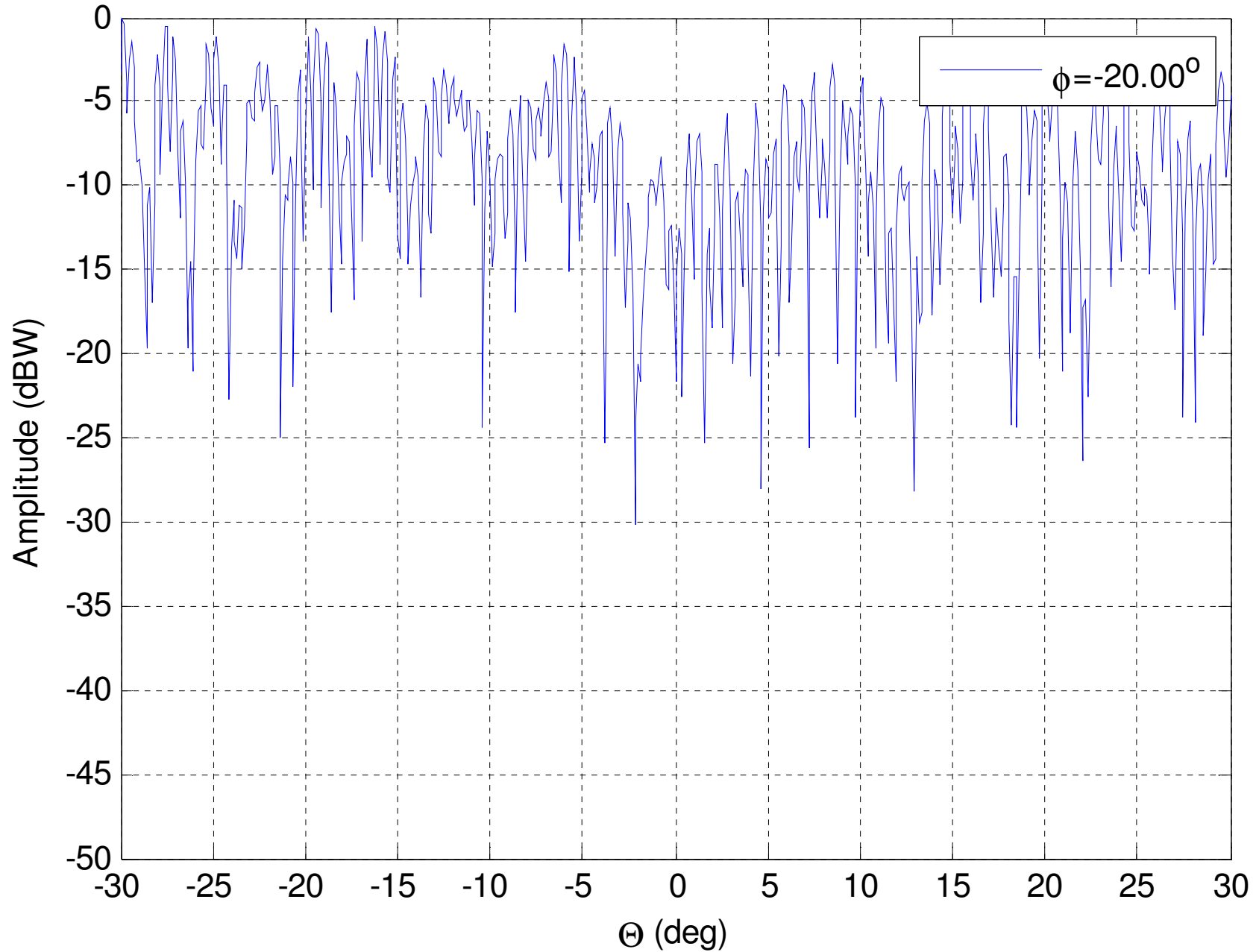
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -6.65 dBW, Date: 15-Dec-2011



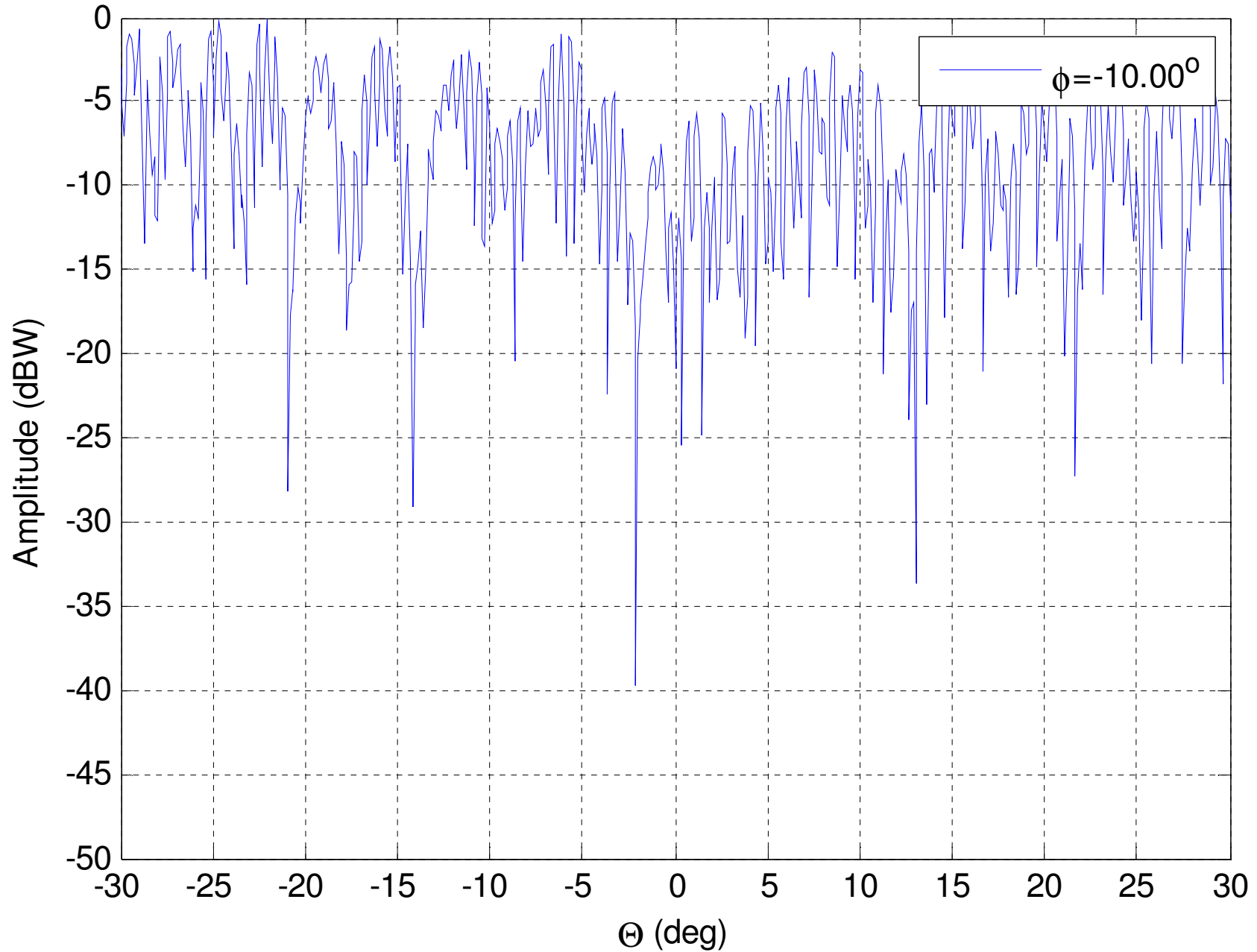
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: -7.66 dBW, Date: 15-Dec-2011



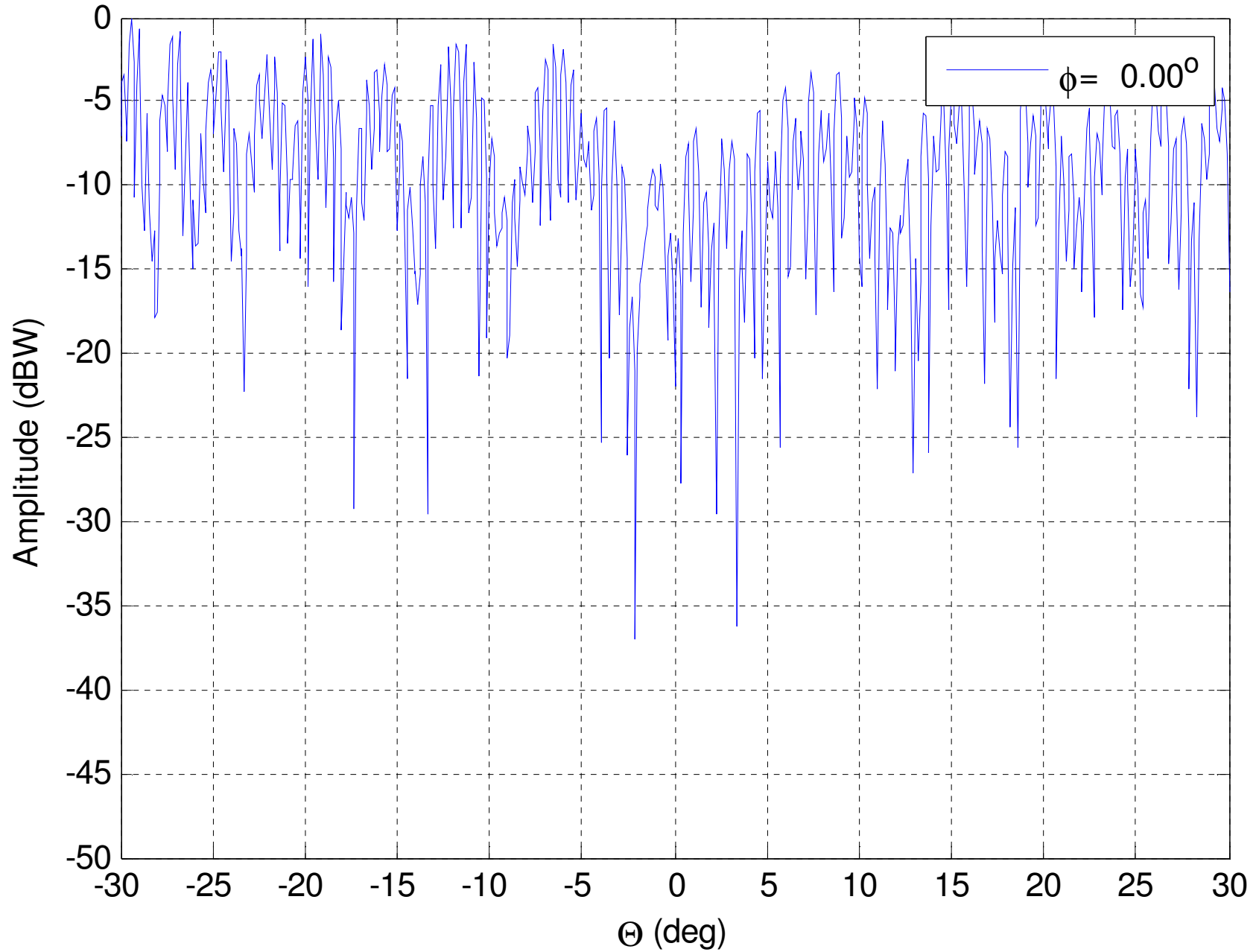
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: -8.50 dBW, Date: 15-Dec-2011



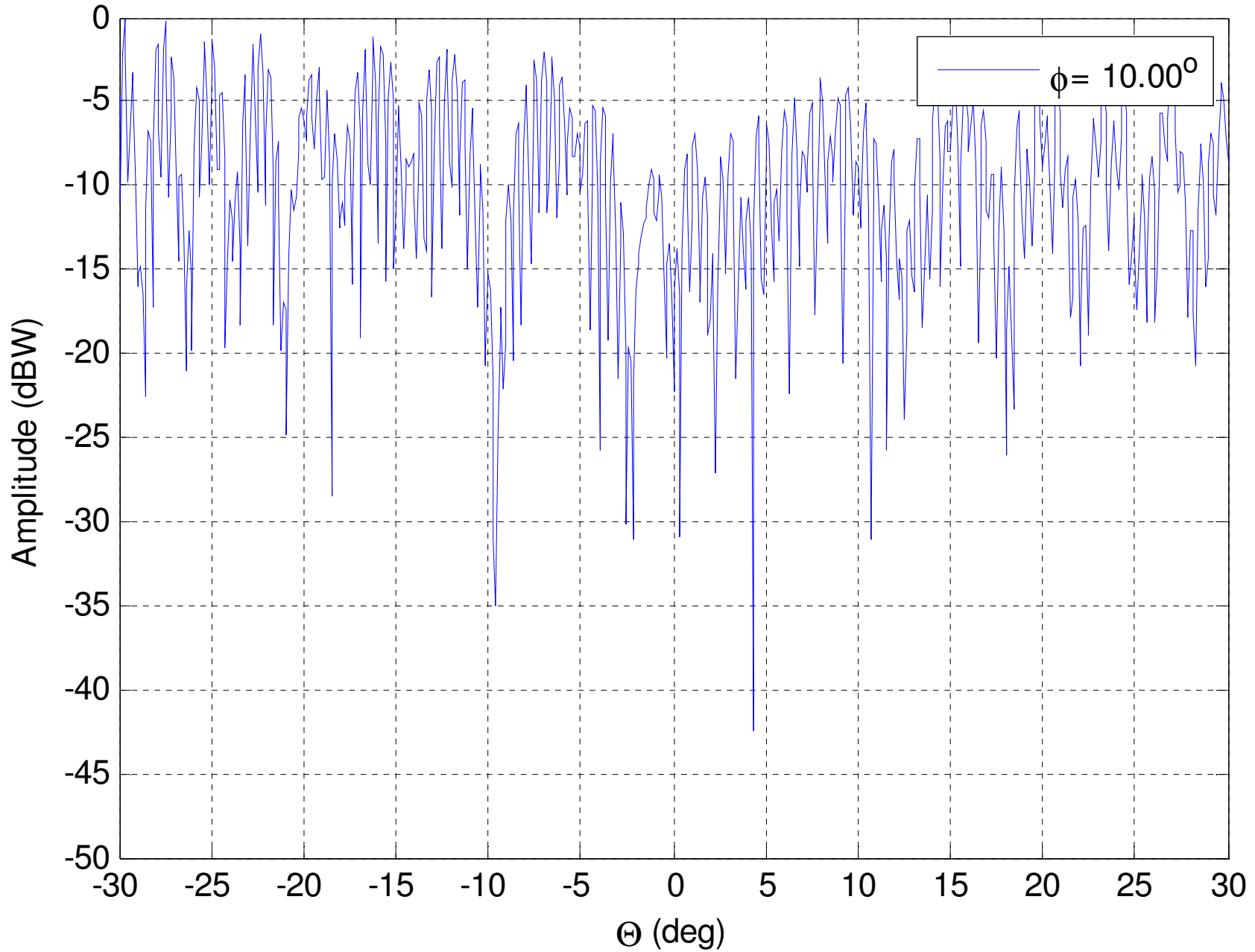
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: -7.39 dBW, Date: 15-Dec-2011



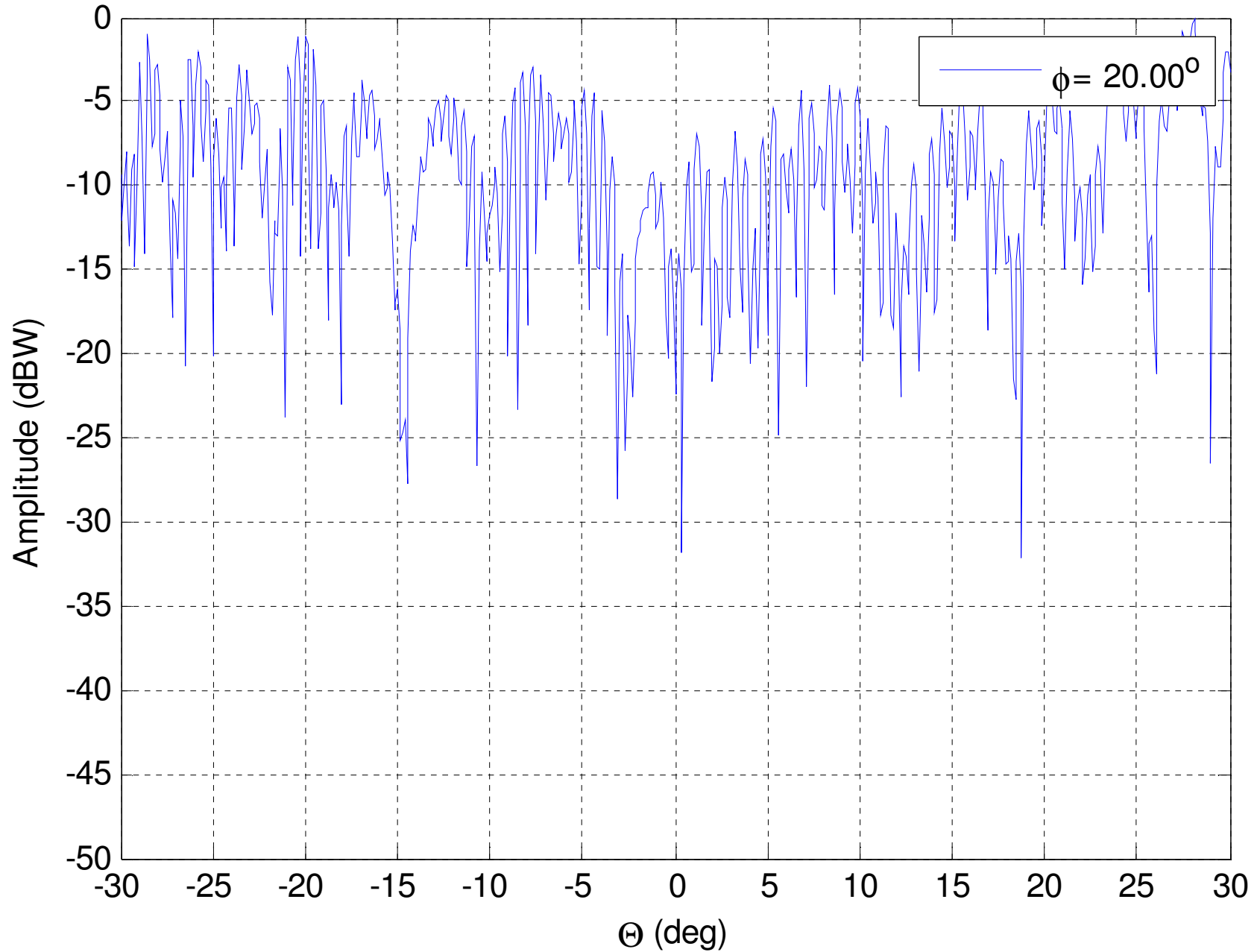
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: -7.04 dBW, Date: 15-Dec-2011



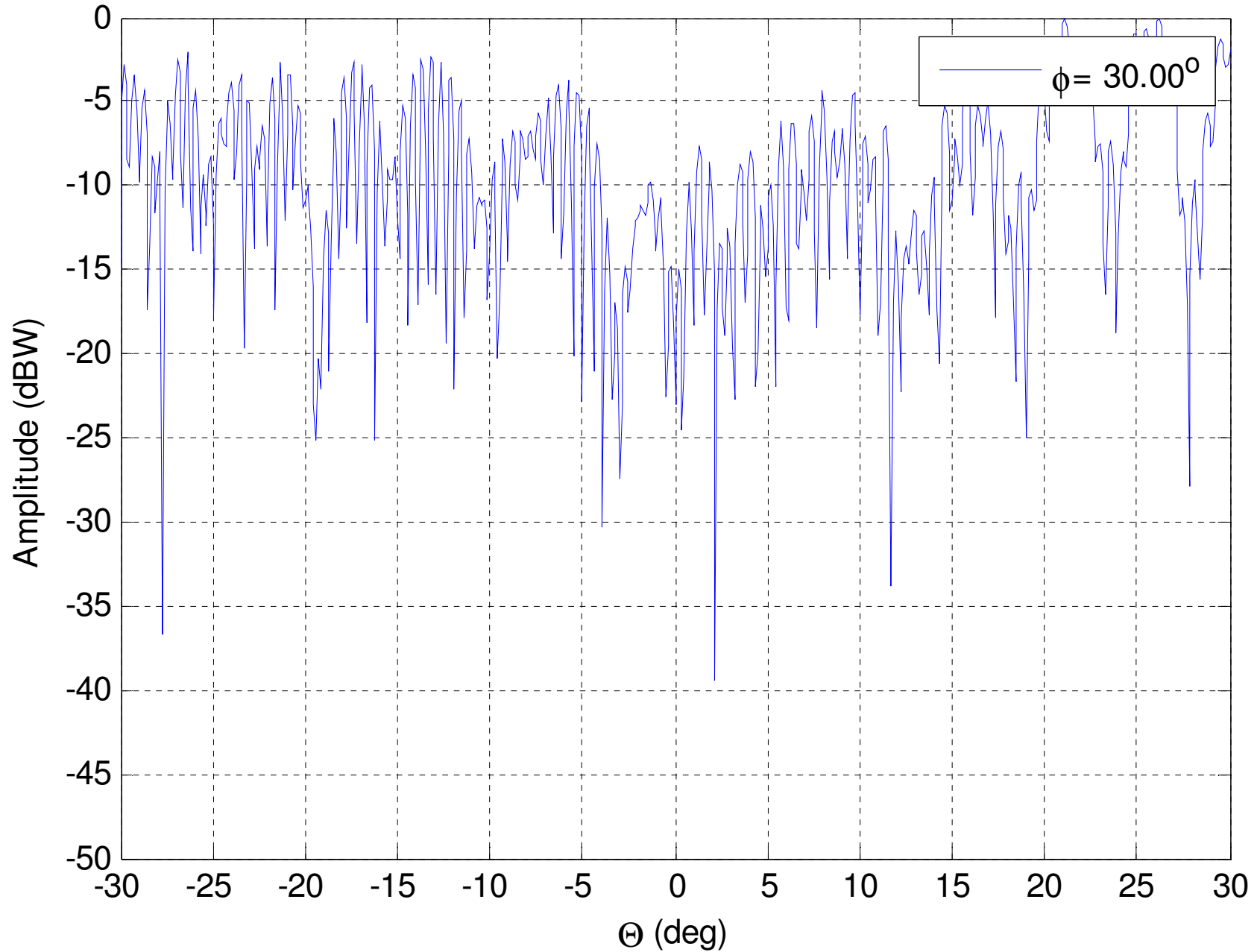
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: -6.91 dBW, Date: 15-Dec-2011



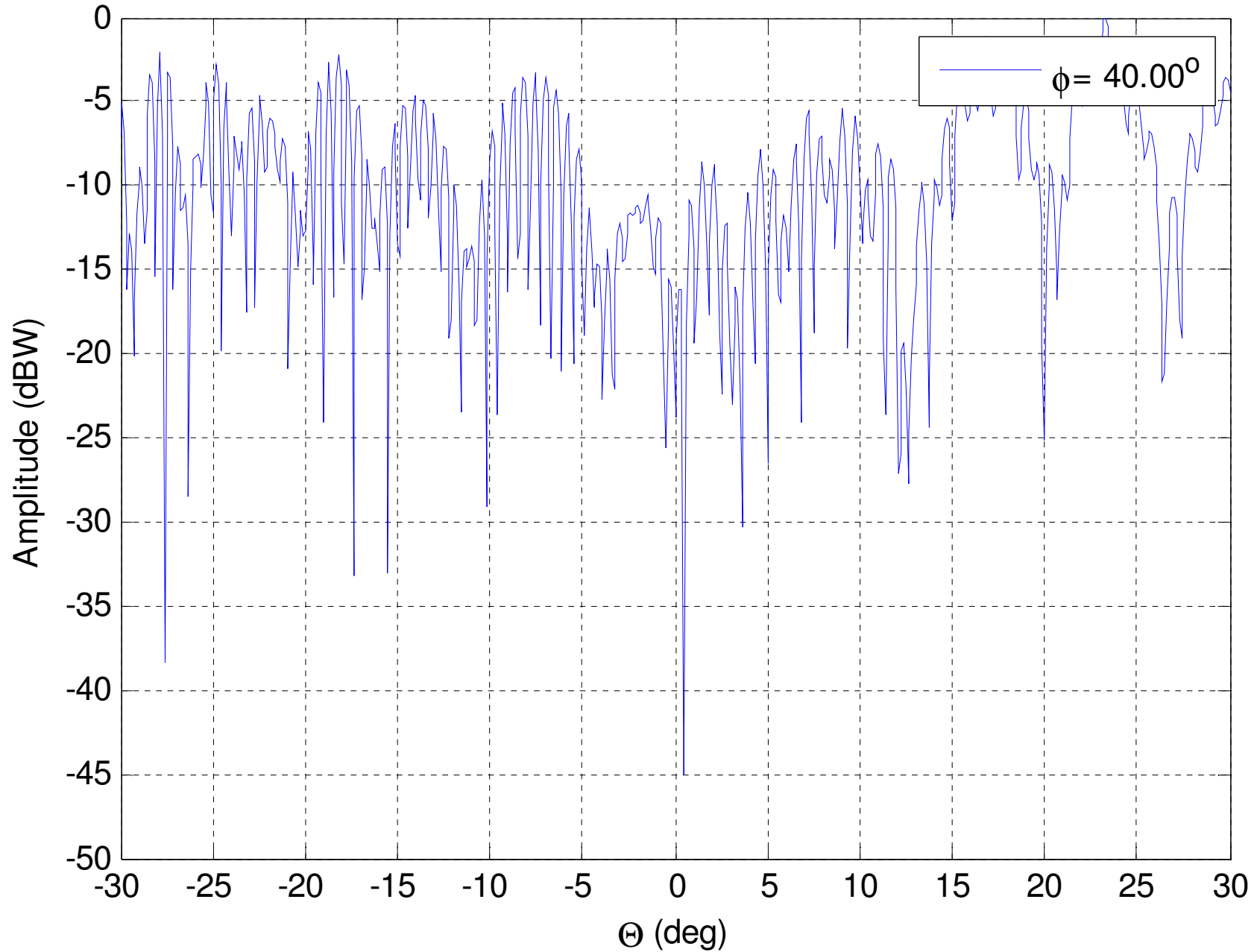
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: -6.29 dBW, Date: 15-Dec-2011



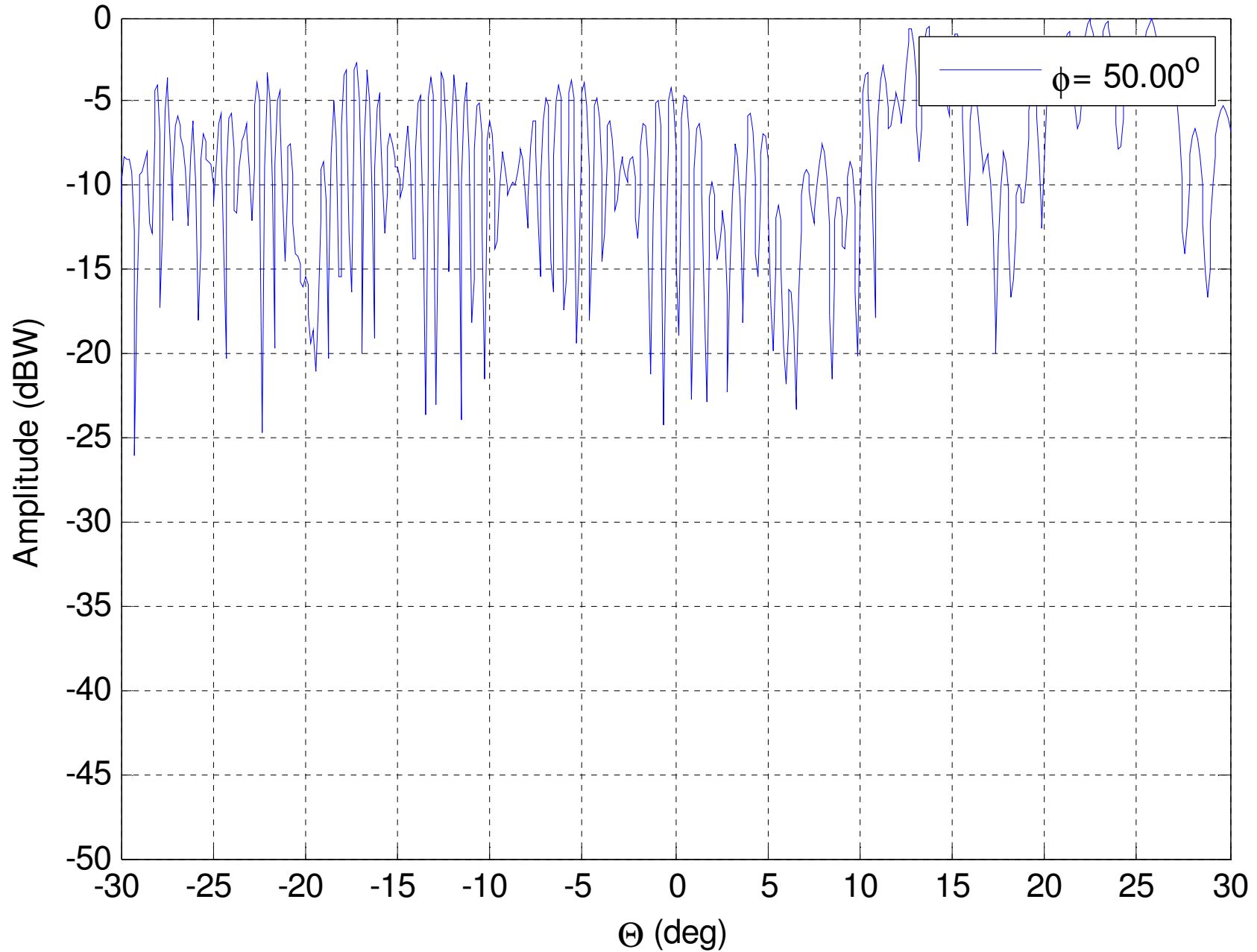
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -5.66 dBW, Date: 15-Dec-2011



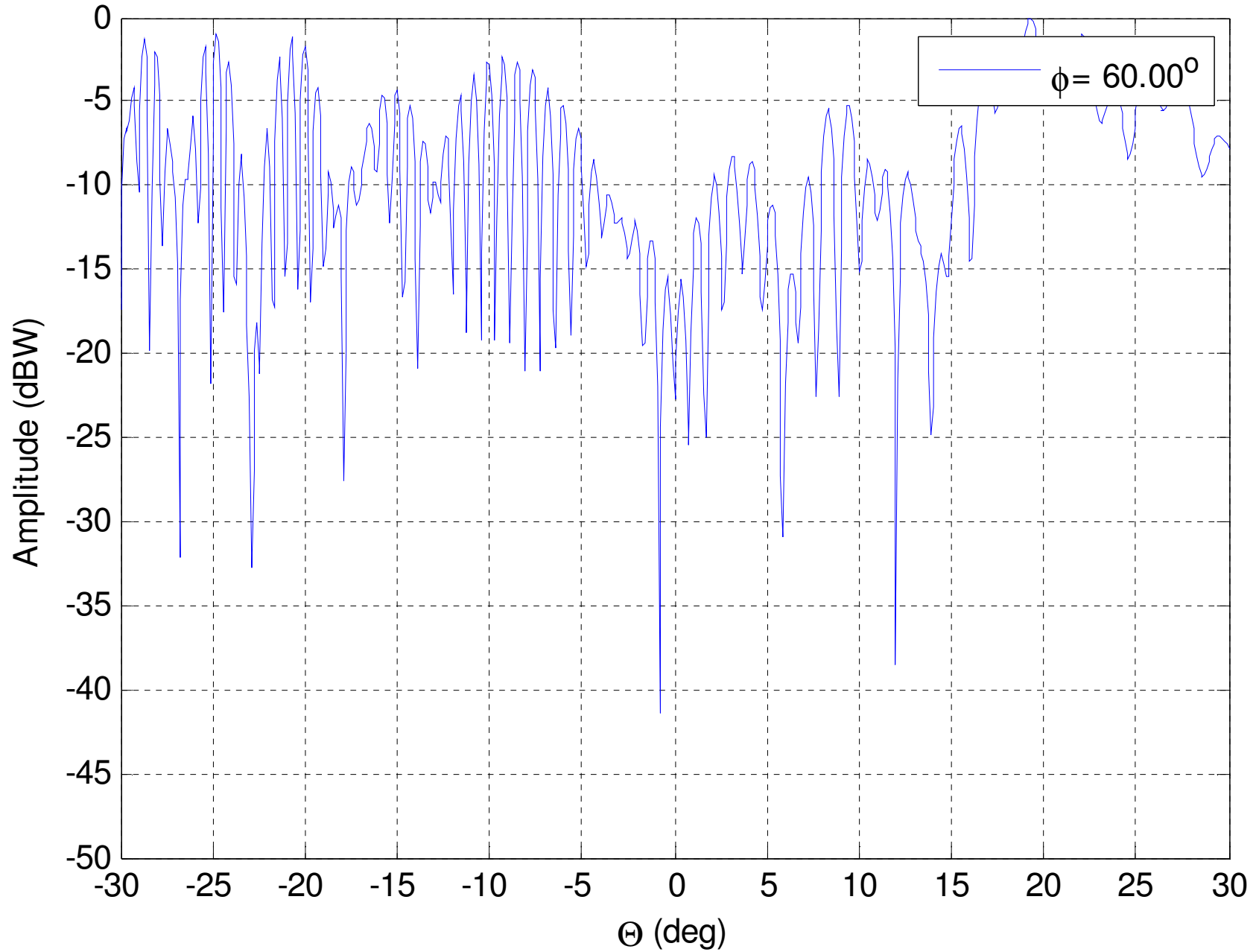
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -6.58 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

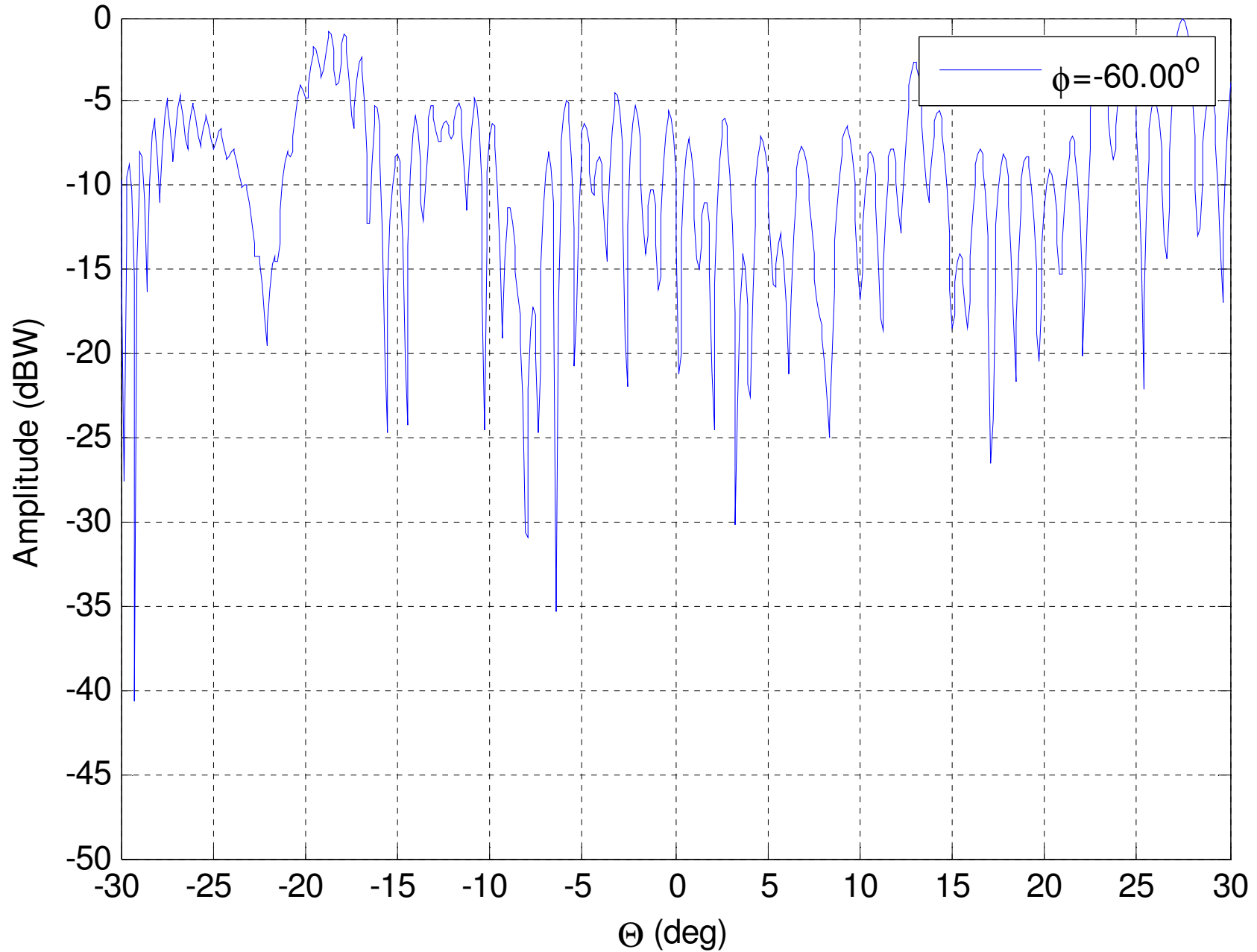
Input file: tx-17.7-rhcp-60.cut, Peak: -6.64 dBW, Date: 15-Dec-2011



LHCP at 17.7 GHz

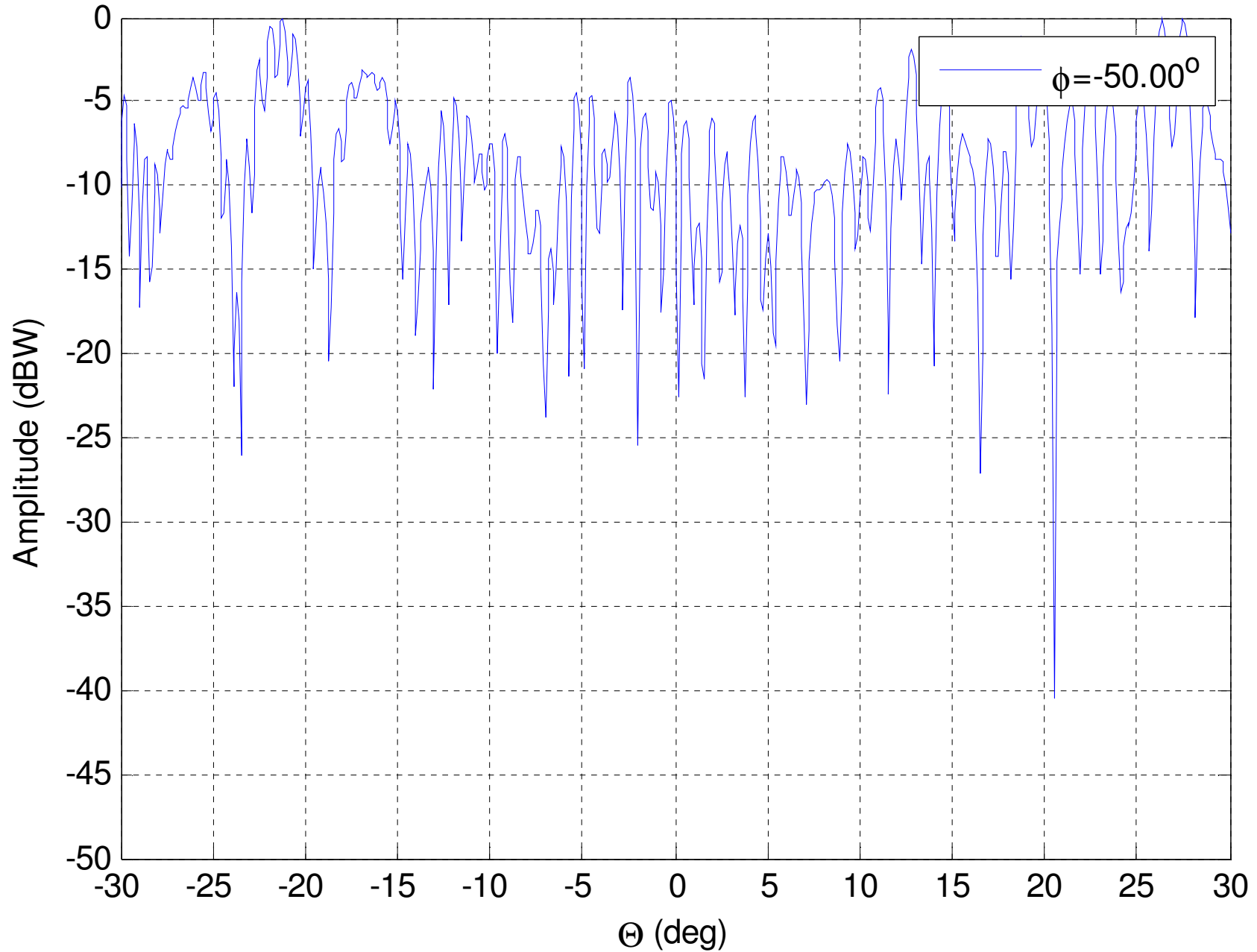
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -5.47 dBW, Date: 15-Dec-2011



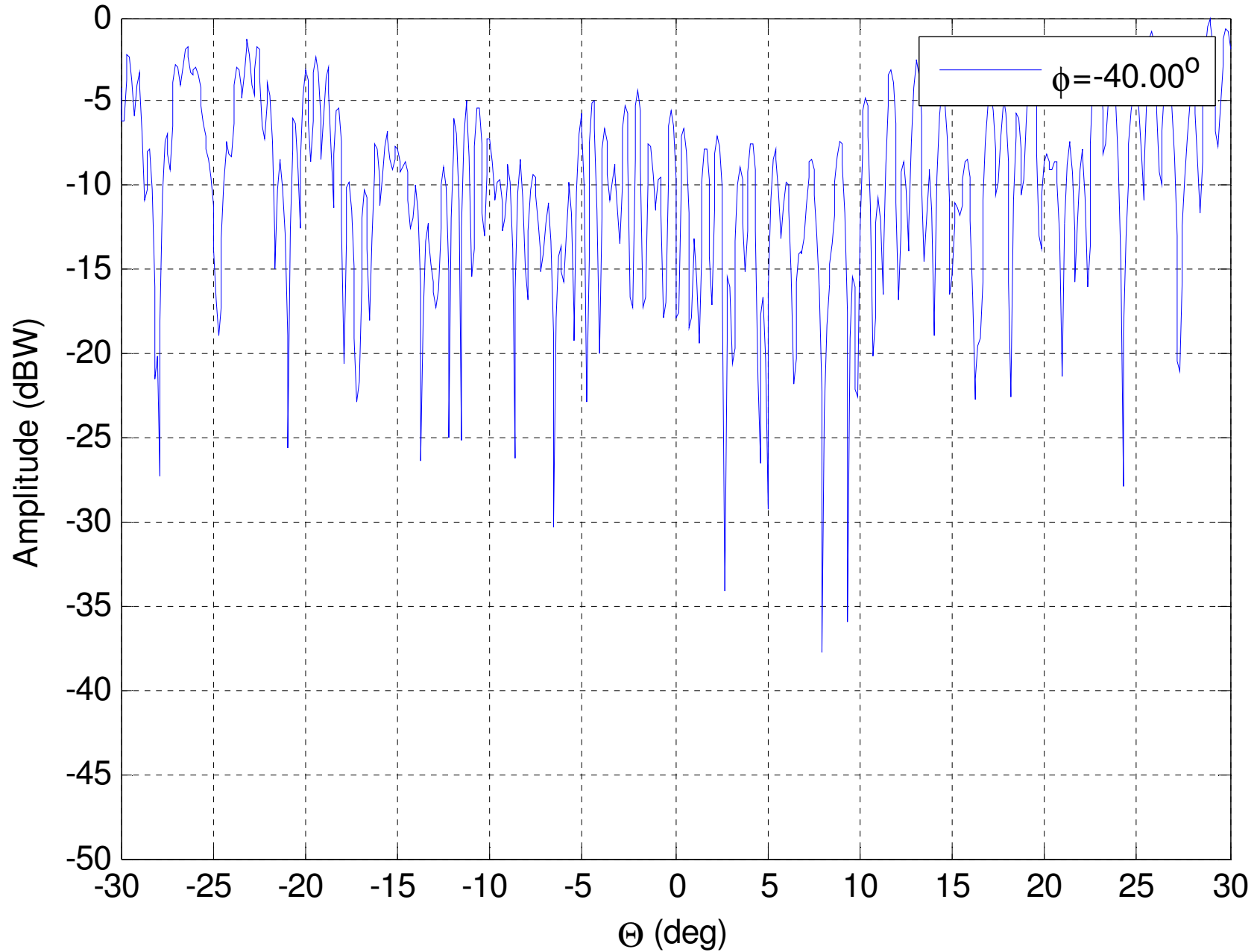
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -6.02 dBW, Date: 15-Dec-2011



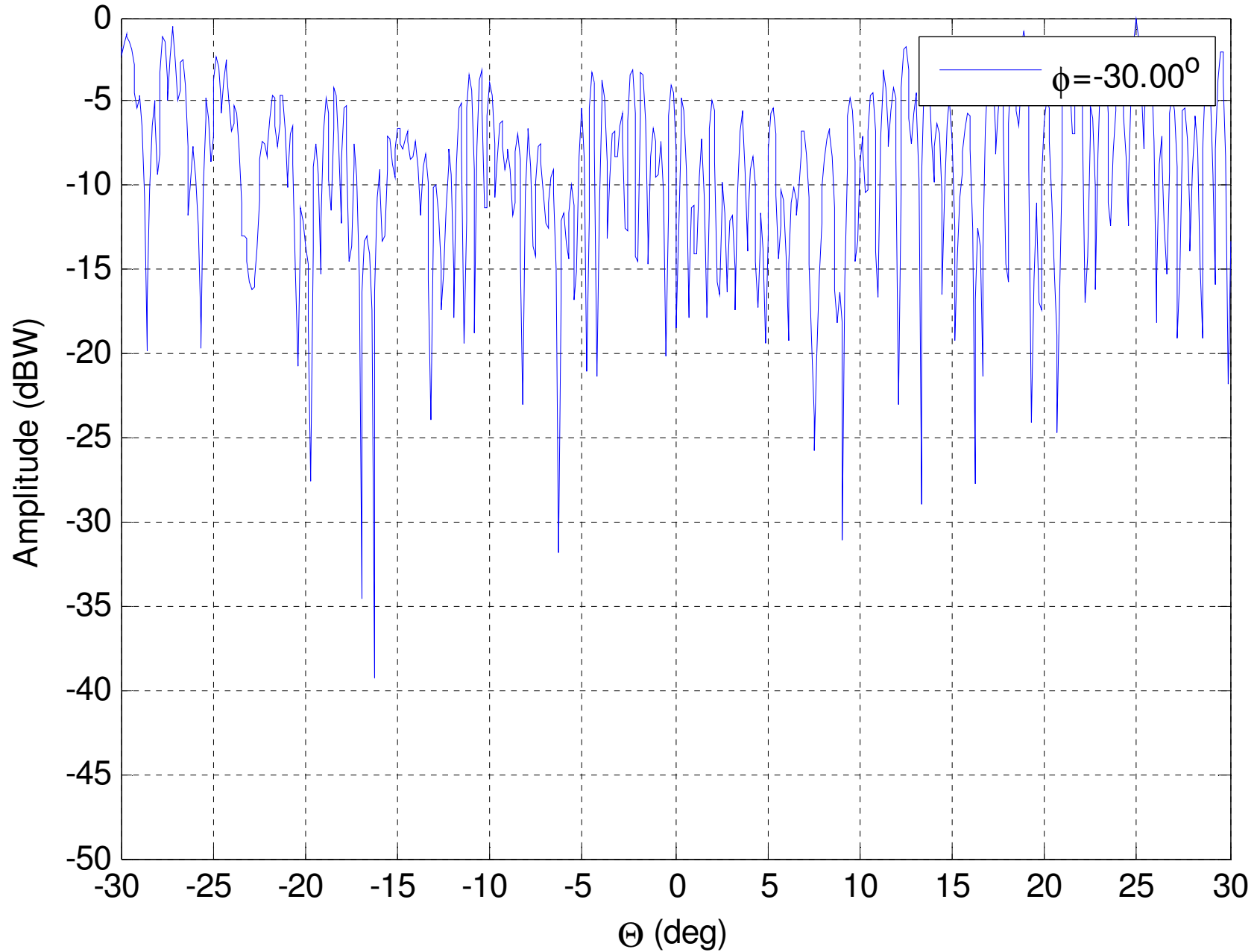
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -5.30 dBW, Date: 15-Dec-2011



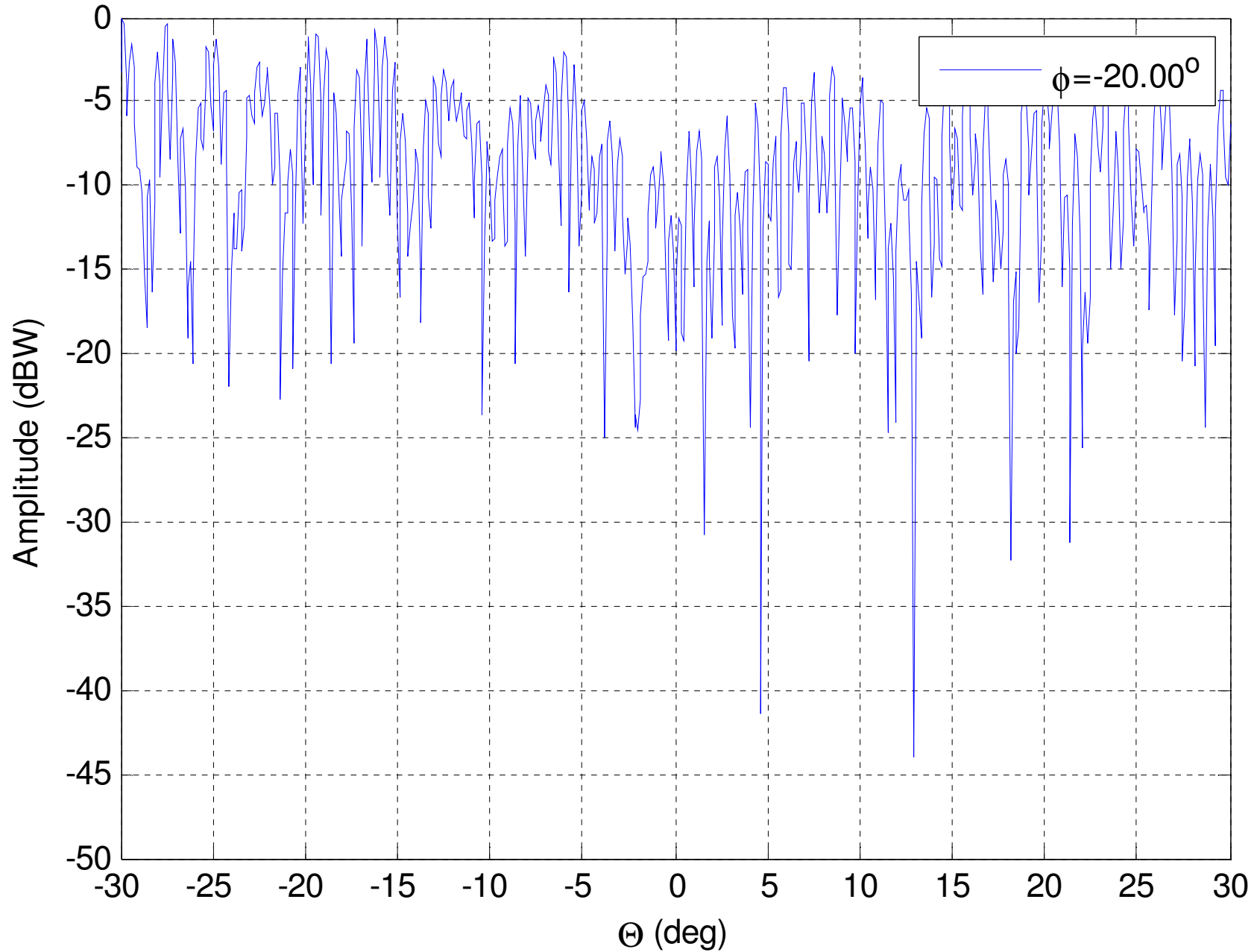
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -6.94 dBW, Date: 15-Dec-2011



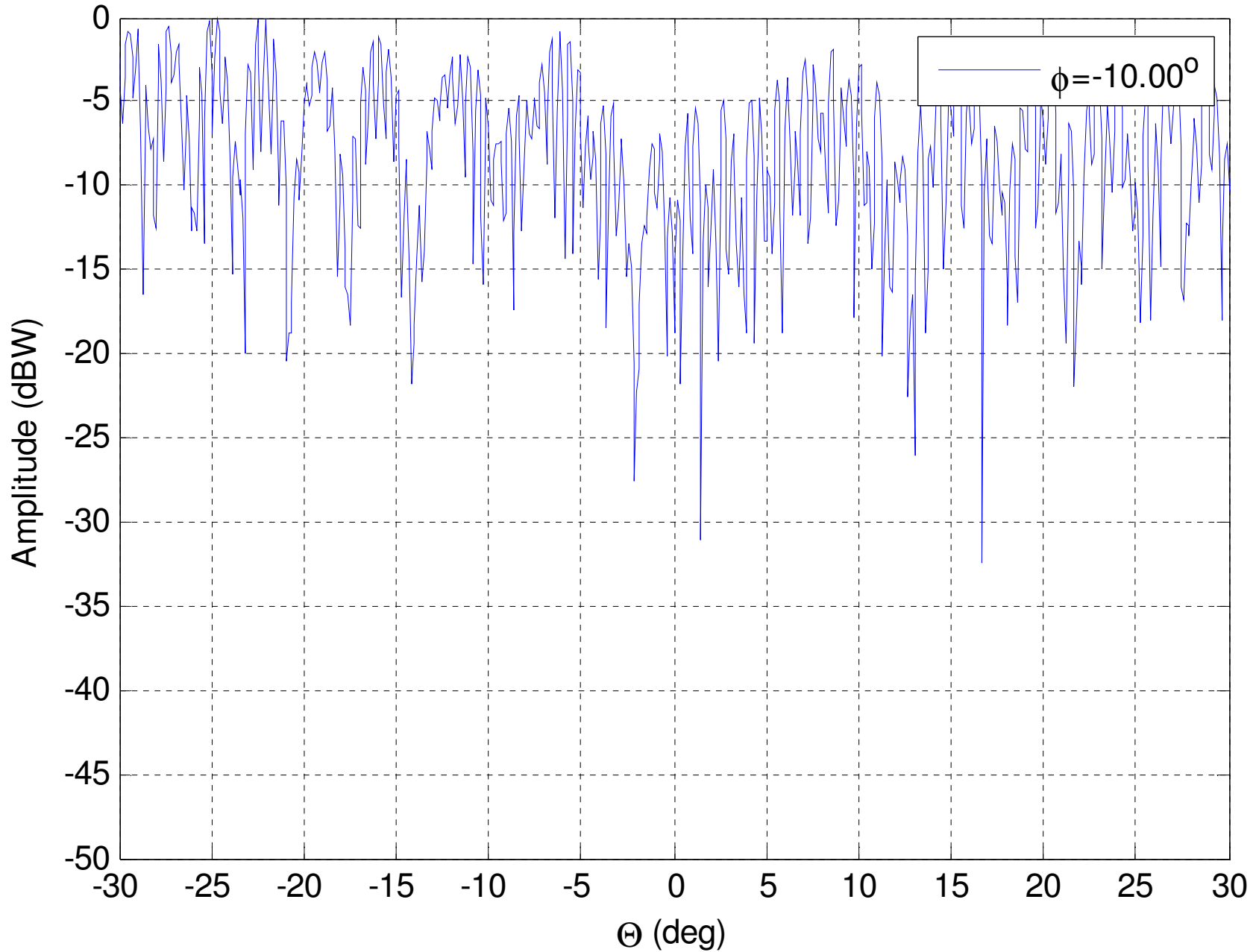
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: -7.48 dBW, Date: 15-Dec-2011



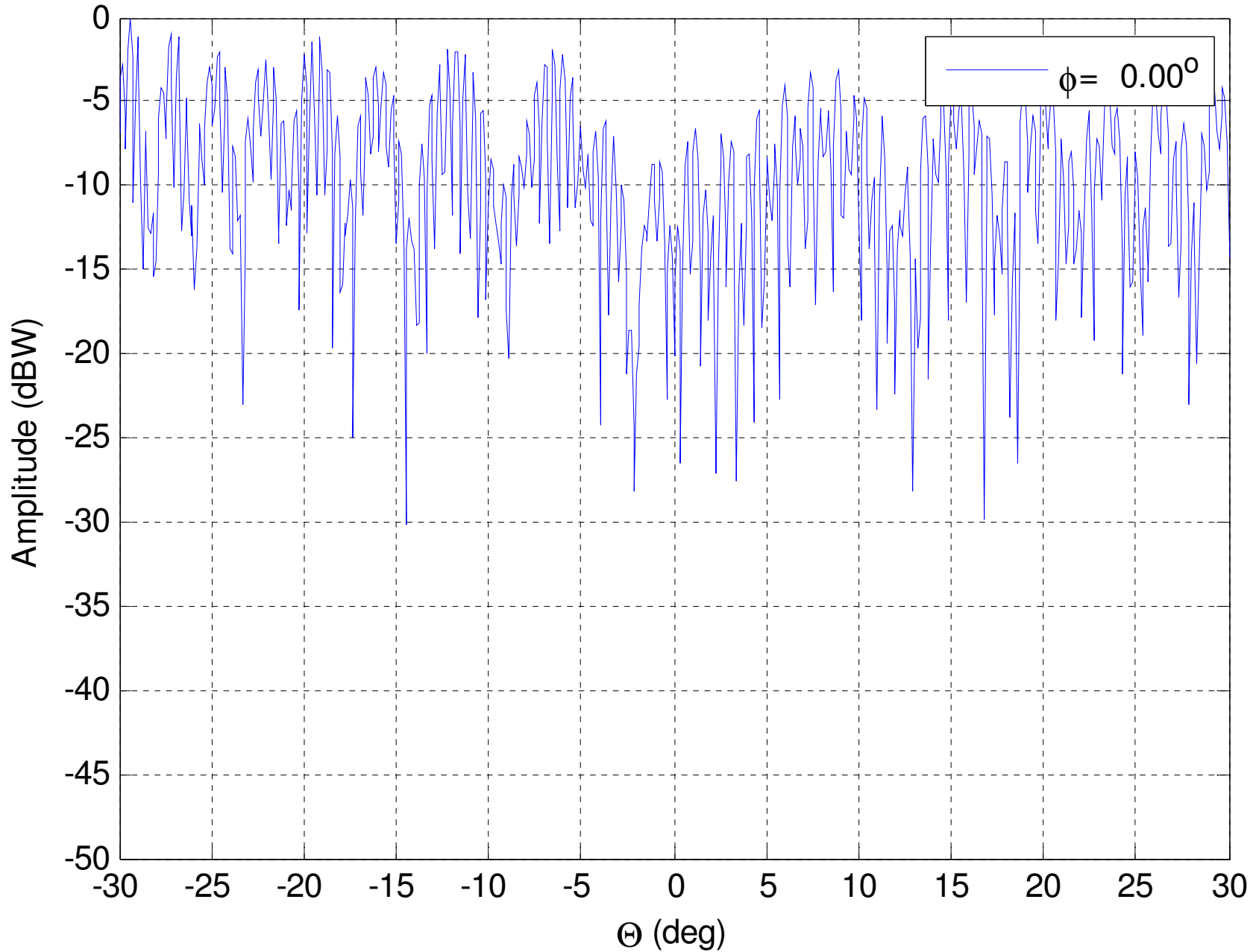
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: -8.57 dBW, Date: 15-Dec-2011



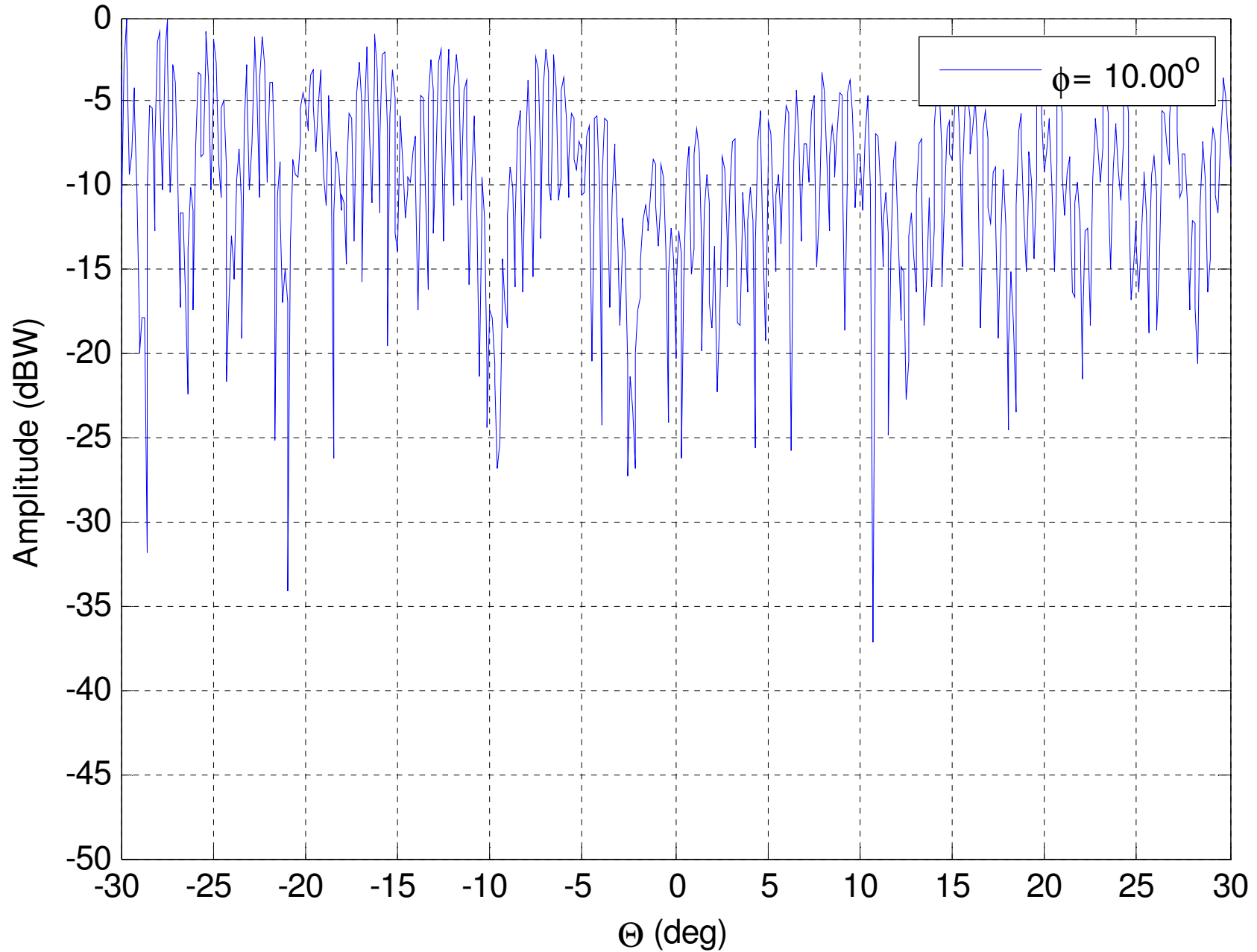
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: -7.18 dBW, Date: 15-Dec-2011



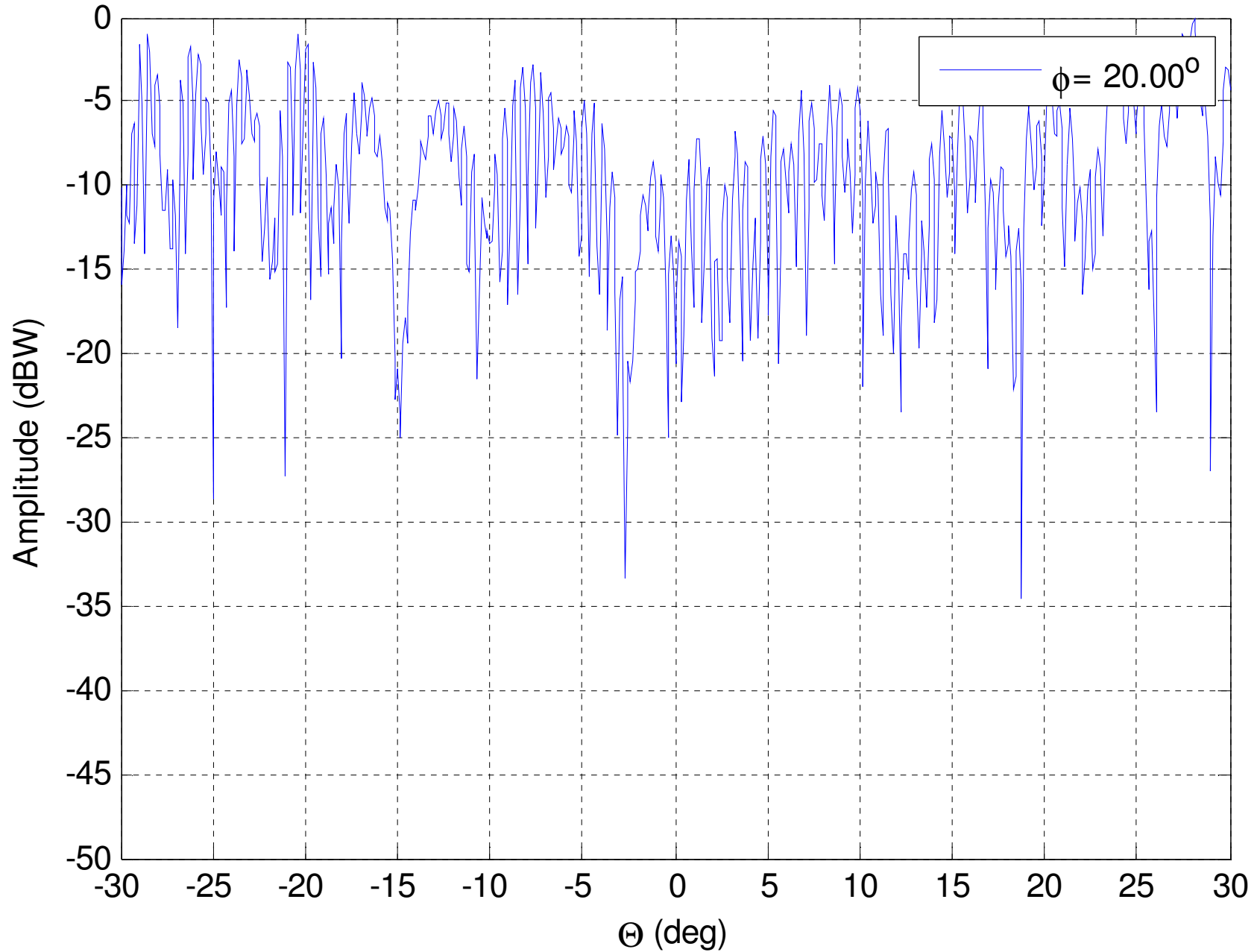
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: -7.12 dBW, Date: 15-Dec-2011



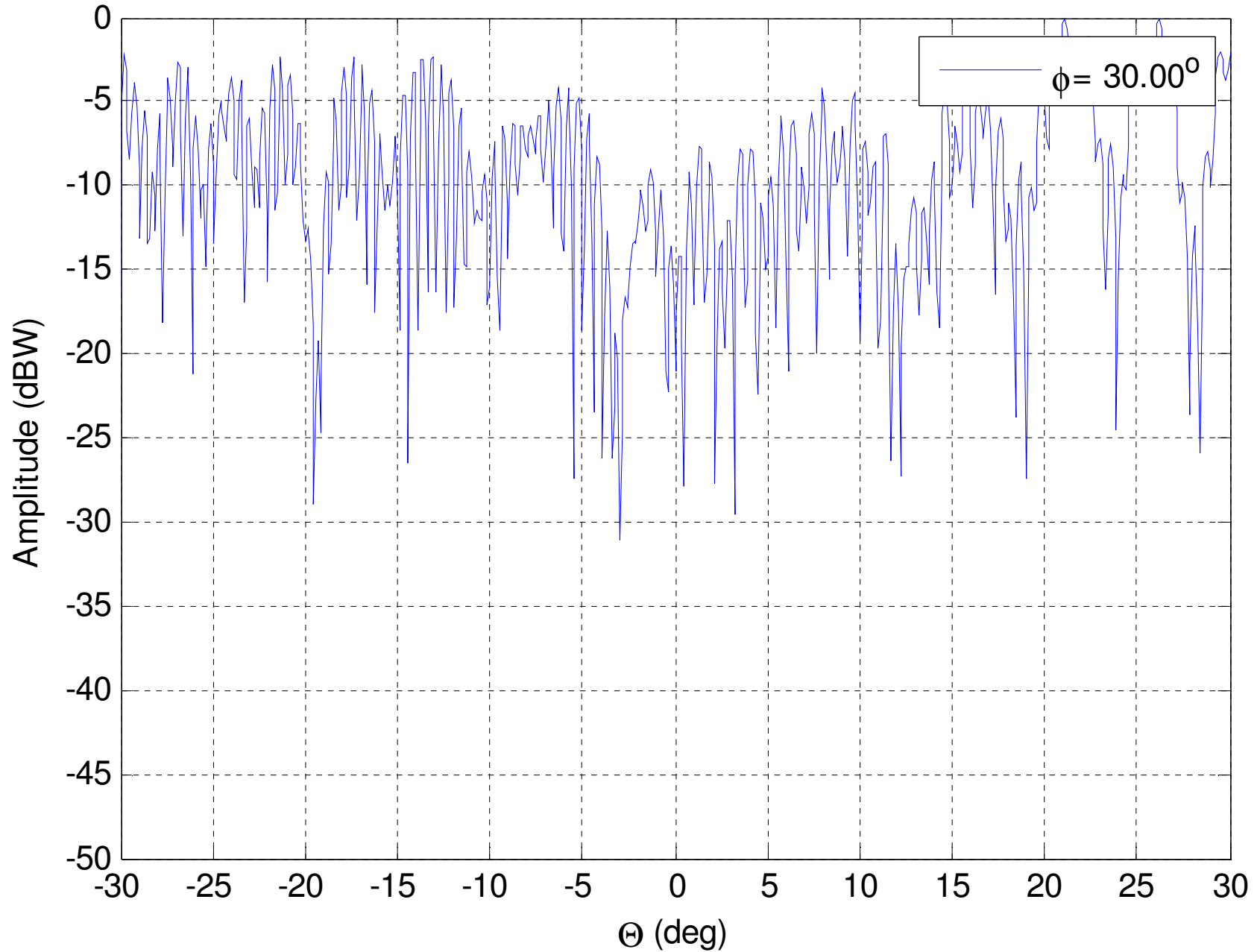
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: -6.75 dBW, Date: 15-Dec-2011



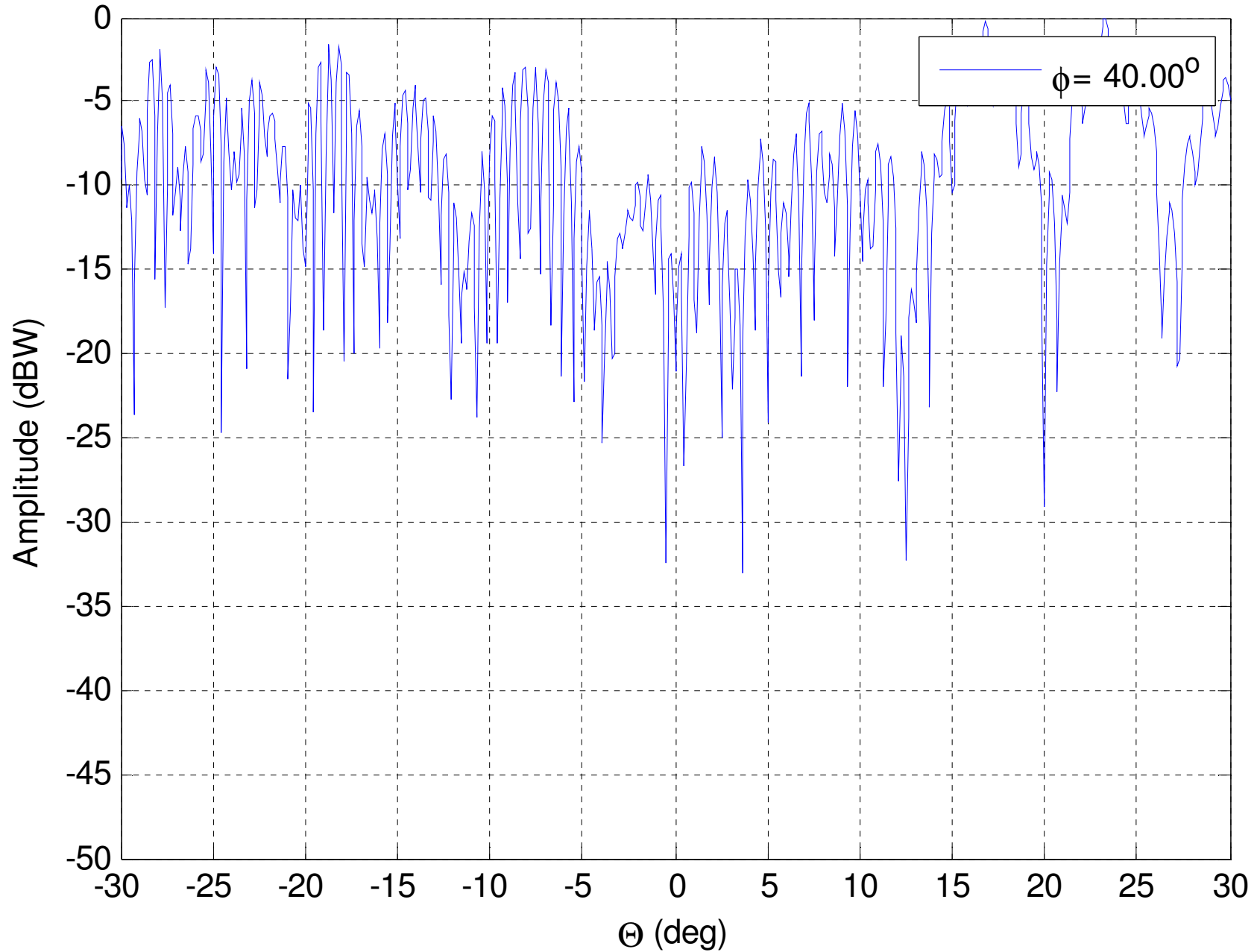
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: -6.33 dBW, Date: 15-Dec-2011



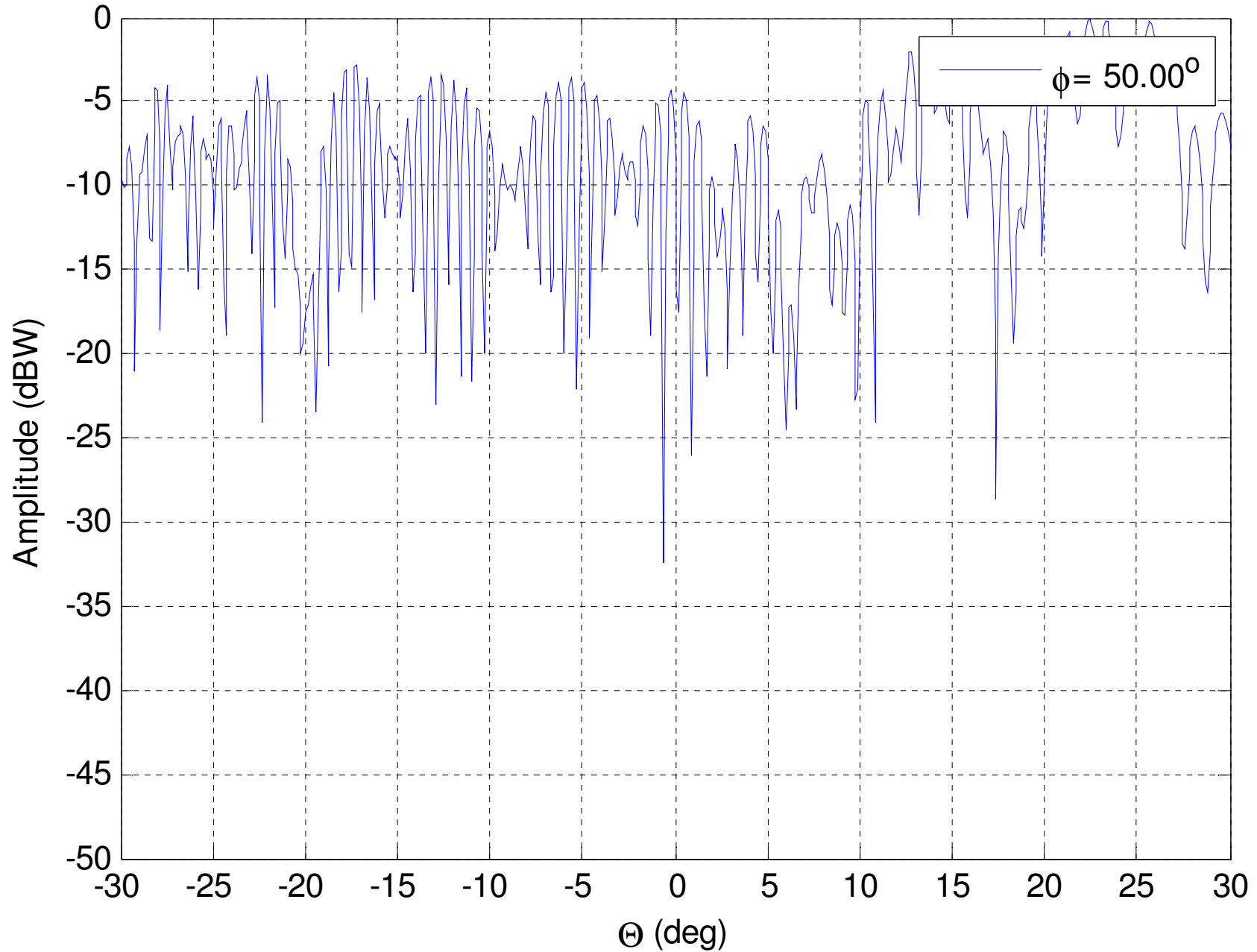
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -6.31 dBW, Date: 15-Dec-2011



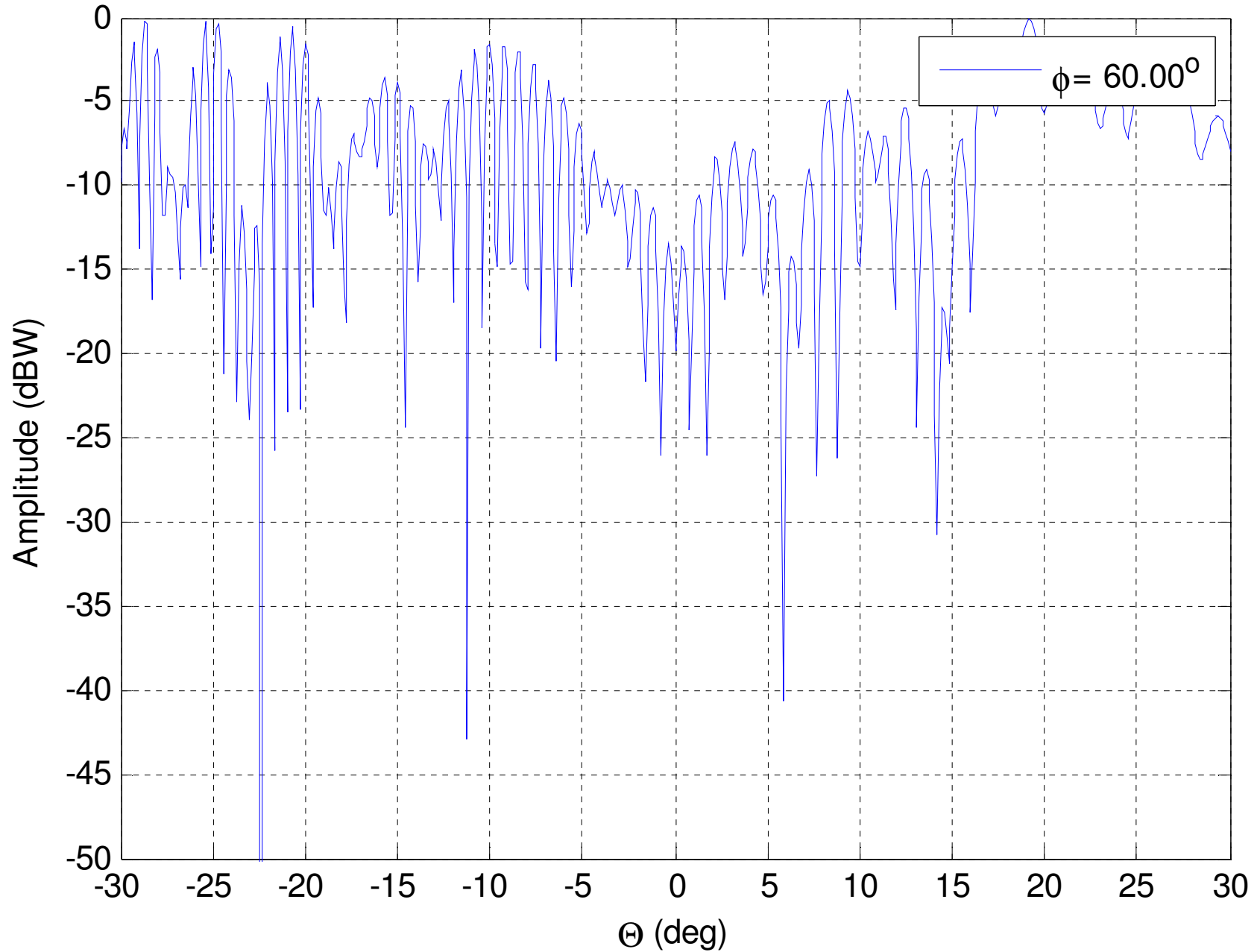
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -6.38 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -7.55 dBW, Date: 15-Dec-2011



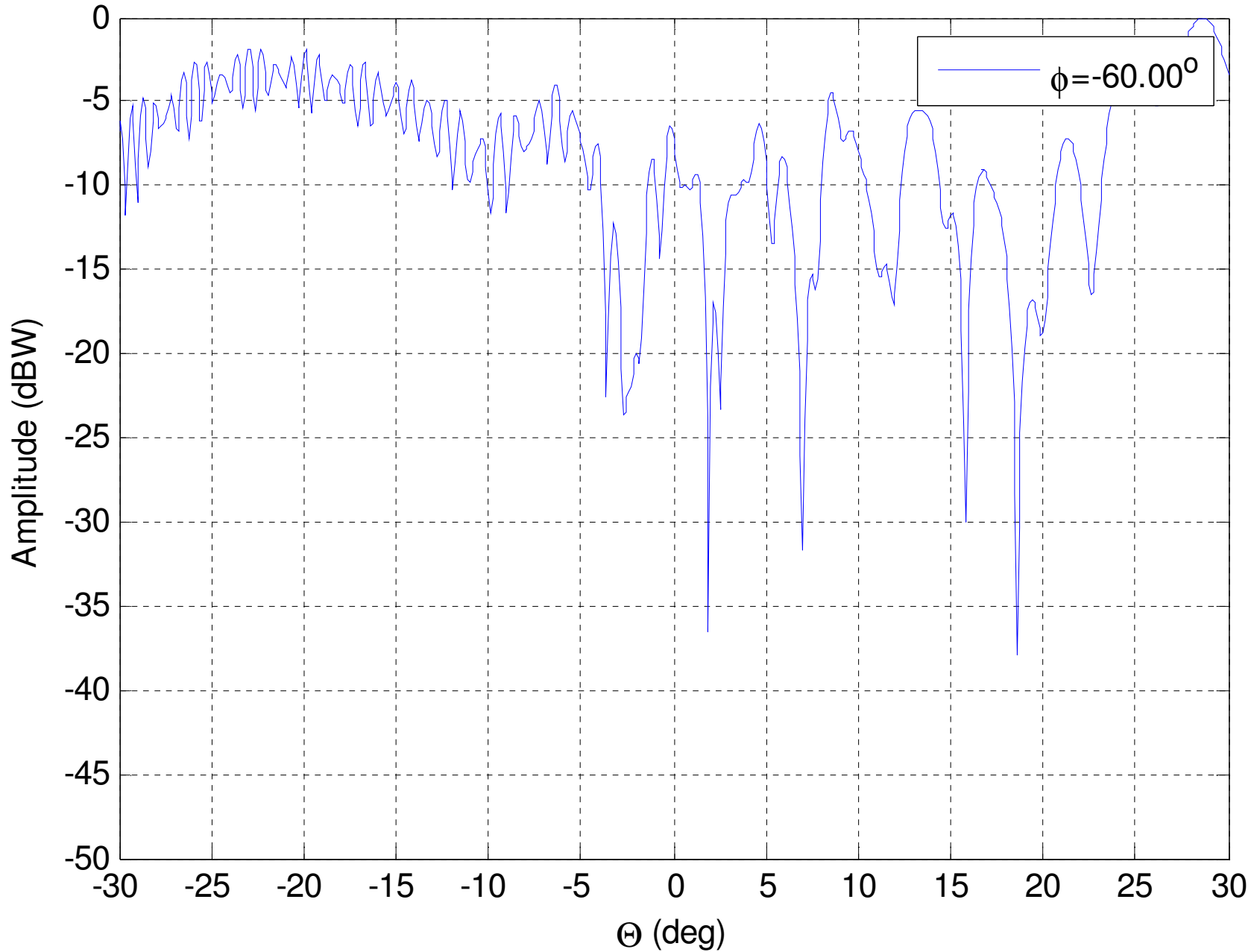
Spot Beam35, +X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: = +X-axis)
- $-60 < \phi < 60$
- Freq = 17.305, 17.5, and 17.695 GHz
- The Zero reference line is the maximum EIRP listed in the title of each plot sheet. All levels are below the required 15.4 dBW maximum
- The Zero reference for the maximum antenna gain is the maximum EIRP listed minus the power input to the antenna specified in Table I of the attached narrative.

RHCP at 17.3 GHz

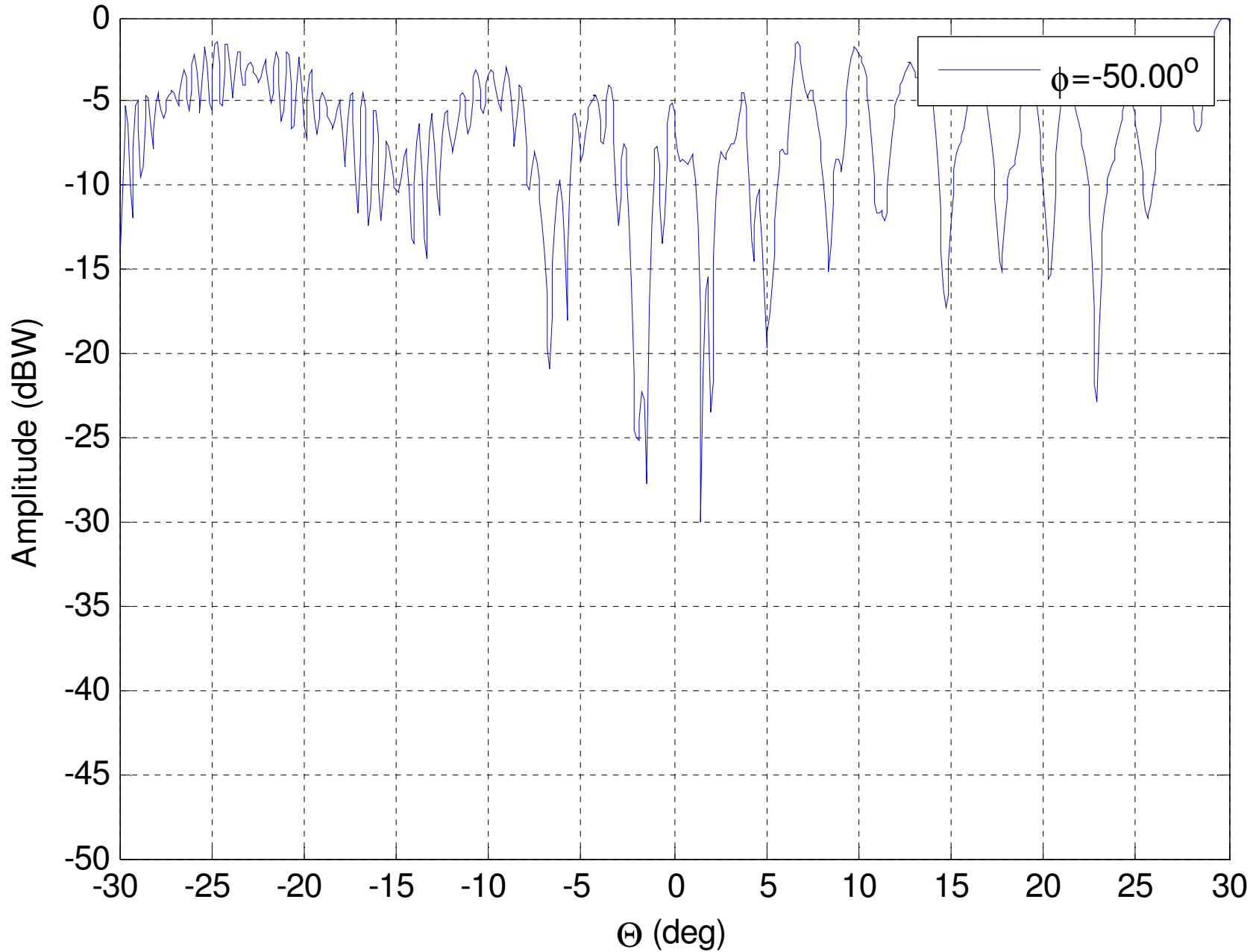
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -6.61 dBW, Date: 15-Dec-2011



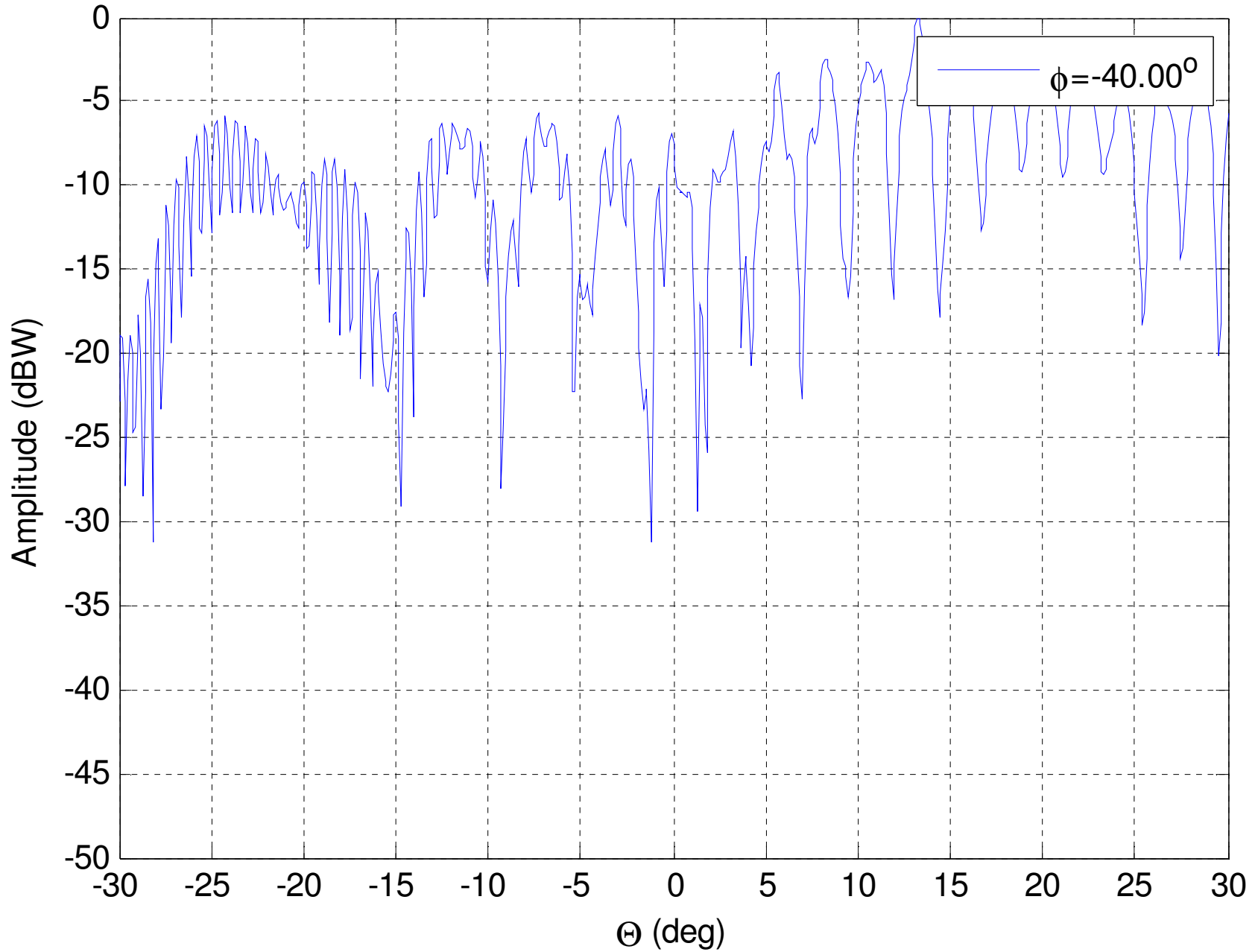
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -8.10 dBW, Date: 15-Dec-2011



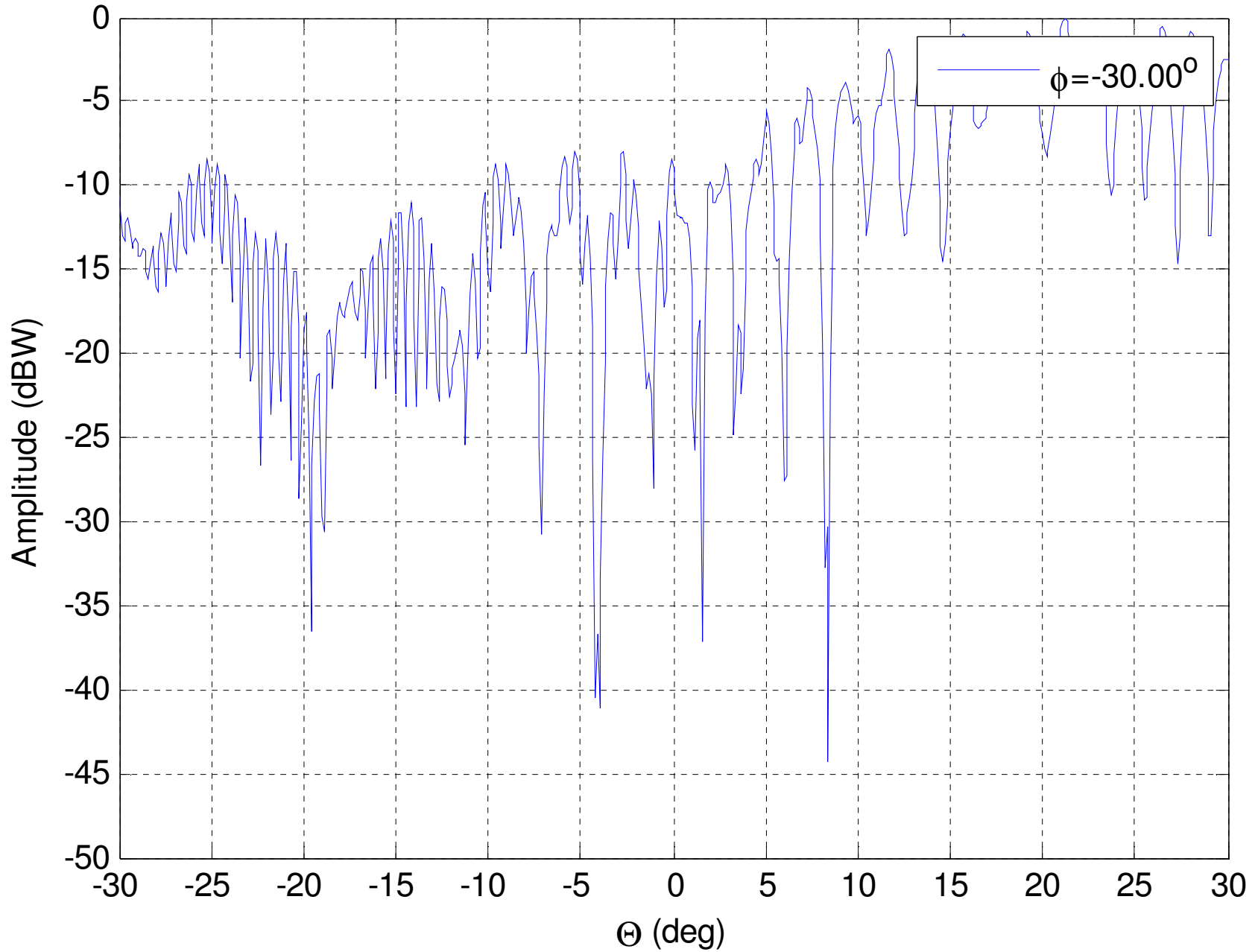
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -6.22 dBW, Date: 15-Dec-2011



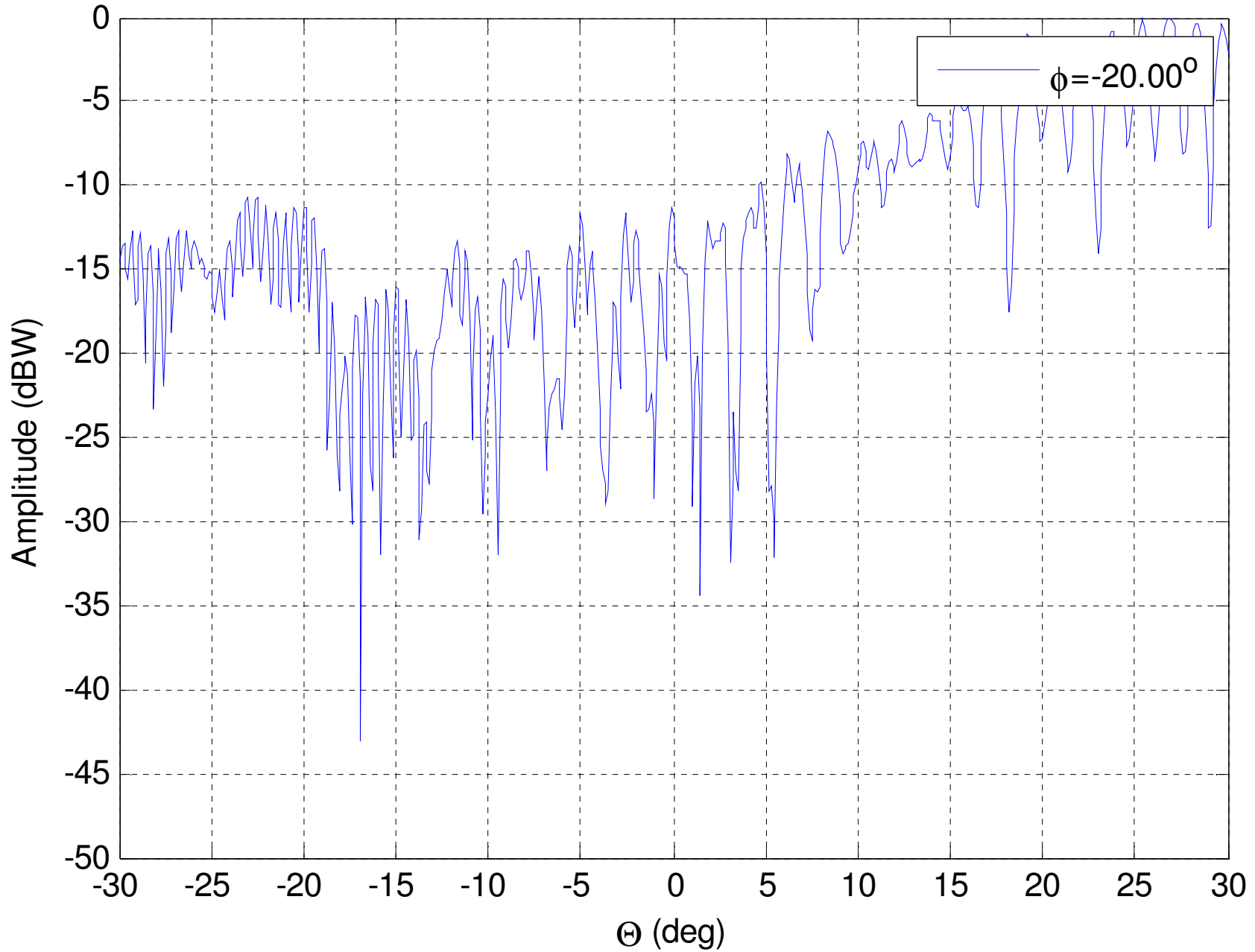
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -4.74 dBW, Date: 15-Dec-2011



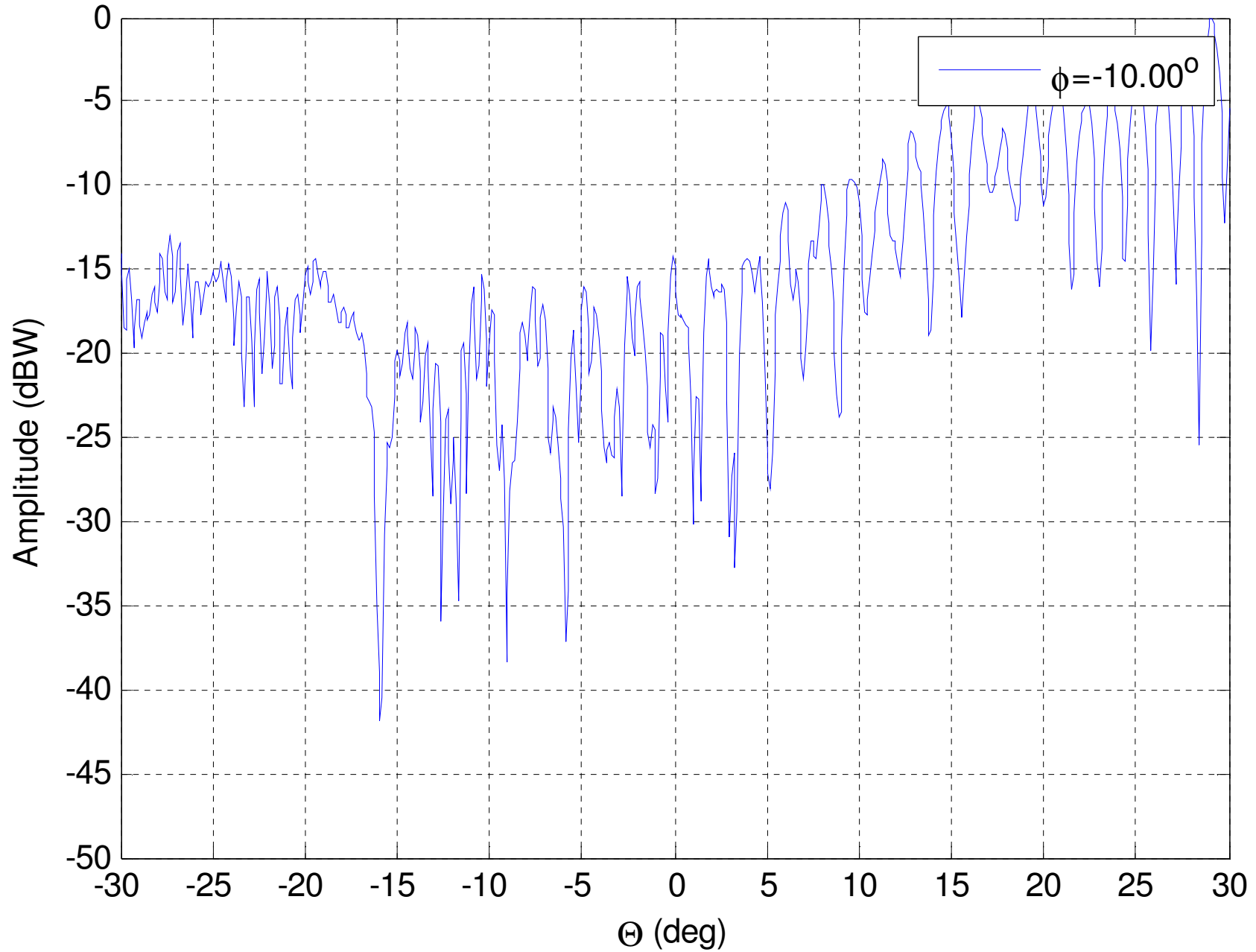
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: -1.84 dBW, Date: 15-Dec-2011



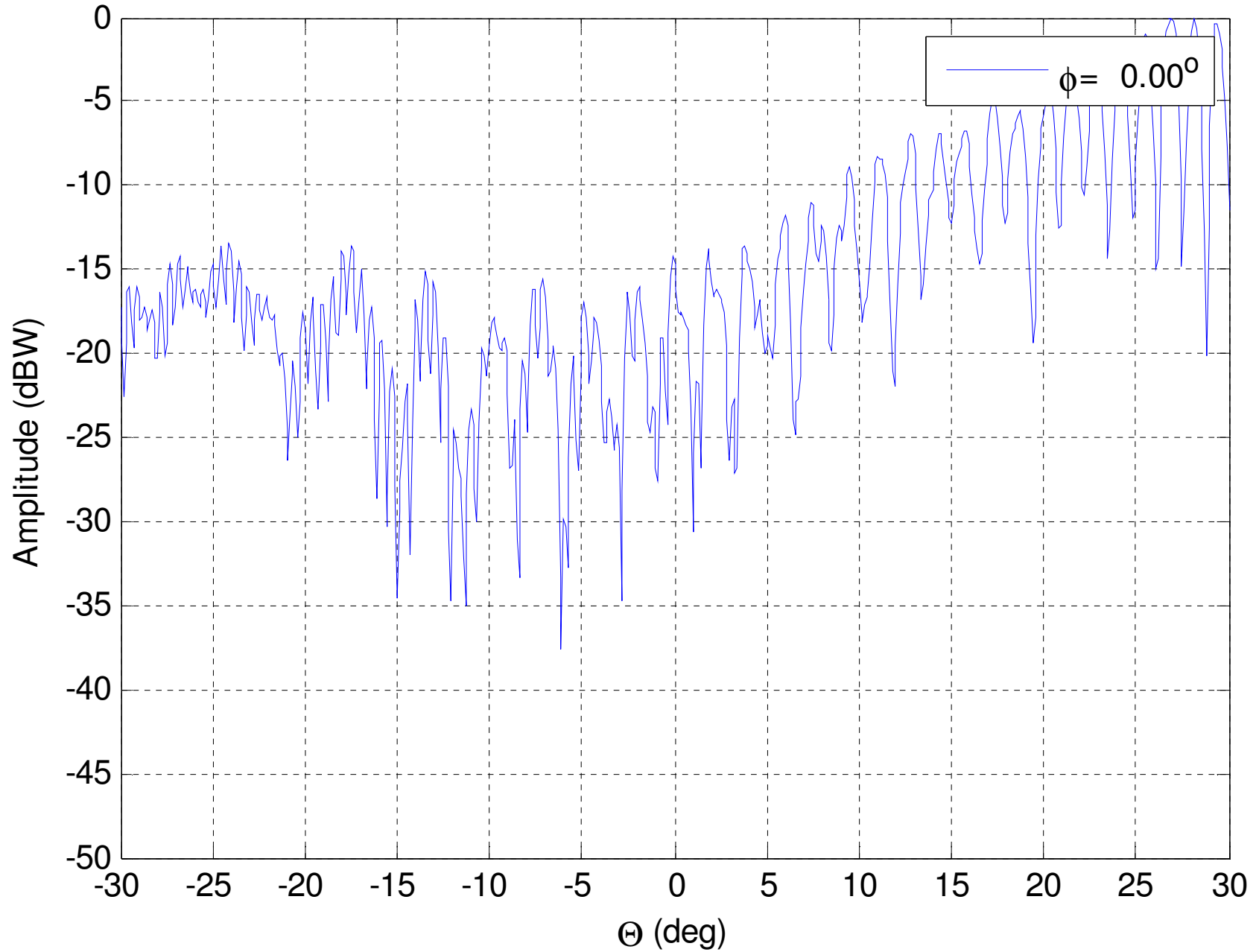
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: 0.99 dBW, Date: 15-Dec-2011



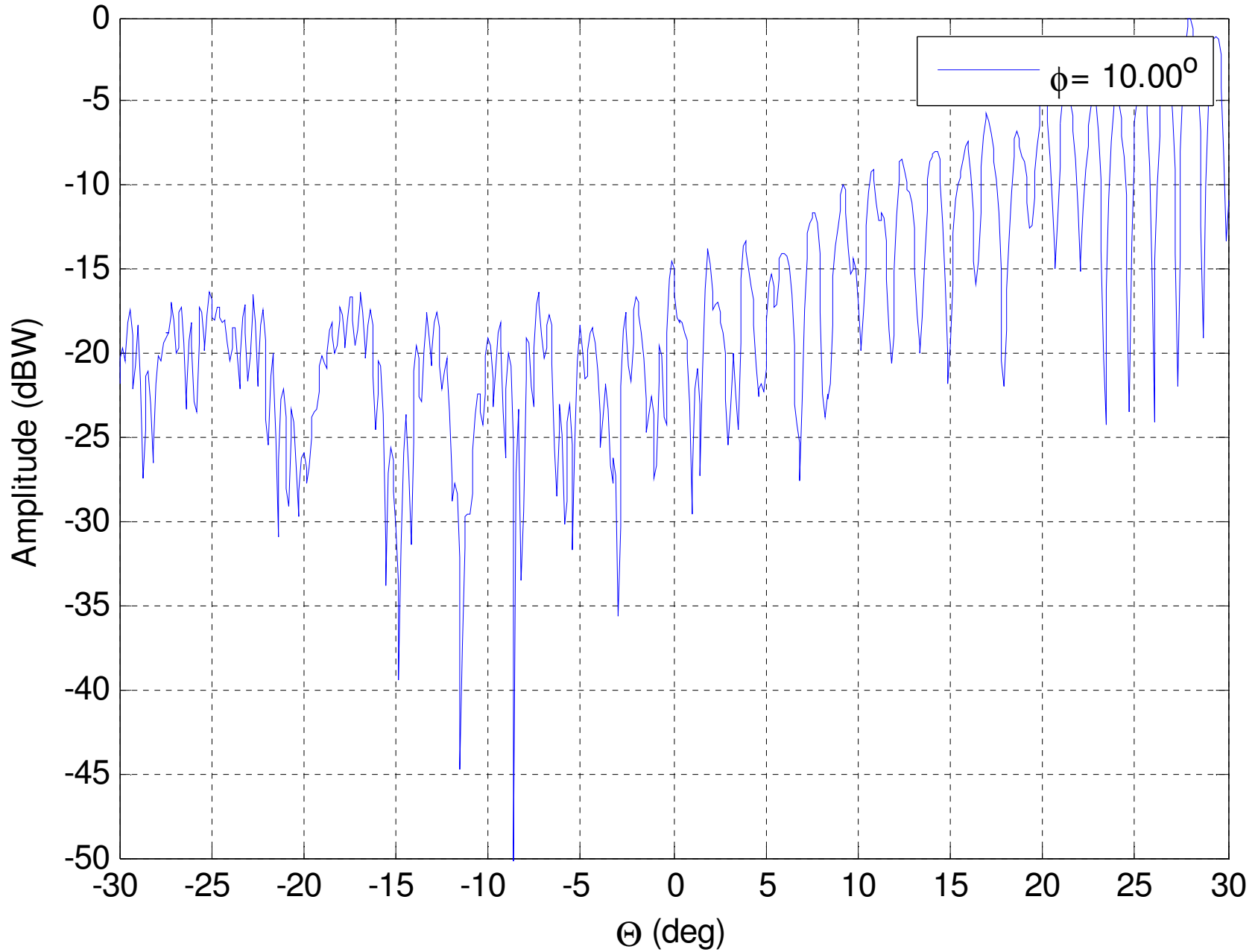
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: 0.91 dBW, Date: 15-Dec-2011



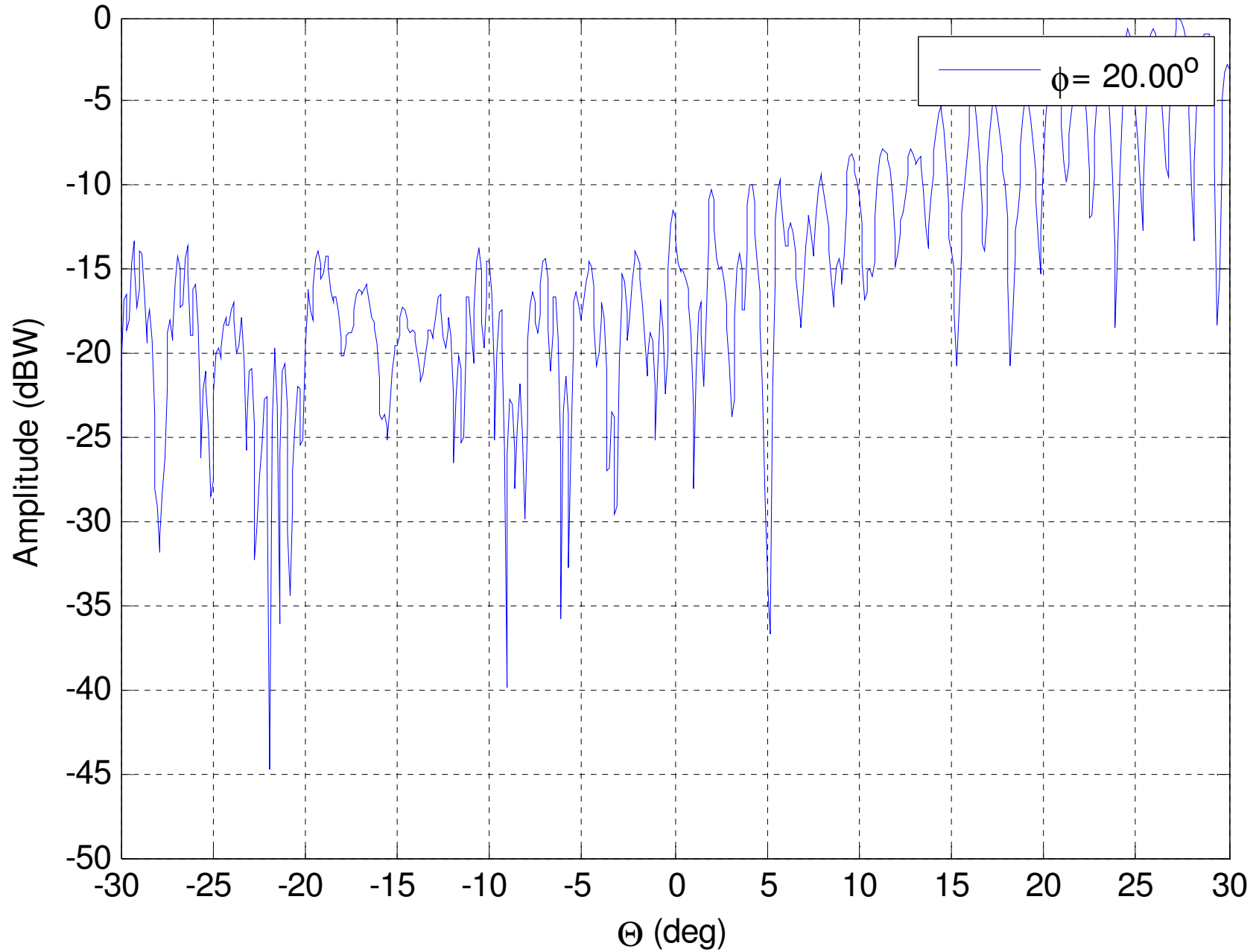
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: 1.25 dBW, Date: 15-Dec-2011



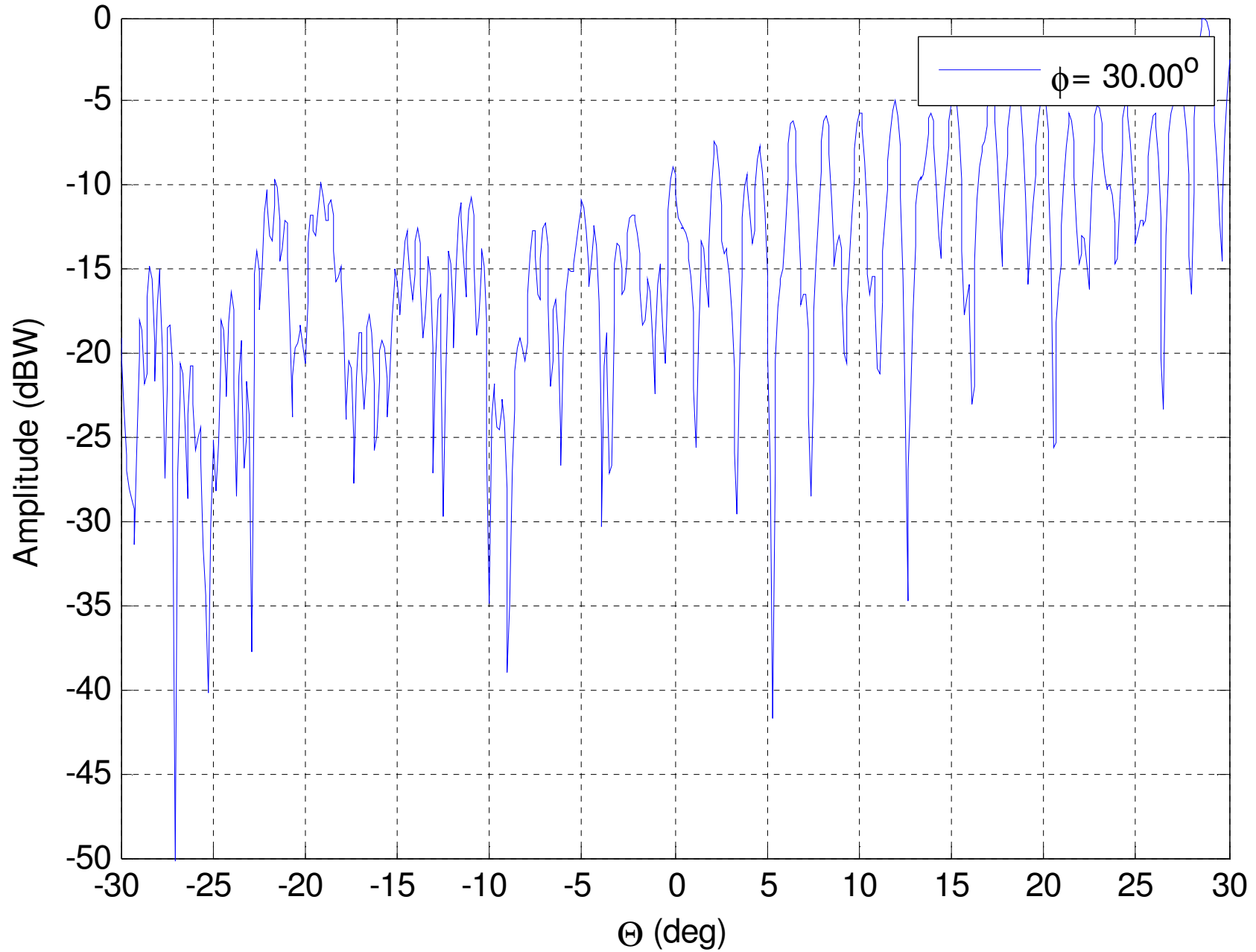
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: -1.84 dBW, Date: 15-Dec-2011



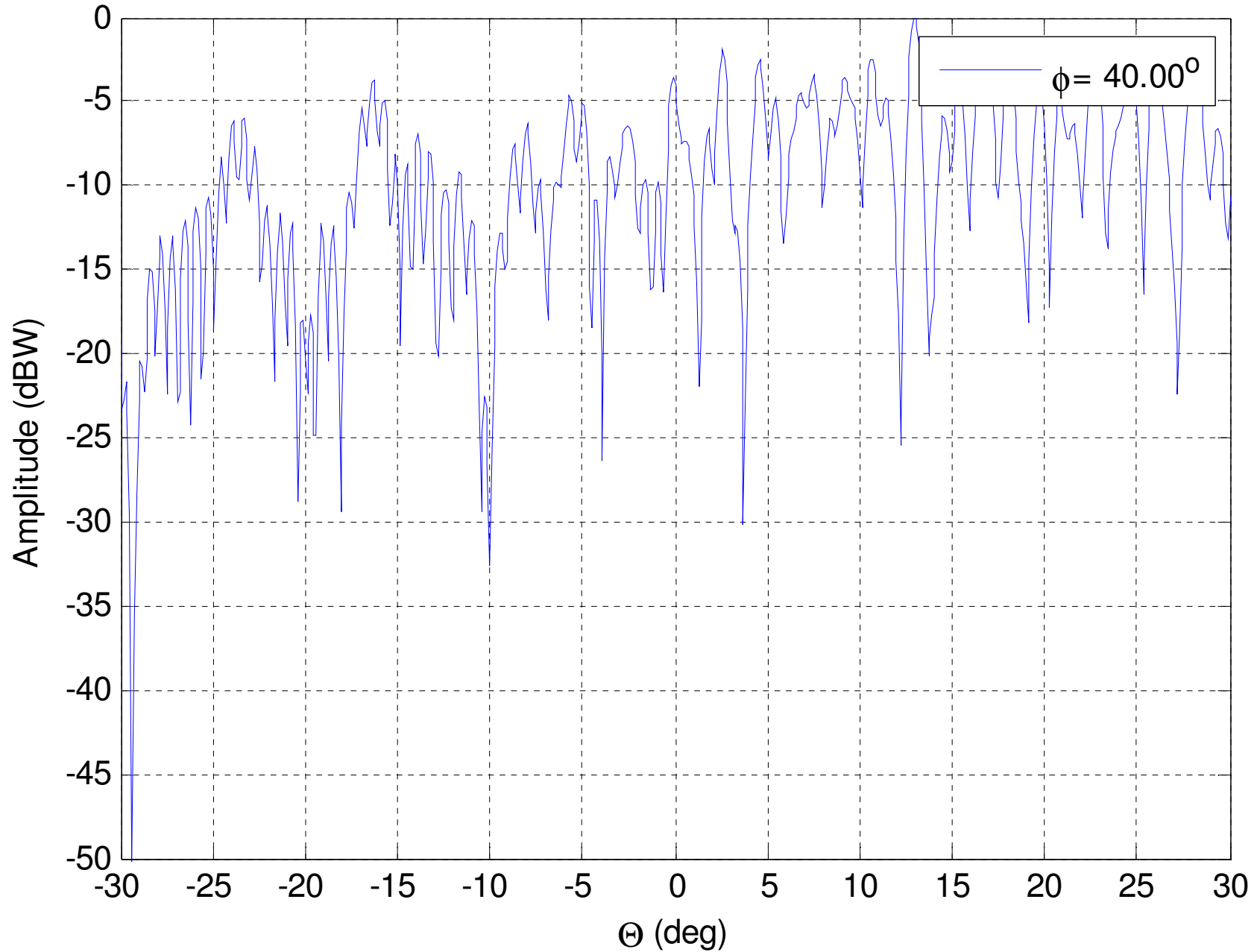
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: -4.37 dBW, Date: 15-Dec-2011



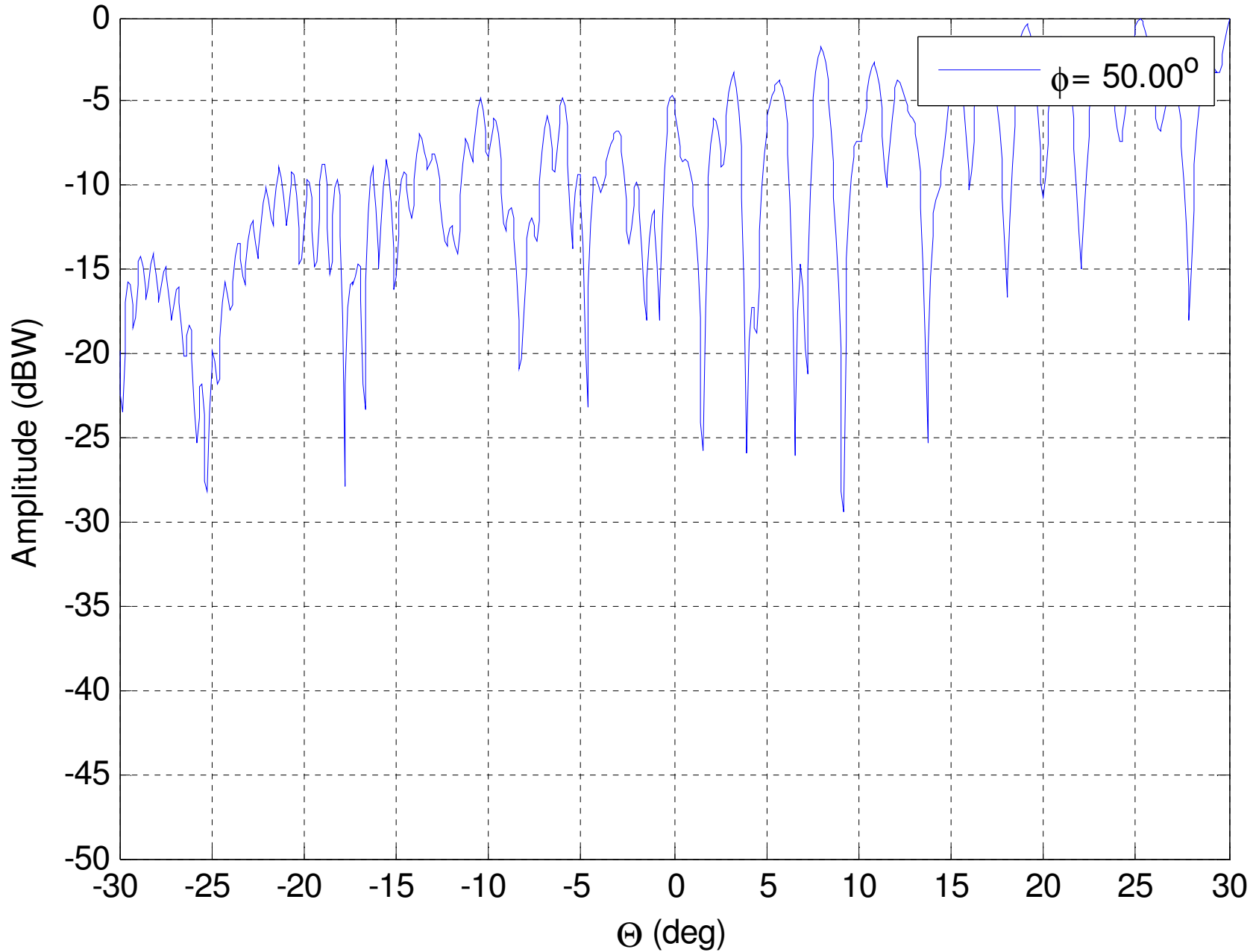
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -9.71 dBW, Date: 15-Dec-2011



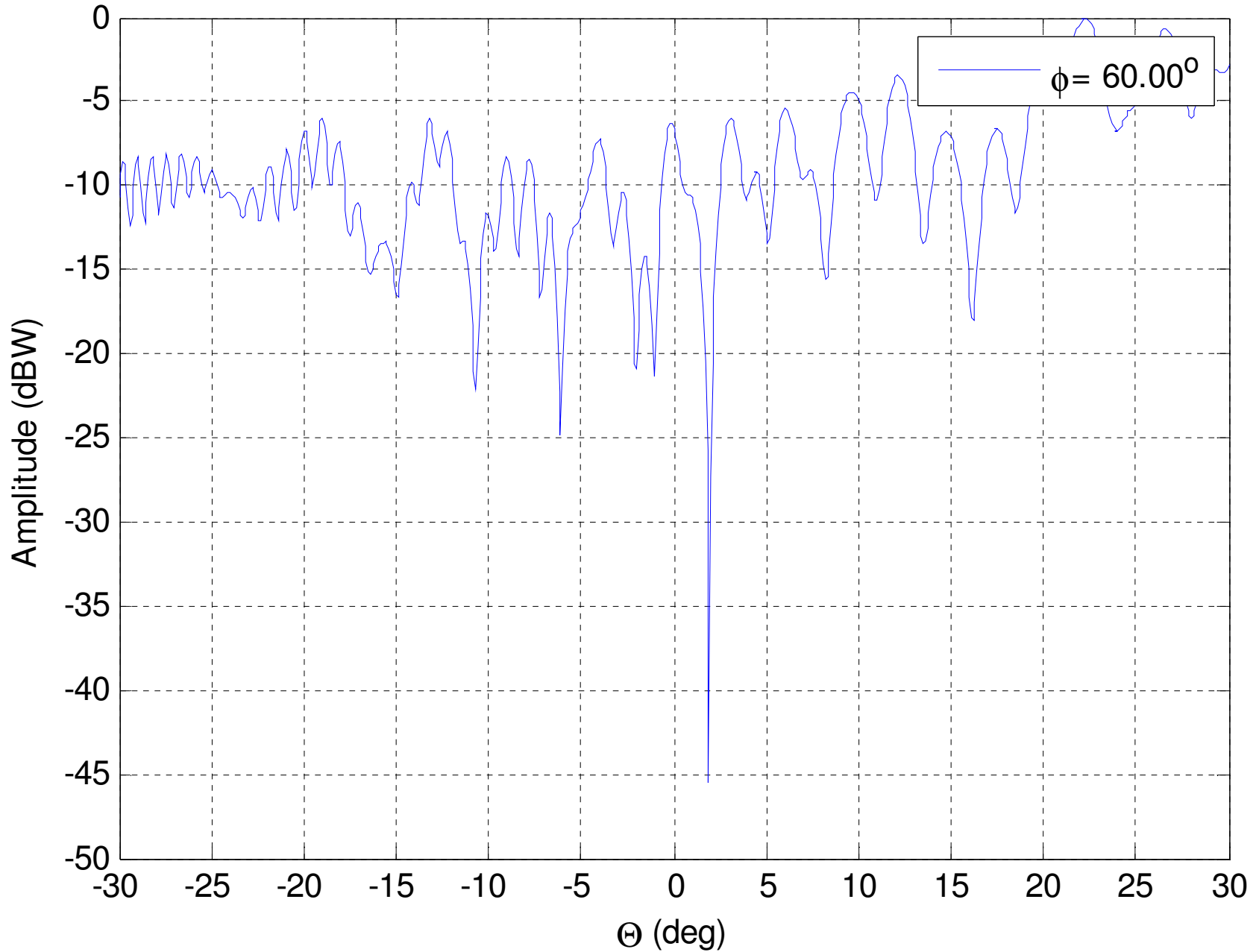
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -8.82 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

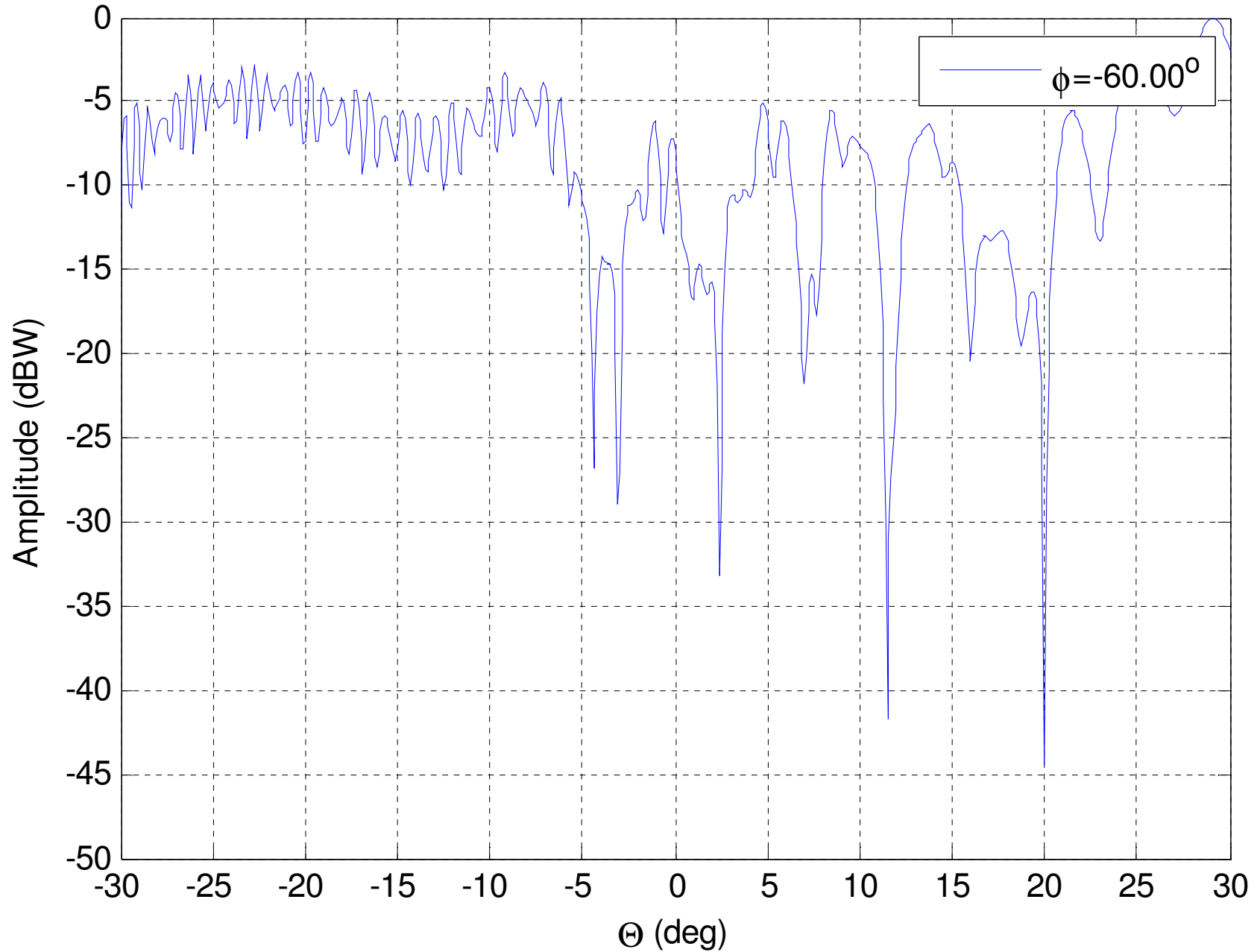
Input file: tx-17.3-rhcp-60.cut, Peak: -7.16 dBW, Date: 15-Dec-2011



LHCP at 17.3 GHz

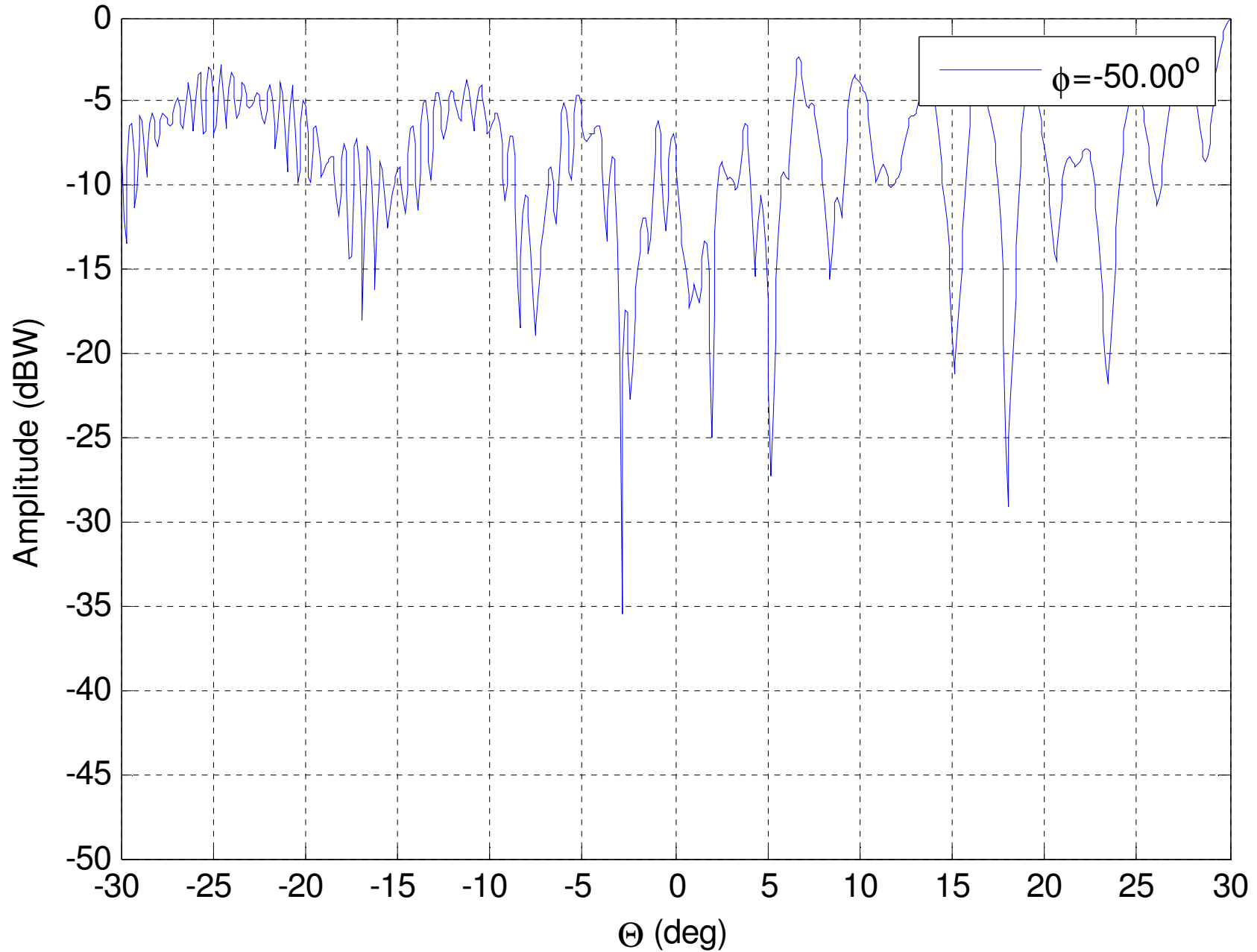
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -6.63 dBW, Date: 15-Dec-2011



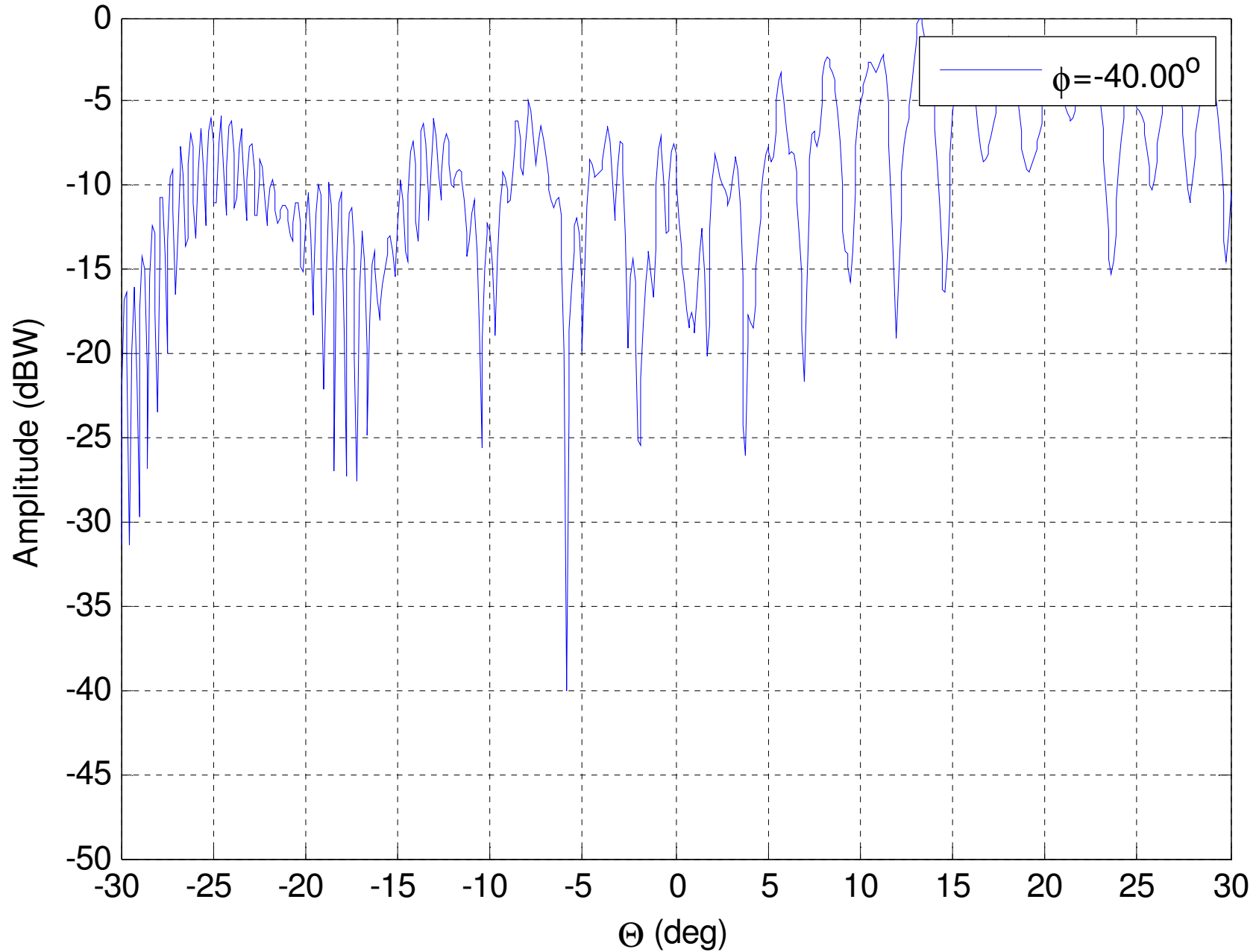
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -6.91 dBW, Date: 15-Dec-2011



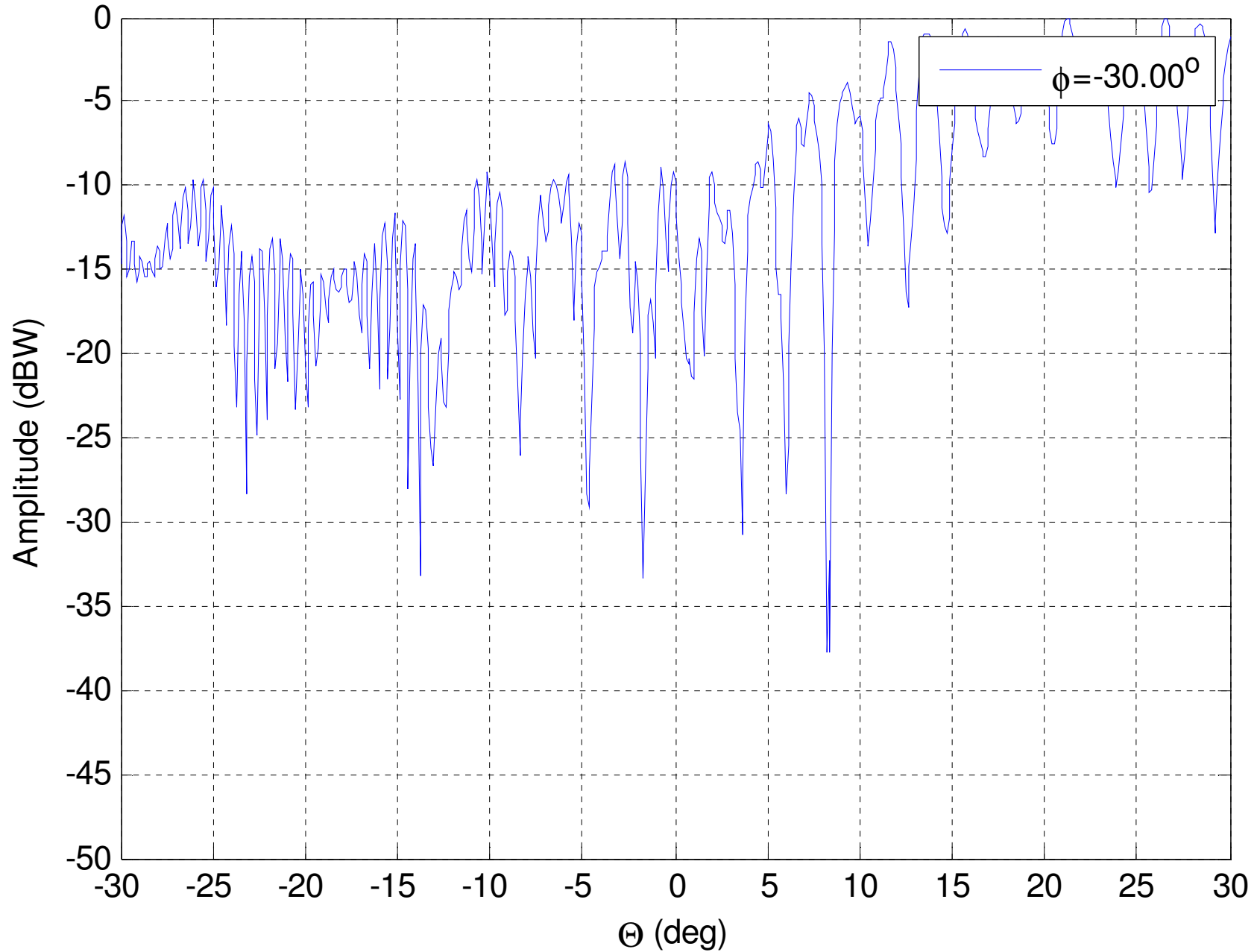
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -6.36 dBW, Date: 15-Dec-2011



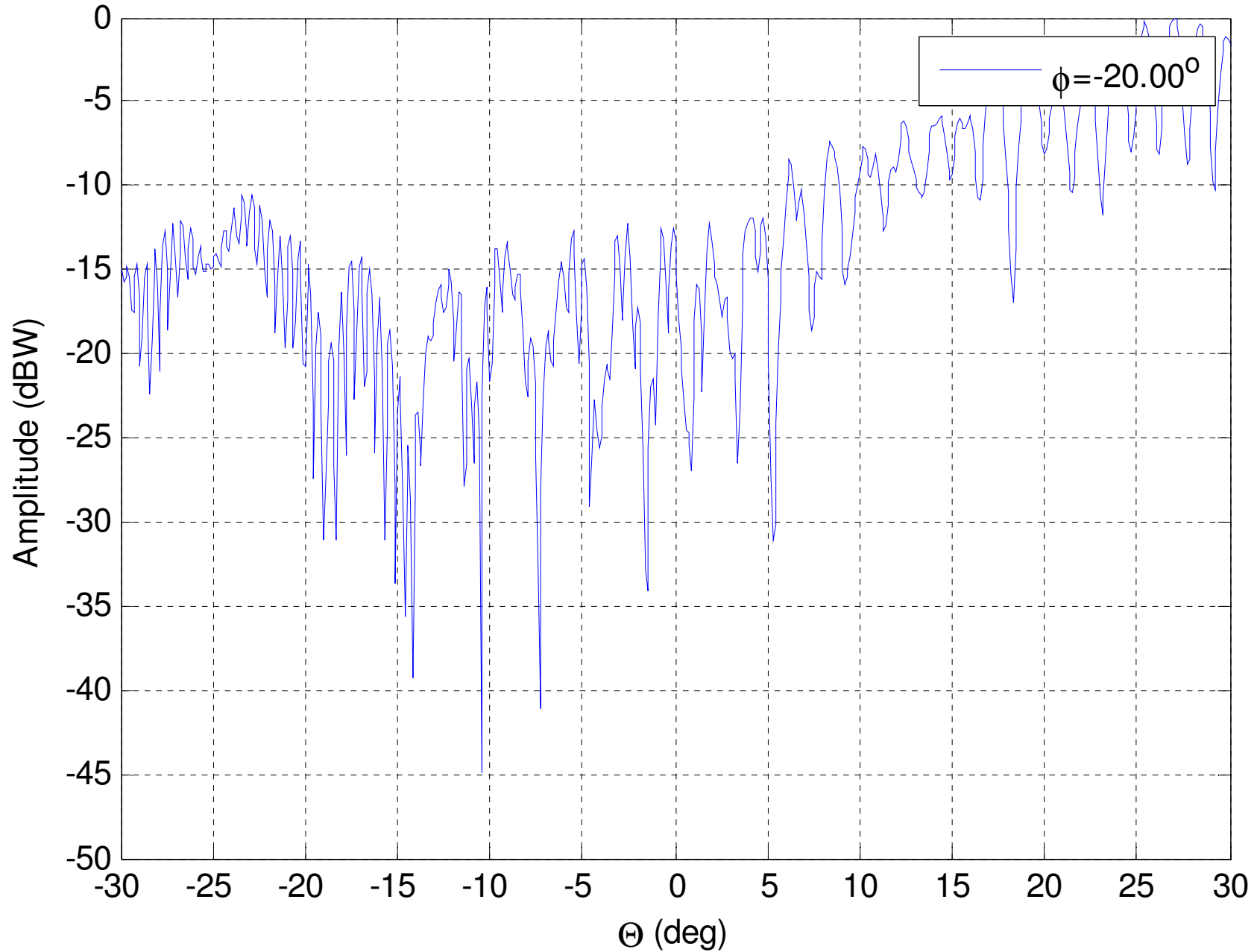
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: -4.71 dBW, Date: 15-Dec-2011



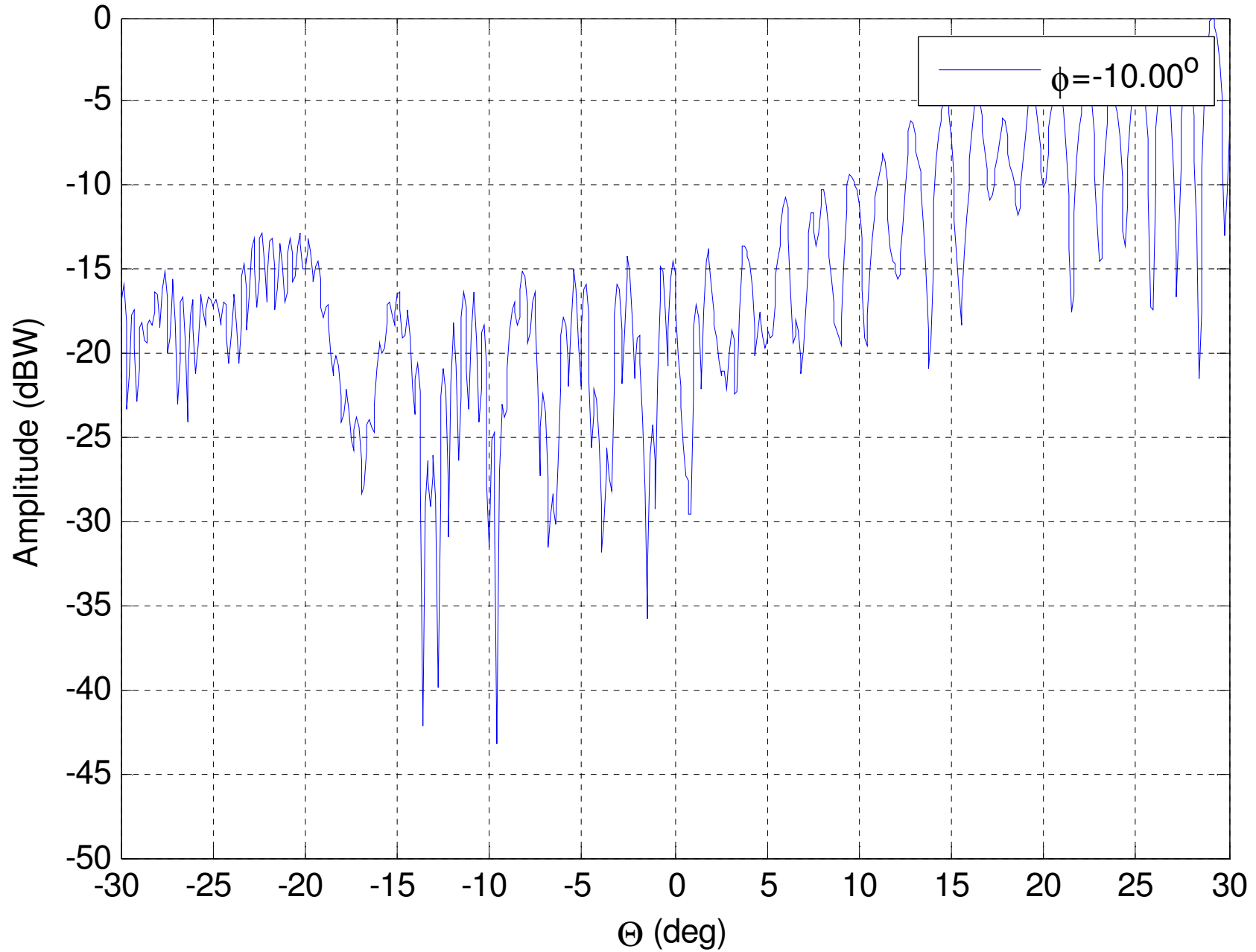
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: -1.28 dBW, Date: 15-Dec-2011



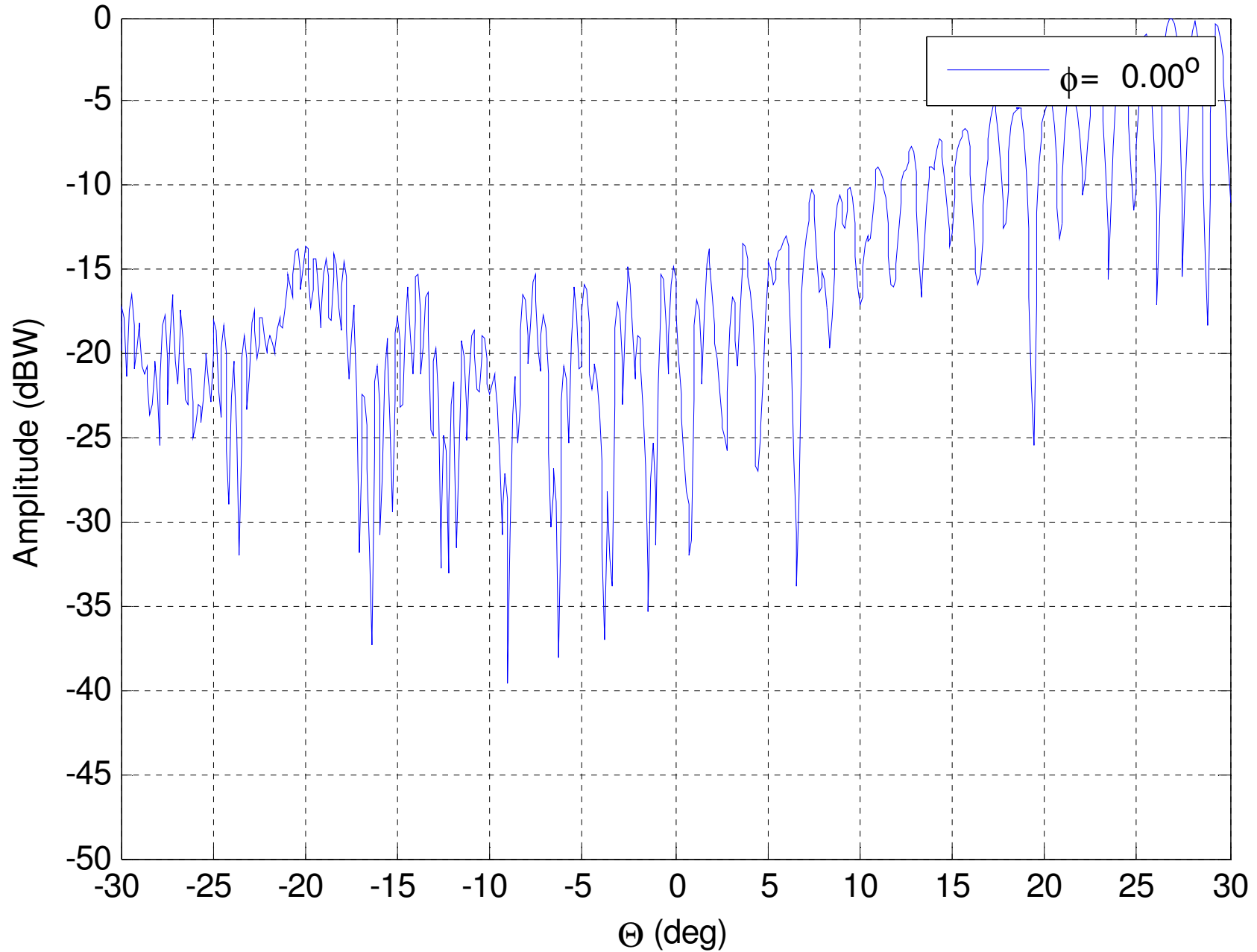
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: 0.69 dBW, Date: 15-Dec-2011



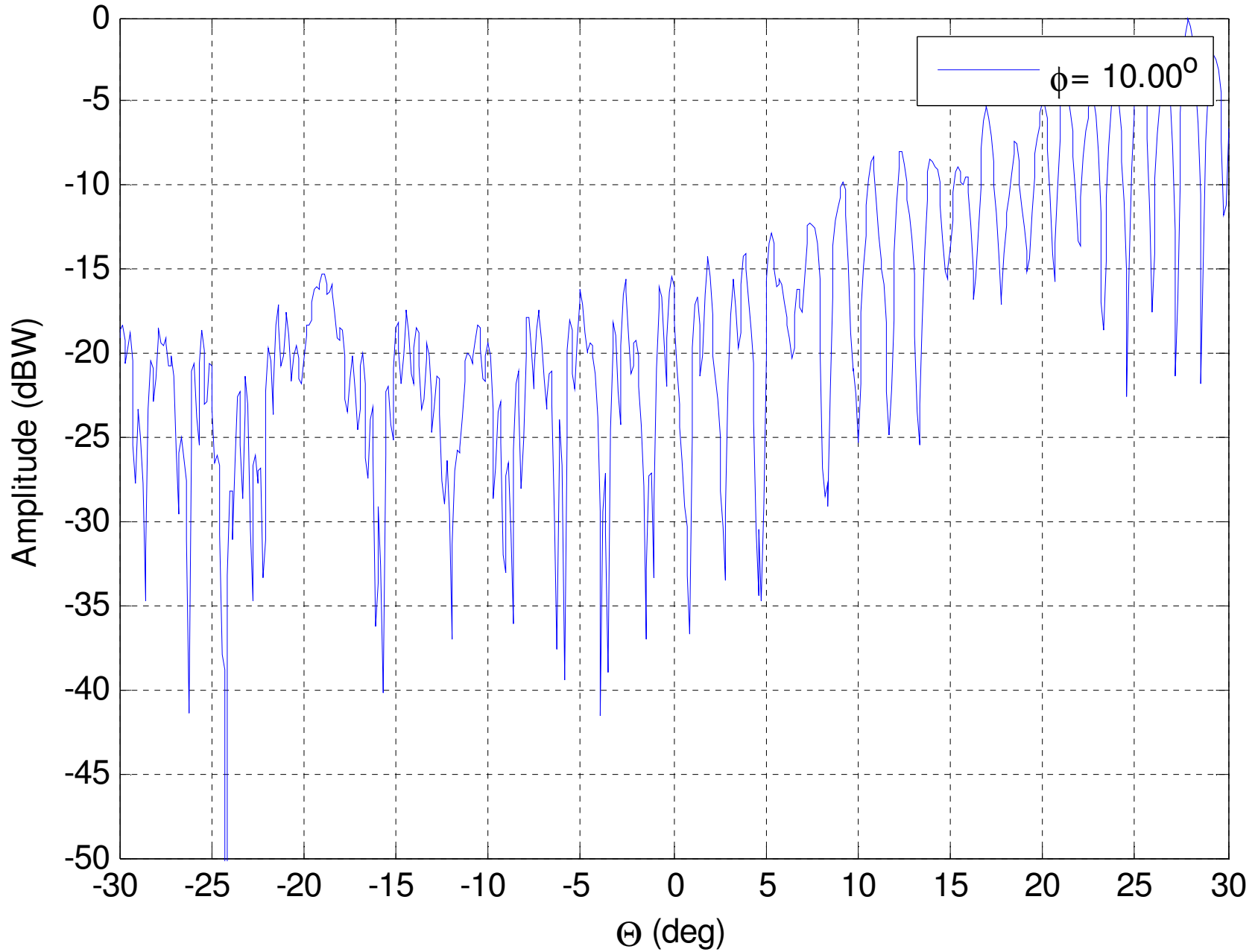
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: 1.01 dBW, Date: 15-Dec-2011



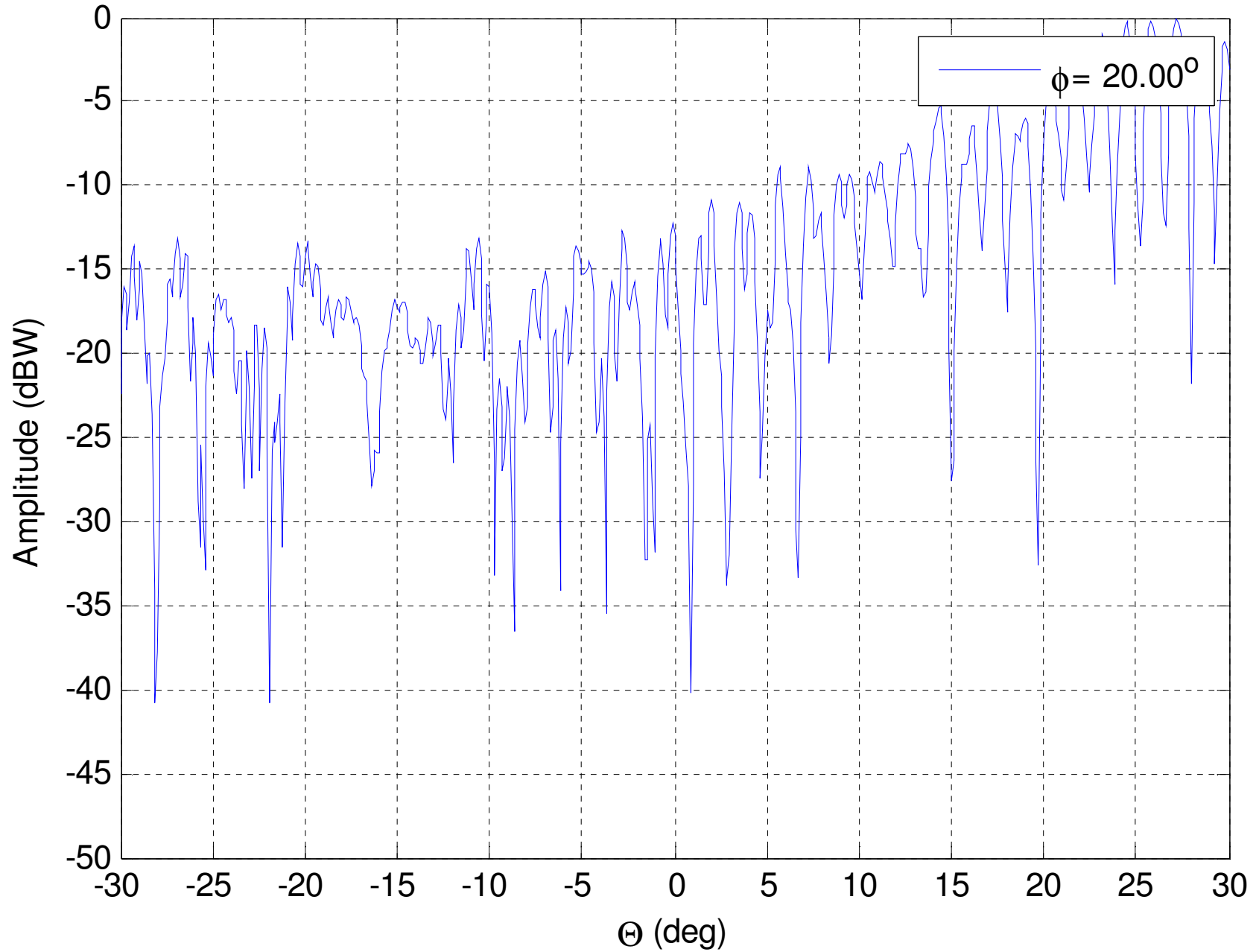
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: 1.54 dBW, Date: 15-Dec-2011



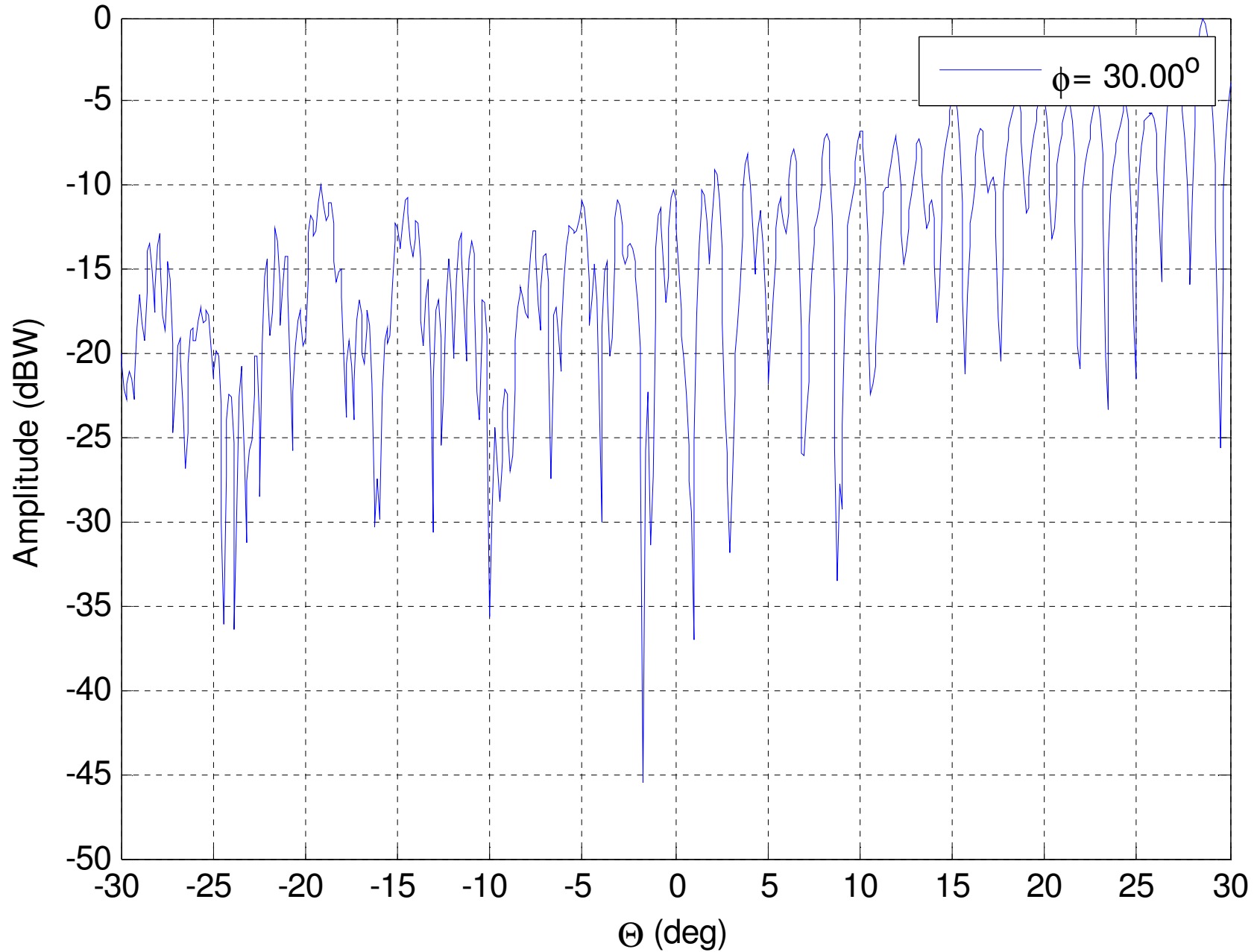
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: -1.59 dBW, Date: 15-Dec-2011



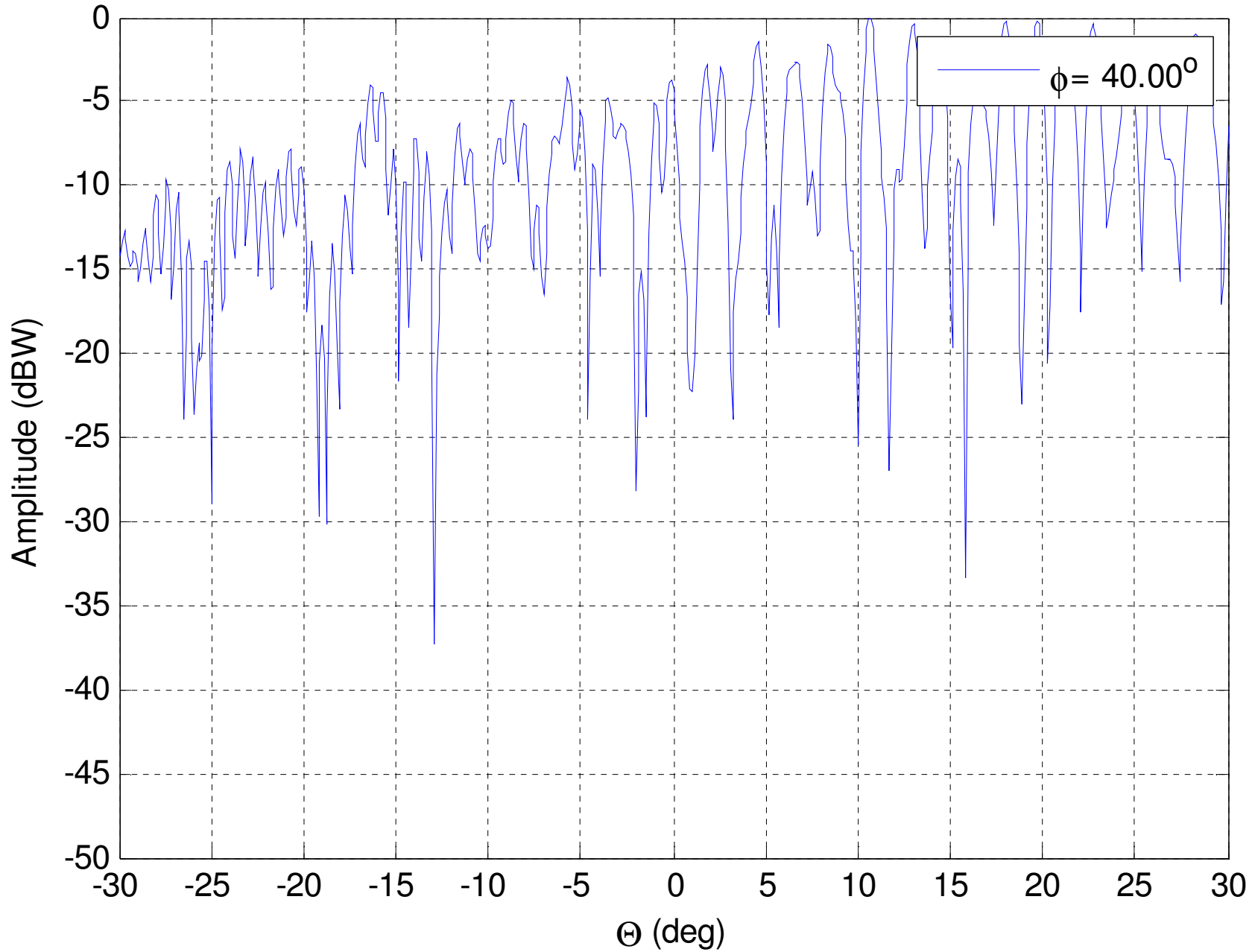
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: -3.62 dBW, Date: 15-Dec-2011



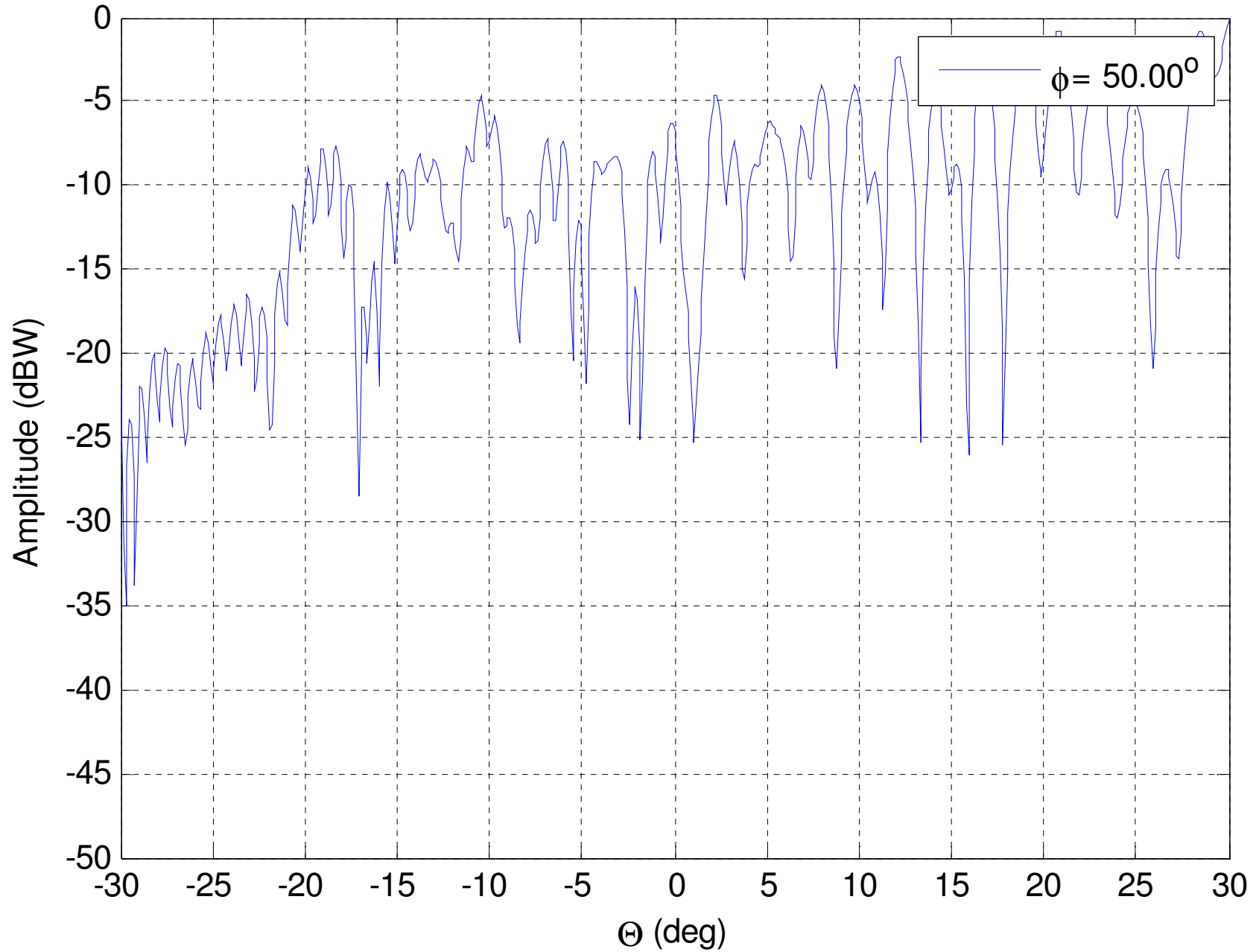
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -10.21 dBW, Date: 15-Dec-2011



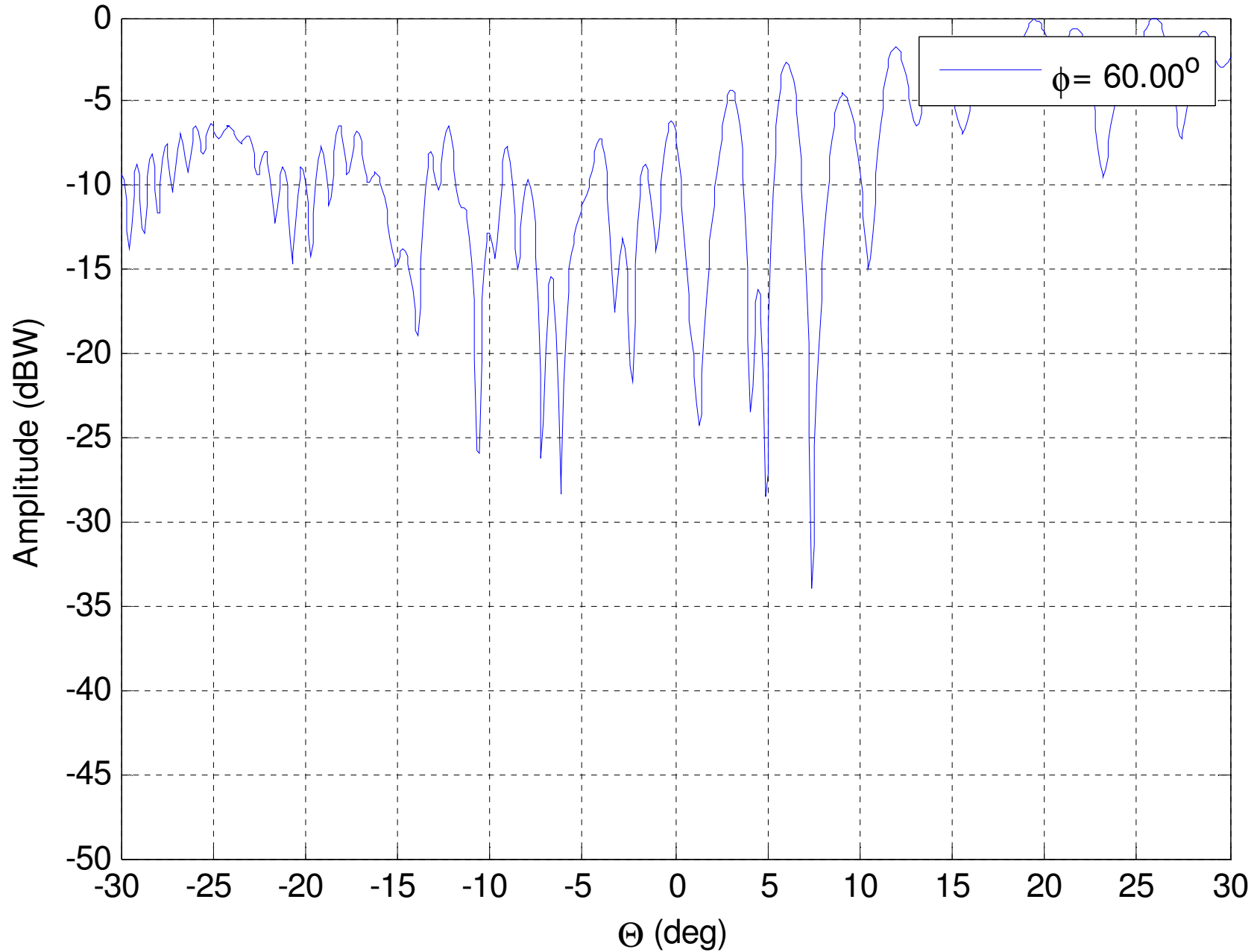
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -7.73 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

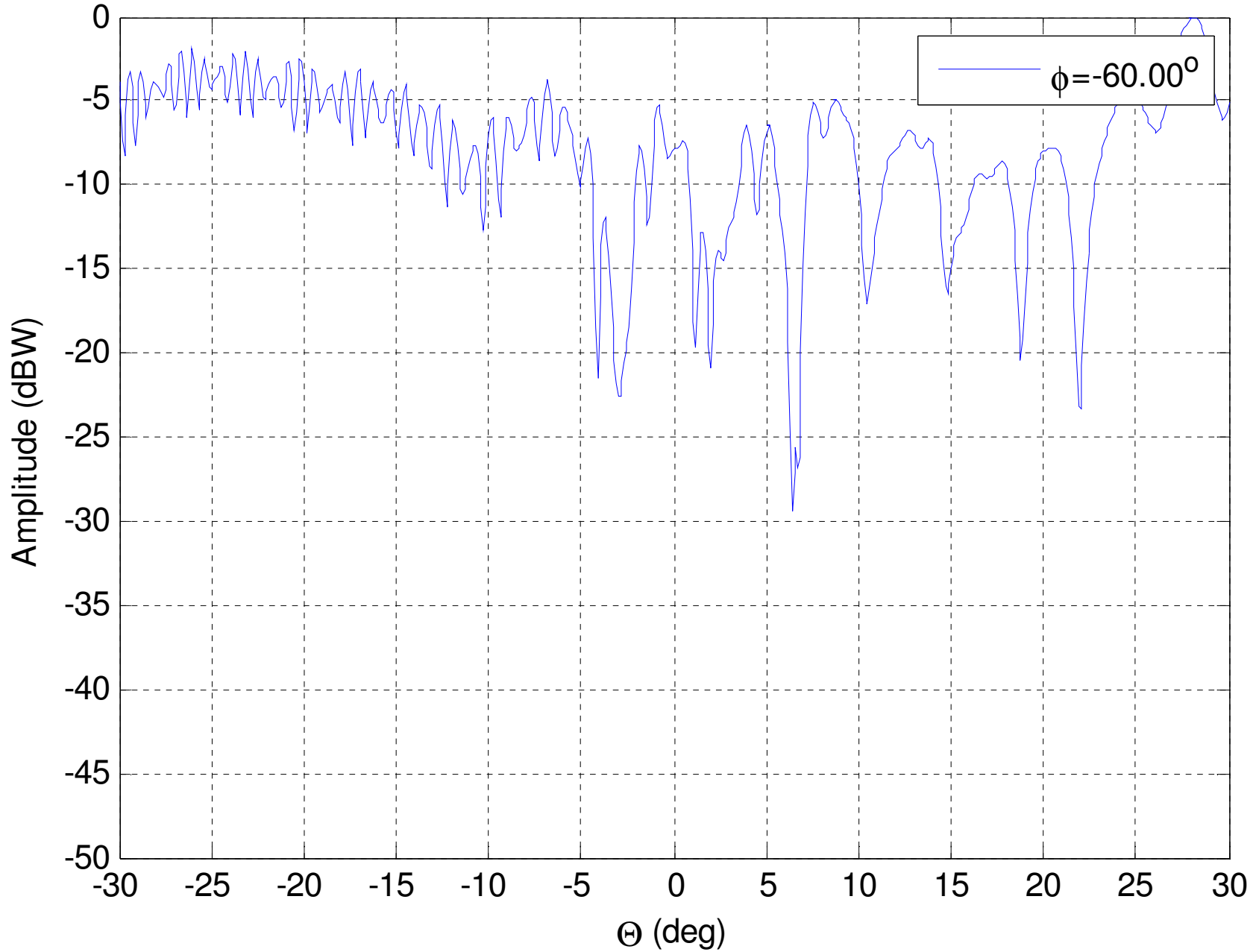
Input file: tx-17.3-lhcp-60.cut, Peak: -7.79 dBW, Date: 15-Dec-2011



RHCP at 17.5 GHz

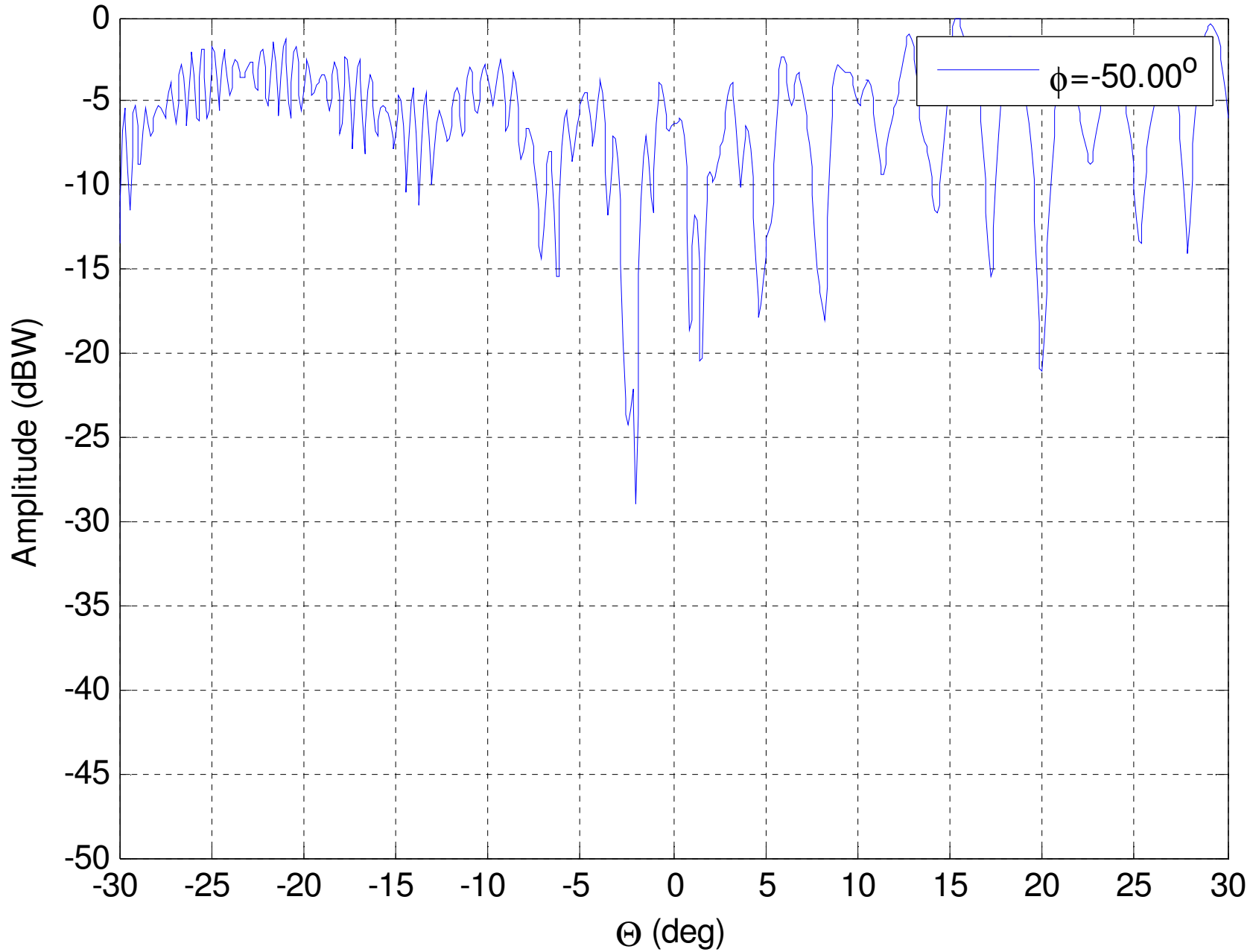
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -7.30 dBW, Date: 15-Dec-2011



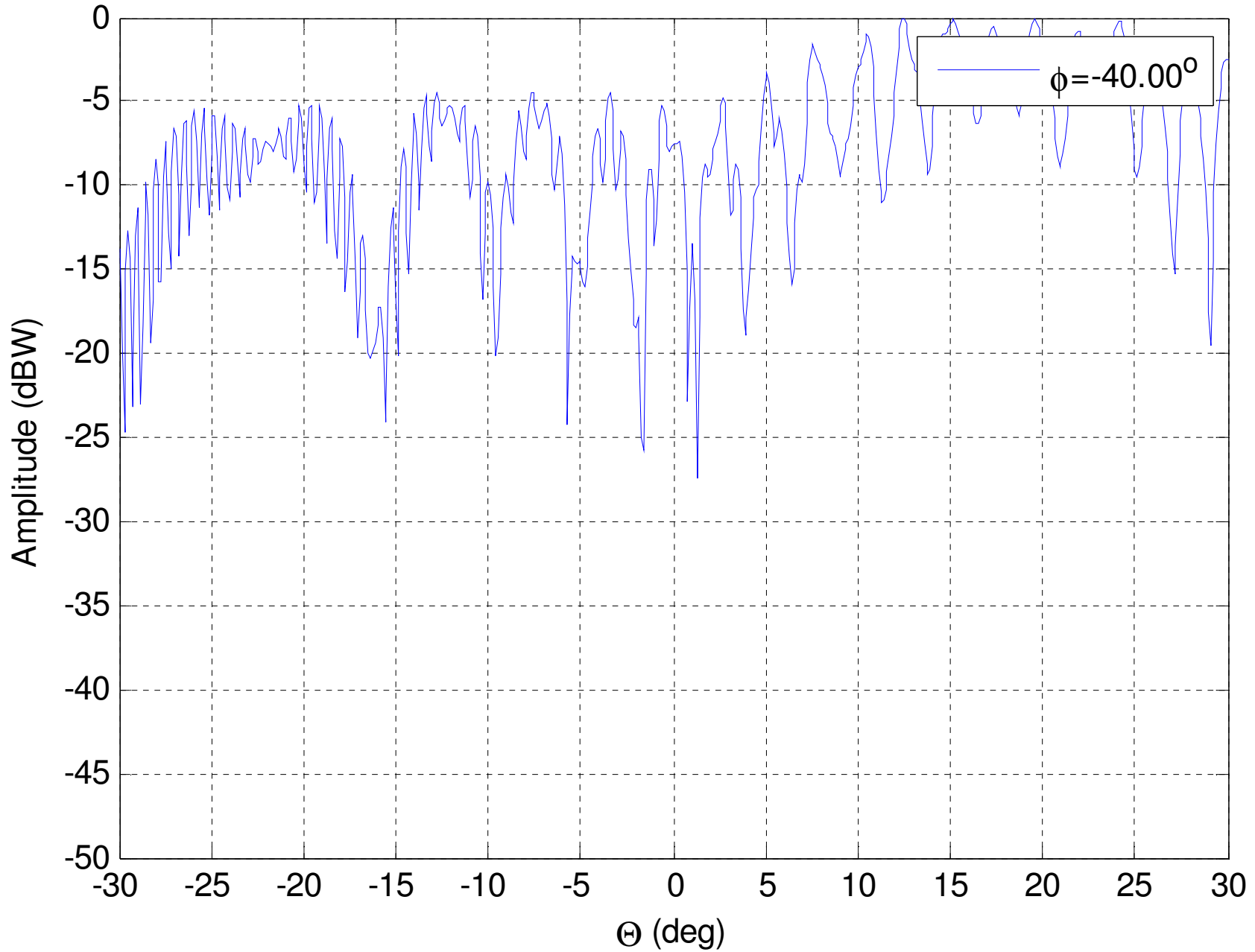
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -8.92 dBW, Date: 15-Dec-2011



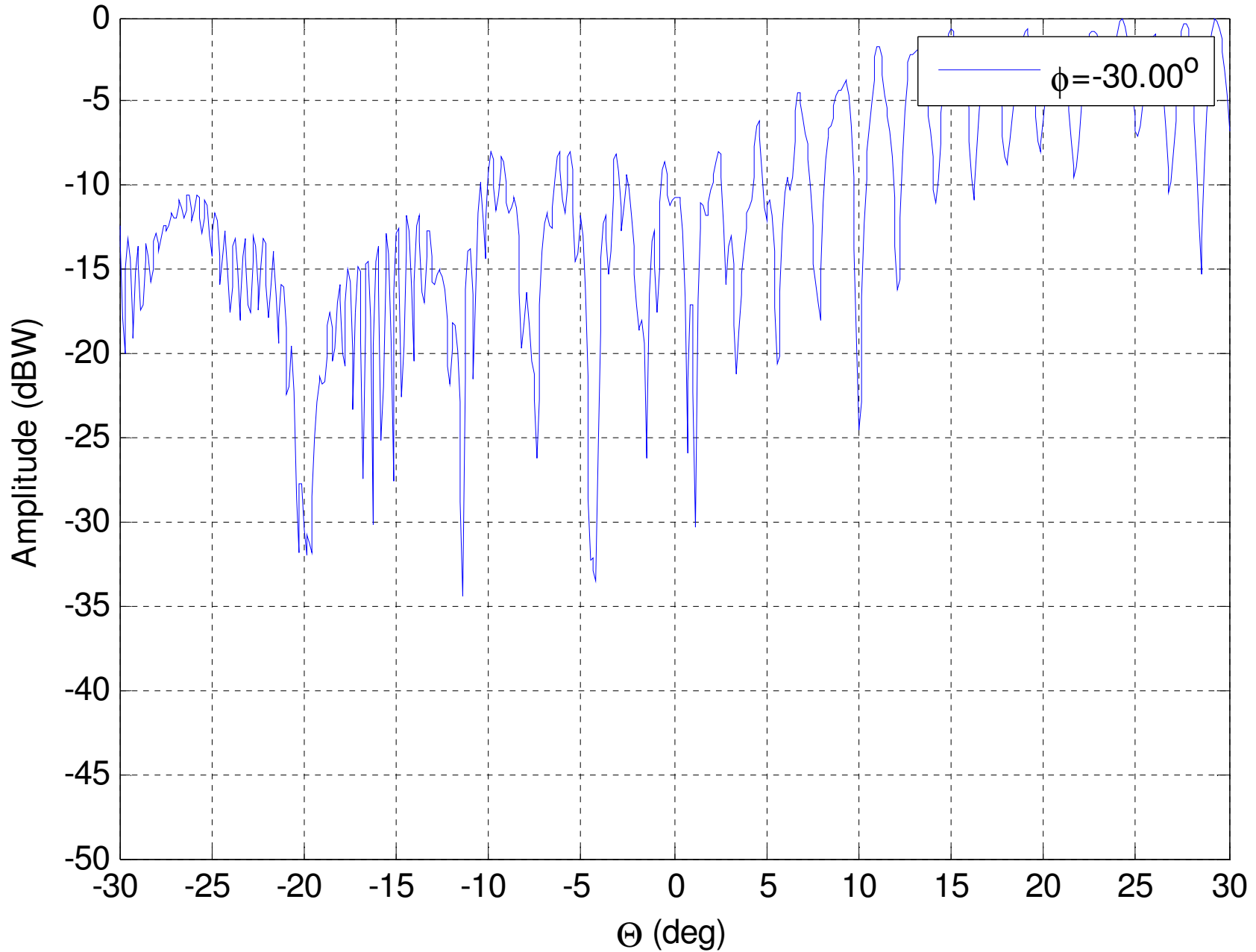
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -7.69 dBW, Date: 15-Dec-2011



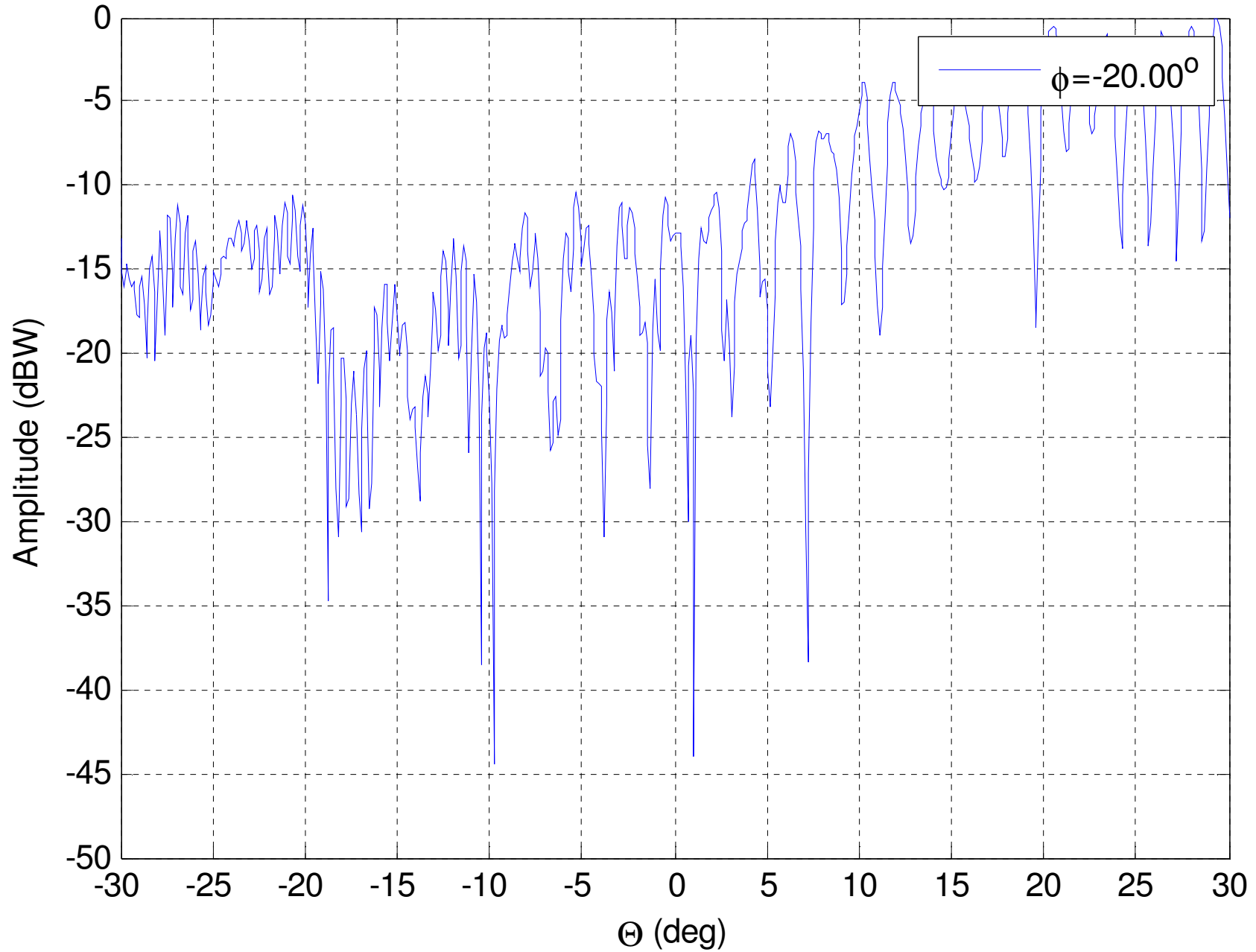
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -4.50 dBW, Date: 15-Dec-2011



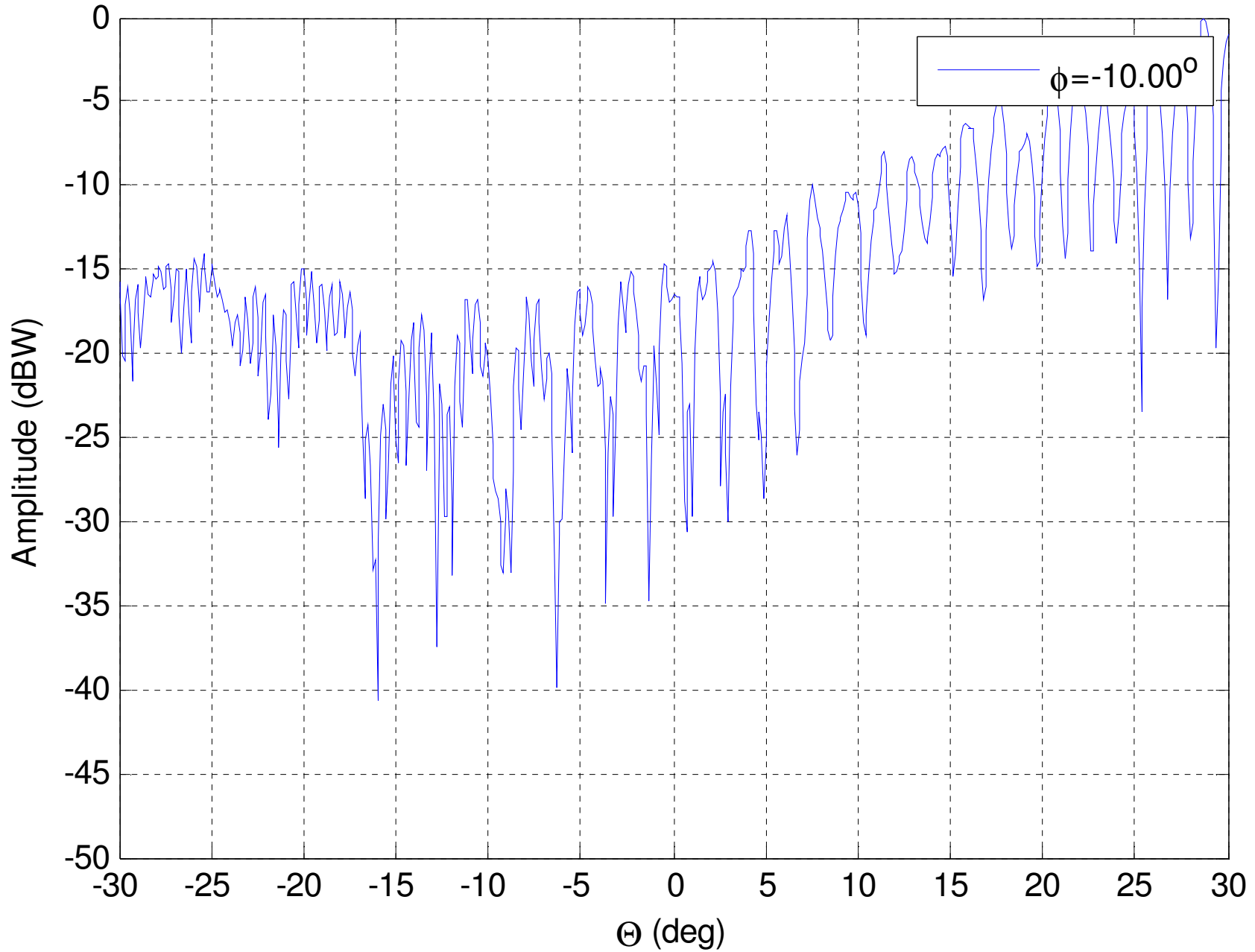
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: -2.37 dBW, Date: 15-Dec-2011



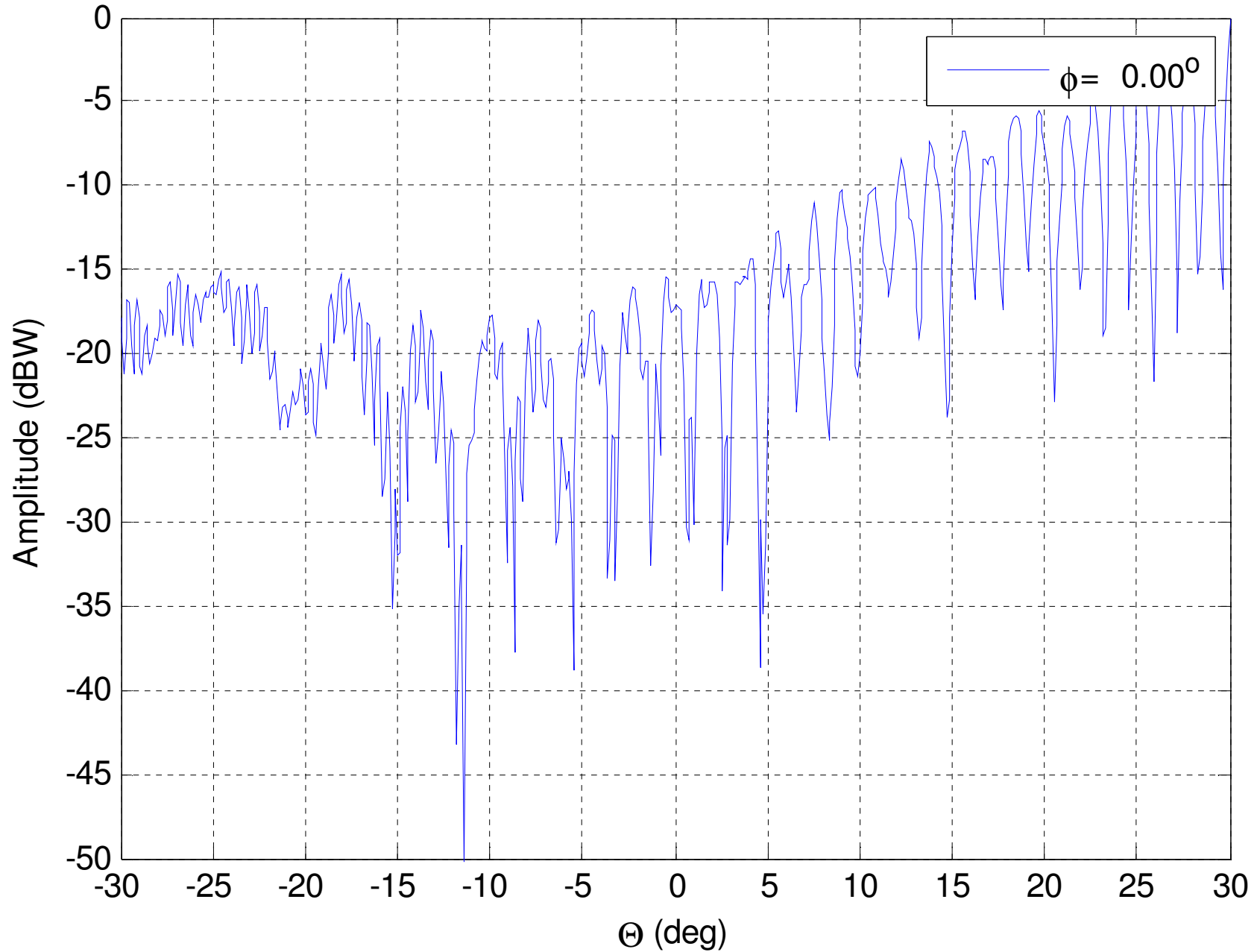
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: 1.29 dBW, Date: 15-Dec-2011



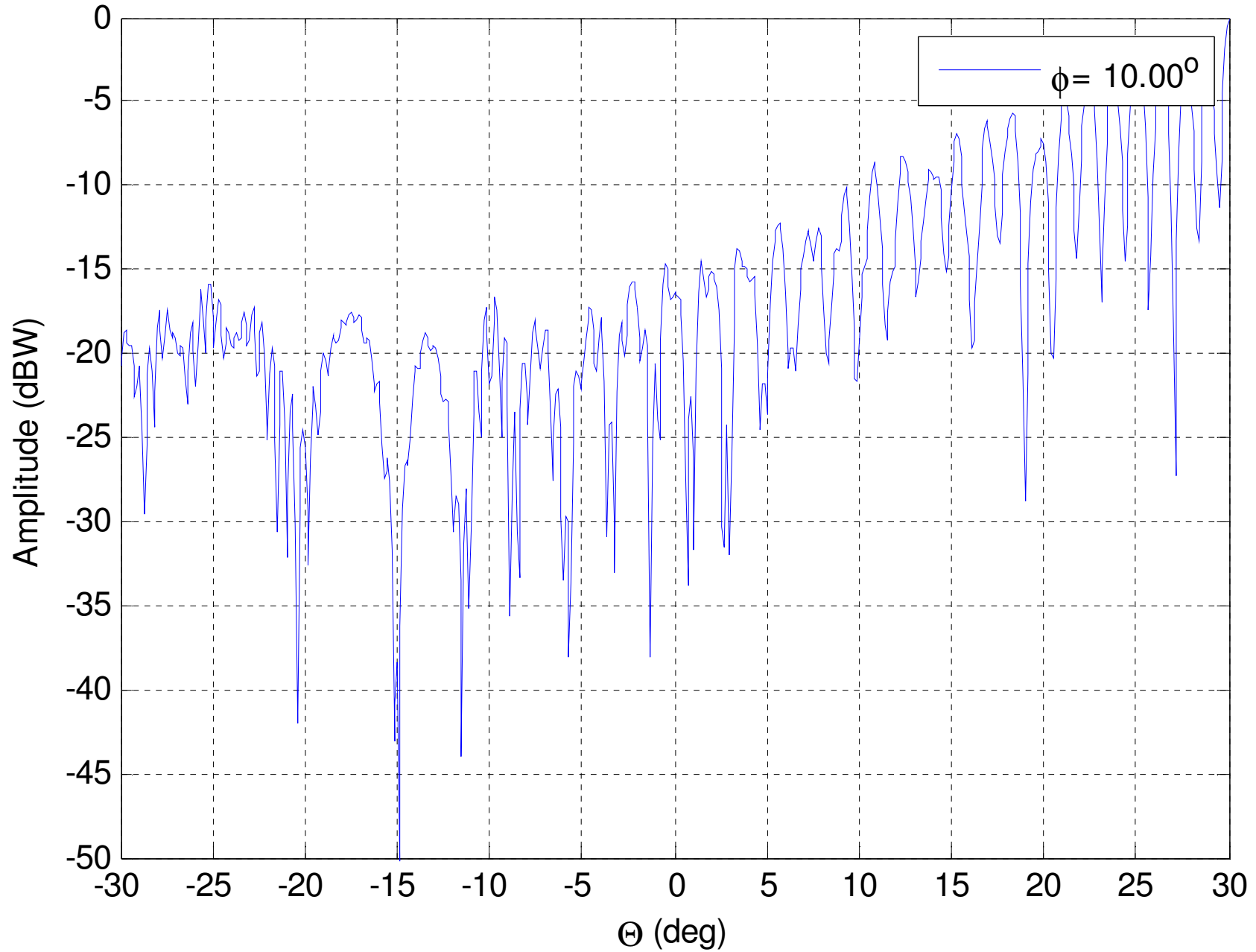
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: 1.93 dBW, Date: 15-Dec-2011



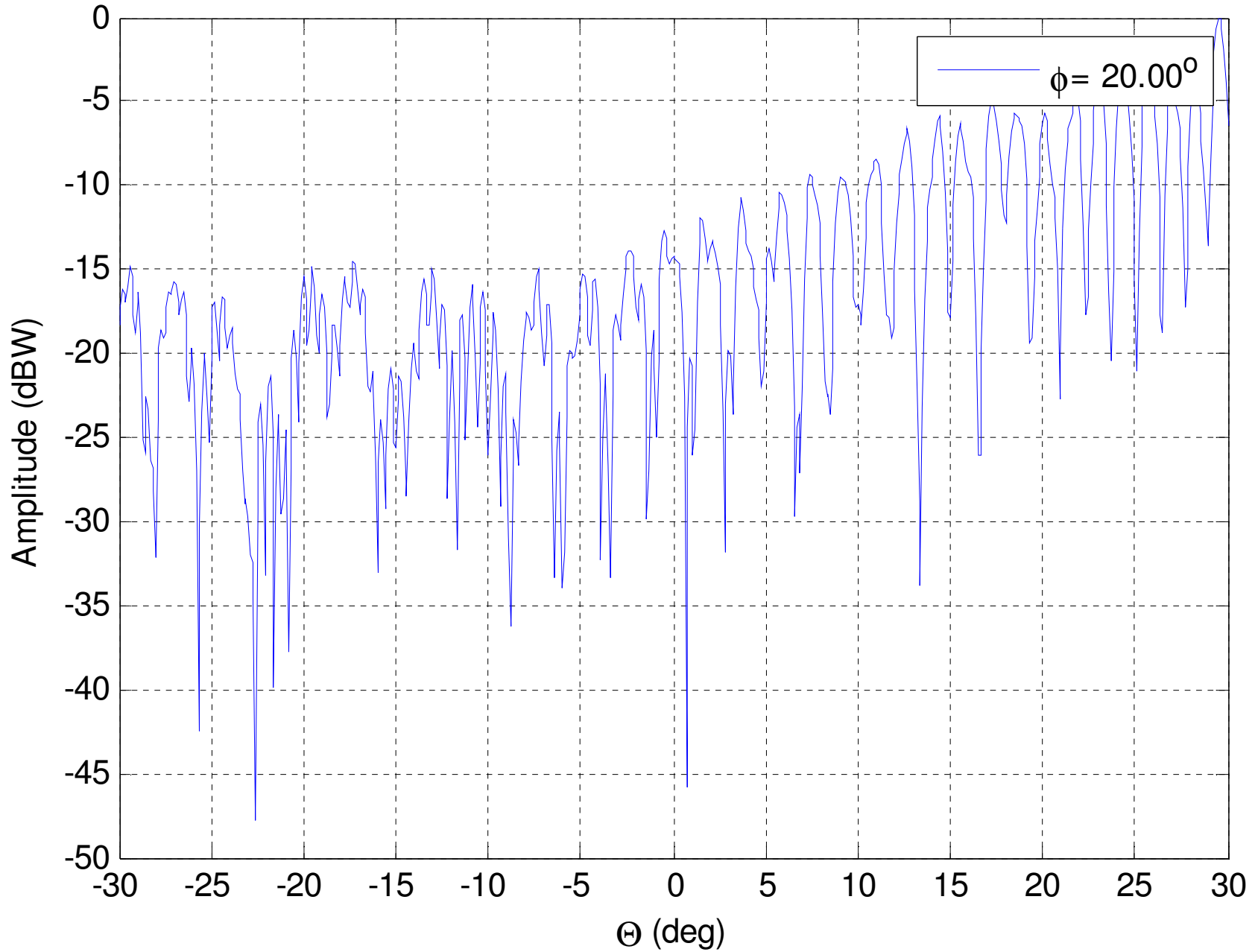
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: 1.19 dBW, Date: 15-Dec-2011



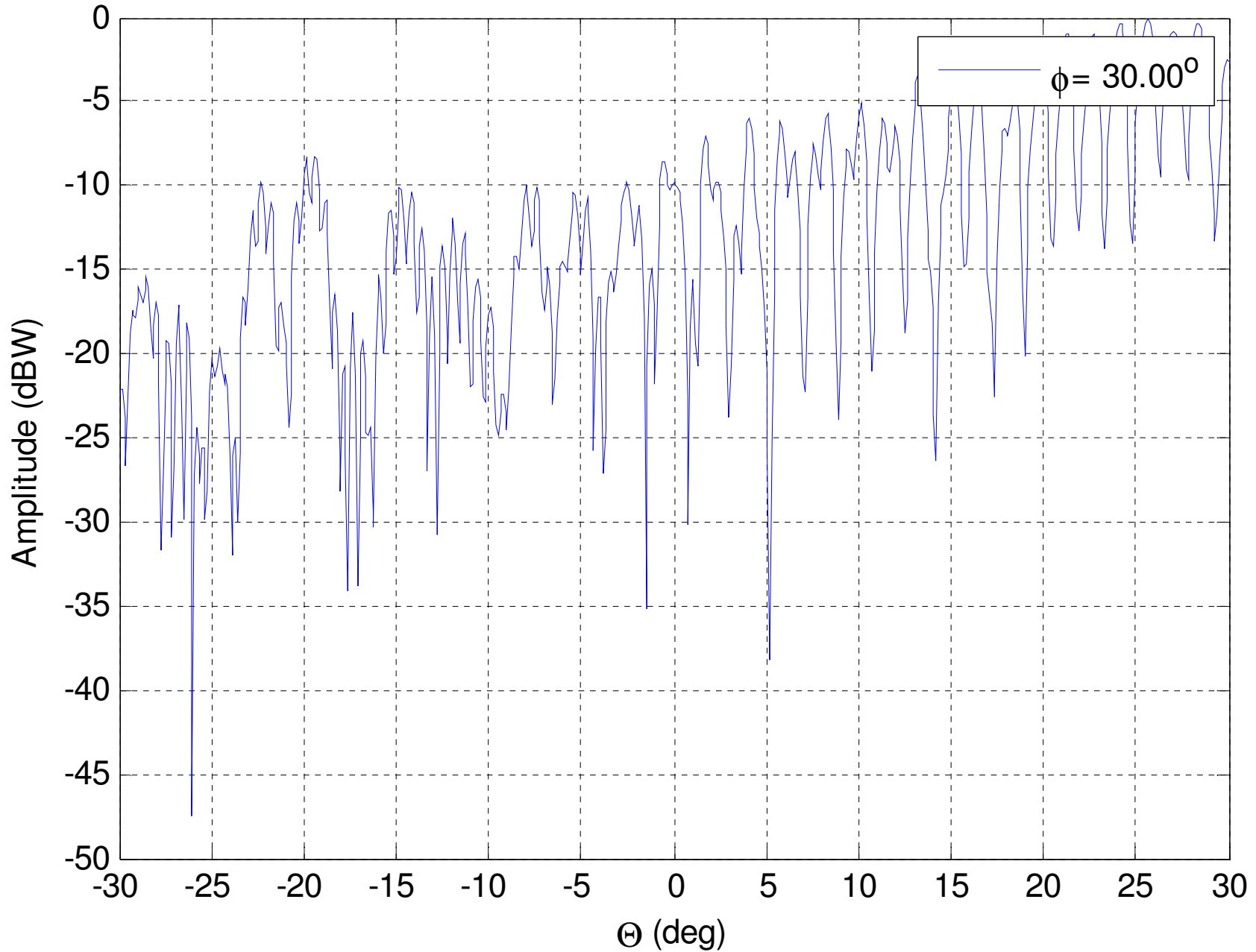
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: -0.96 dBW, Date: 15-Dec-2011



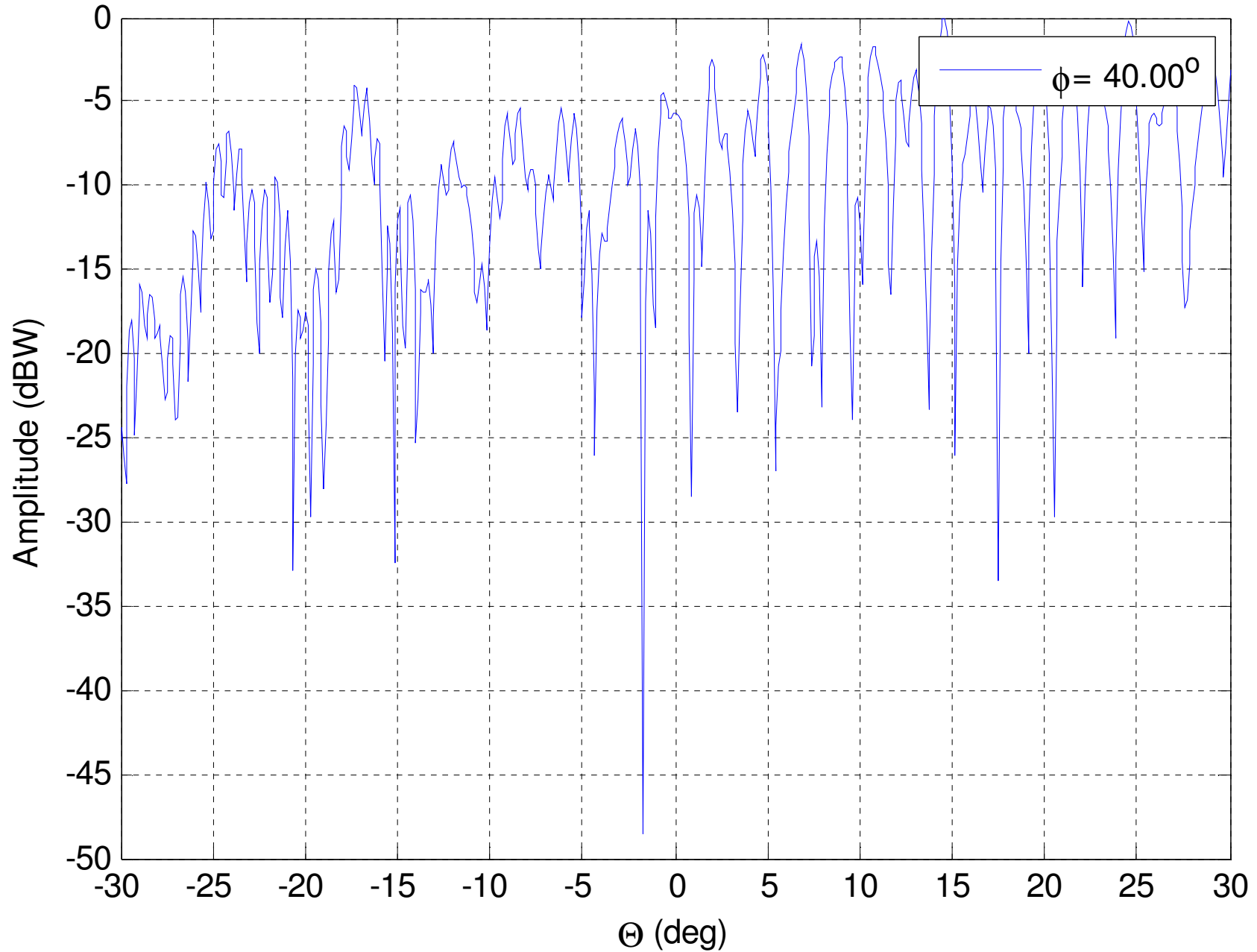
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: -5.32 dBW, Date: 15-Dec-2011



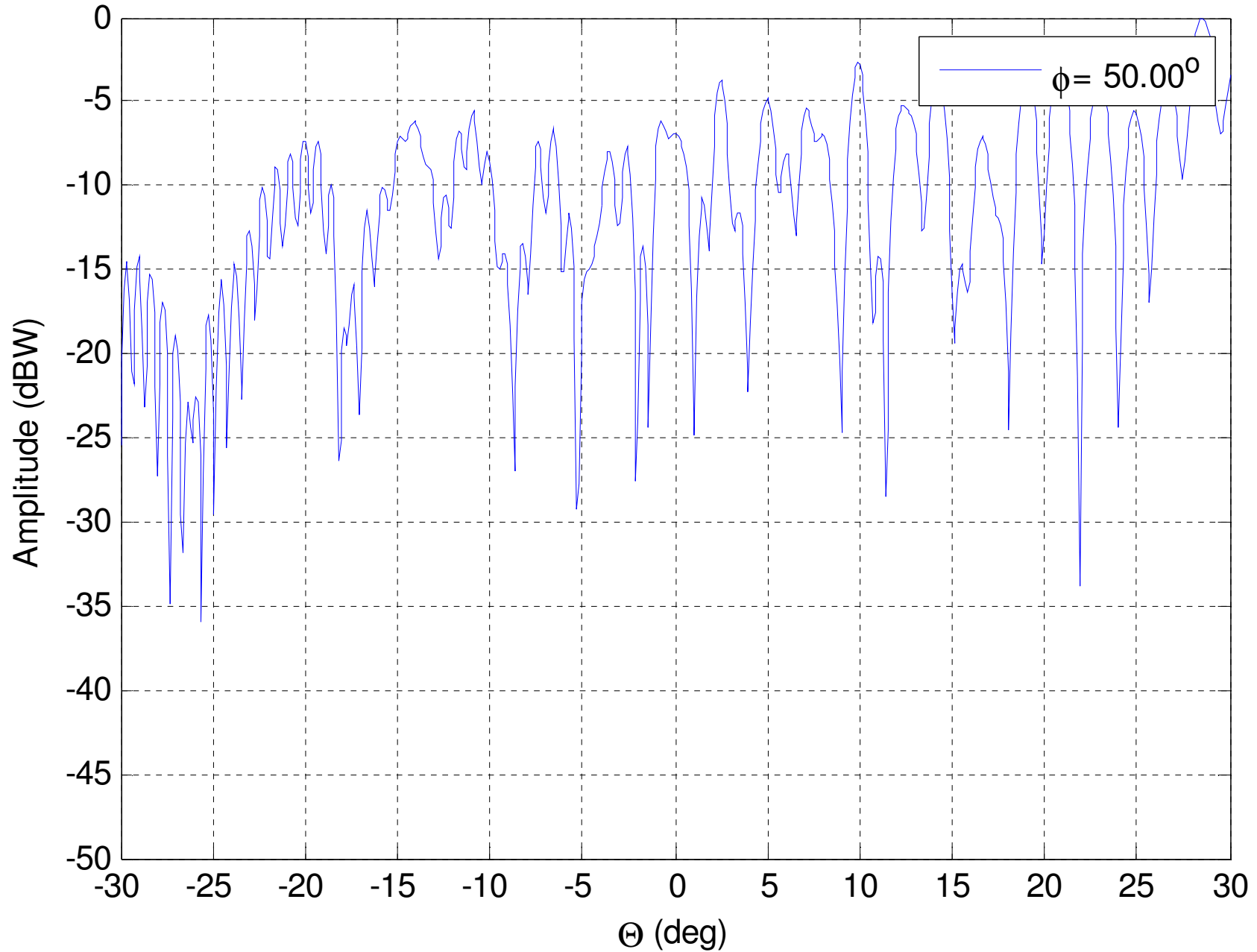
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -9.54 dBW, Date: 15-Dec-2011



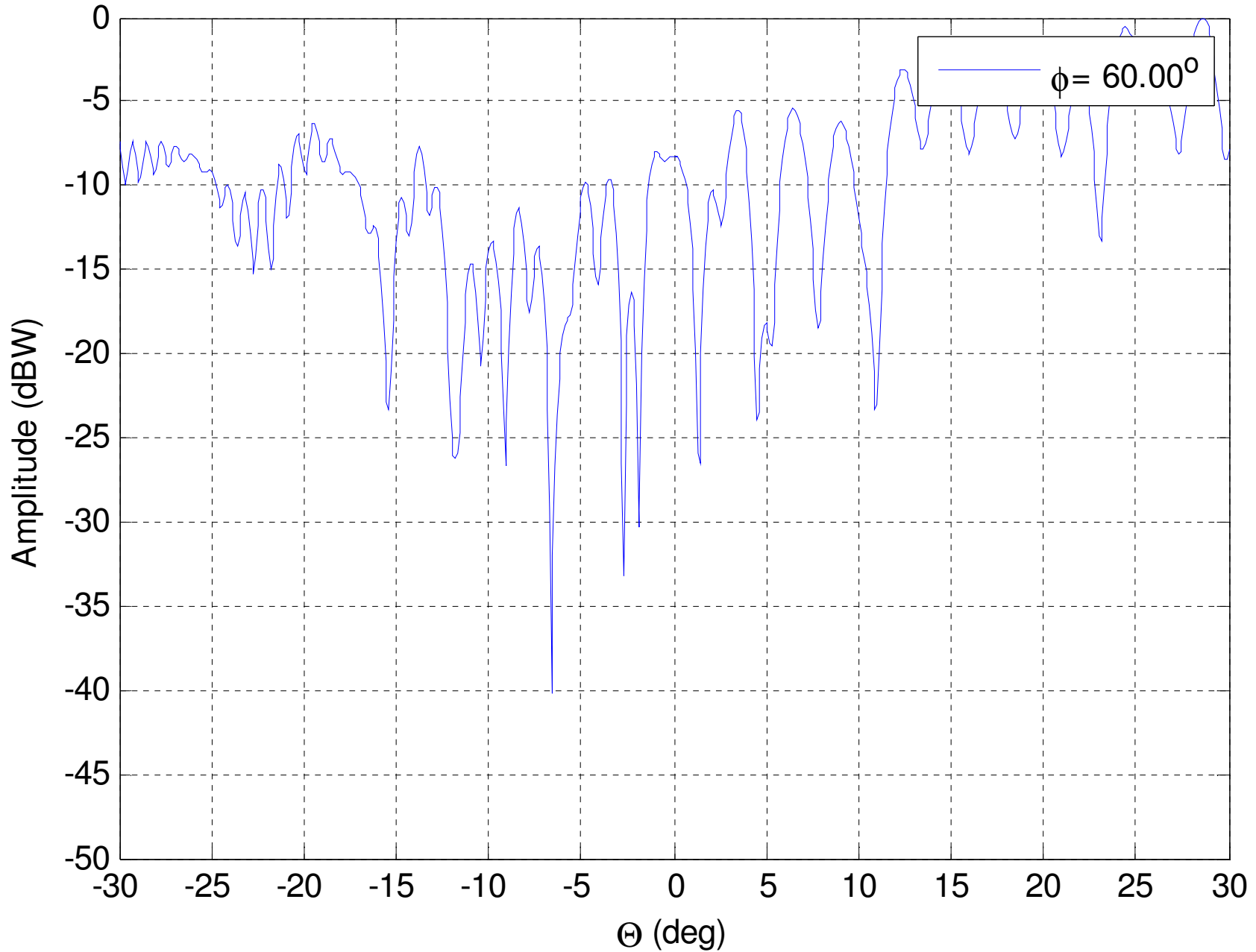
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -8.32 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

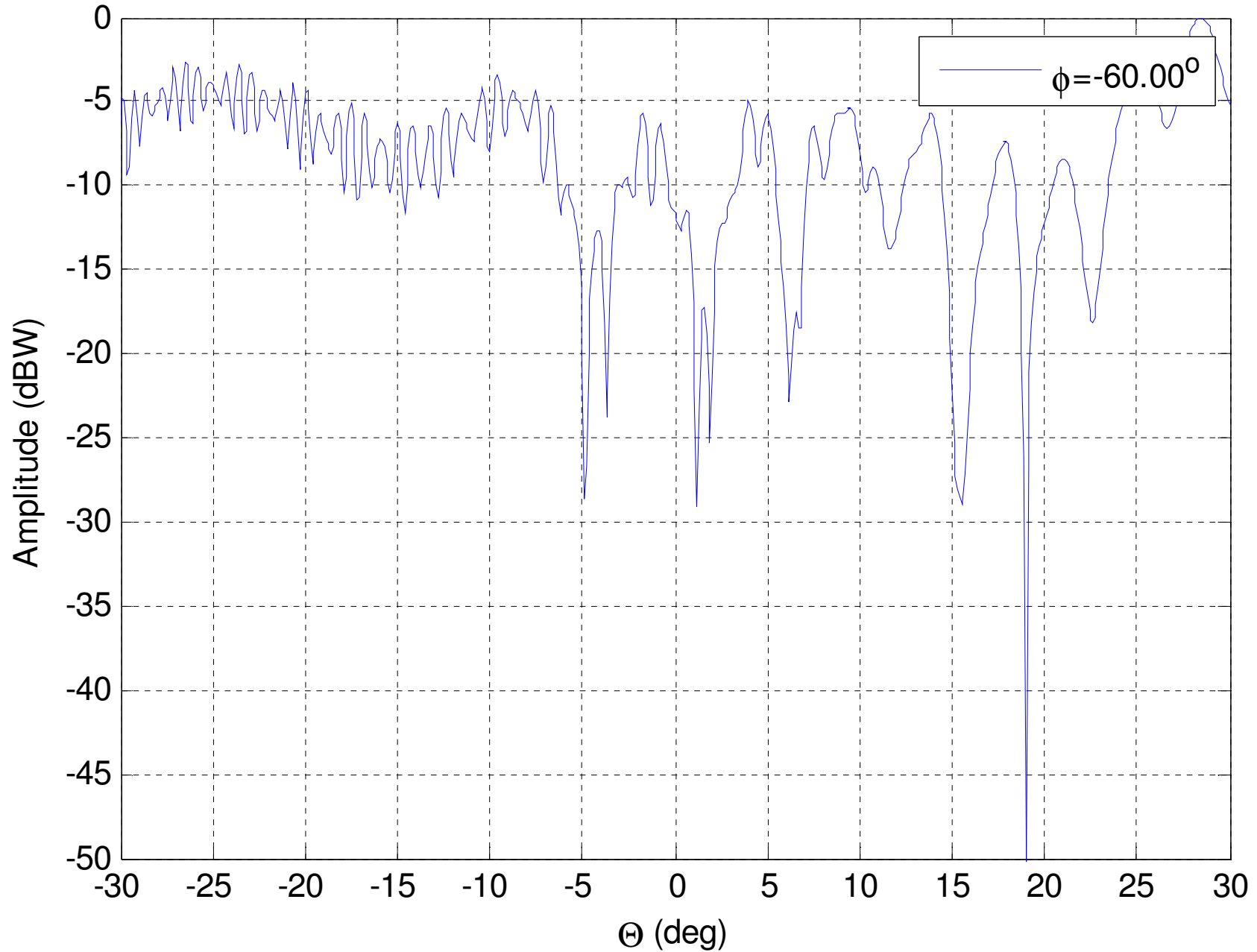
Input file: tx-17.5-rhcp-60.cut, Peak: -6.99 dBW, Date: 15-Dec-2011



LHCP at 17.5 GHz

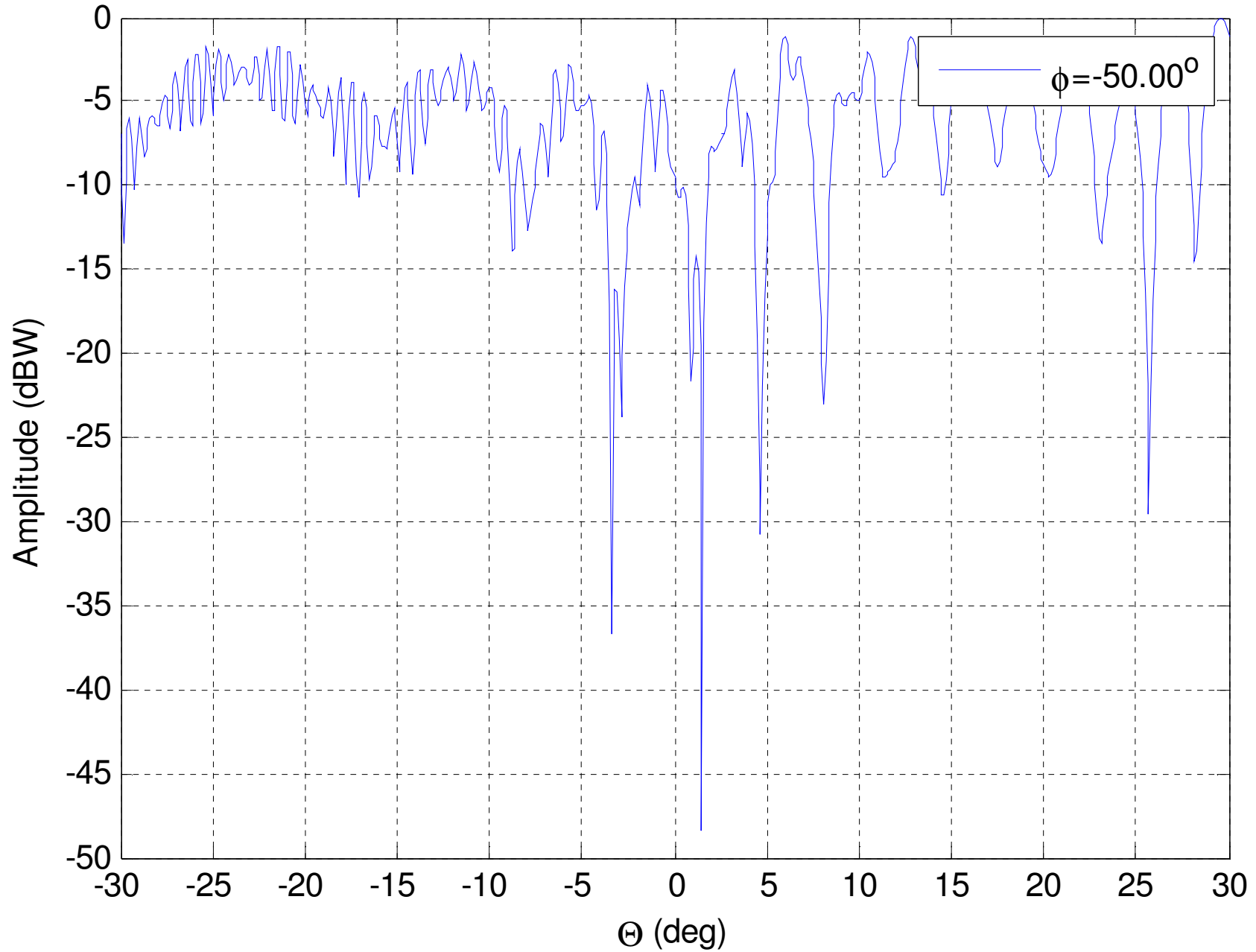
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -6.71 dBW, Date: 15-Dec-2011



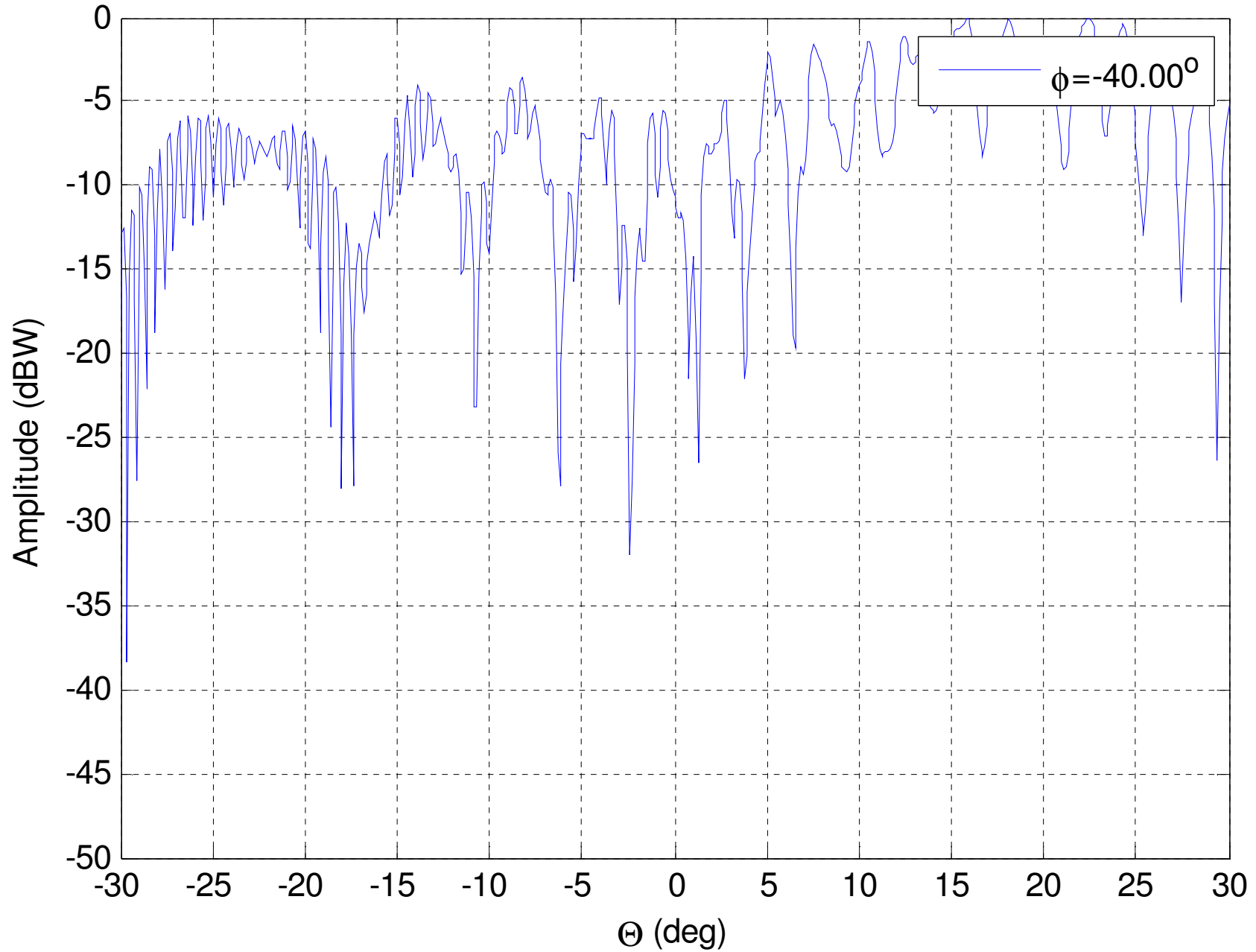
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -8.81 dBW, Date: 15-Dec-2011



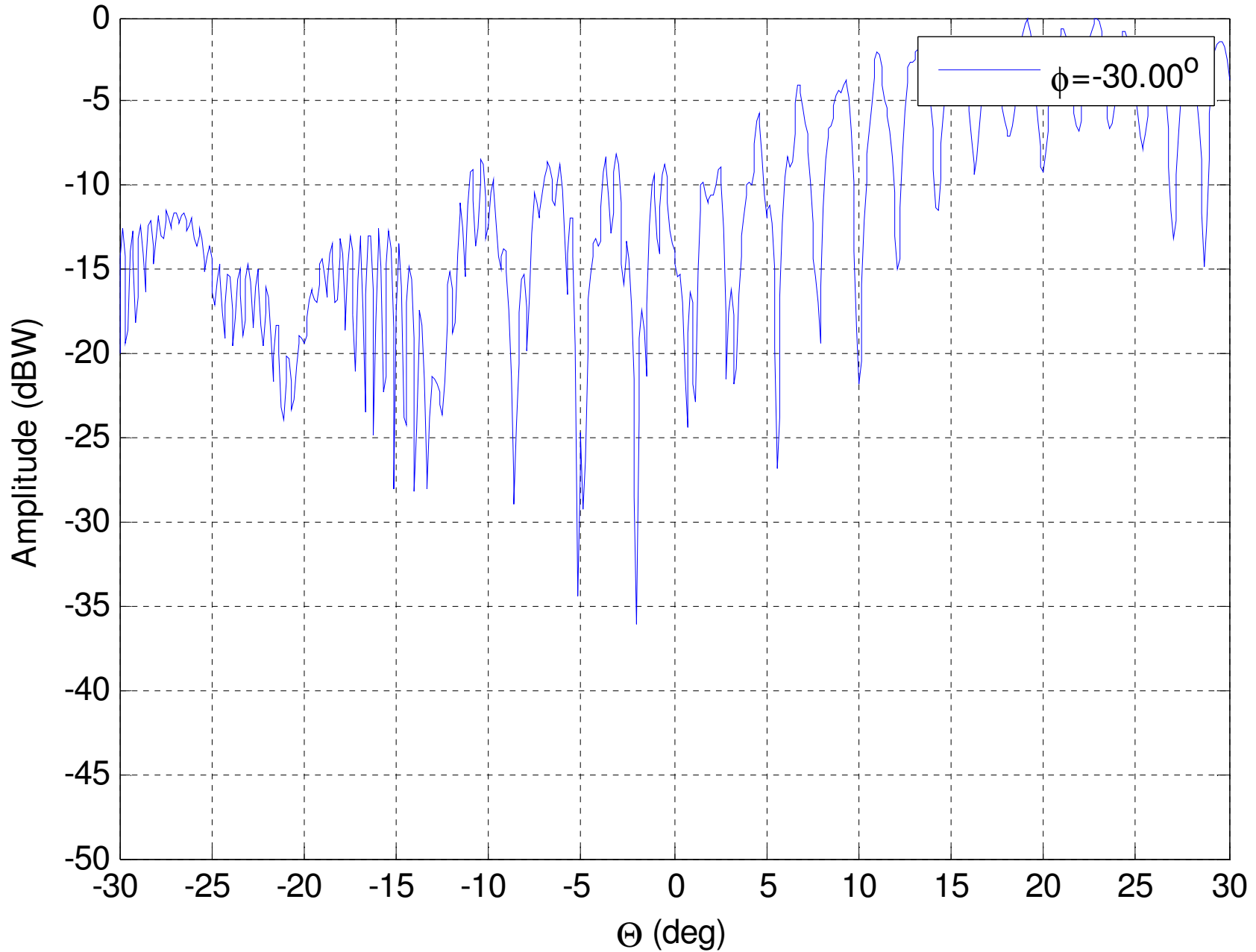
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -7.67 dBW, Date: 15-Dec-2011



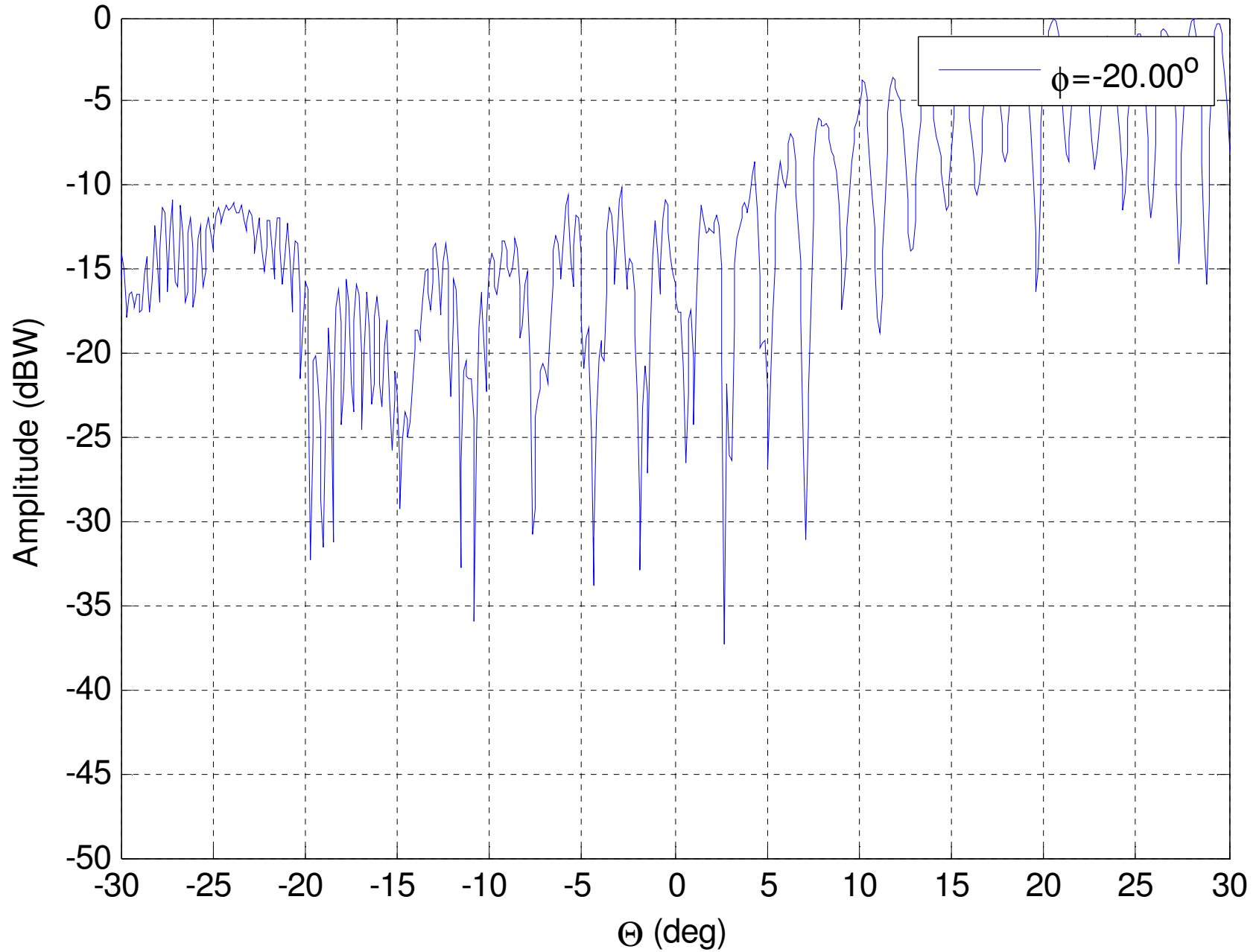
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: -4.46 dBW, Date: 15-Dec-2011



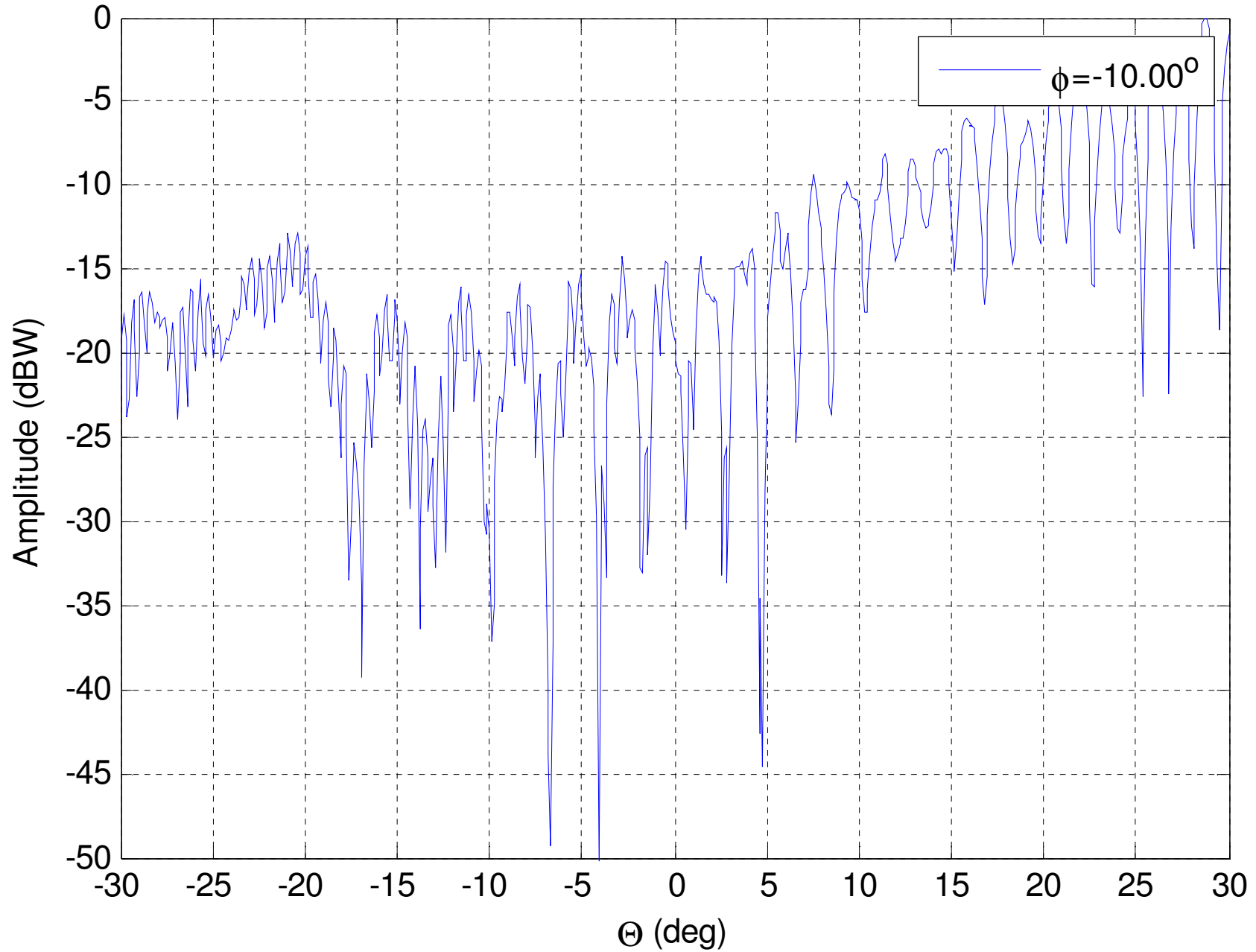
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: -2.49 dBW, Date: 15-Dec-2011



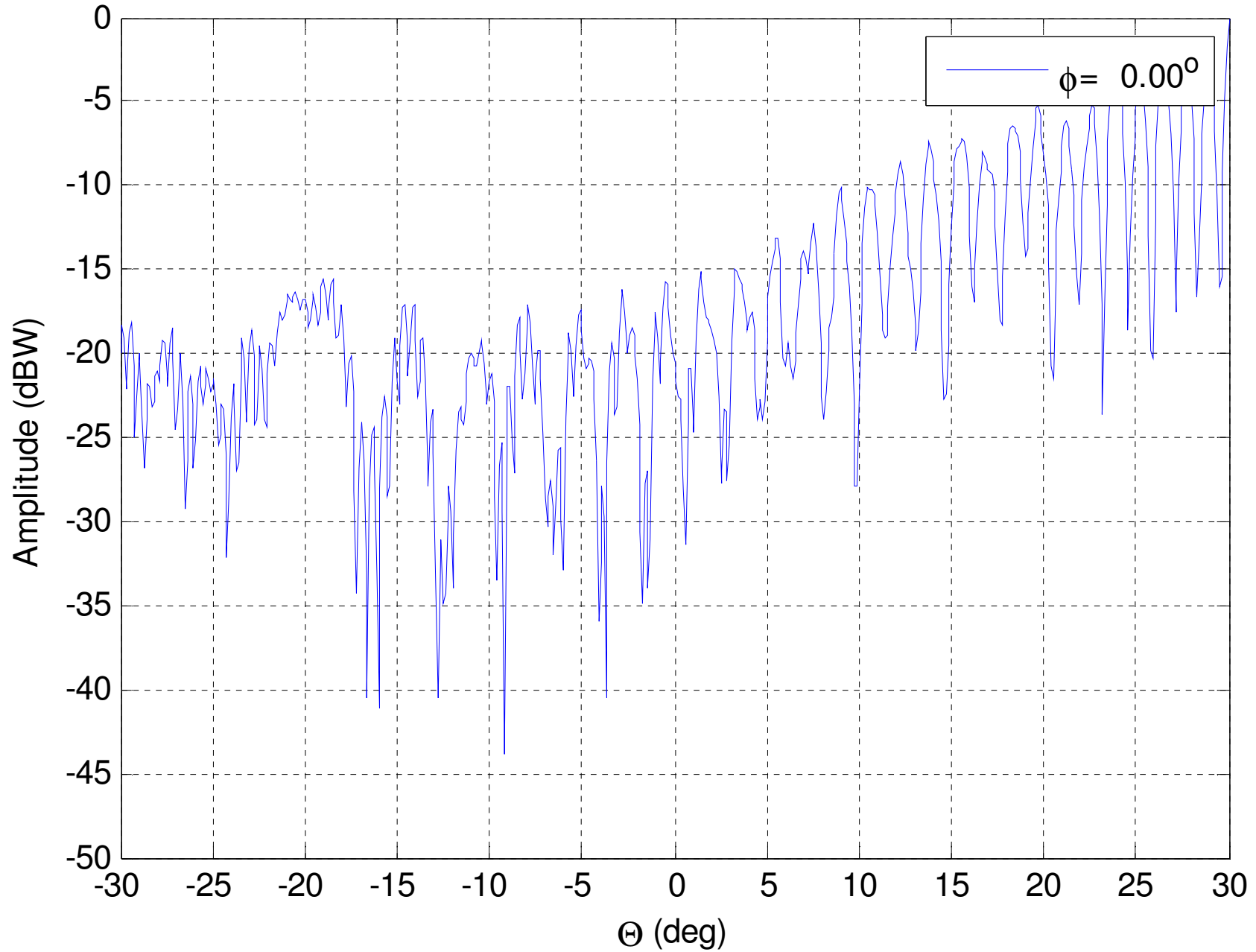
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: 1.09 dBW, Date: 15-Dec-2011



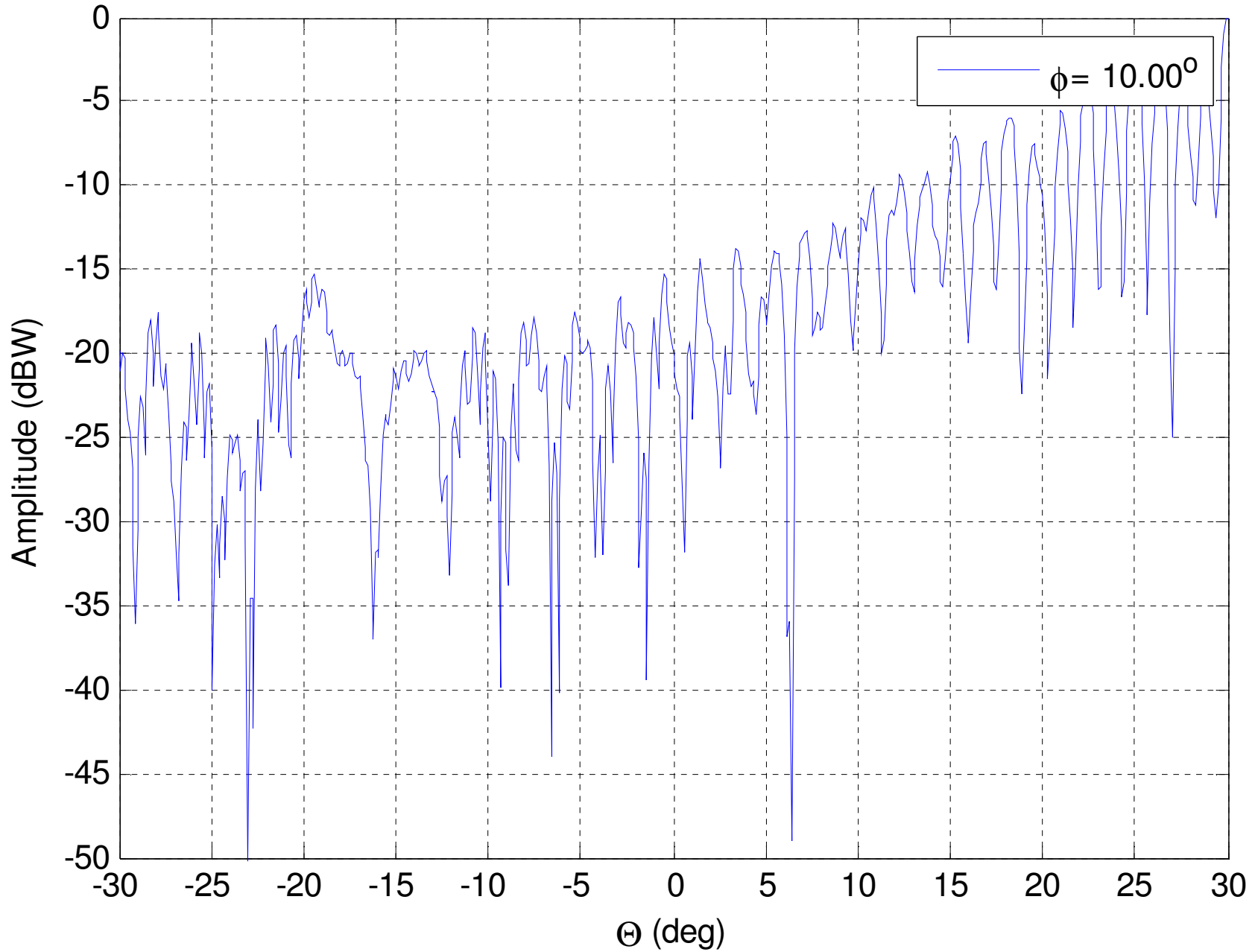
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: 2.28 dBW, Date: 15-Dec-2011



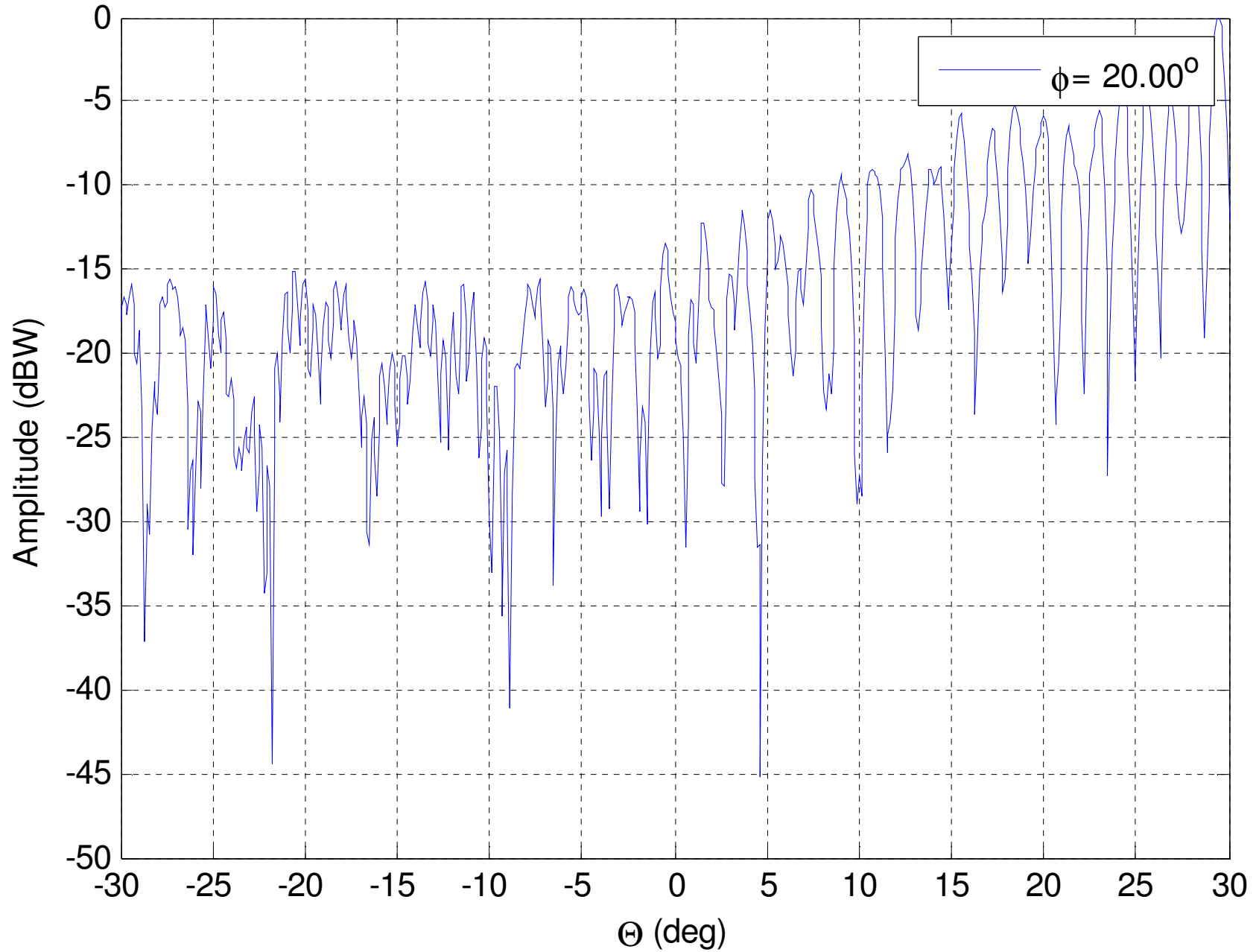
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: 1.77 dBW, Date: 15-Dec-2011



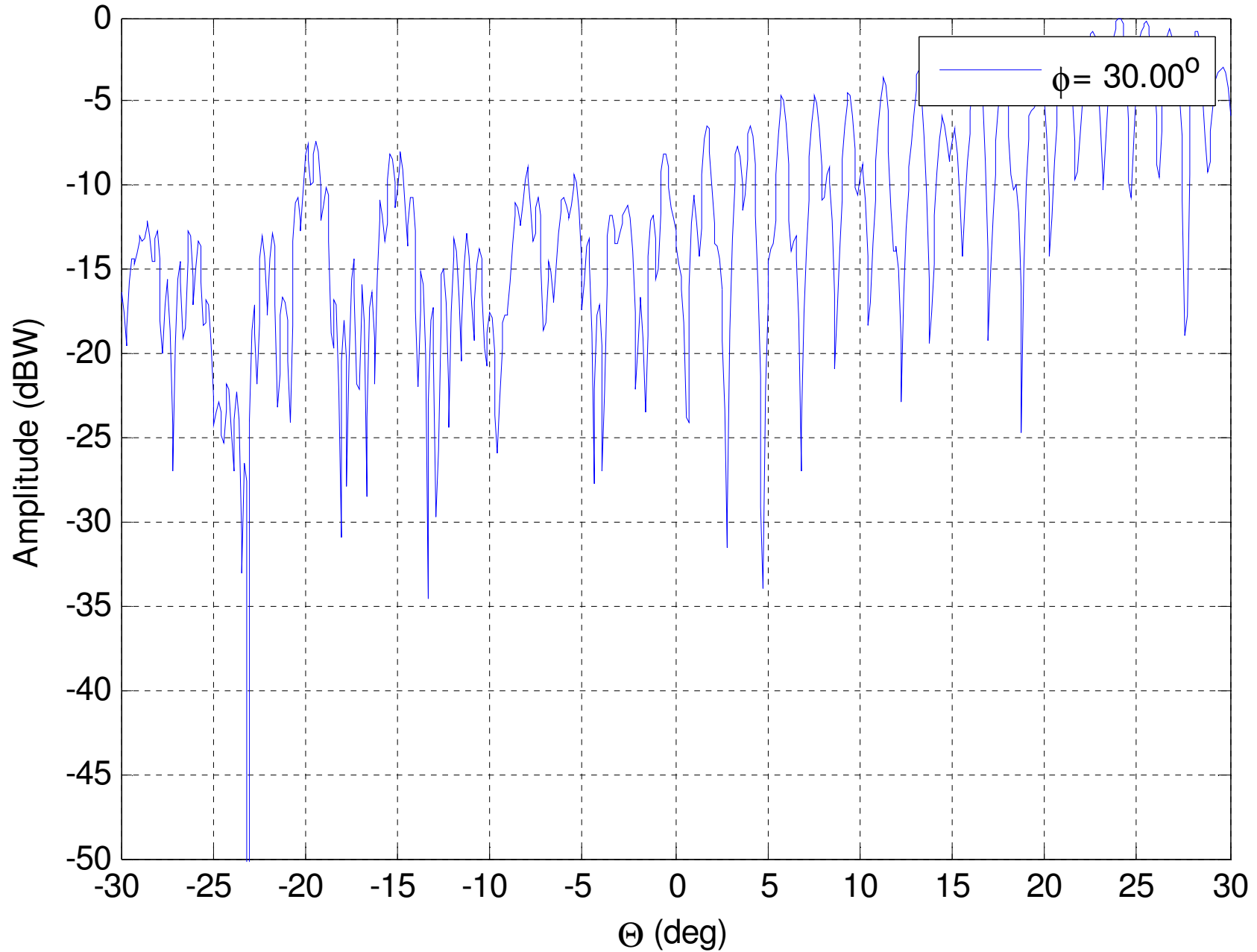
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: -0.18 dBW, Date: 15-Dec-2011



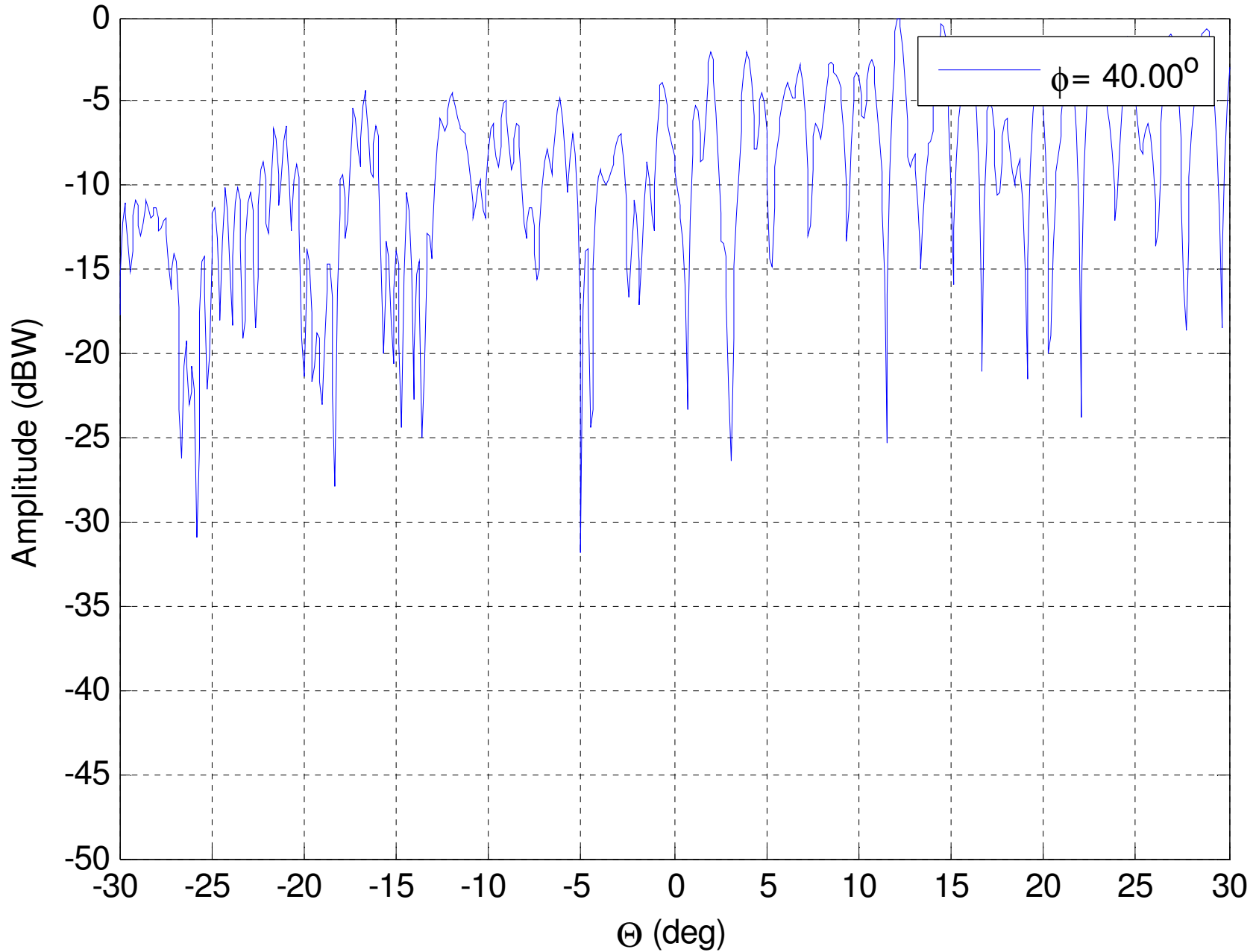
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: -5.73 dBW, Date: 15-Dec-2011



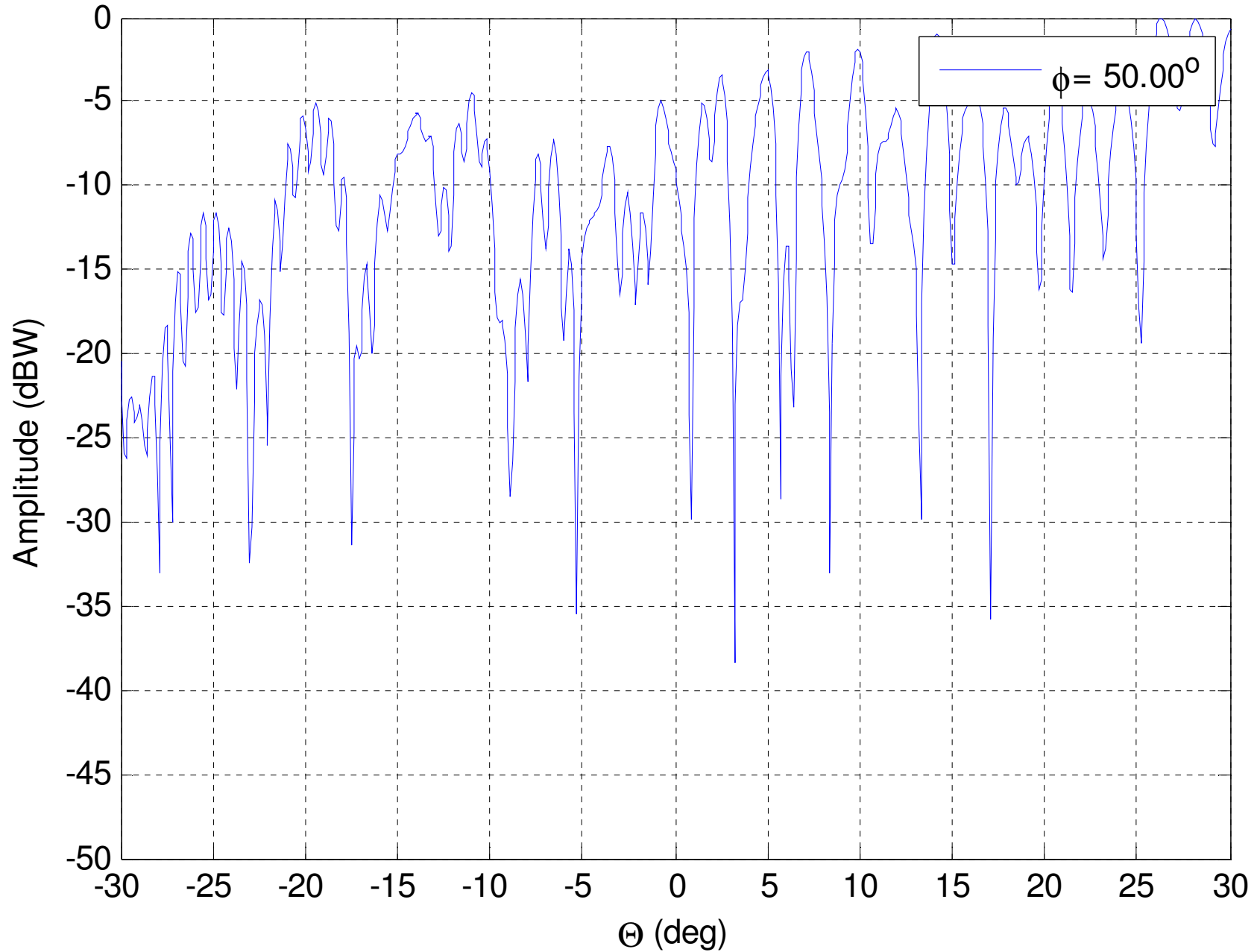
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -10.04 dBW, Date: 15-Dec-2011



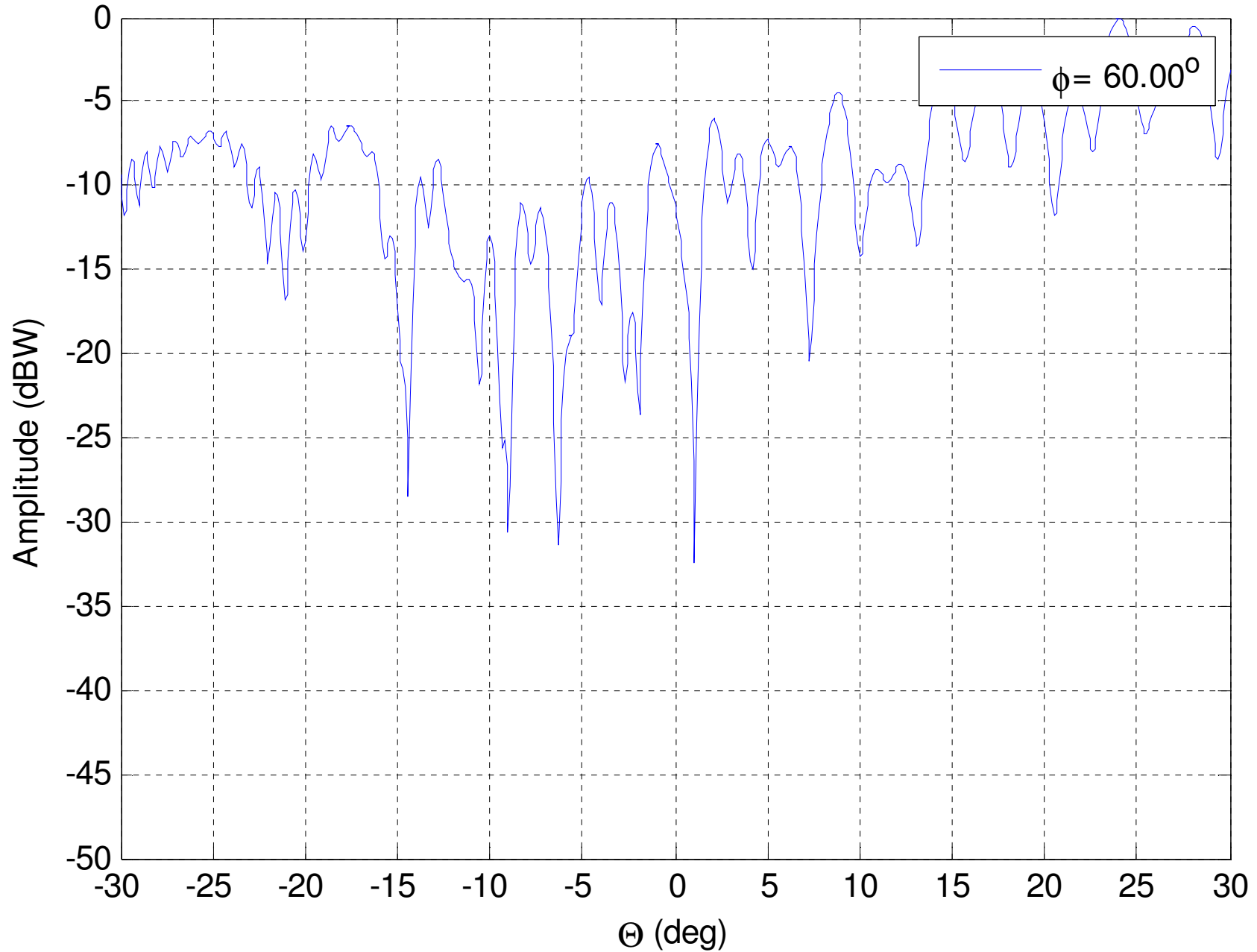
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -9.25 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

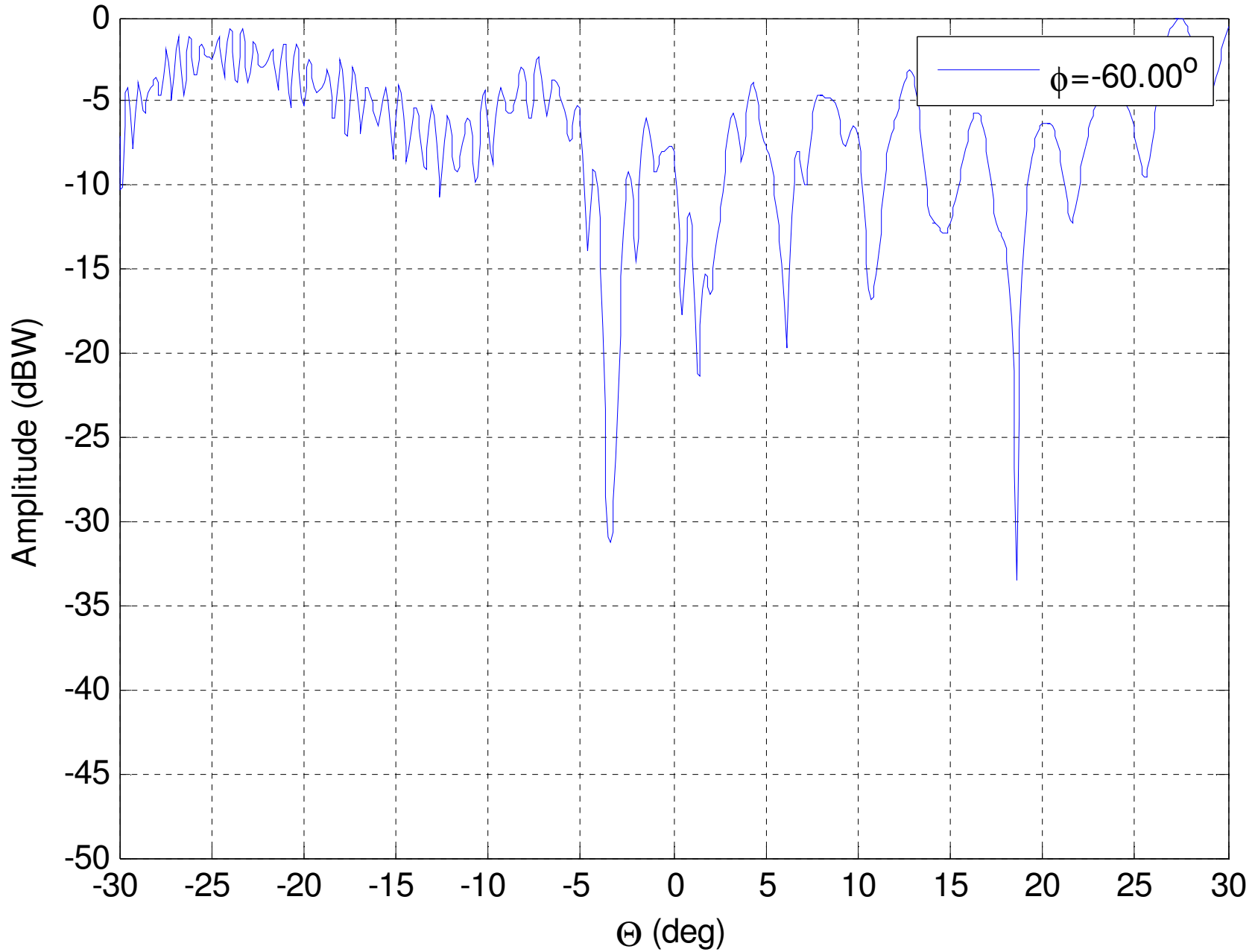
Input file: tx-17.5-lhcp-60.cut, Peak: -7.19 dBW, Date: 15-Dec-2011



RHCP at 17.7 GHz

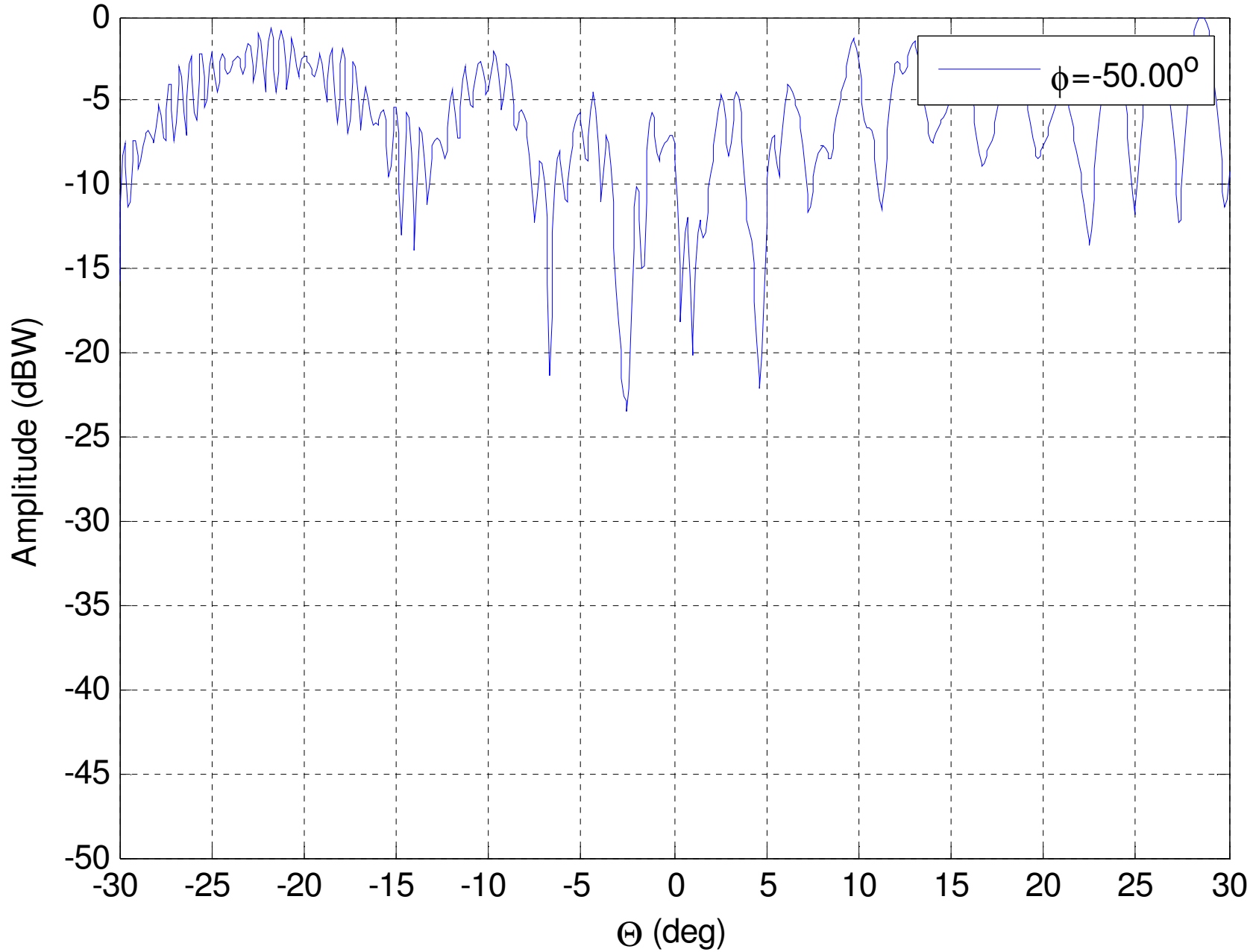
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -7.86 dBW, Date: 15-Dec-2011



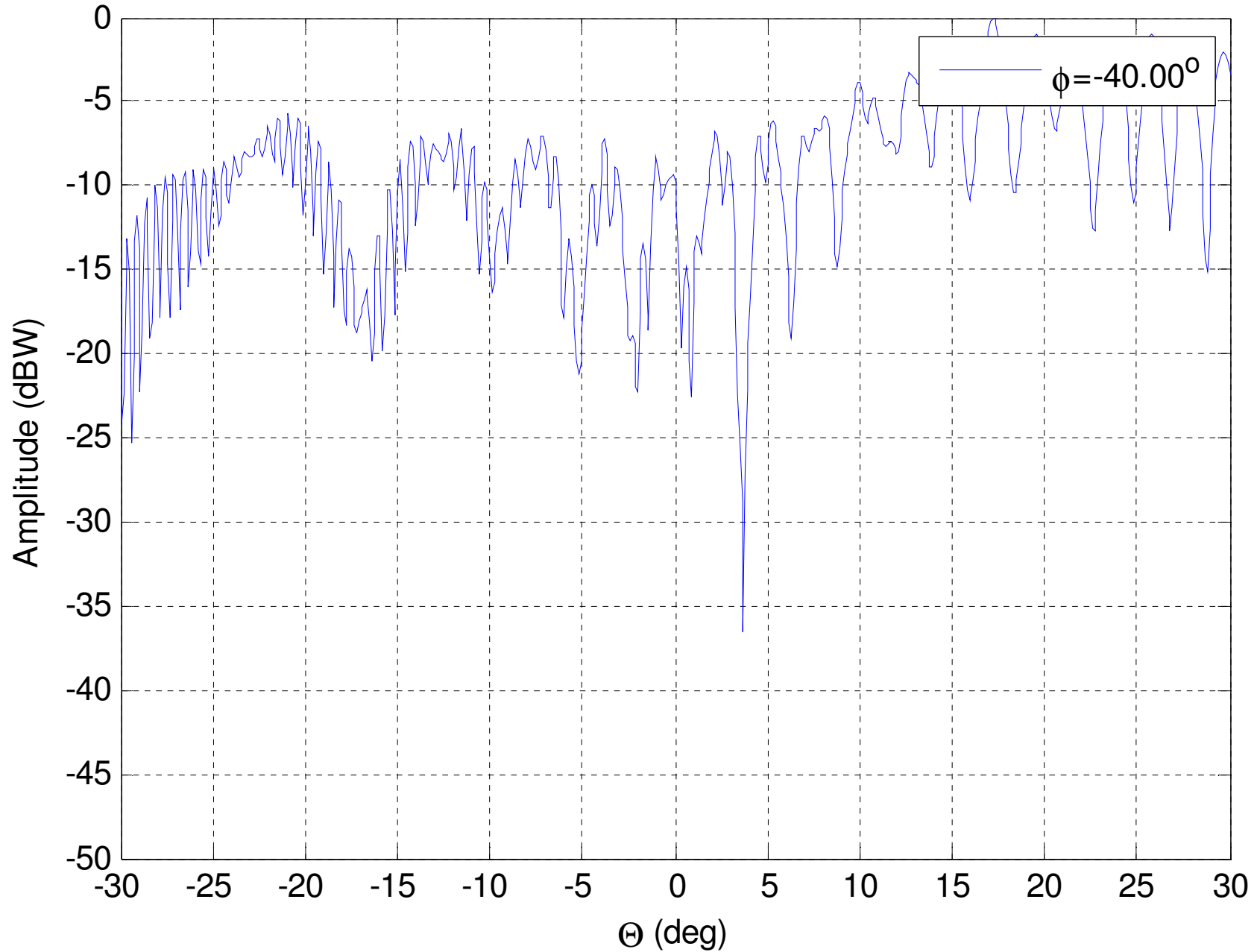
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -8.33 dBW, Date: 15-Dec-2011



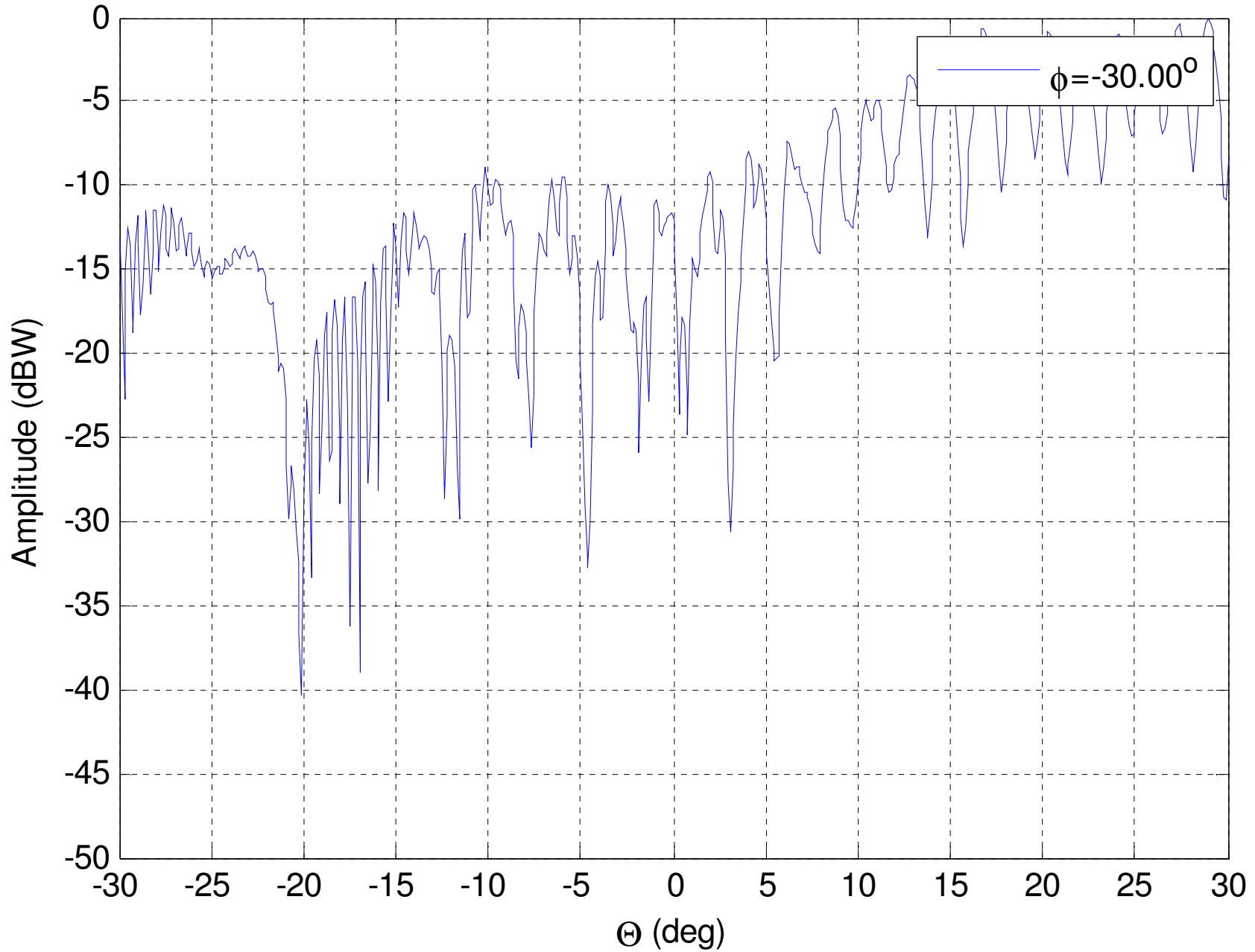
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -6.02 dBW, Date: 15-Dec-2011



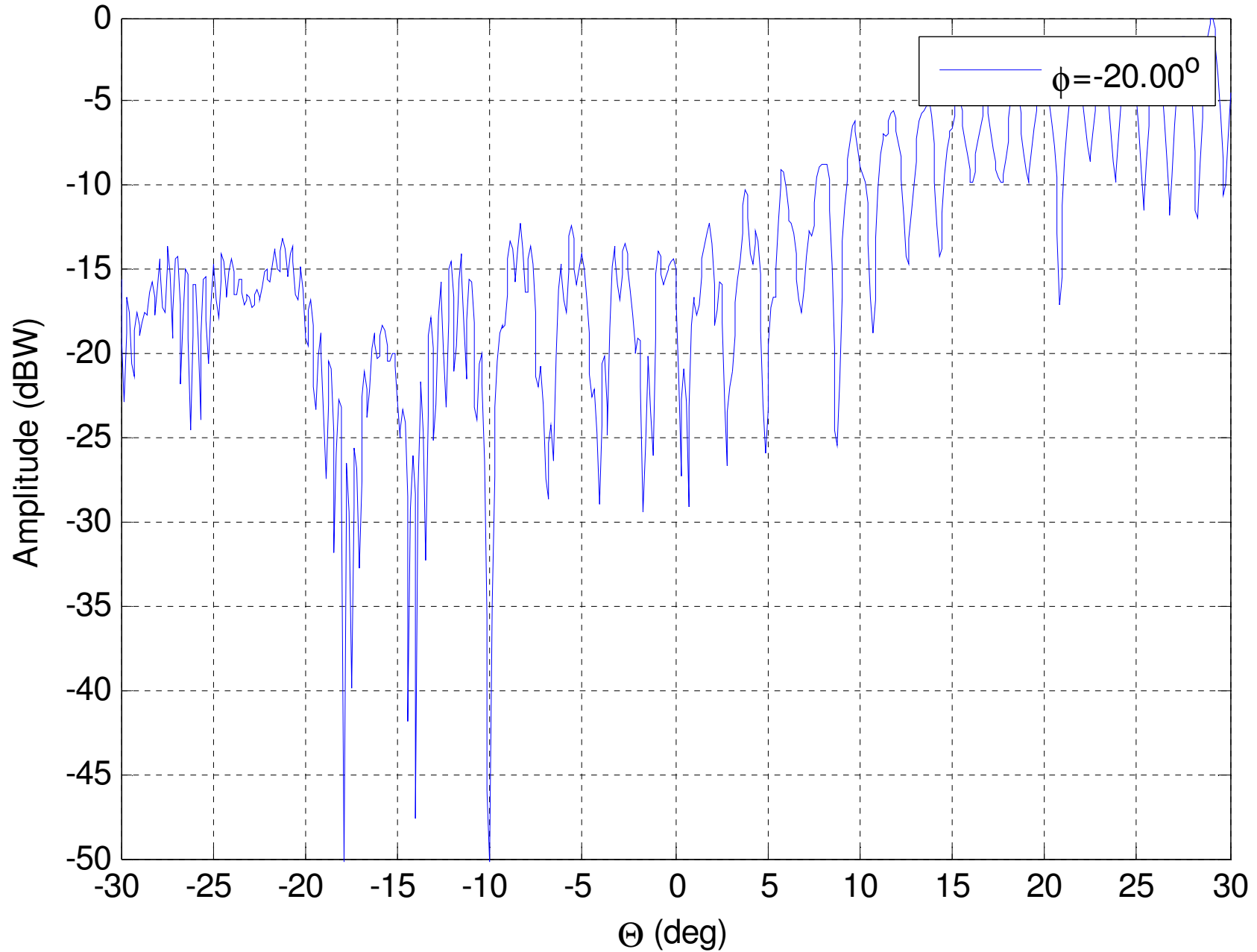
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -3.73 dBW, Date: 15-Dec-2011



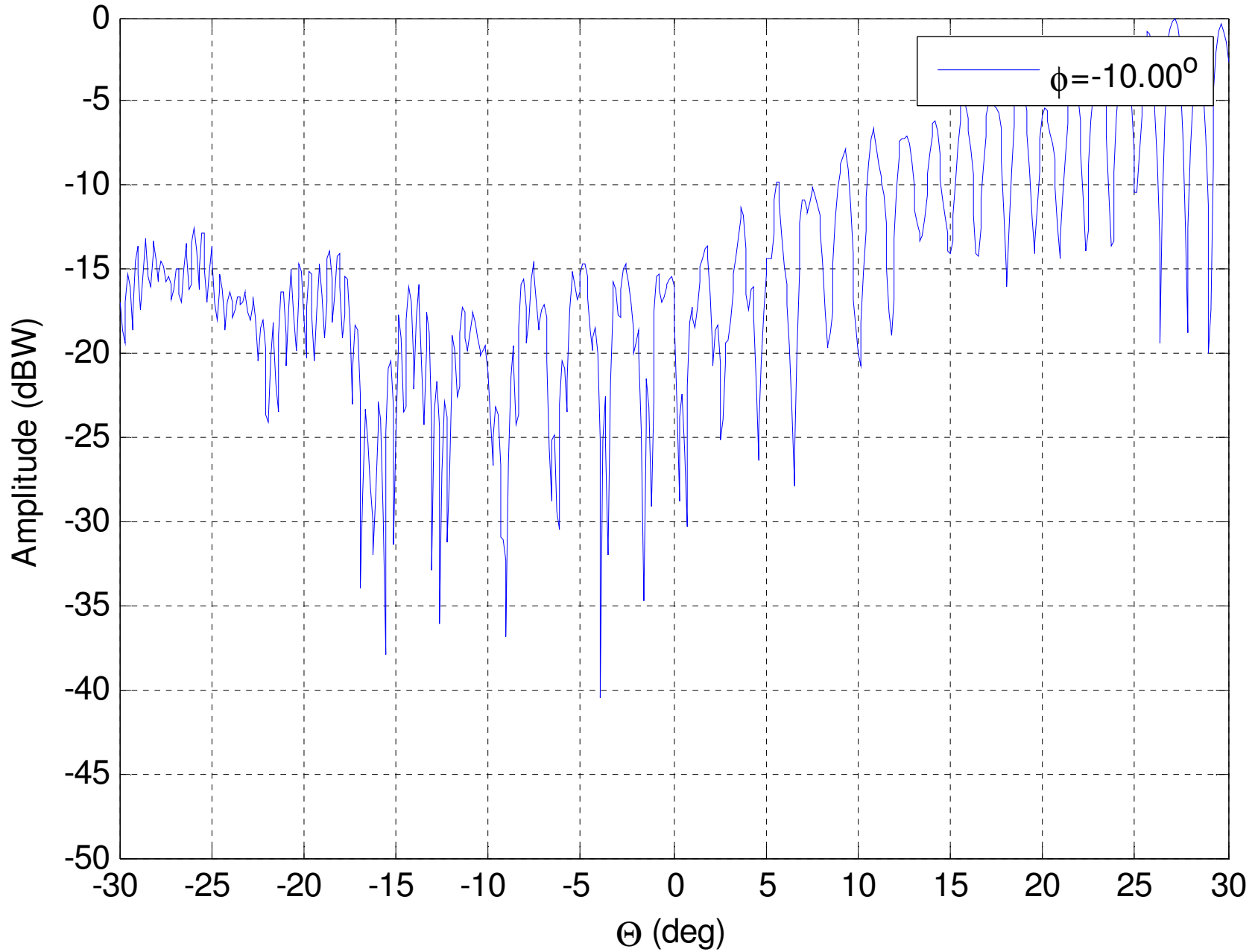
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: -0.88 dBW, Date: 15-Dec-2011



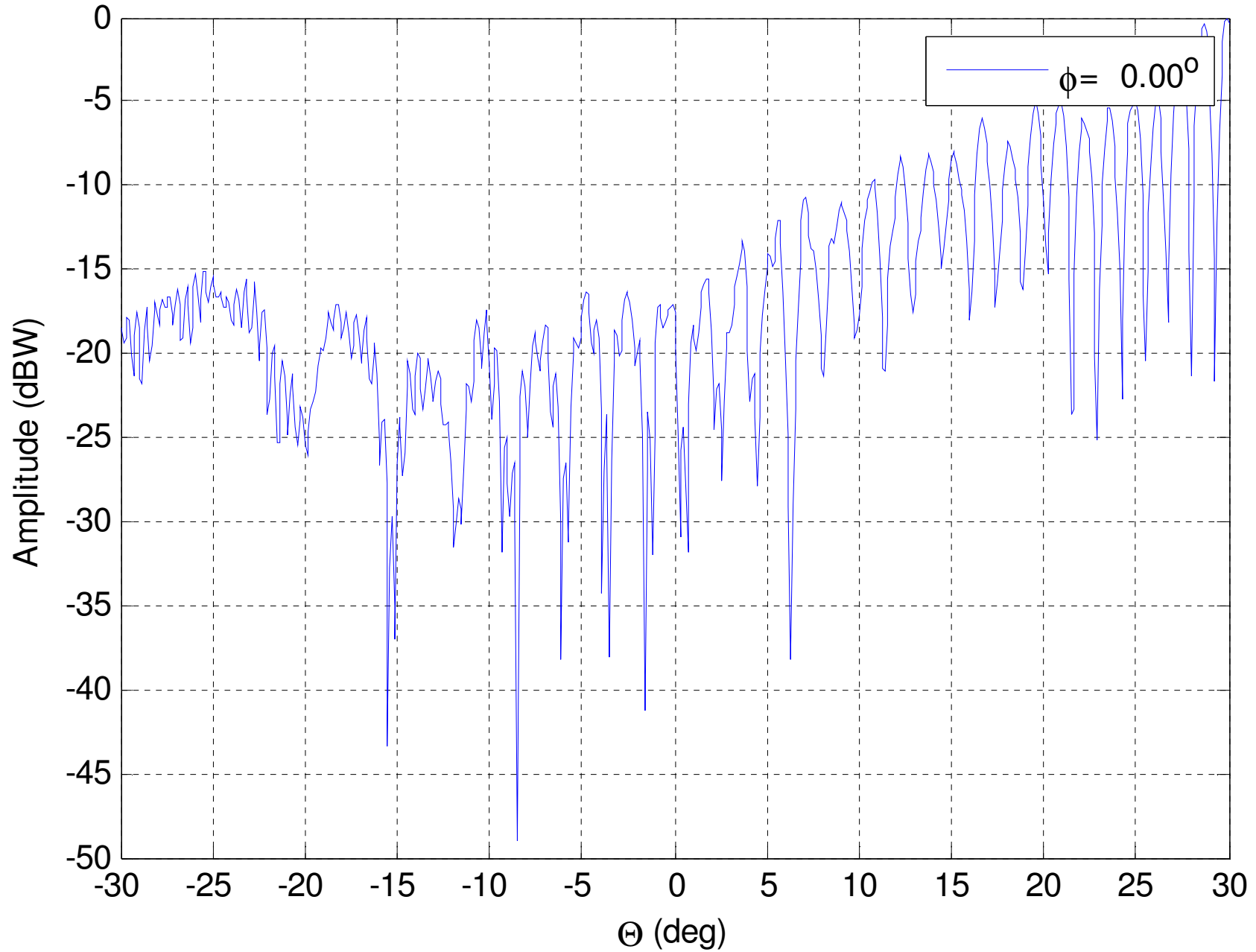
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: 0.22 dBW, Date: 15-Dec-2011



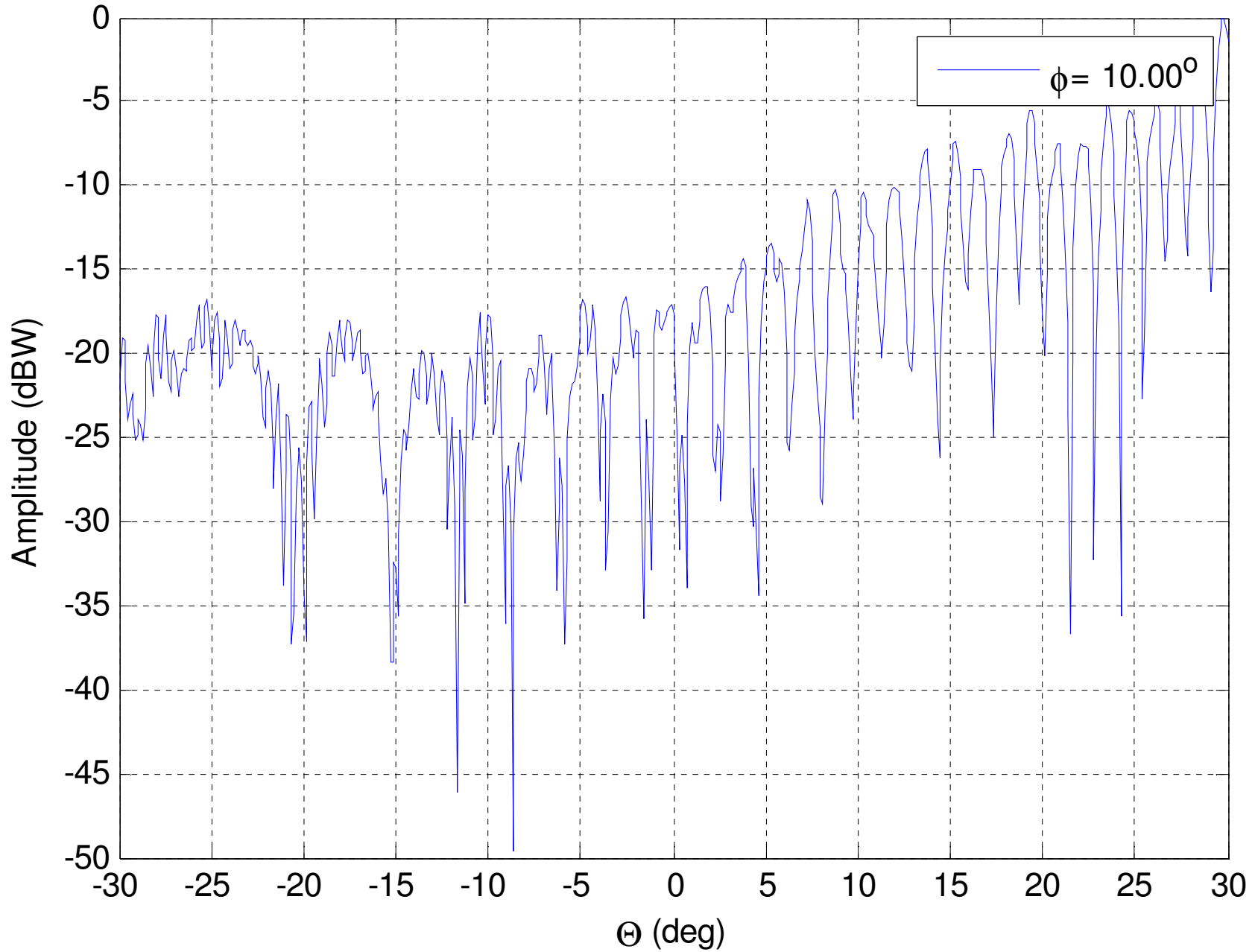
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: 1.83 dBW, Date: 15-Dec-2011



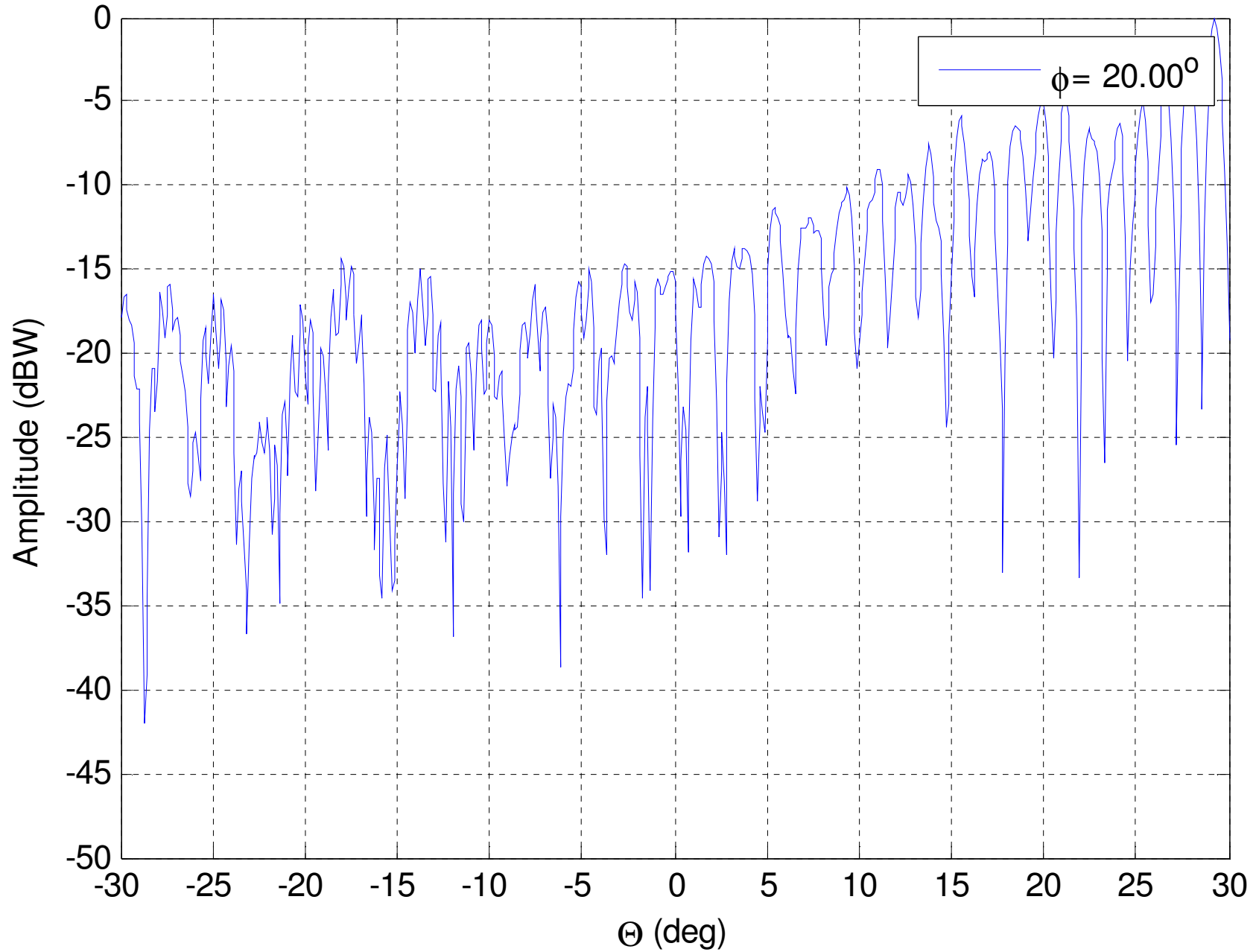
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: 1.94 dBW, Date: 15-Dec-2011



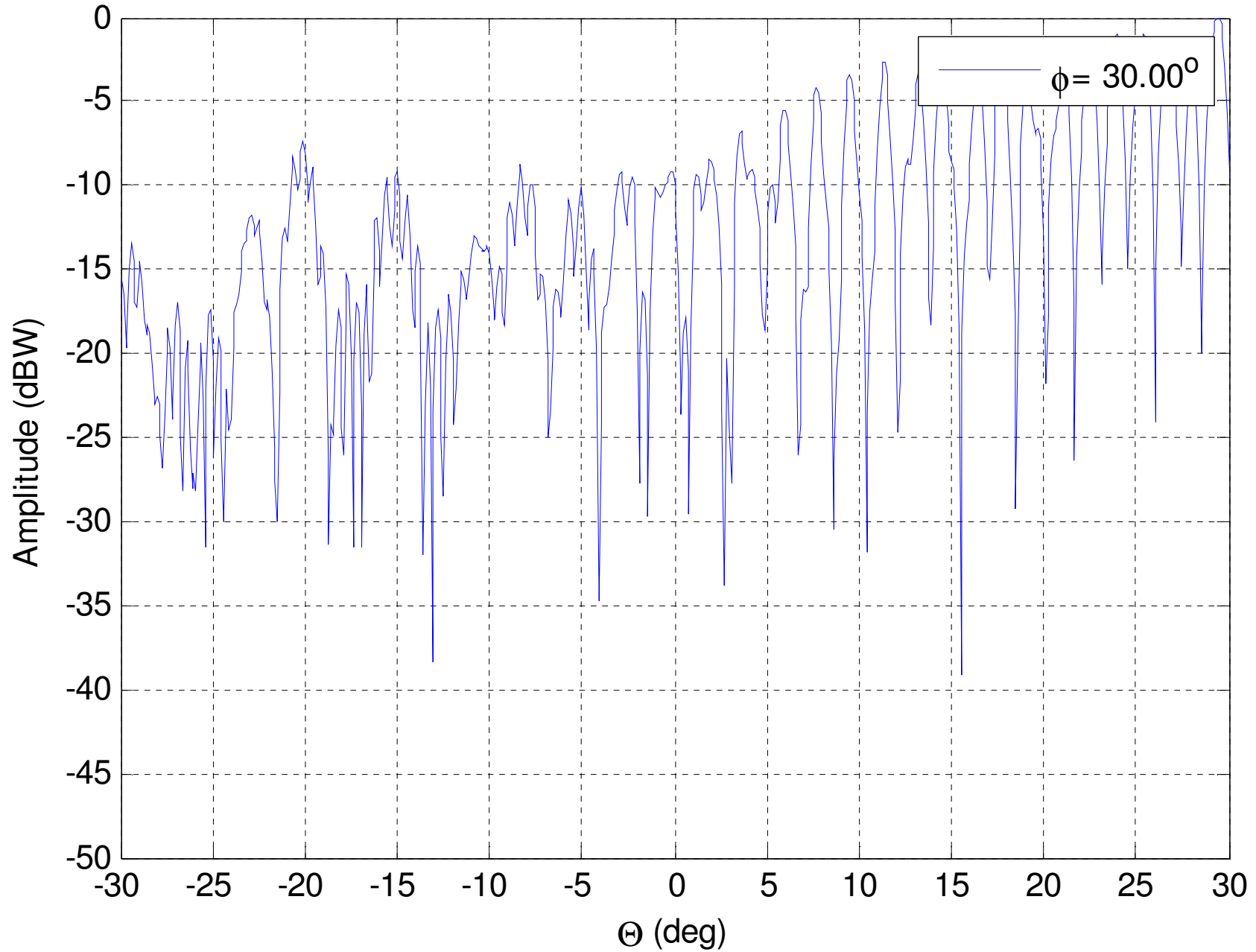
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: -0.09 dBW, Date: 15-Dec-2011



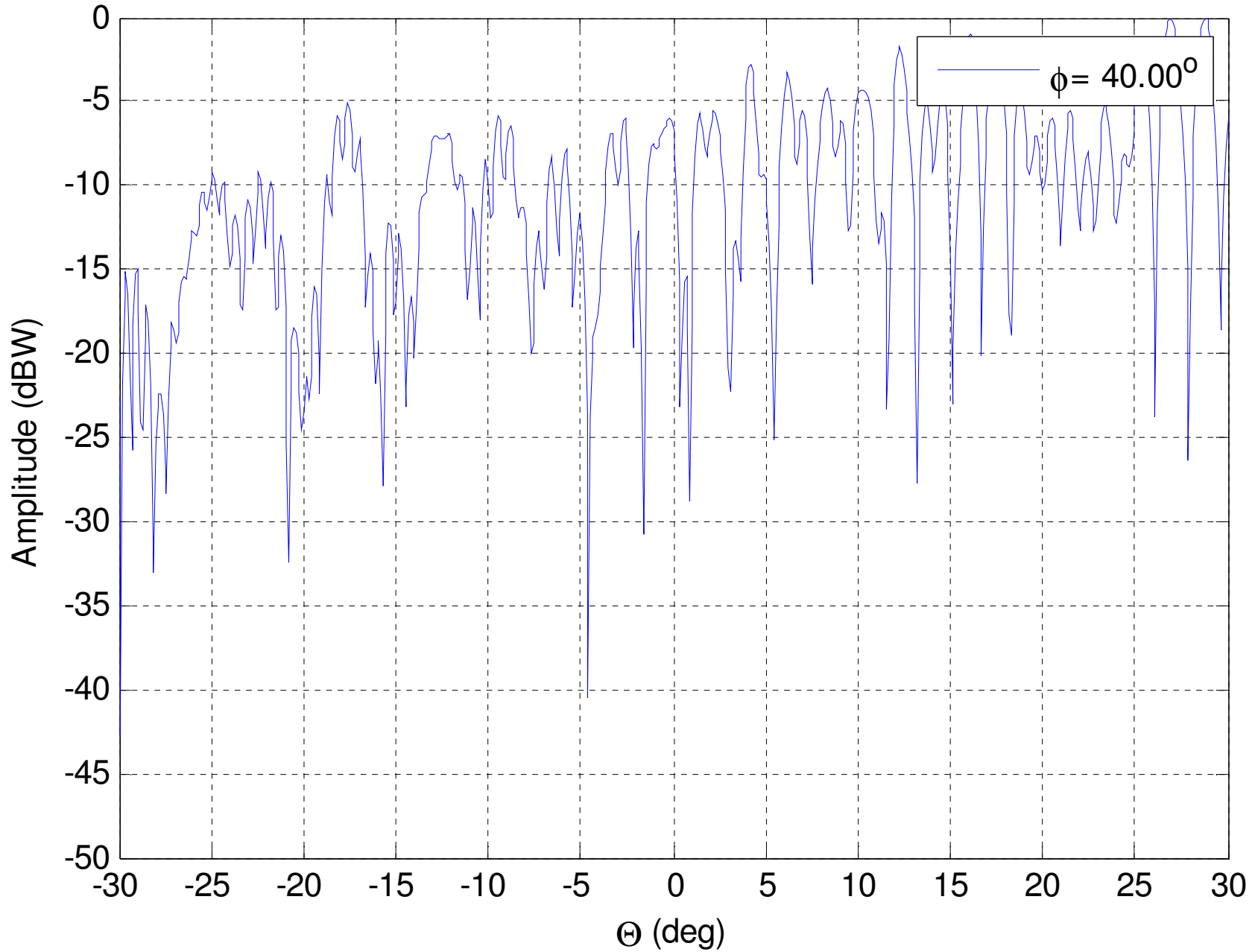
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: -5.91 dBW, Date: 15-Dec-2011



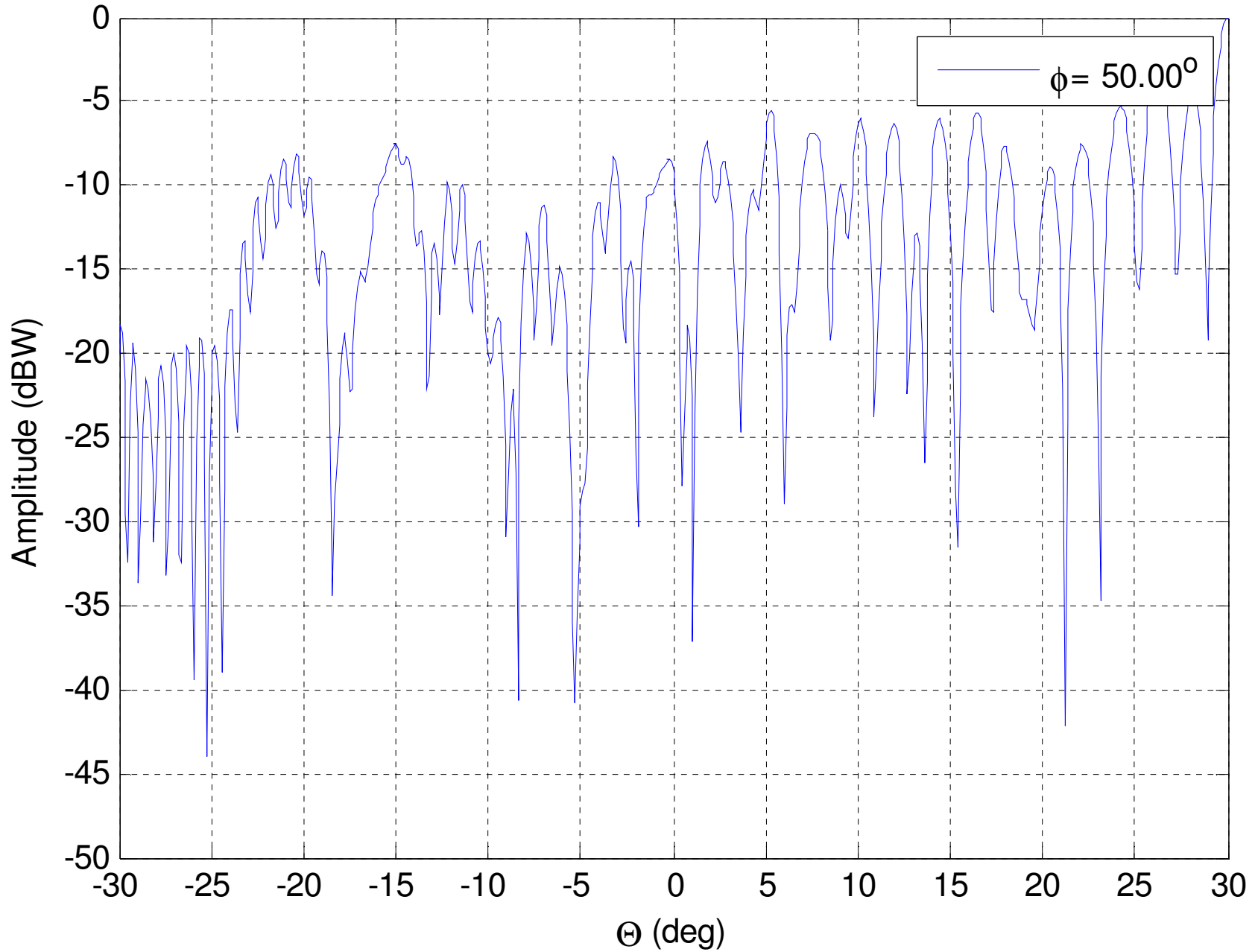
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -9.05 dBW, Date: 15-Dec-2011



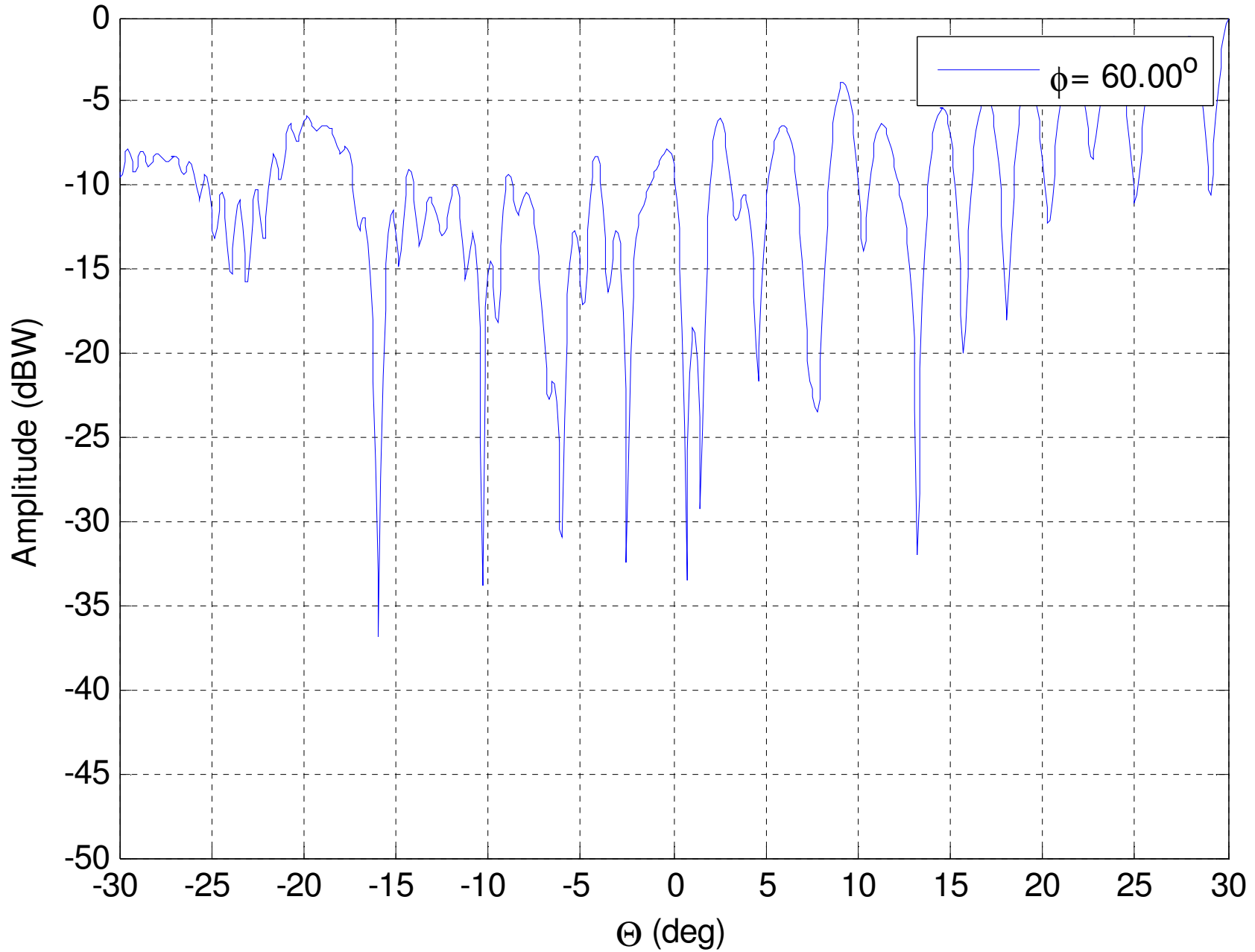
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -6.63 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

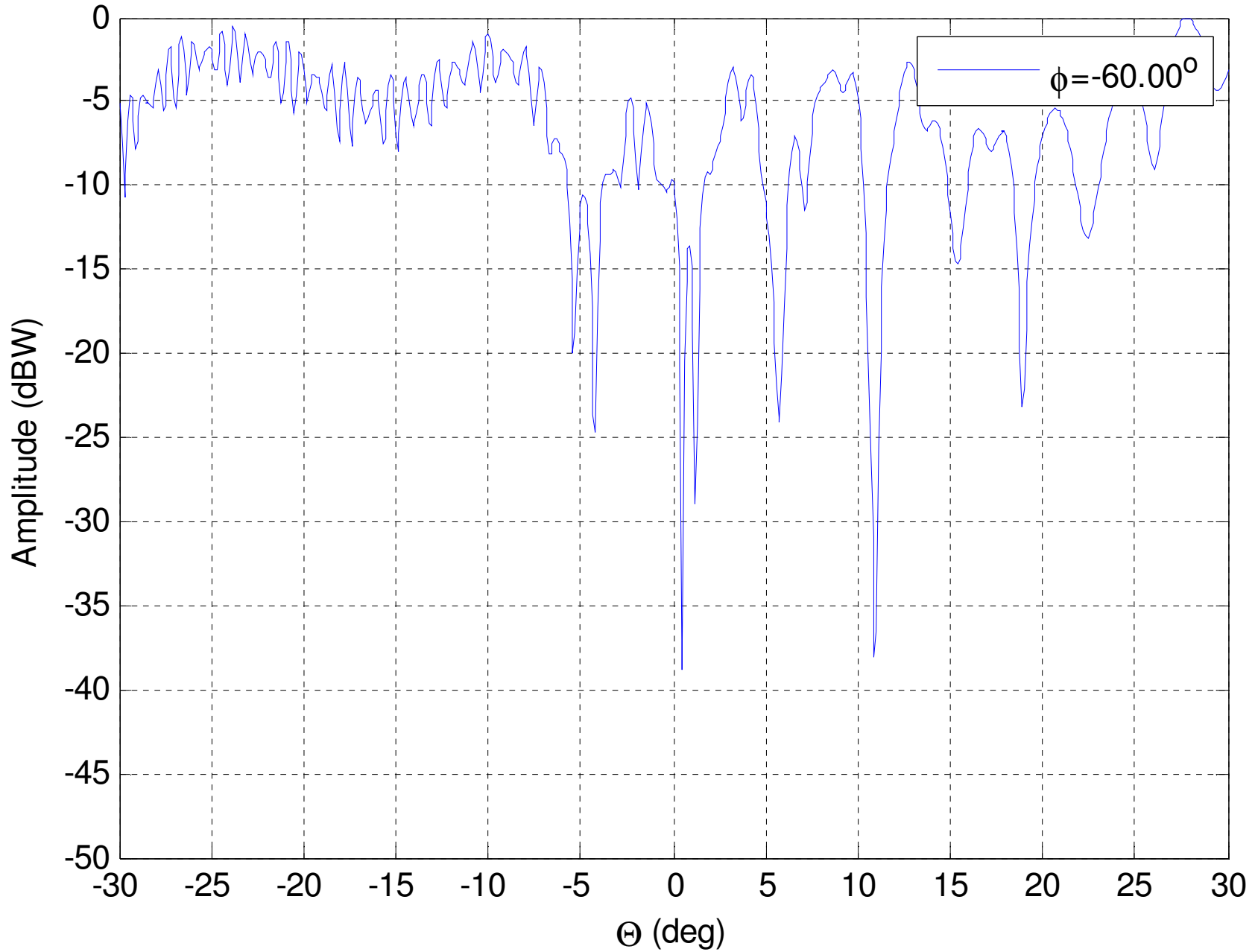
Input file: tx-17.7-rhcp-60.cut, Peak: -7.05 dBW, Date: 15-Dec-2011



LHCP at 17.7 GHz

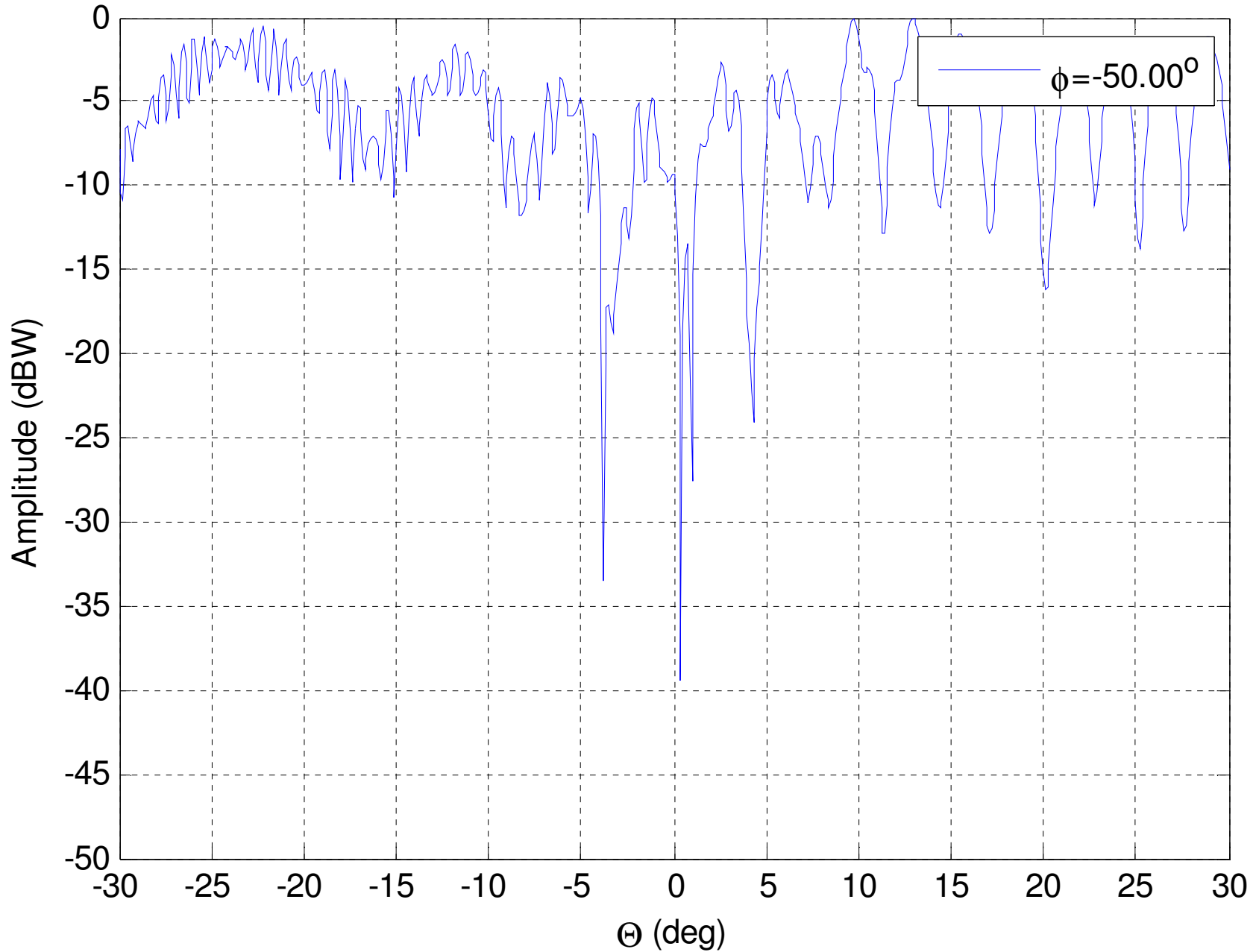
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -8.45 dBW, Date: 15-Dec-2011



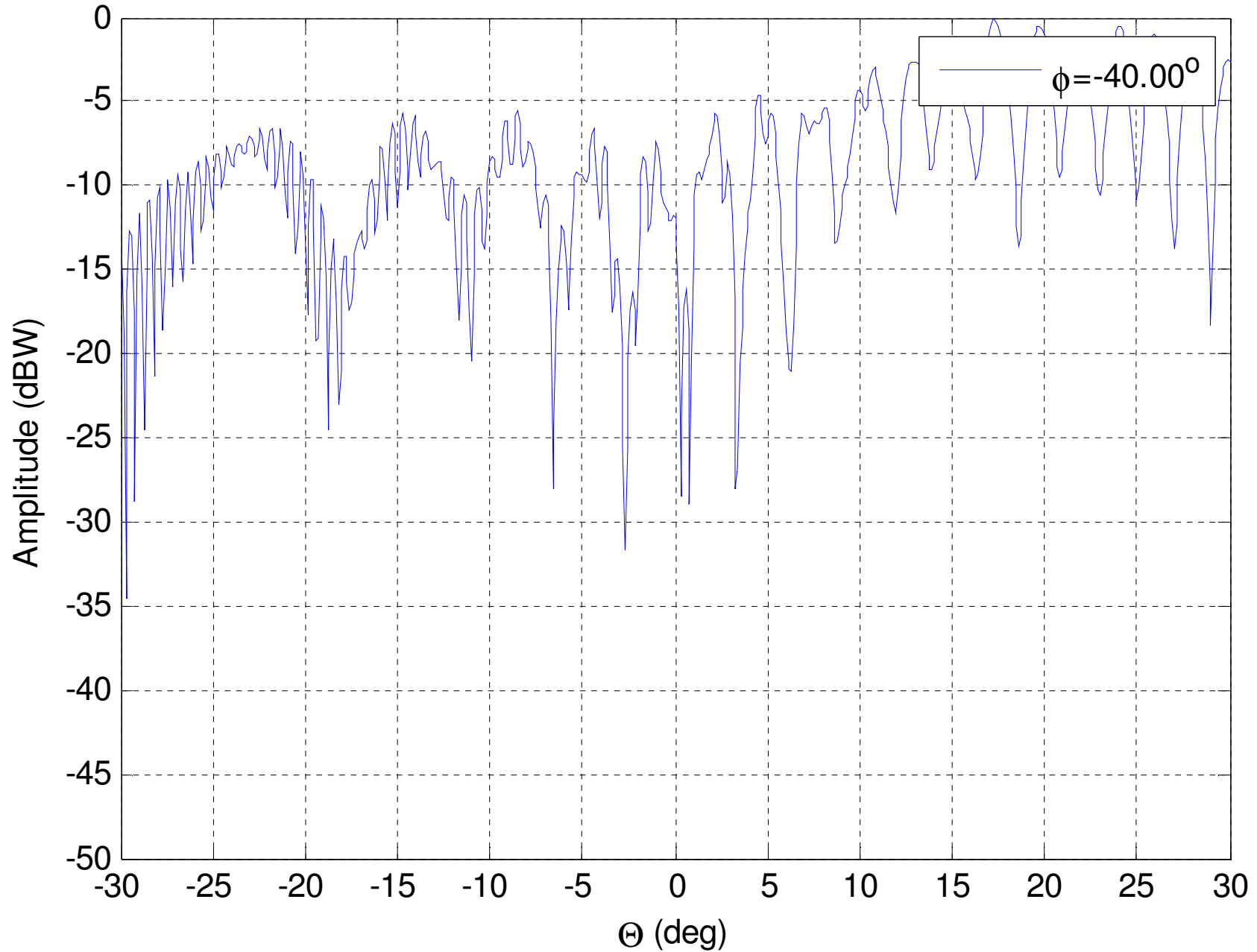
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -8.78 dBW, Date: 15-Dec-2011



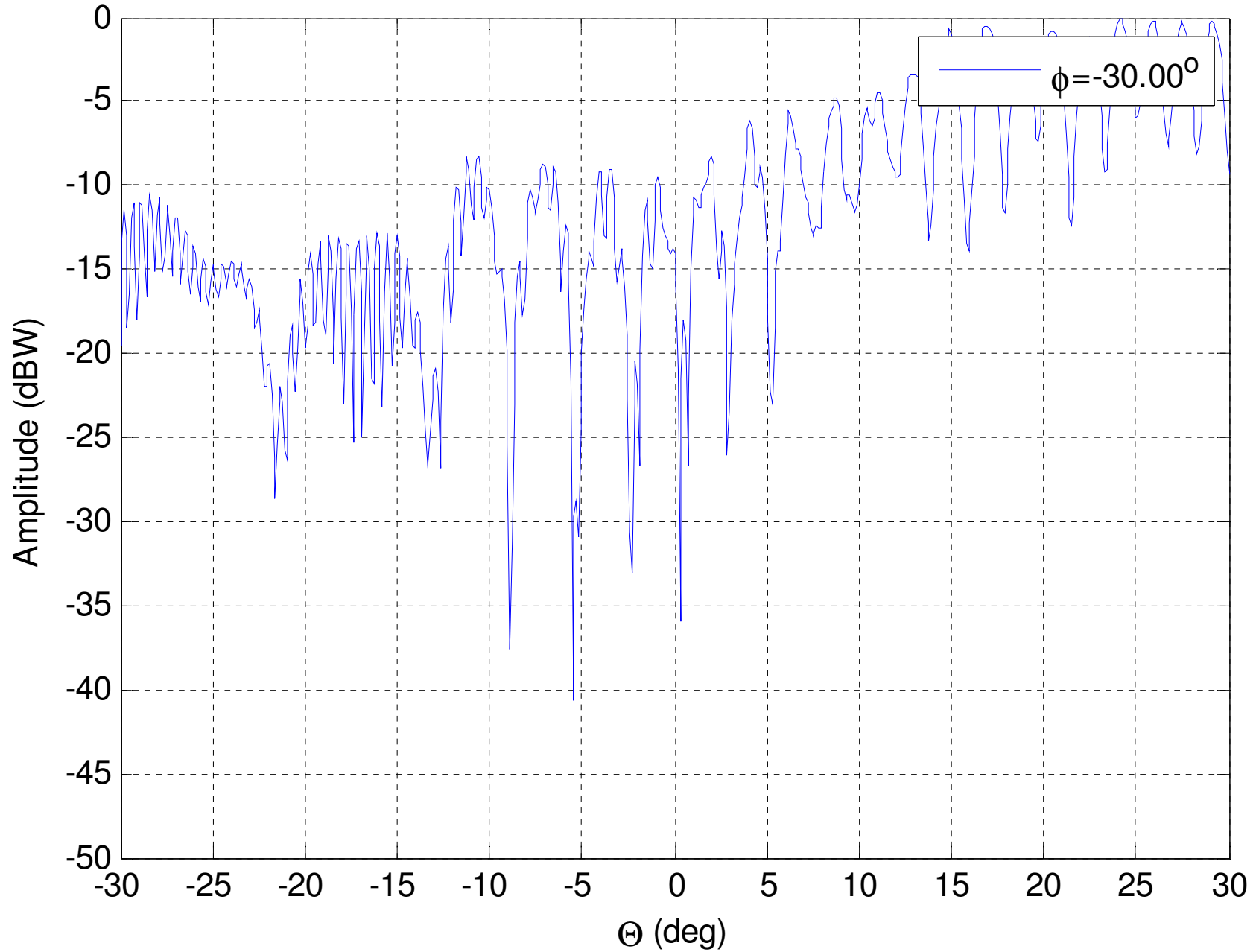
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -6.20 dBW, Date: 15-Dec-2011



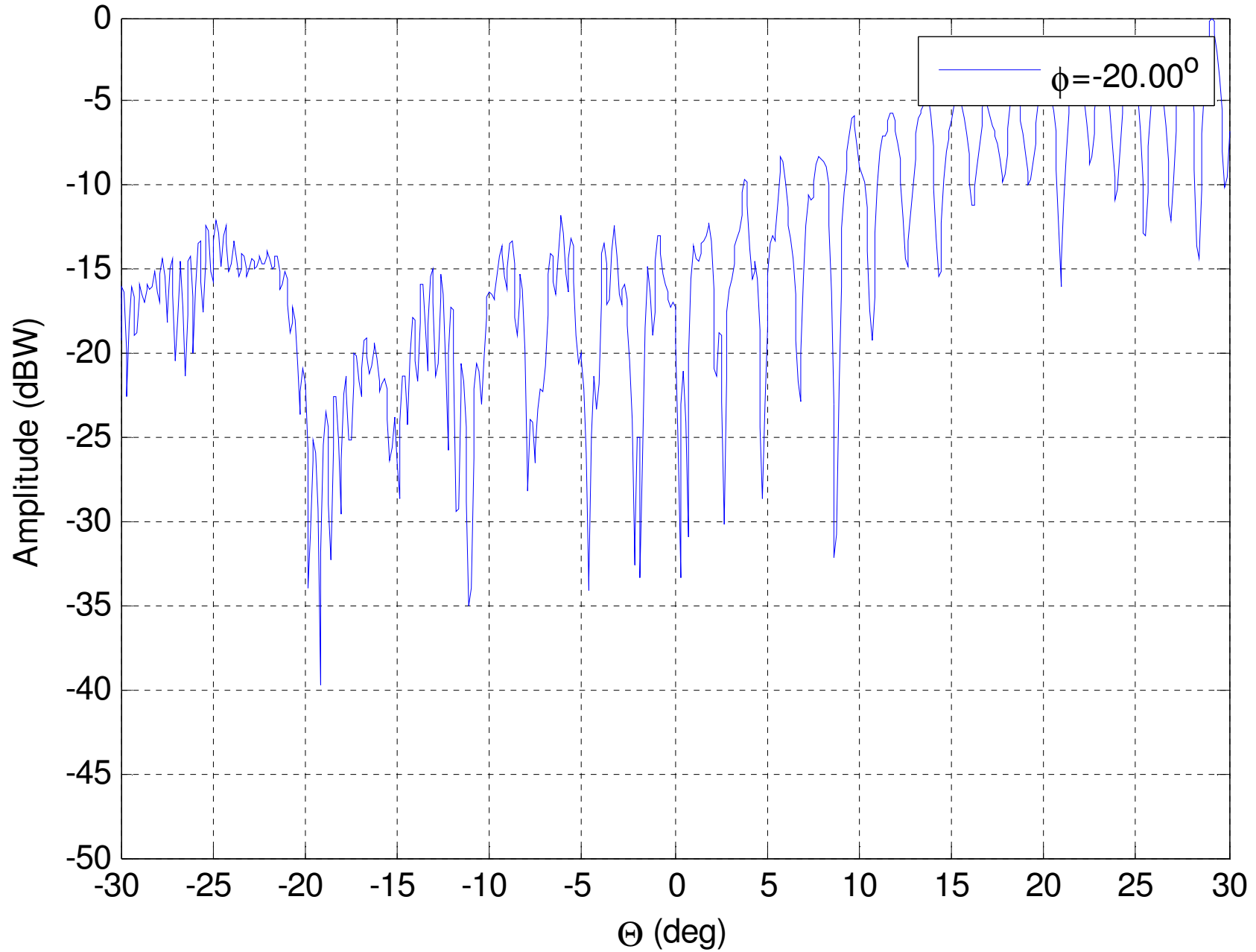
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -4.19 dBW, Date: 15-Dec-2011



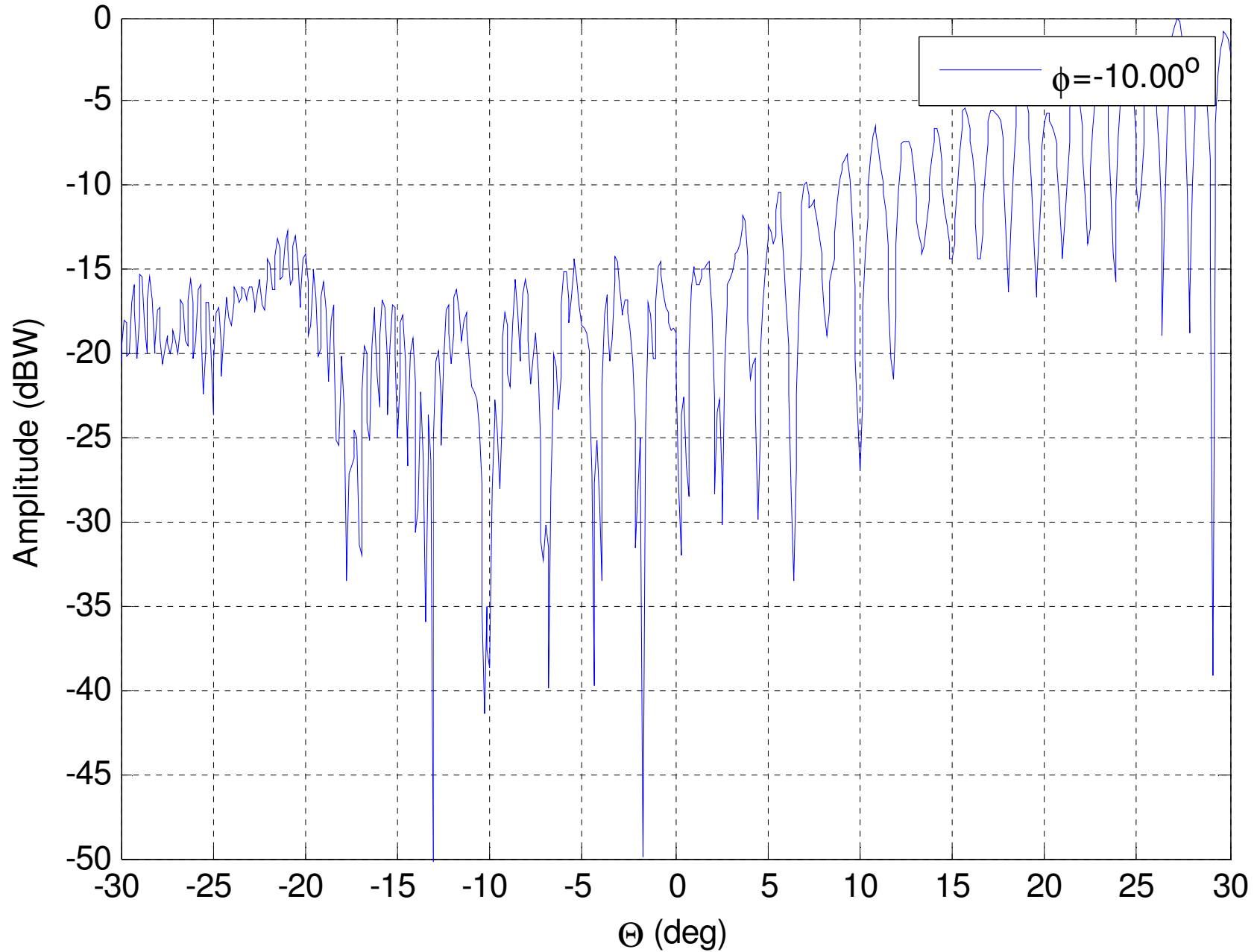
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: -0.89 dBW, Date: 15-Dec-2011



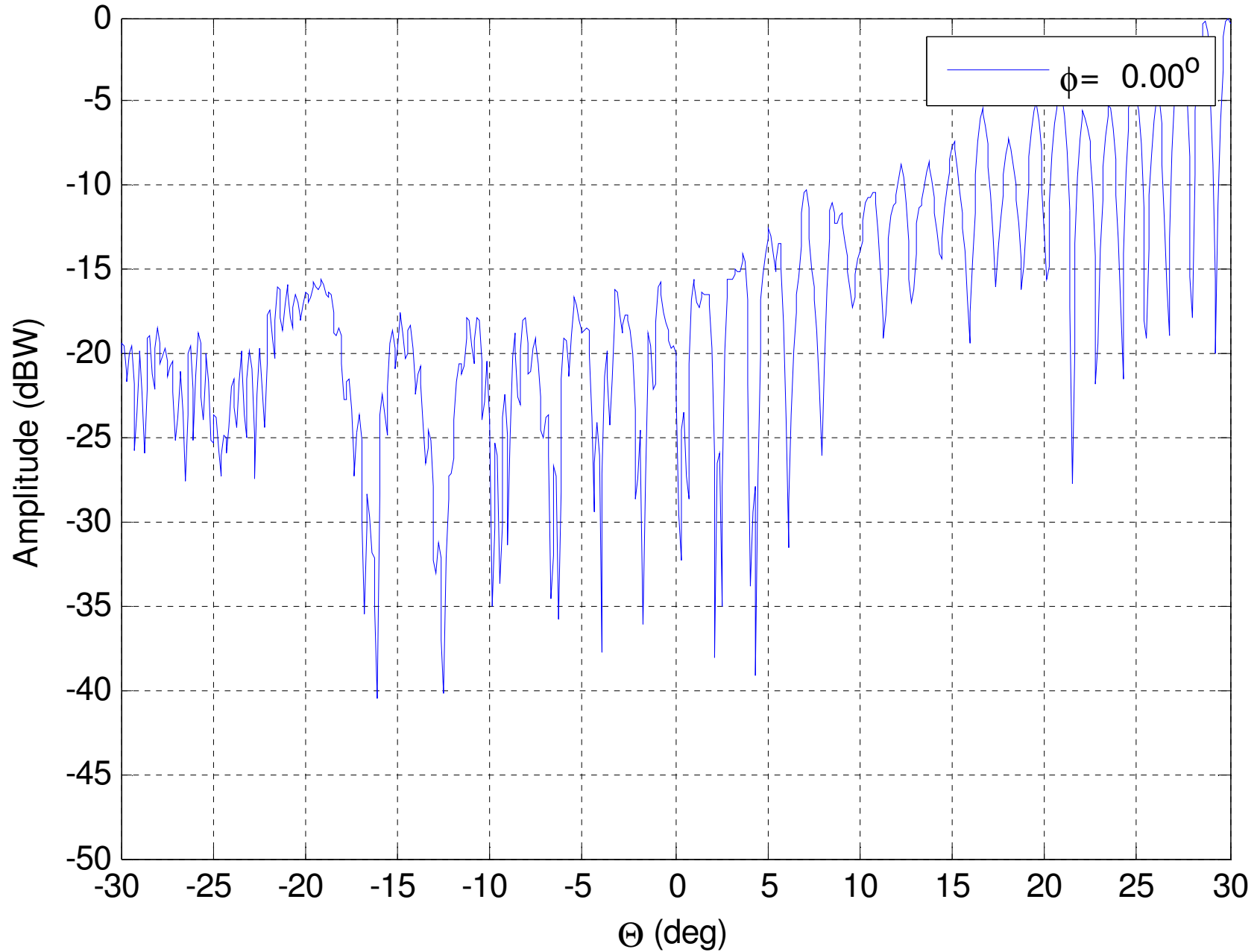
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: 0.62 dBW, Date: 15-Dec-2011



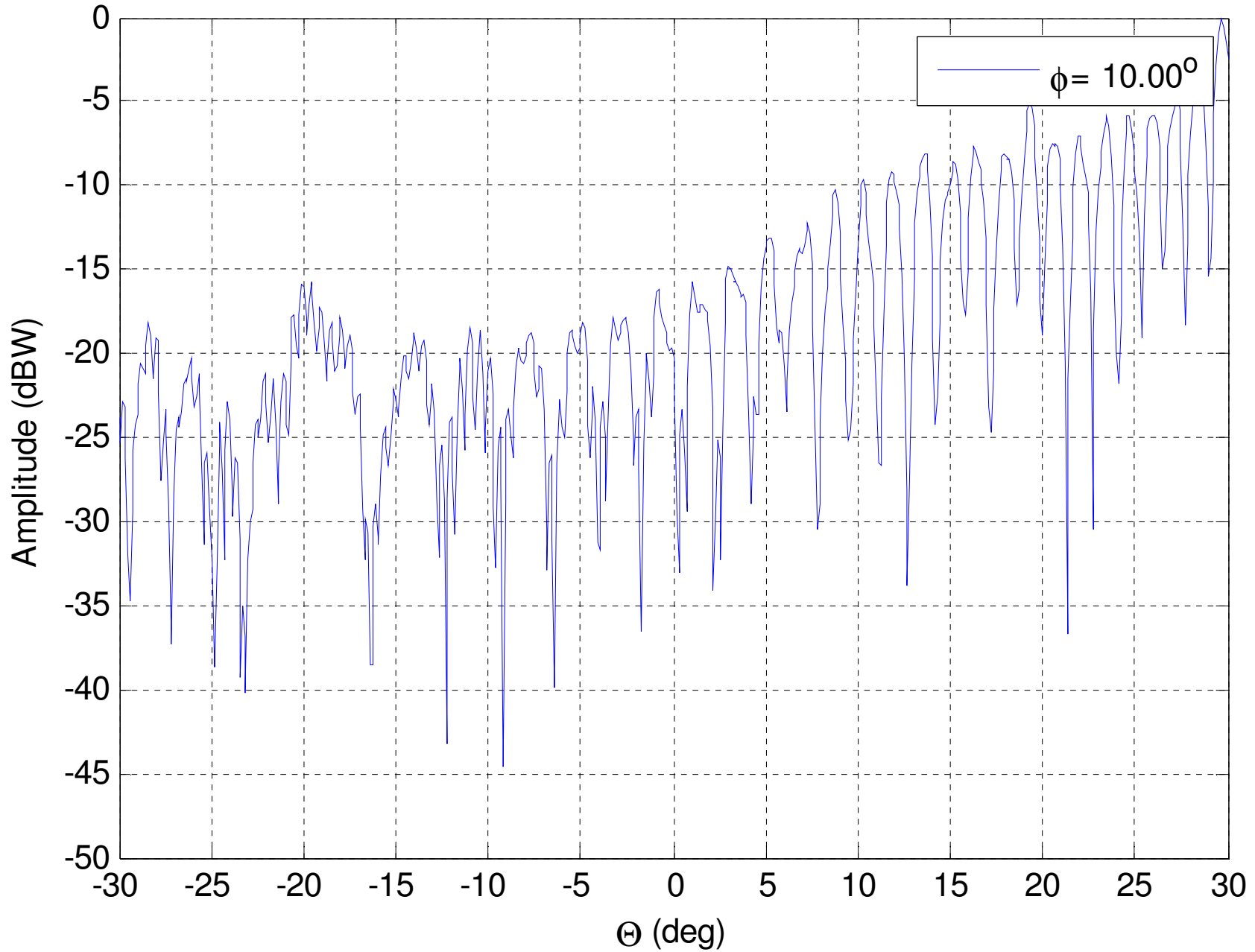
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: 1.74 dBW, Date: 15-Dec-2011



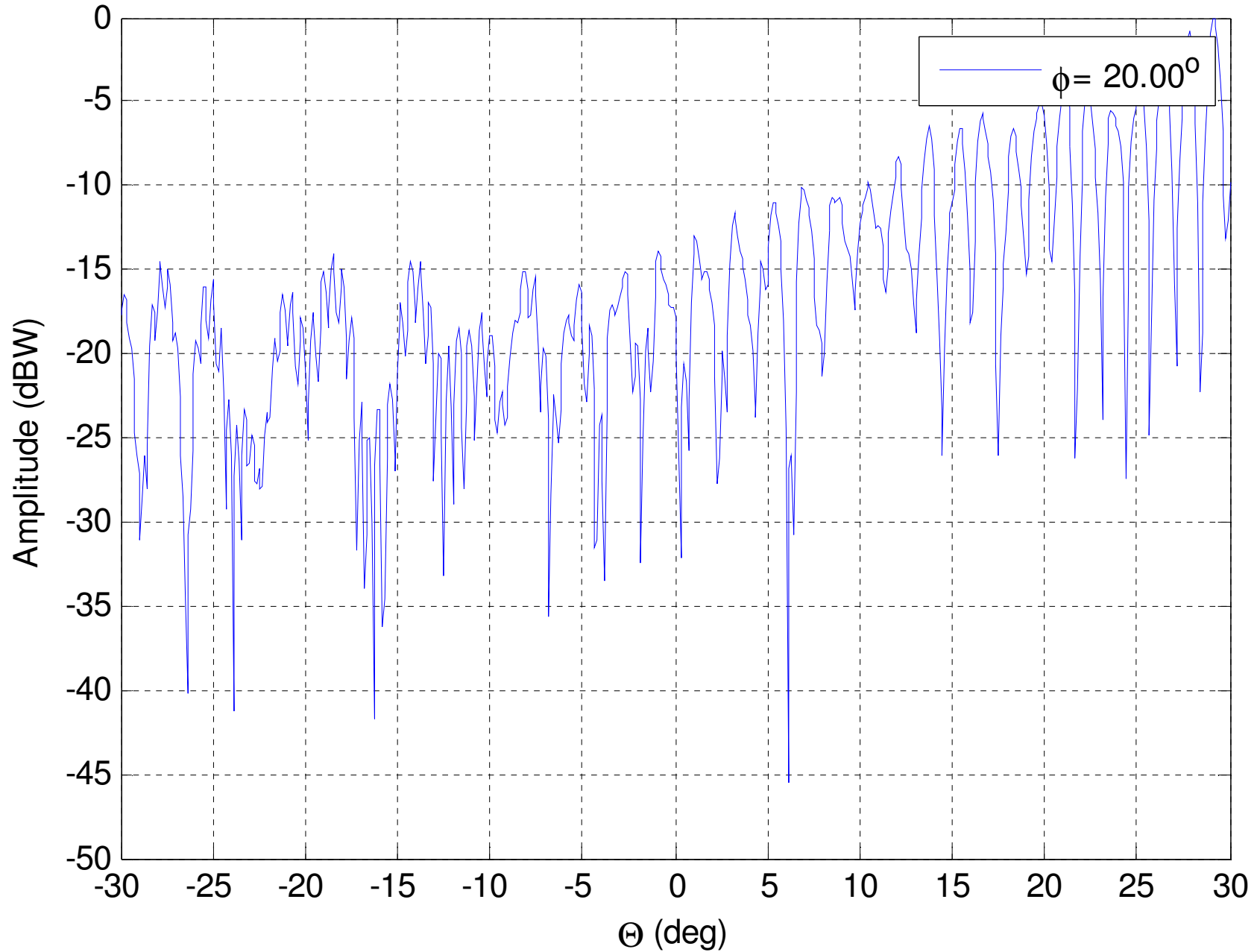
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: 2.04 dBW, Date: 15-Dec-2011



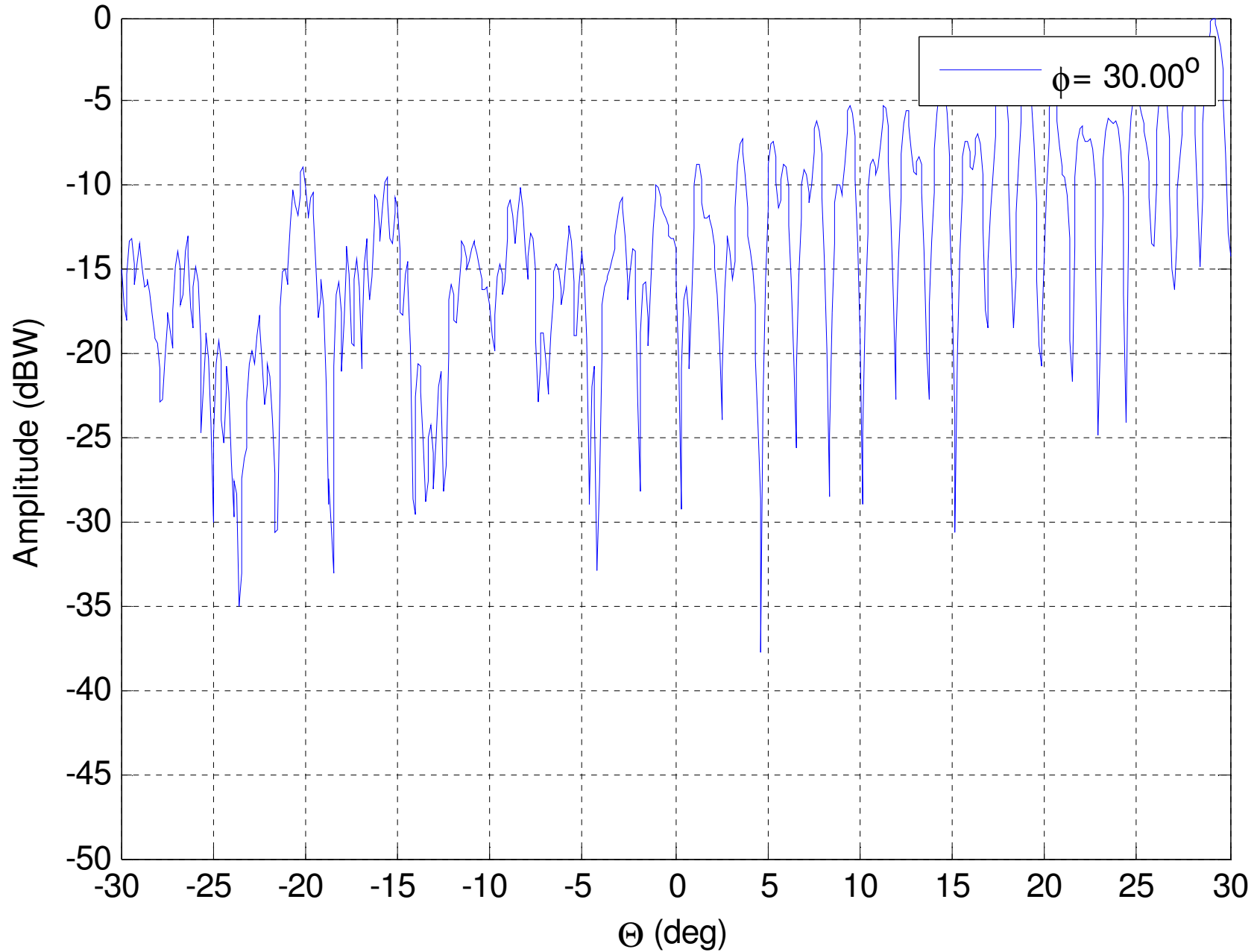
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: -0.35 dBW, Date: 15-Dec-2011



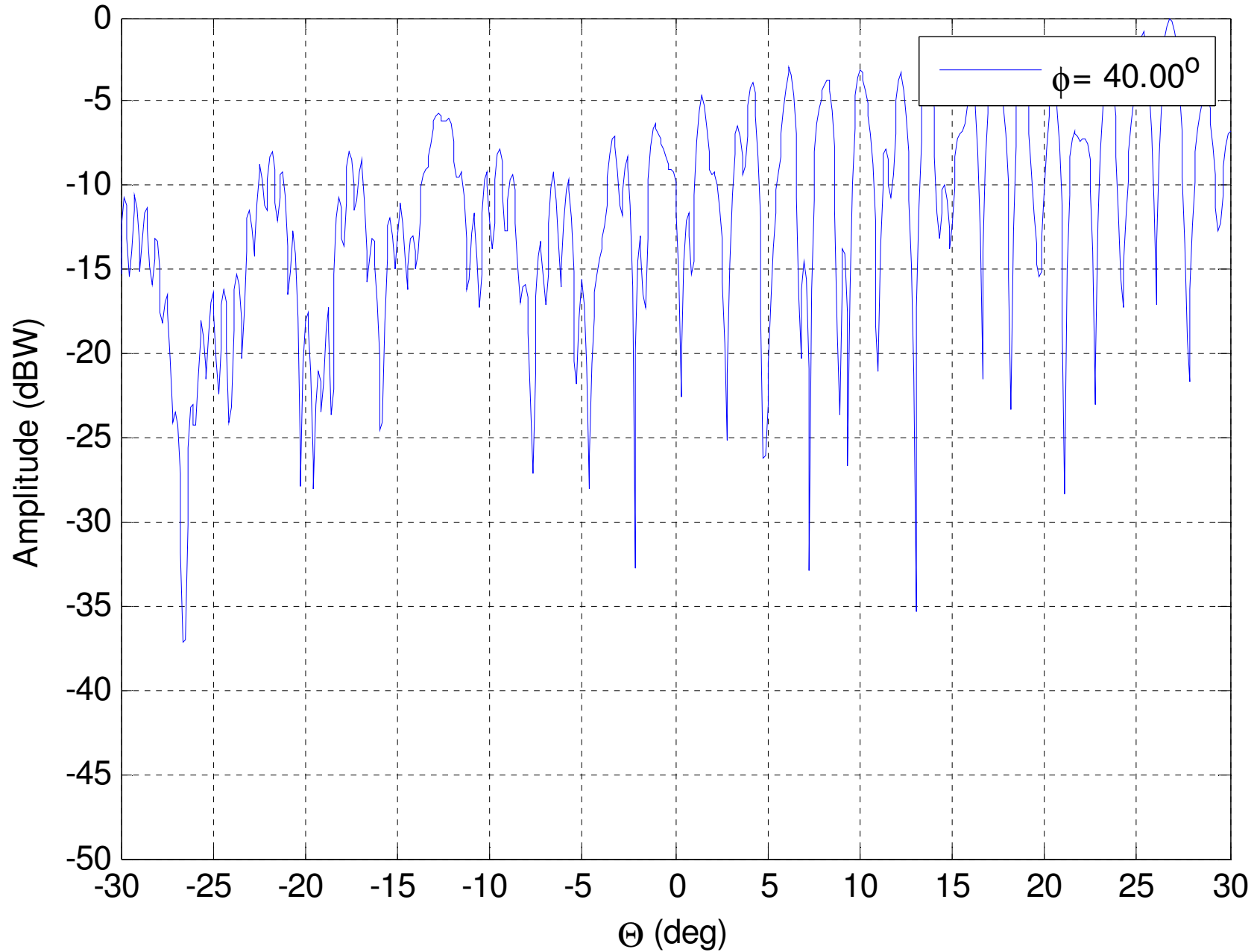
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: -4.44 dBW, Date: 15-Dec-2011



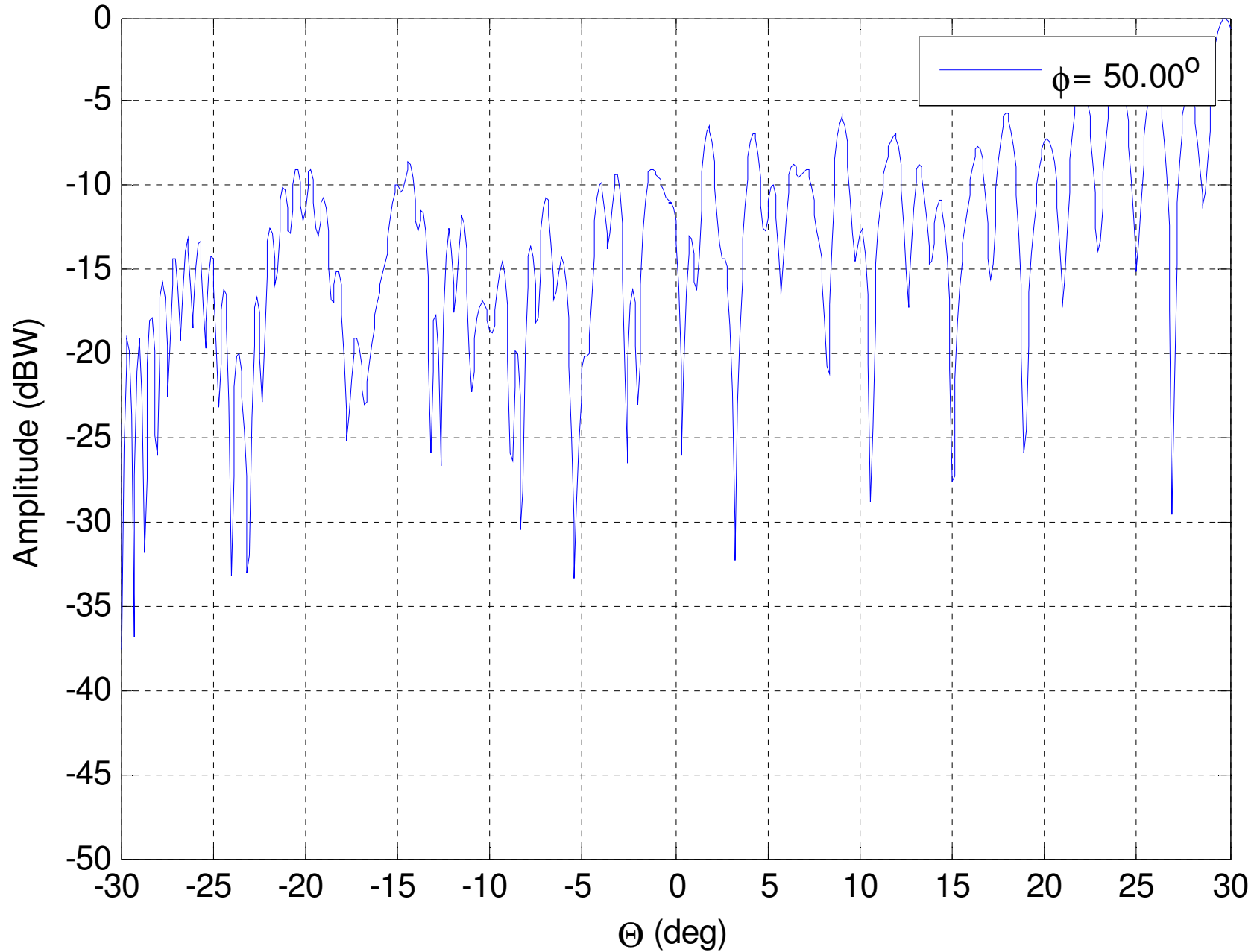
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -8.32 dBW, Date: 15-Dec-2011



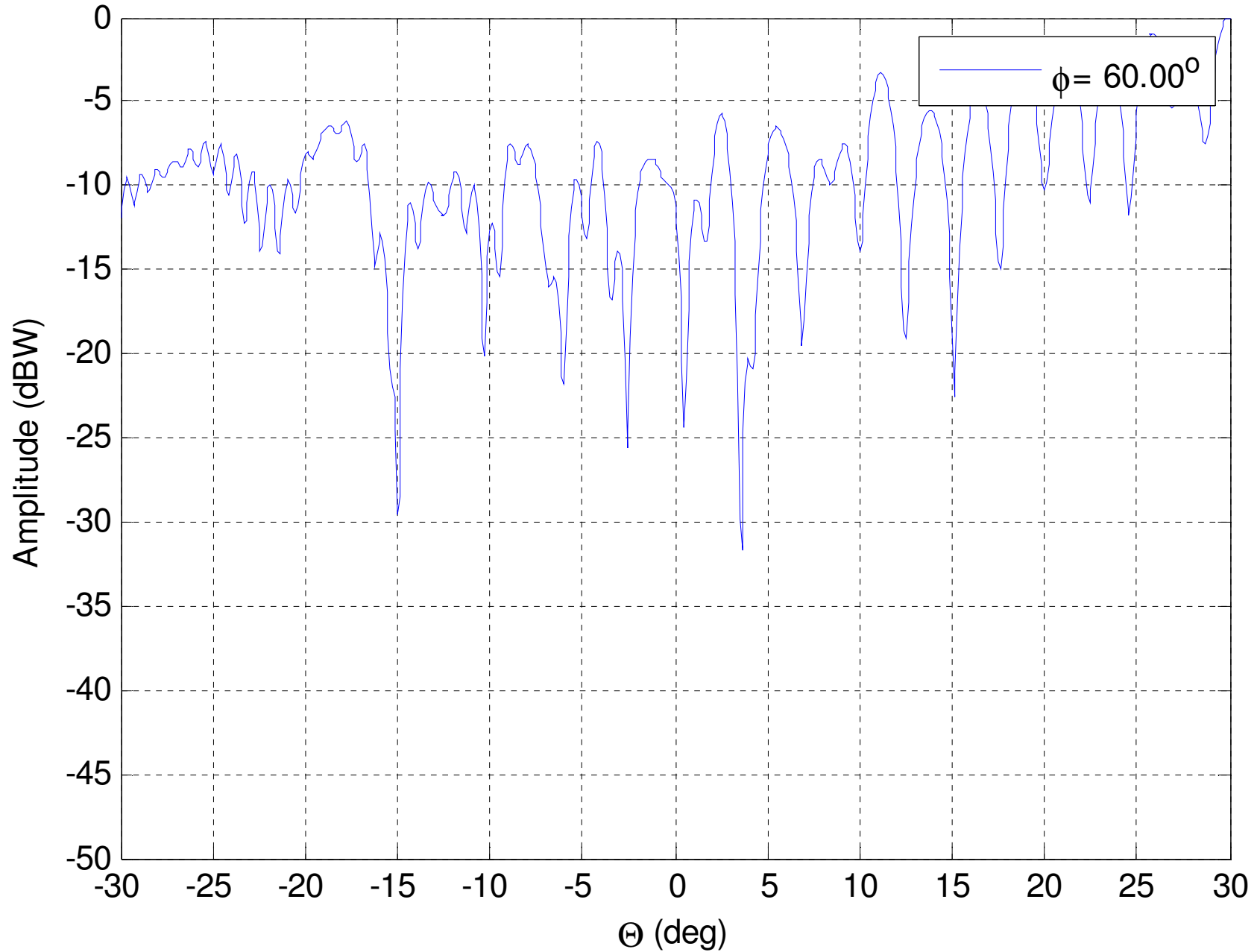
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -6.12 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -7.00 dBW, Date: 15-Dec-2011



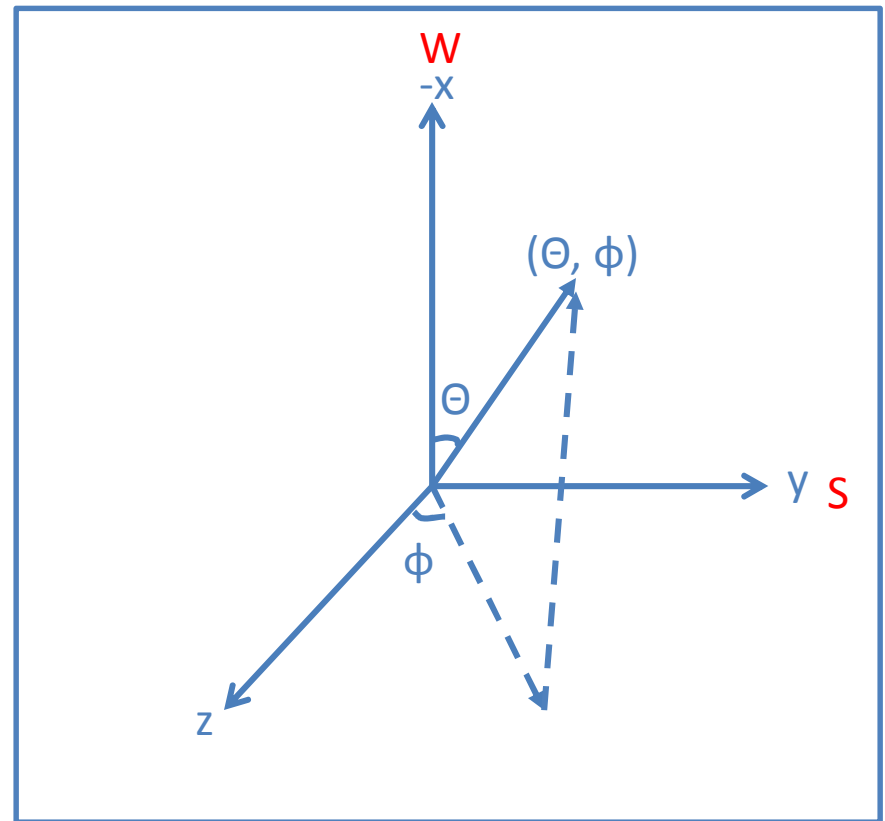
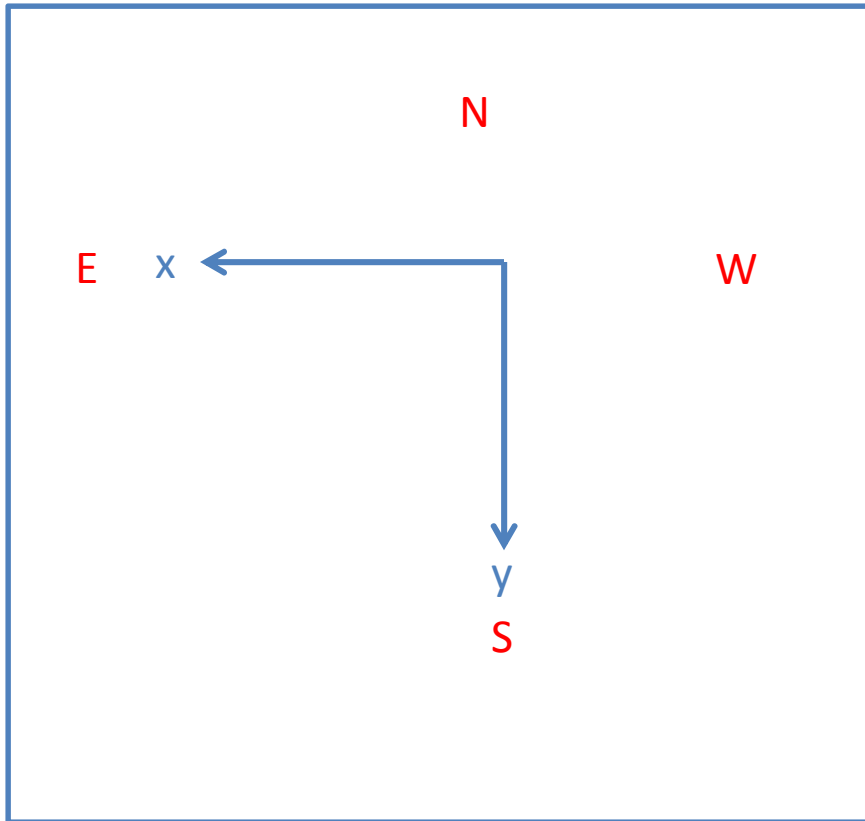
Updated: June 13, 2012

119 West Adjacent Satellite Off Axis Antenna Performance Spot Beam 36

Maximum Allowable EIRP to meet the -117dBW/m²/100 kHz

Maximum EIRP Allowed	
Spec Max flux density, dBW/m ² /100kHz	-117
Desired channel band width, MHz	25.8
Symbol rate band width modification factor	1
Effective channel bandwidth, MHz	25.8
Effective bandwidth, dB-100kHz	24.1
Flux density allowed per channel, dBW/m ²	-92.9
R, radial distance to GEO, km	42164.0
Angle of separation between satellites, deg	0.1
range between satellites, km	73.59
Spreading factor, dB/m ²	-108.3
Atmospheric loss, dB	0
Max satellite EIRP allowed, dBW	15.4

Coordinate System



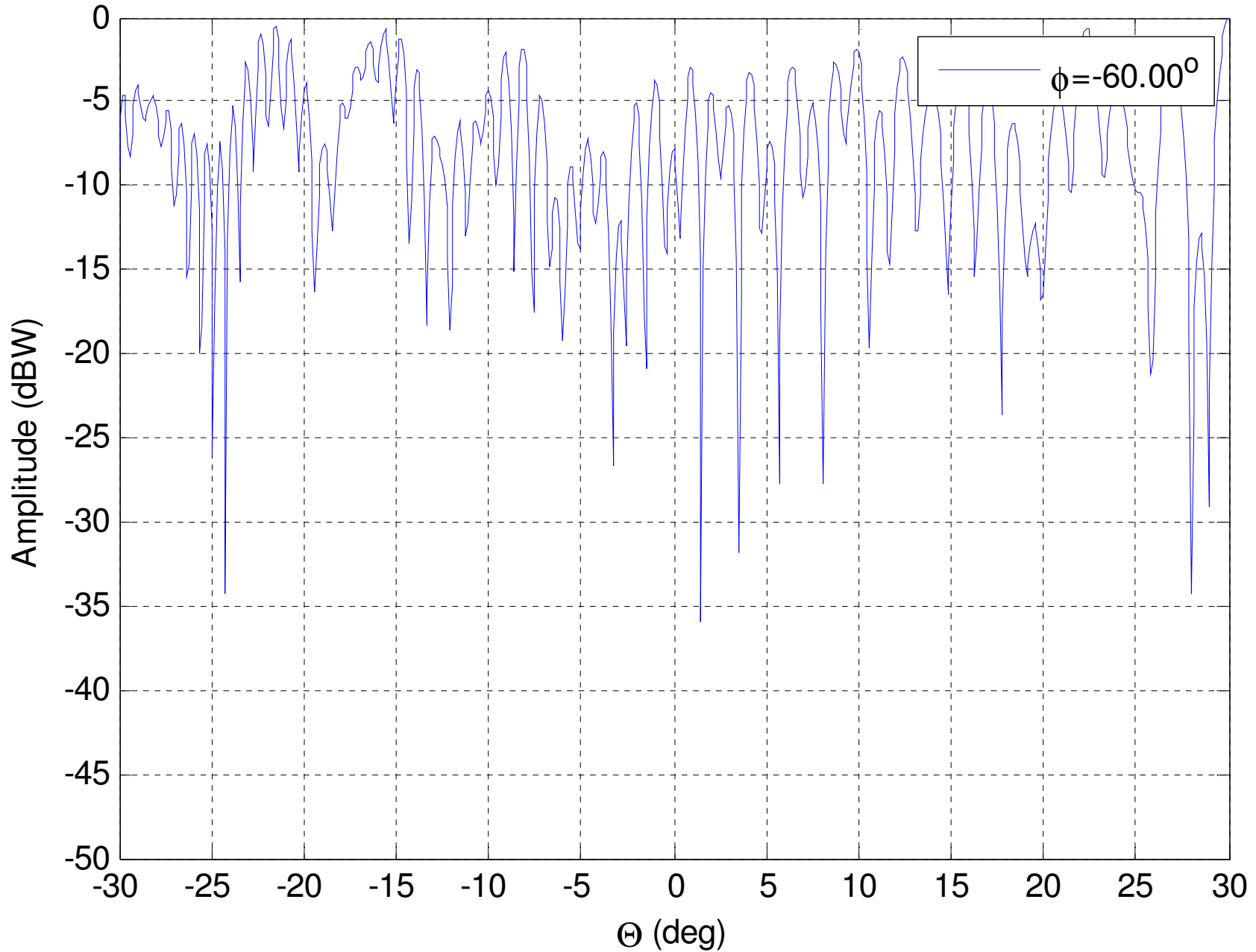
Spot Beam36, -X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: -X -axis)
- $-60 < \phi < 60$
- Freq = 17.305, 17.5, and 17.695 GHz
- The Zero reference line is the maximum EIRP listed in the title of each plot sheet. All levels are below the required 15.4 dBW maximum
- The Zero reference for the maximum antenna gain is the maximum EIRP listed minus the power input to the antenna specified in Table I of the attached narrative.

RHCP at 17.3 GHz

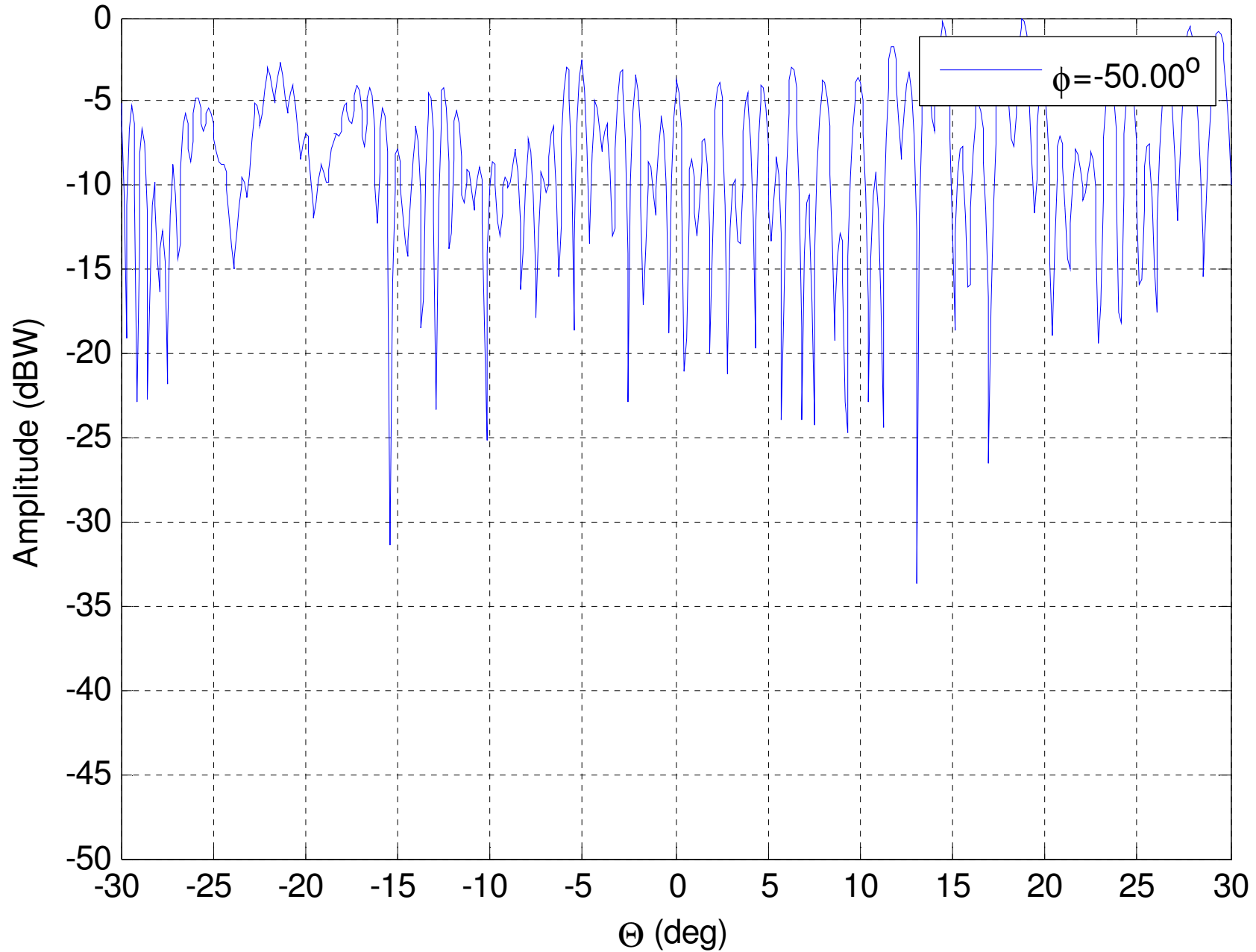
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -4.13 dBW, Date: 15-Dec-2011



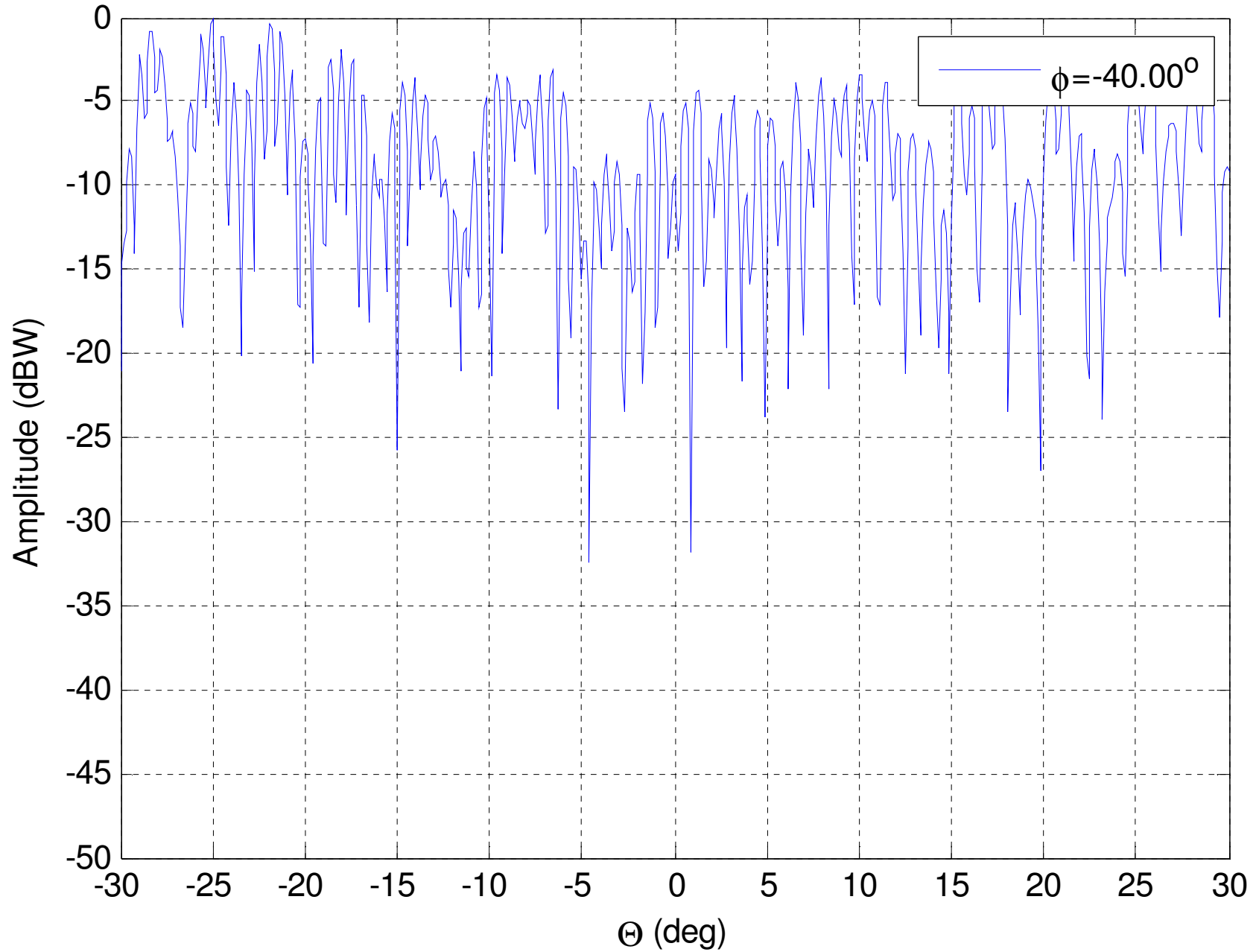
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -2.90 dBW, Date: 15-Dec-2011



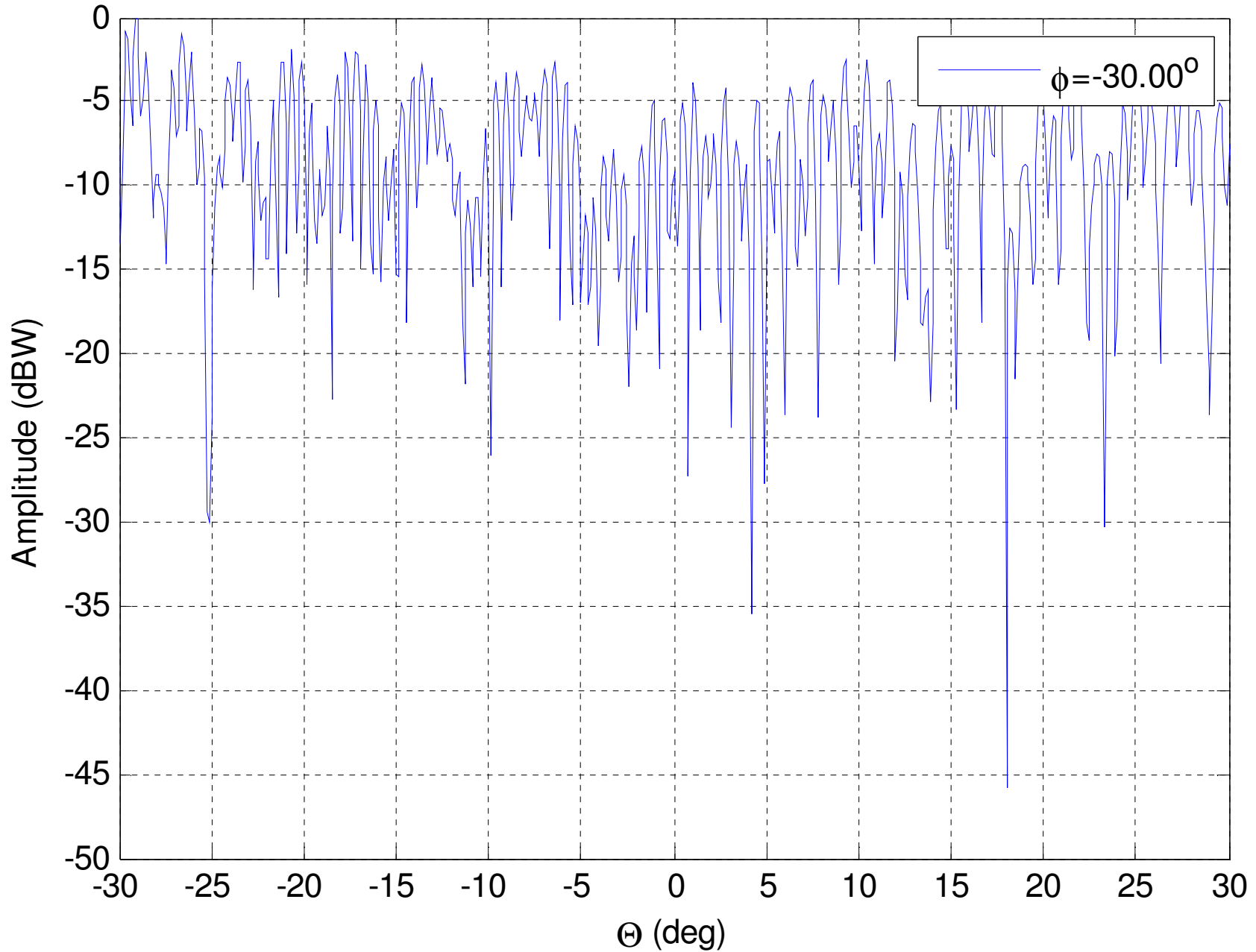
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -2.69 dBW, Date: 15-Dec-2011



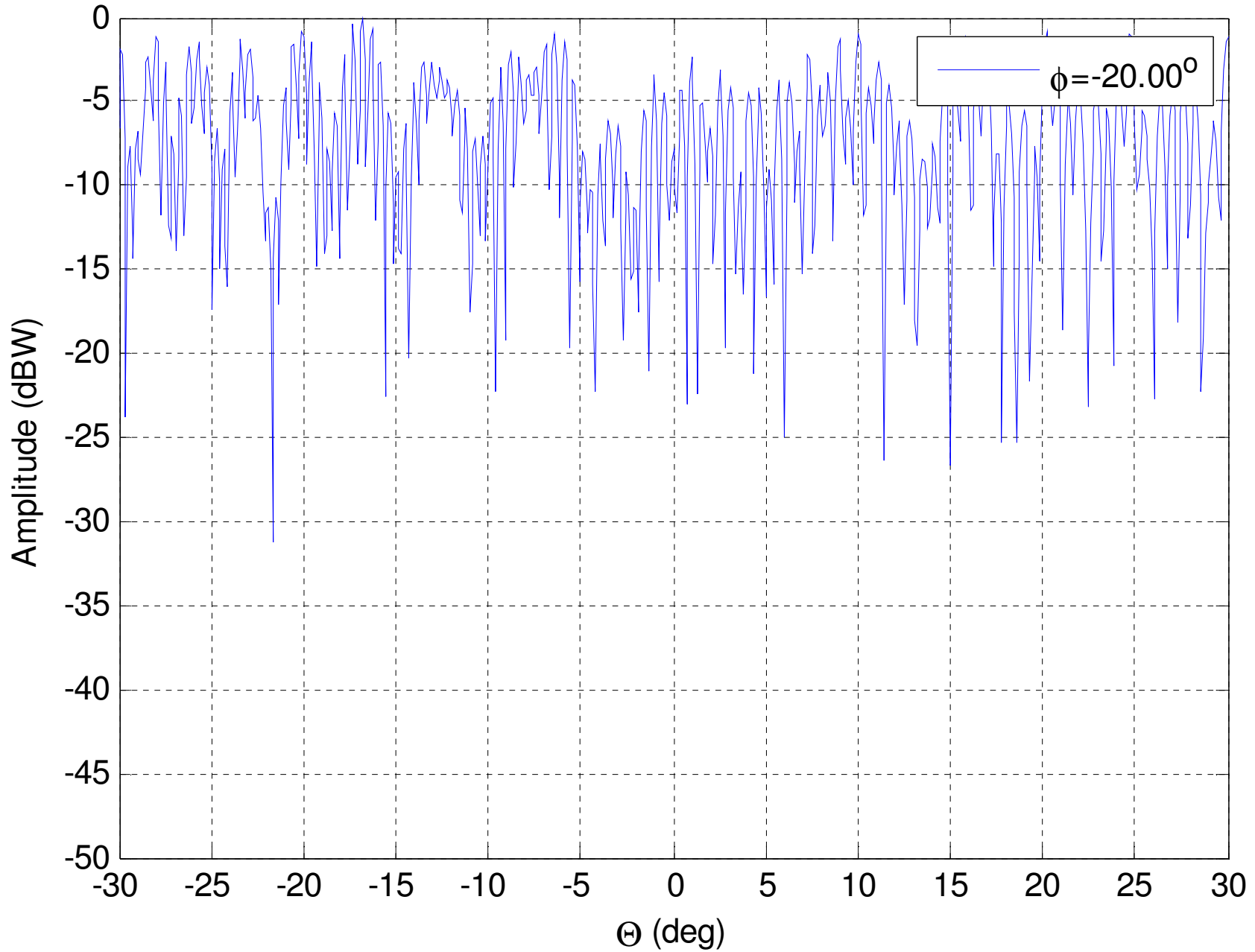
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -2.84 dBW, Date: 15-Dec-2011



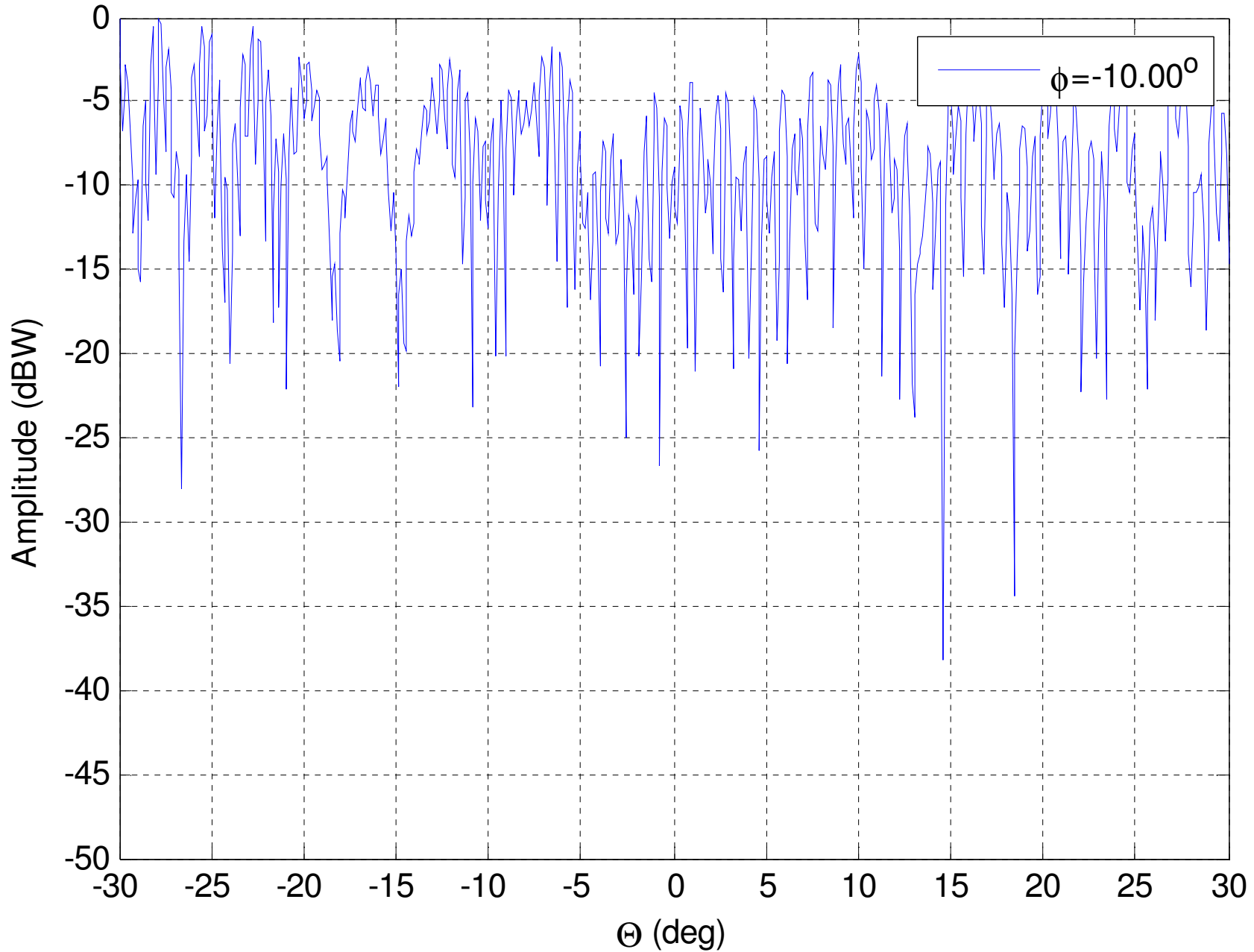
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: -4.26 dBW, Date: 15-Dec-2011



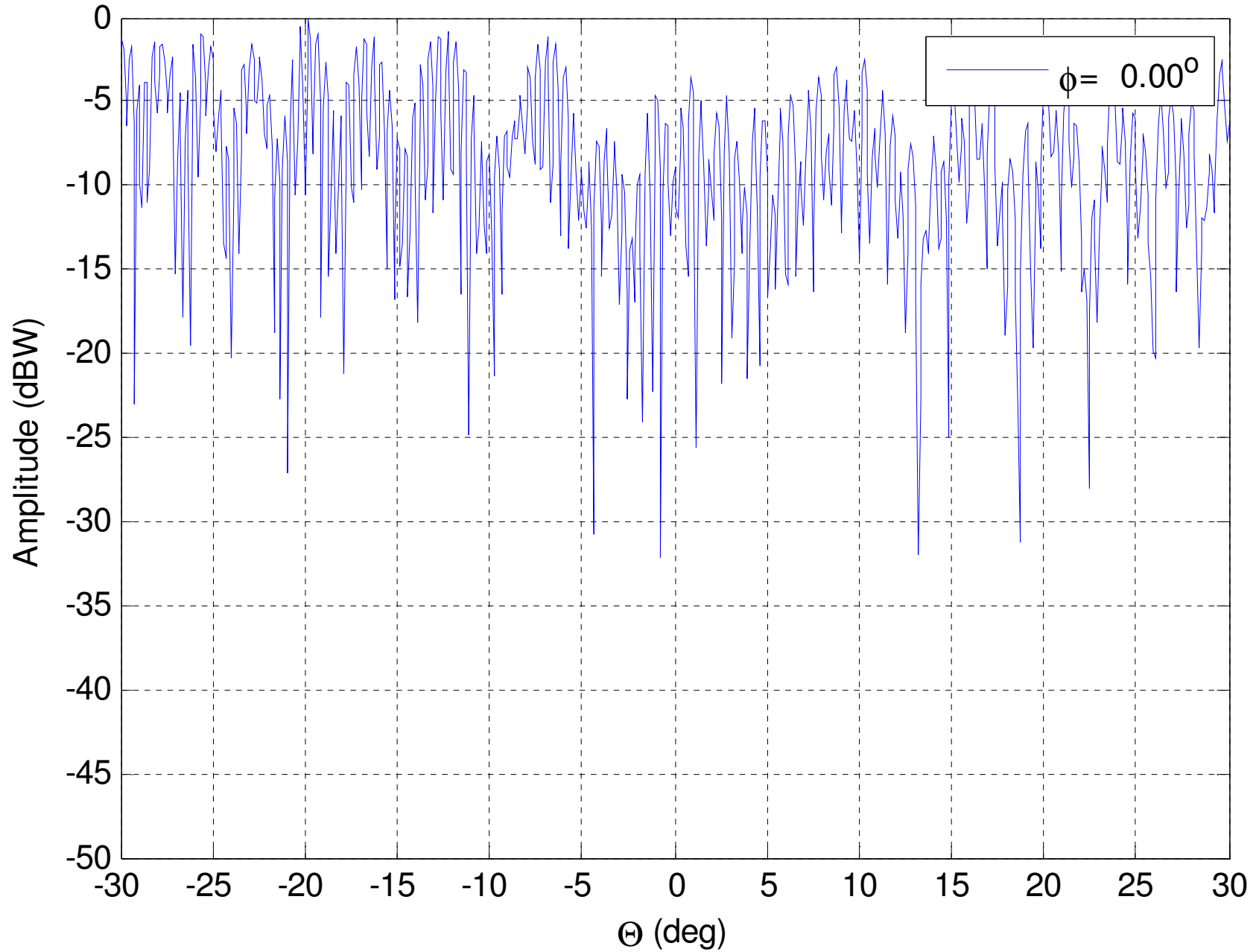
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: -3.16 dBW, Date: 15-Dec-2011



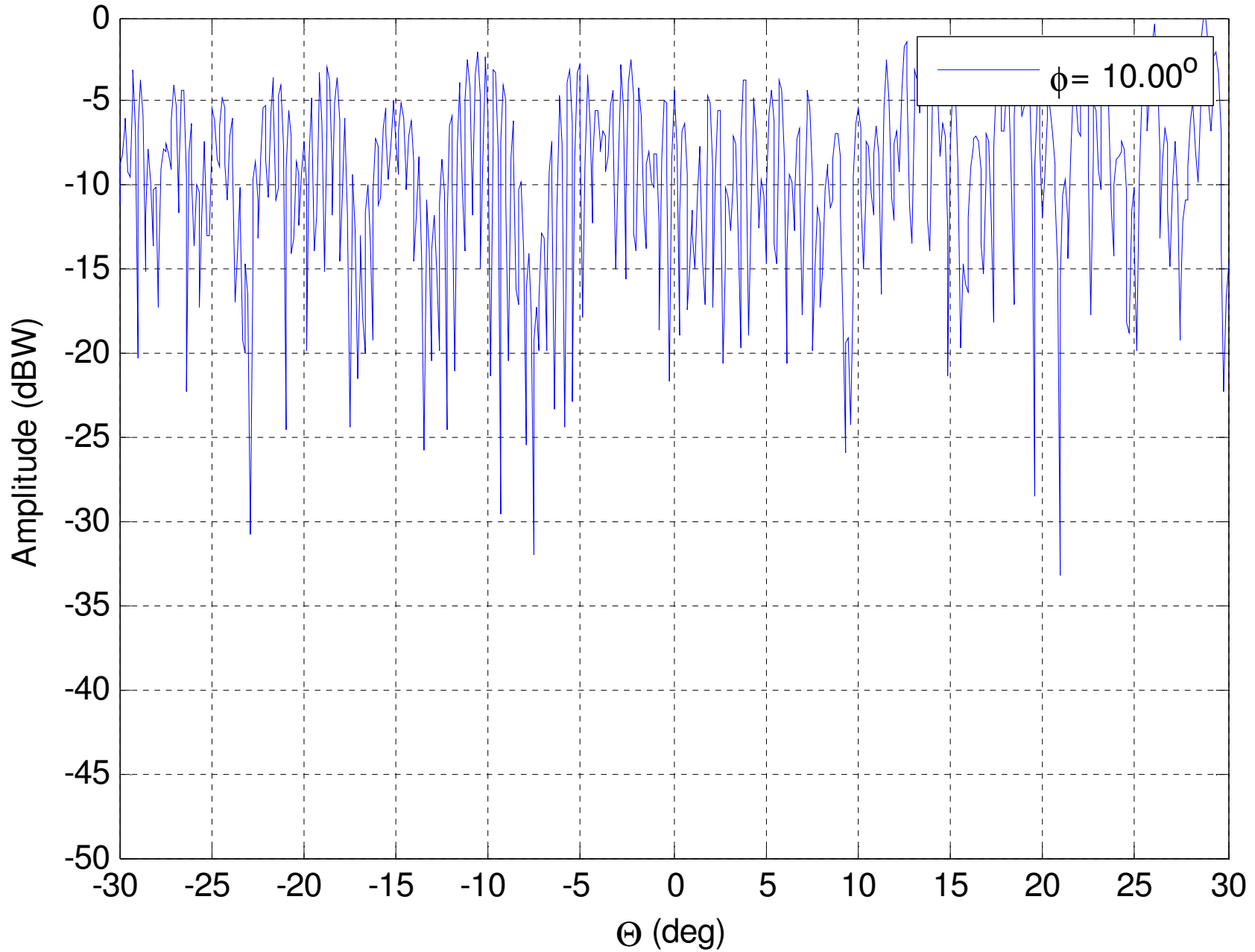
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: -3.18 dBW, Date: 15-Dec-2011



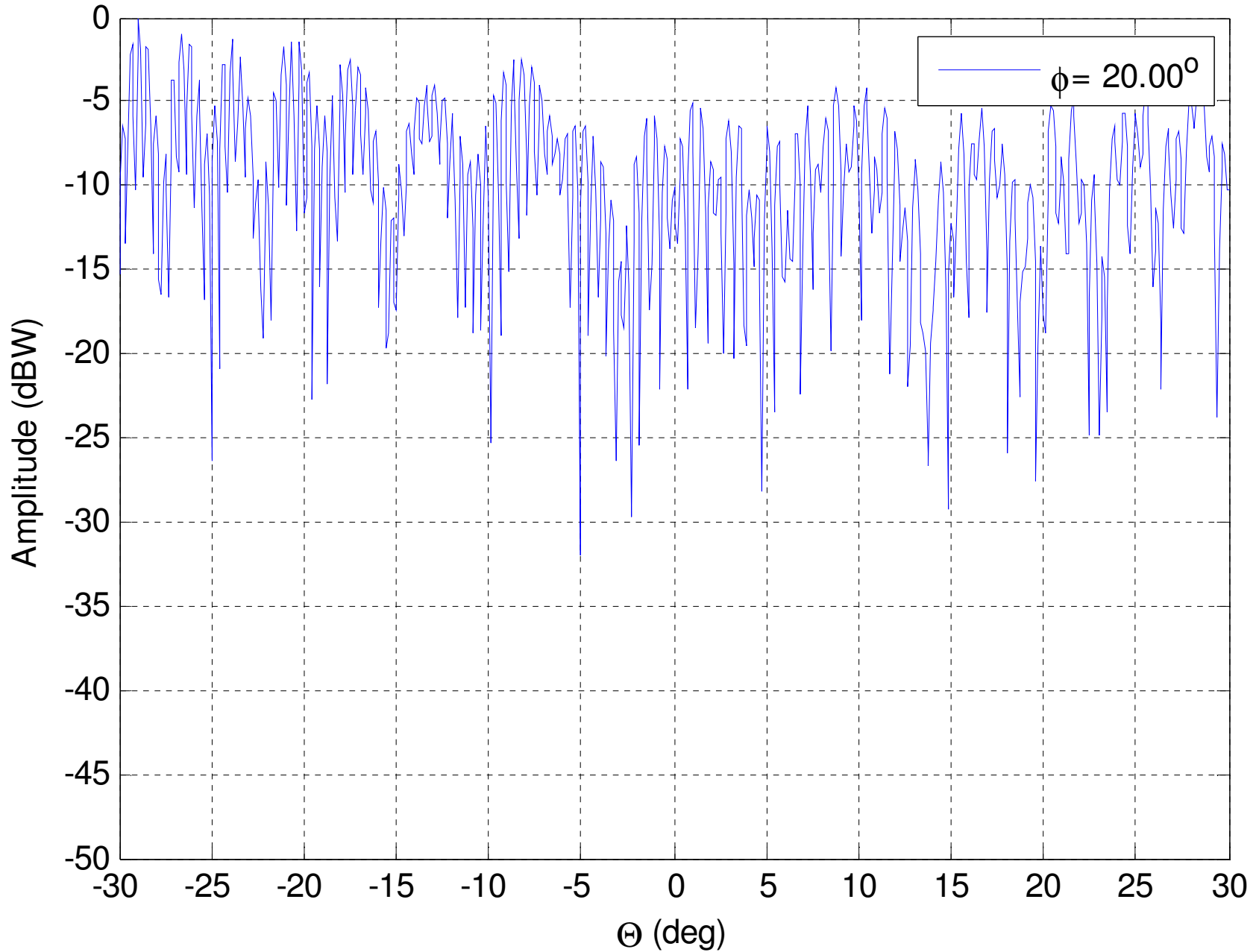
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: -2.71 dBW, Date: 15-Dec-2011



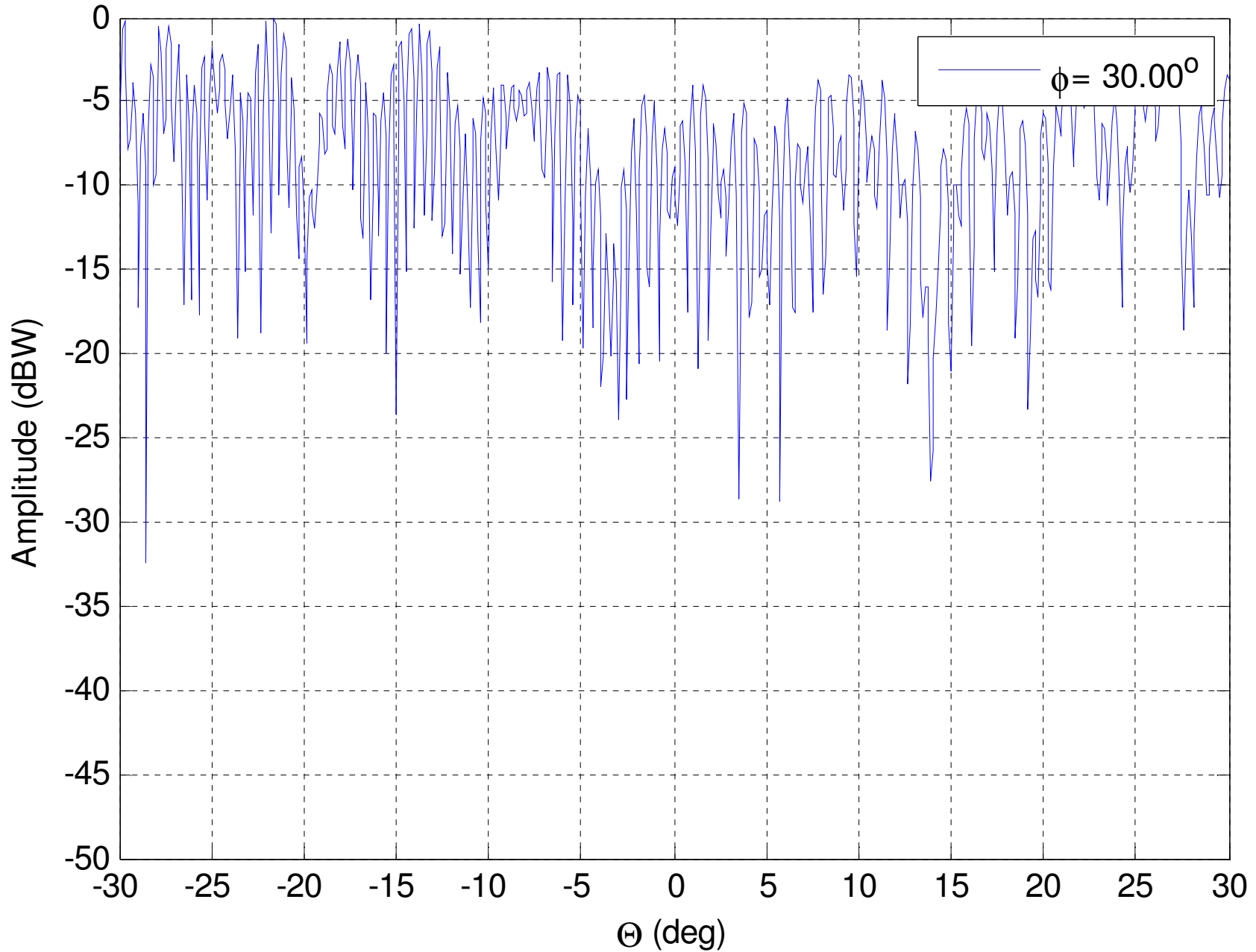
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: -1.89 dBW, Date: 15-Dec-2011



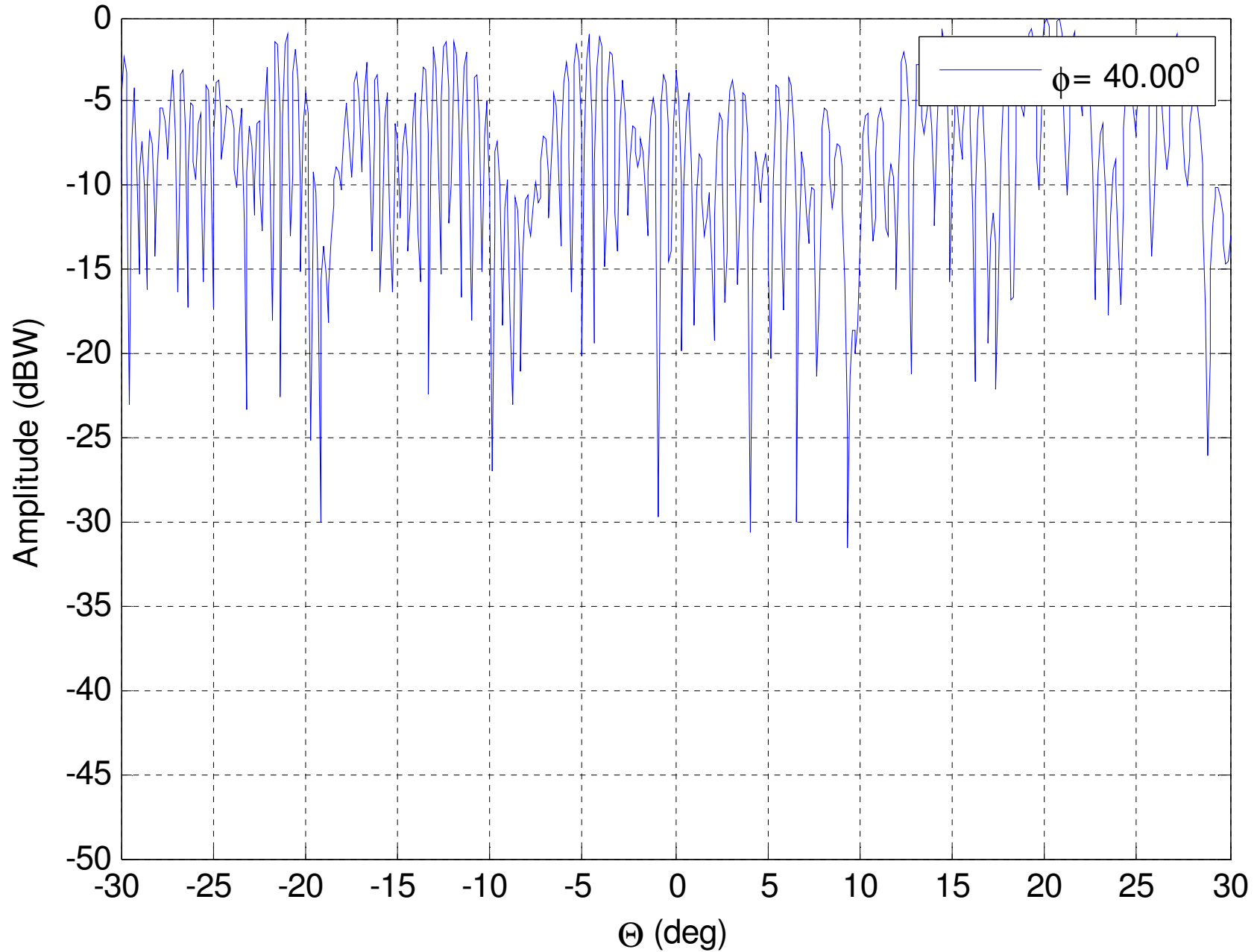
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: -3.10 dBW, Date: 15-Dec-2011



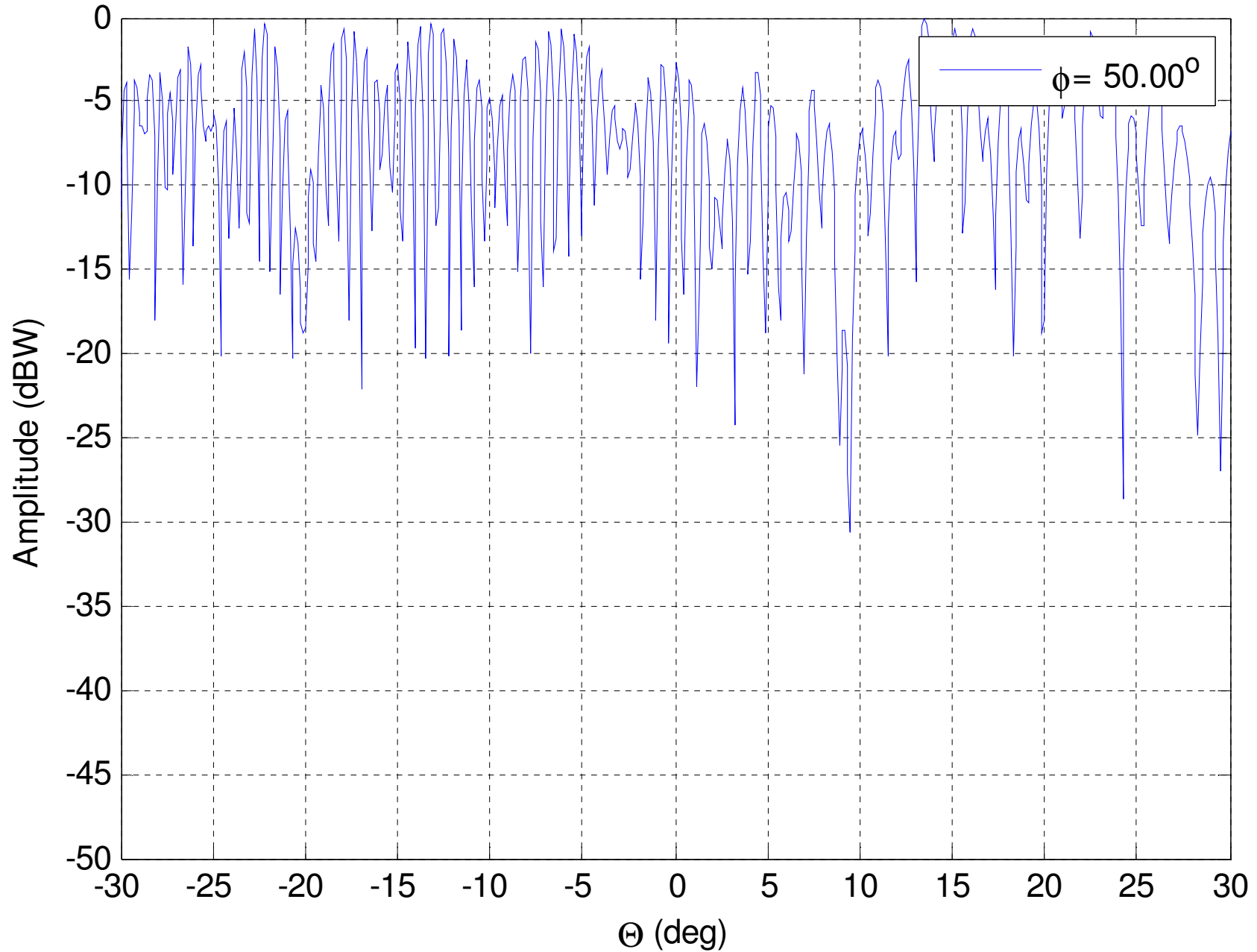
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -3.58 dBW, Date: 15-Dec-2011



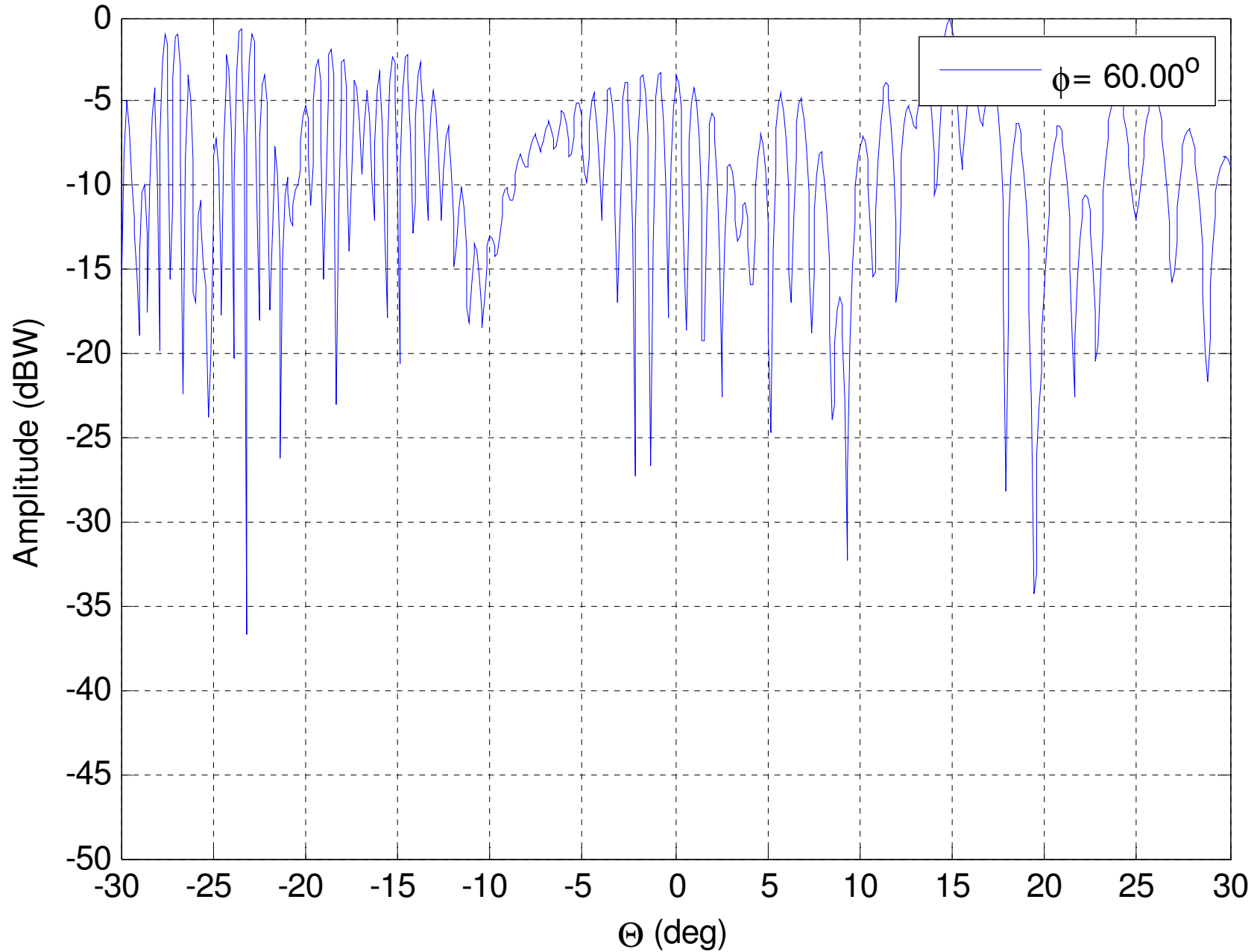
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -4.04 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

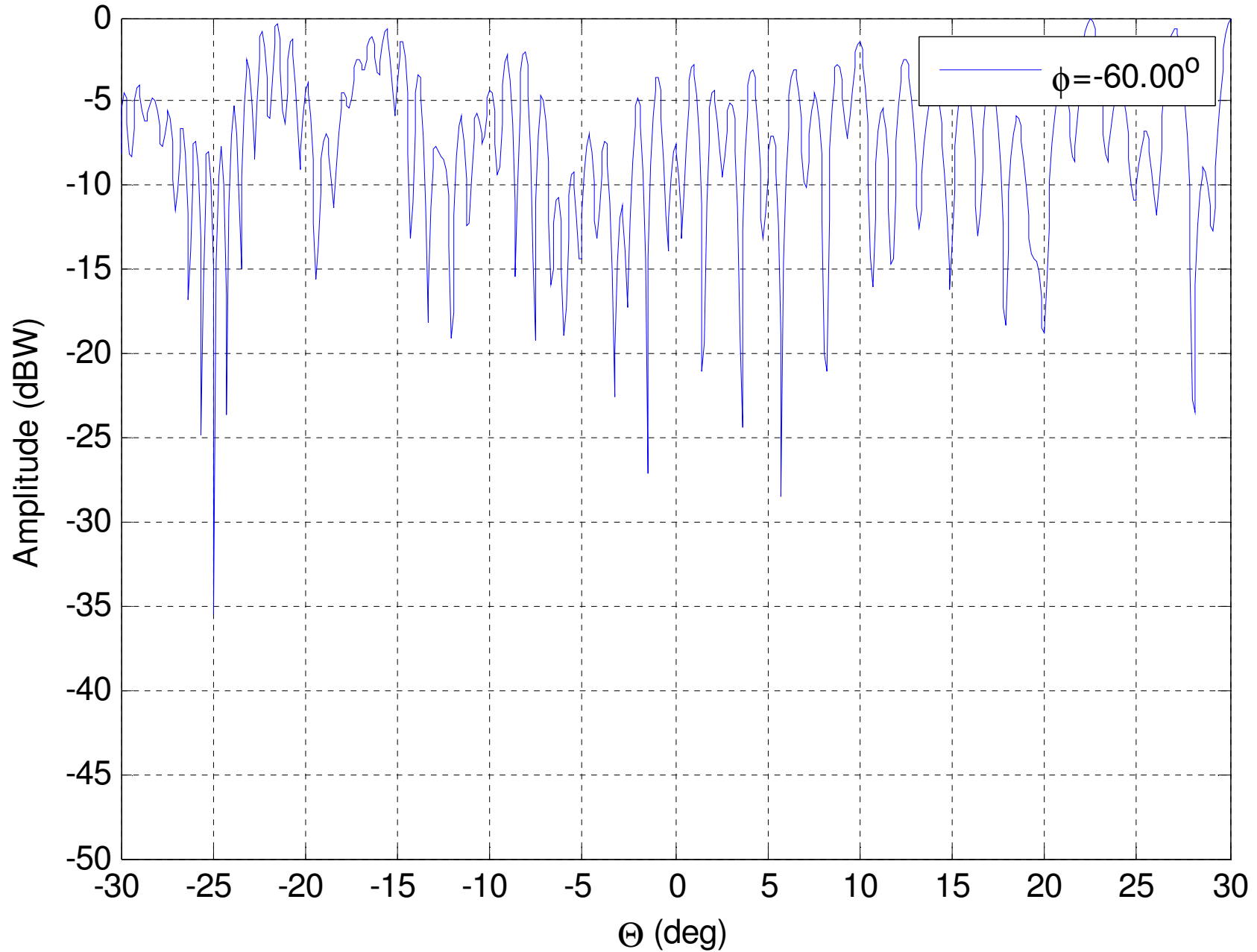
Input file: tx-17.3-rhcp-60.cut, Peak: -3.28 dBW, Date: 15-Dec-2011



LHCP at 17.3 GHz

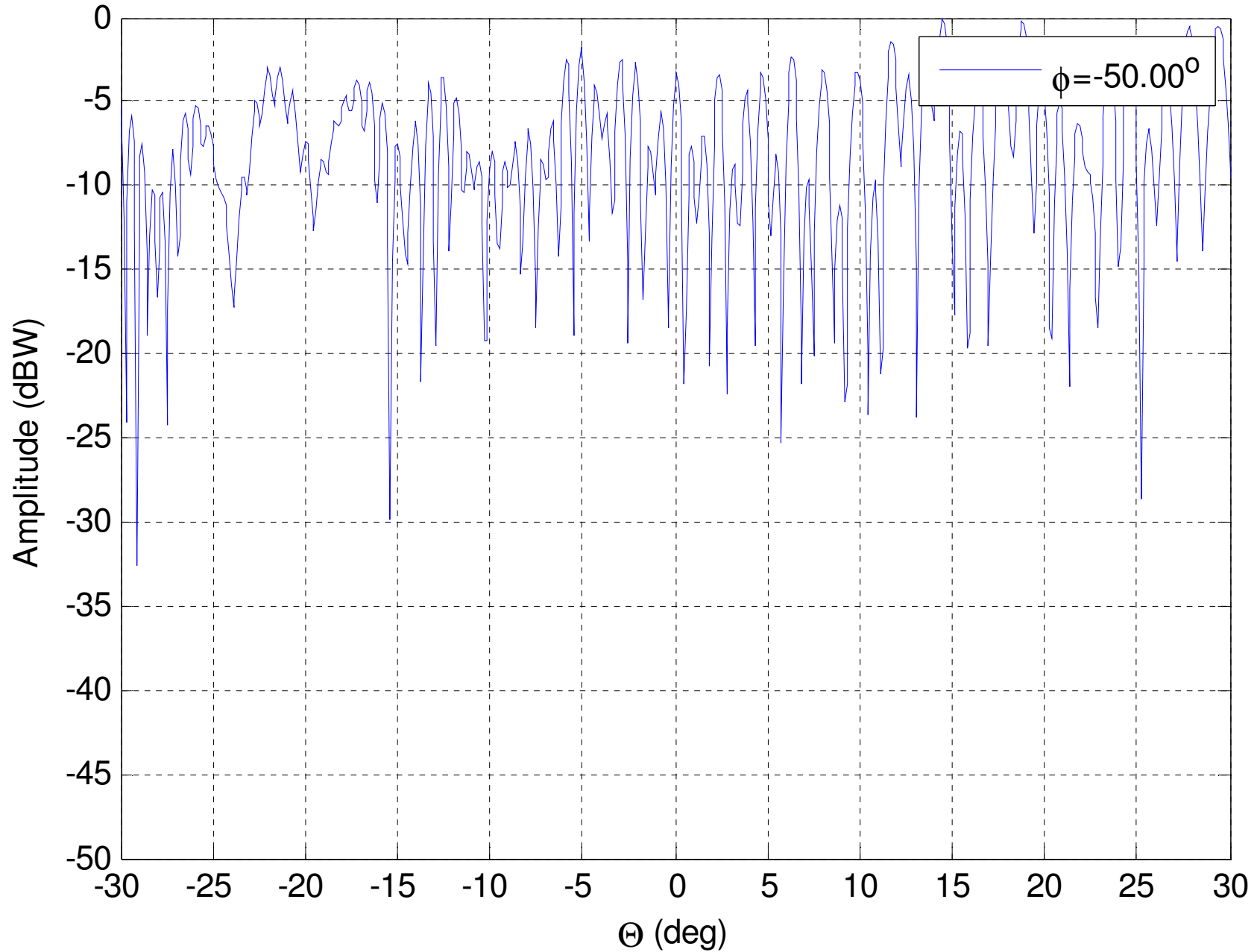
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -4.13 dBW, Date: 15-Dec-2011



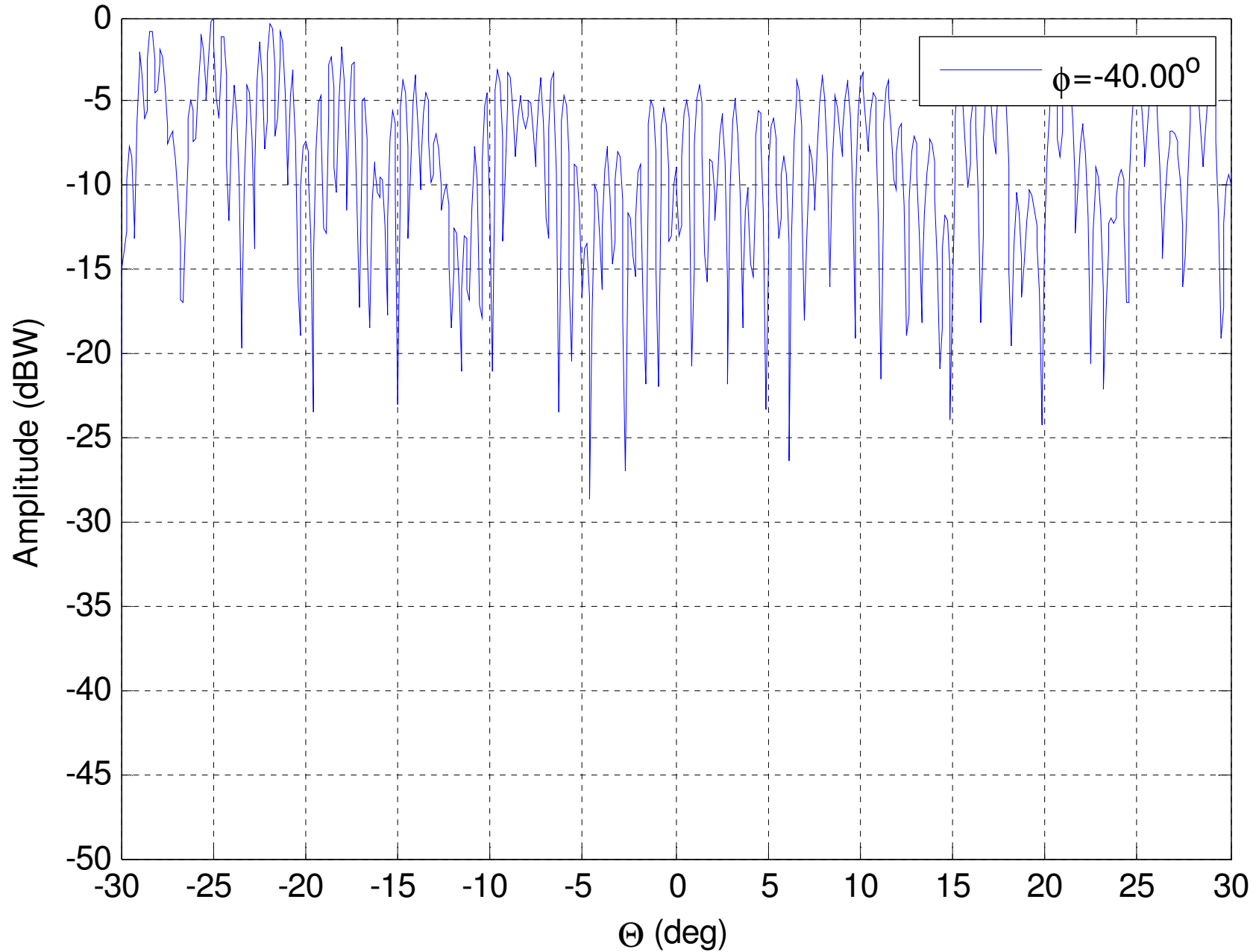
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -3.25 dBW, Date: 15-Dec-2011



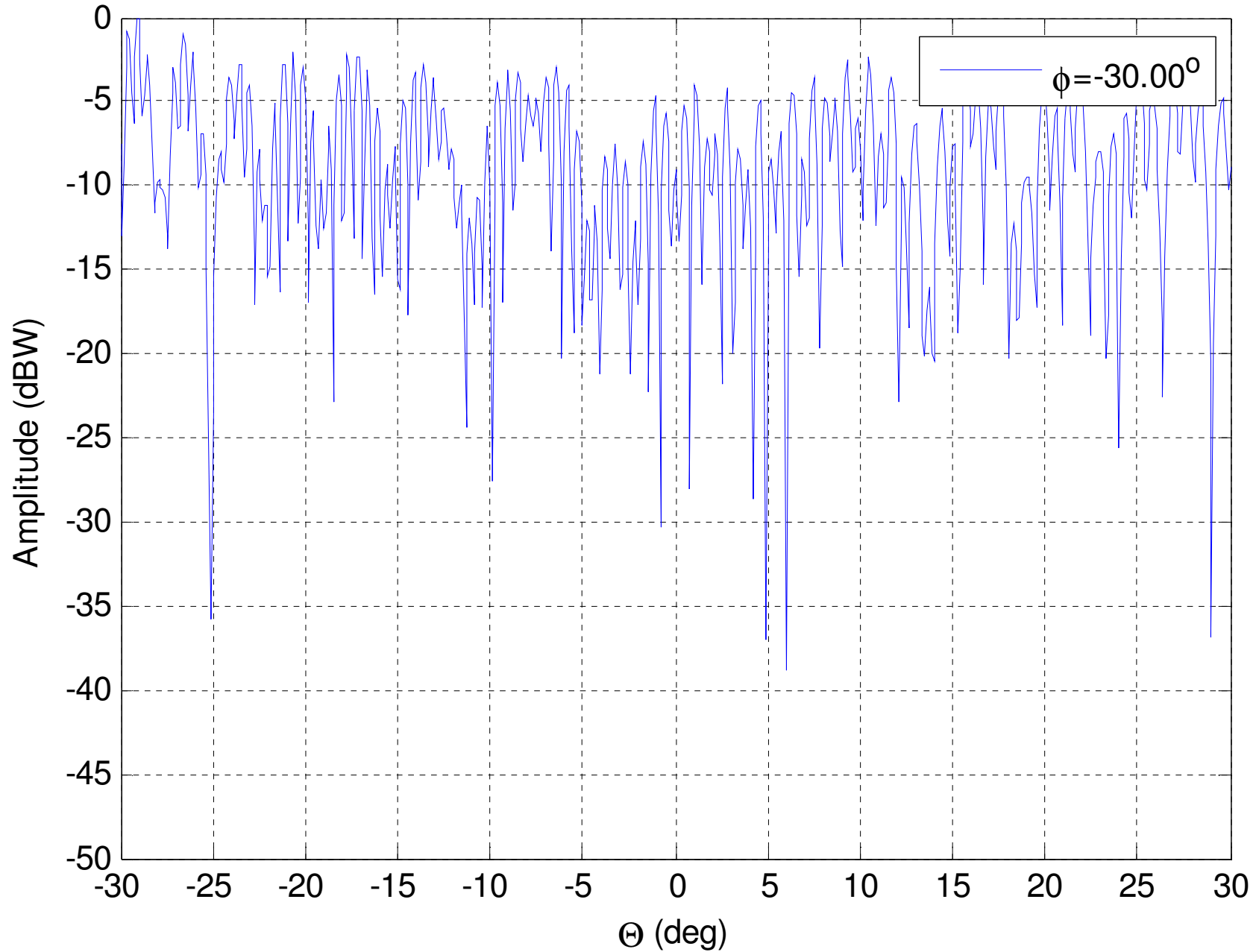
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -2.67 dBW, Date: 15-Dec-2011



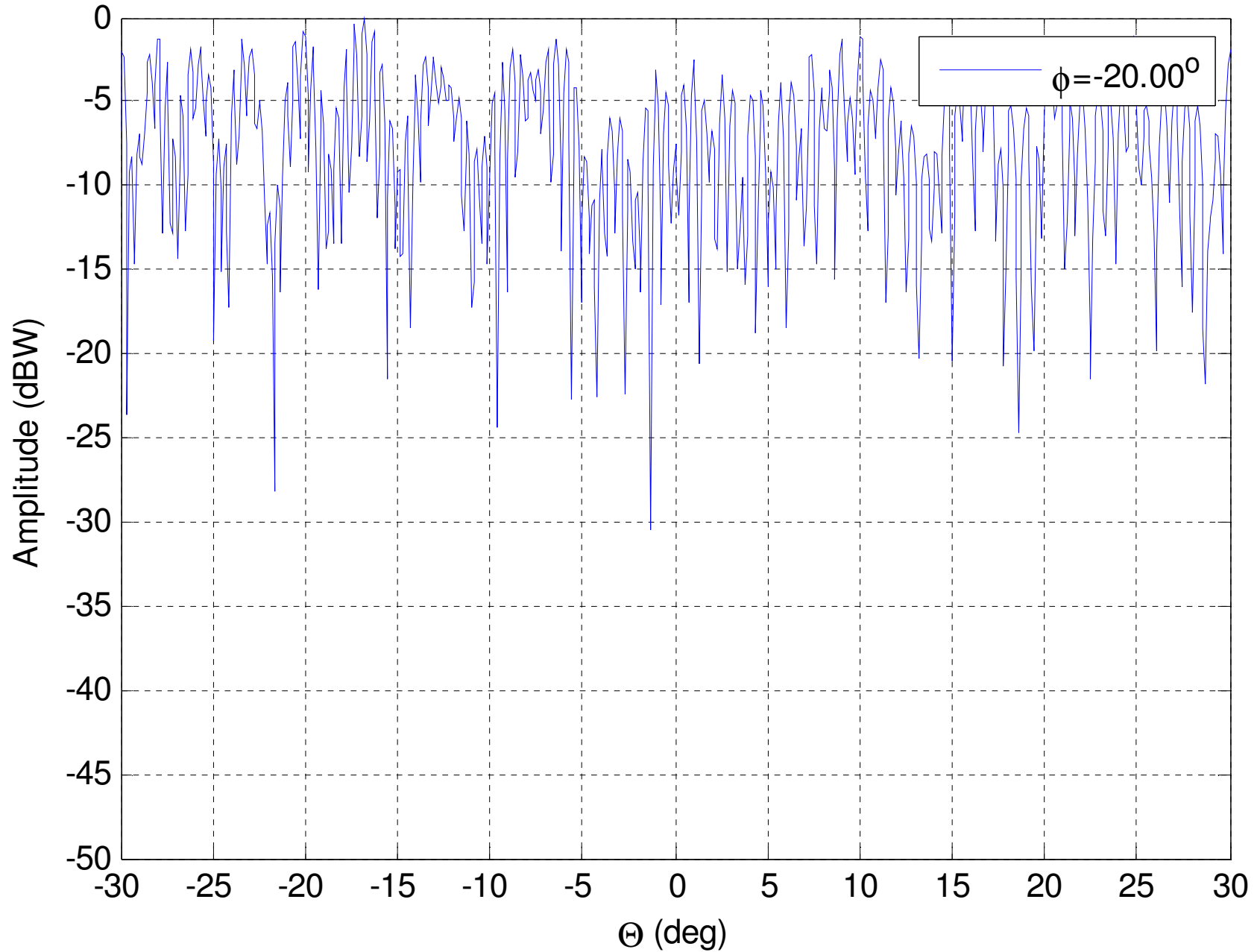
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: -2.65 dBW, Date: 15-Dec-2011



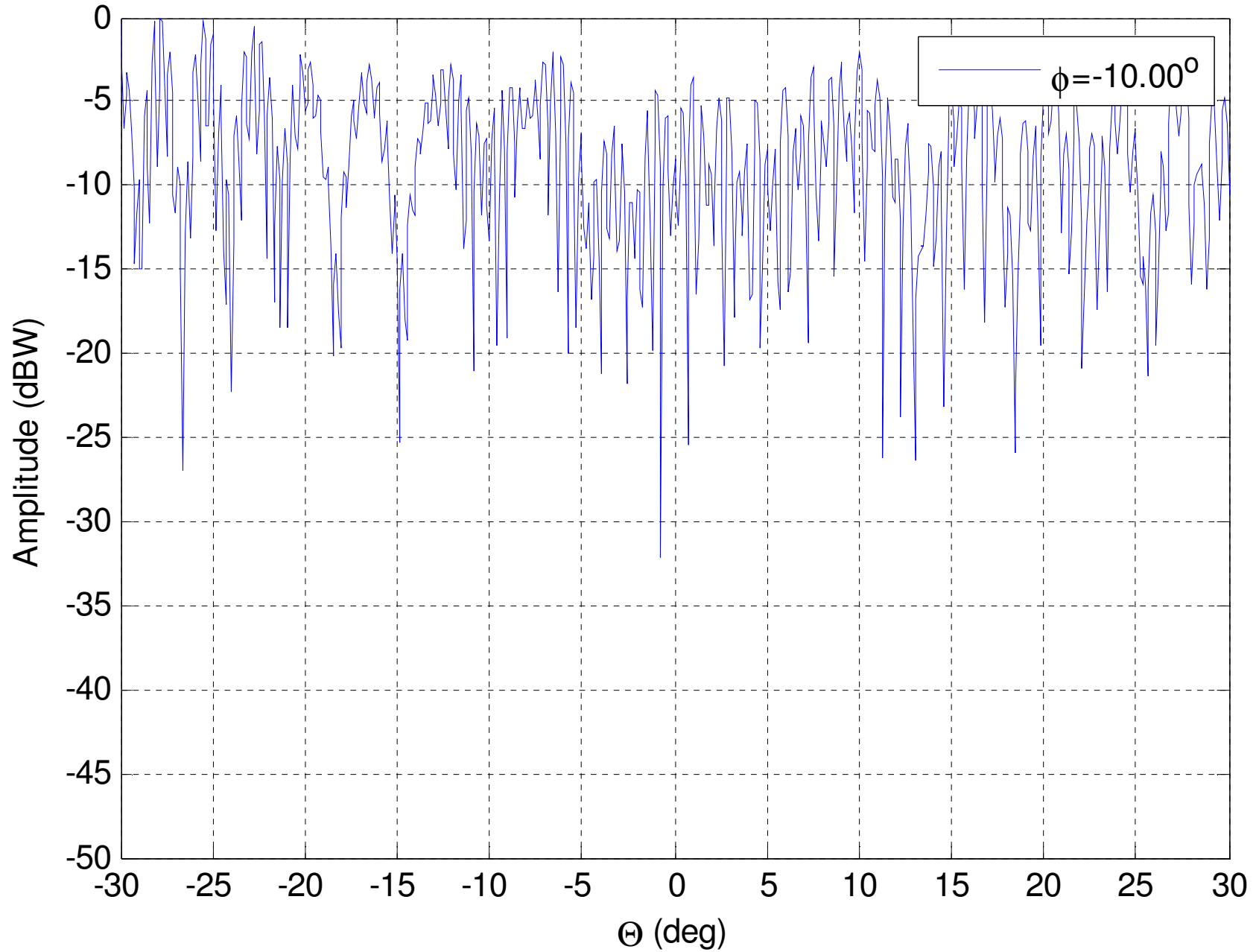
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: -4.08 dBW, Date: 15-Dec-2011



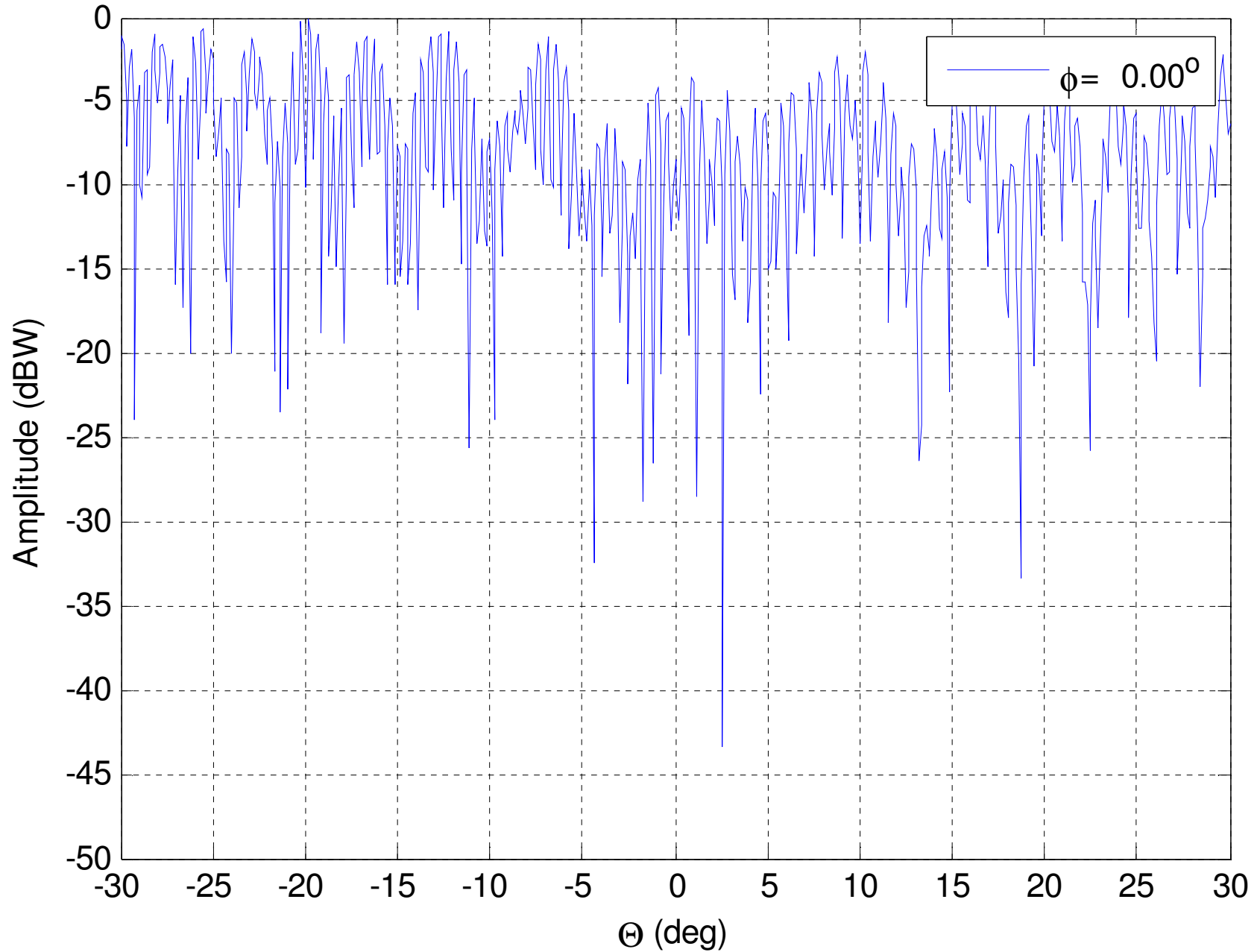
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: -3.11 dBW, Date: 15-Dec-2011



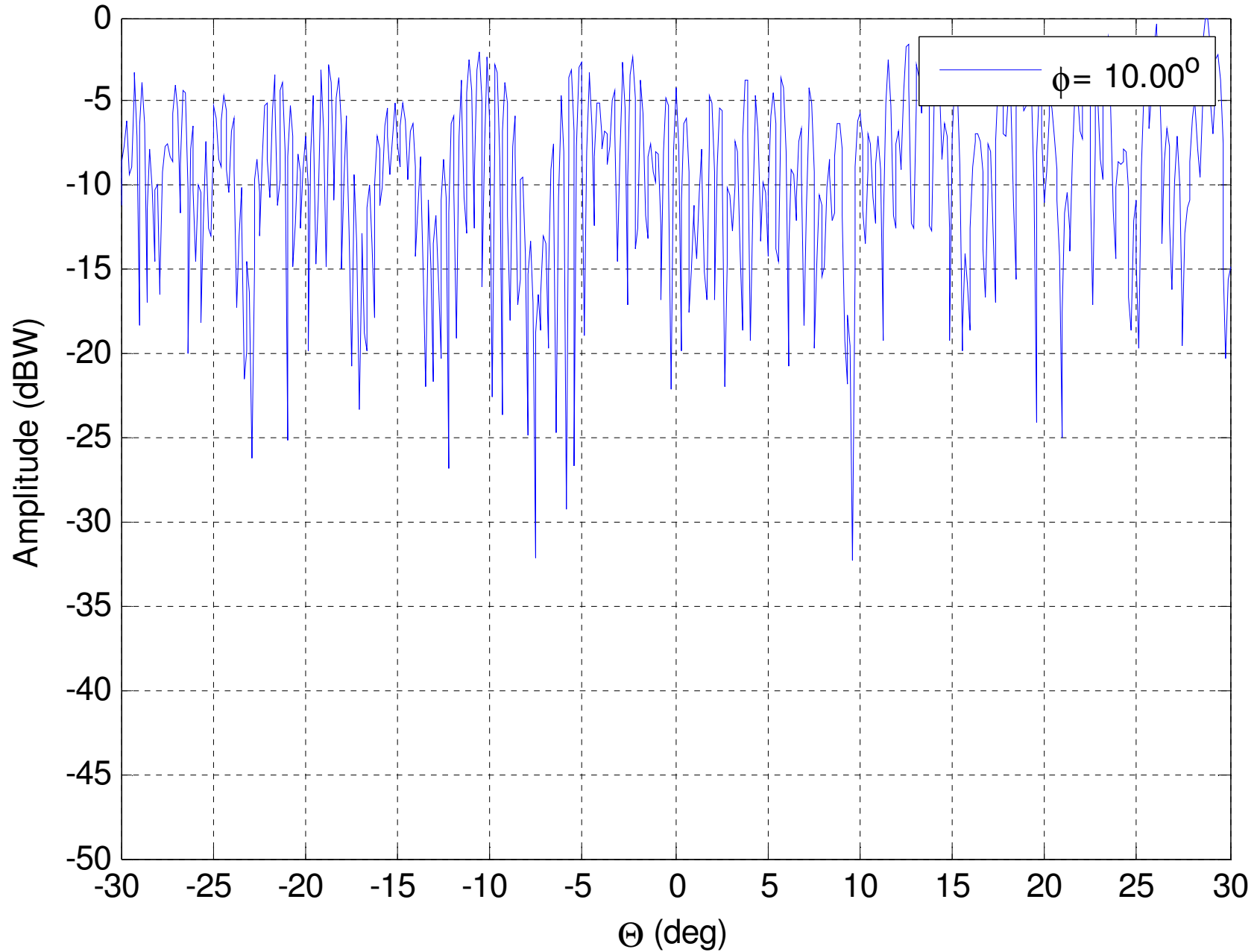
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: -3.25 dBW, Date: 15-Dec-2011



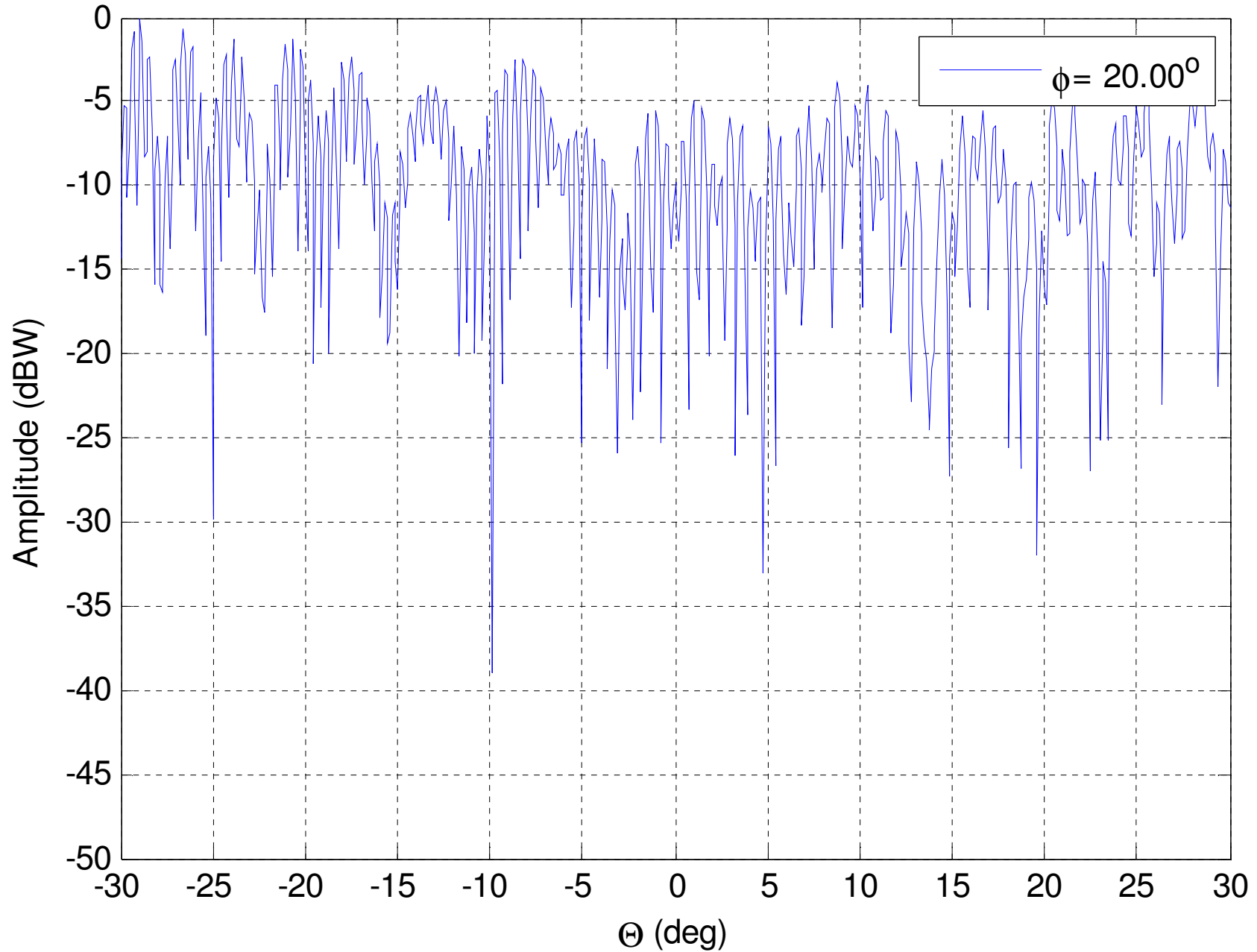
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: -2.65 dBW, Date: 15-Dec-2011



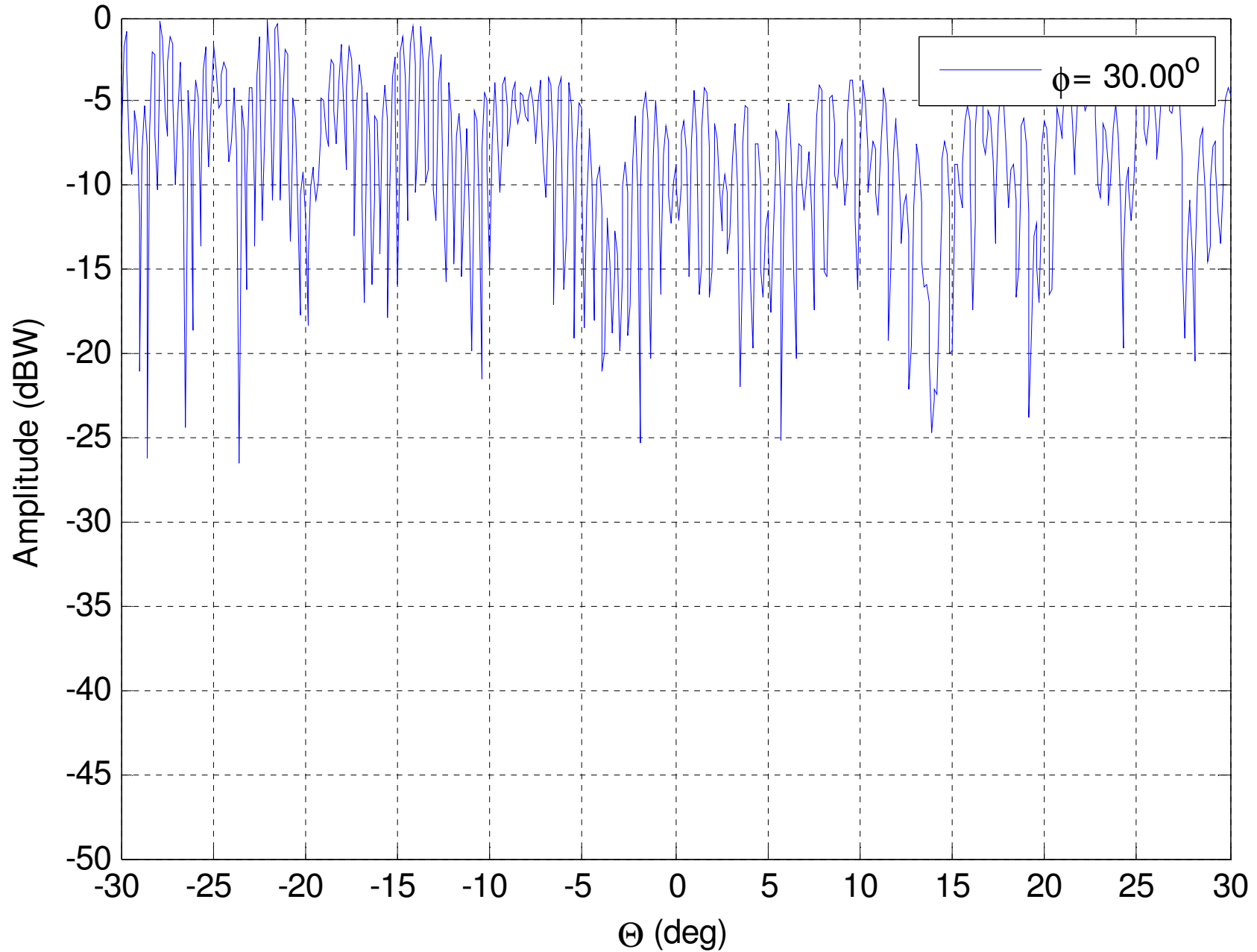
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: -1.85 dBW, Date: 15-Dec-2011



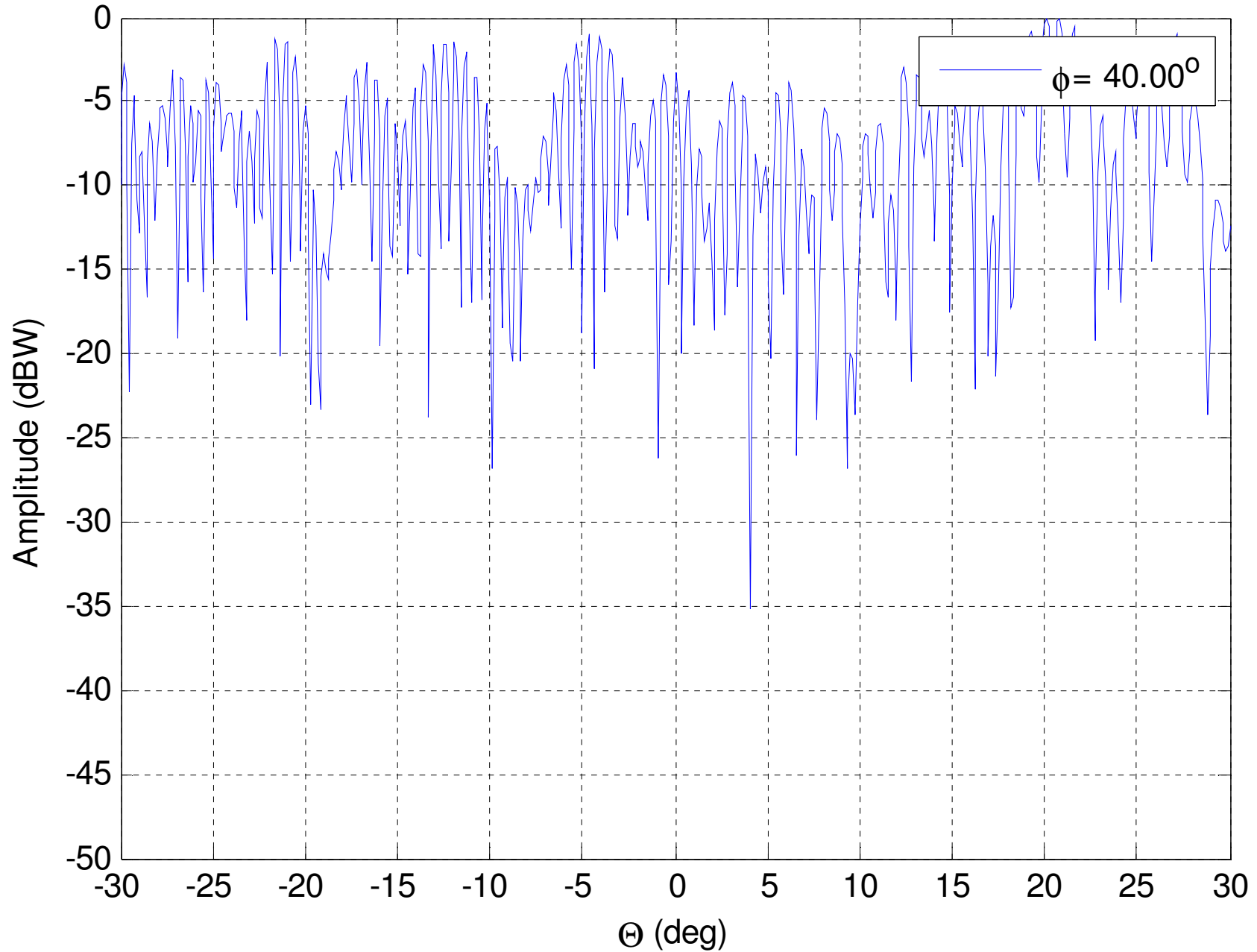
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: -2.91 dBW, Date: 15-Dec-2011



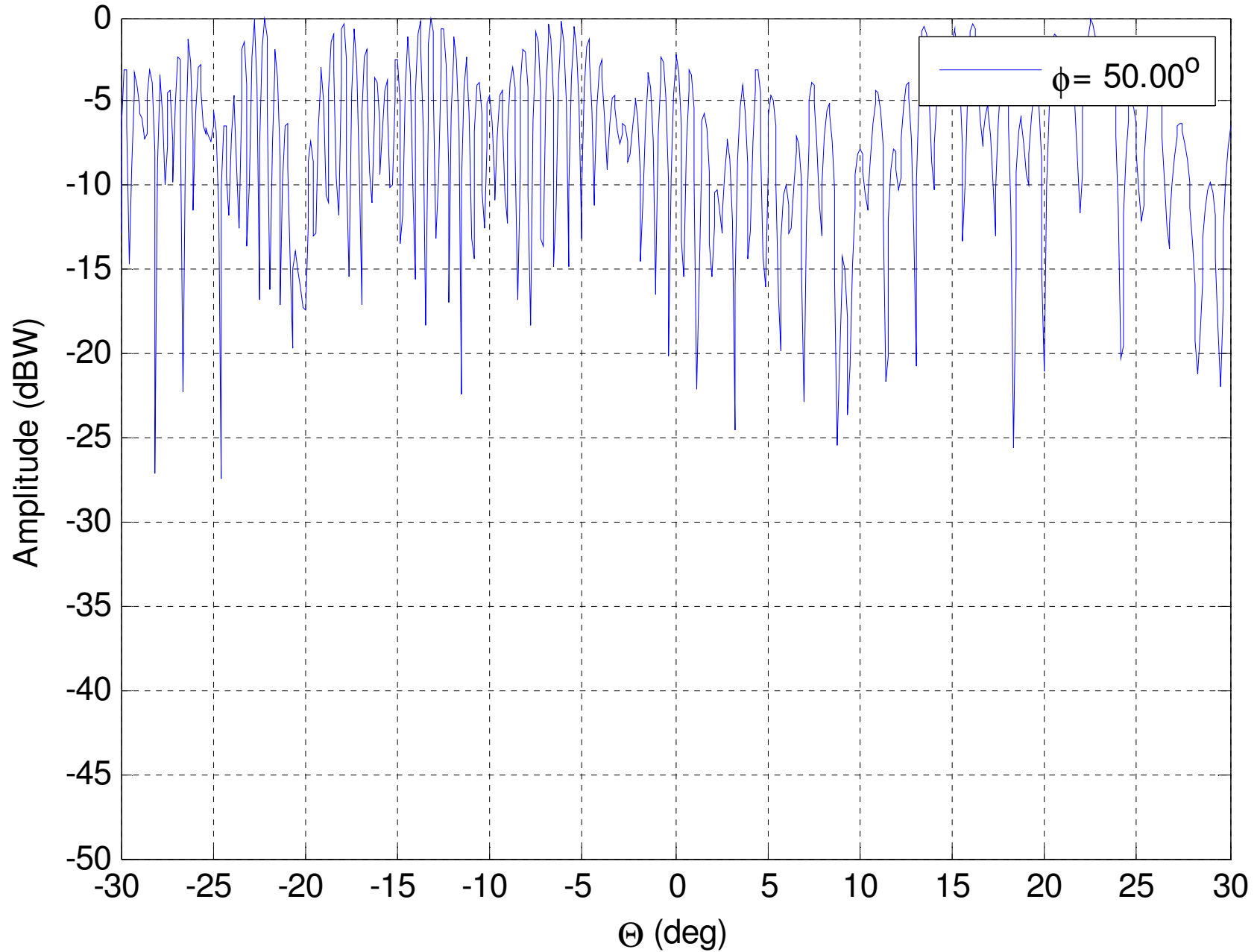
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -3.36 dBW, Date: 15-Dec-2011



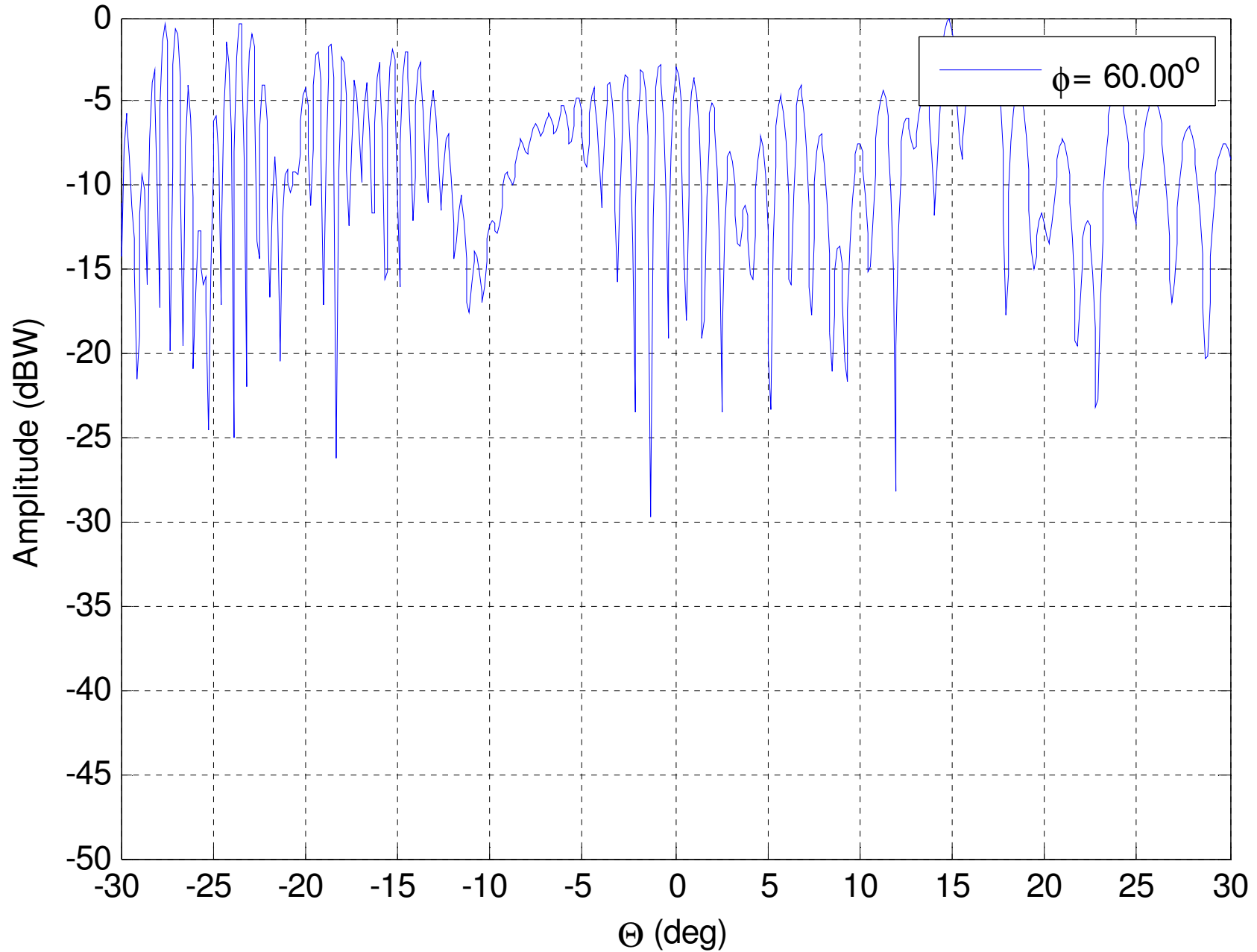
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -4.32 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

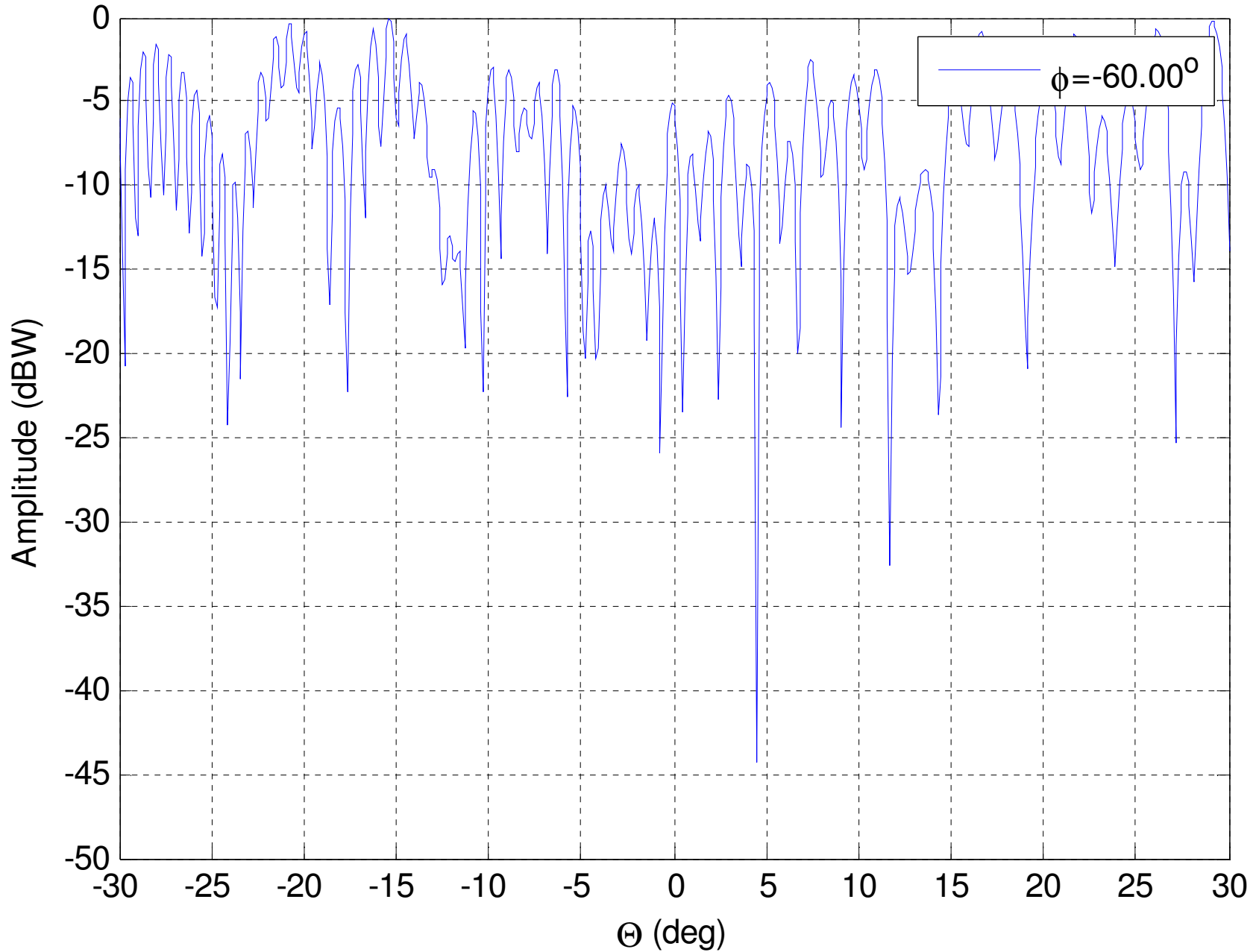
Input file: tx-17.3-lhcp-60.cut, Peak: -3.53 dBW, Date: 15-Dec-2011



RHCP at 17.5 GHz

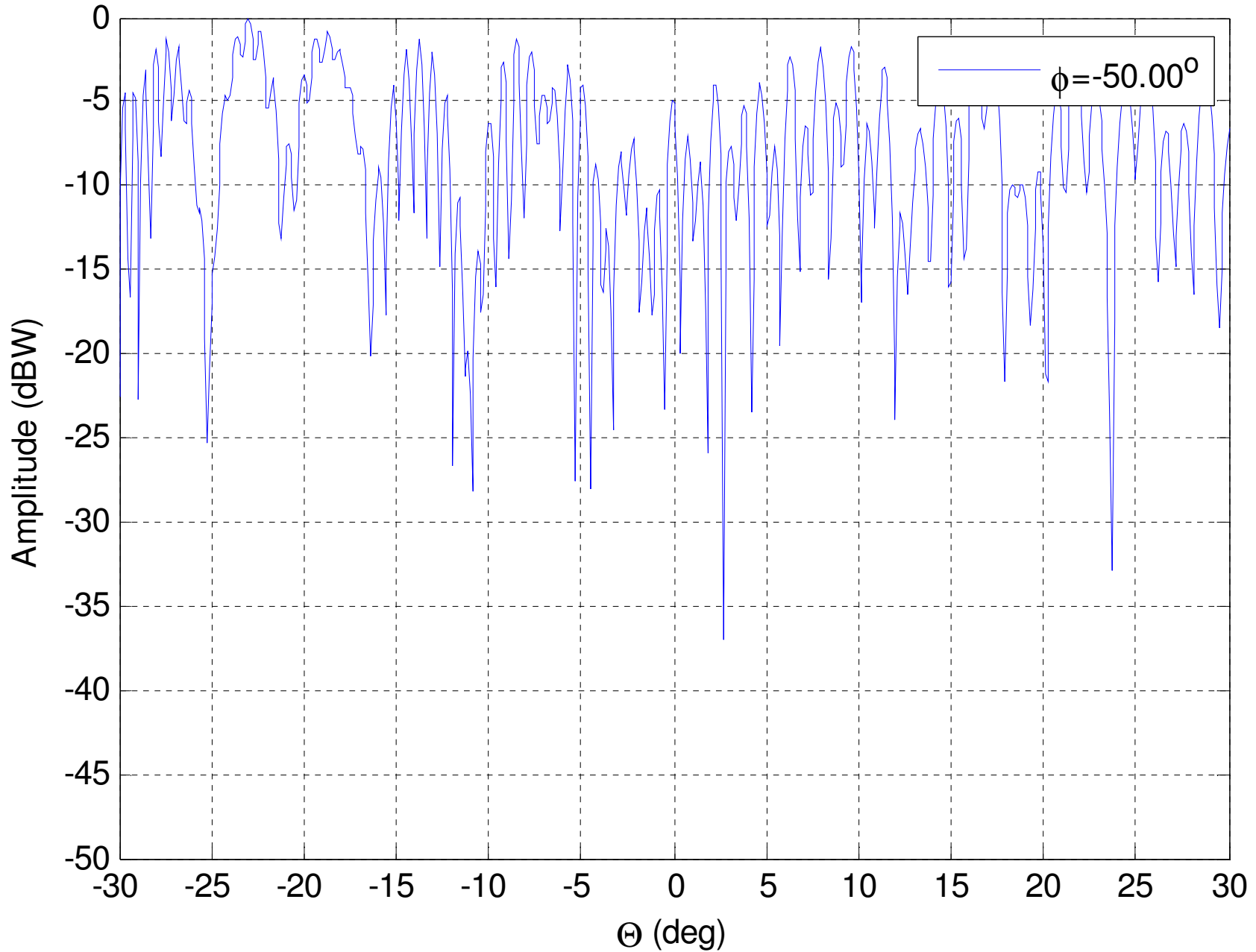
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -3.96 dBW, Date: 15-Dec-2011



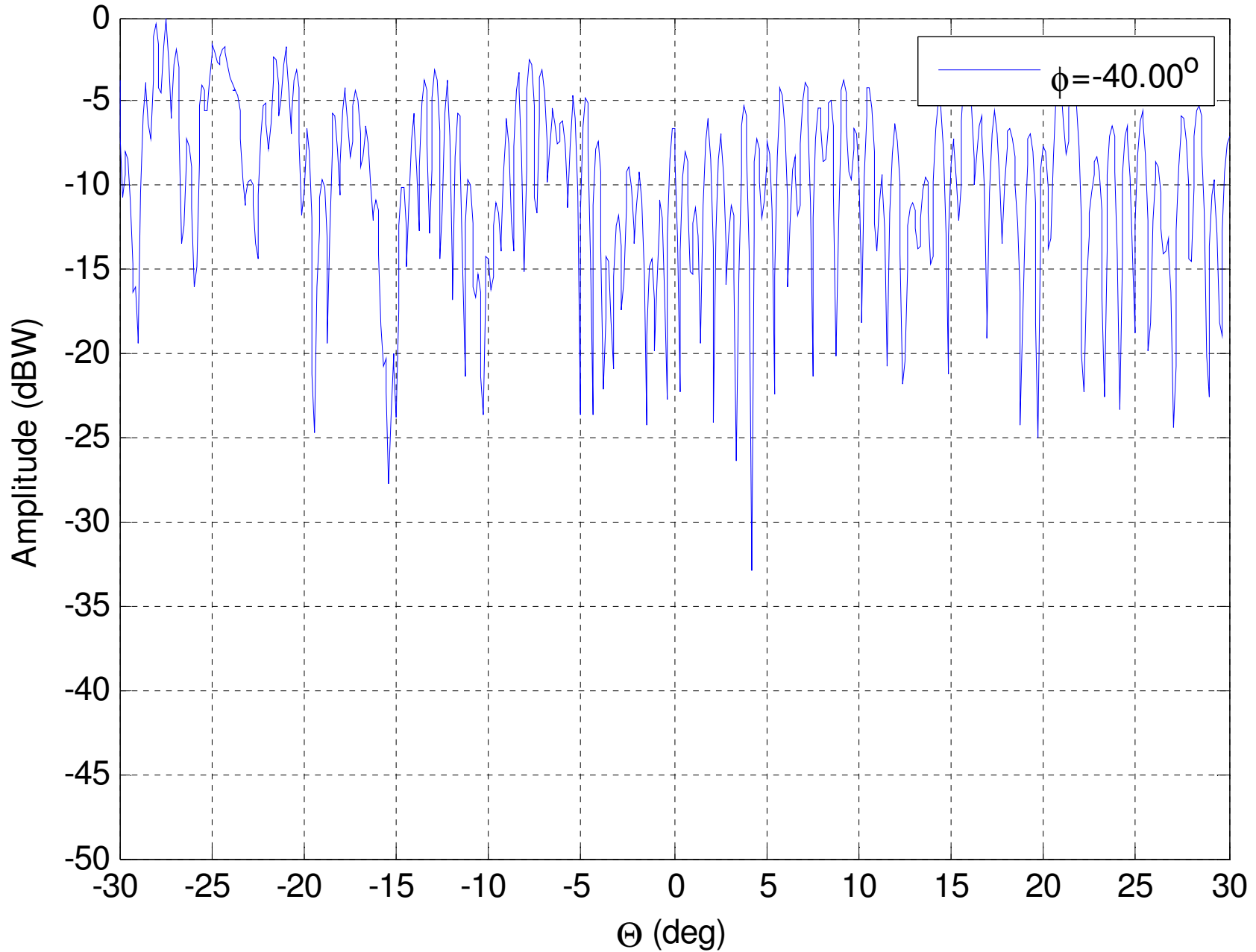
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -4.19 dBW, Date: 15-Dec-2011



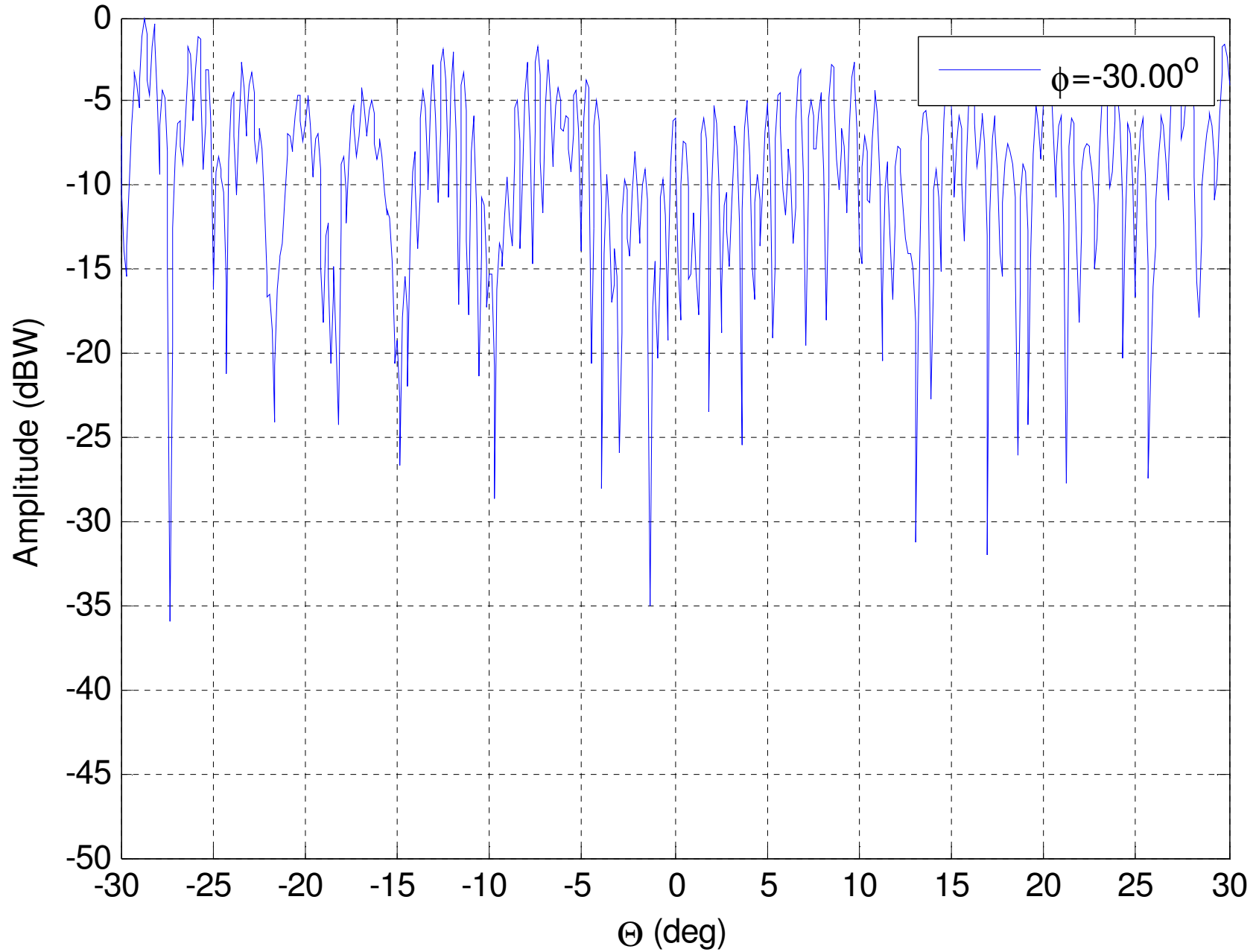
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -2.63 dBW, Date: 15-Dec-2011



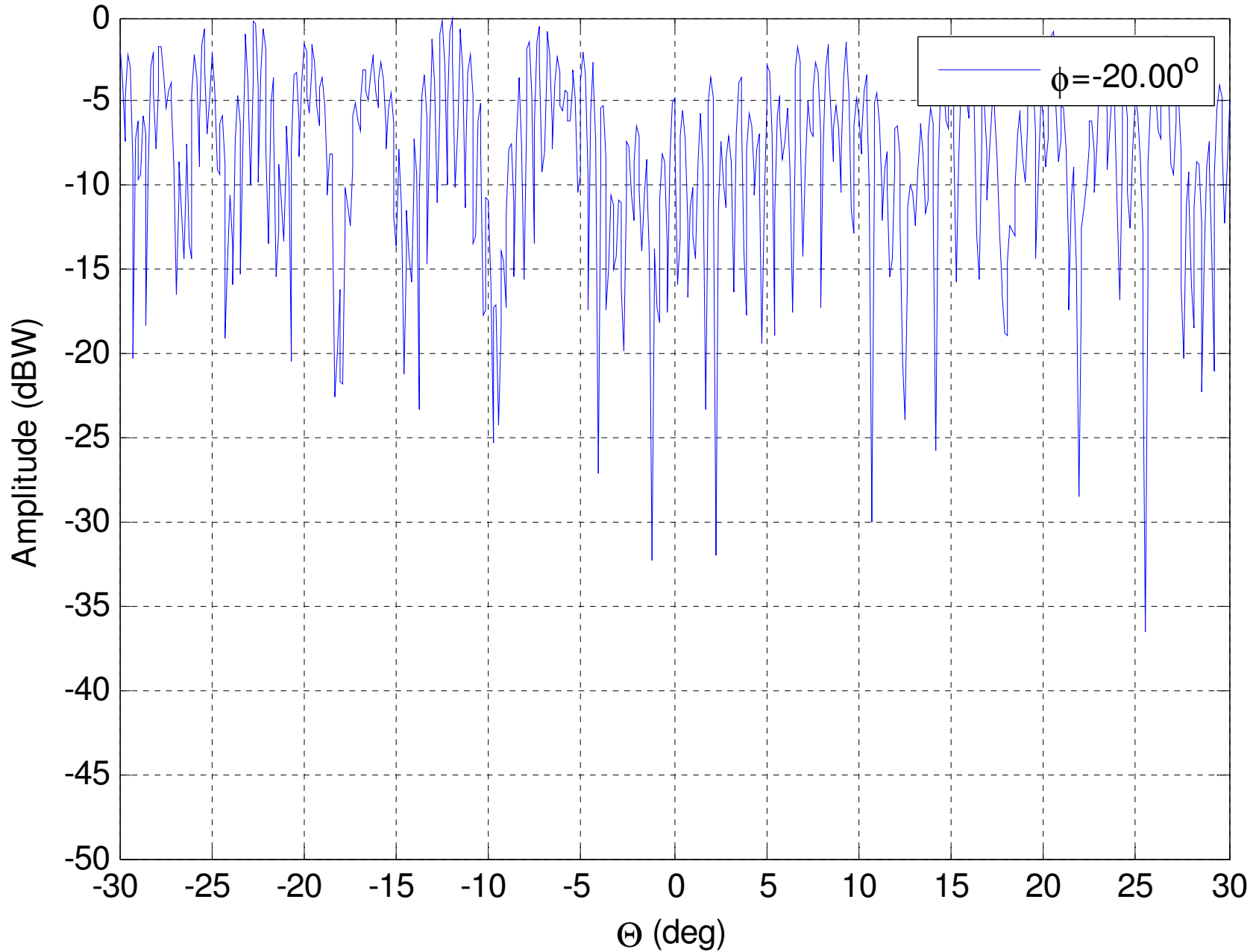
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -3.21 dBW, Date: 15-Dec-2011



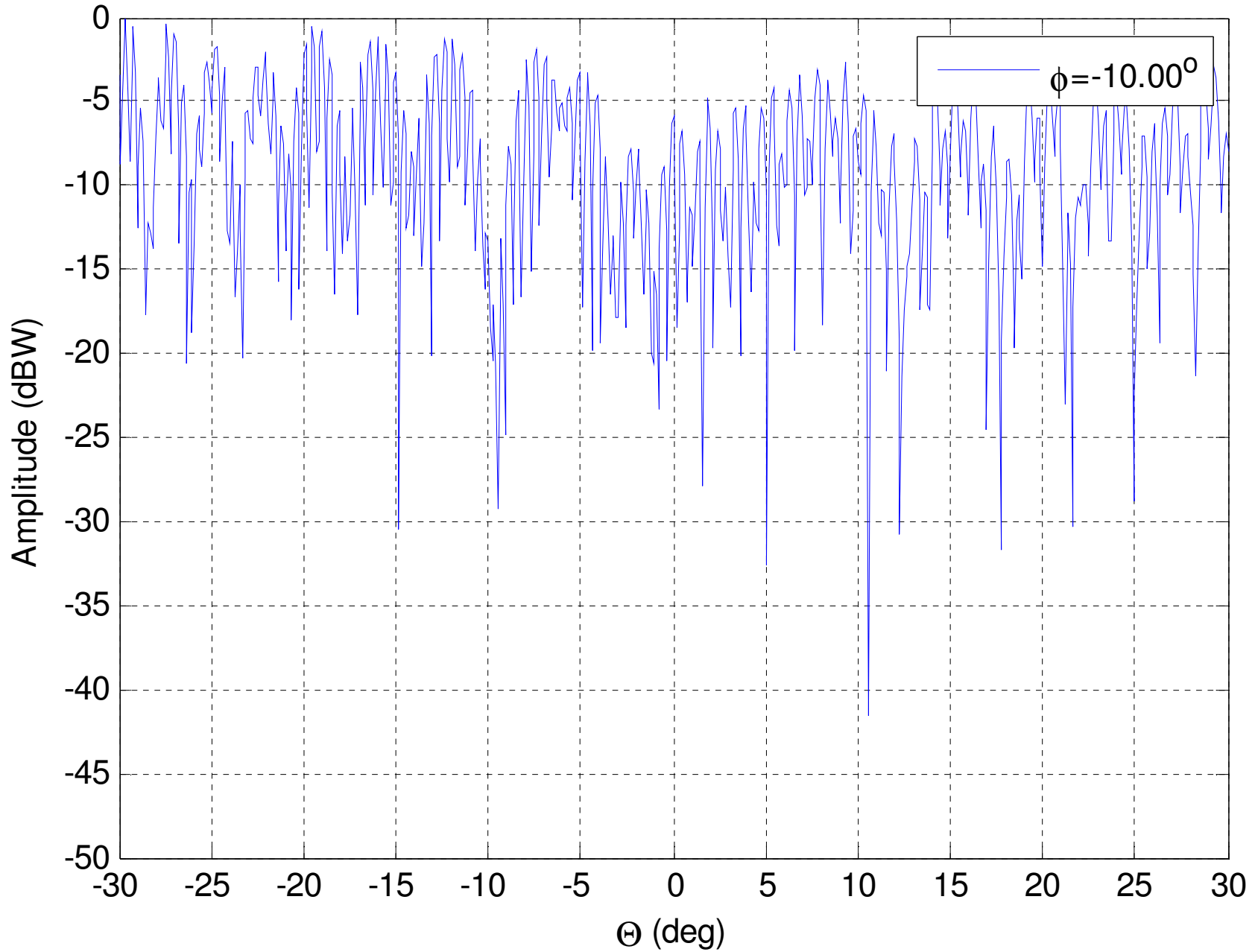
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: -4.50 dBW, Date: 15-Dec-2011



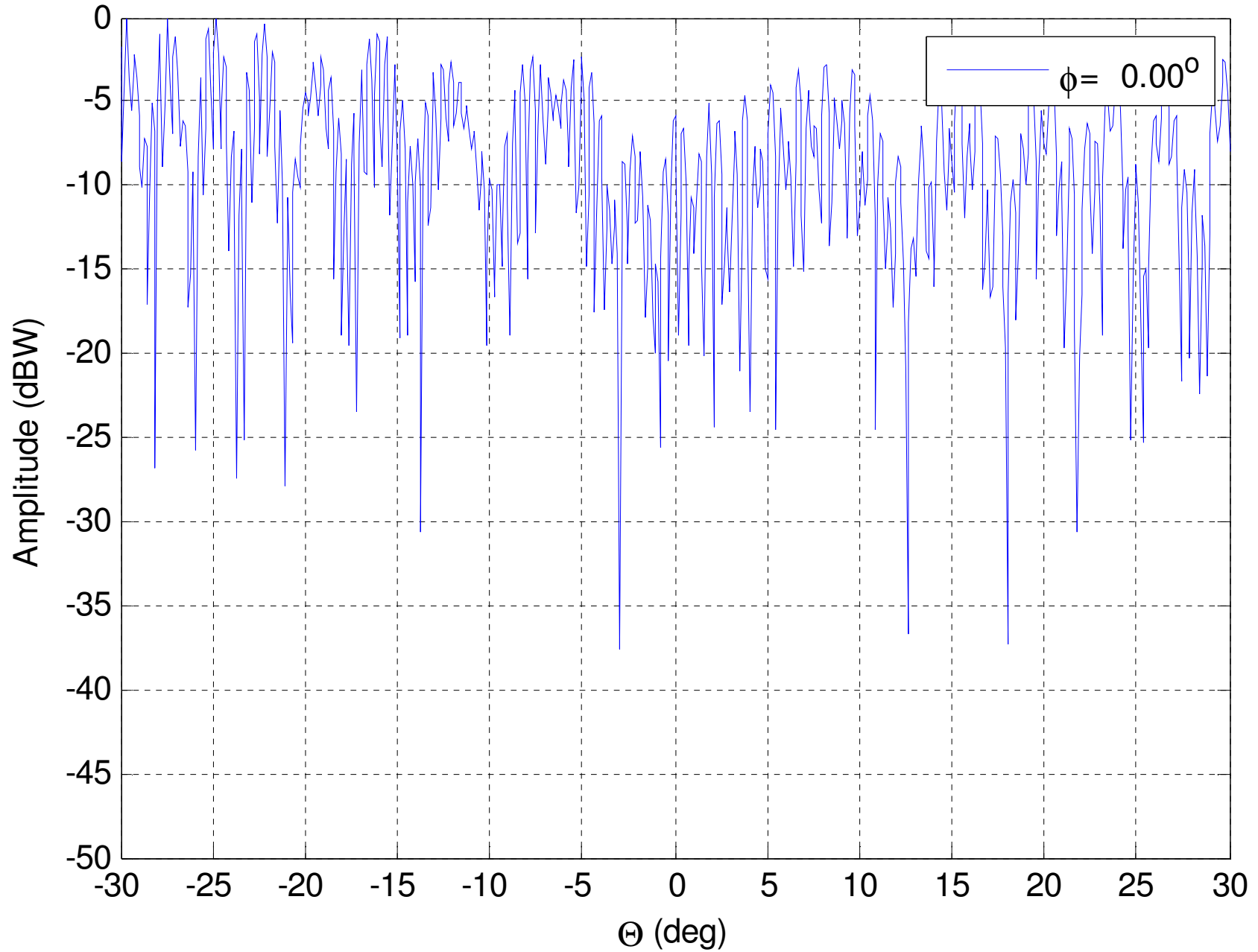
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: -3.35 dBW, Date: 15-Dec-2011



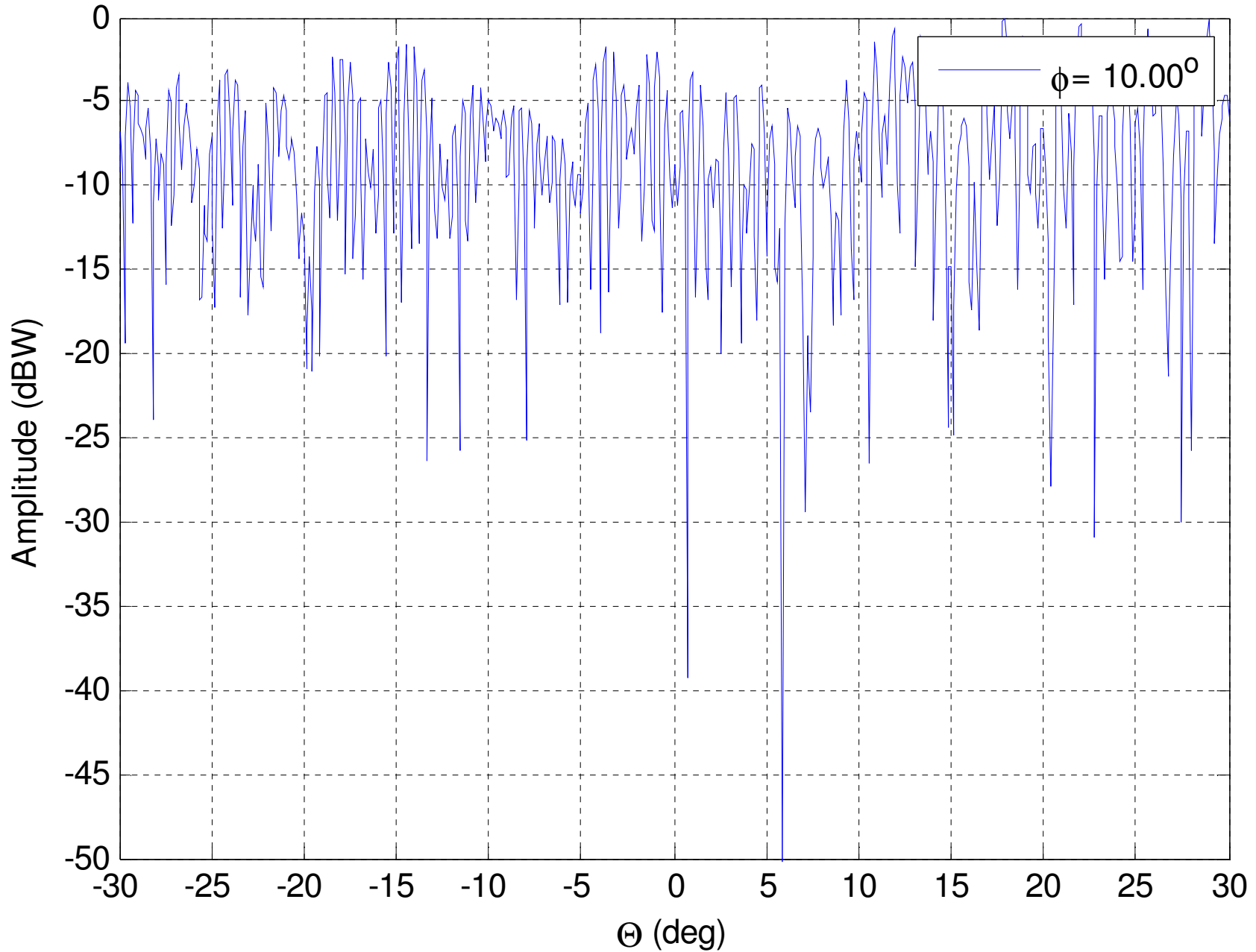
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: -3.47 dBW, Date: 15-Dec-2011



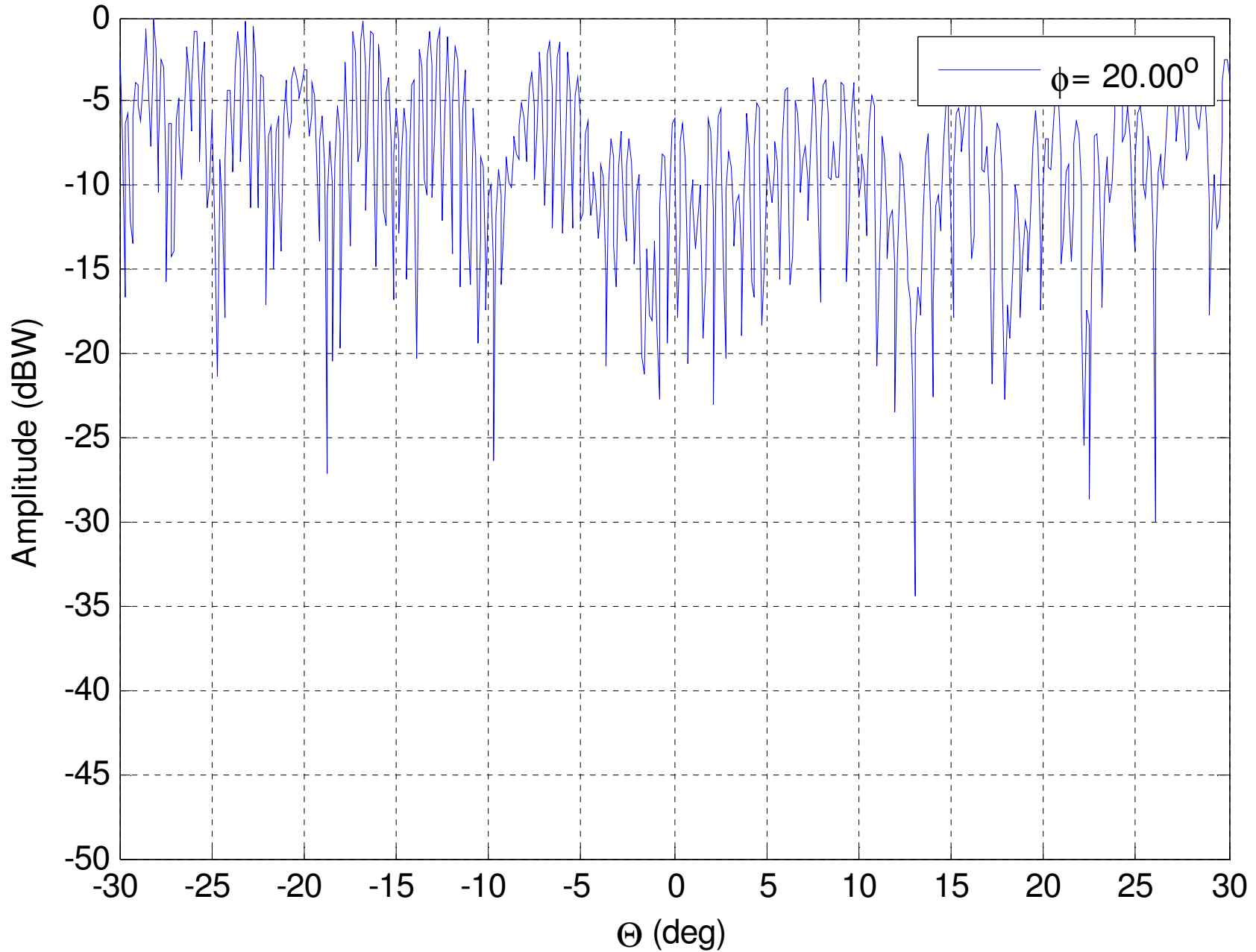
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: -3.68 dBW, Date: 15-Dec-2011



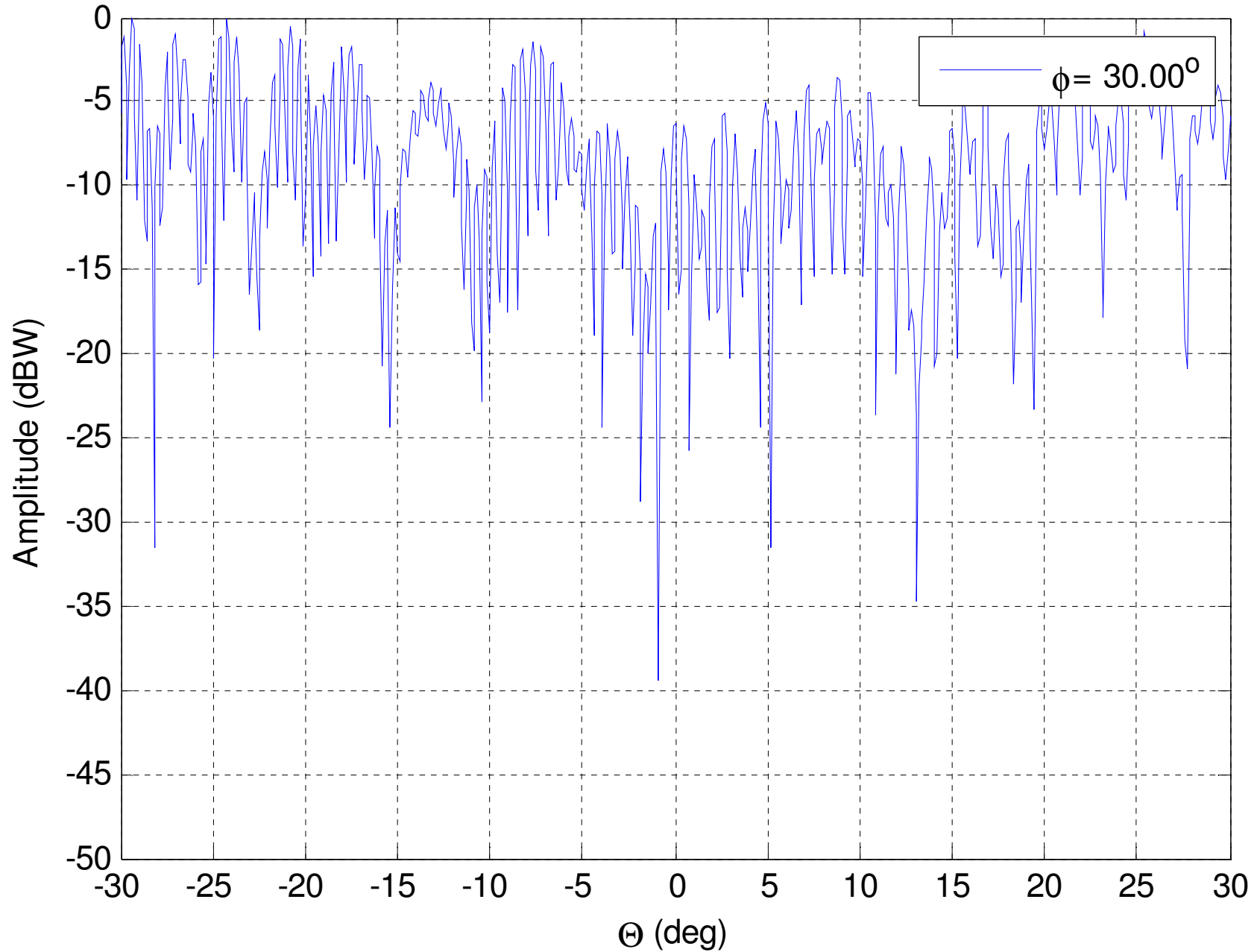
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: -3.30 dBW, Date: 15-Dec-2011



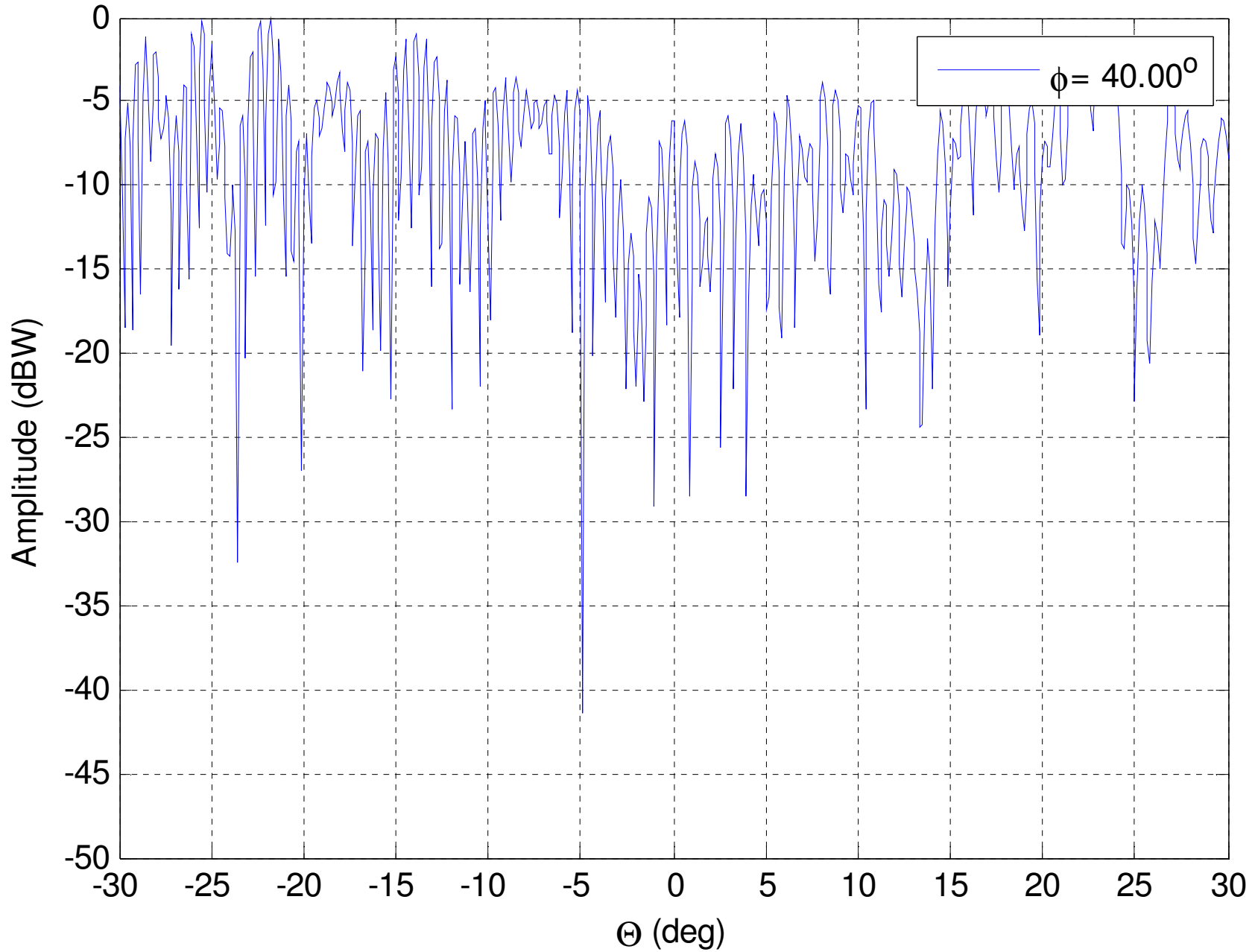
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: -2.96 dBW, Date: 15-Dec-2011



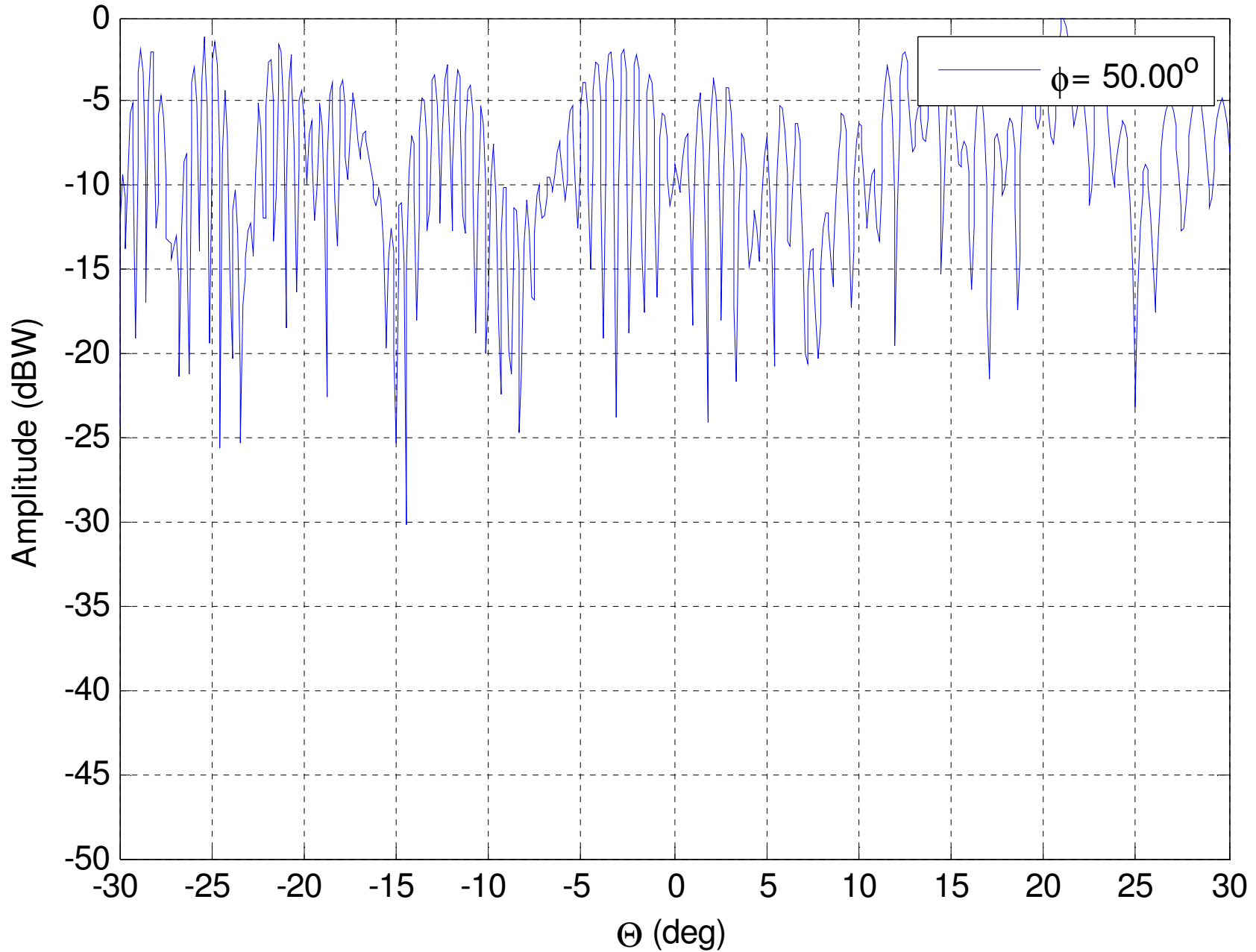
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -3.12 dBW, Date: 15-Dec-2011



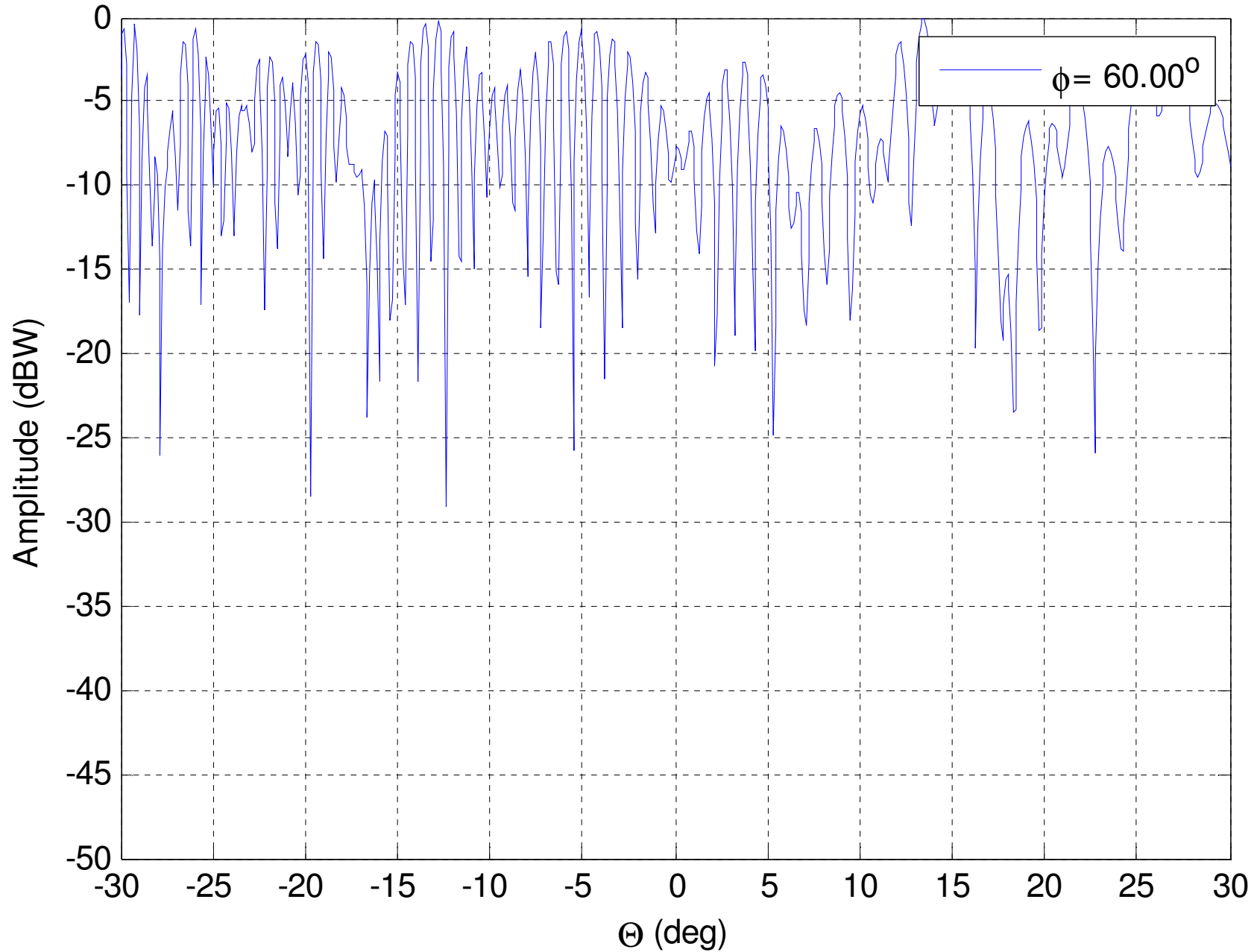
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -3.38 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

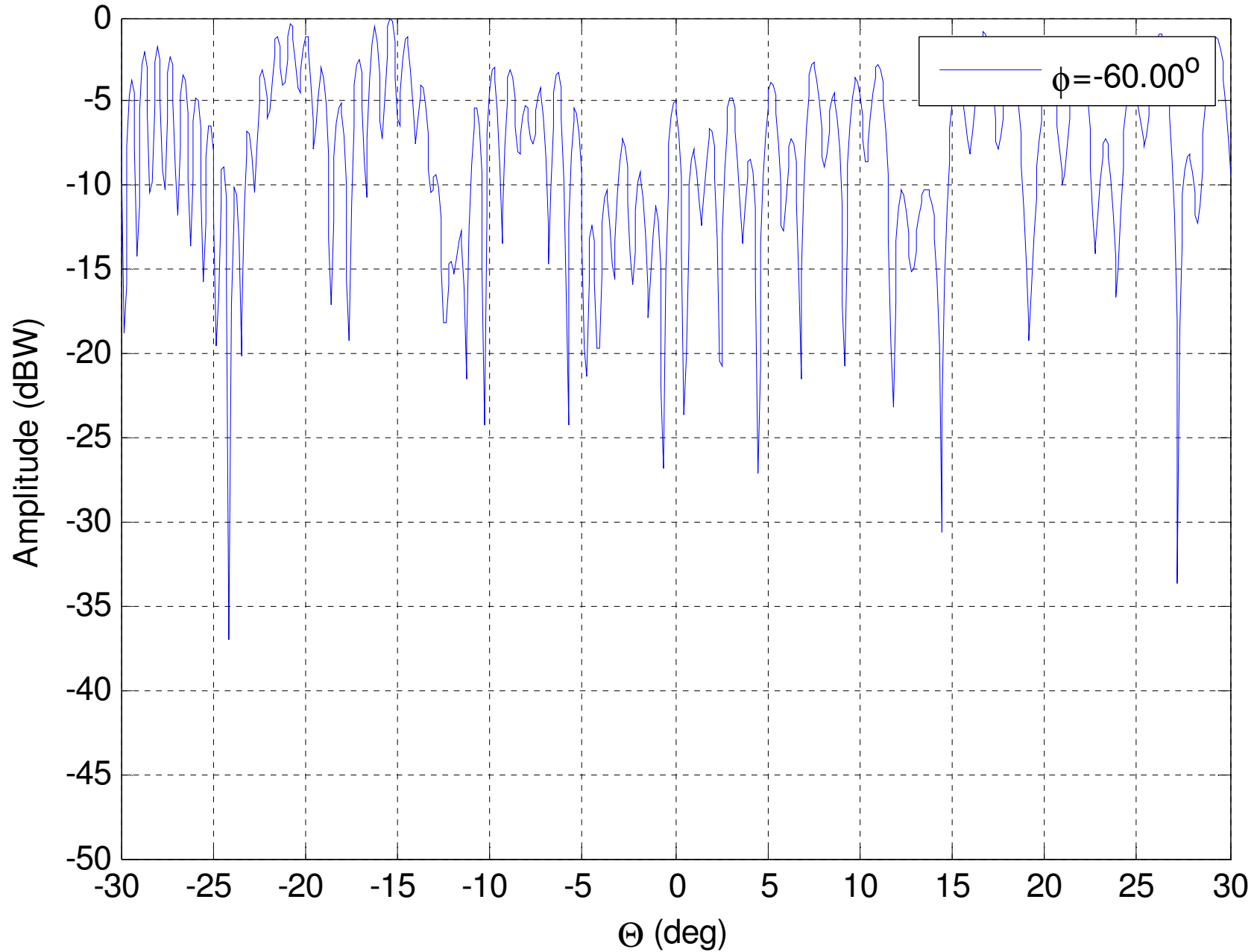
Input file: tx-17.5-rhcp-60.cut, Peak: -4.37 dBW, Date: 15-Dec-2011



LHCP at 17.5 GHz

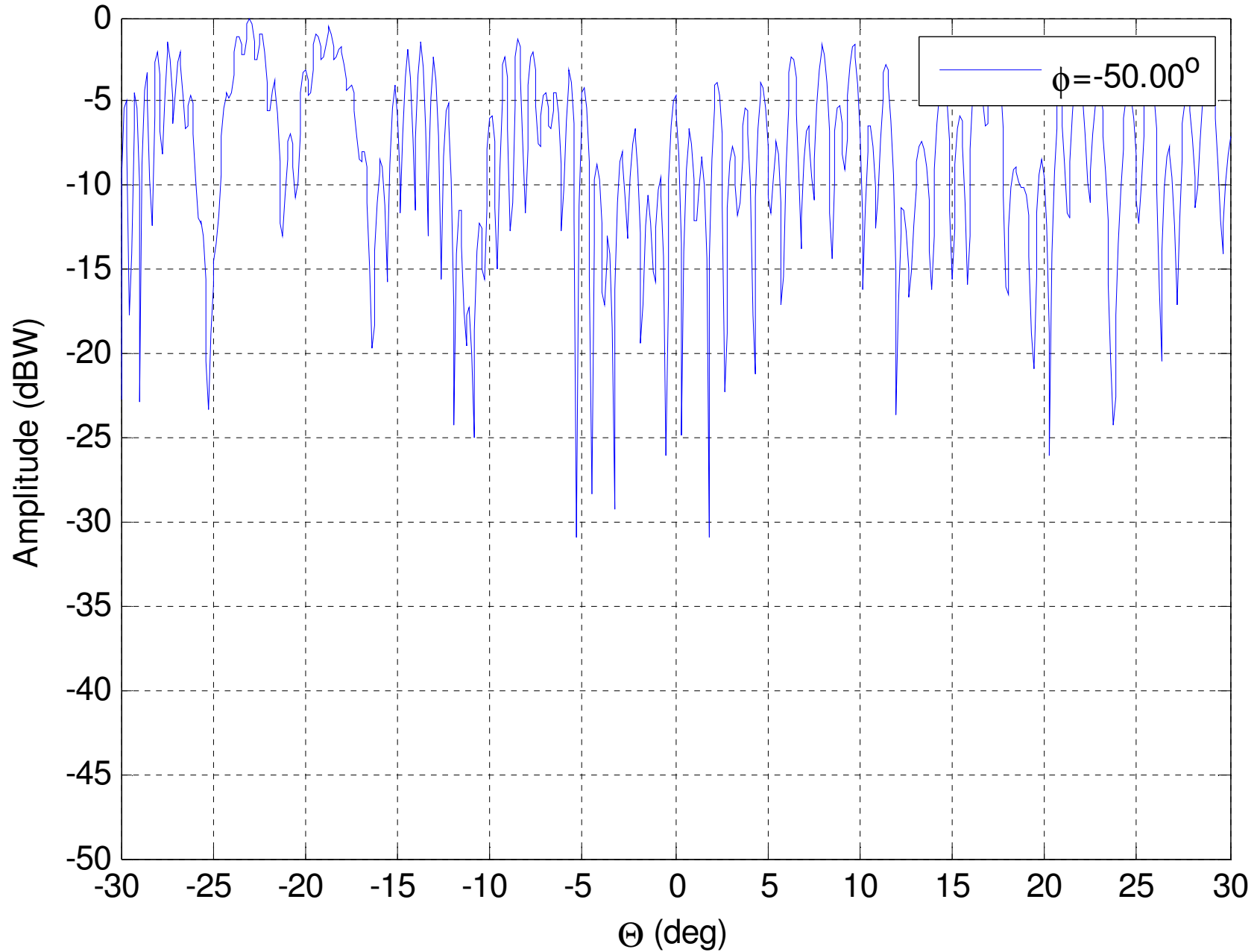
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -3.77 dBW, Date: 15-Dec-2011



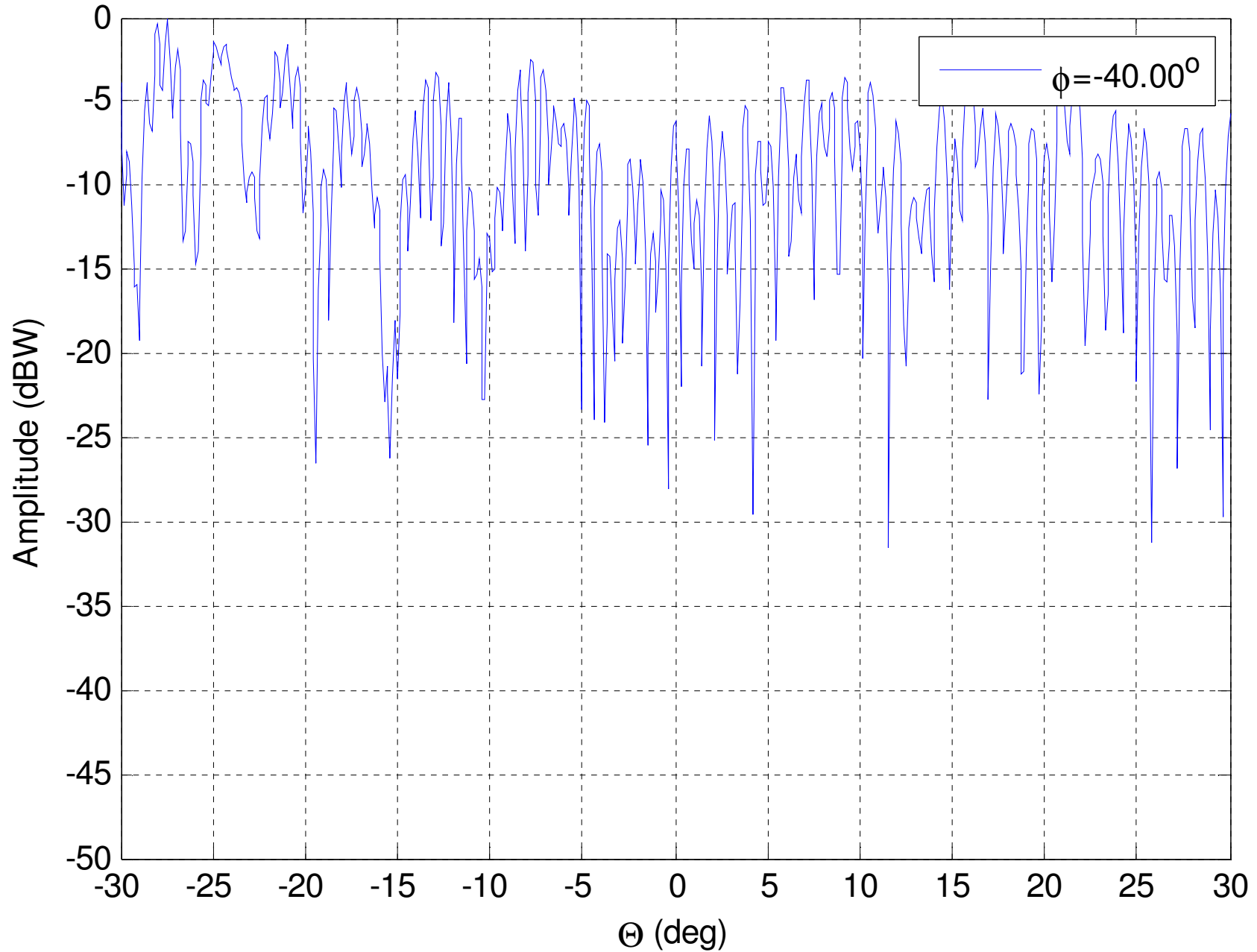
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -4.06 dBW, Date: 15-Dec-2011



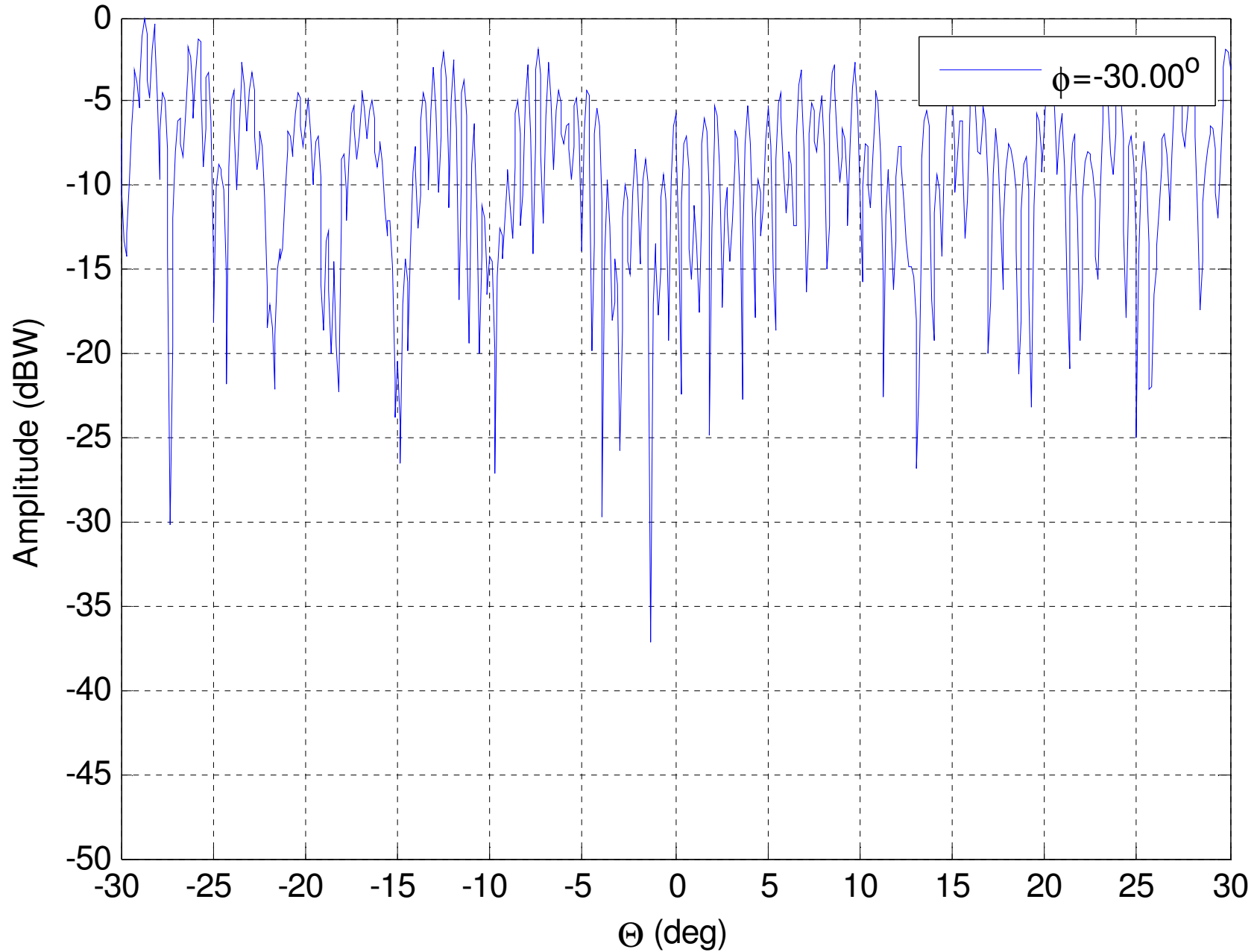
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -2.62 dBW, Date: 15-Dec-2011



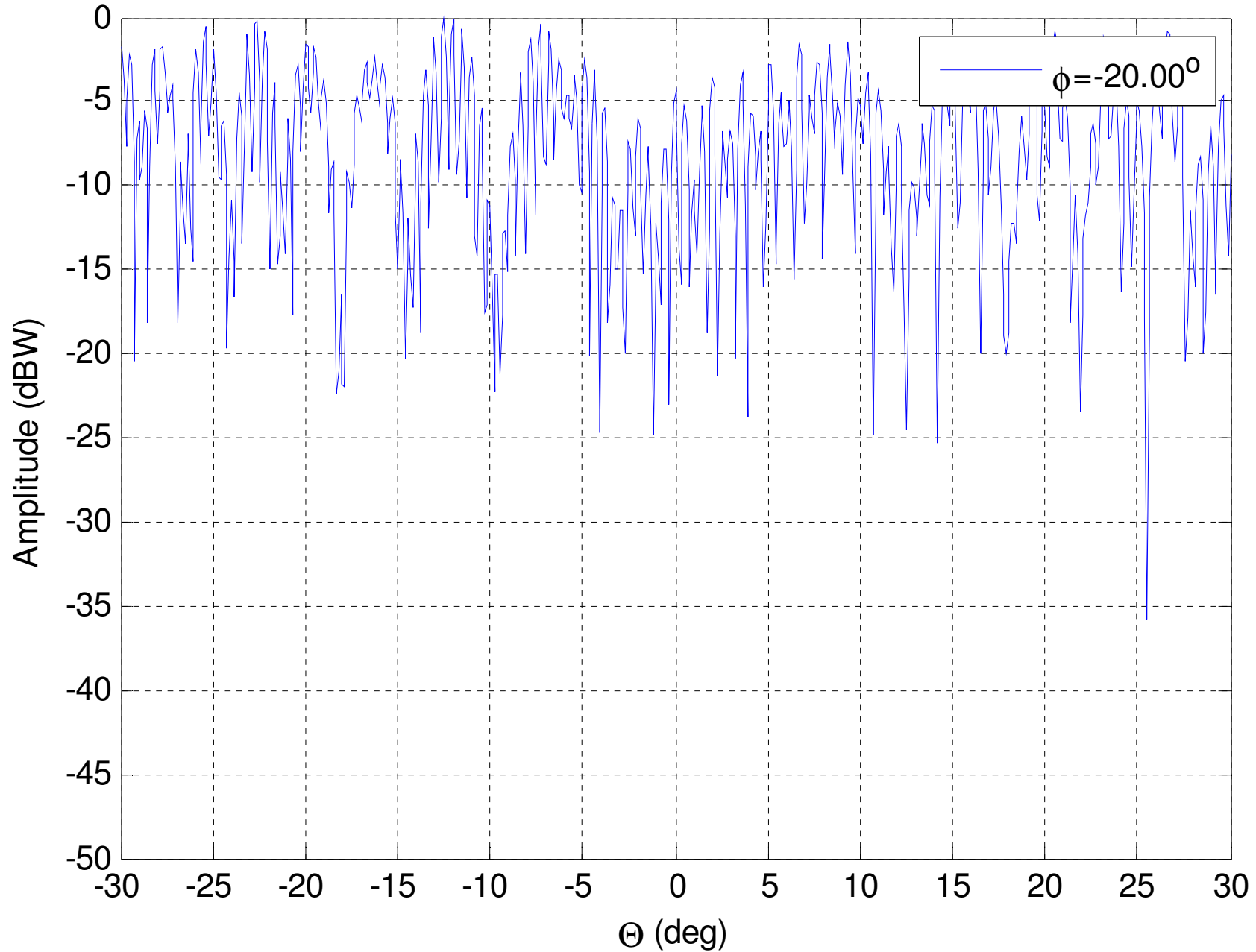
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: -2.95 dBW, Date: 15-Dec-2011



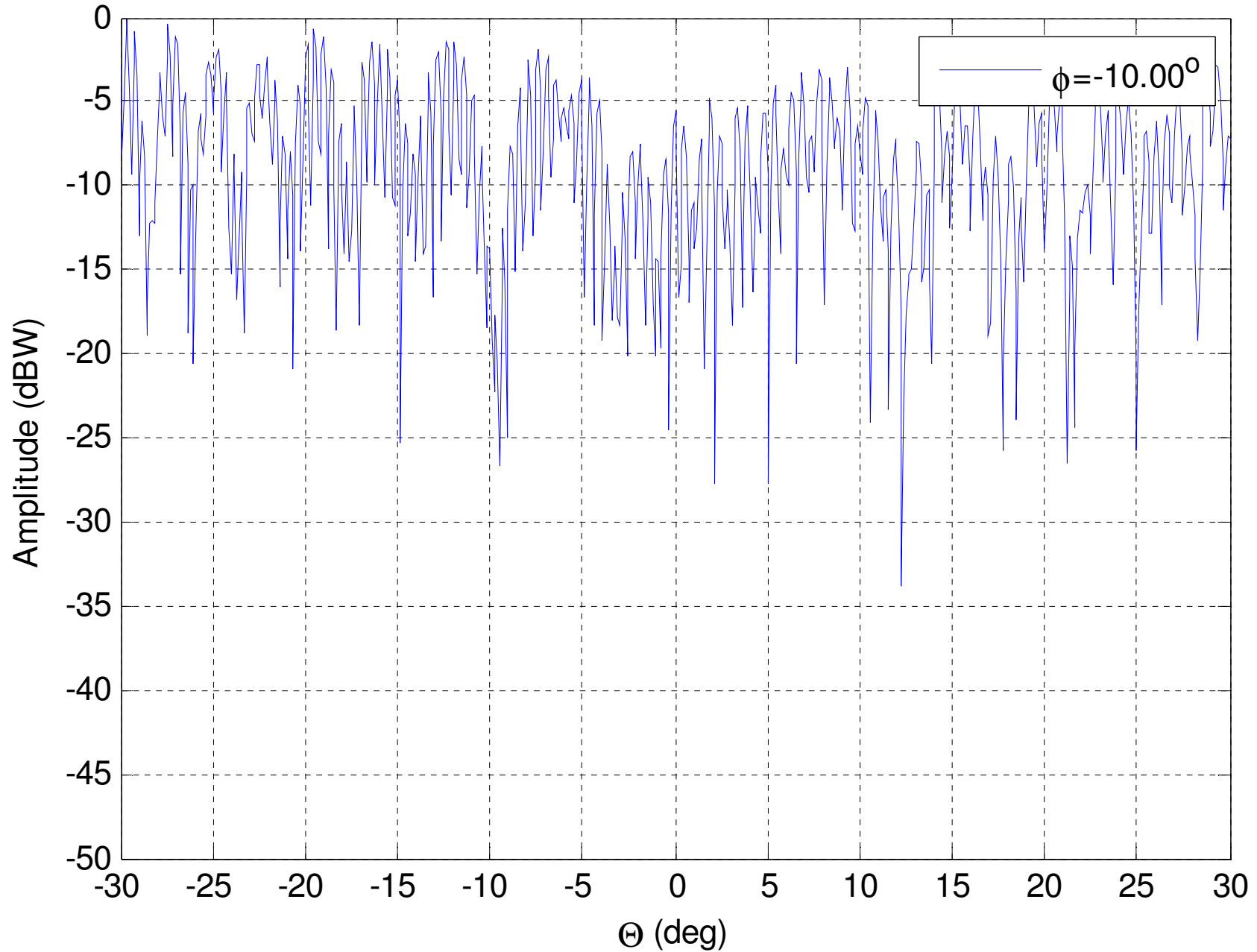
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: -4.44 dBW, Date: 15-Dec-2011



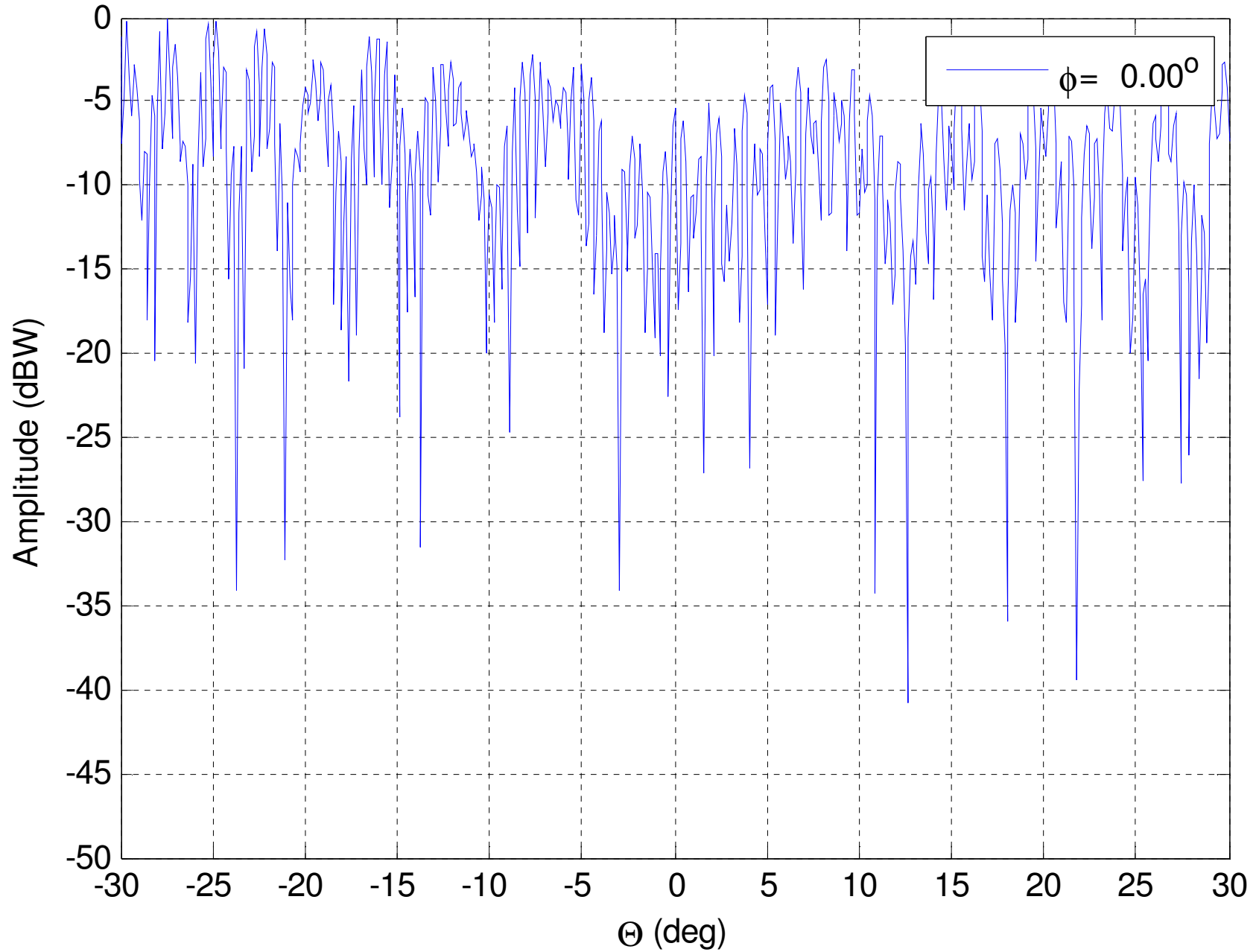
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: -3.11 dBW, Date: 15-Dec-2011



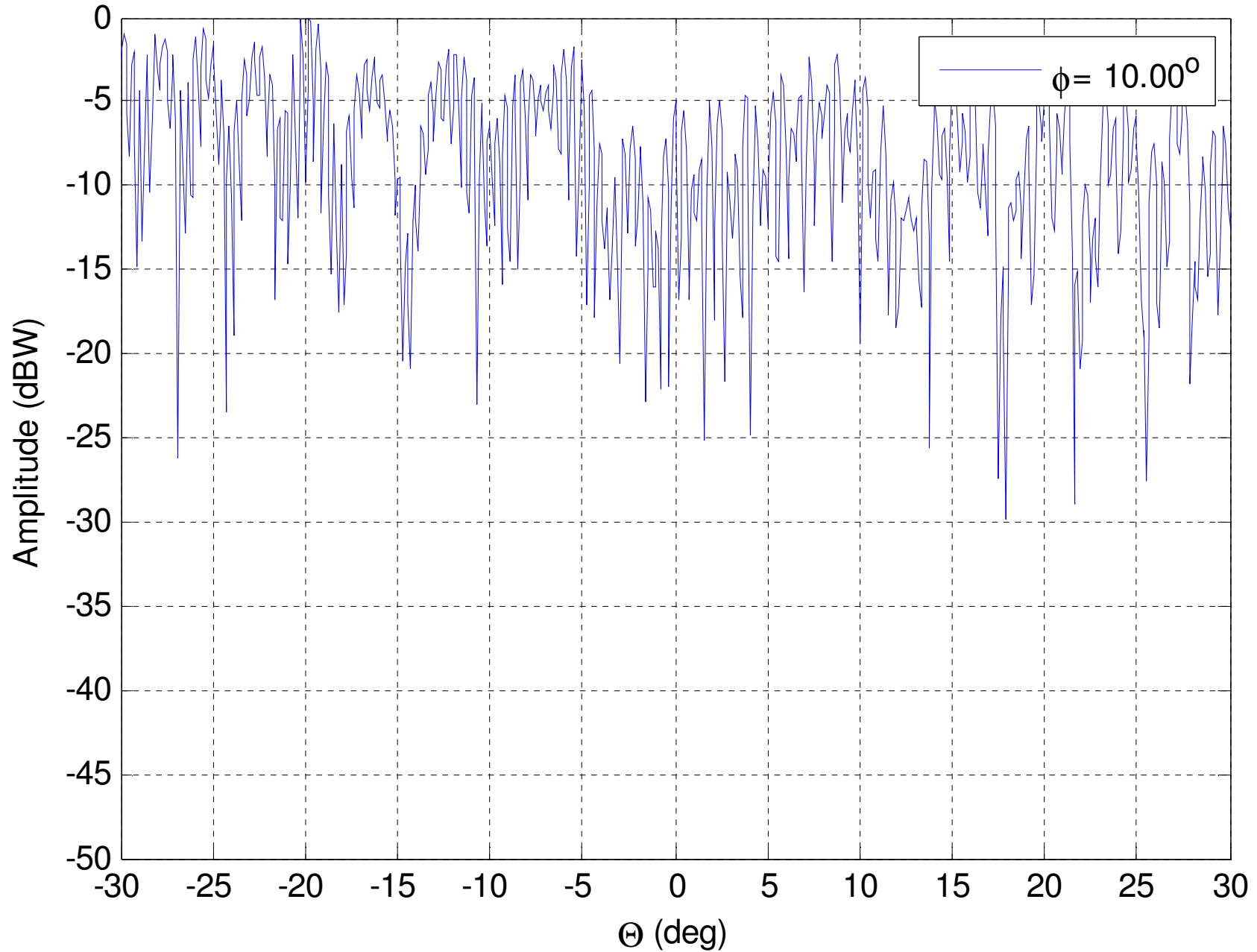
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: -3.28 dBW, Date: 15-Dec-2011



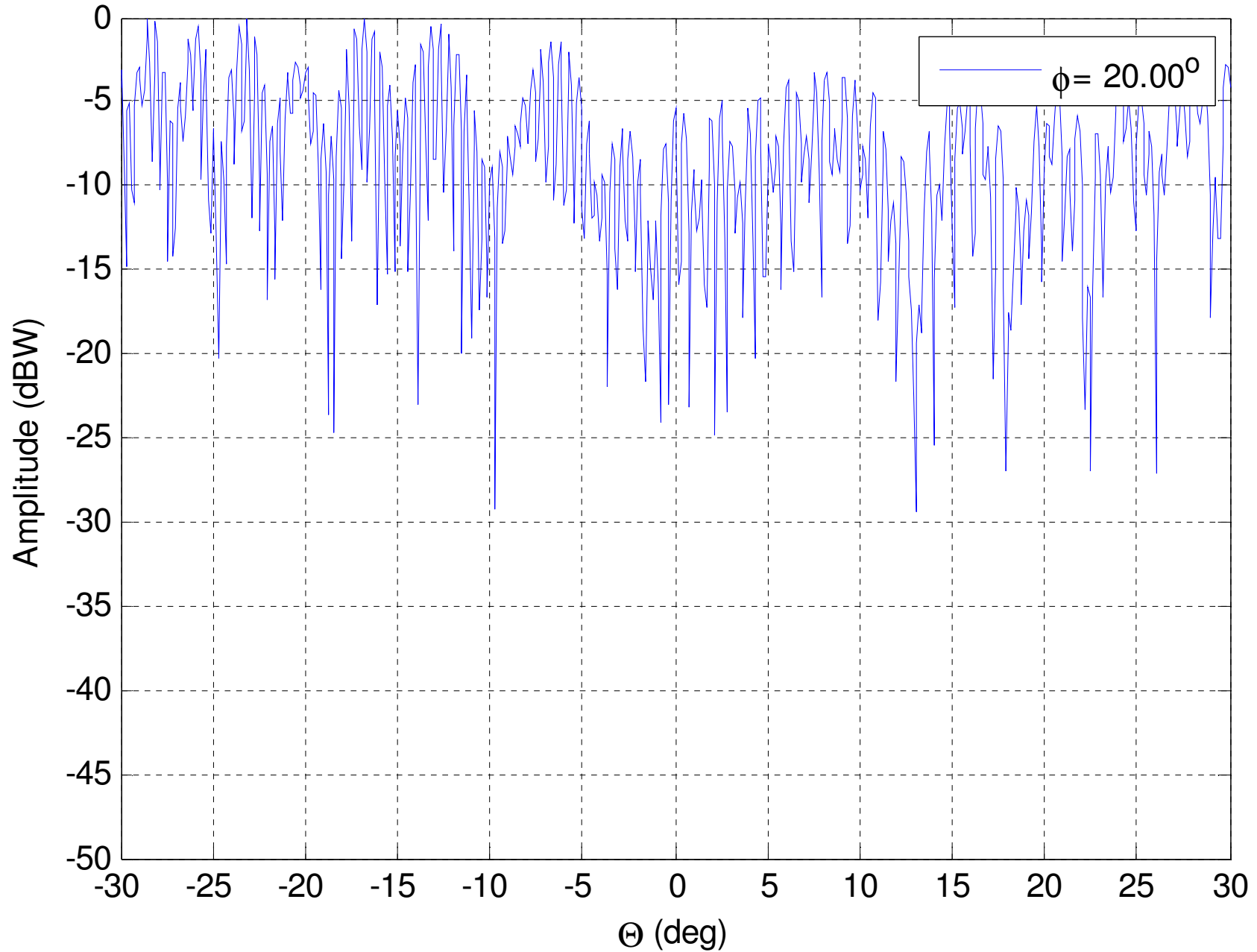
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: -3.71 dBW, Date: 15-Dec-2011



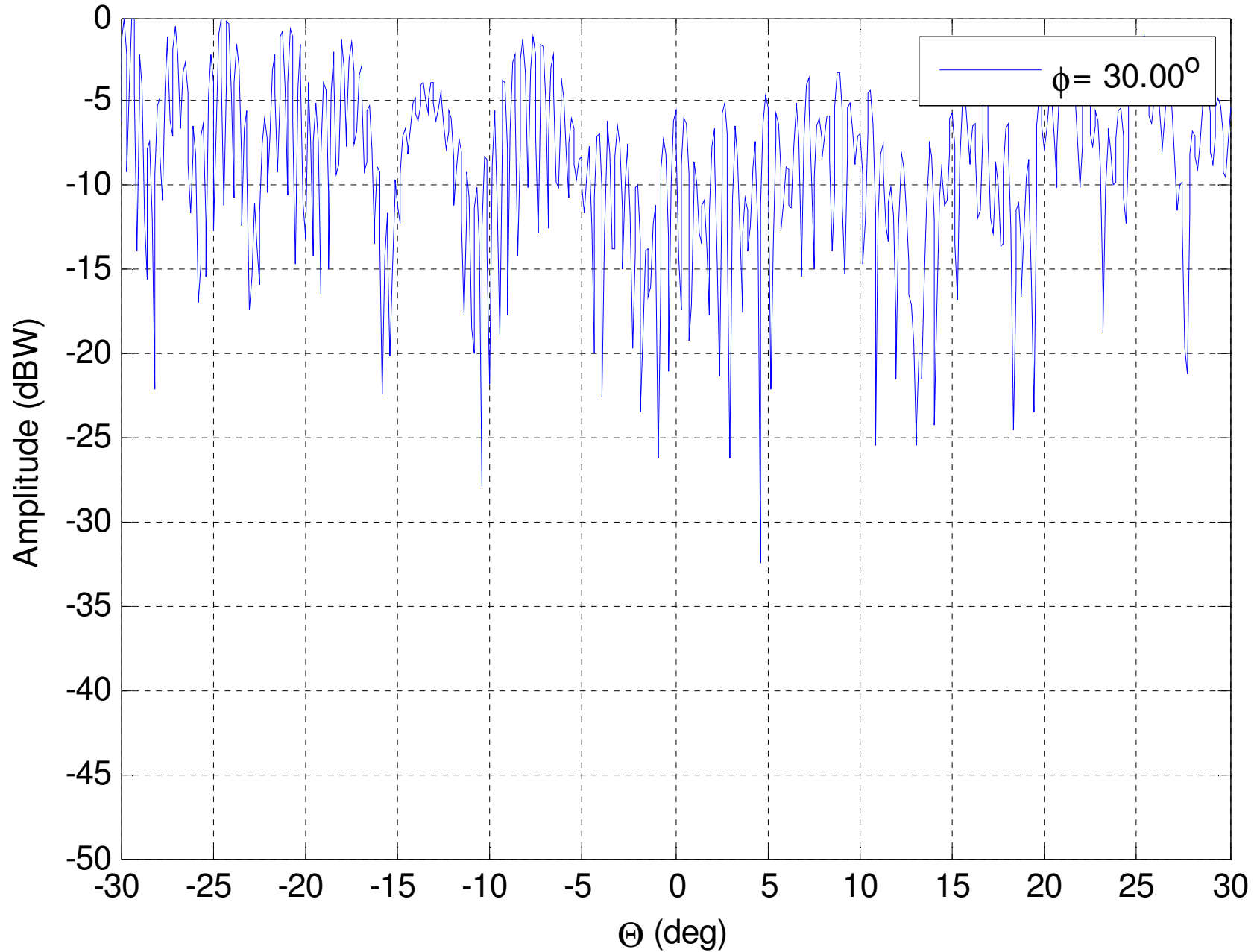
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: -3.39 dBW, Date: 15-Dec-2011



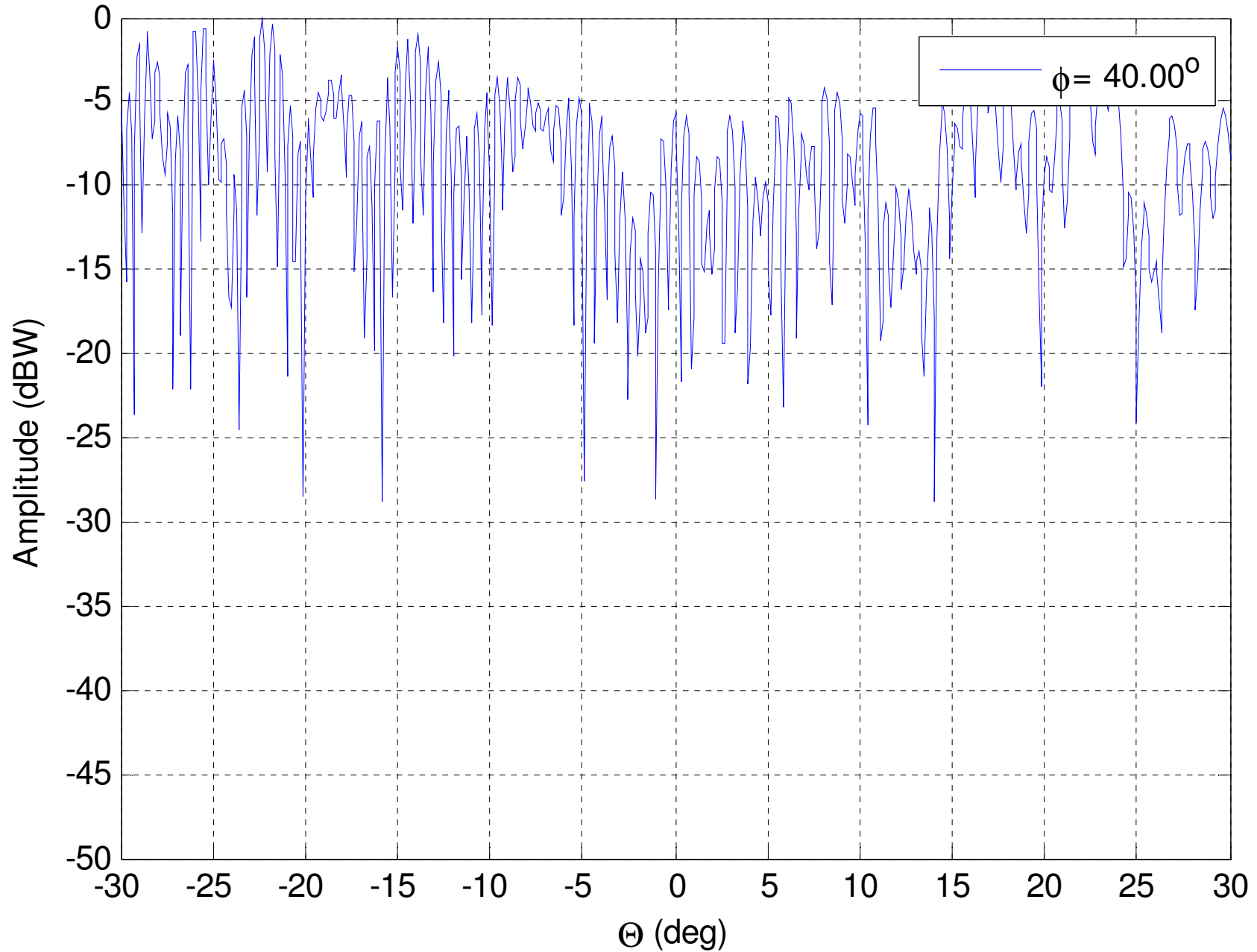
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: -3.23 dBW, Date: 15-Dec-2011



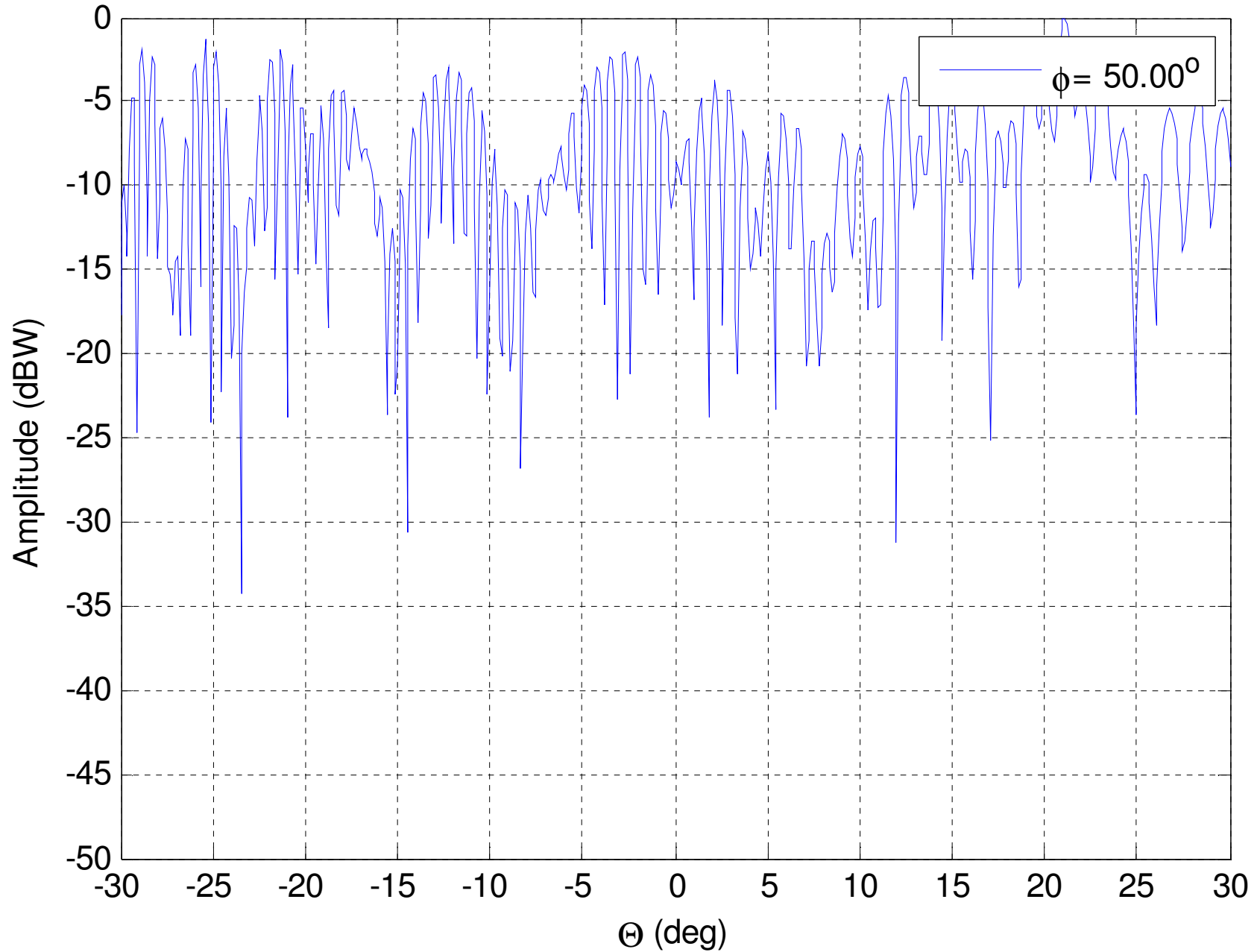
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -3.02 dBW, Date: 15-Dec-2011



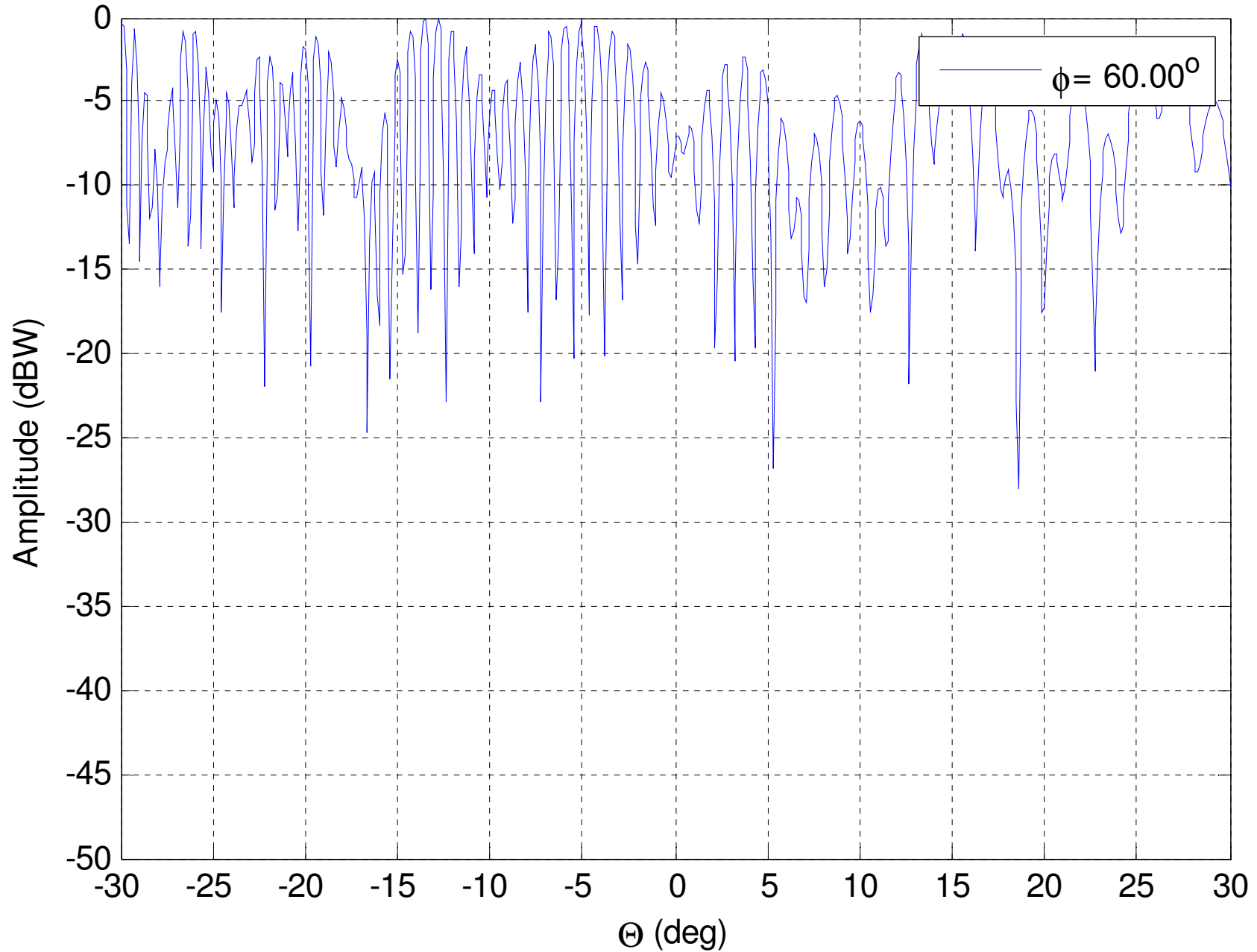
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -2.98 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

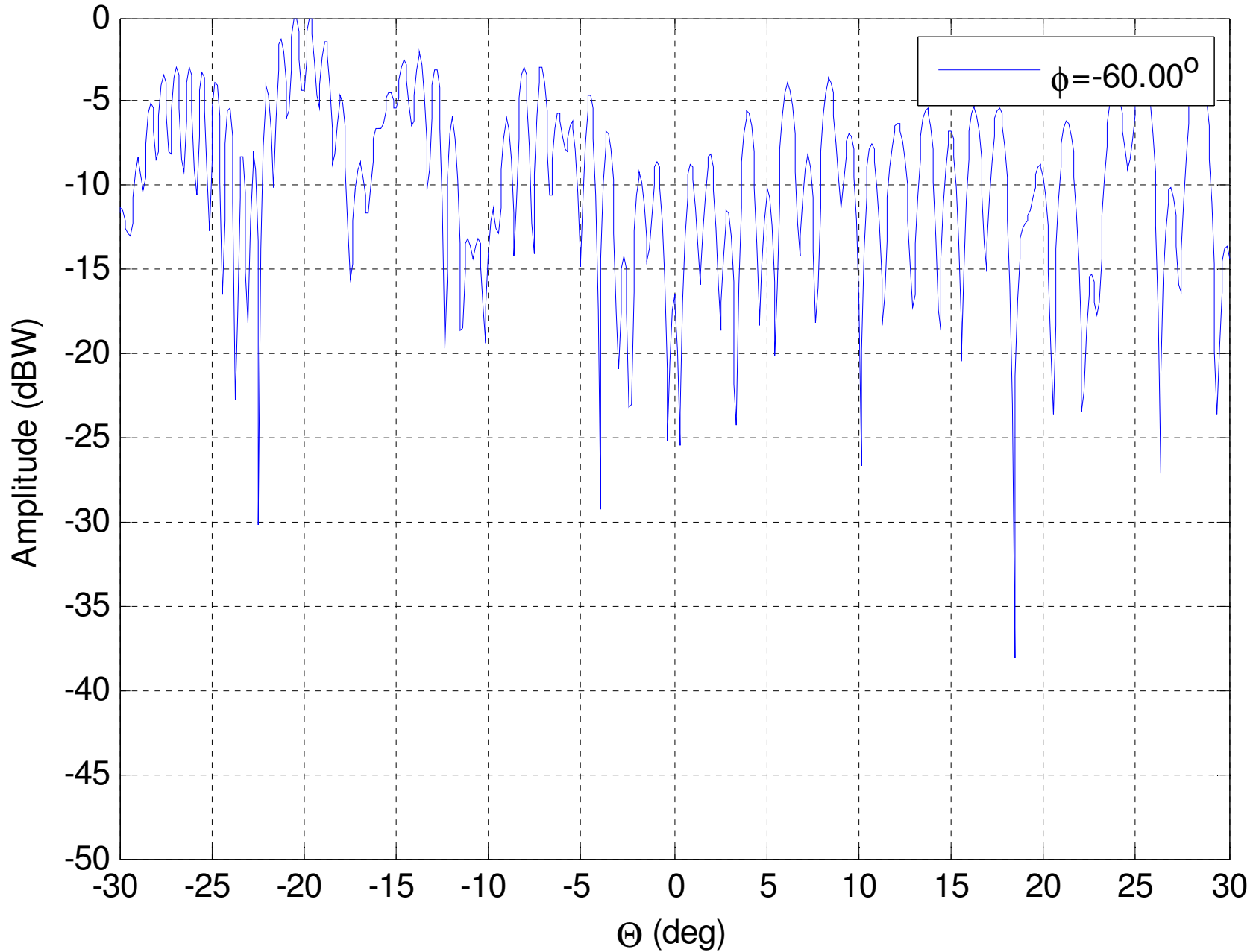
Input file: tx-17.5-lhcp-60.cut, Peak: -4.51 dBW, Date: 15-Dec-2011



RHCP at 17.7 GHz

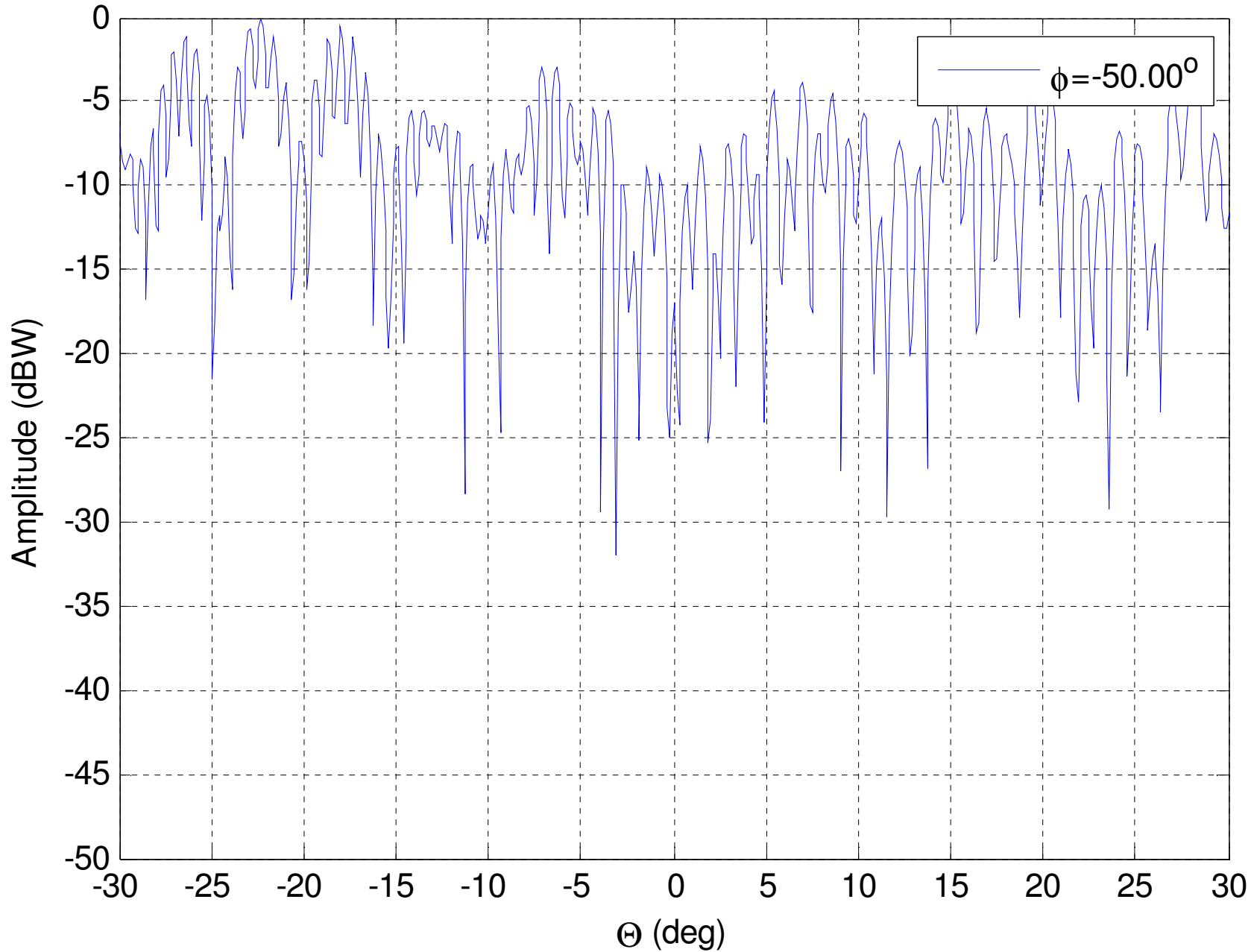
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -3.34 dBW, Date: 15-Dec-2011



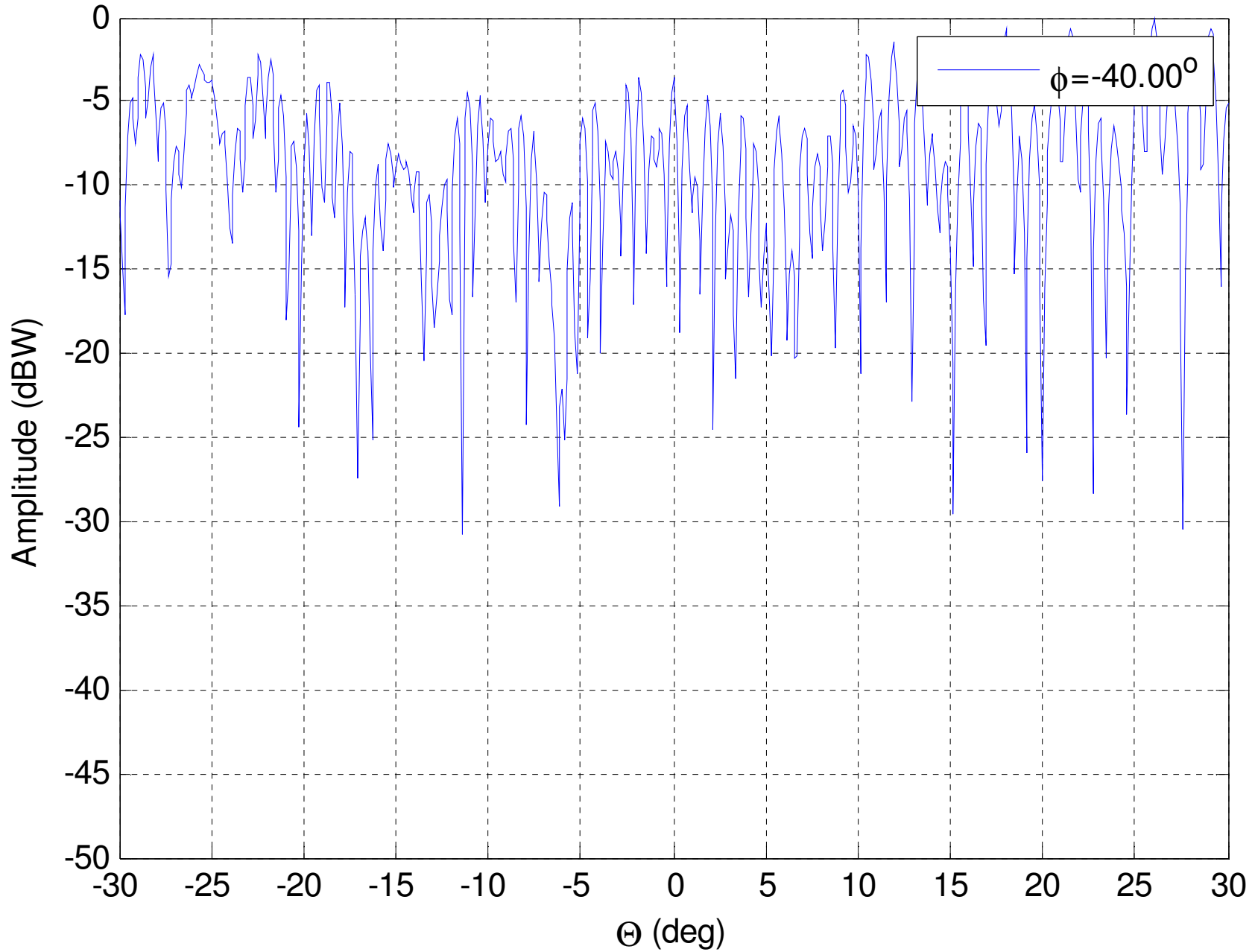
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -2.88 dBW, Date: 15-Dec-2011



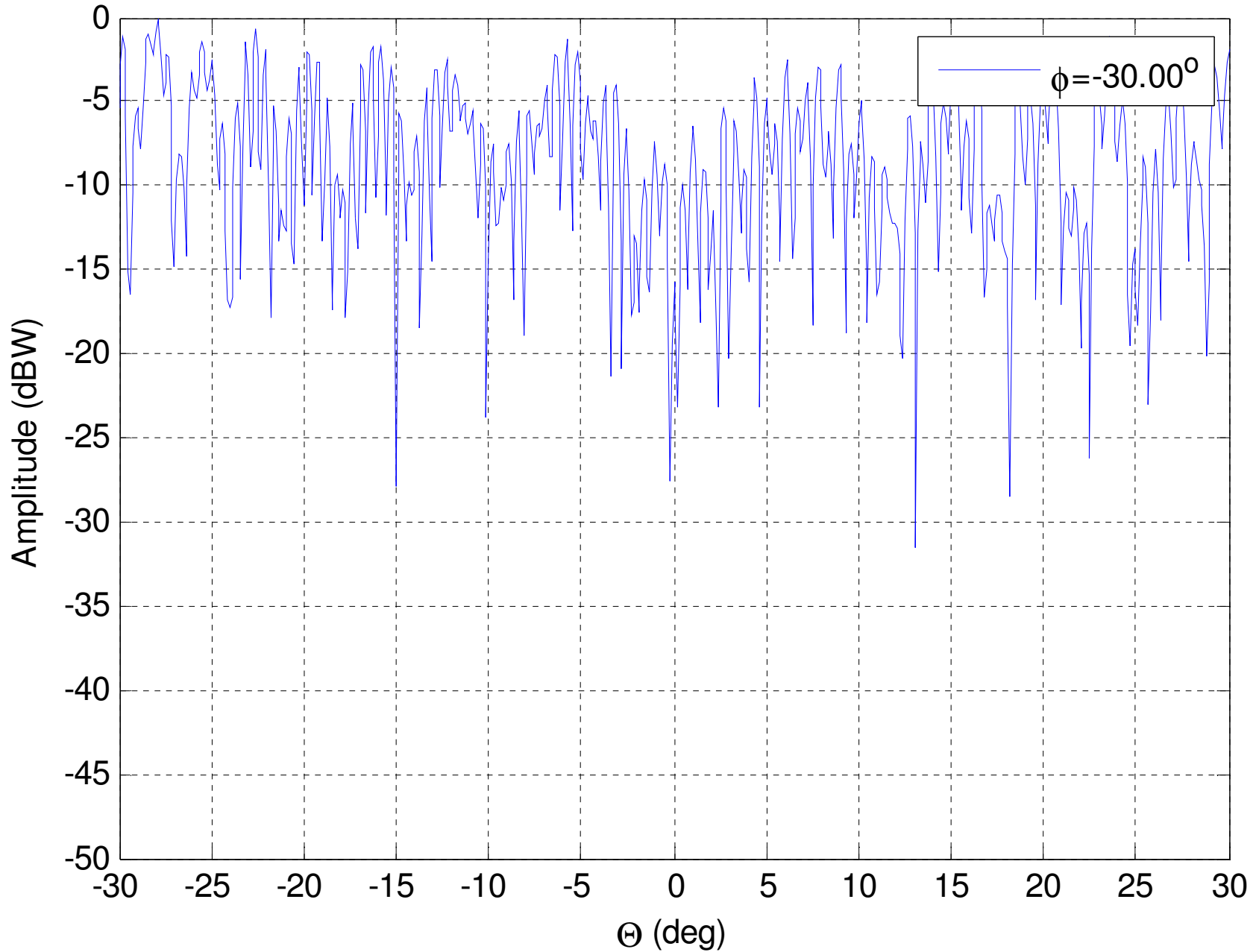
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -2.68 dBW, Date: 15-Dec-2011



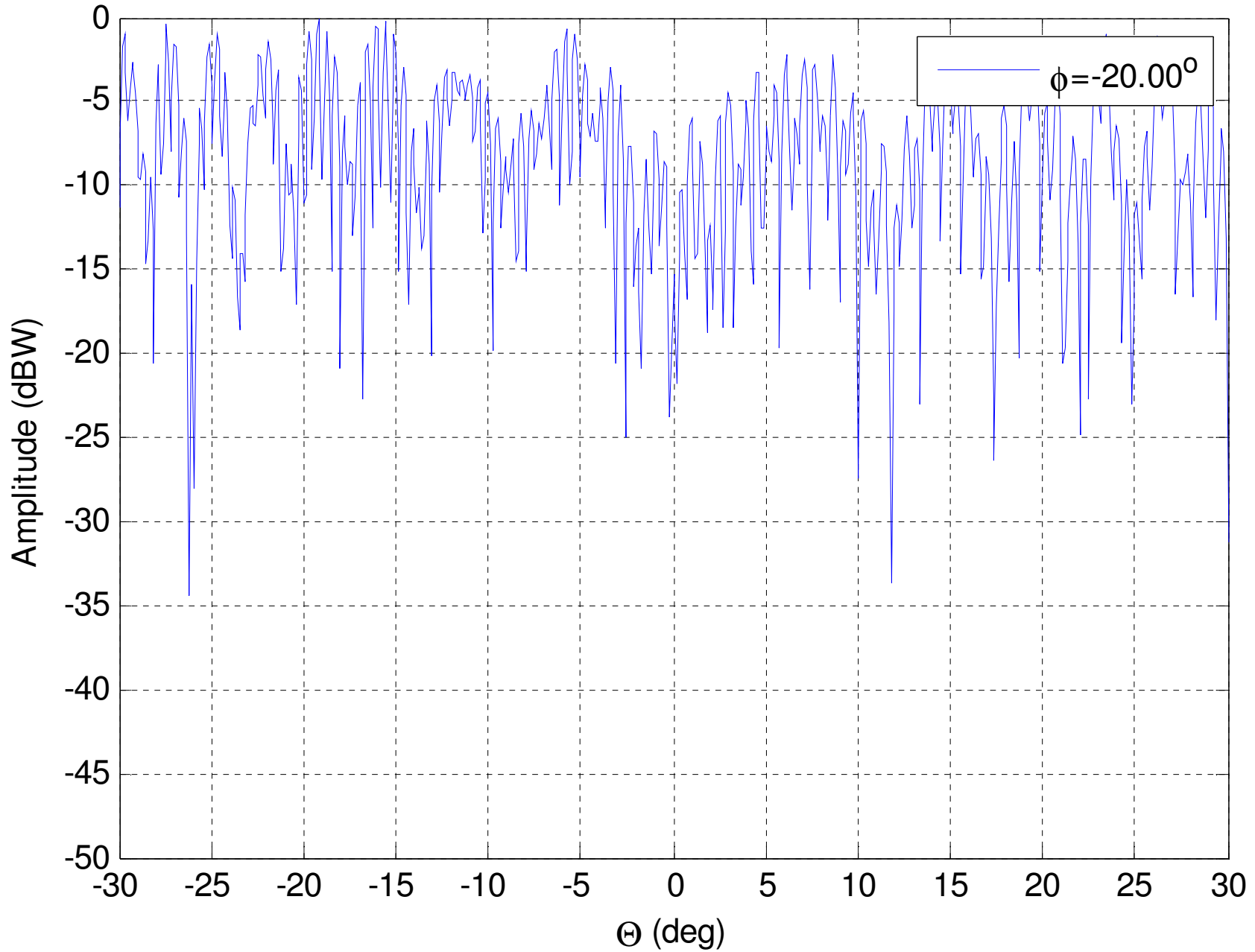
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -4.05 dBW, Date: 15-Dec-2011



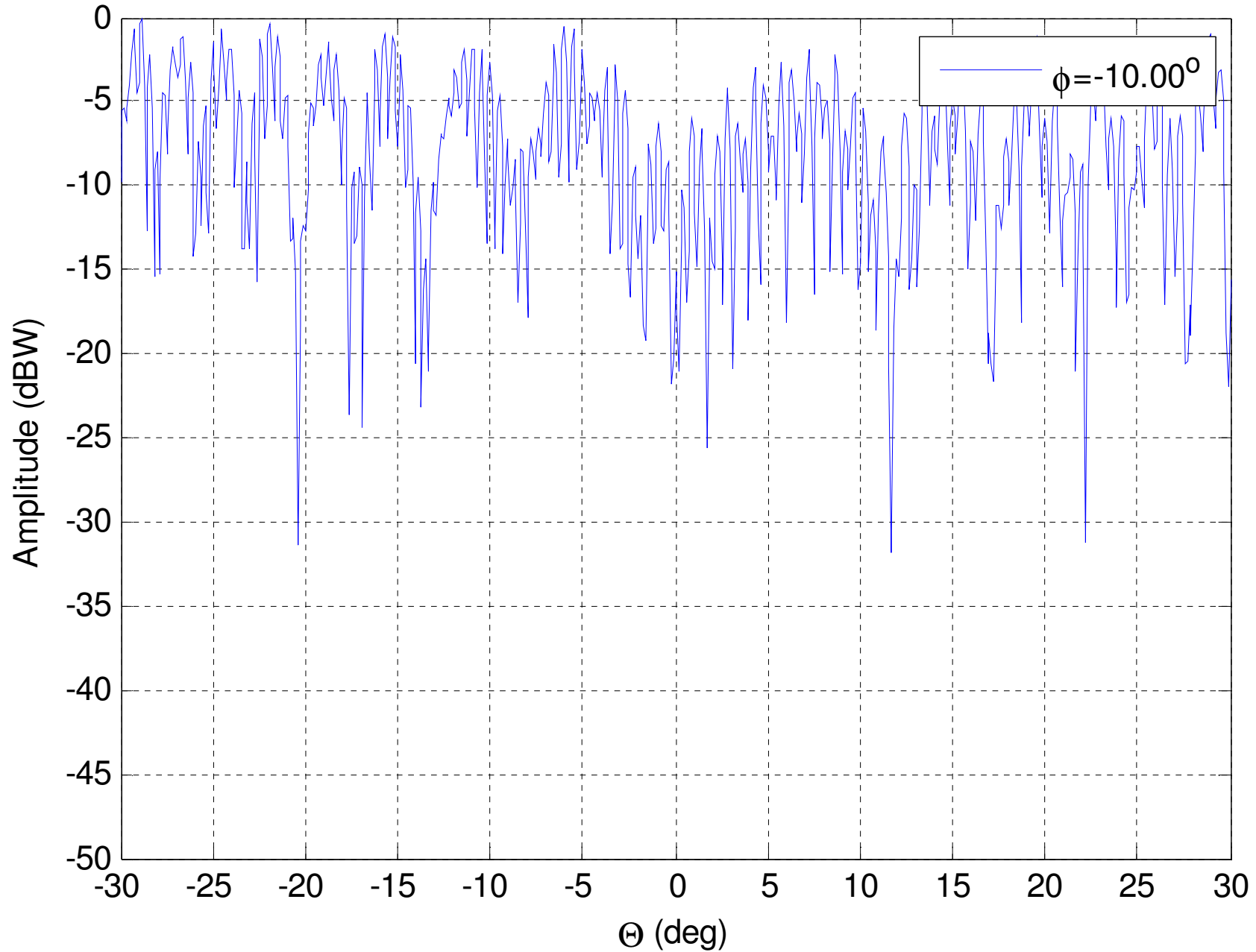
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: -4.58 dBW, Date: 15-Dec-2011



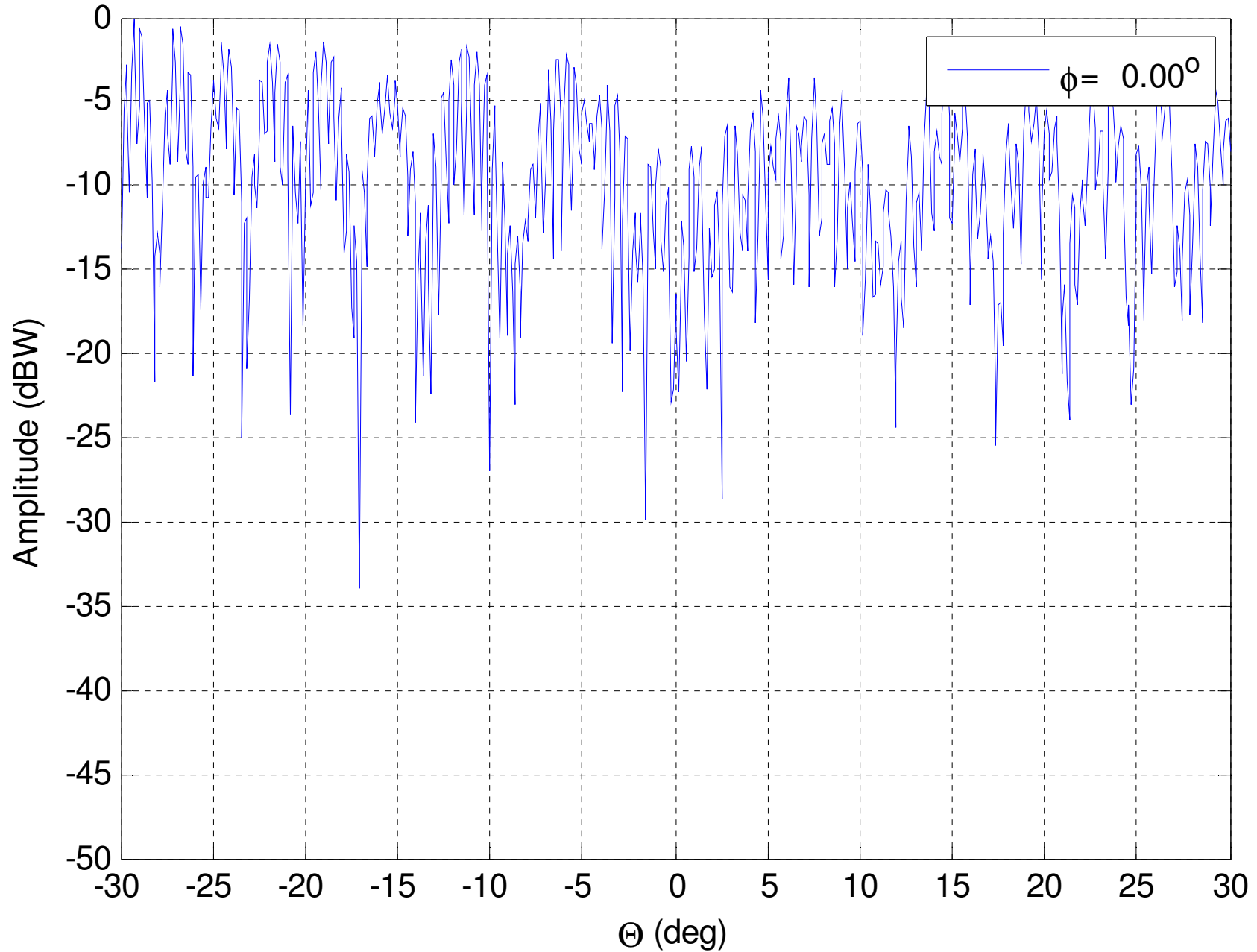
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: -4.71 dBW, Date: 15-Dec-2011



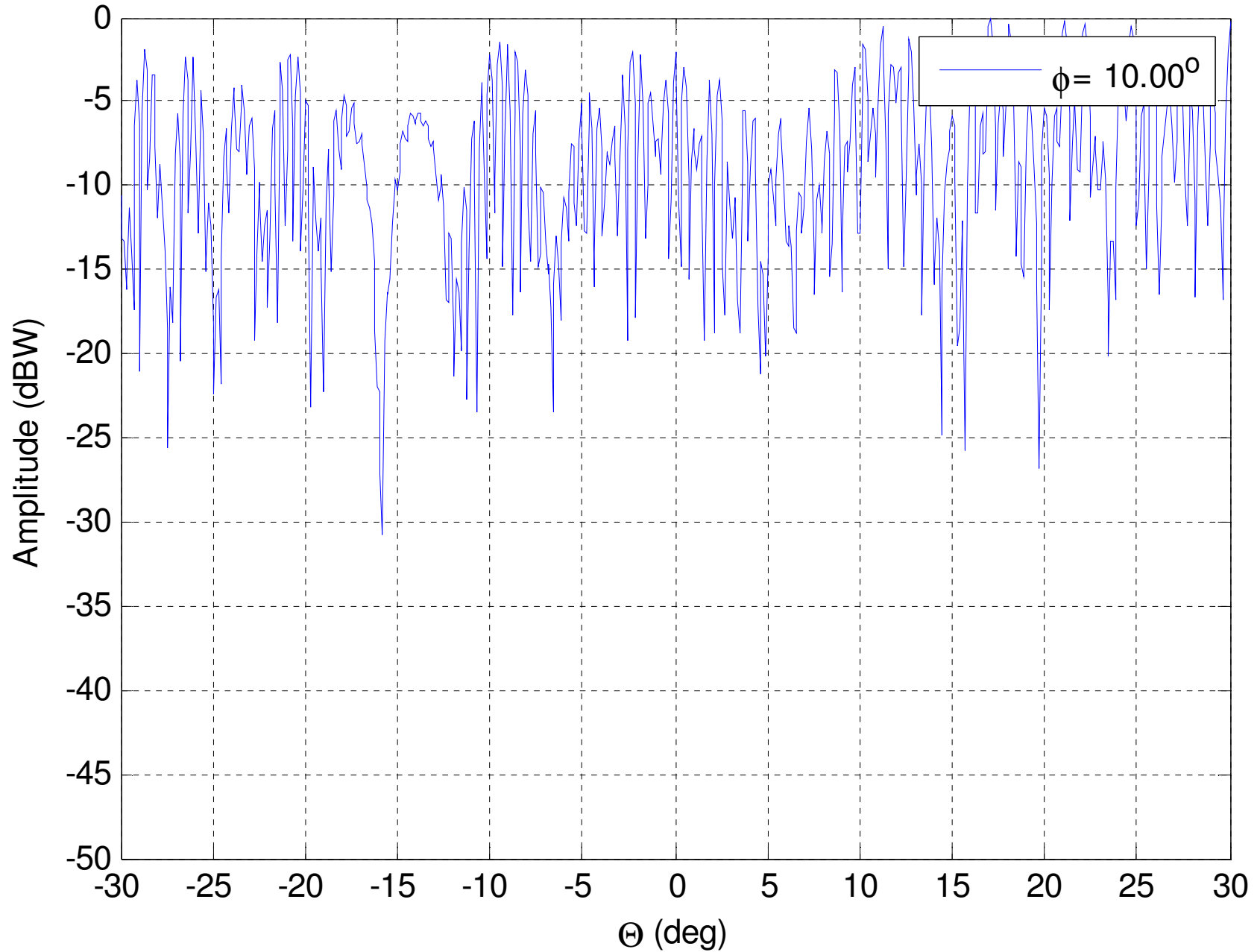
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: -3.23 dBW, Date: 15-Dec-2011



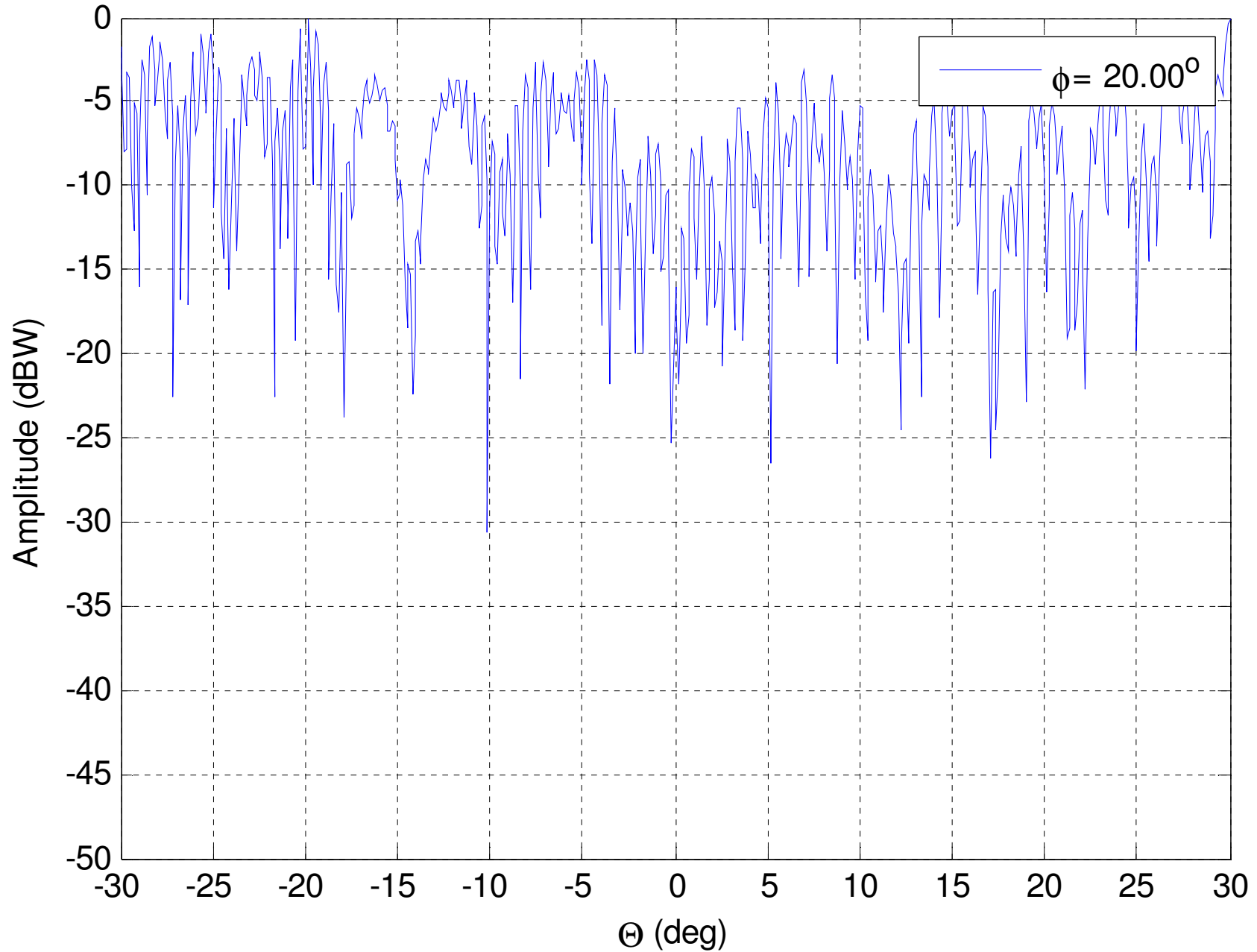
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: -4.10 dBW, Date: 15-Dec-2011



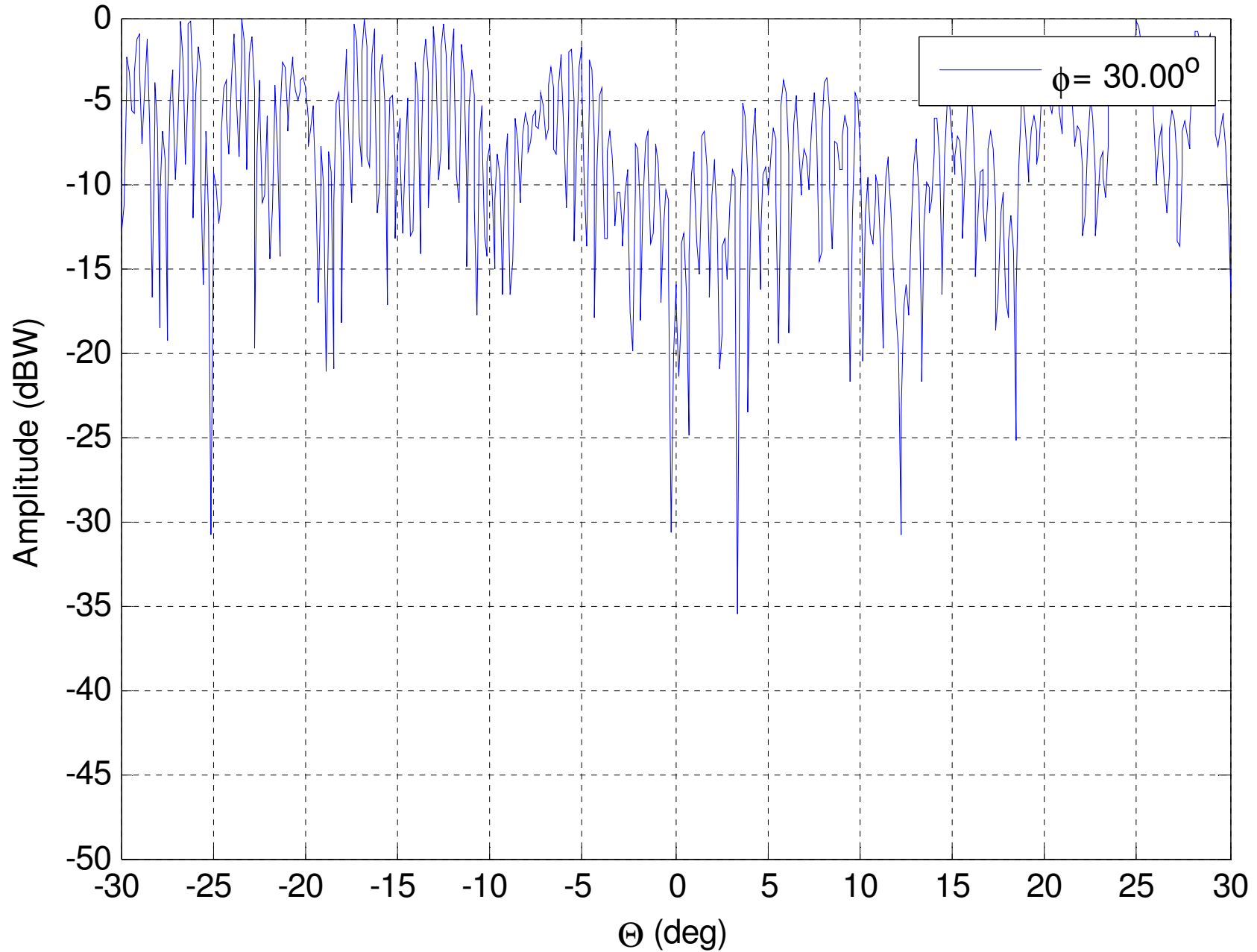
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: -3.80 dBW, Date: 15-Dec-2011



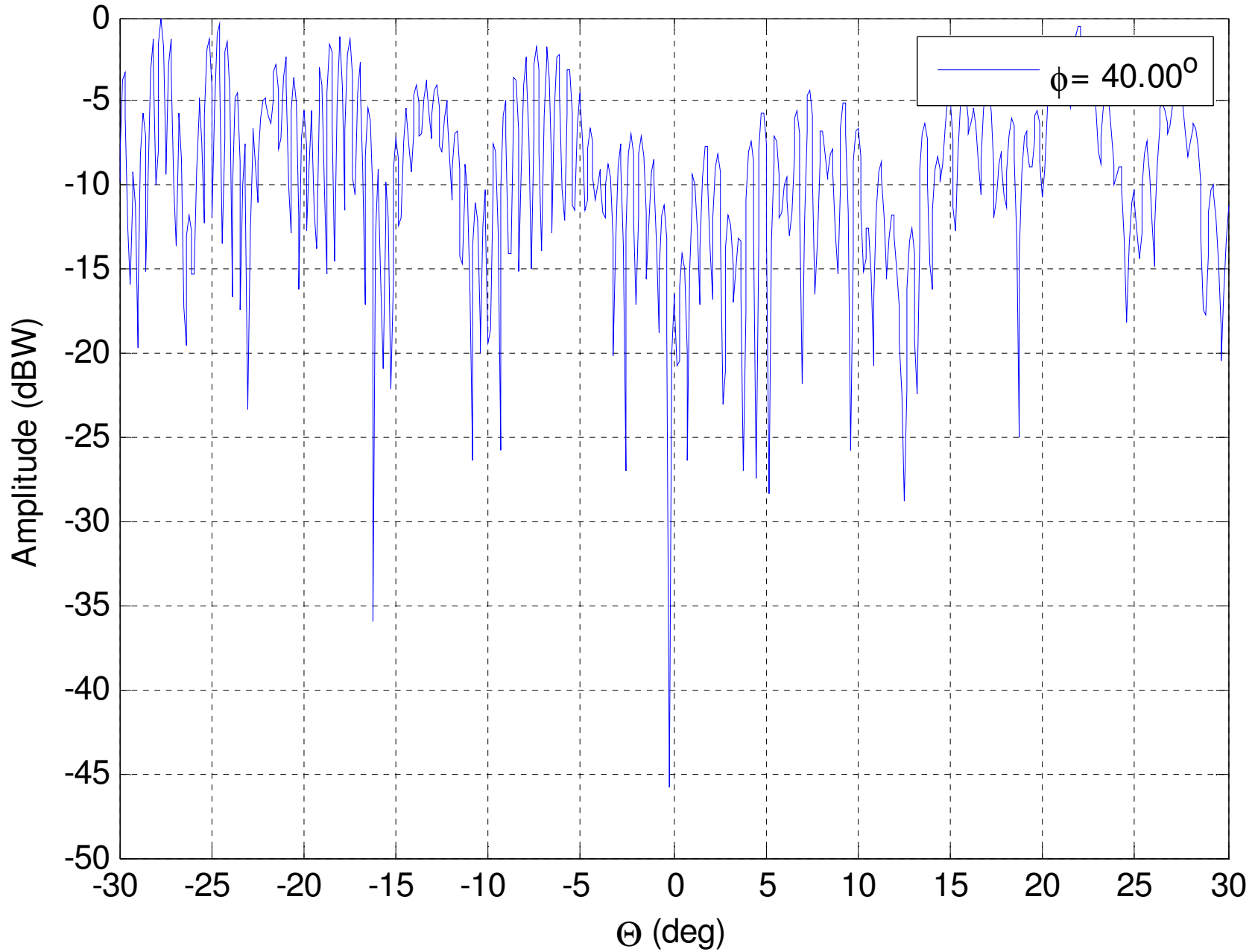
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: -3.89 dBW, Date: 15-Dec-2011



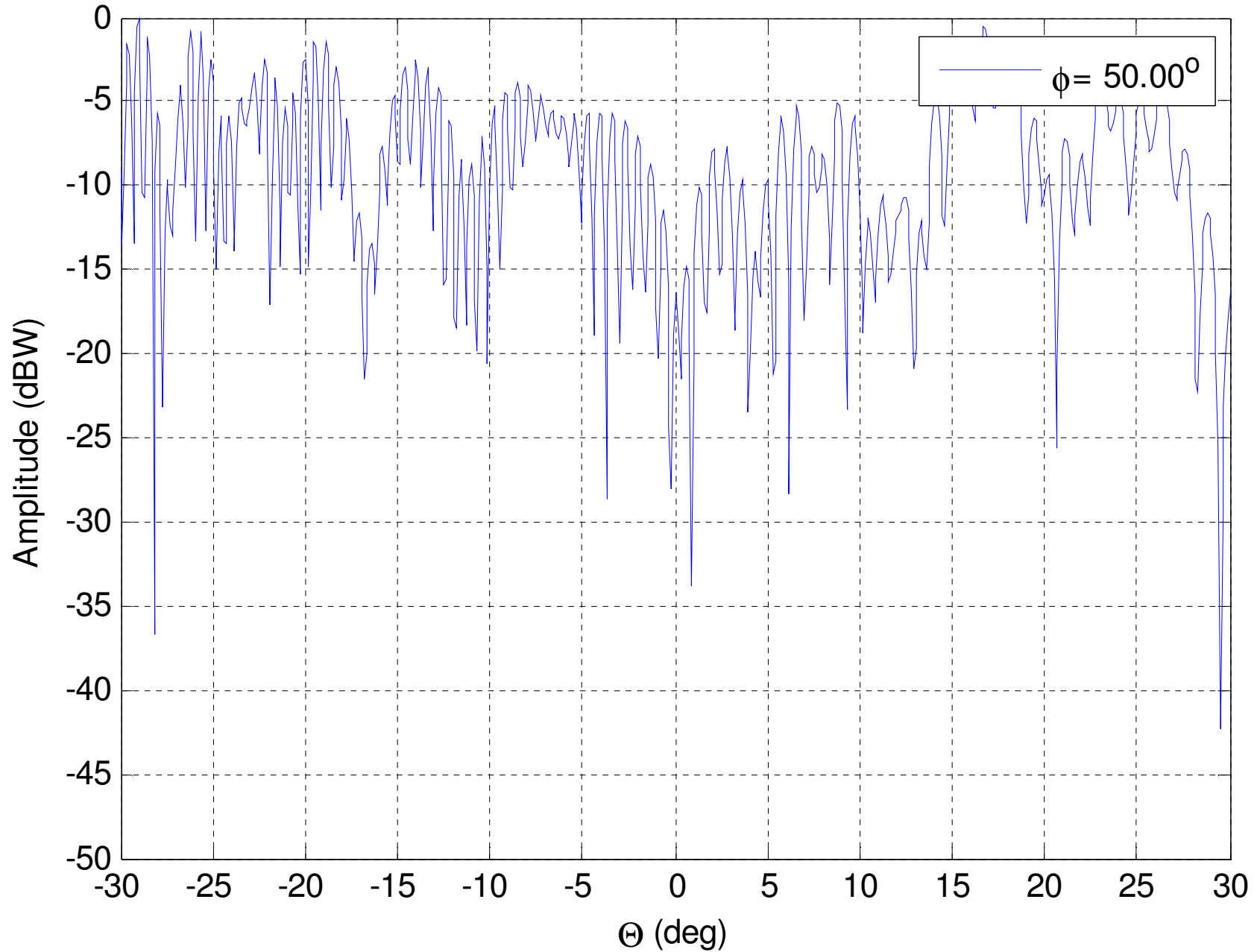
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -3.25 dBW, Date: 15-Dec-2011



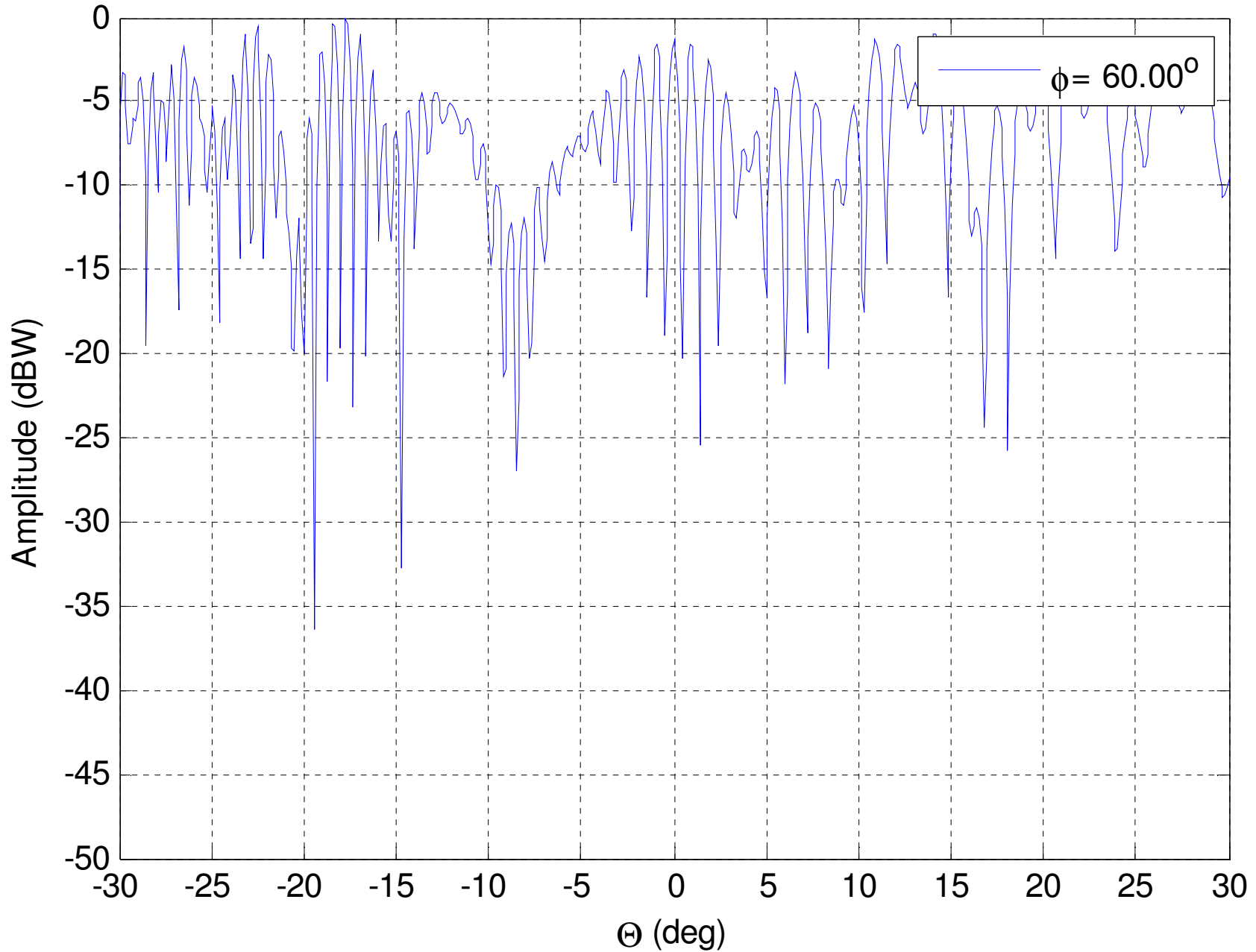
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -3.42 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

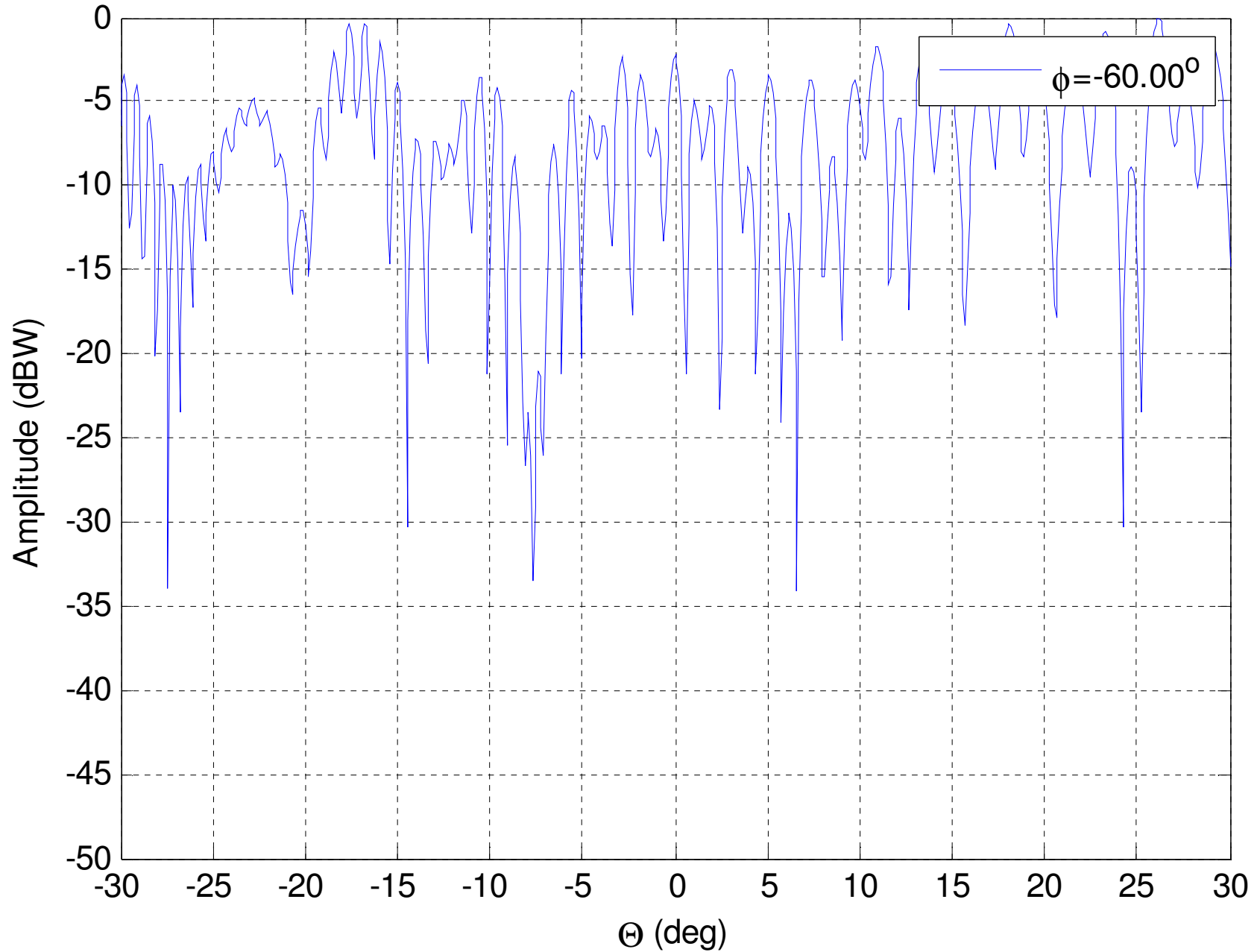
Input file: tx-17.7-rhcp-60.cut, Peak: -4.83 dBW, Date: 15-Dec-2011



LHCP at 17.7 GHz

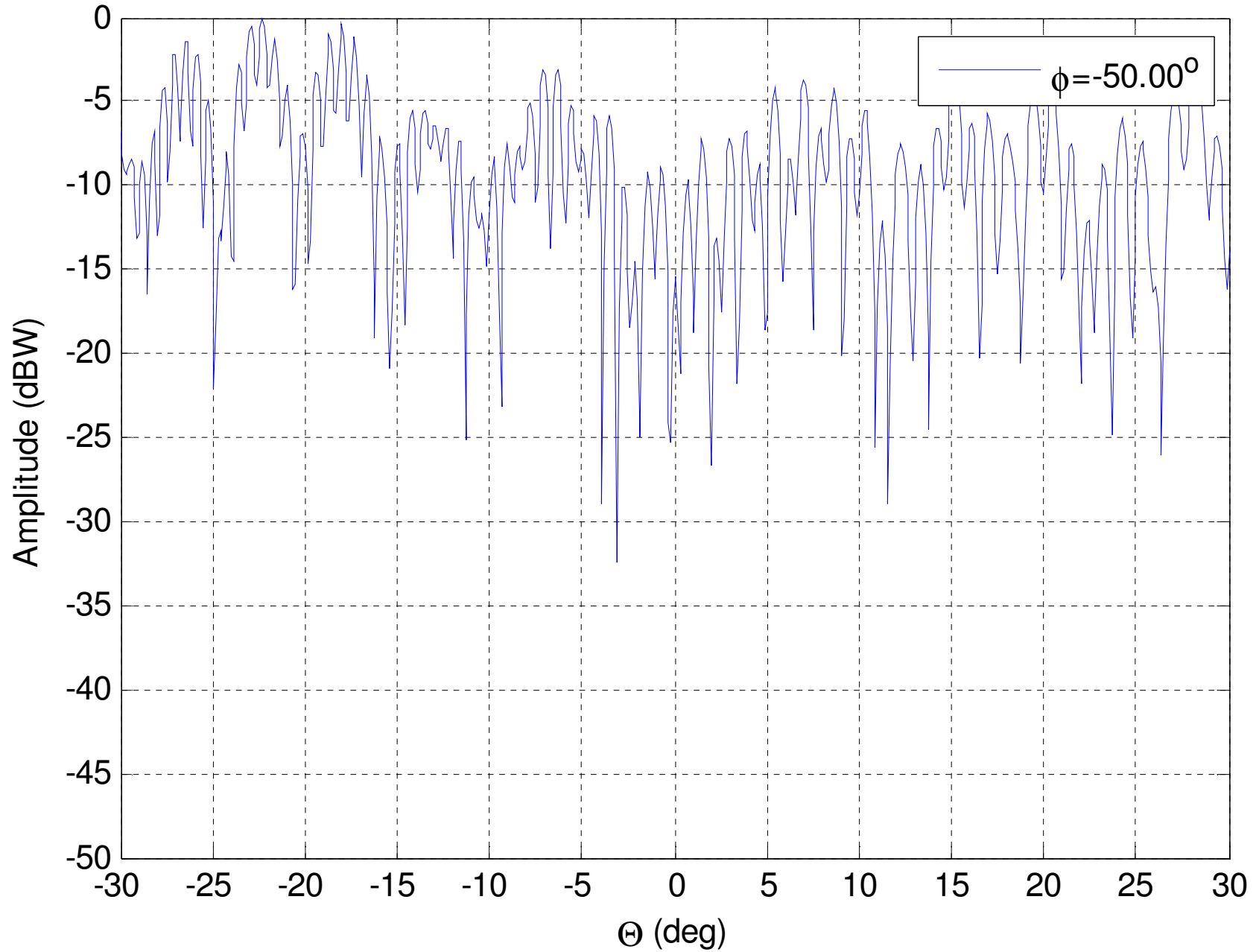
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -3.73 dBW, Date: 15-Dec-2011



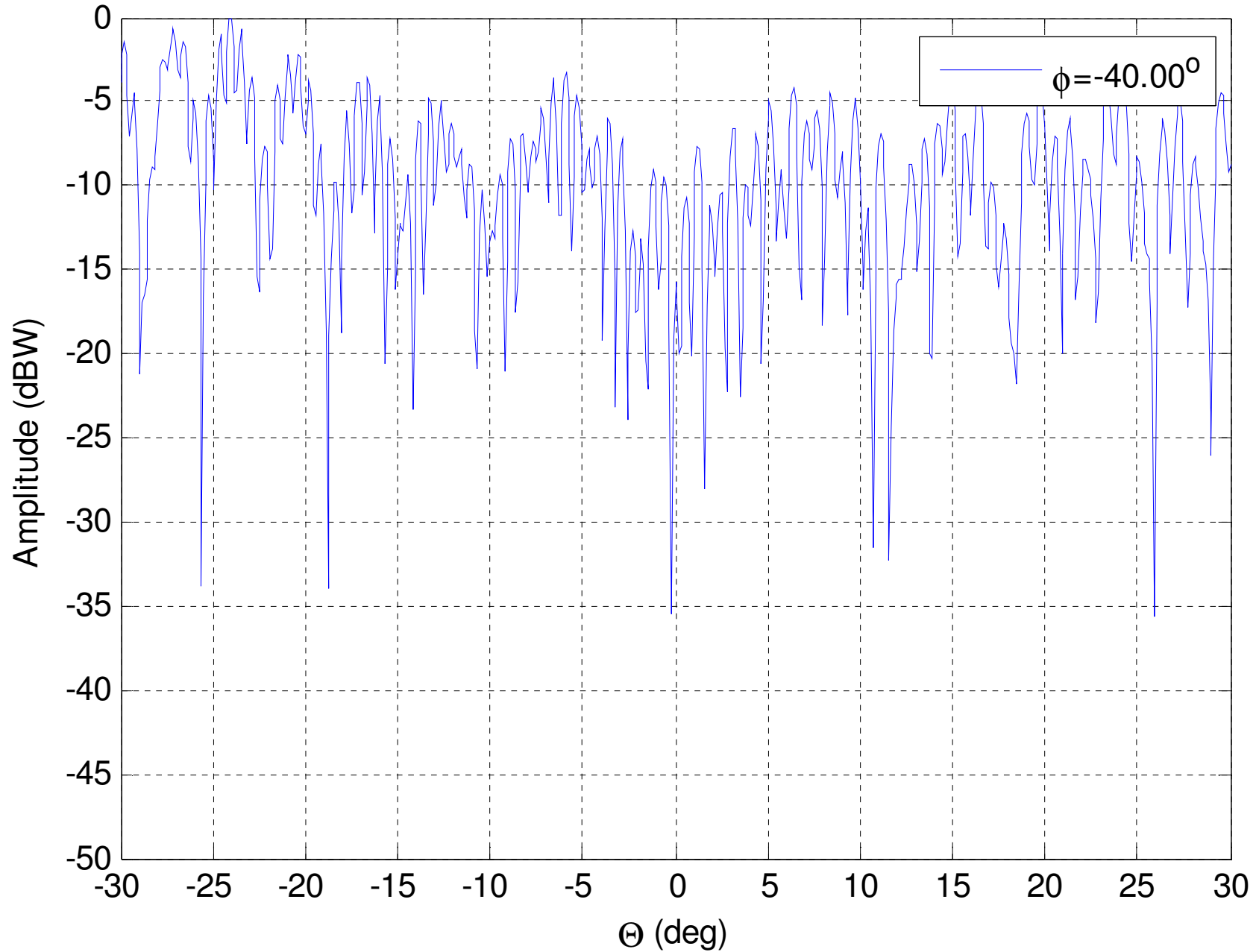
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -2.75 dBW, Date: 15-Dec-2011



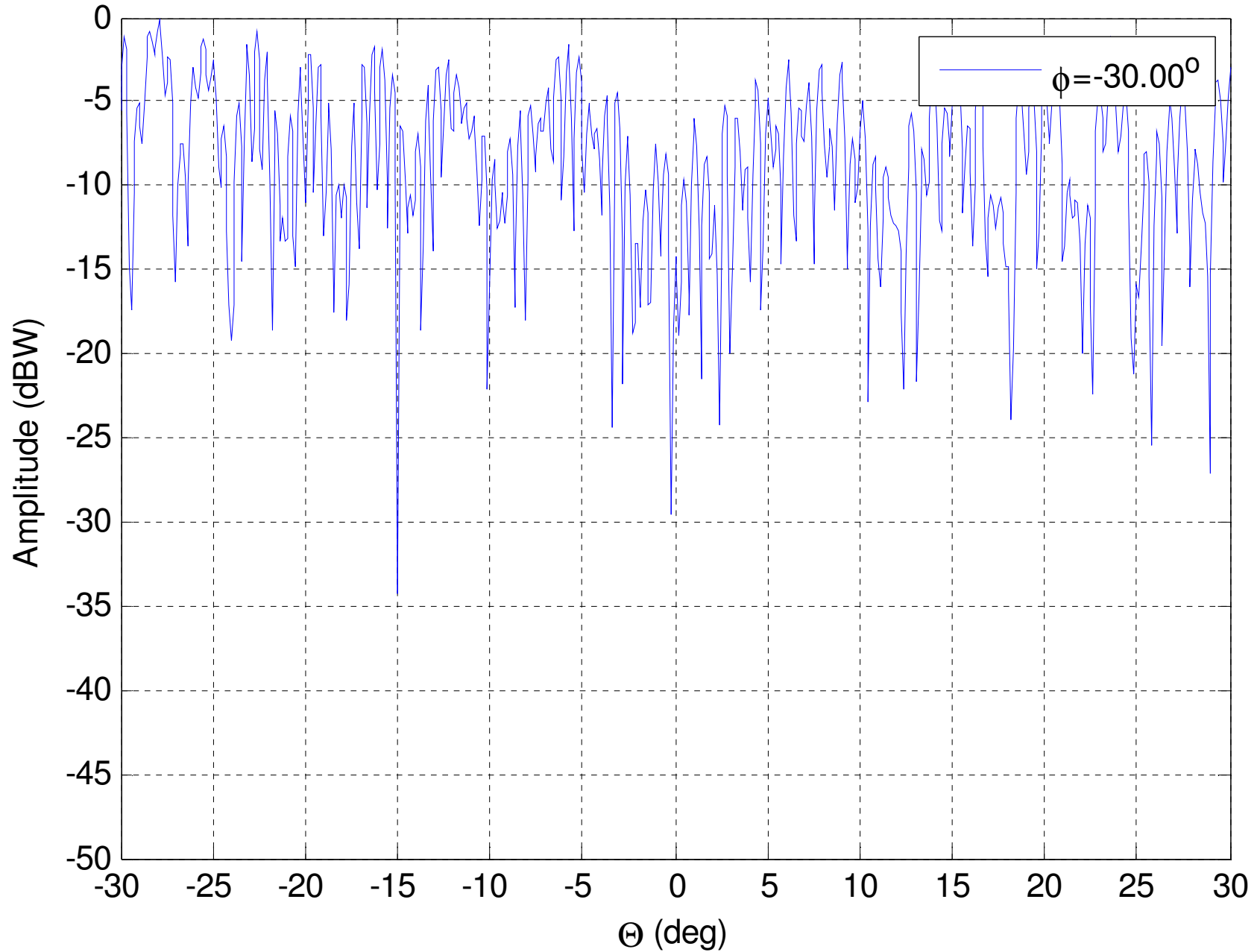
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -2.35 dBW, Date: 15-Dec-2011



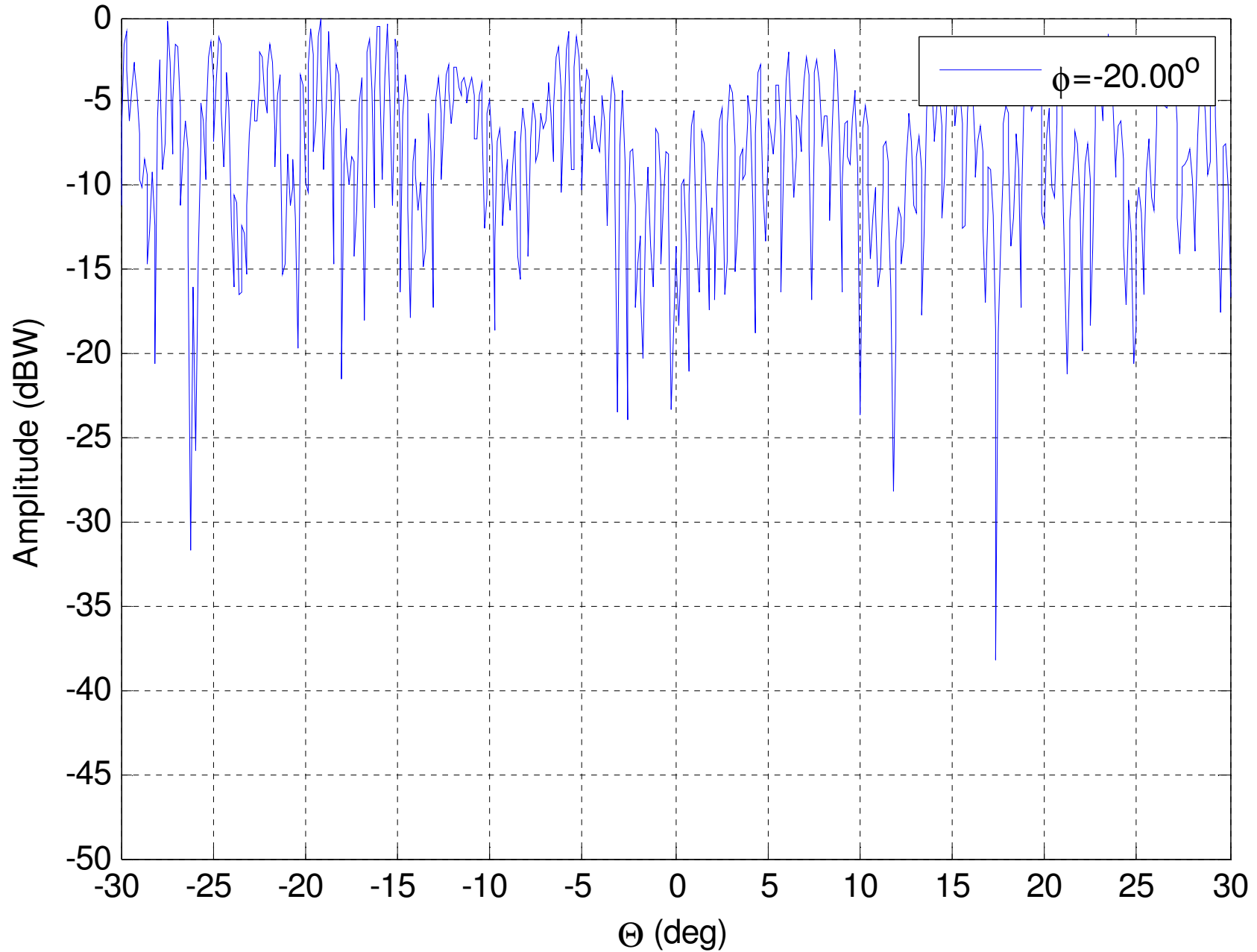
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -3.89 dBW, Date: 15-Dec-2011



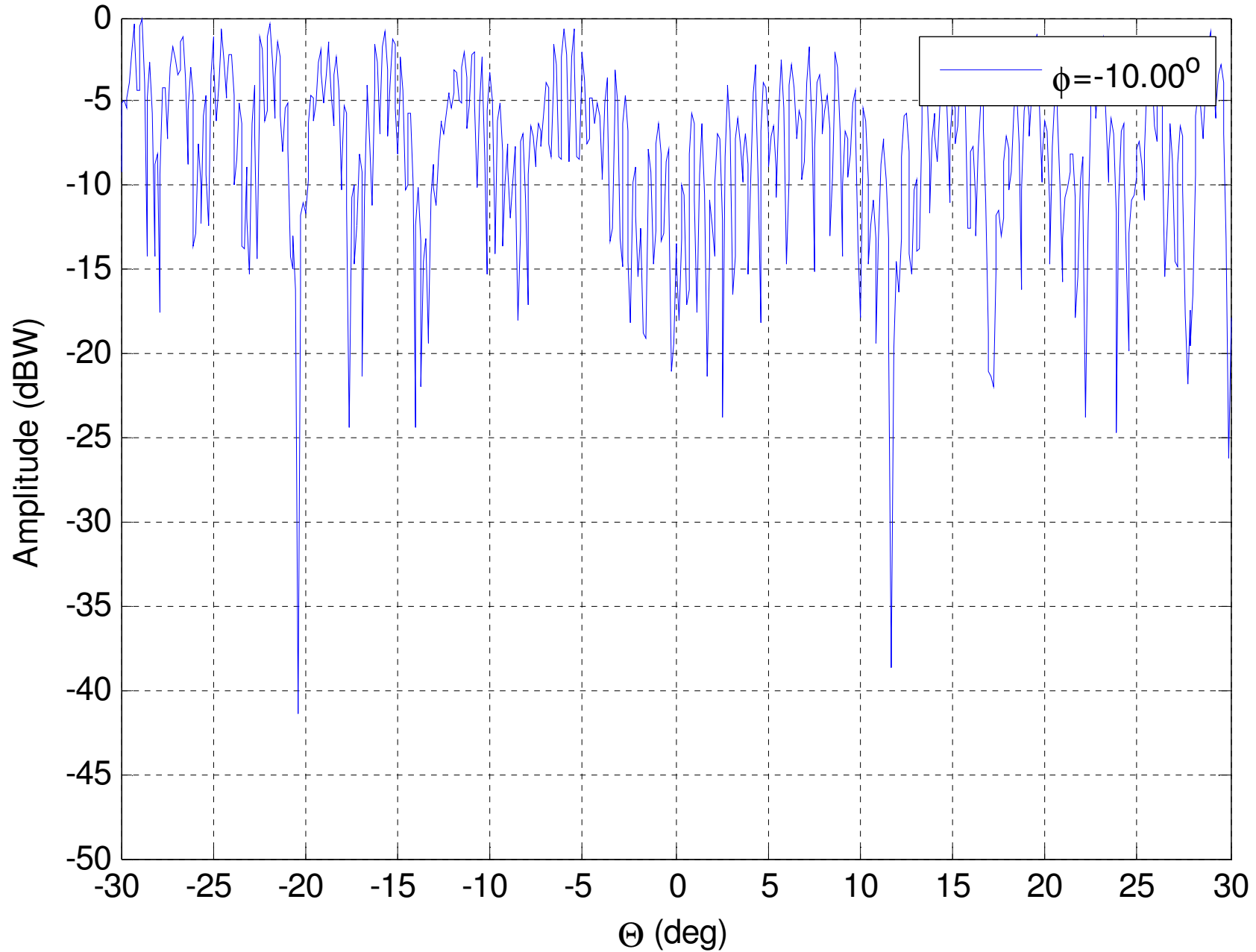
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: -4.55 dBW, Date: 15-Dec-2011



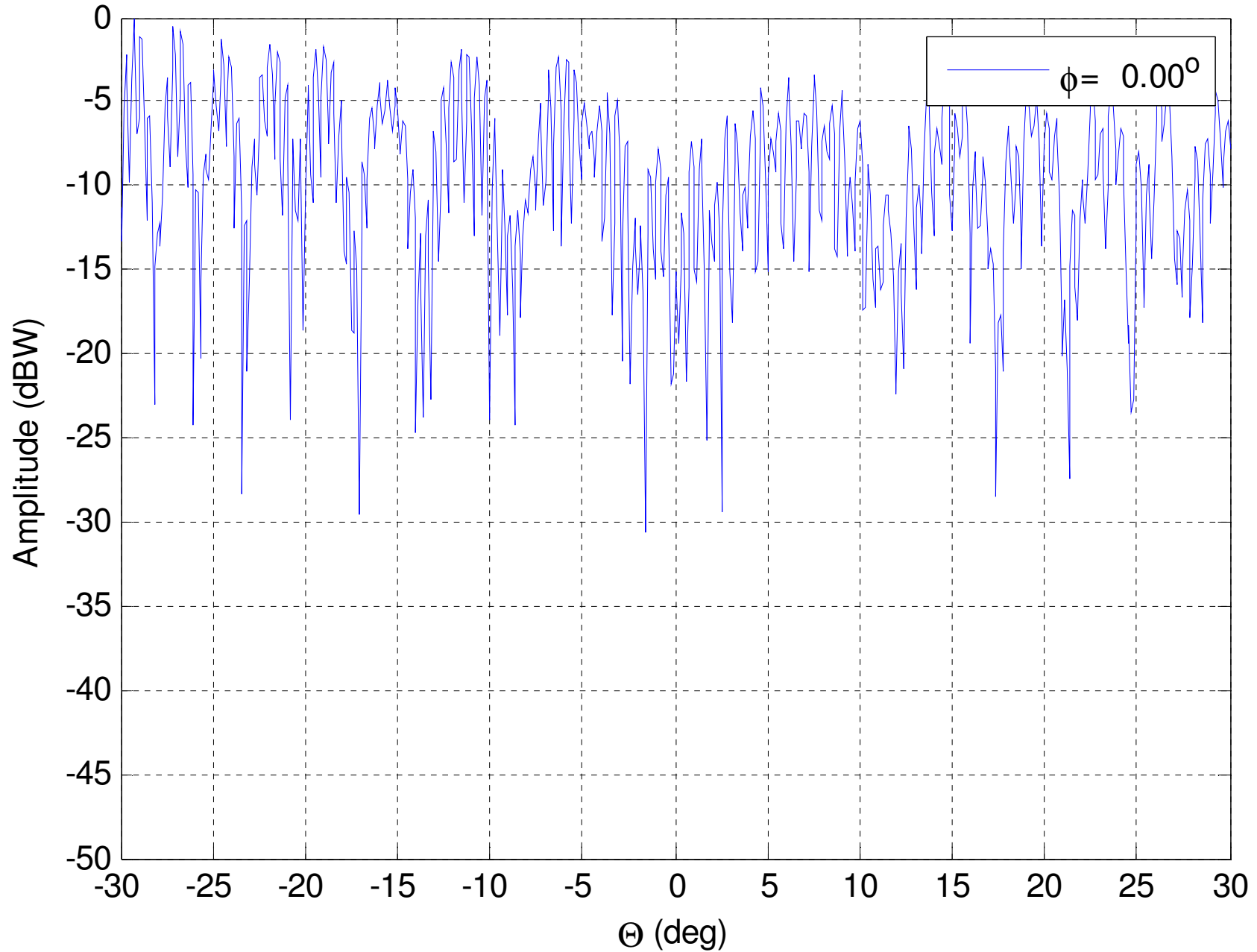
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: -4.65 dBW, Date: 15-Dec-2011



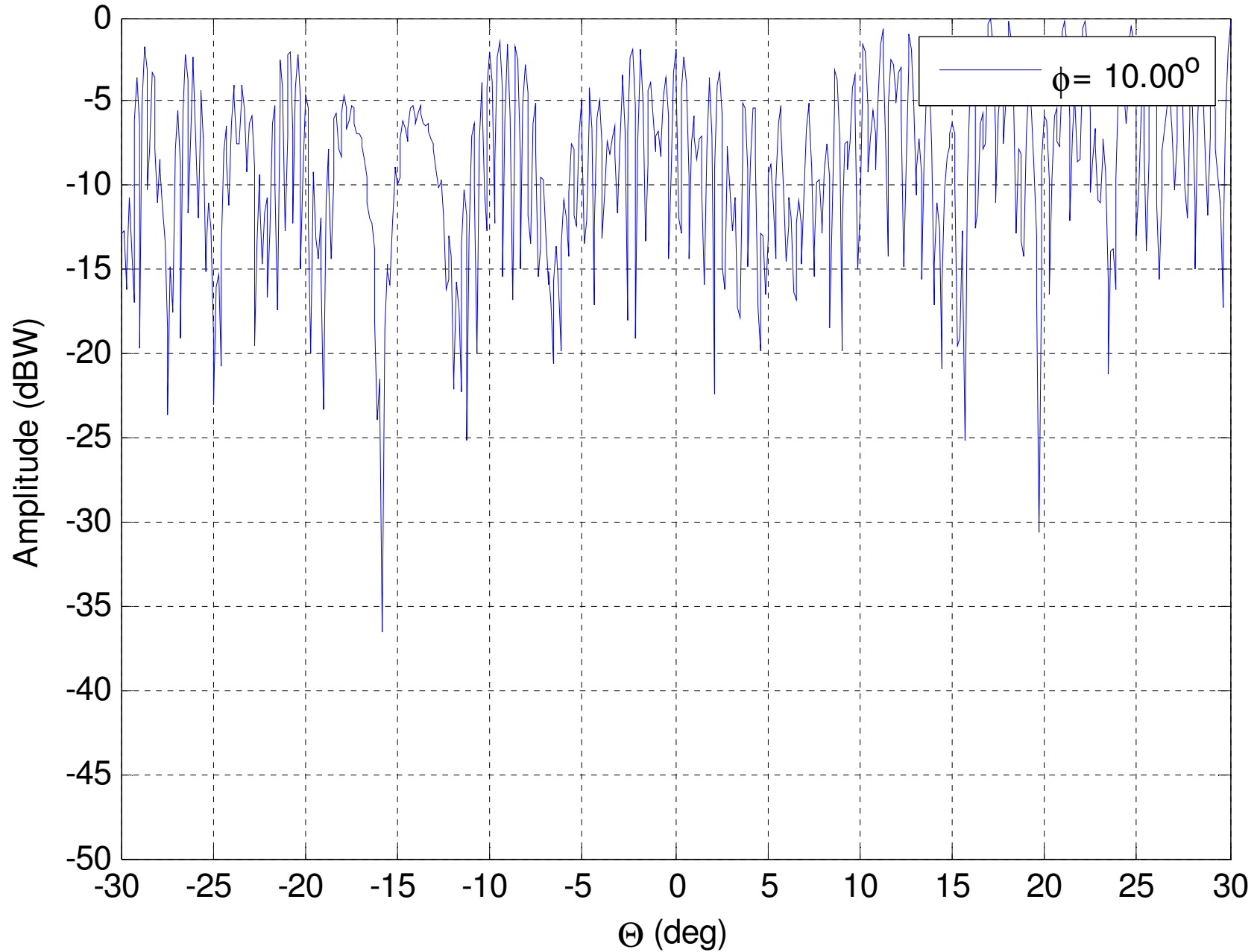
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: -3.09 dBW, Date: 15-Dec-2011



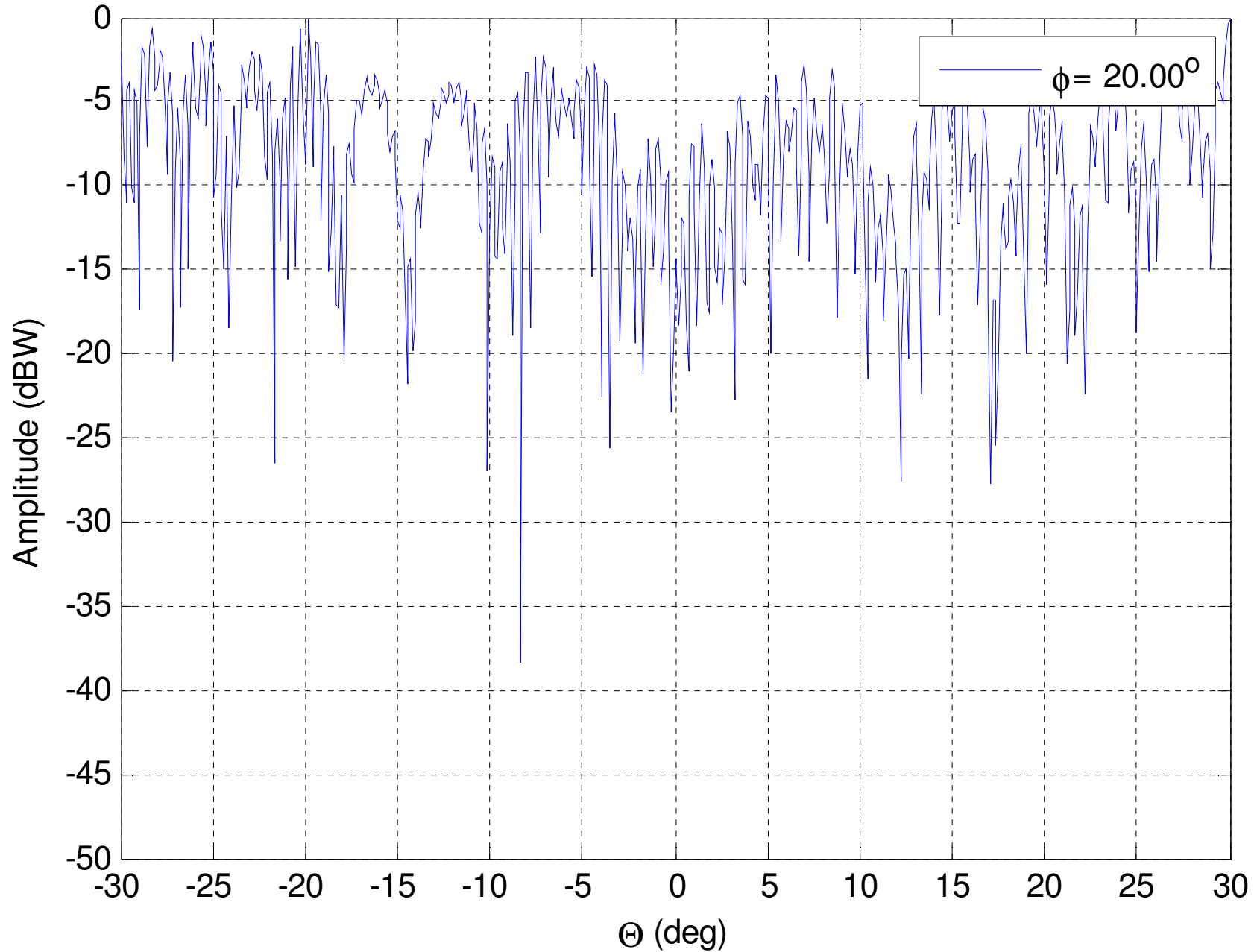
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: -4.14 dBW, Date: 15-Dec-2011



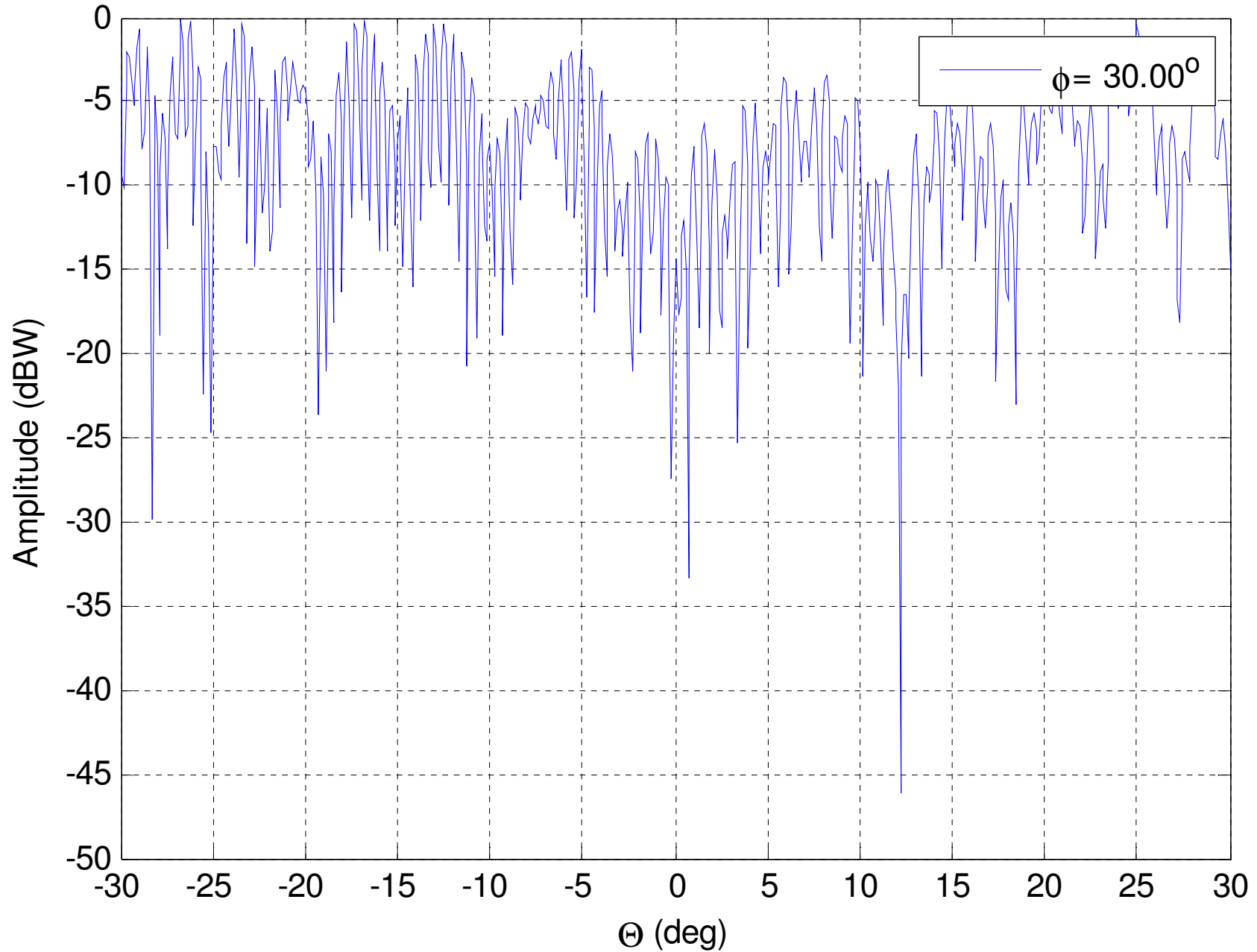
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: -3.82 dBW, Date: 15-Dec-2011



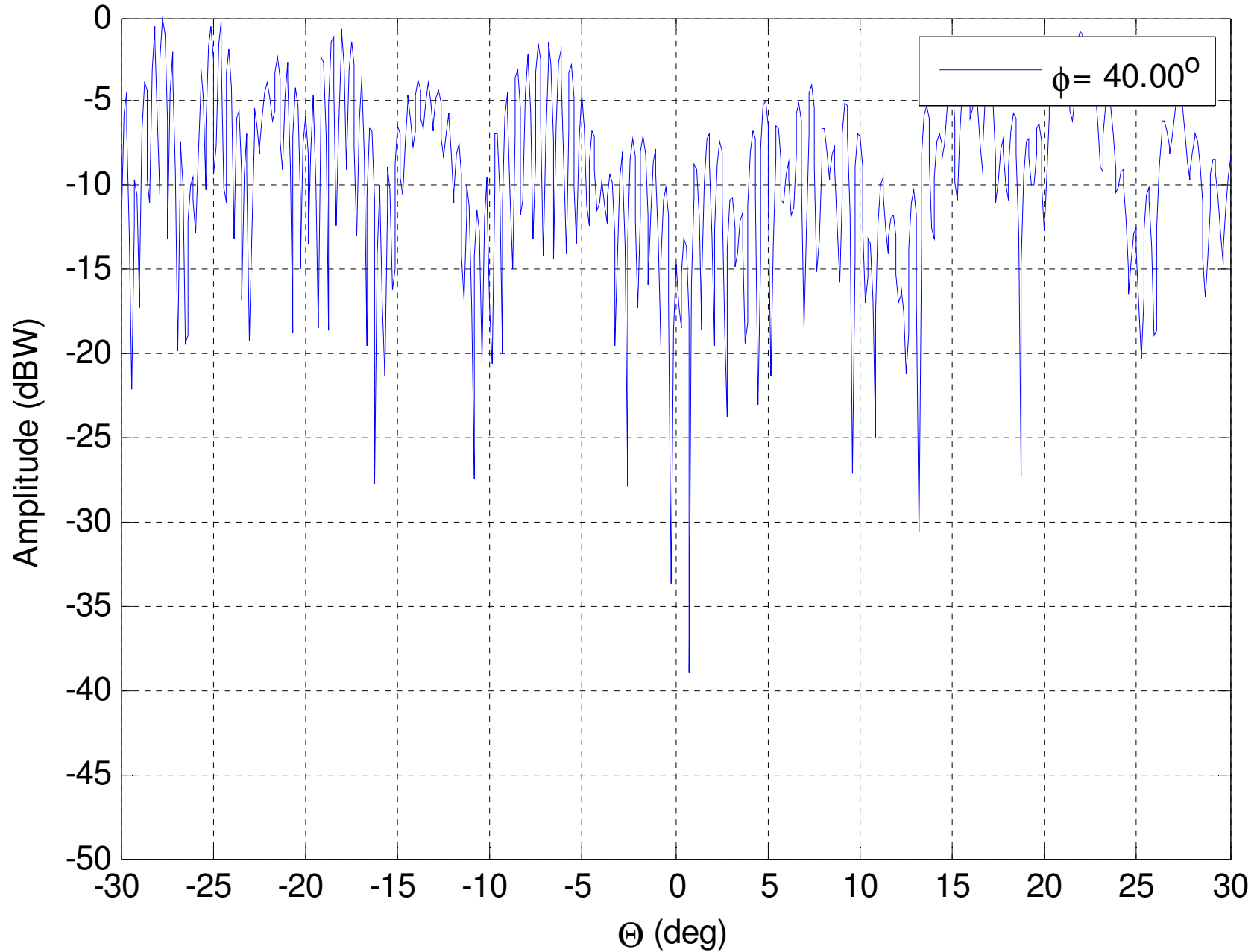
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: -3.82 dBW, Date: 15-Dec-2011



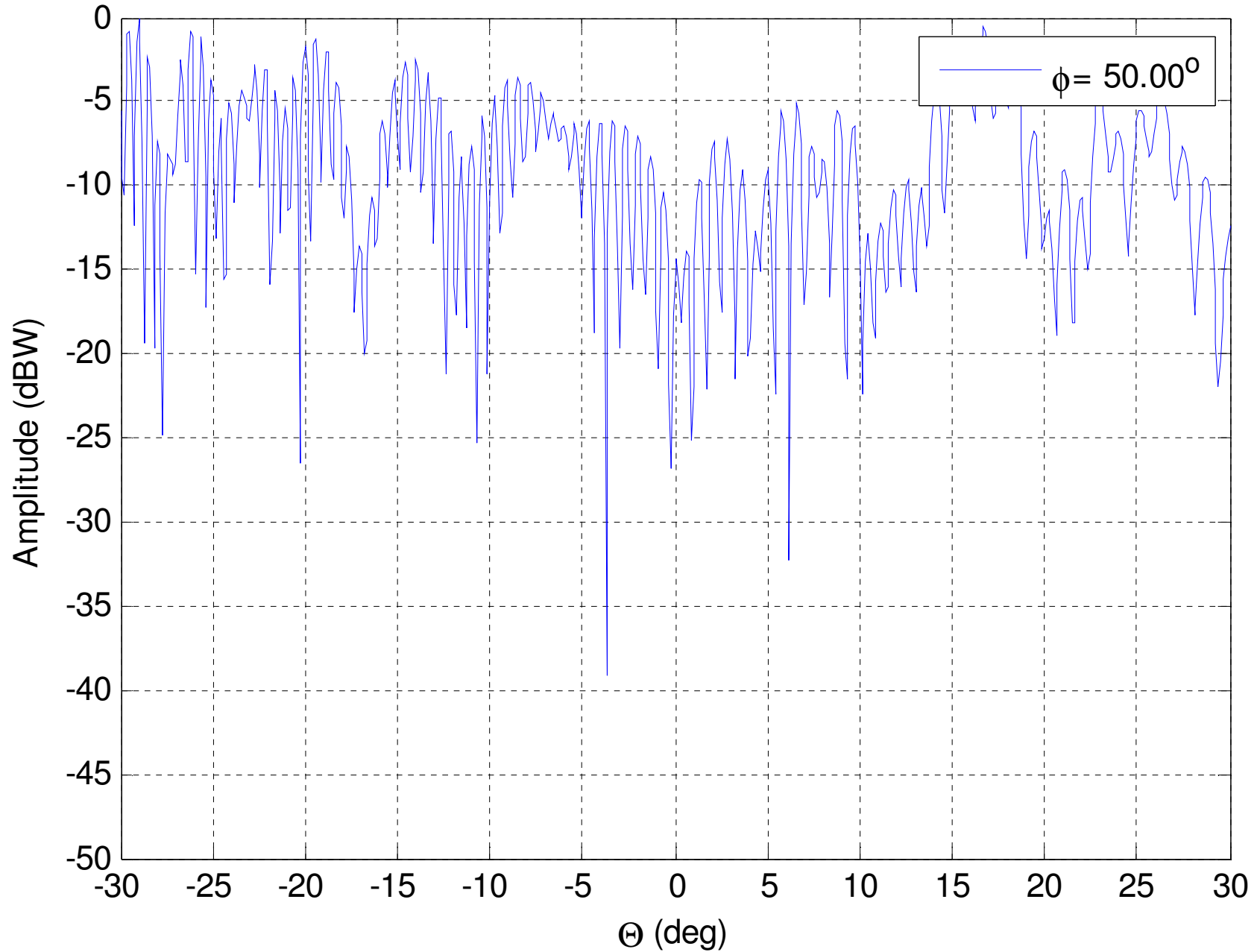
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -3.39 dBW, Date: 15-Dec-2011



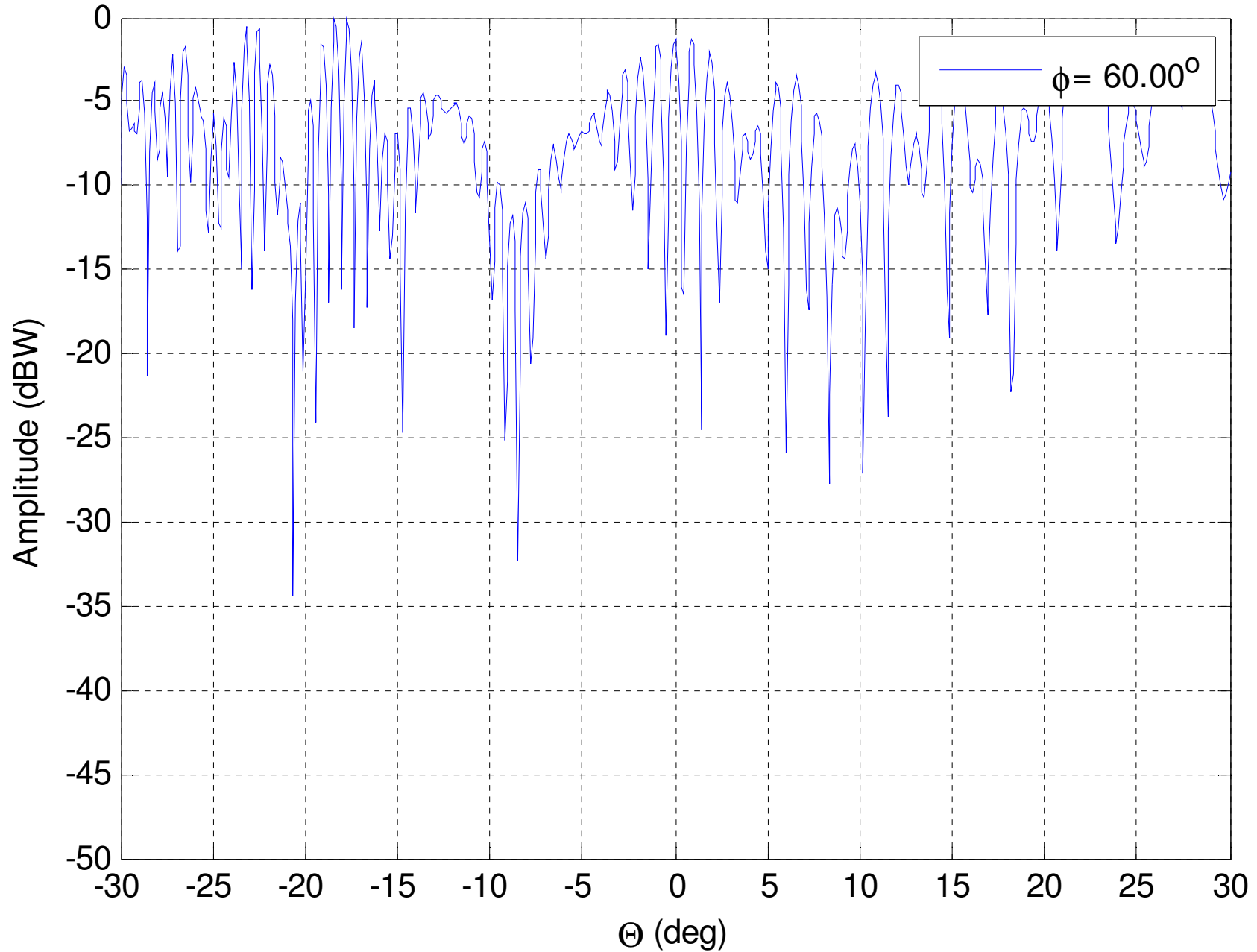
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -3.39 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -4.78 dBW, Date: 15-Dec-2011



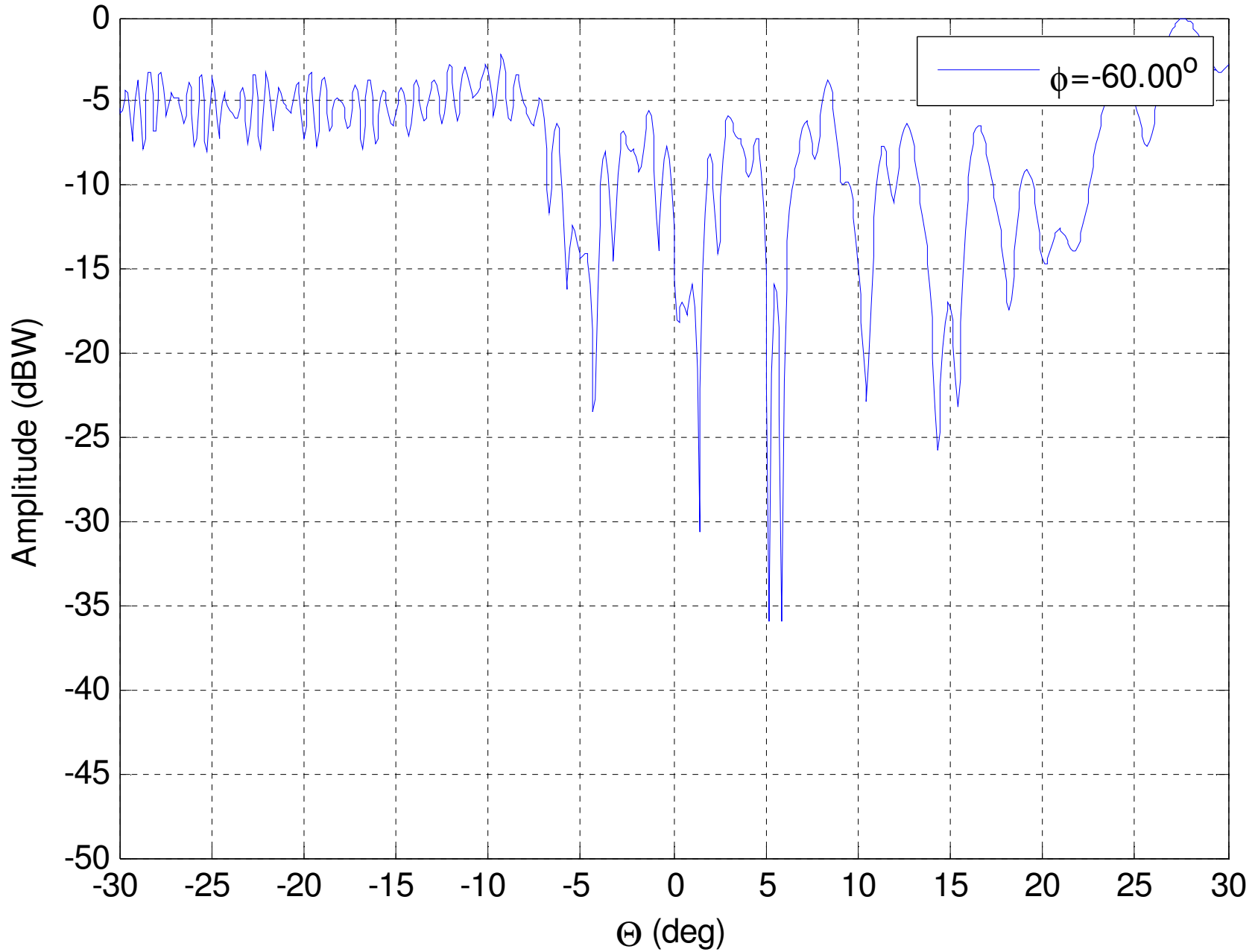
Spot Beam36, +X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: = +X-axis)
- $-60 < \phi < 60$
- Freq = 17.305, 17.5, and 17.695 GHz
- The Zero reference line is the maximum EIRP listed in the title of each plot sheet. All levels are below the required 15.4 dBW maximum
- The Zero reference for the maximum antenna gain is the maximum EIRP listed minus the power input to the antenna specified in Table I of the attached narrative.

RHCP at 17.3 GHz

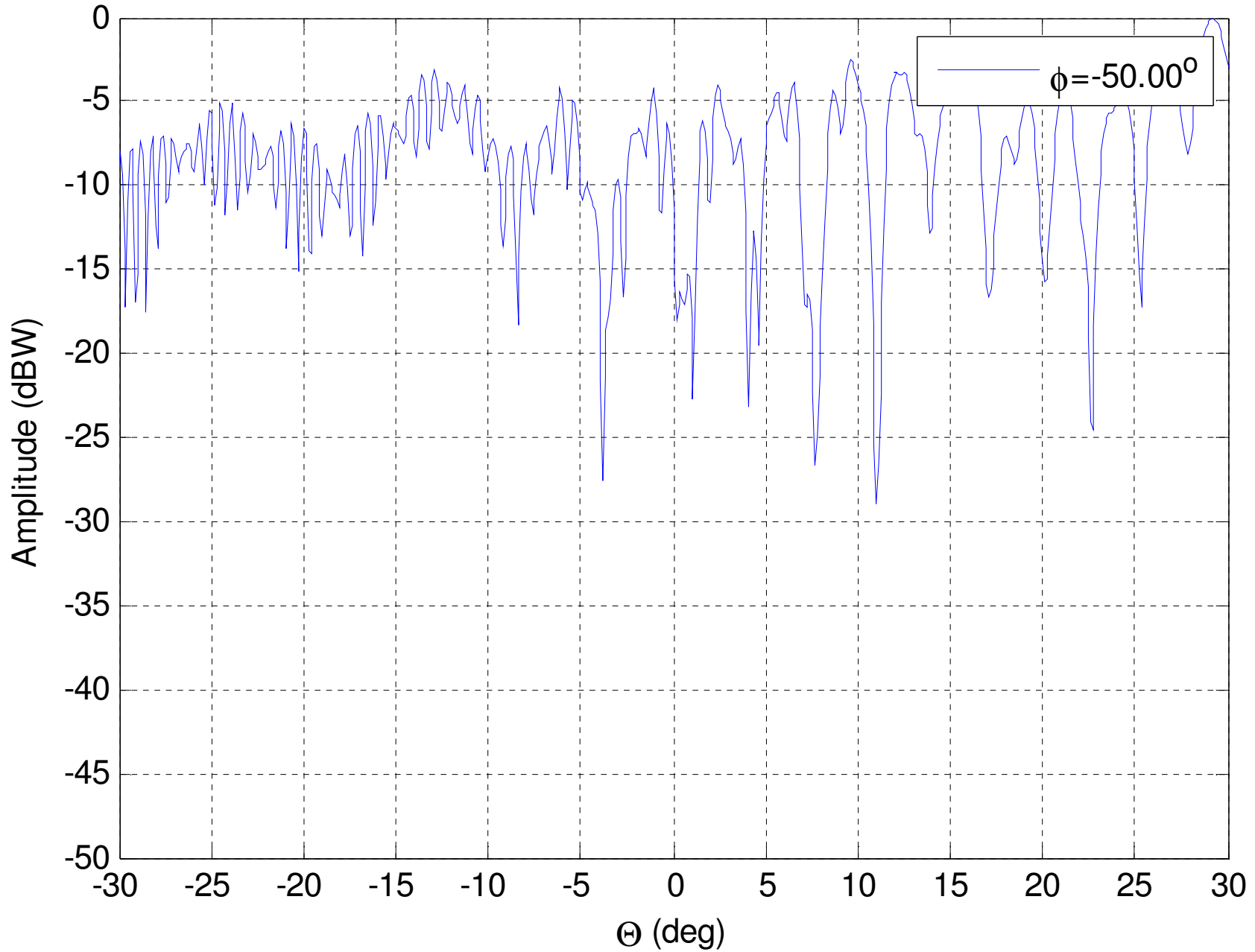
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -4.52 dBW, Date: 15-Dec-2011



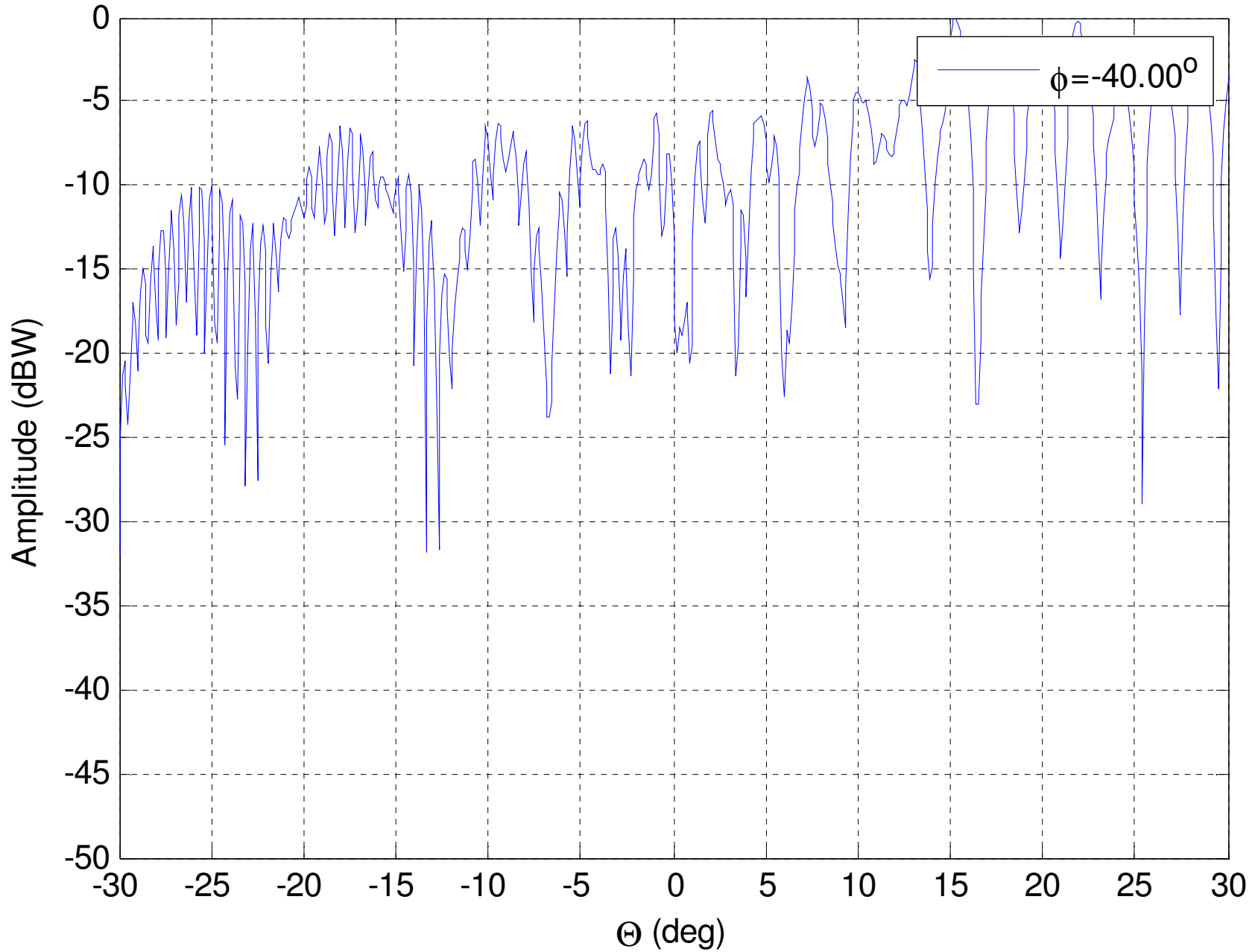
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -5.54 dBW, Date: 15-Dec-2011



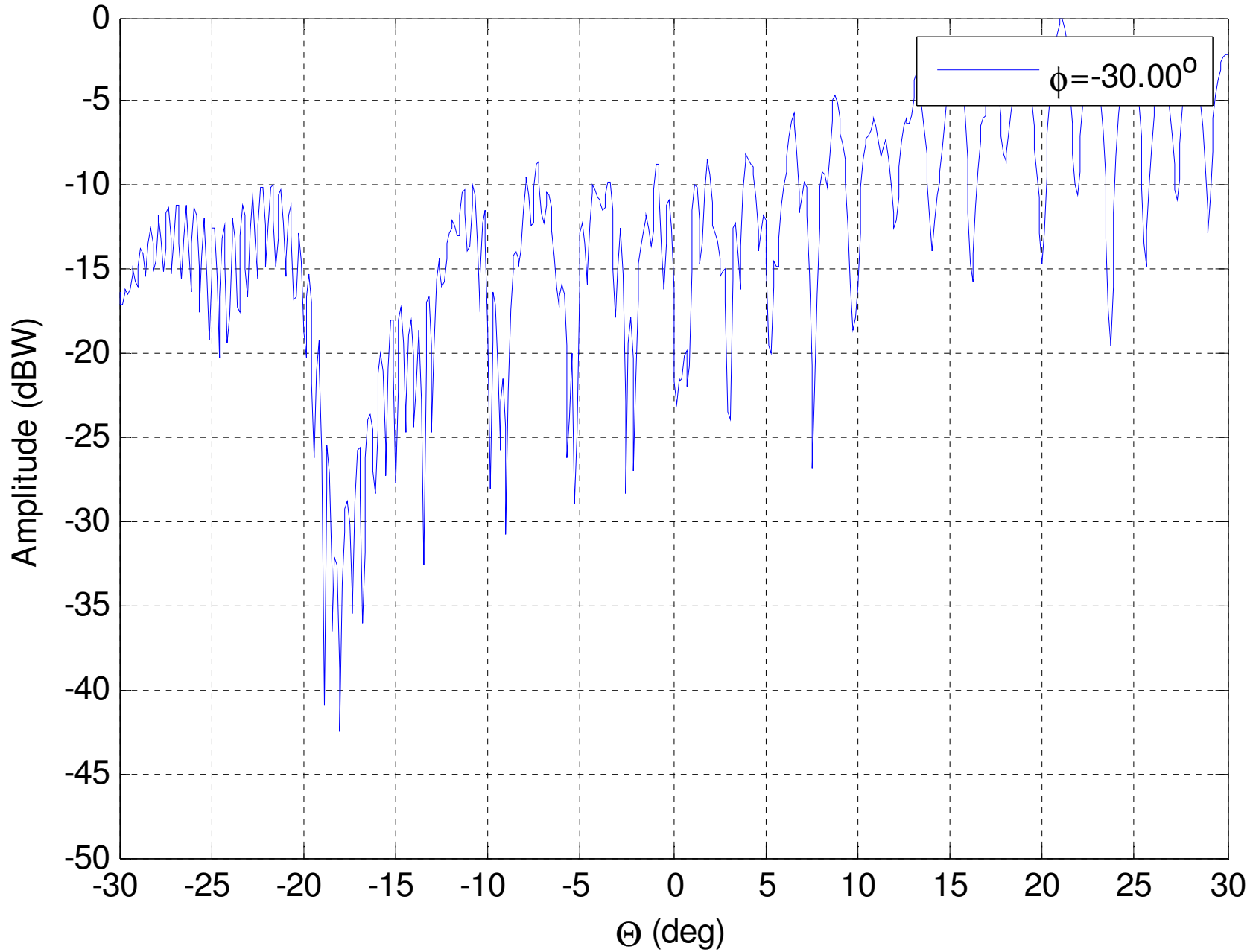
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -3.88 dBW, Date: 15-Dec-2011



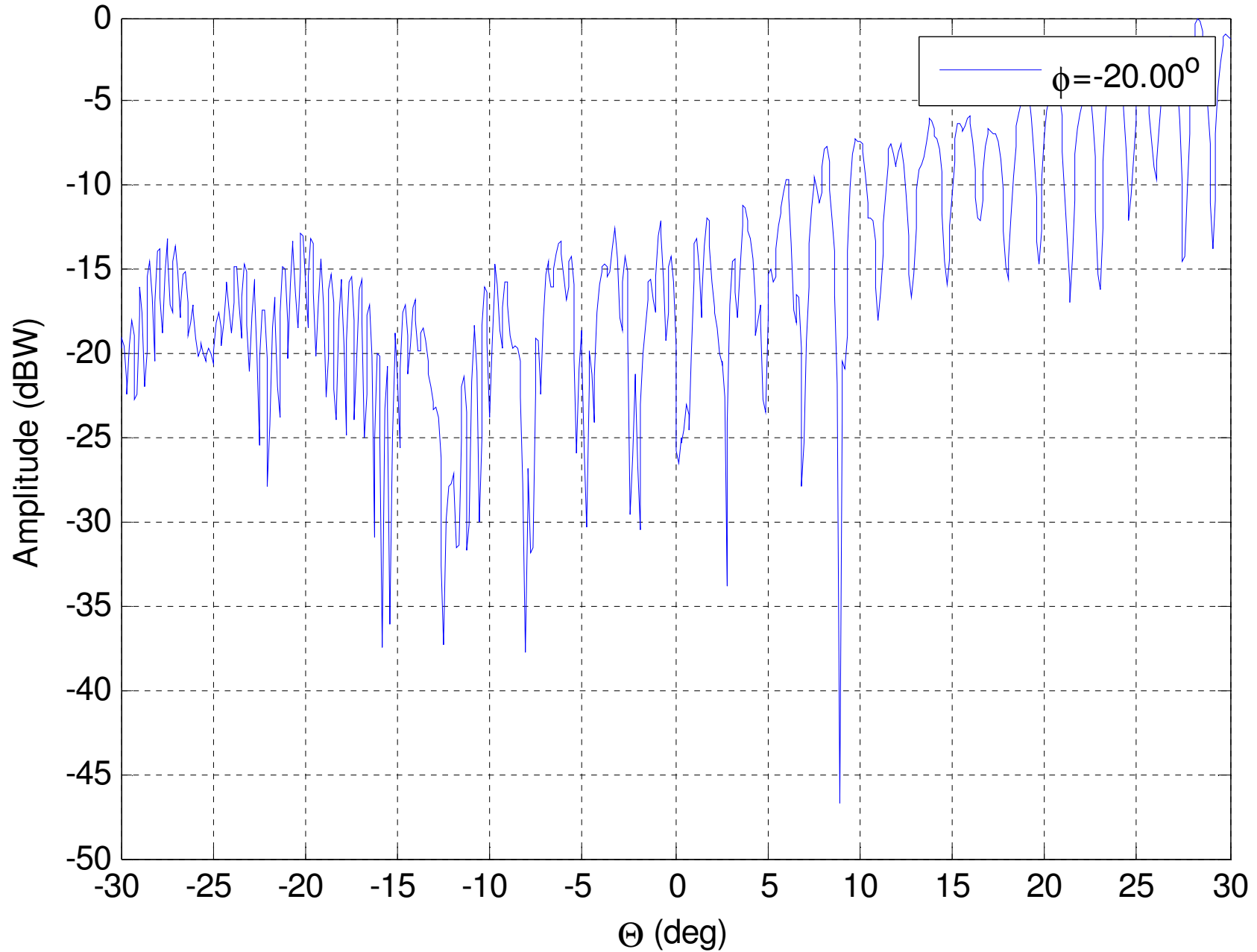
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -0.92 dBW, Date: 15-Dec-2011



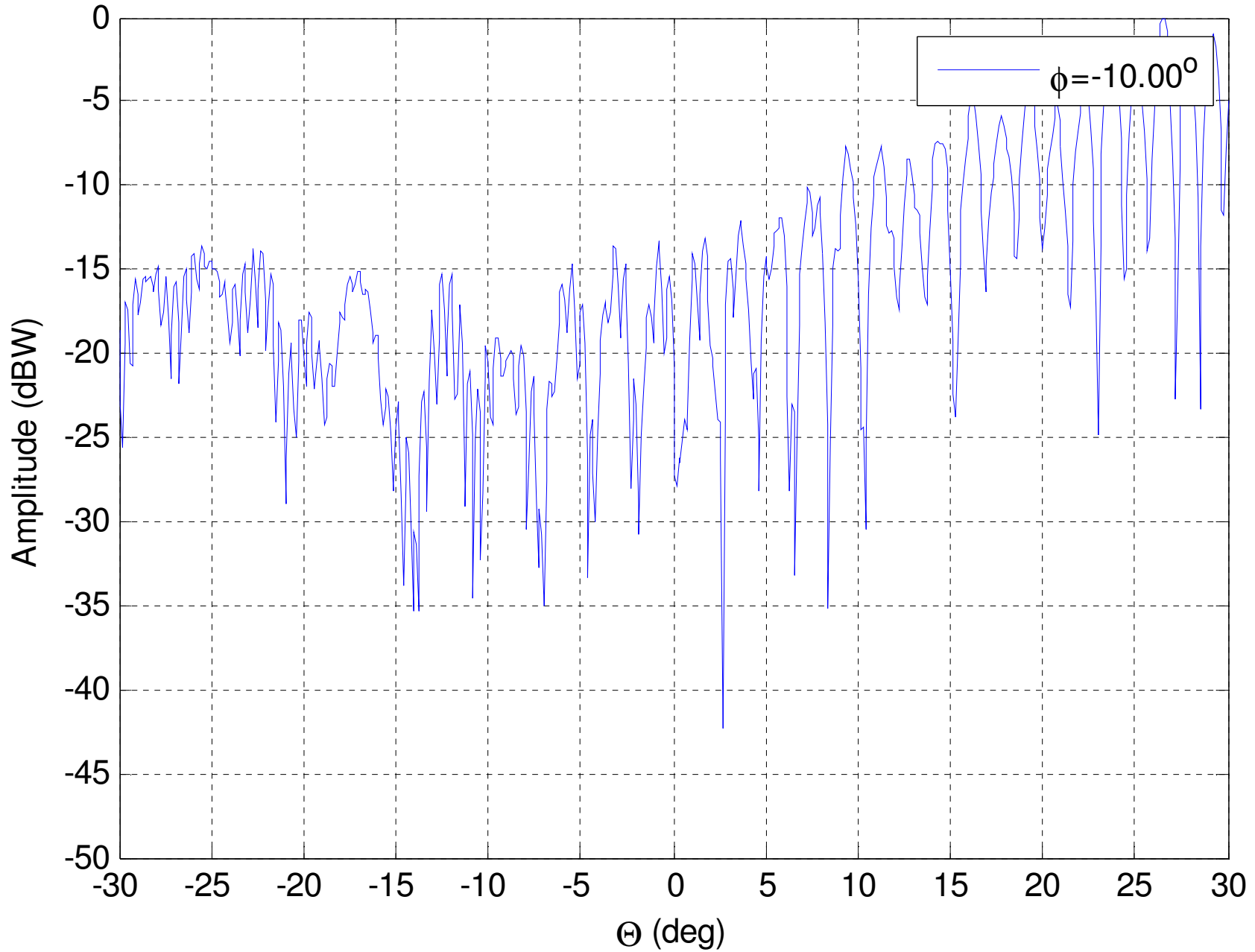
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: 2.53 dBW, Date: 15-Dec-2011



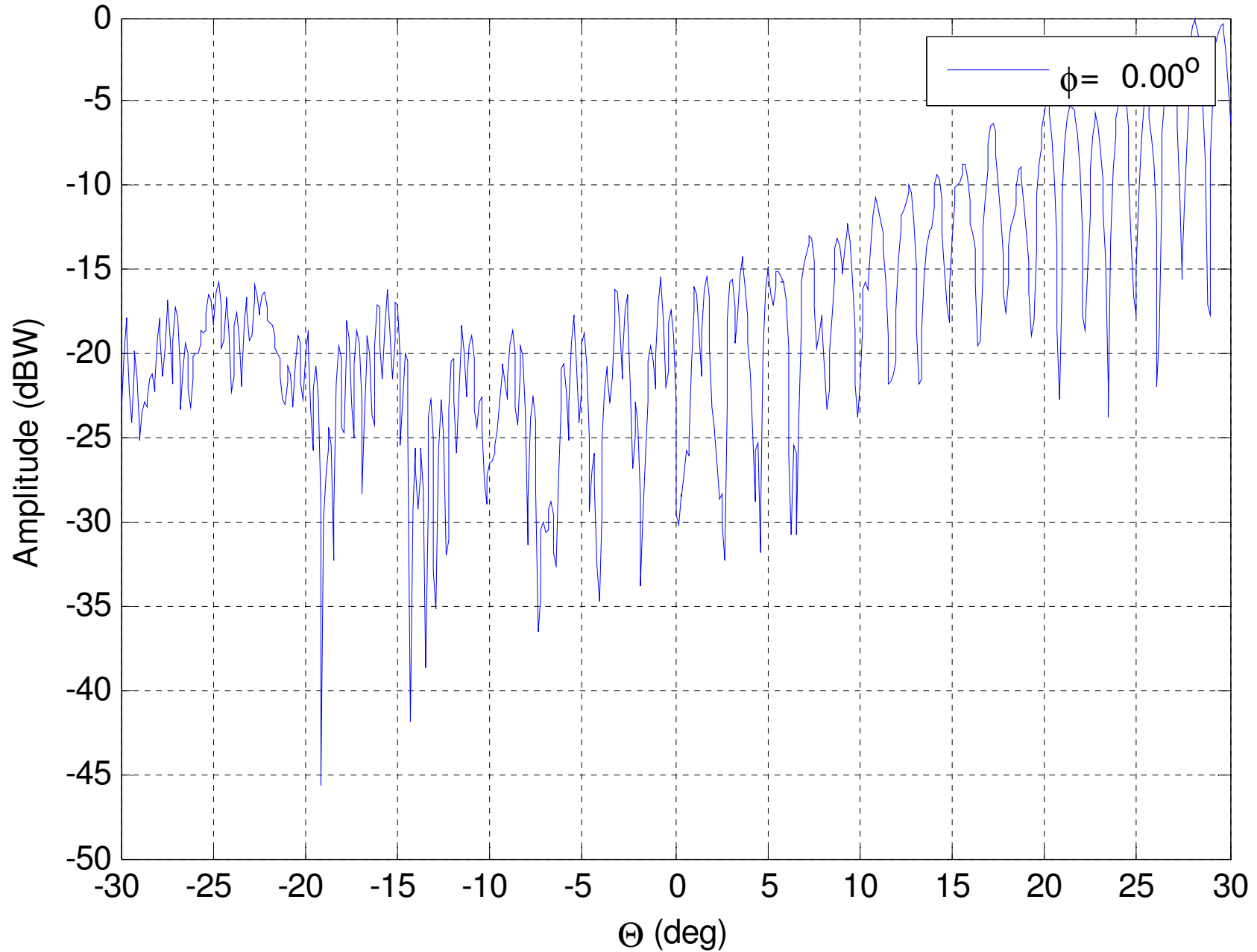
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: 3.77 dBW, Date: 15-Dec-2011



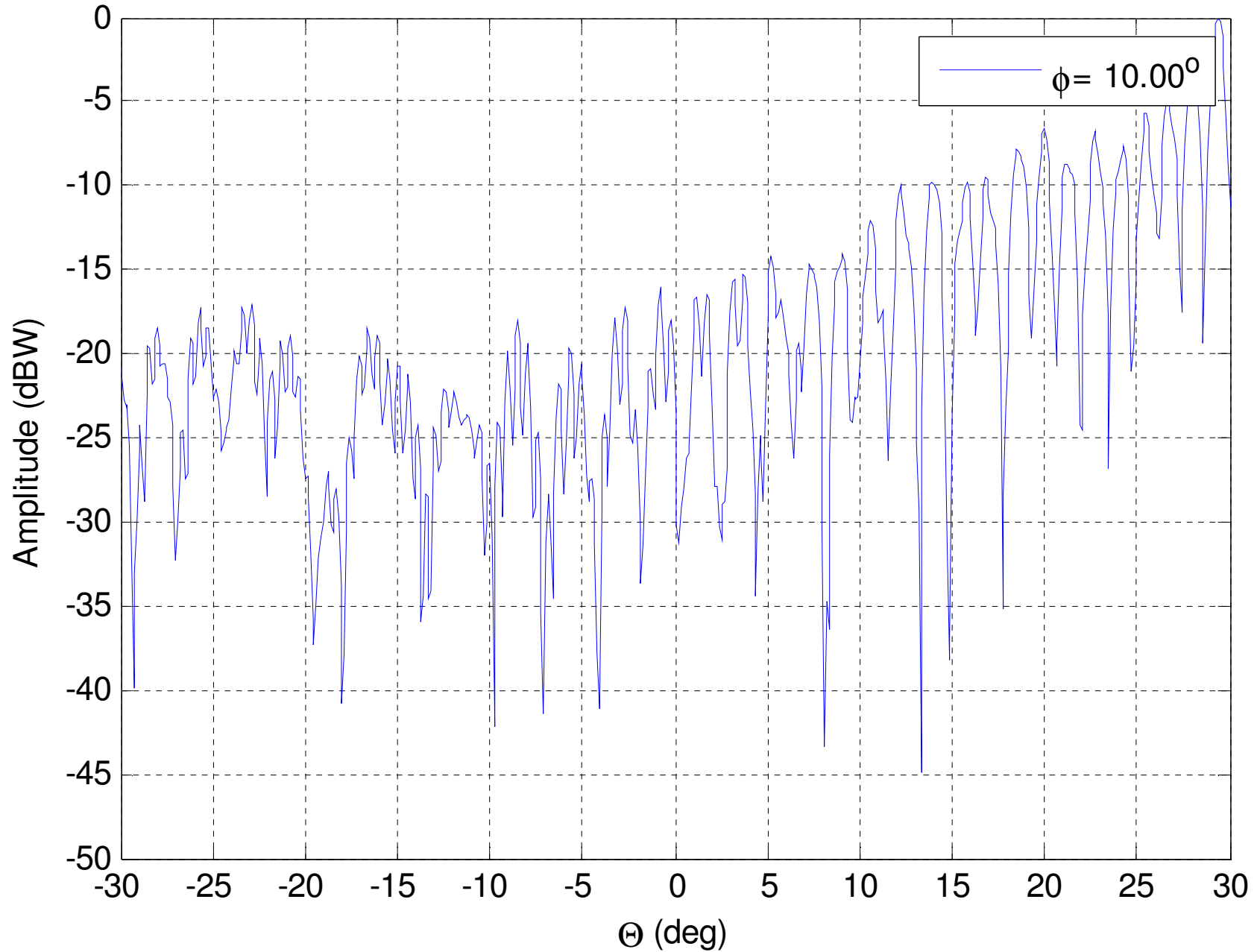
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: 5.83 dBW, Date: 15-Dec-2011



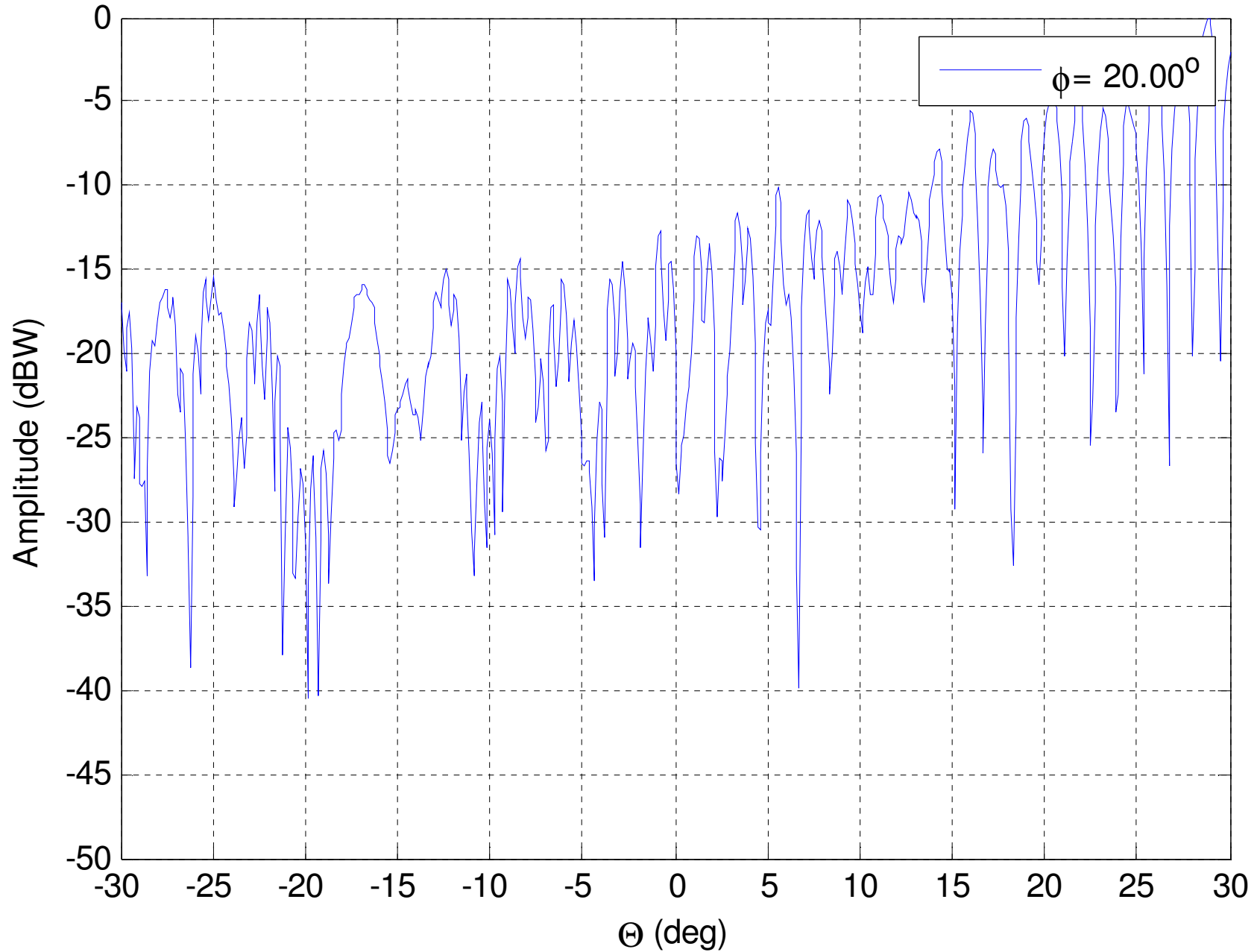
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: 6.46 dBW, Date: 15-Dec-2011



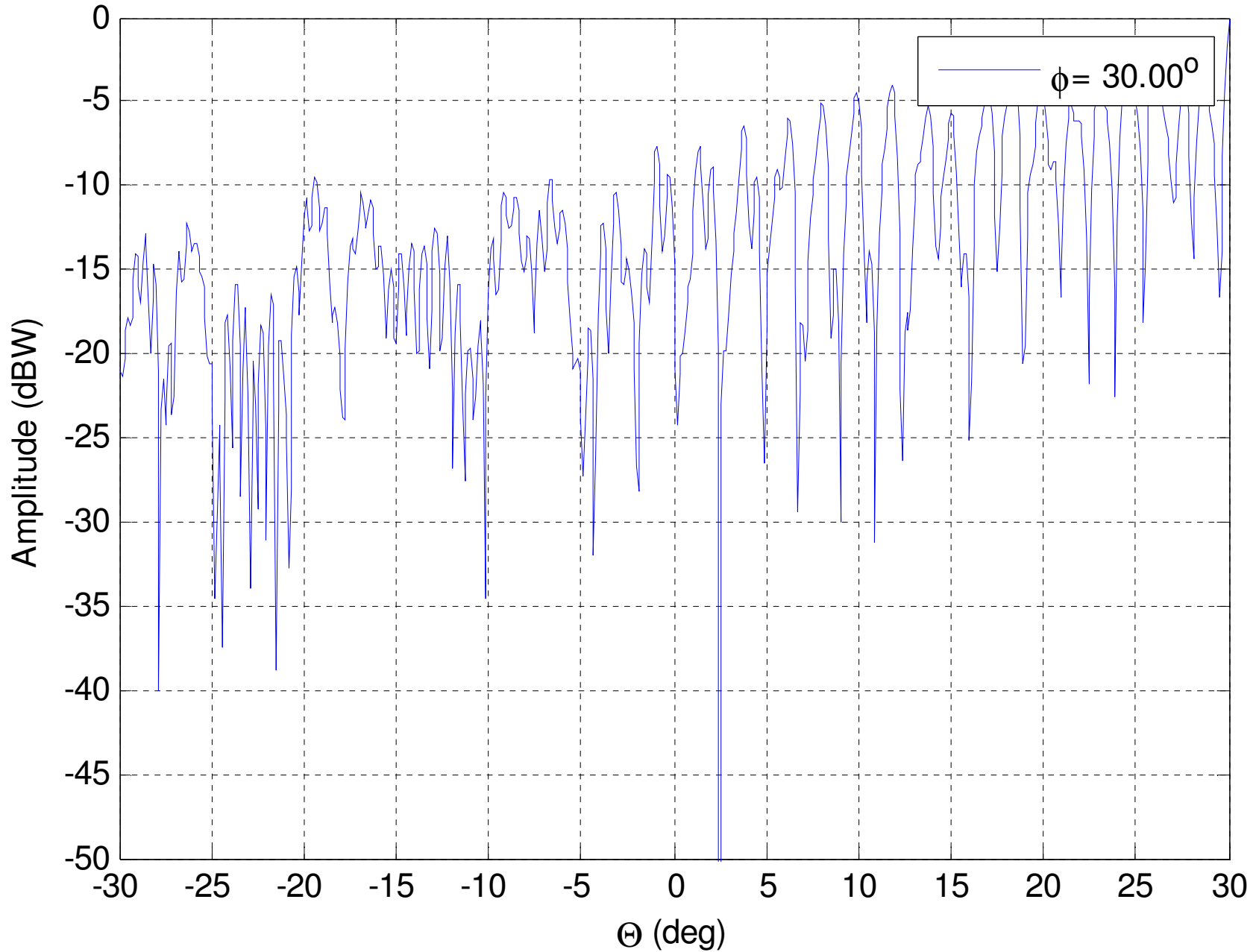
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: 2.94 dBW, Date: 15-Dec-2011



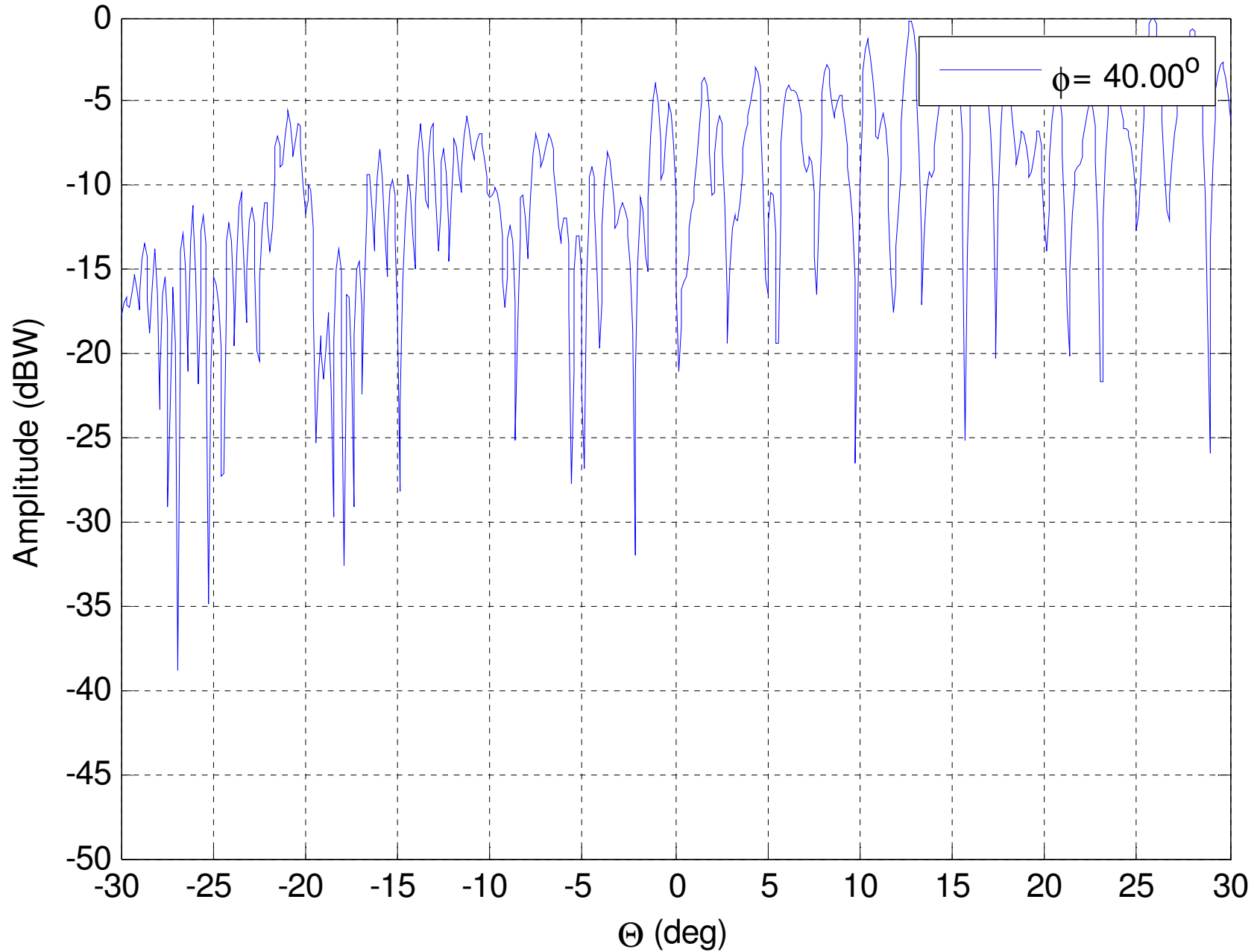
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: -2.17 dBW, Date: 15-Dec-2011



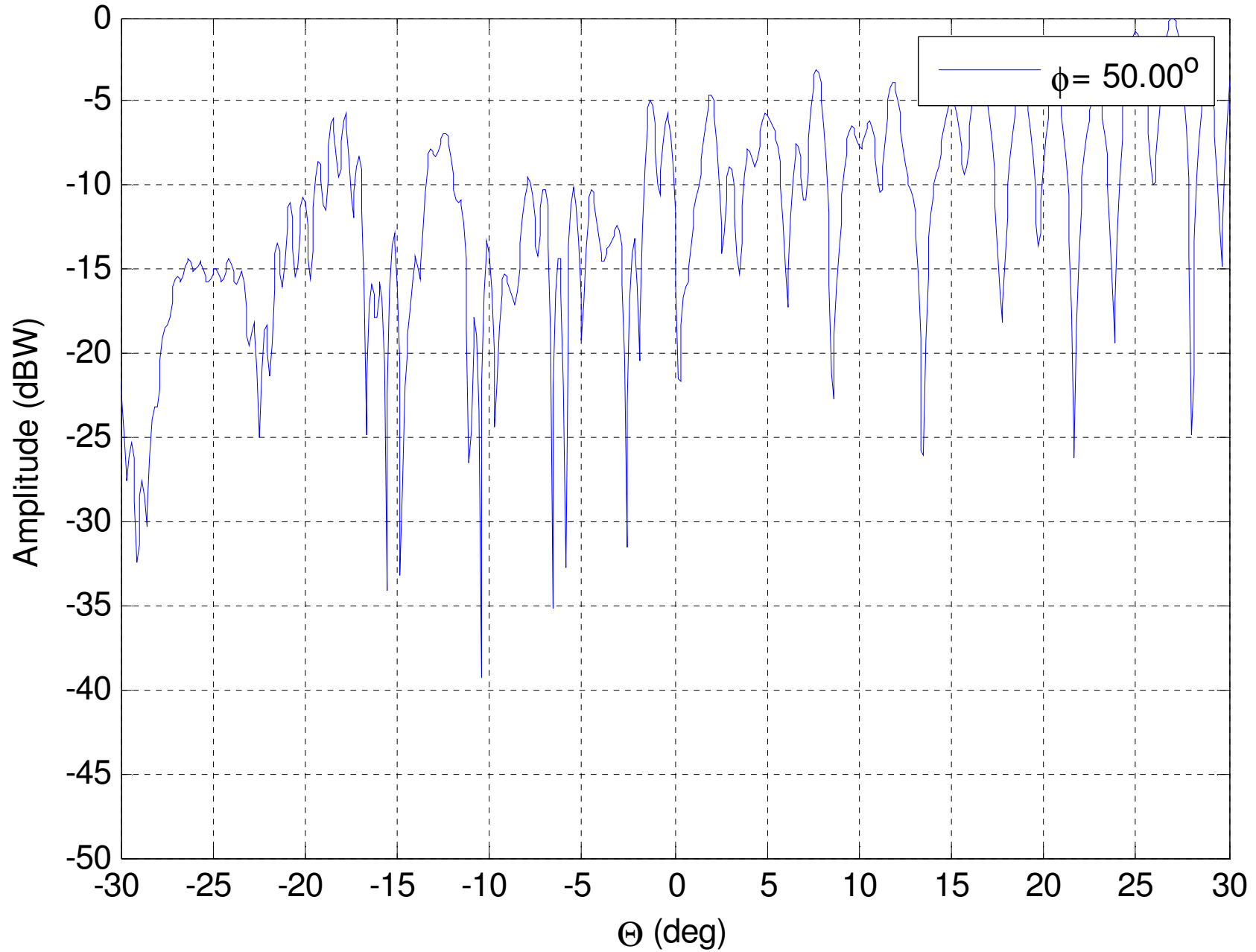
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -6.27 dBW, Date: 15-Dec-2011



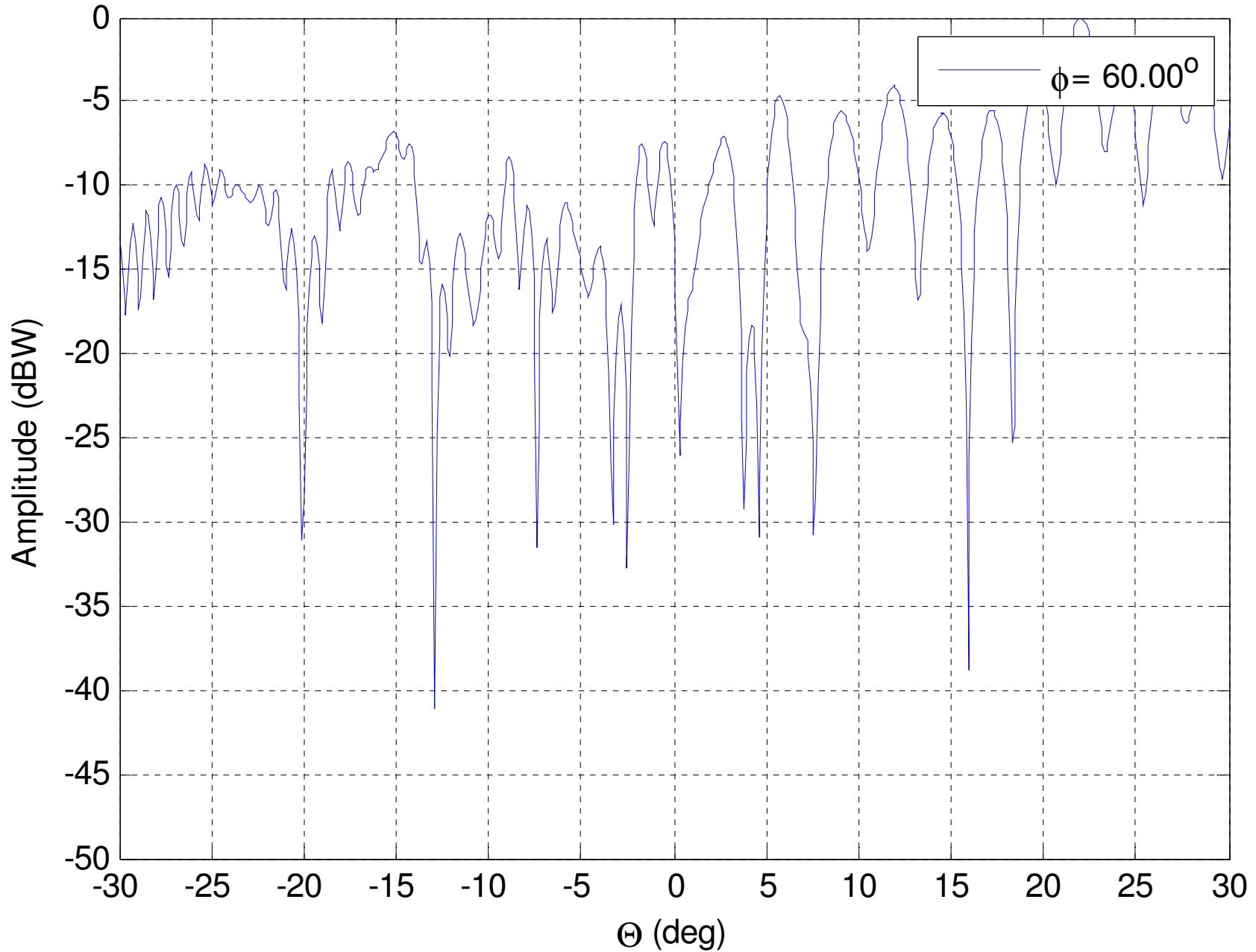
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -5.49 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

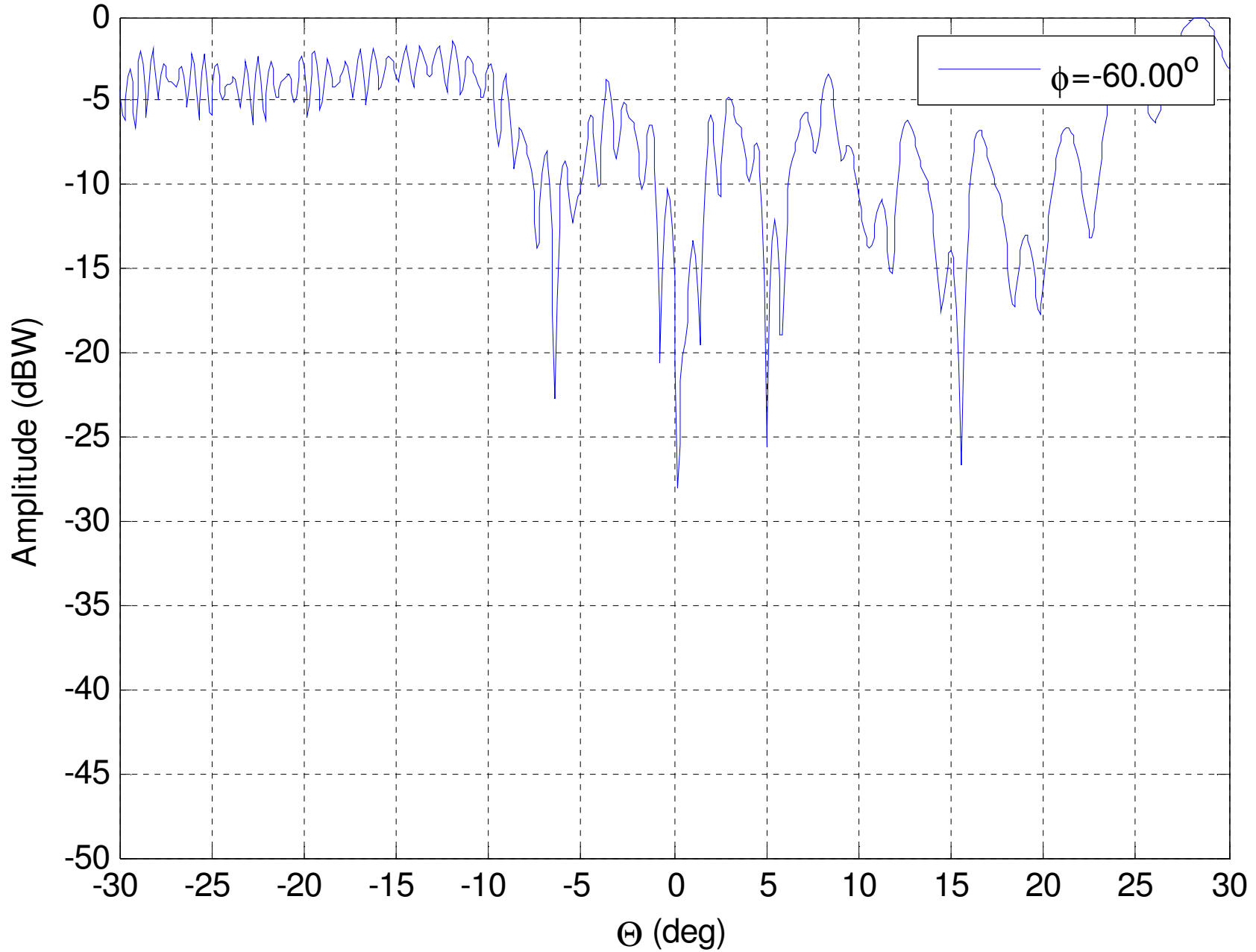
Input file: tx-17.3-rhcp-60.cut, Peak: -3.78 dBW, Date: 15-Dec-2011



LHCP at 17.3 GHz

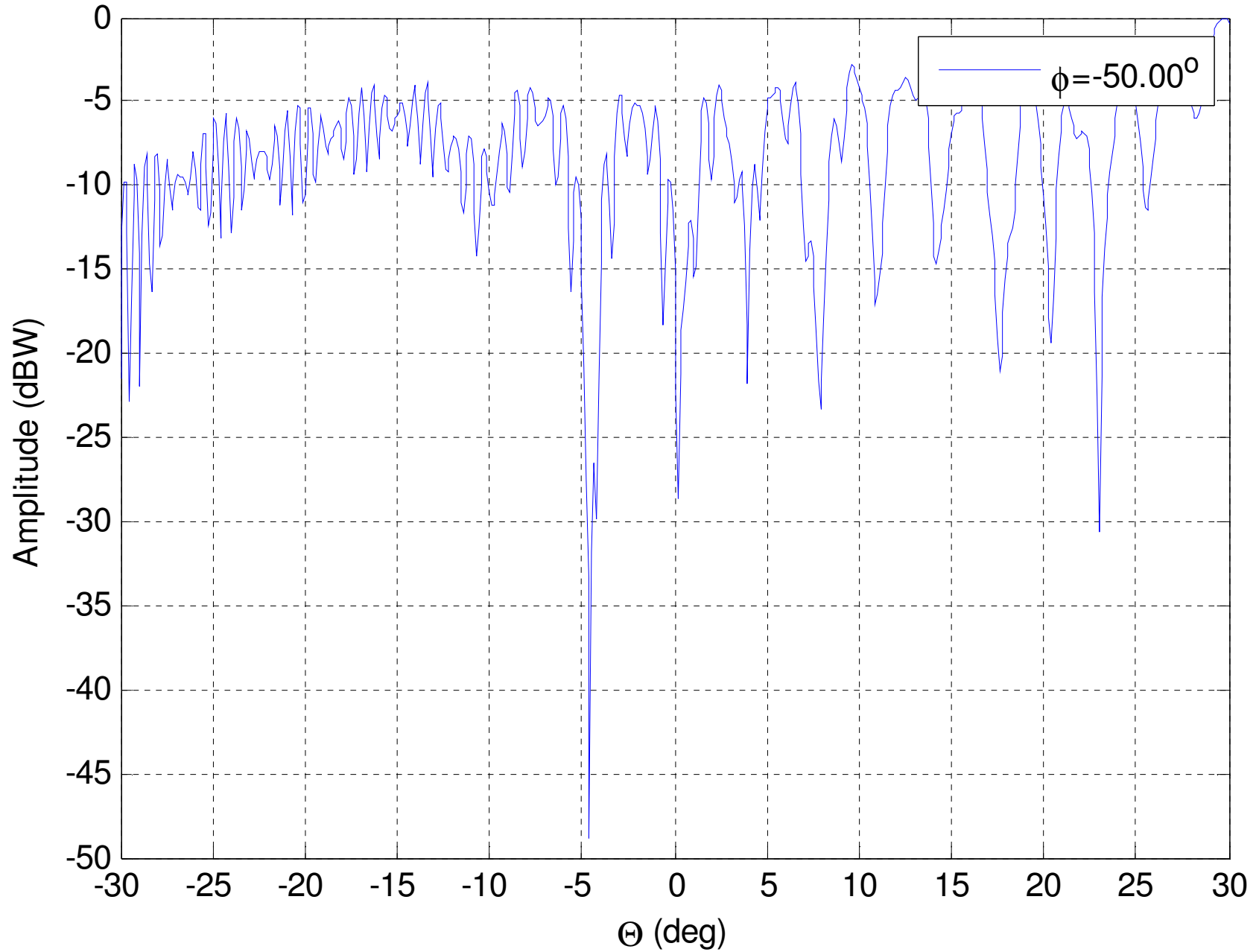
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -5.05 dBW, Date: 15-Dec-2011



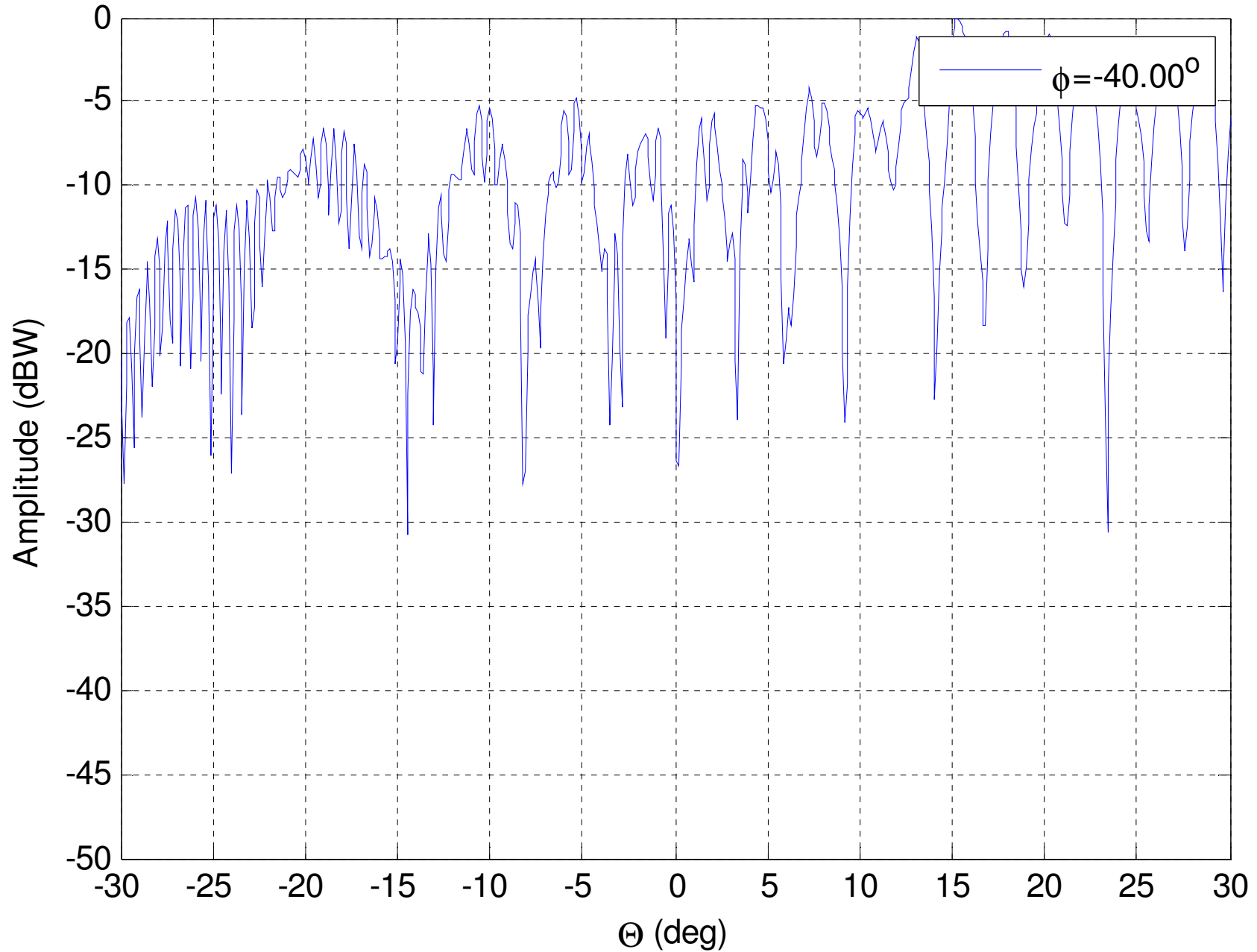
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -5.50 dBW, Date: 15-Dec-2011



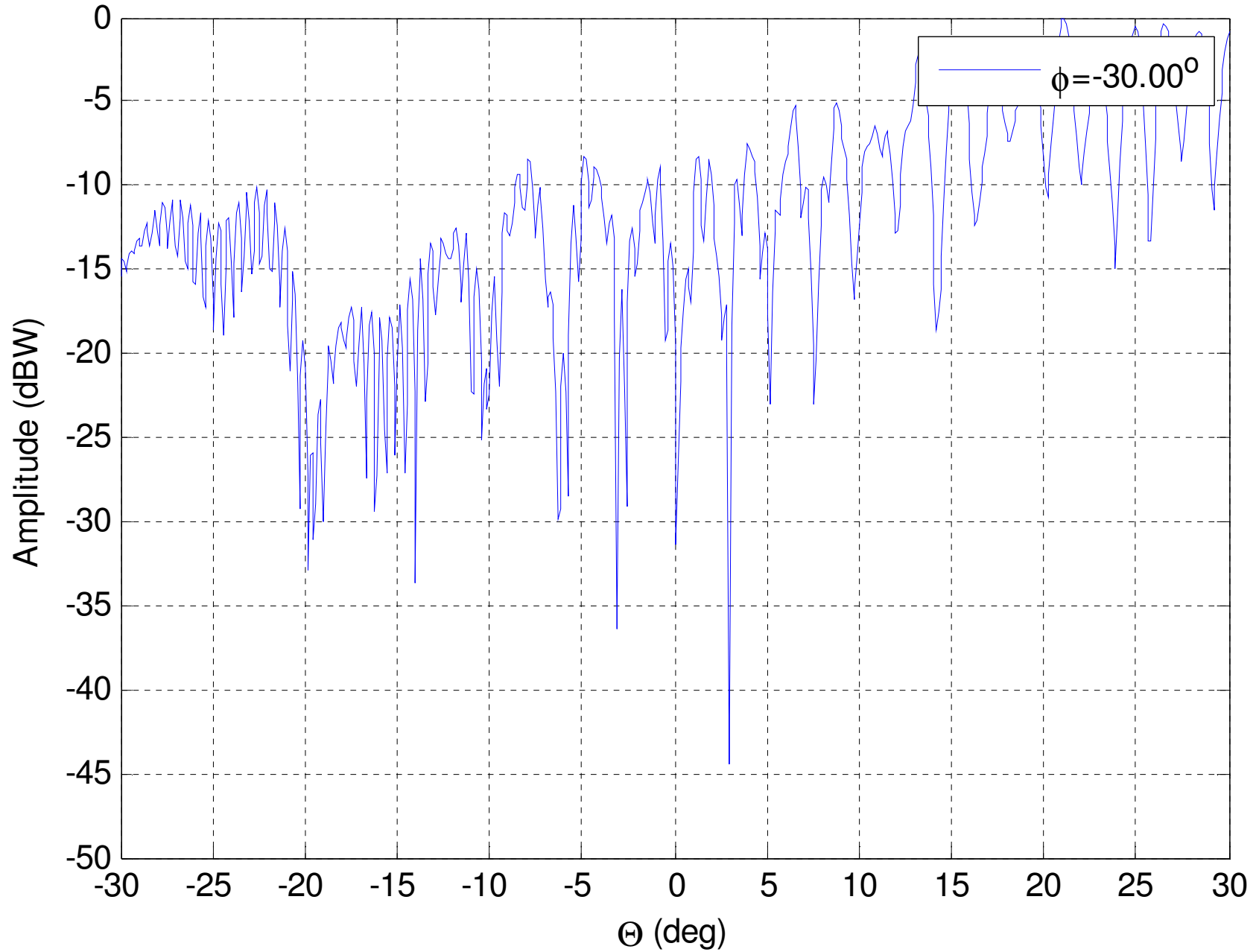
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -3.80 dBW, Date: 15-Dec-2011



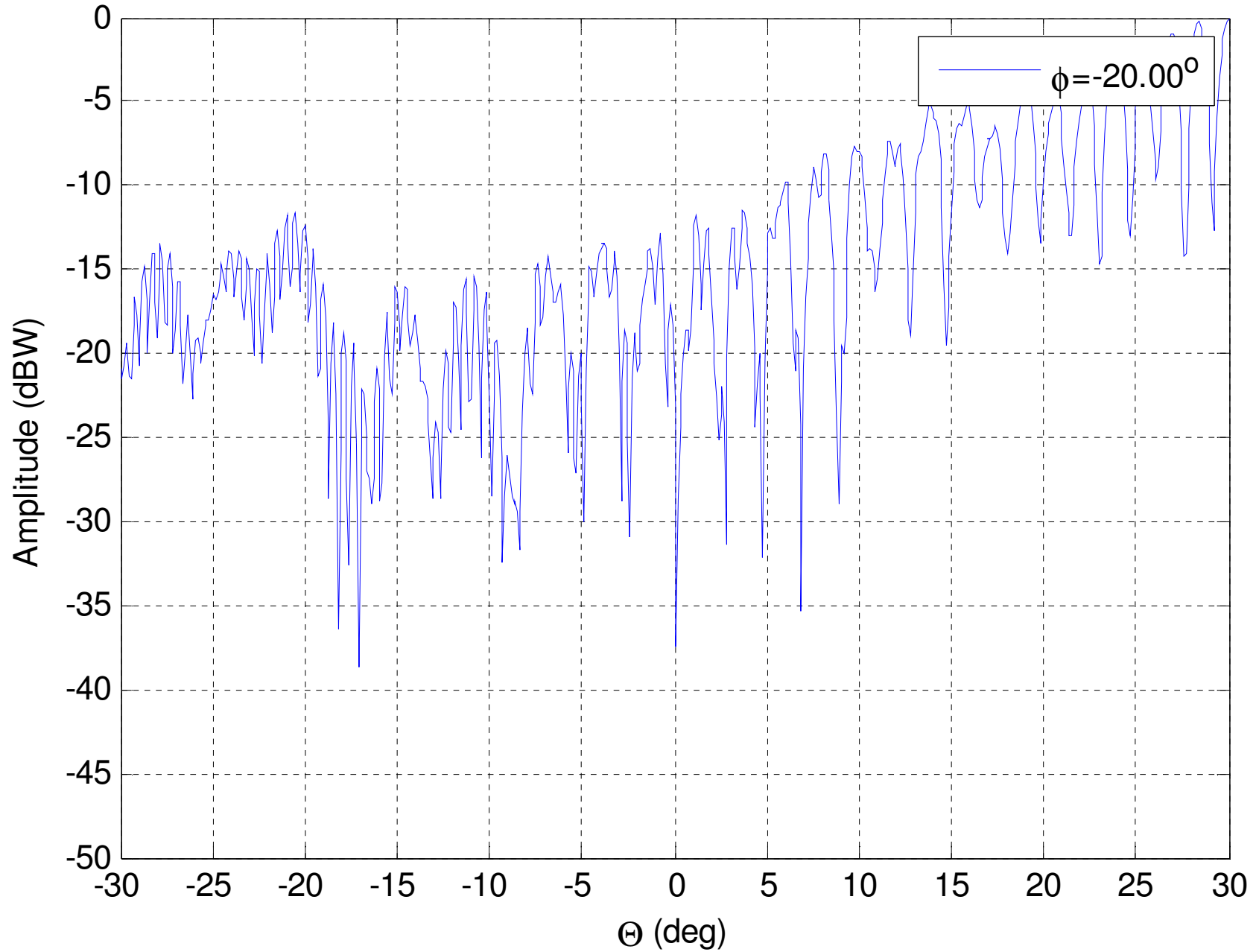
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: -1.34 dBW, Date: 15-Dec-2011



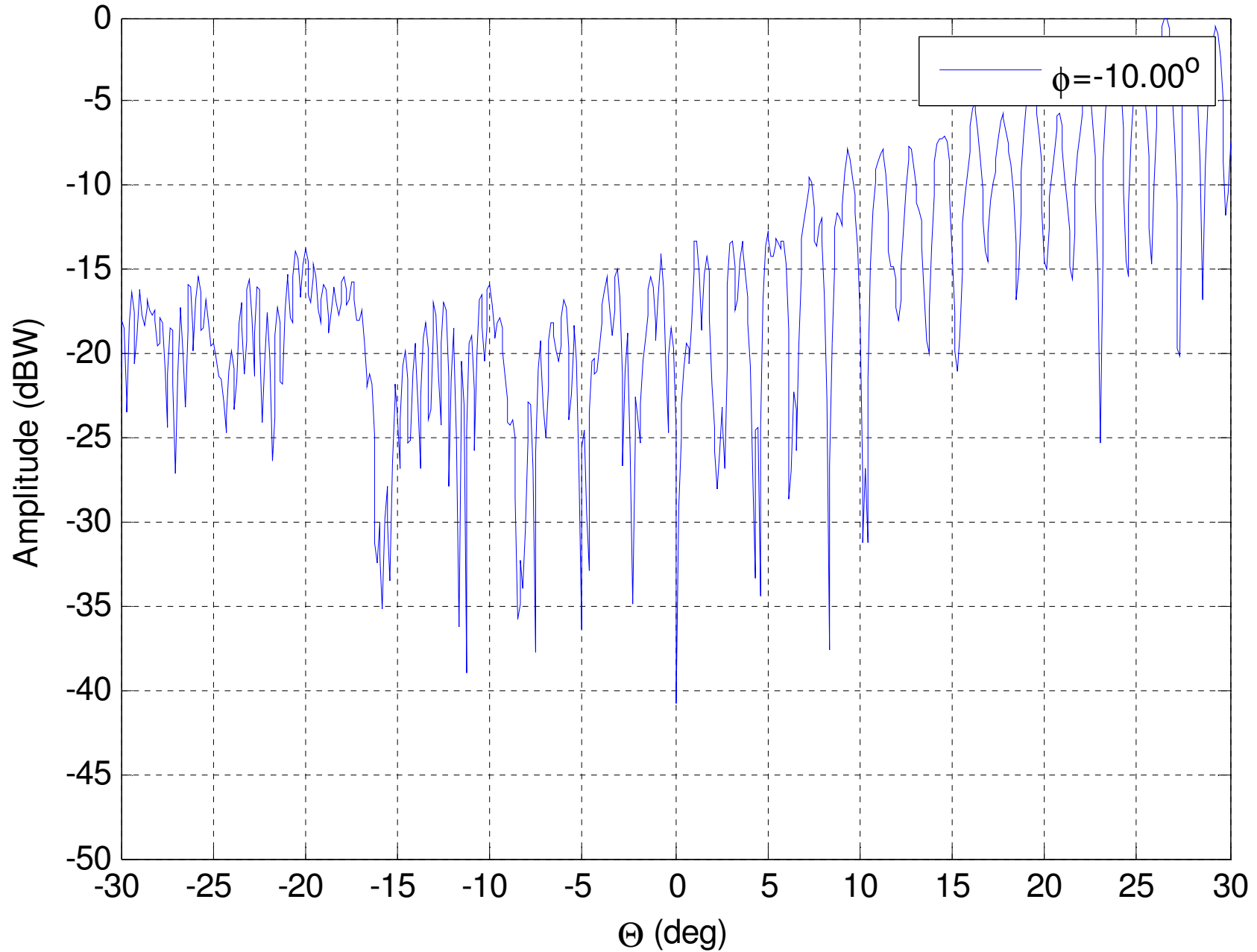
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: 2.45 dBW, Date: 15-Dec-2011



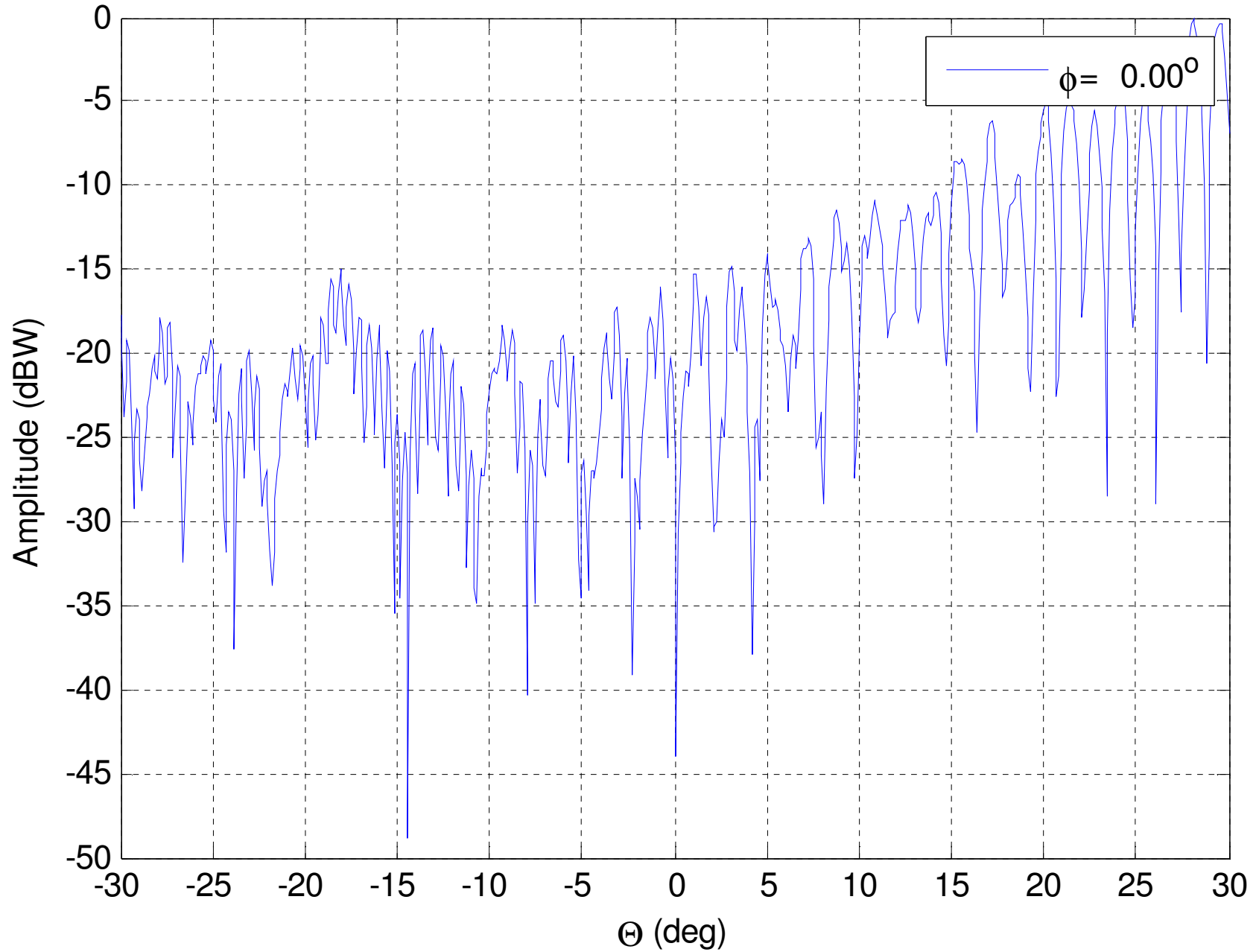
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: 3.84 dBW, Date: 15-Dec-2011



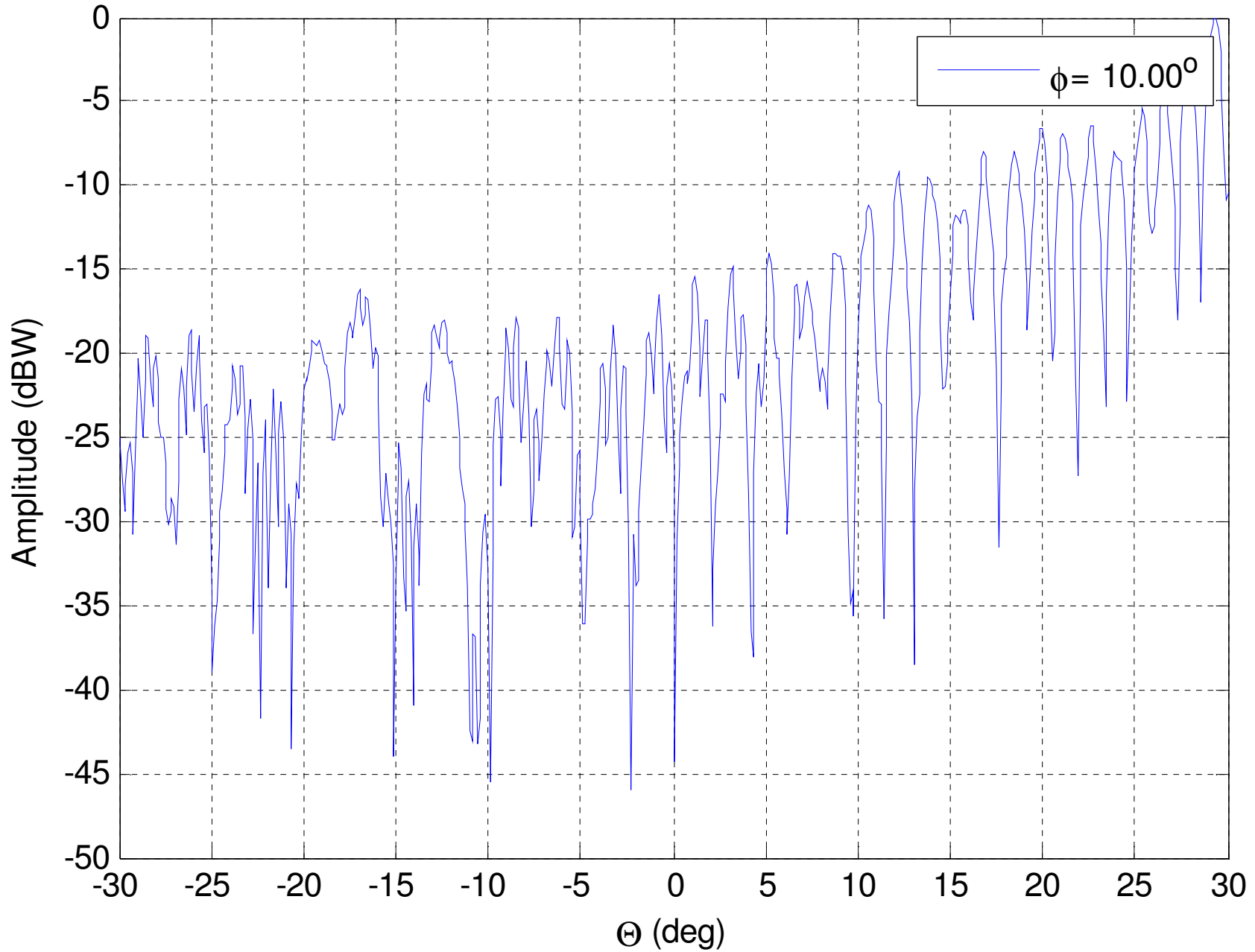
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: 5.85 dBW, Date: 15-Dec-2011



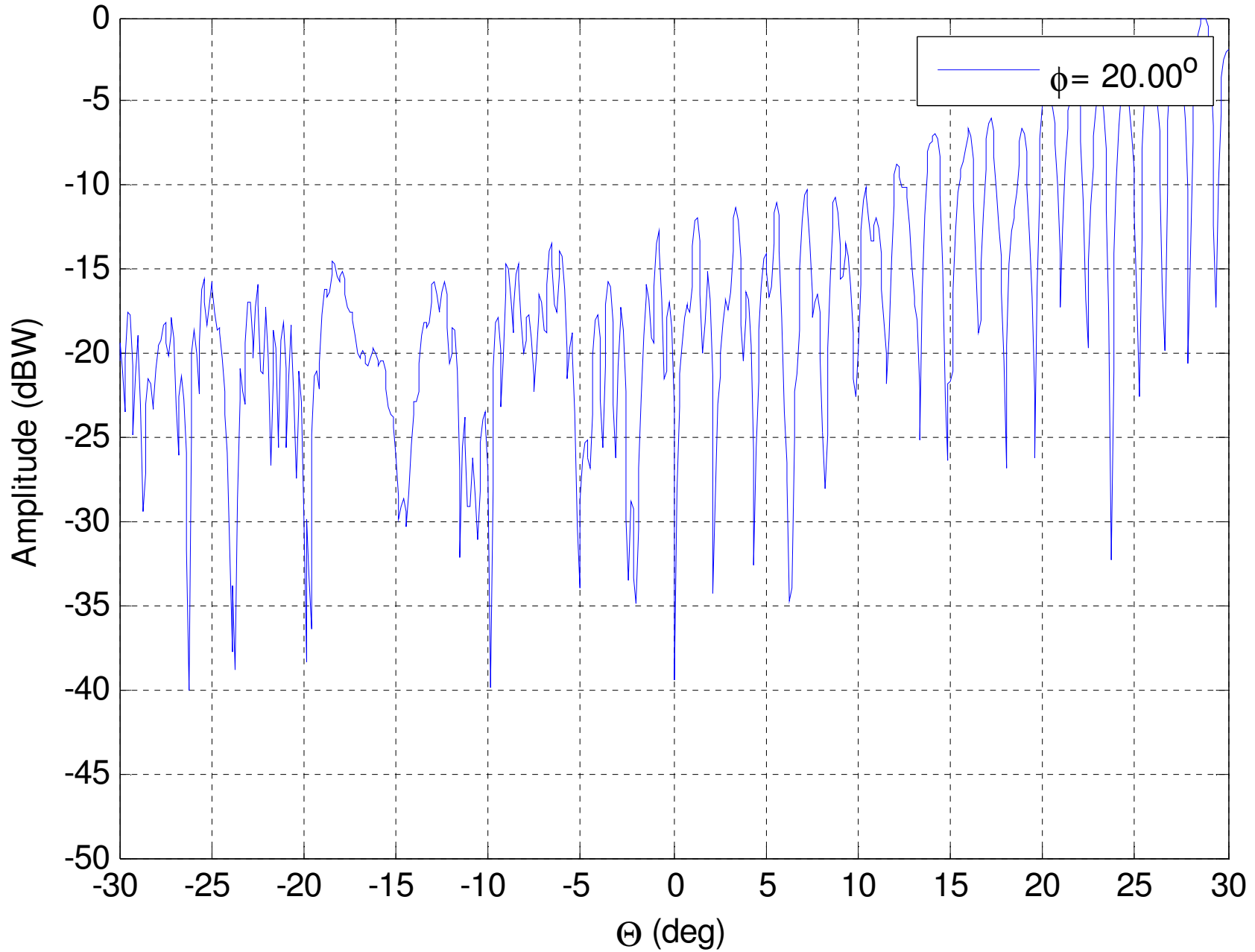
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: 6.22 dBW, Date: 15-Dec-2011



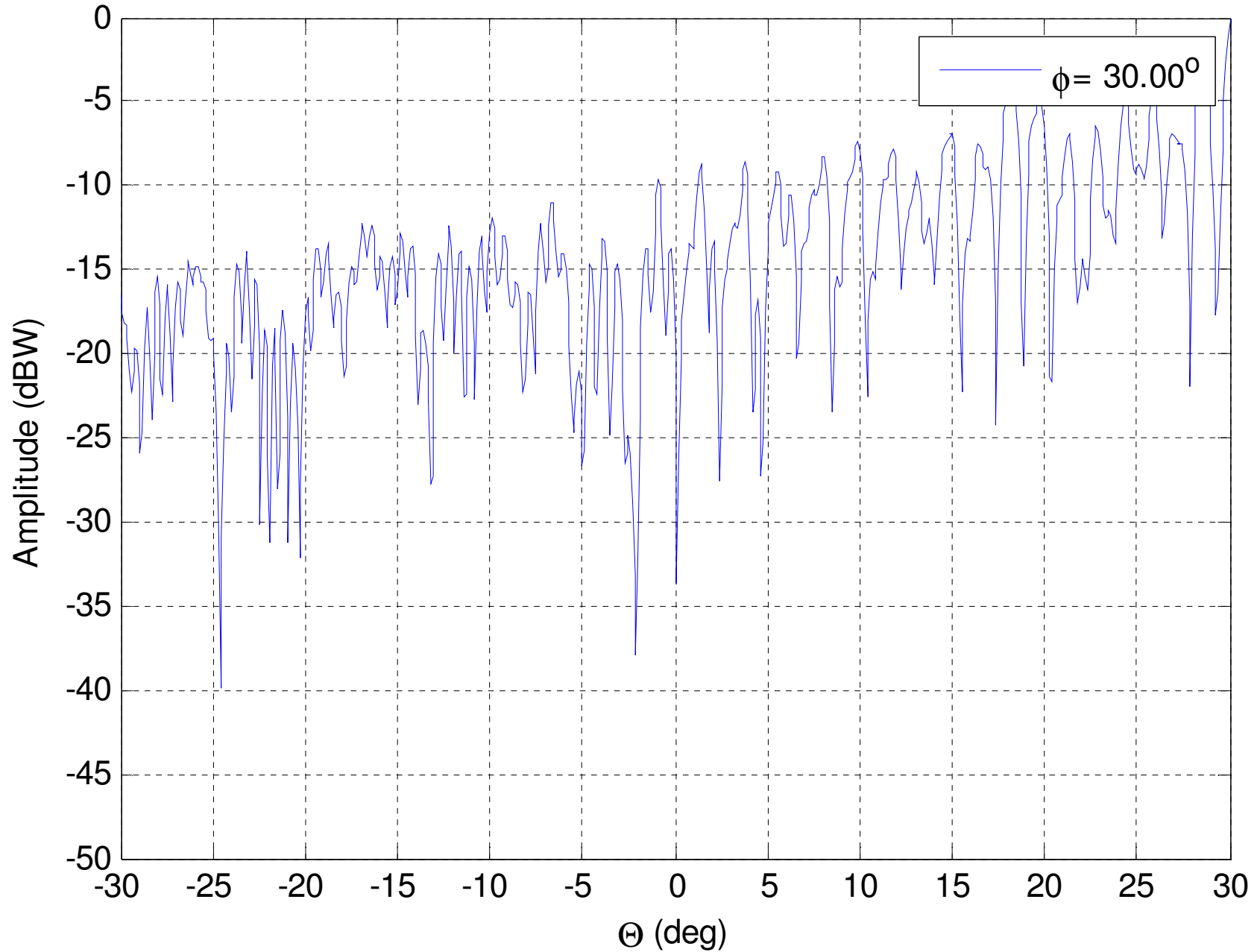
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: 2.66 dBW, Date: 15-Dec-2011



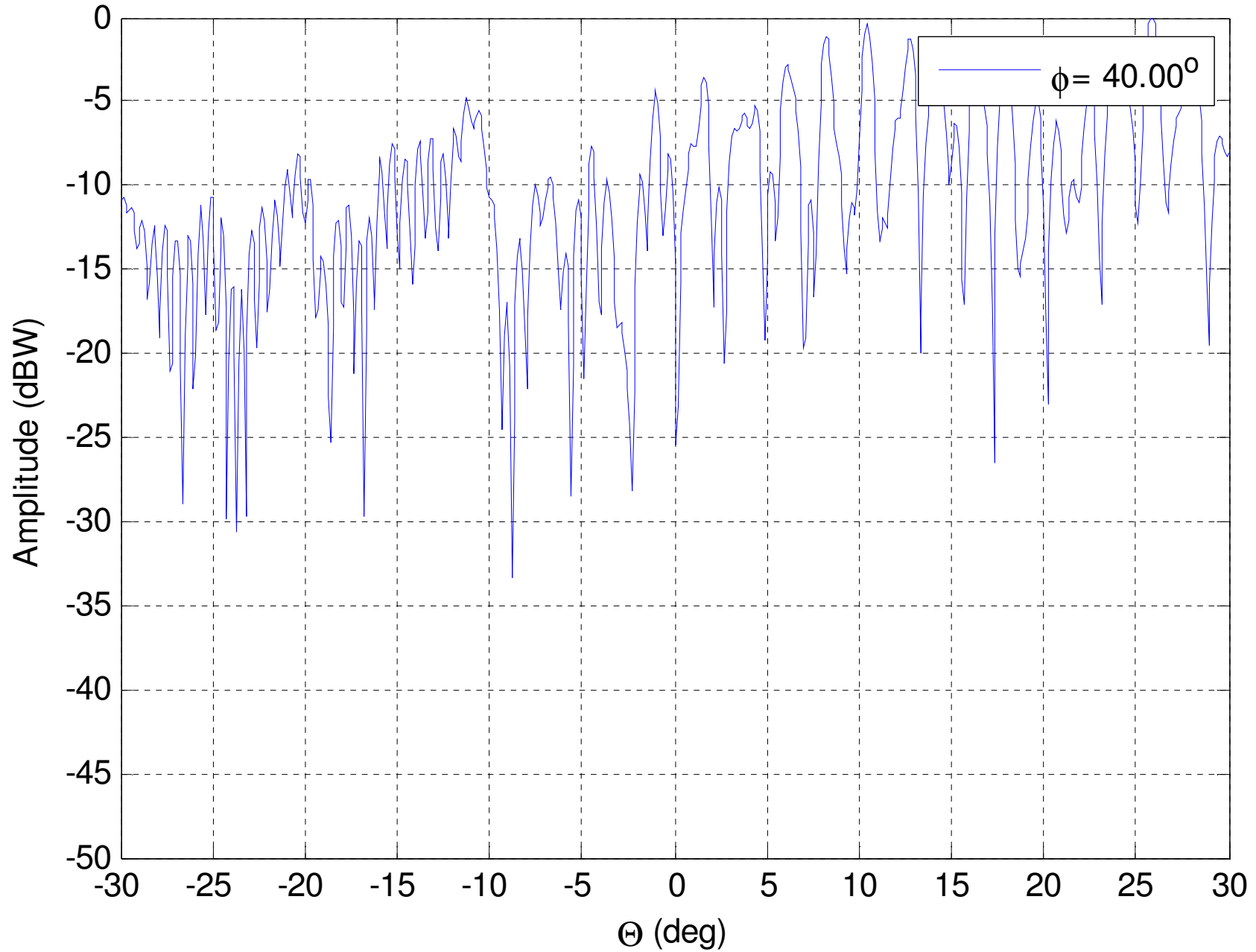
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: -0.55 dBW, Date: 15-Dec-2011



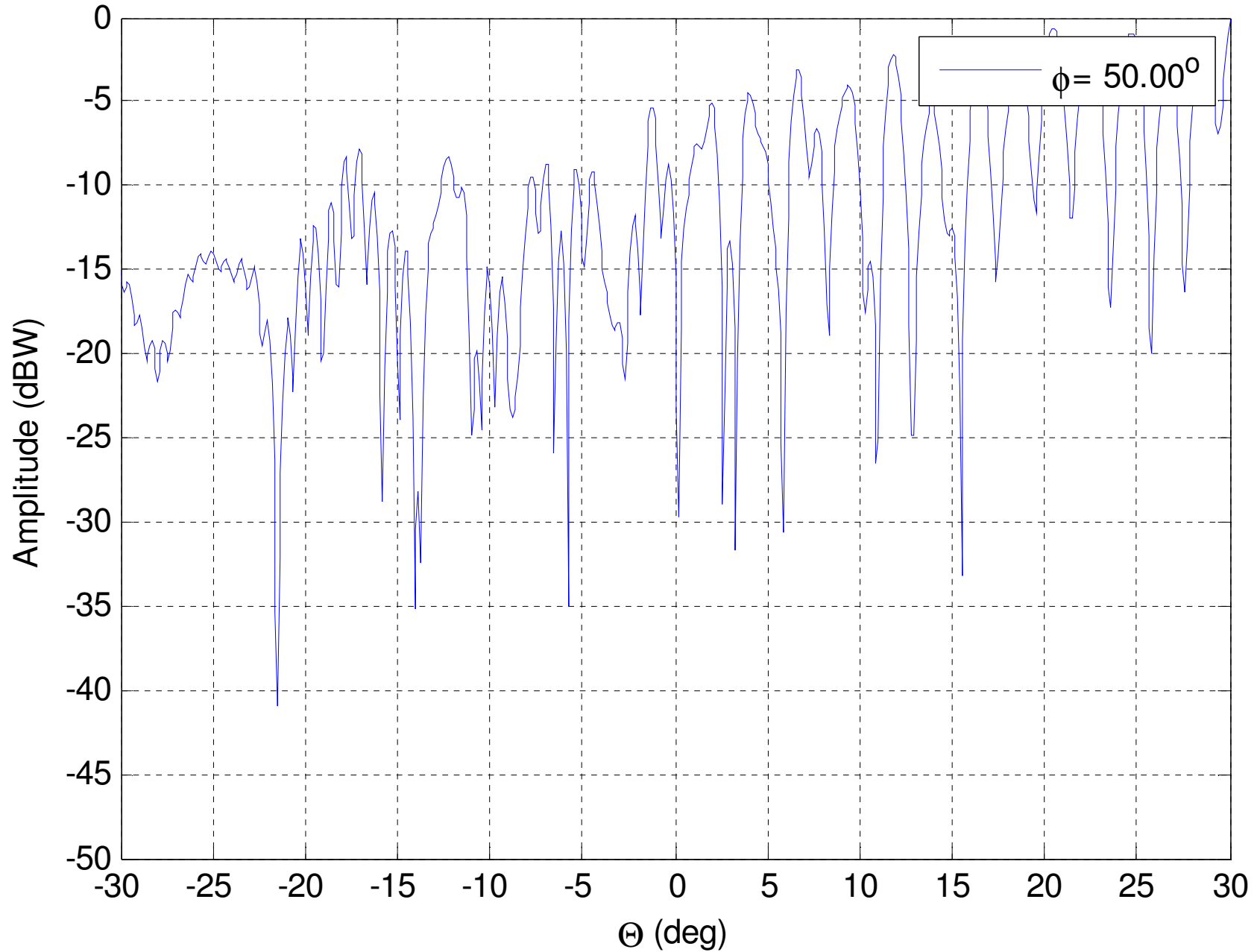
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -6.00 dBW, Date: 15-Dec-2011



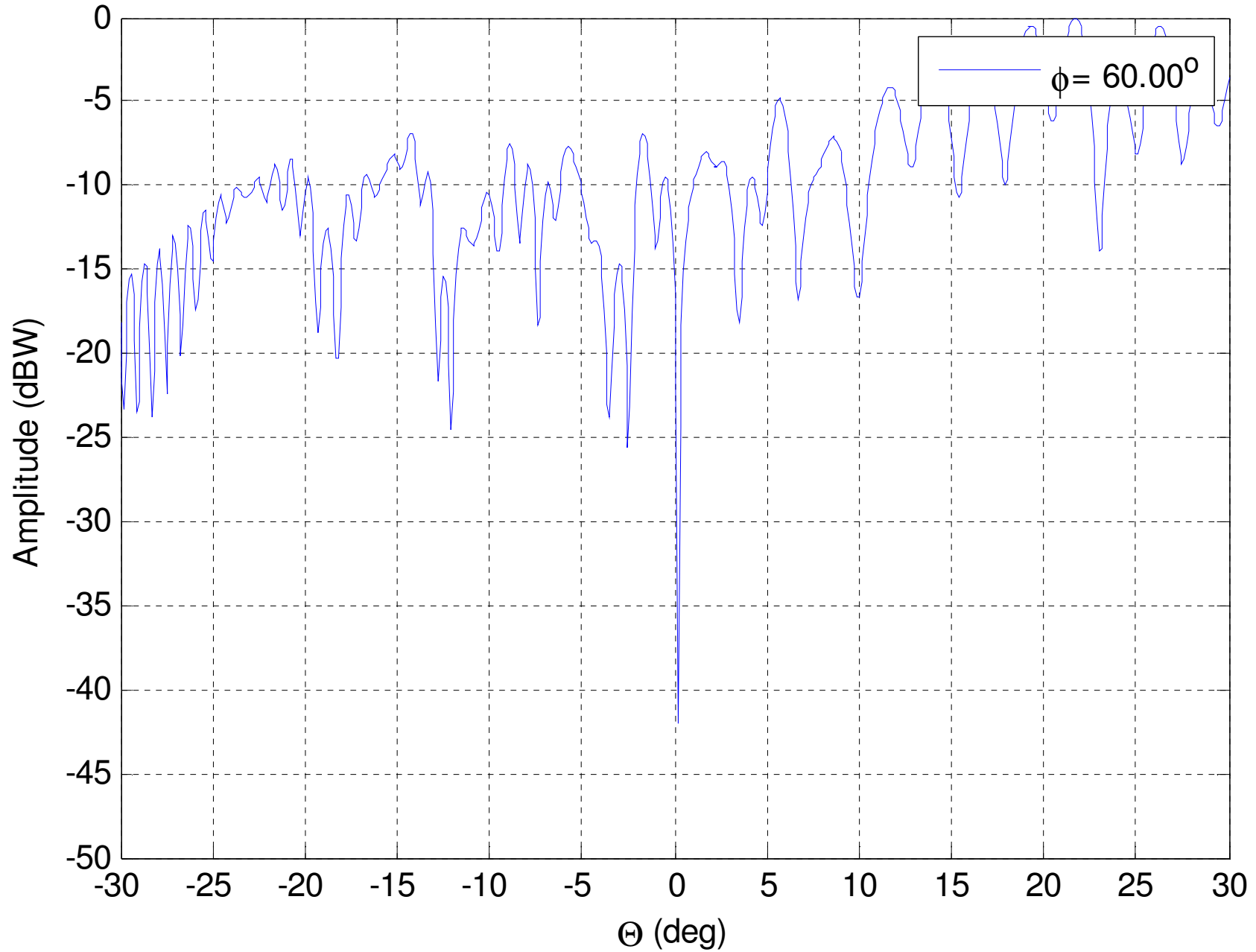
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -5.27 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

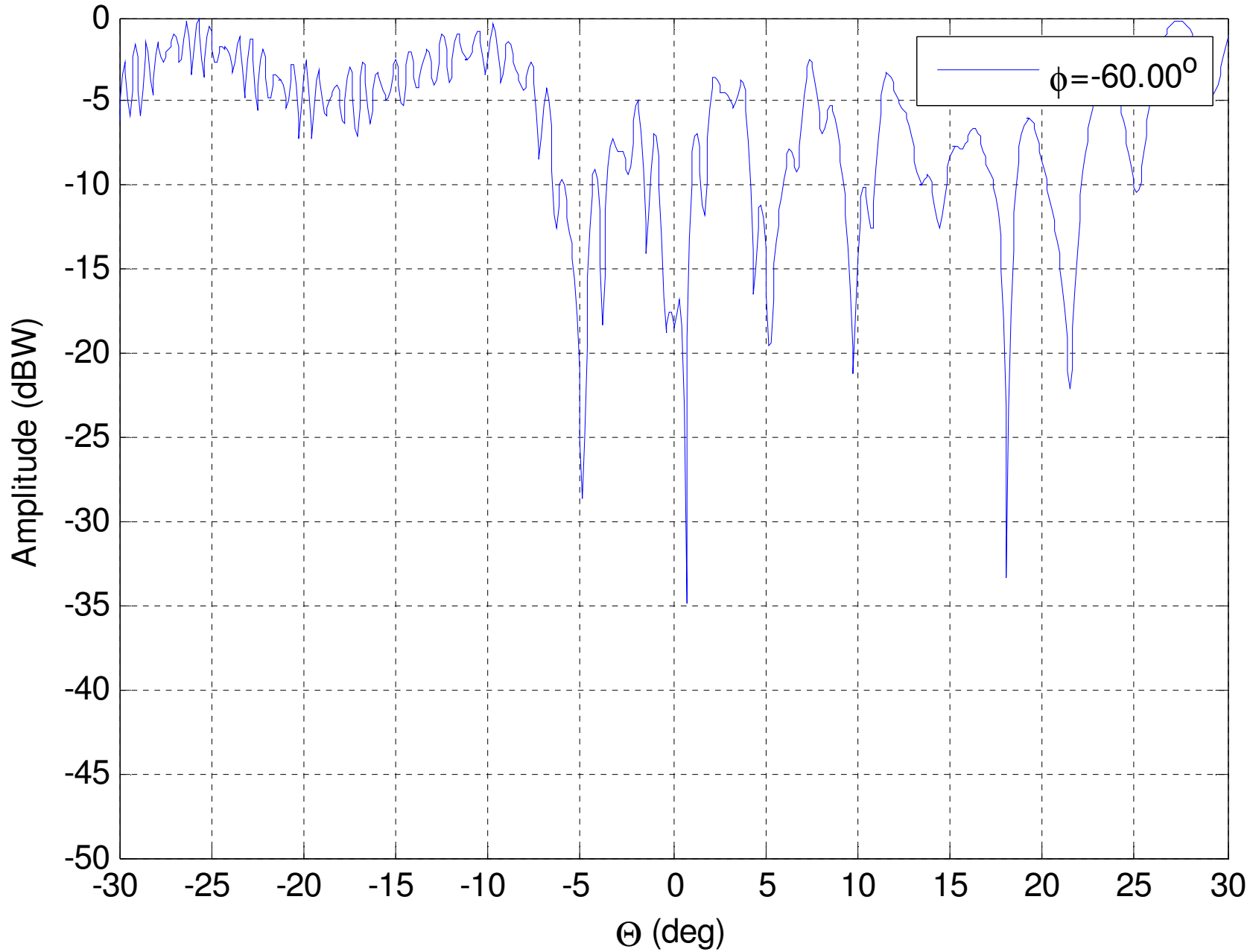
Input file: tx-17.3-lhcp-60.cut, Peak: -4.14 dBW, Date: 15-Dec-2011



RHCP at 17.5 GHz

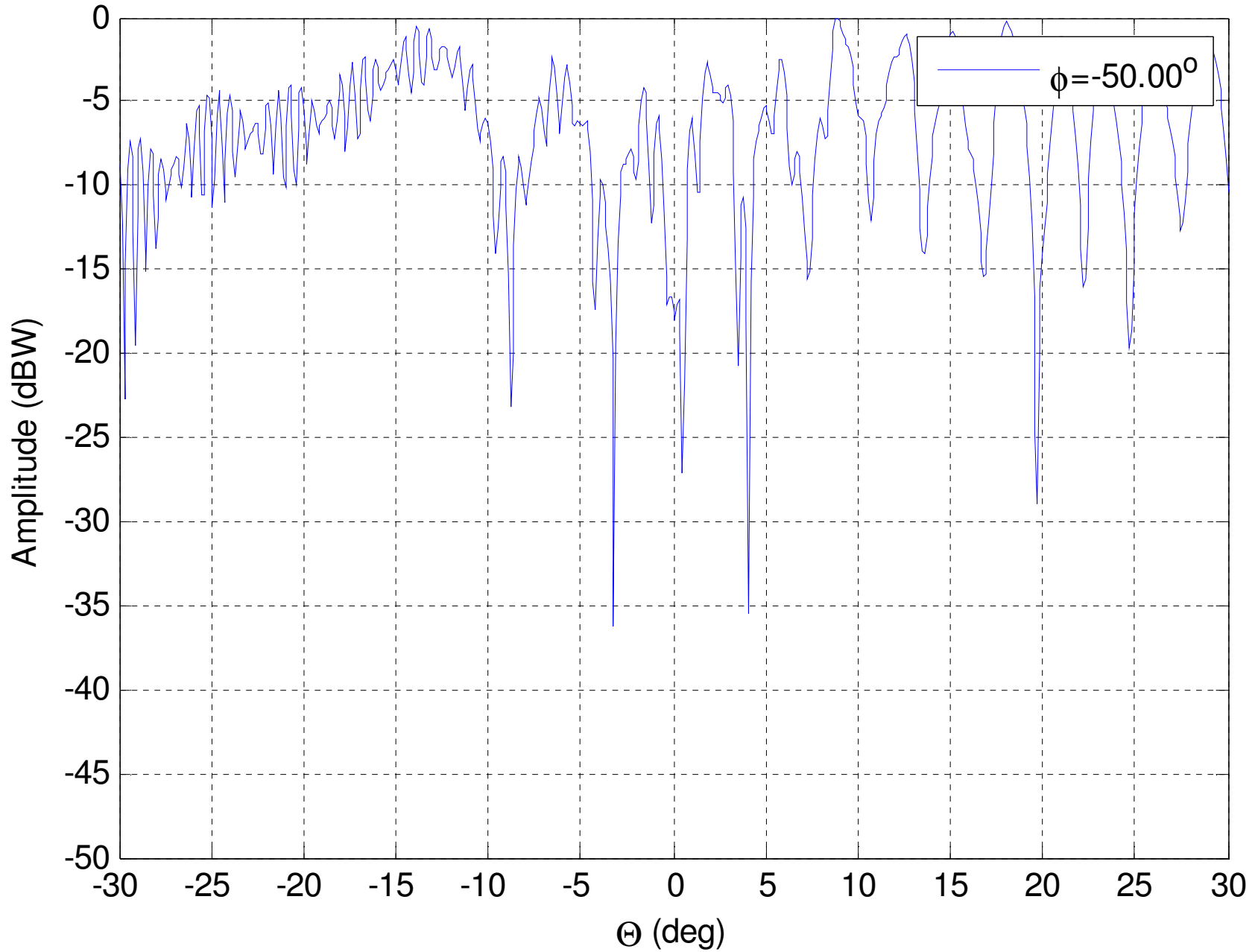
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -6.25 dBW, Date: 15-Dec-2011



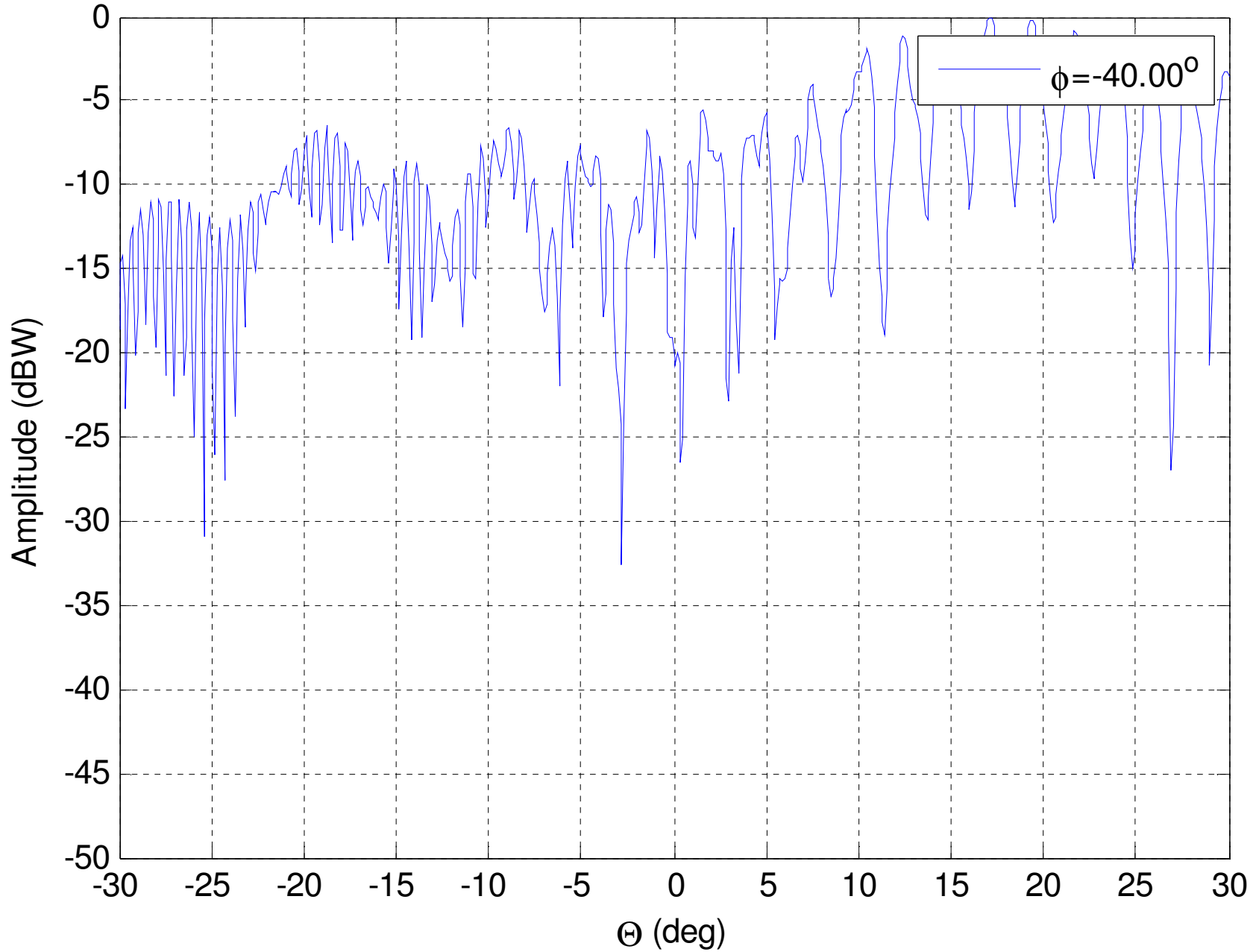
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -6.90 dBW, Date: 15-Dec-2011



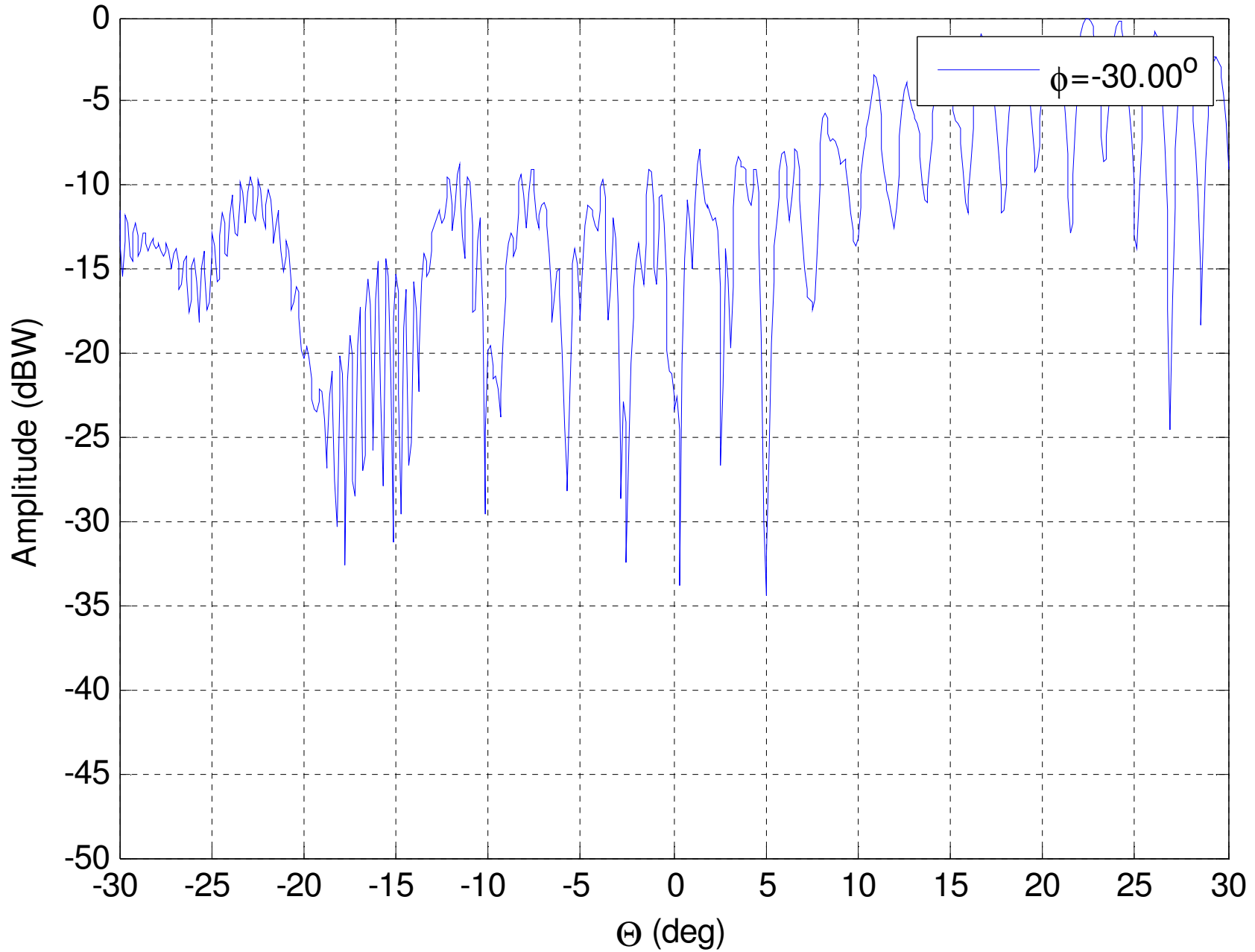
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -4.22 dBW, Date: 15-Dec-2011



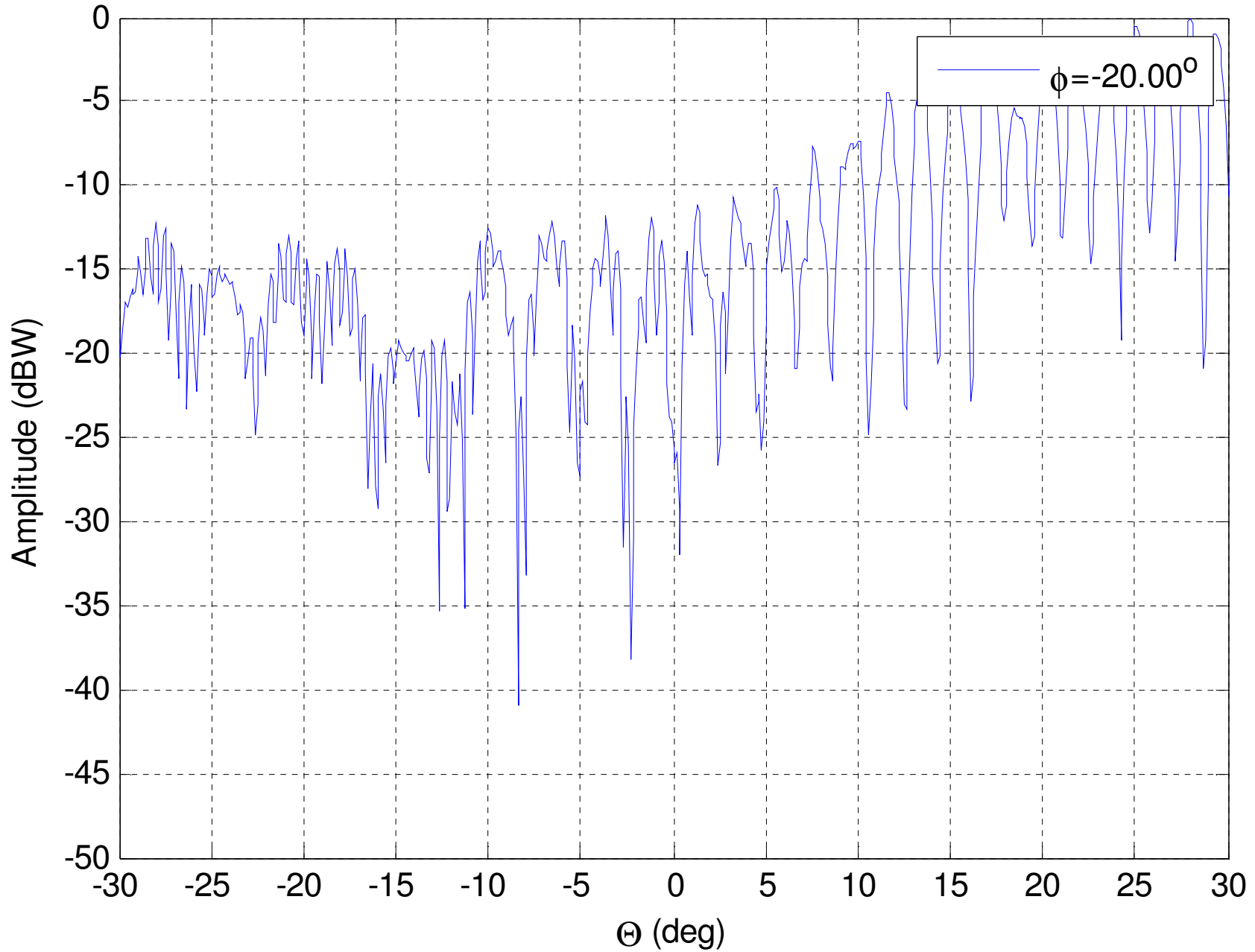
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -1.87 dBW, Date: 15-Dec-2011



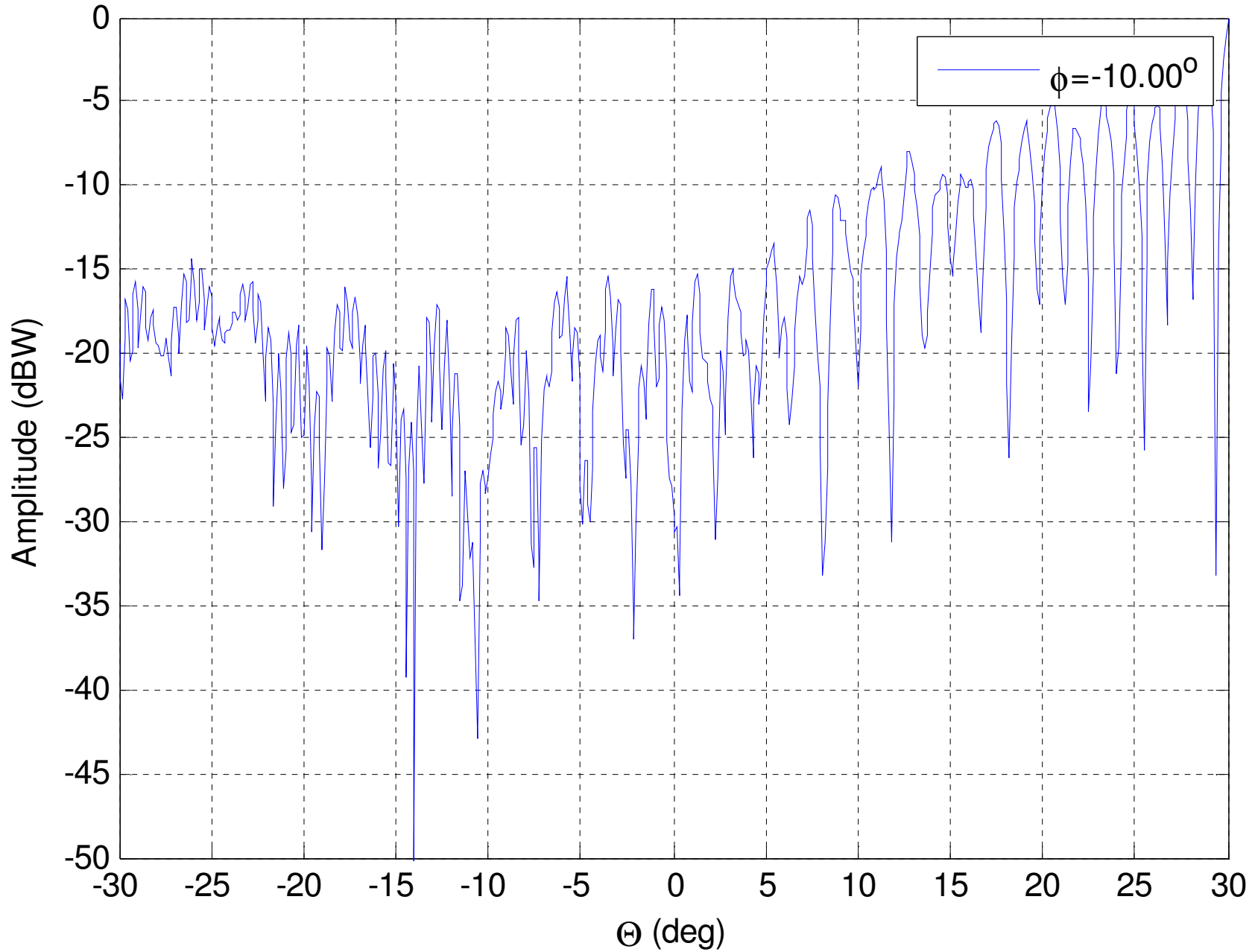
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: 1.23 dBW, Date: 15-Dec-2011



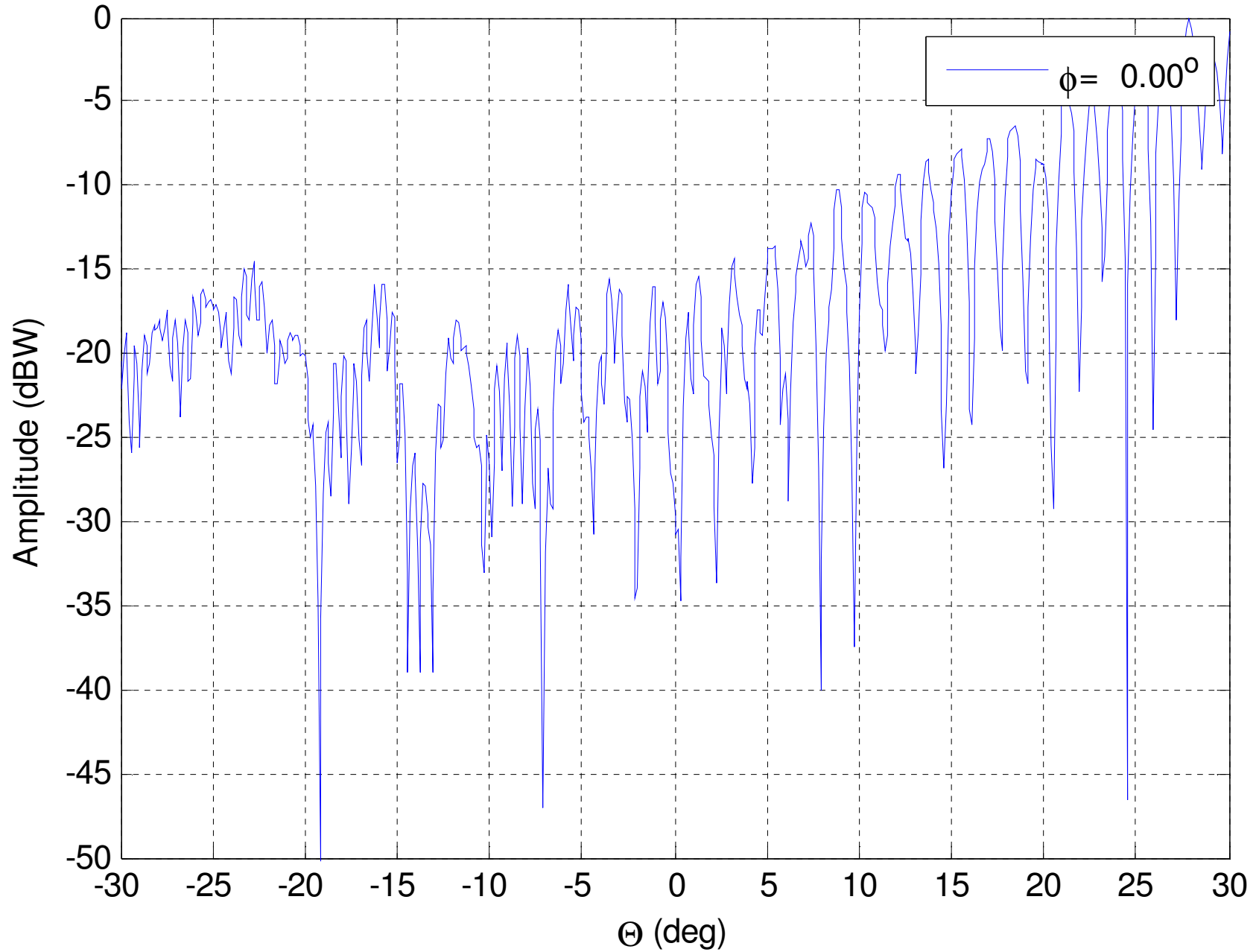
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: 5.22 dBW, Date: 15-Dec-2011



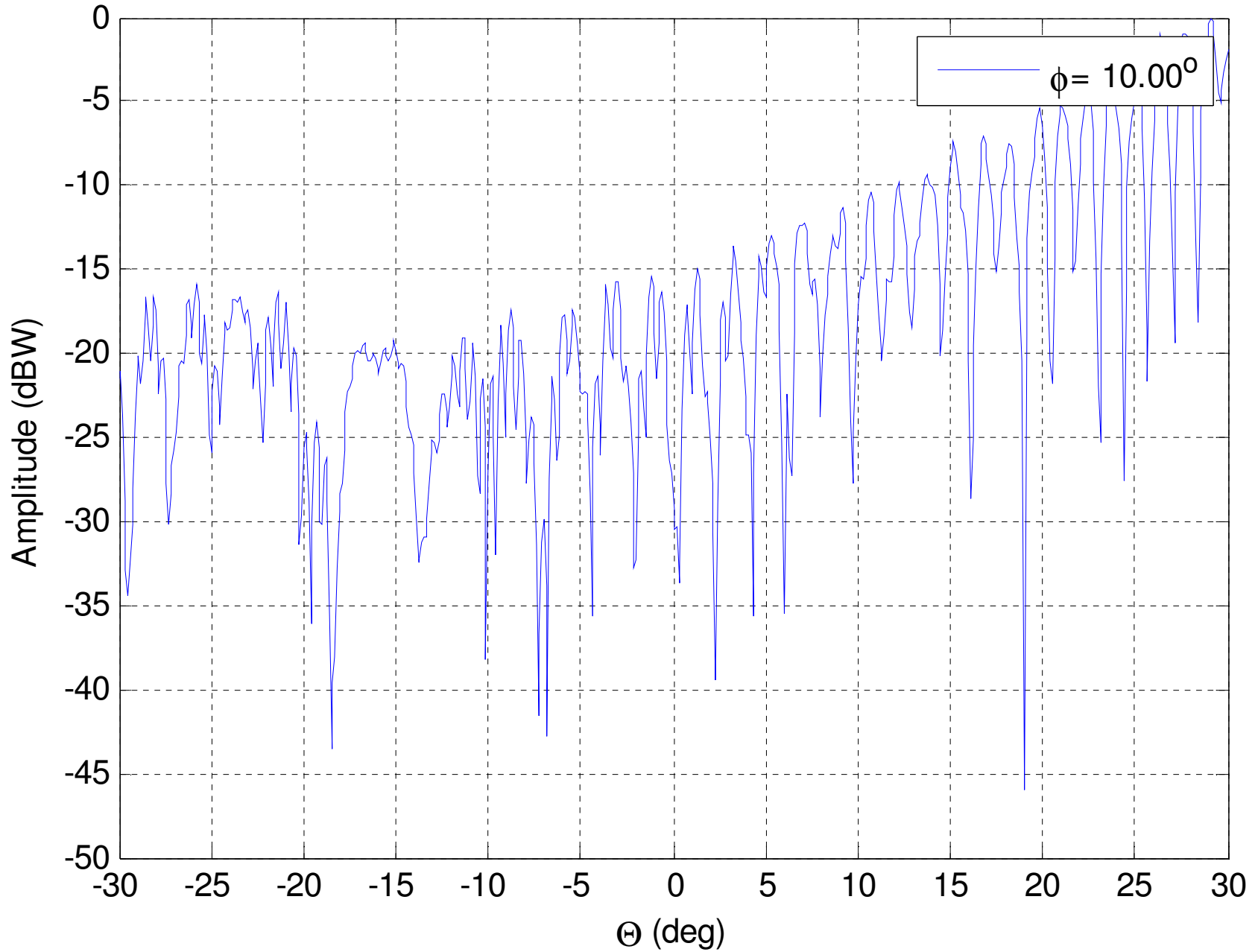
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: 5.18 dBW, Date: 15-Dec-2011



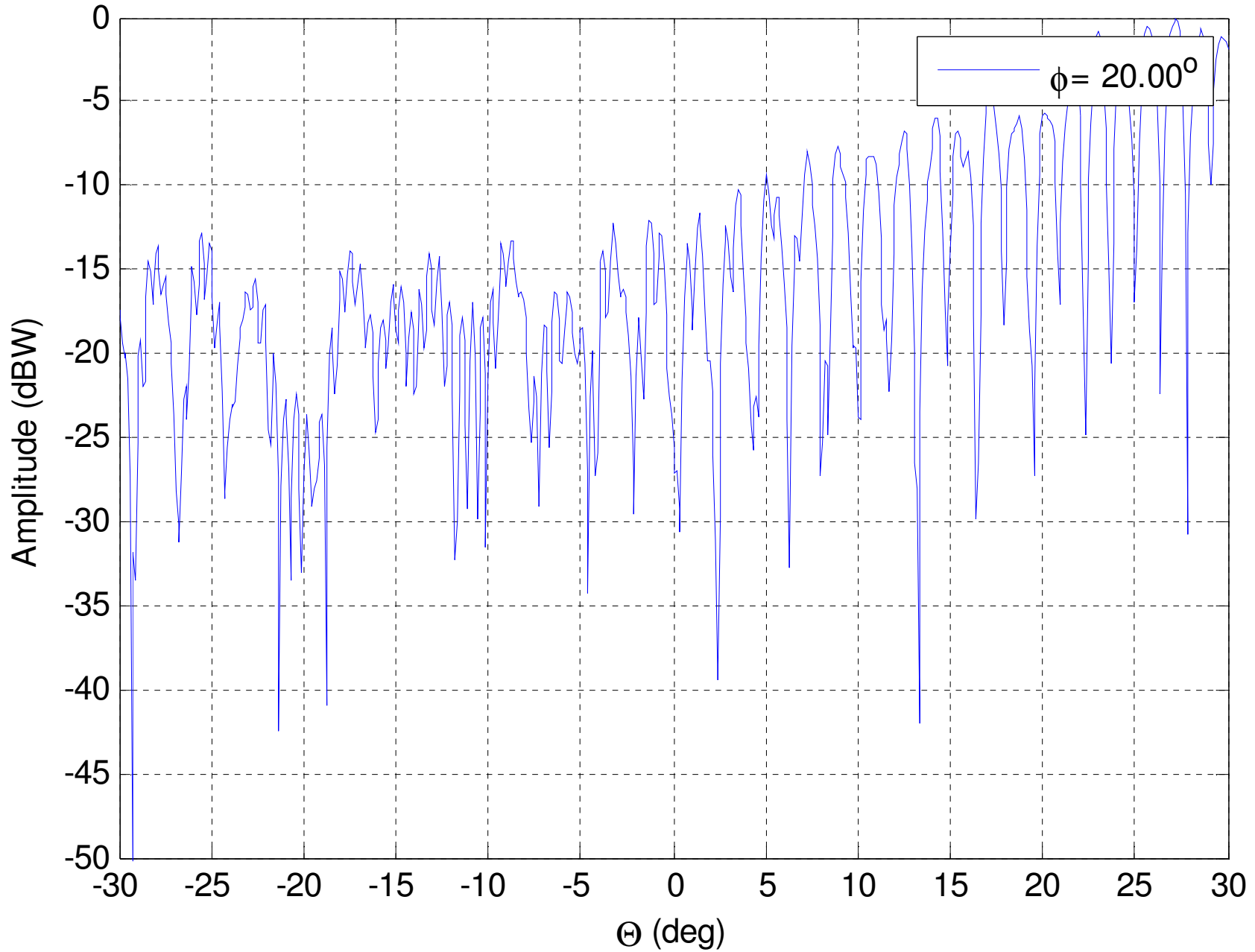
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: 4.70 dBW, Date: 15-Dec-2011



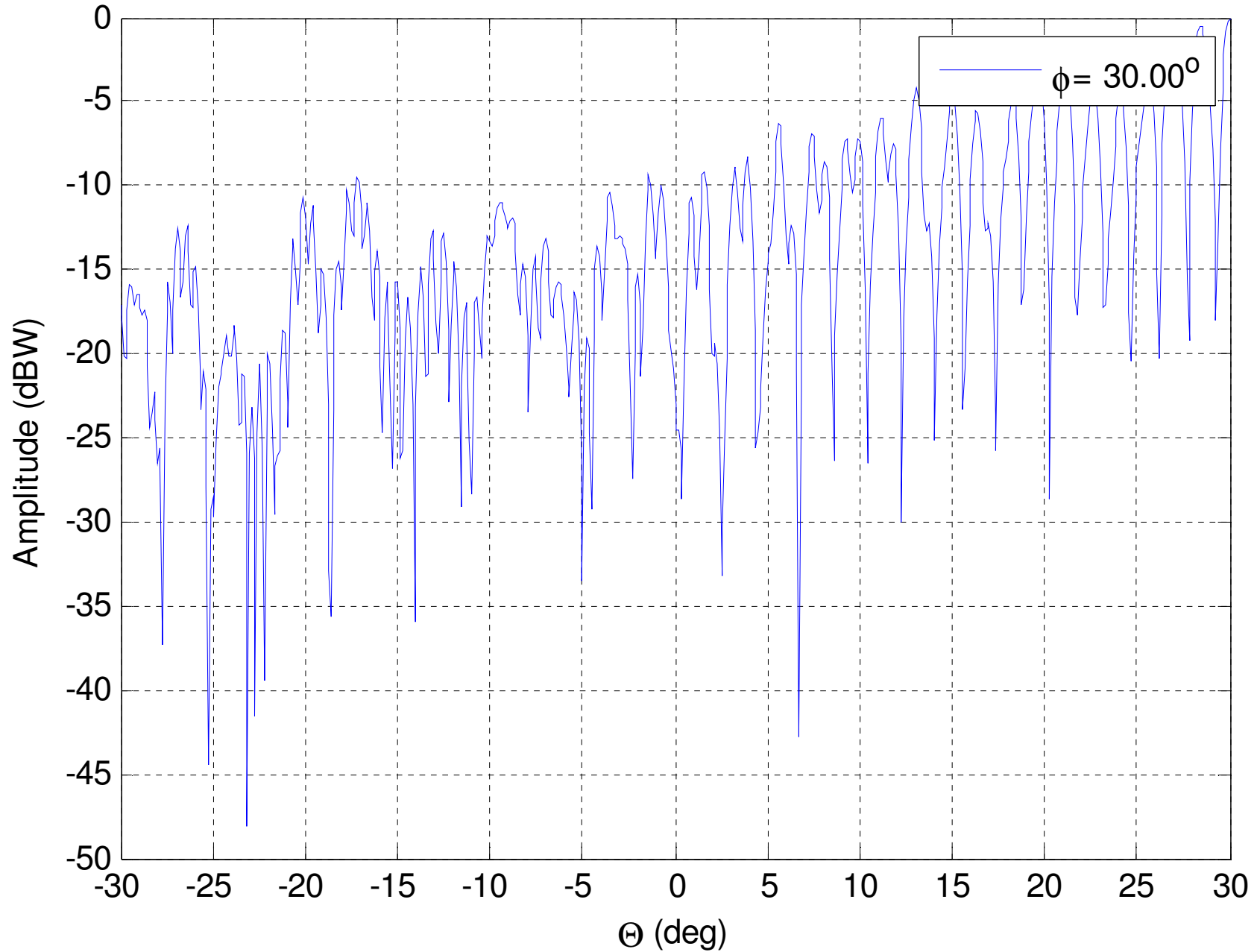
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: 1.16 dBW, Date: 15-Dec-2011



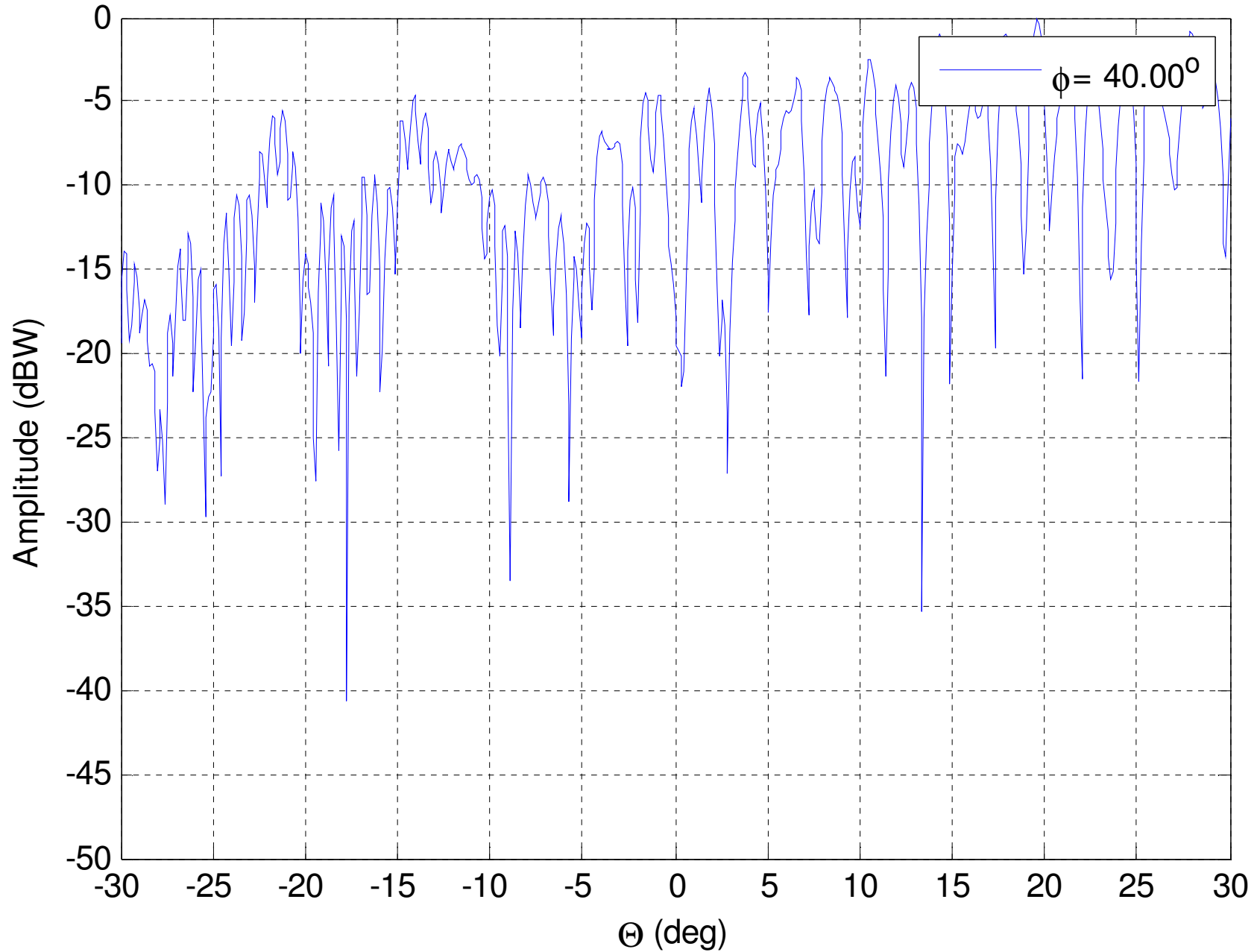
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: -1.49 dBW, Date: 15-Dec-2011



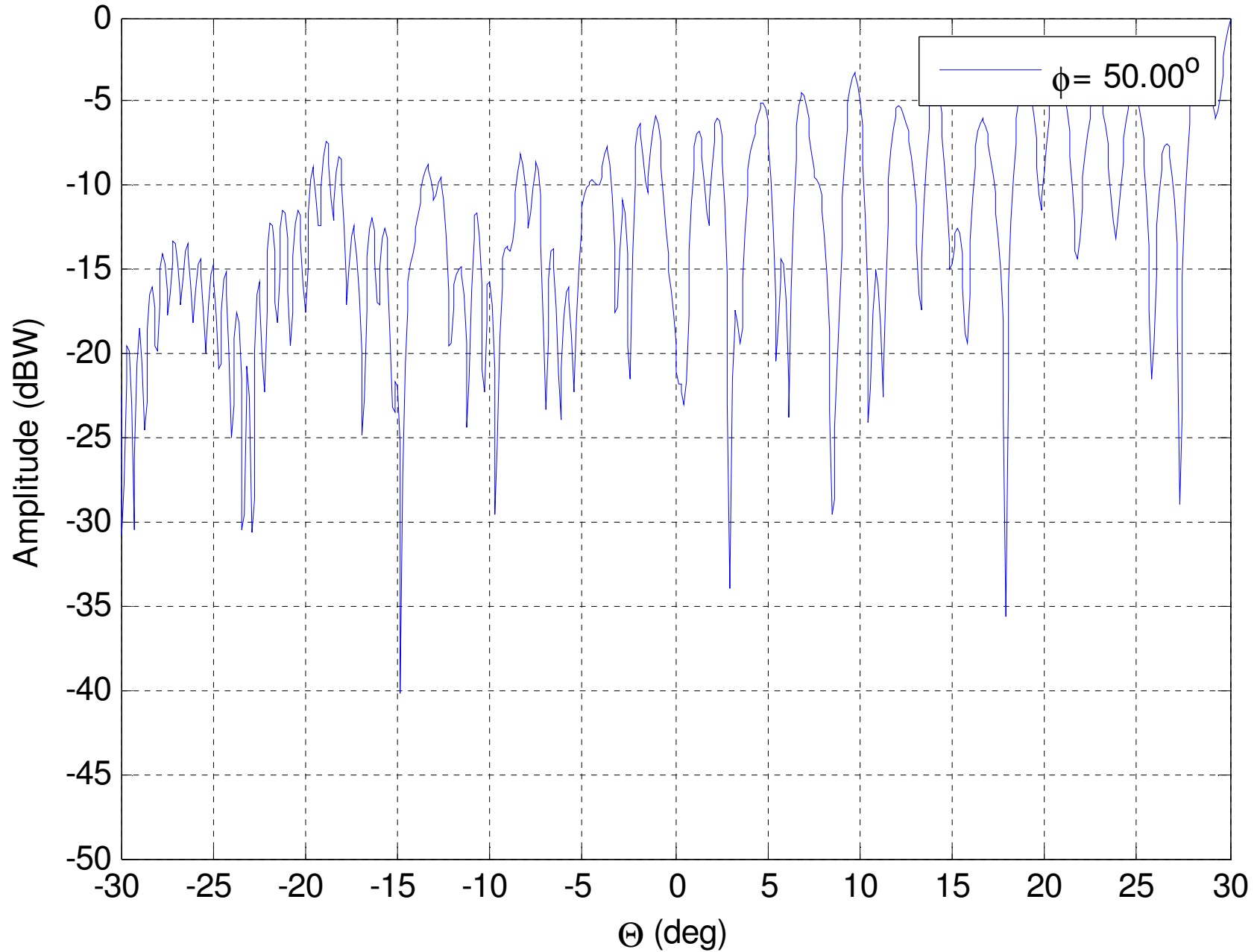
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -6.62 dBW, Date: 15-Dec-2011



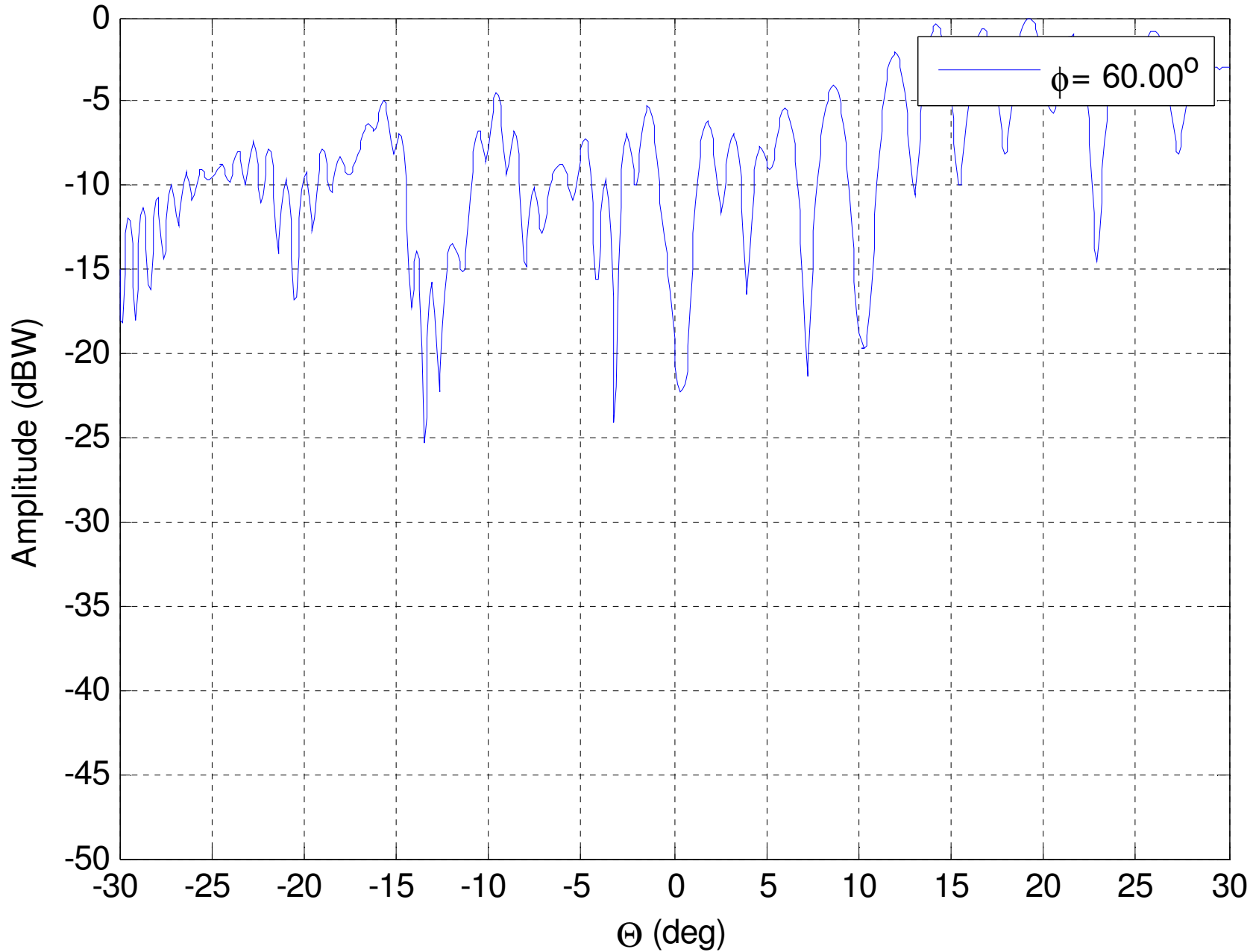
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -5.13 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

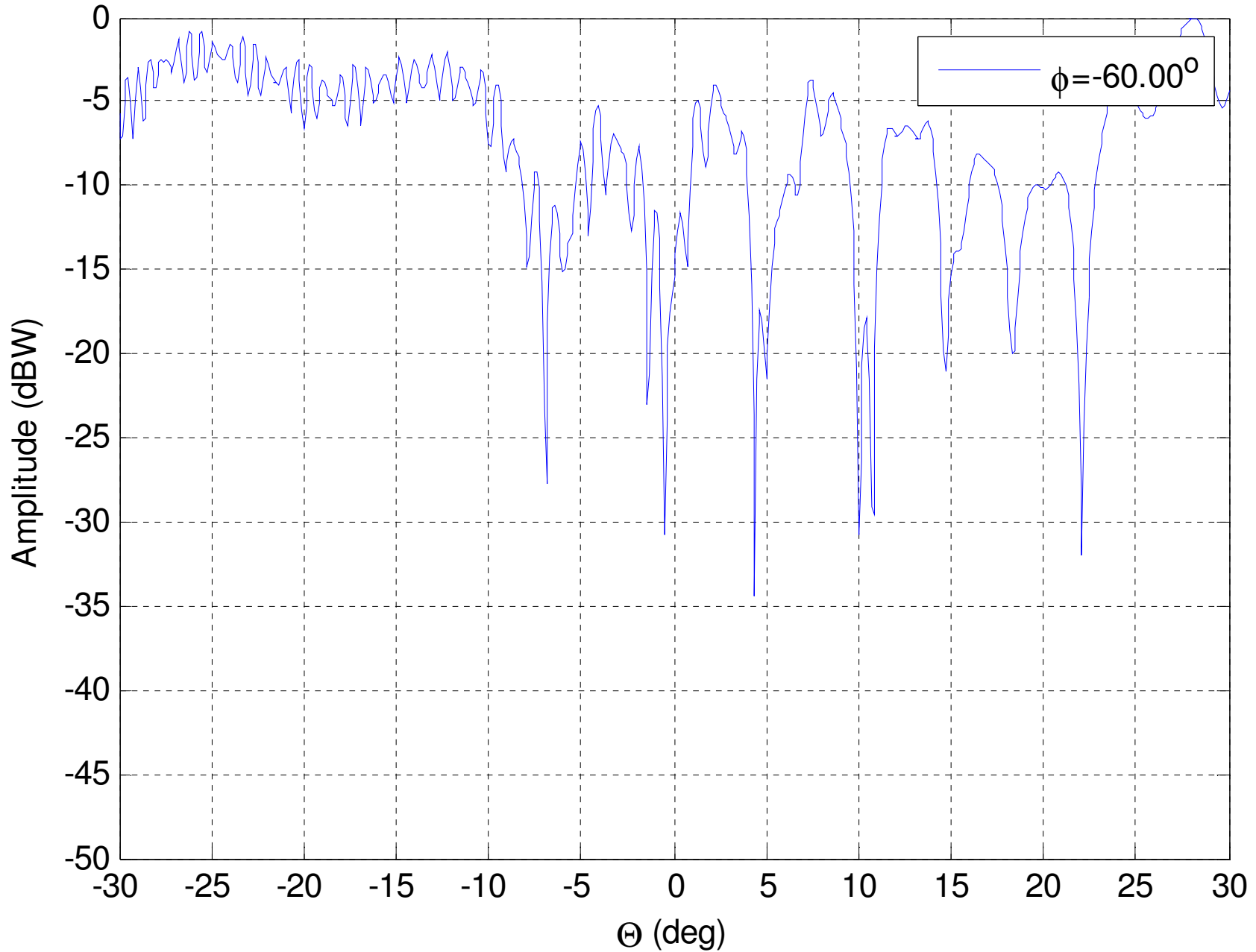
Input file: tx-17.5-rhcp-60.cut, Peak: -5.37 dBW, Date: 15-Dec-2011



LHCP at 17.5 GHz

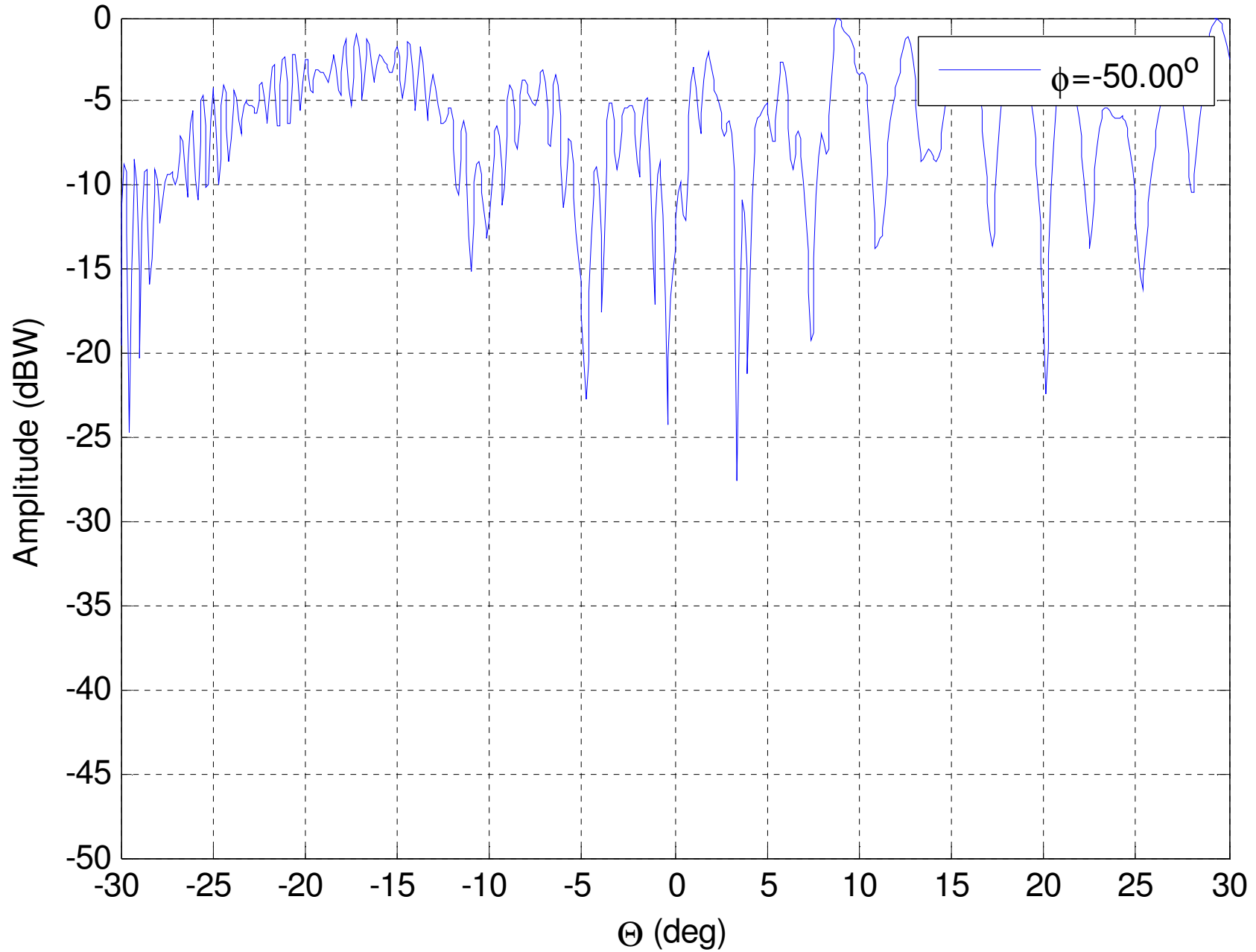
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -5.02 dBW, Date: 15-Dec-2011



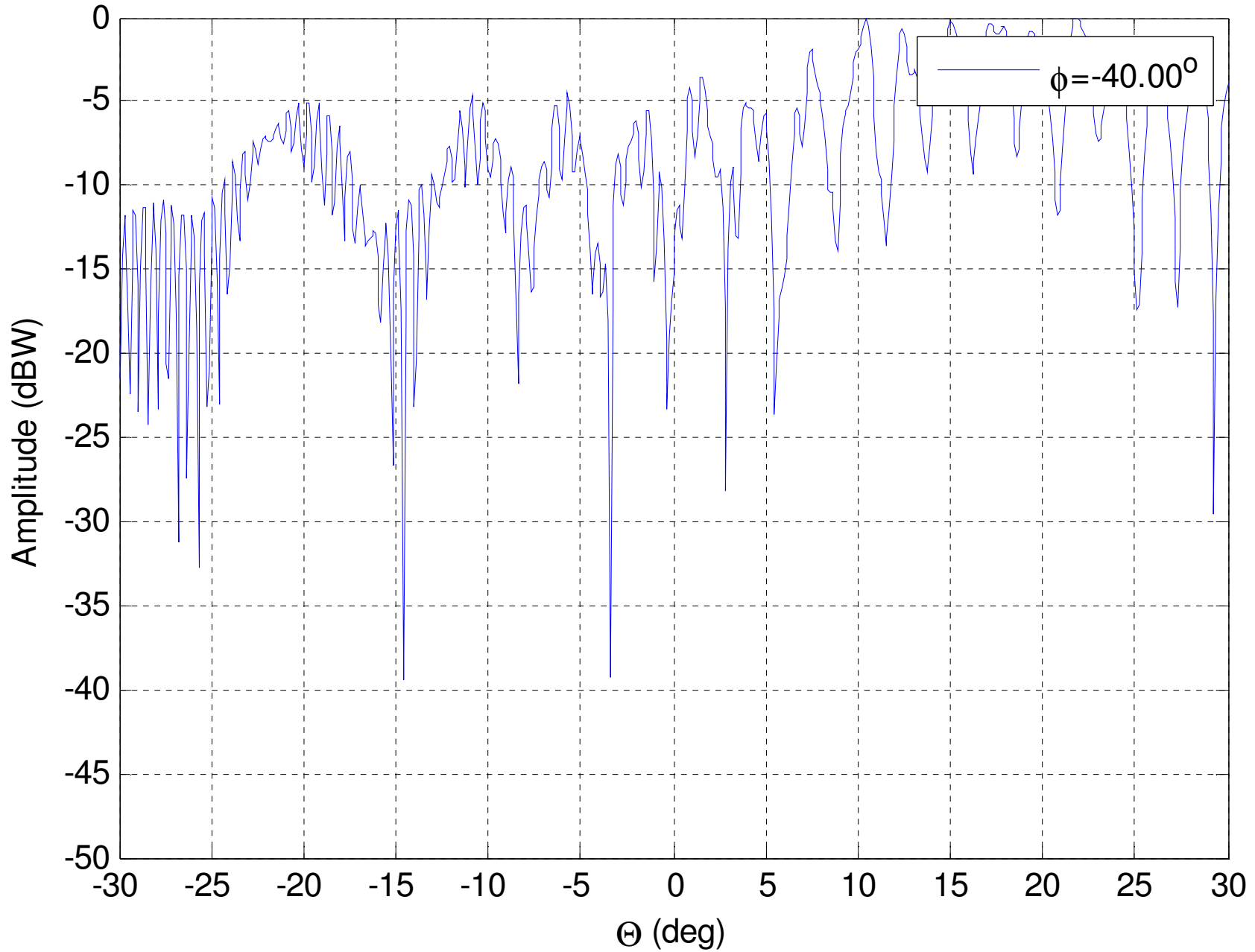
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -6.72 dBW, Date: 15-Dec-2011



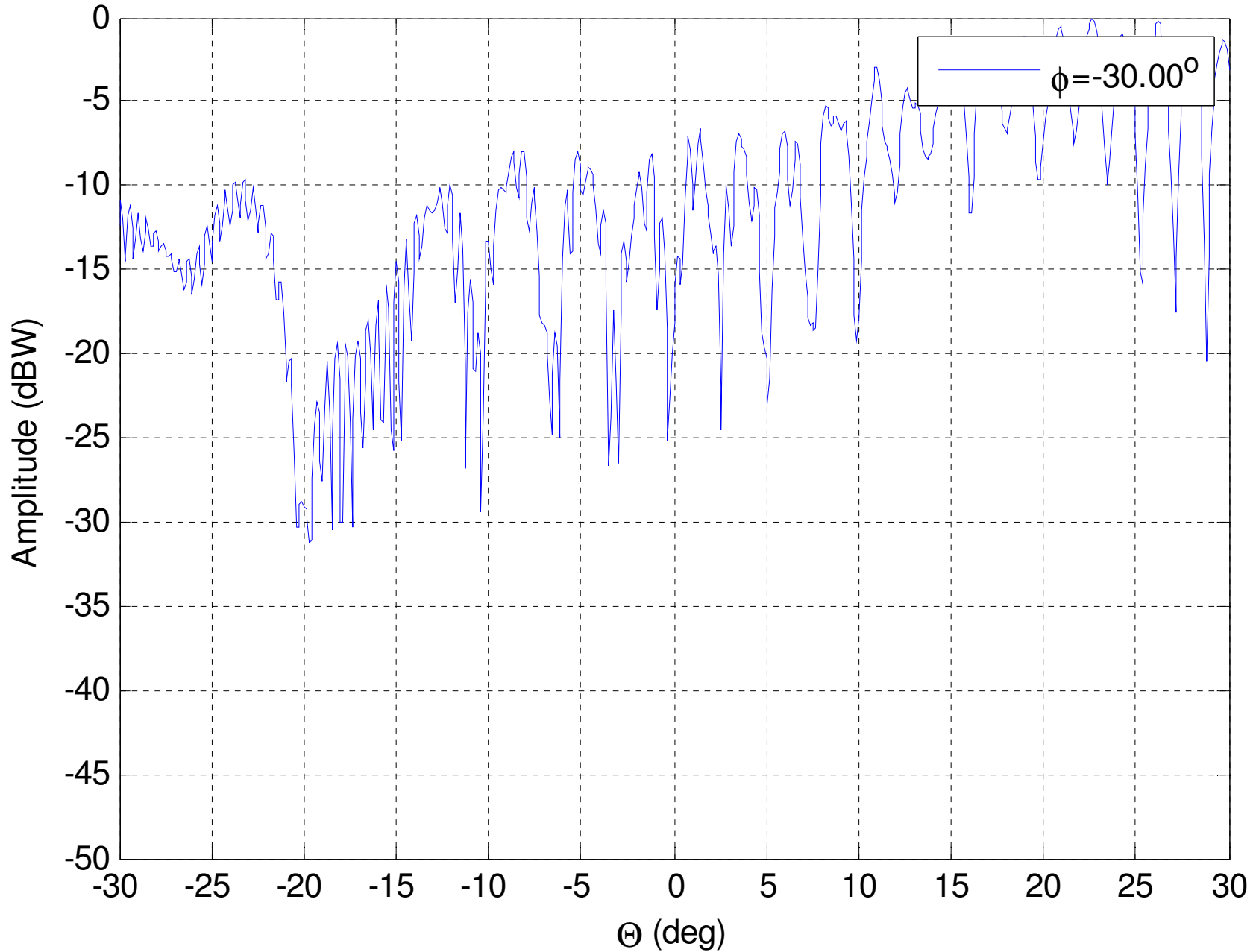
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -5.31 dBW, Date: 15-Dec-2011



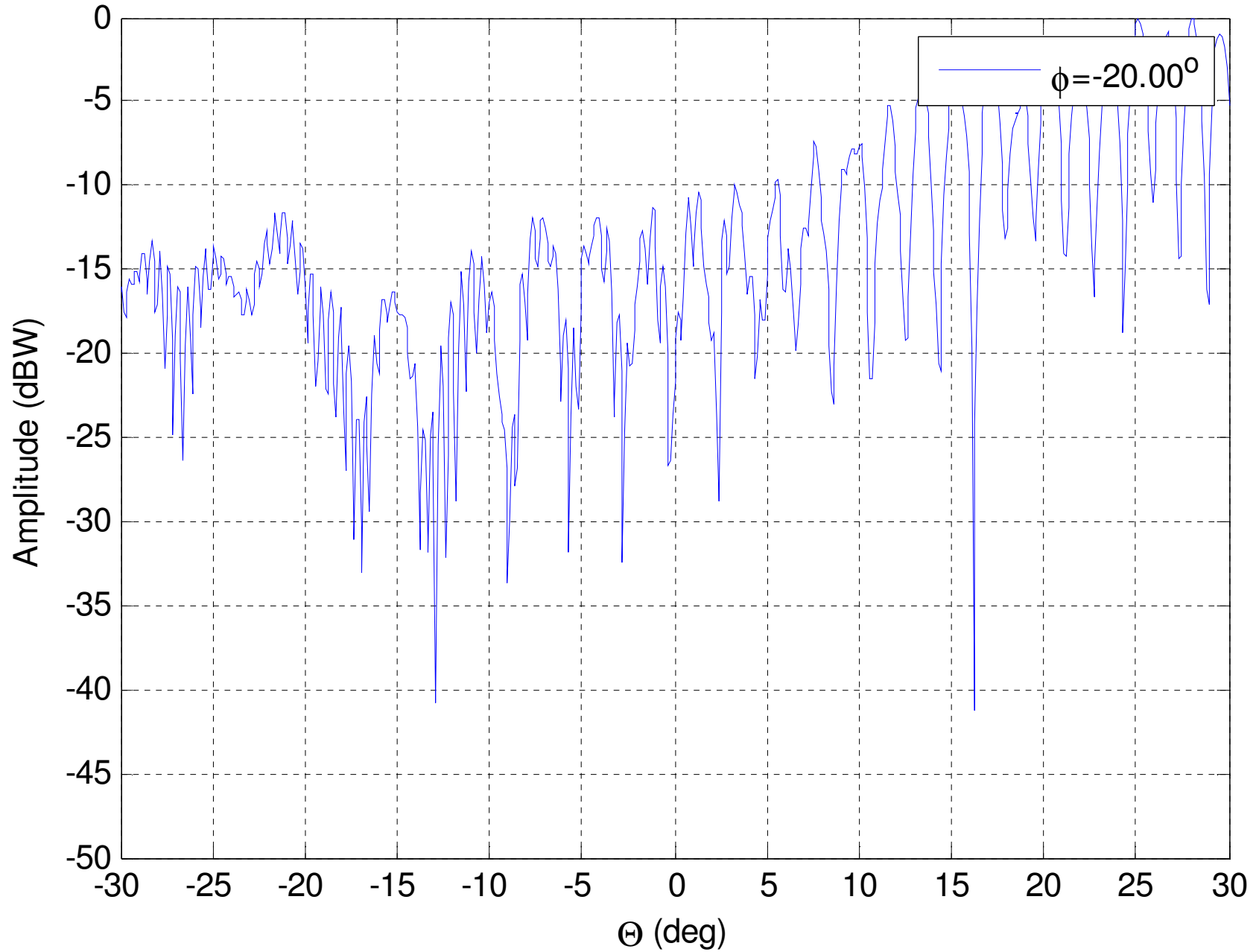
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: -2.28 dBW, Date: 15-Dec-2011



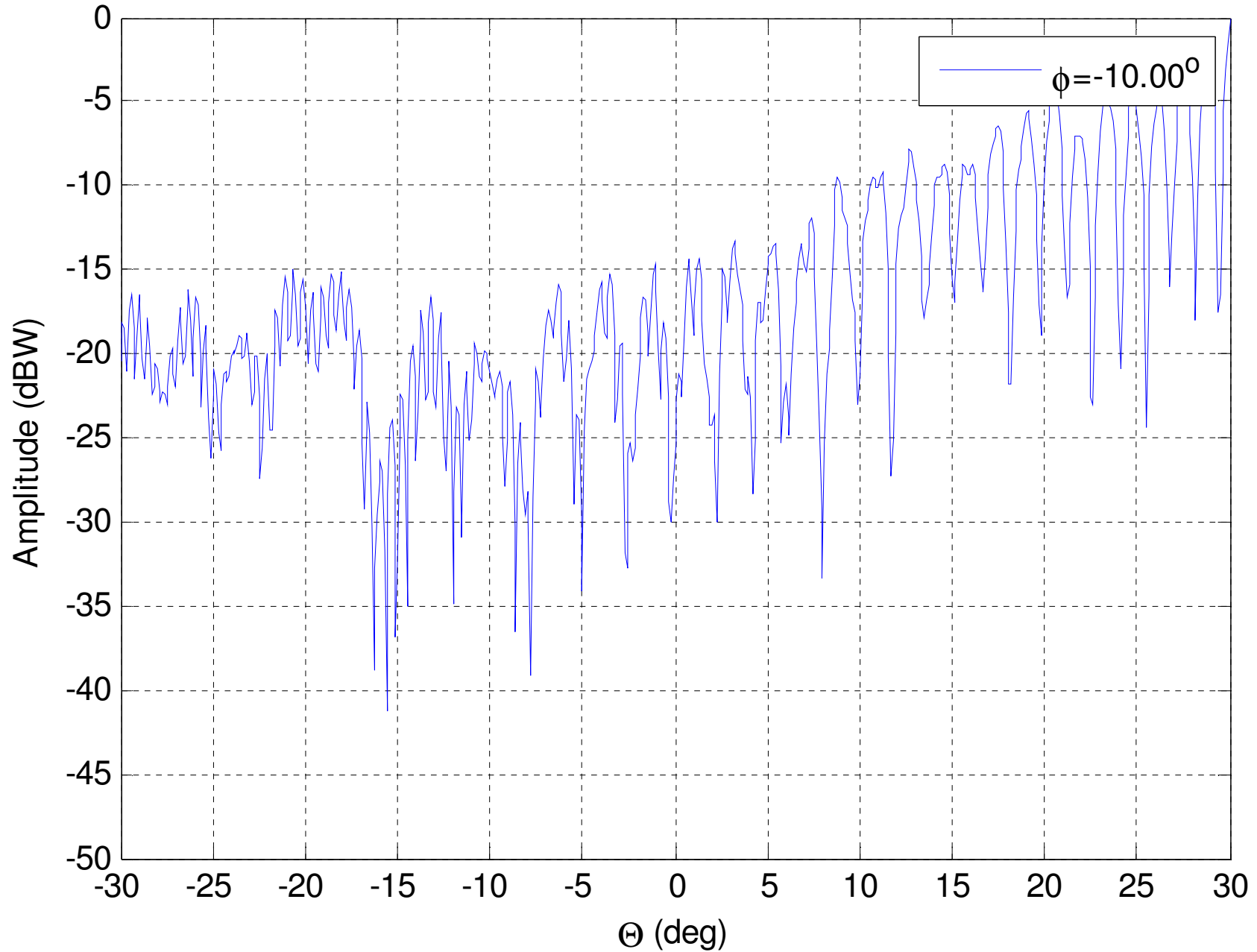
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: 1.22 dBW, Date: 15-Dec-2011



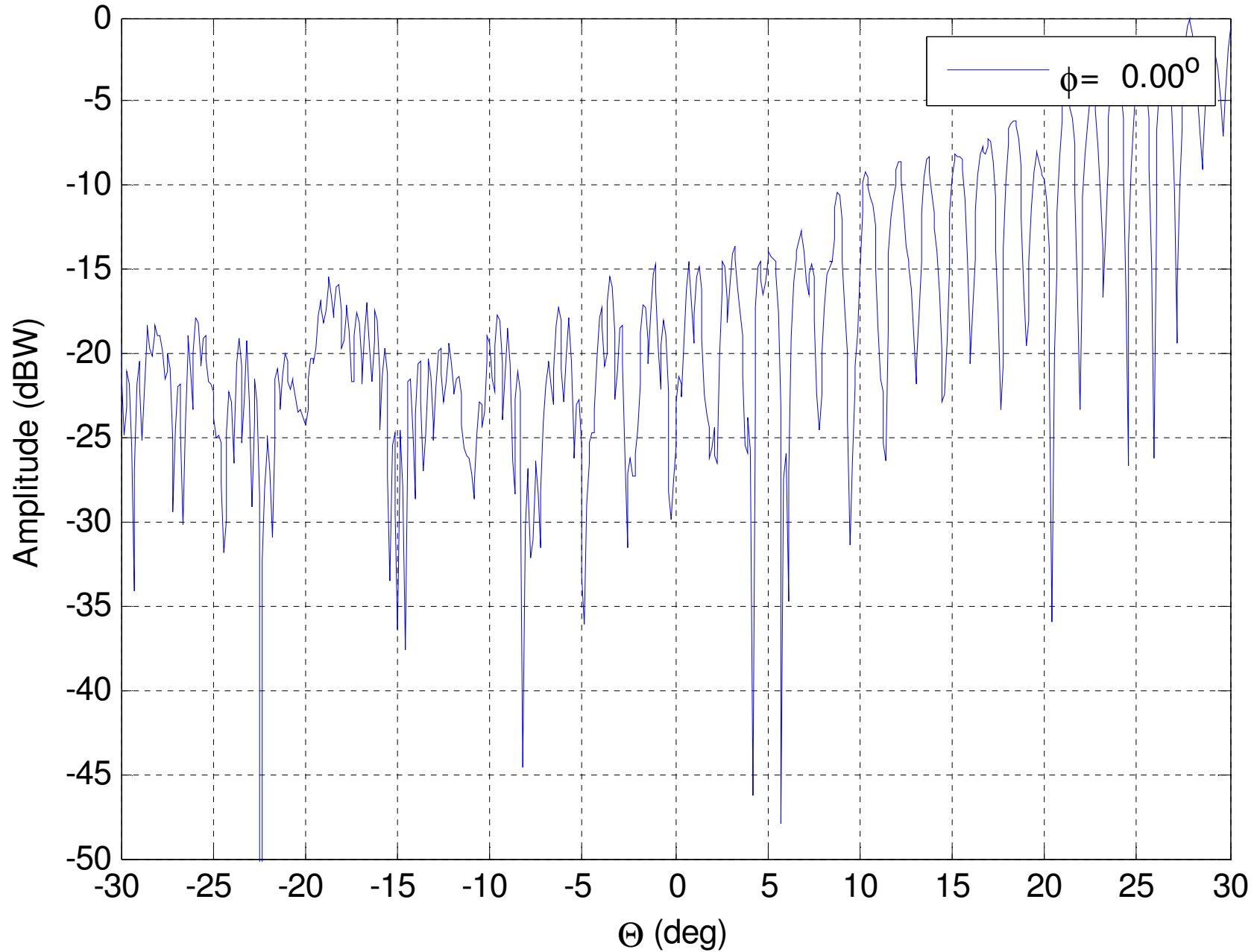
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: 4.89 dBW, Date: 15-Dec-2011



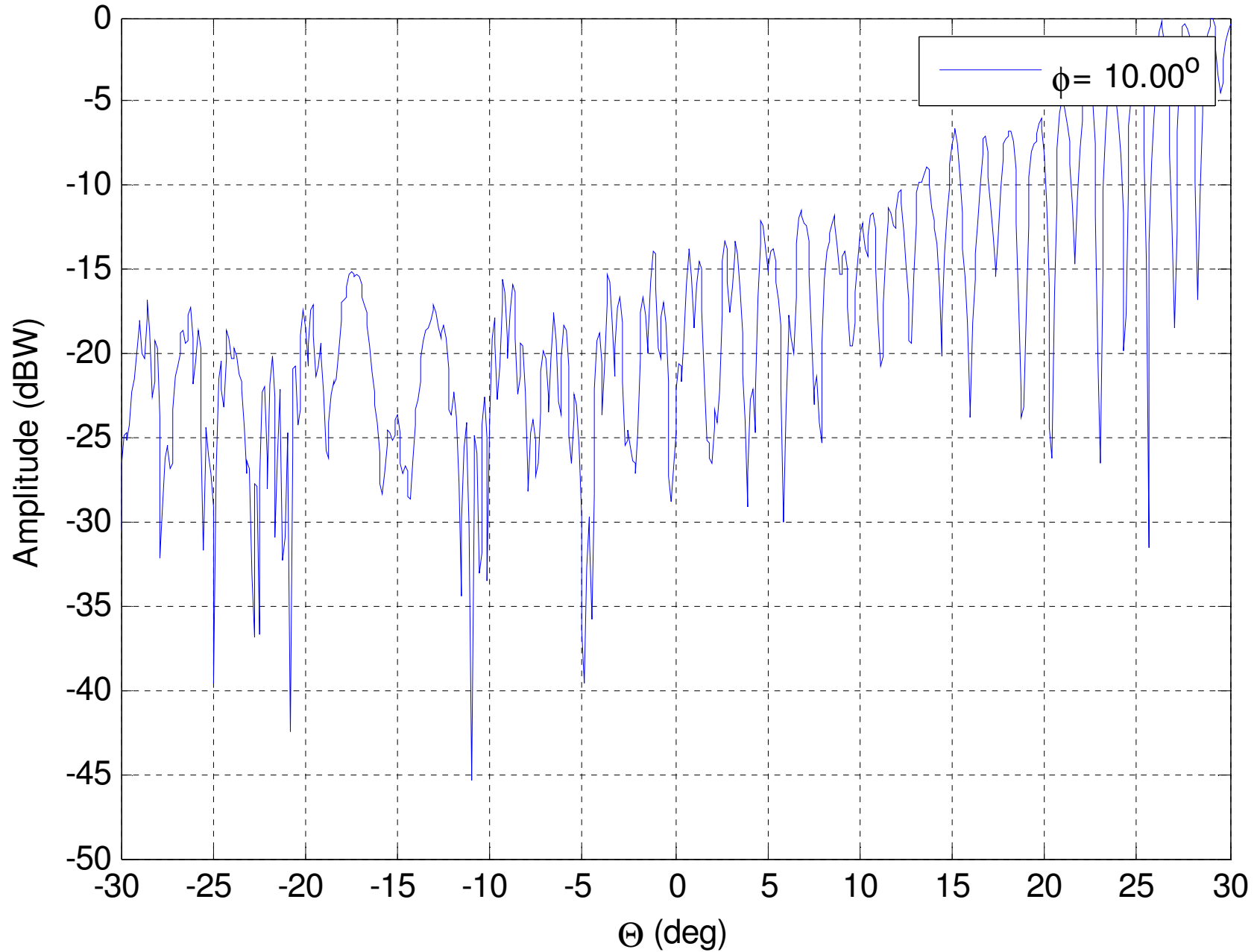
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: 5.07 dBW, Date: 15-Dec-2011



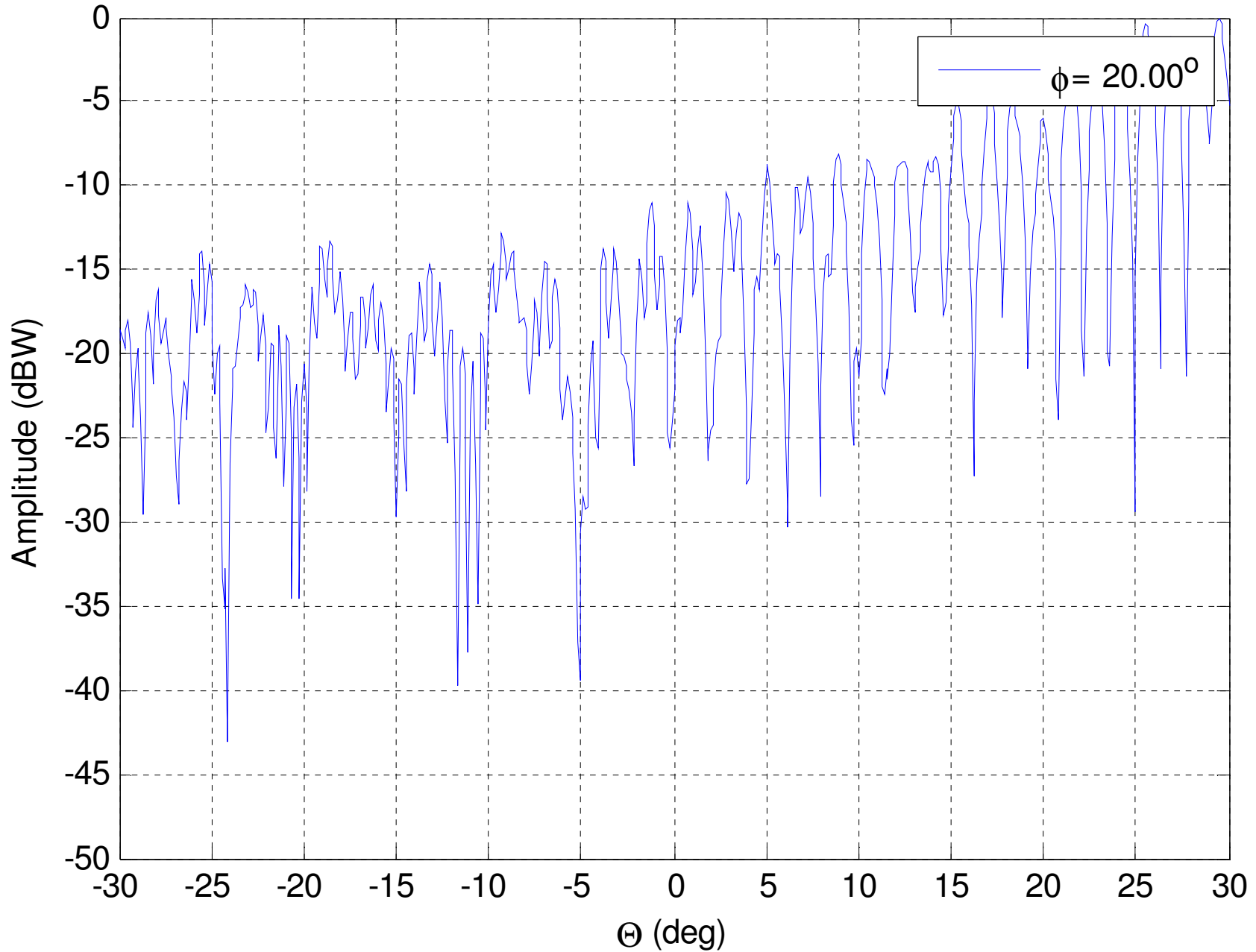
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: 4.30 dBW, Date: 15-Dec-2011



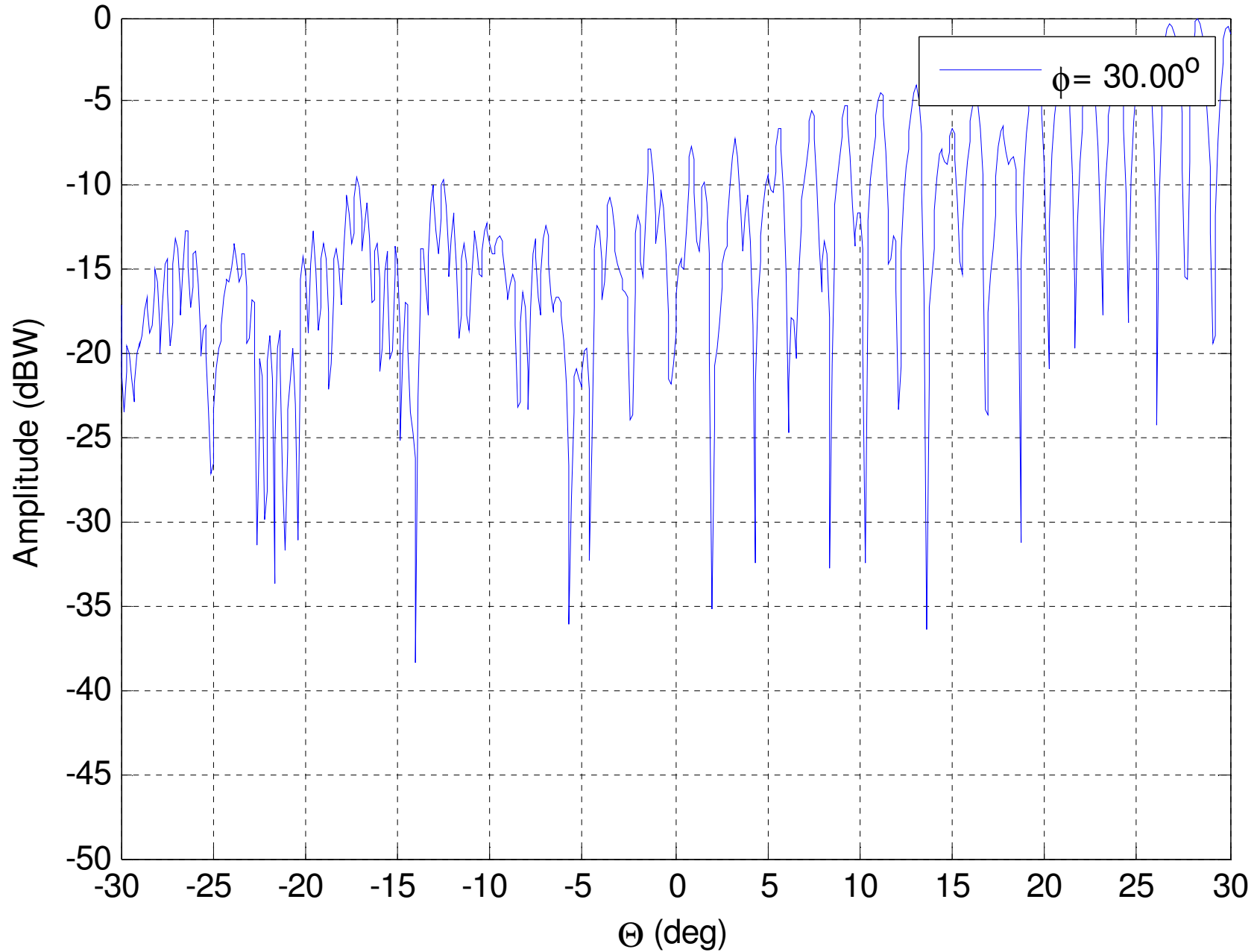
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: 1.61 dBW, Date: 15-Dec-2011



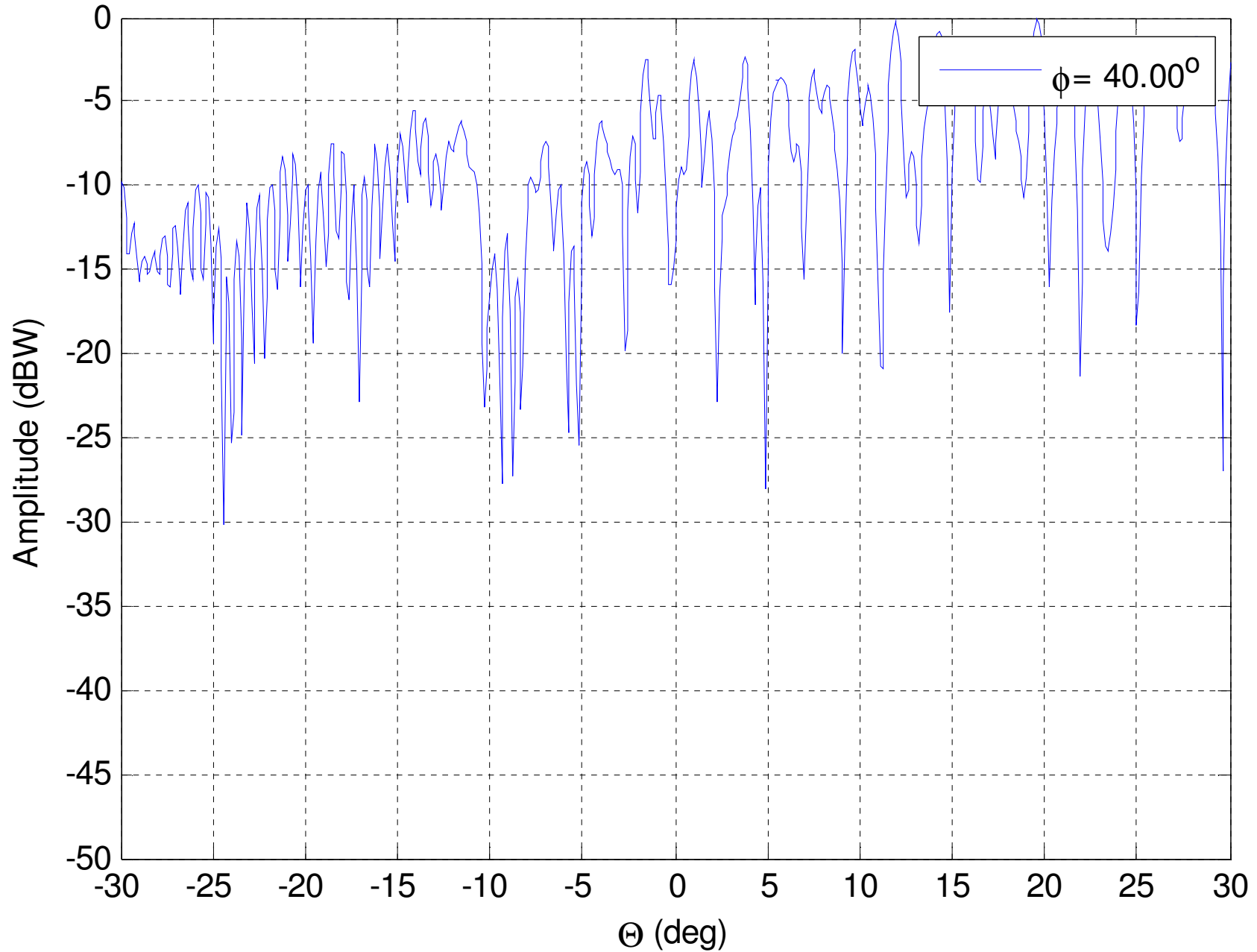
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: -1.72 dBW, Date: 15-Dec-2011



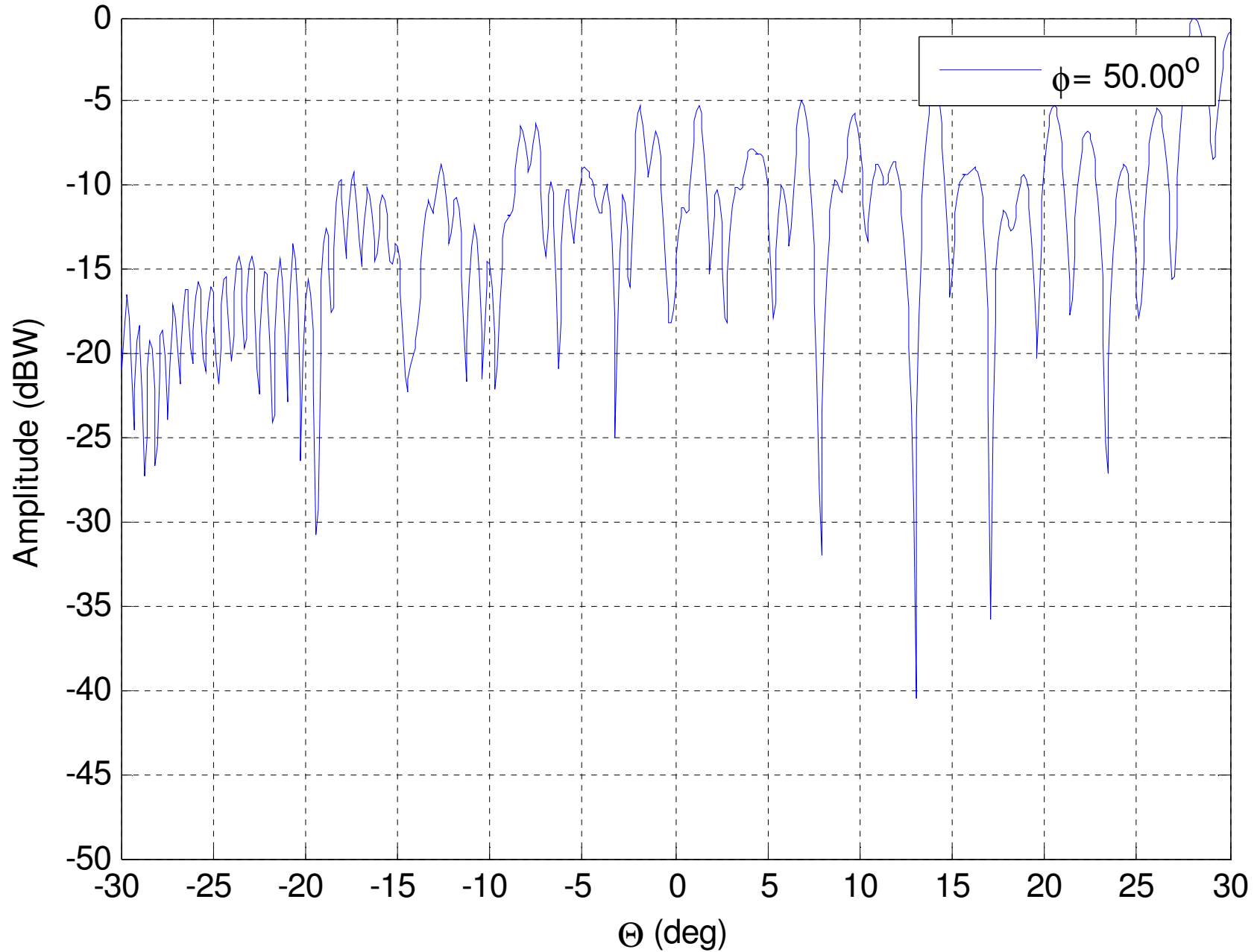
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -7.12 dBW, Date: 15-Dec-2011



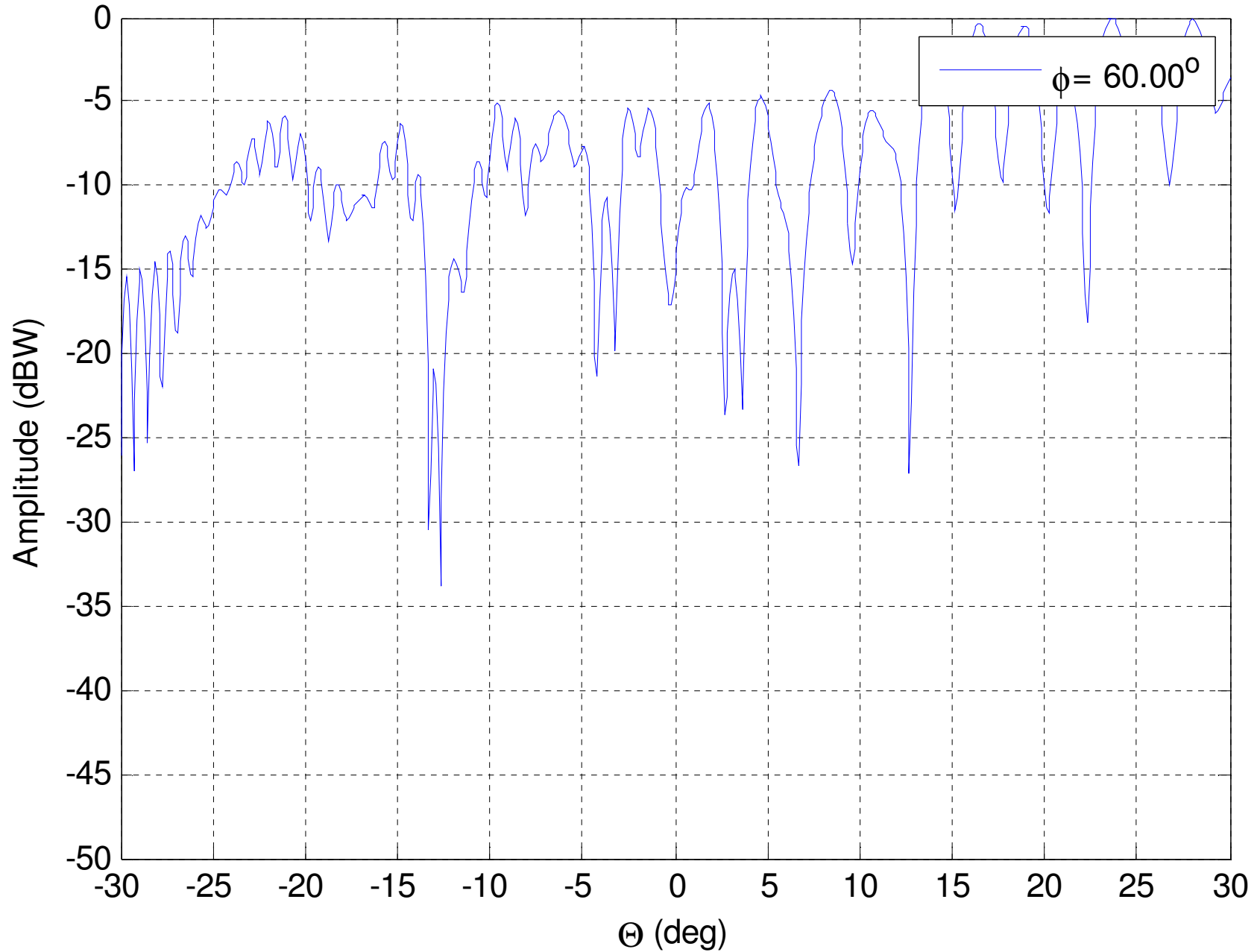
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -4.51 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

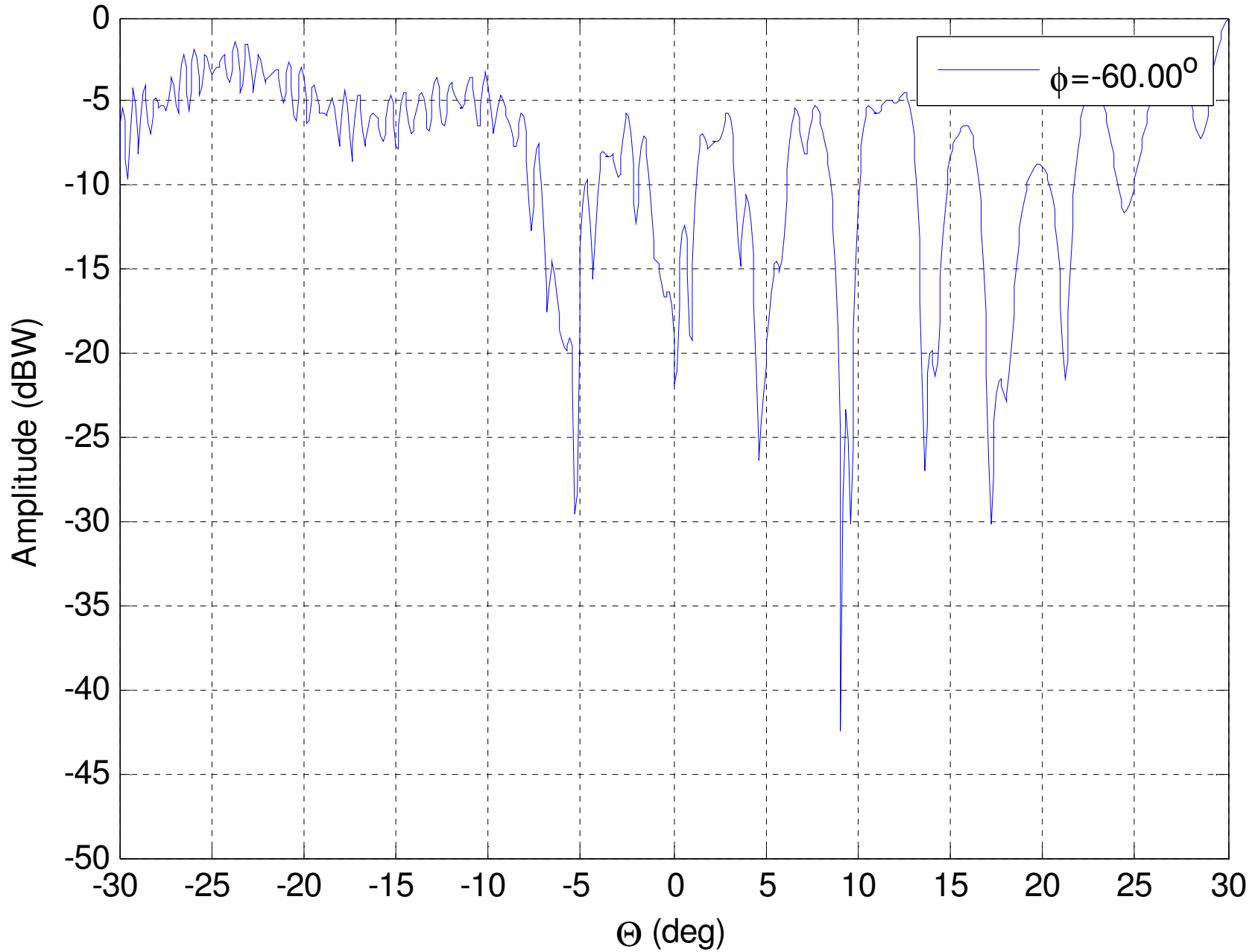
Input file: tx-17.5-lhcp-60.cut, Peak: -5.28 dBW, Date: 15-Dec-2011



RHCP at 17.7 GHz

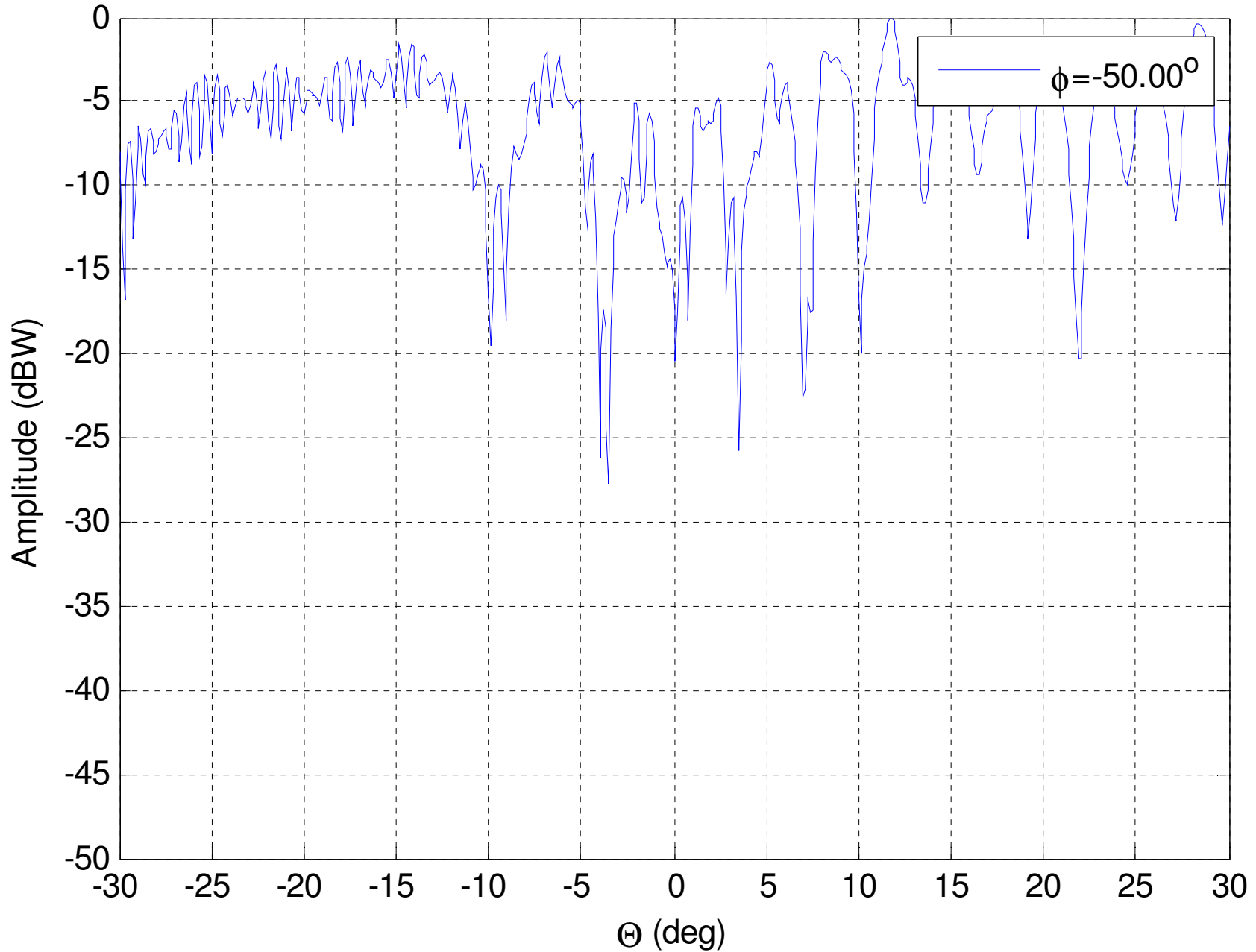
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -4.49 dBW, Date: 15-Dec-2011



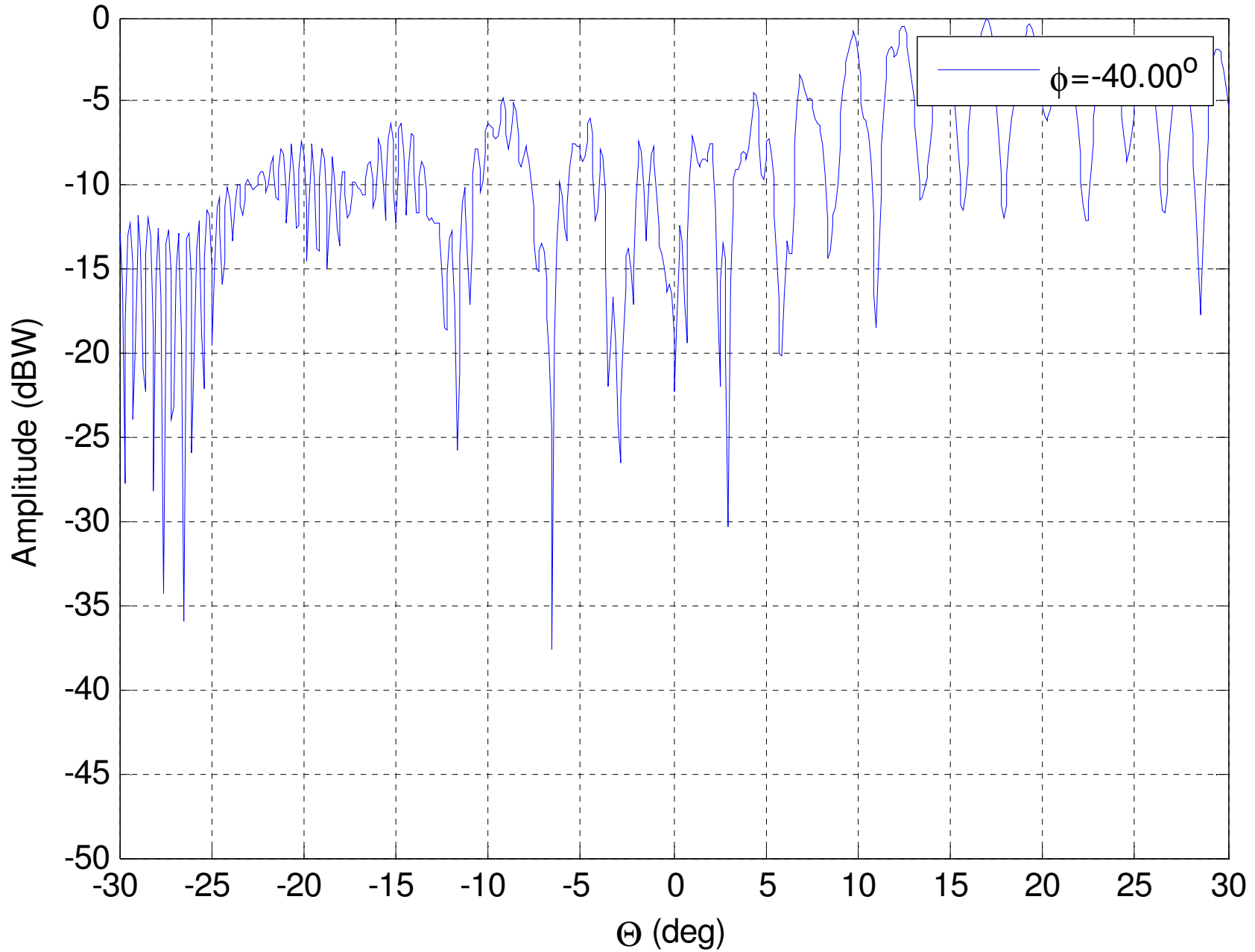
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -6.15 dBW, Date: 15-Dec-2011



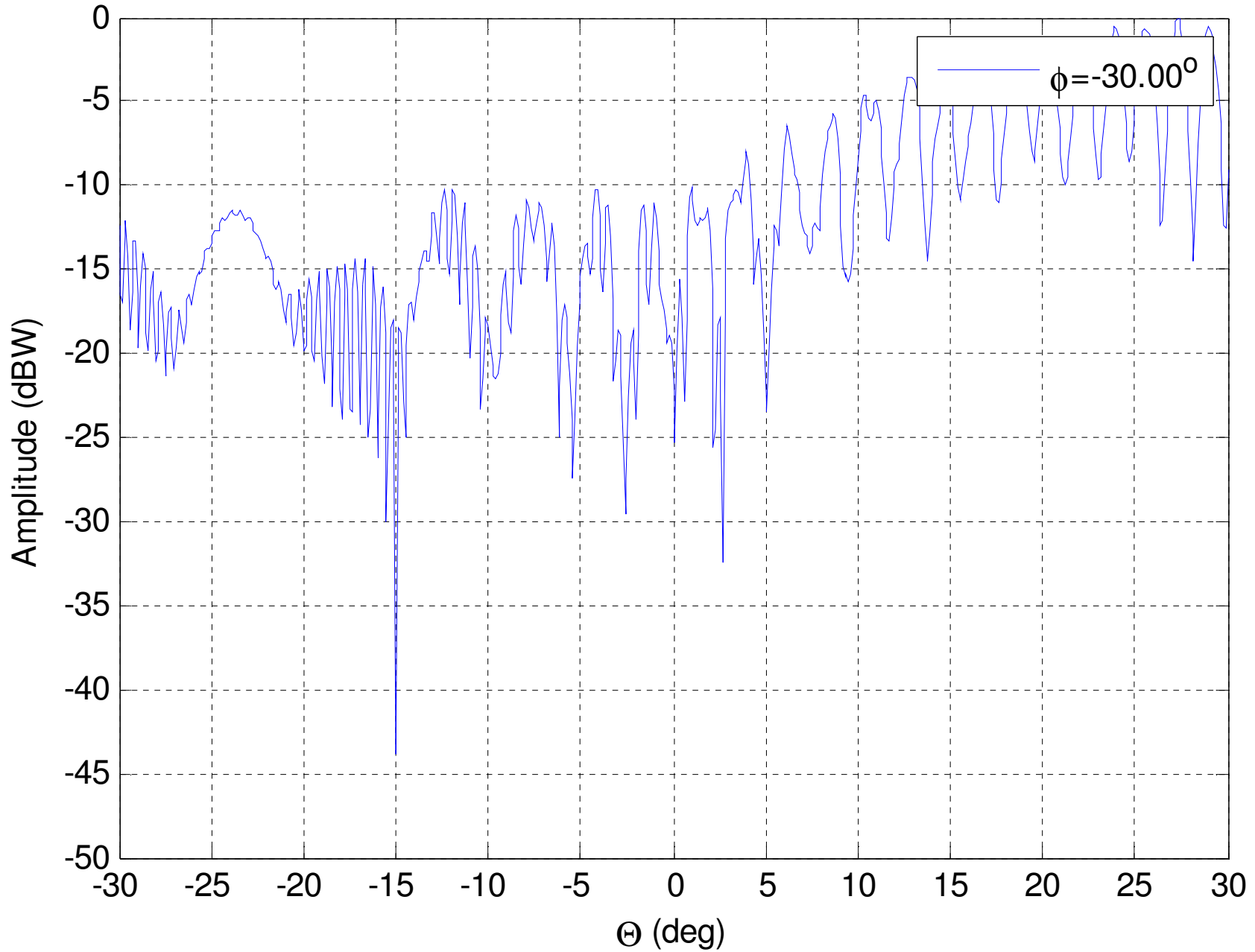
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -4.40 dBW, Date: 15-Dec-2011



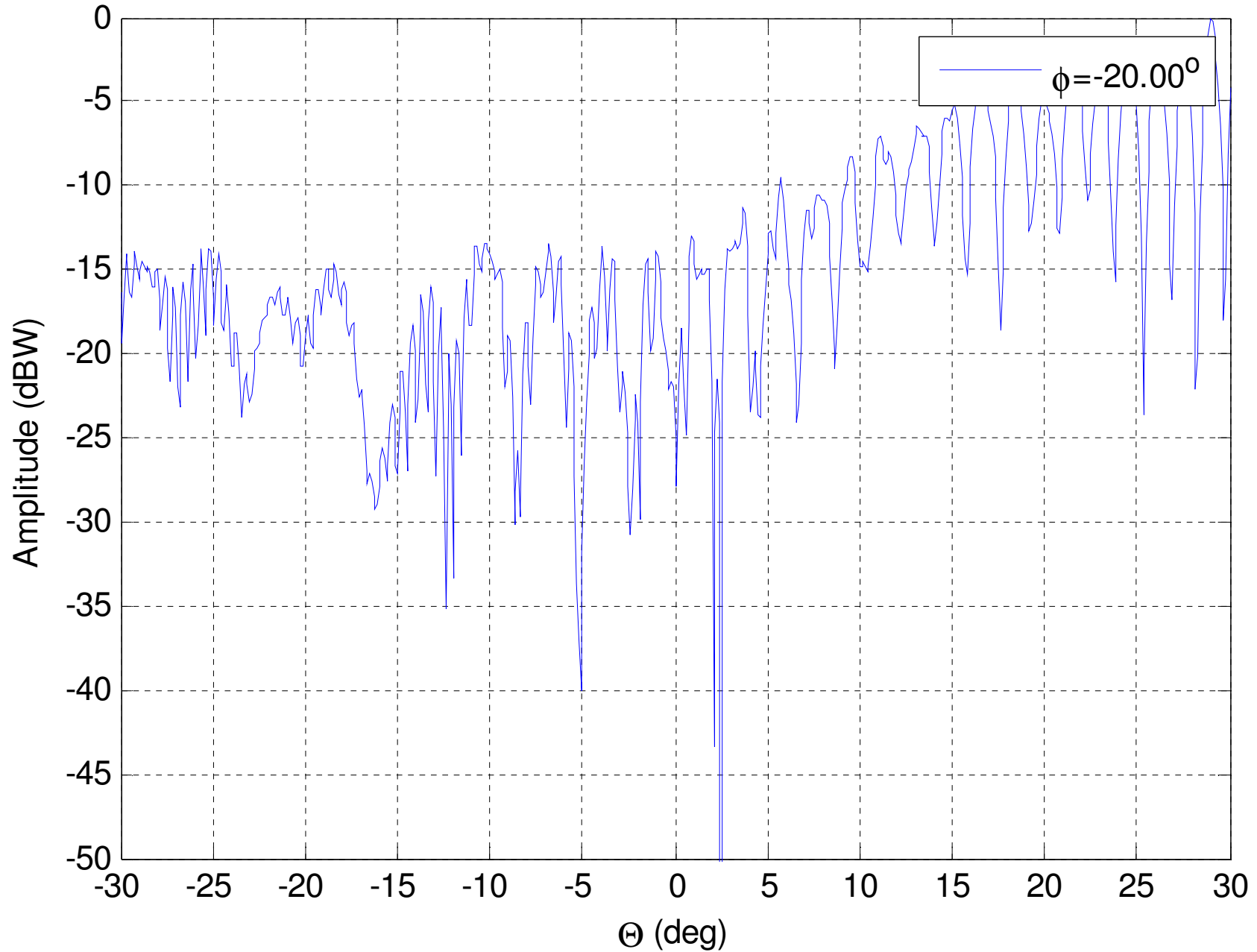
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -1.26 dBW, Date: 15-Dec-2011



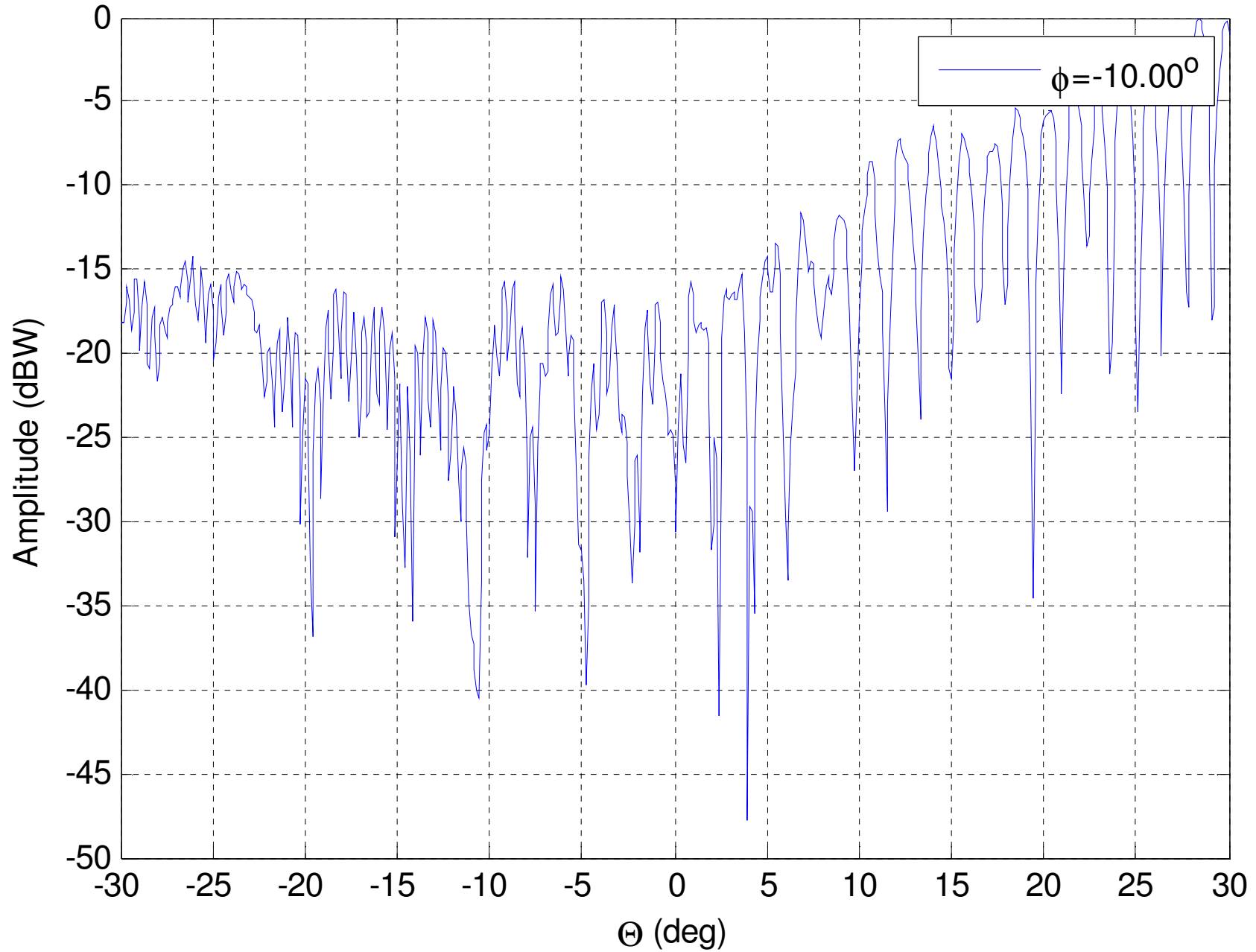
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: 1.54 dBW, Date: 15-Dec-2011



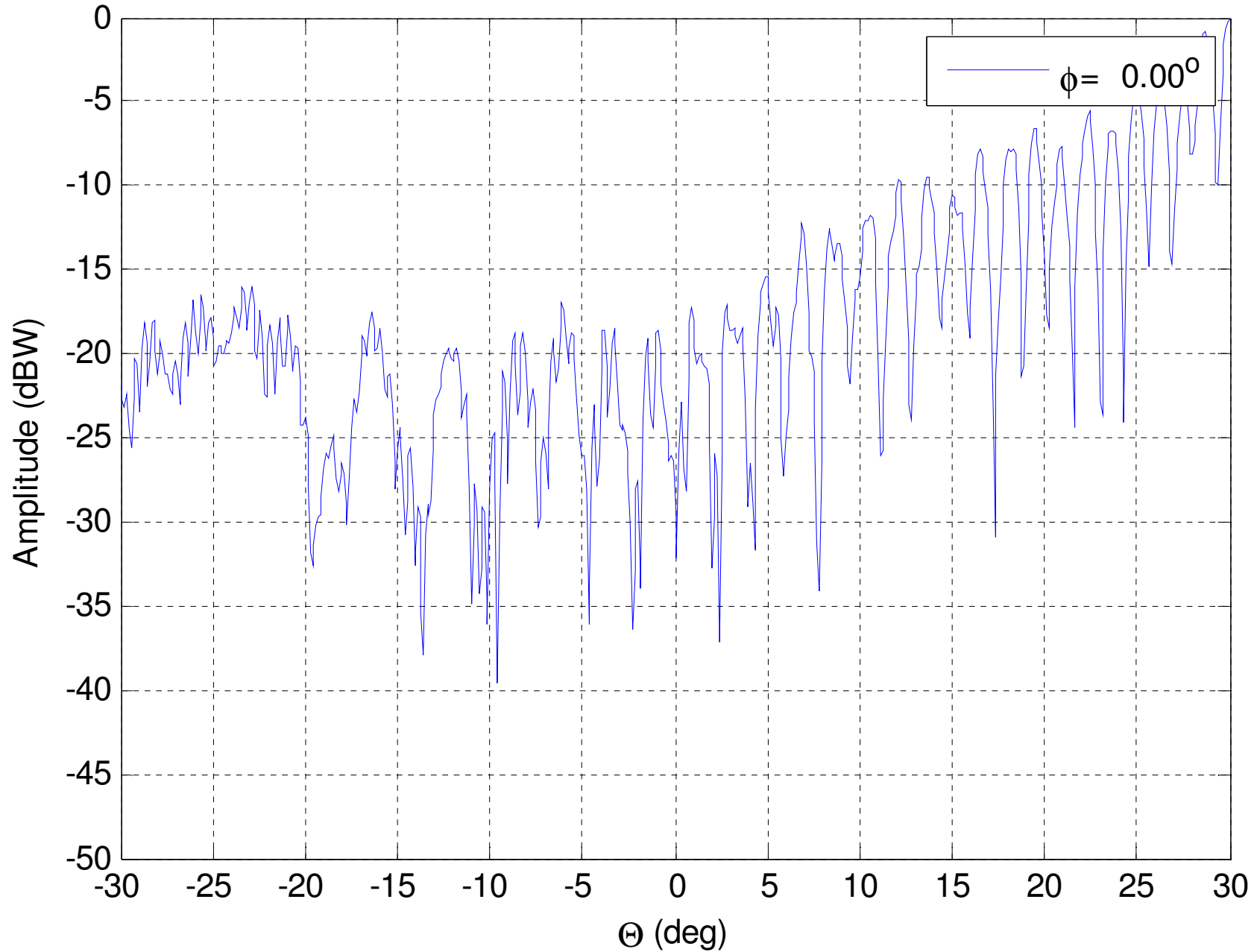
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: 4.43 dBW, Date: 15-Dec-2011



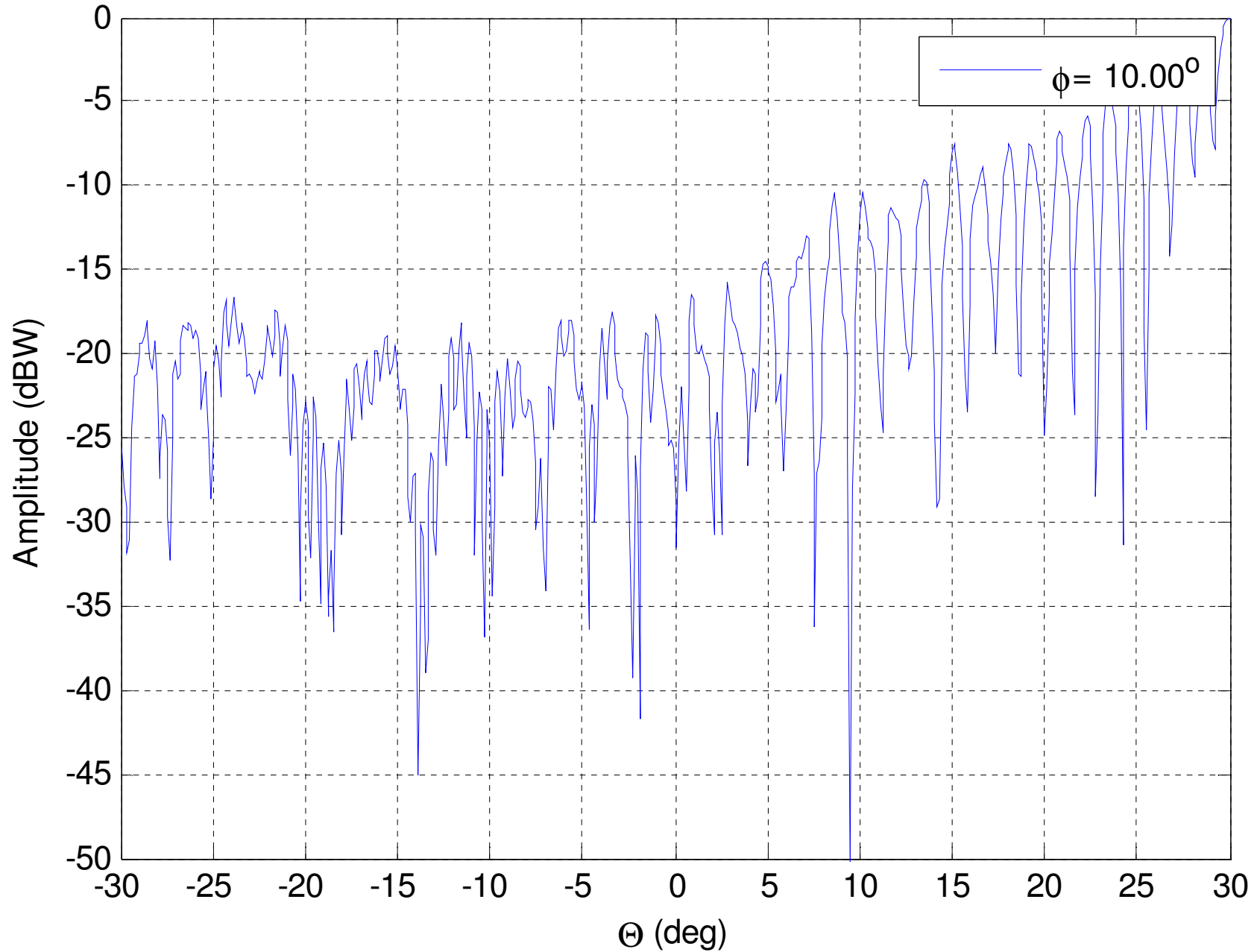
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: 6.05 dBW, Date: 15-Dec-2011



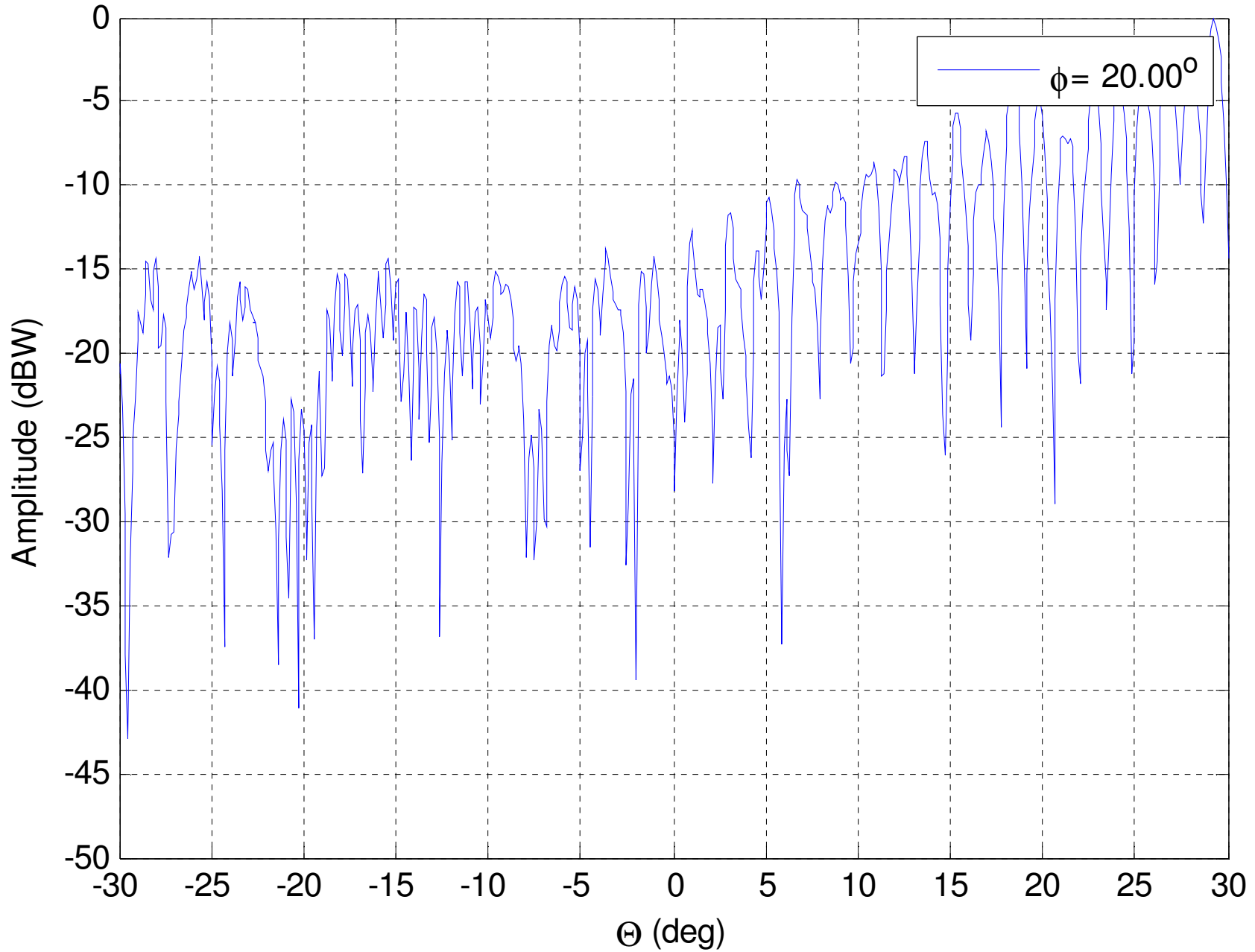
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: 5.34 dBW, Date: 15-Dec-2011



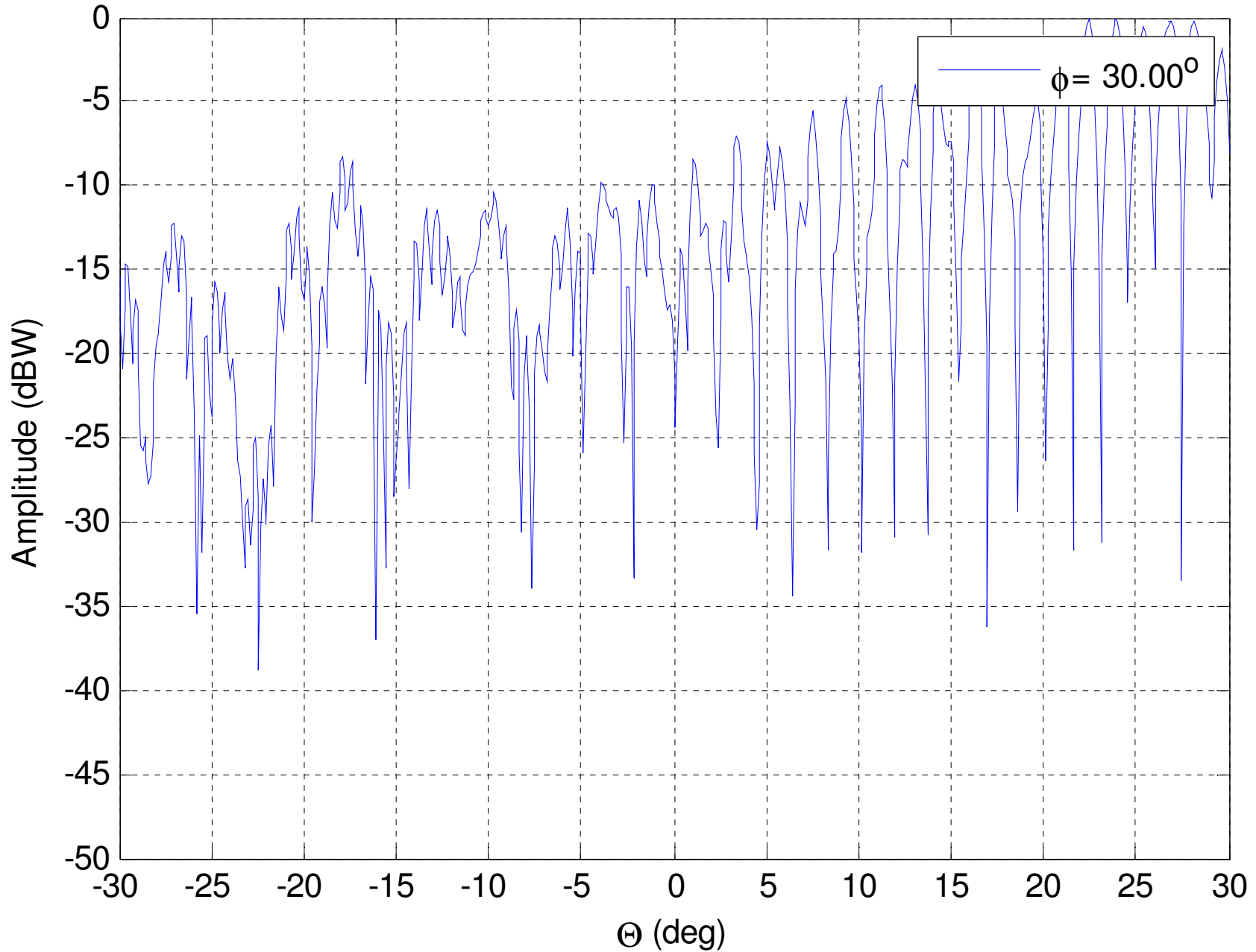
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: 1.76 dBW, Date: 15-Dec-2011



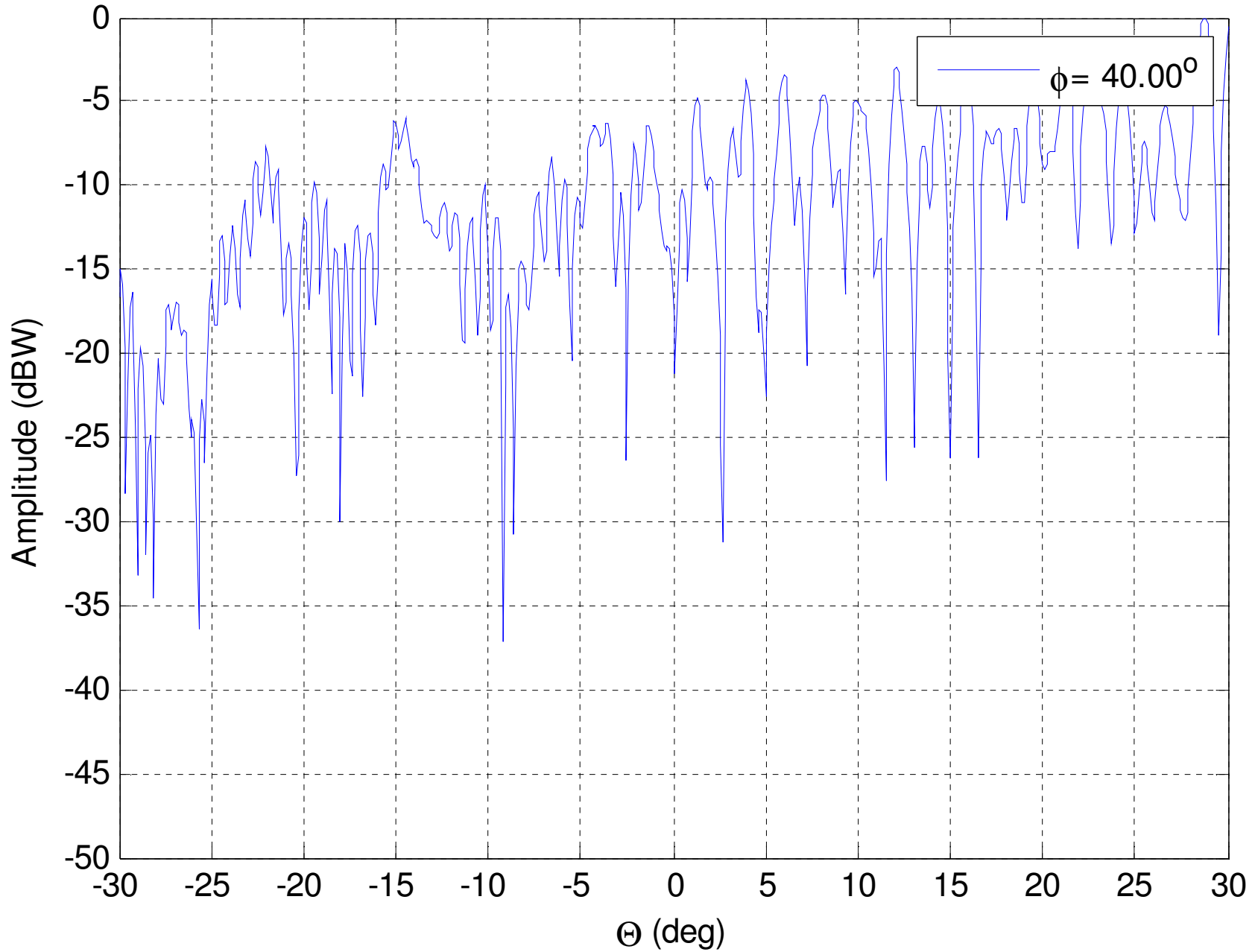
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: -2.39 dBW, Date: 15-Dec-2011



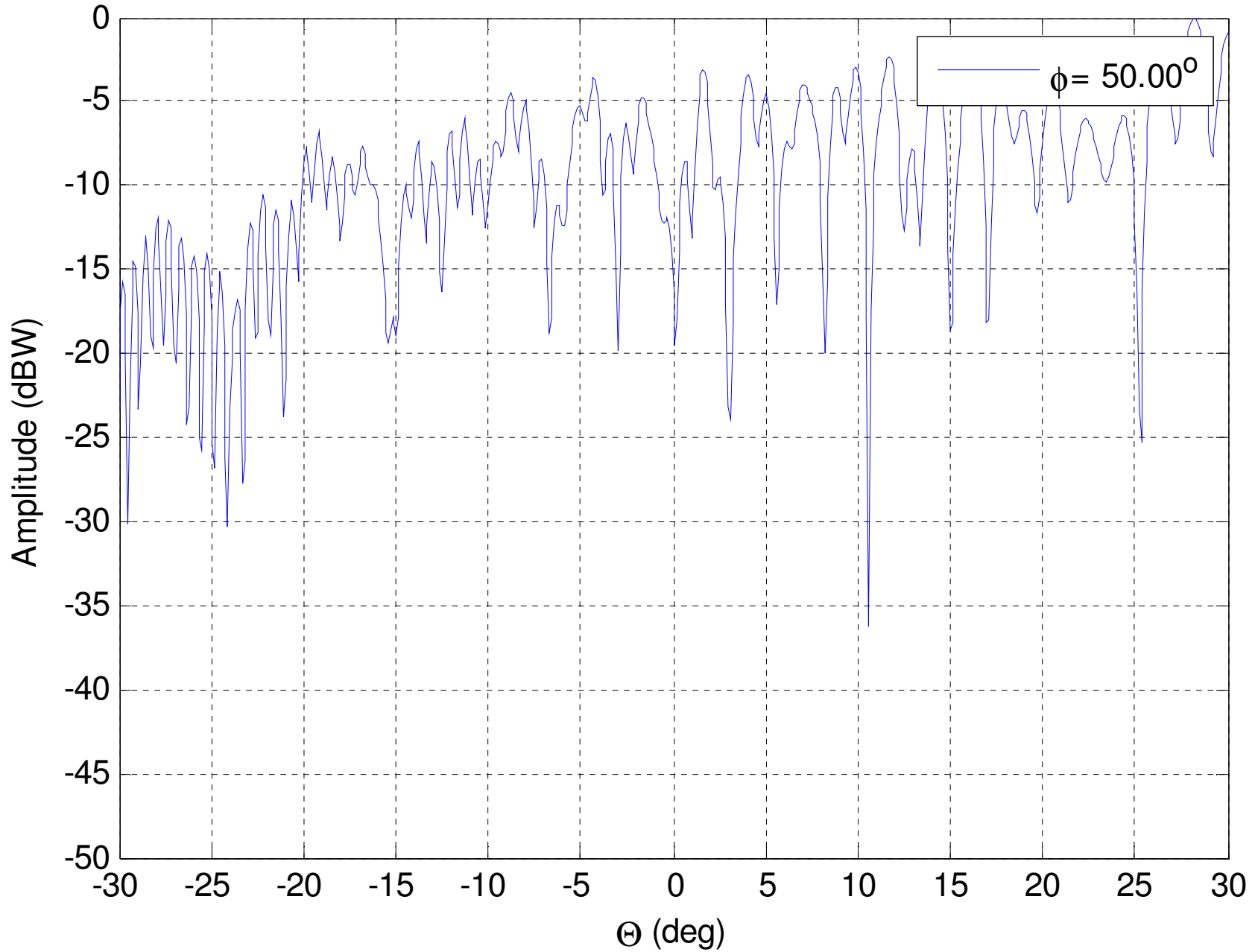
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -5.67 dBW, Date: 15-Dec-2011



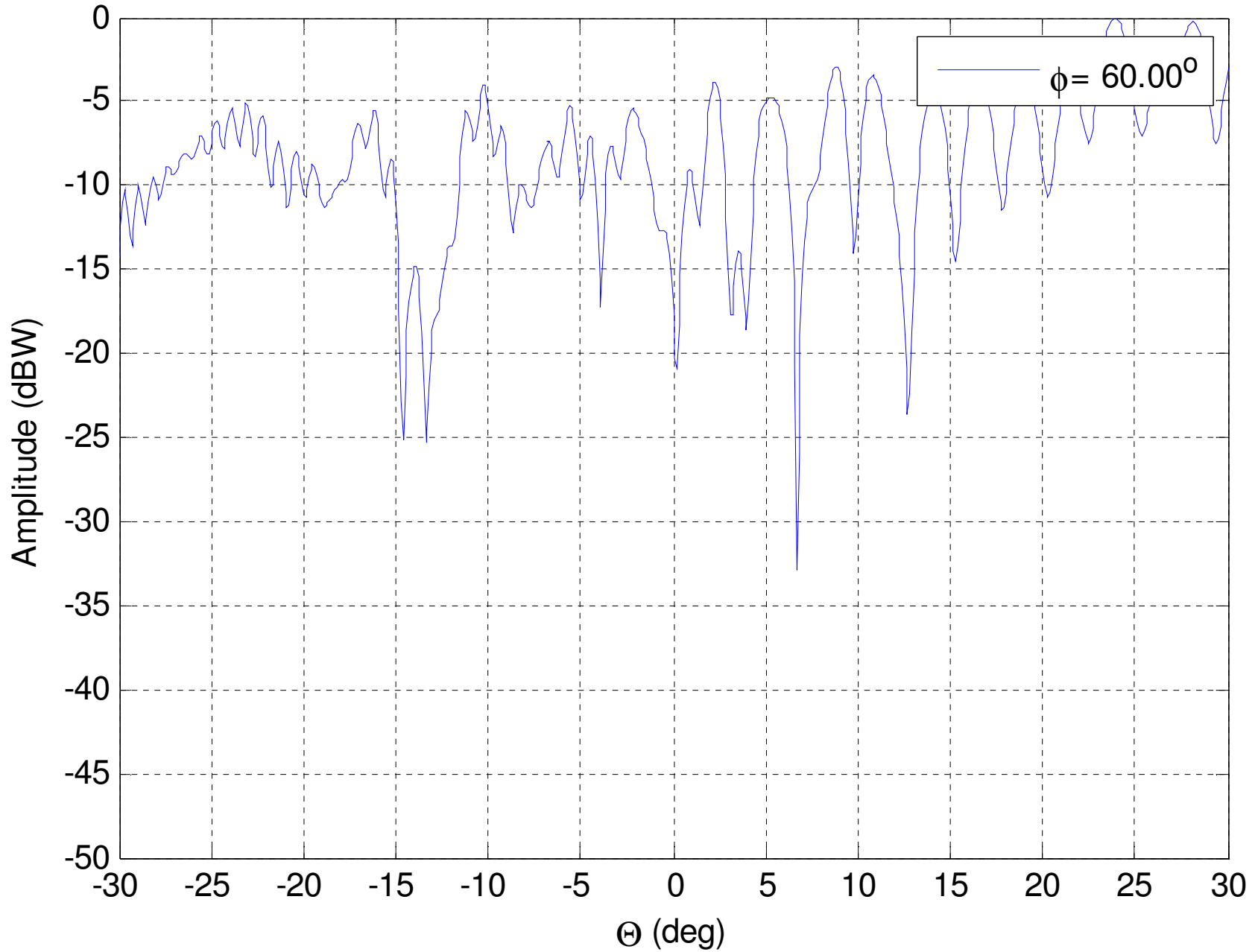
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -7.05 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

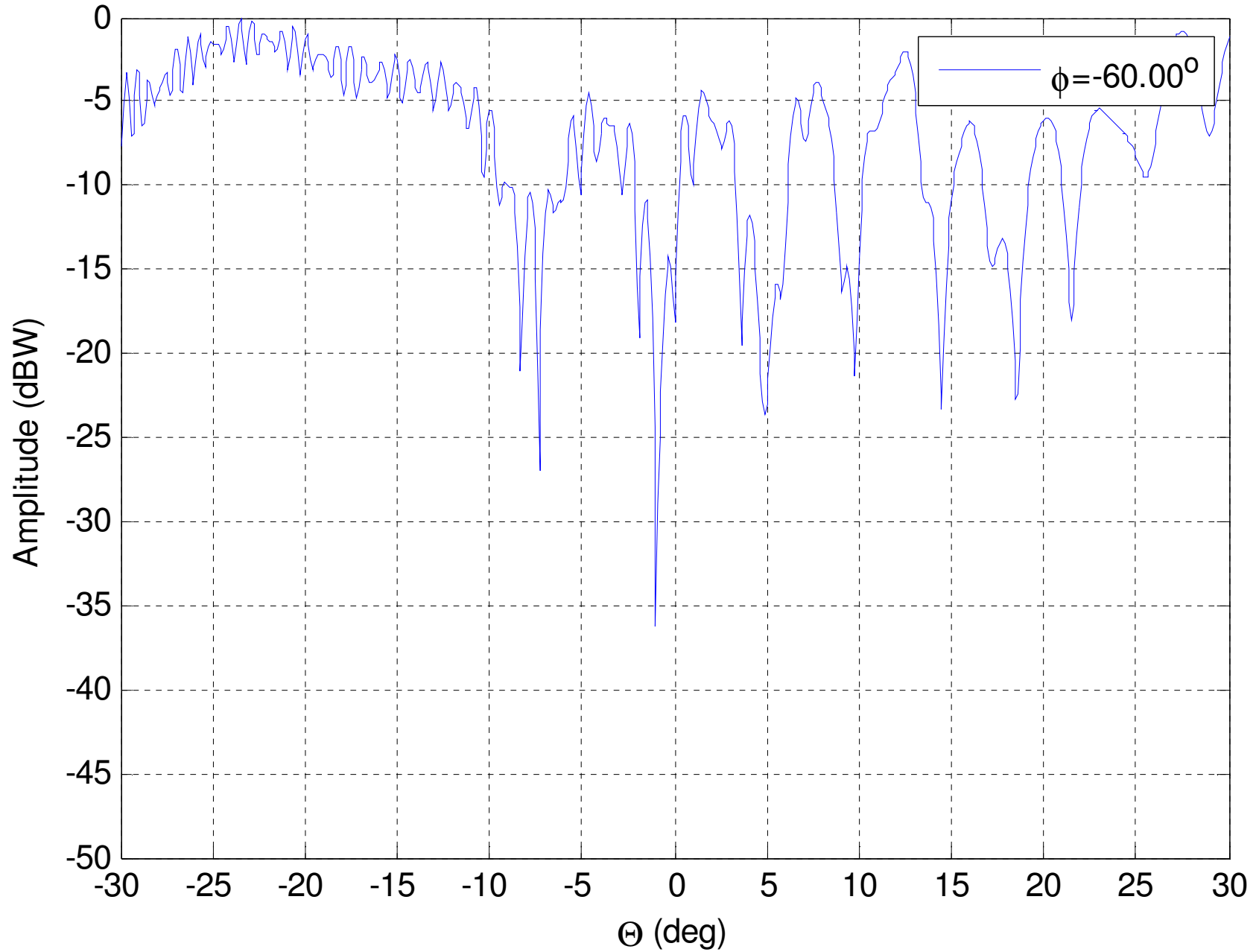
Input file: tx-17.7-rhcp-60.cut, Peak: -5.84 dBW, Date: 15-Dec-2011



LHCP at 17.7 GHz

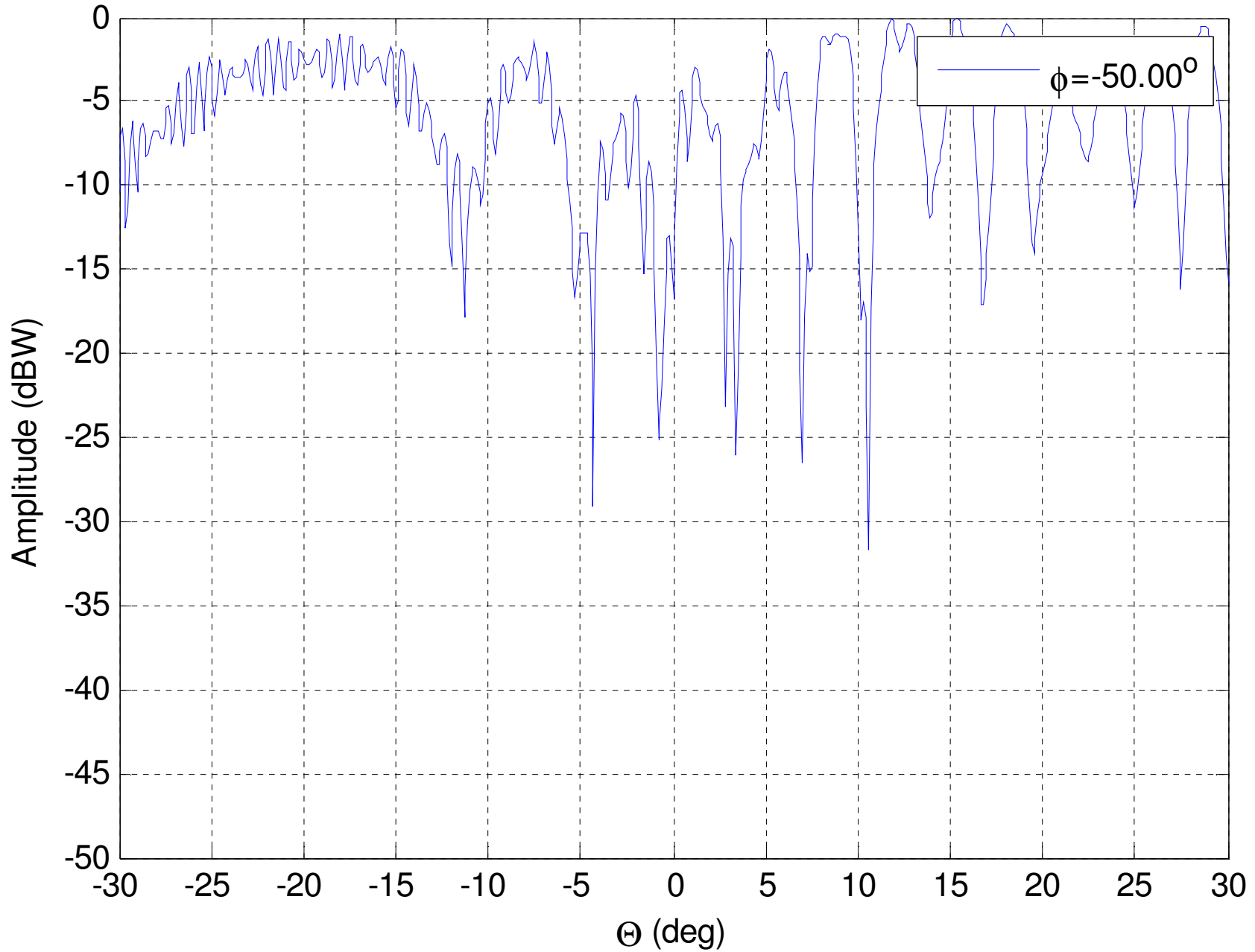
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -5.40 dBW, Date: 15-Dec-2011



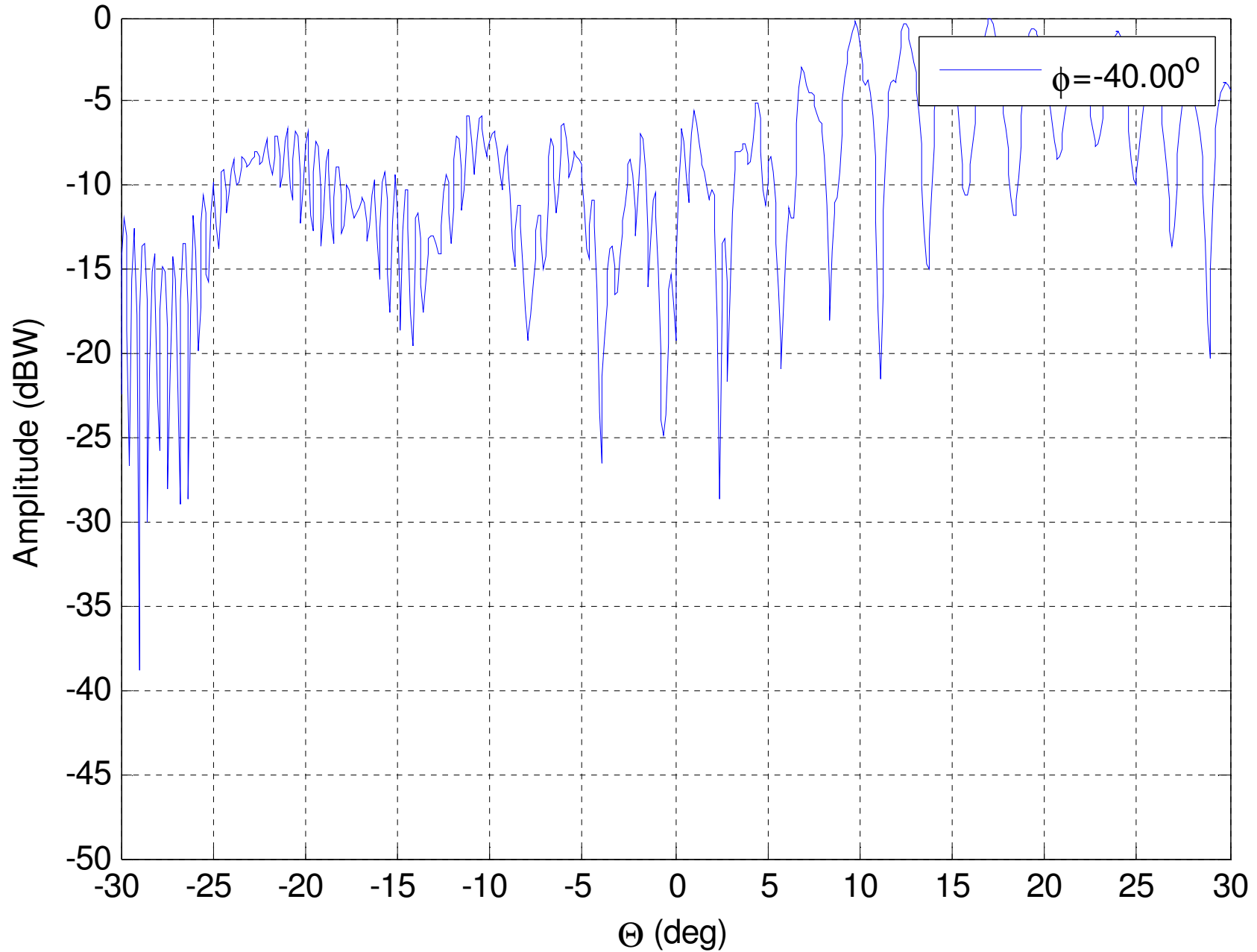
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -6.75 dBW, Date: 15-Dec-2011



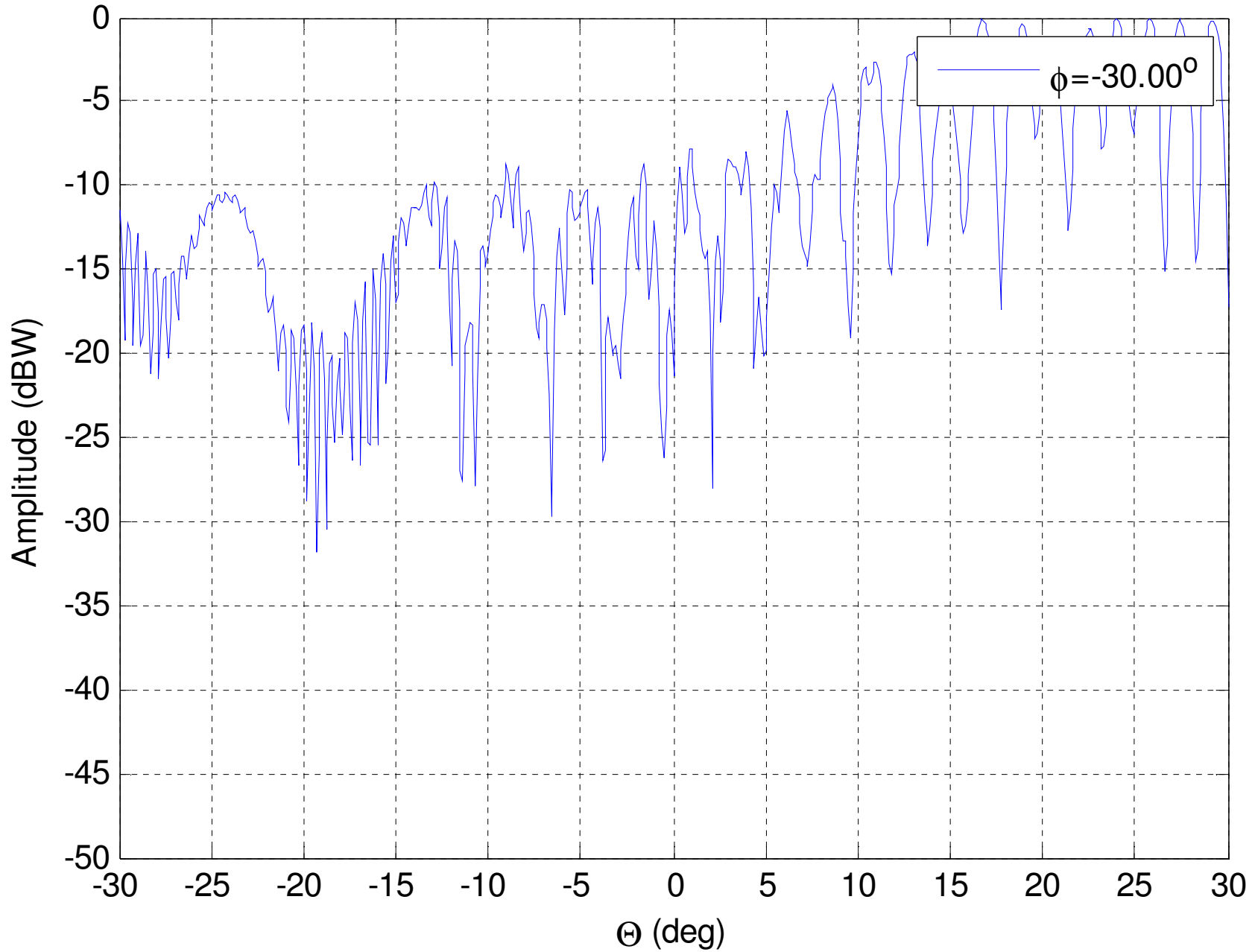
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -4.36 dBW, Date: 15-Dec-2011



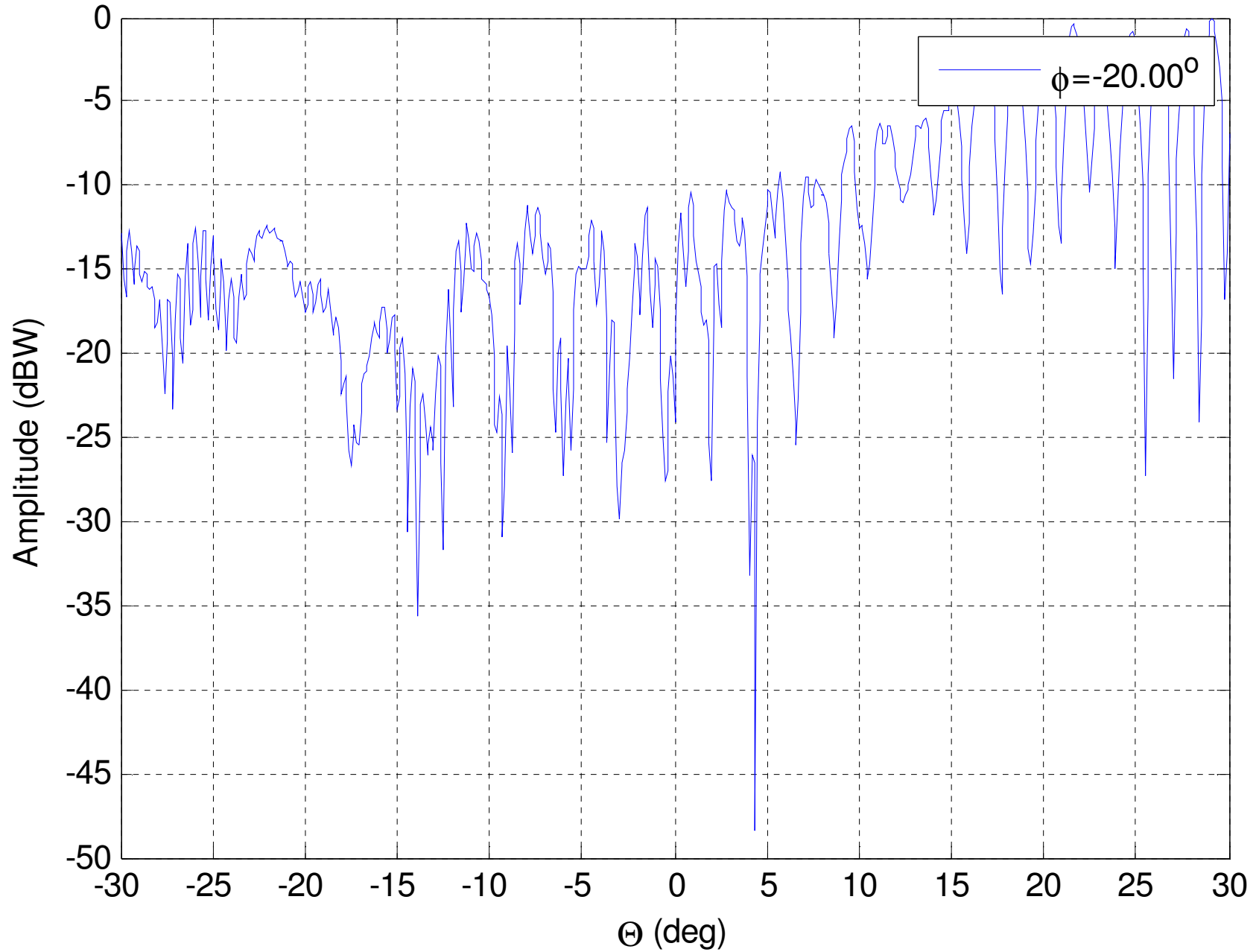
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -2.22 dBW, Date: 15-Dec-2011



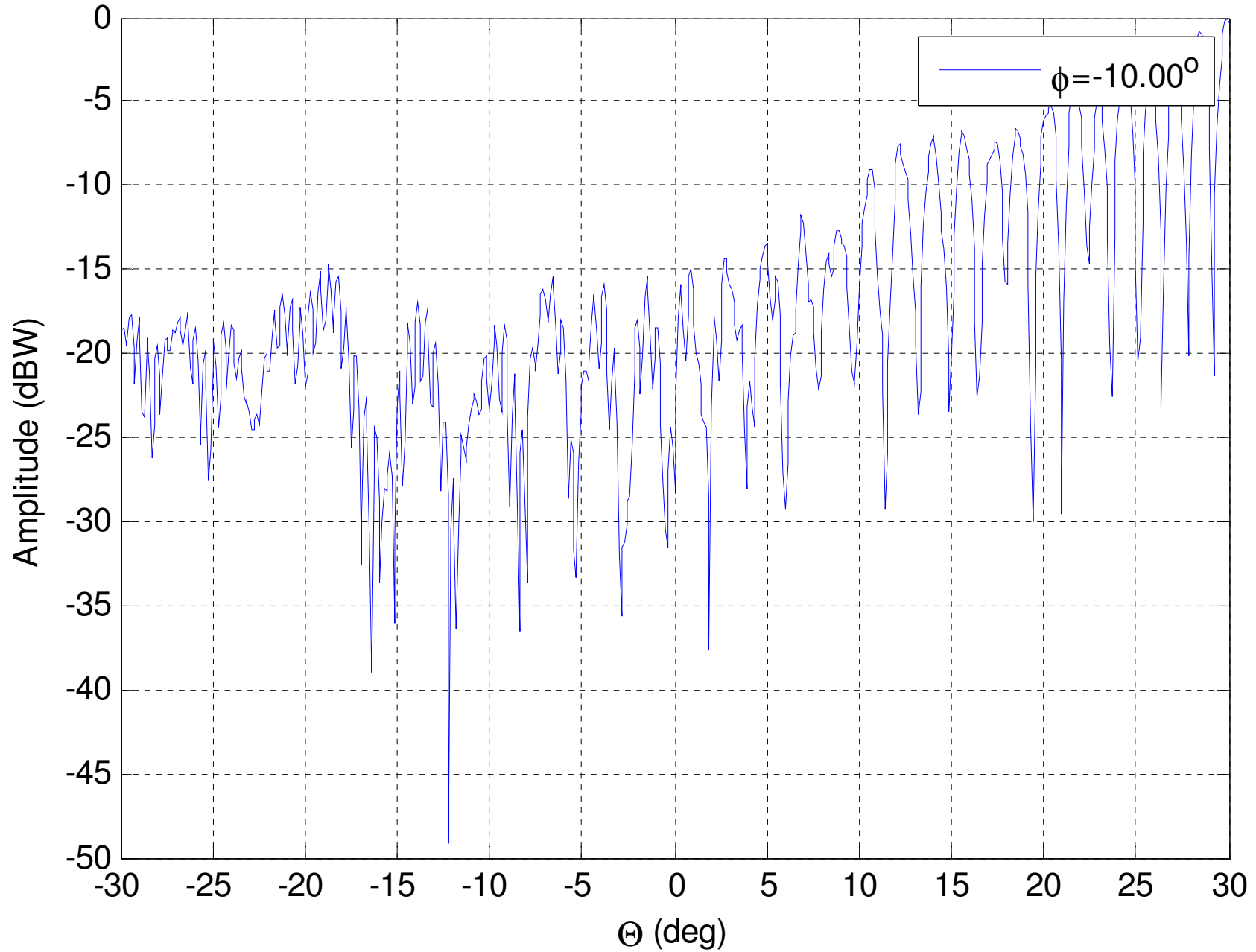
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: 0.49 dBW, Date: 15-Dec-2011



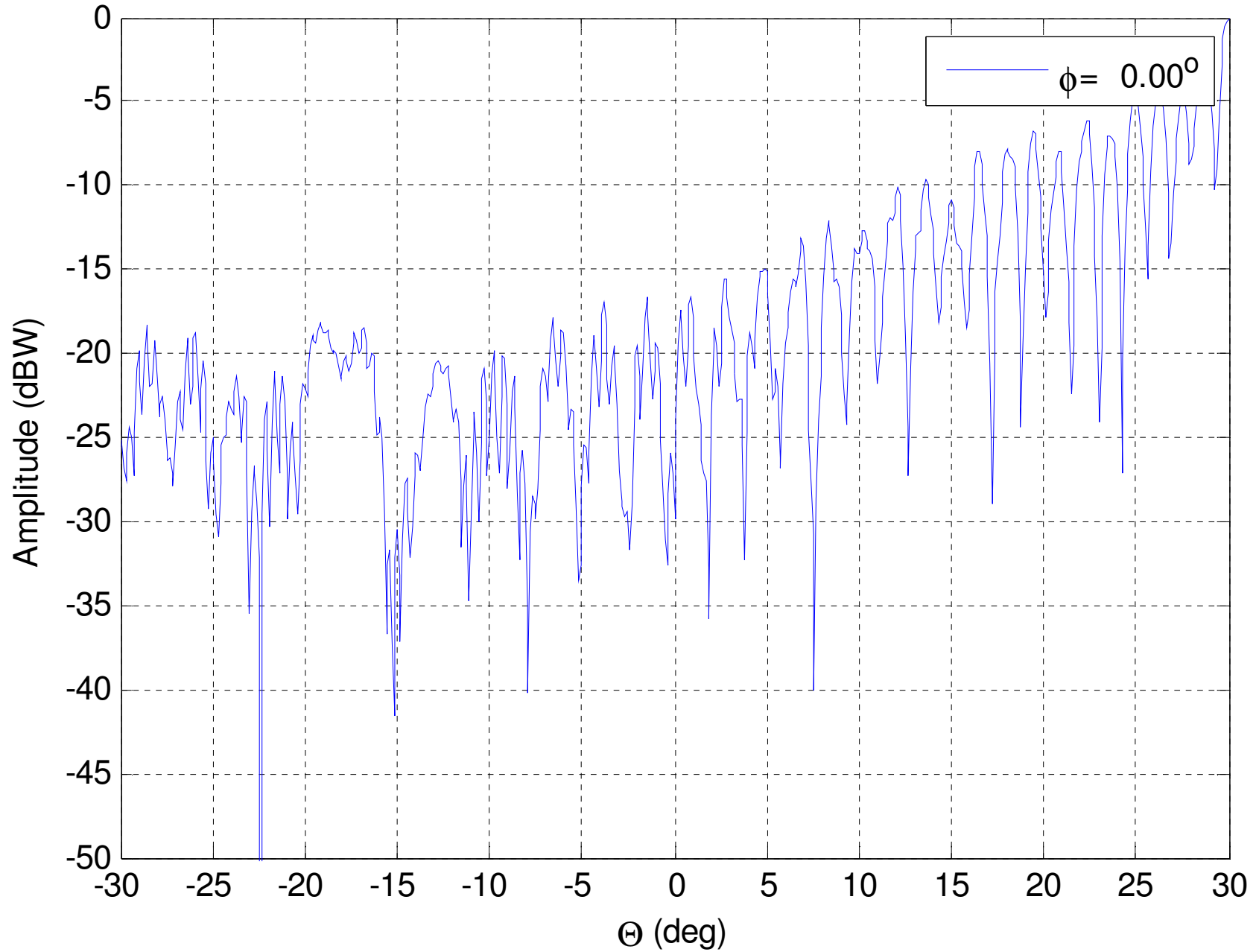
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: 4.87 dBW, Date: 15-Dec-2011



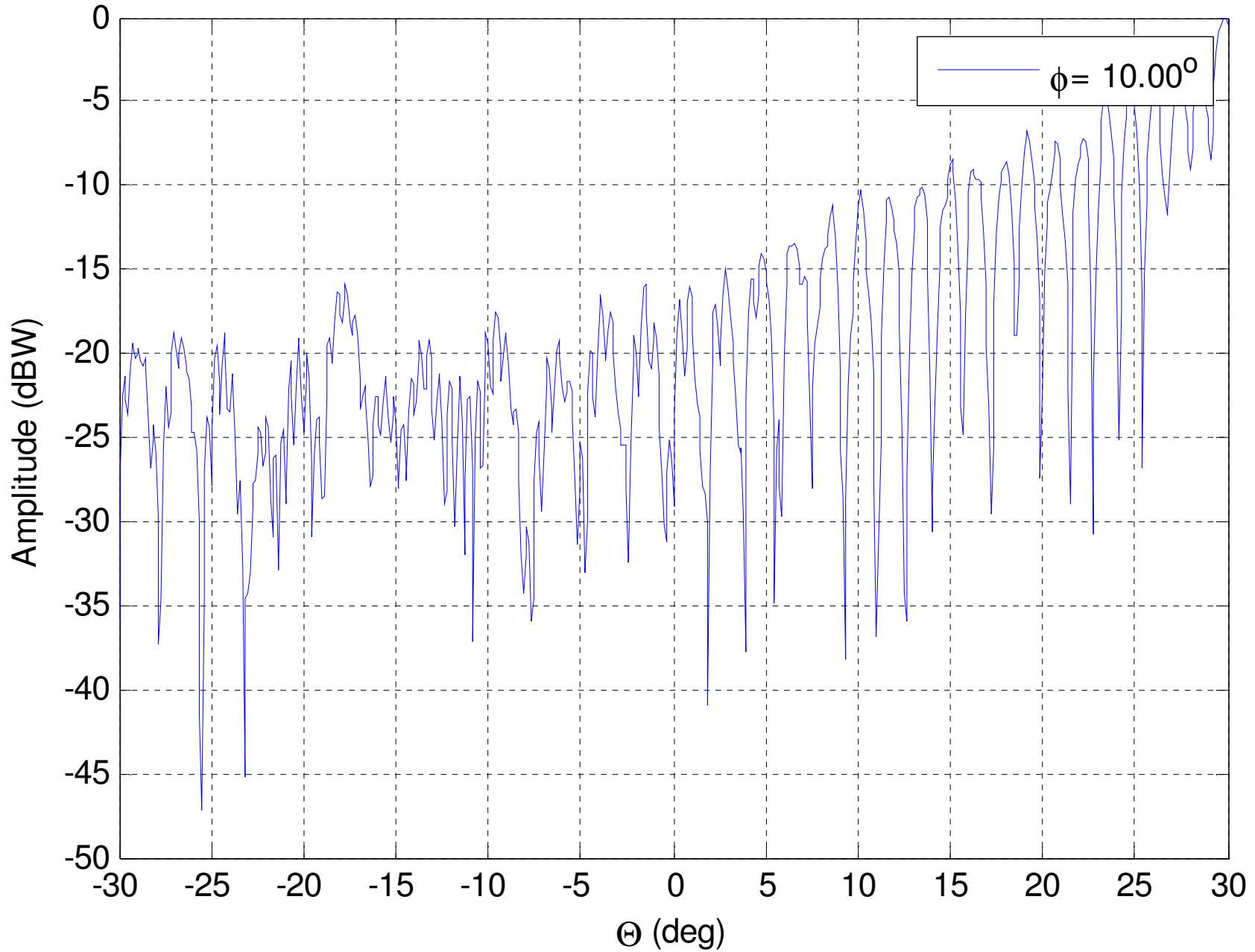
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: 6.36 dBW, Date: 15-Dec-2011



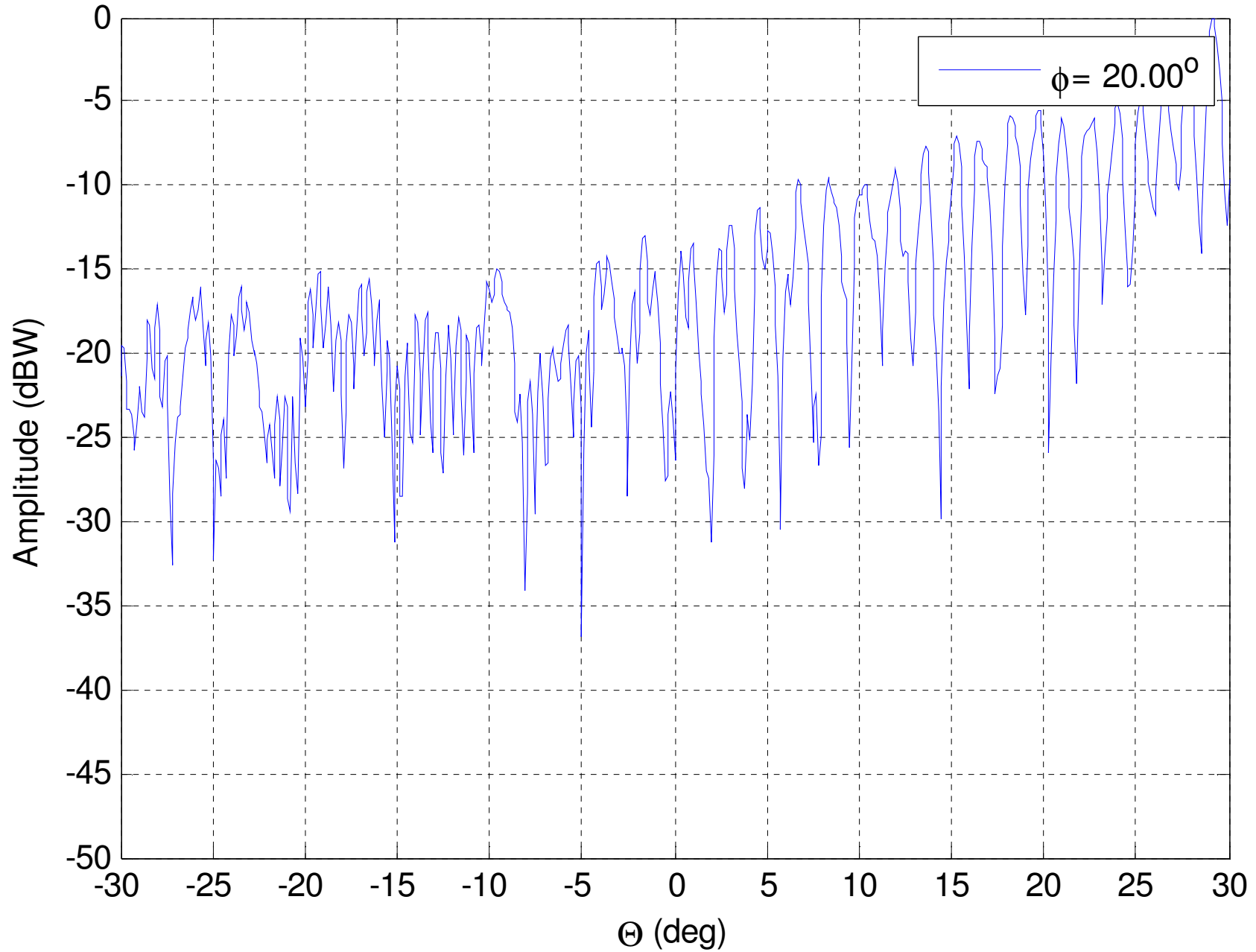
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: 5.64 dBW, Date: 15-Dec-2011



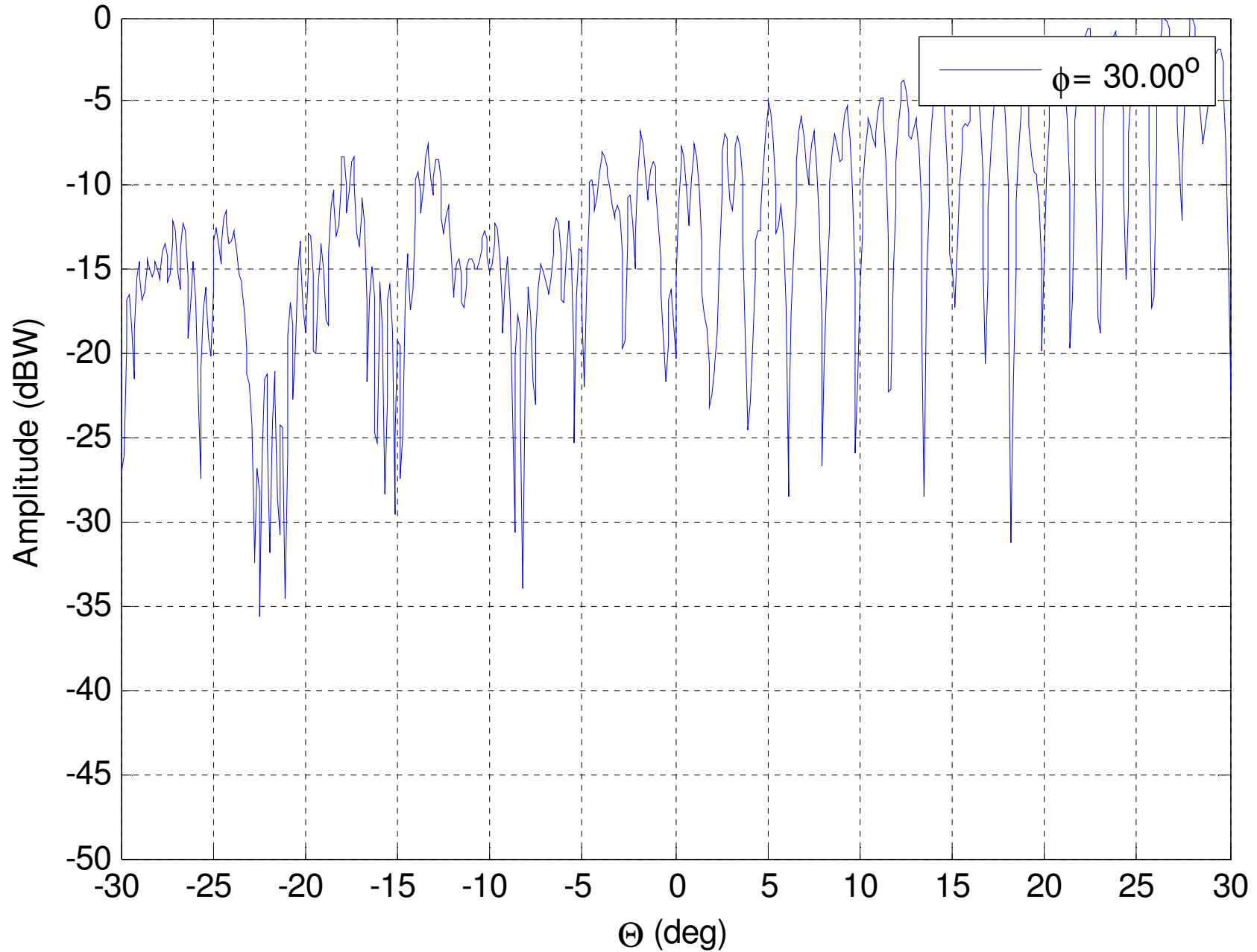
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: 2.90 dBW, Date: 15-Dec-2011



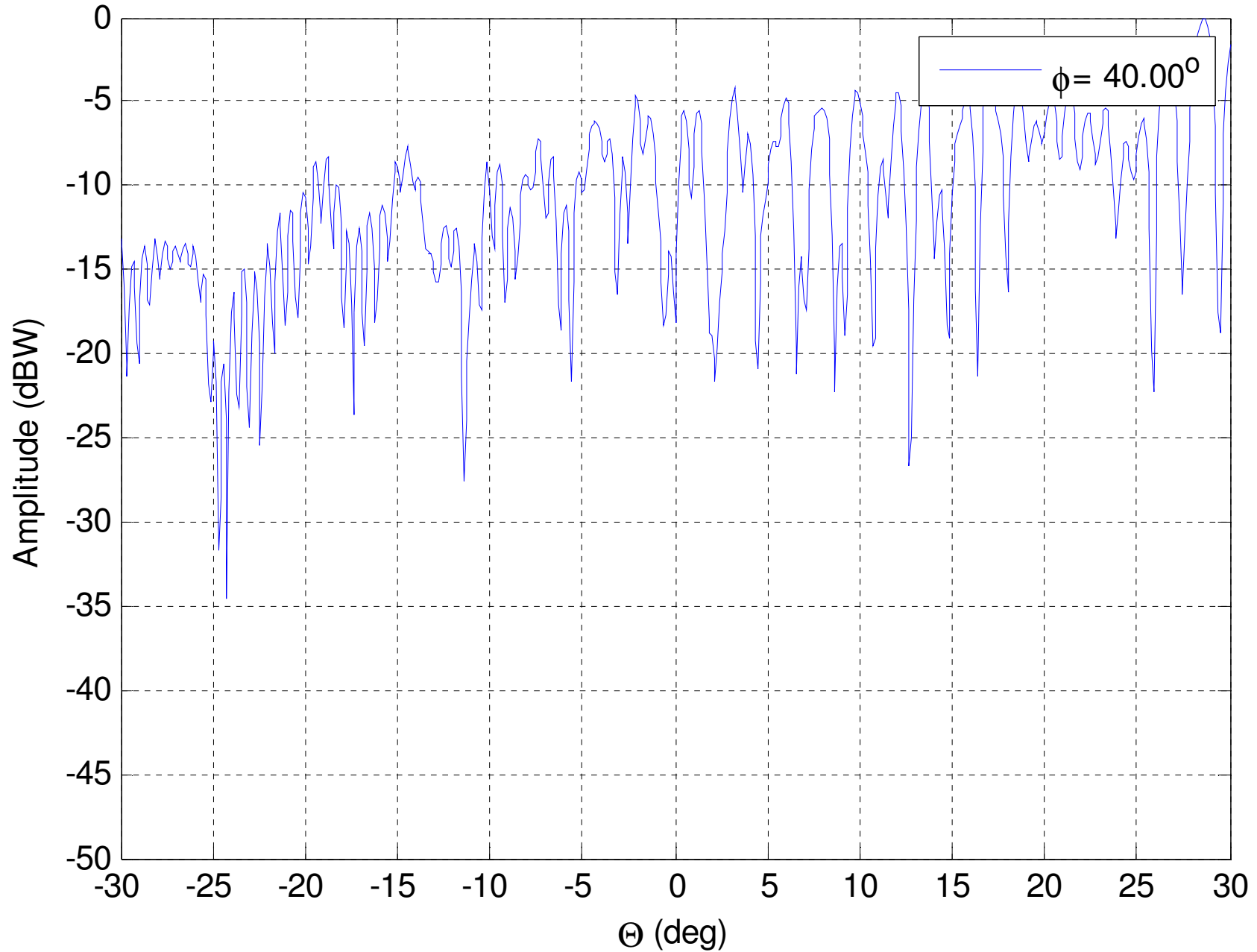
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: -3.19 dBW, Date: 15-Dec-2011



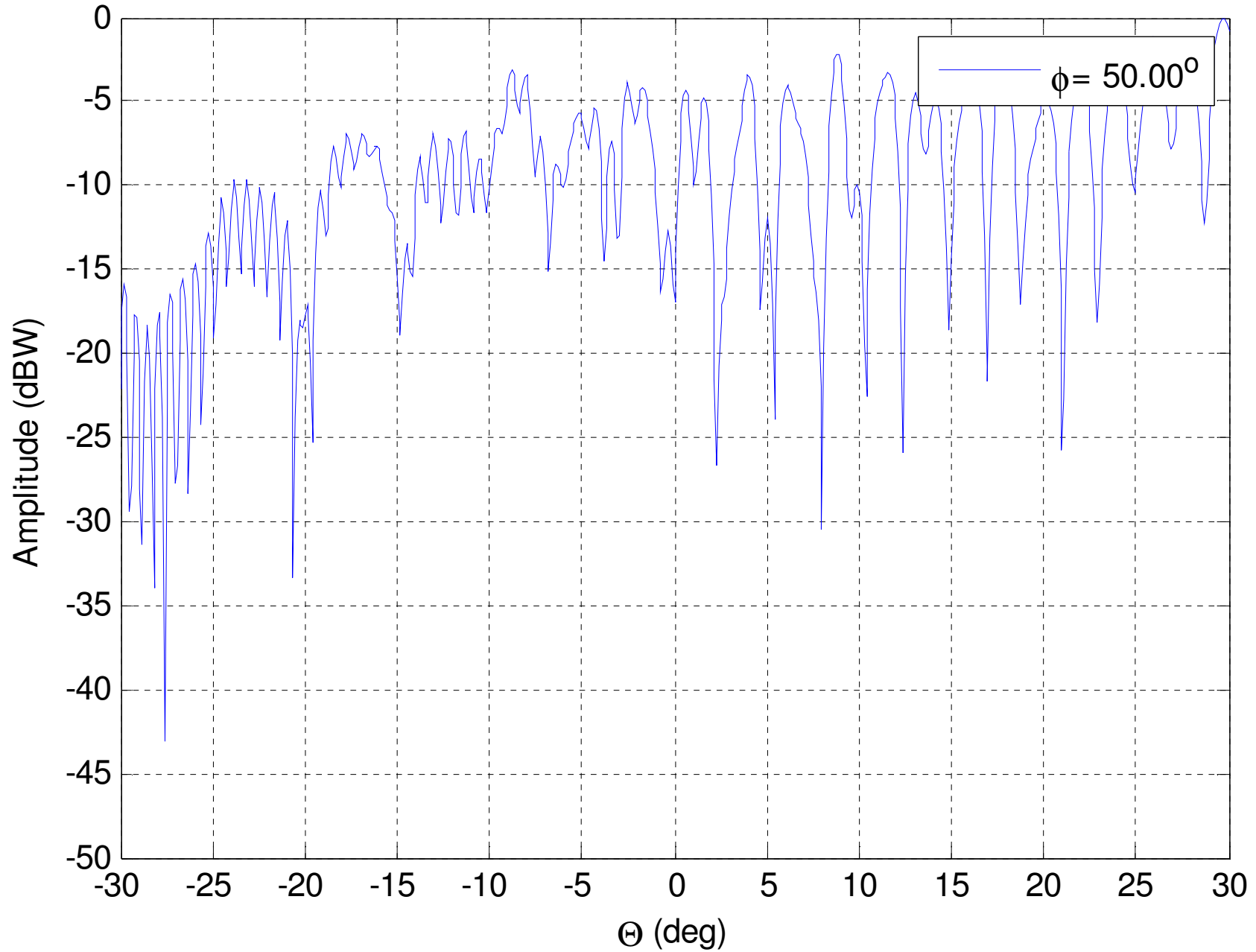
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -5.40 dBW, Date: 15-Dec-2011



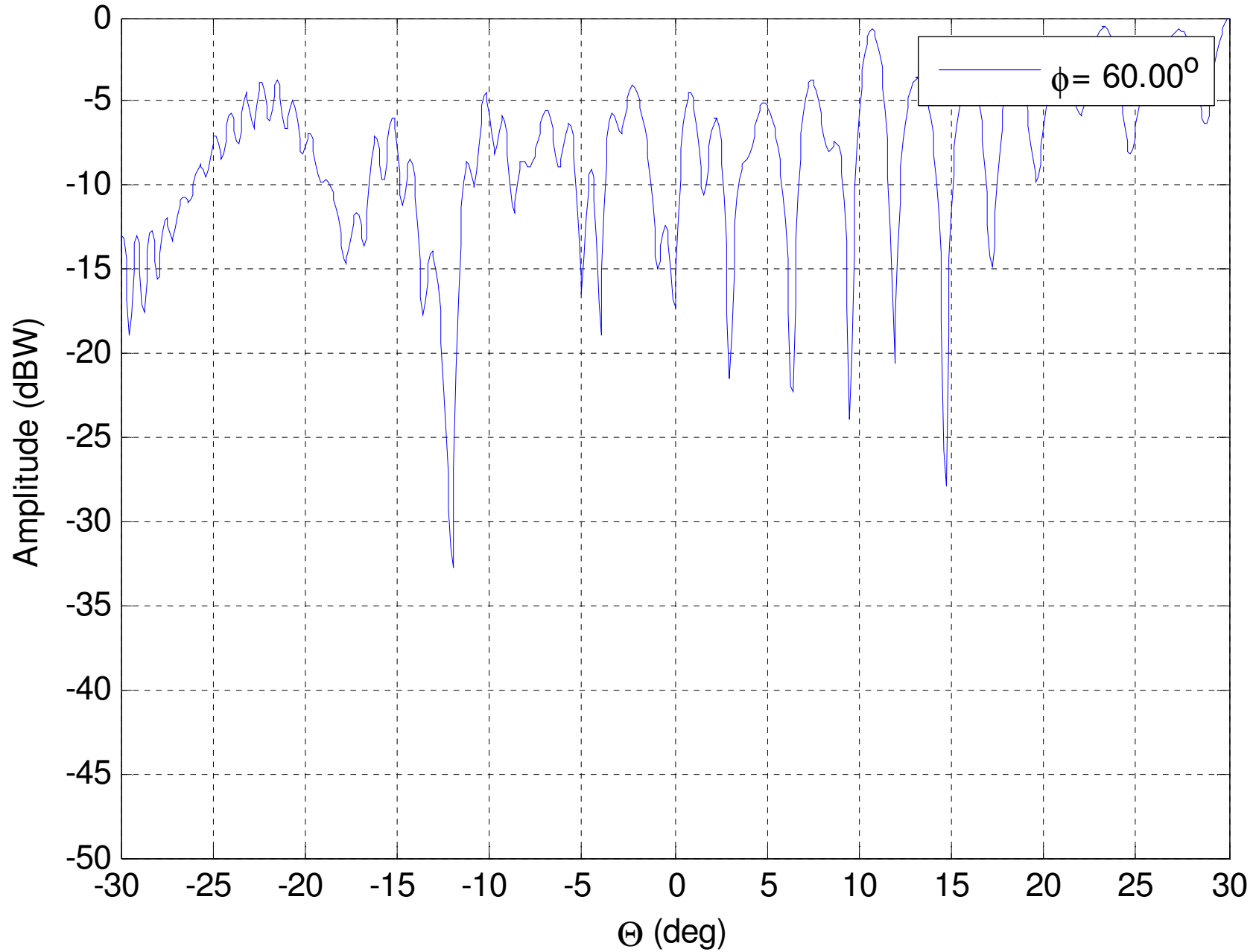
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -6.54 dBW, Date: 15-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -6.32 dBW, Date: 15-Dec-2011



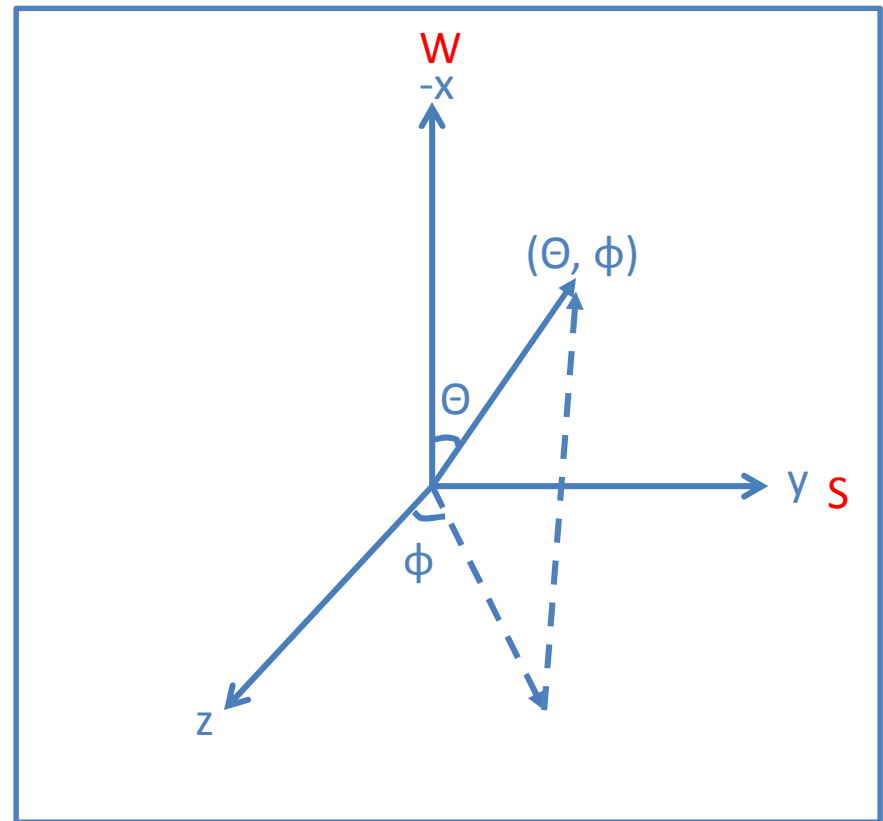
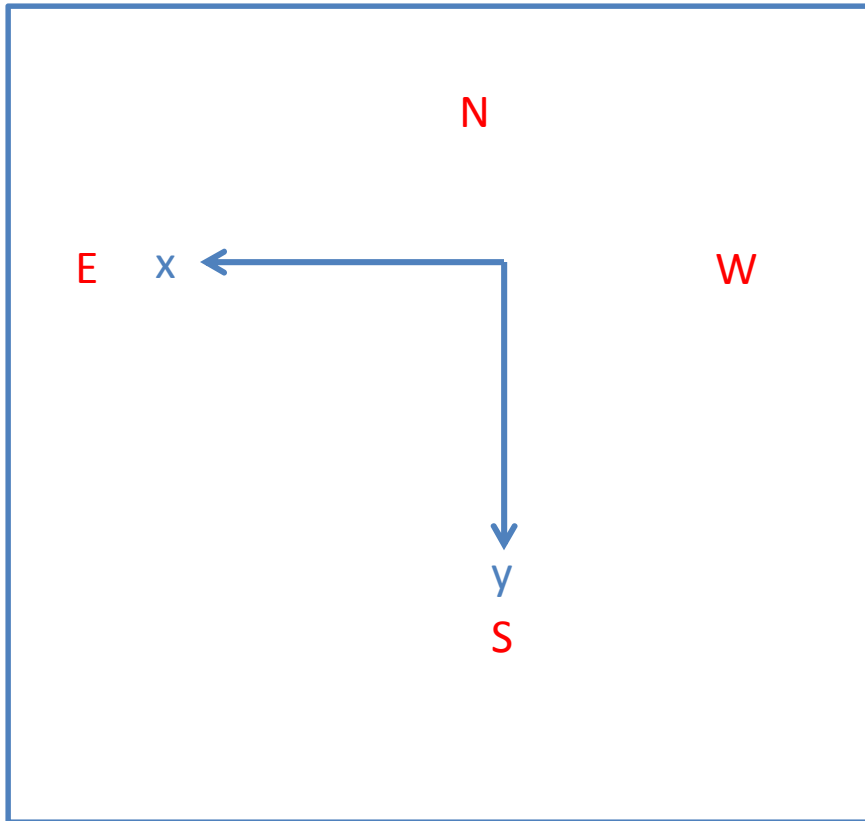
Updated: June 13, 2012

119 West Adjacent Satellite Off Axis Antenna Performance Spot Beam 37

Maximum Allowable EIRP to meet the -117dBW/m²/100 kHz

Maximum EIRP Allowed	
Spec Max flux density, dBW/m ² /100kHz	-117
Desired channel band width, MHz	25.8
Symbol rate band width modification factor	1
Effective channel bandwidth, MHz	25.8
Effective bandwidth, dB-100kHz	24.1
Flux density allowed per channel, dBW/m ²	-92.9
R, radial distance to GEO, km	42164.0
Angle of separation between satellites, deg	0.1
range between satellites, km	73.59
Spreading factor, dB/m ²	-108.3
Atmospheric loss, dB	0
Max satellite EIRP allowed, dBW	15.4

Coordinate System



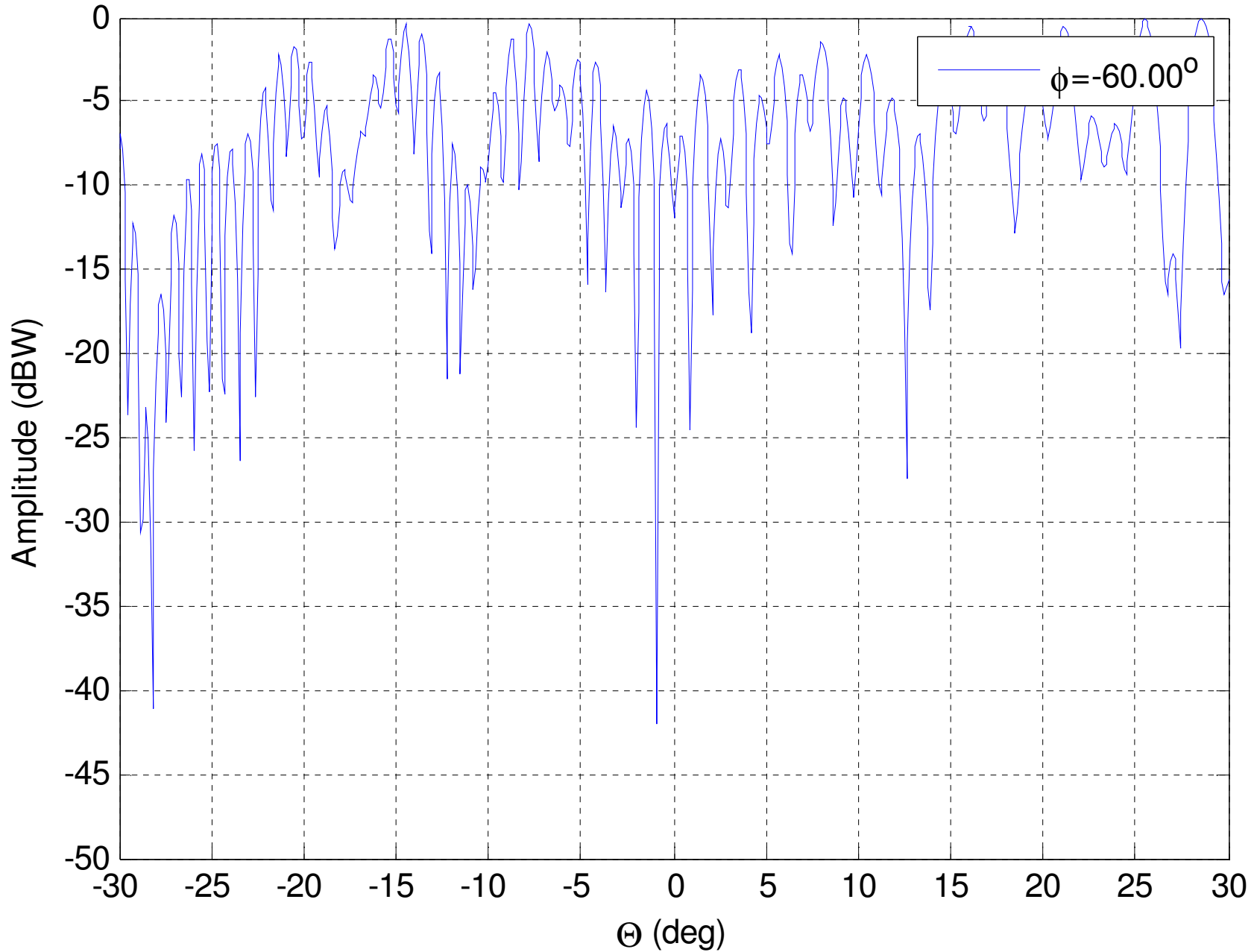
Spot Beam37, -X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: -X -axis)
- $-60 < \phi < 60$
- Freq = 17.305, 17.5, and 17.695 GHz
- The Zero reference line is the maximum EIRP listed in the title of each plot sheet. All levels are below the required 15.4 dBW maximum
- The Zero reference for the maximum antenna gain is the maximum EIRP listed minus the power input to the antenna specified in Table I of the attached narrative.

RHCP at 17.3 GHz

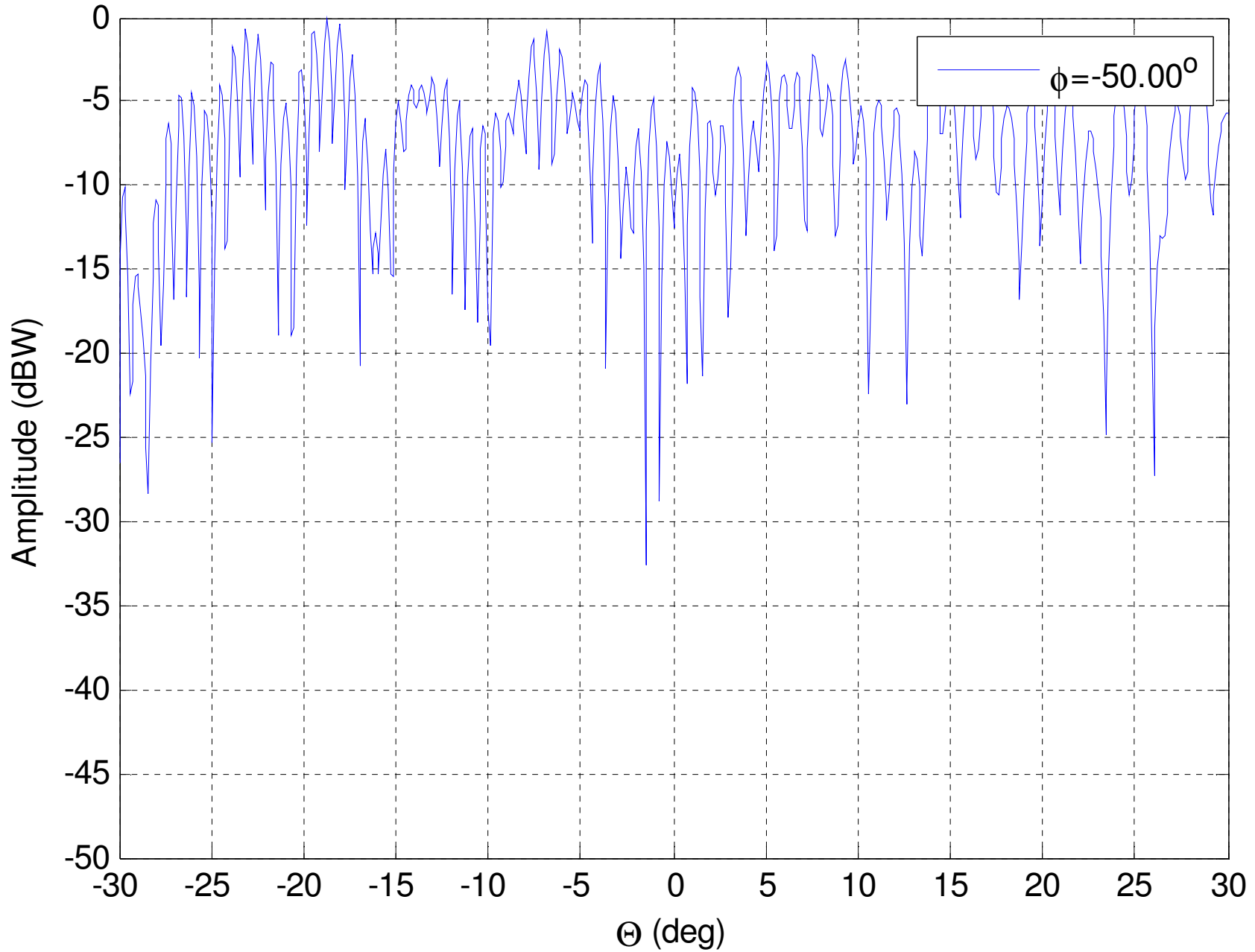
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -2.61 dBW, Date: 16-Dec-2011



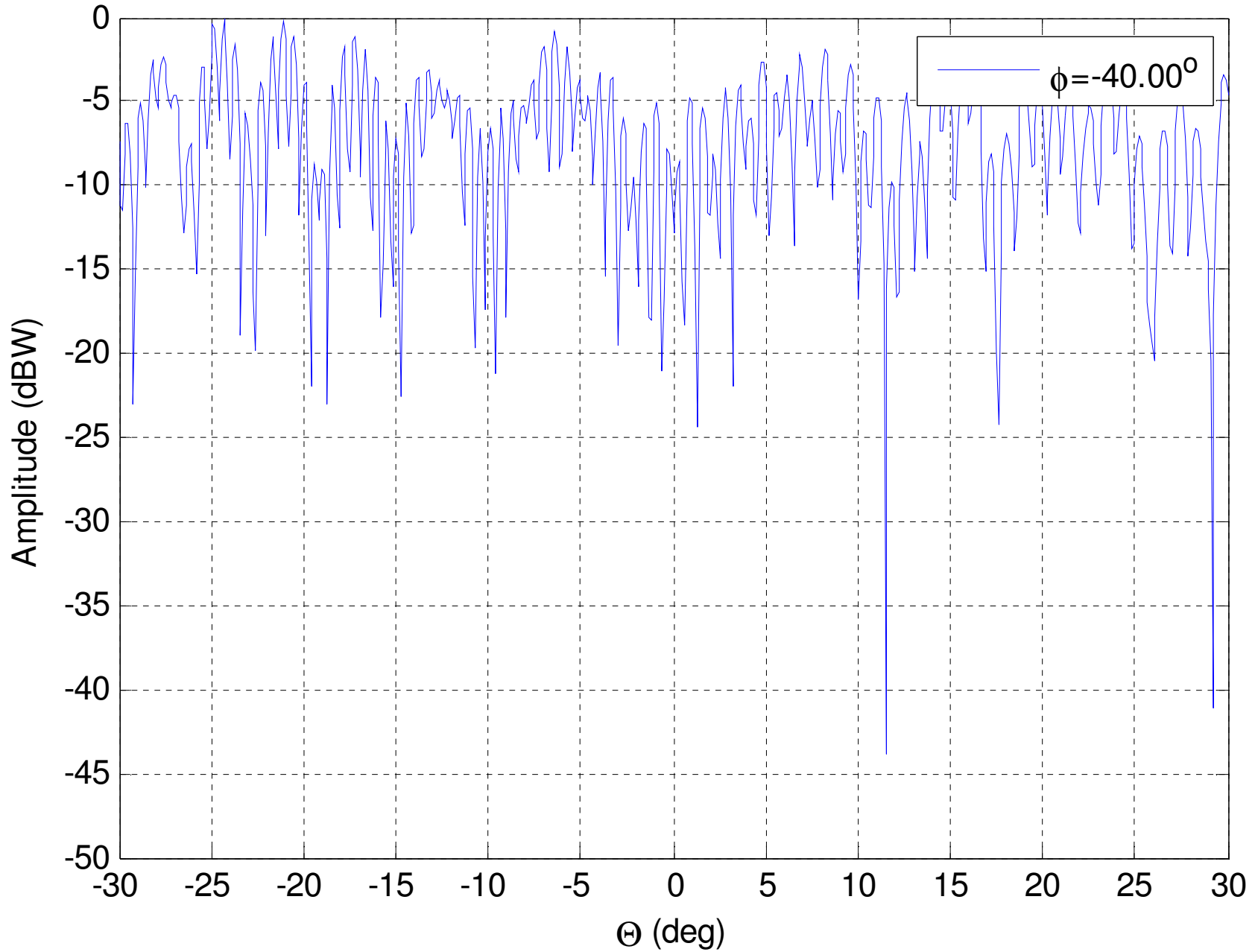
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -1.94 dBW, Date: 16-Dec-2011



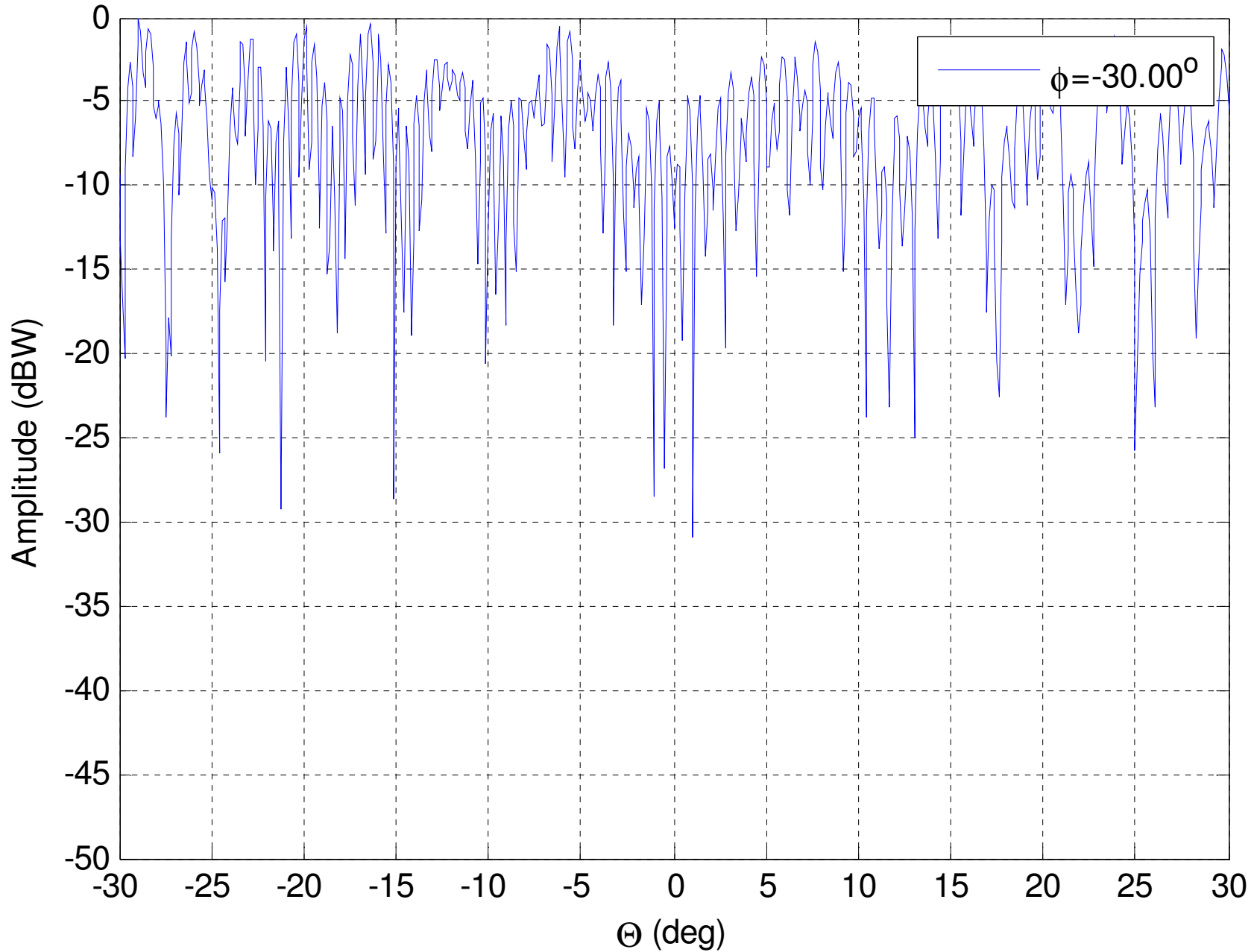
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -1.63 dBW, Date: 16-Dec-2011



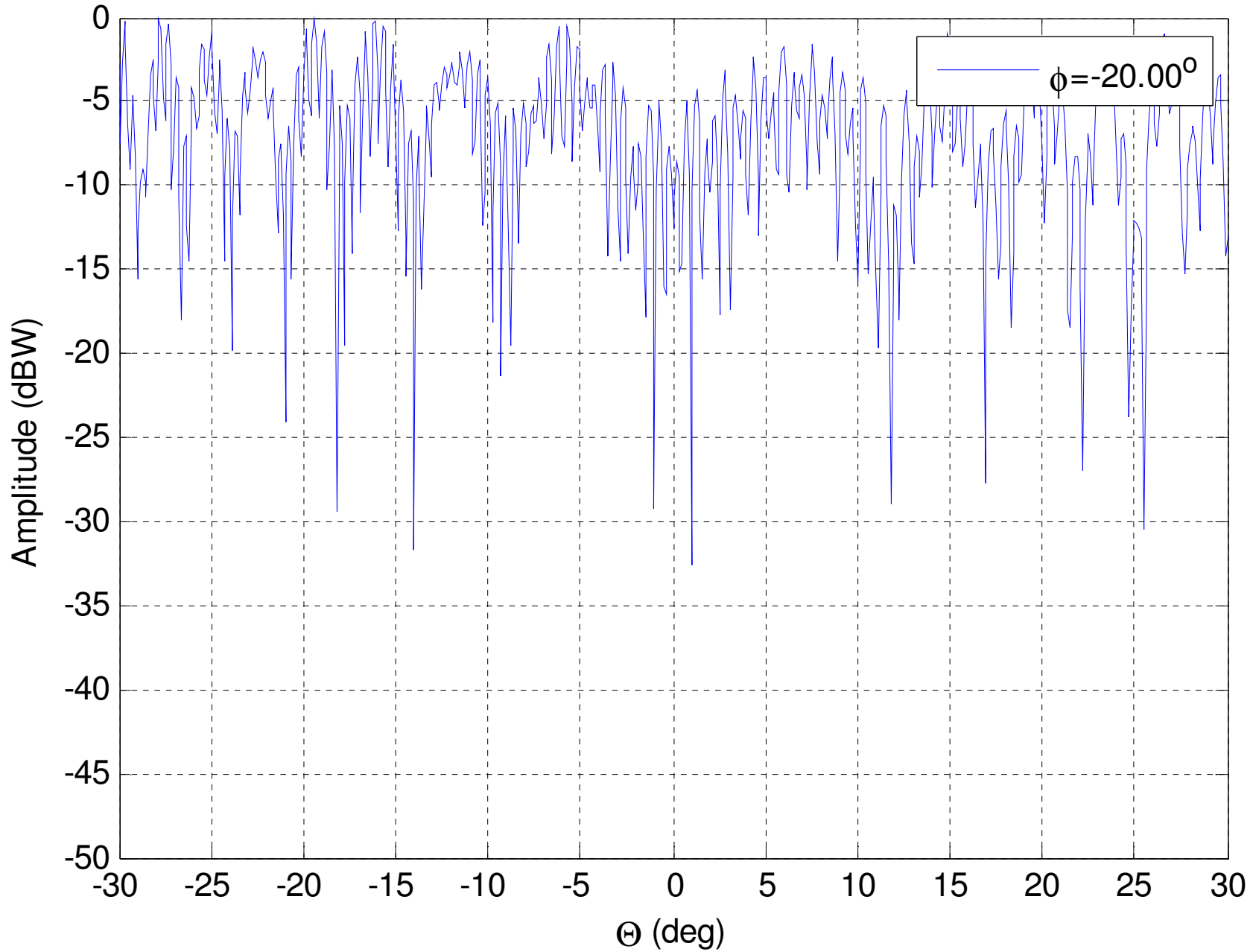
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -1.93 dBW, Date: 16-Dec-2011



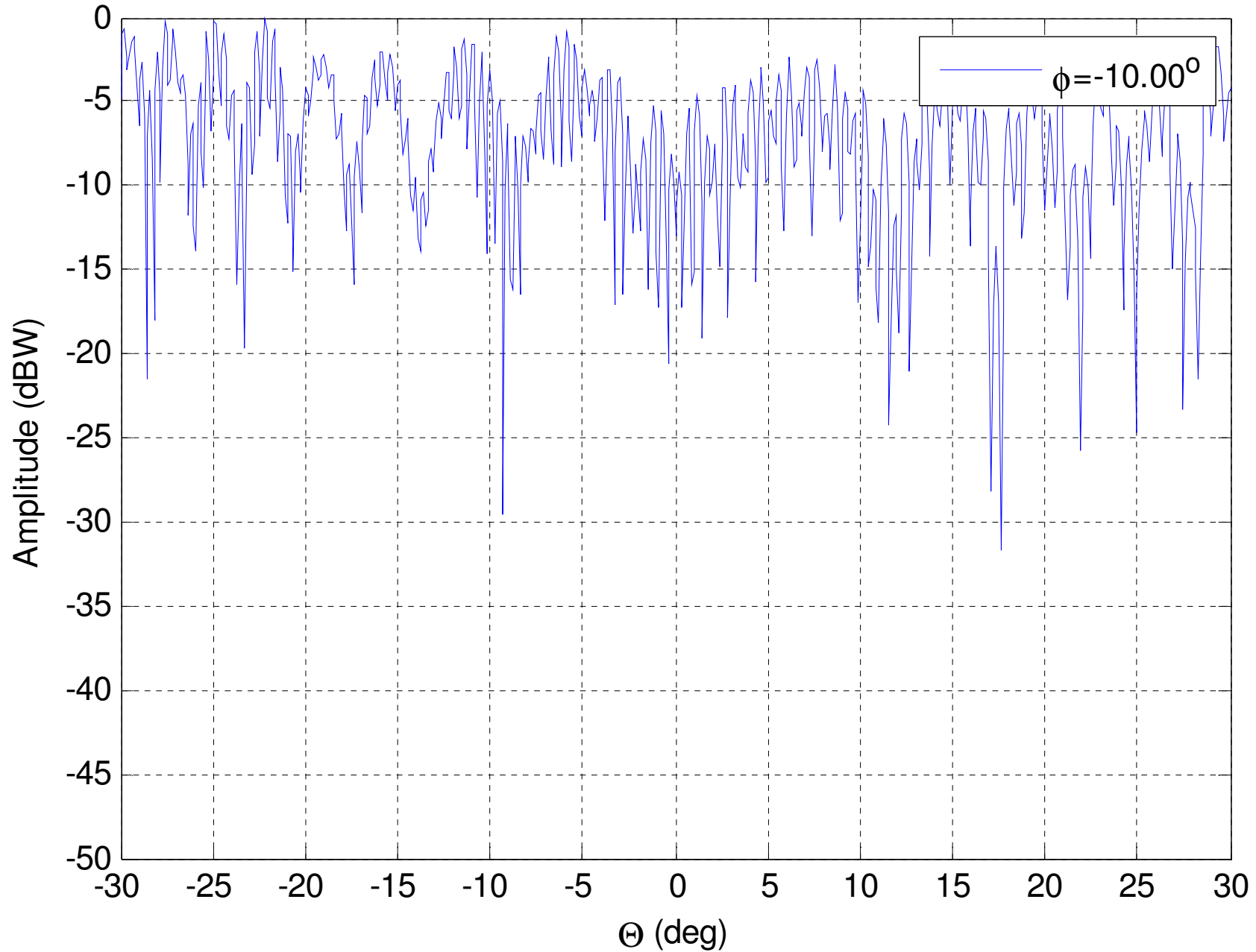
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: -1.99 dBW, Date: 16-Dec-2011



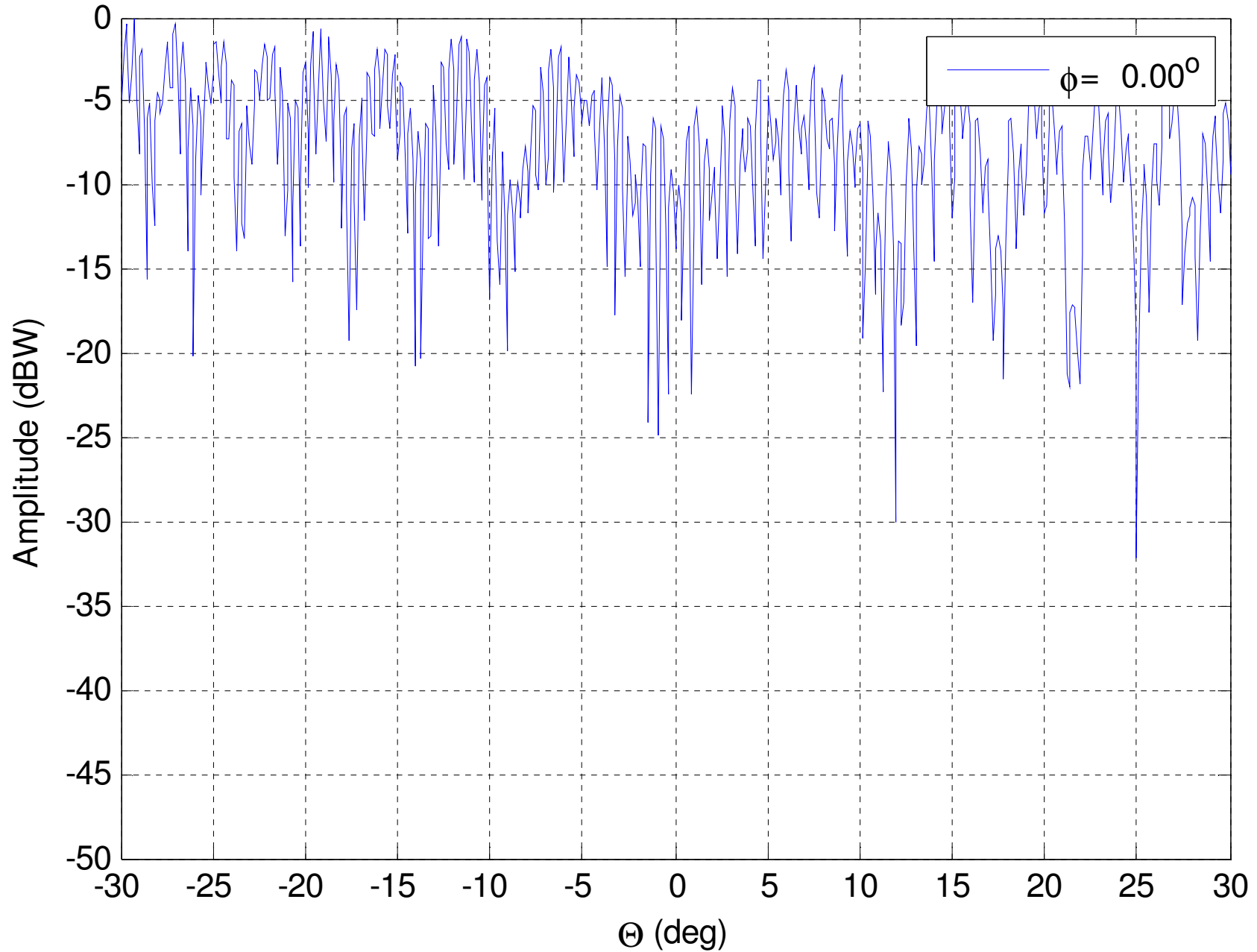
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: -1.49 dBW, Date: 16-Dec-2011



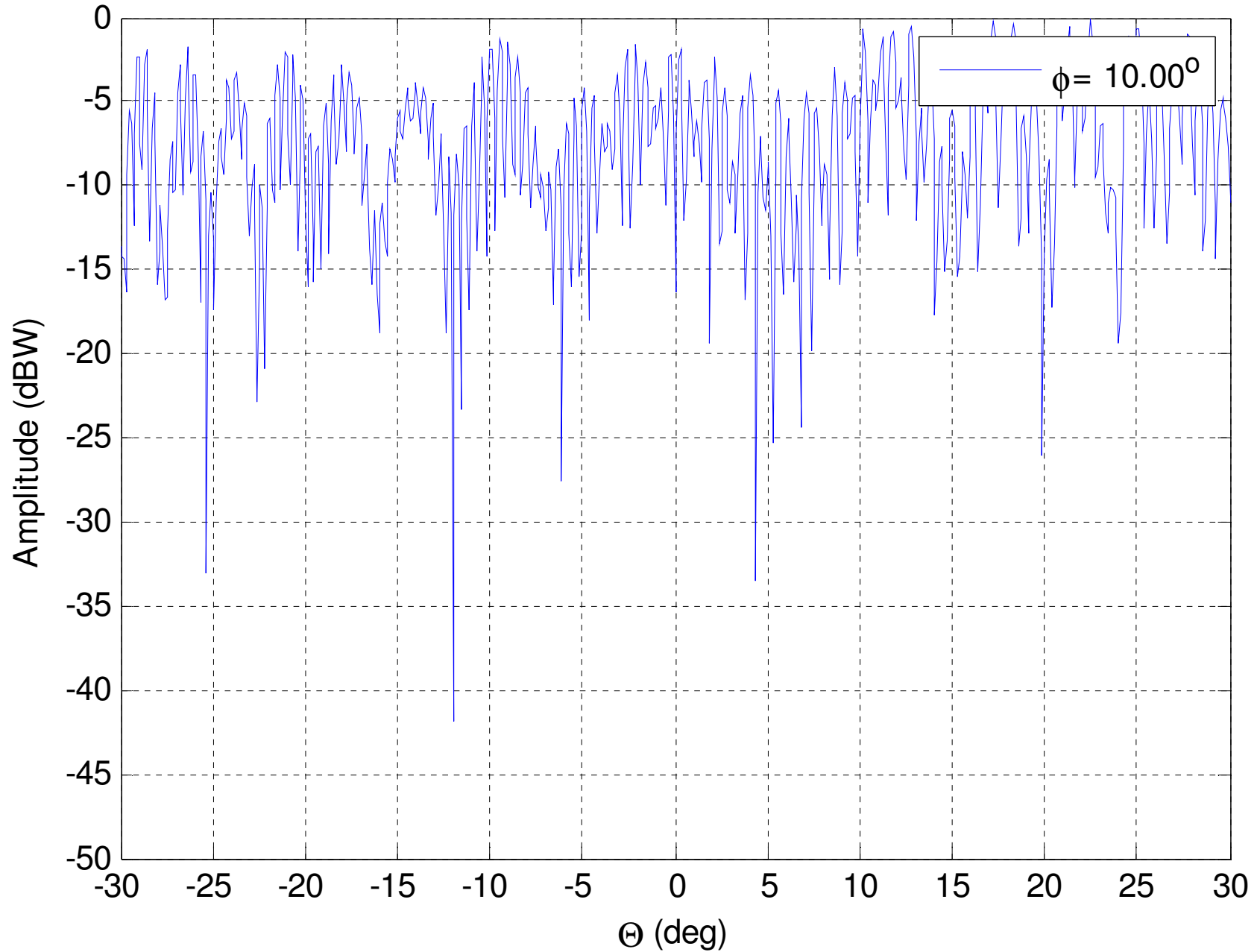
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: -0.78 dBW, Date: 16-Dec-2011



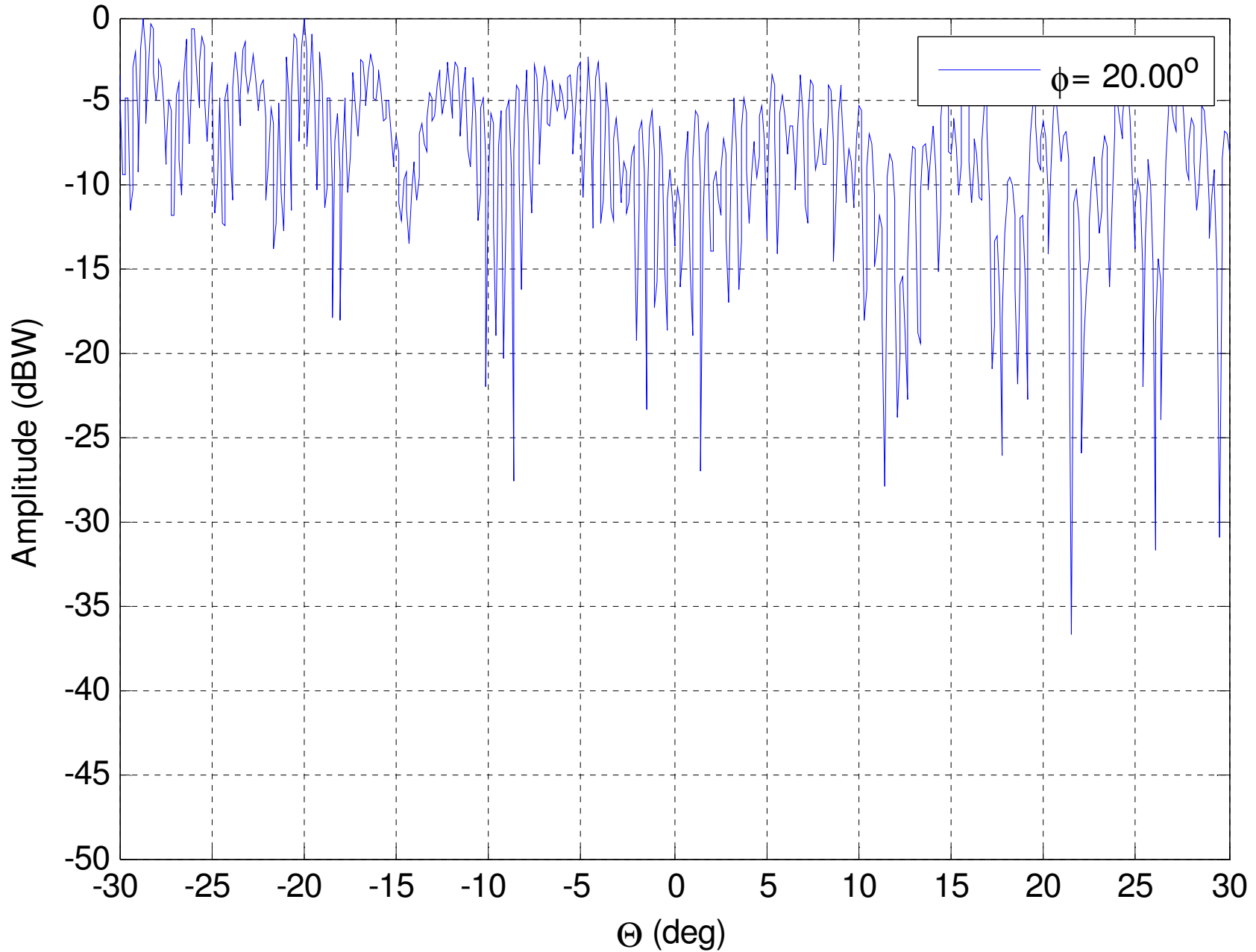
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: -1.59 dBW, Date: 16-Dec-2011



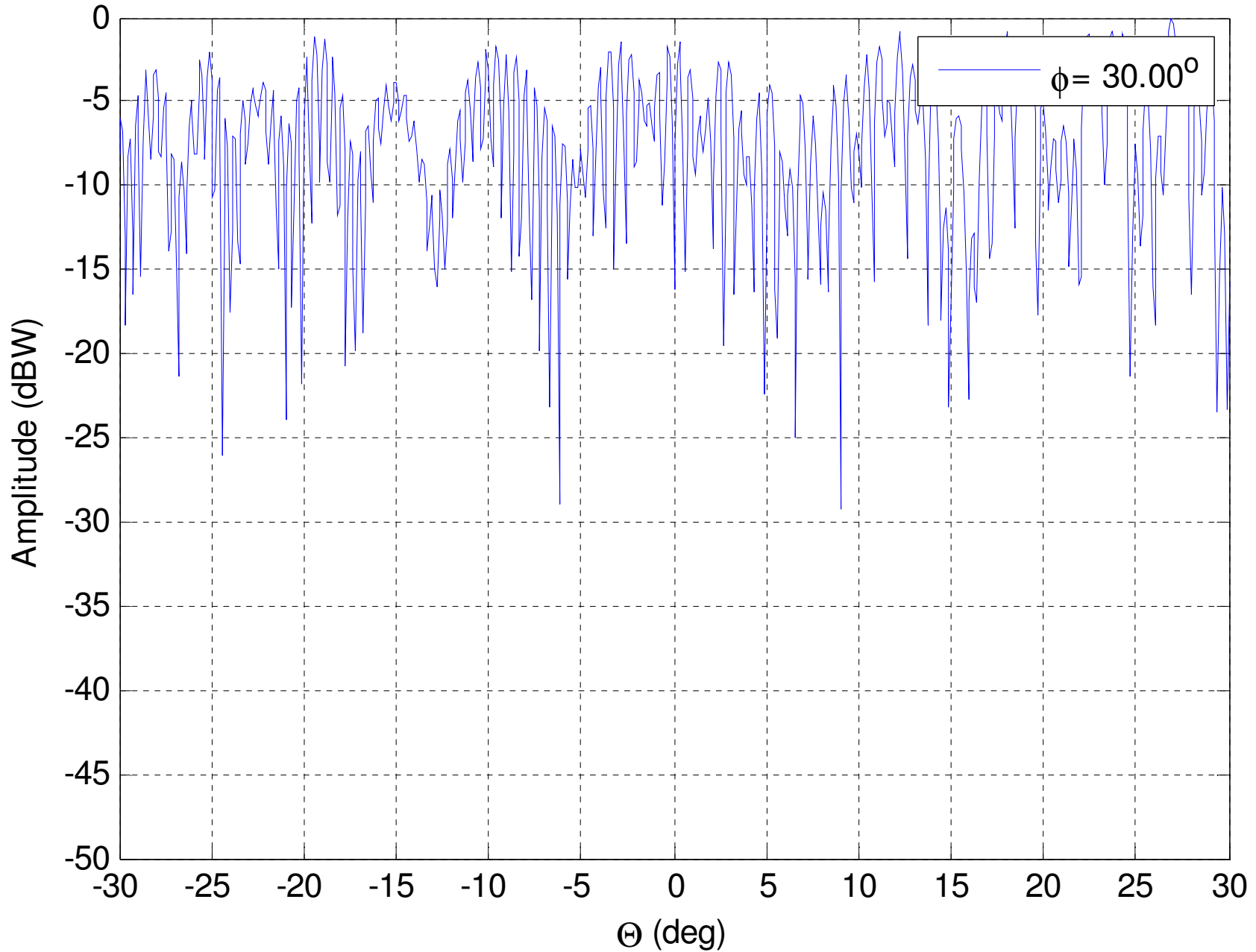
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: -0.85 dBW, Date: 16-Dec-2011



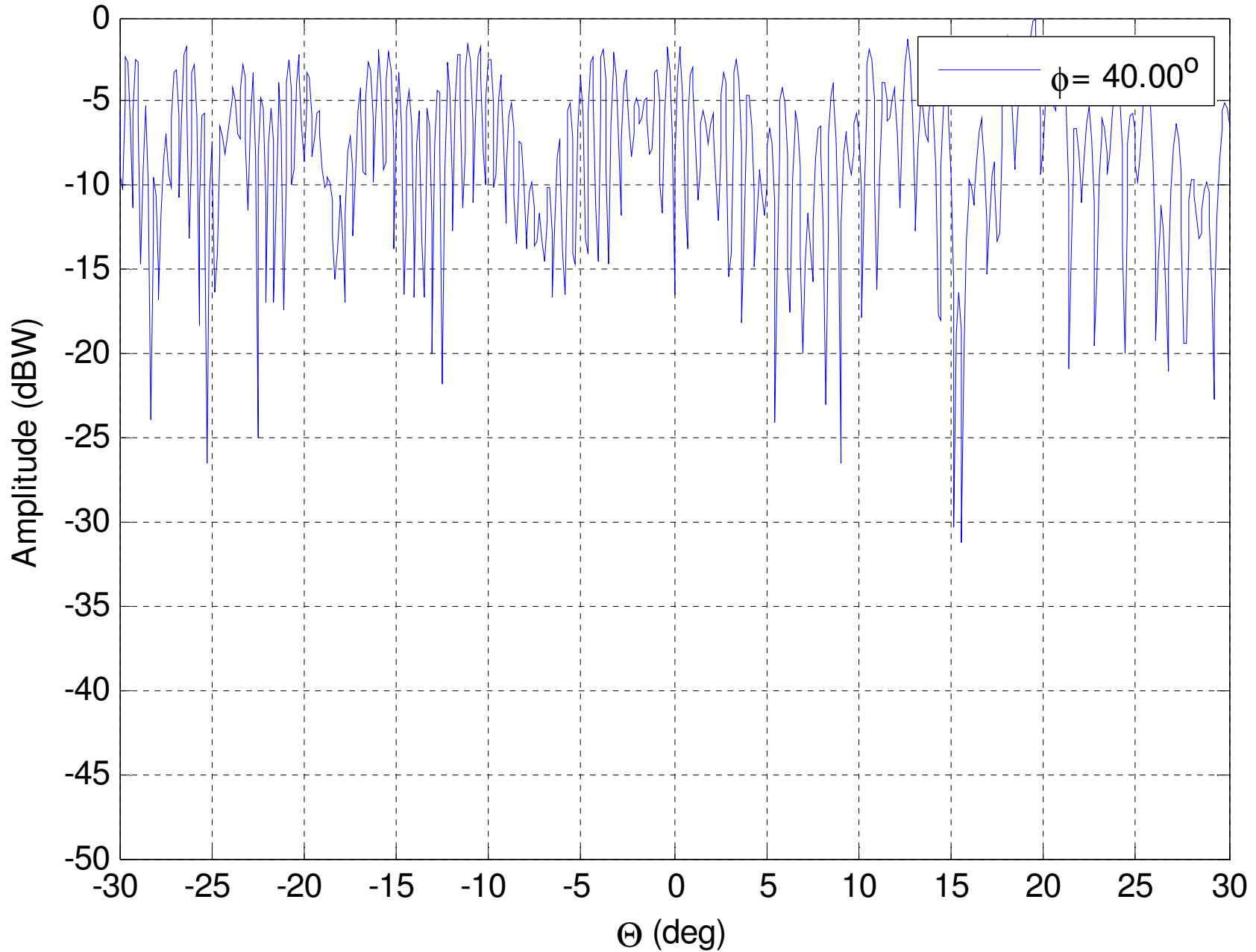
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: -1.75 dBW, Date: 16-Dec-2011



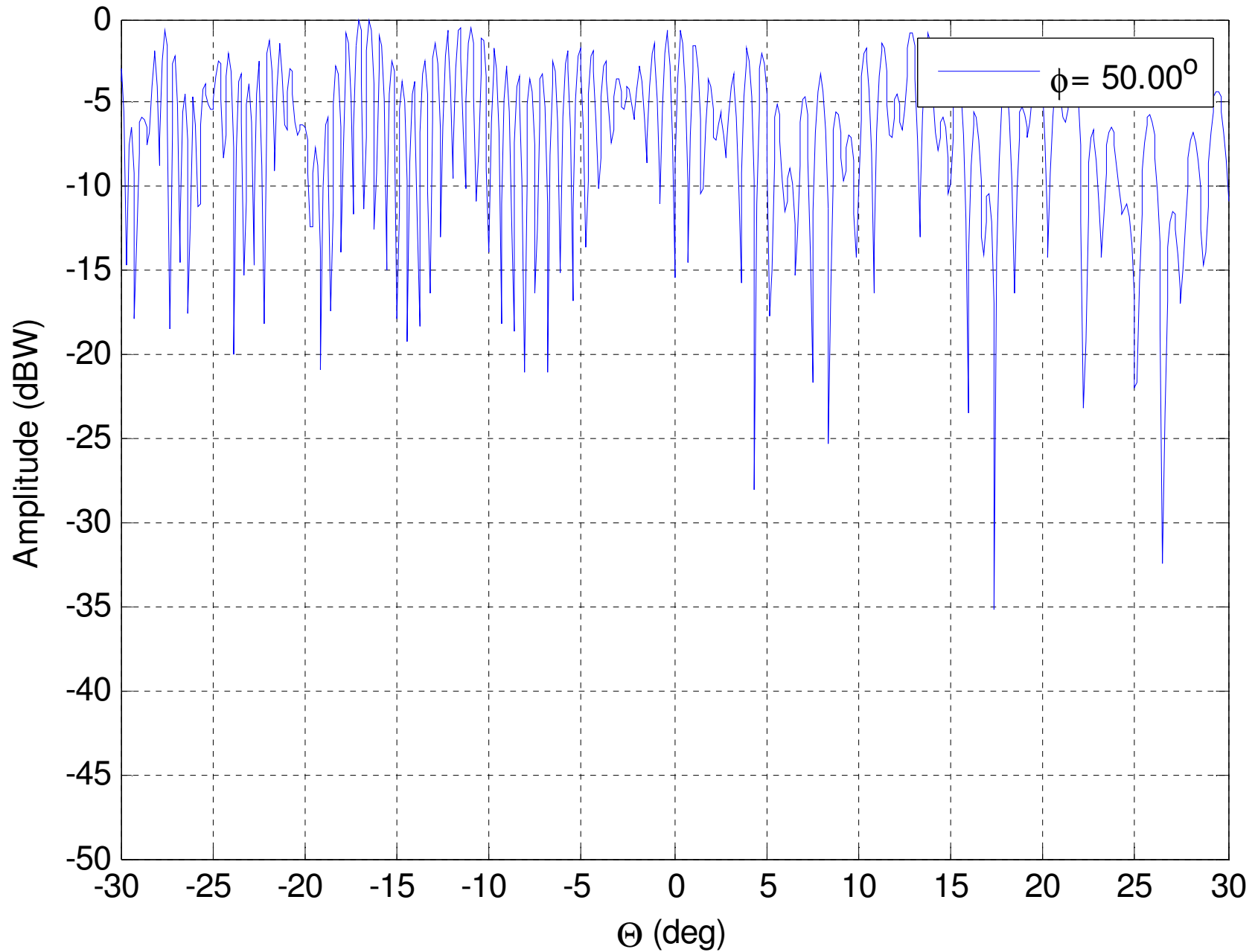
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -1.55 dBW, Date: 16-Dec-2011



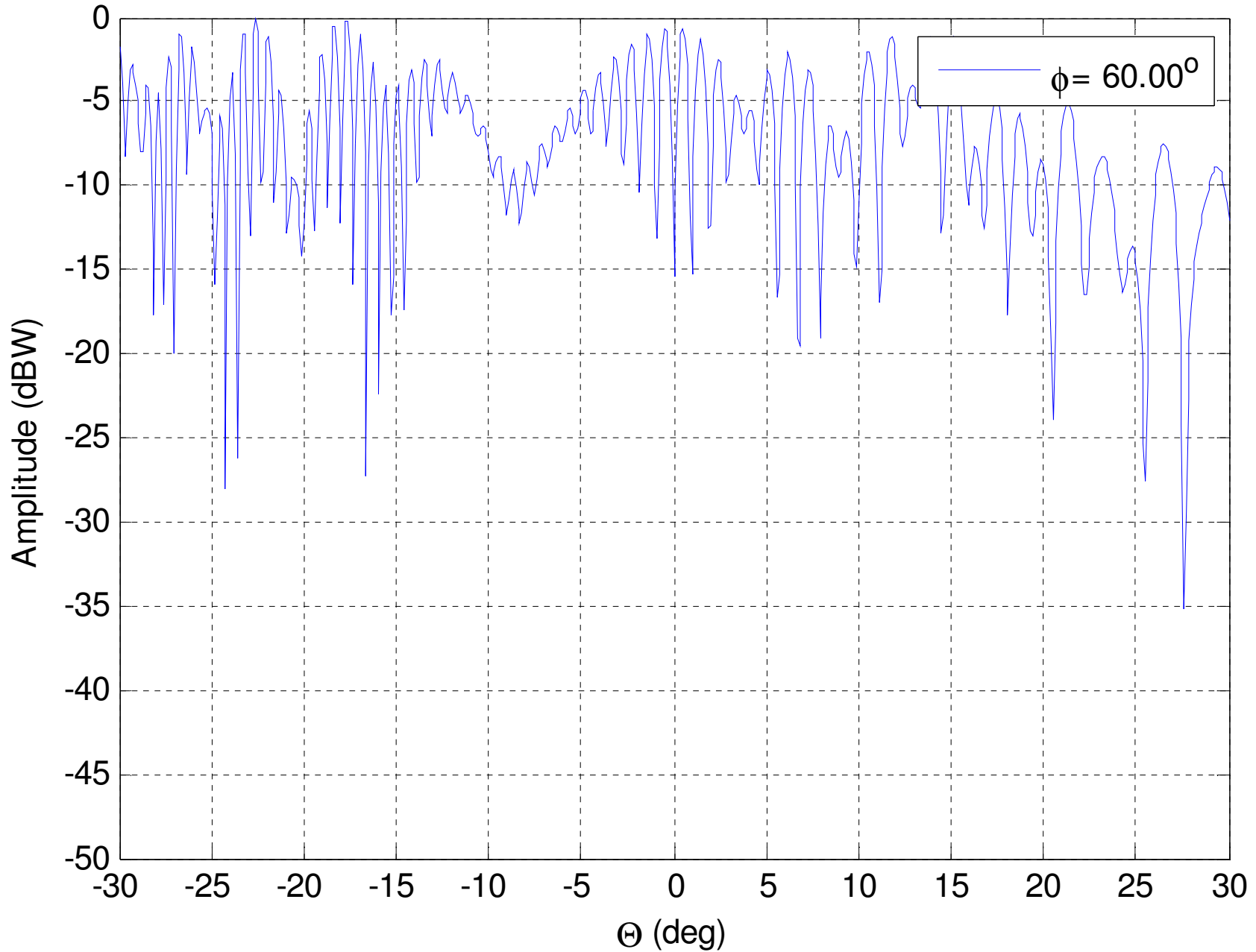
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -2.62 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

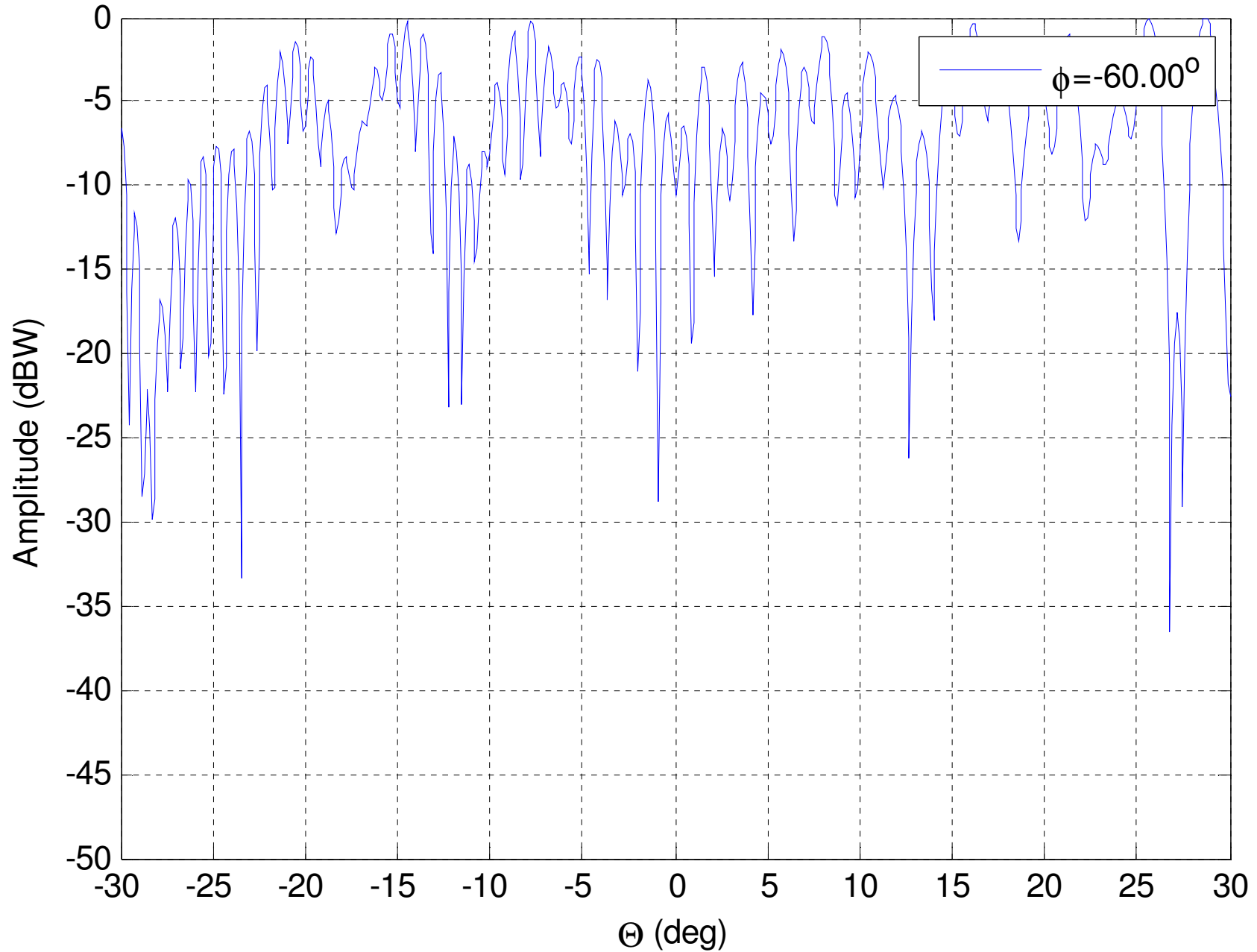
Input file: tx-17.3-rhcp-60.cut, Peak: -2.56 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

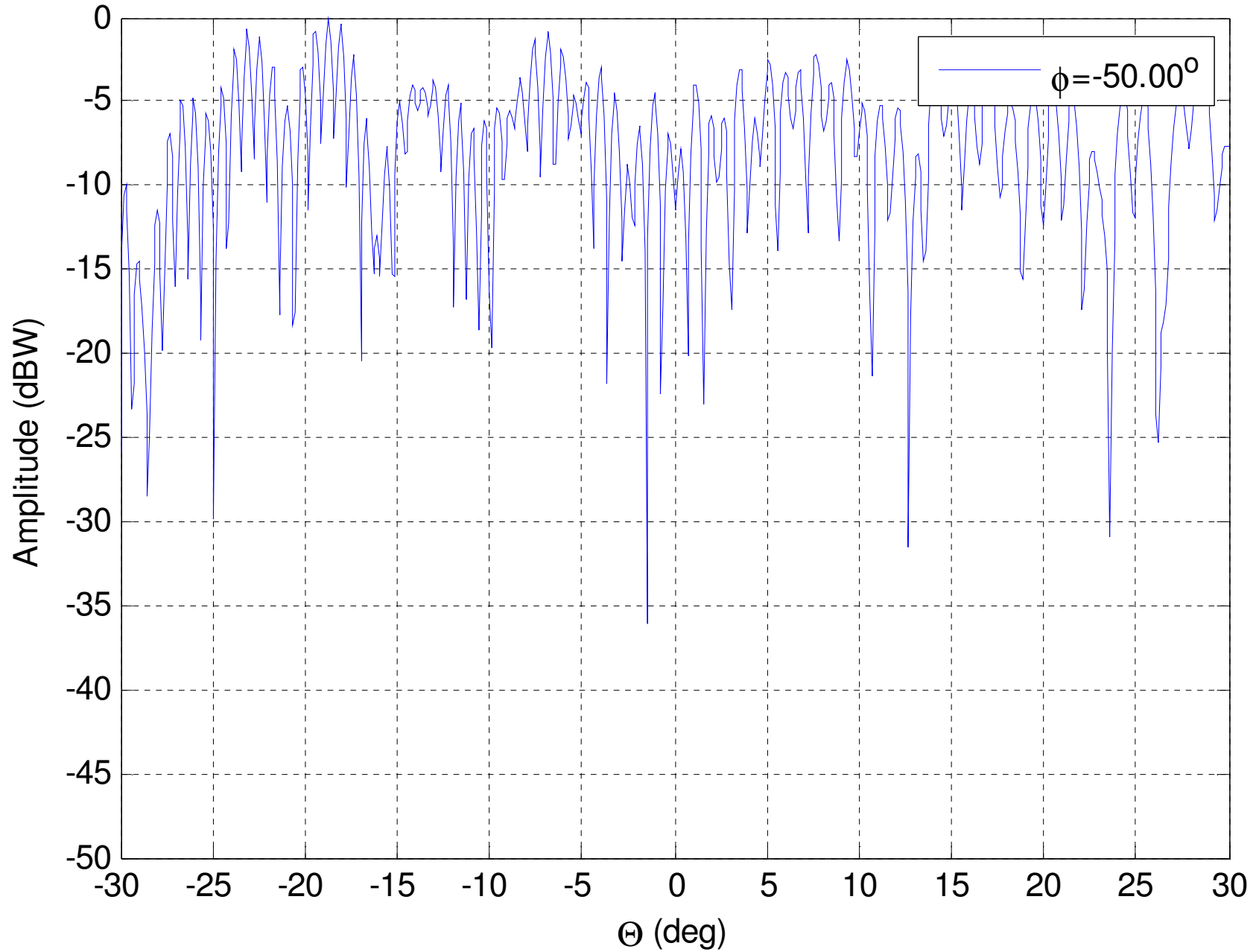
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -2.68 dBW, Date: 16-Dec-2011



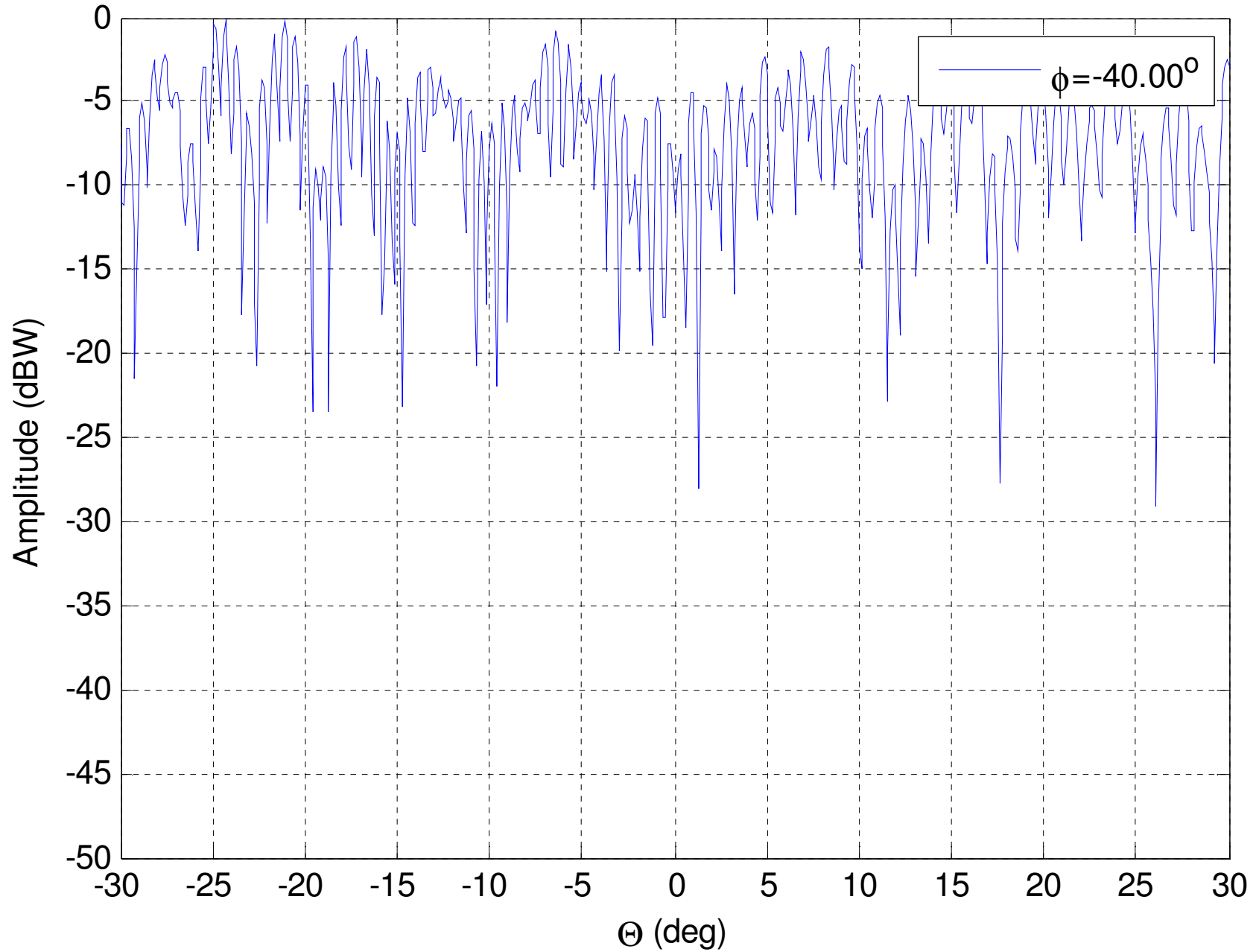
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -1.78 dBW, Date: 16-Dec-2011



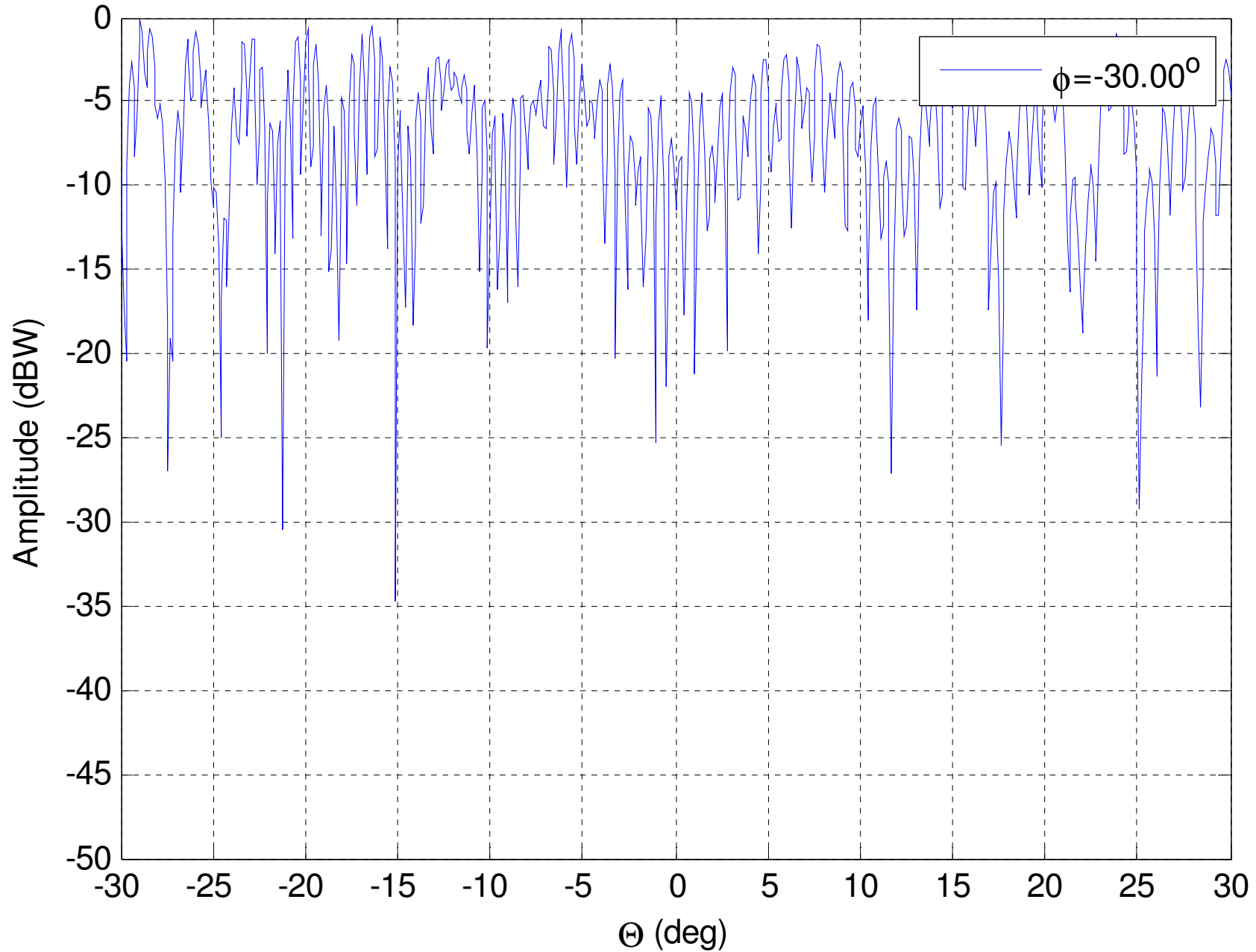
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -1.55 dBW, Date: 16-Dec-2011



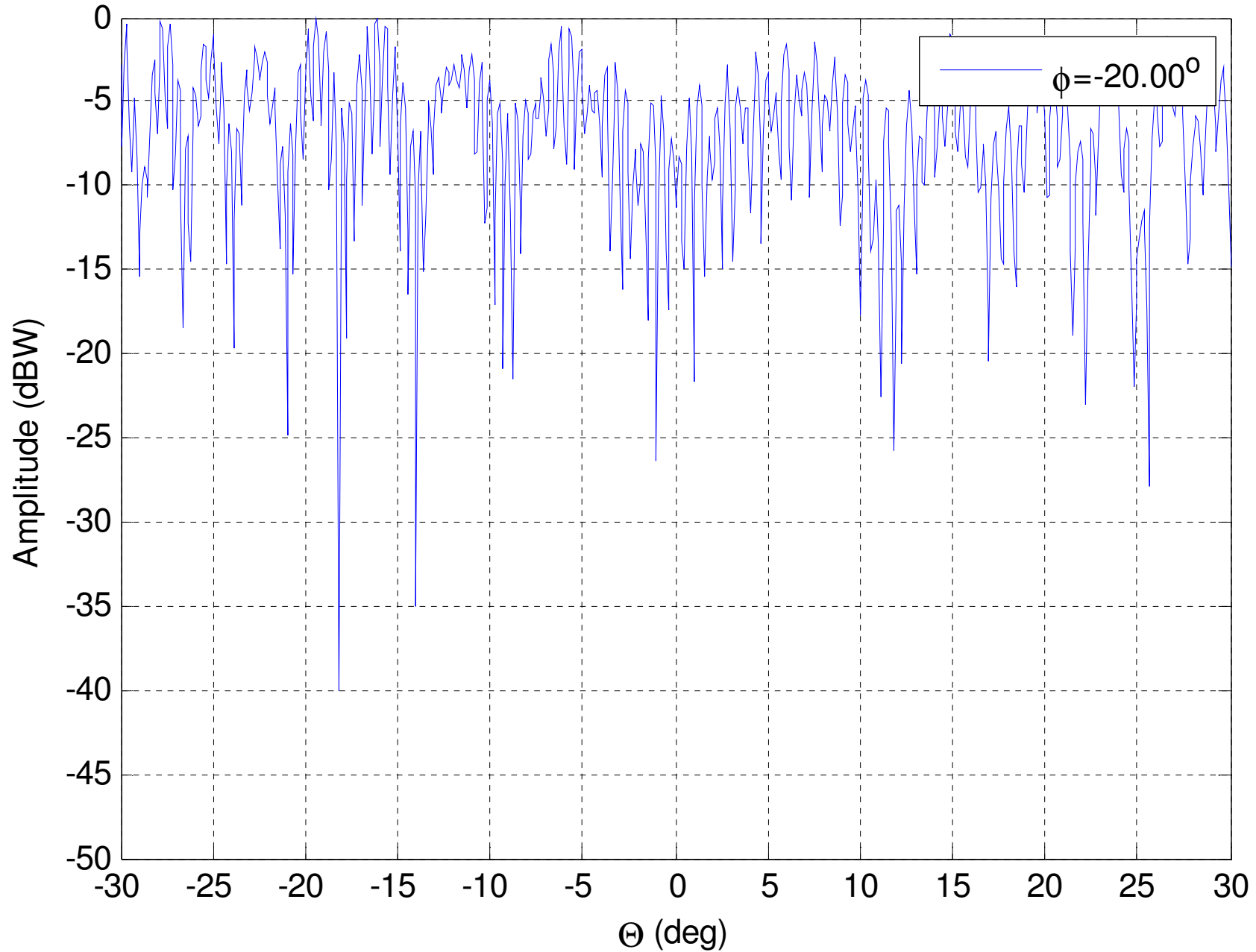
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: -1.73 dBW, Date: 16-Dec-2011



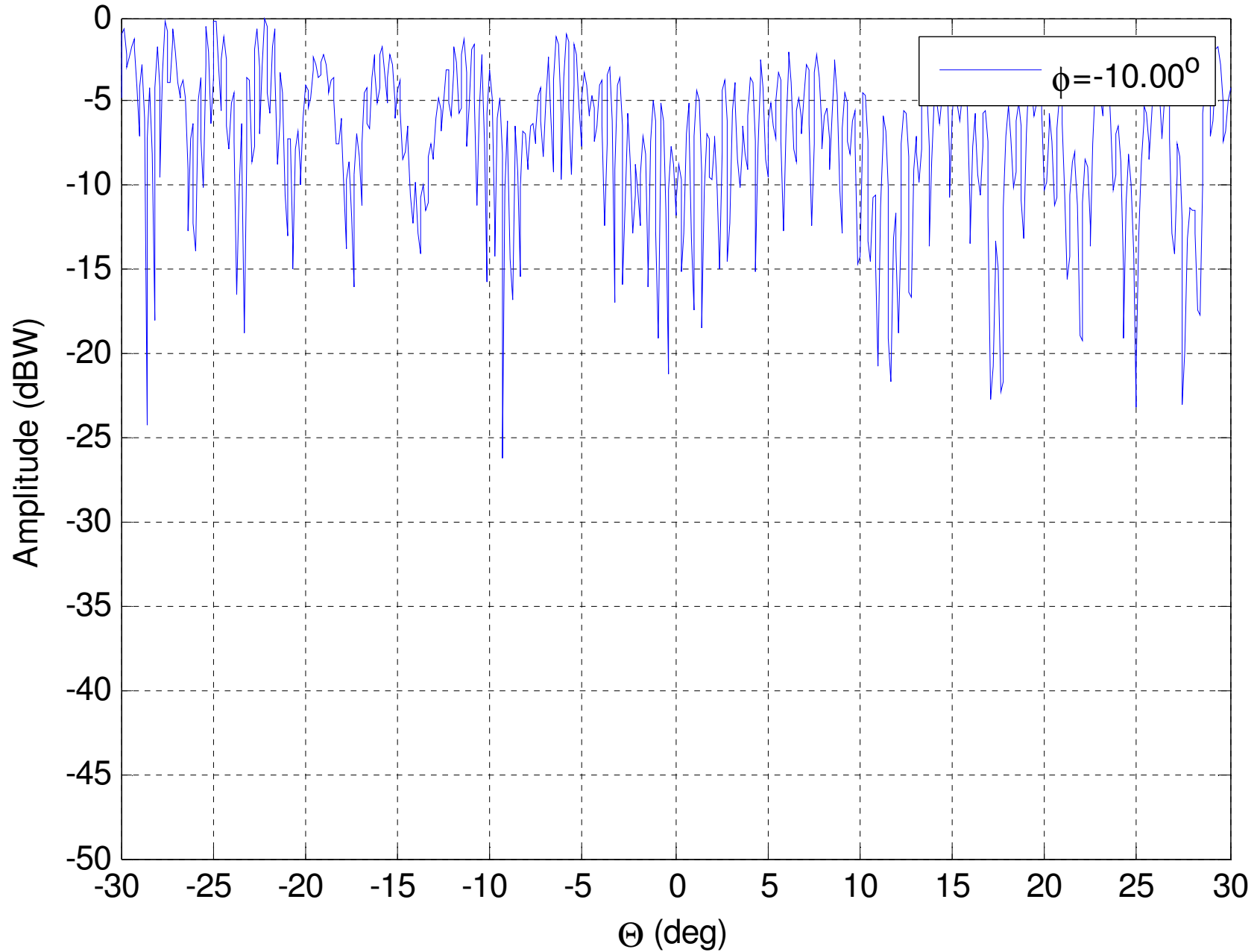
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: -1.86 dBW, Date: 16-Dec-2011



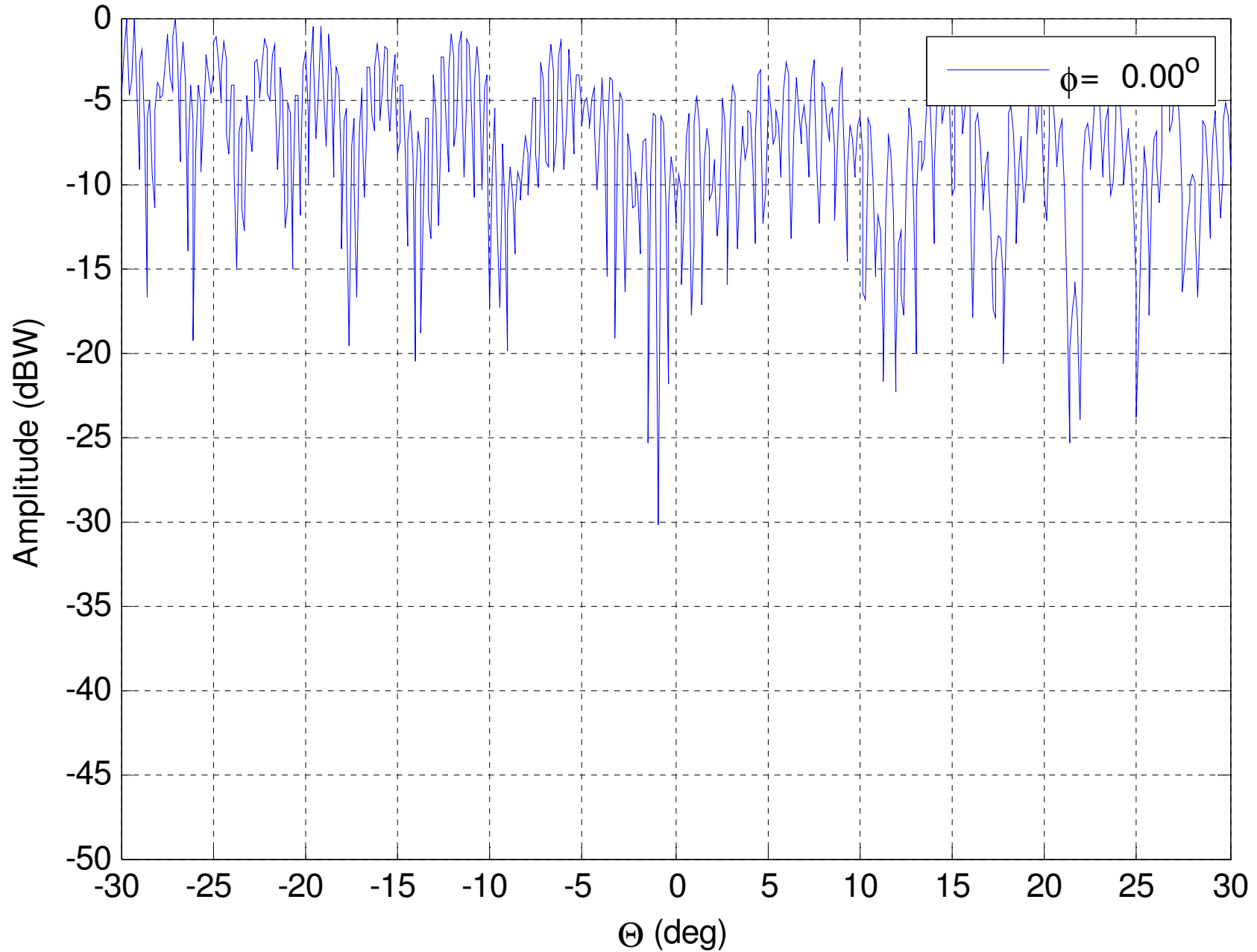
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: -1.45 dBW, Date: 16-Dec-2011



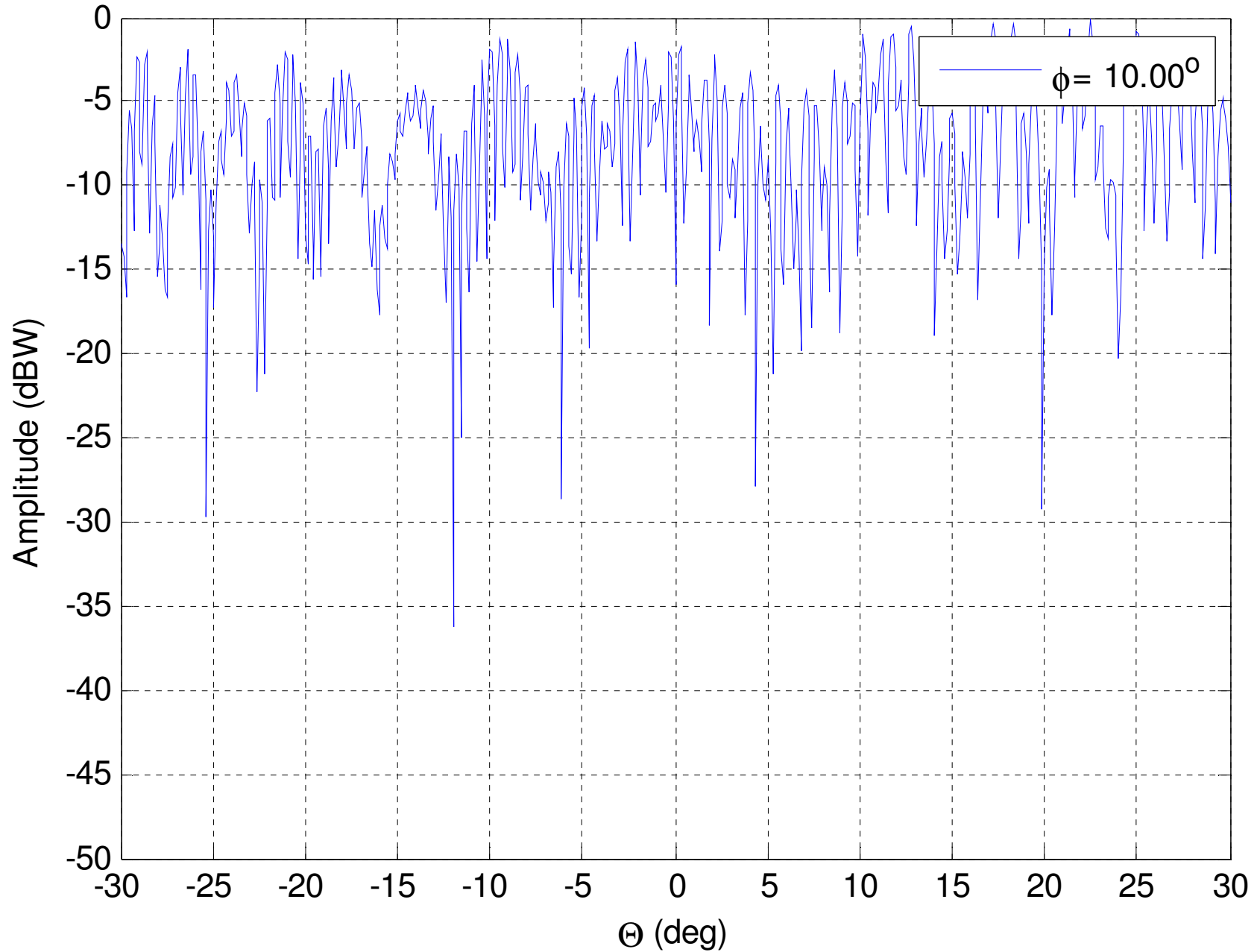
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: -0.95 dBW, Date: 16-Dec-2011



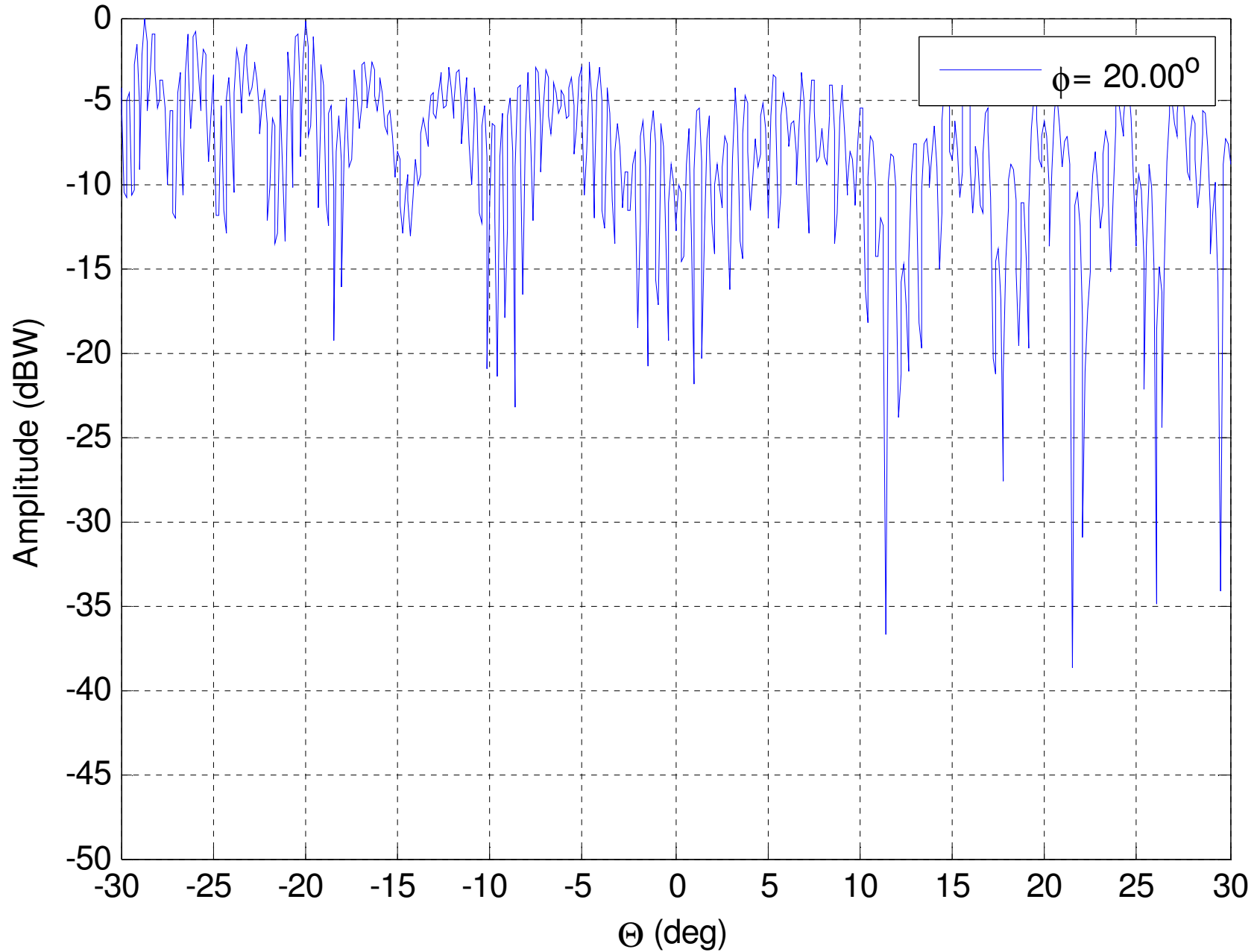
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: -1.40 dBW, Date: 16-Dec-2011



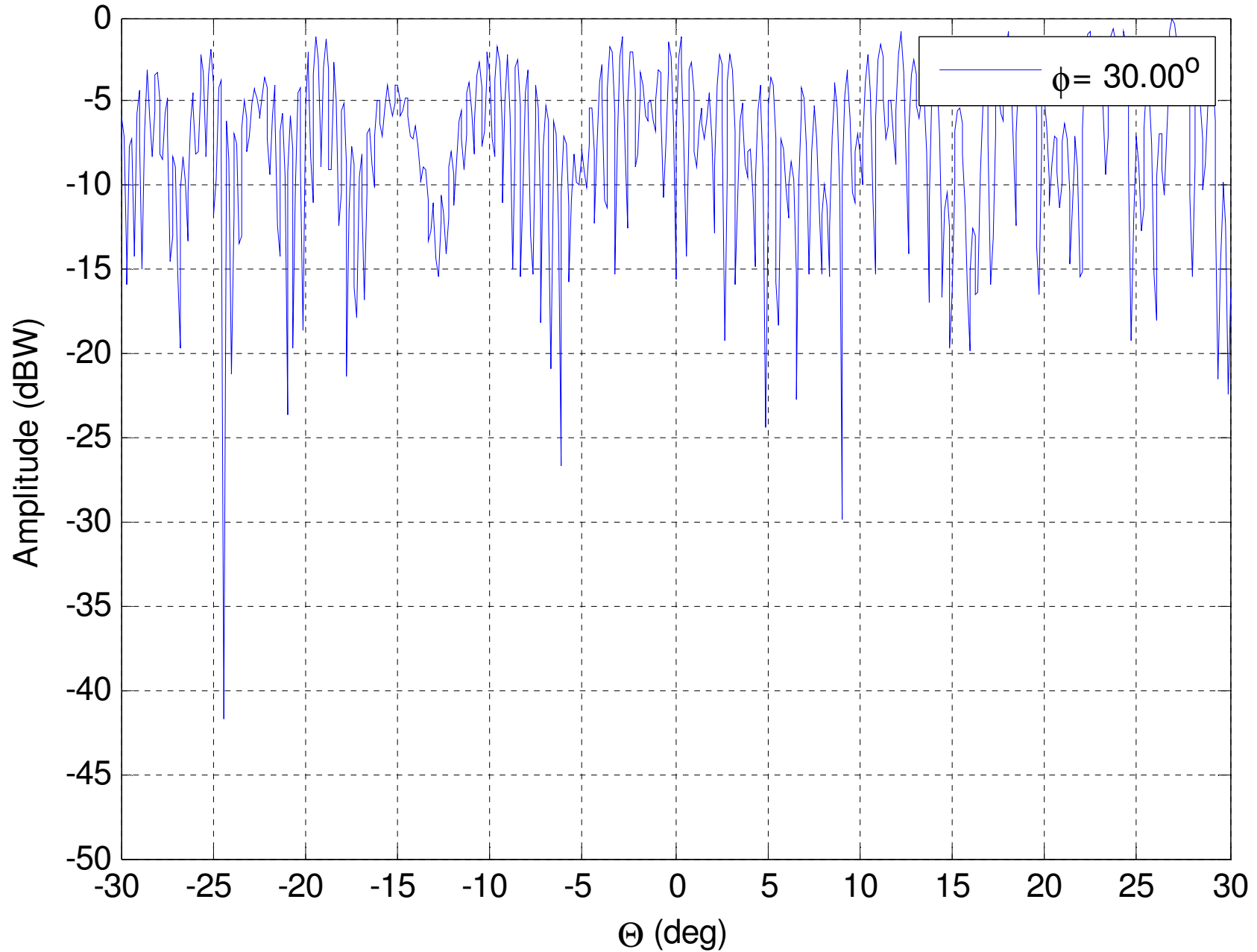
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: -0.57 dBW, Date: 16-Dec-2011



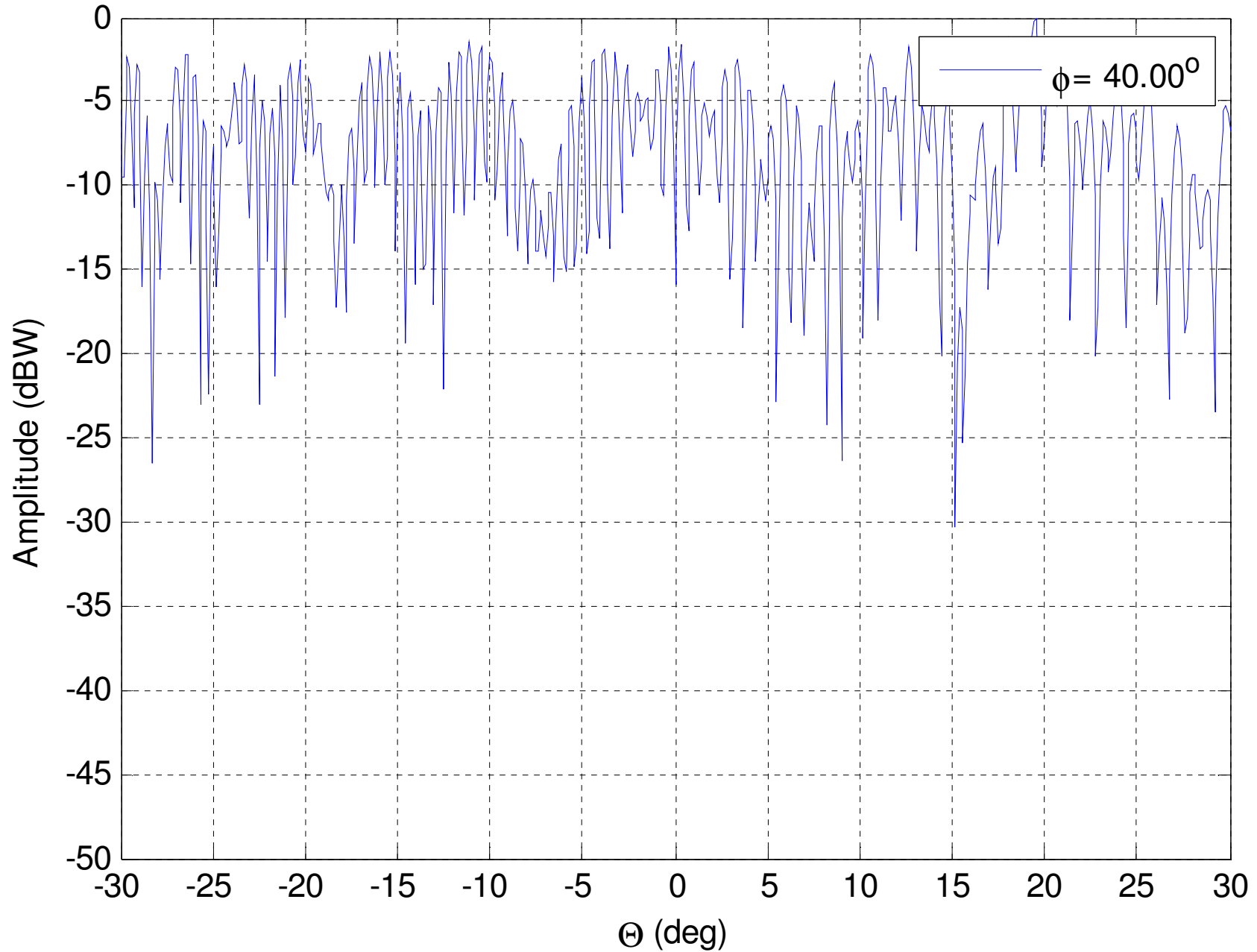
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: -1.71 dBW, Date: 16-Dec-2011



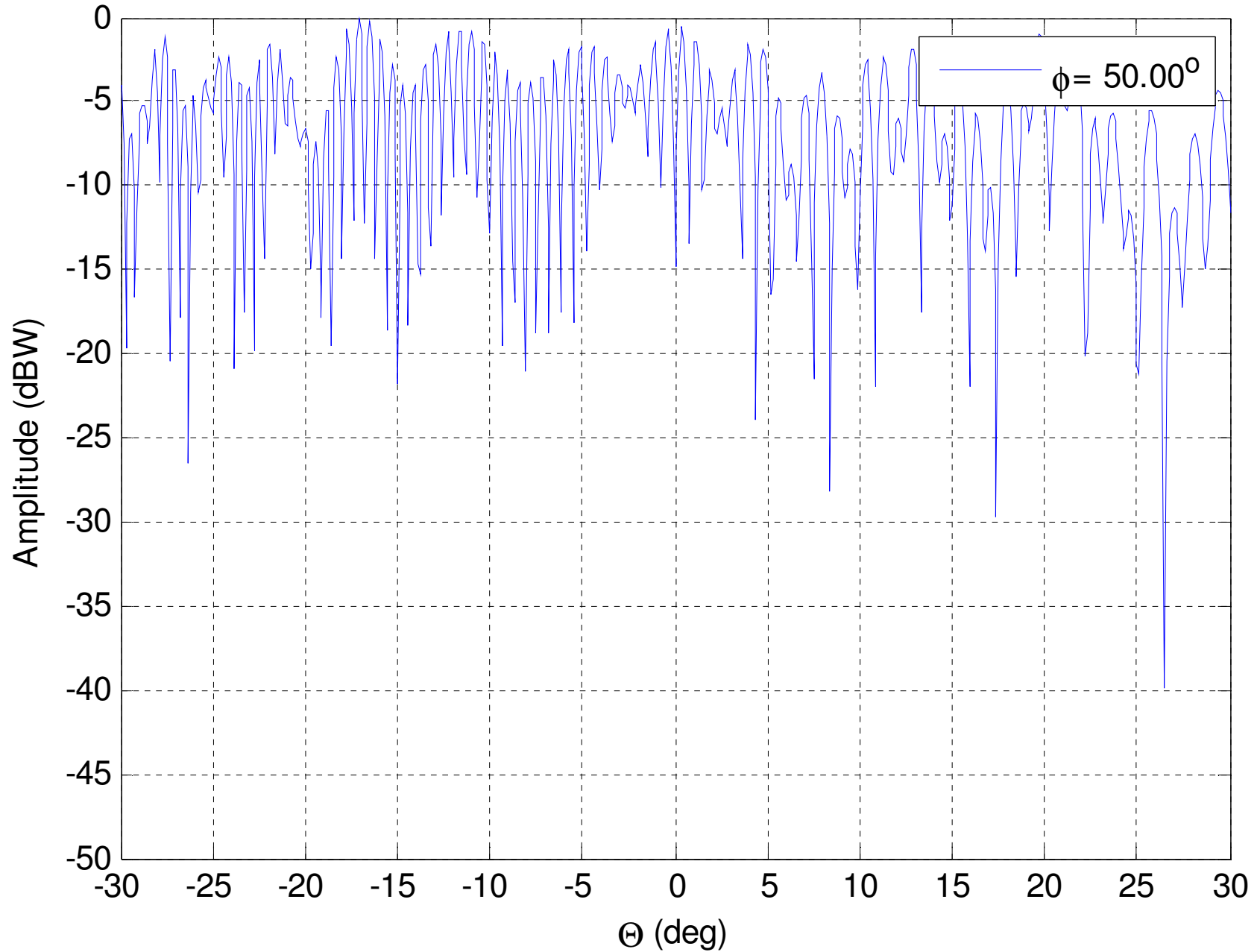
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -1.35 dBW, Date: 16-Dec-2011



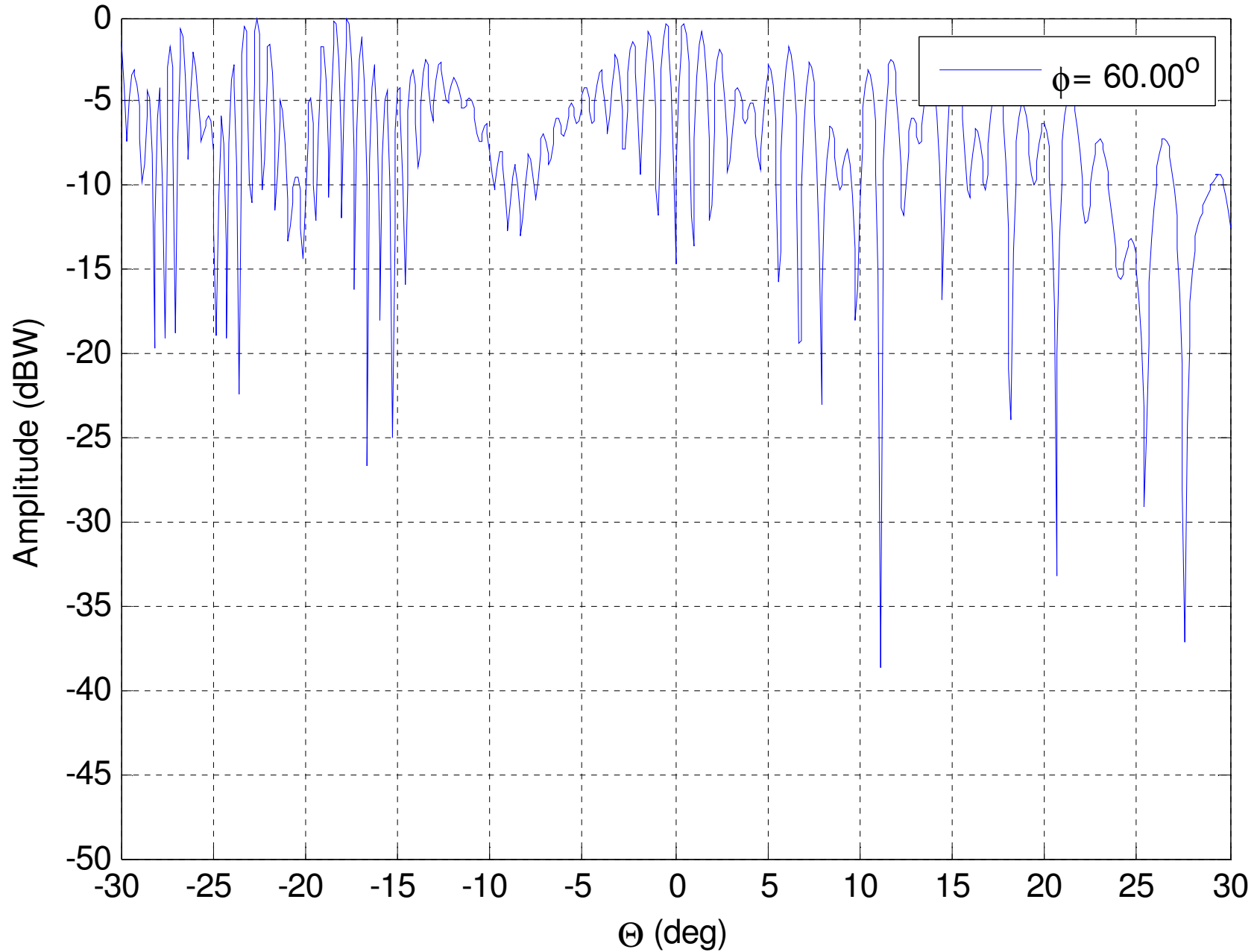
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -2.41 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

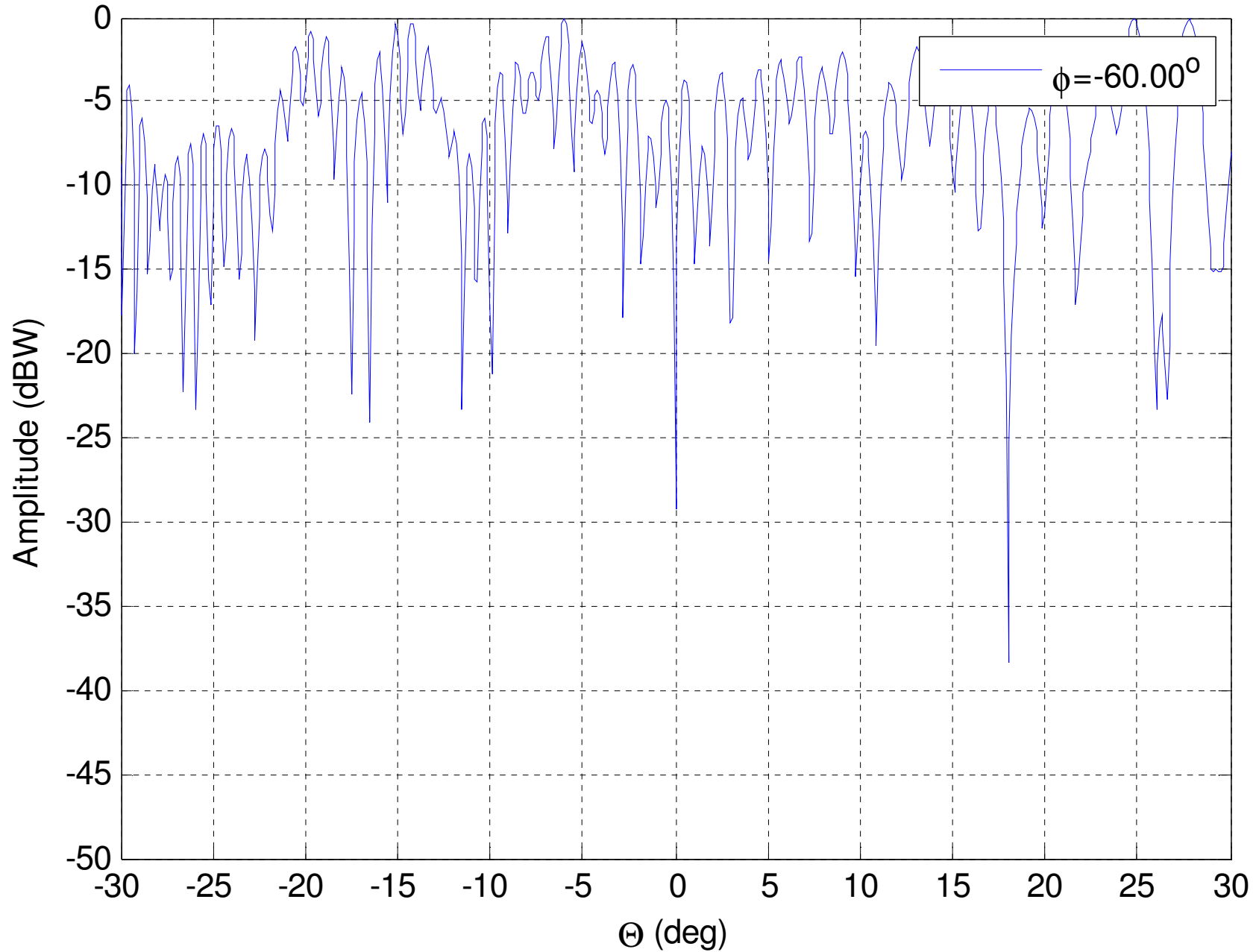
Input file: tx-17.3-lhcp-60.cut, Peak: -2.56 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

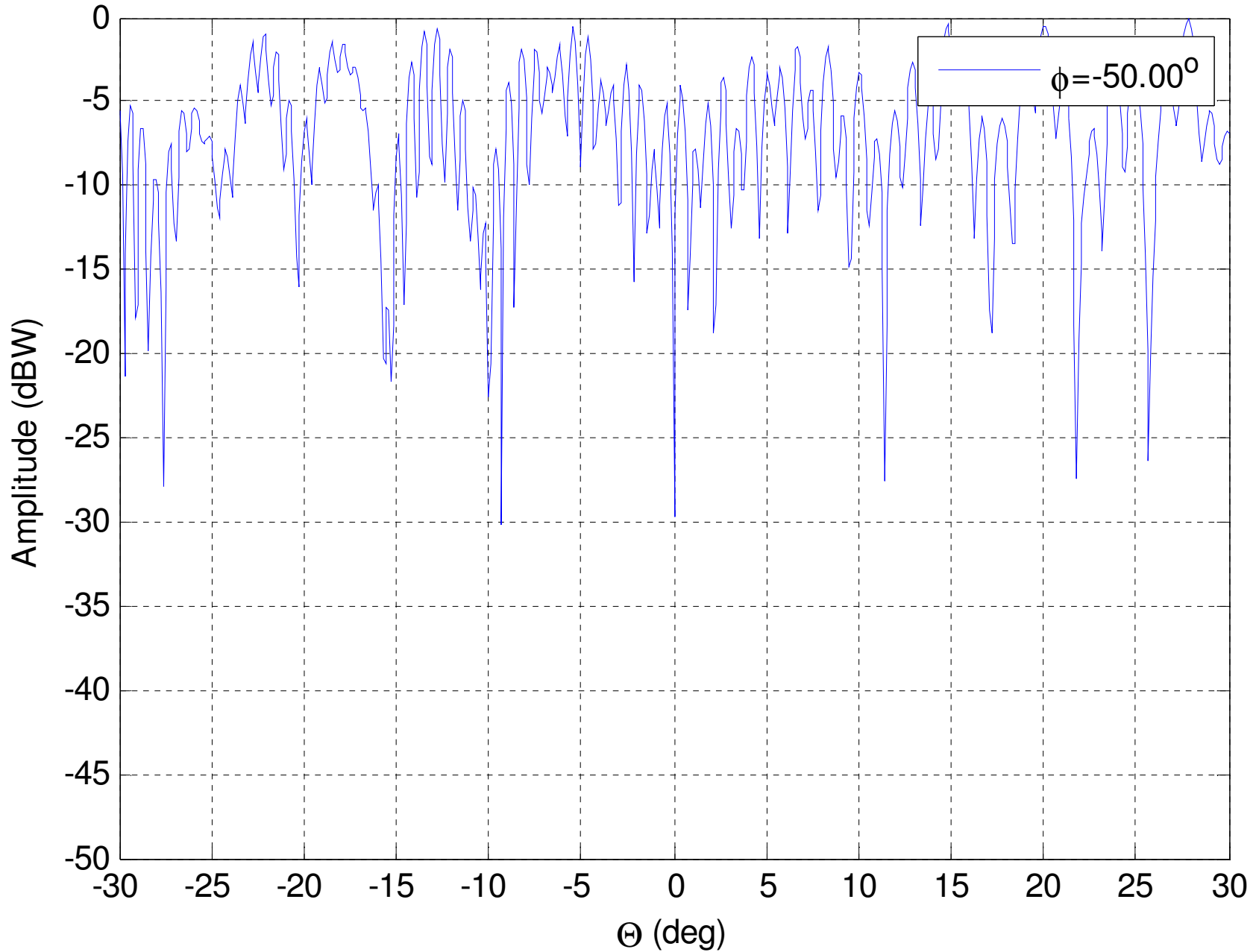
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -3.40 dBW, Date: 16-Dec-2011



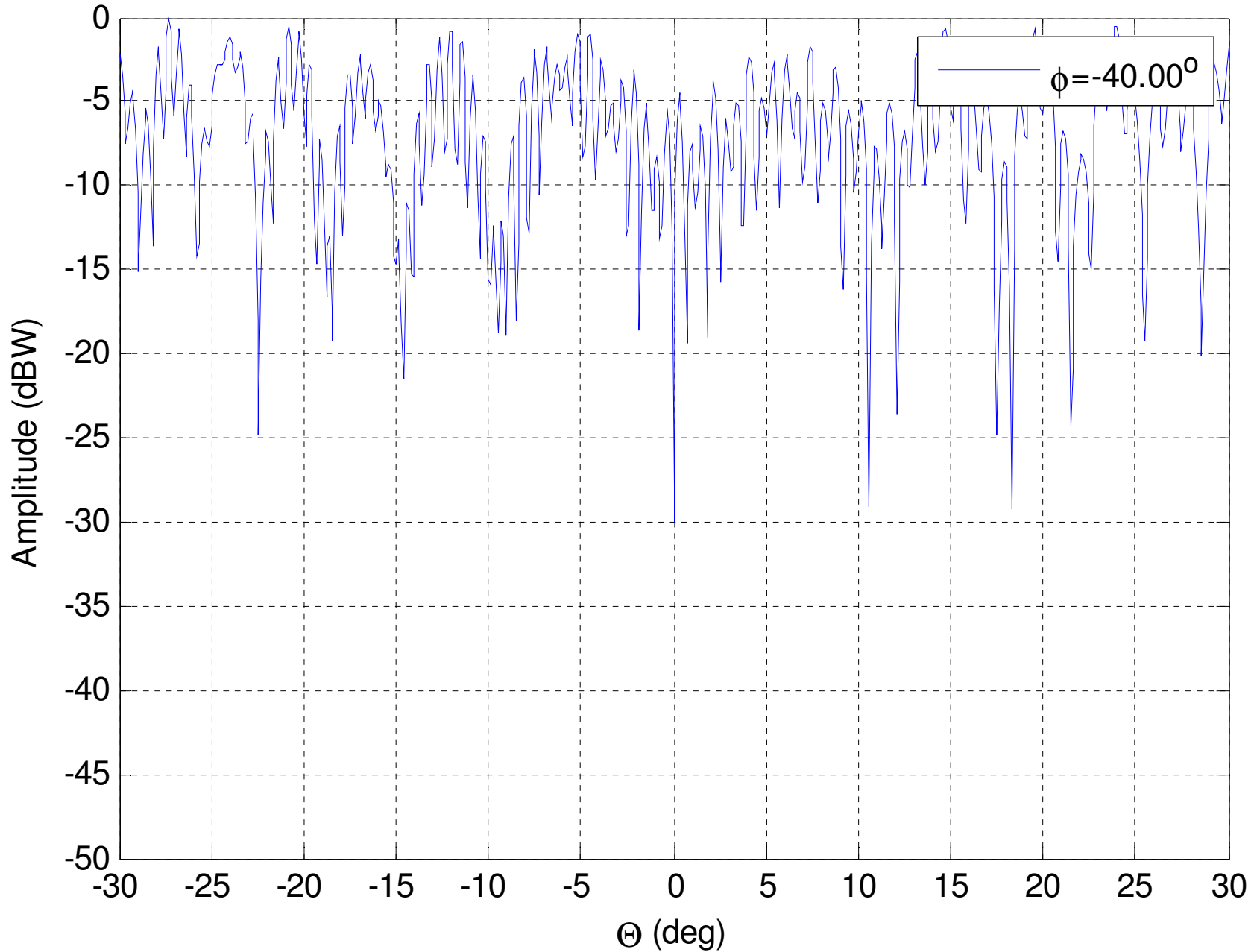
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -2.94 dBW, Date: 16-Dec-2011



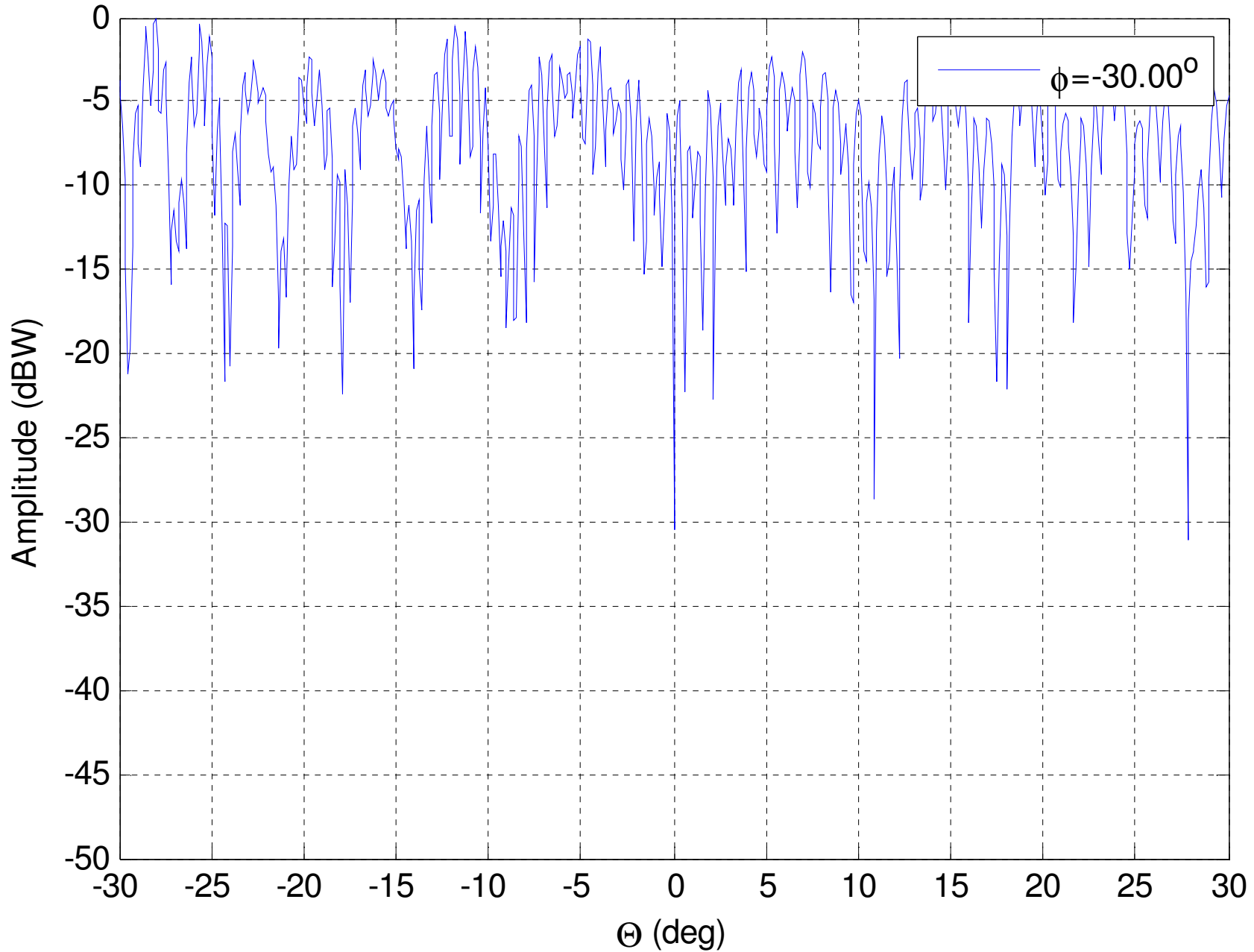
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -2.56 dBW, Date: 16-Dec-2011



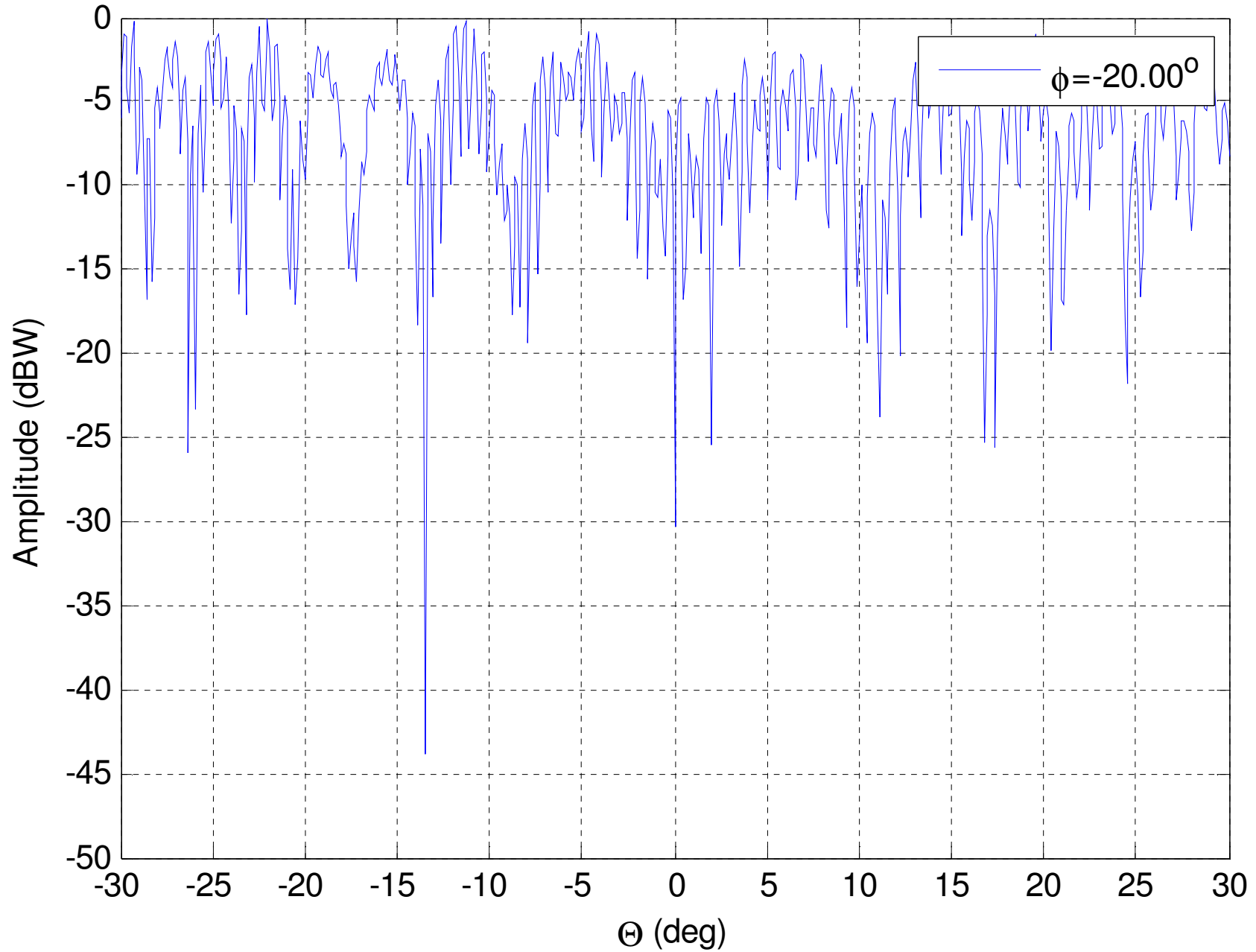
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -2.12 dBW, Date: 16-Dec-2011



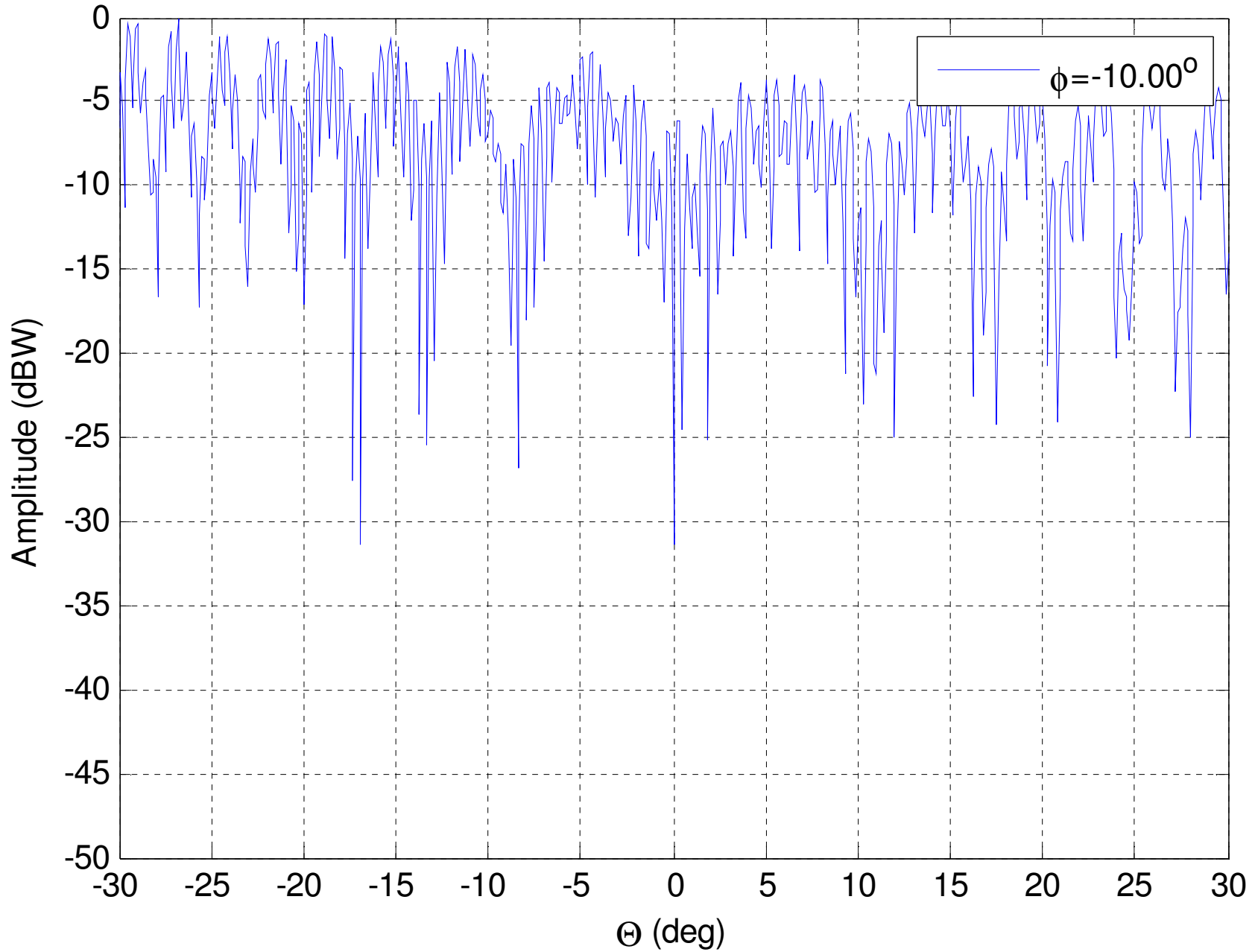
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: -2.32 dBW, Date: 16-Dec-2011



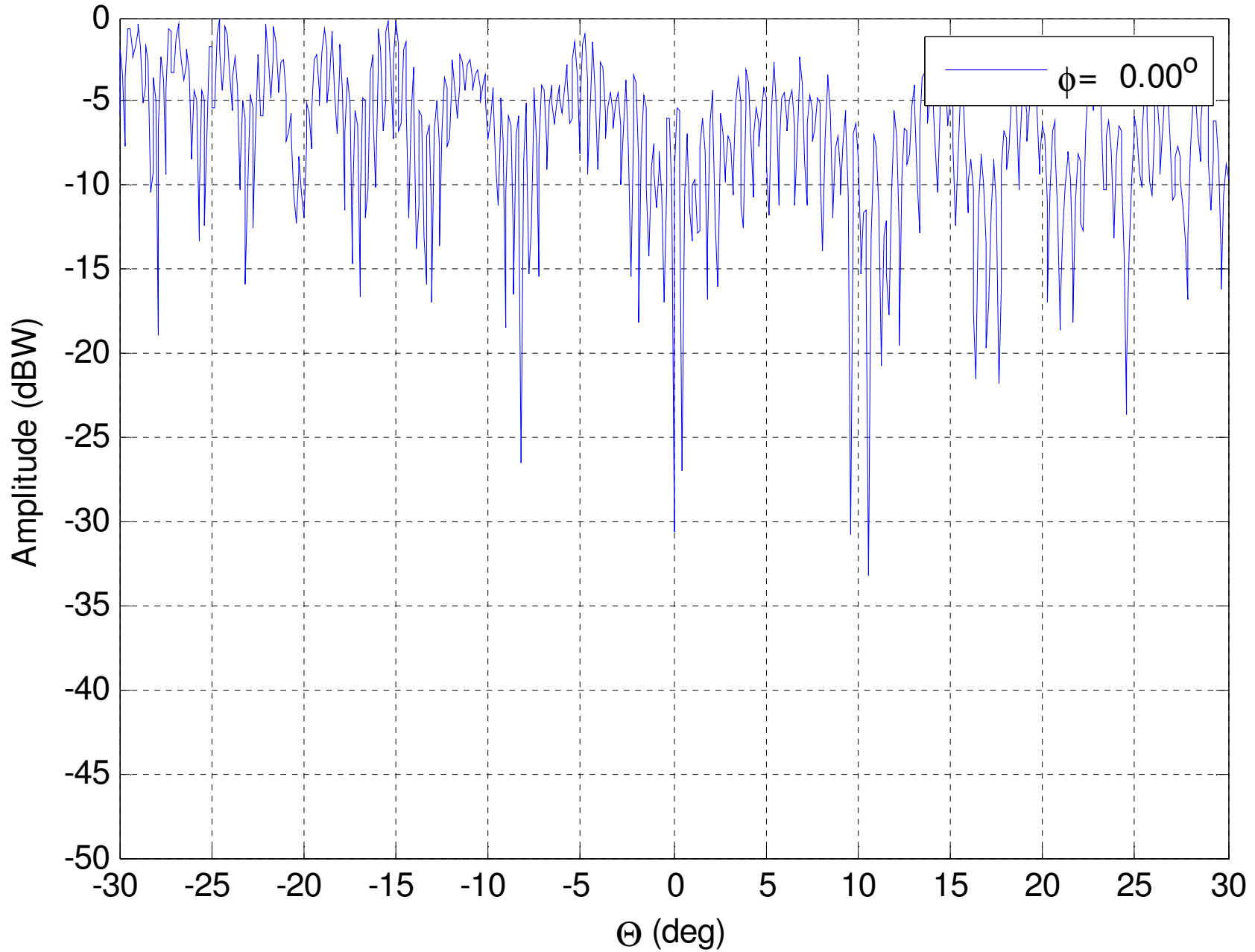
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: -1.18 dBW, Date: 16-Dec-2011



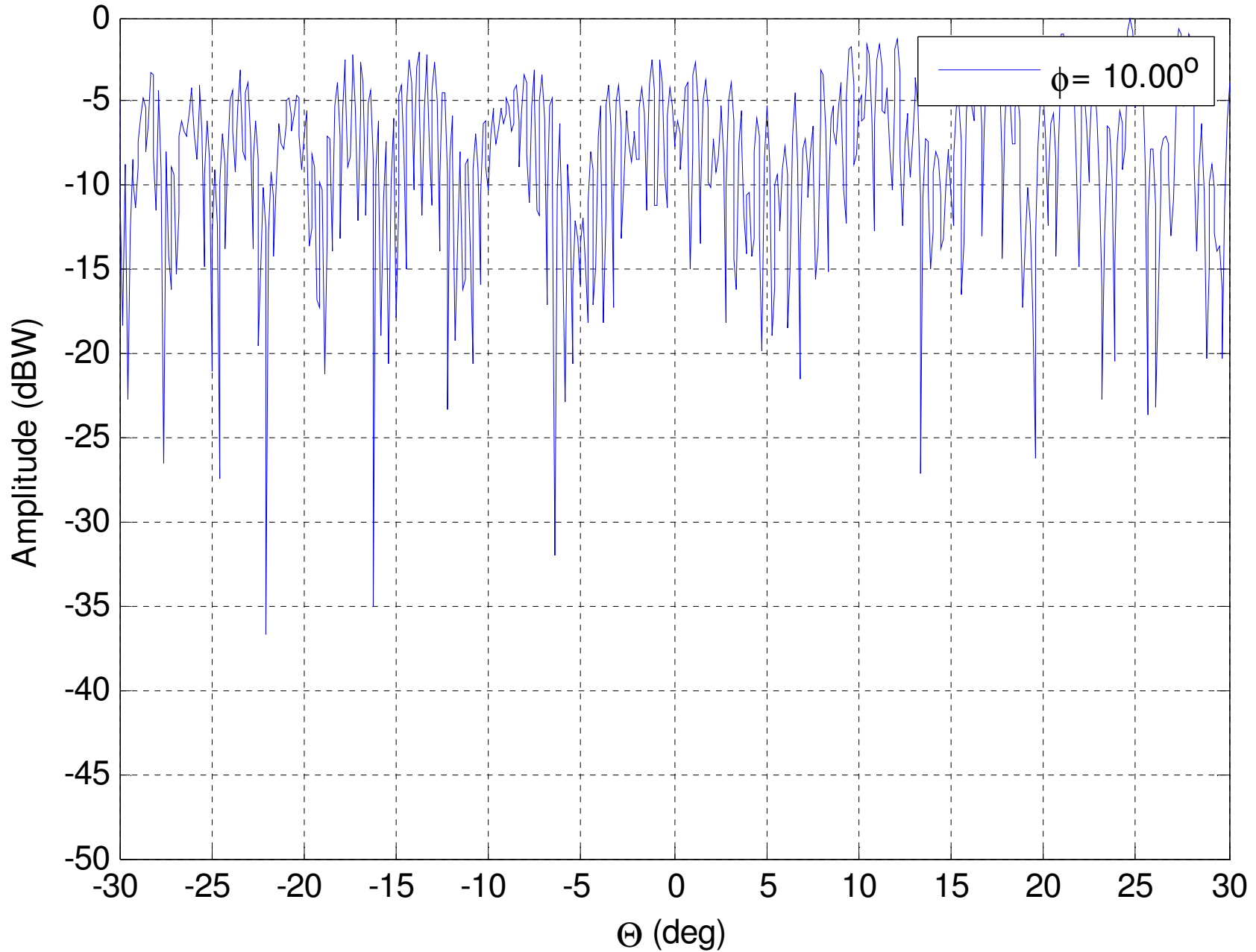
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: -1.93 dBW, Date: 16-Dec-2011



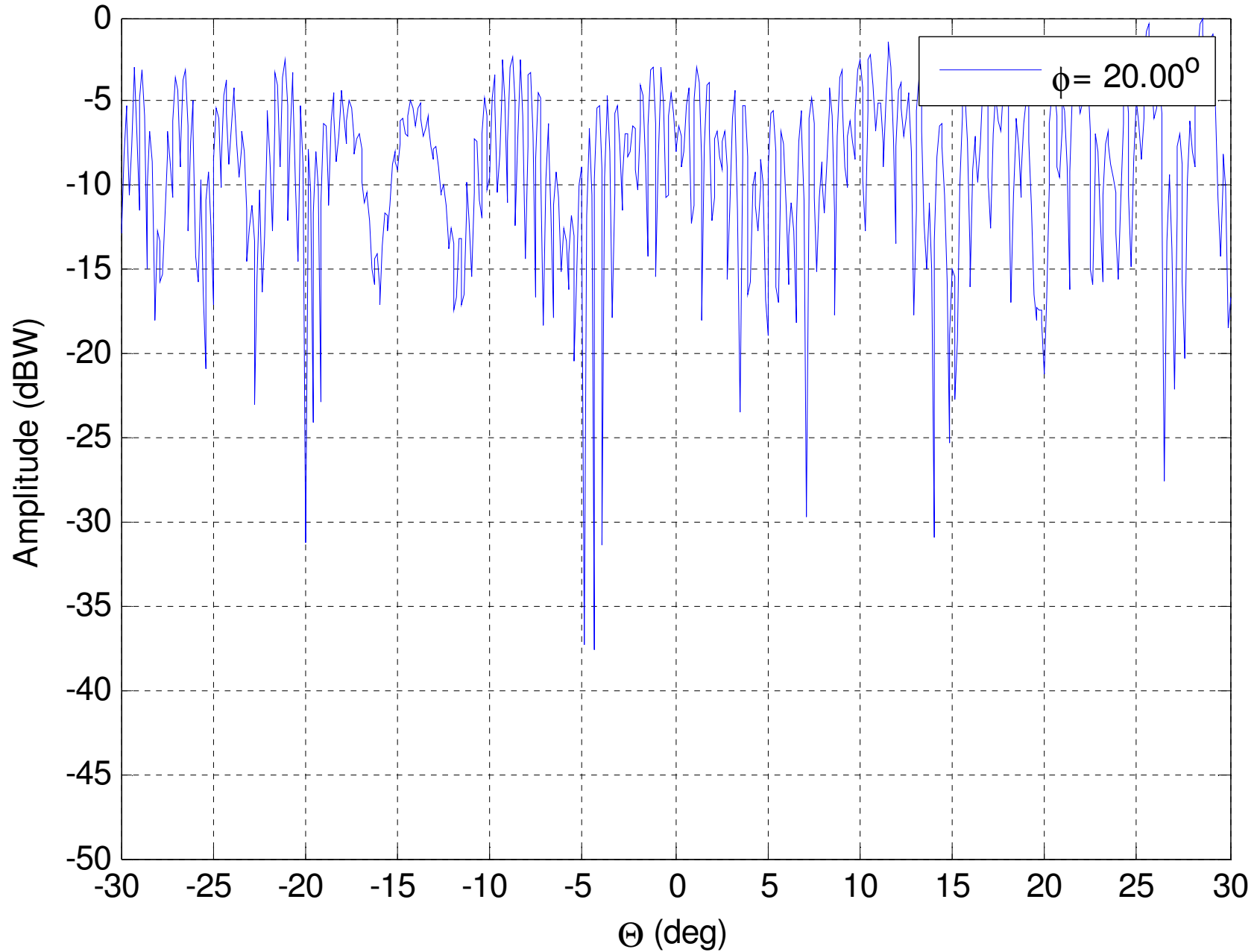
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: -1.37 dBW, Date: 16-Dec-2011



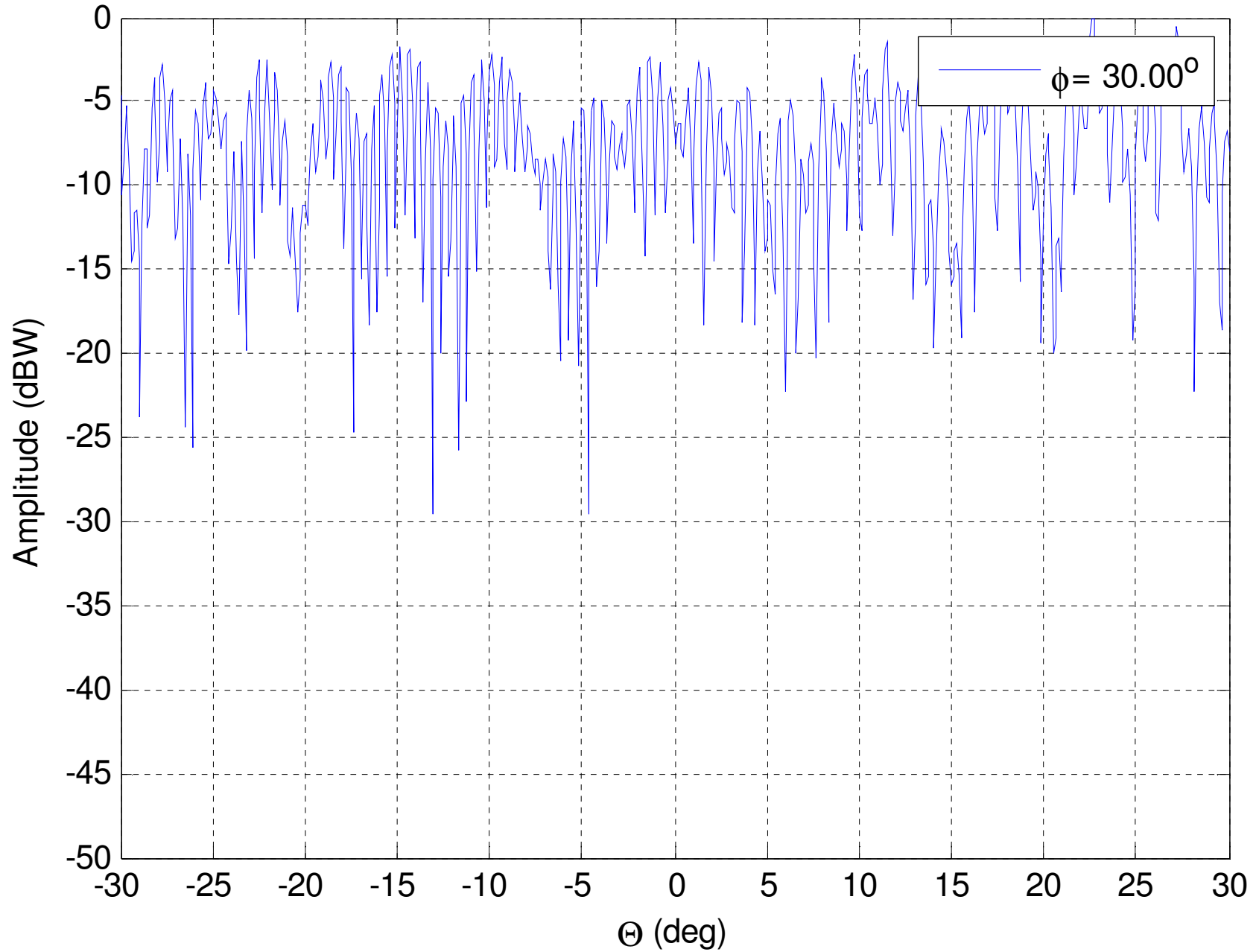
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: -1.04 dBW, Date: 16-Dec-2011



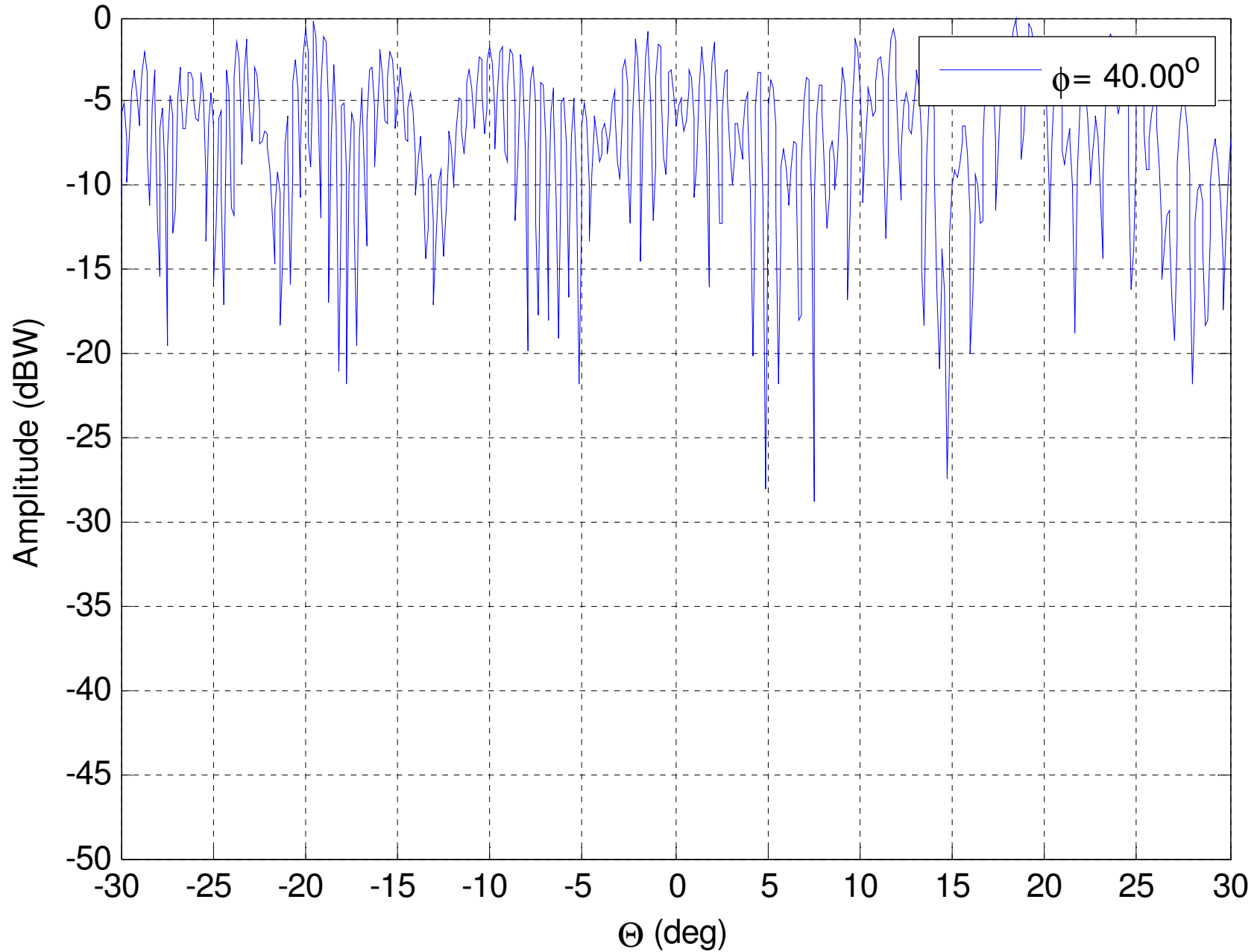
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: -1.45 dBW, Date: 16-Dec-2011



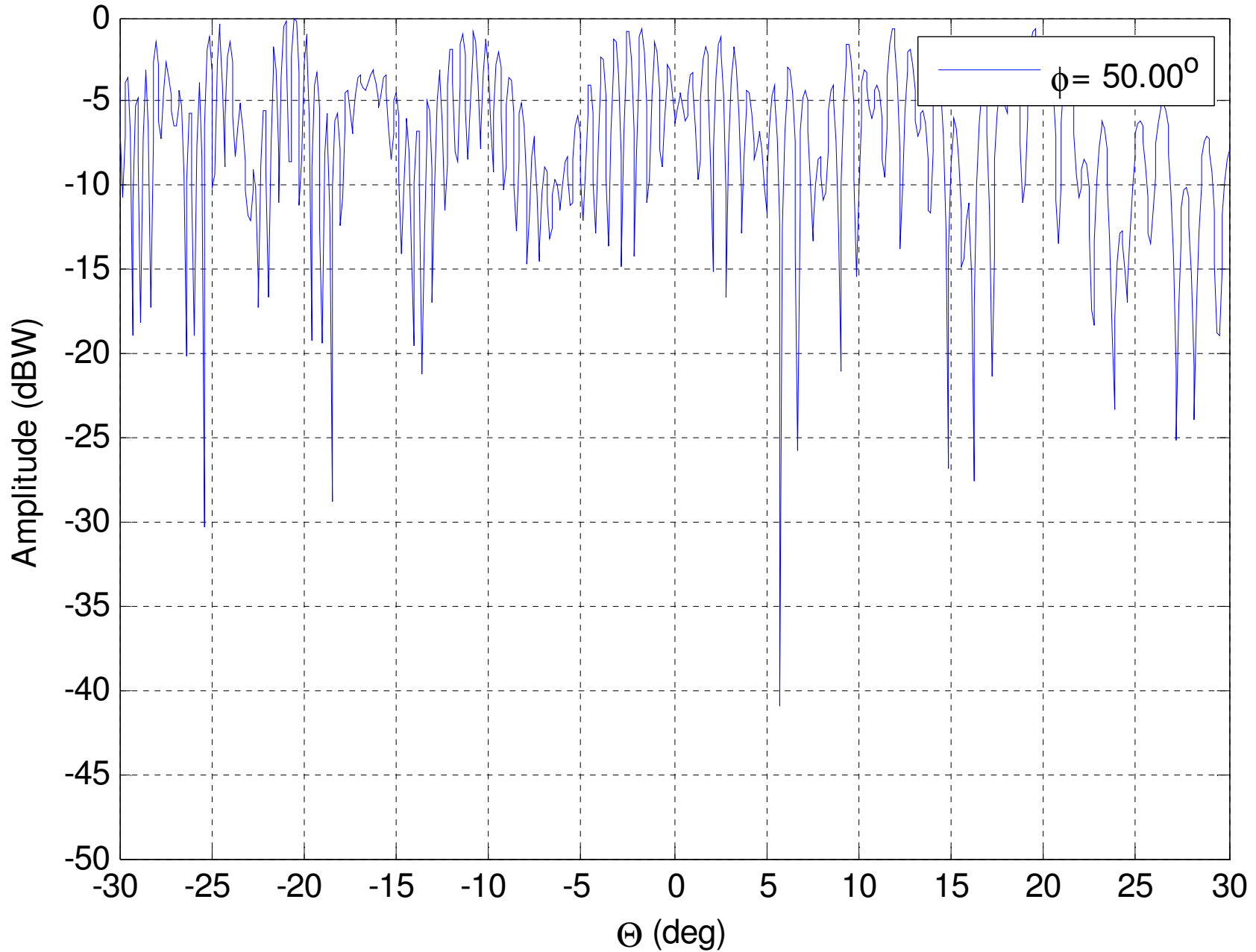
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -2.78 dBW, Date: 16-Dec-2011



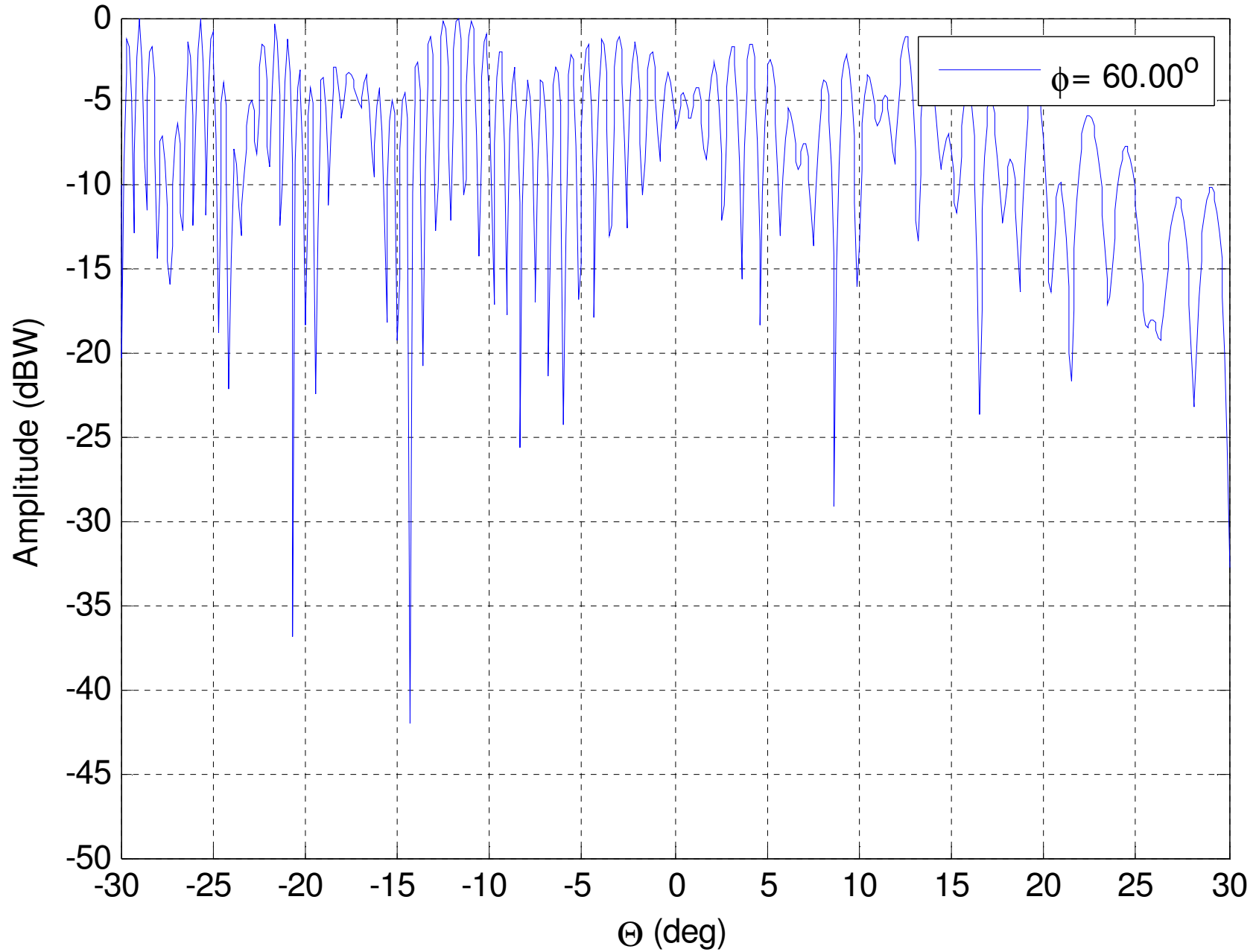
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -3.06 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

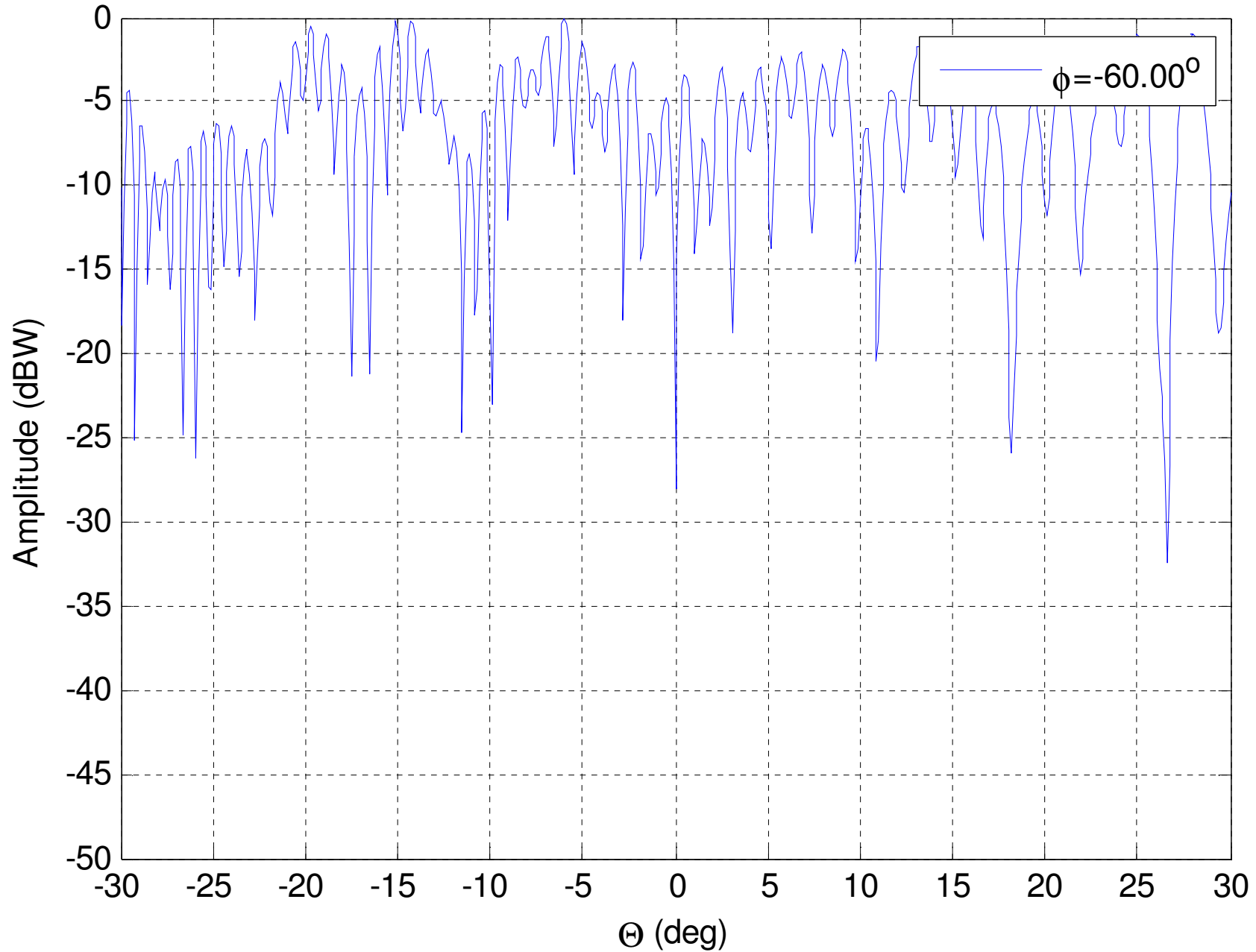
Input file: tx-17.5-rhcp-60.cut, Peak: -2.90 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

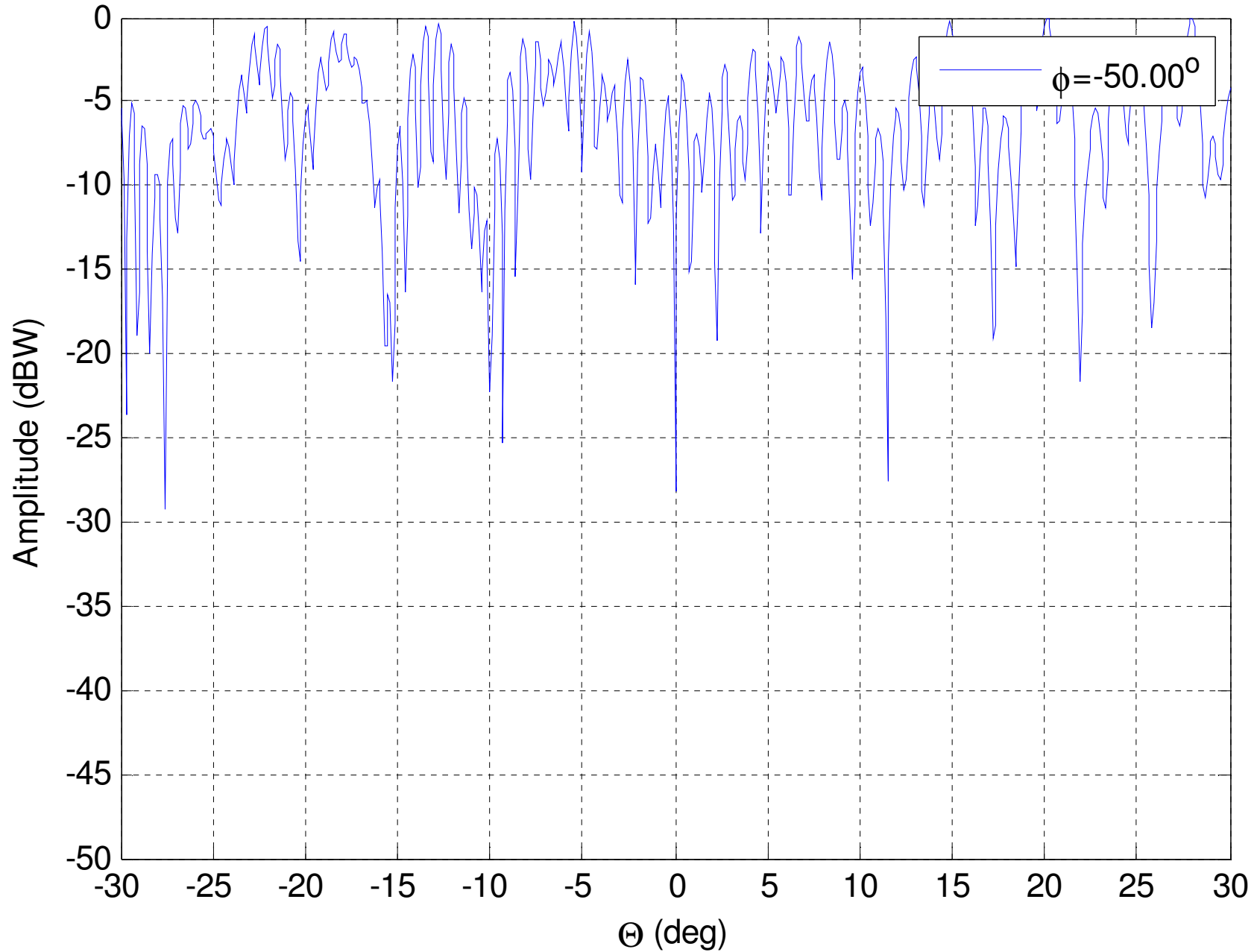
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -3.31 dBW, Date: 16-Dec-2011



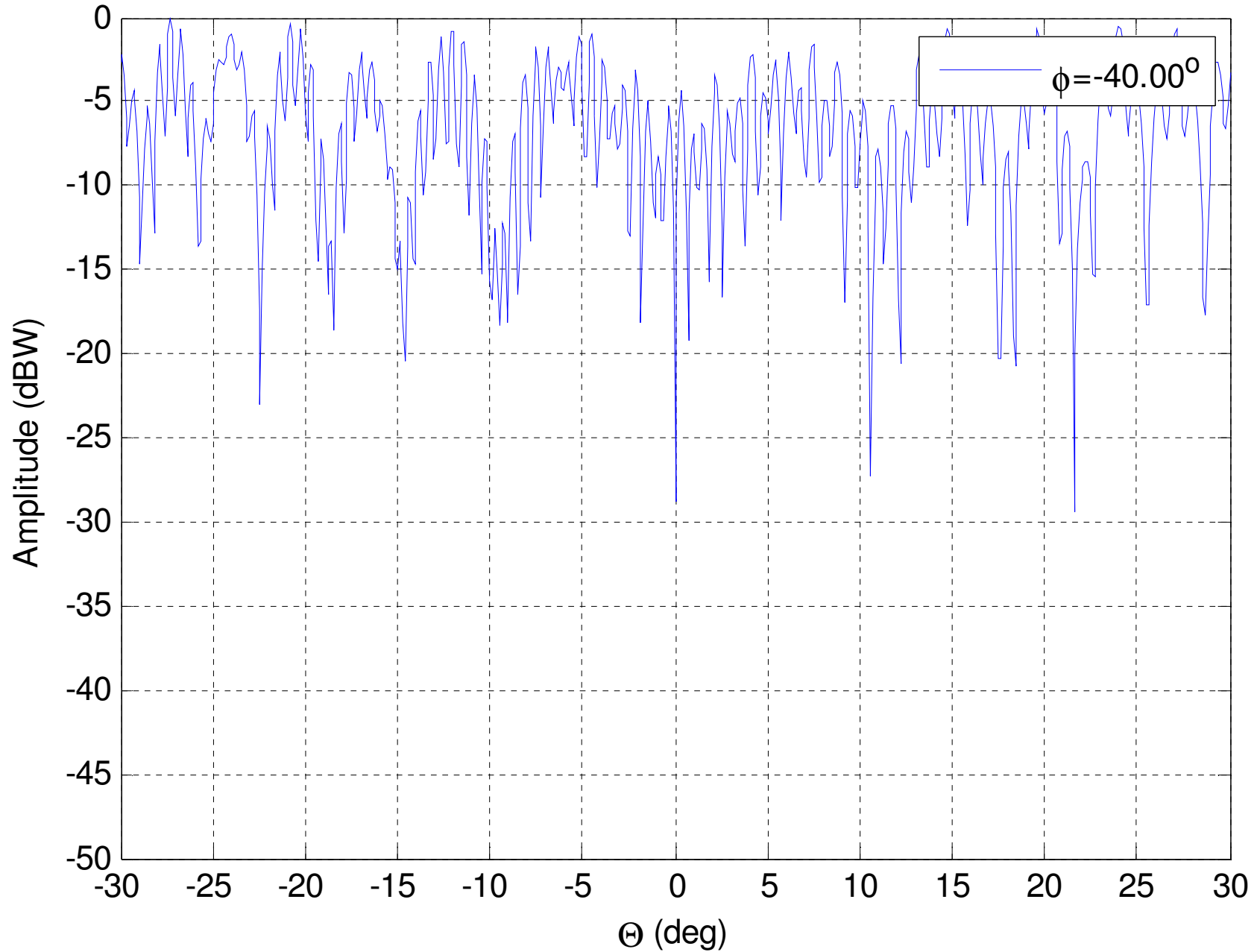
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -3.21 dBW, Date: 16-Dec-2011



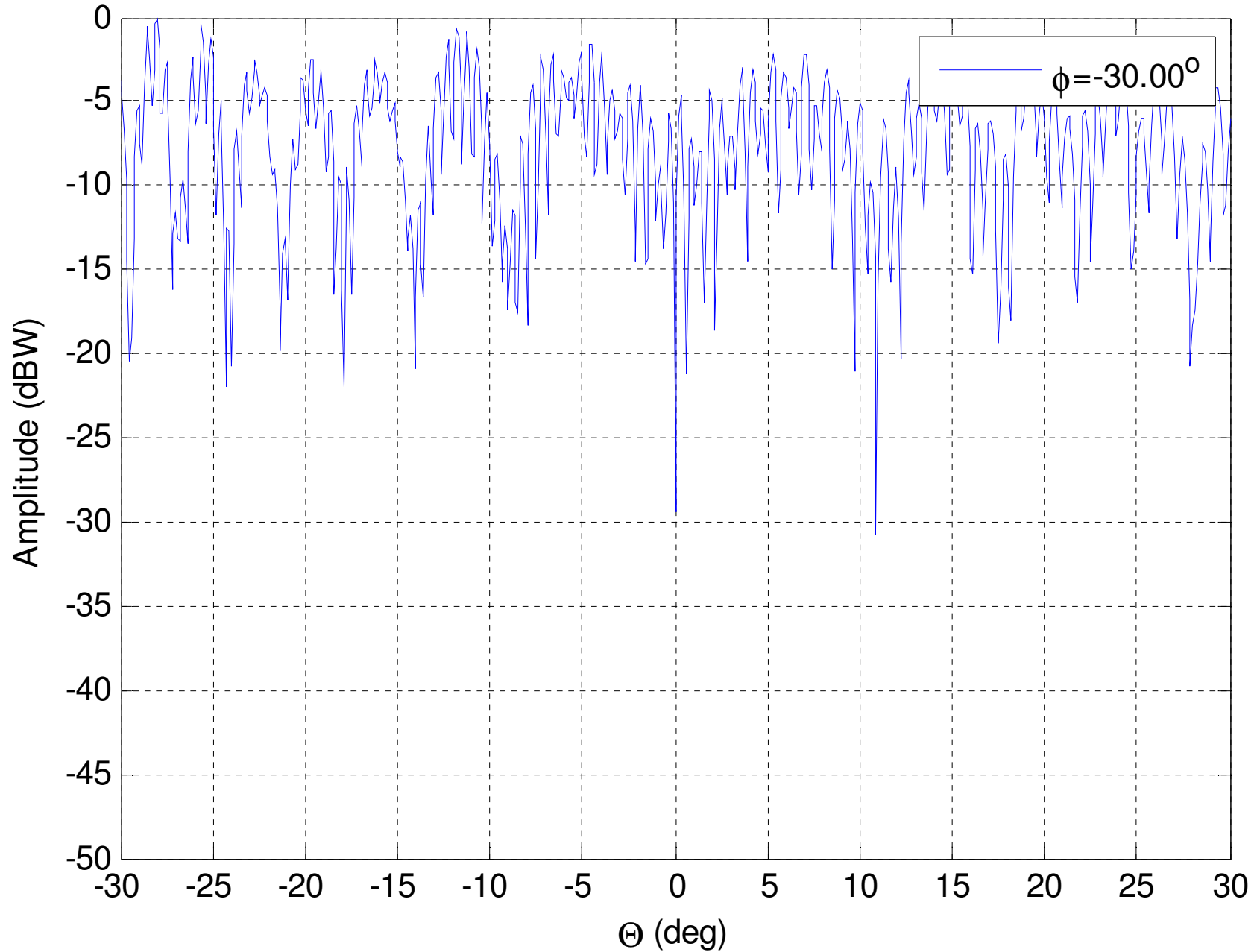
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -2.47 dBW, Date: 16-Dec-2011



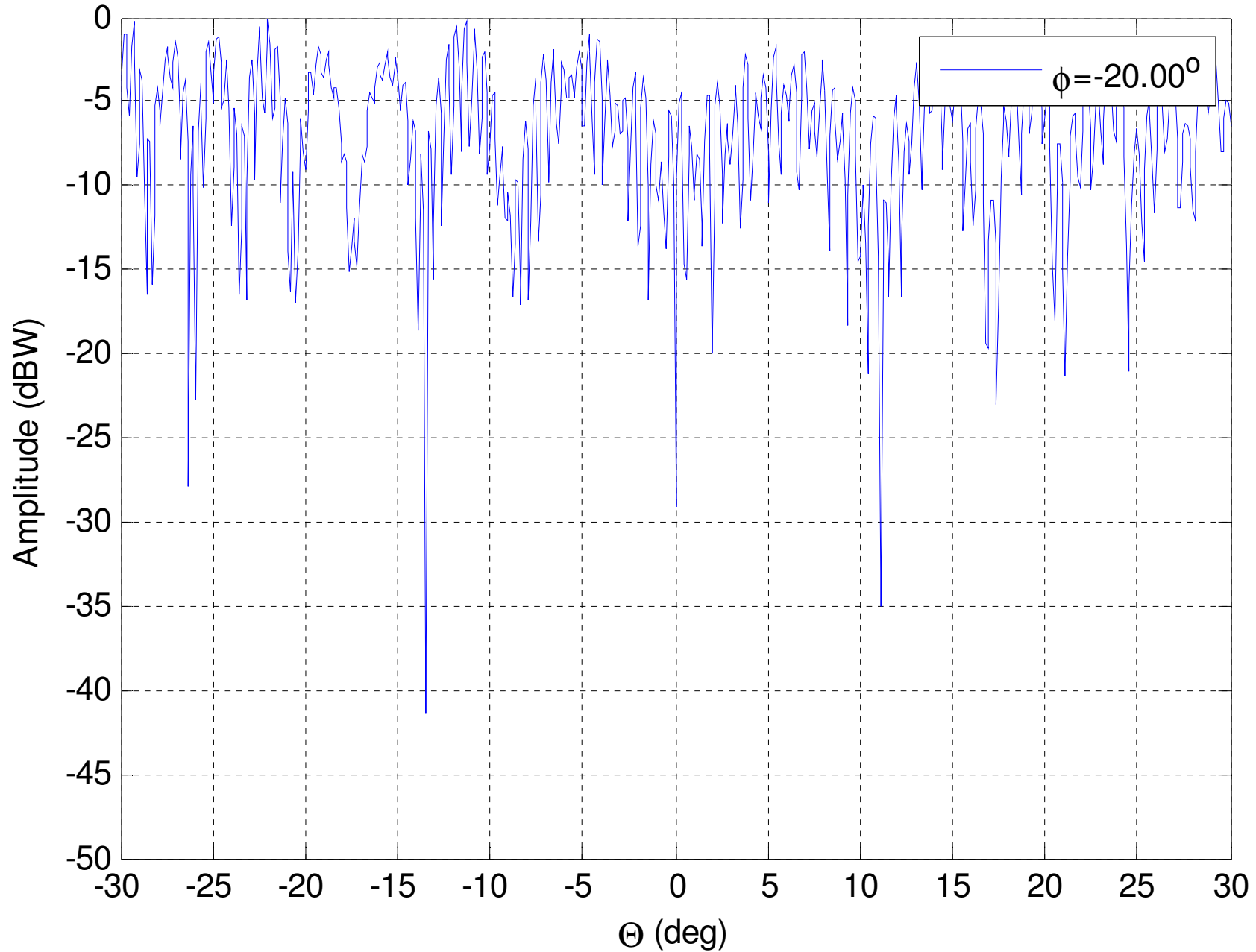
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: -1.91 dBW, Date: 16-Dec-2011



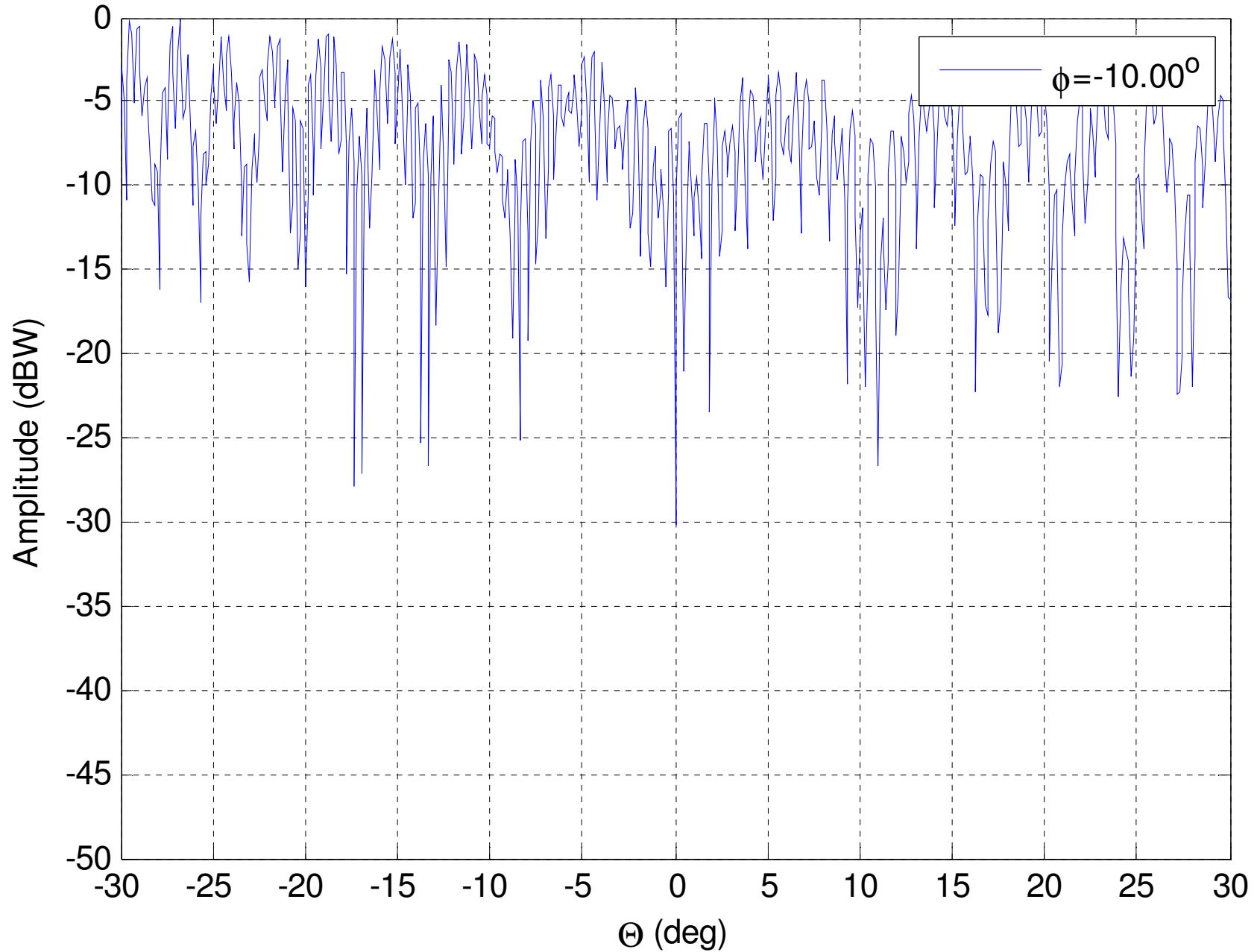
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: -2.25 dBW, Date: 16-Dec-2011



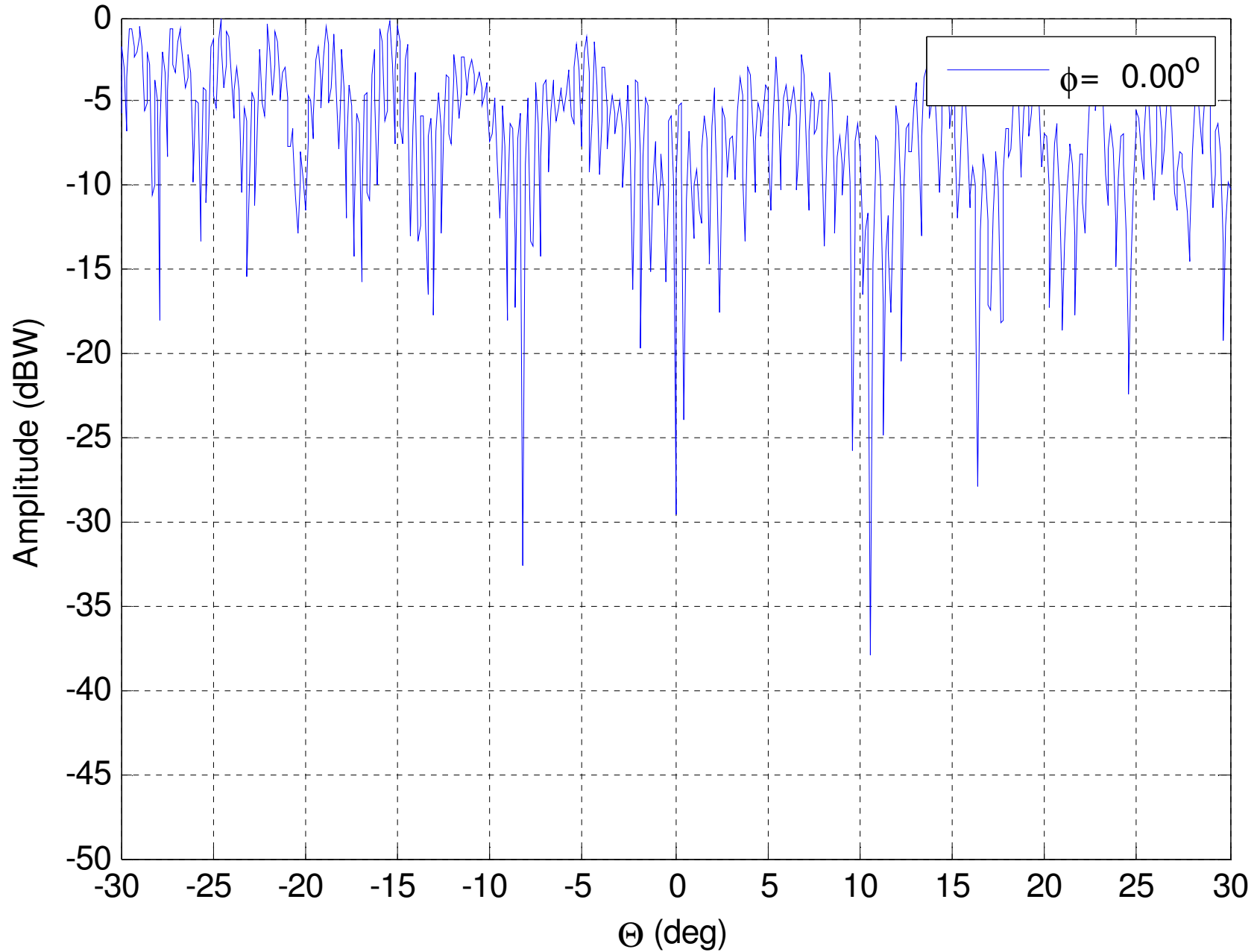
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: -1.15 dBW, Date: 16-Dec-2011



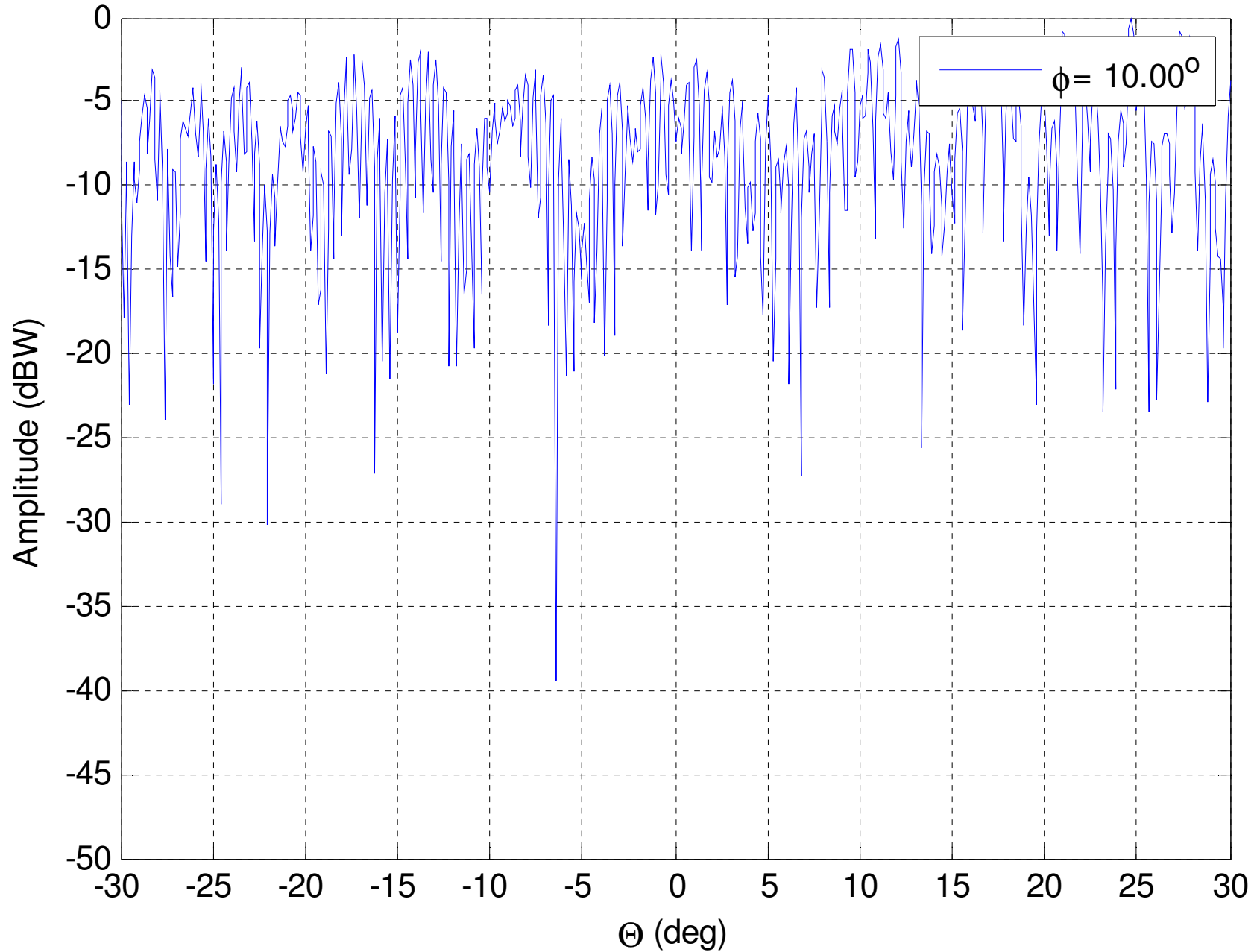
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: -1.77 dBW, Date: 16-Dec-2011



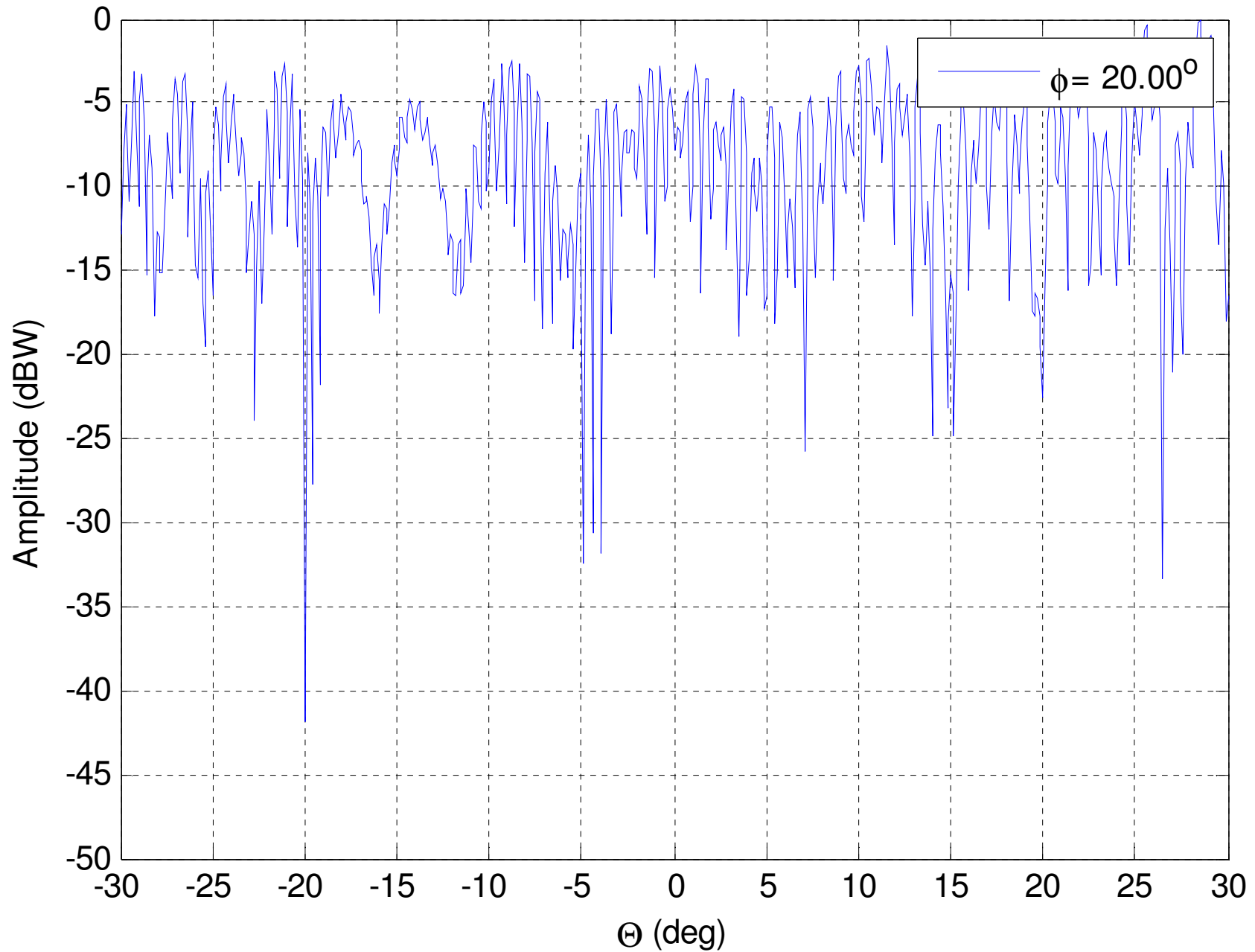
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: -1.26 dBW, Date: 16-Dec-2011



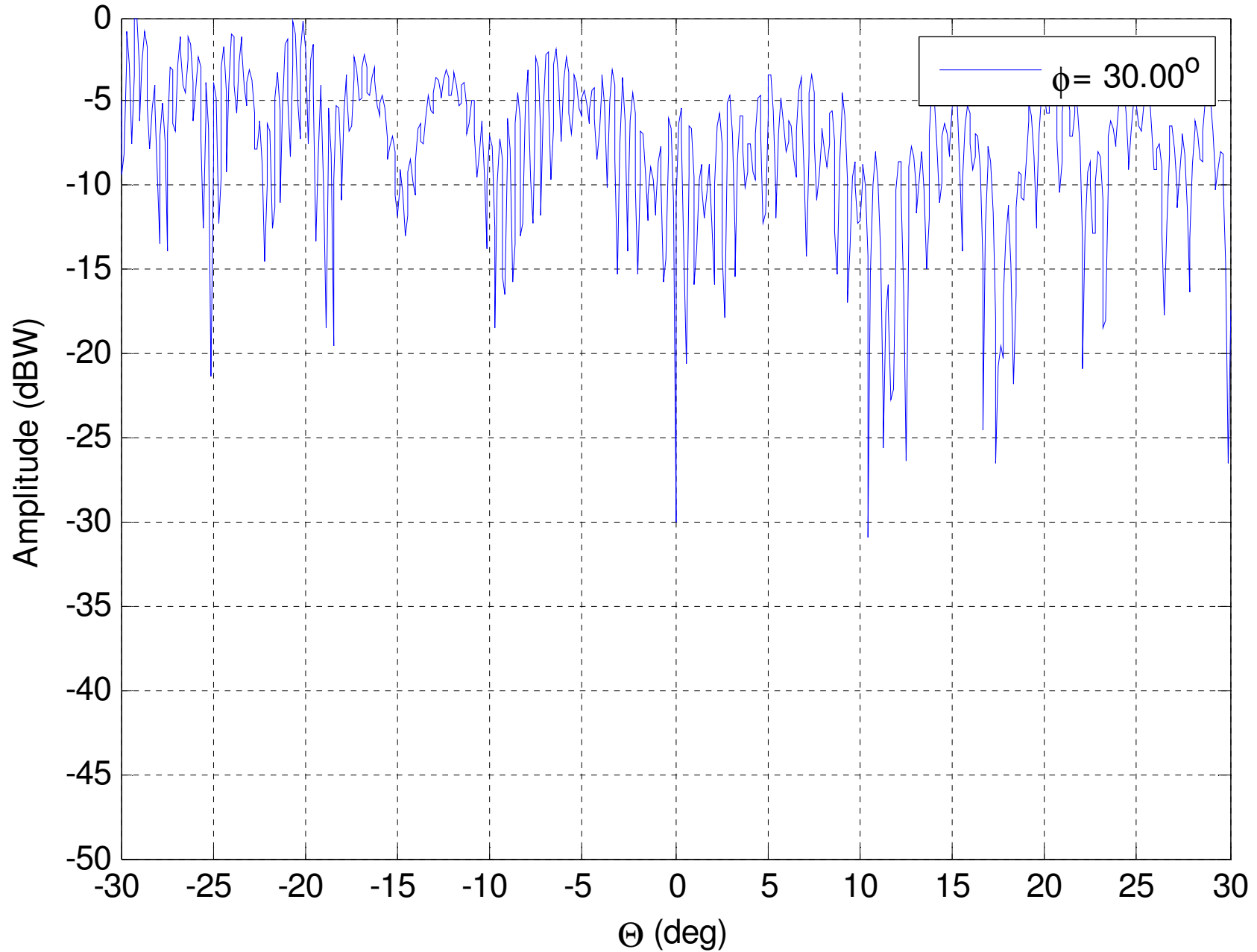
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: -0.86 dBW, Date: 16-Dec-2011



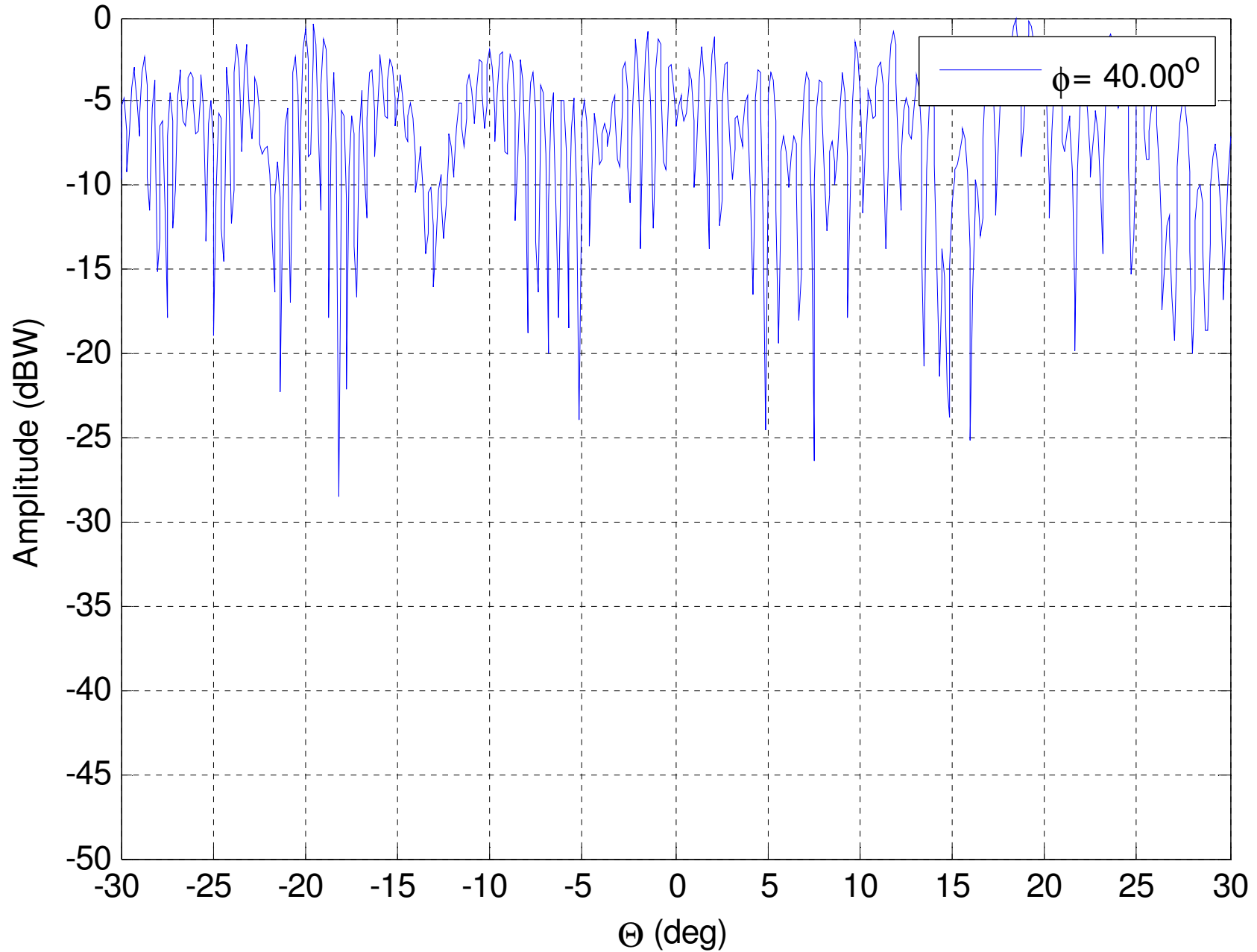
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: -1.26 dBW, Date: 16-Dec-2011



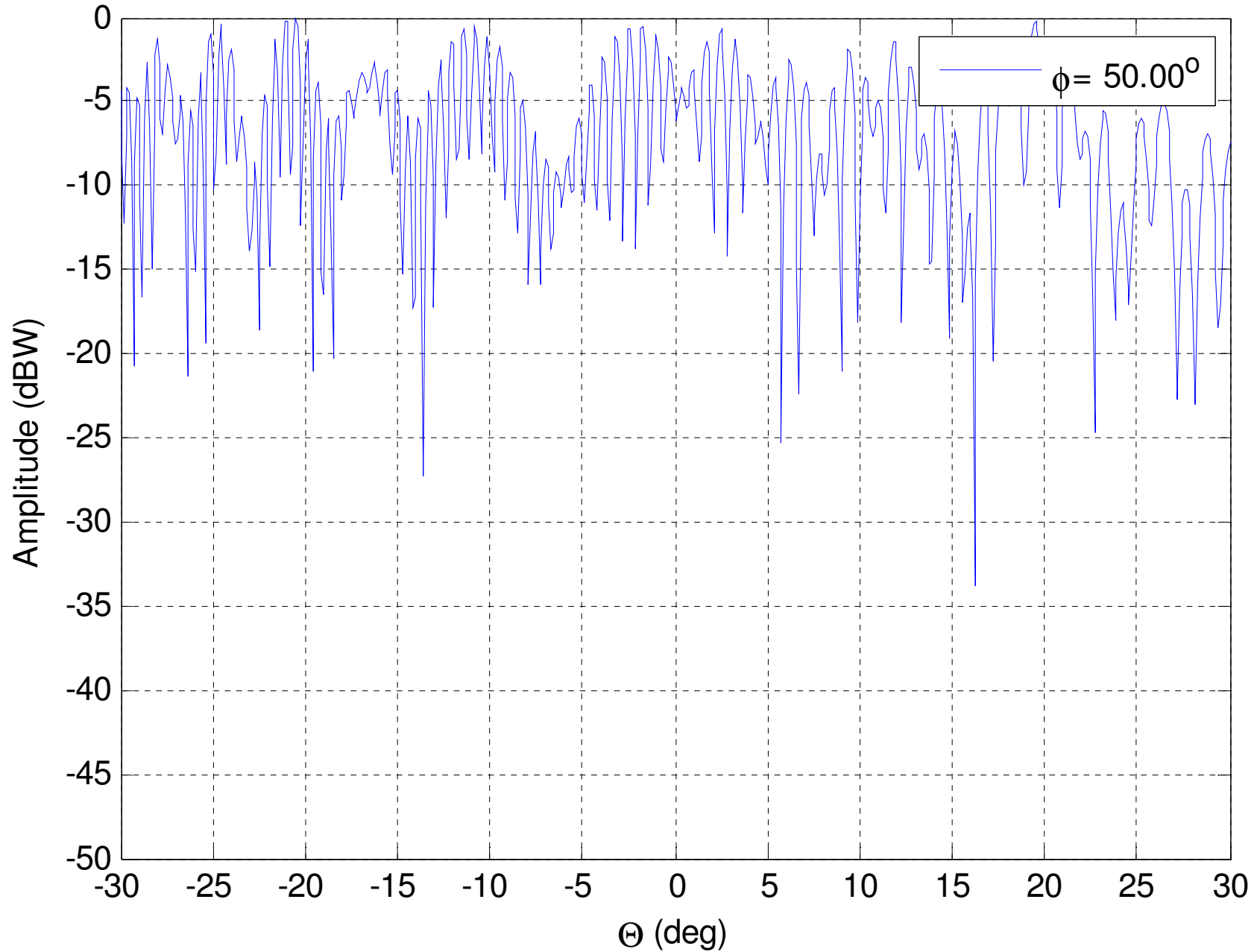
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -2.55 dBW, Date: 16-Dec-2011



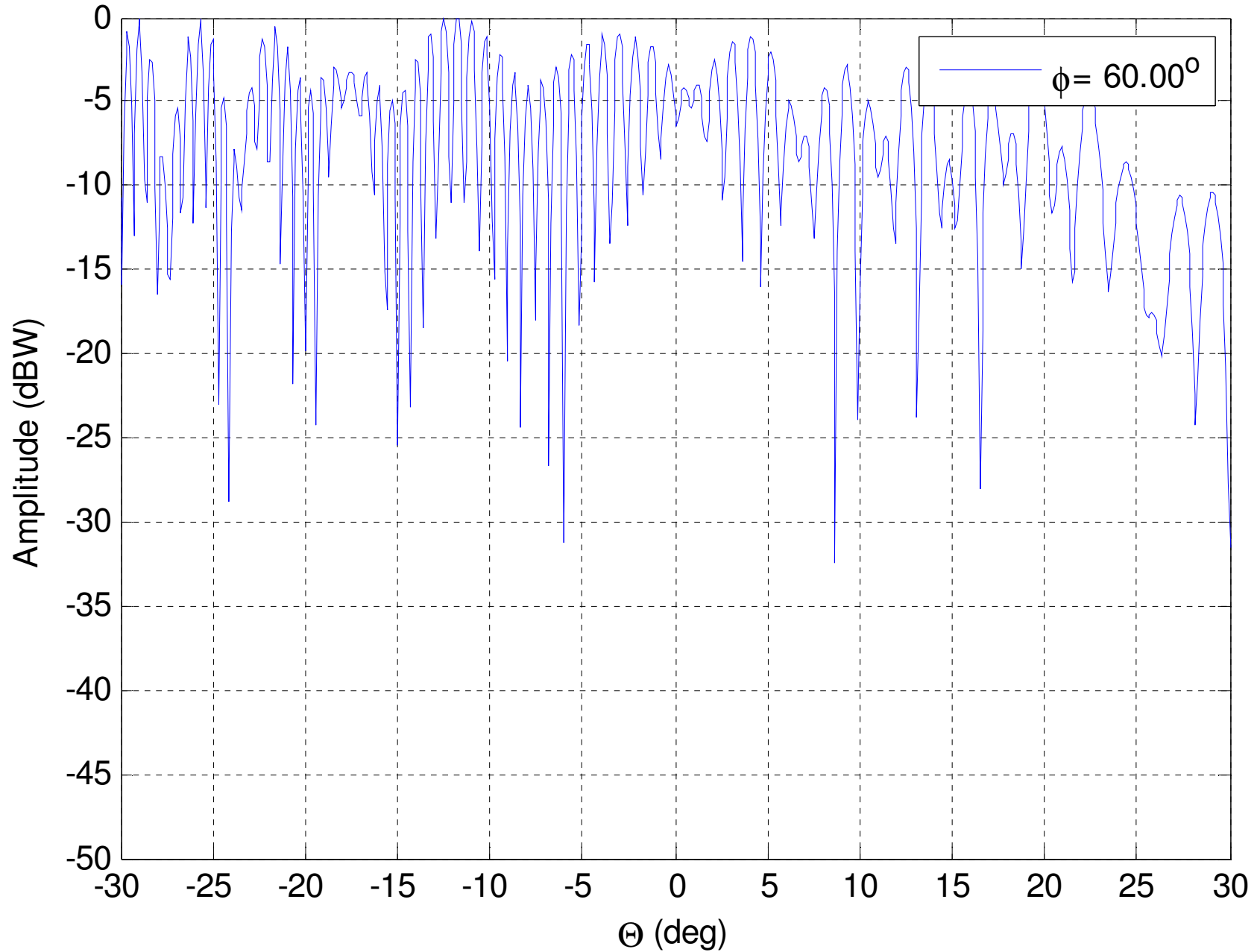
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -3.05 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

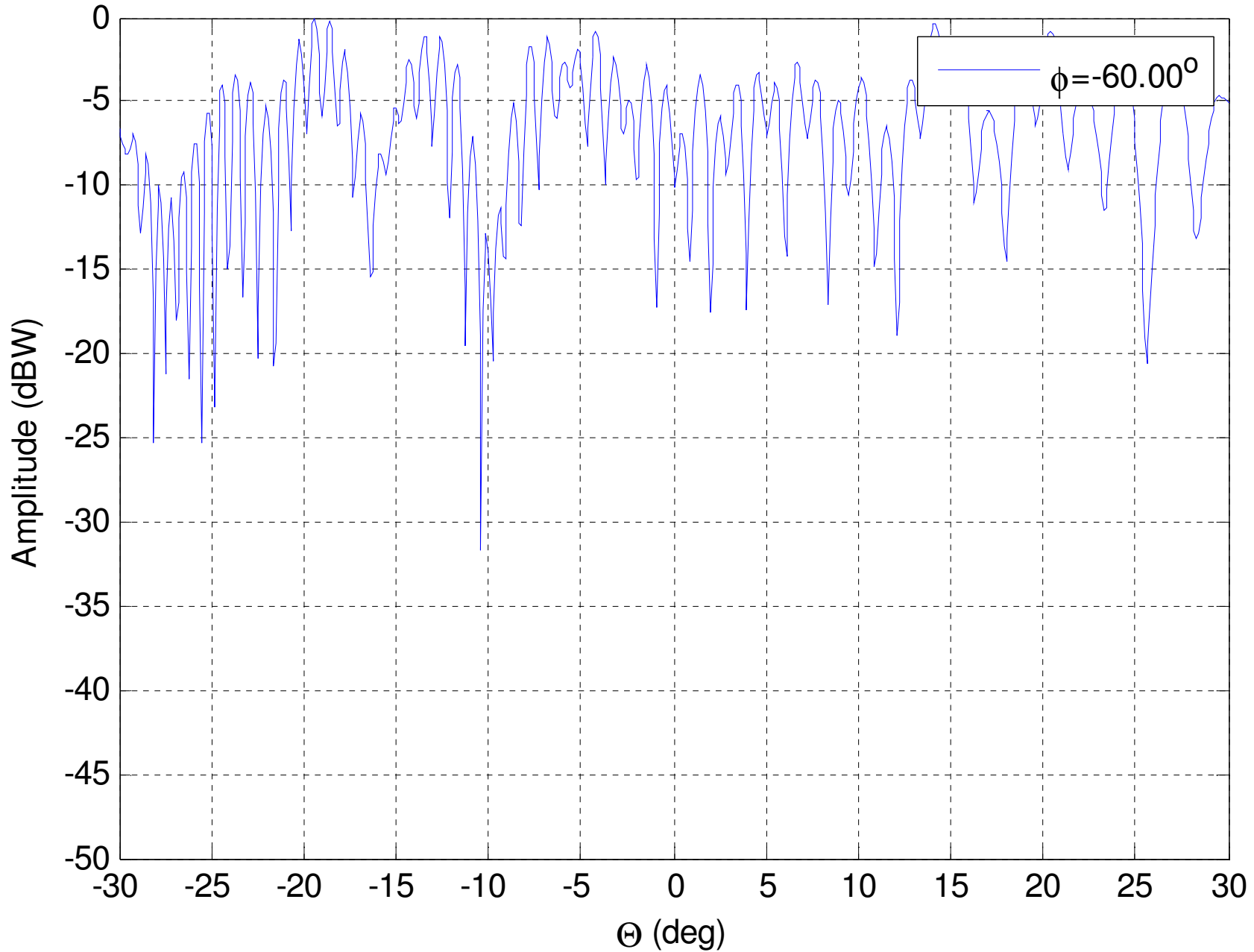
Input file: tx-17.5-lhcp-60.cut, Peak: -2.81 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

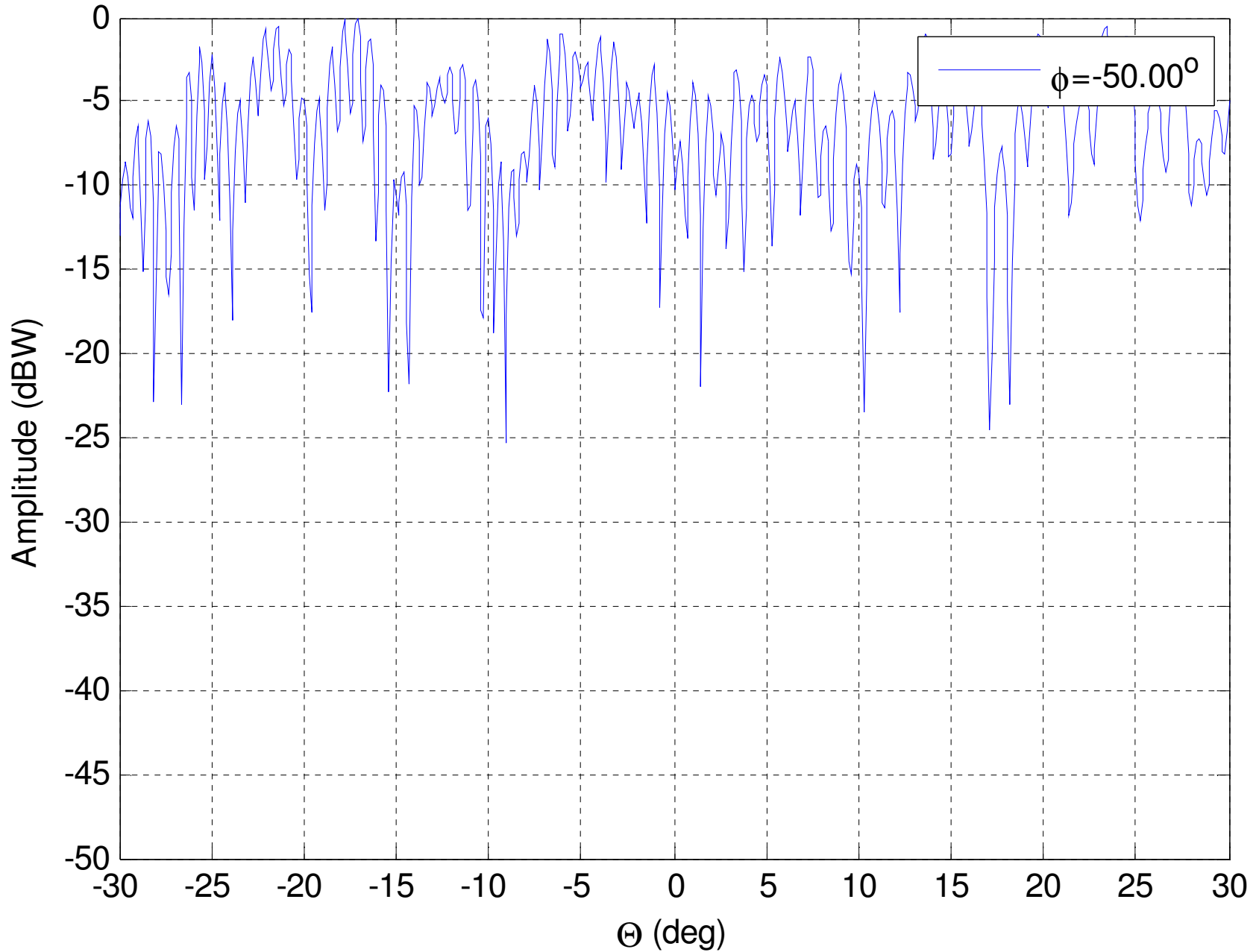
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -3.38 dBW, Date: 16-Dec-2011



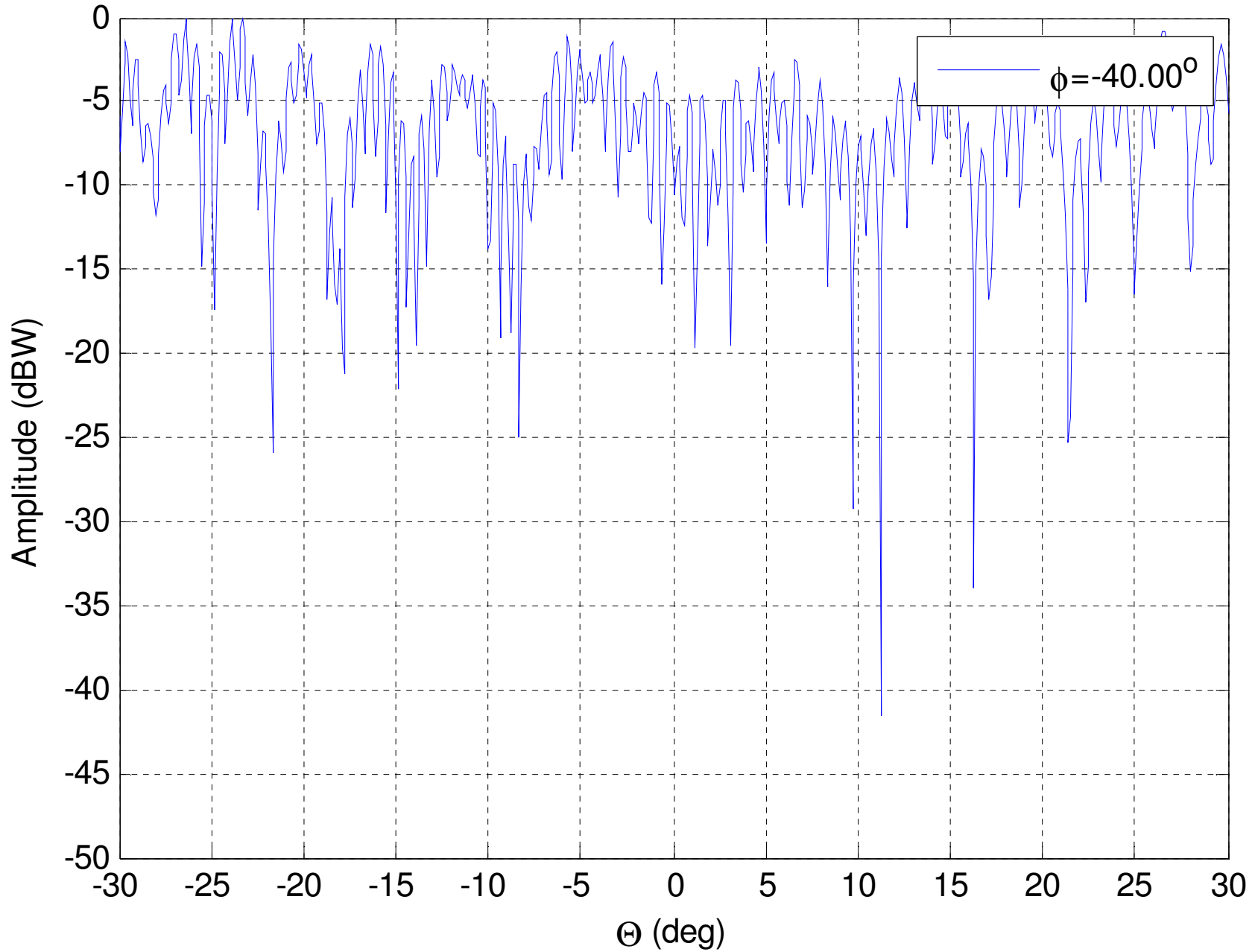
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -3.17 dBW, Date: 16-Dec-2011



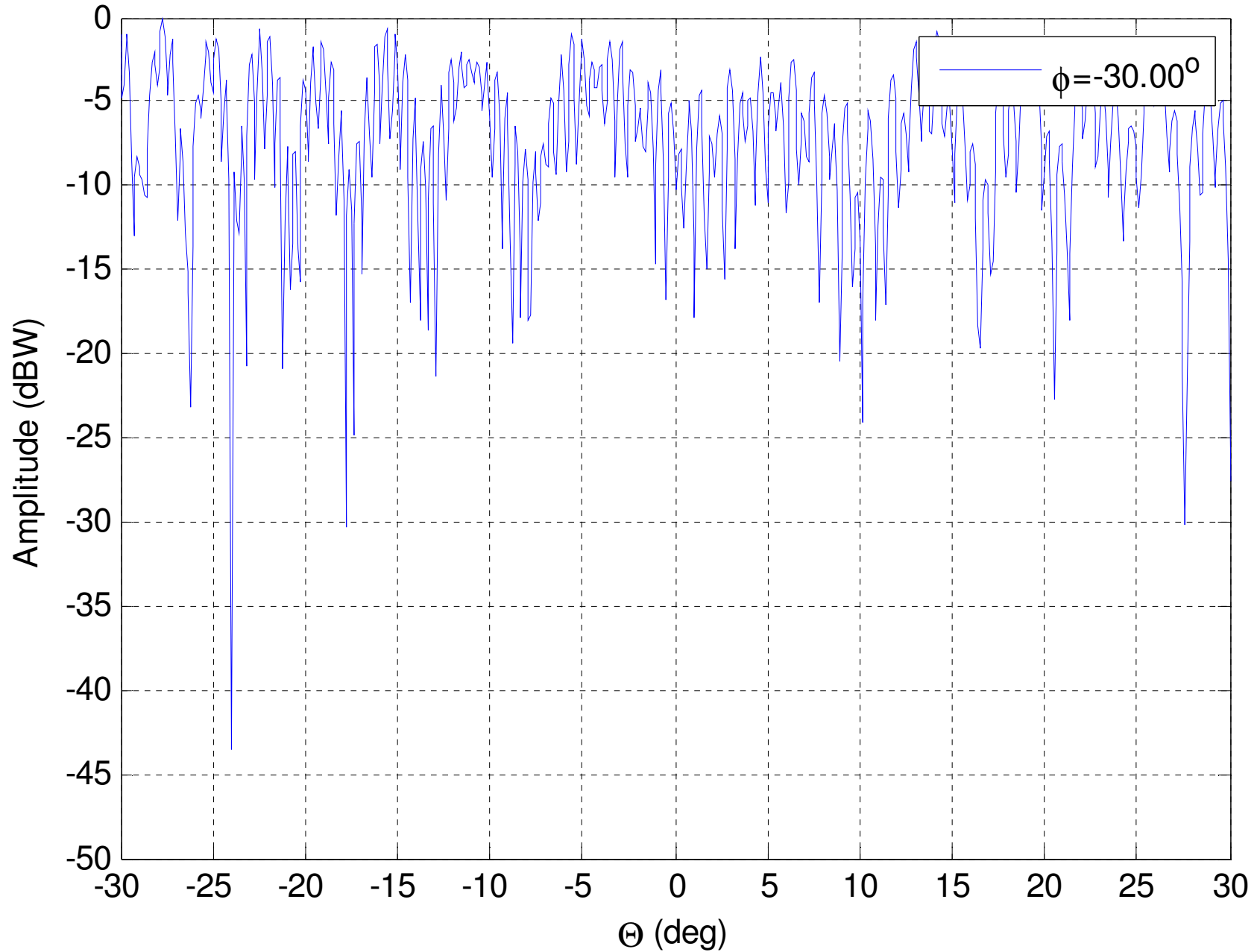
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -2.70 dBW, Date: 16-Dec-2011



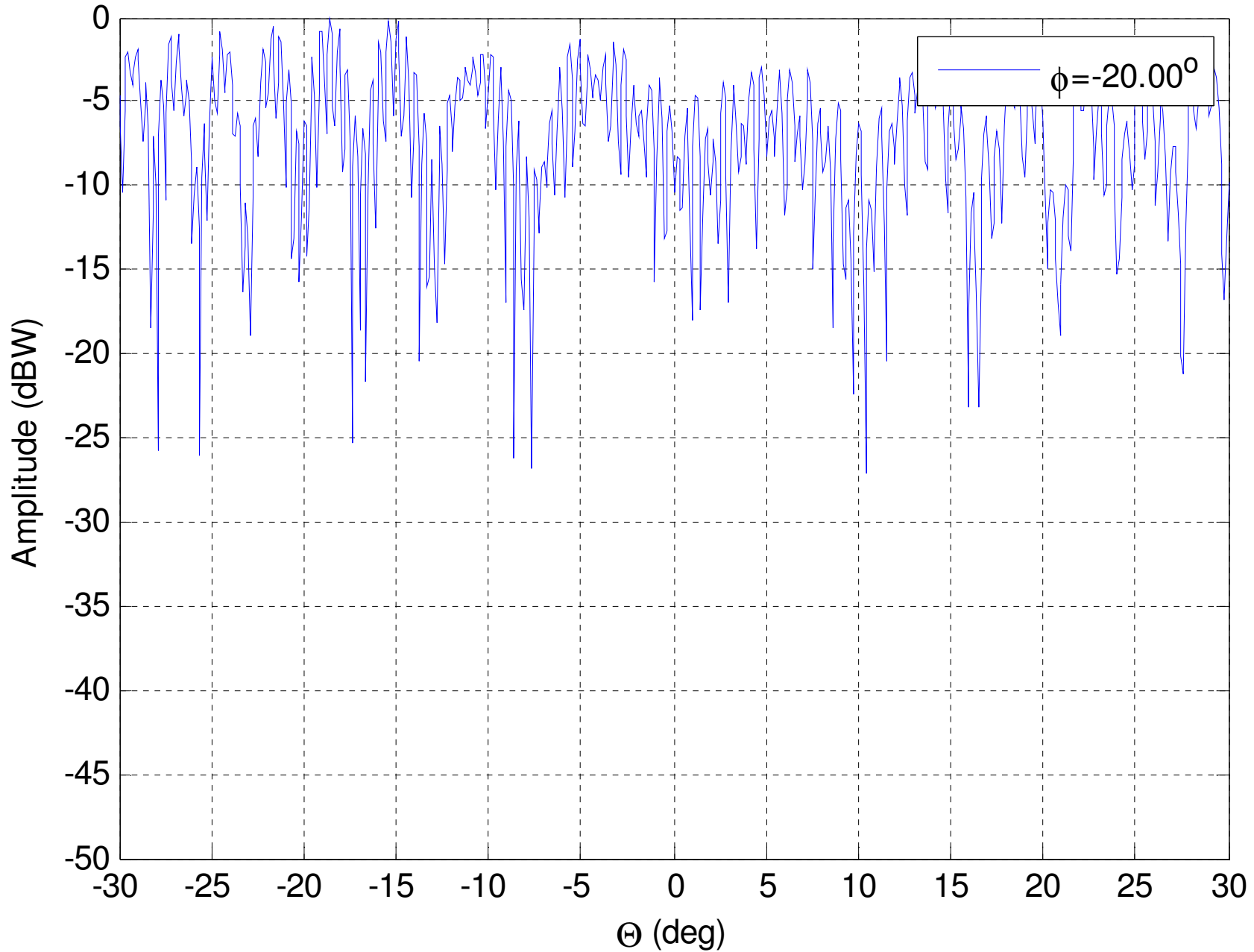
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -2.84 dBW, Date: 16-Dec-2011



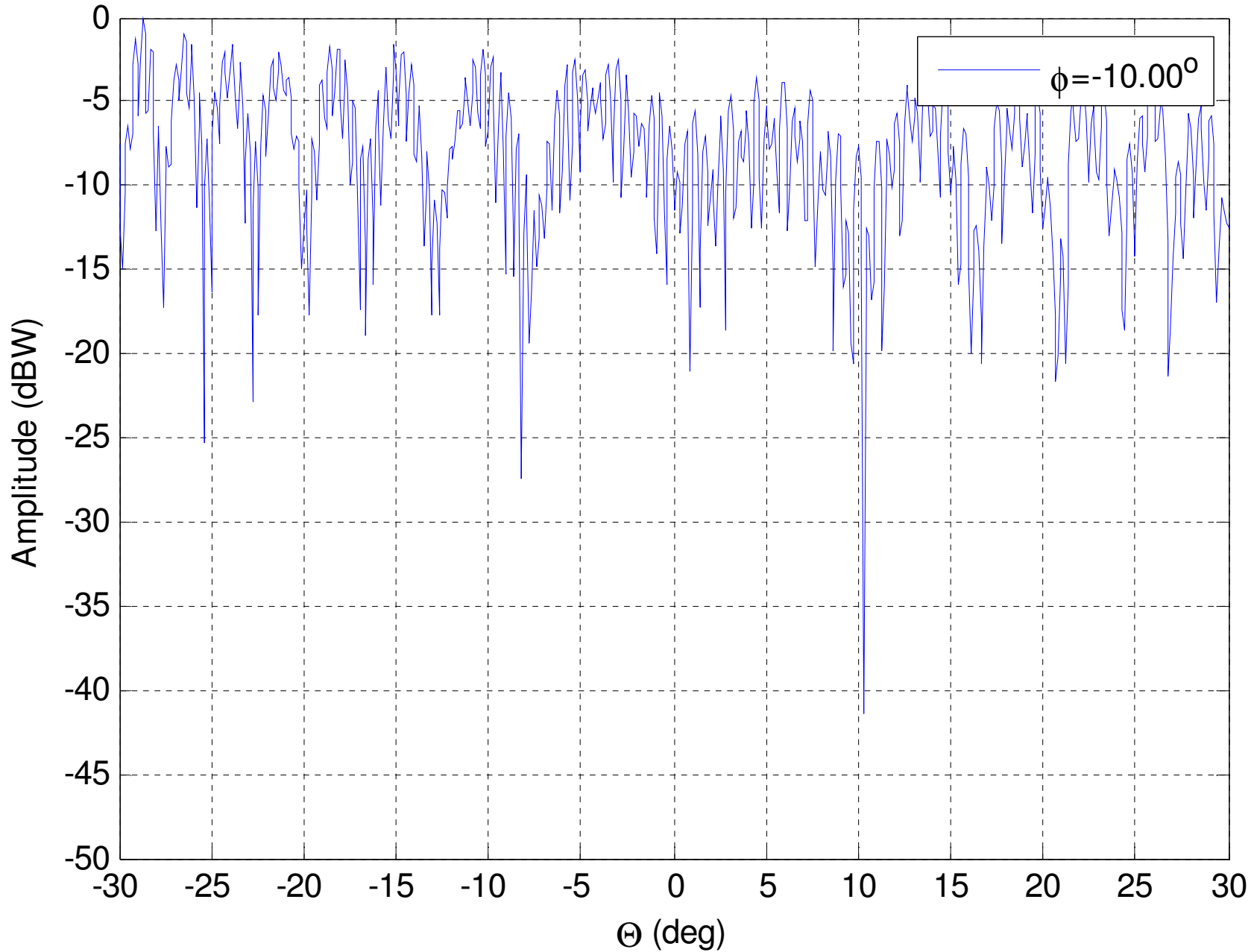
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: -2.55 dBW, Date: 16-Dec-2011



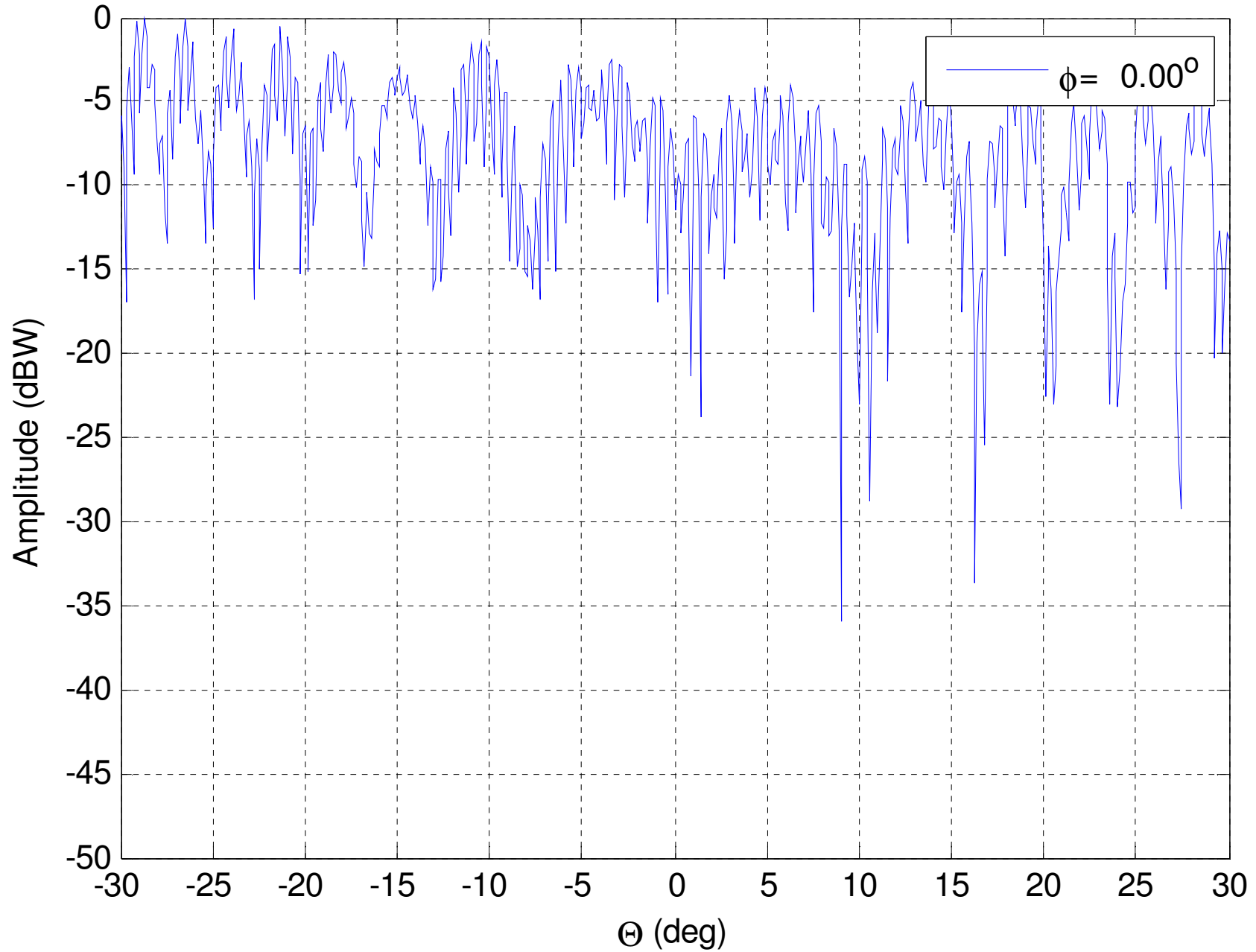
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: -1.48 dBW, Date: 16-Dec-2011



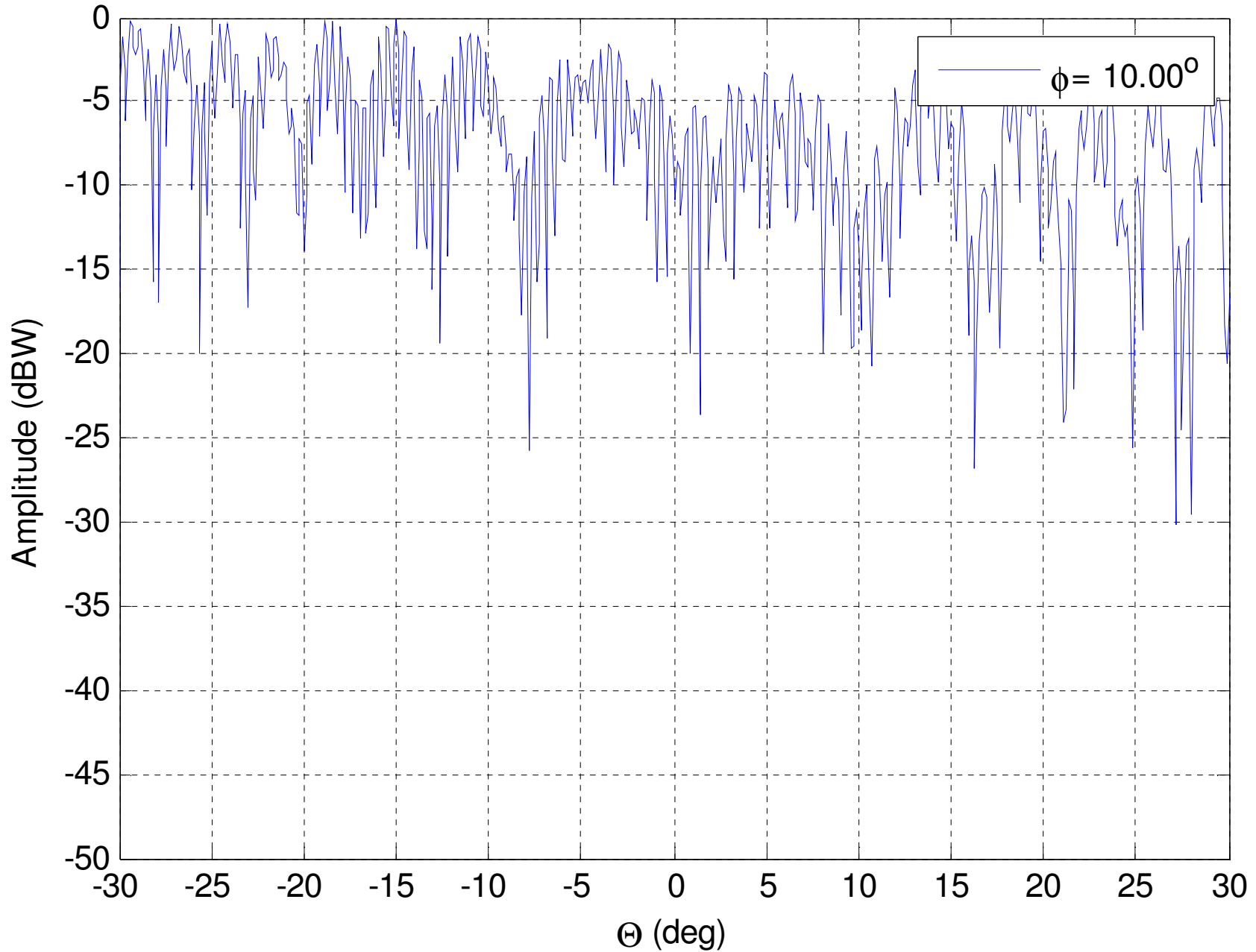
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: -1.42 dBW, Date: 16-Dec-2011



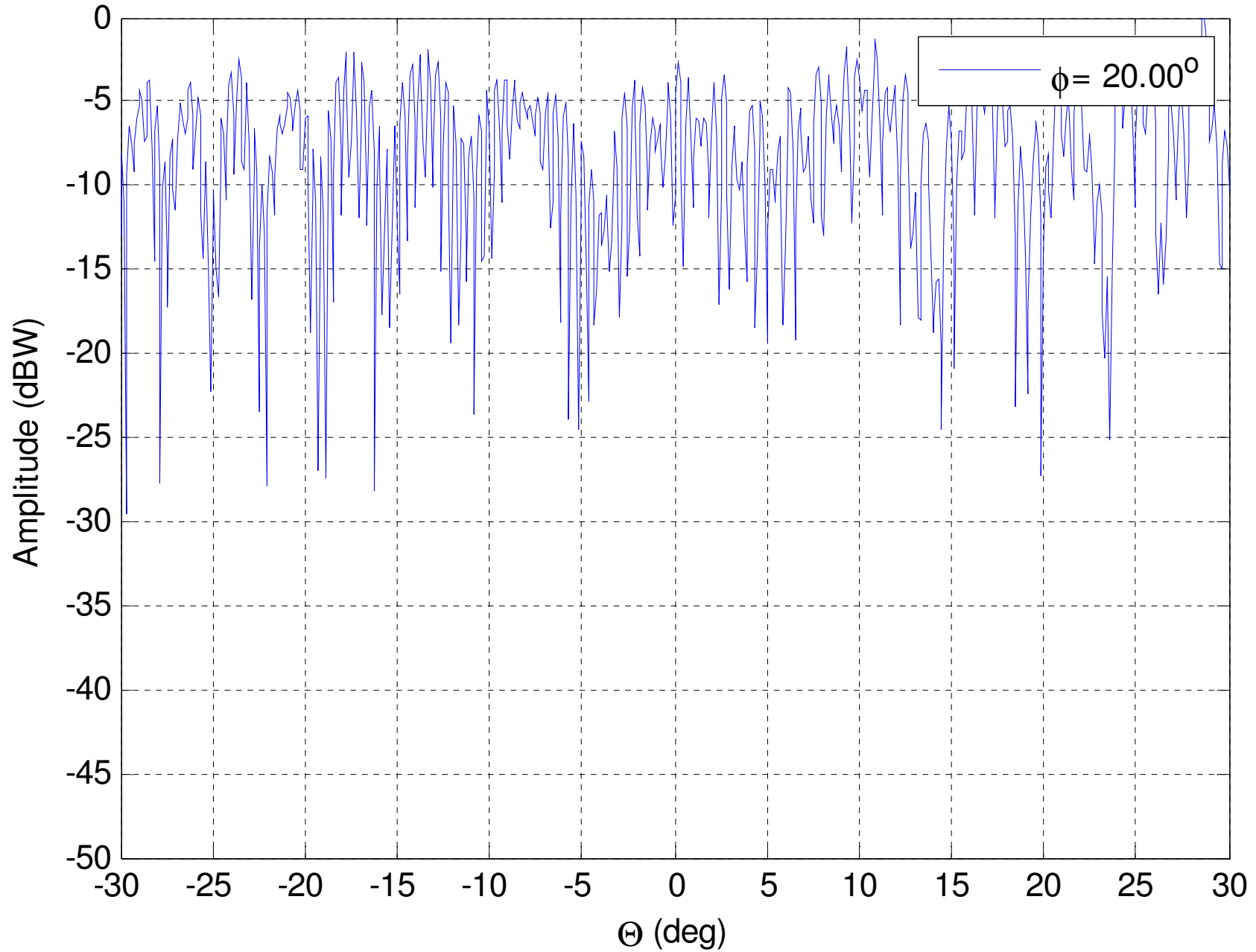
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: -2.19 dBW, Date: 16-Dec-2011



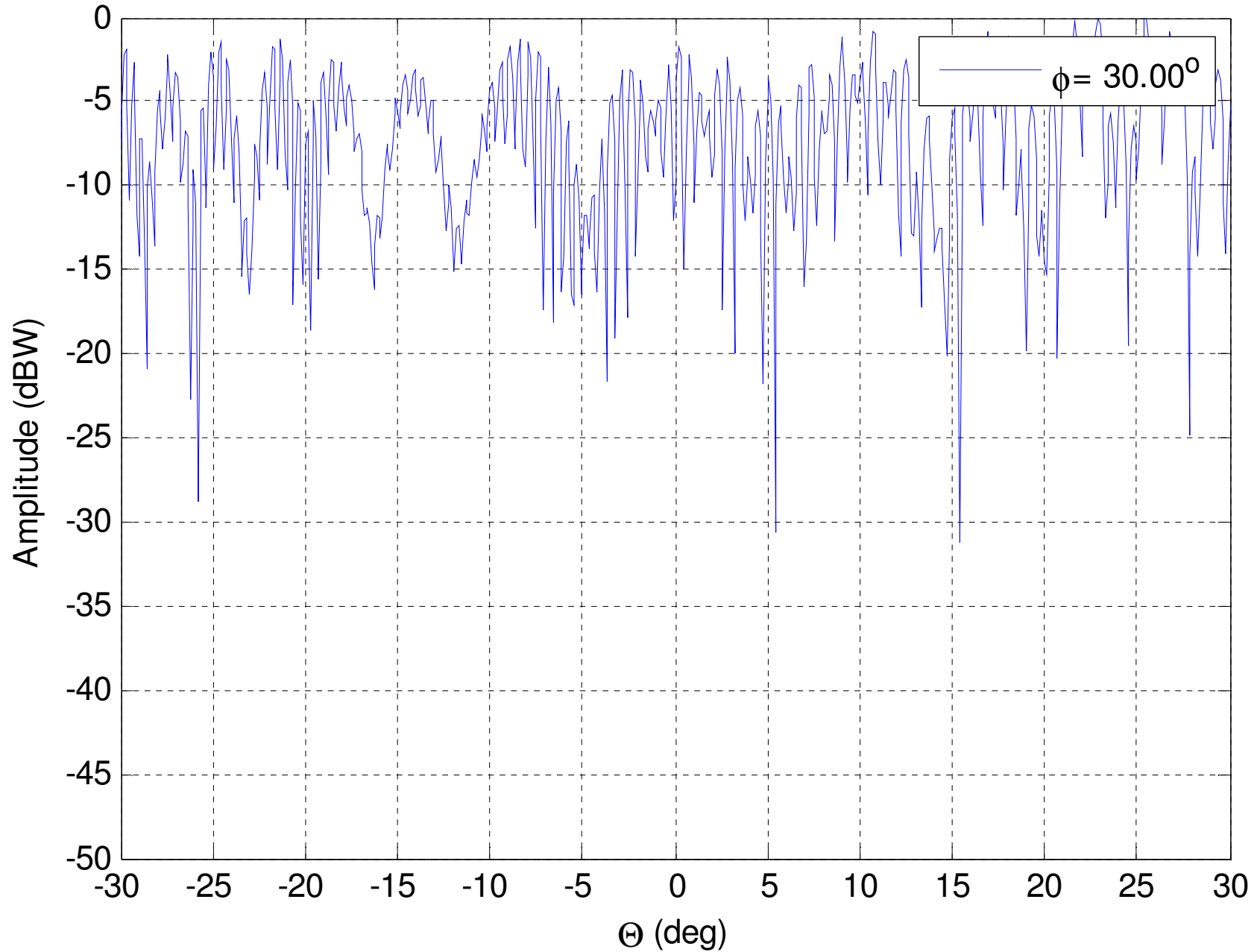
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: -1.76 dBW, Date: 16-Dec-2011



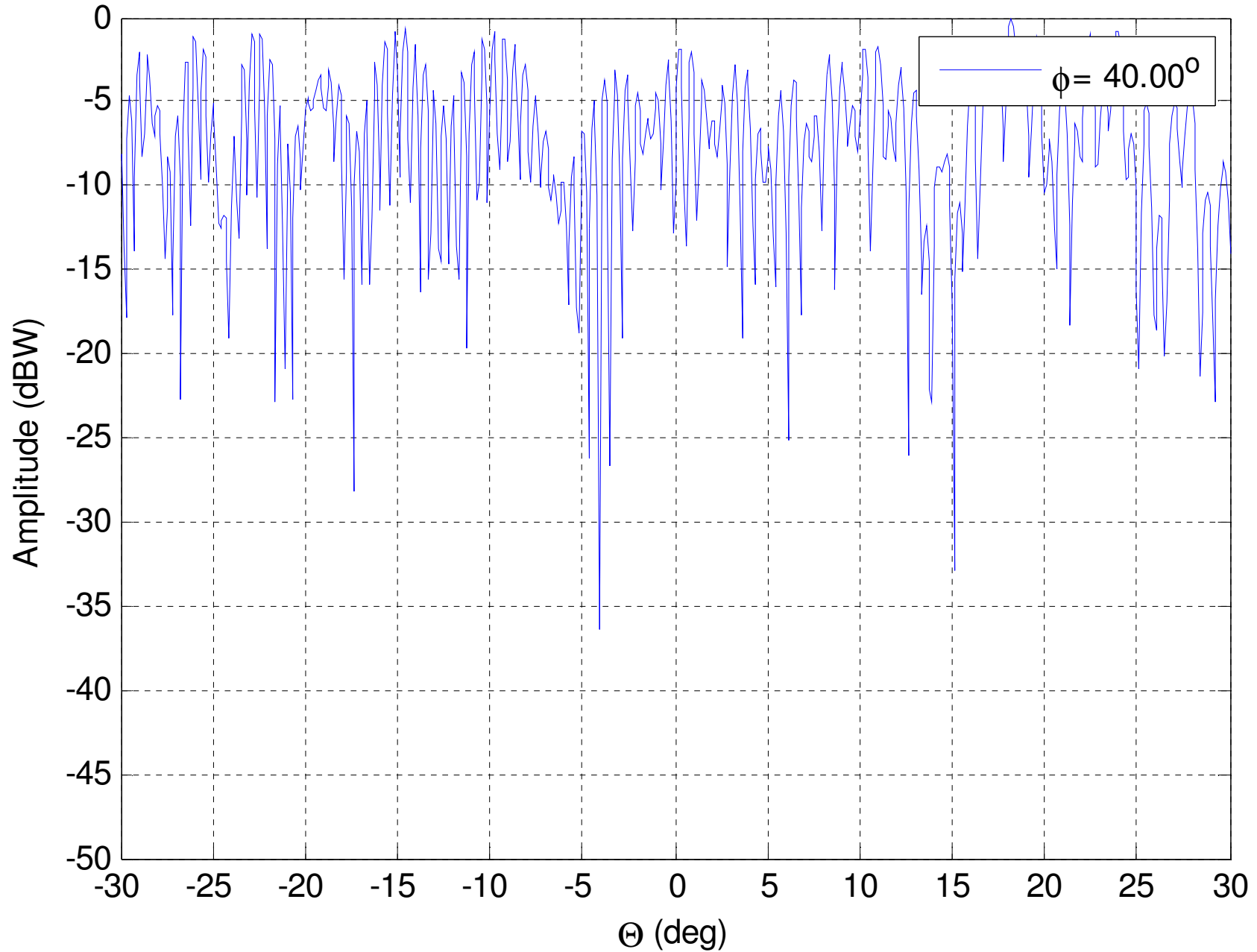
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: -2.77 dBW, Date: 16-Dec-2011



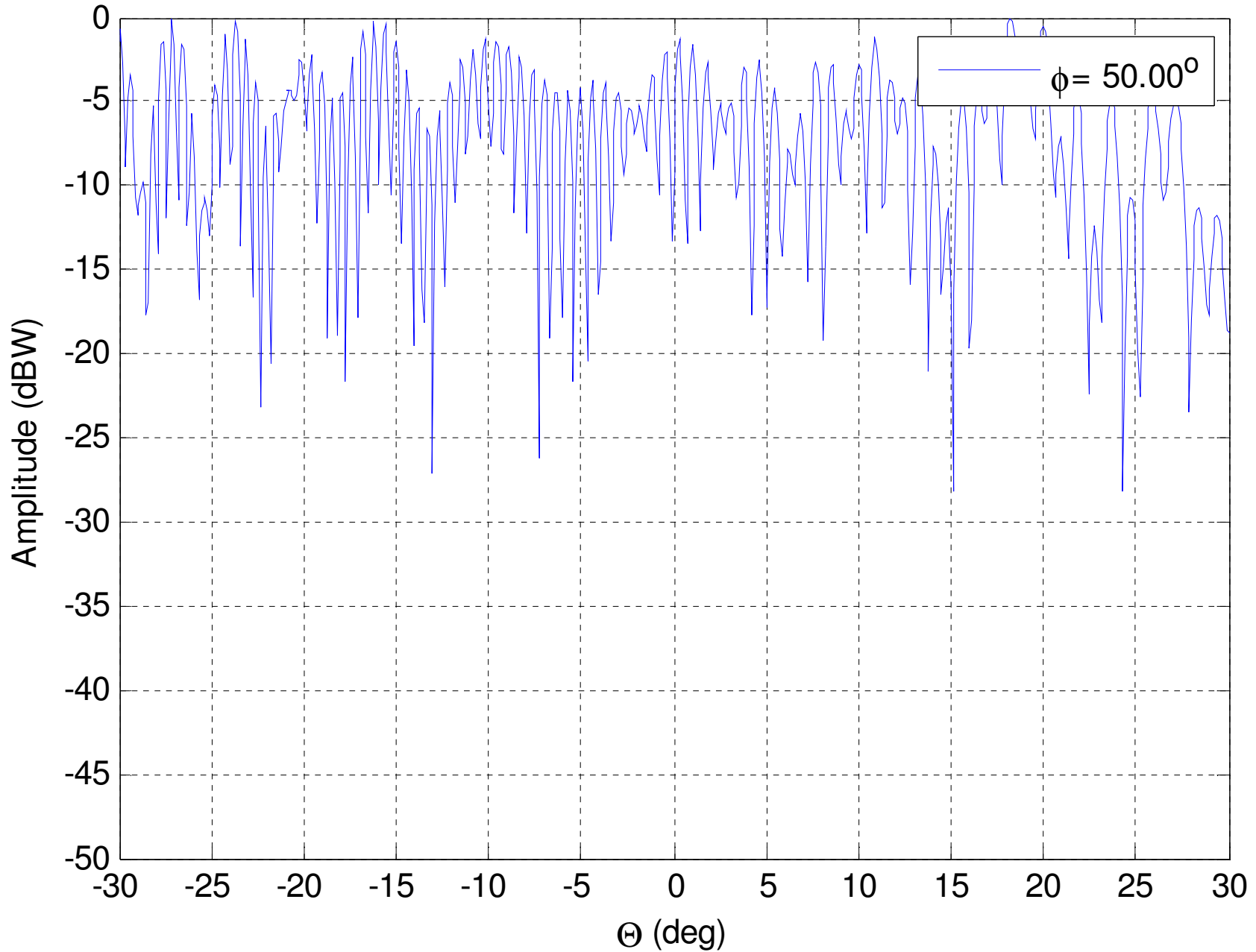
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -2.80 dBW, Date: 16-Dec-2011



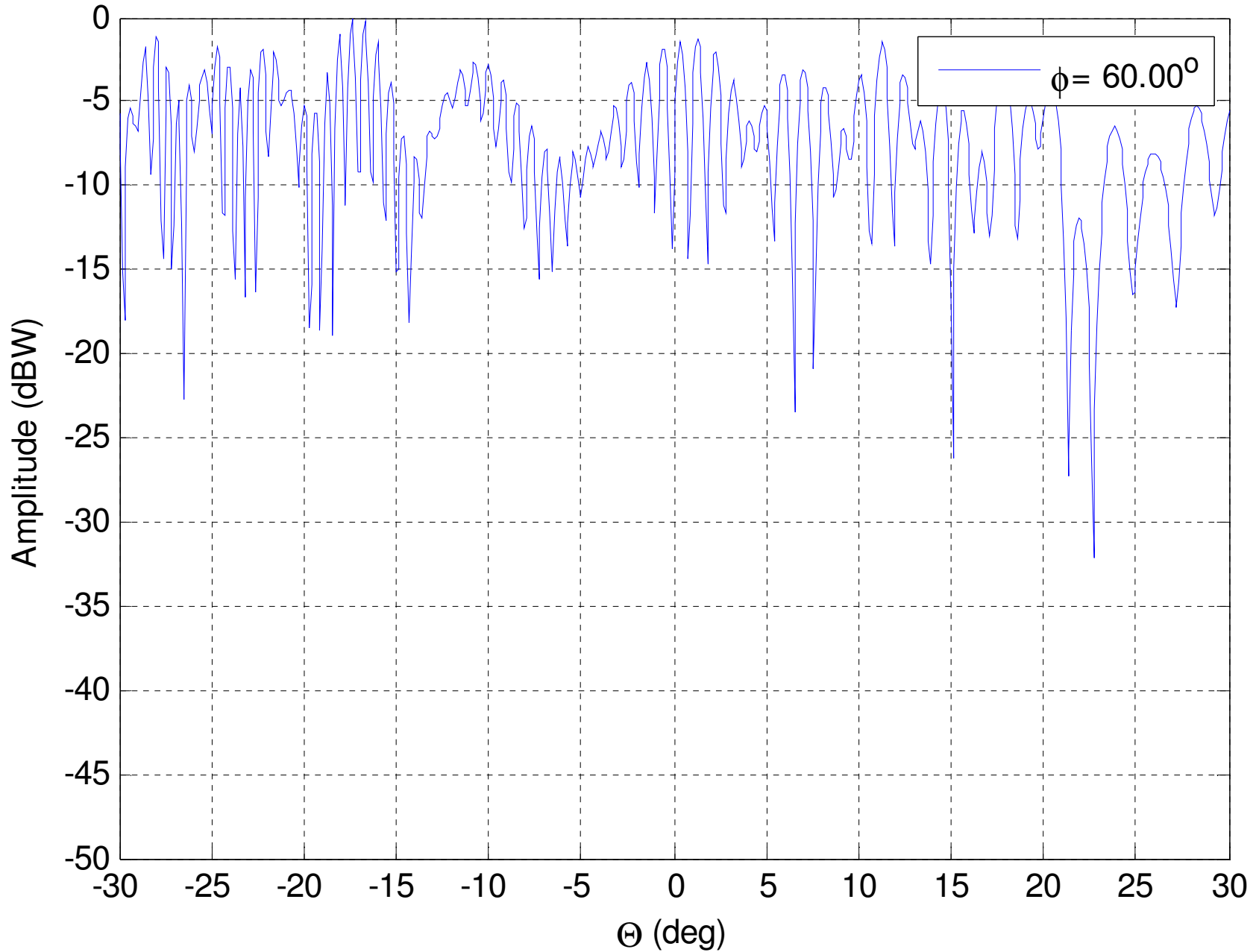
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -3.22 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

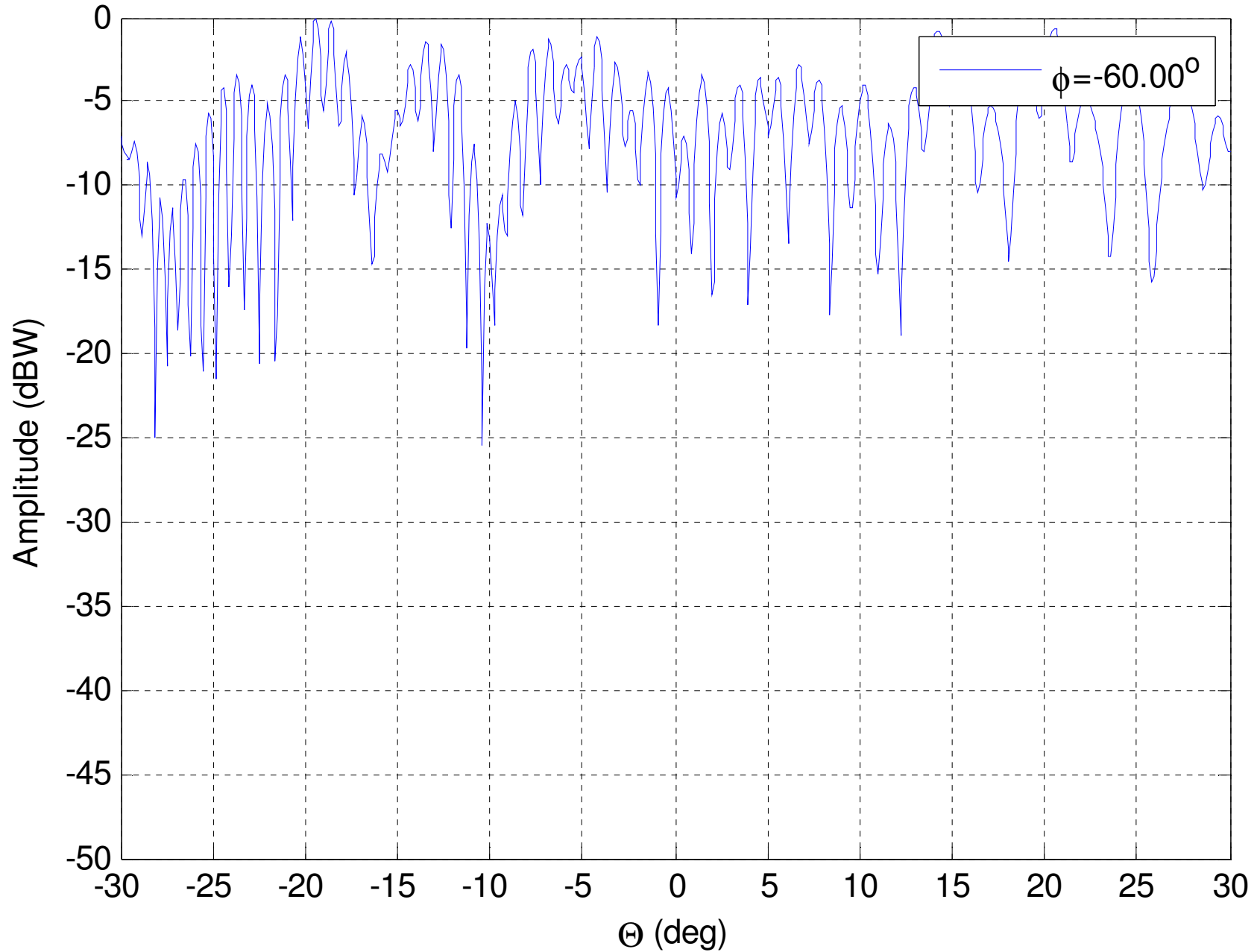
Input file: tx-17.7-rhcp-60.cut, Peak: -3.24 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

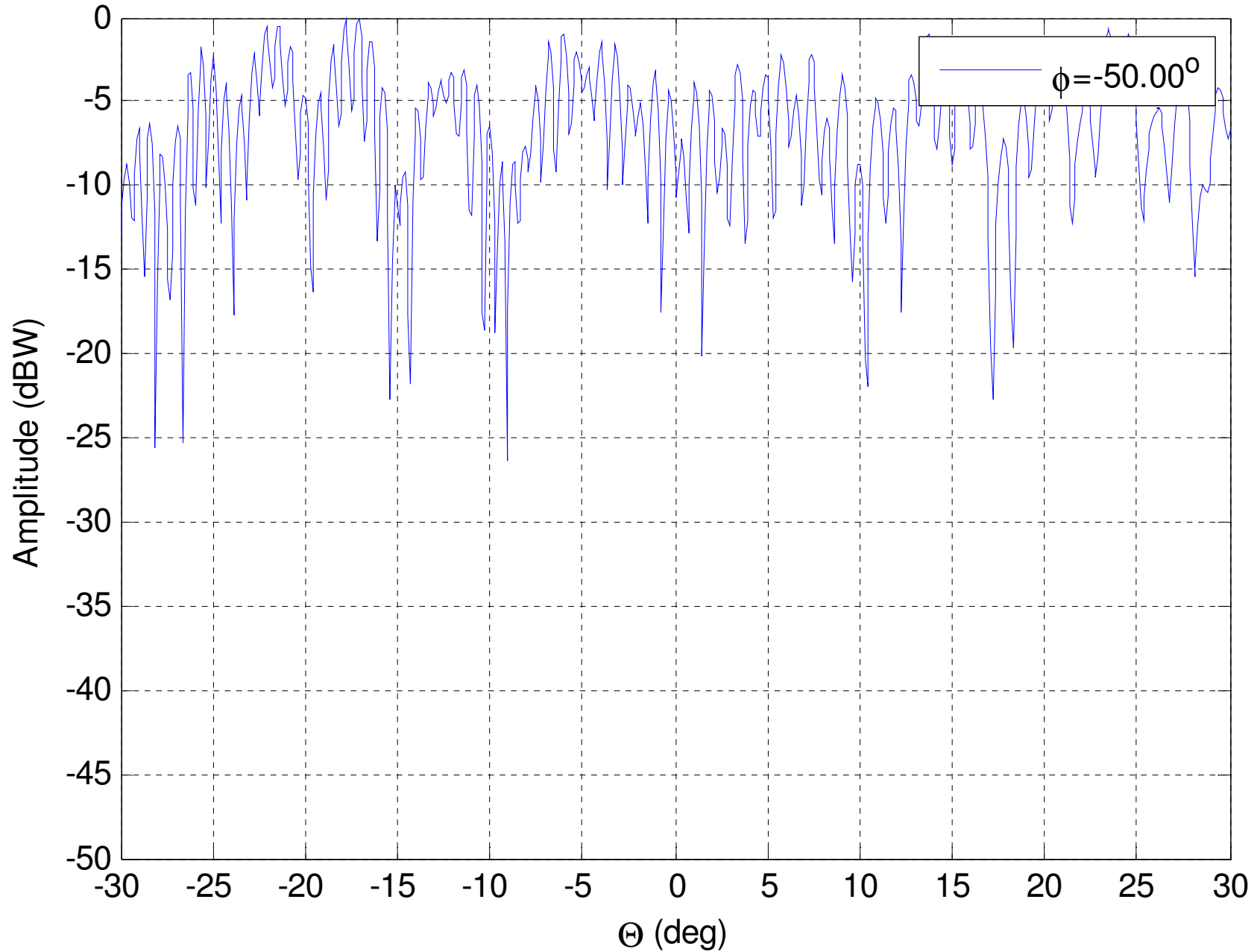
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -3.05 dBW, Date: 16-Dec-2011



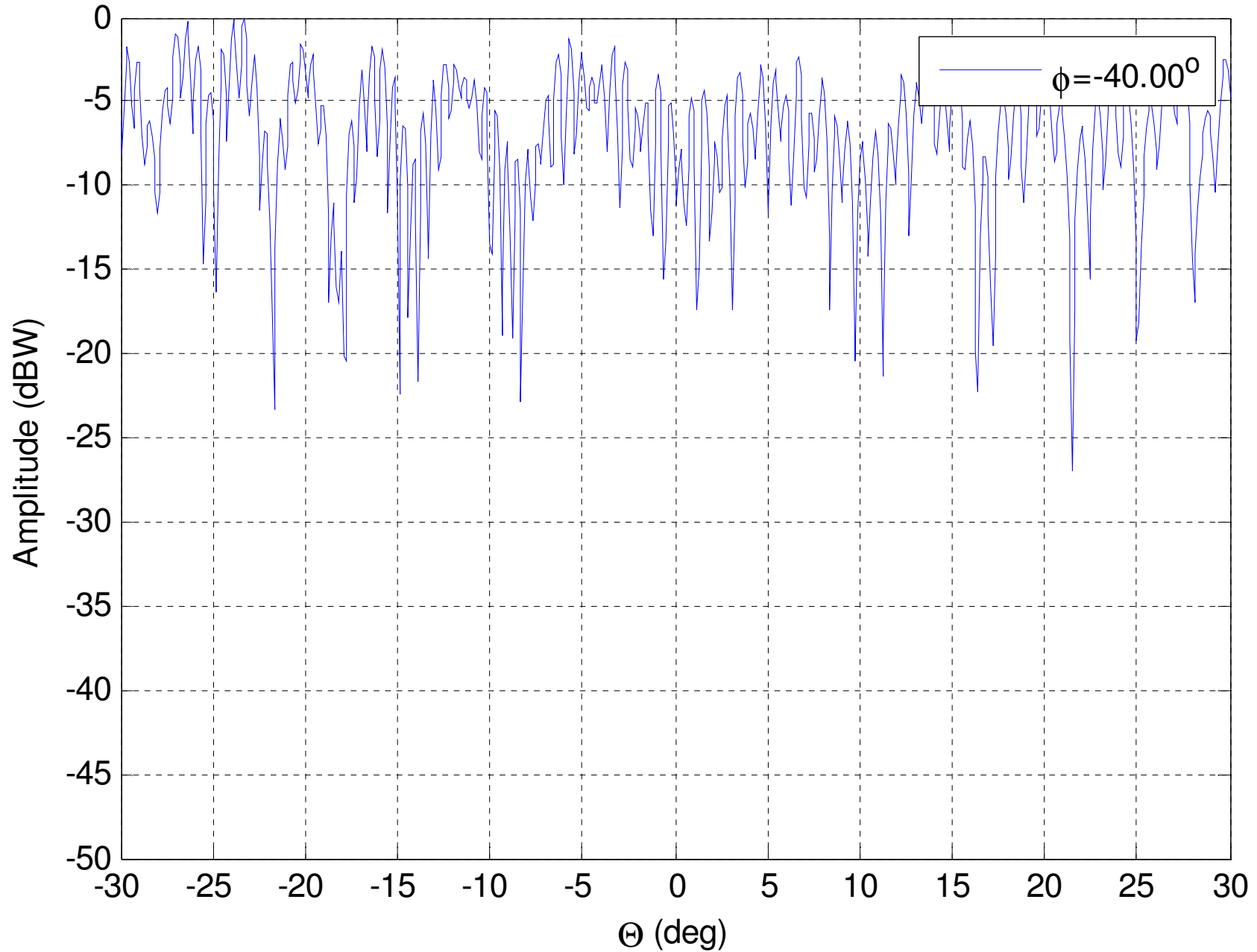
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -3.00 dBW, Date: 16-Dec-2011



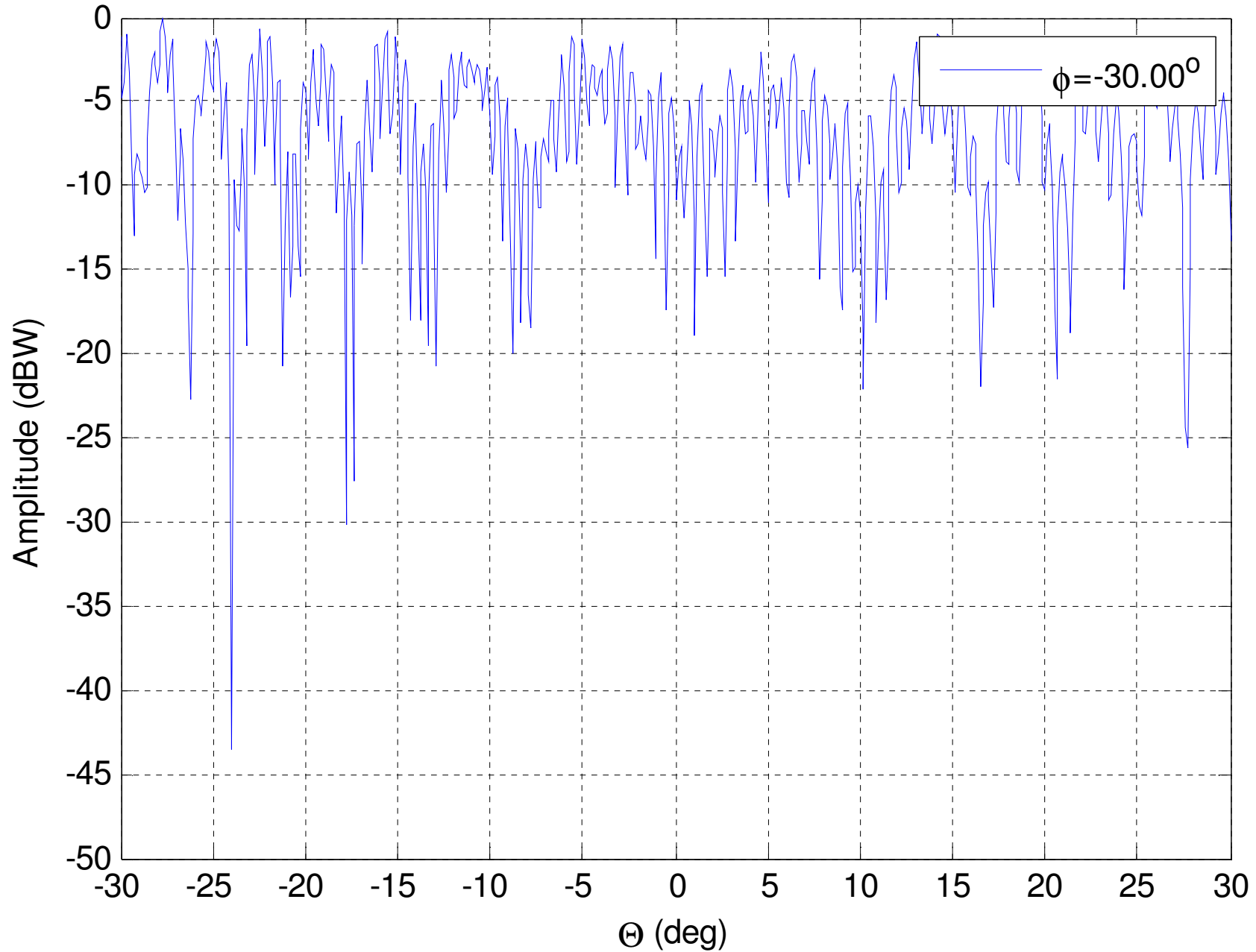
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -2.48 dBW, Date: 16-Dec-2011



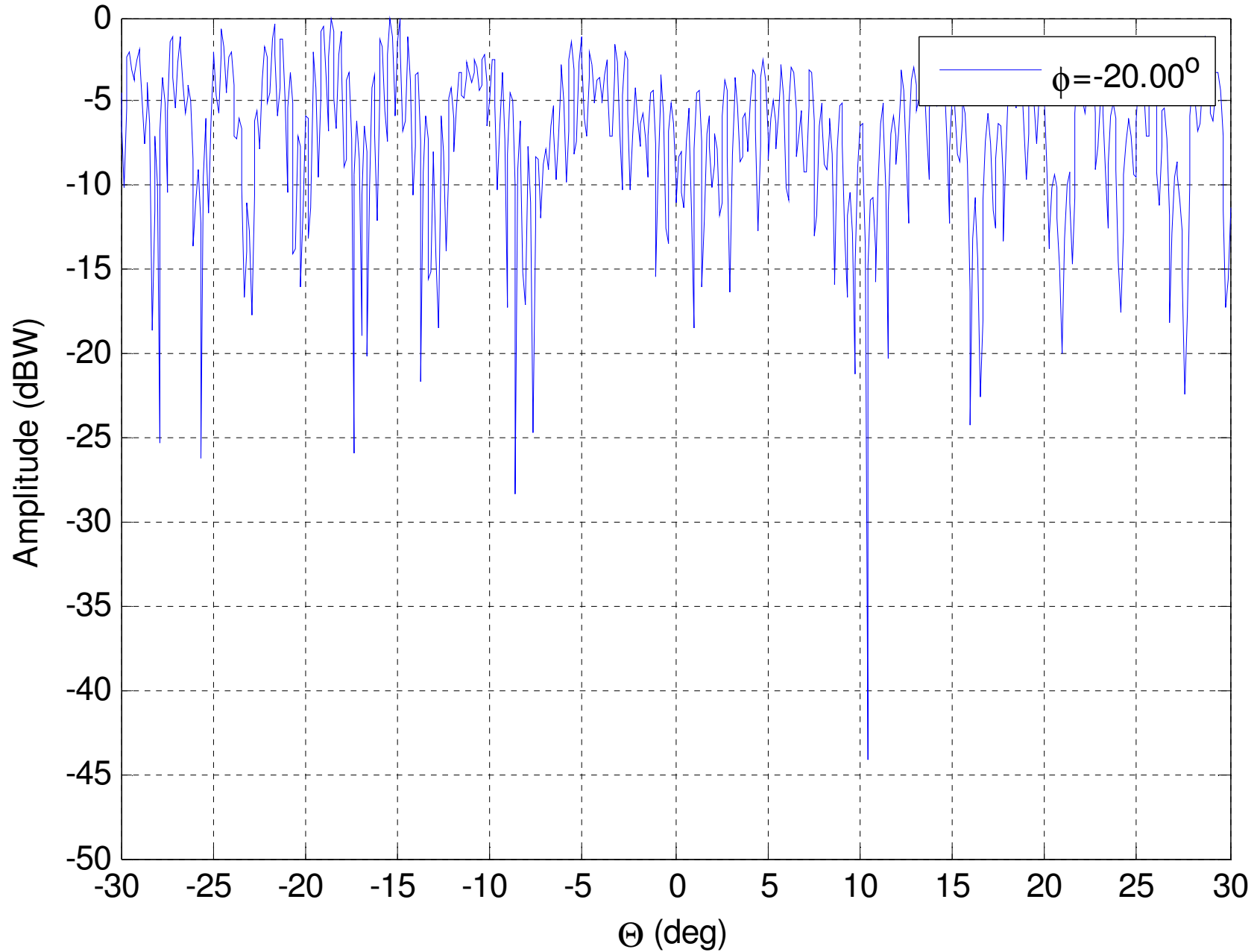
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -2.69 dBW, Date: 16-Dec-2011



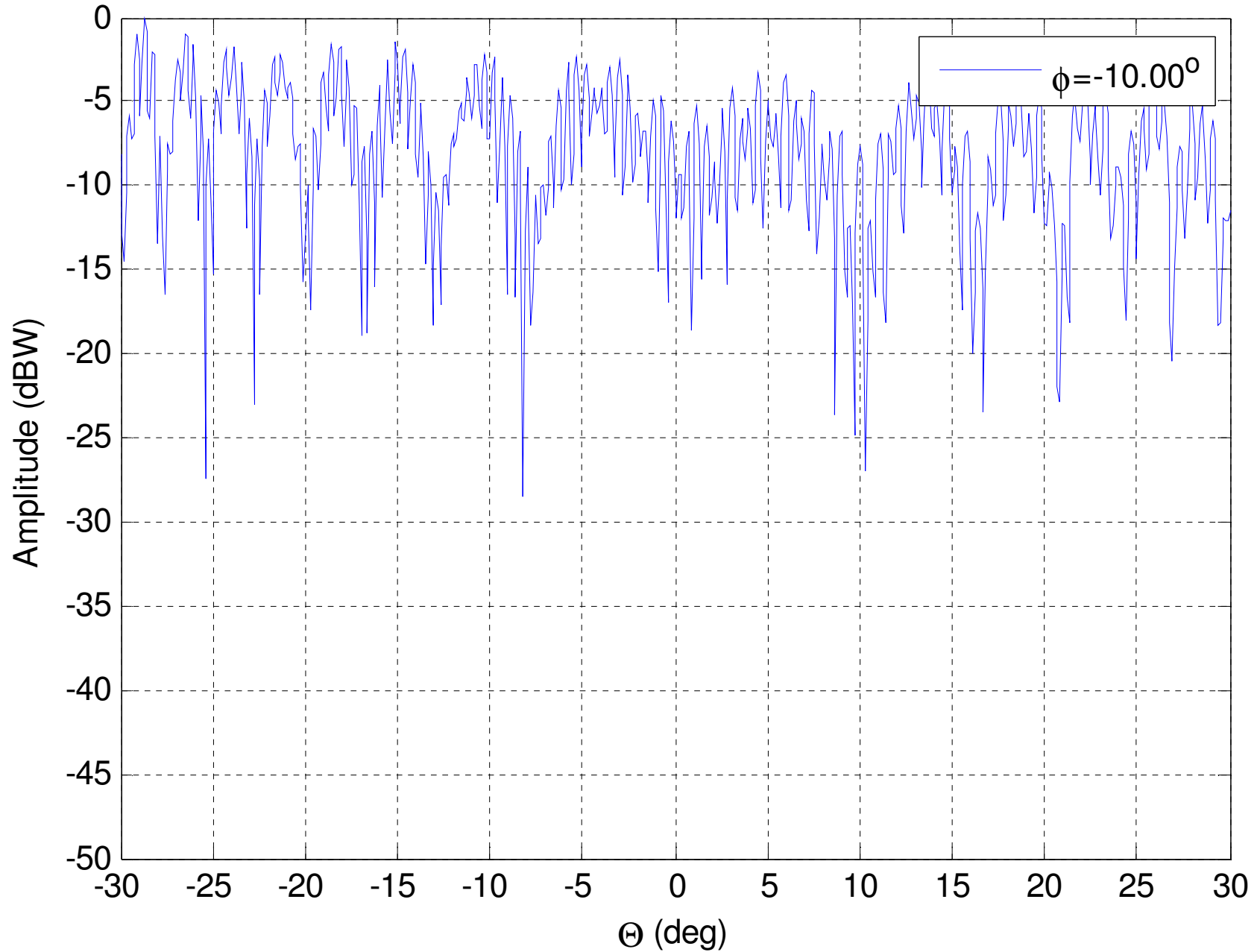
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: -2.53 dBW, Date: 16-Dec-2011



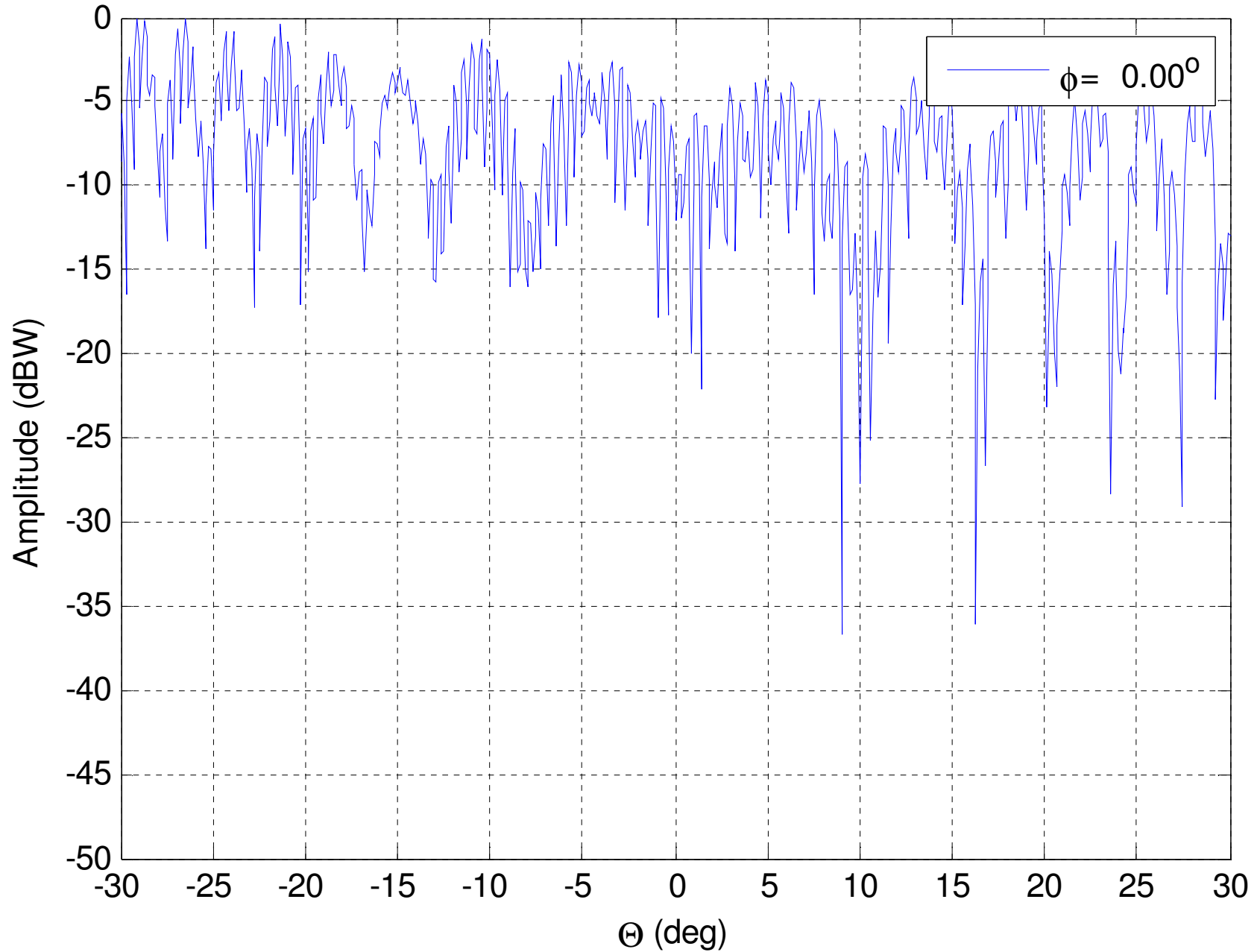
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: -1.43 dBW, Date: 16-Dec-2011



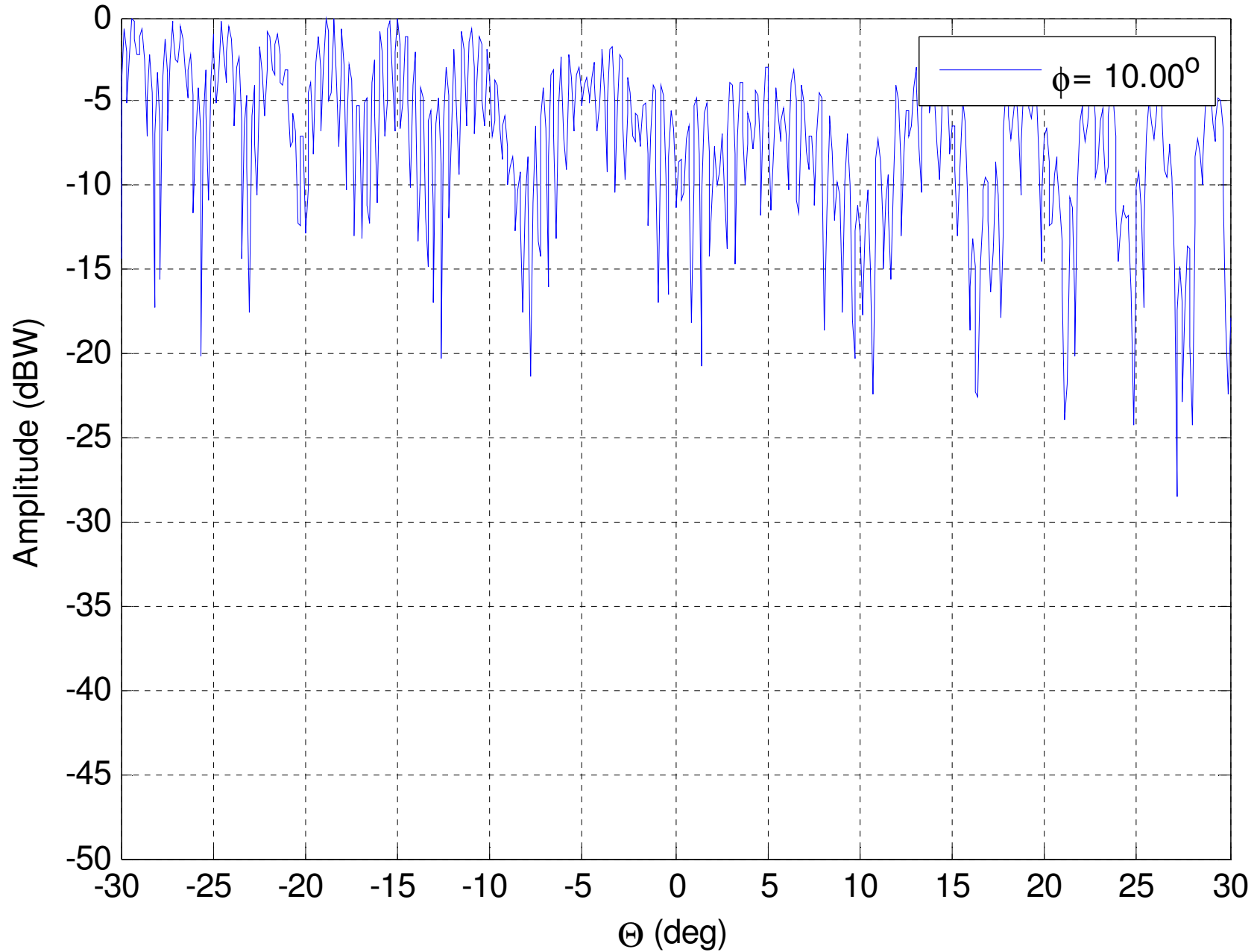
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: -1.35 dBW, Date: 16-Dec-2011



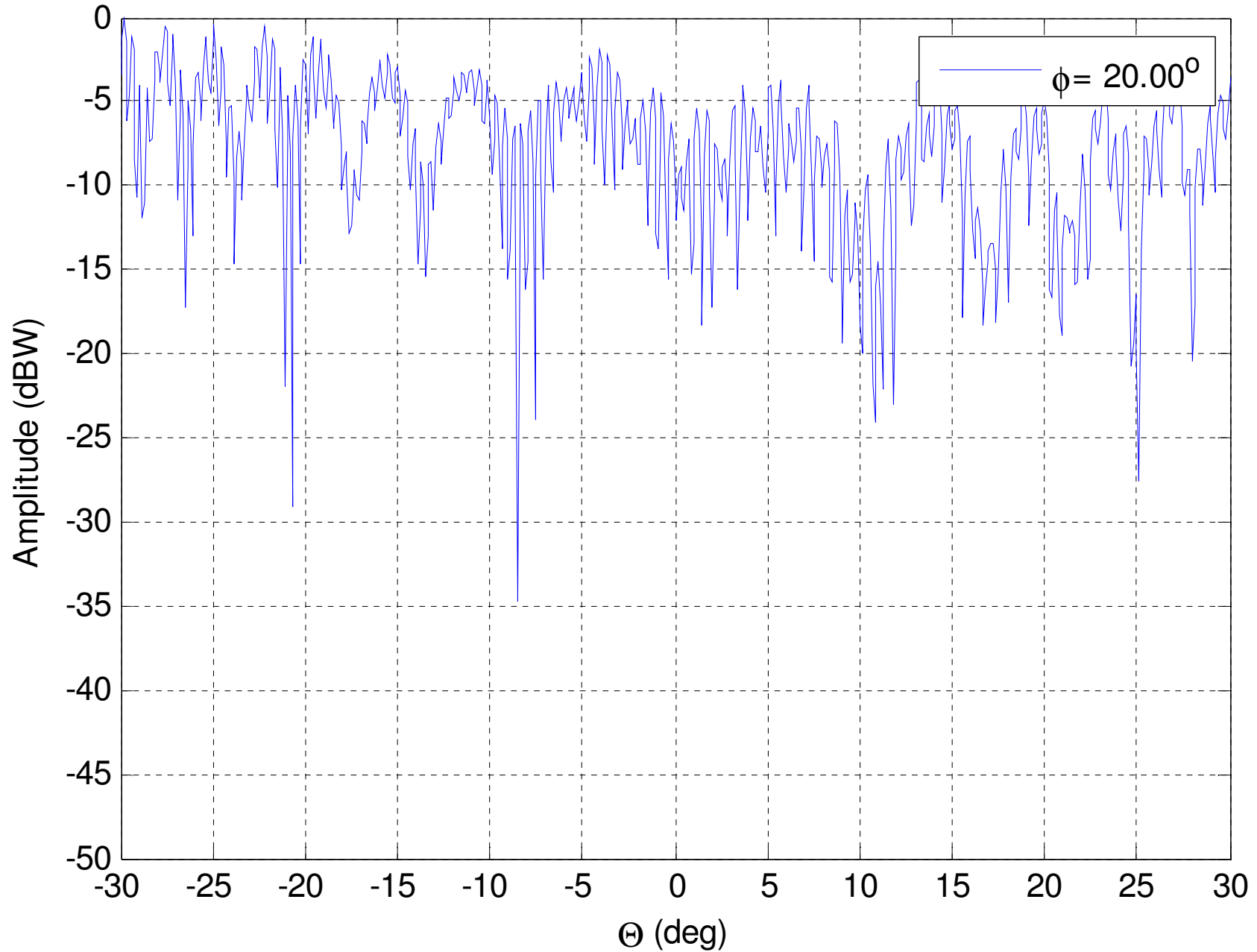
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: -2.18 dBW, Date: 16-Dec-2011



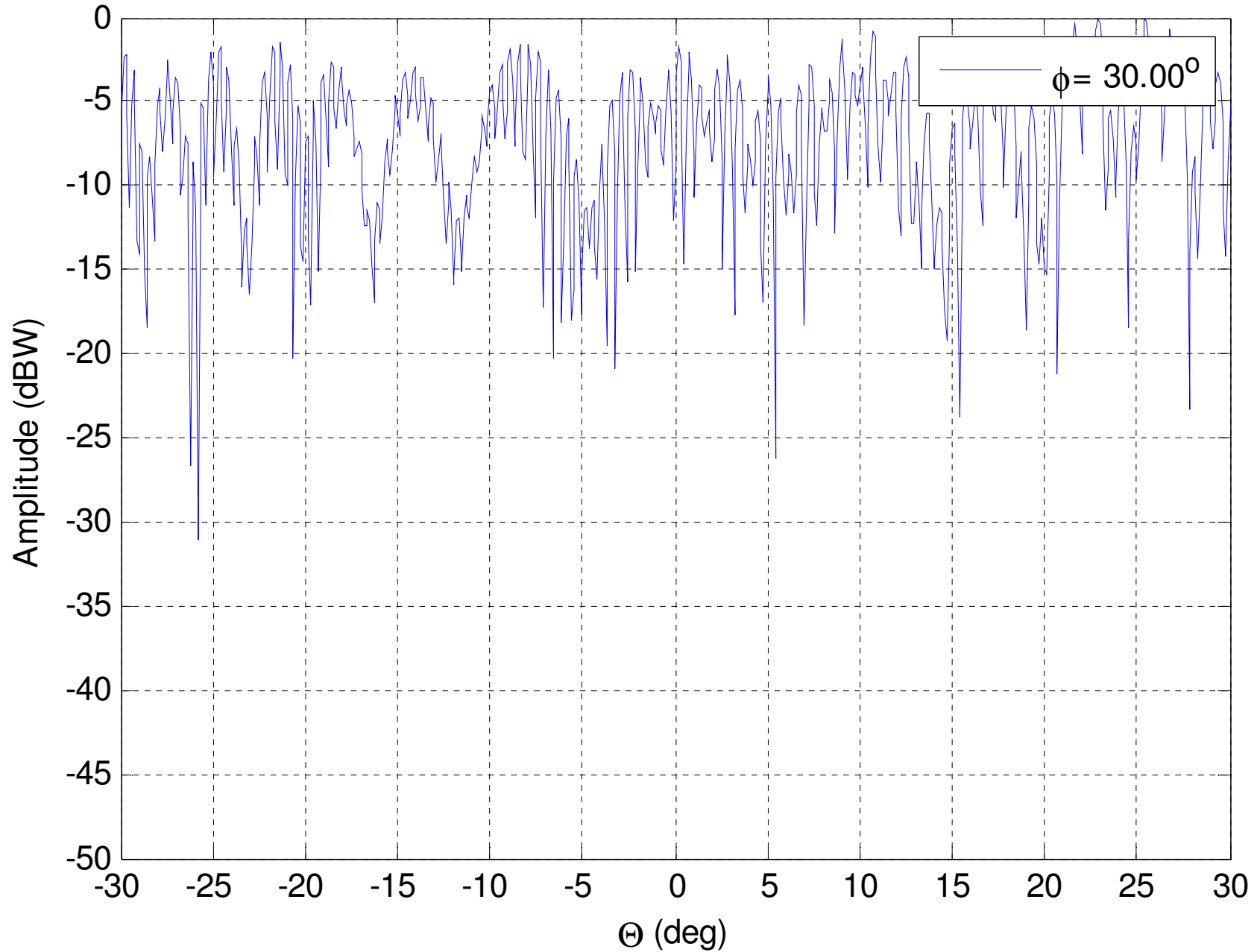
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: -1.56 dBW, Date: 16-Dec-2011



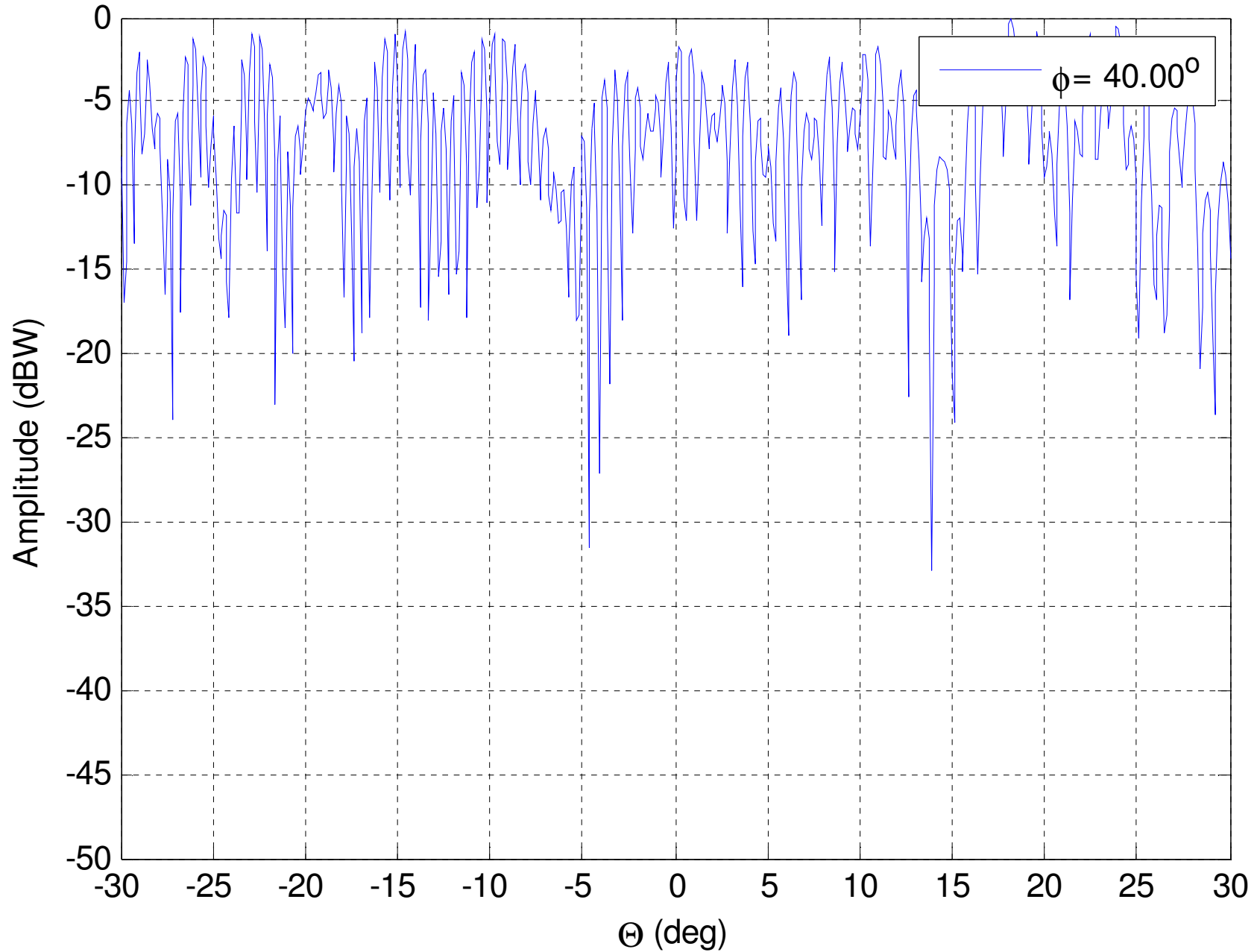
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: -2.51 dBW, Date: 16-Dec-2011



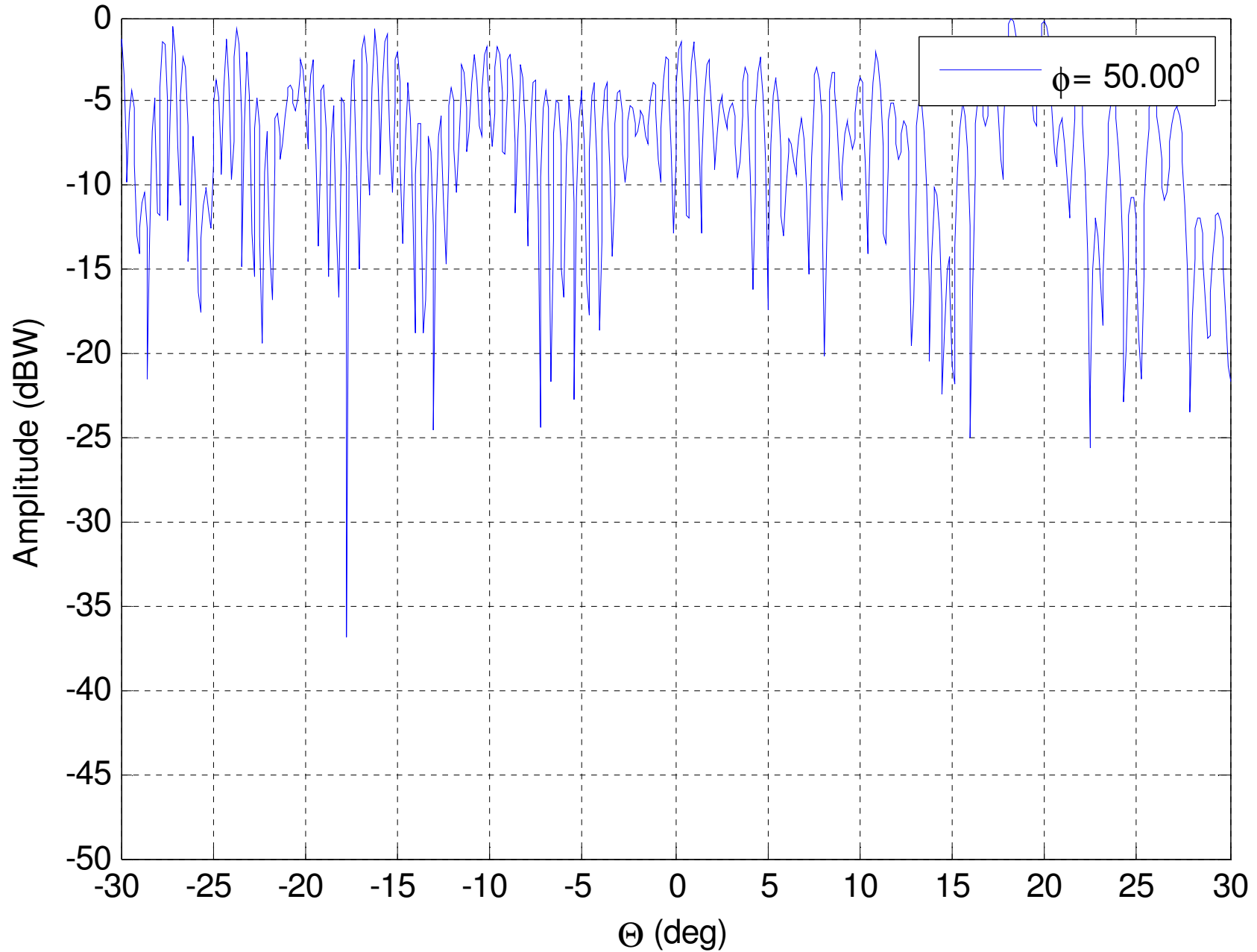
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -2.59 dBW, Date: 16-Dec-2011



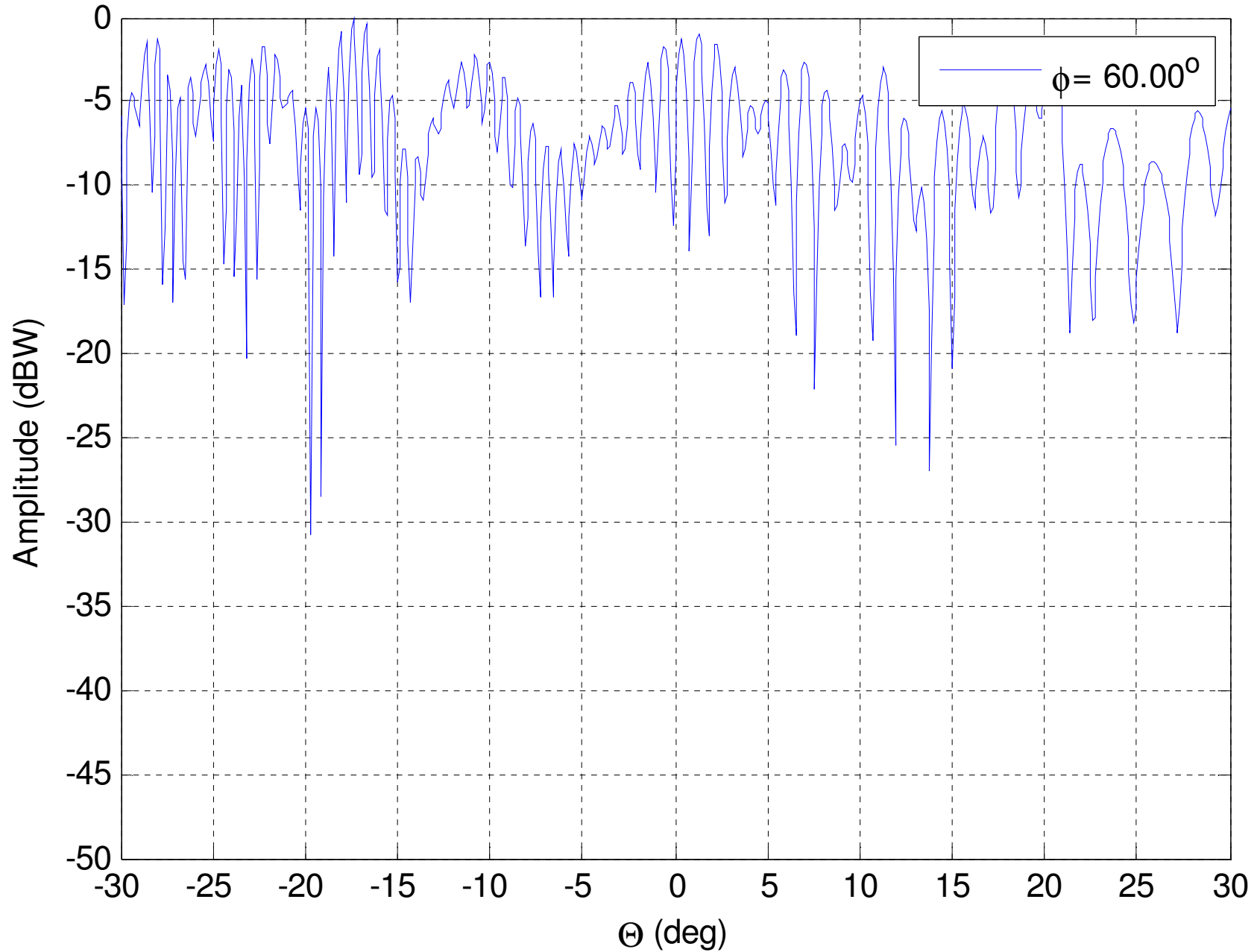
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -2.81 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -3.20 dBW, Date: 16-Dec-2011



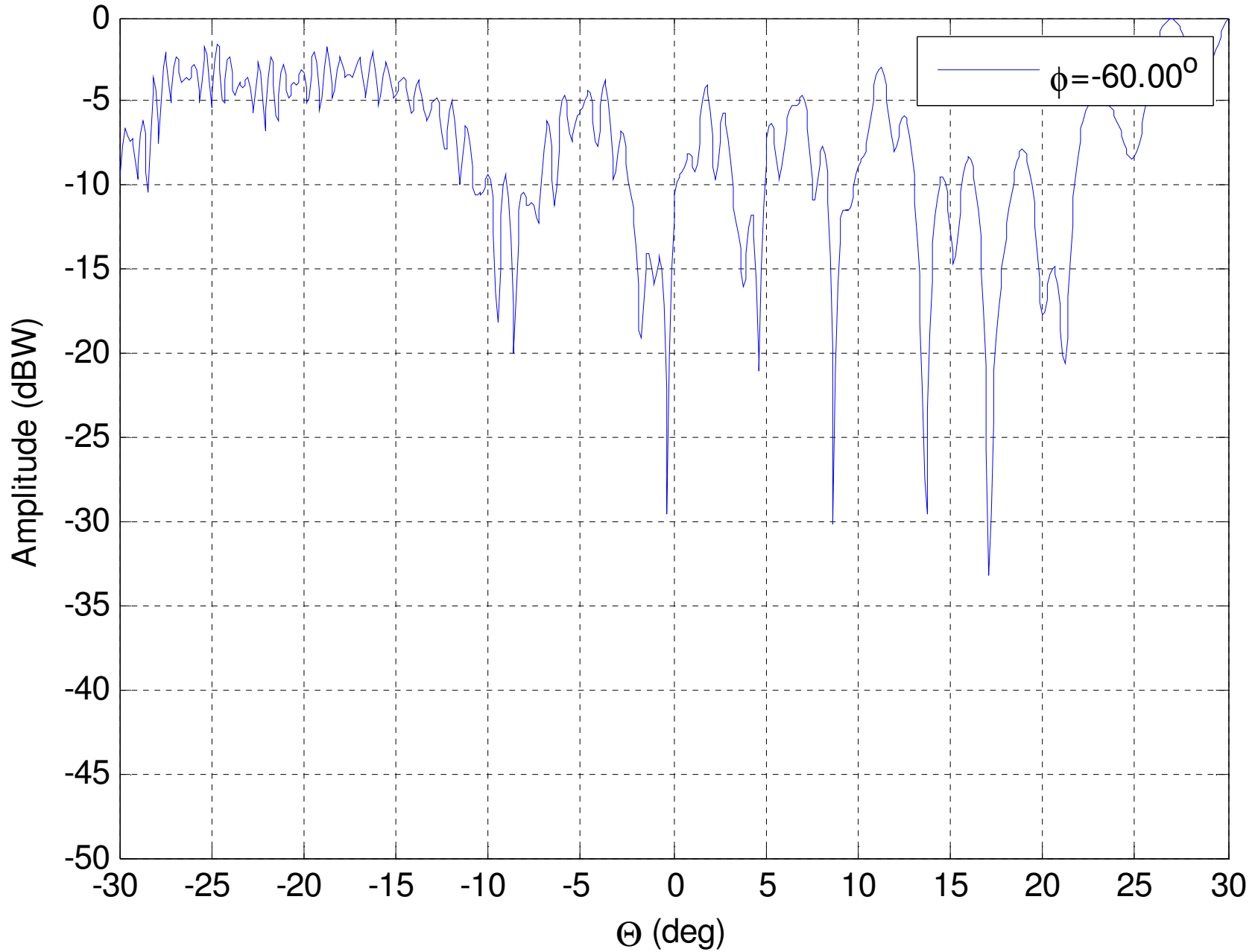
Spot Beam37, +X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: = +X-axis)
- $-60 < \phi < 60$
- Freq = 17.305, 17.5, and 17.695 GHz
- The Zero reference line is the maximum EIRP listed in the title of each plot sheet. All levels are below the required 15.4 dBW maximum
- The Zero reference for the maximum antenna gain is the maximum EIRP listed minus the power input to the antenna specified in Table I of the attached narrative.

RHCP at 17.3 GHz

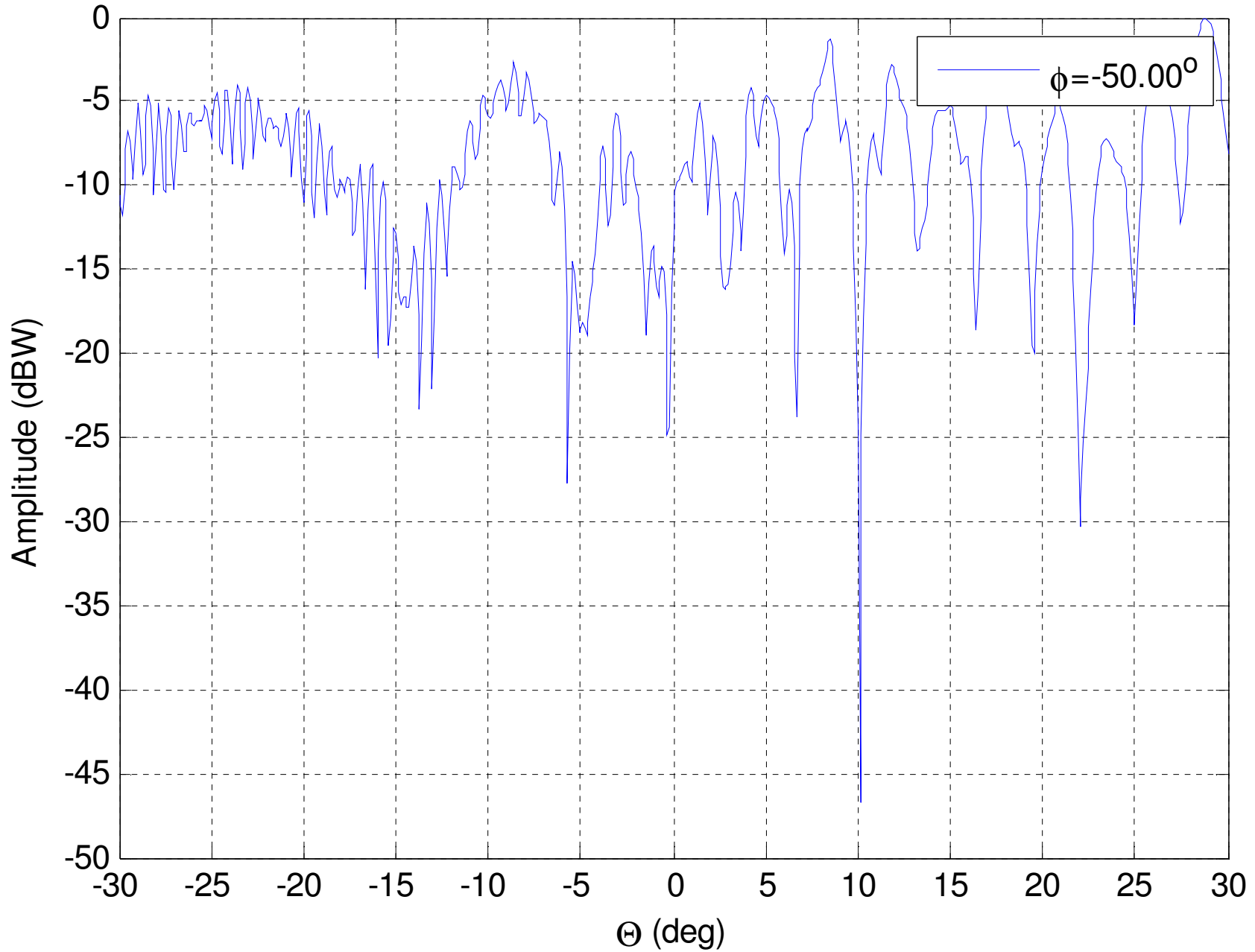
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -4.43 dBW, Date: 16-Dec-2011



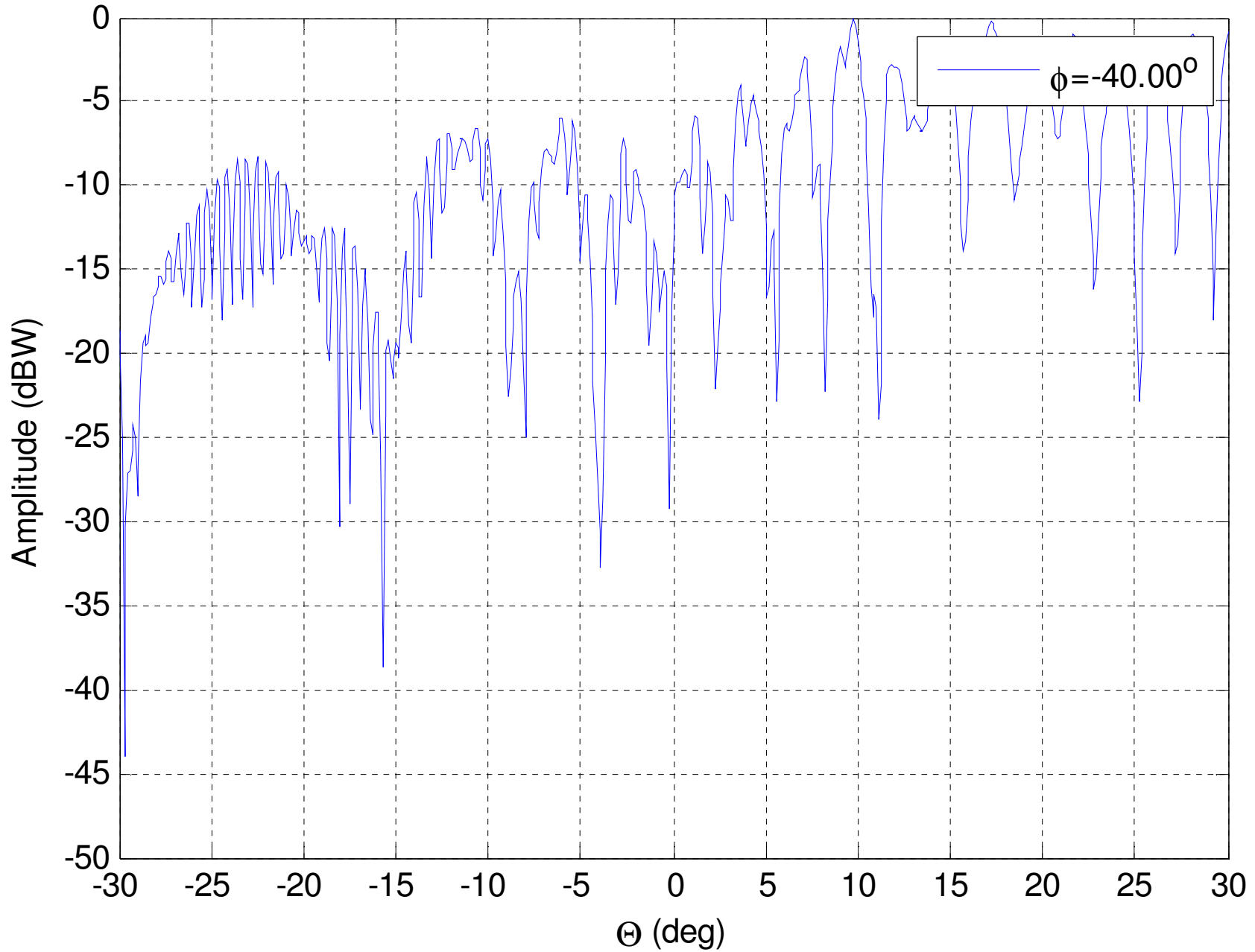
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -4.21 dBW, Date: 16-Dec-2011



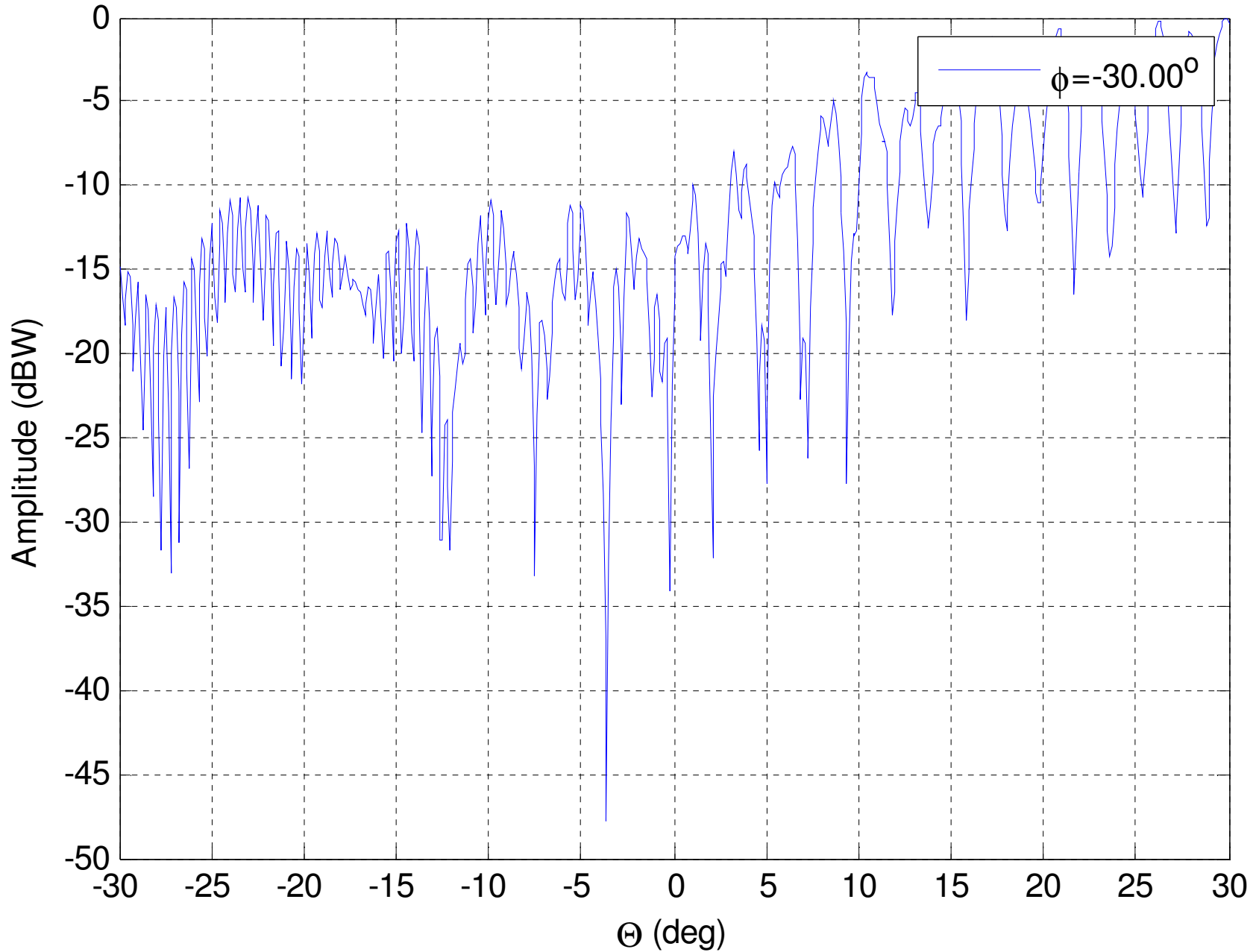
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -3.97 dBW, Date: 16-Dec-2011



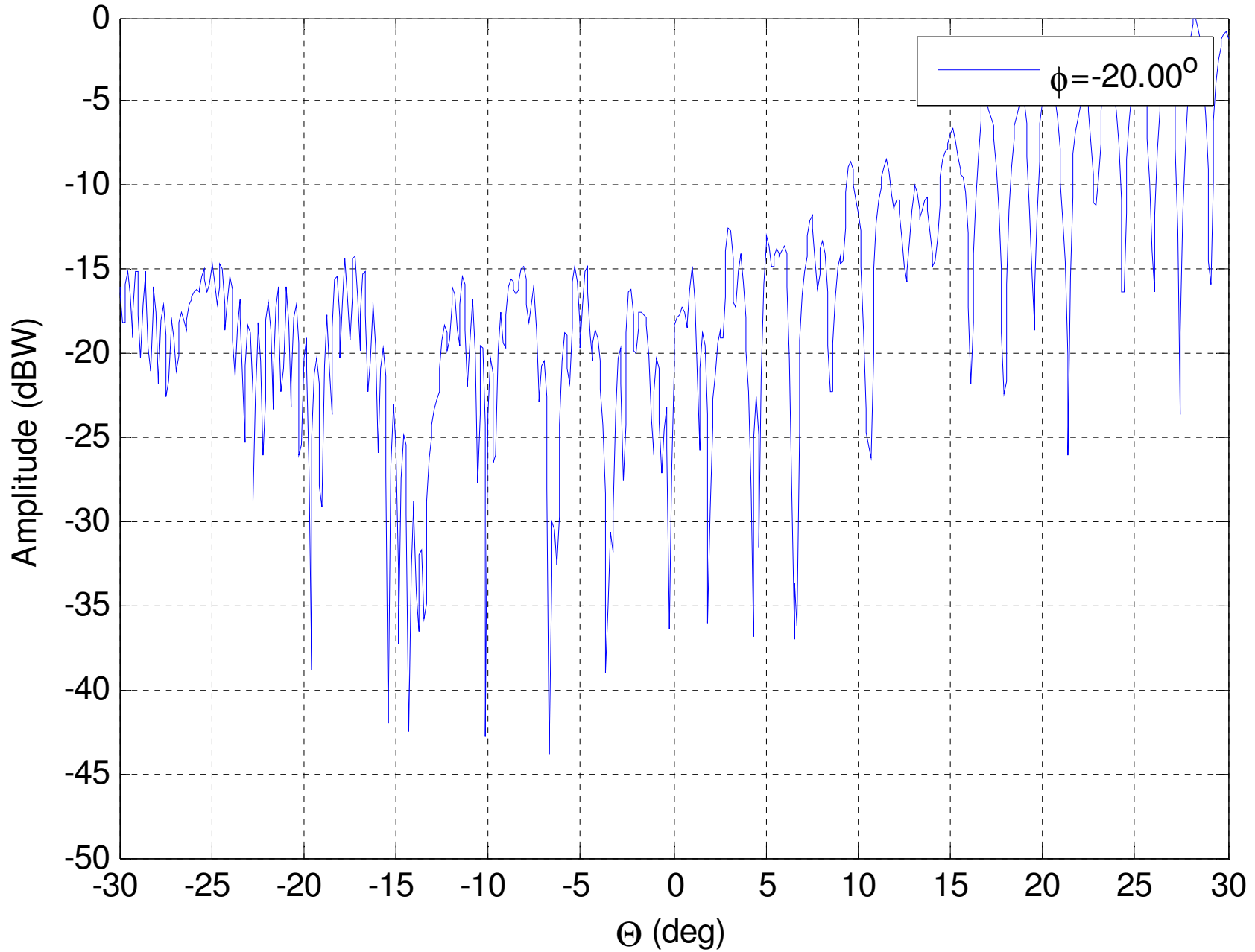
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -0.21 dBW, Date: 16-Dec-2011



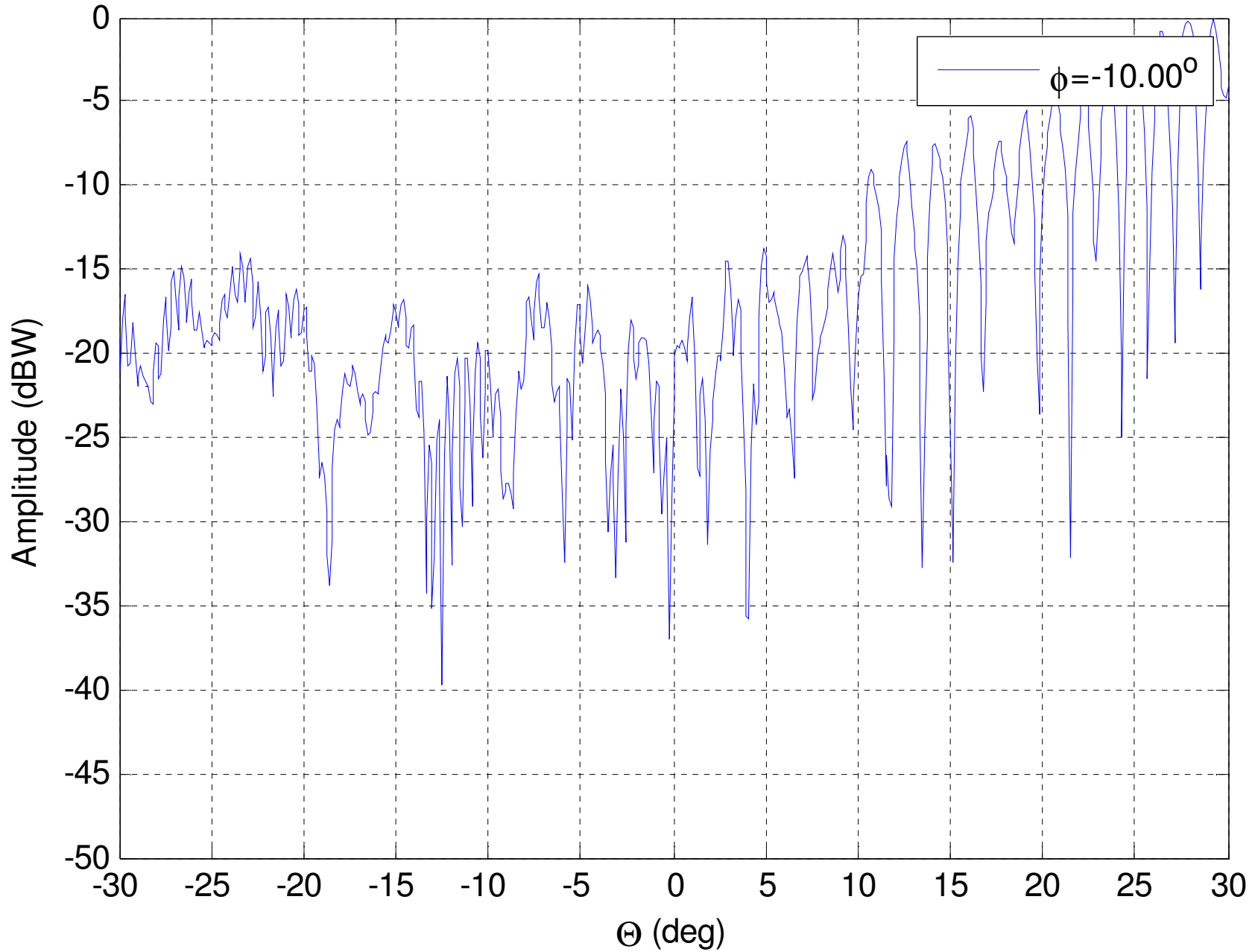
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: 4.09 dBW, Date: 16-Dec-2011



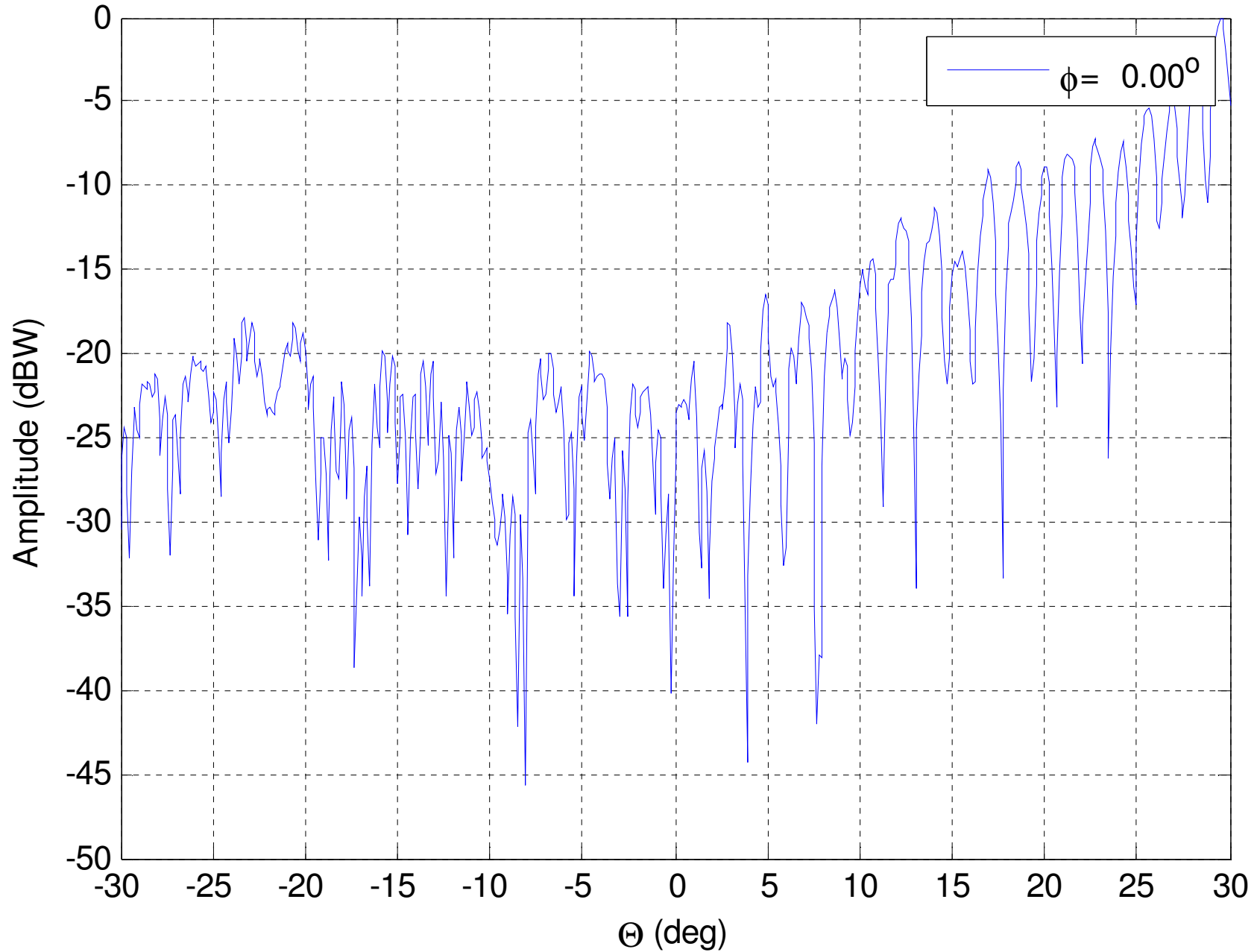
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: 5.87 dBW, Date: 16-Dec-2011



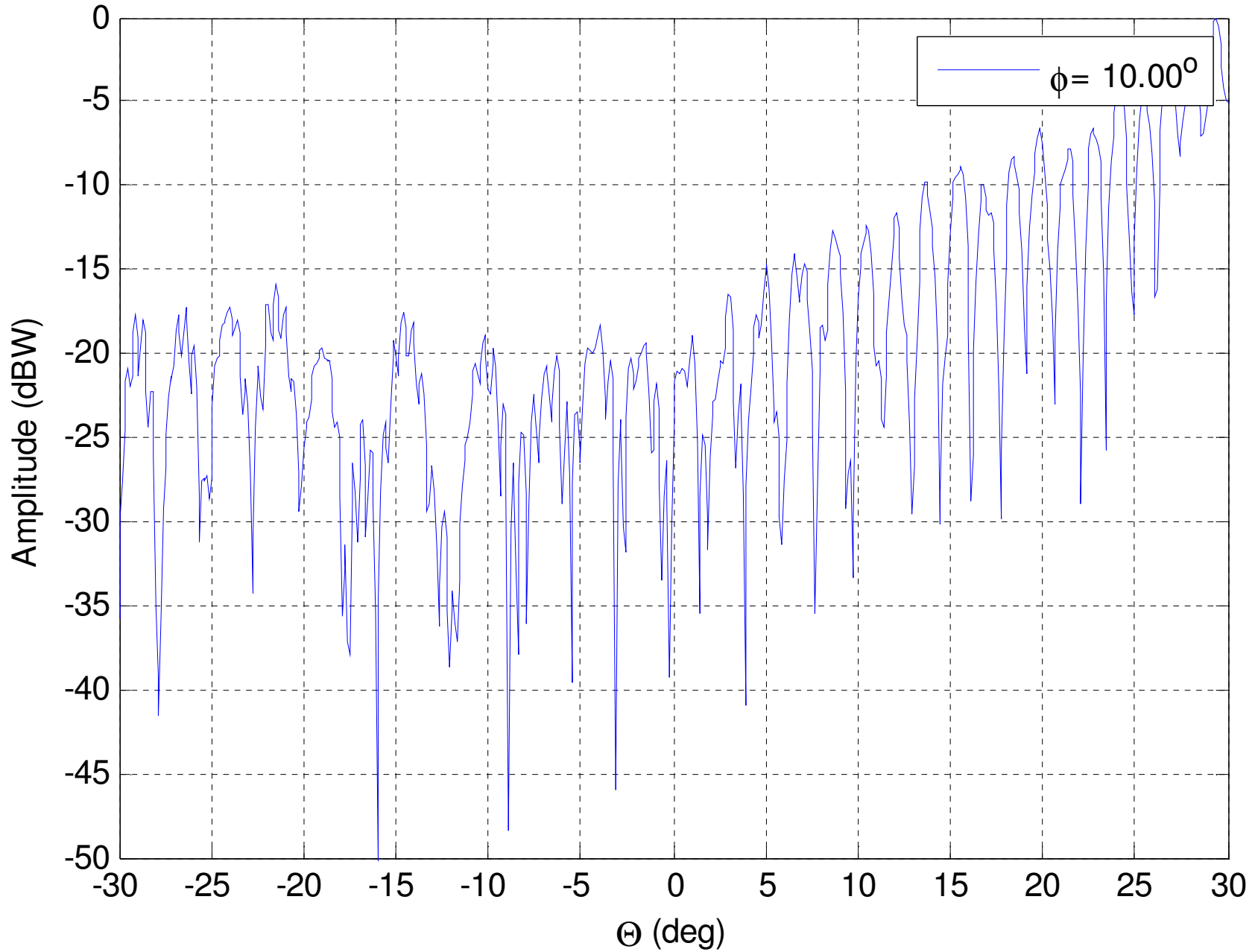
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: 9.29 dBW, Date: 16-Dec-2011



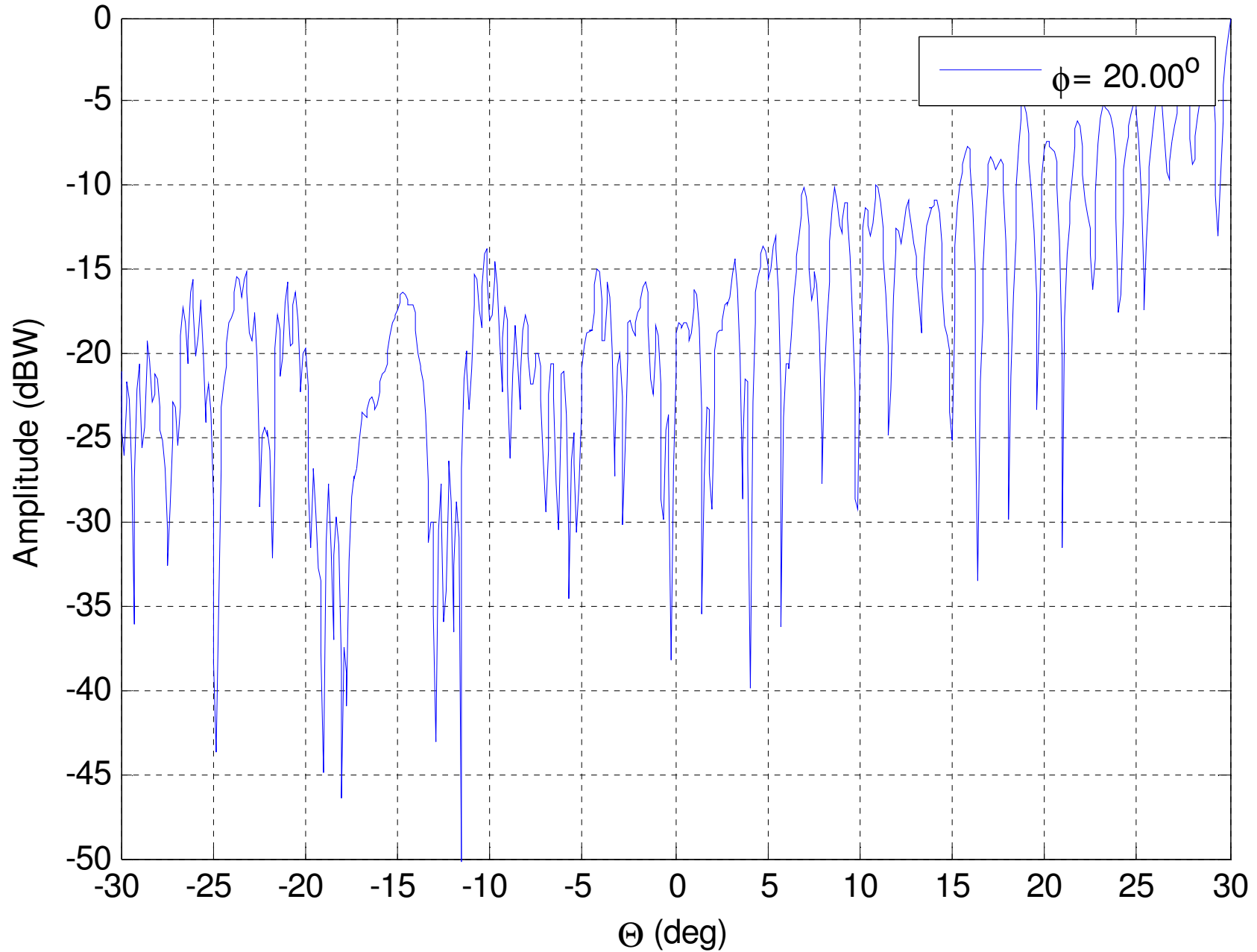
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: 7.41 dBW, Date: 16-Dec-2011



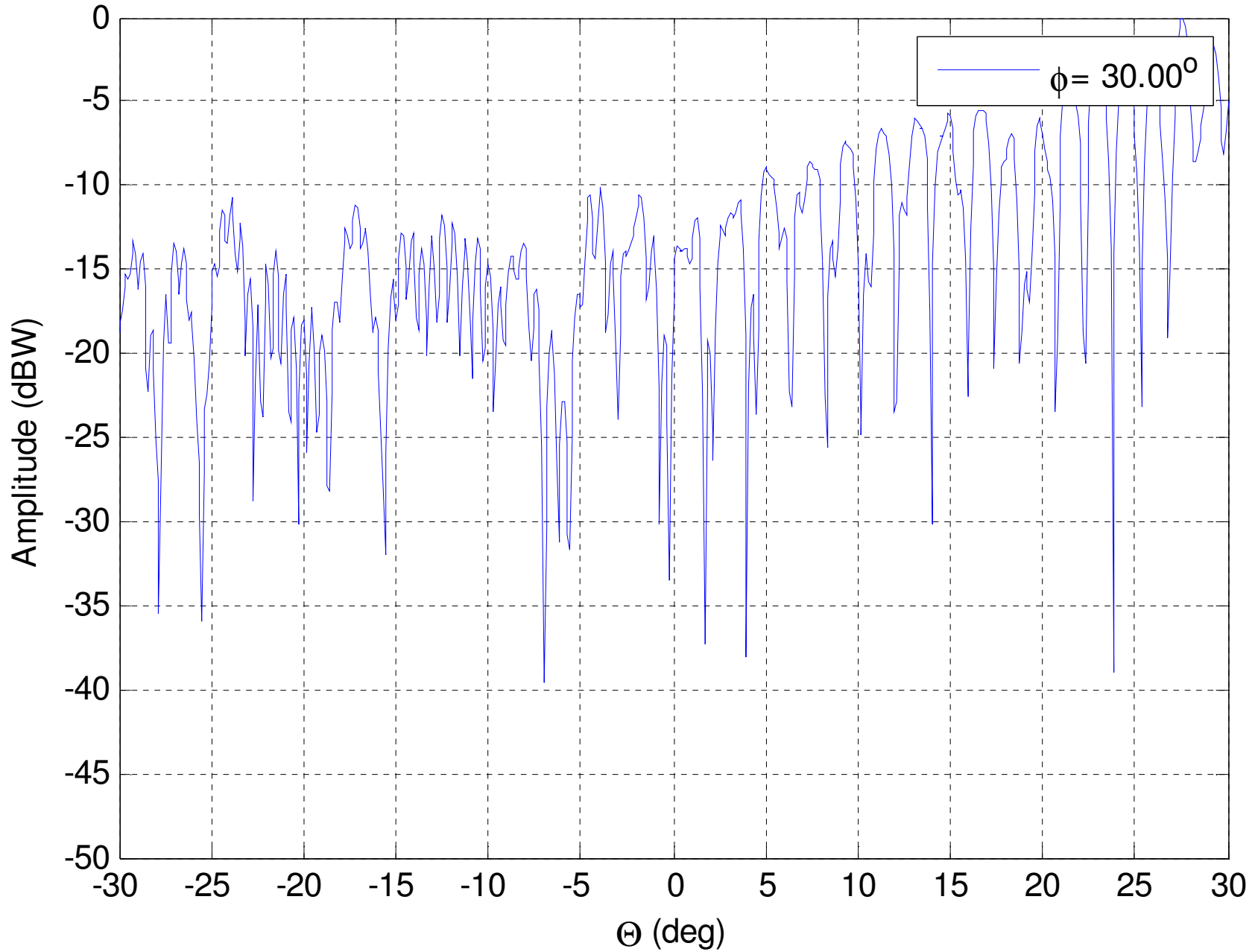
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: 4.55 dBW, Date: 16-Dec-2011



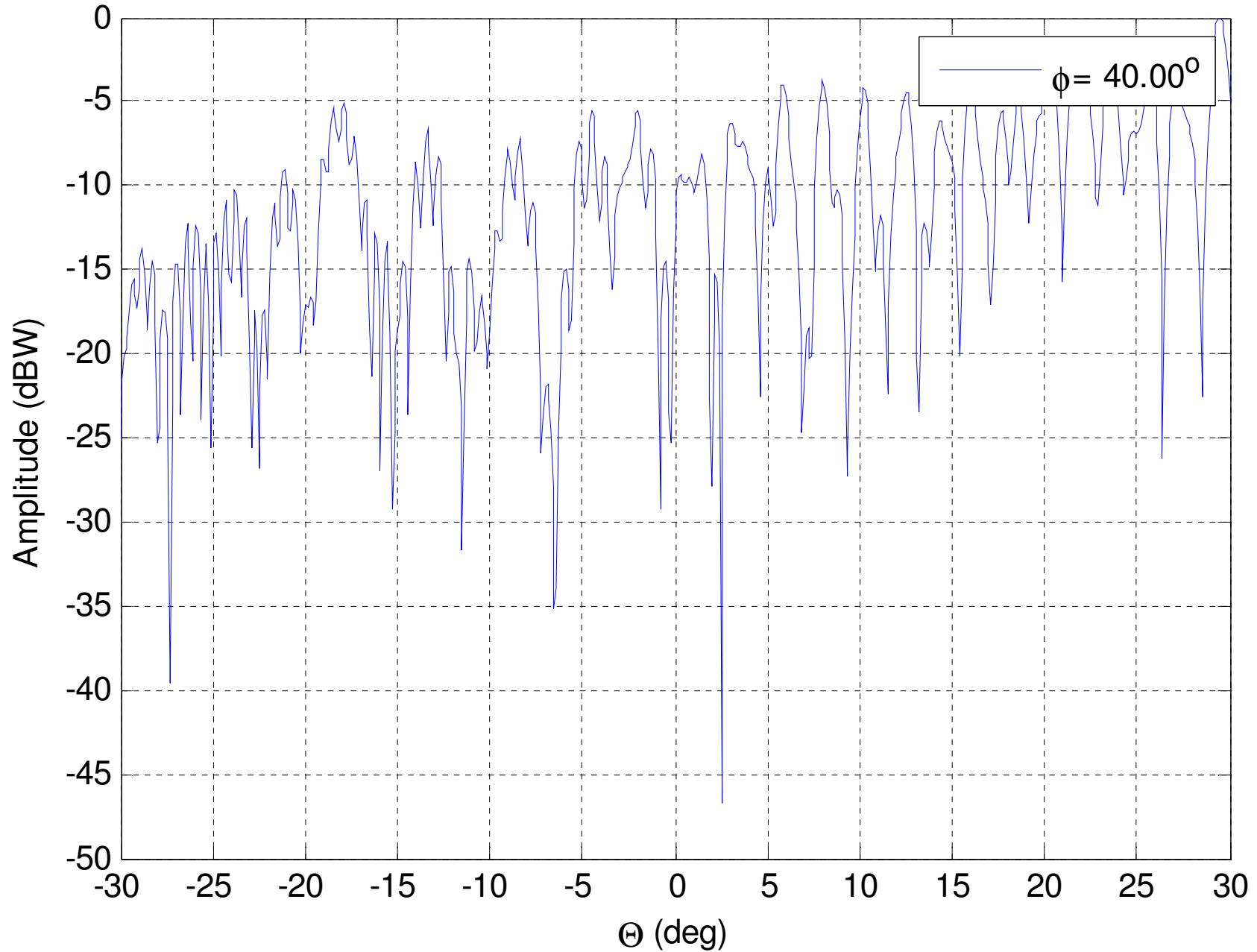
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: 0.03 dBW, Date: 16-Dec-2011



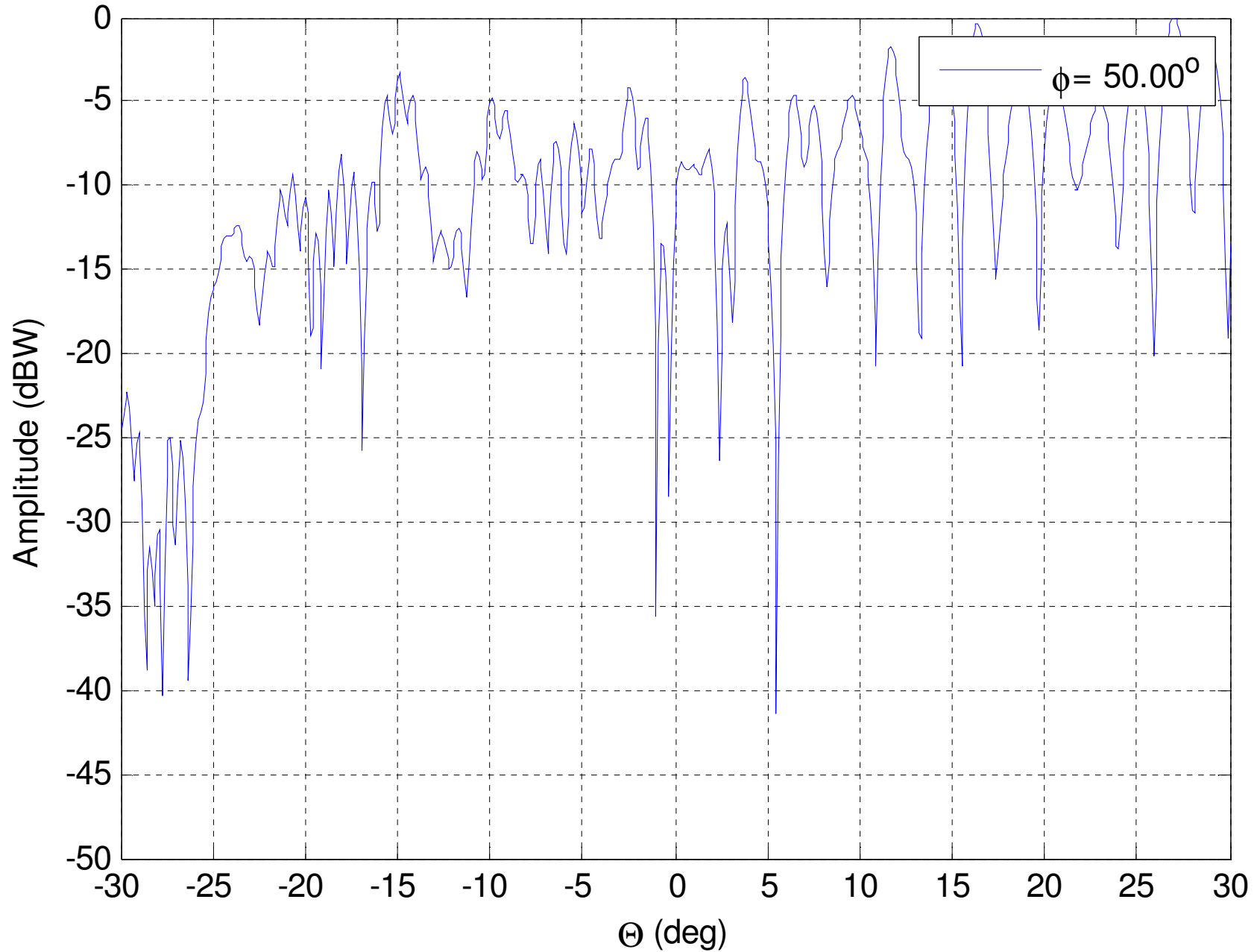
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -4.18 dBW, Date: 16-Dec-2011



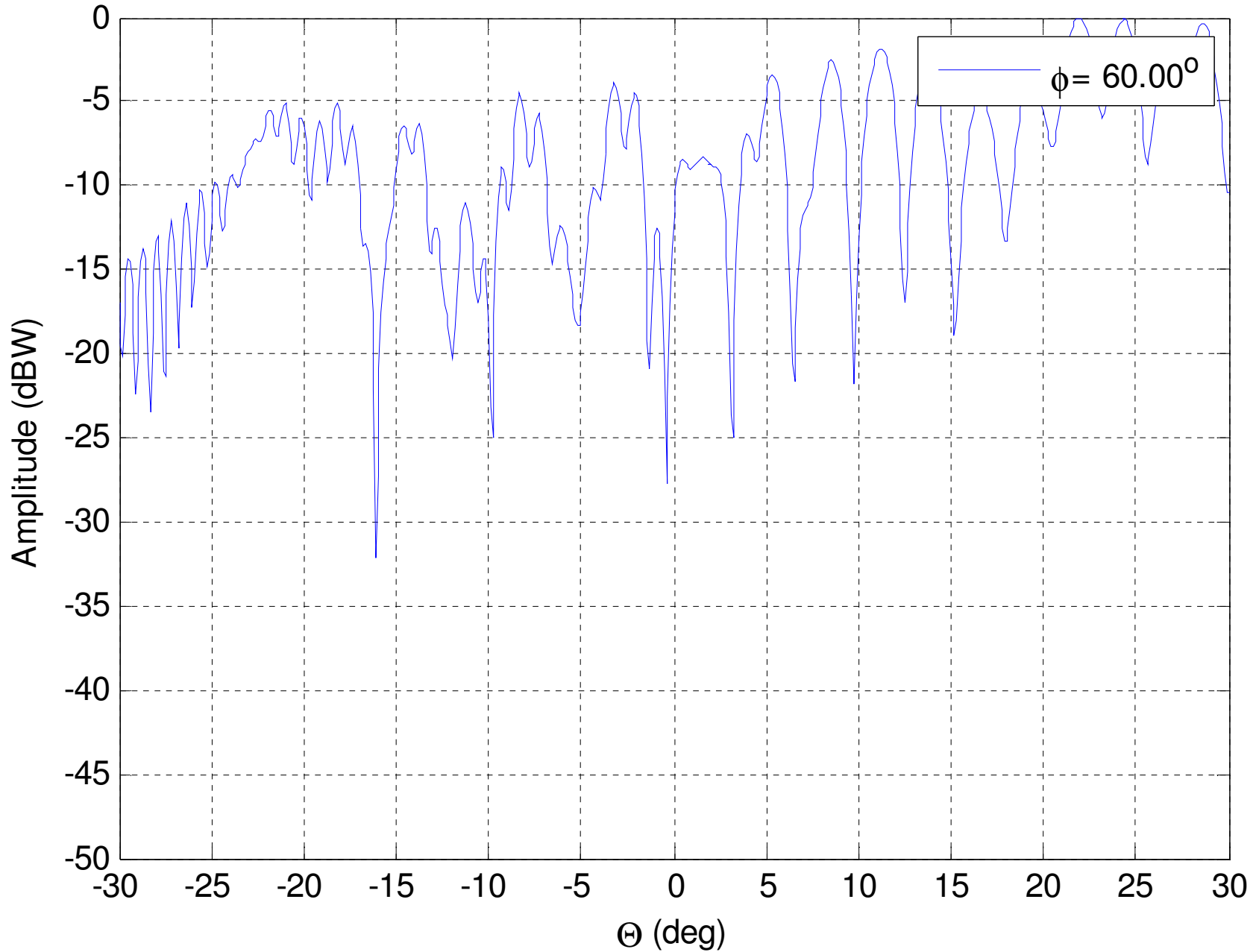
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -4.89 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

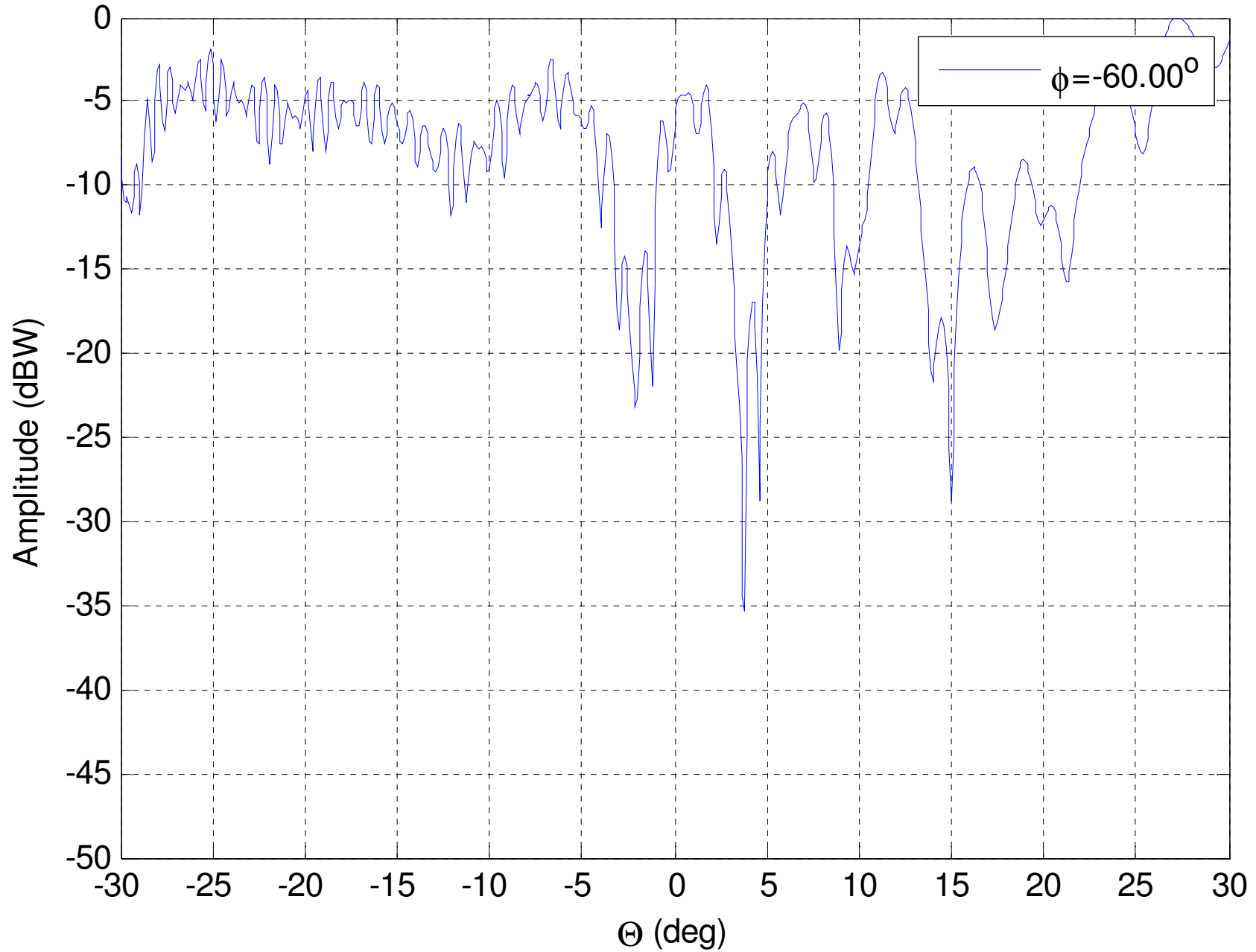
Input file: tx-17.3-rhcp-60.cut, Peak: -4.87 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

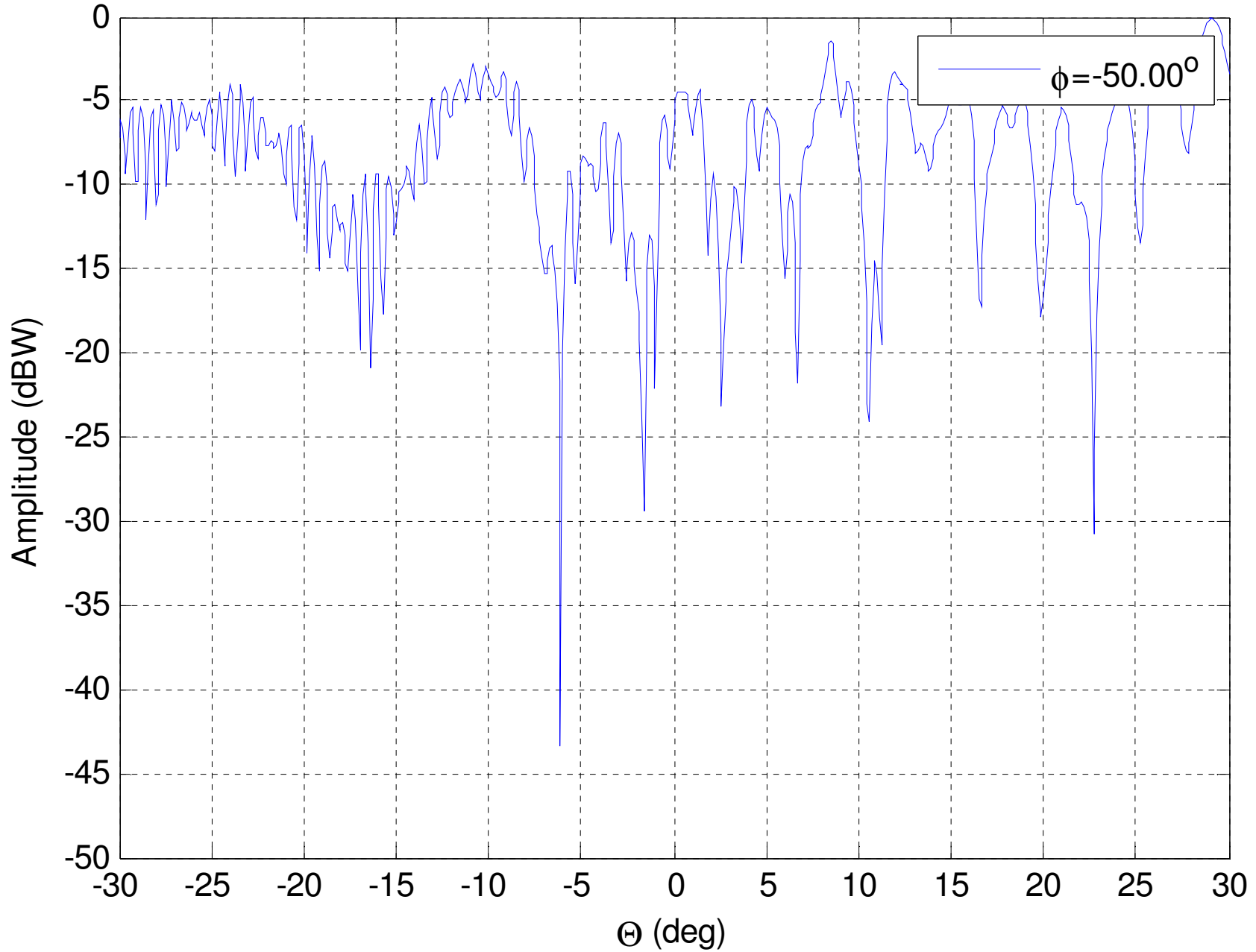
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -4.44 dBW, Date: 16-Dec-2011



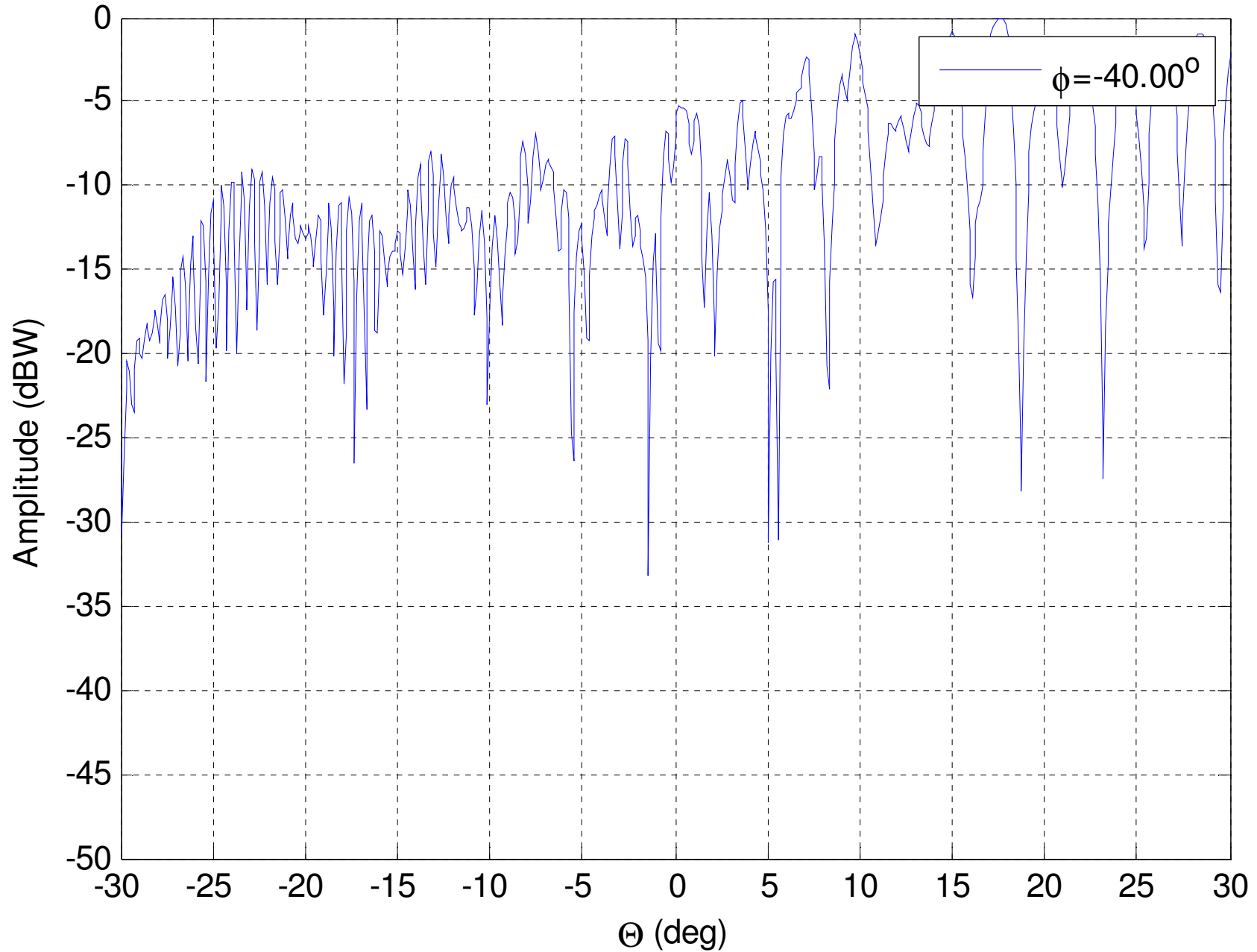
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -4.63 dBW, Date: 16-Dec-2011



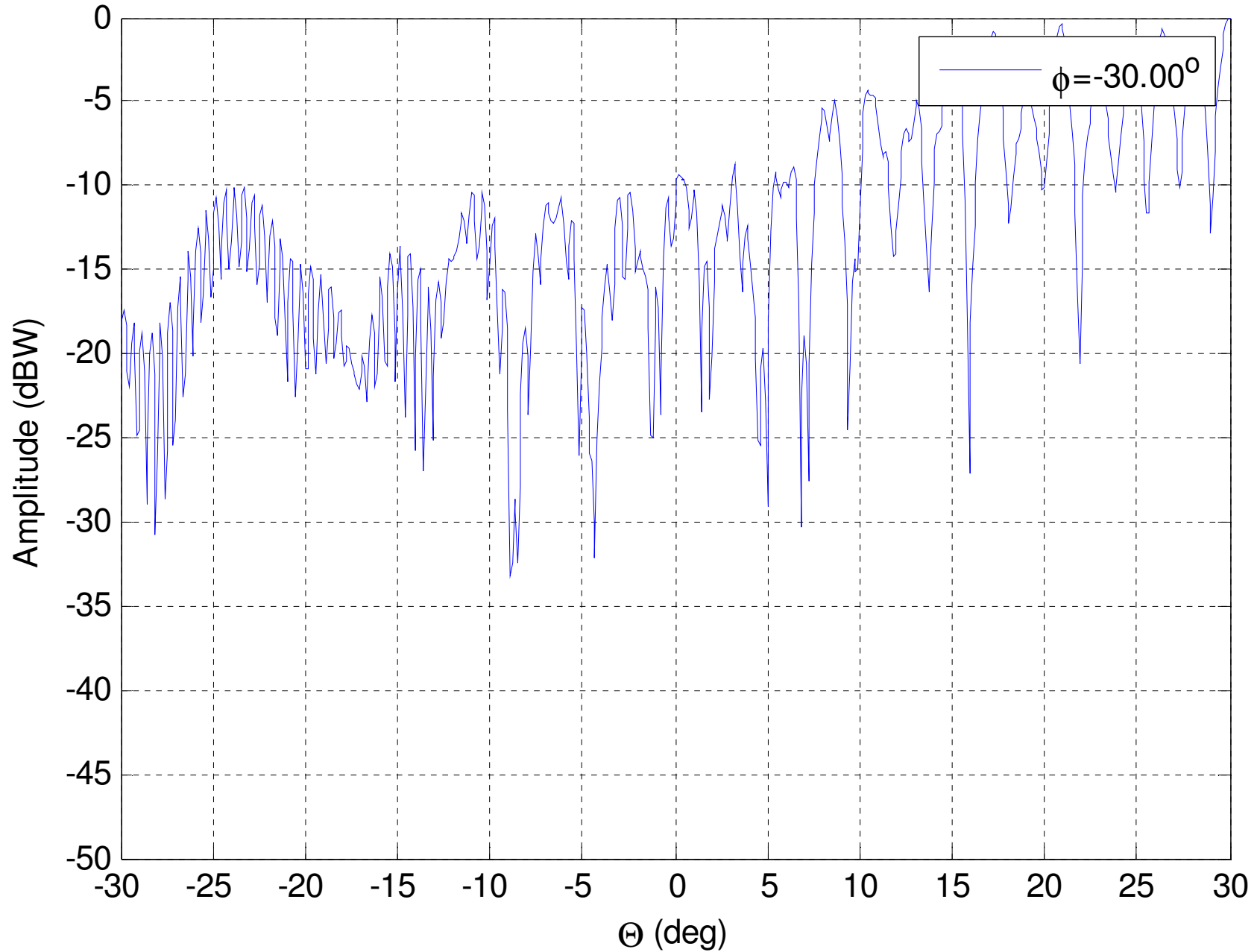
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -3.81 dBW, Date: 16-Dec-2011



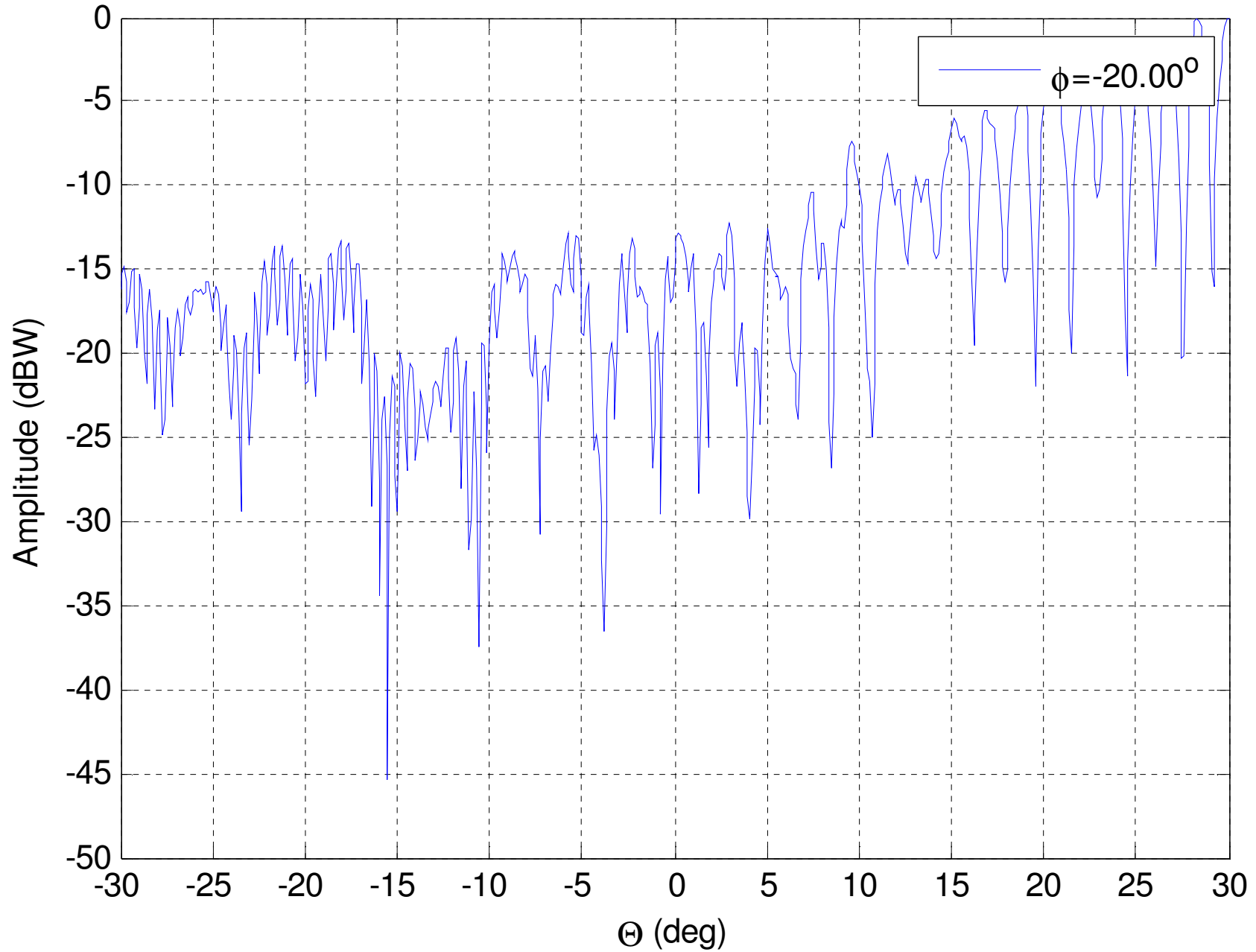
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: 0.20 dBW, Date: 16-Dec-2011



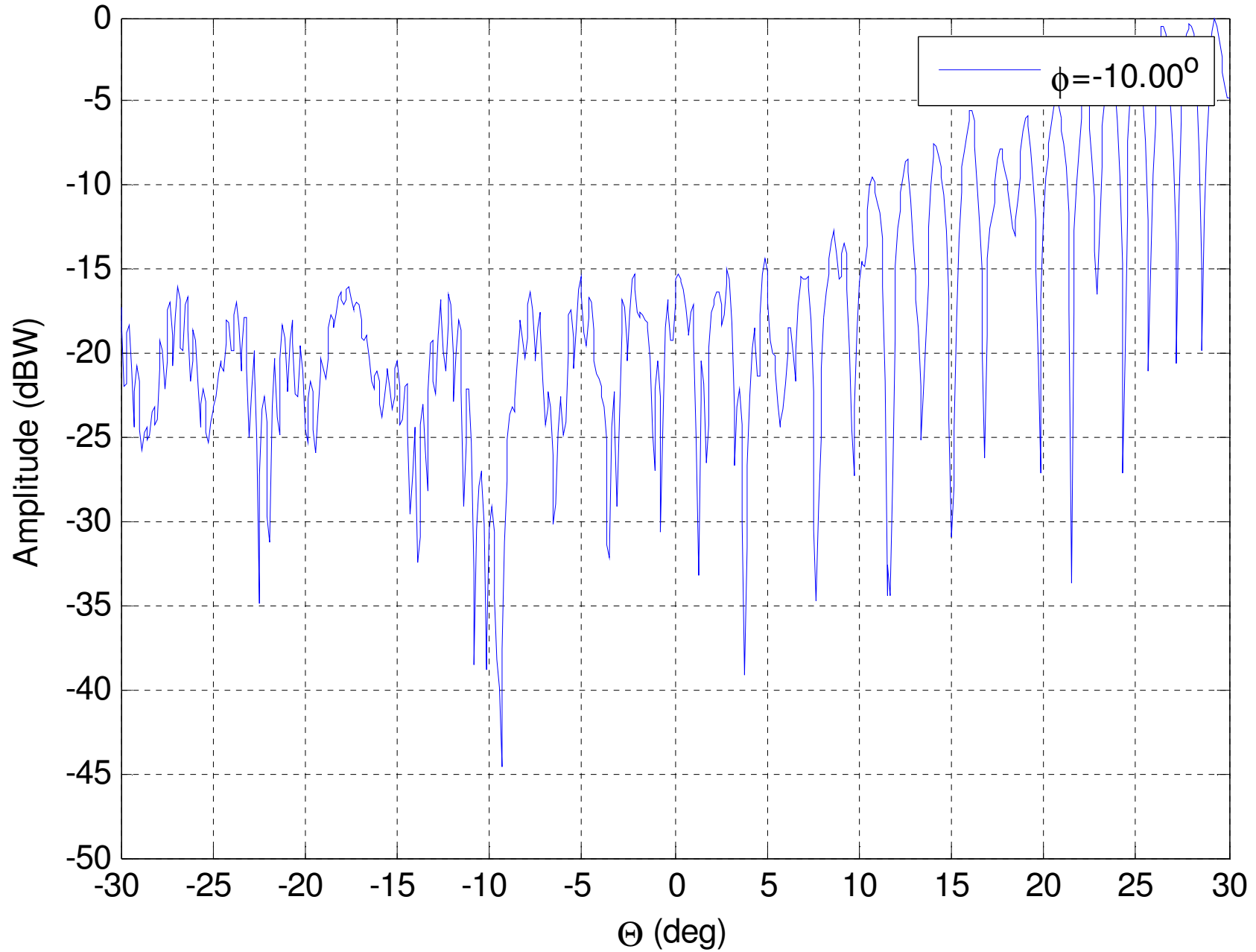
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: 3.68 dBW, Date: 16-Dec-2011



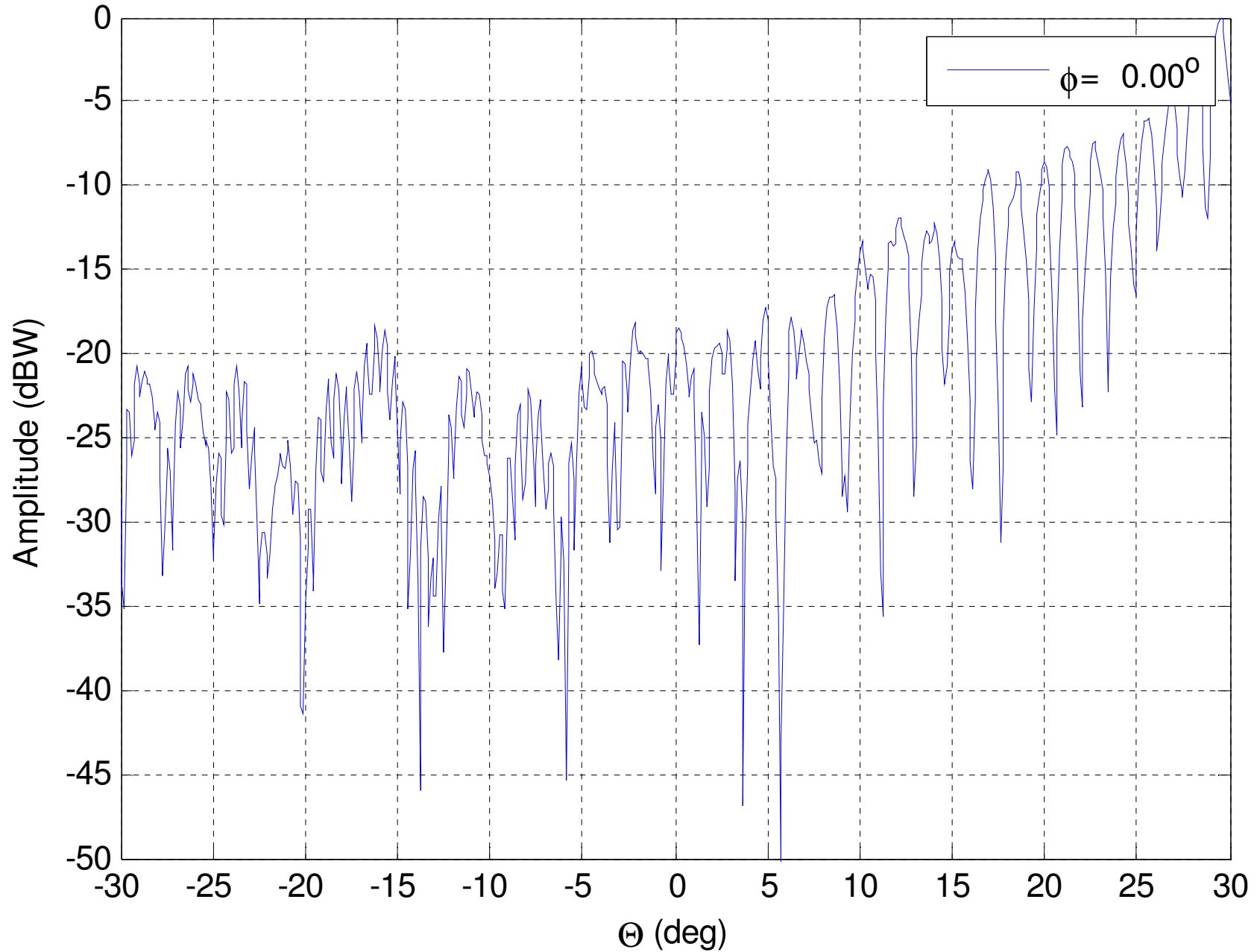
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: 6.16 dBW, Date: 16-Dec-2011



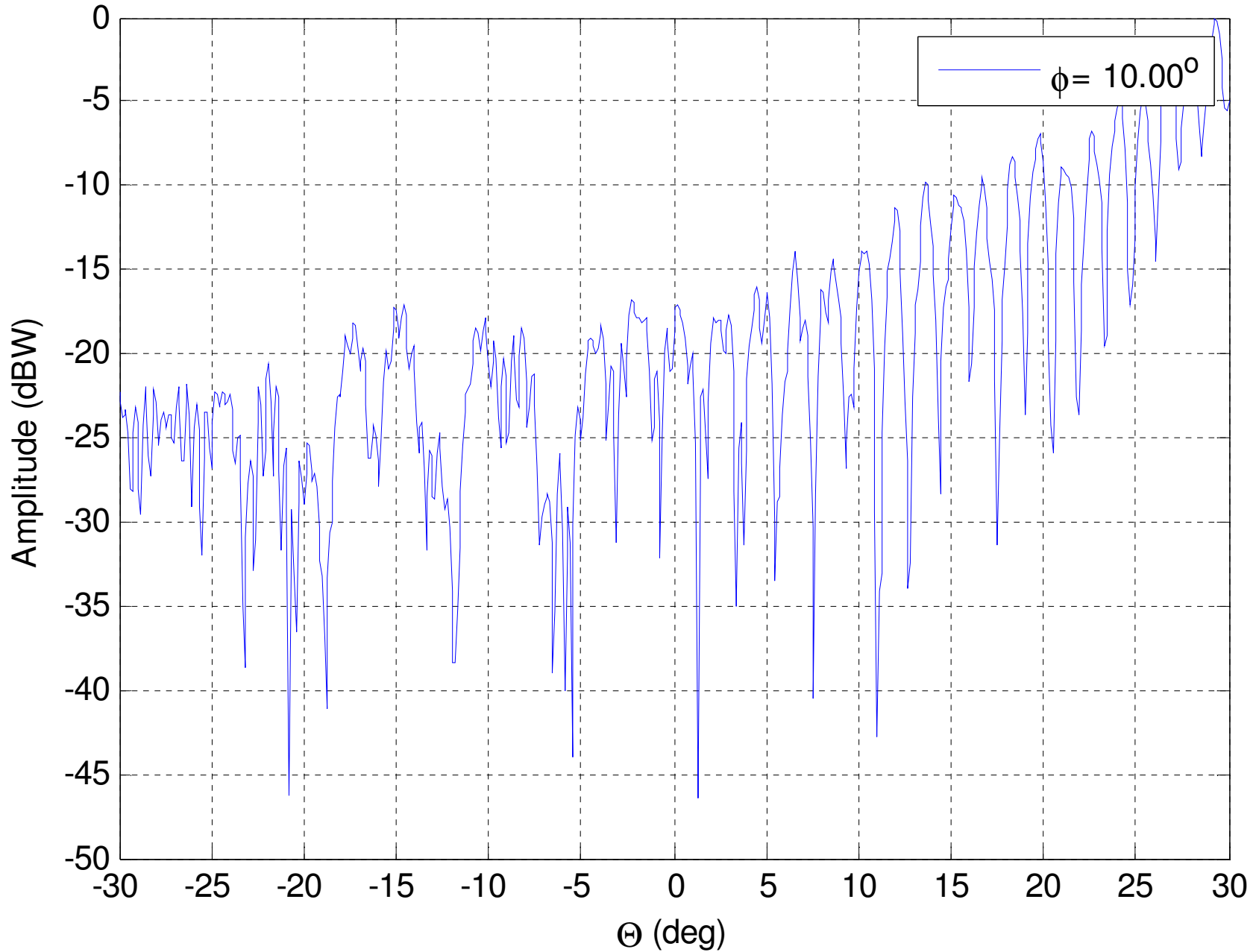
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: 9.32 dBW, Date: 16-Dec-2011



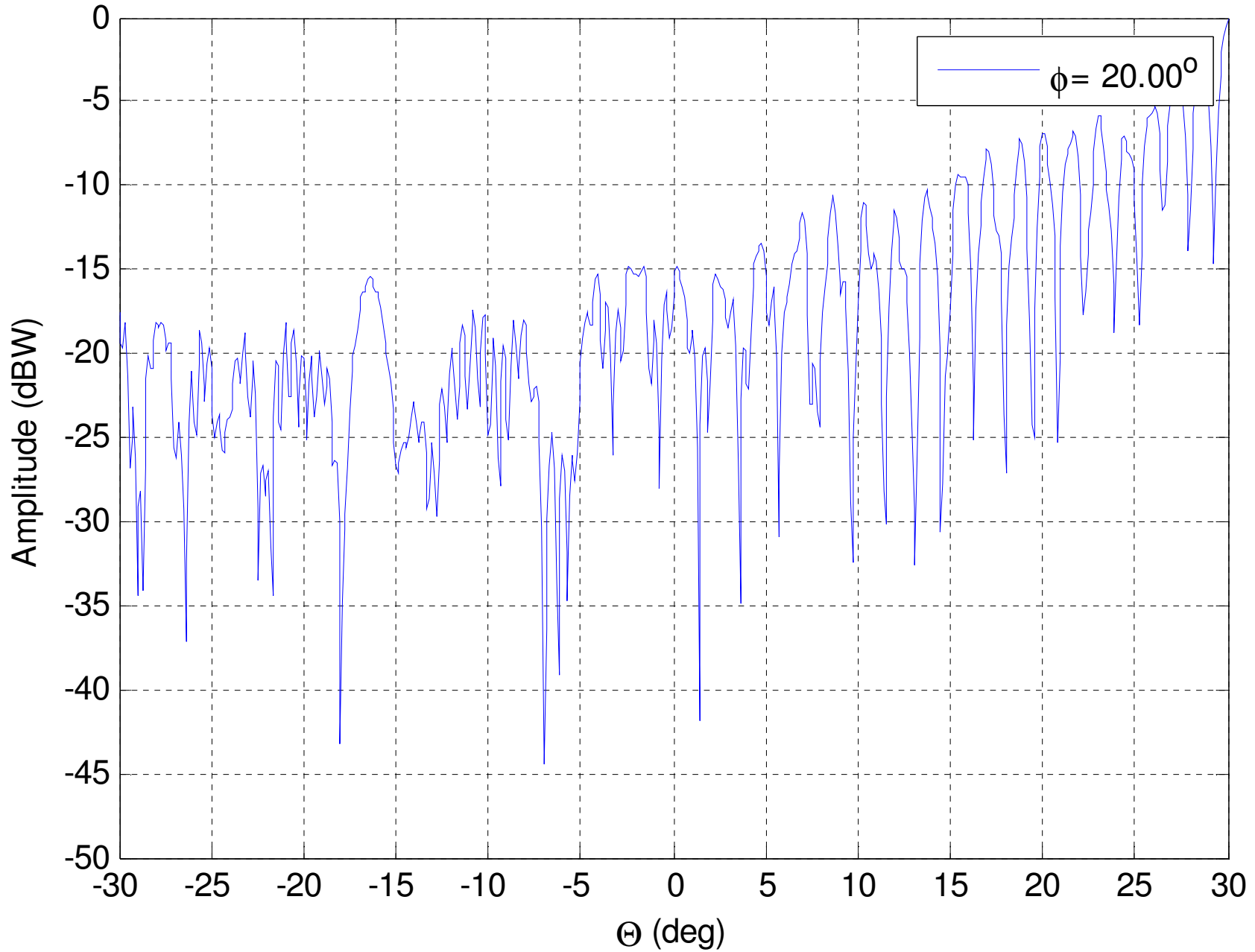
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: 7.87 dBW, Date: 16-Dec-2011



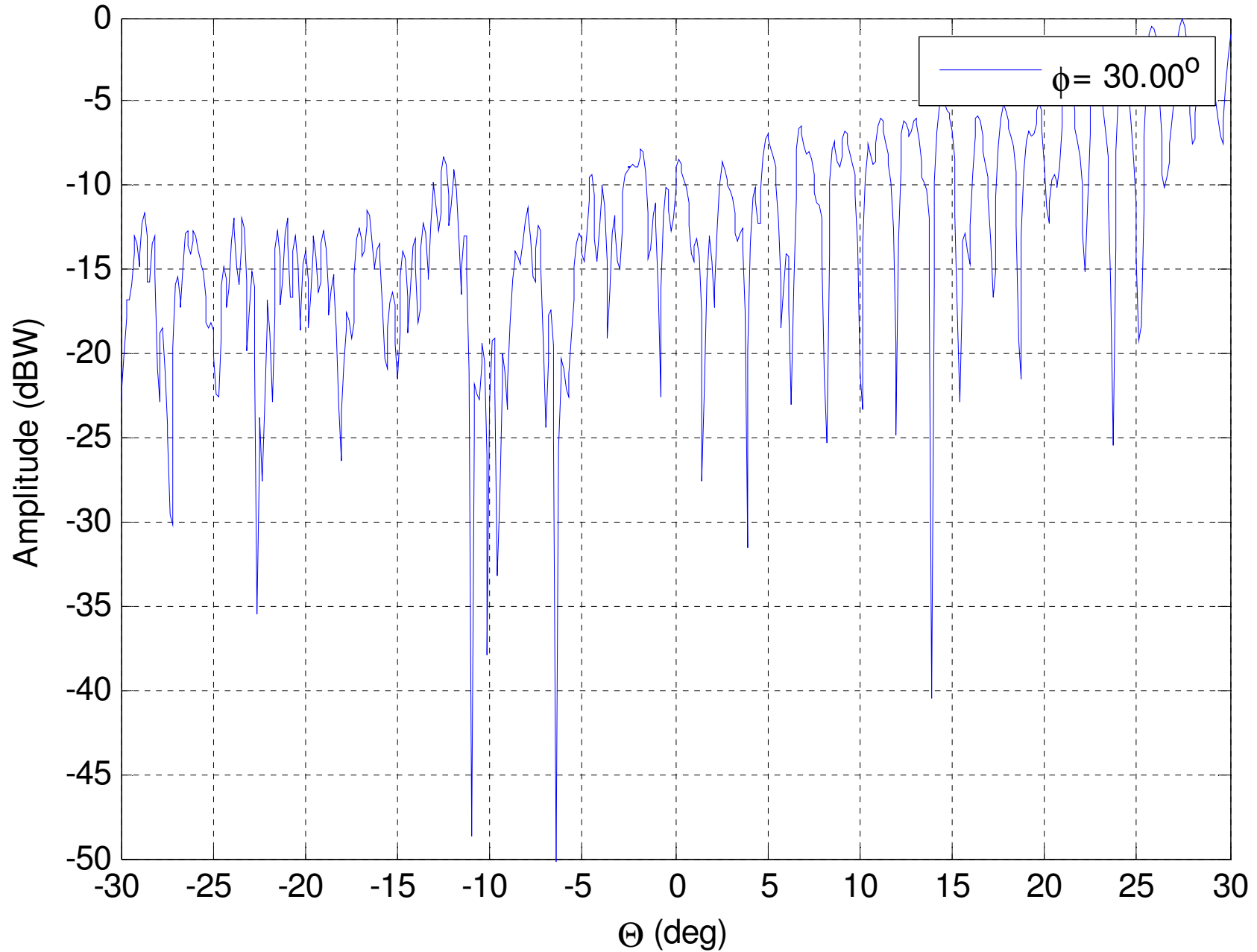
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: 5.69 dBW, Date: 16-Dec-2011



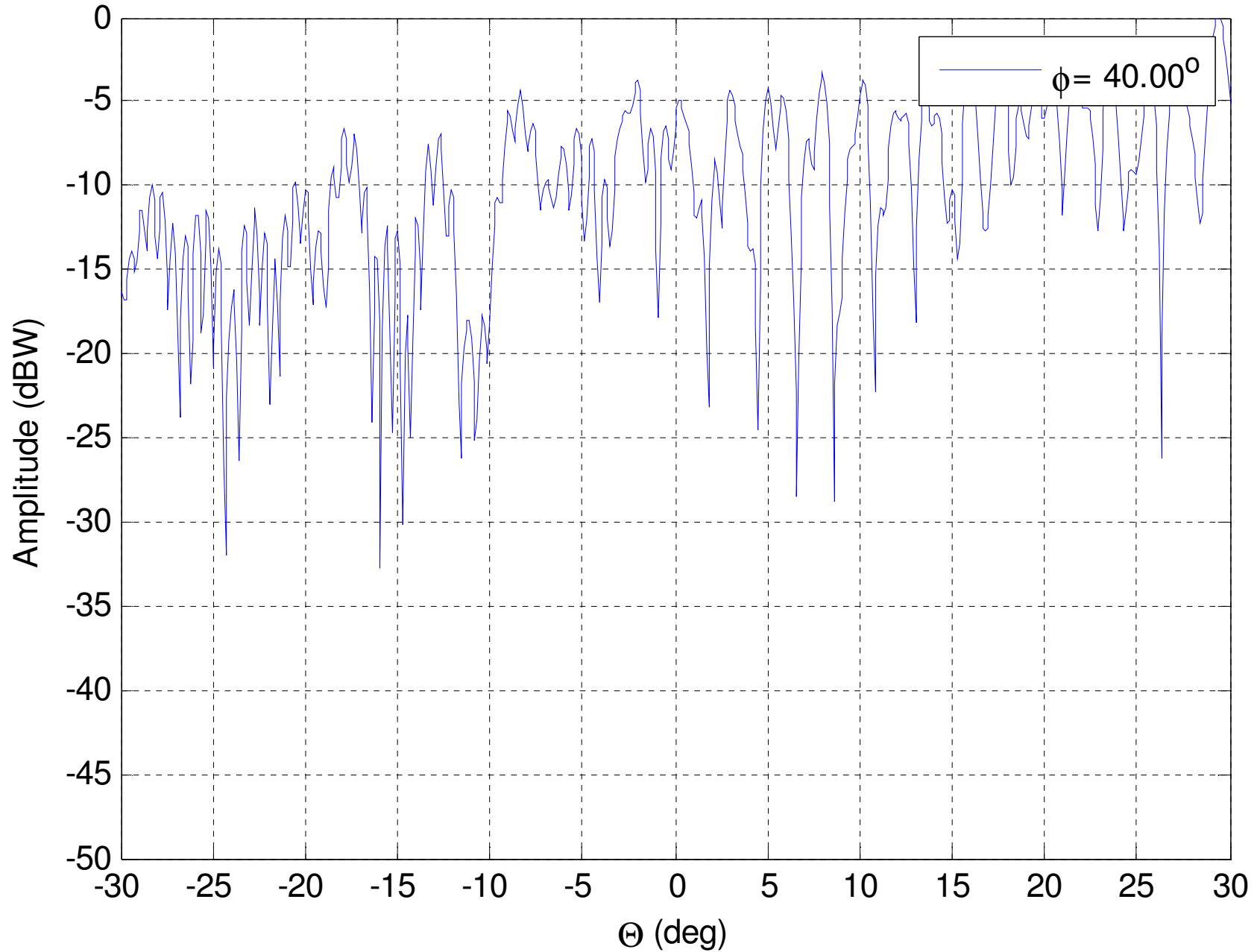
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: -0.68 dBW, Date: 16-Dec-2011



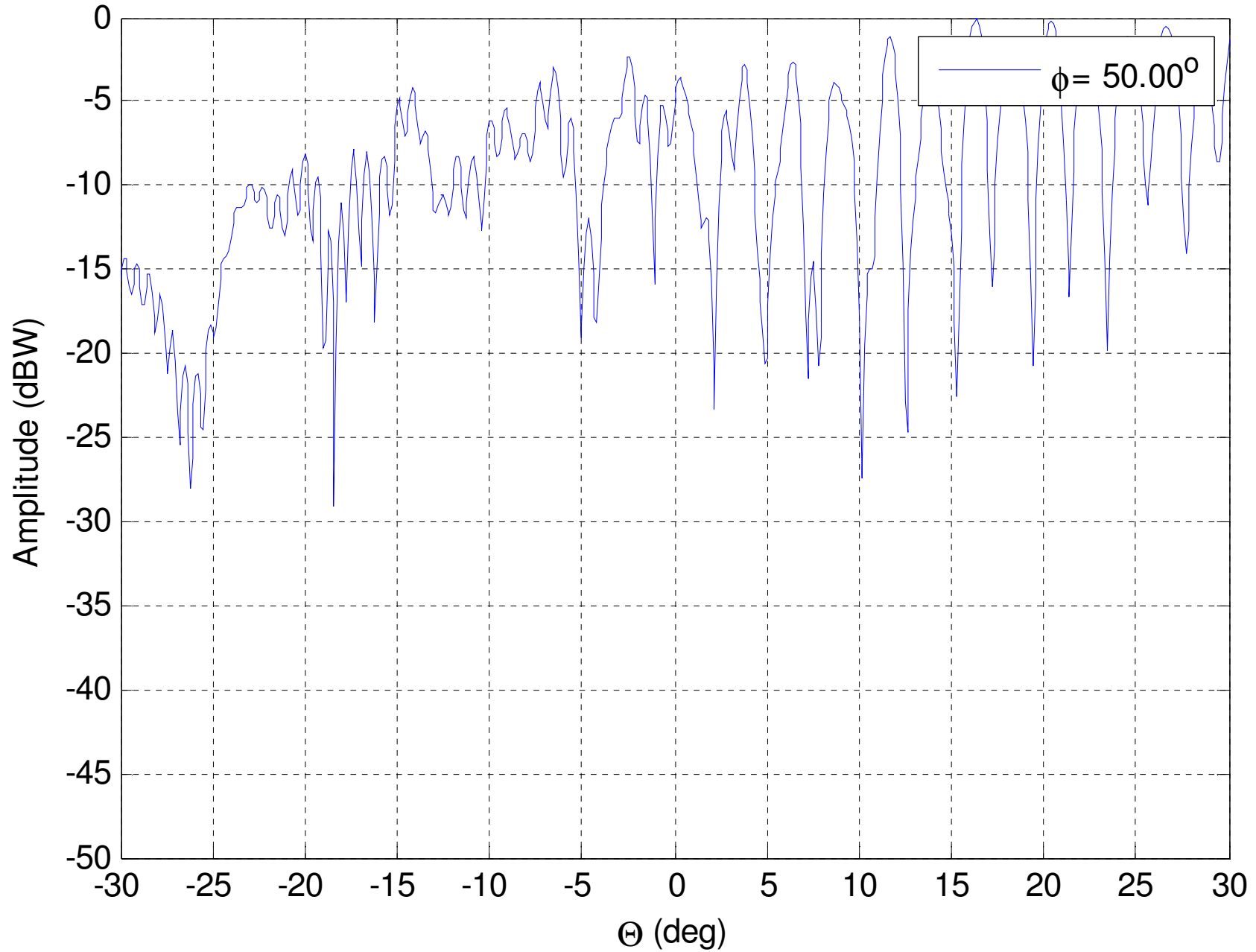
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -4.36 dBW, Date: 16-Dec-2011



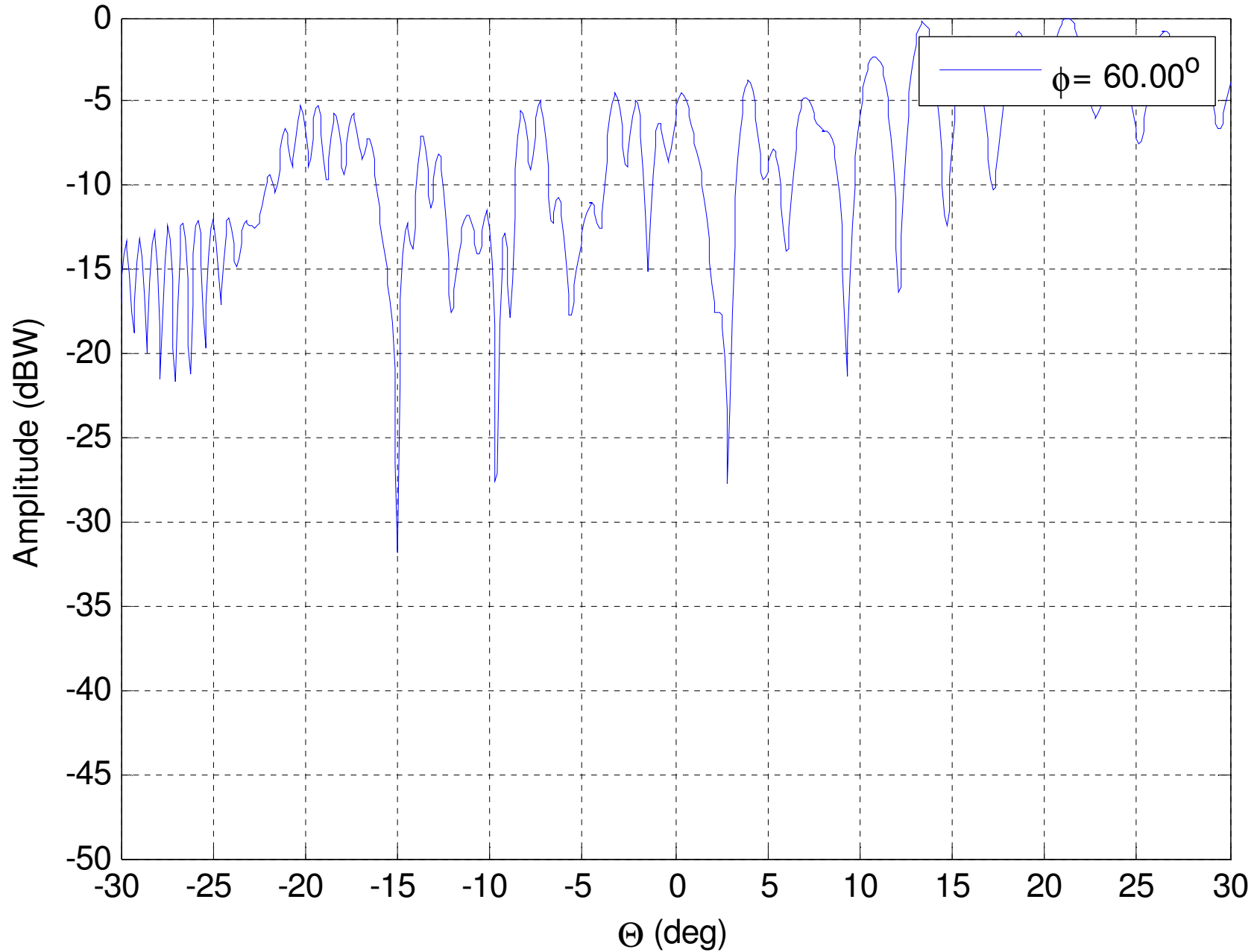
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -5.70 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

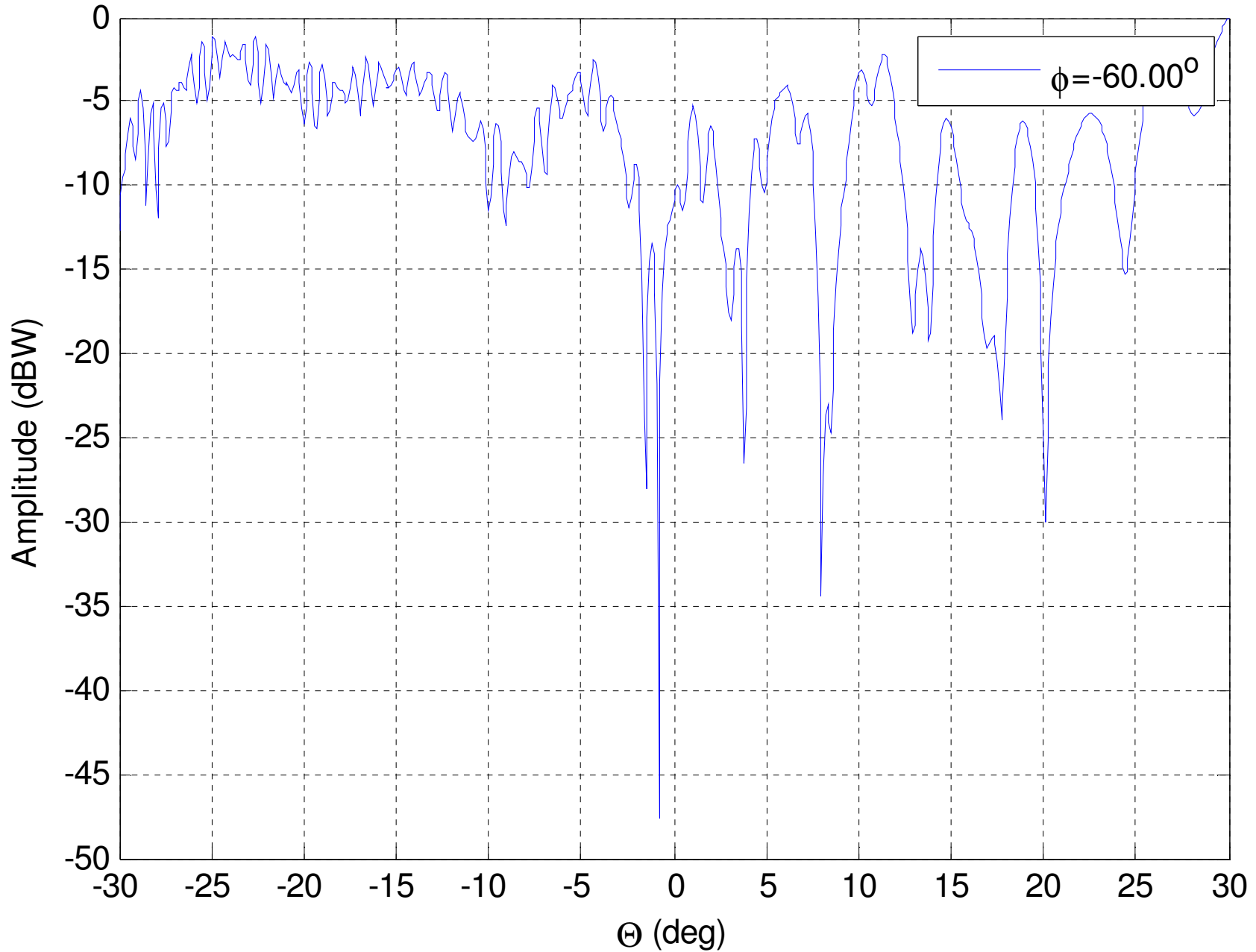
Input file: tx-17.3-lhcp-60.cut, Peak: -4.83 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

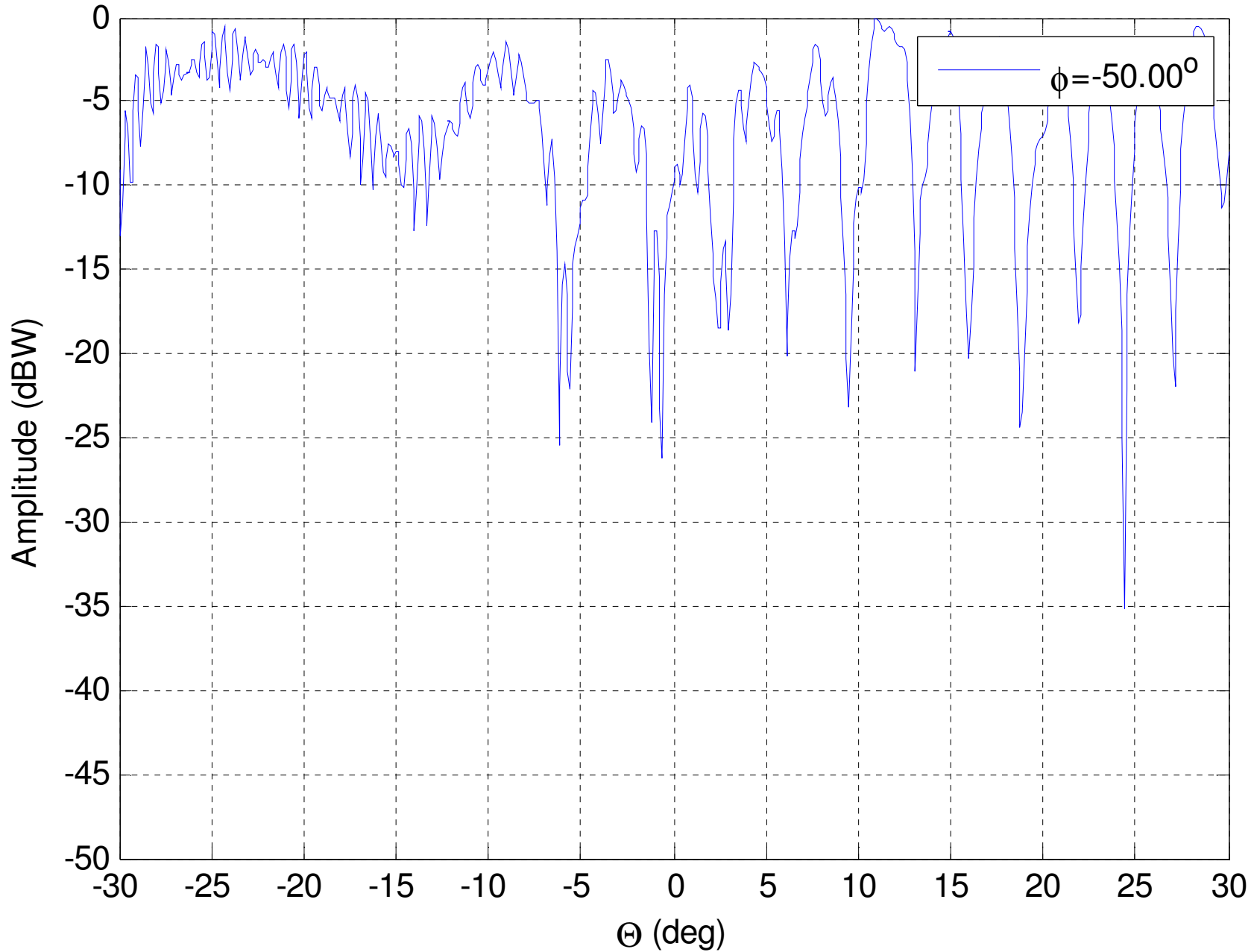
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -4.90 dBW, Date: 16-Dec-2011



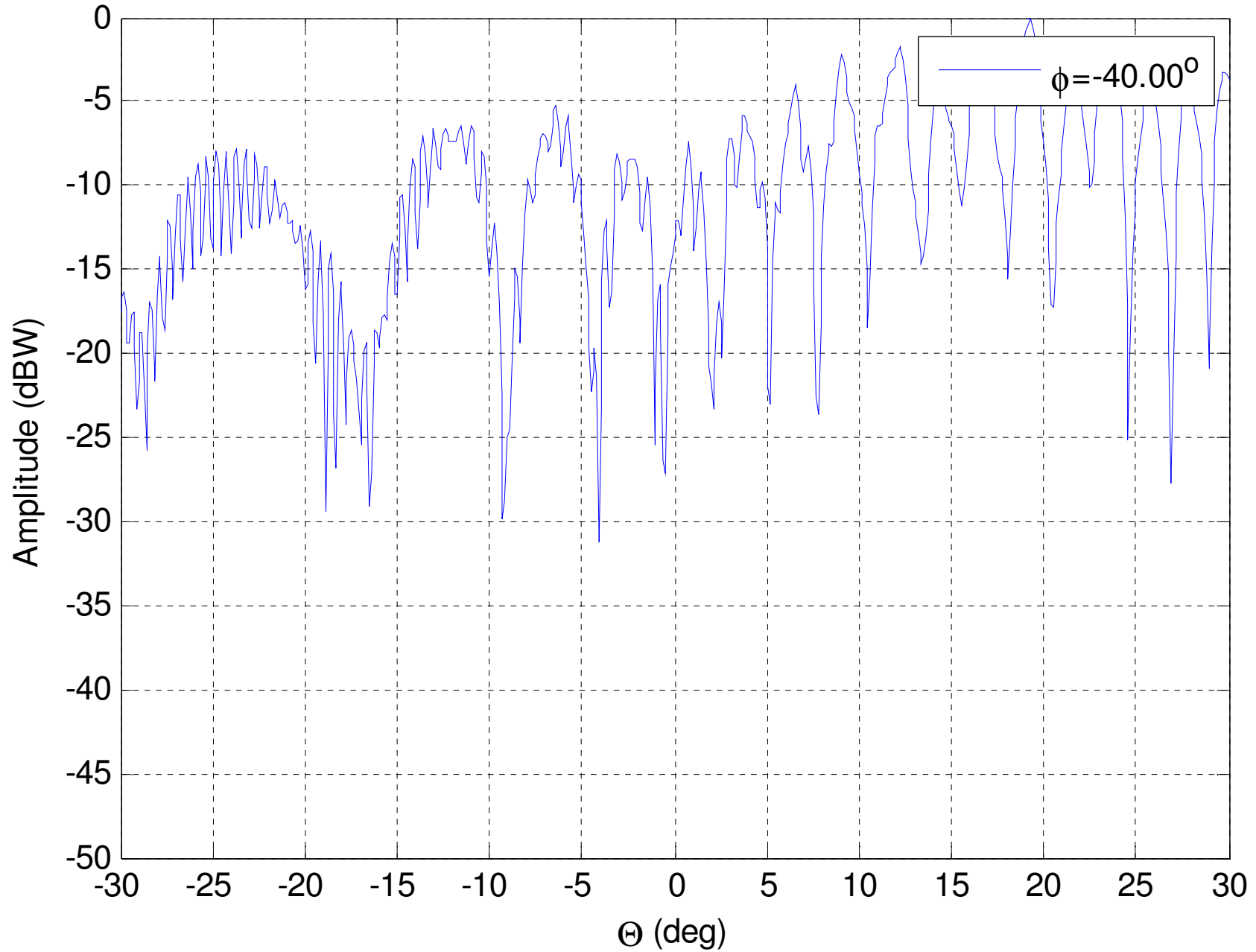
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -6.15 dBW, Date: 16-Dec-2011



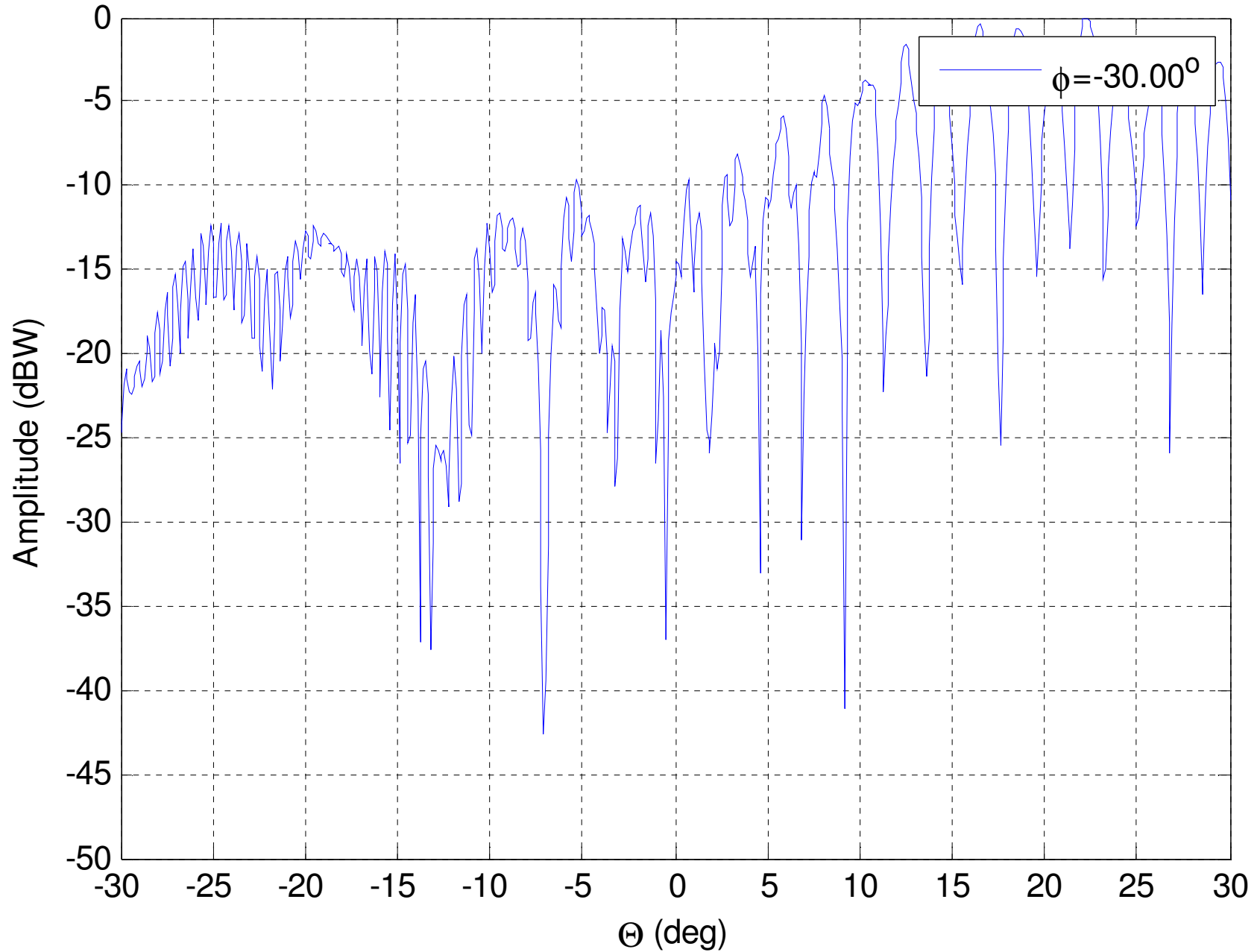
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -2.79 dBW, Date: 16-Dec-2011



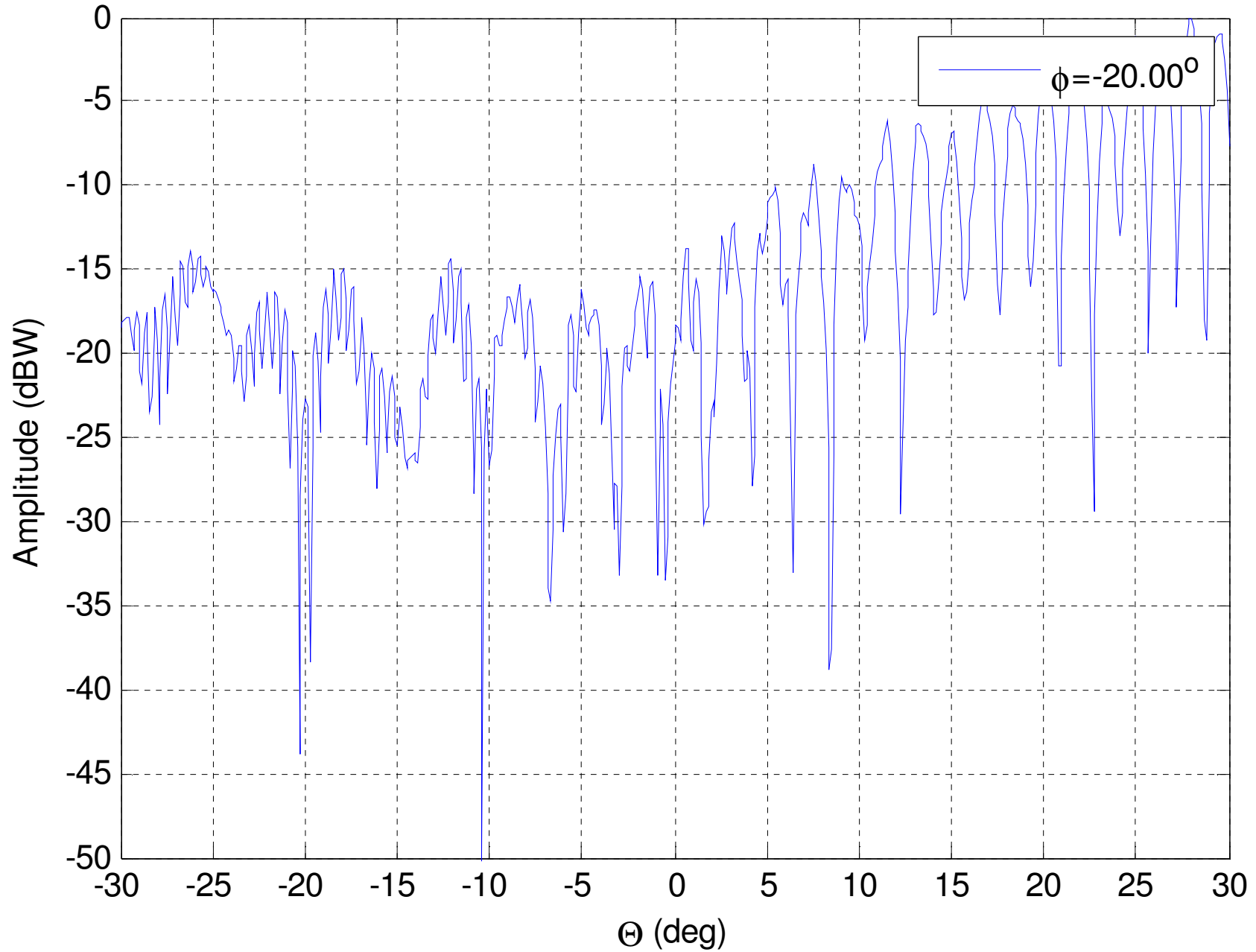
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -0.37 dBW, Date: 16-Dec-2011



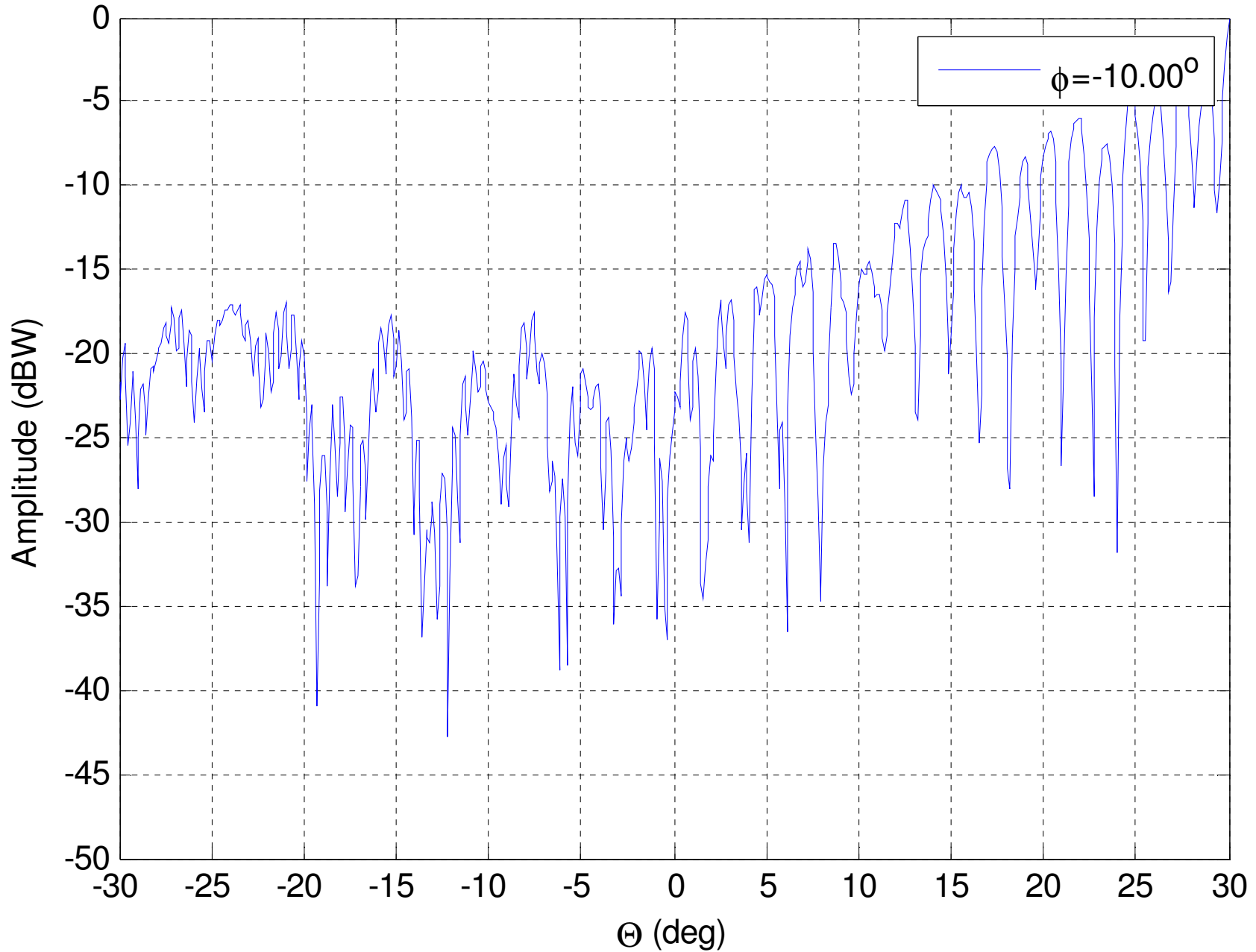
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: 3.55 dBW, Date: 16-Dec-2011



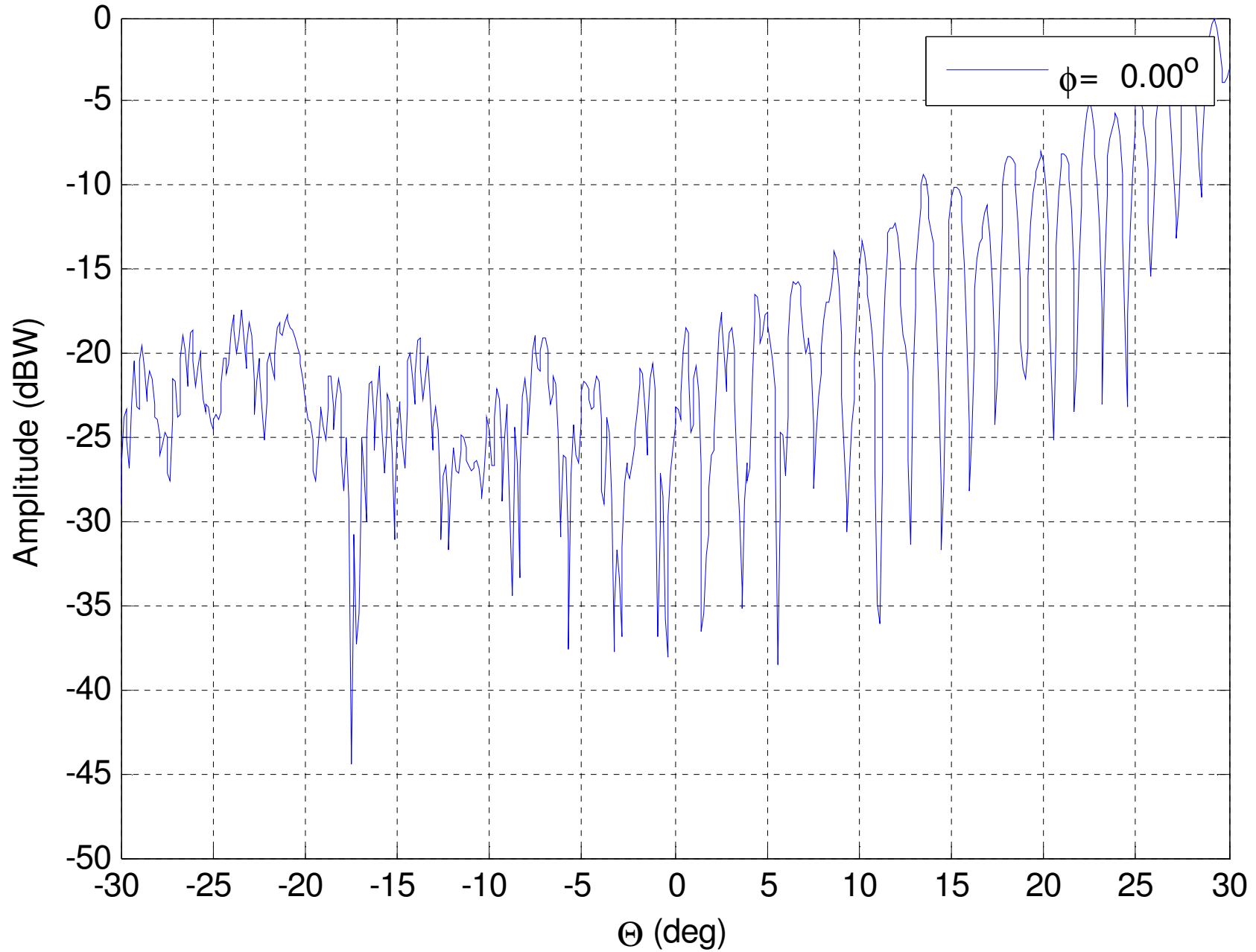
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: 7.56 dBW, Date: 16-Dec-2011



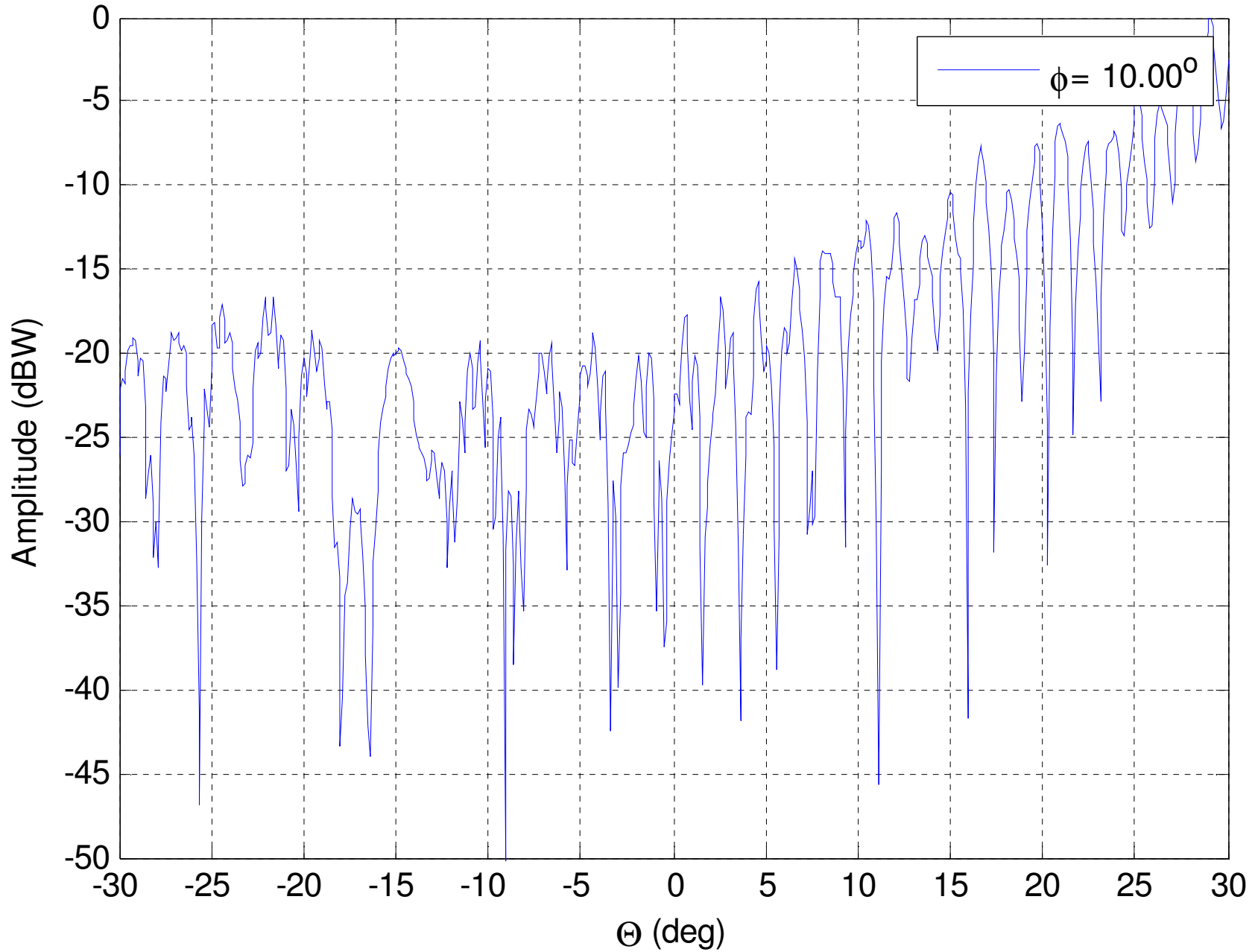
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: 8.45 dBW, Date: 16-Dec-2011



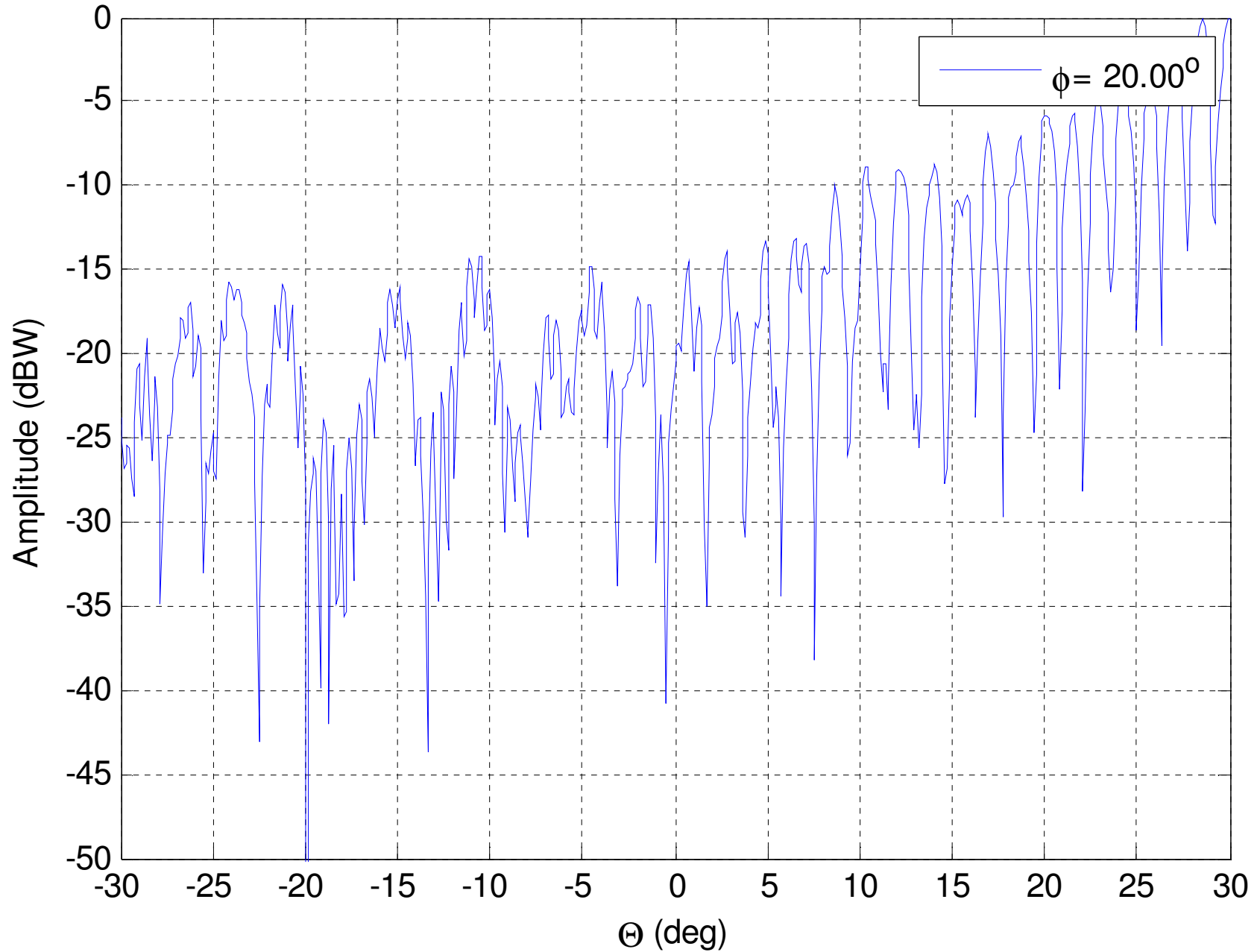
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: 7.72 dBW, Date: 16-Dec-2011



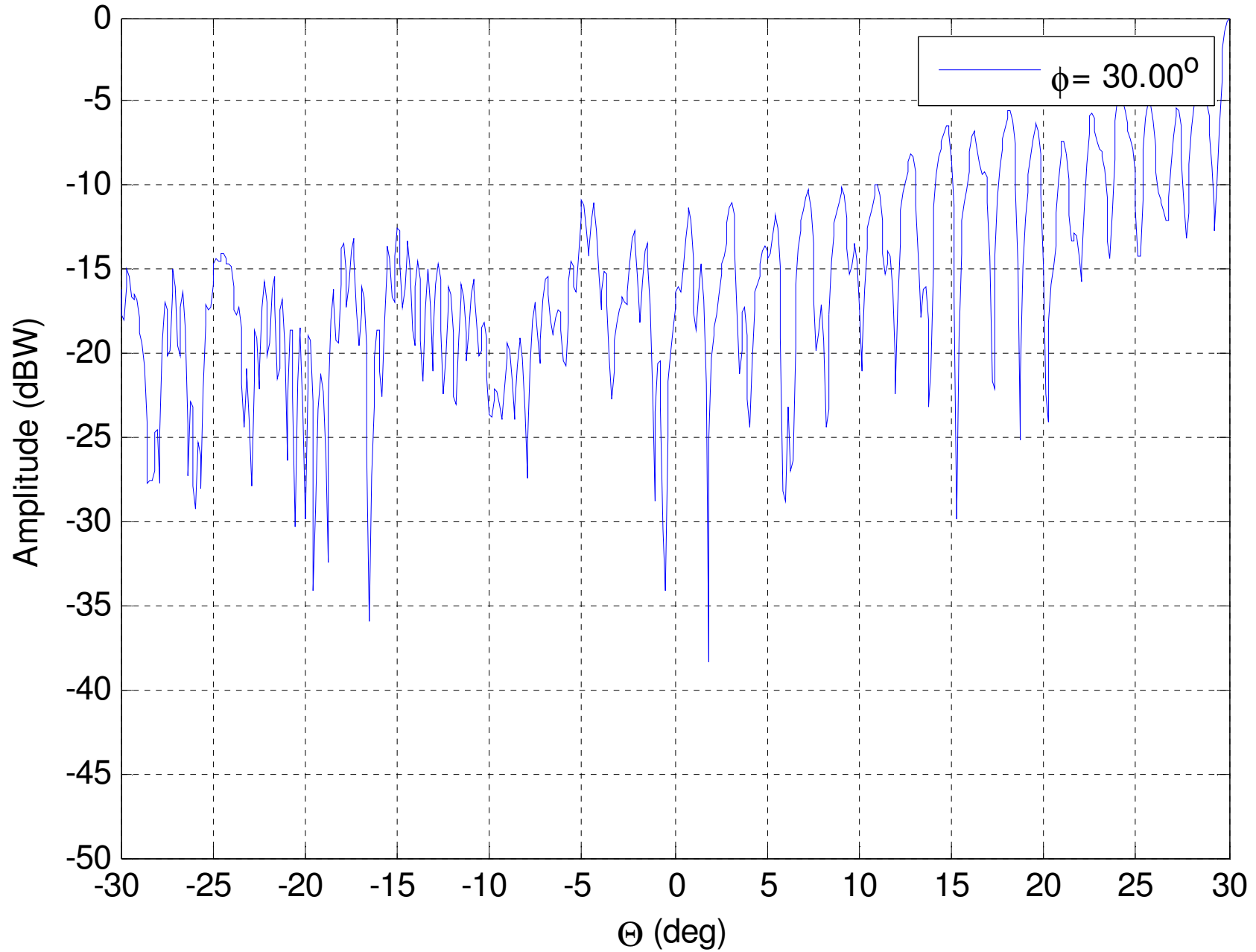
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: 4.77 dBW, Date: 16-Dec-2011



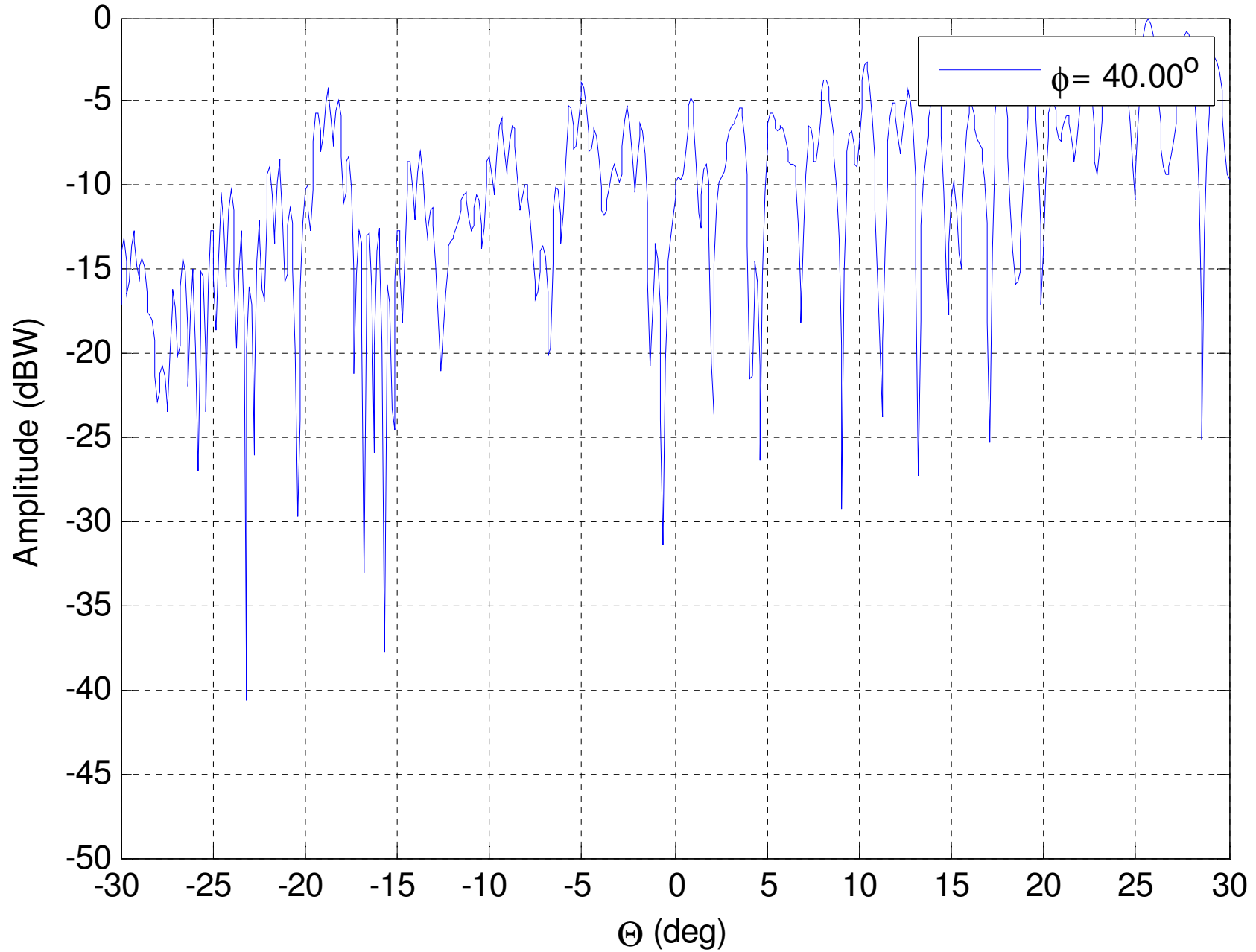
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: 1.58 dBW, Date: 16-Dec-2011



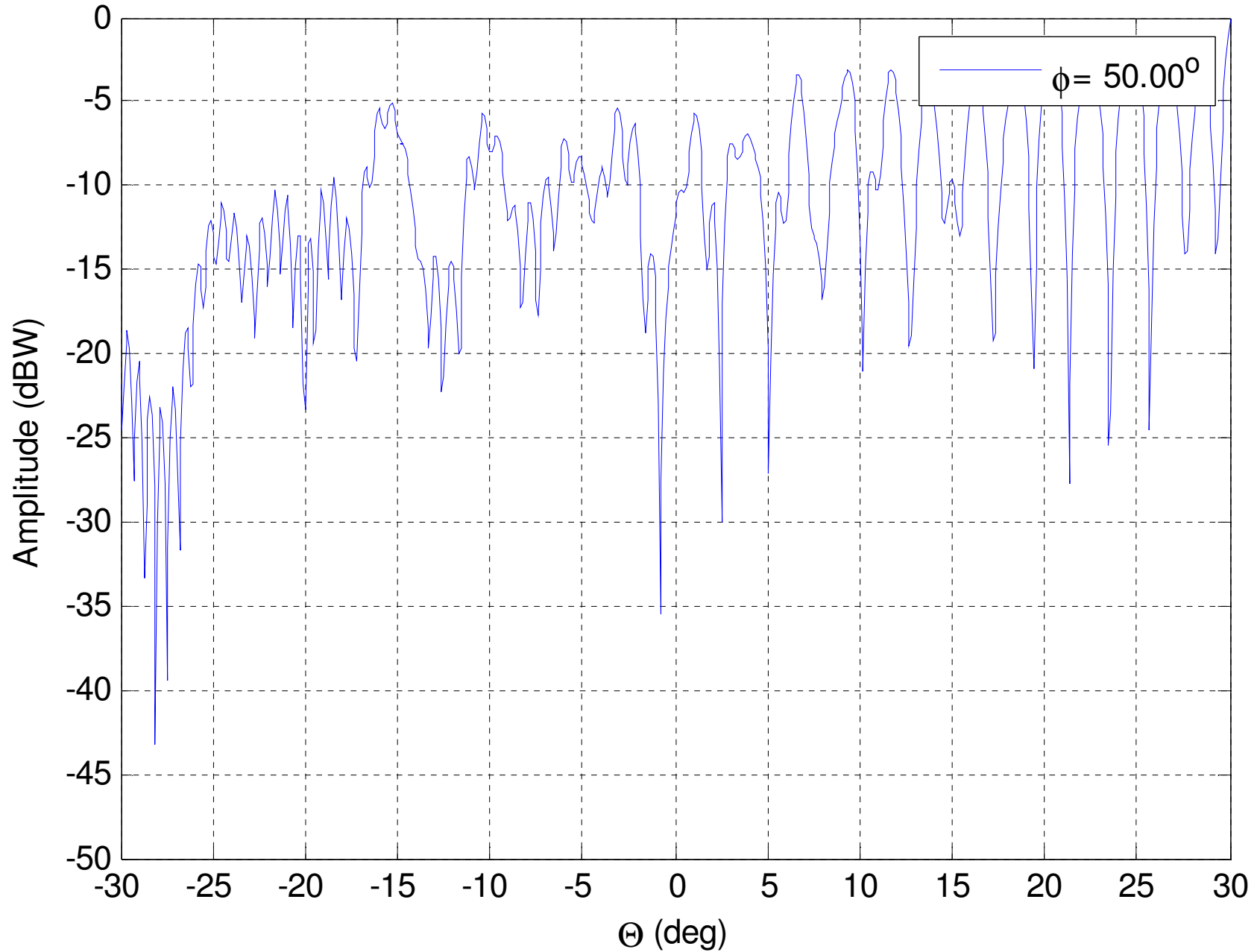
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -4.96 dBW, Date: 16-Dec-2011



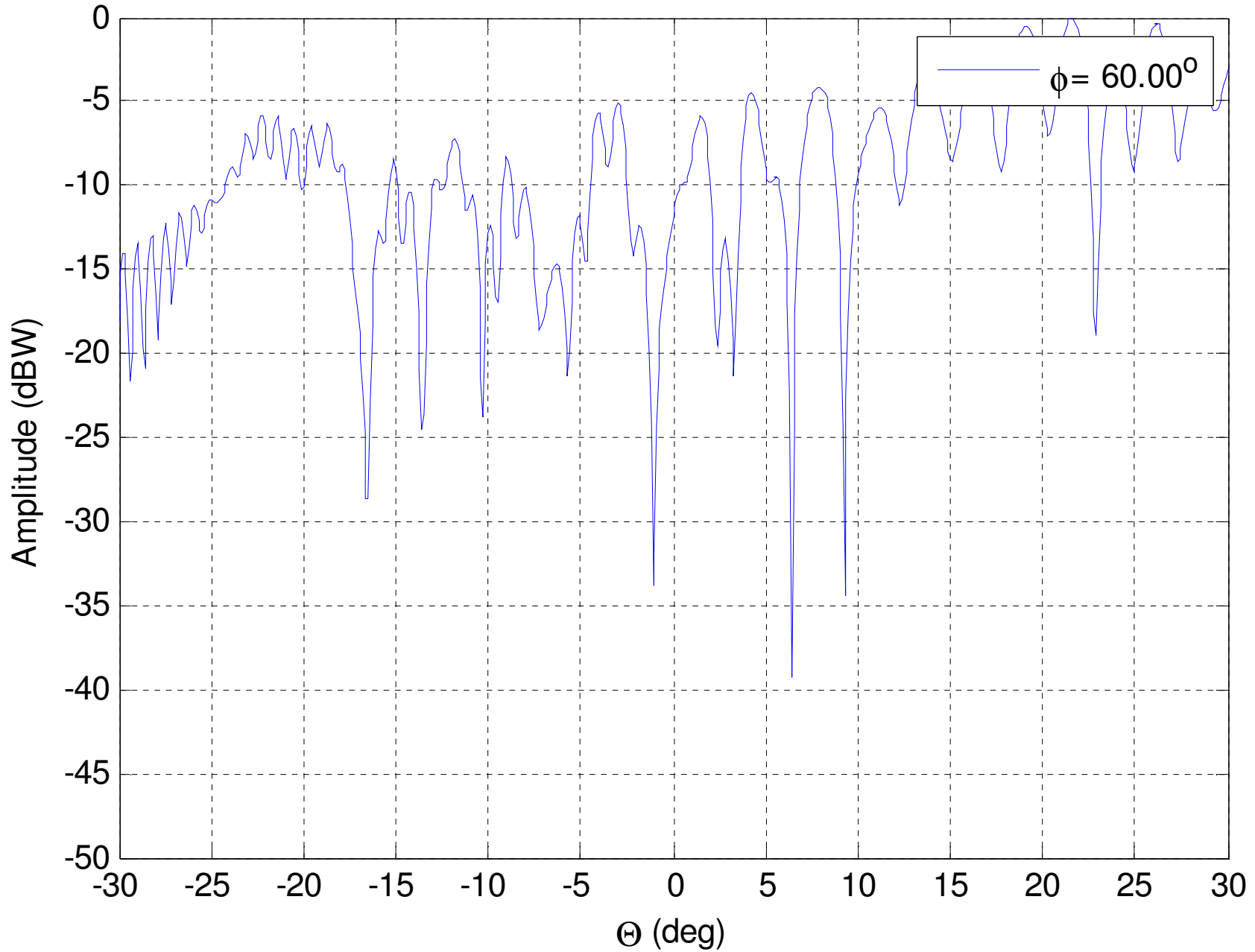
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -3.95 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

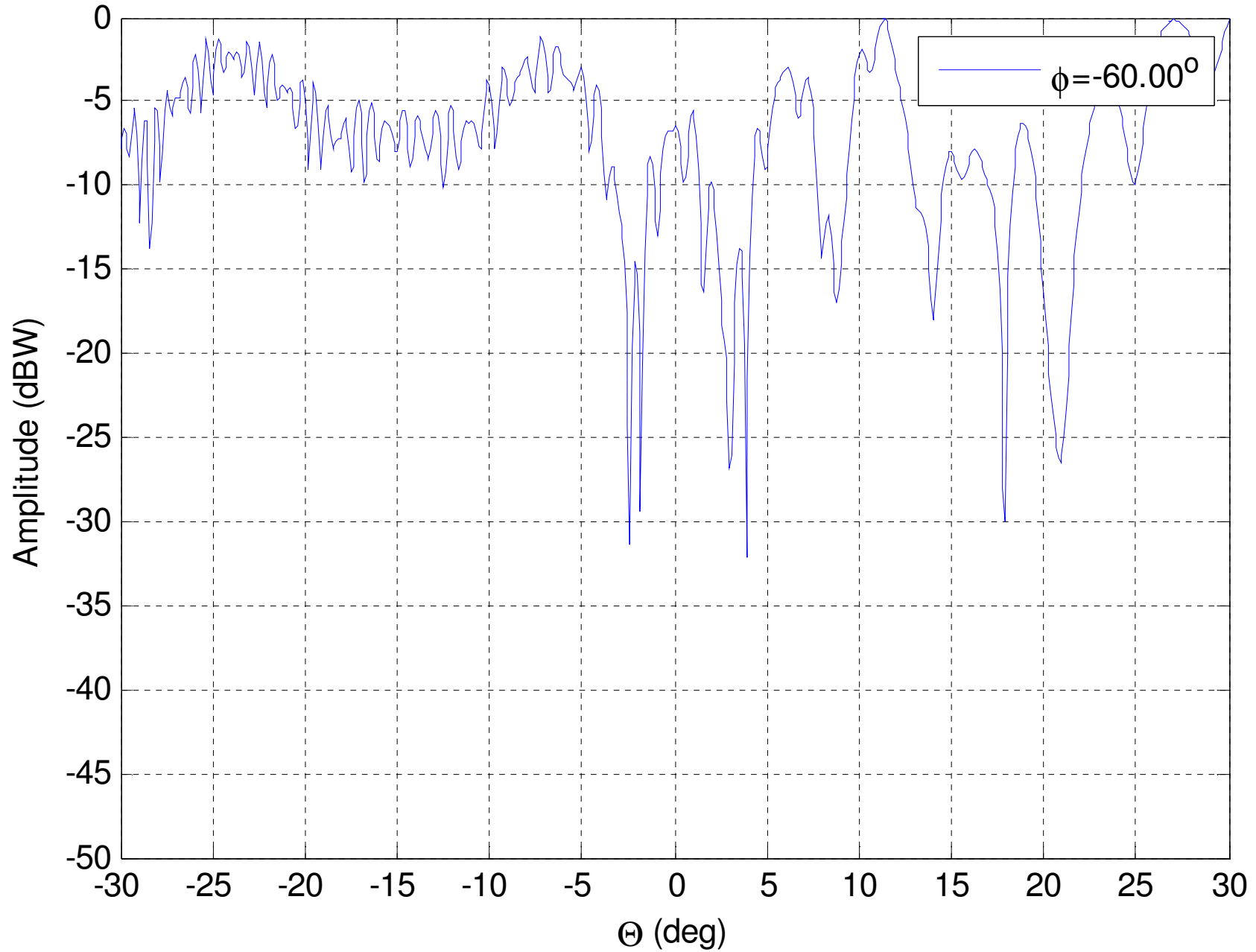
Input file: tx-17.5-rhcp-60.cut, Peak: -3.94 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

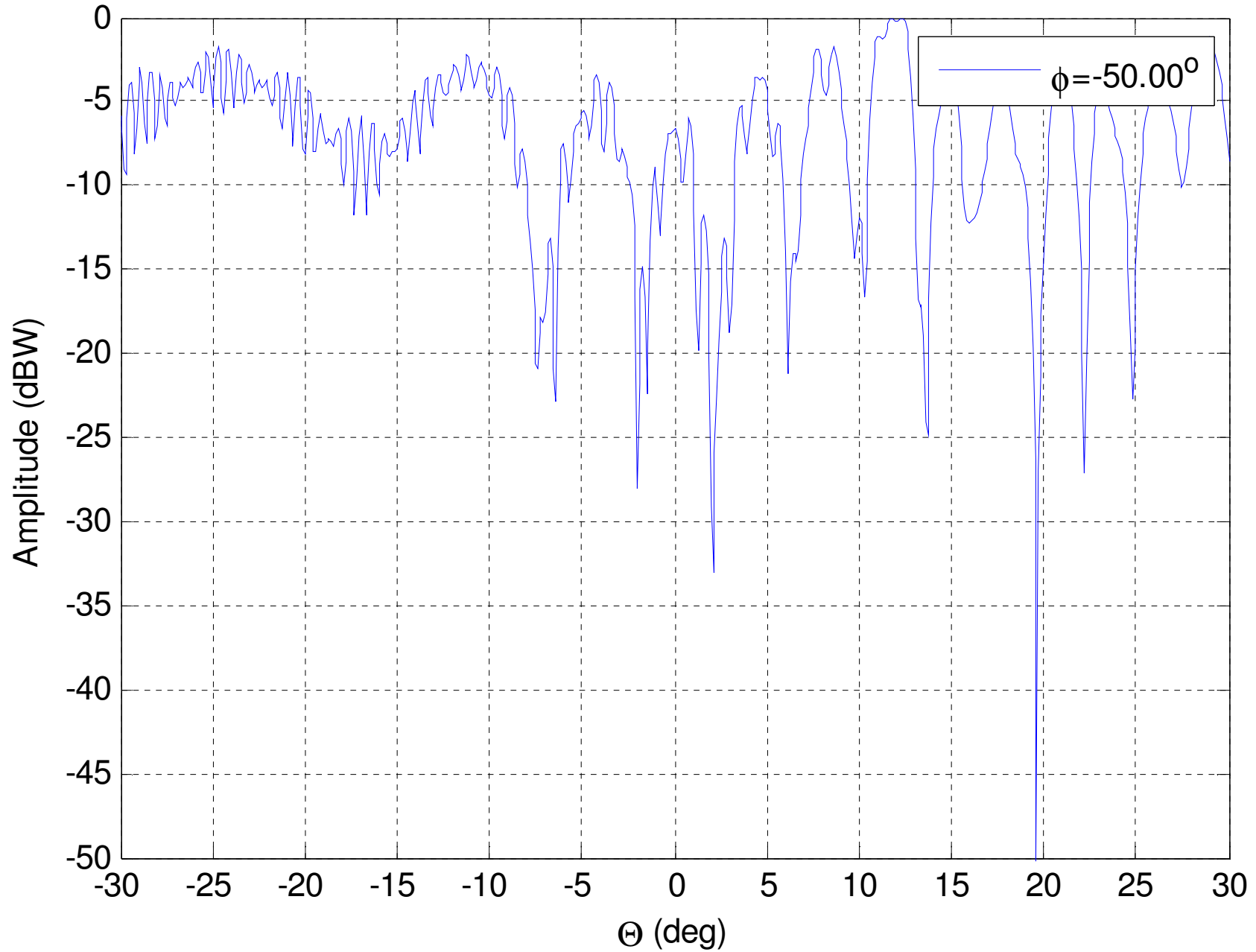
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -5.38 dBW, Date: 16-Dec-2011



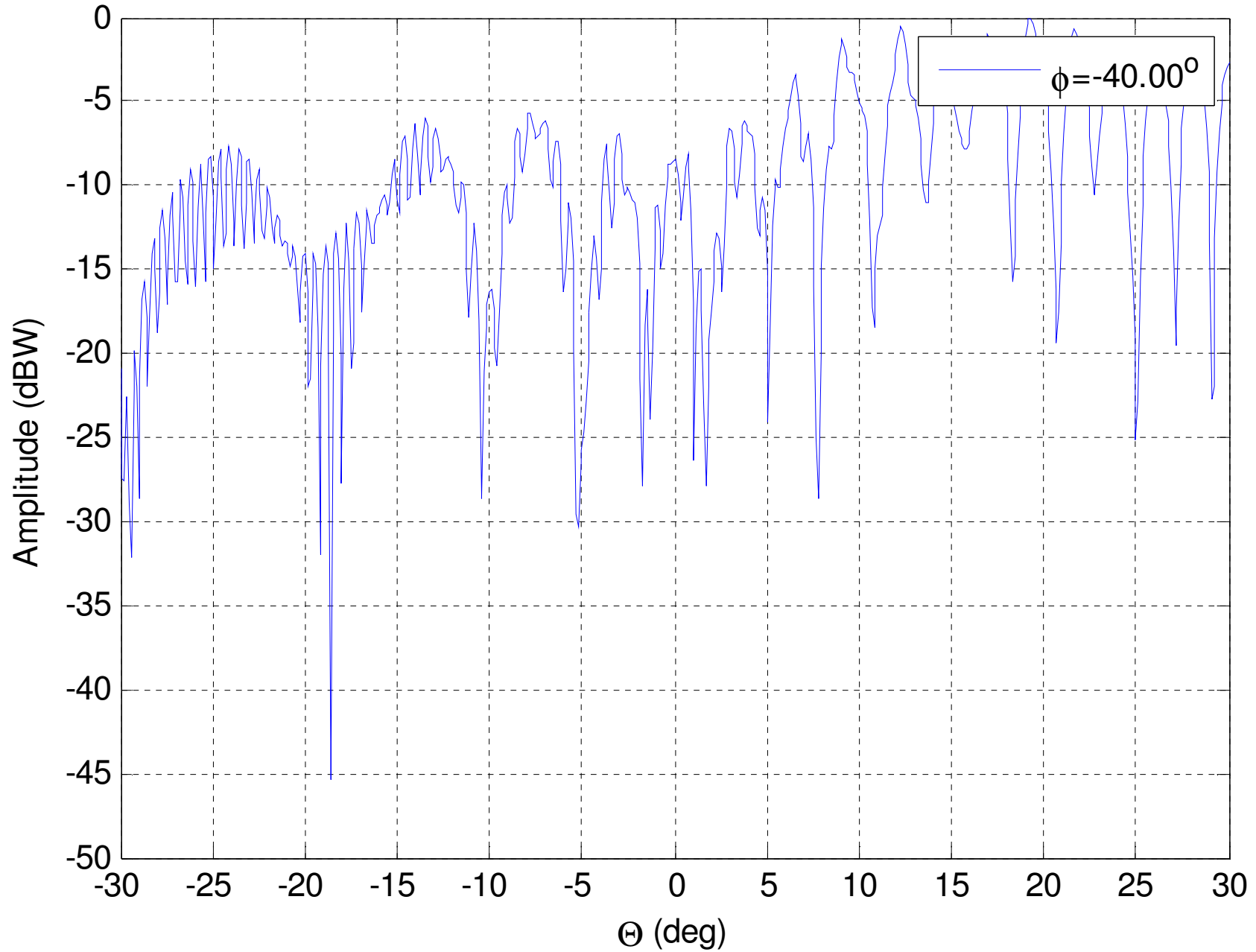
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -5.32 dBW, Date: 16-Dec-2011



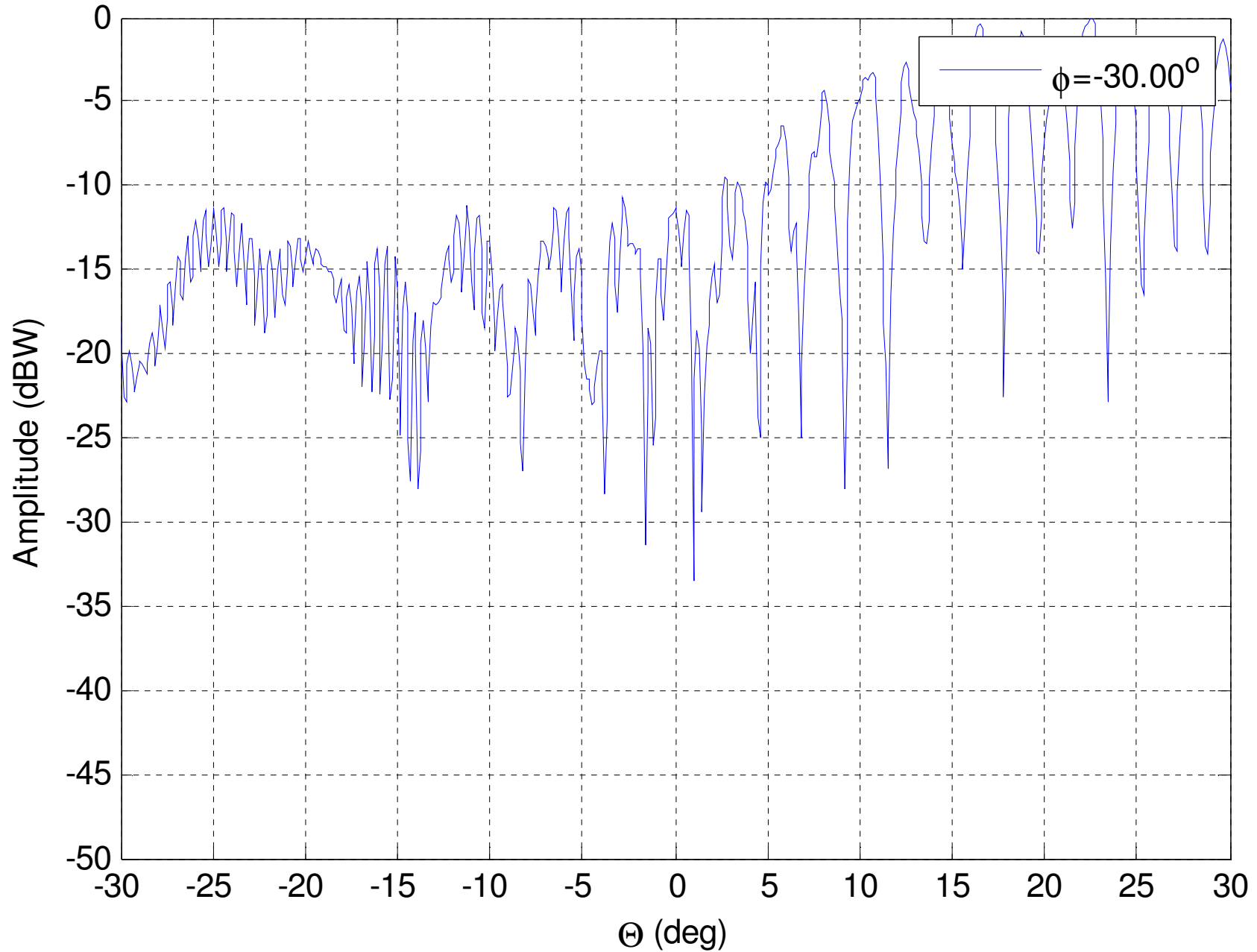
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -3.49 dBW, Date: 16-Dec-2011



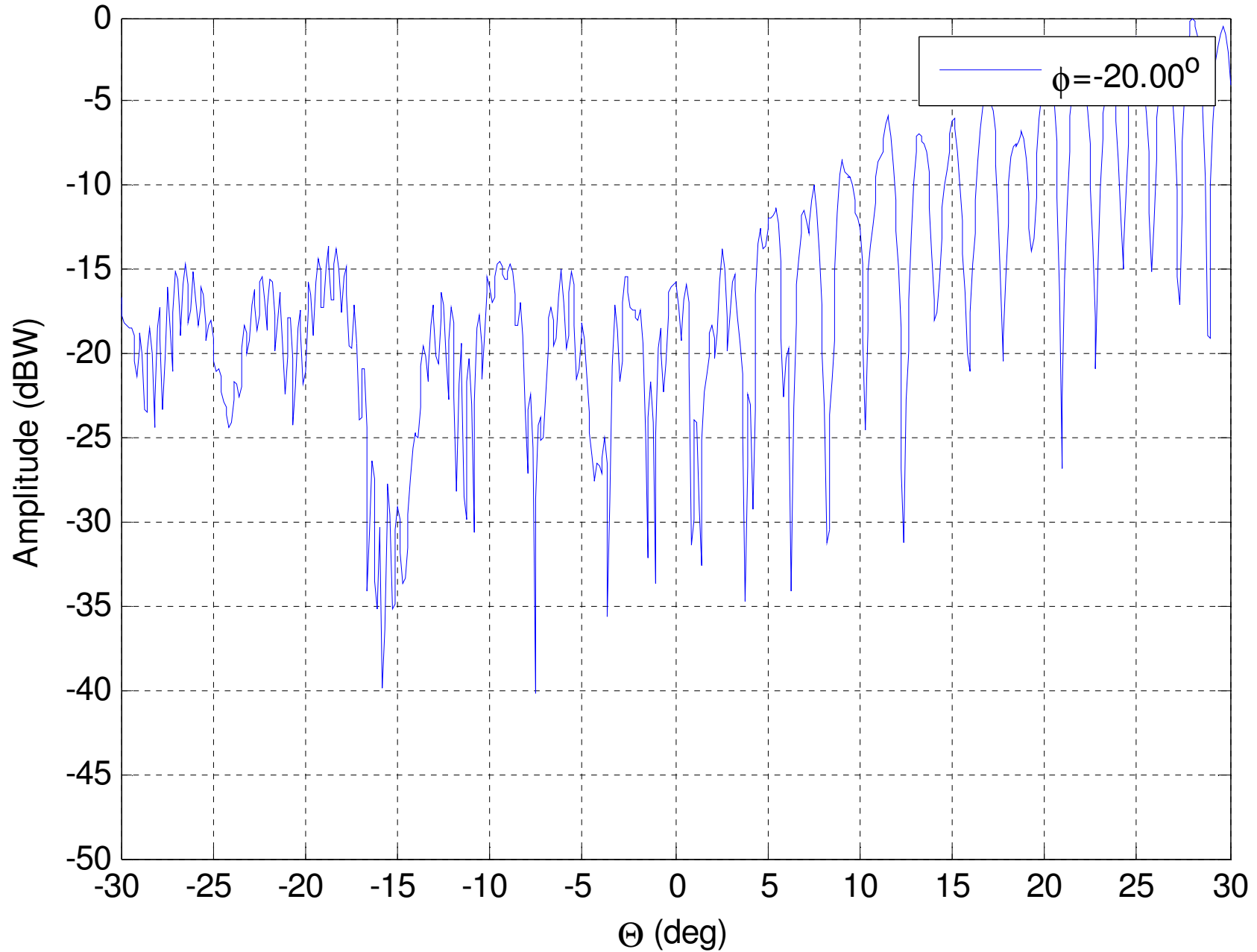
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: -0.50 dBW, Date: 16-Dec-2011



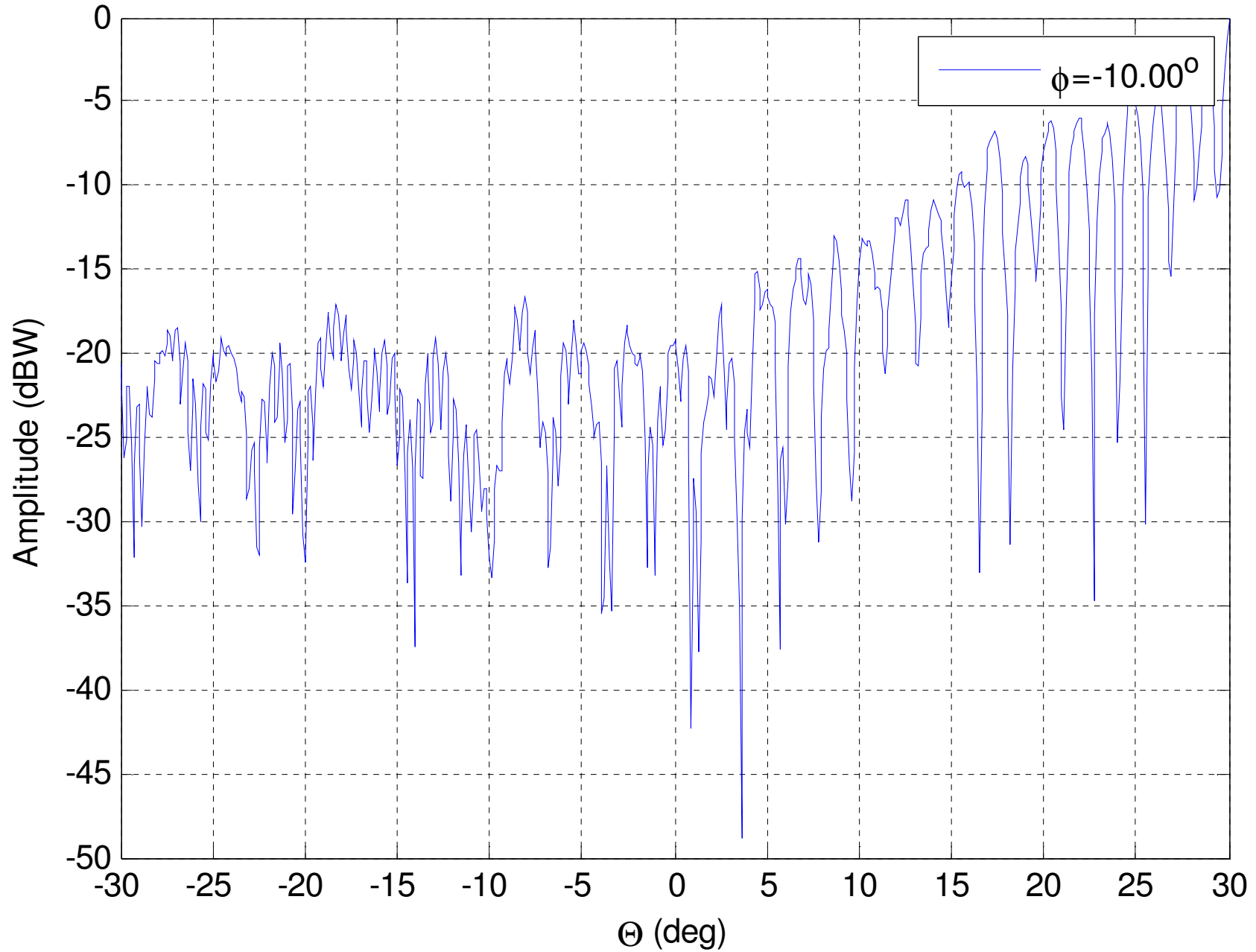
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: 3.83 dBW, Date: 16-Dec-2011



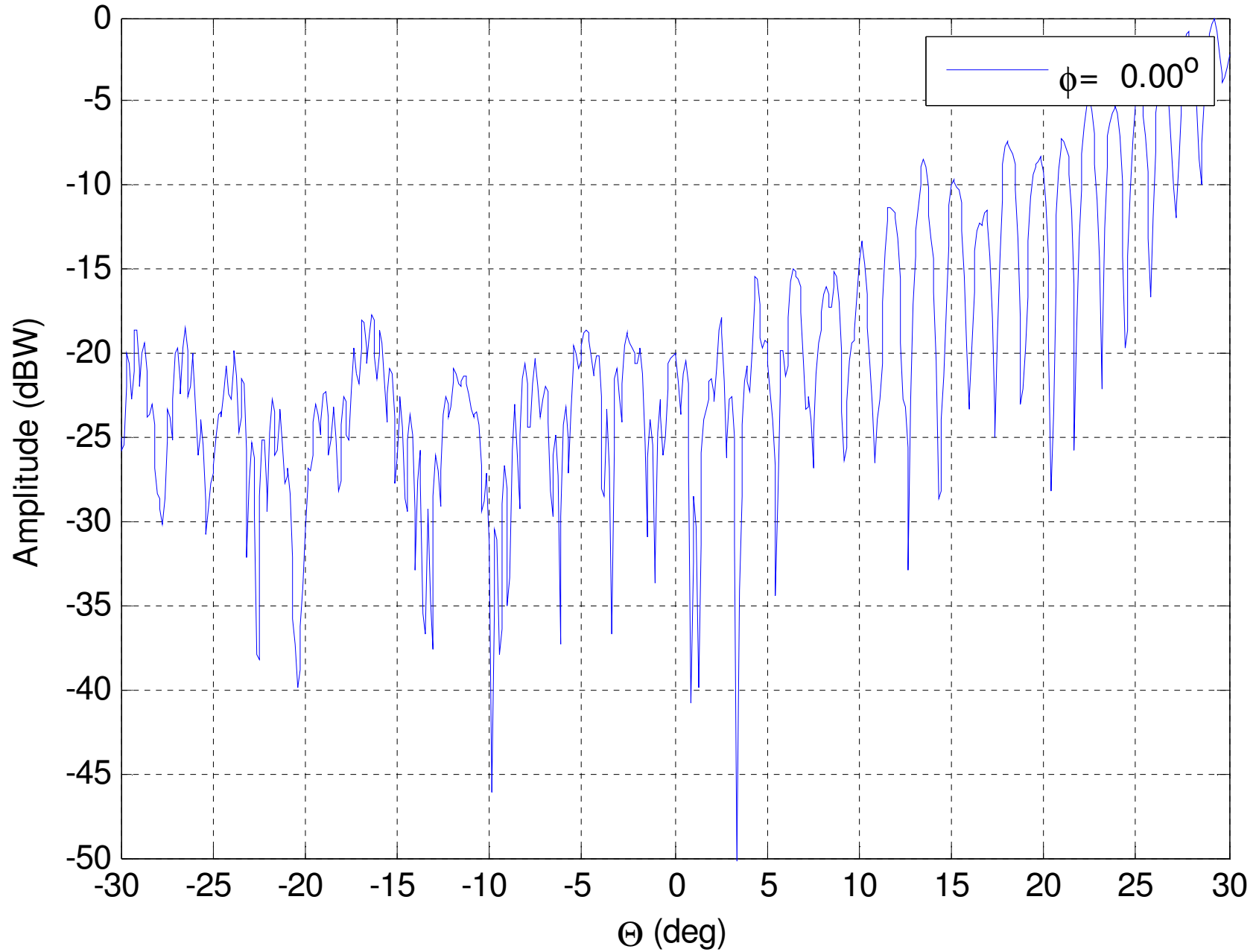
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: 7.33 dBW, Date: 16-Dec-2011



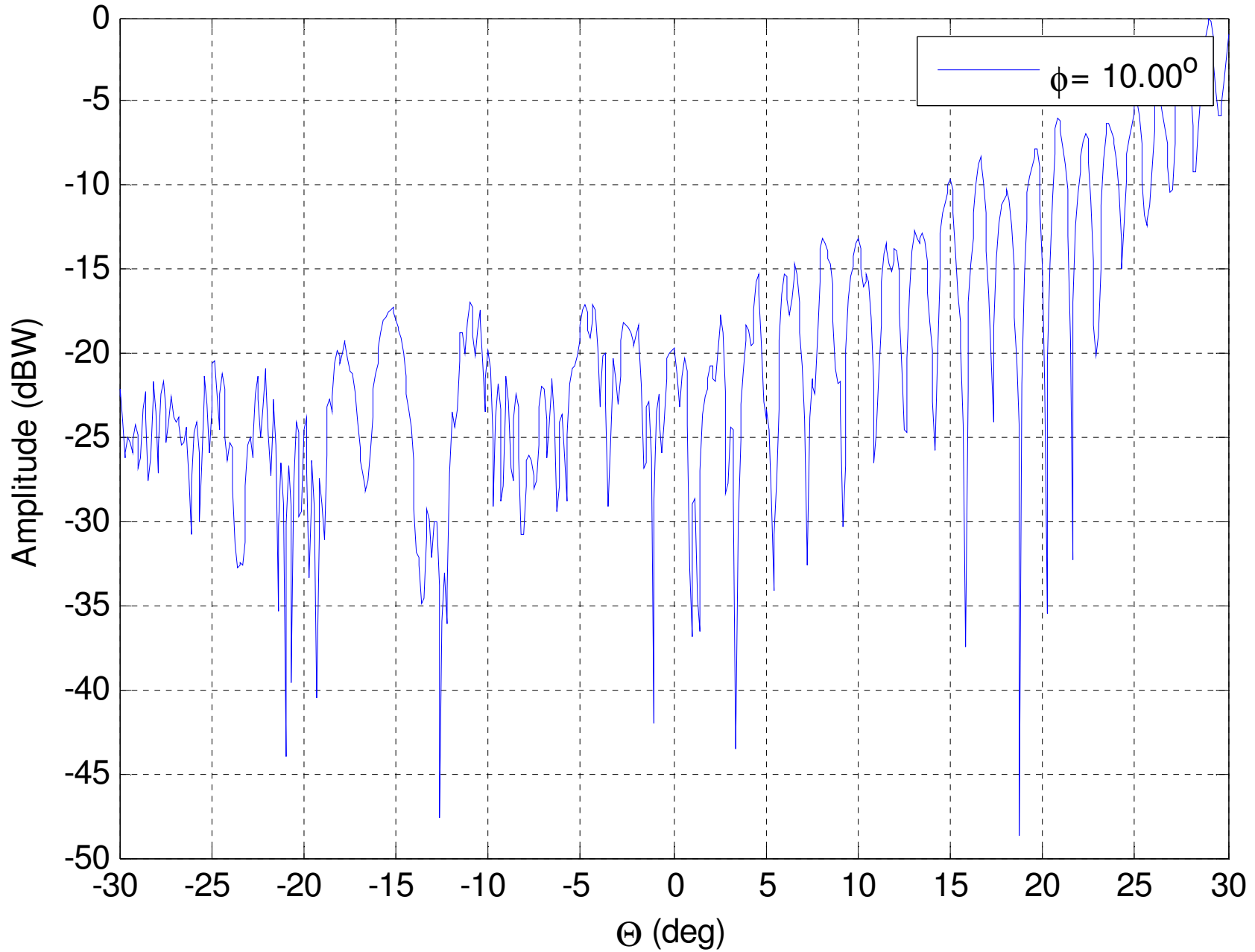
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: 8.05 dBW, Date: 16-Dec-2011



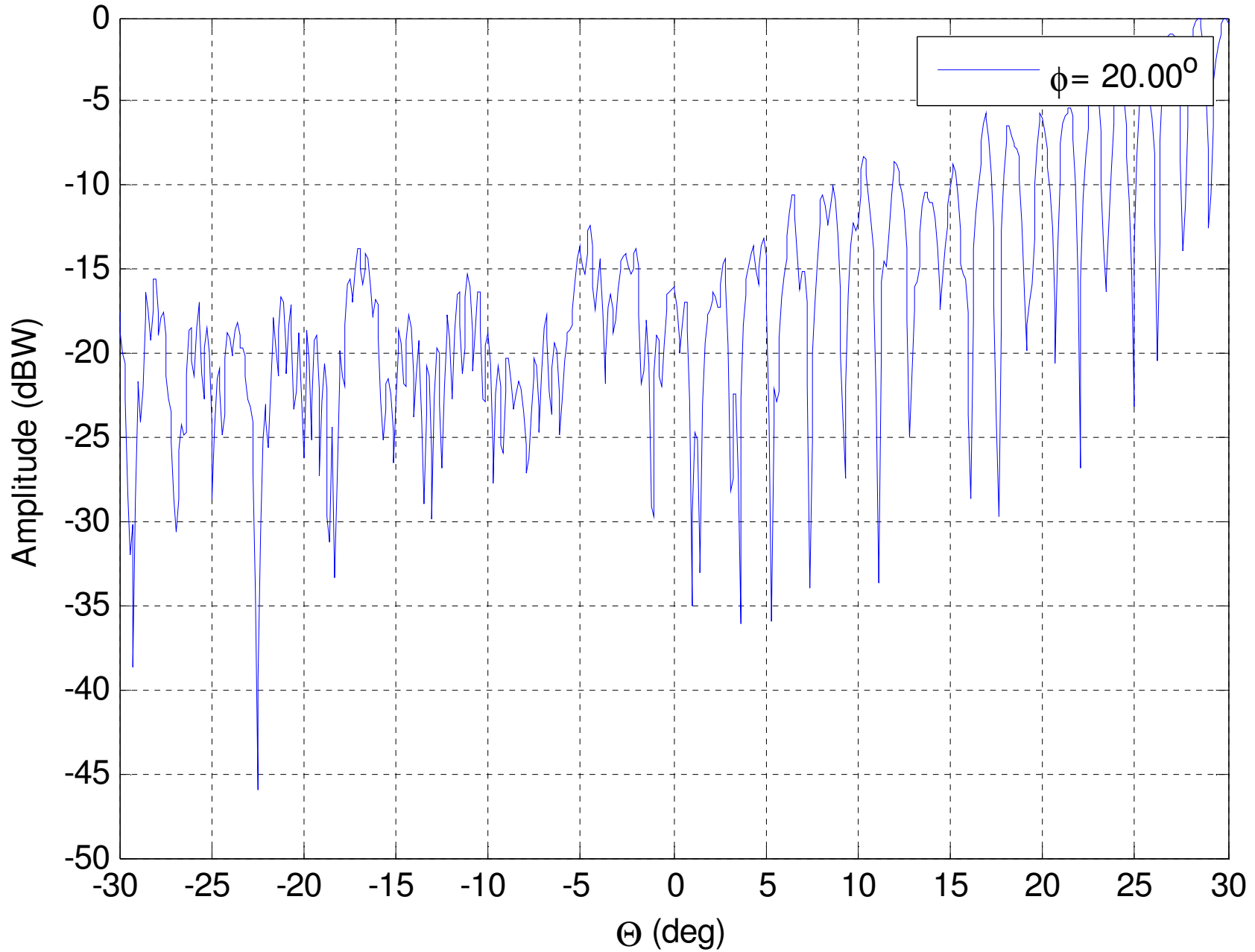
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: 7.75 dBW, Date: 16-Dec-2011



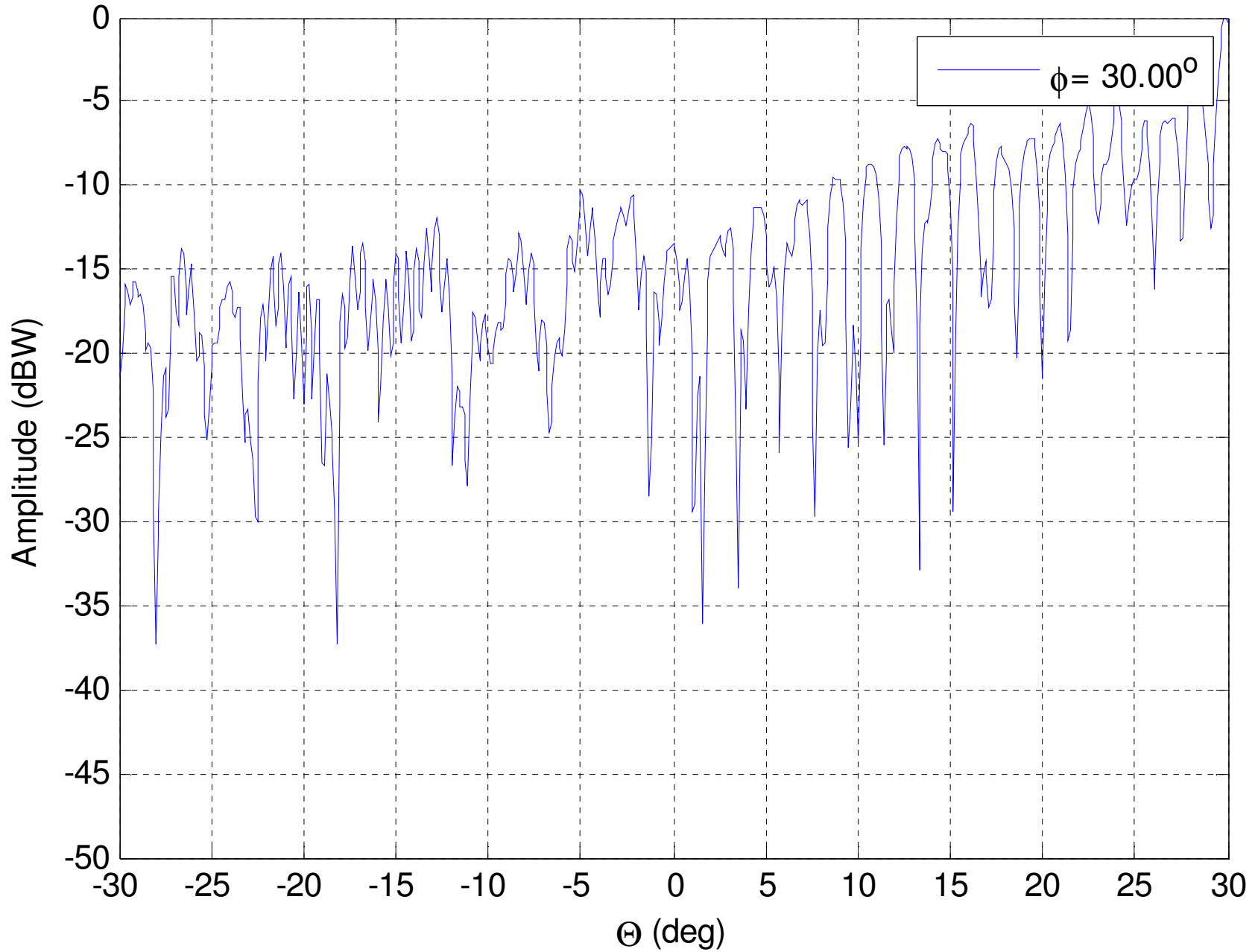
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: 4.12 dBW, Date: 16-Dec-2011



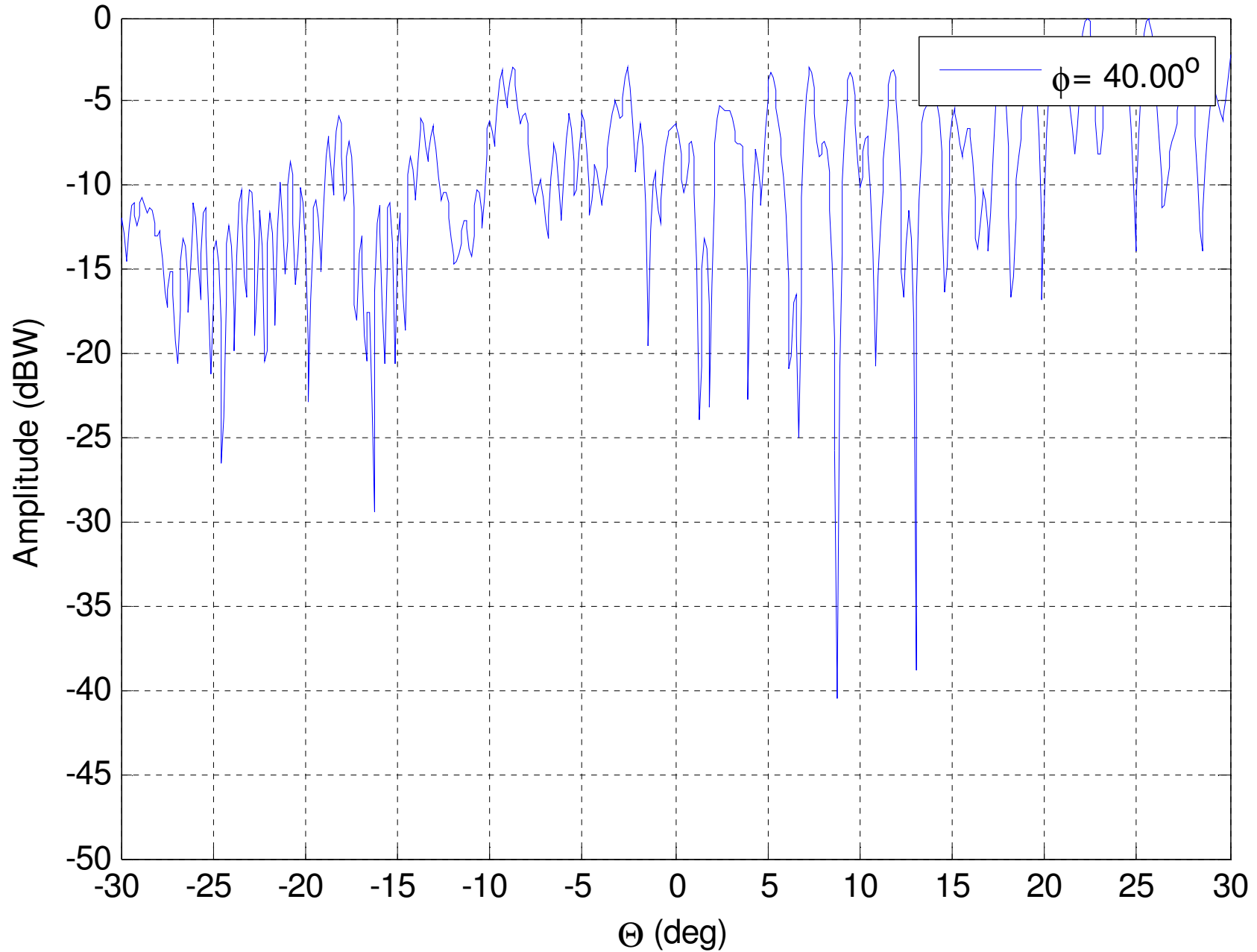
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: 1.57 dBW, Date: 16-Dec-2011



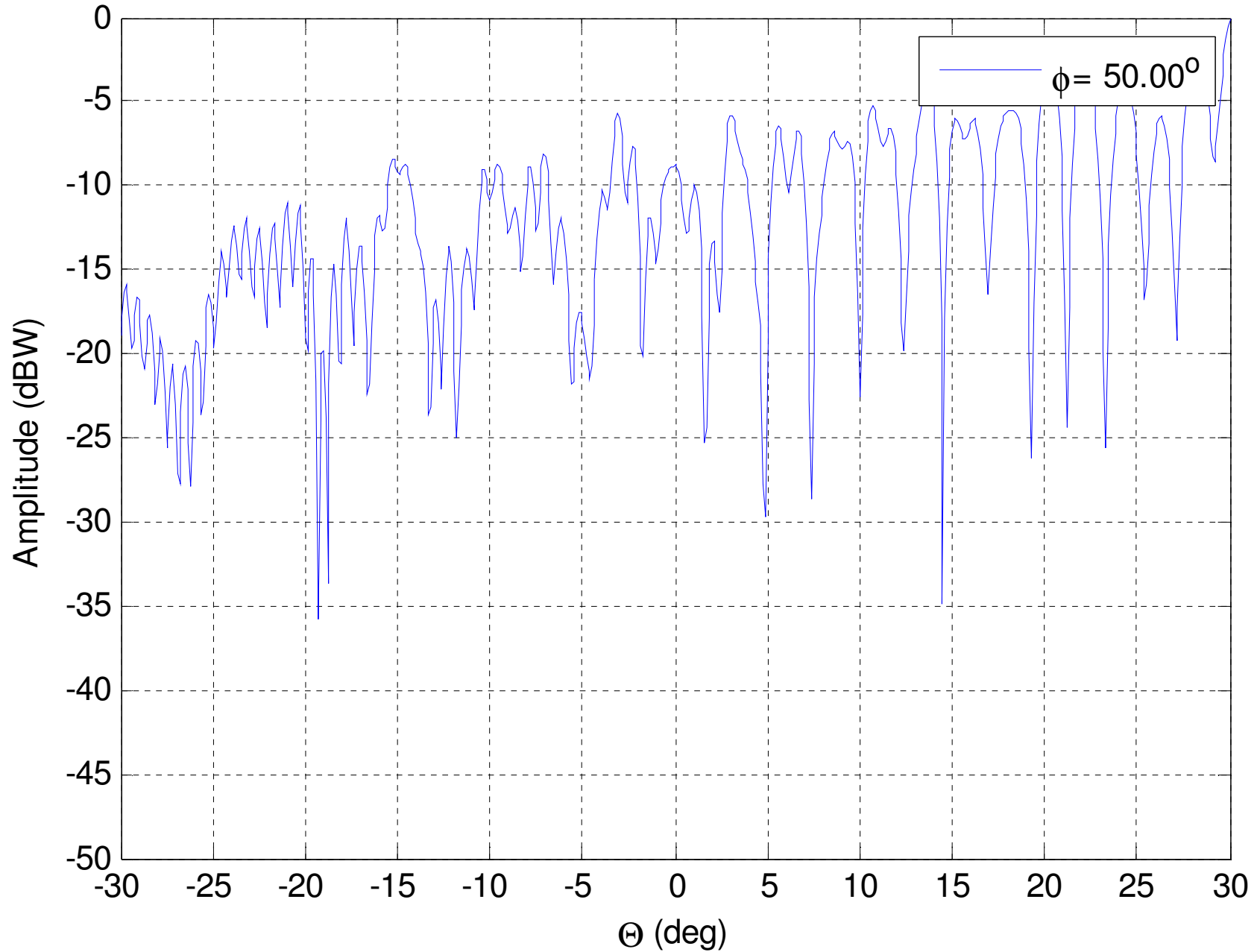
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -5.53 dBW, Date: 16-Dec-2011



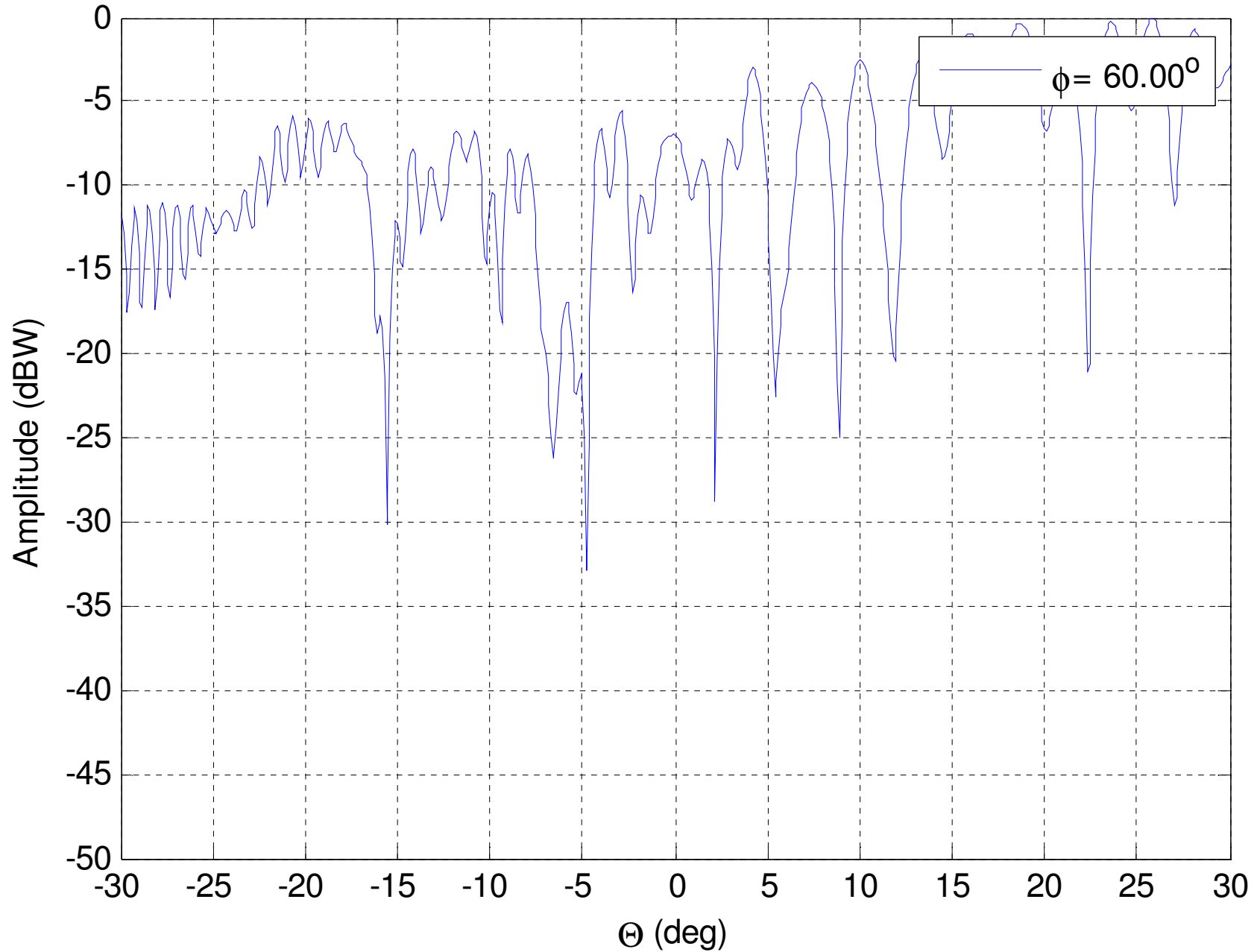
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -3.09 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

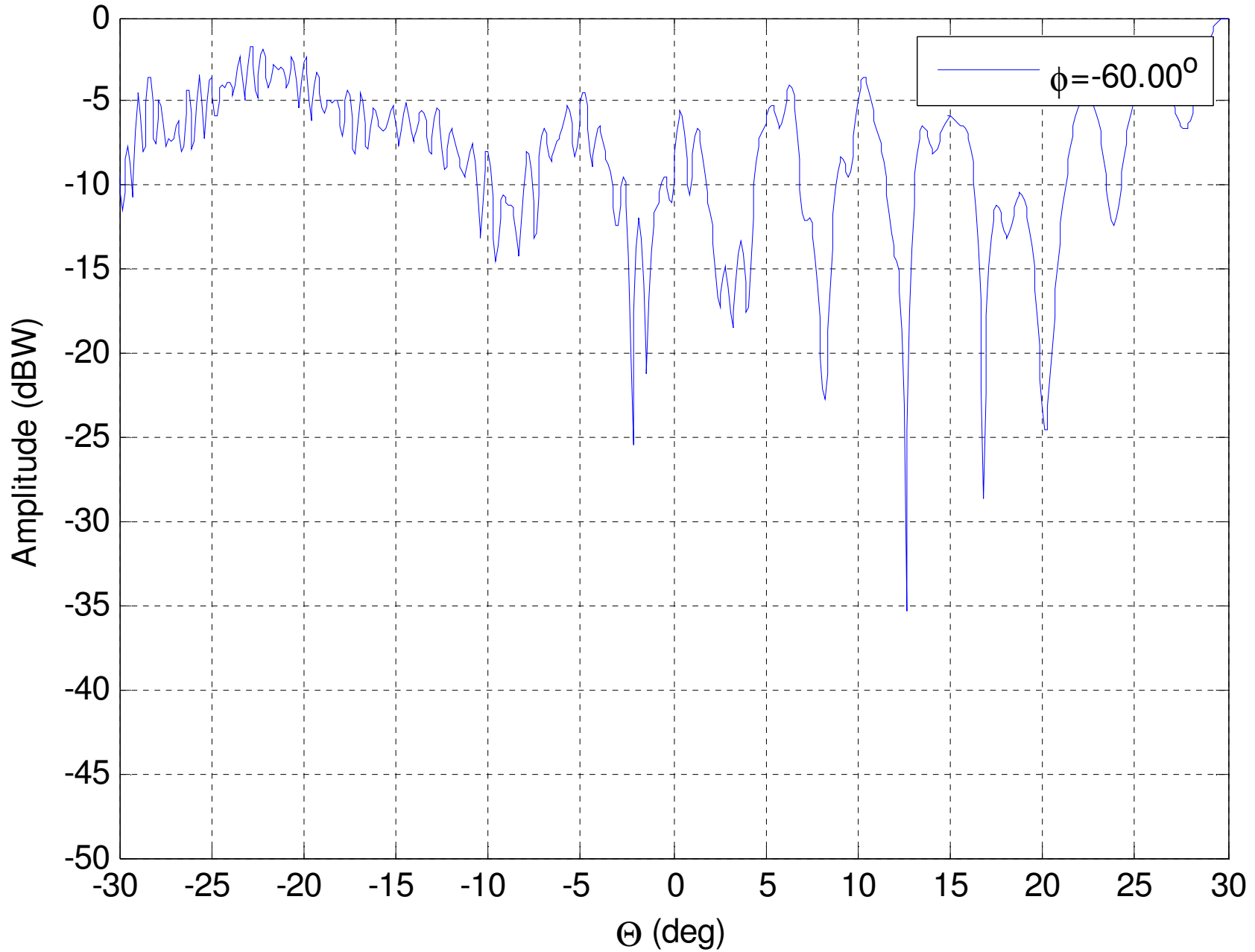
Input file: tx-17.5-lhcp-60.cut, Peak: -4.93 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

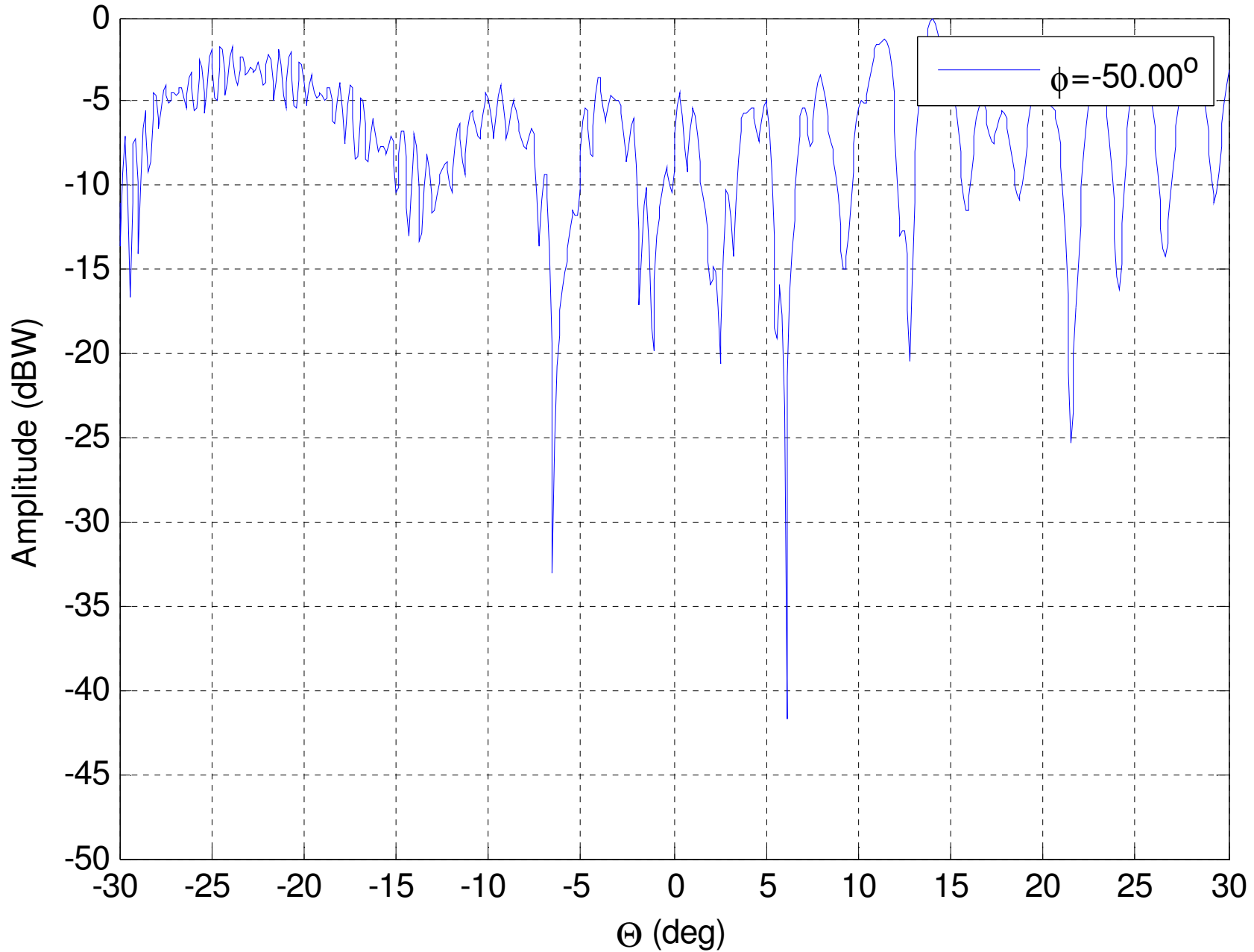
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -4.20 dBW, Date: 16-Dec-2011



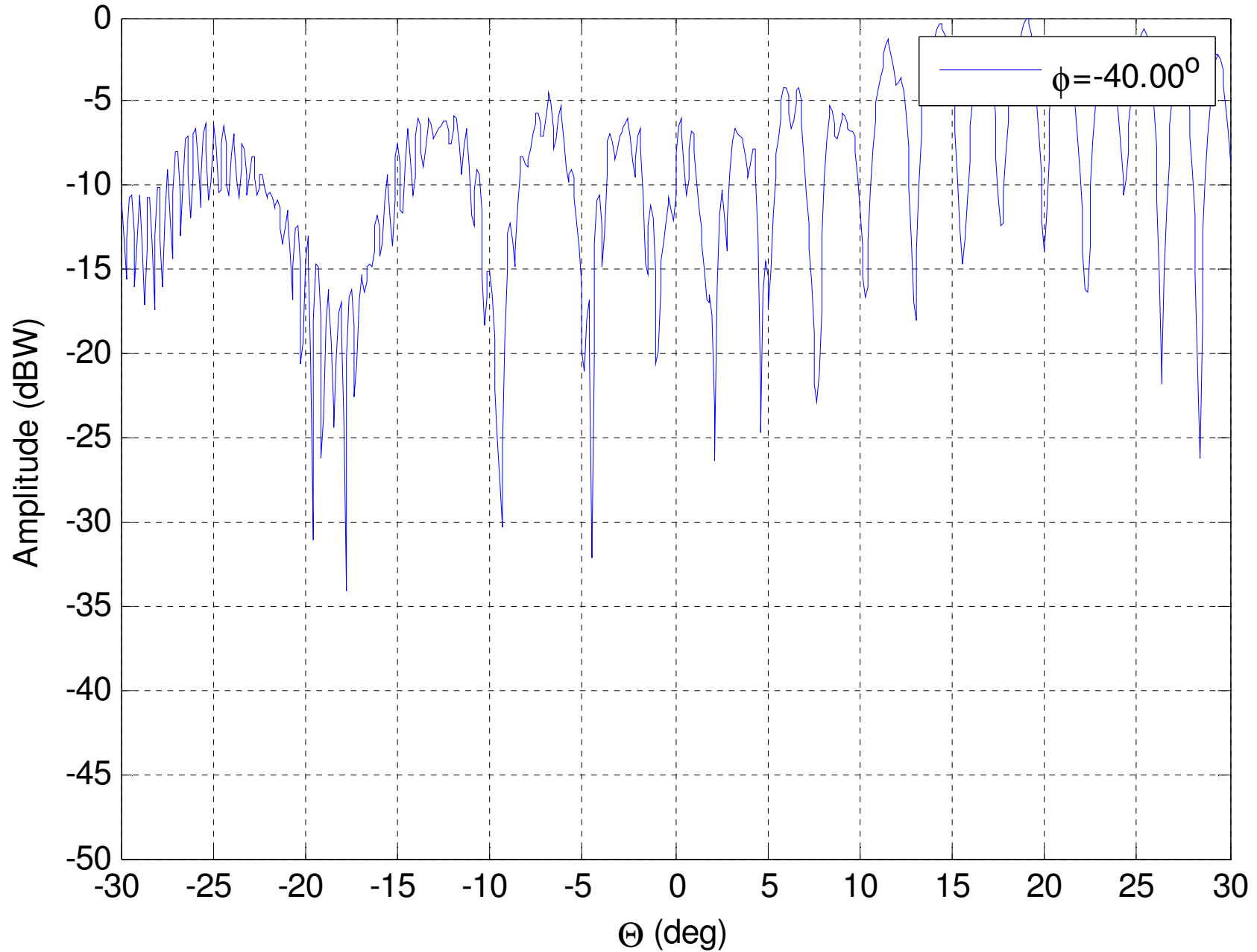
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -5.04 dBW, Date: 16-Dec-2011



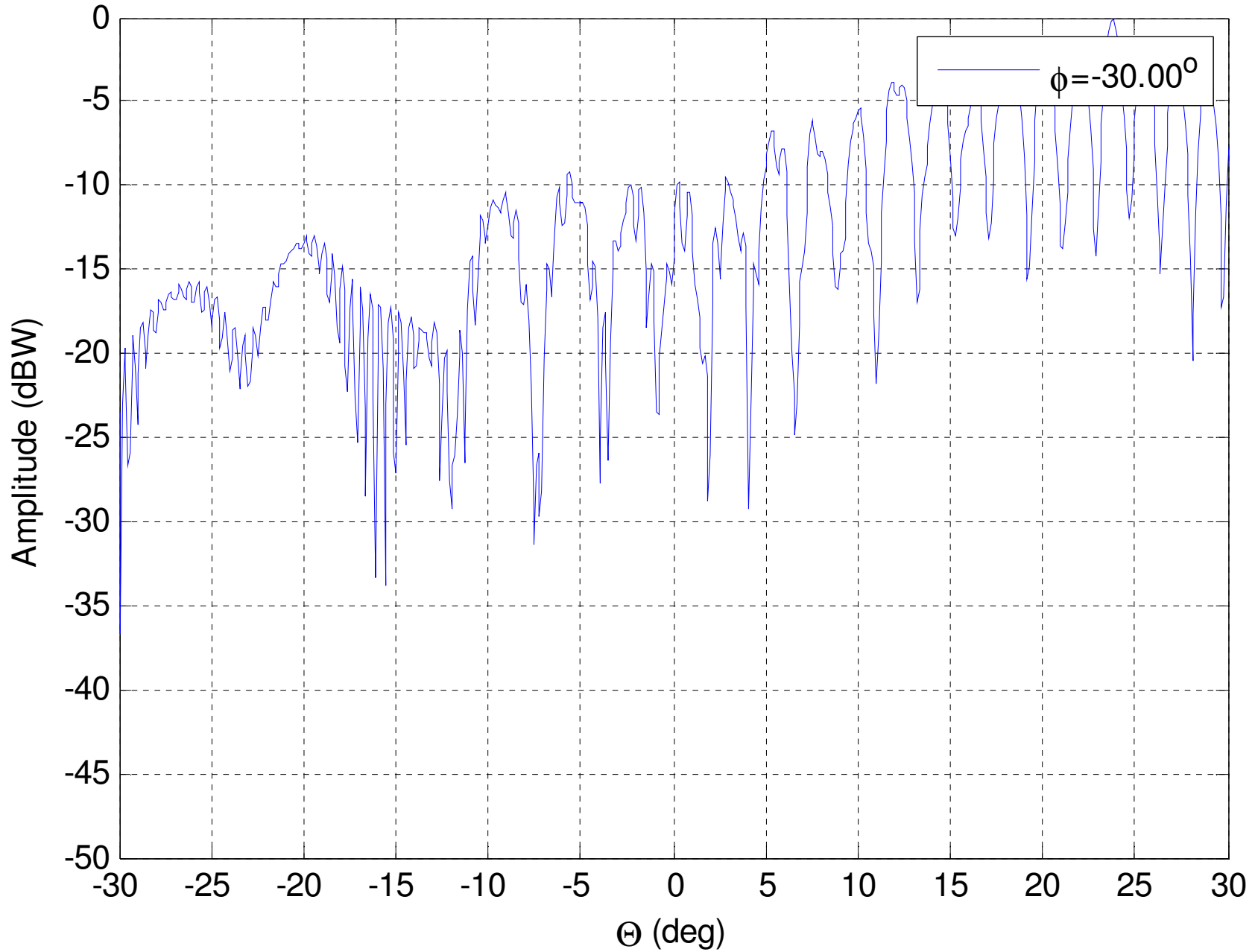
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -3.46 dBW, Date: 16-Dec-2011



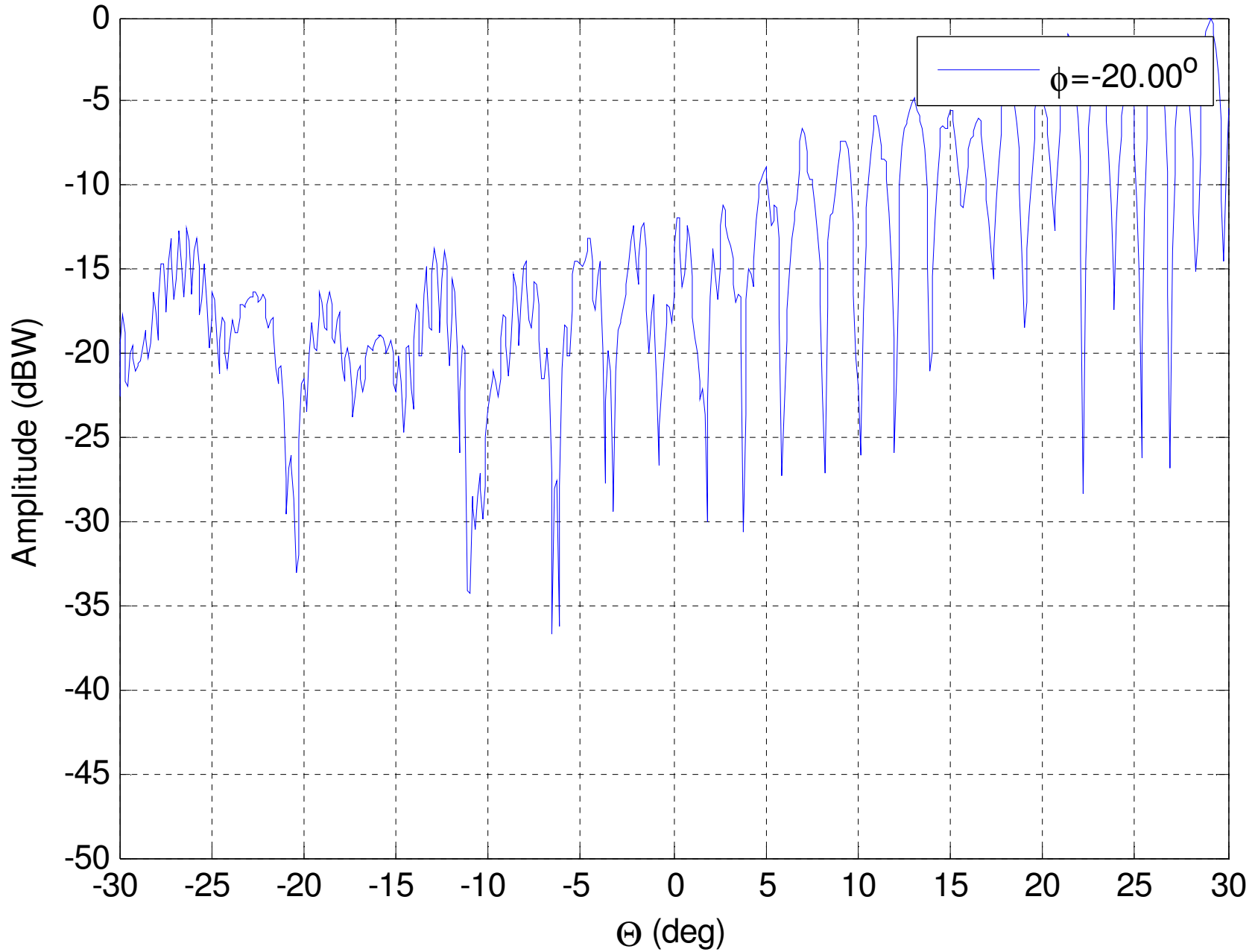
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: 0.30 dBW, Date: 16-Dec-2011



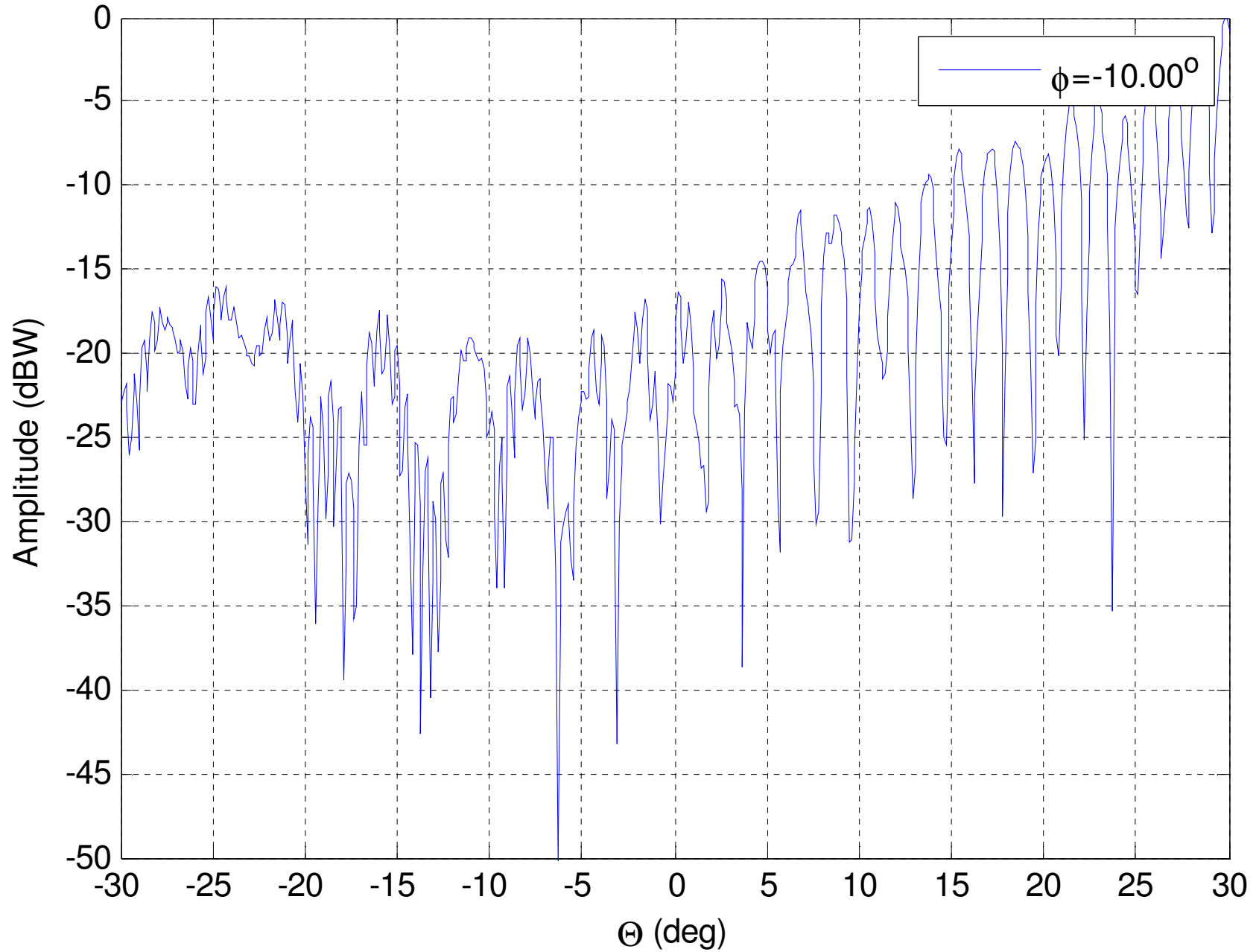
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: 2.46 dBW, Date: 16-Dec-2011



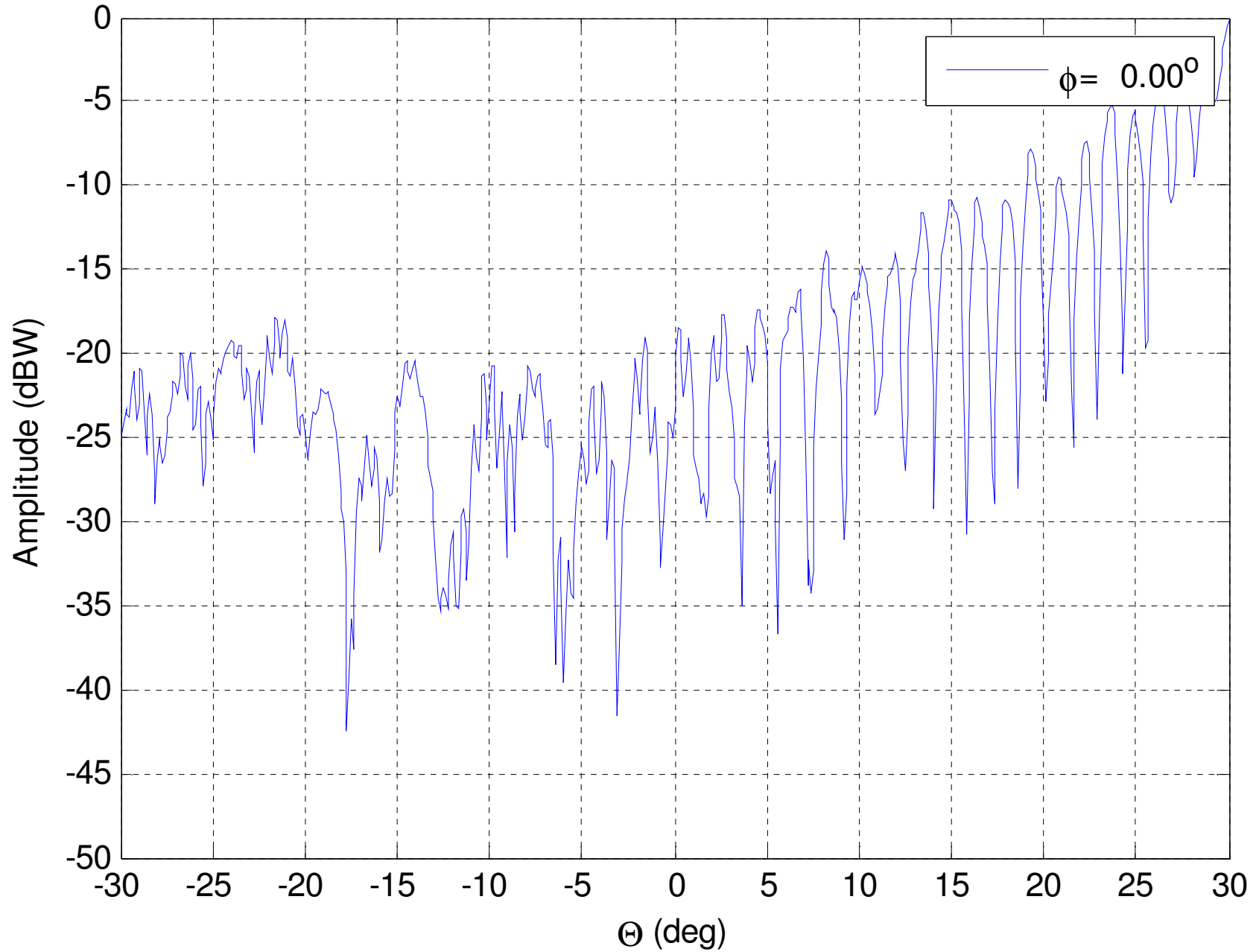
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: 7.02 dBW, Date: 16-Dec-2011



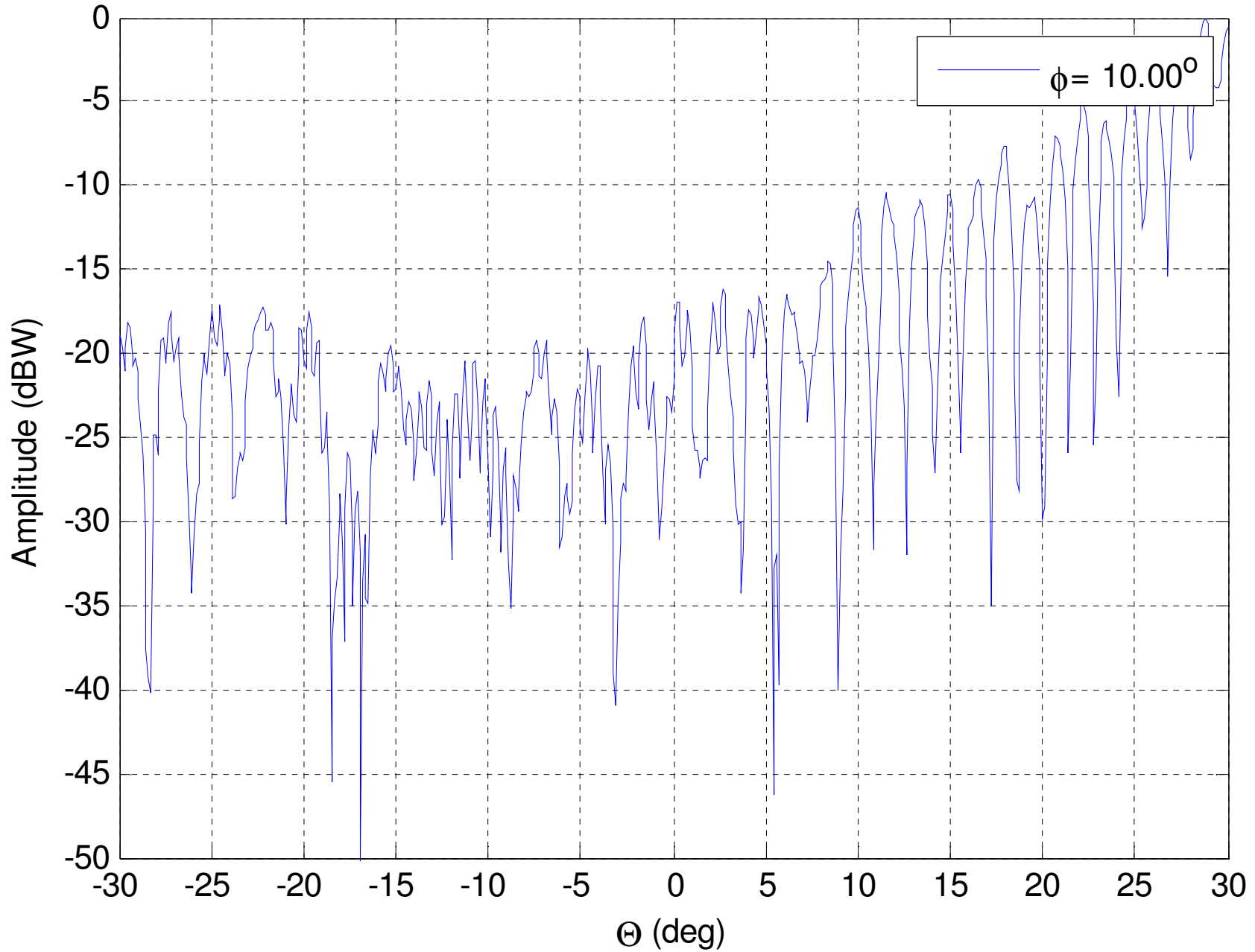
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: 9.14 dBW, Date: 16-Dec-2011



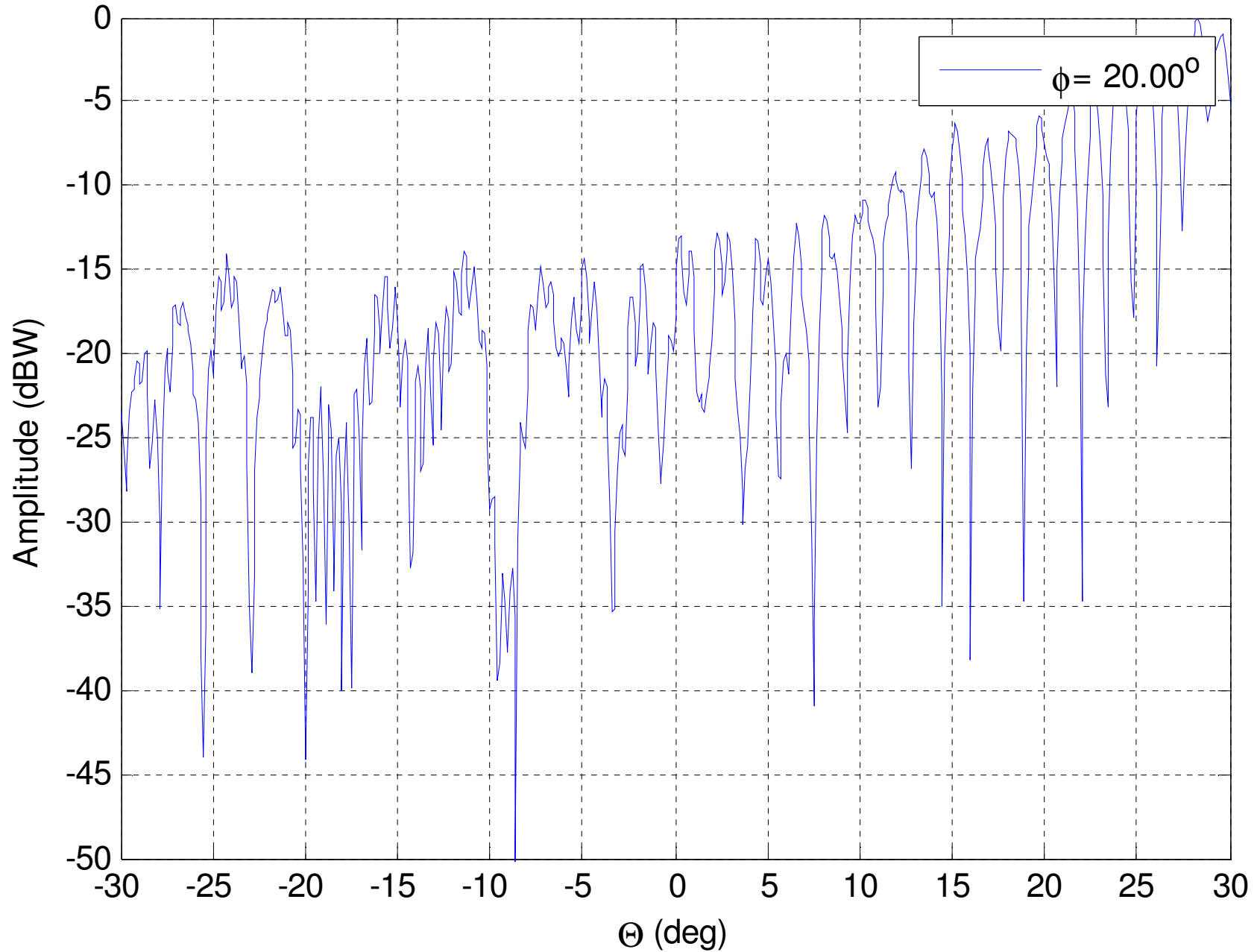
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: 7.54 dBW, Date: 16-Dec-2011



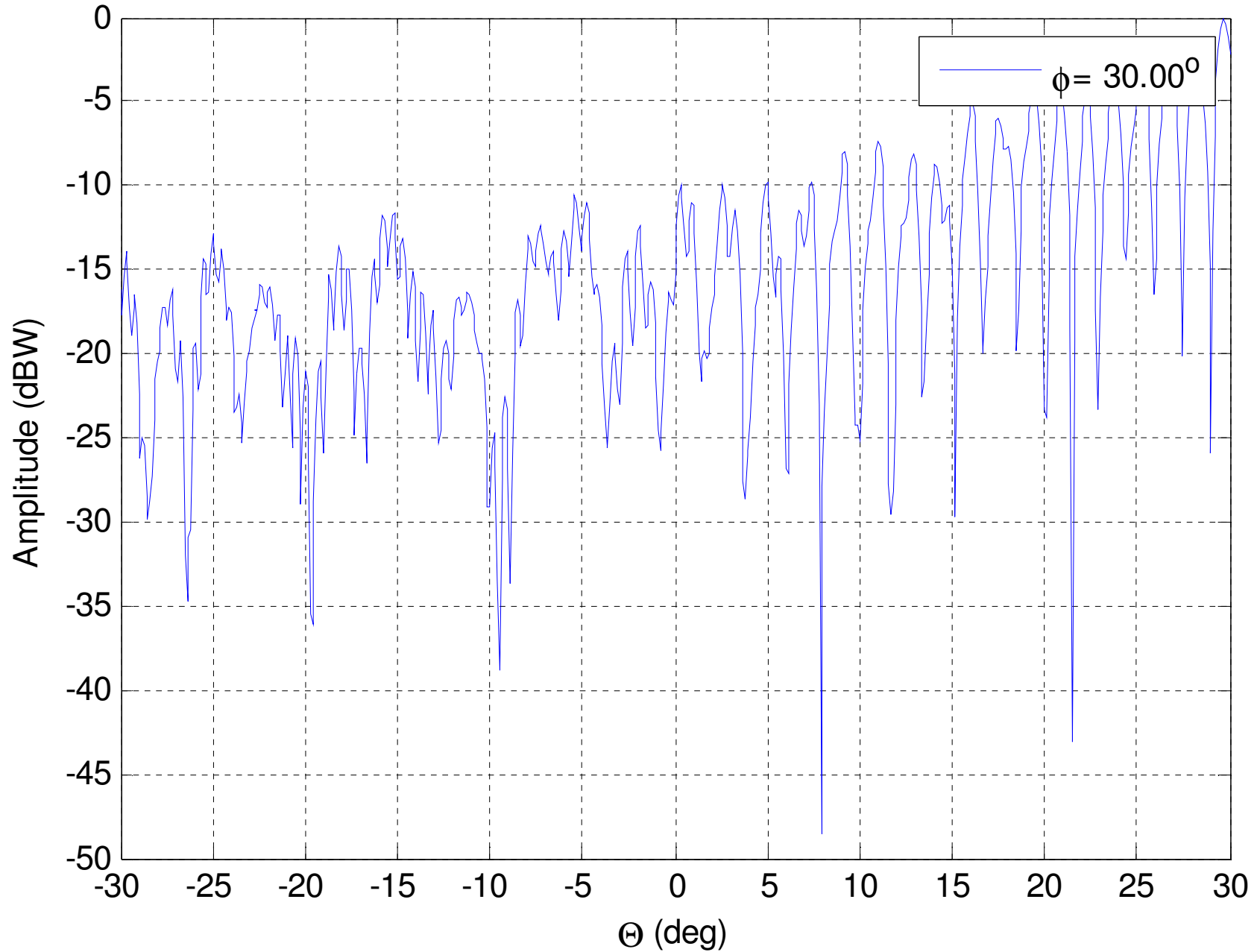
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: 3.80 dBW, Date: 16-Dec-2011



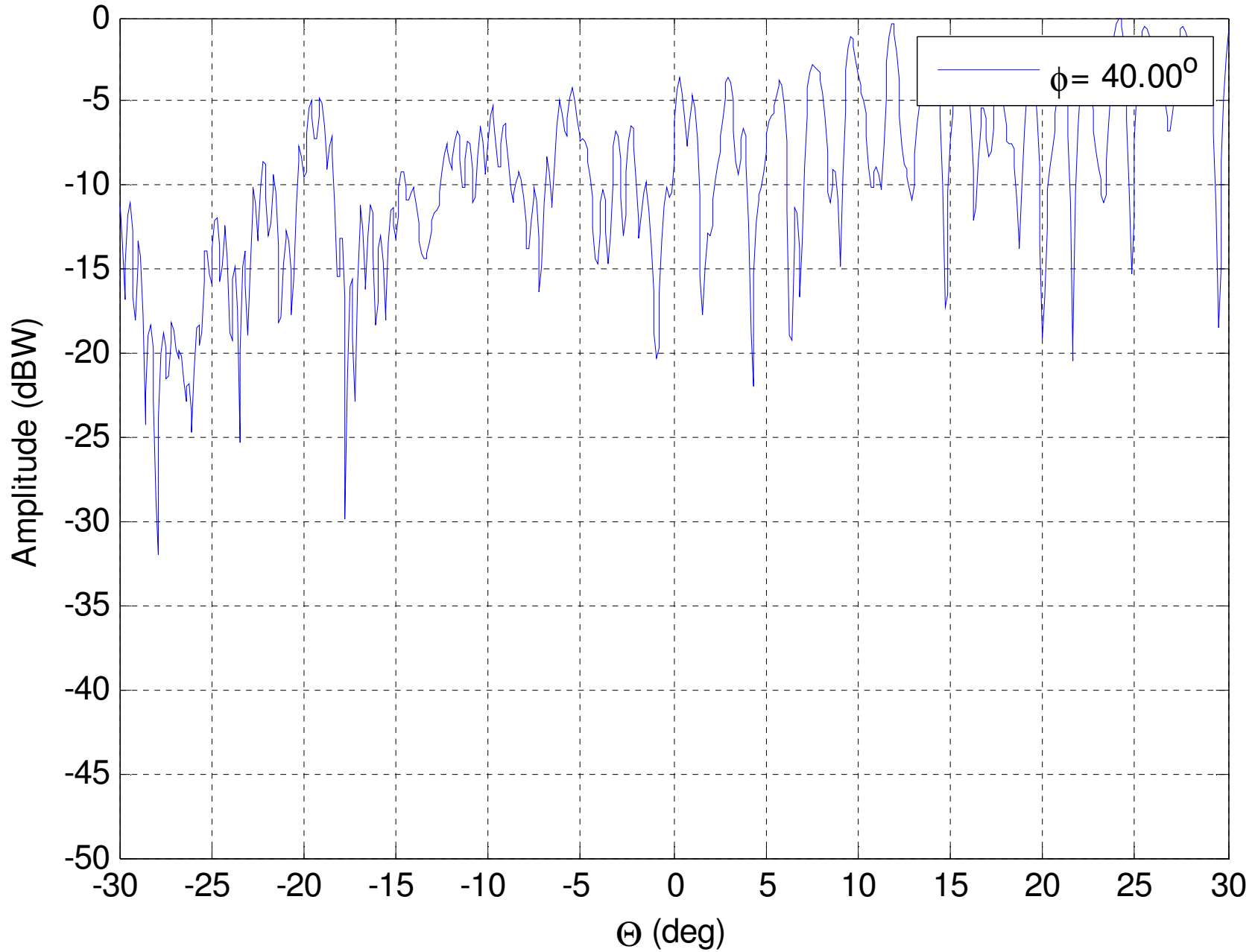
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: 1.01 dBW, Date: 16-Dec-2011



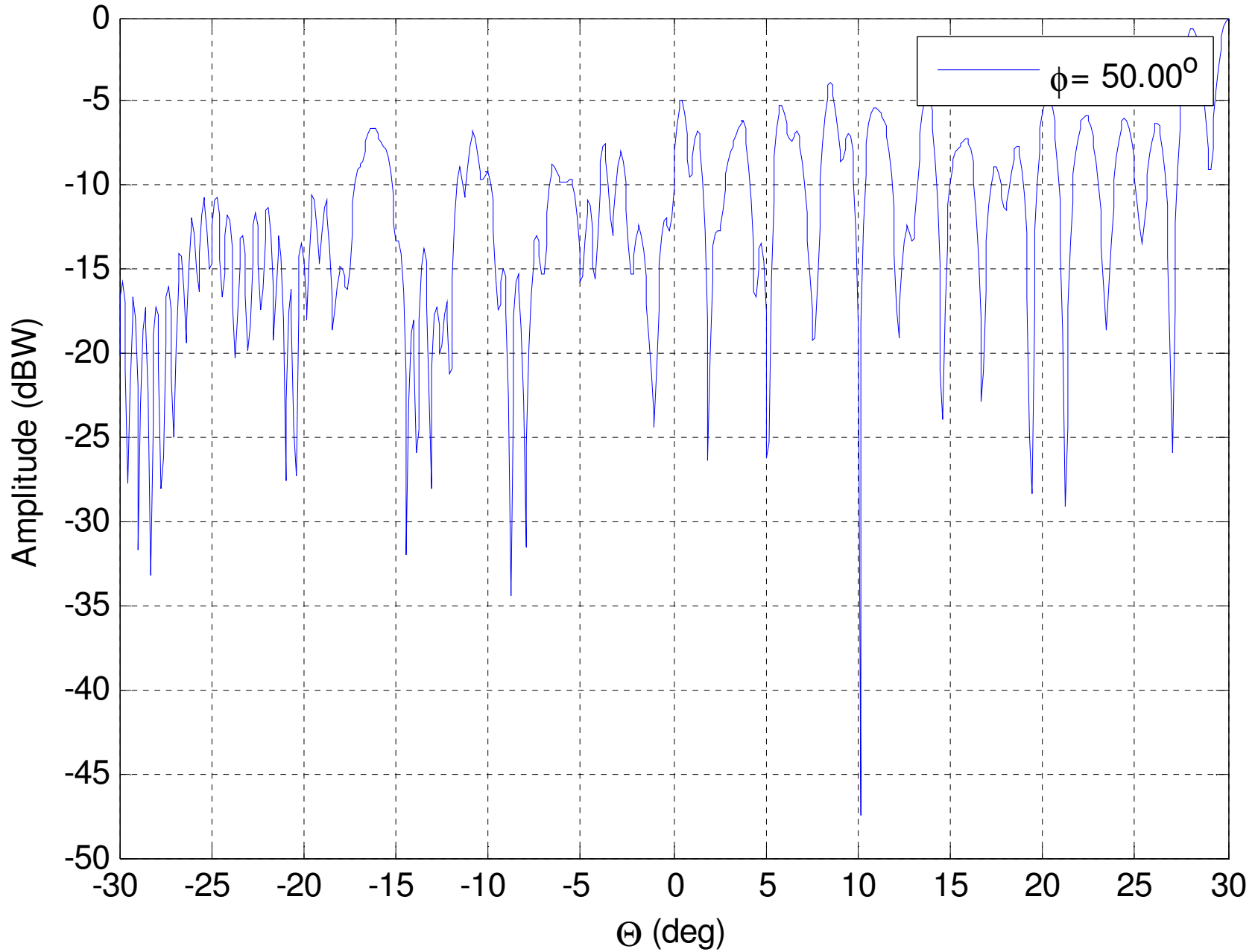
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -5.53 dBW, Date: 16-Dec-2011



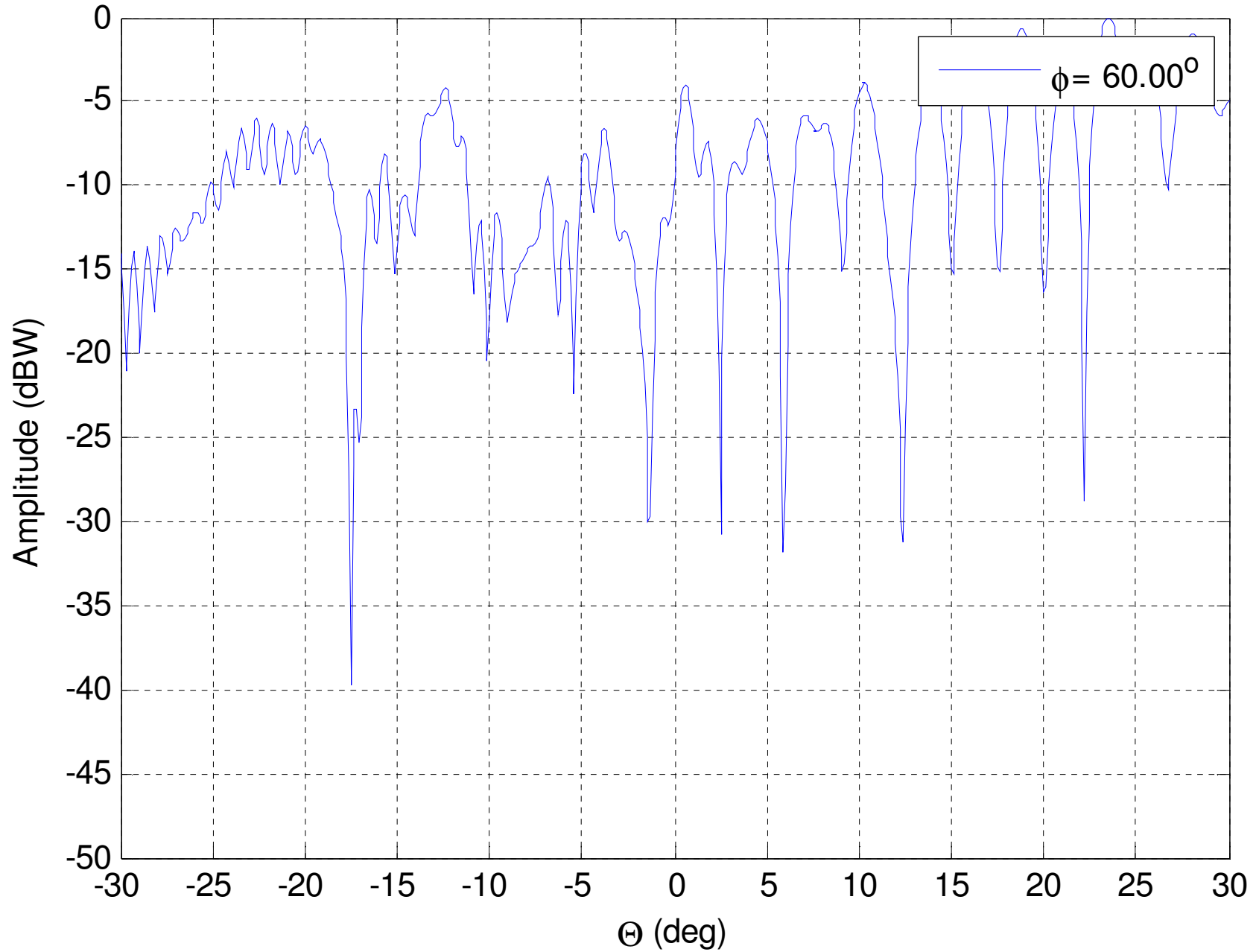
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -3.98 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

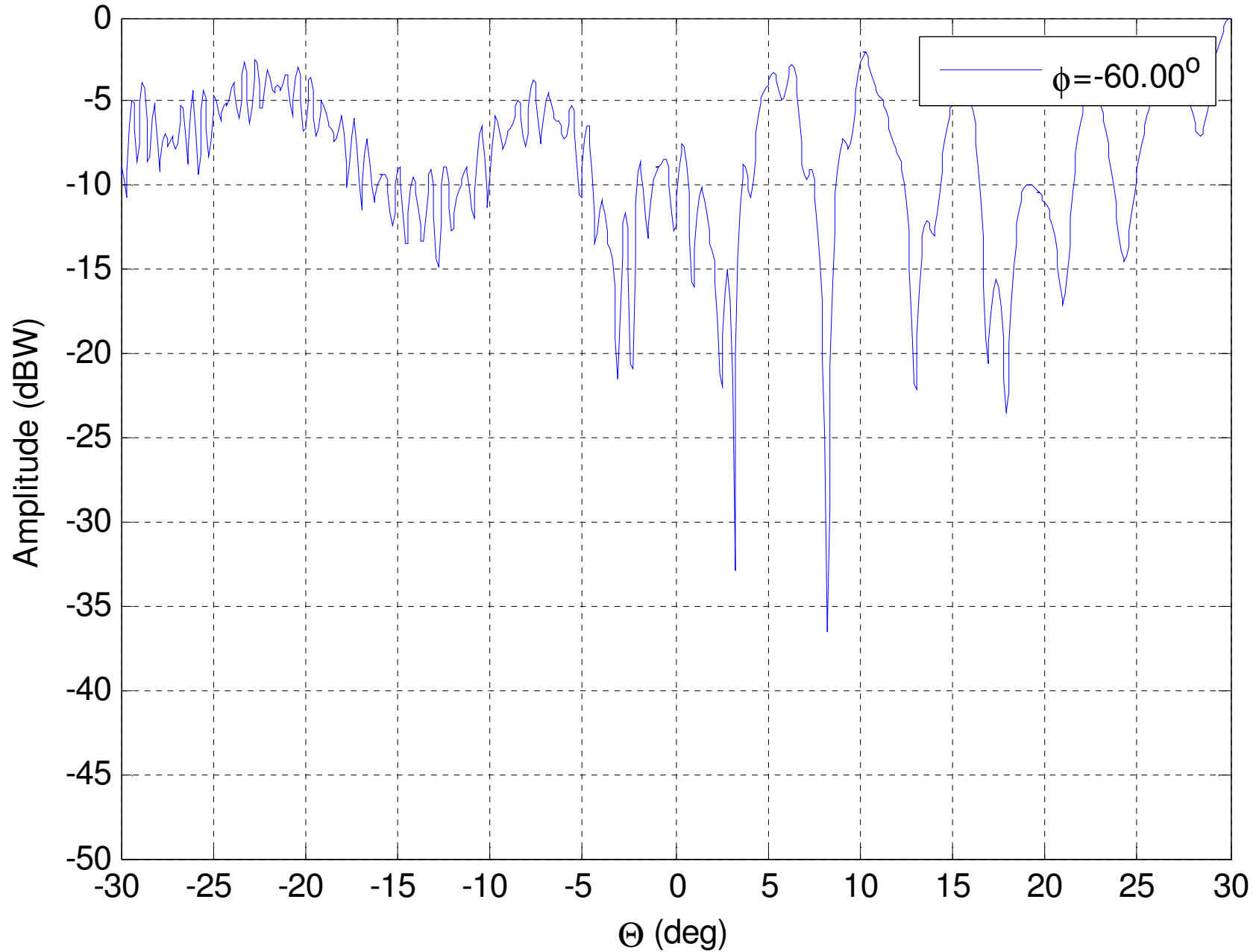
Input file: tx-17.7-rhcp-60.cut, Peak: -4.69 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

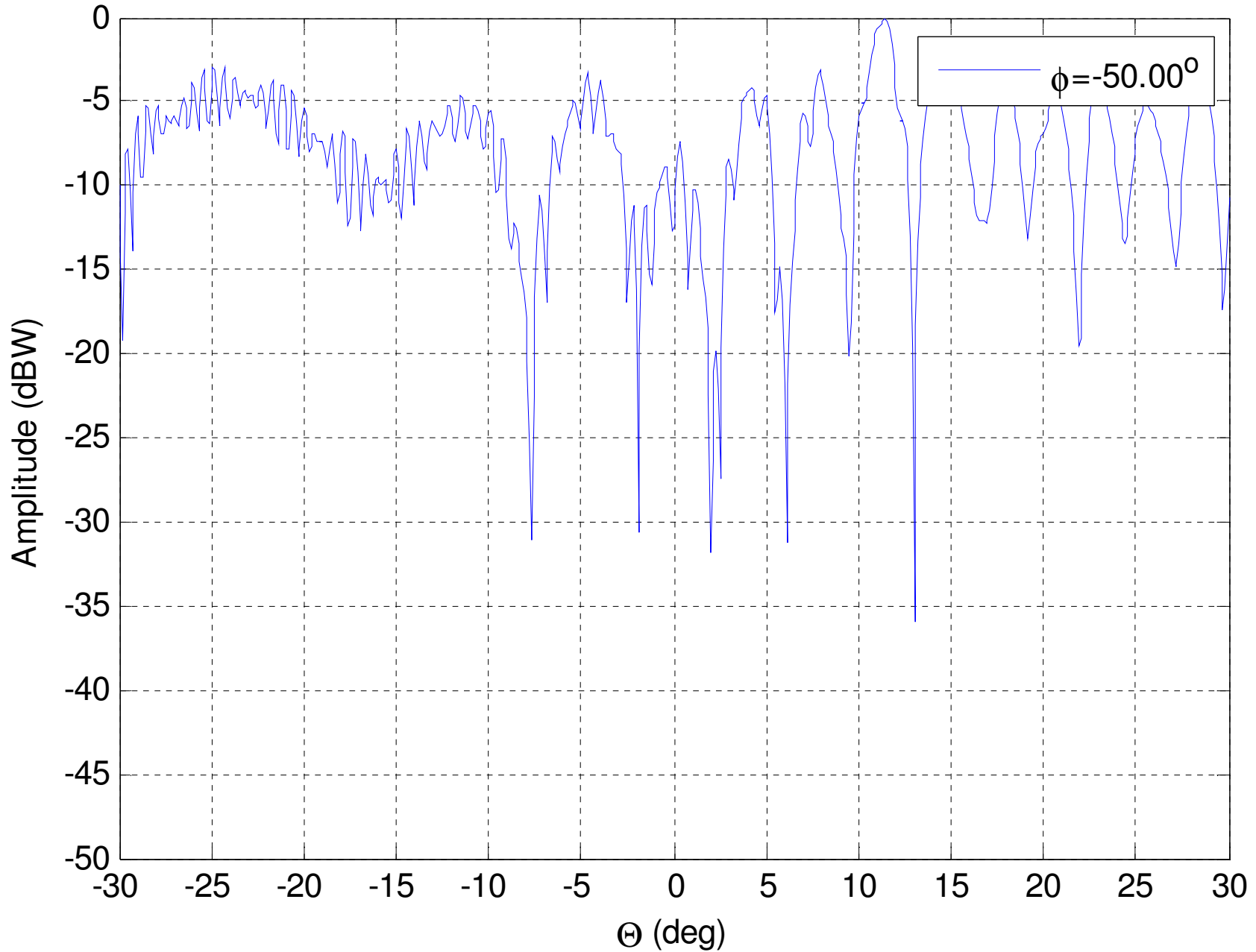
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -4.34 dBW, Date: 16-Dec-2011



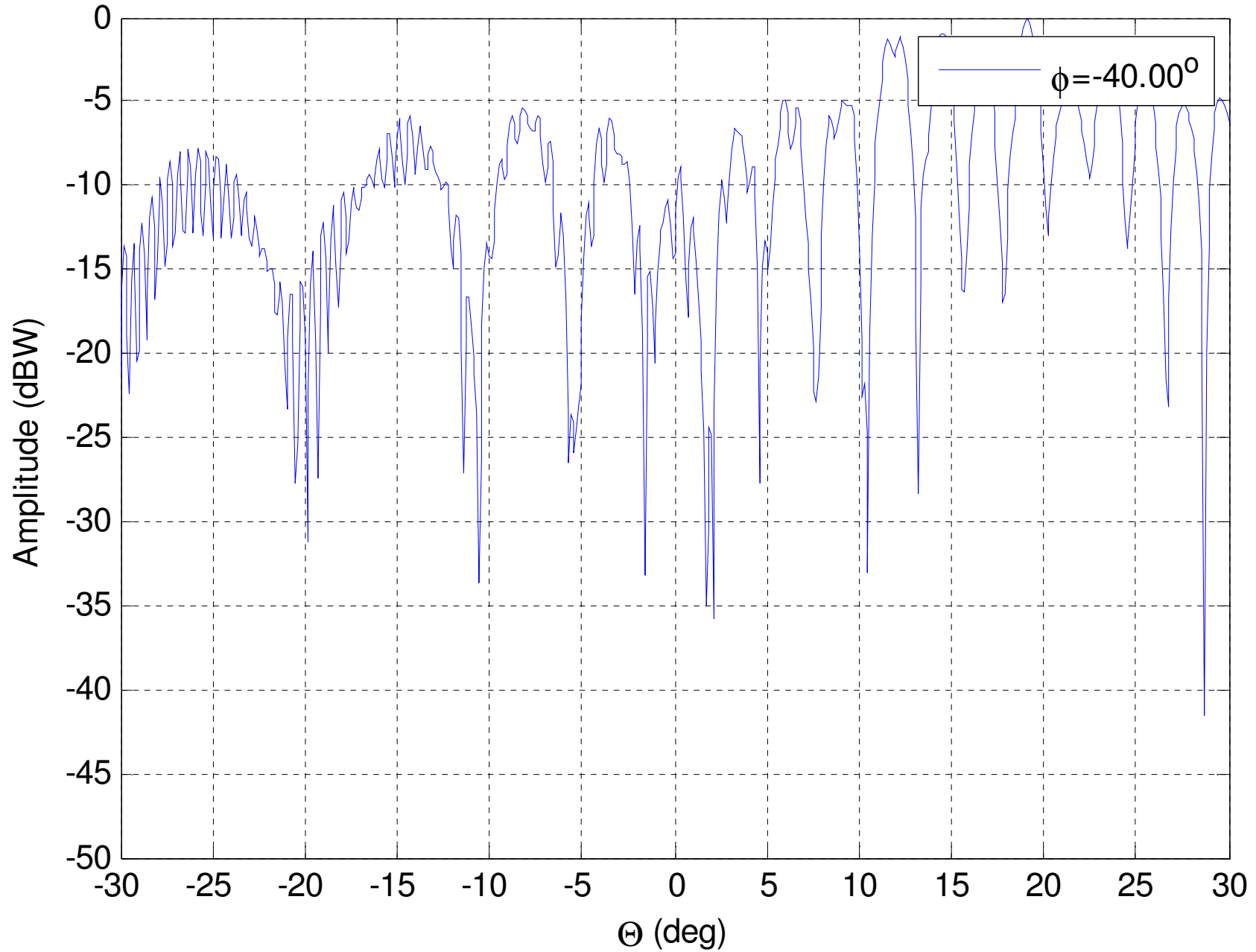
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -4.36 dBW, Date: 16-Dec-2011



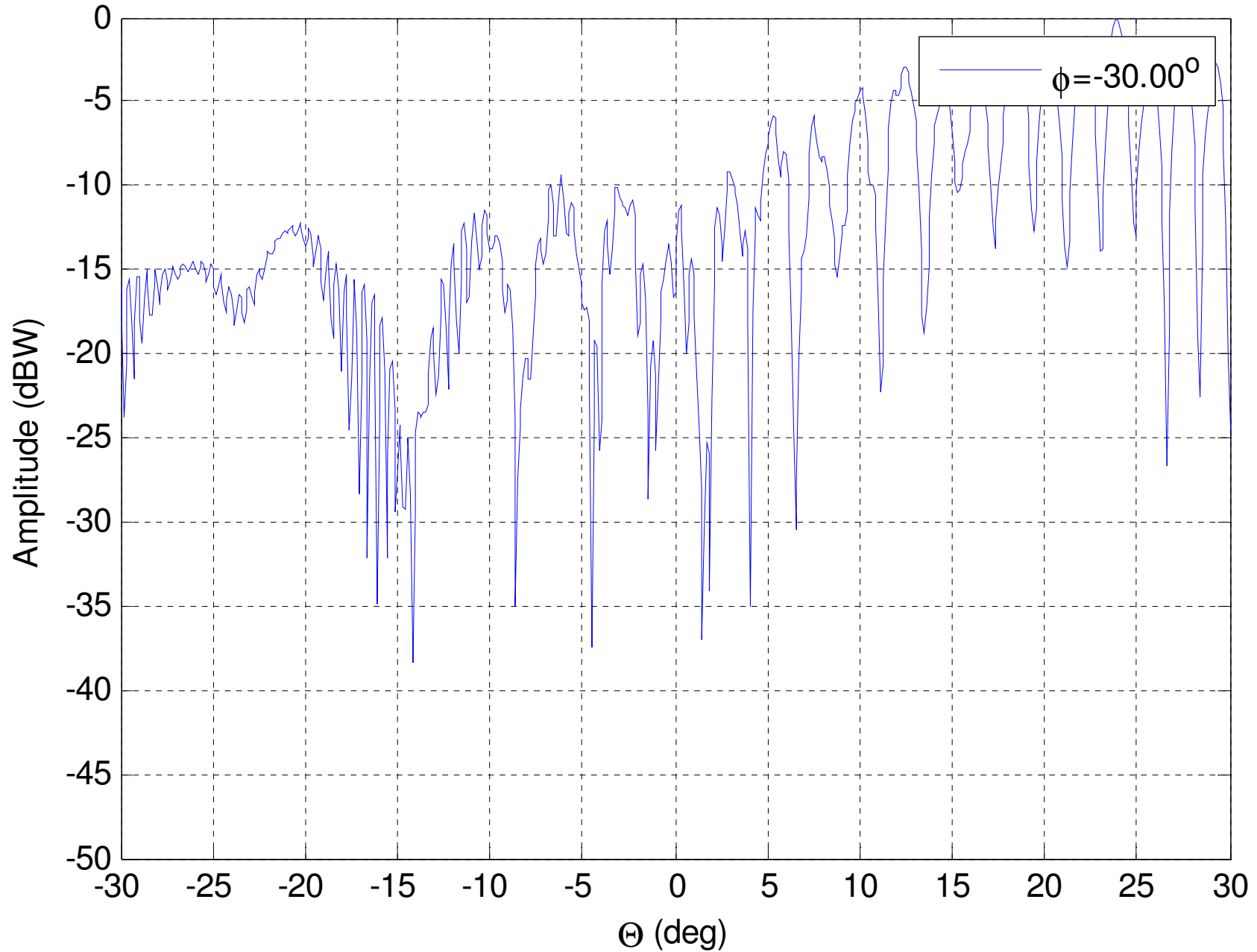
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -2.69 dBW, Date: 16-Dec-2011



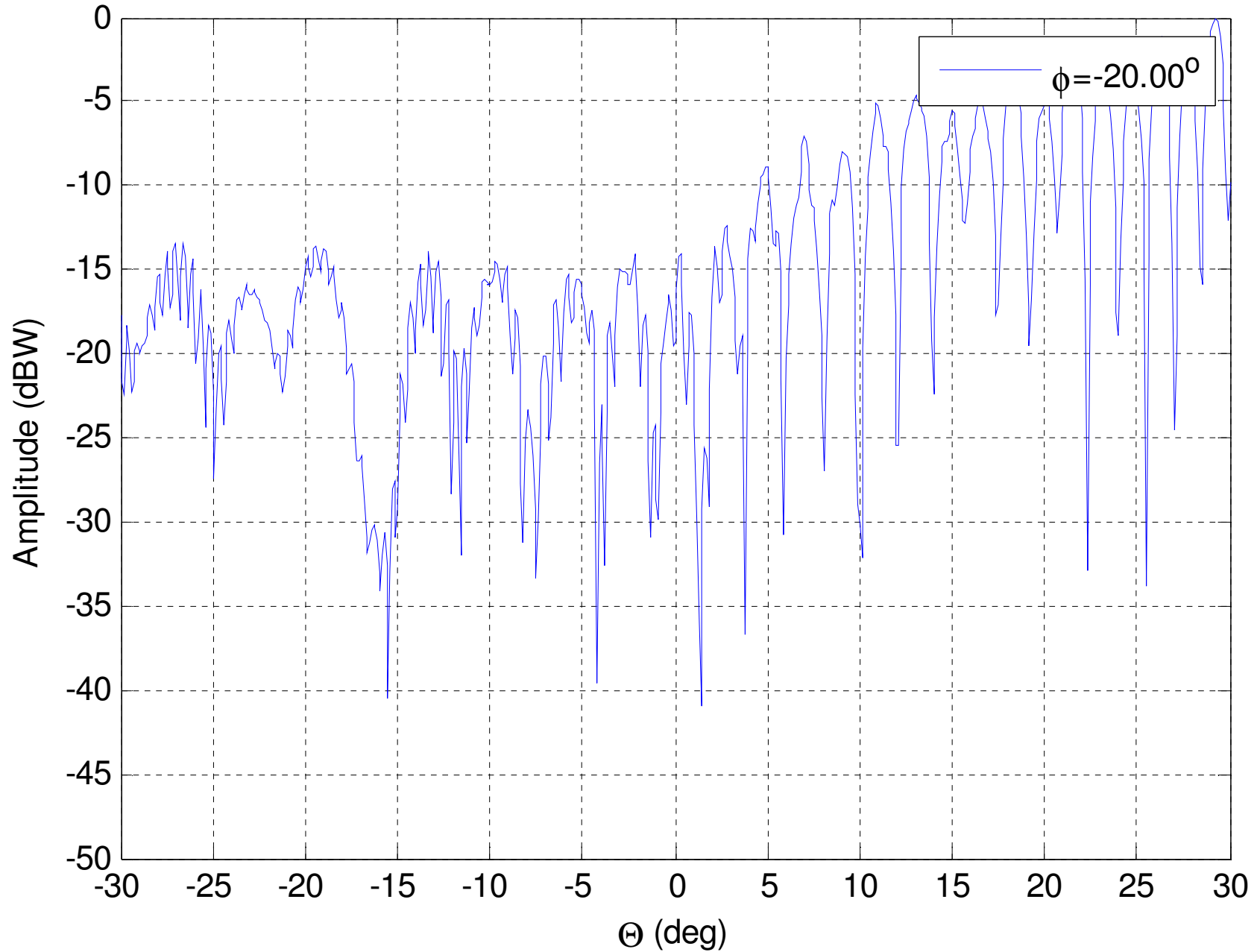
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -0.37 dBW, Date: 16-Dec-2011



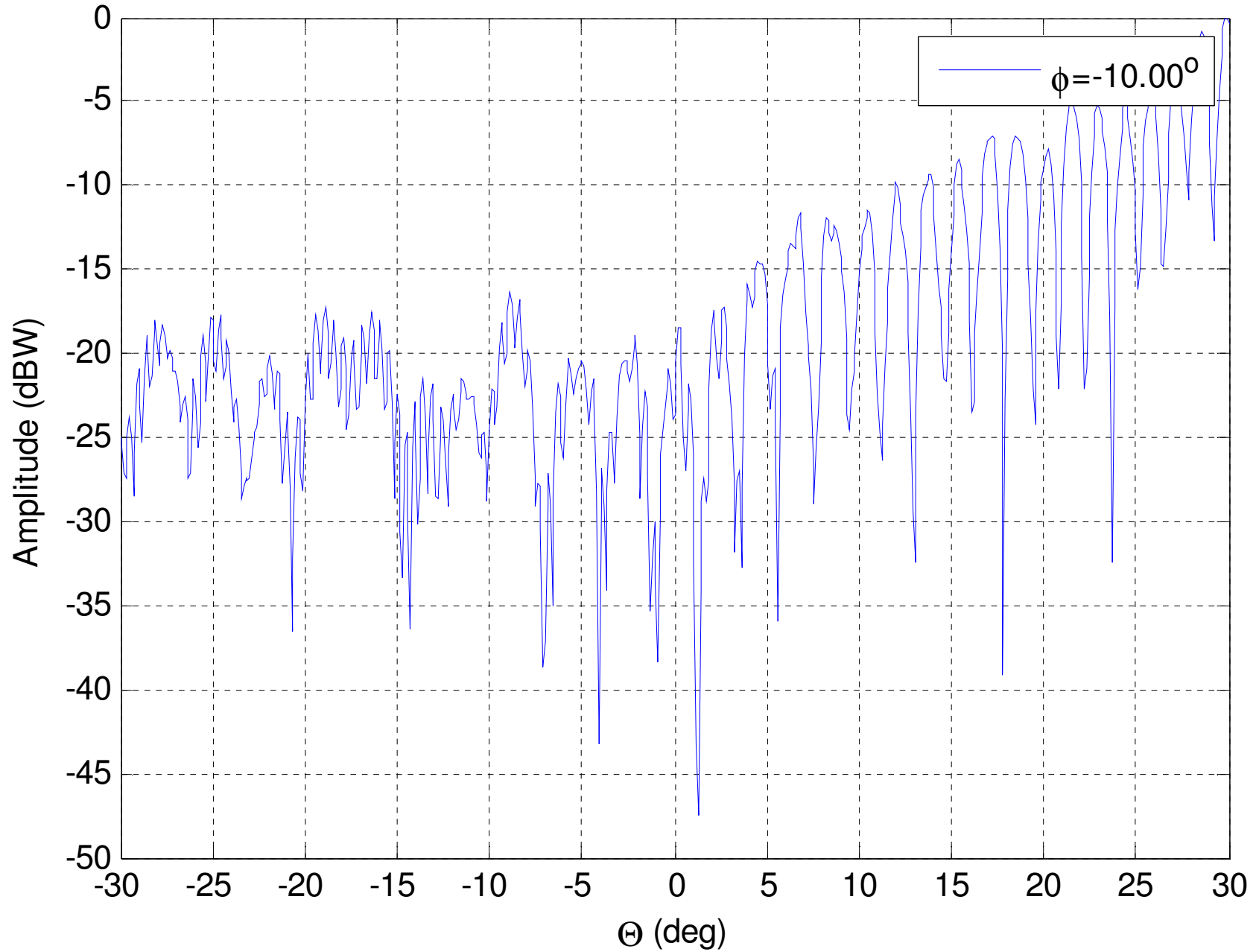
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: 2.54 dBW, Date: 16-Dec-2011



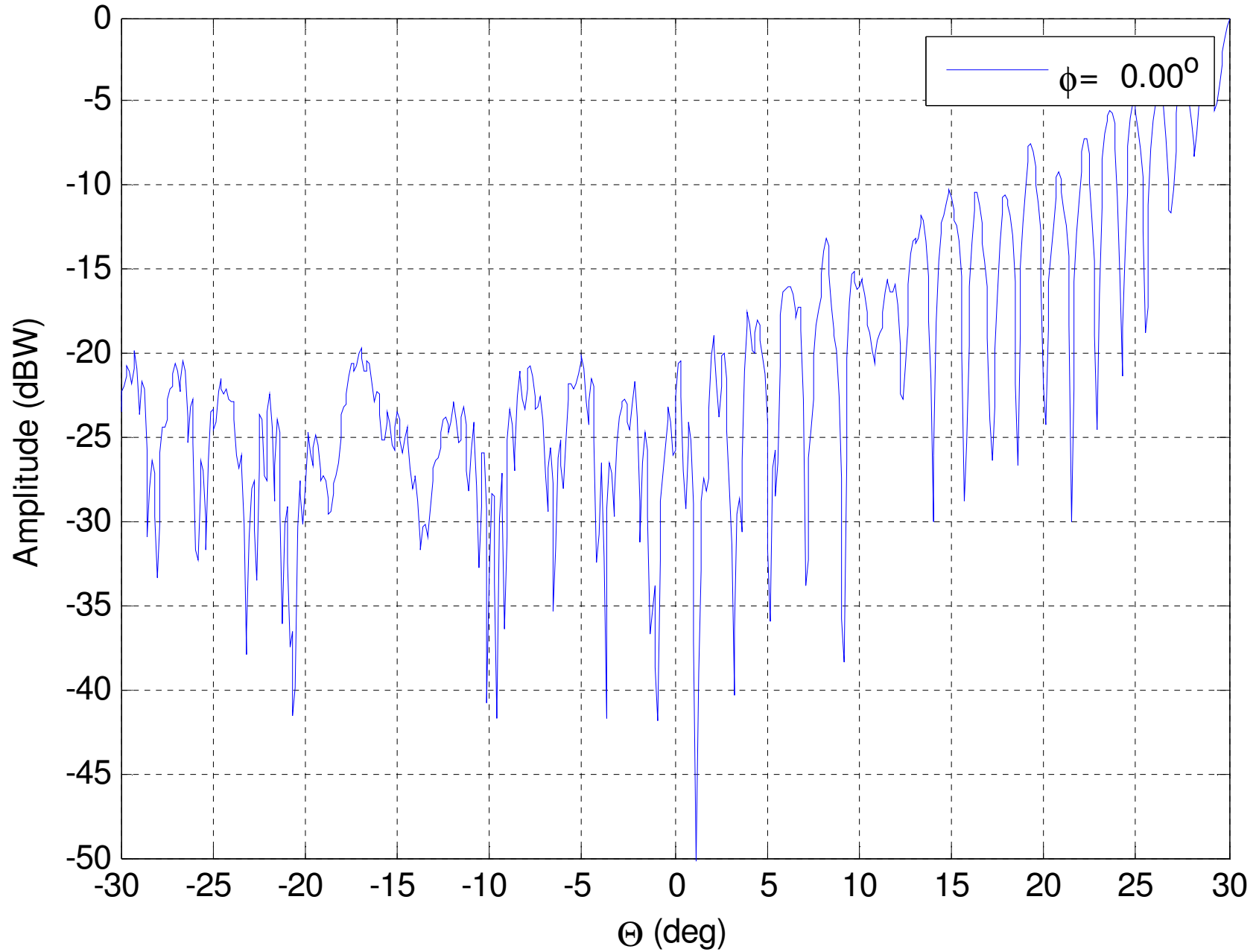
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: 6.89 dBW, Date: 16-Dec-2011



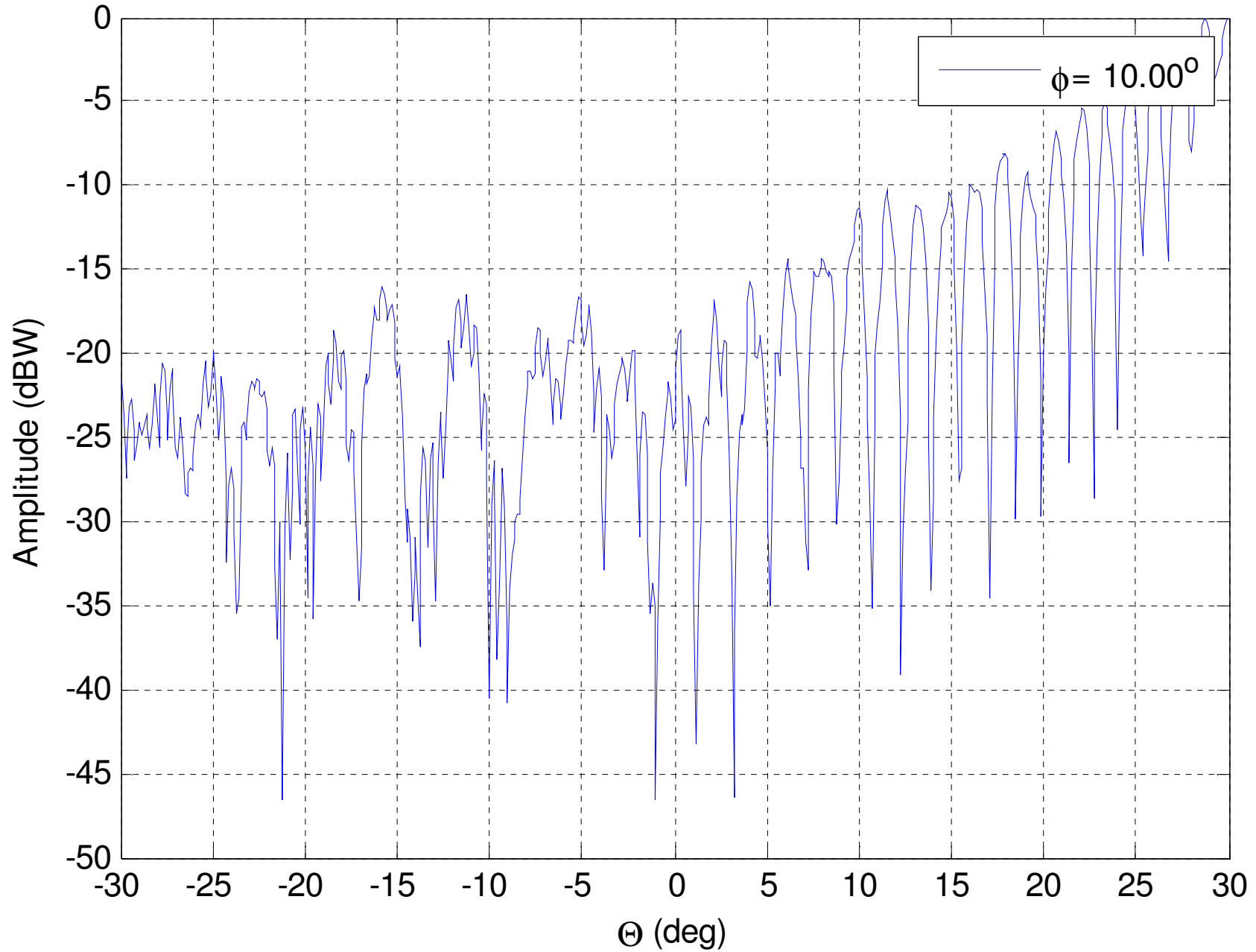
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: 9.00 dBW, Date: 16-Dec-2011



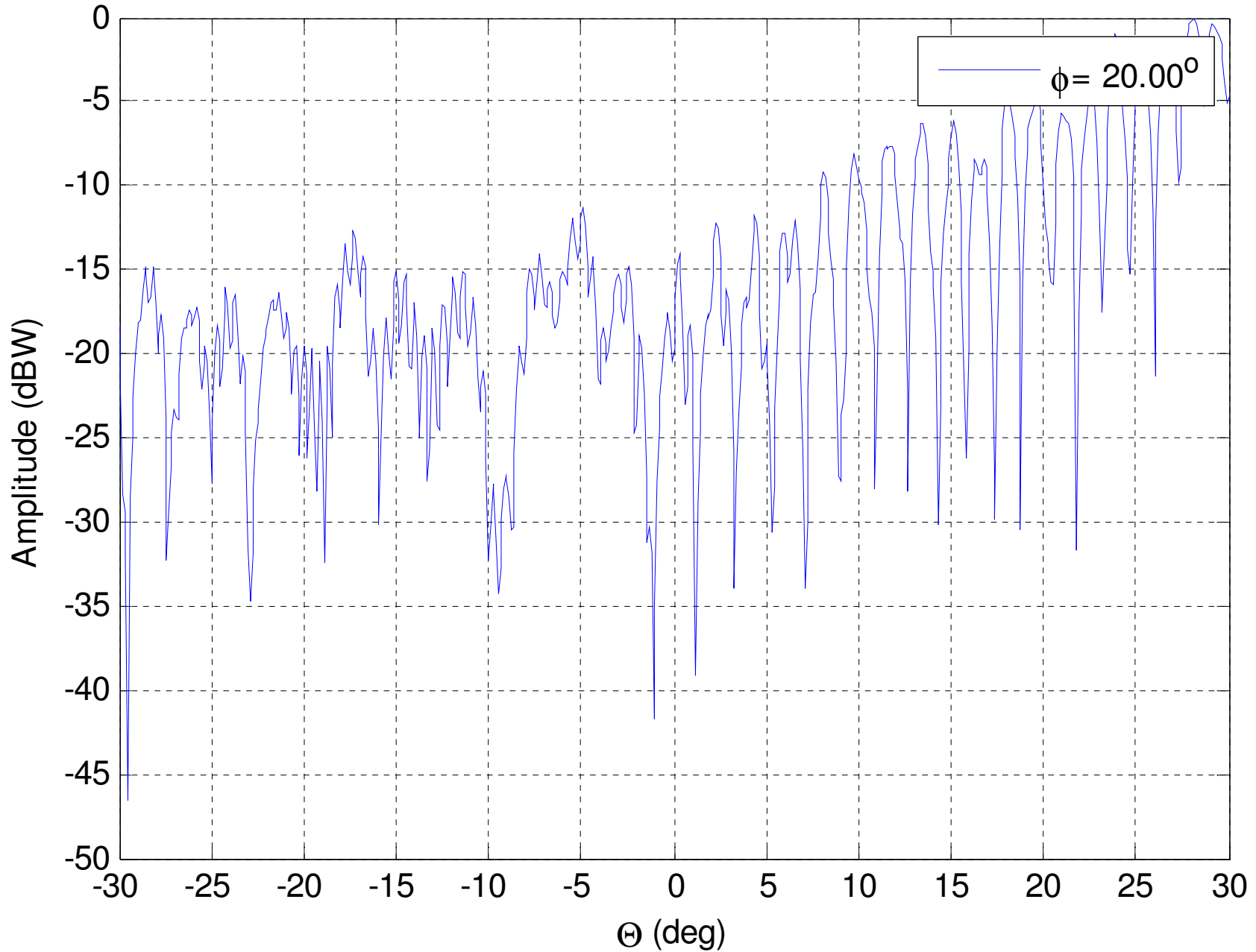
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: 7.27 dBW, Date: 16-Dec-2011



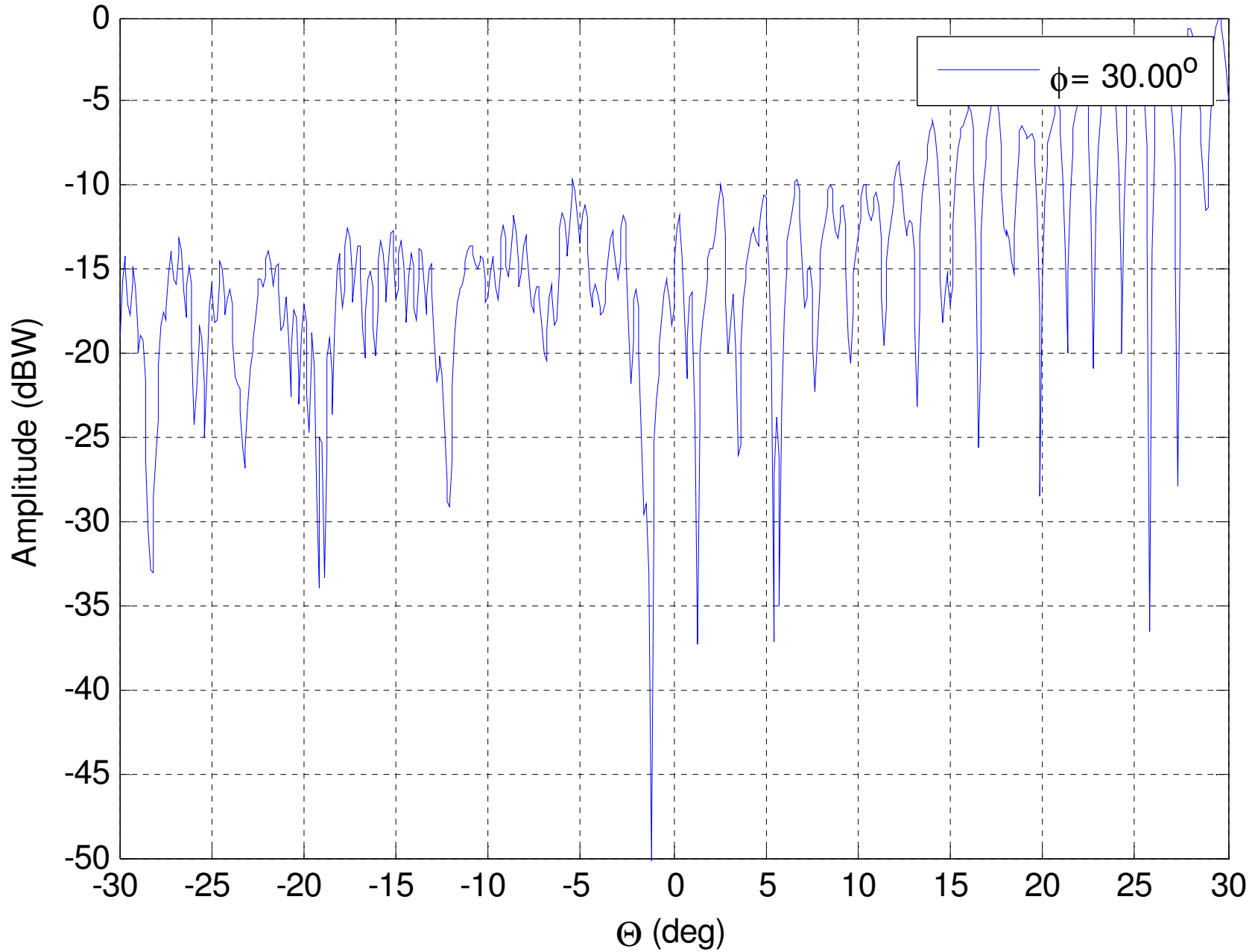
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: 2.90 dBW, Date: 16-Dec-2011



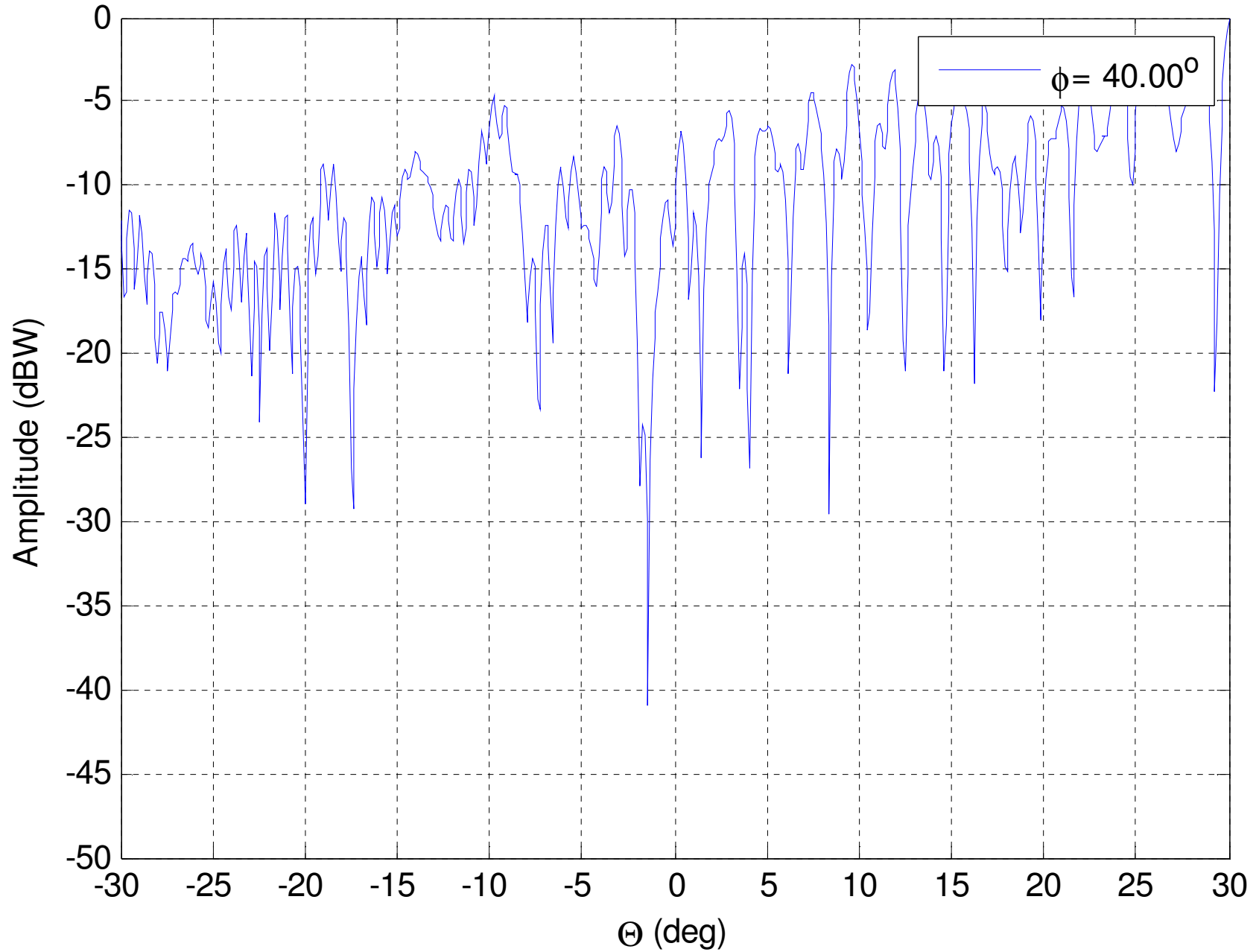
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: 0.61 dBW, Date: 16-Dec-2011



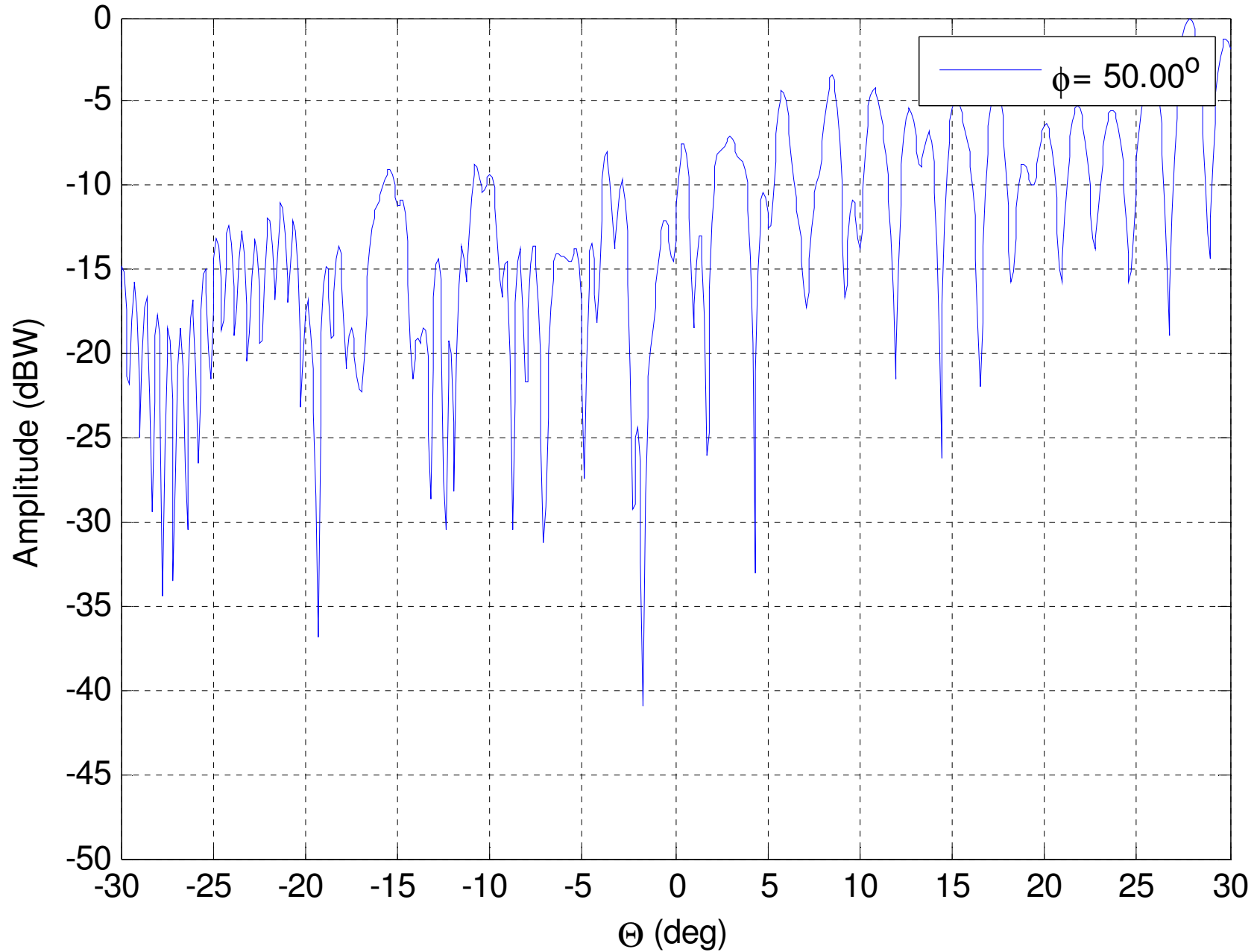
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -4.32 dBW, Date: 16-Dec-2011



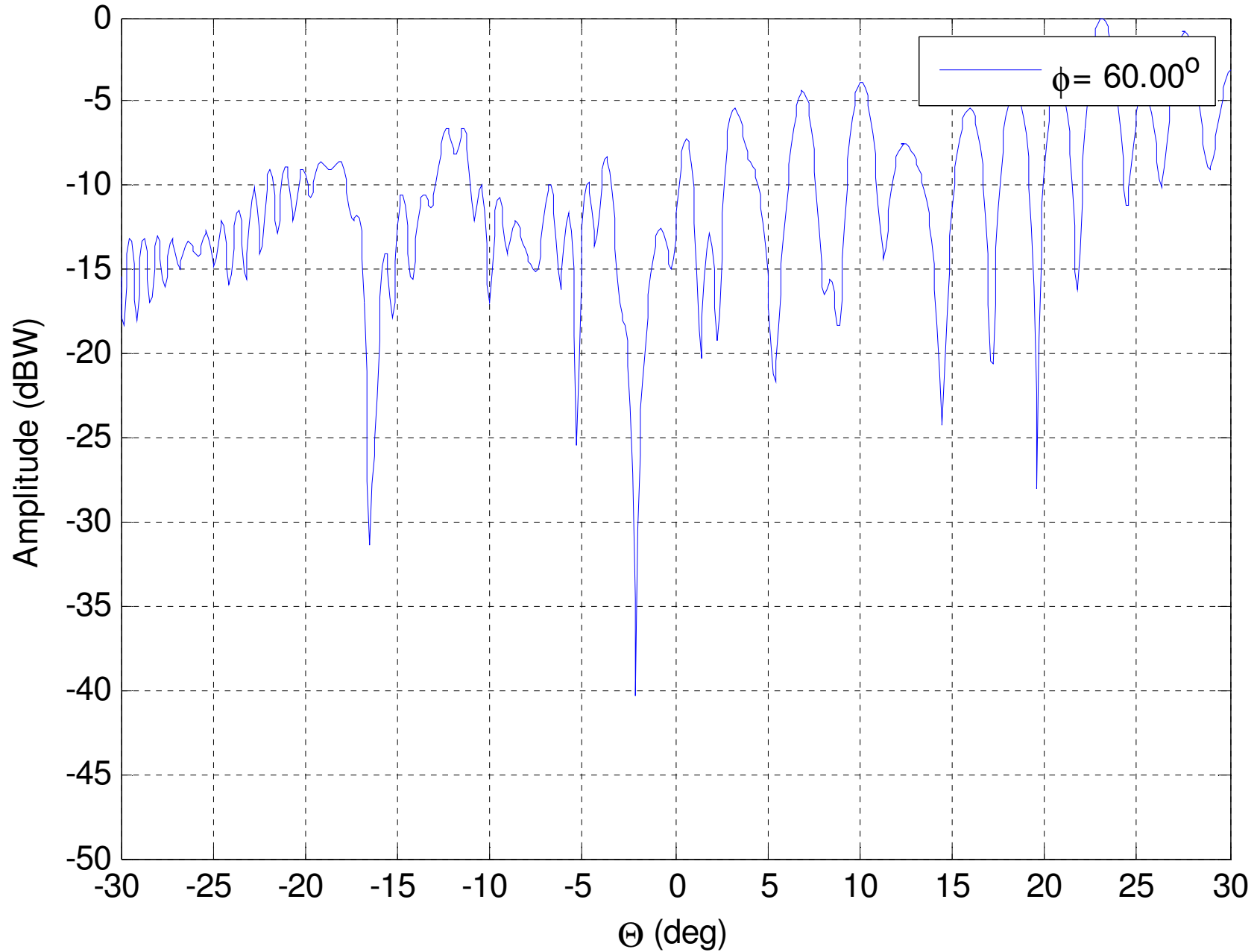
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -3.47 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -3.51 dBW, Date: 16-Dec-2011



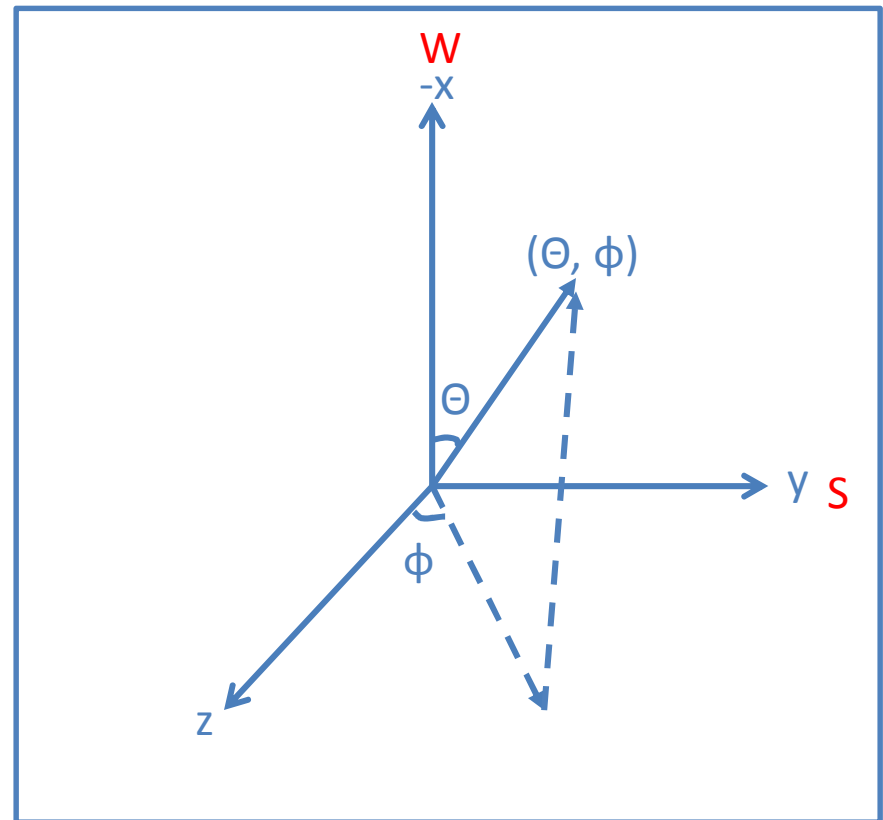
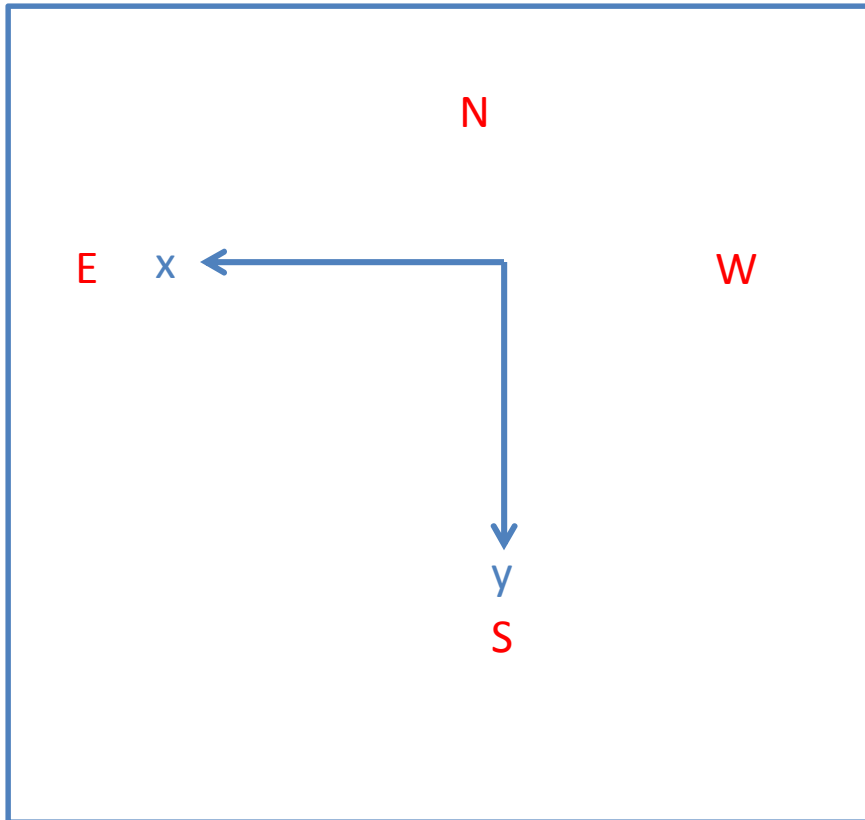
Updated: June 13, 2012

119 West Adjacent Satellite Off Axis Antenna Performance Spot Beam 38

Maximum Allowable EIRP to meet the -117dBW/m²/100 kHz

Maximum EIRP Allowed	
Spec Max flux density, dBW/m ² /100kHz	-117
Desired channel band width, MHz	25.8
Symbol rate band width modification factor	1
Effective channel bandwidth, MHz	25.8
Effective bandwidth, dB-100kHz	24.1
Flux density allowed per channel, dBW/m ²	-92.9
R, radial distance to GEO, km	42164.0
Angle of separation between satellites, deg	0.1
range between satellites, km	73.59
Spreading factor, dB/m ²	-108.3
Atmospheric loss, dB	0
Max satellite EIRP allowed, dBW	15.4

Coordinate System



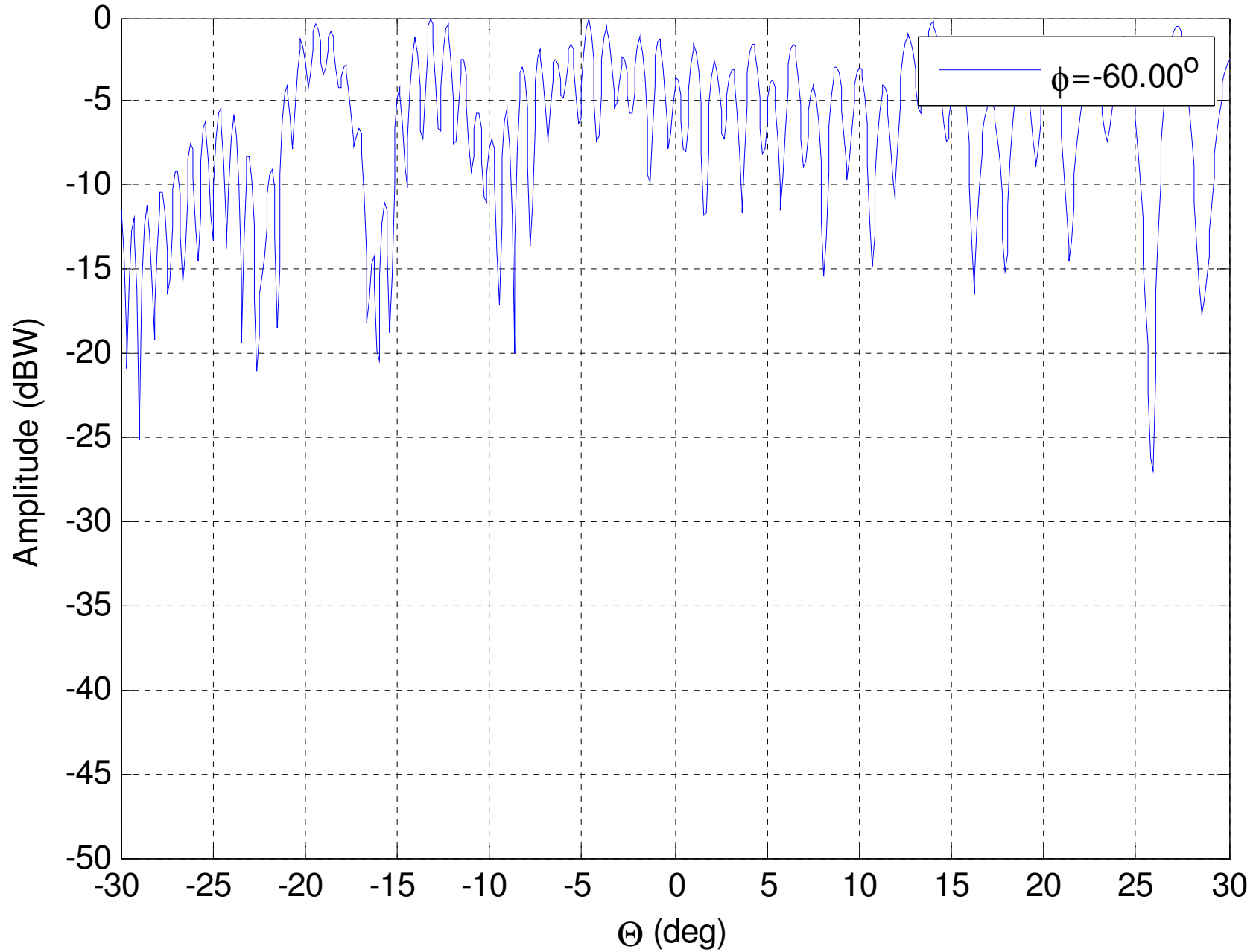
Spot Beam38, -X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: -X -axis)
- $-60 < \phi < 60$
- Freq = 17.305, 17.5, and 17.695 GHz
- The Zero reference line is the maximum EIRP listed in the title of each plot sheet. All levels are below the required 15.4 dBW maximum
- The Zero reference for the maximum antenna gain is the maximum EIRP listed minus the power input to the antenna specified in Table I of the attached narrative.

RHCP at 17.3 GHz

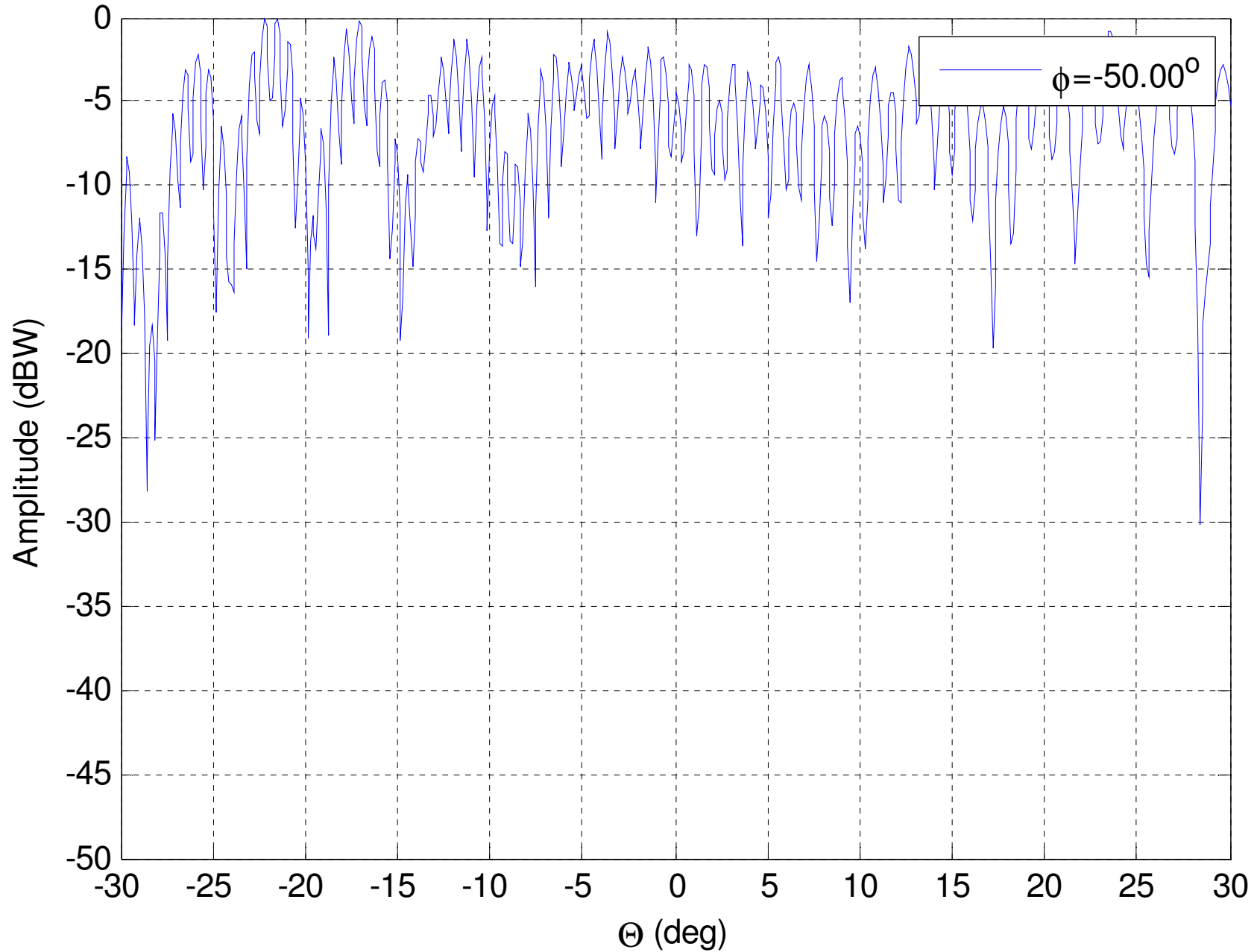
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: 1.31 dBW, Date: 16-Dec-2011



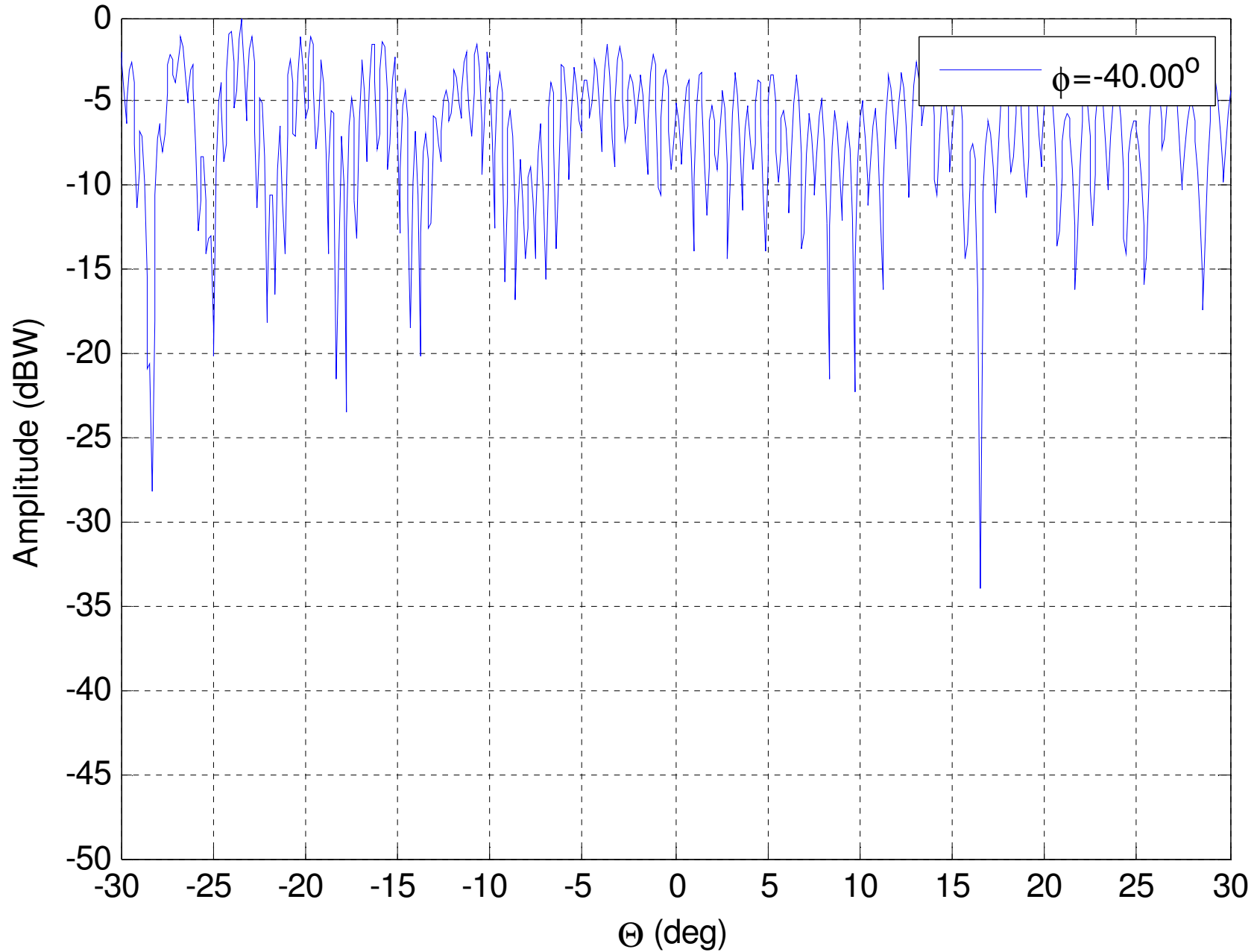
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: 2.18 dBW, Date: 16-Dec-2011



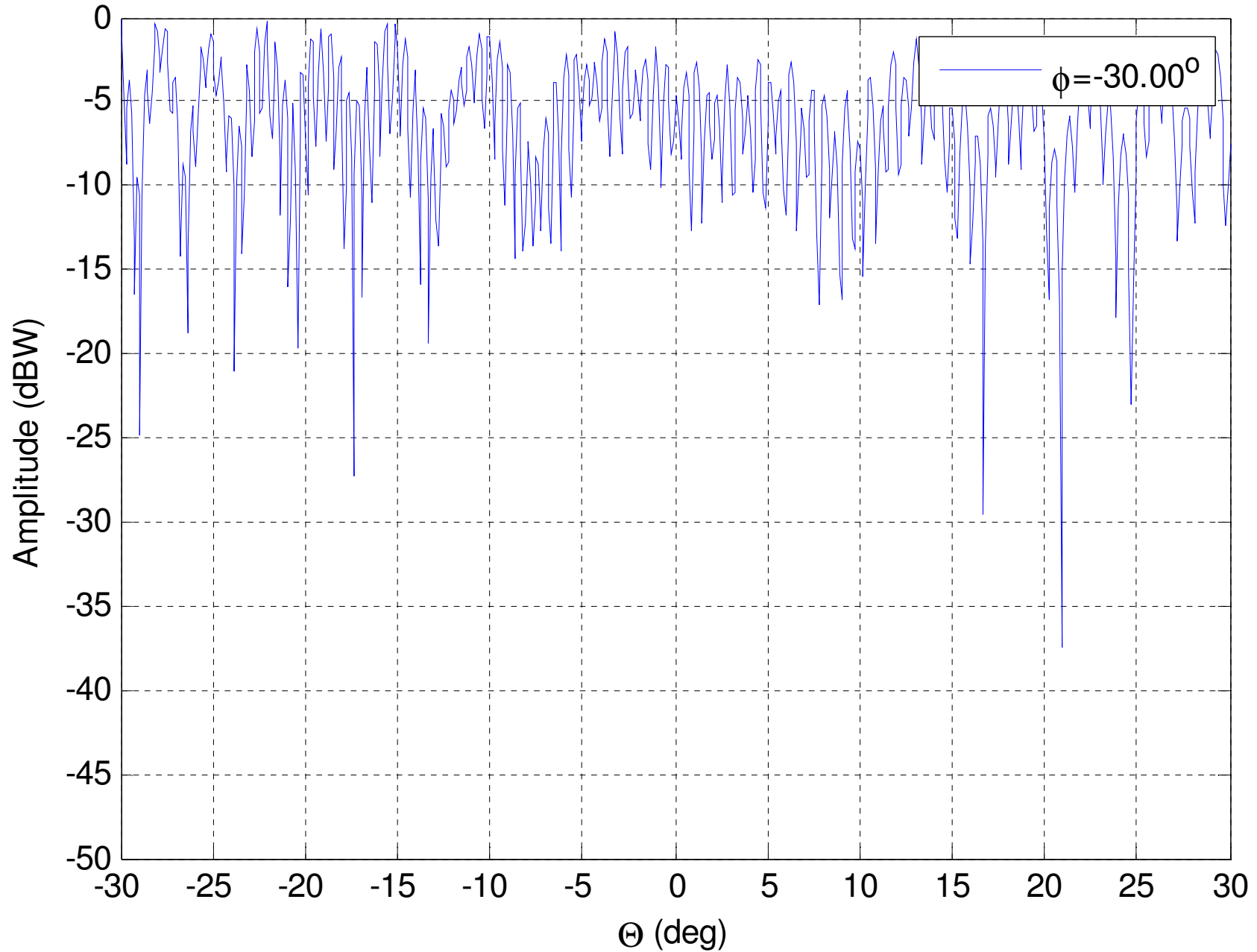
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: 2.80 dBW, Date: 16-Dec-2011



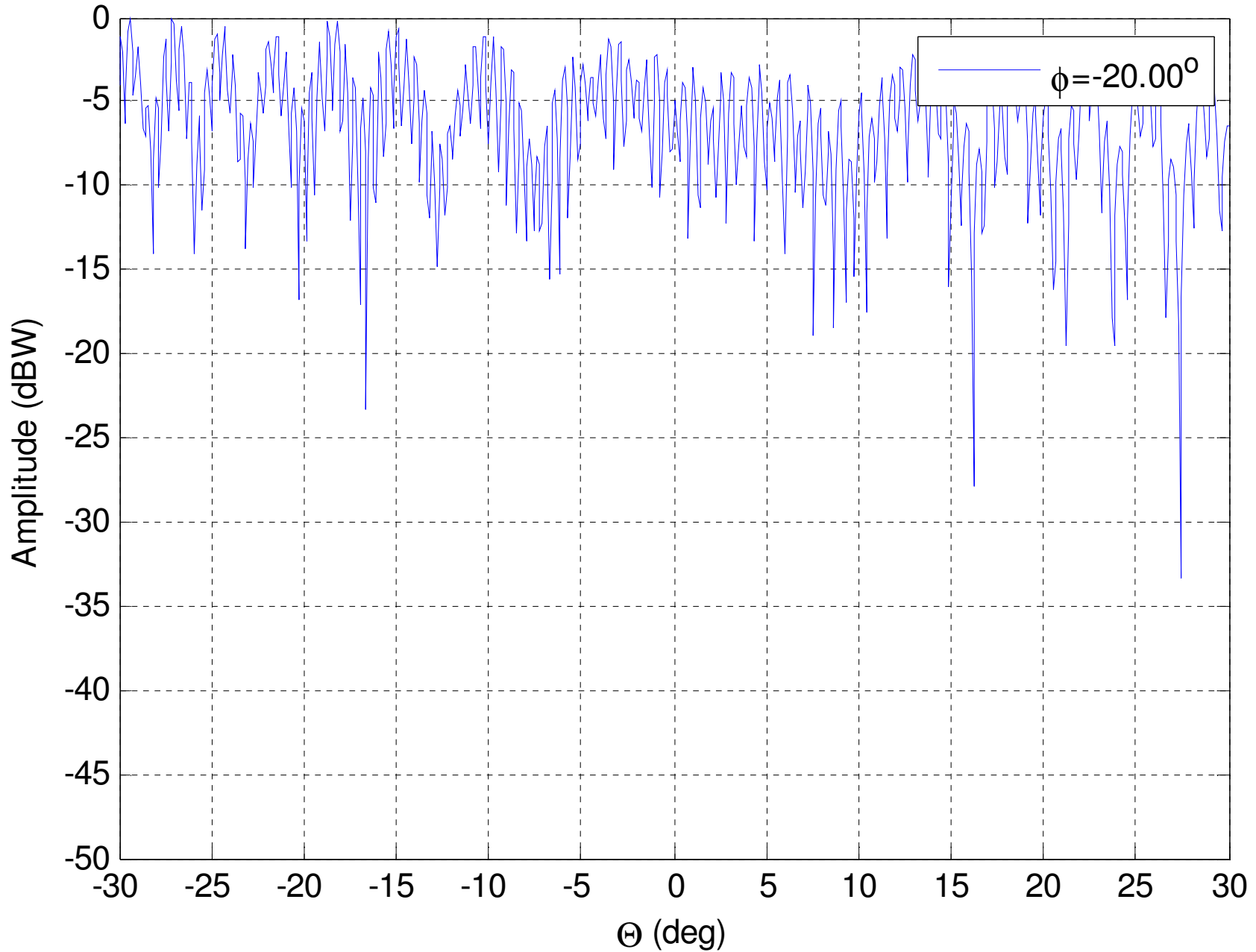
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: 2.29 dBW, Date: 16-Dec-2011



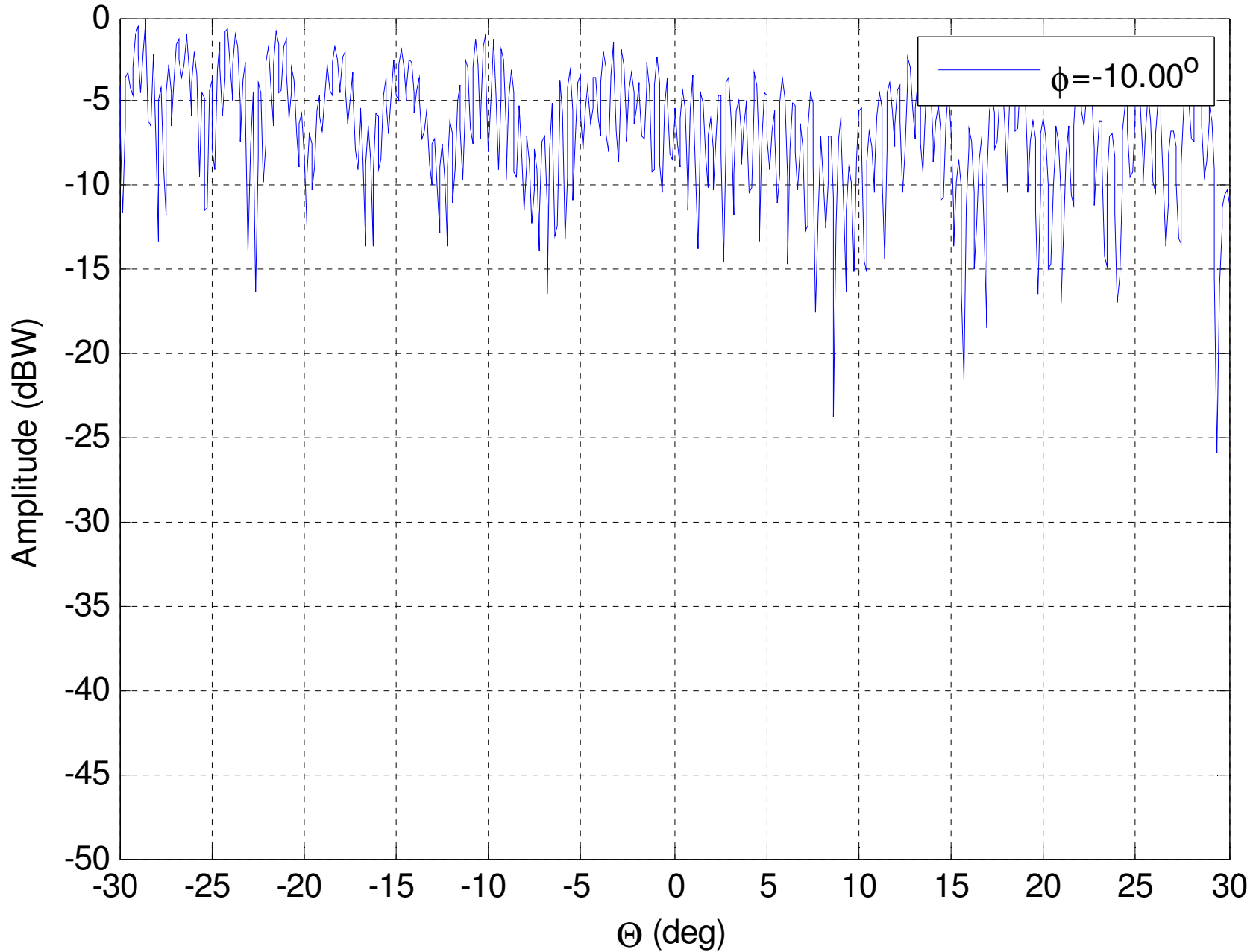
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: 2.60 dBW, Date: 16-Dec-2011



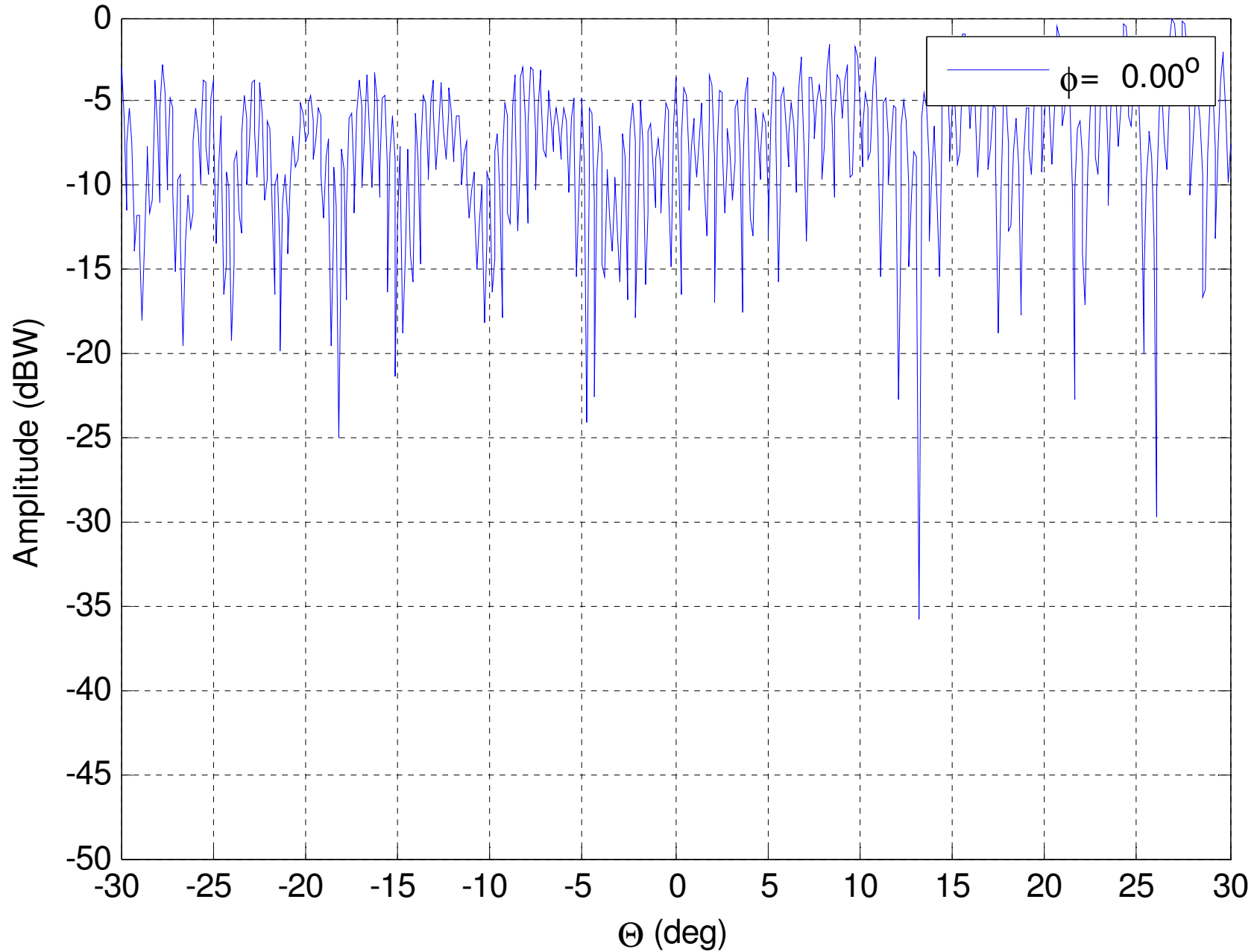
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: 3.05 dBW, Date: 16-Dec-2011



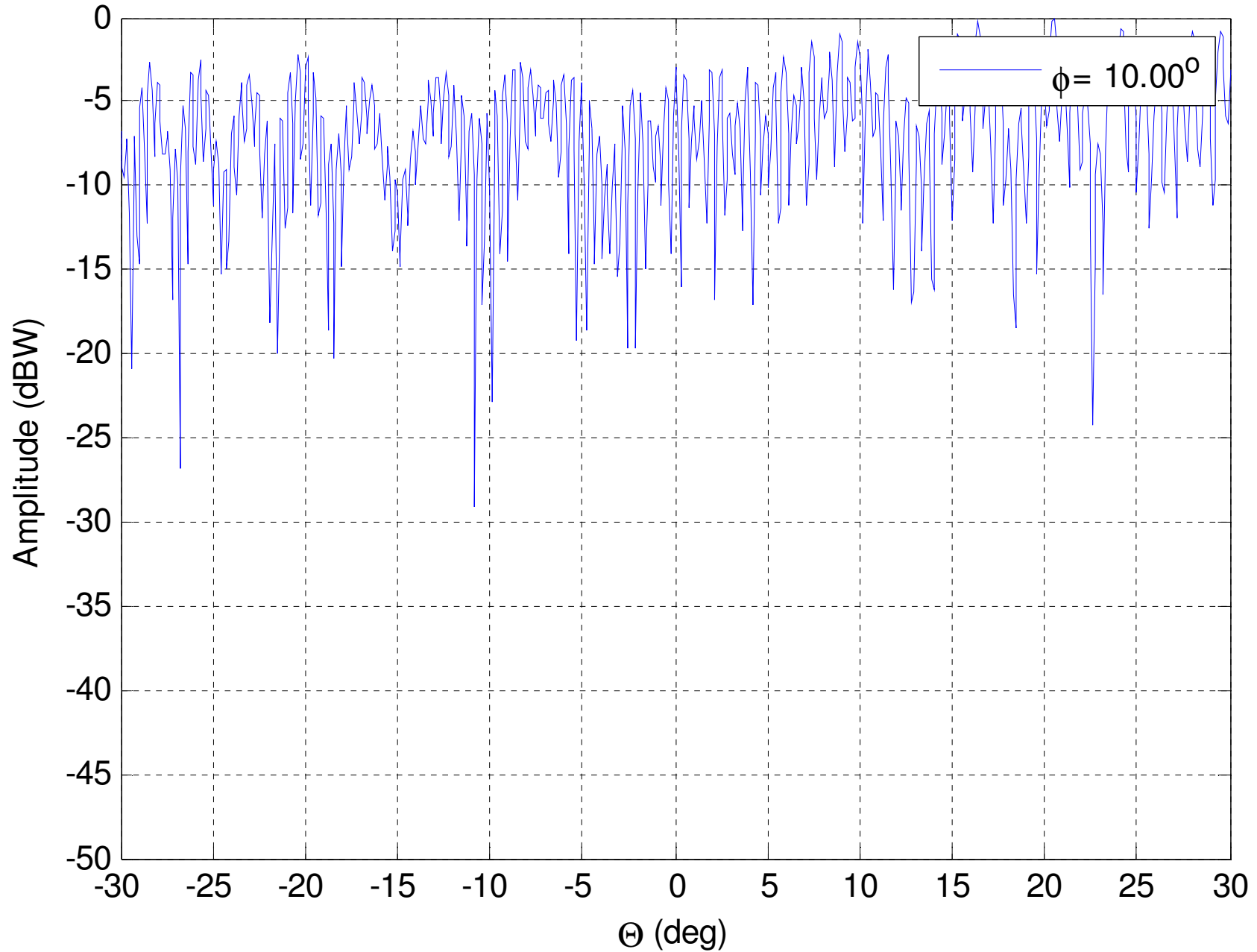
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: 3.65 dBW, Date: 16-Dec-2011



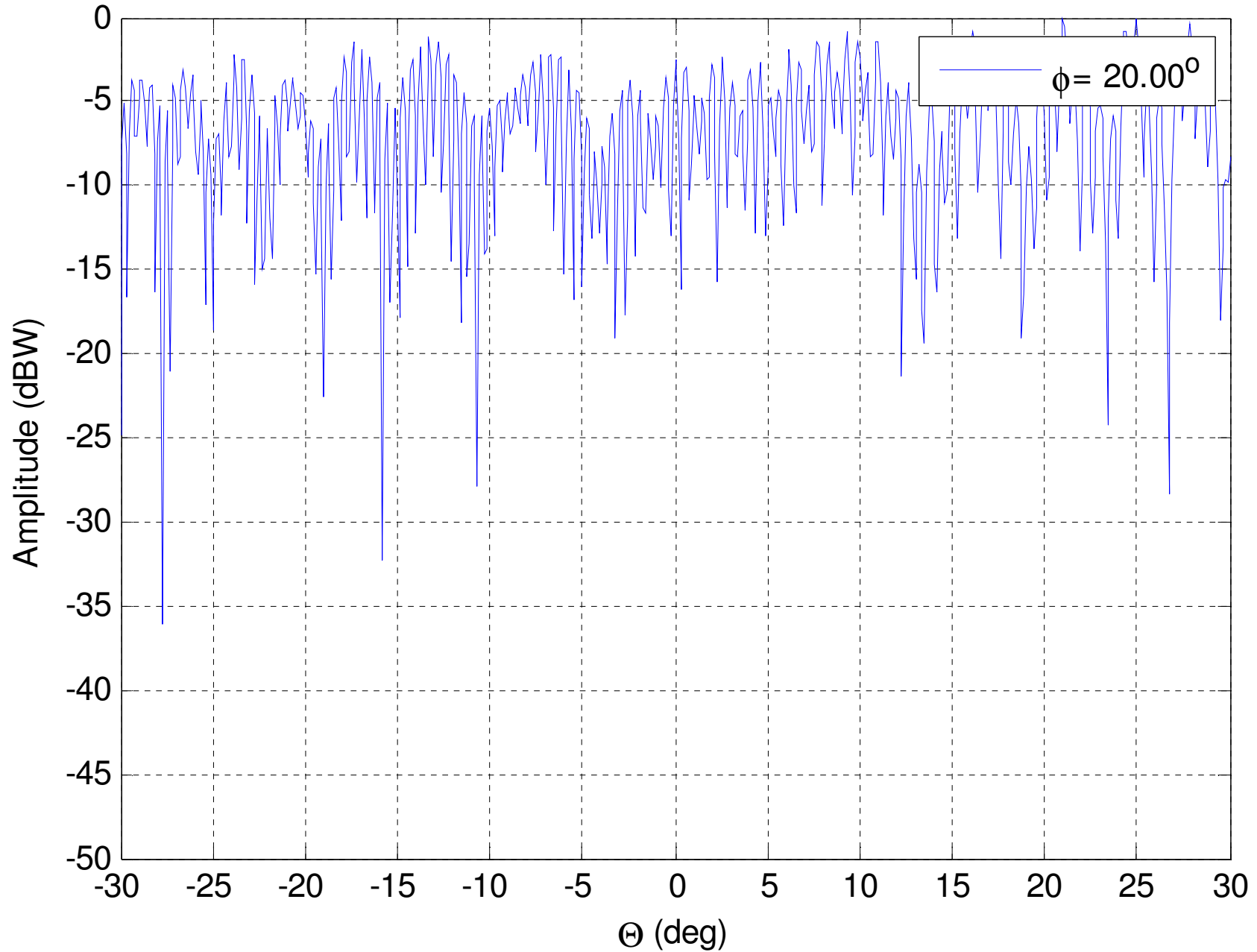
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: 2.94 dBW, Date: 16-Dec-2011



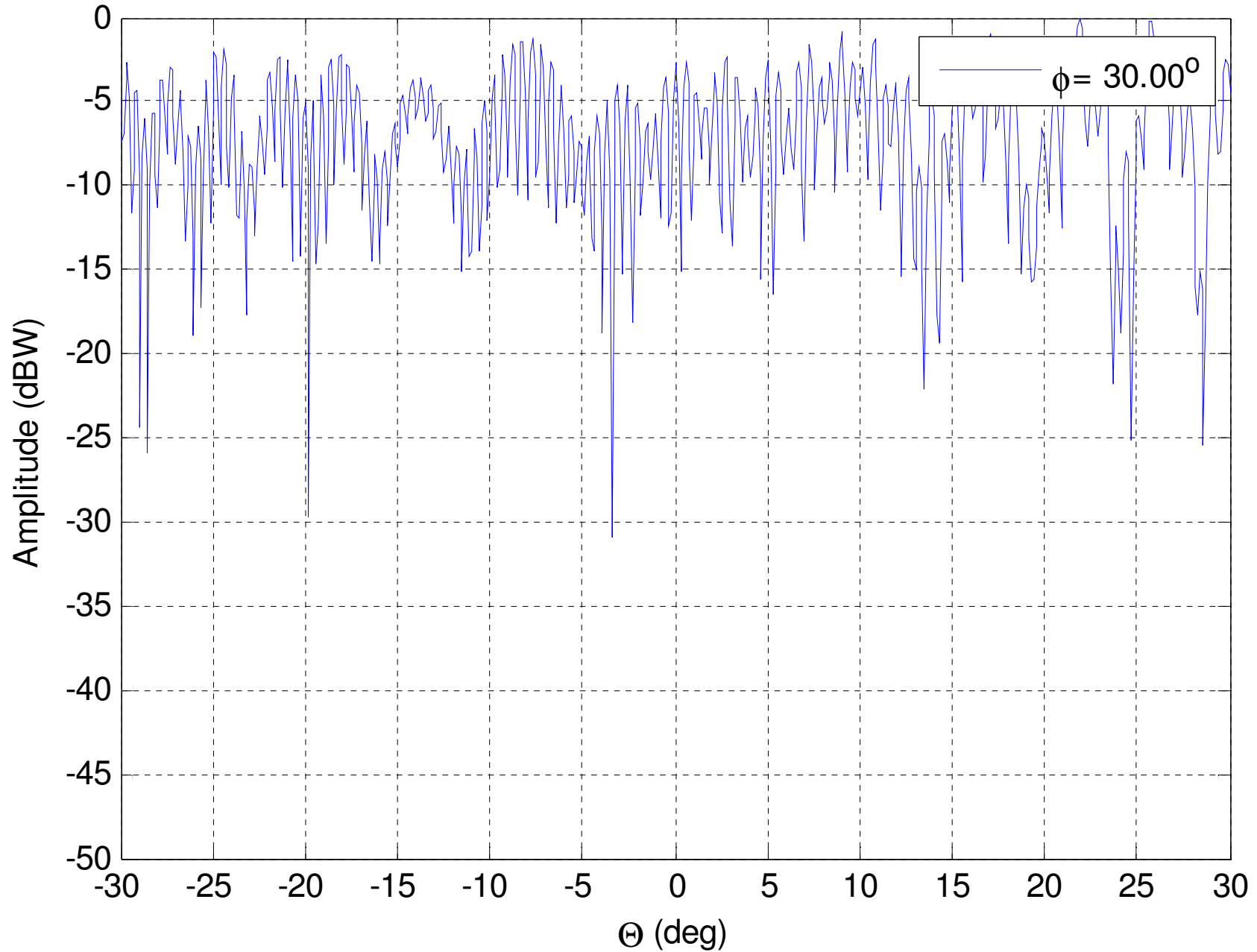
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: 2.56 dBW, Date: 16-Dec-2011



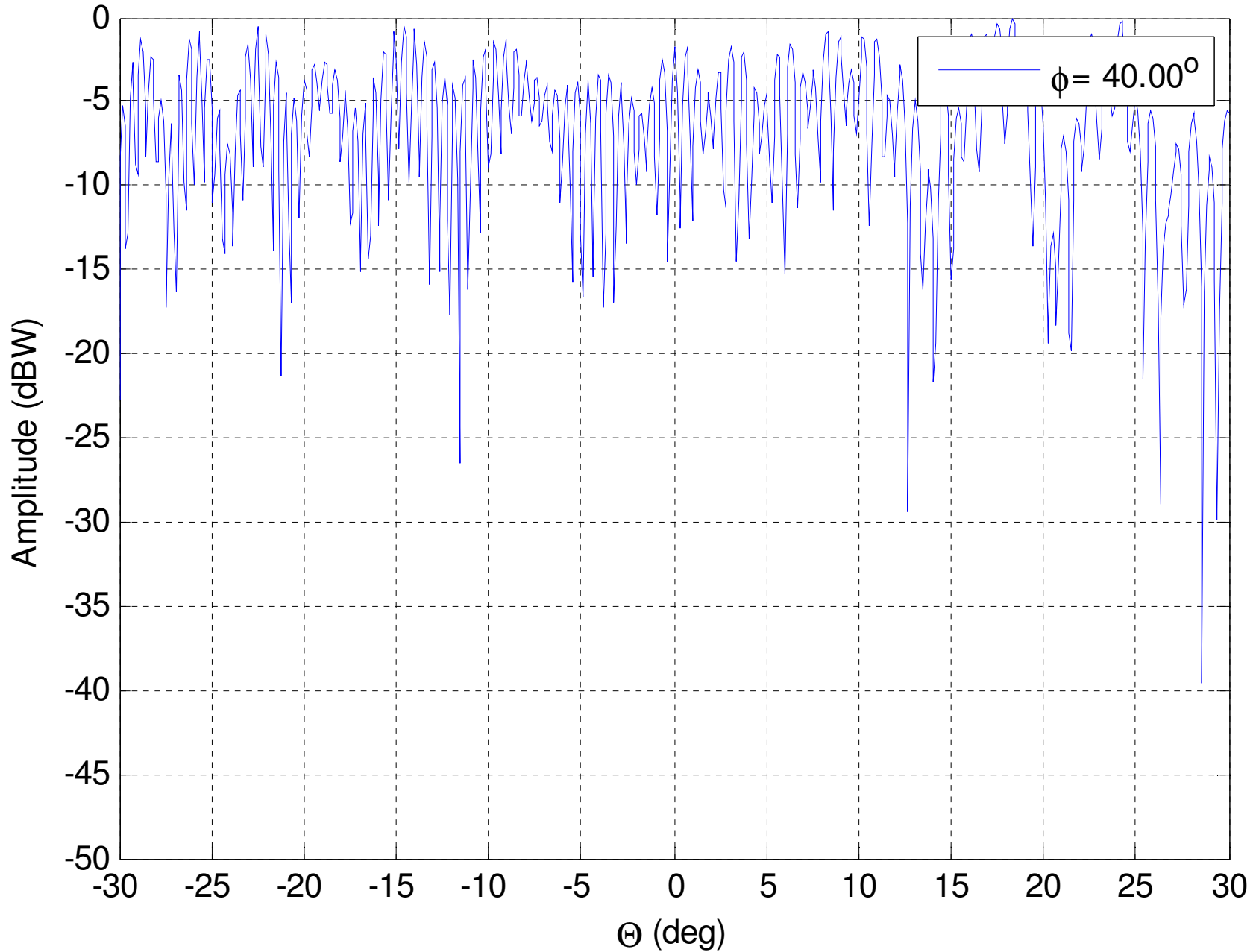
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: 2.60 dBW, Date: 16-Dec-2011



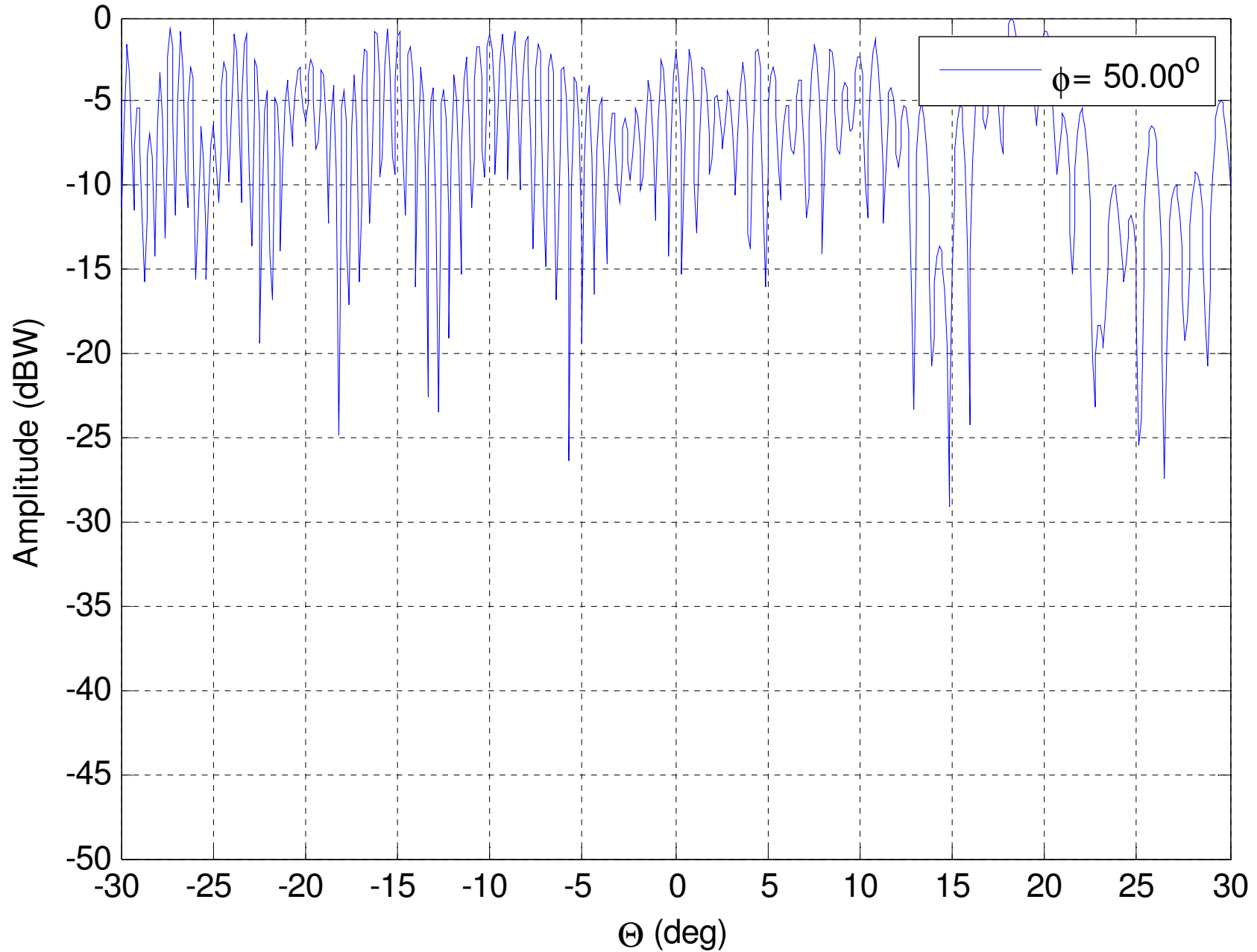
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: 1.72 dBW, Date: 16-Dec-2011



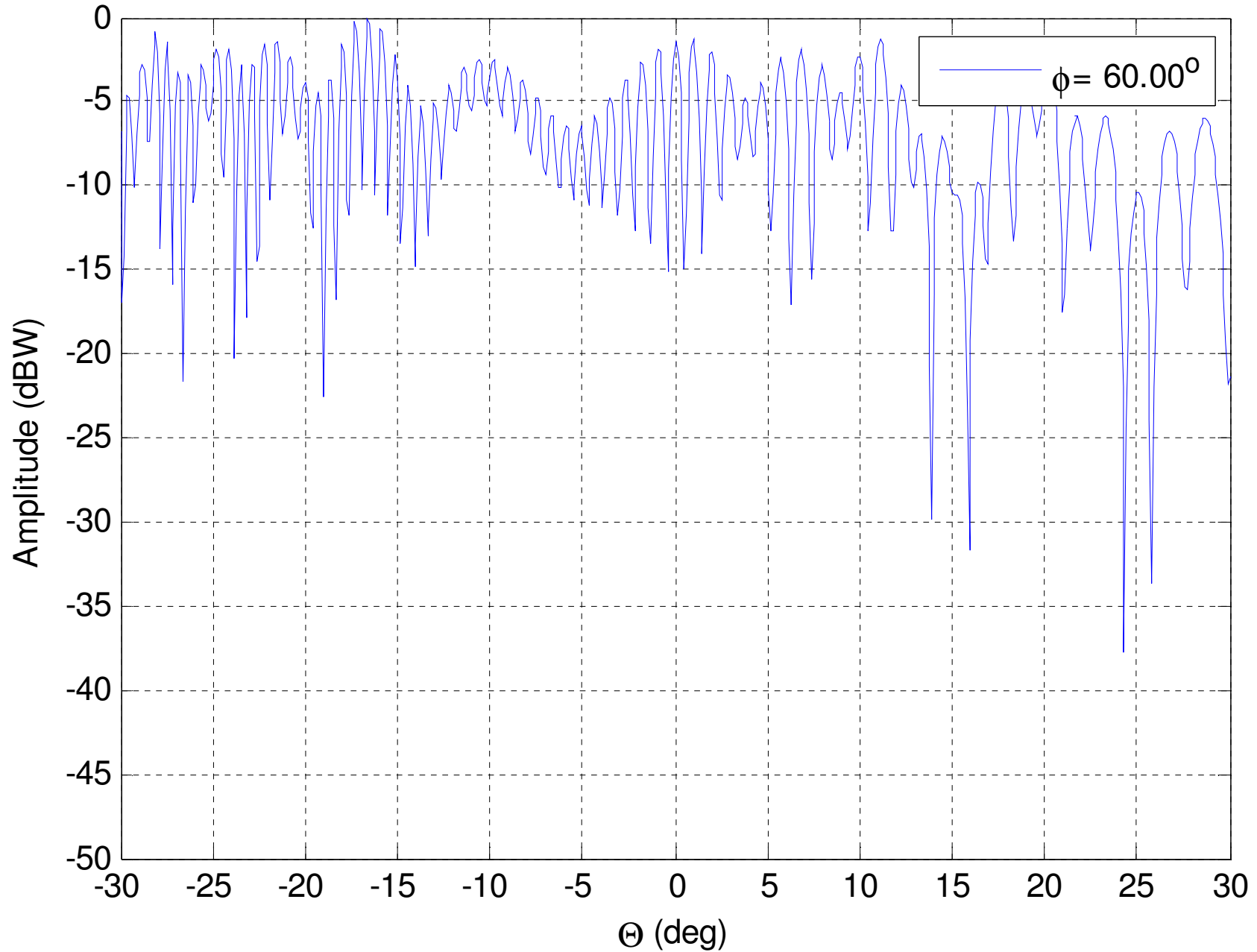
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: 1.94 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

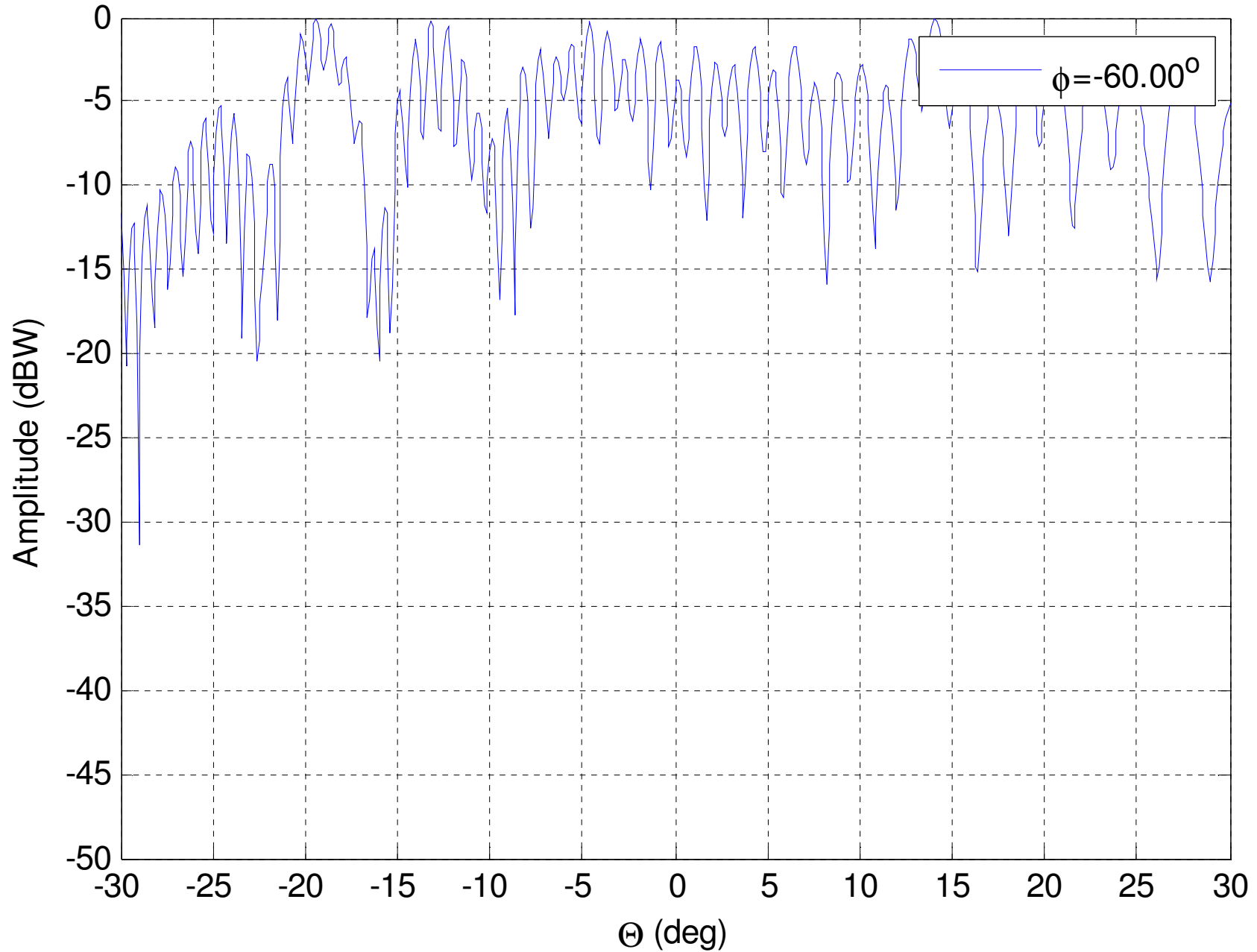
Input file: tx-17.3-rhcp-60.cut, Peak: 1.50 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

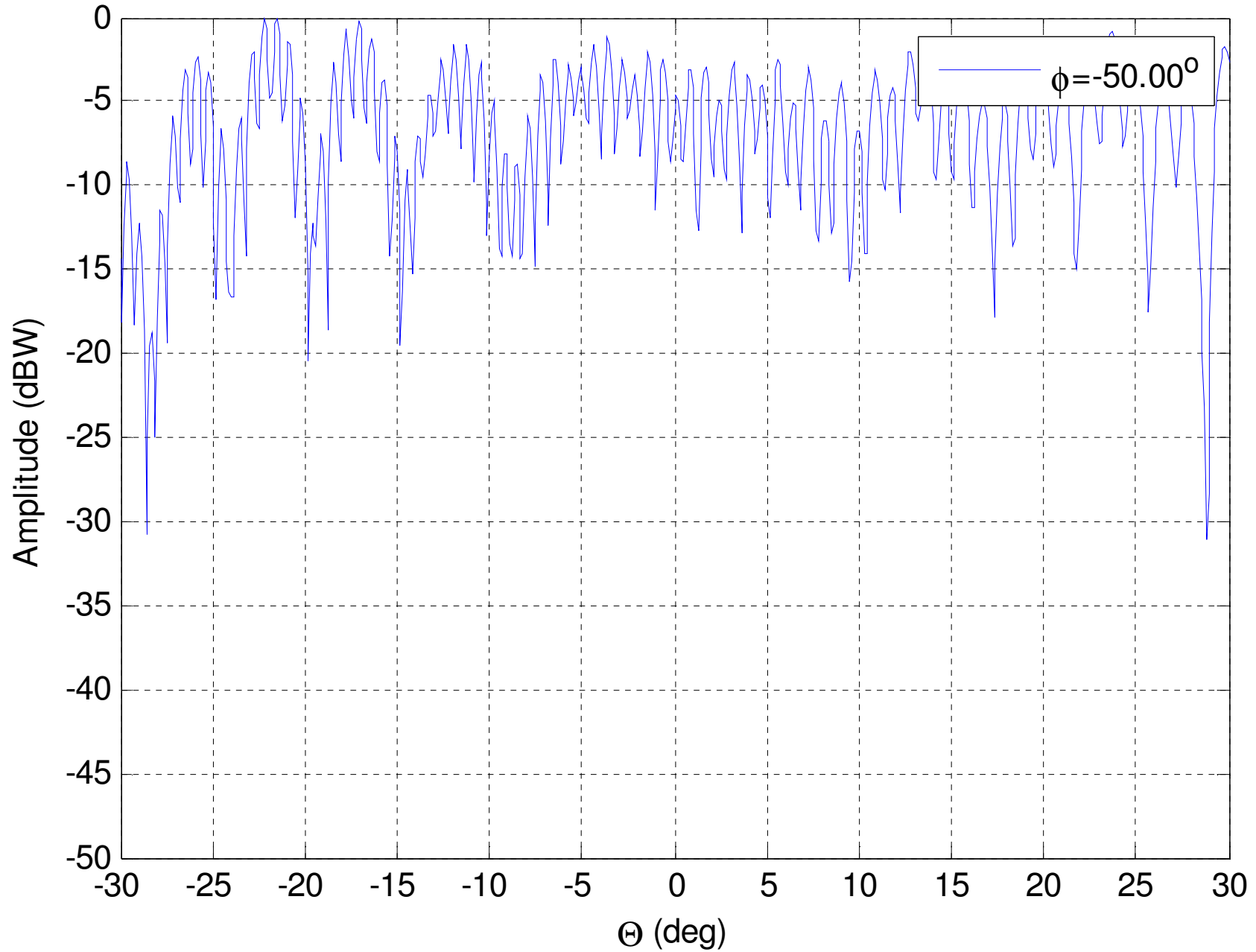
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: 1.35 dBW, Date: 16-Dec-2011



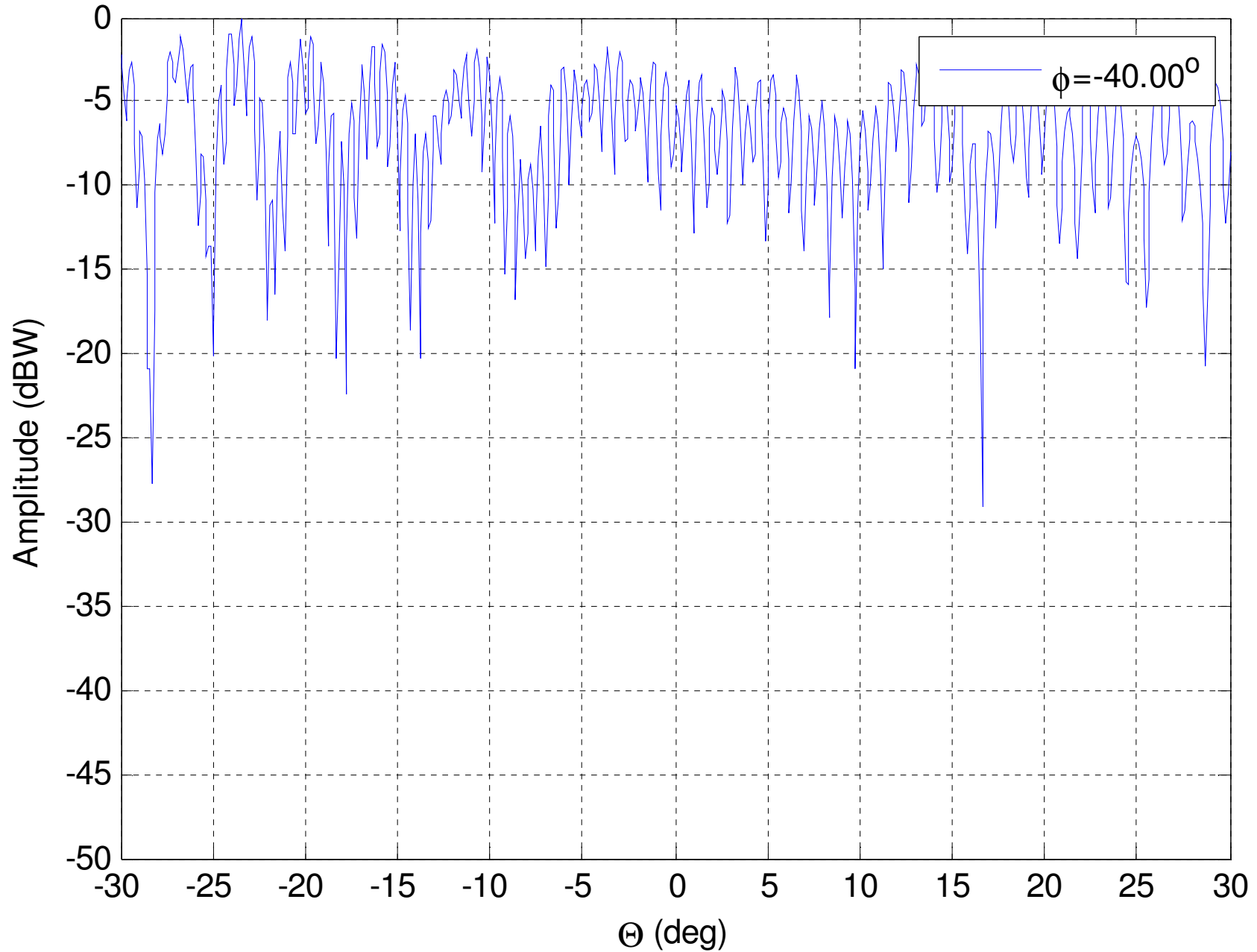
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: 2.37 dBW, Date: 16-Dec-2011



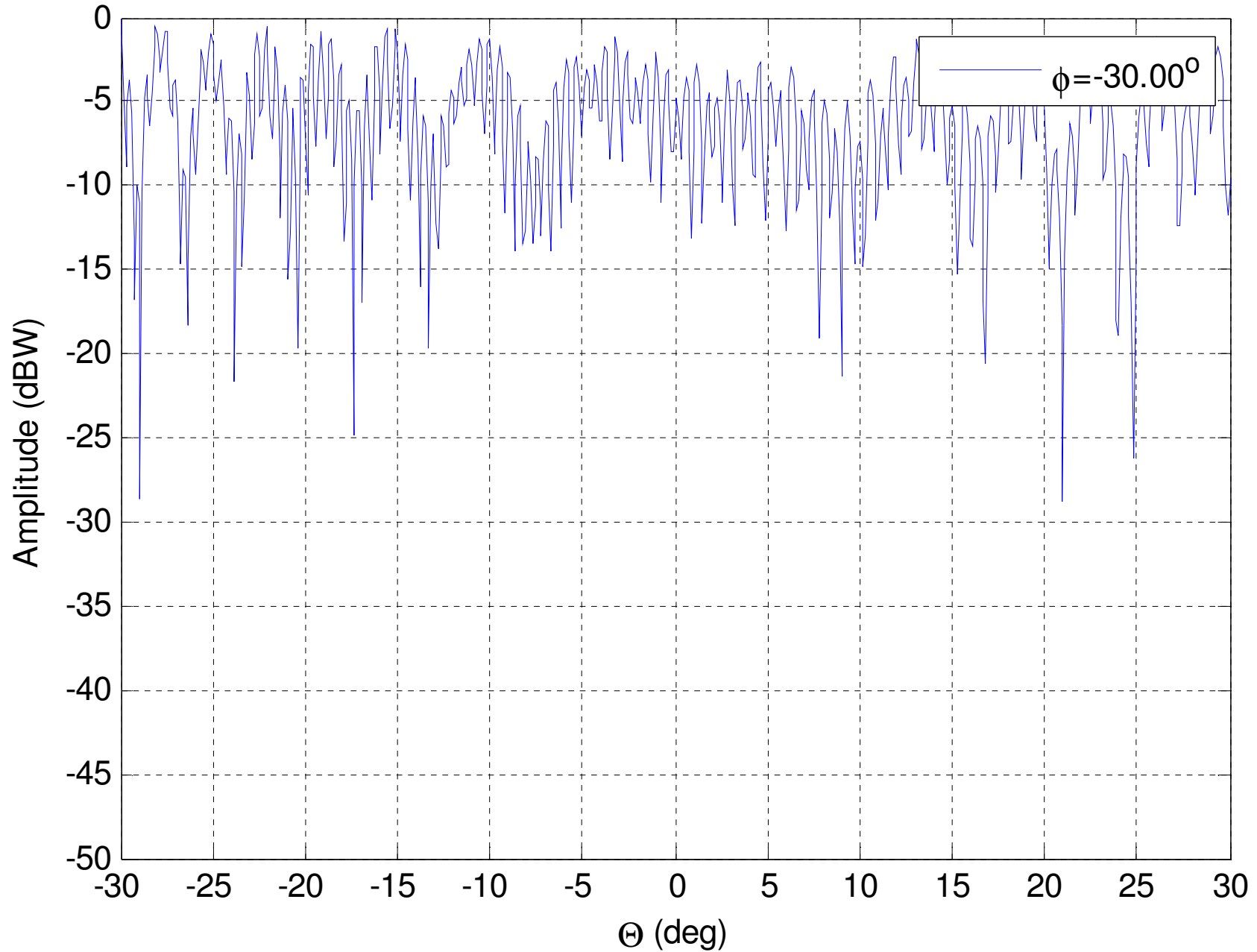
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: 2.98 dBW, Date: 16-Dec-2011



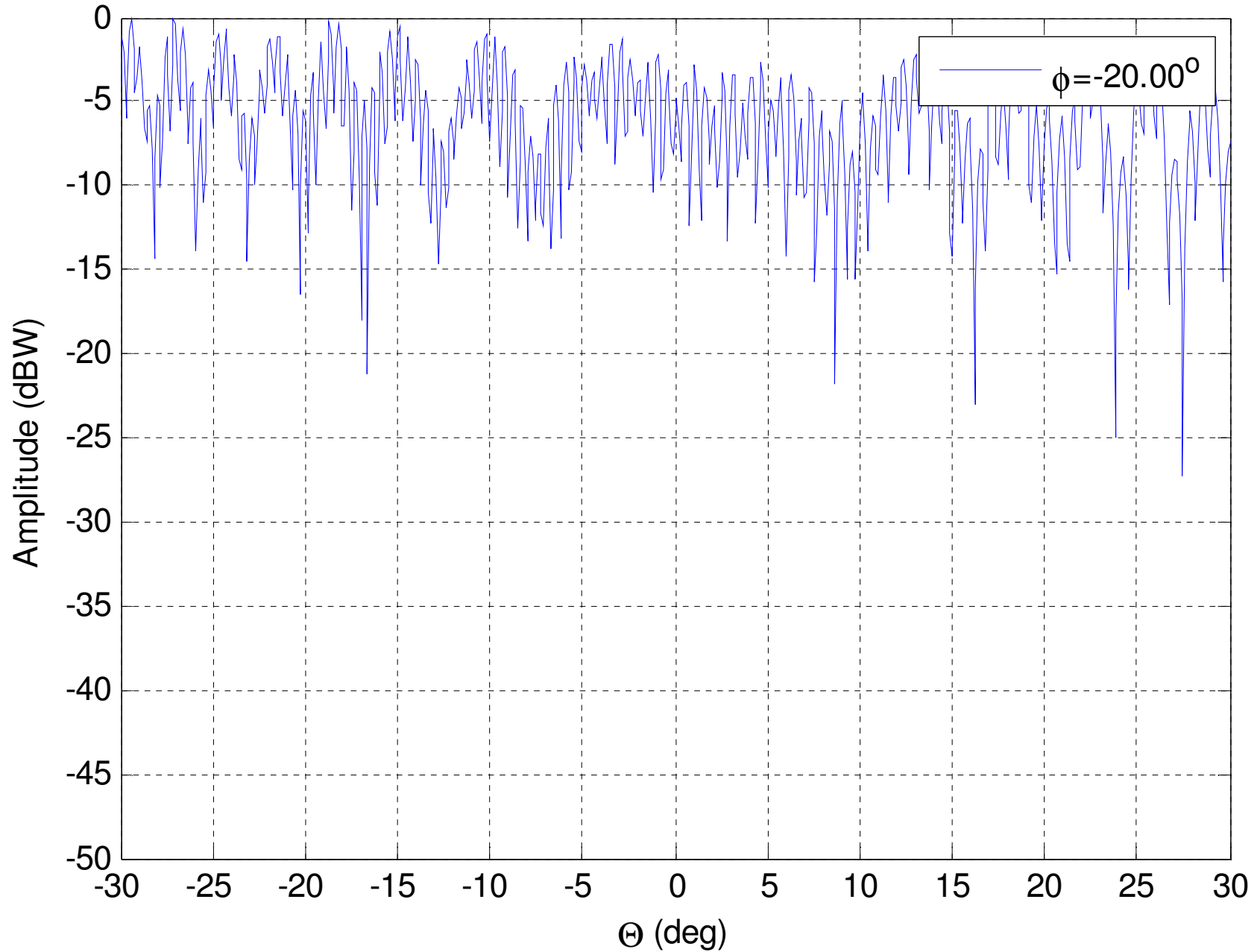
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: 2.55 dBW, Date: 16-Dec-2011



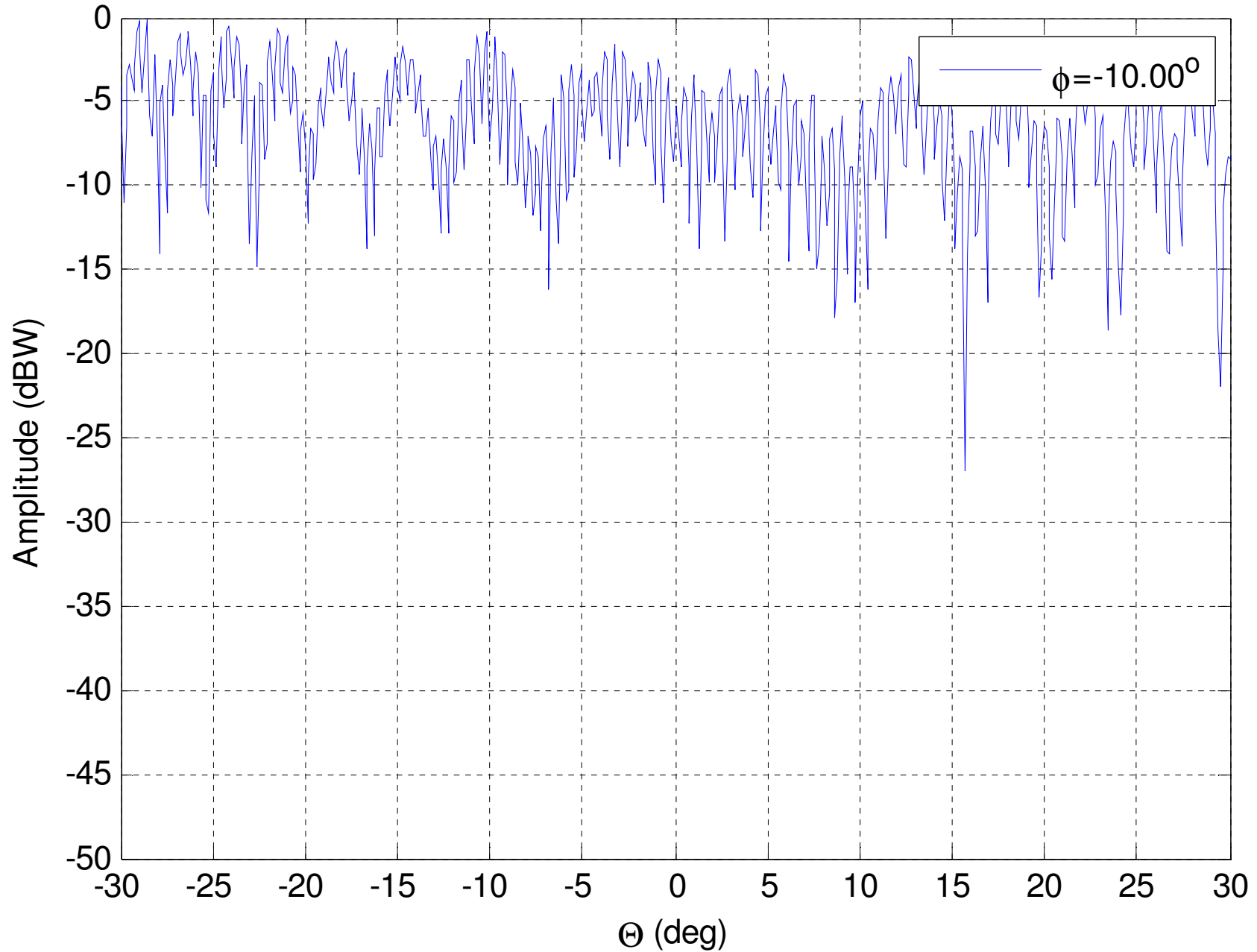
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: 2.57 dBW, Date: 16-Dec-2011



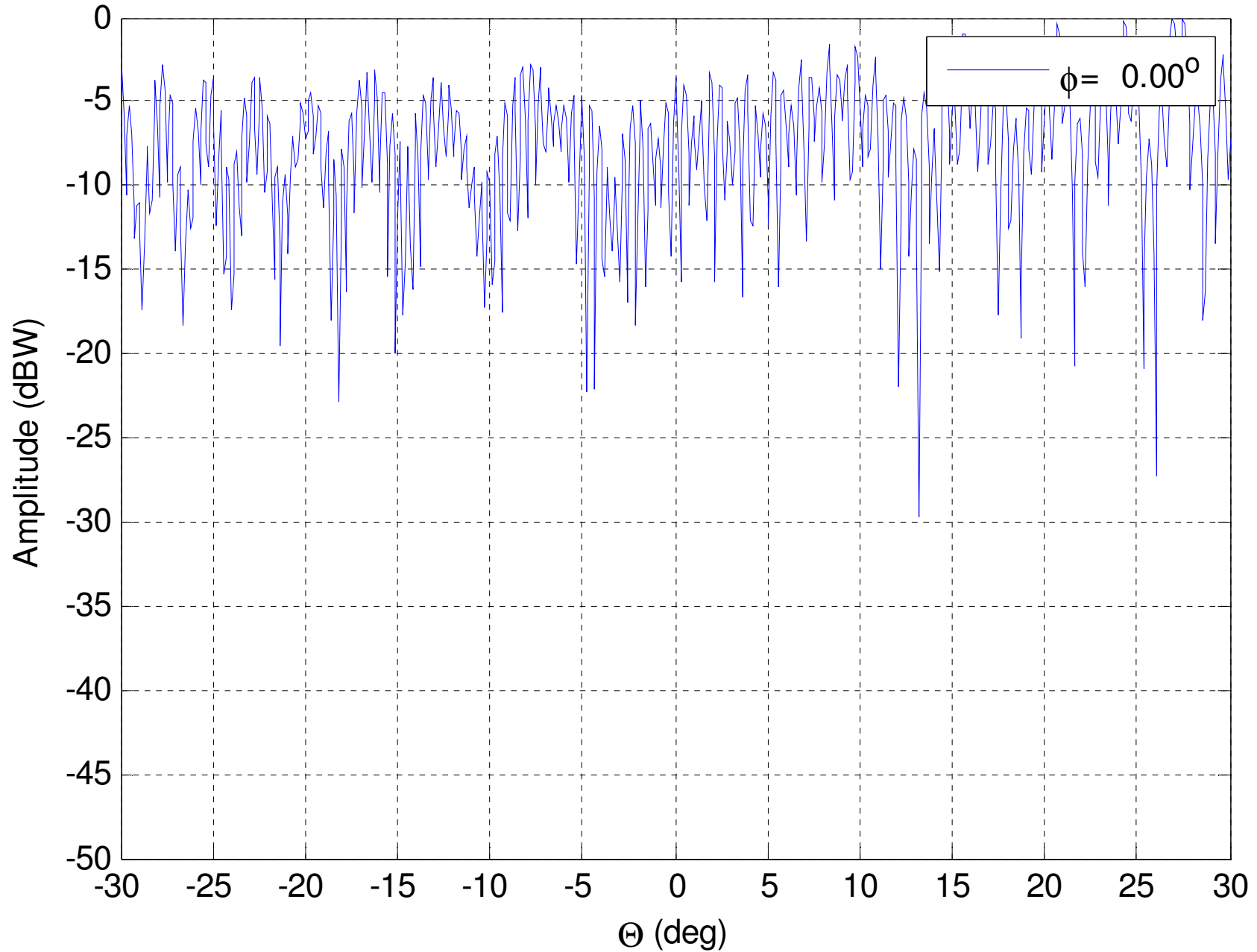
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: 2.93 dBW, Date: 16-Dec-2011



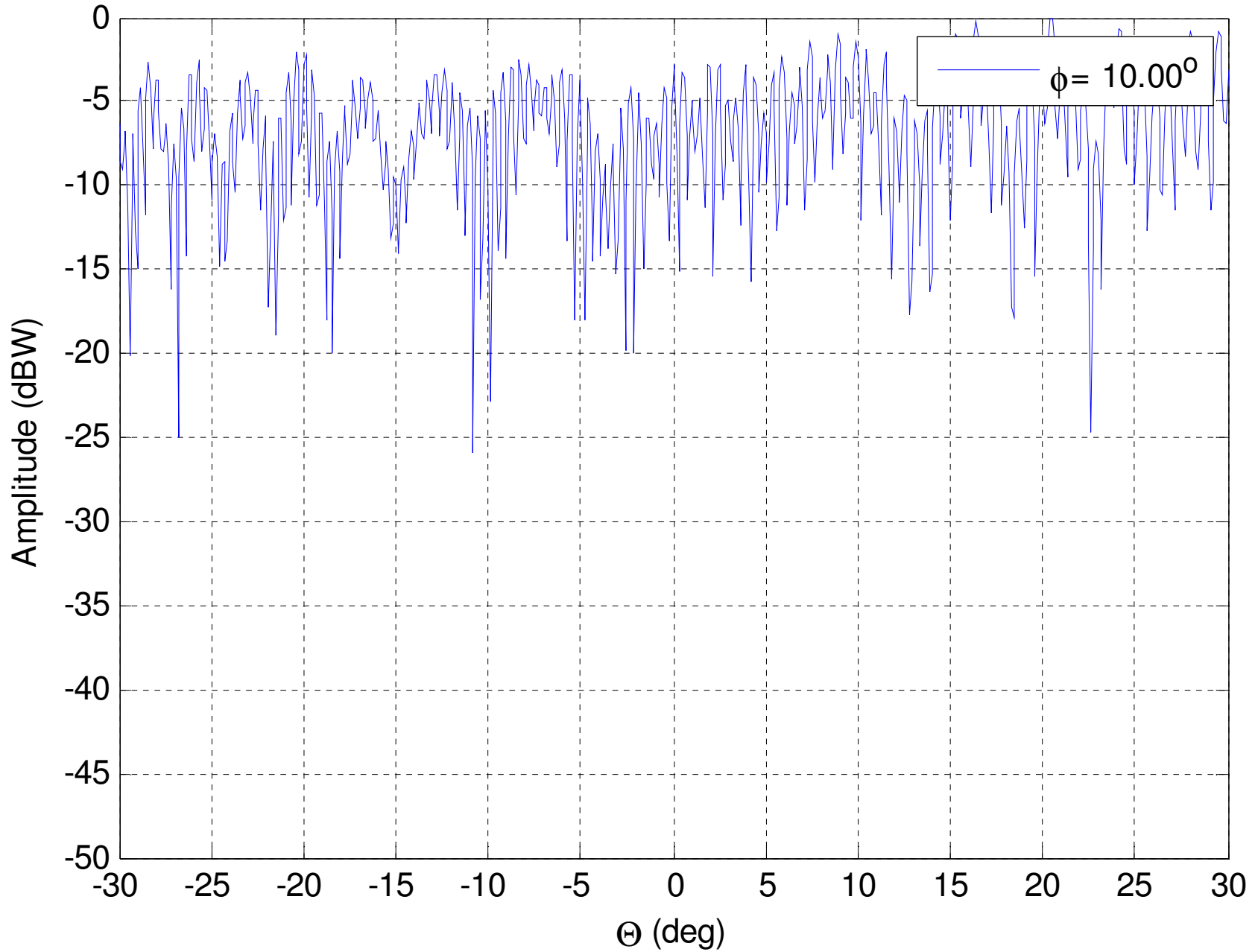
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: 3.67 dBW, Date: 16-Dec-2011



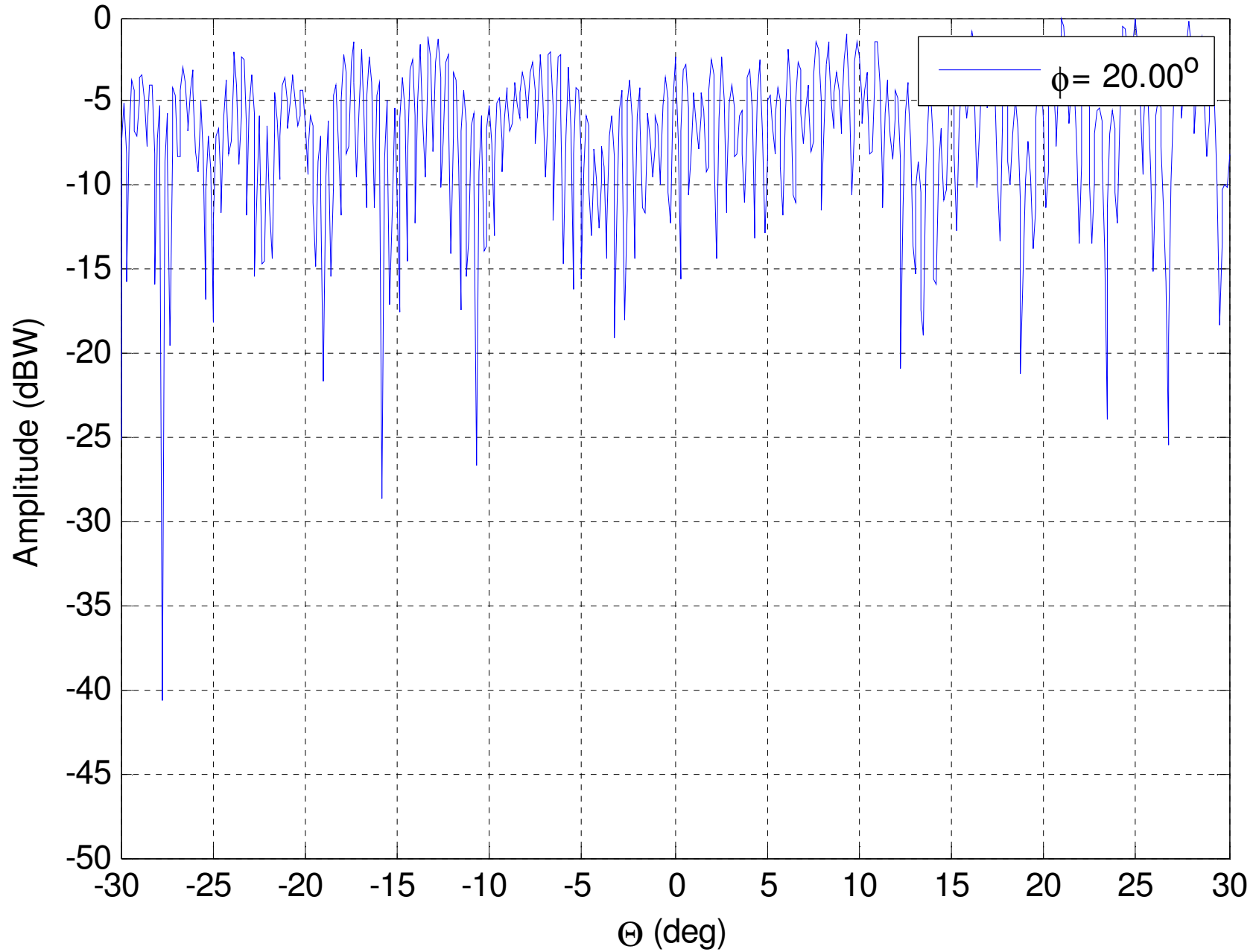
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: 2.88 dBW, Date: 16-Dec-2011



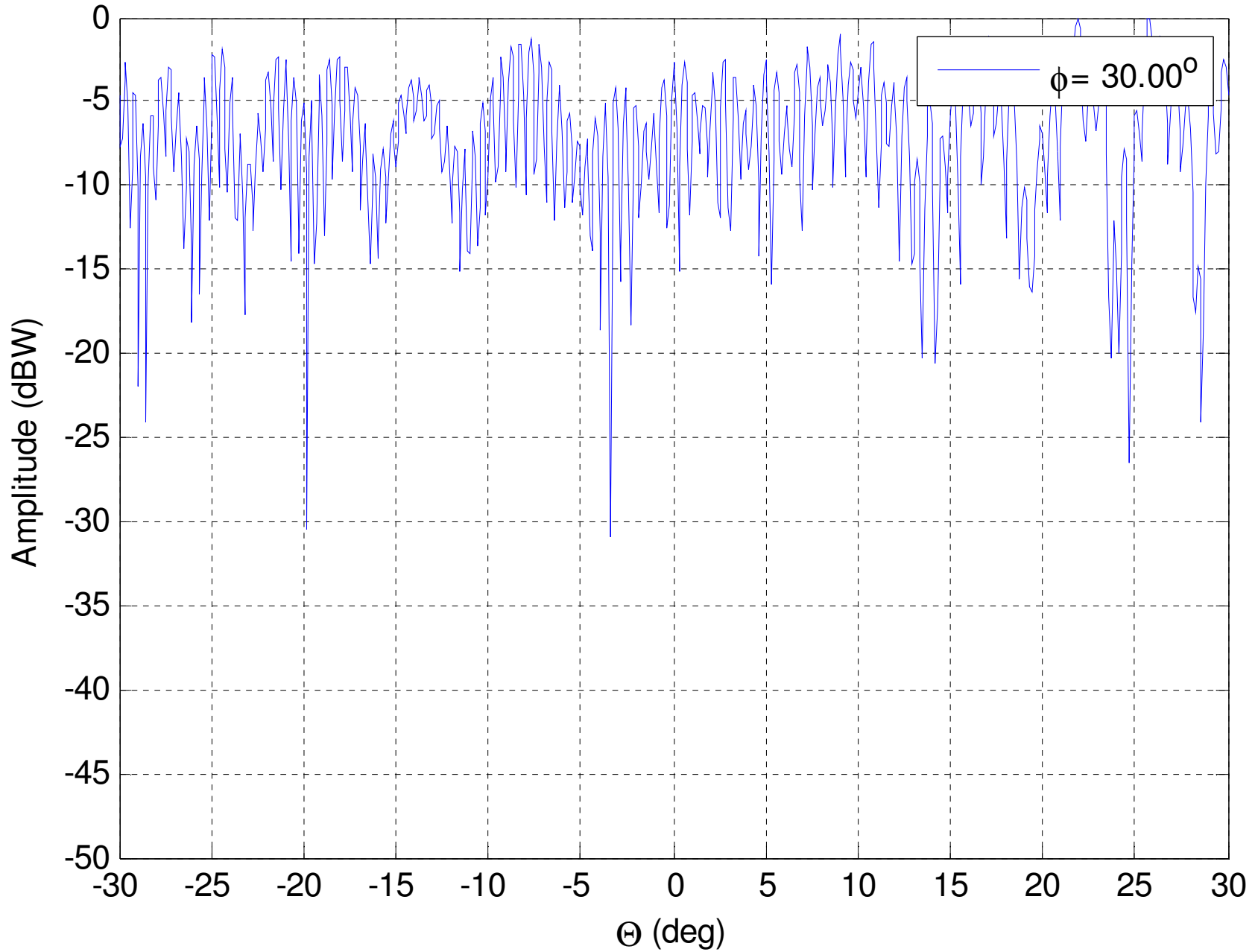
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: 2.53 dBW, Date: 16-Dec-2011



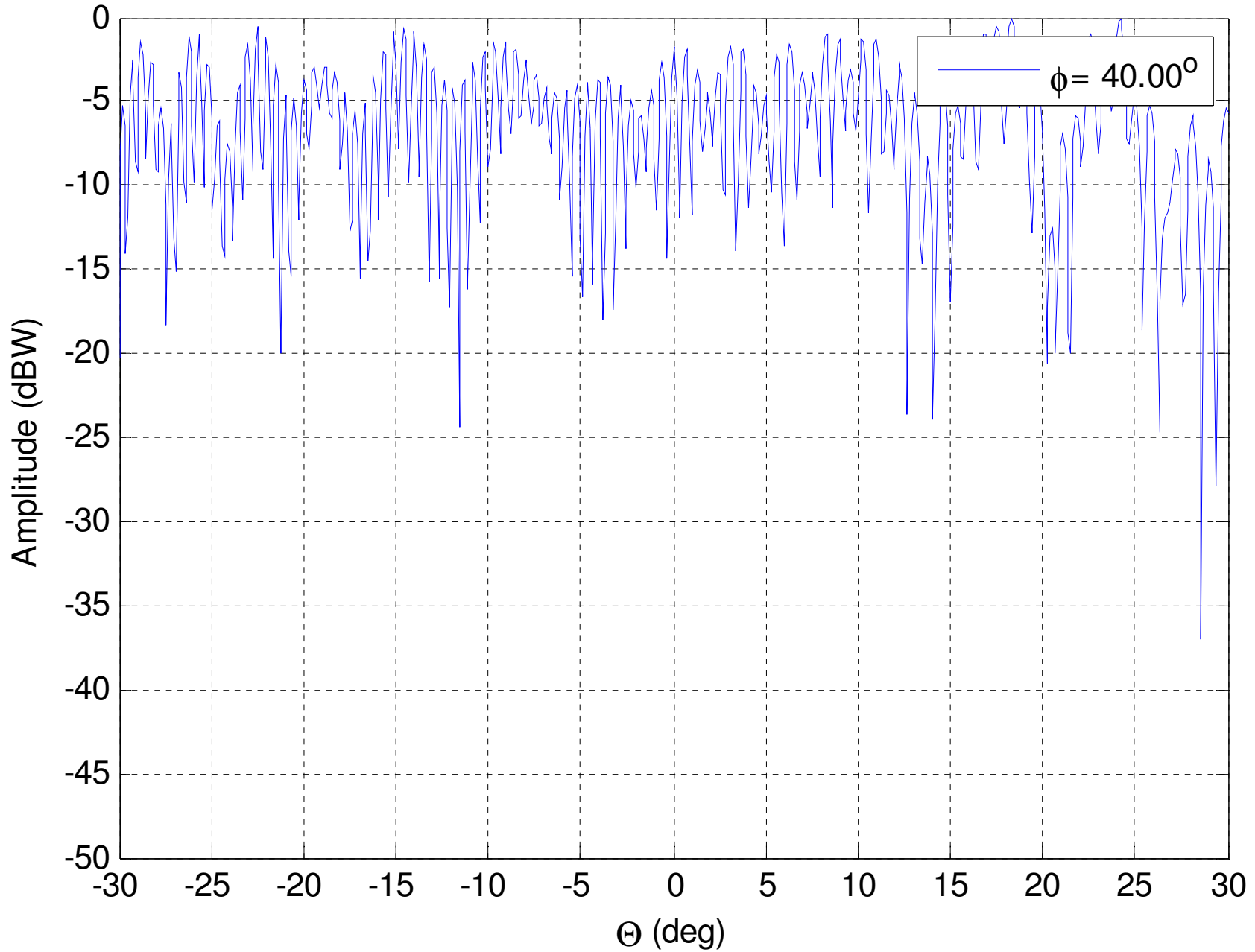
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: 2.72 dBW, Date: 16-Dec-2011



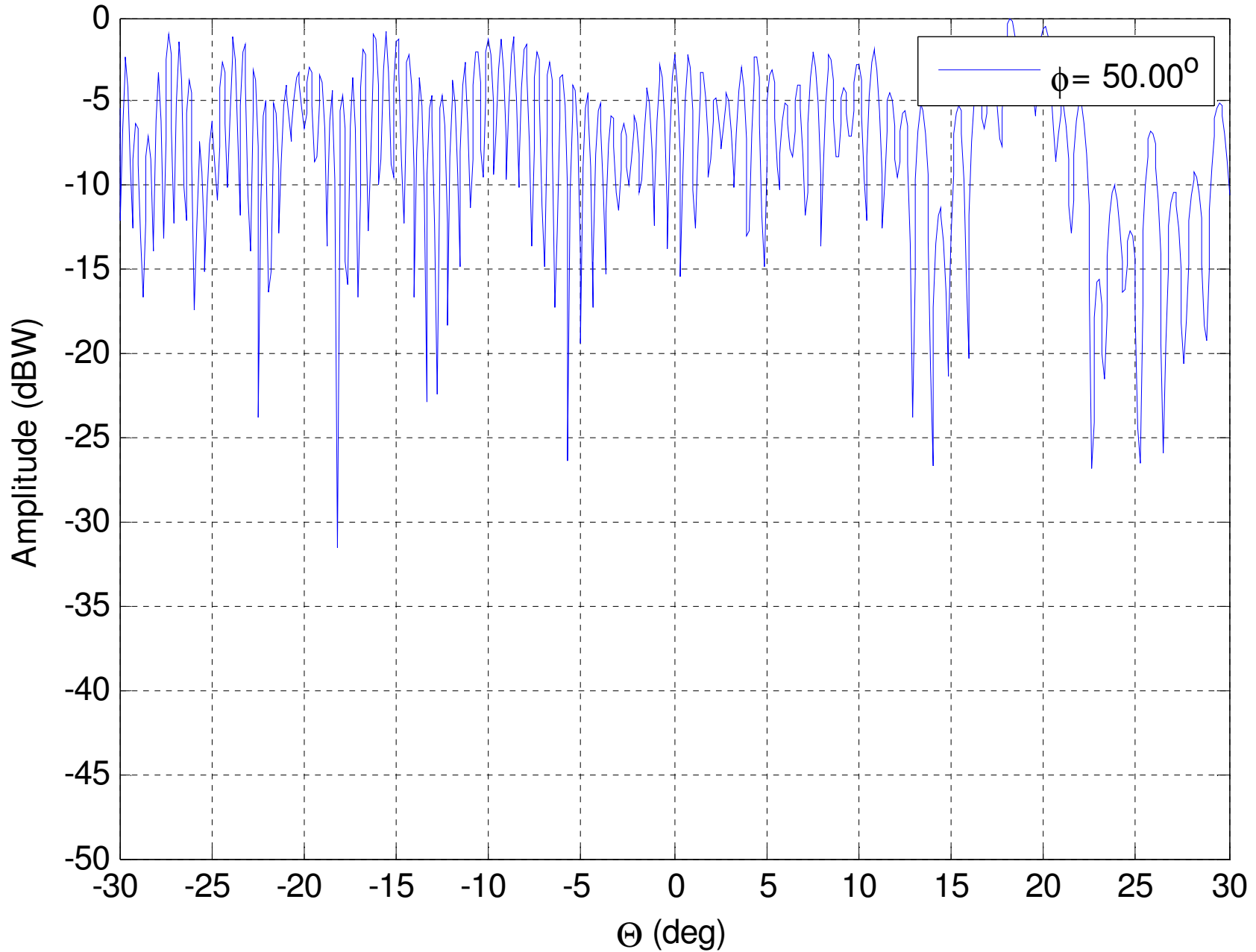
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: 1.90 dBW, Date: 16-Dec-2011



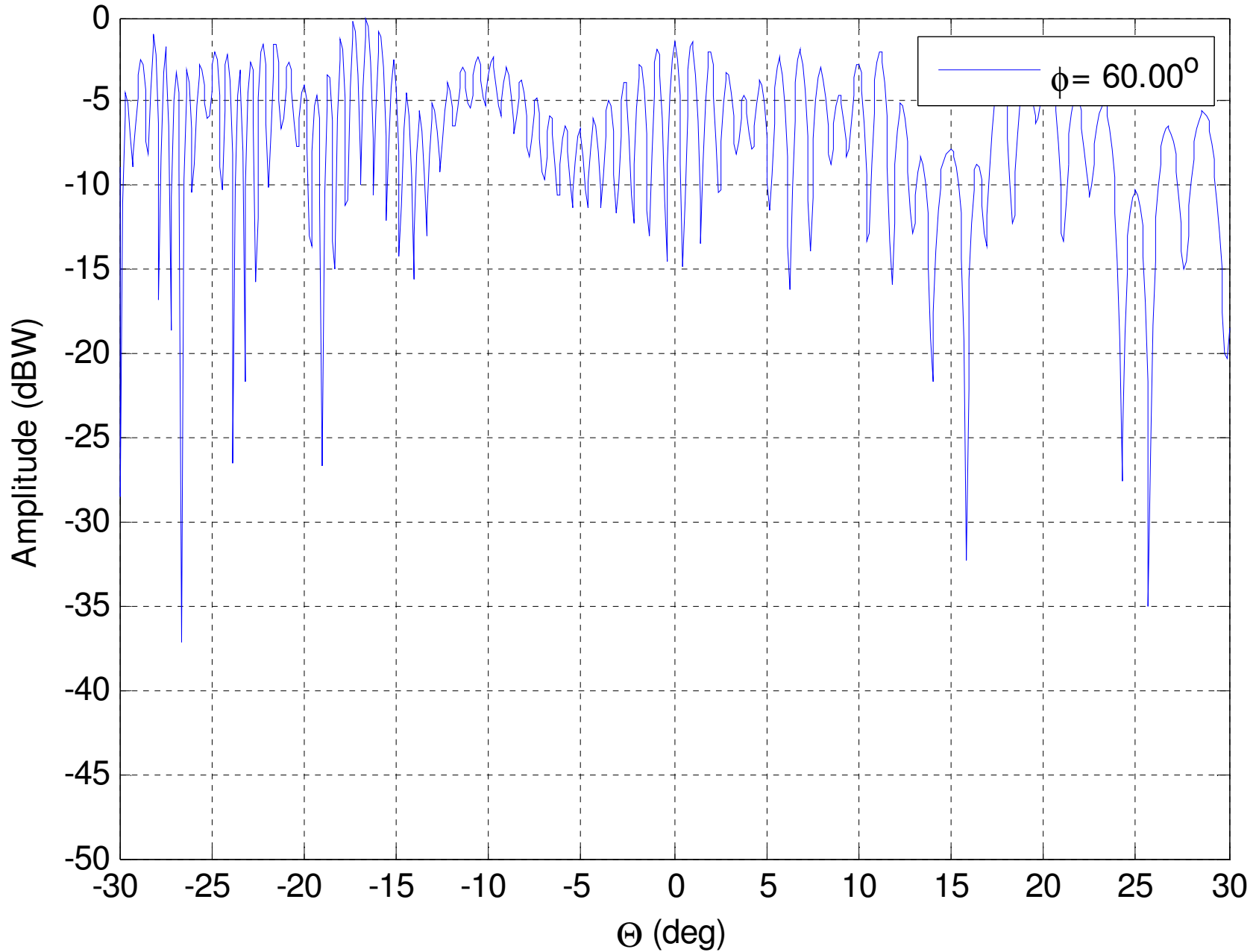
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: 2.34 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

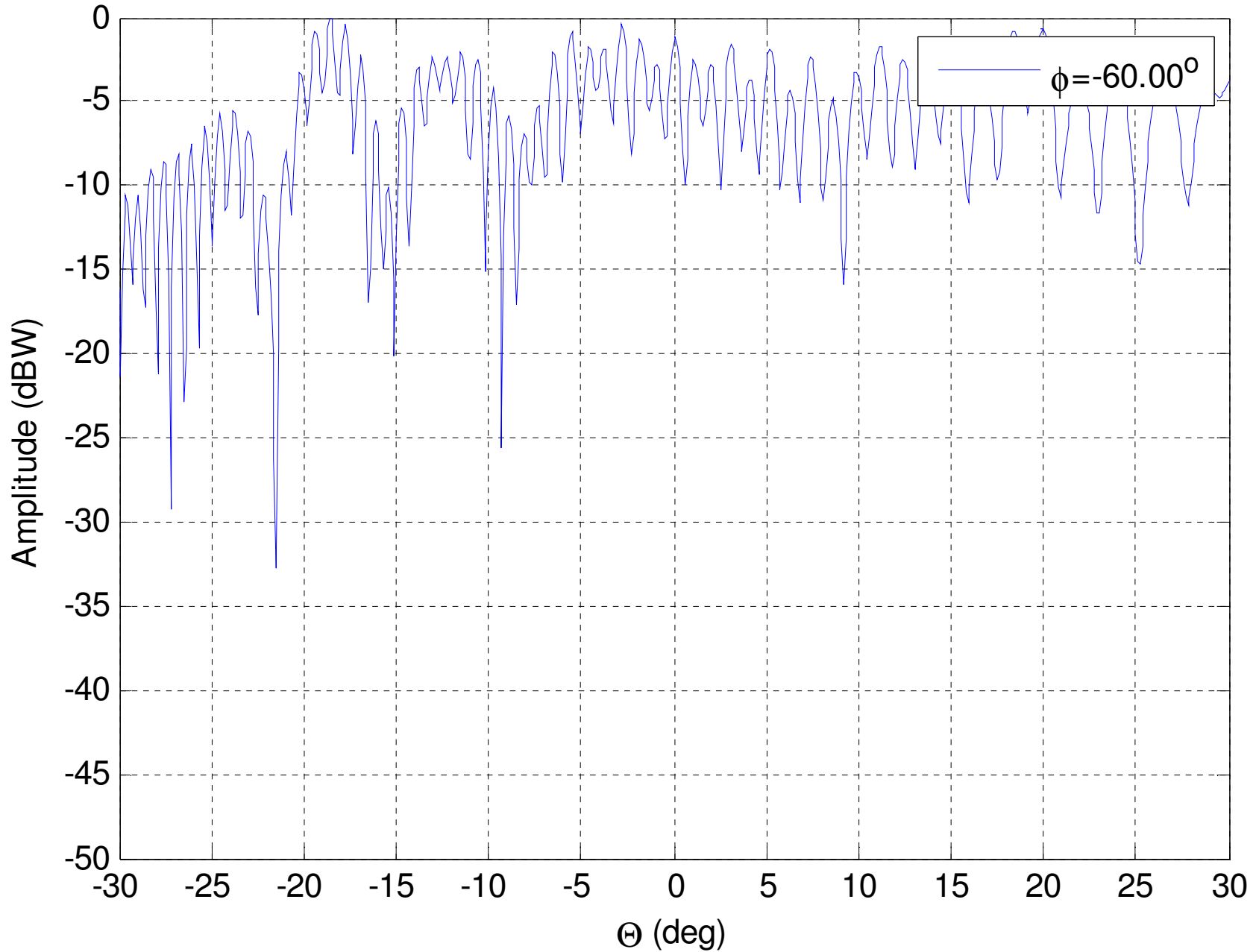
Input file: tx-17.3-lhcp-60.cut, Peak: 1.63 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

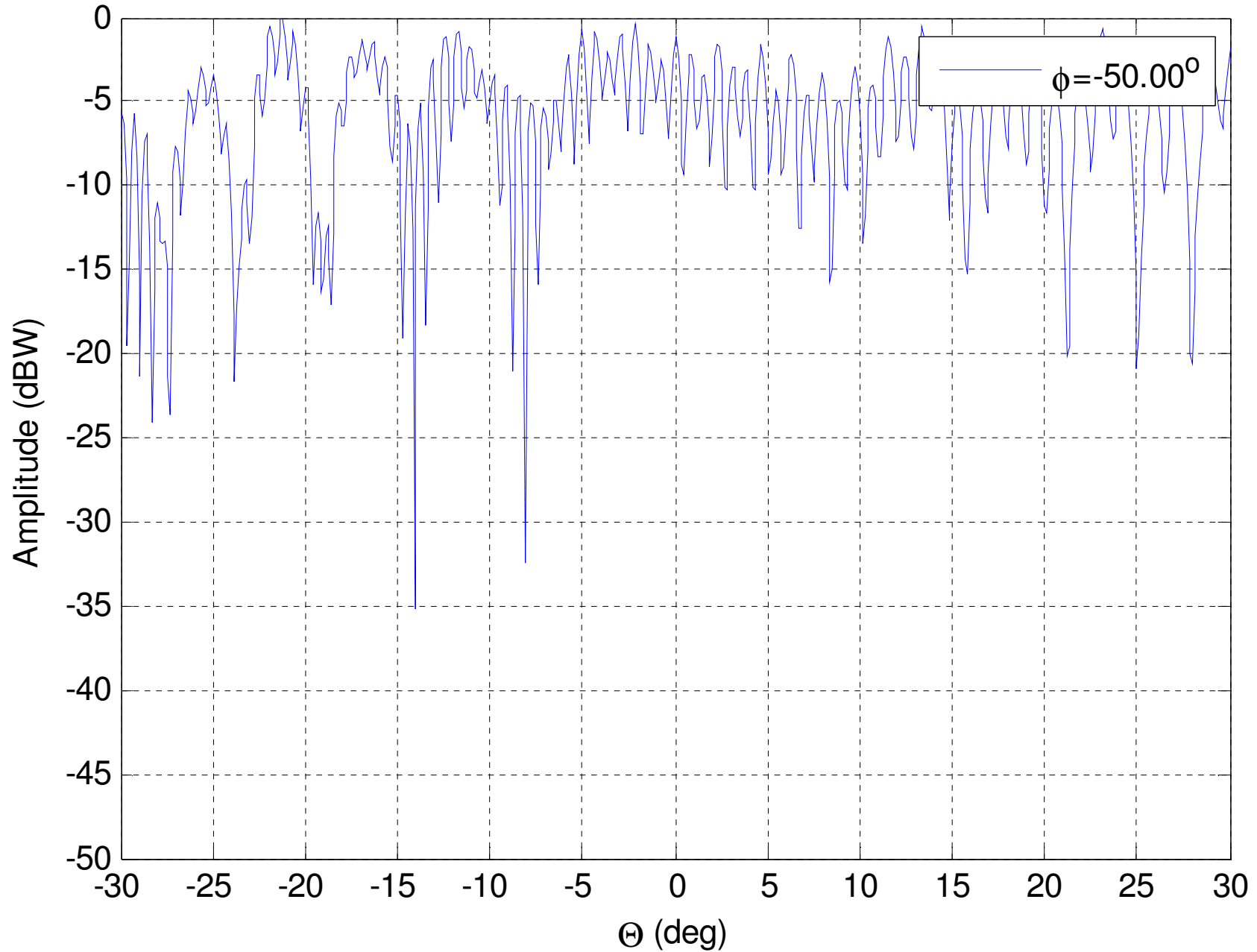
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: 1.33 dBW, Date: 16-Dec-2011



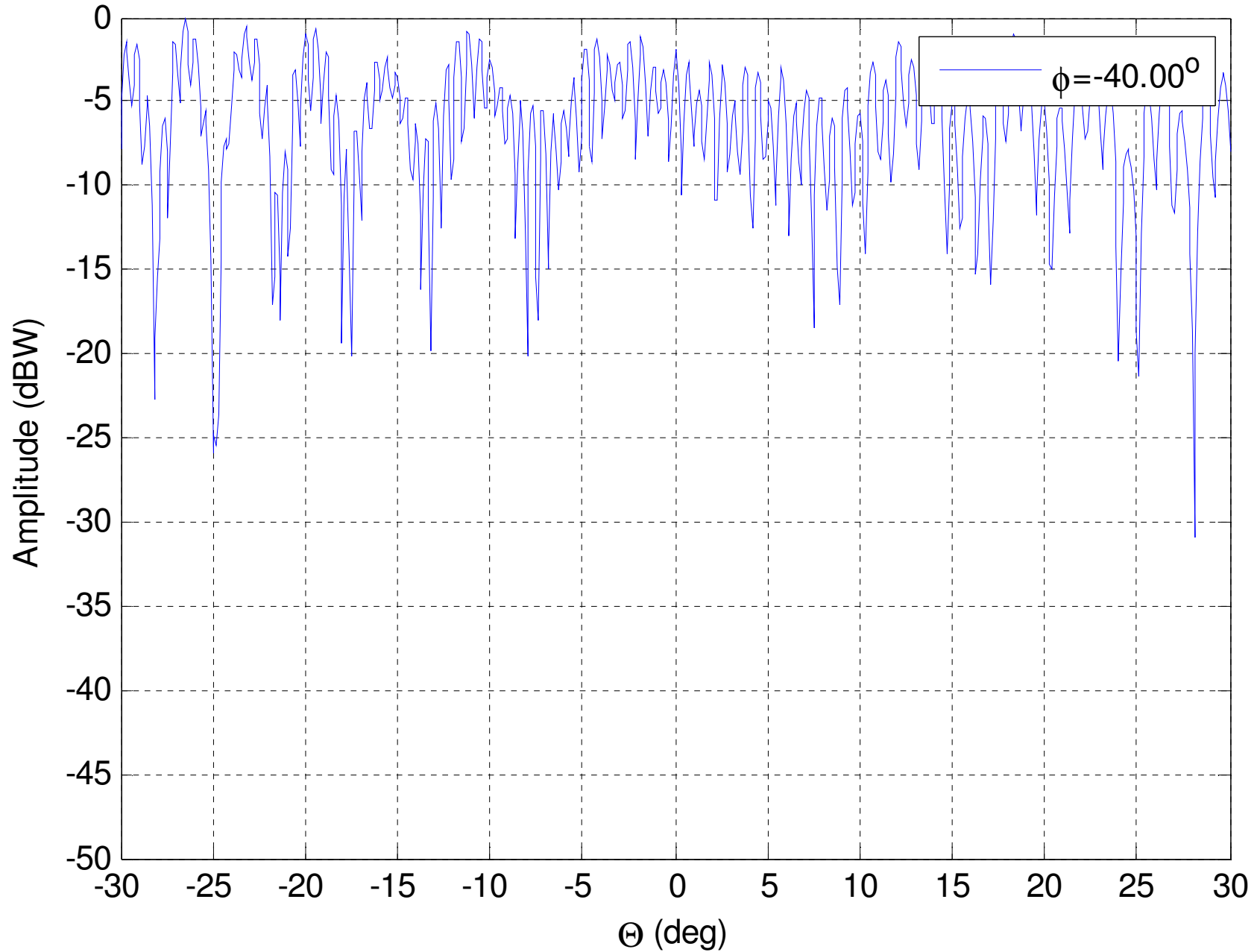
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: 1.19 dBW, Date: 16-Dec-2011



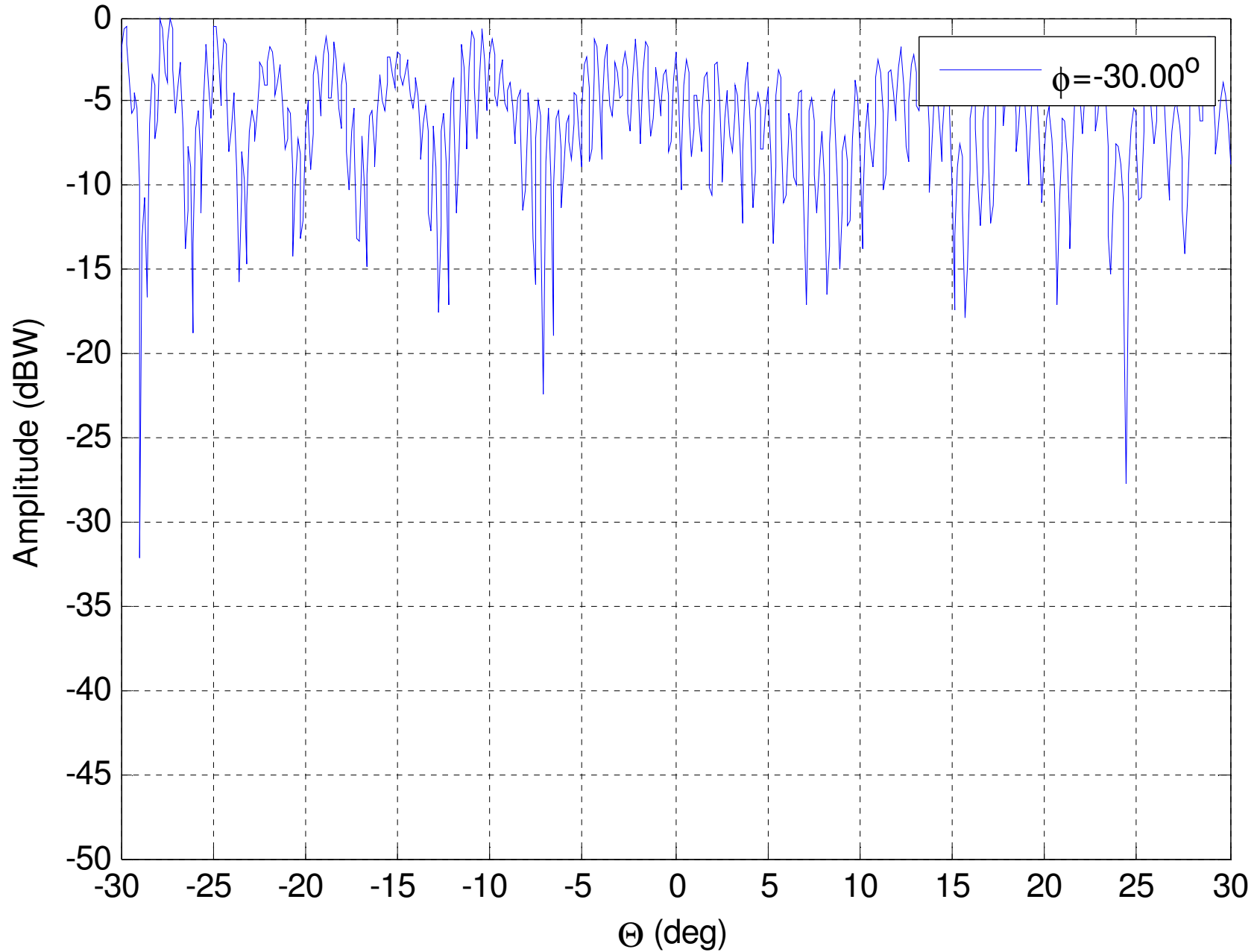
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: 1.97 dBW, Date: 16-Dec-2011



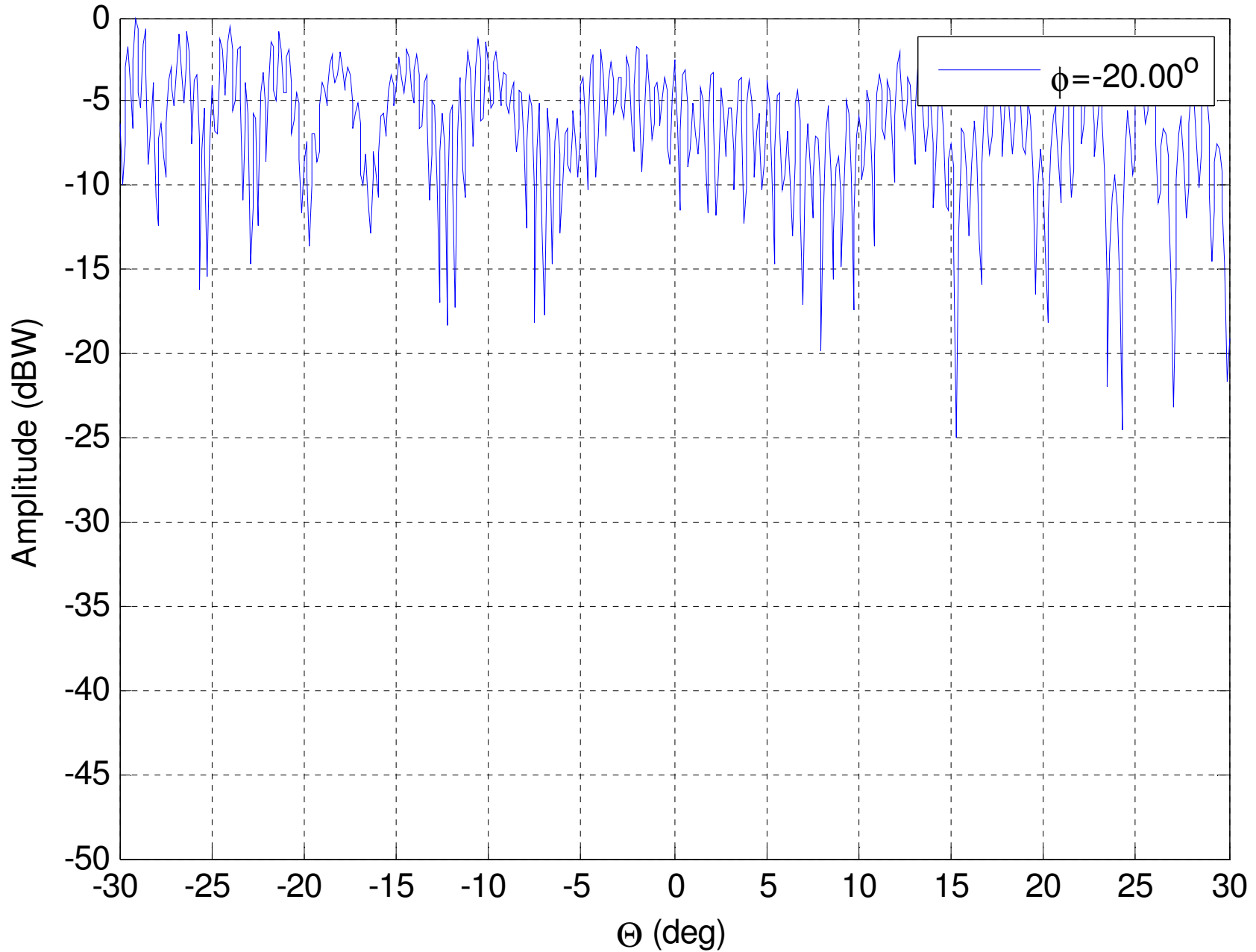
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: 2.01 dBW, Date: 16-Dec-2011



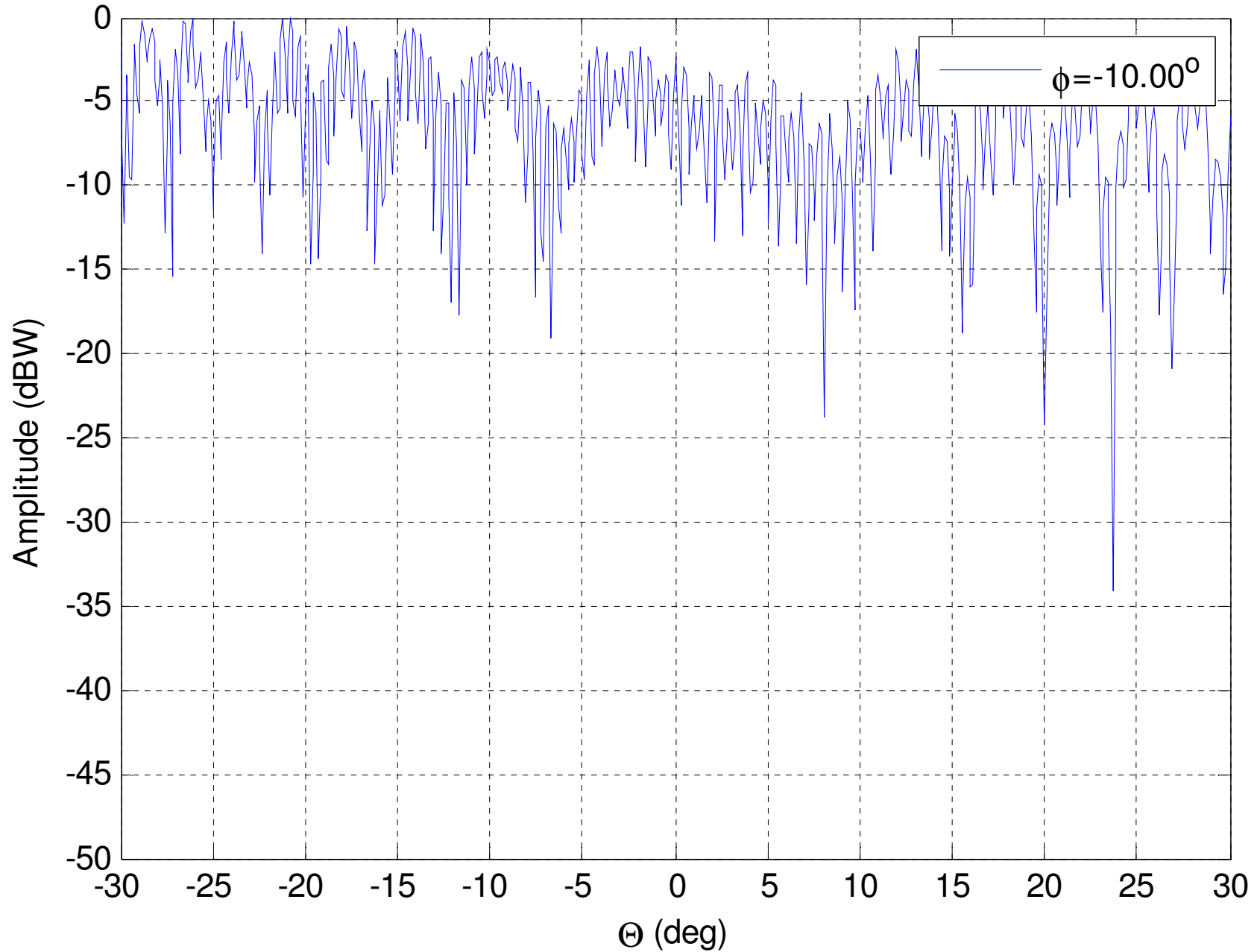
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: 2.57 dBW, Date: 16-Dec-2011



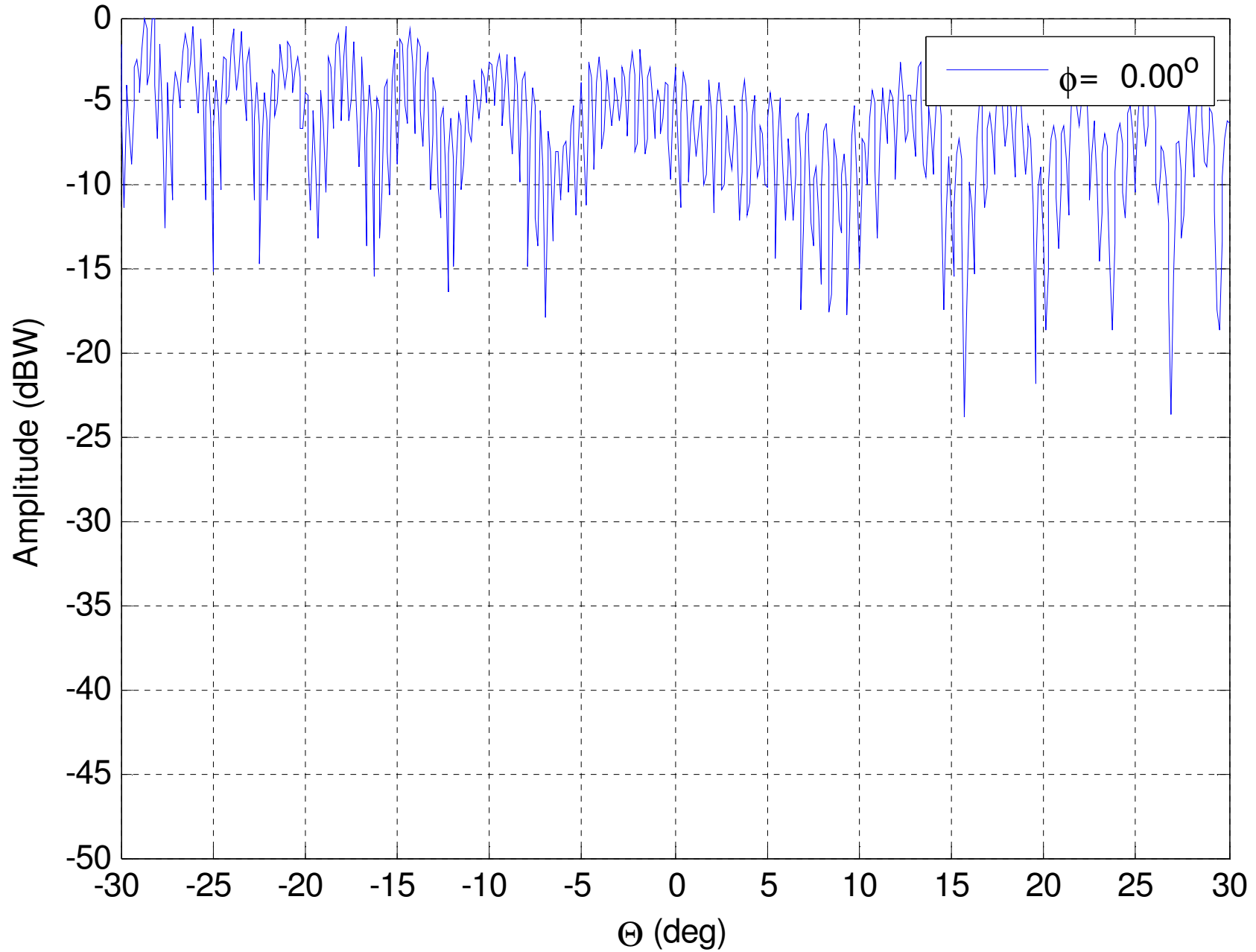
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: 2.46 dBW, Date: 16-Dec-2011



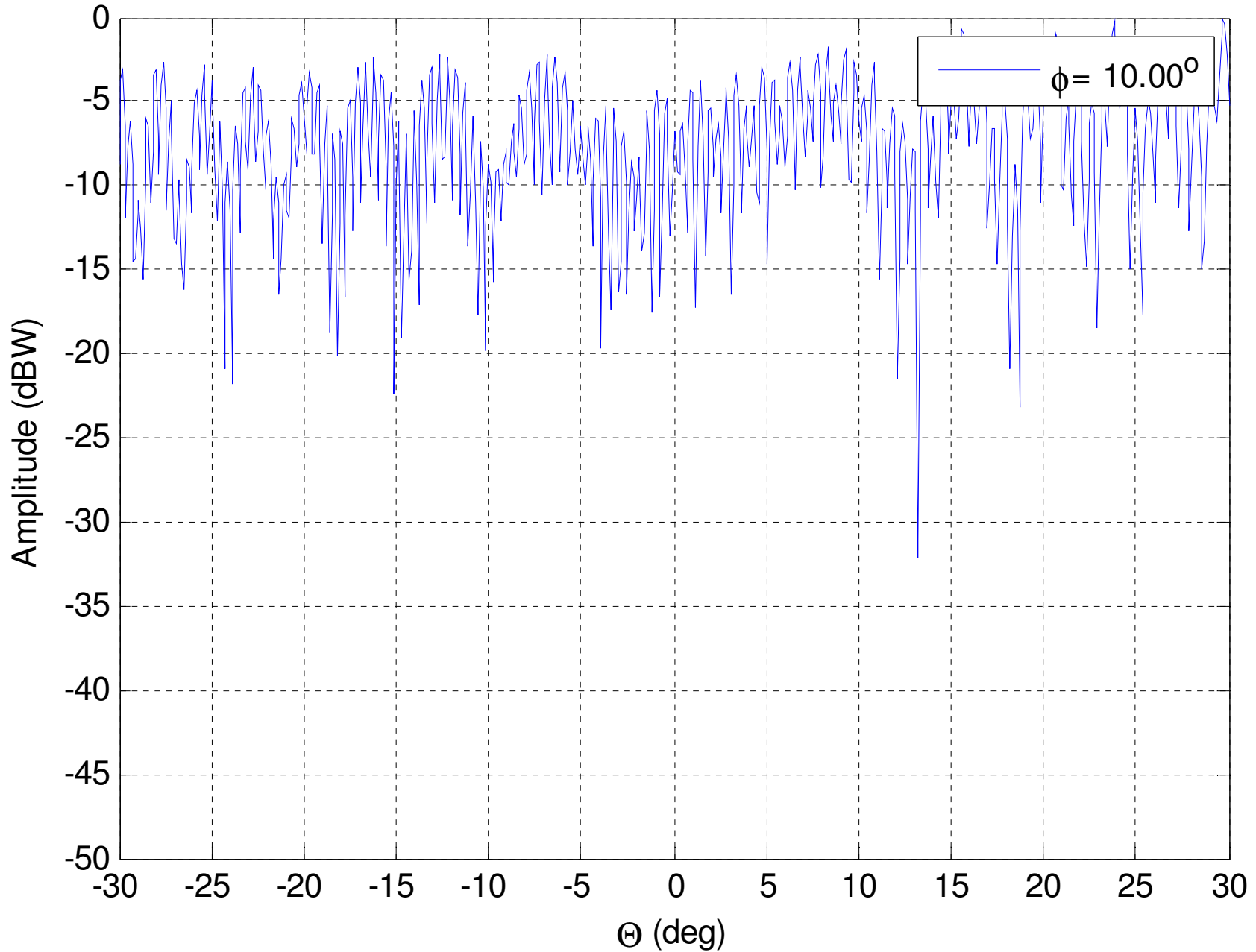
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: 2.94 dBW, Date: 16-Dec-2011



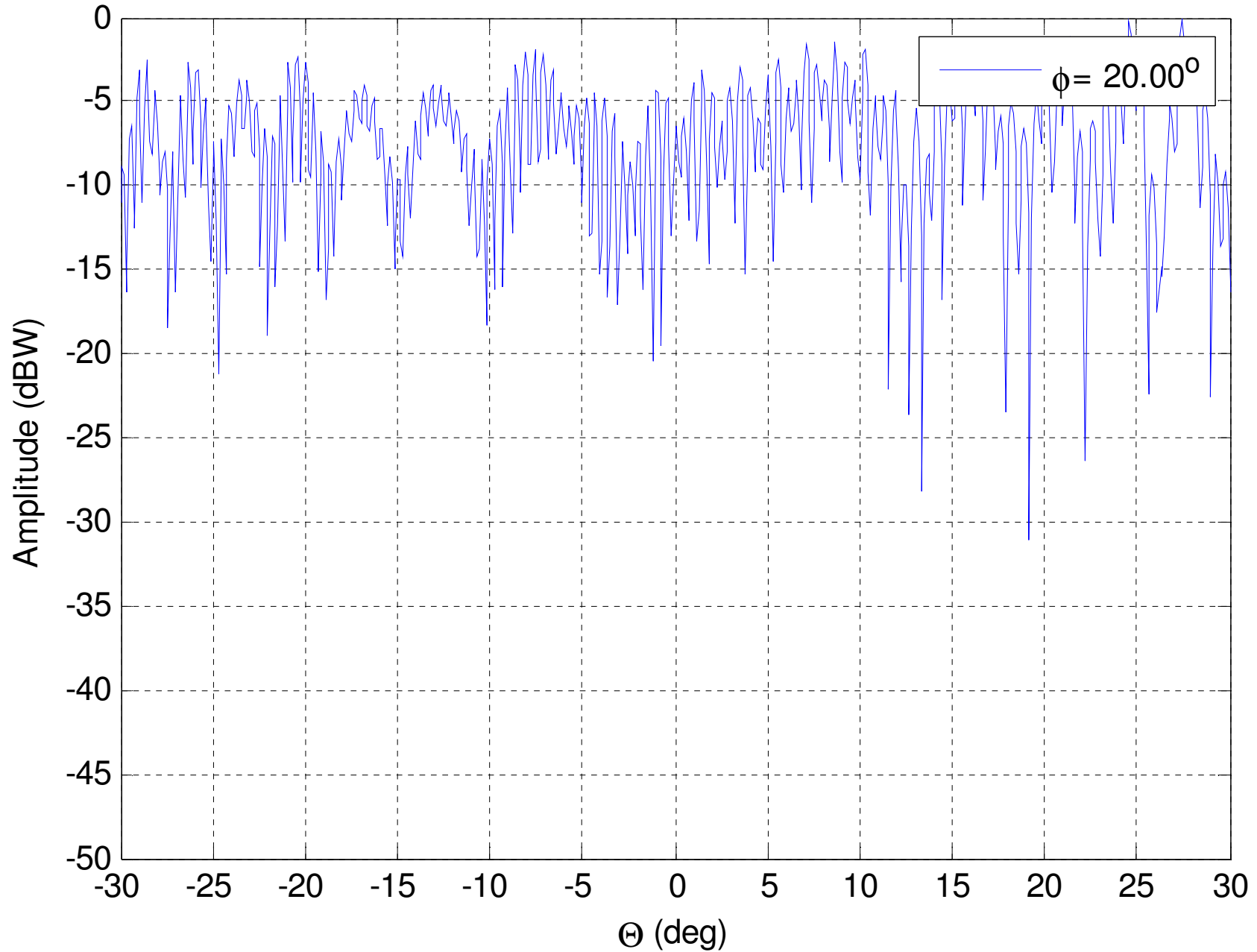
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: 3.15 dBW, Date: 16-Dec-2011



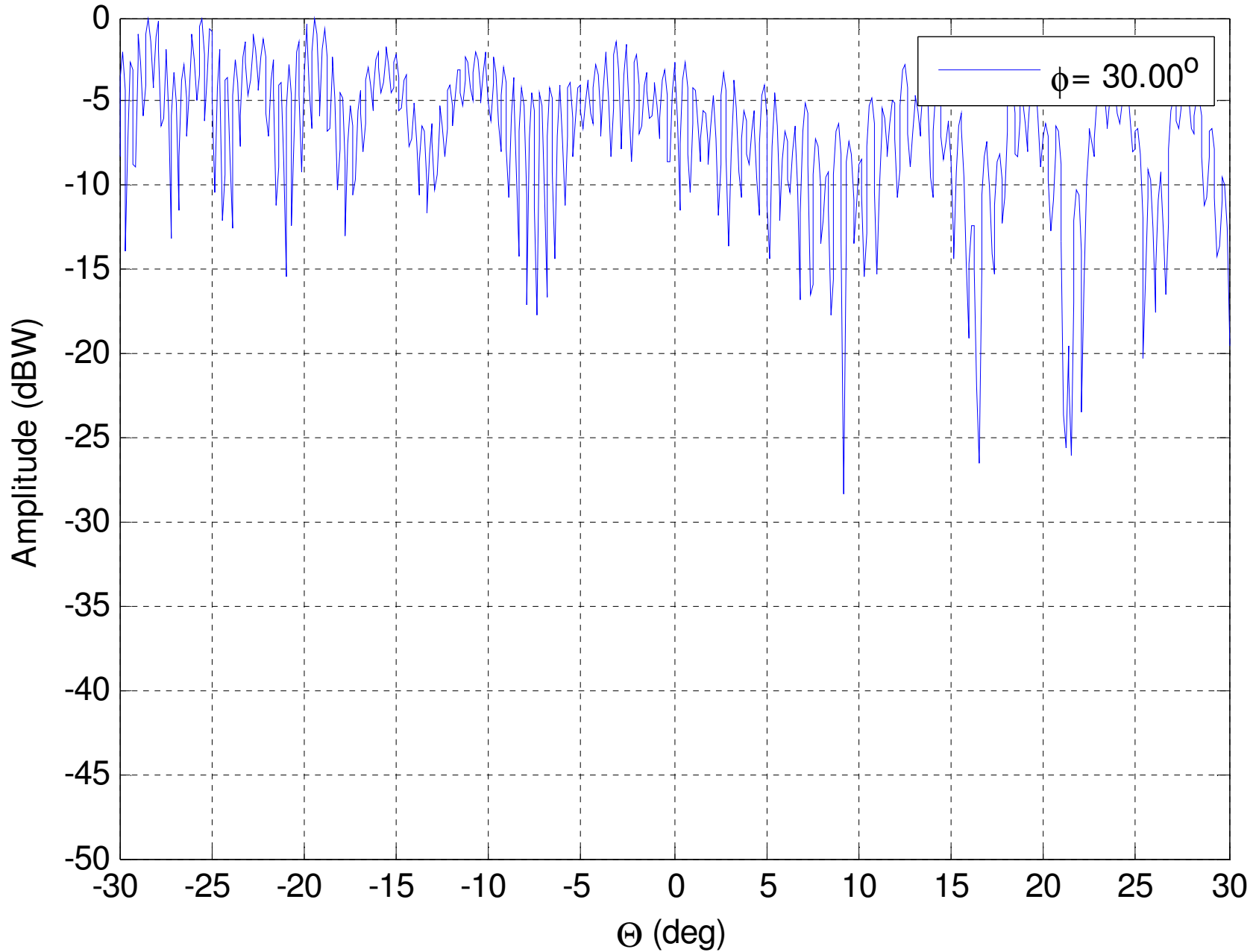
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: 2.88 dBW, Date: 16-Dec-2011



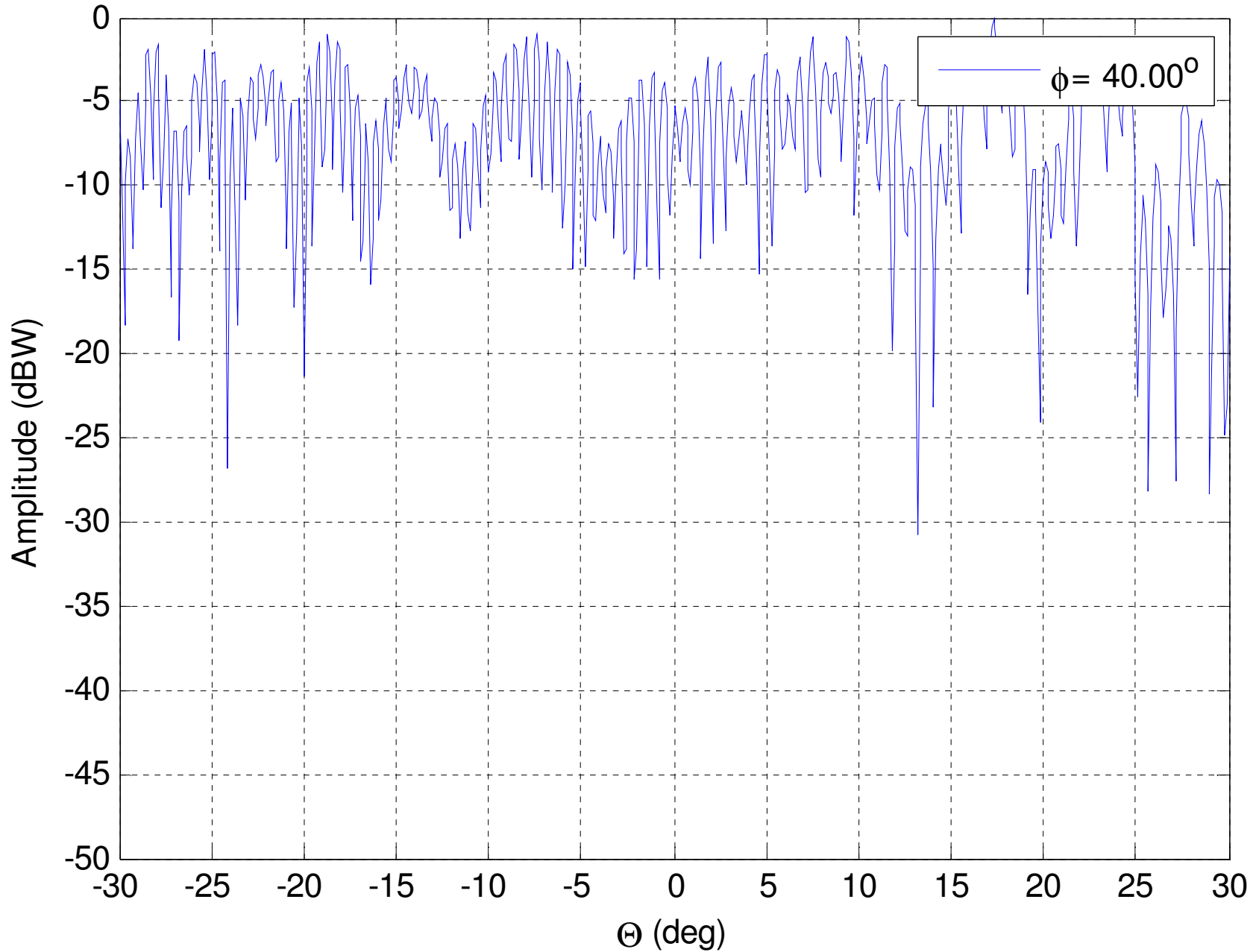
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: 2.61 dBW, Date: 16-Dec-2011



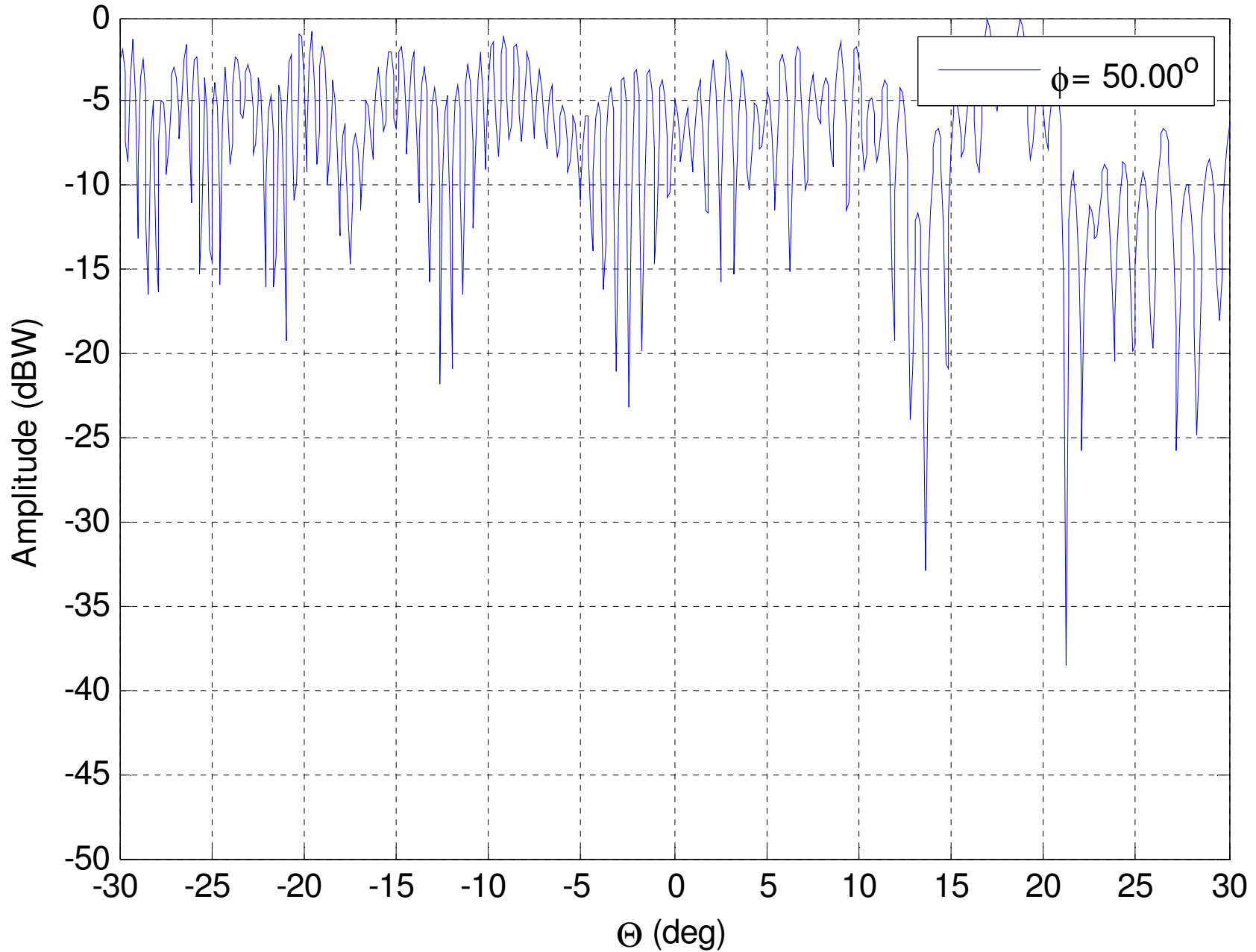
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: 1.95 dBW, Date: 16-Dec-2011



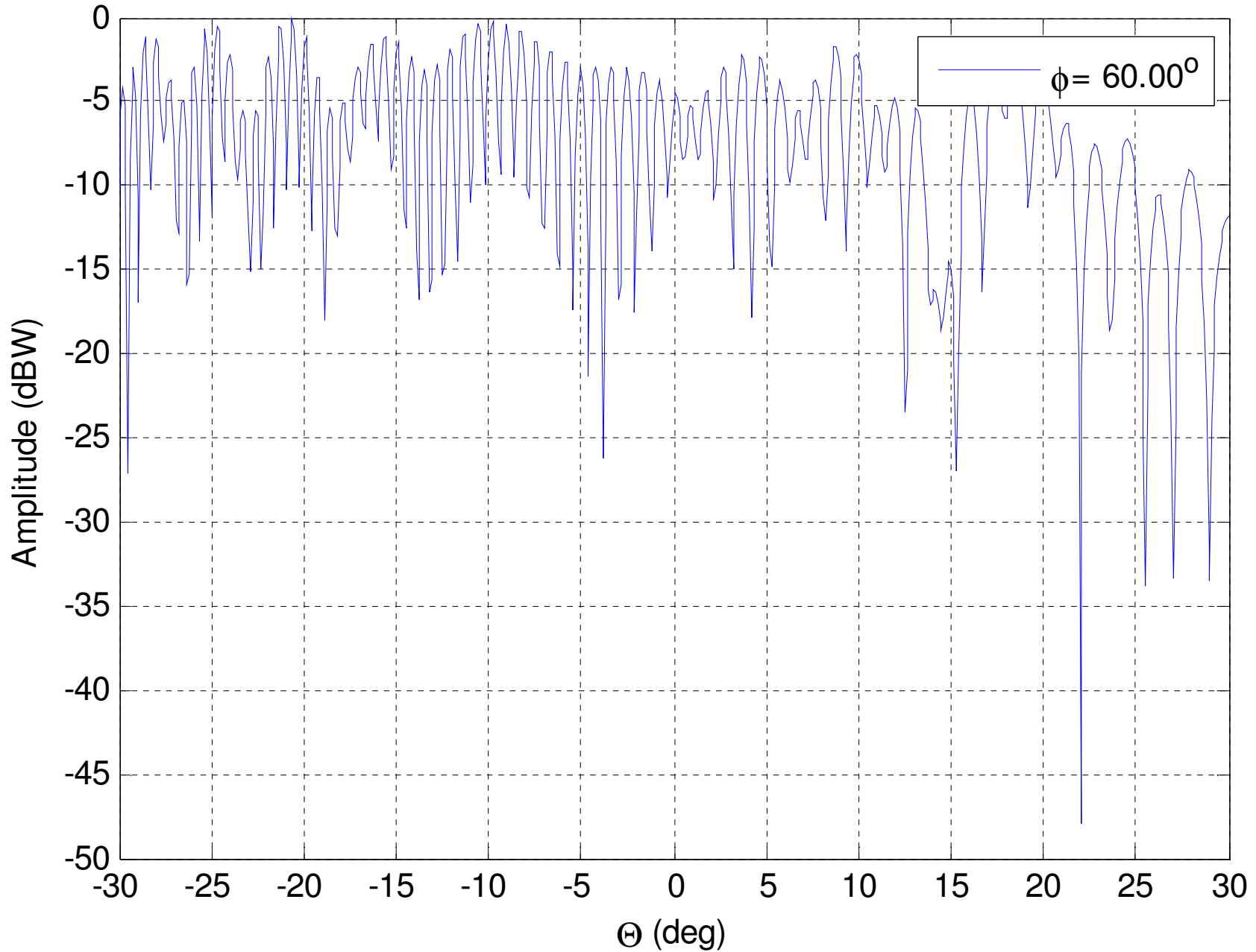
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: 1.62 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

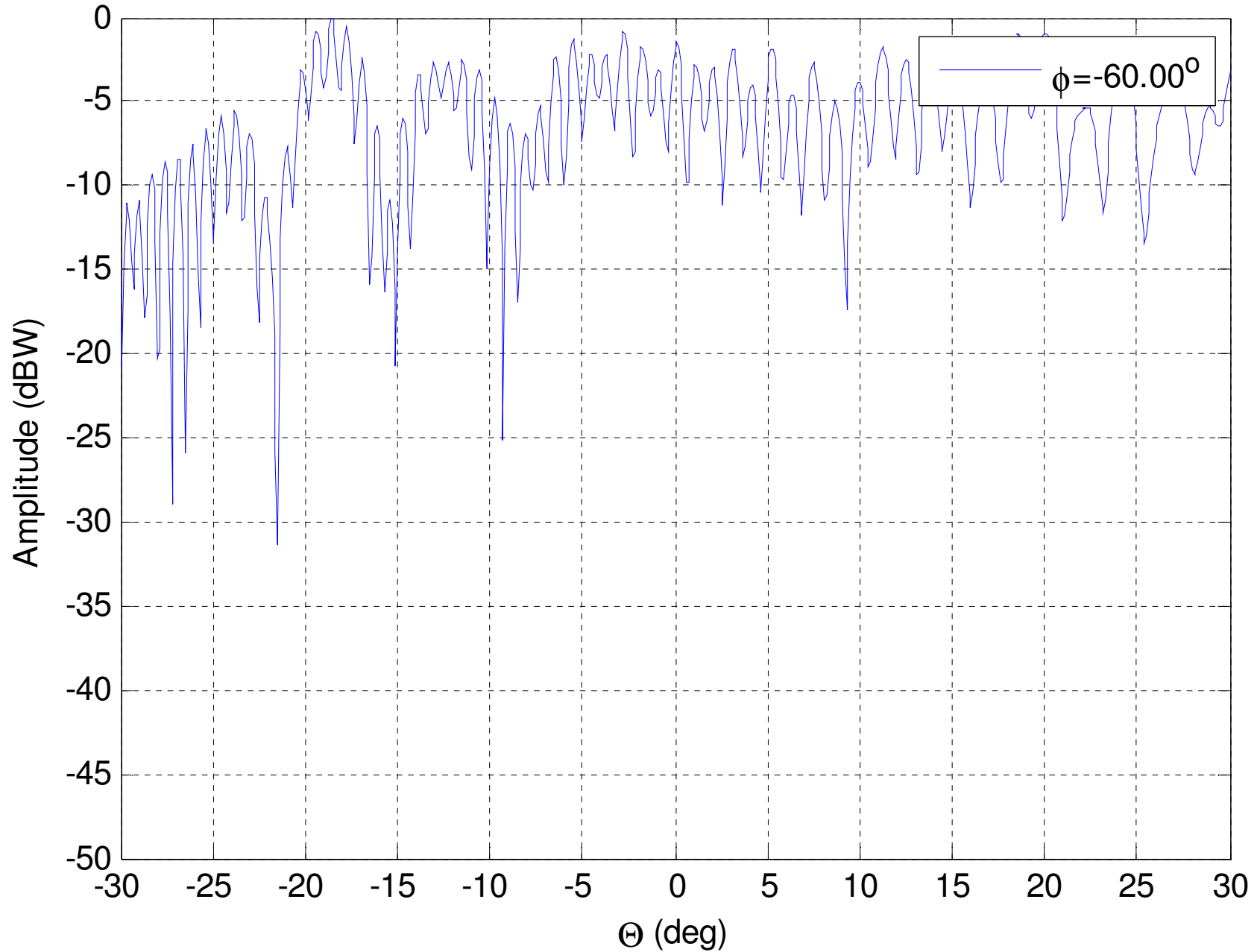
Input file: tx-17.5-rhcp-60.cut, Peak: 1.33 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

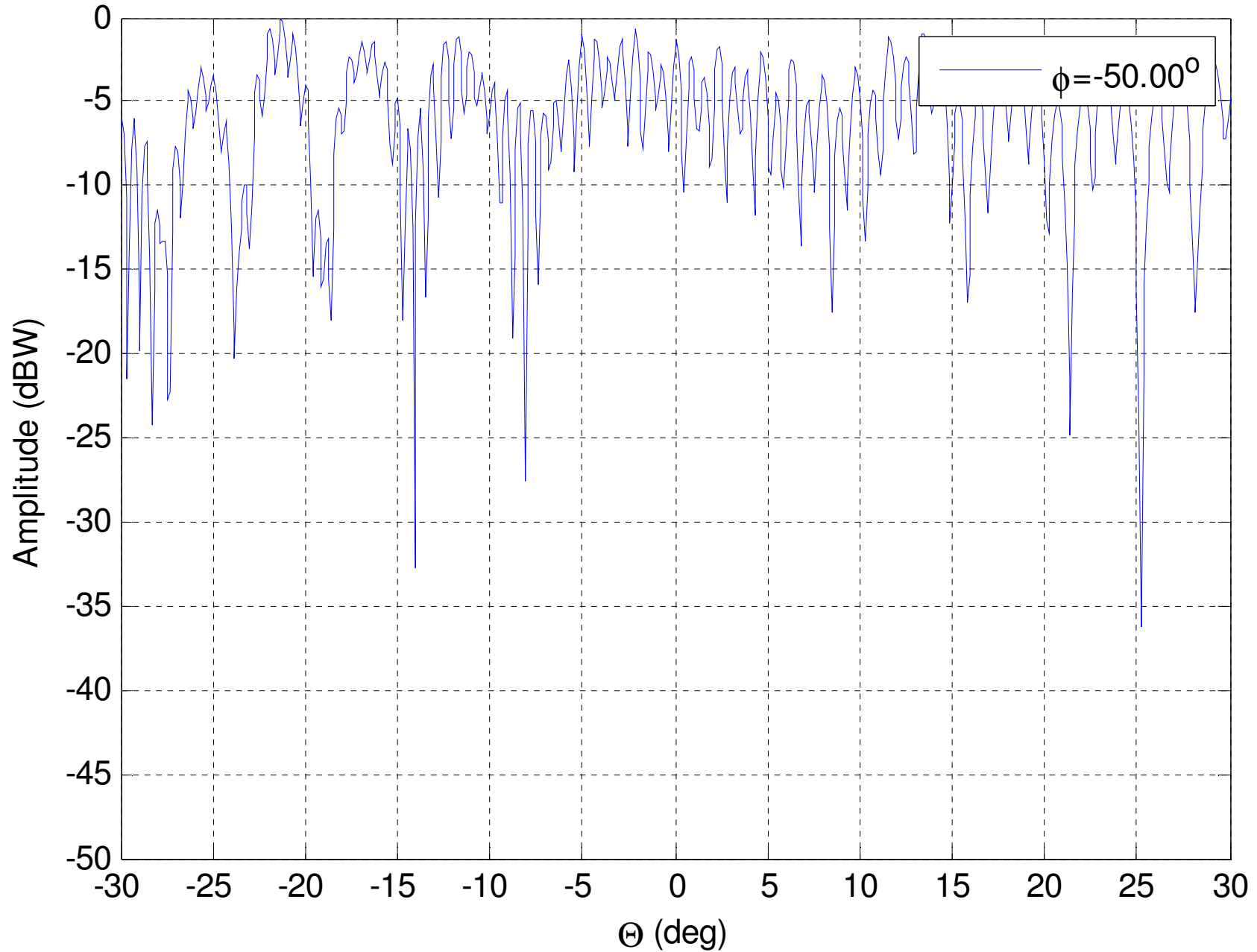
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: 1.62 dBW, Date: 16-Dec-2011



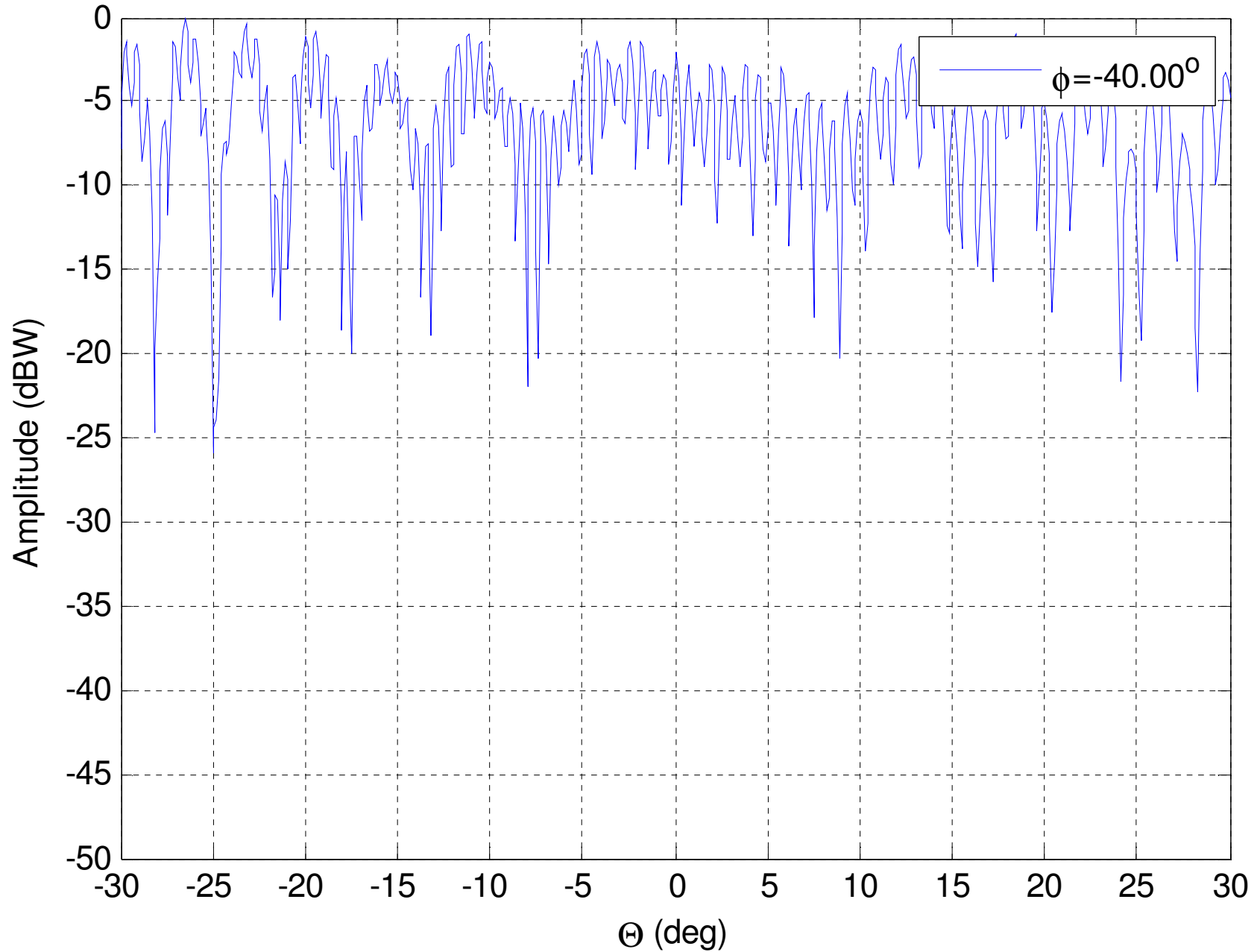
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: 1.50 dBW, Date: 16-Dec-2011



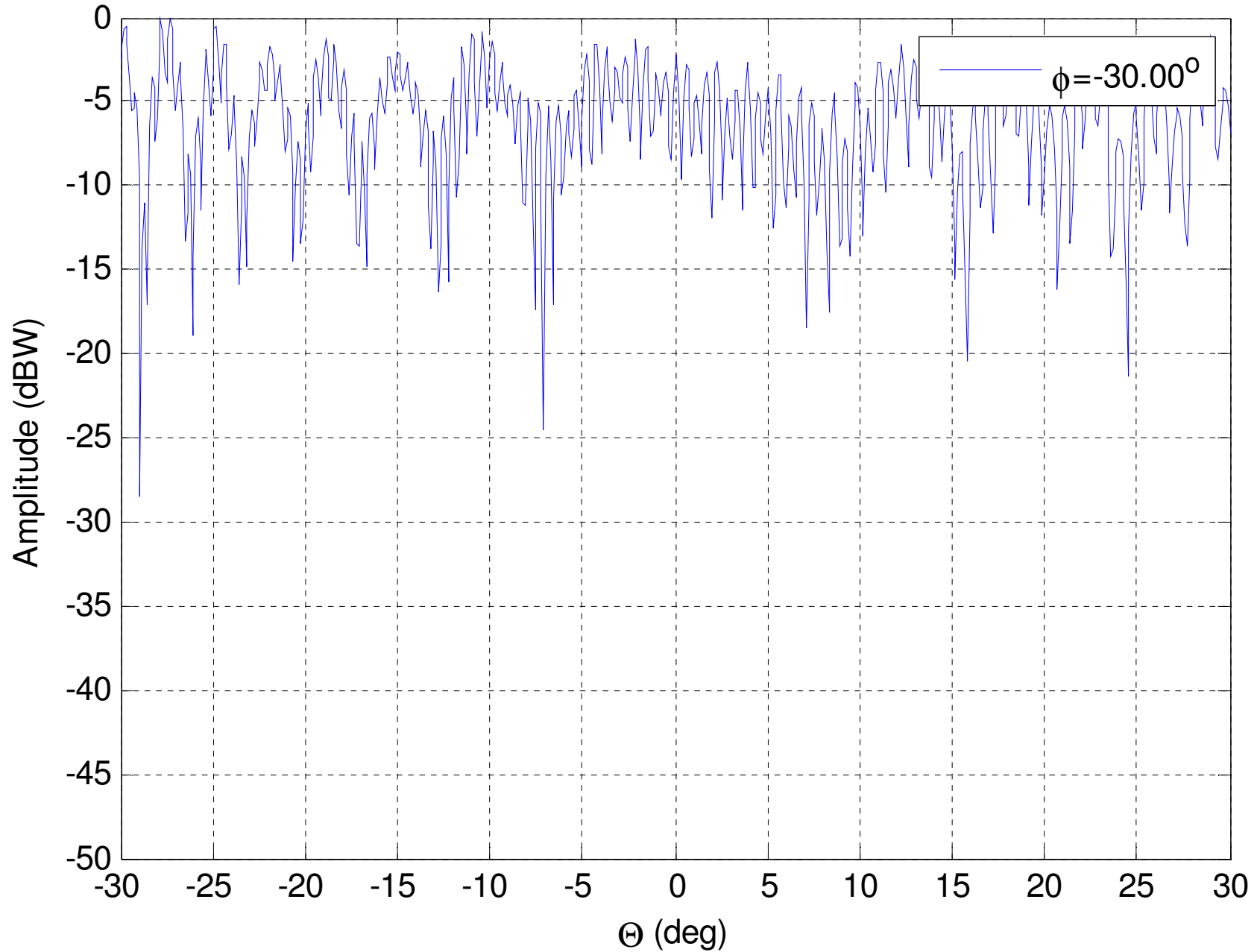
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: 2.15 dBW, Date: 16-Dec-2011



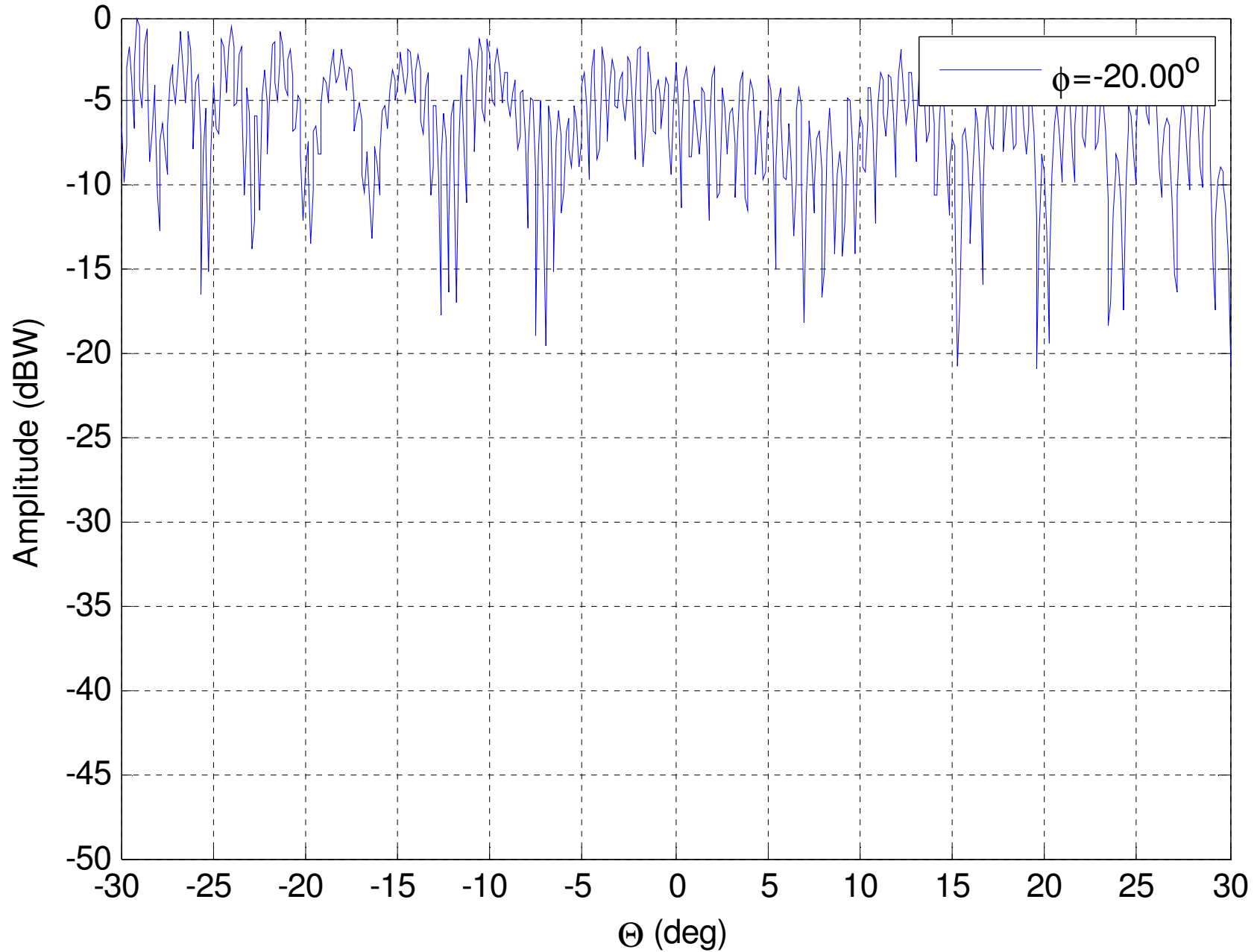
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: 2.18 dBW, Date: 16-Dec-2011



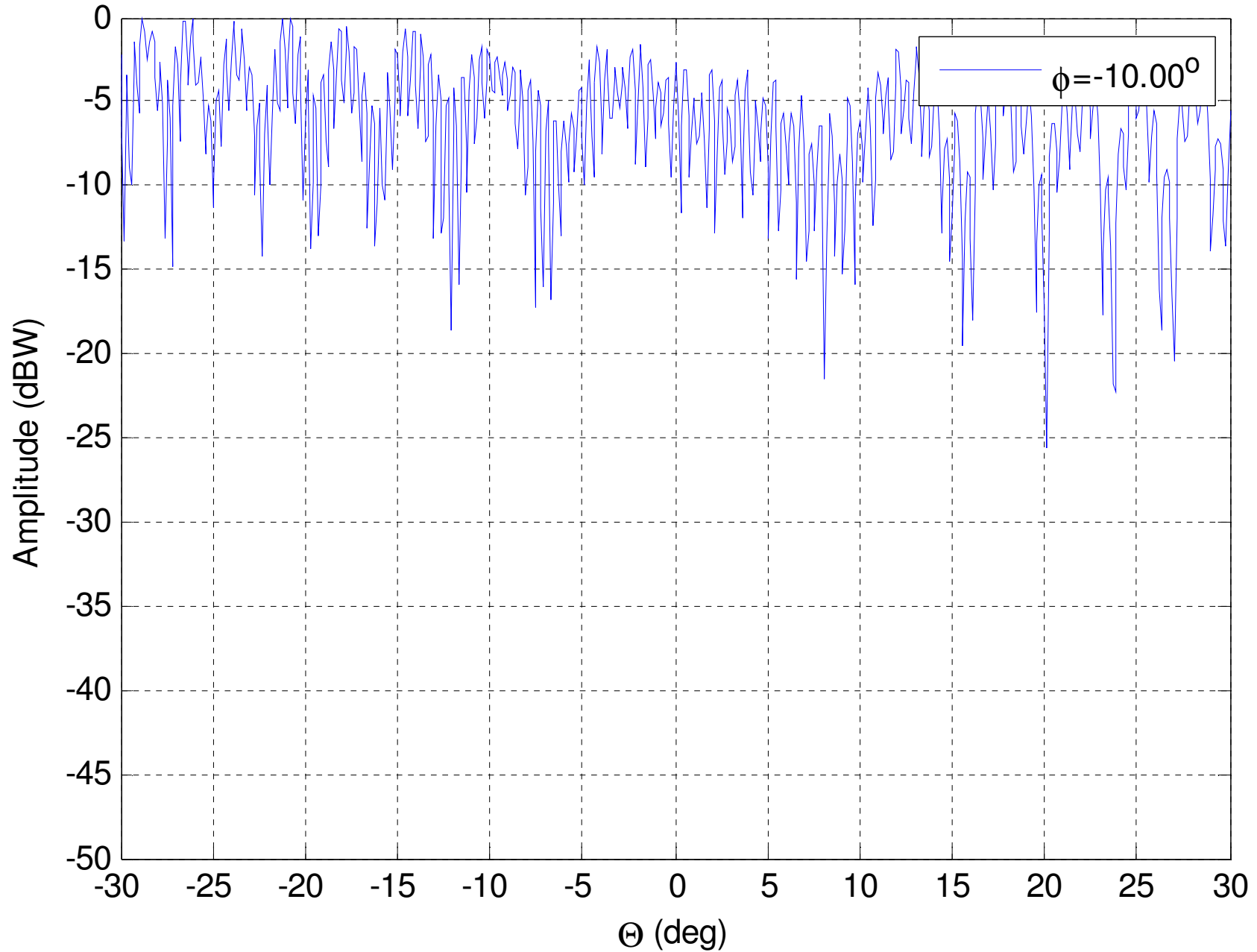
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: 2.51 dBW, Date: 16-Dec-2011



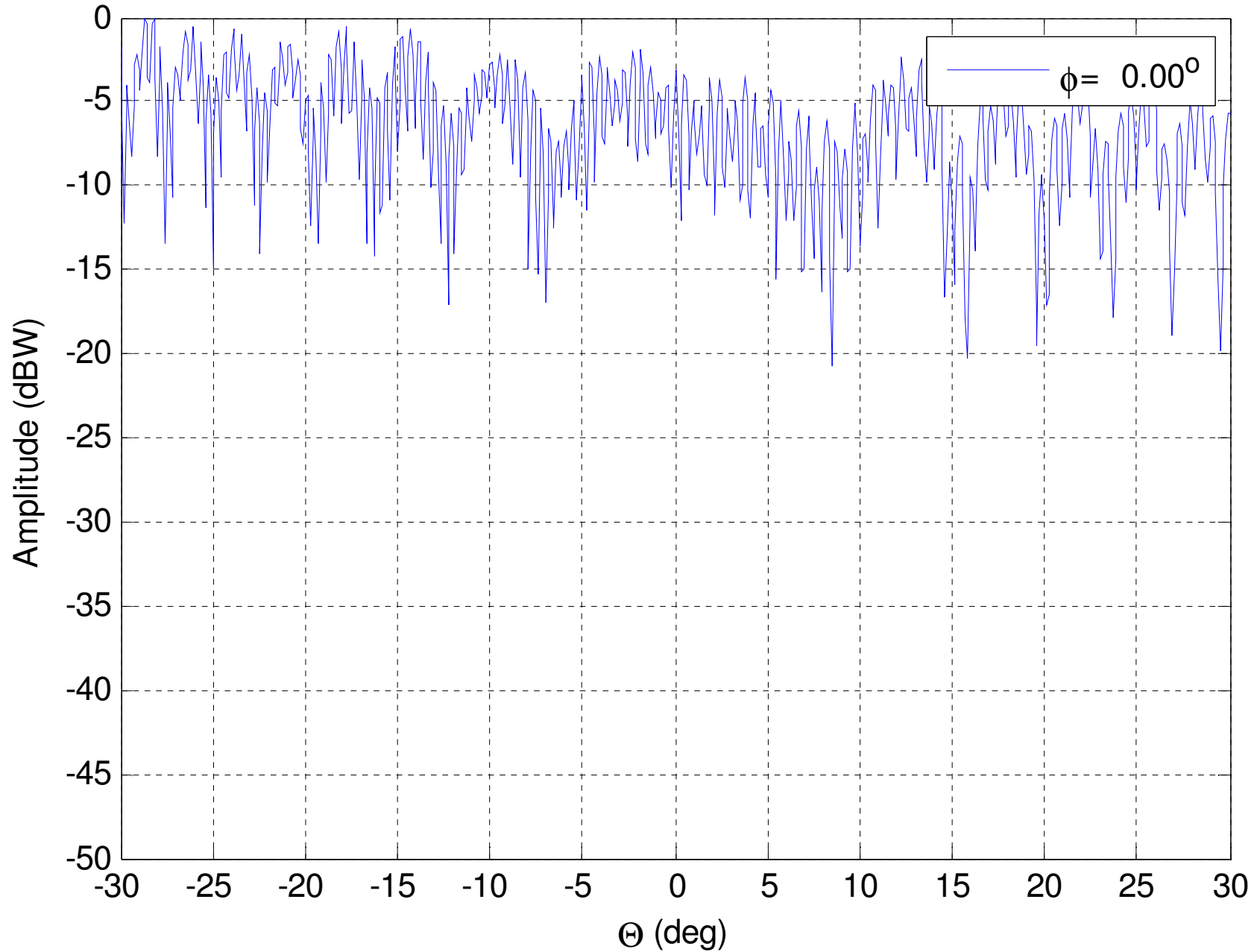
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: 2.48 dBW, Date: 16-Dec-2011



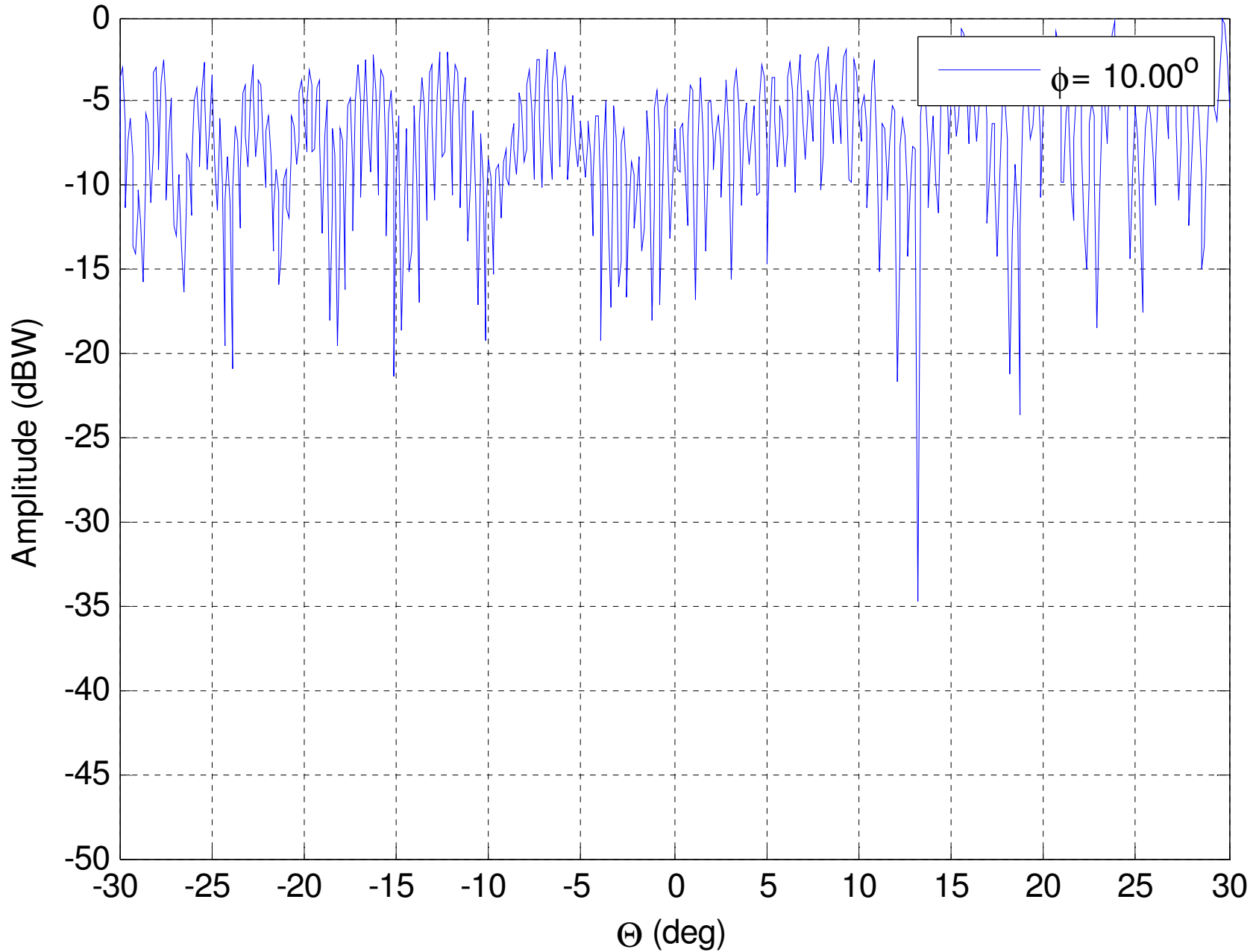
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: 2.98 dBW, Date: 16-Dec-2011



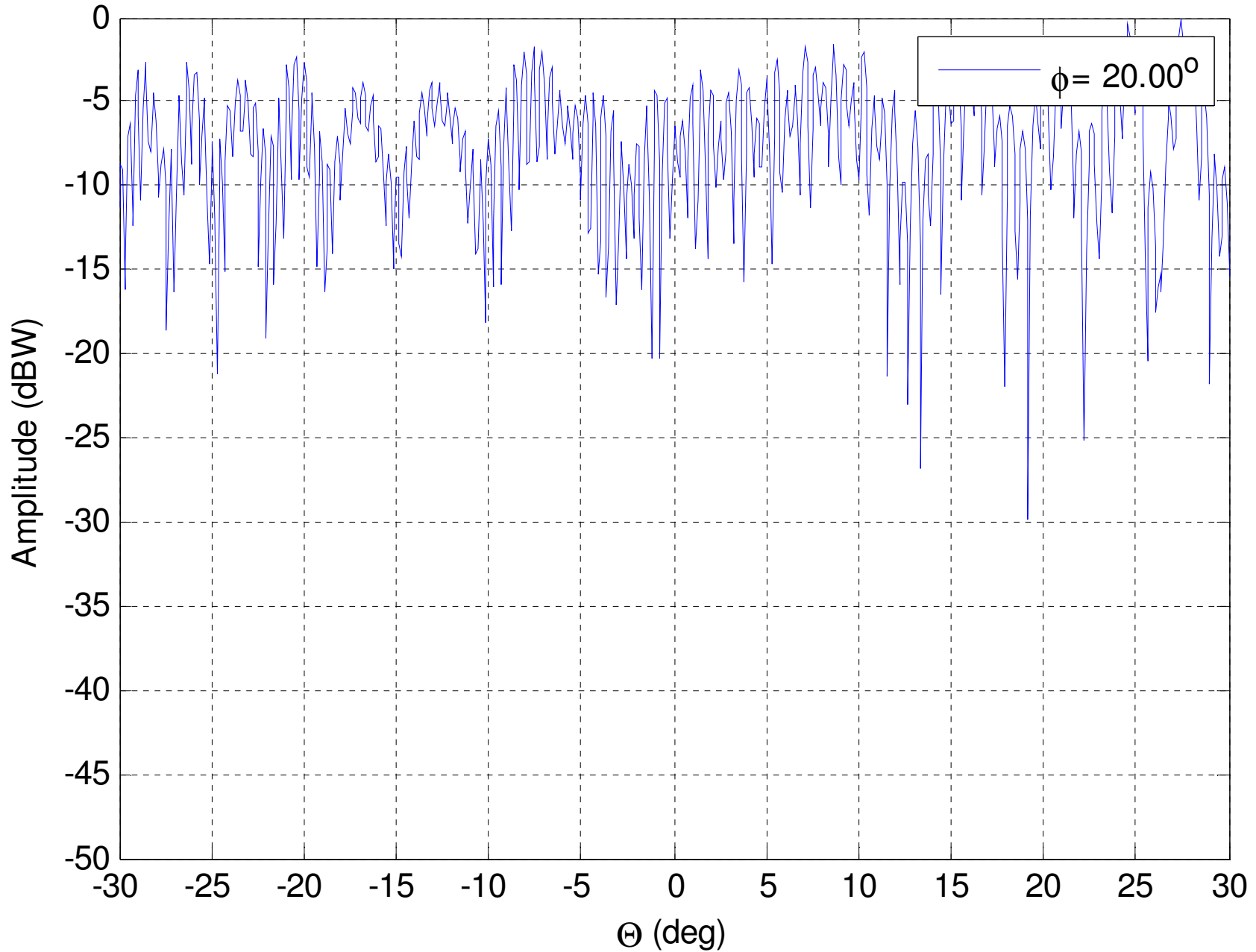
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: 3.07 dBW, Date: 16-Dec-2011



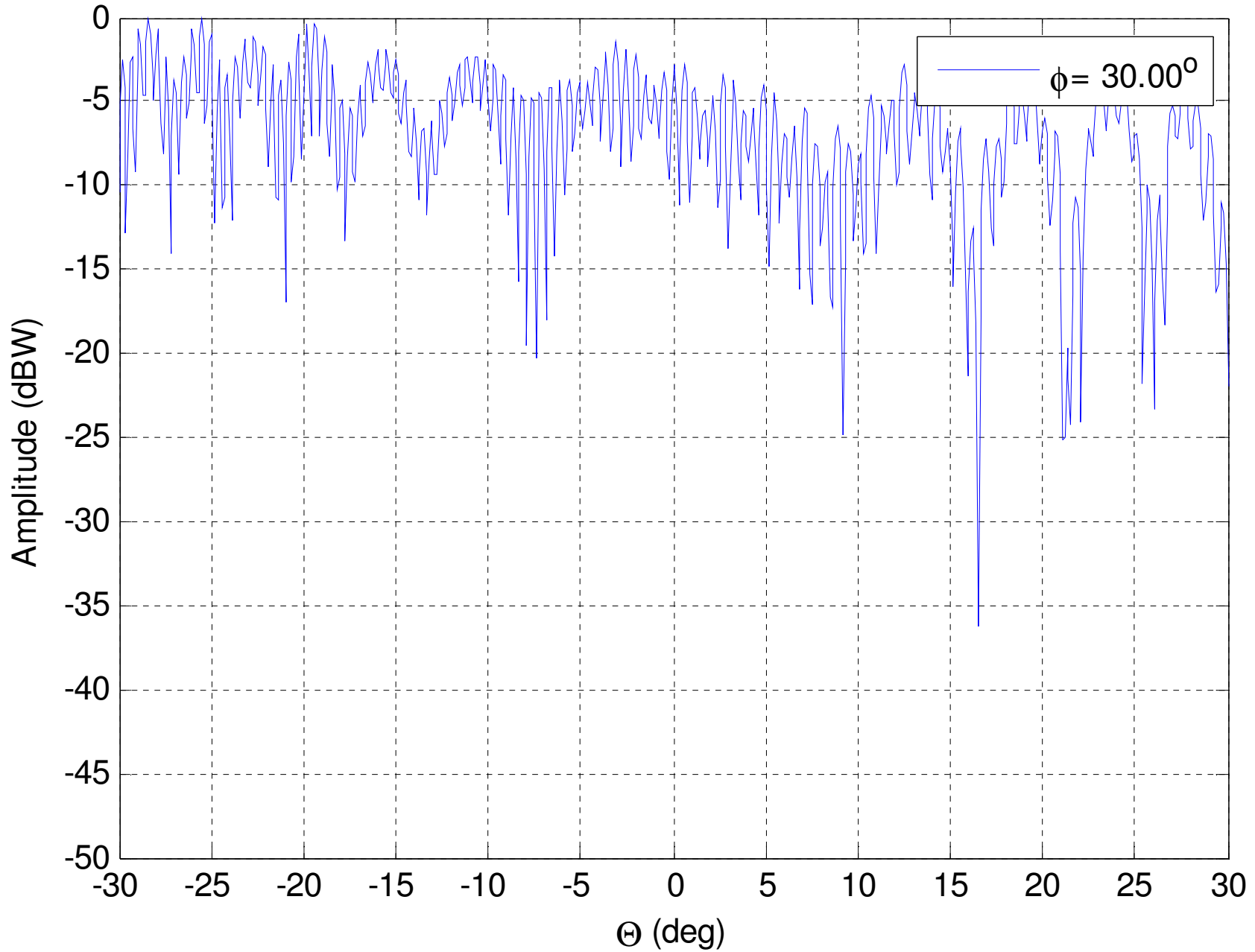
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: 2.98 dBW, Date: 16-Dec-2011



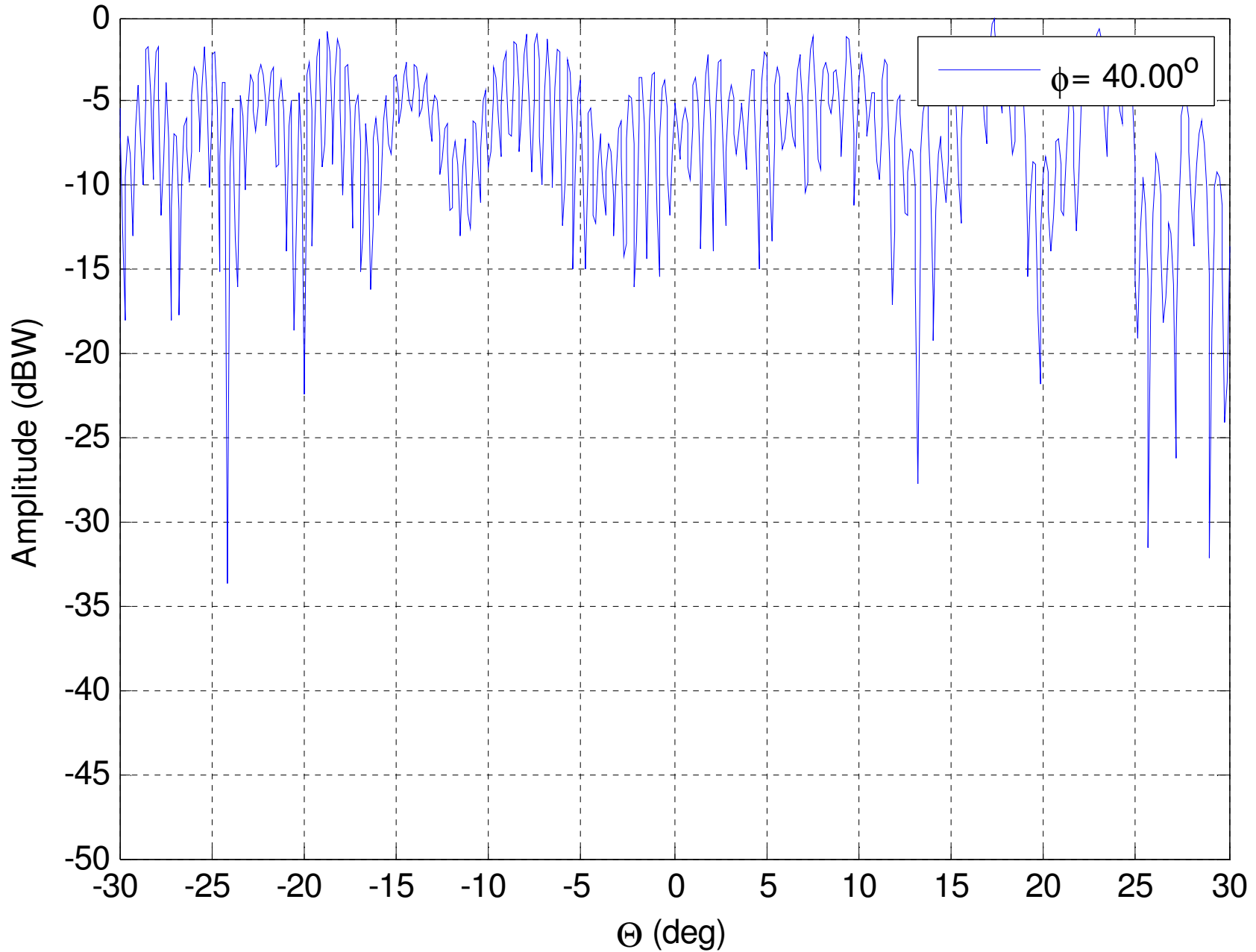
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: 2.75 dBW, Date: 16-Dec-2011



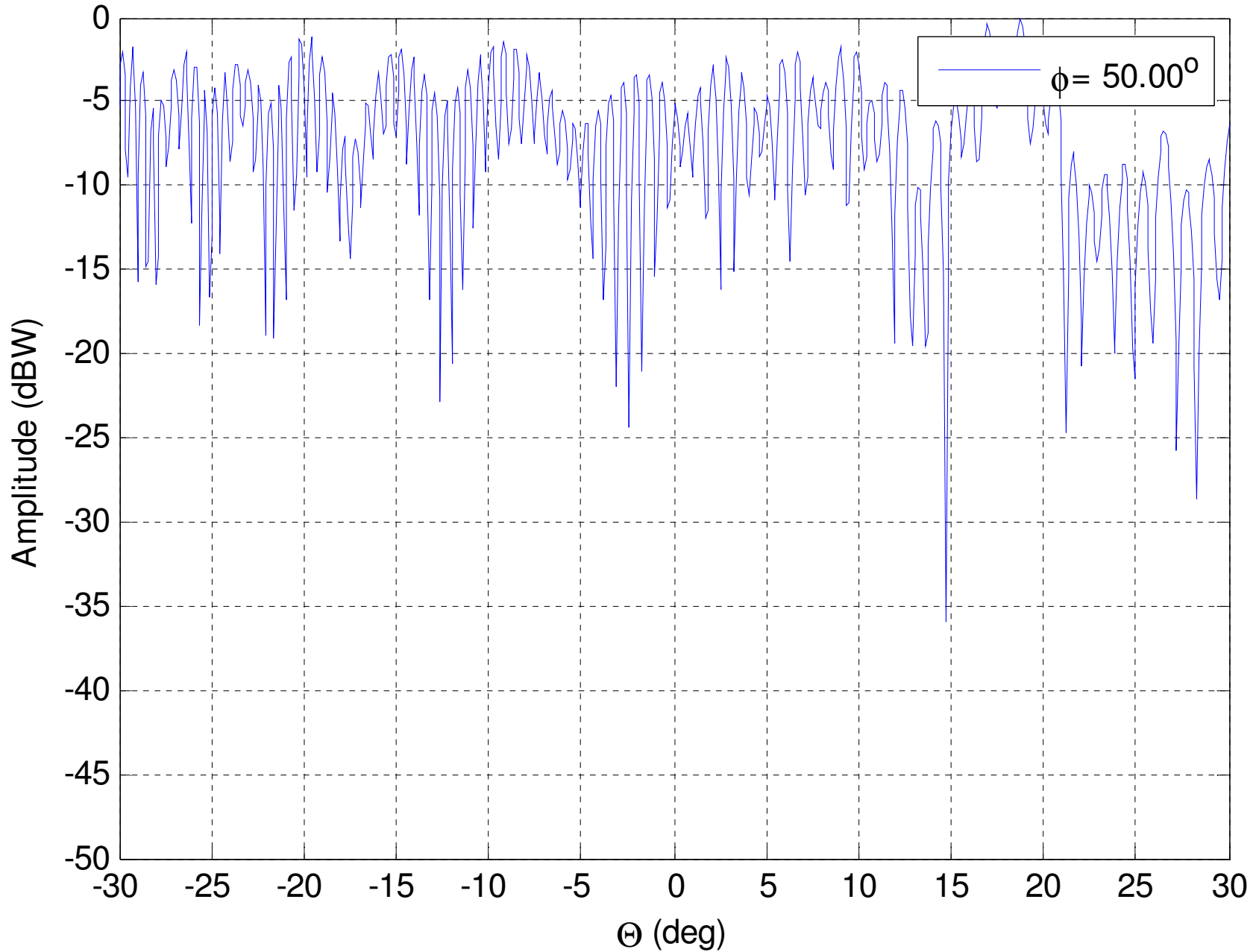
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: 1.91 dBW, Date: 16-Dec-2011



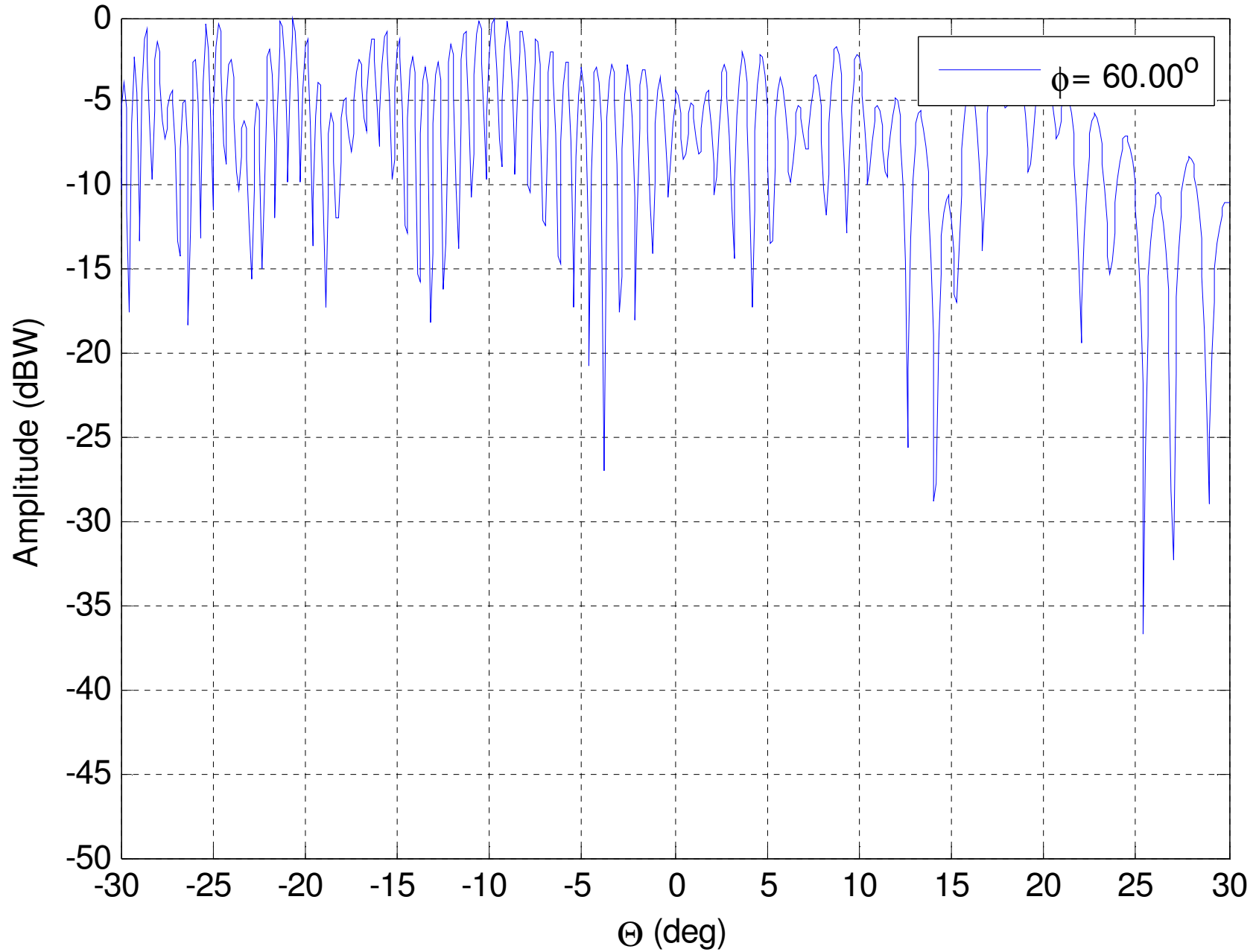
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: 2.04 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

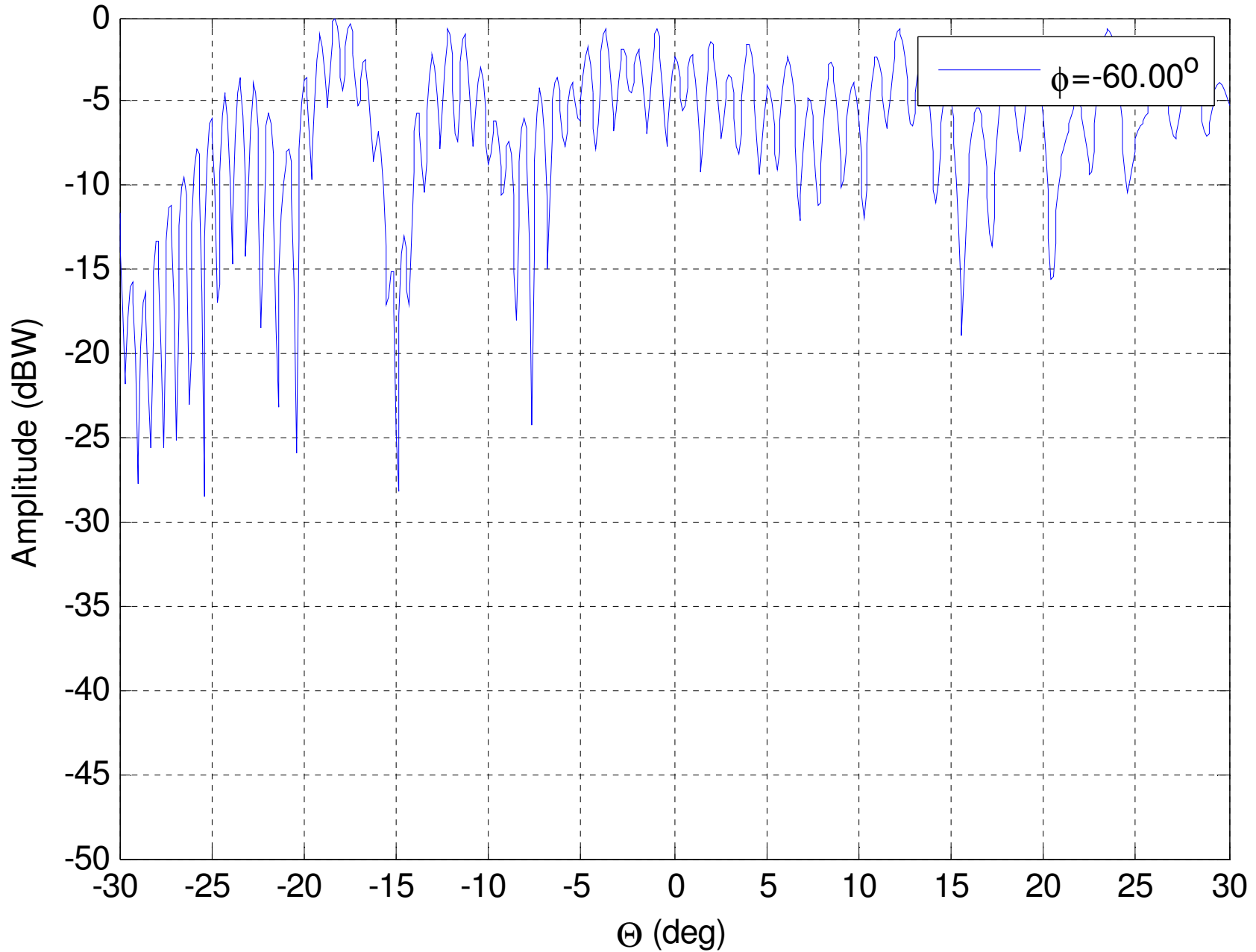
Input file: tx-17.5-lhcp-60.cut, Peak: 1.31 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

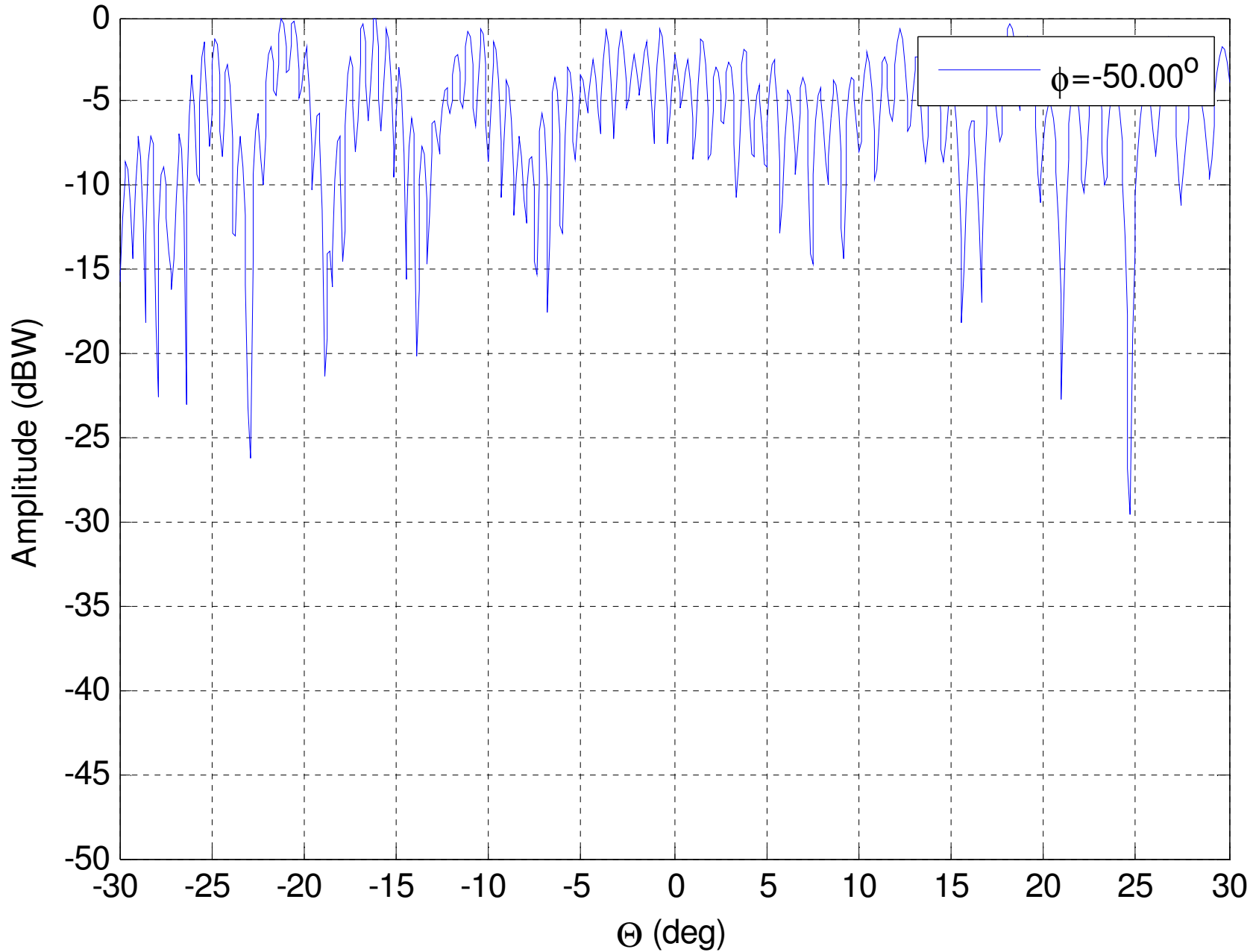
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: 1.18 dBW, Date: 16-Dec-2011



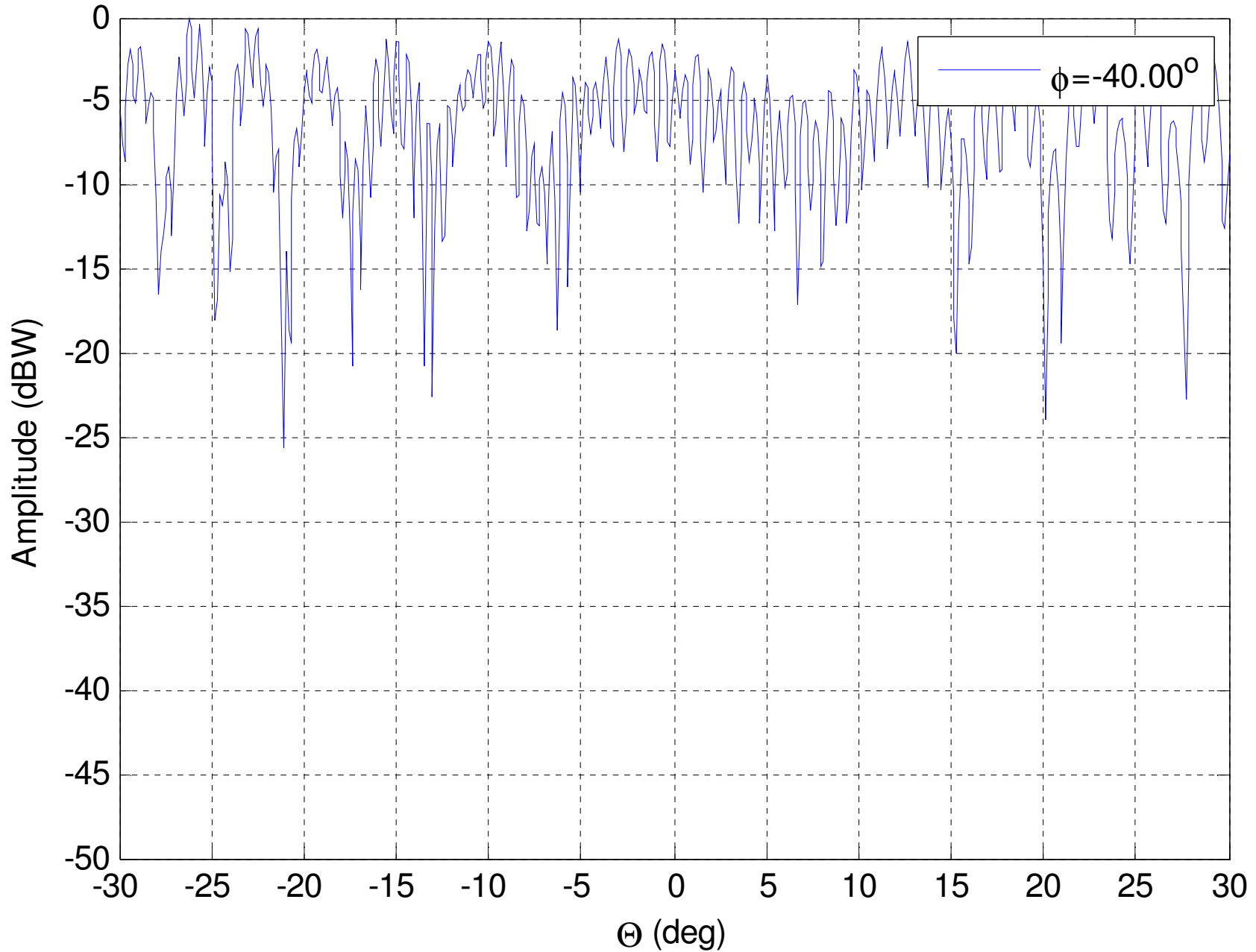
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: 1.08 dBW, Date: 16-Dec-2011



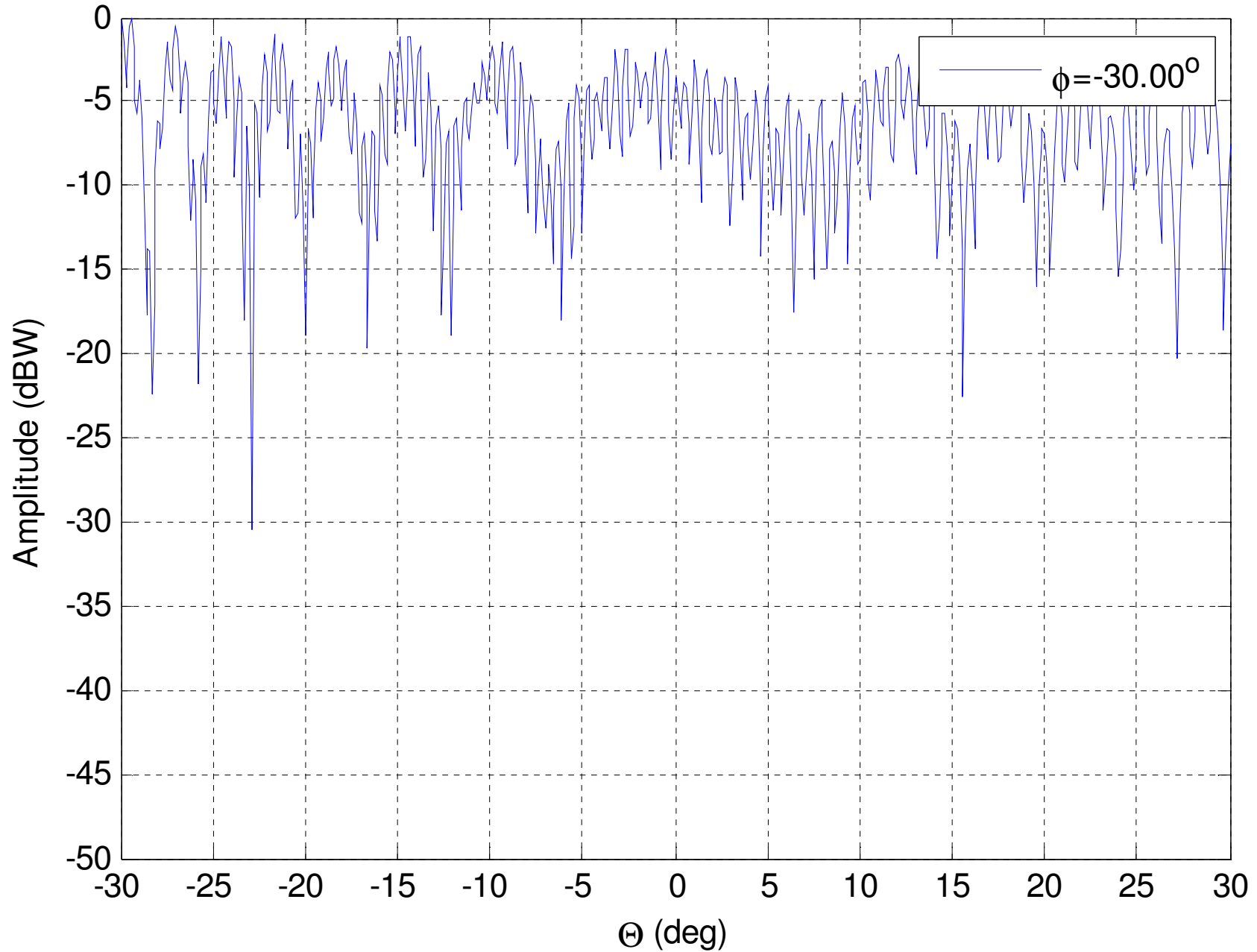
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: 1.93 dBW, Date: 16-Dec-2011



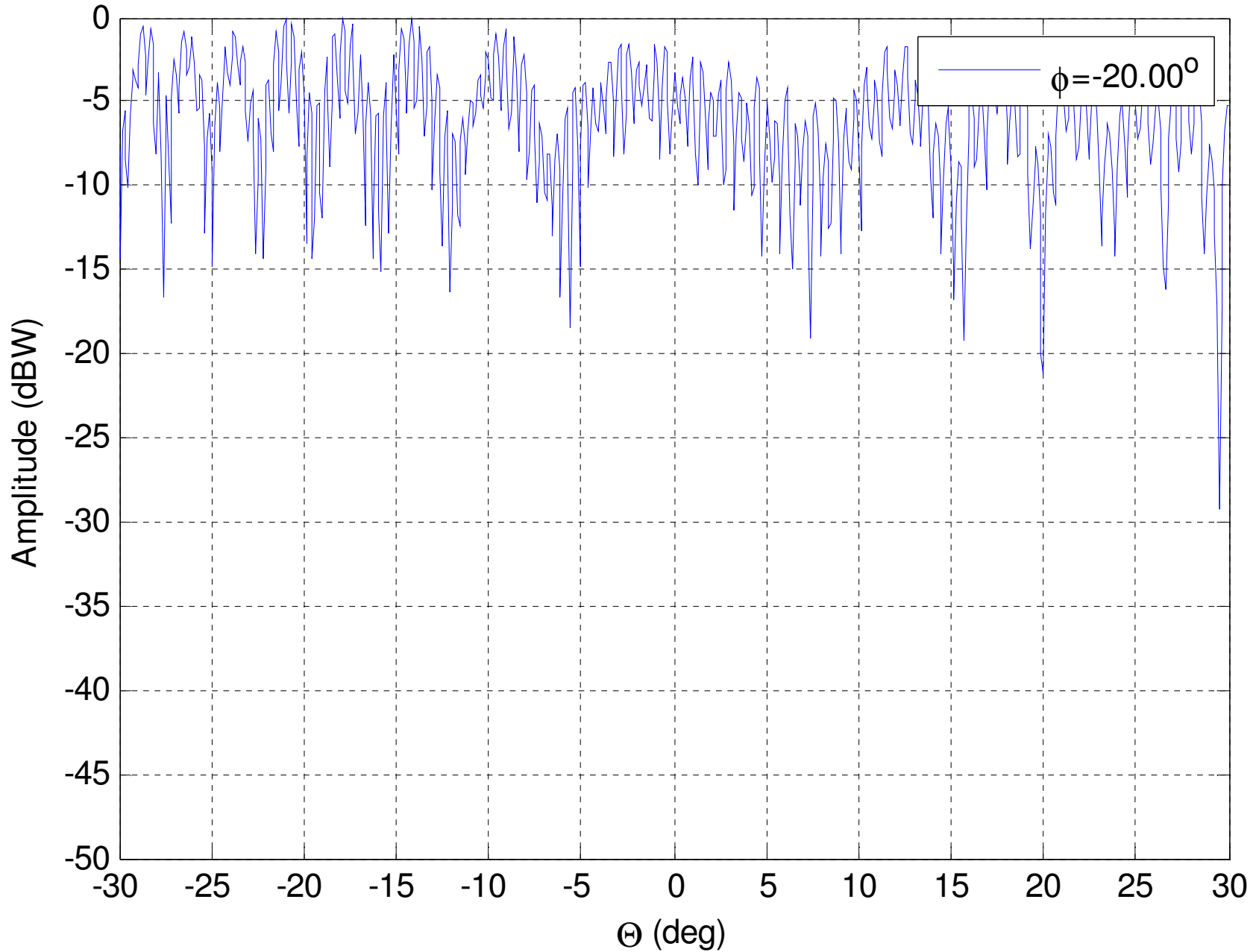
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: 2.23 dBW, Date: 16-Dec-2011



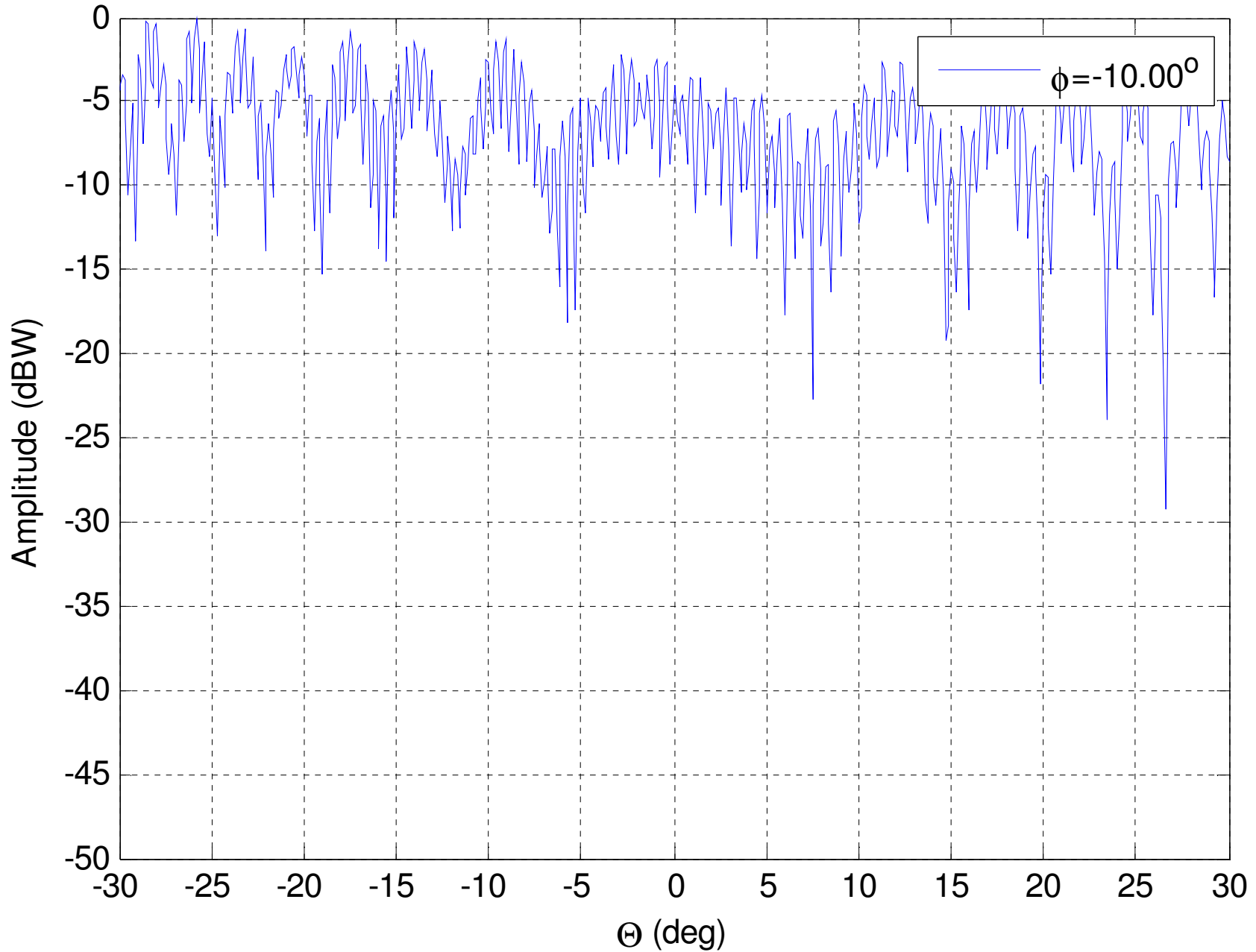
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: 1.95 dBW, Date: 16-Dec-2011



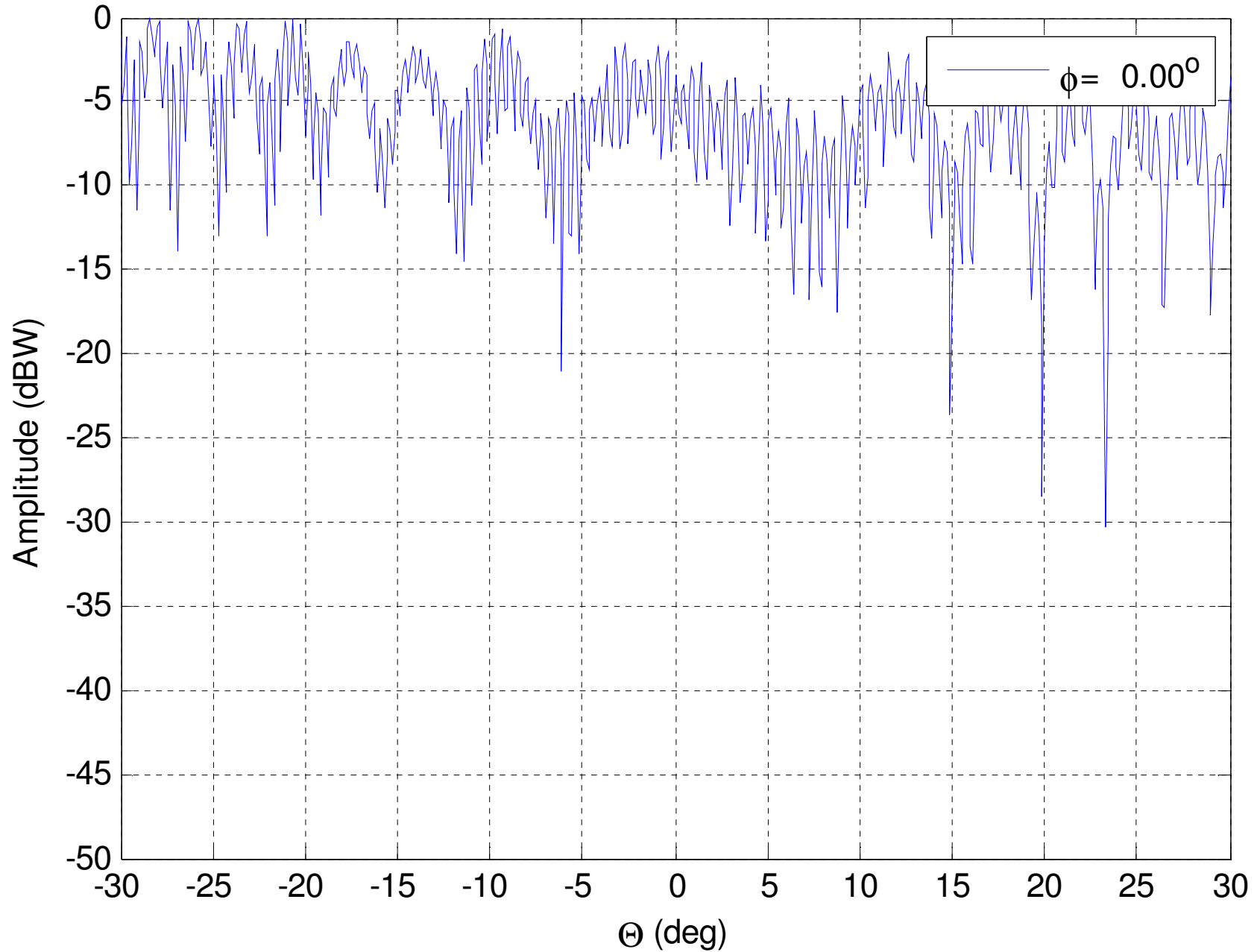
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: 2.79 dBW, Date: 16-Dec-2011



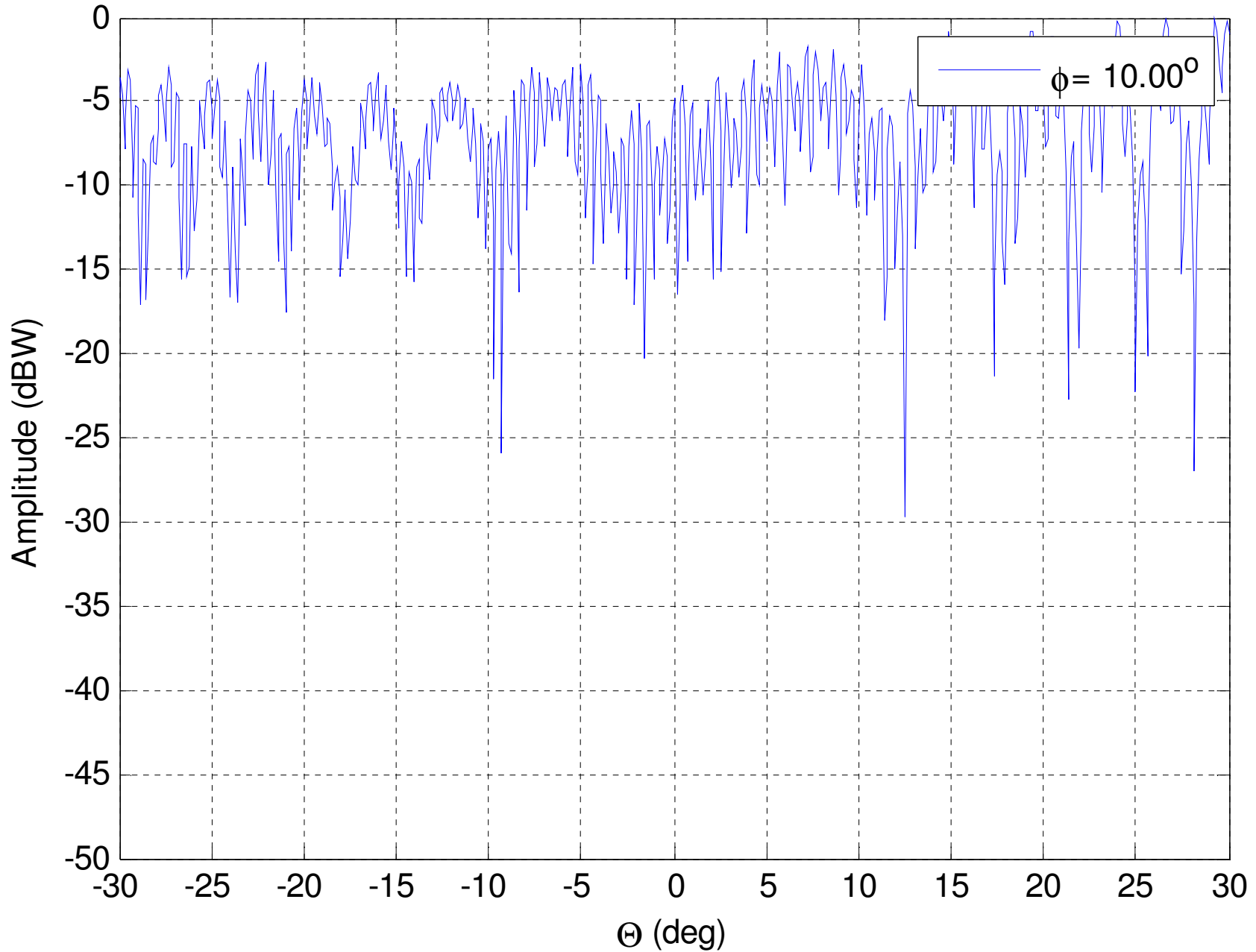
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: 2.18 dBW, Date: 16-Dec-2011



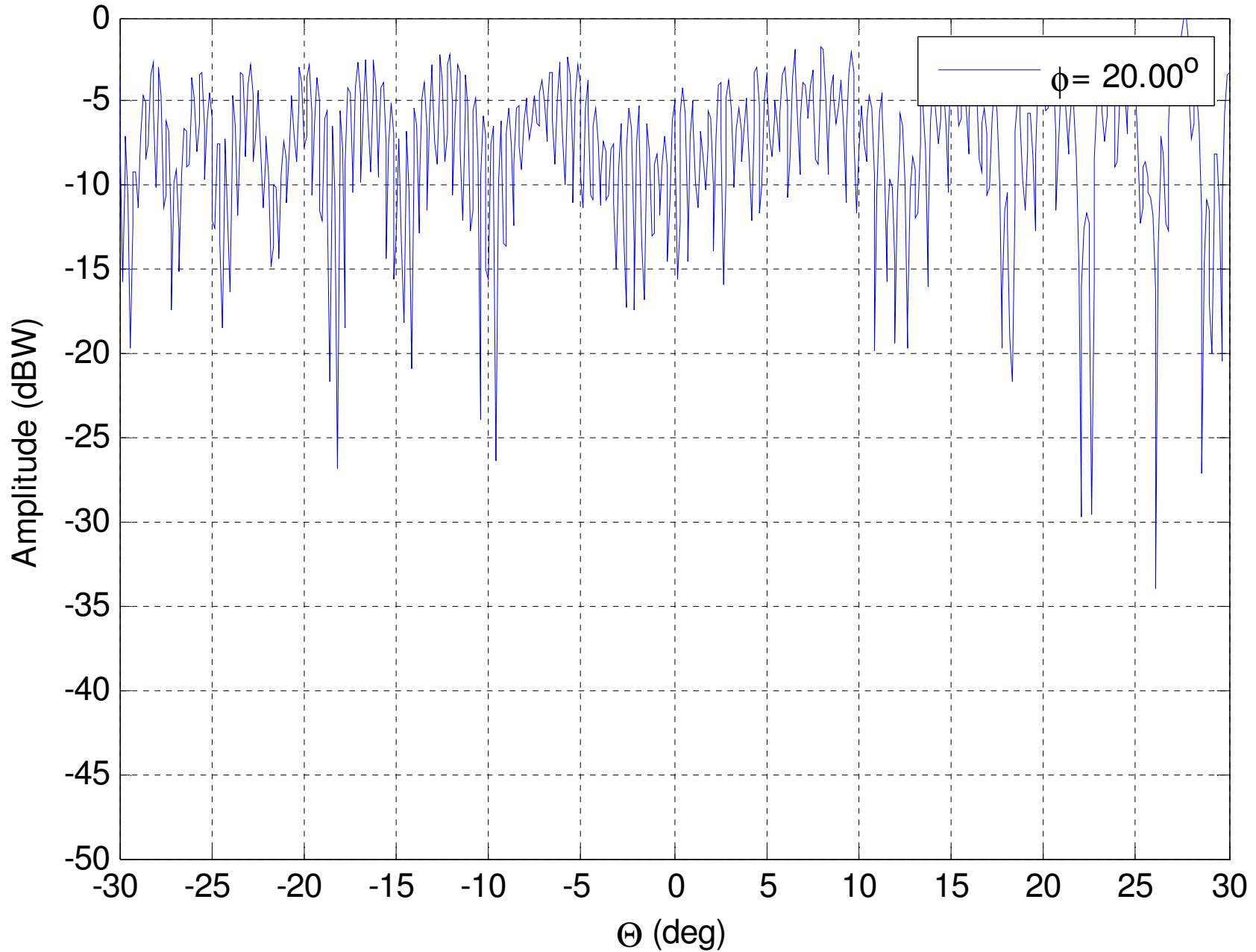
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: 2.62 dBW, Date: 16-Dec-2011



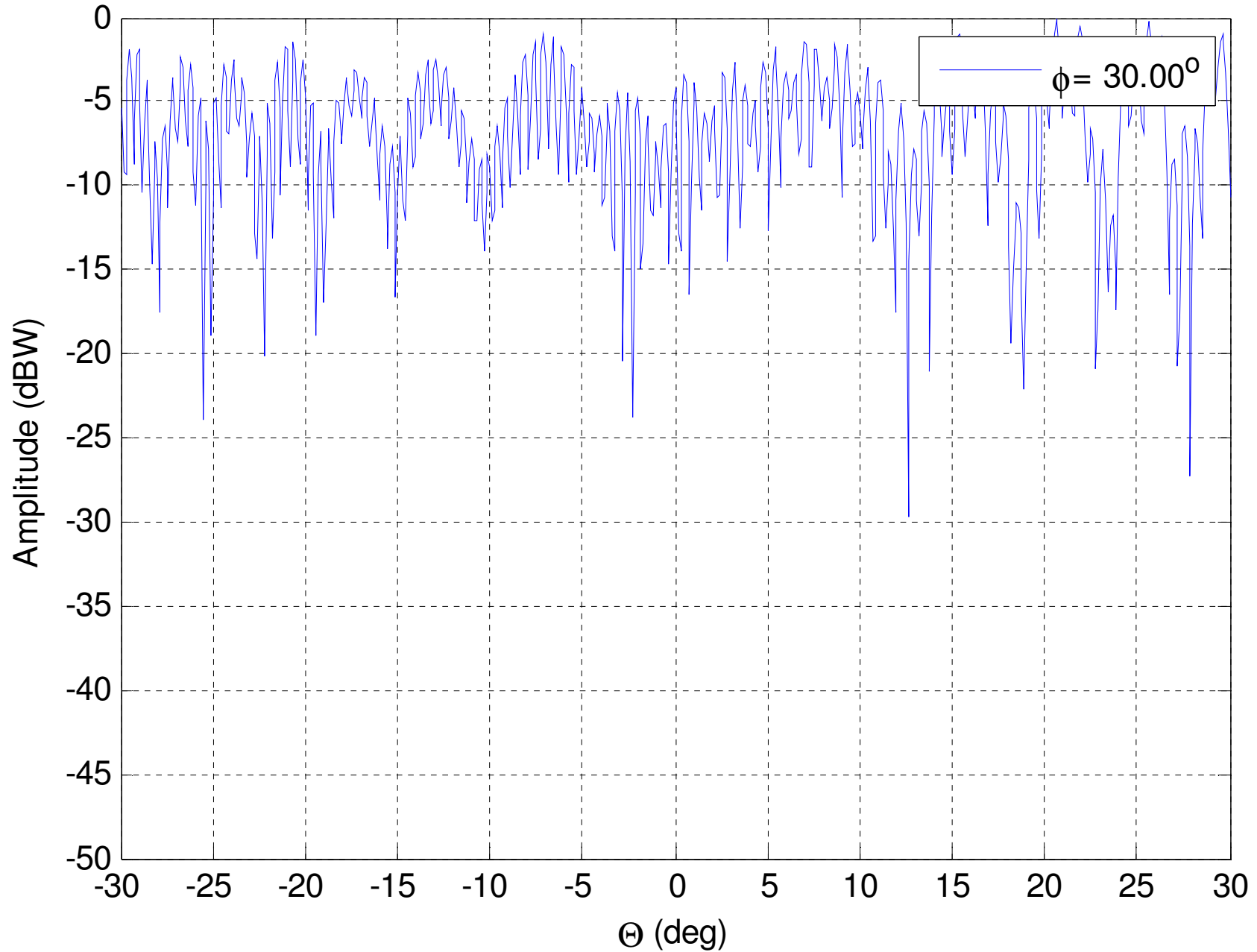
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: 2.75 dBW, Date: 16-Dec-2011



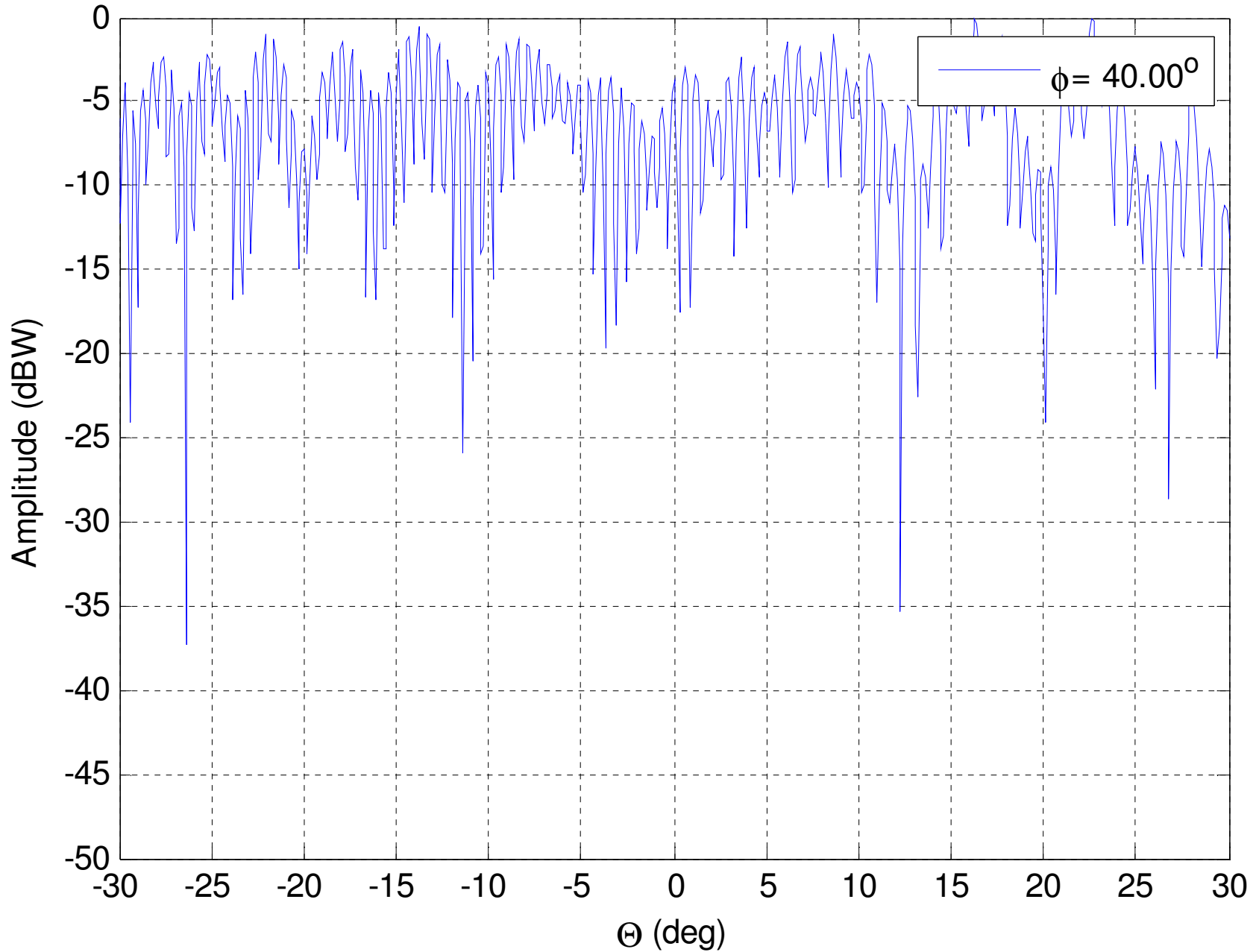
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: 1.92 dBW, Date: 16-Dec-2011



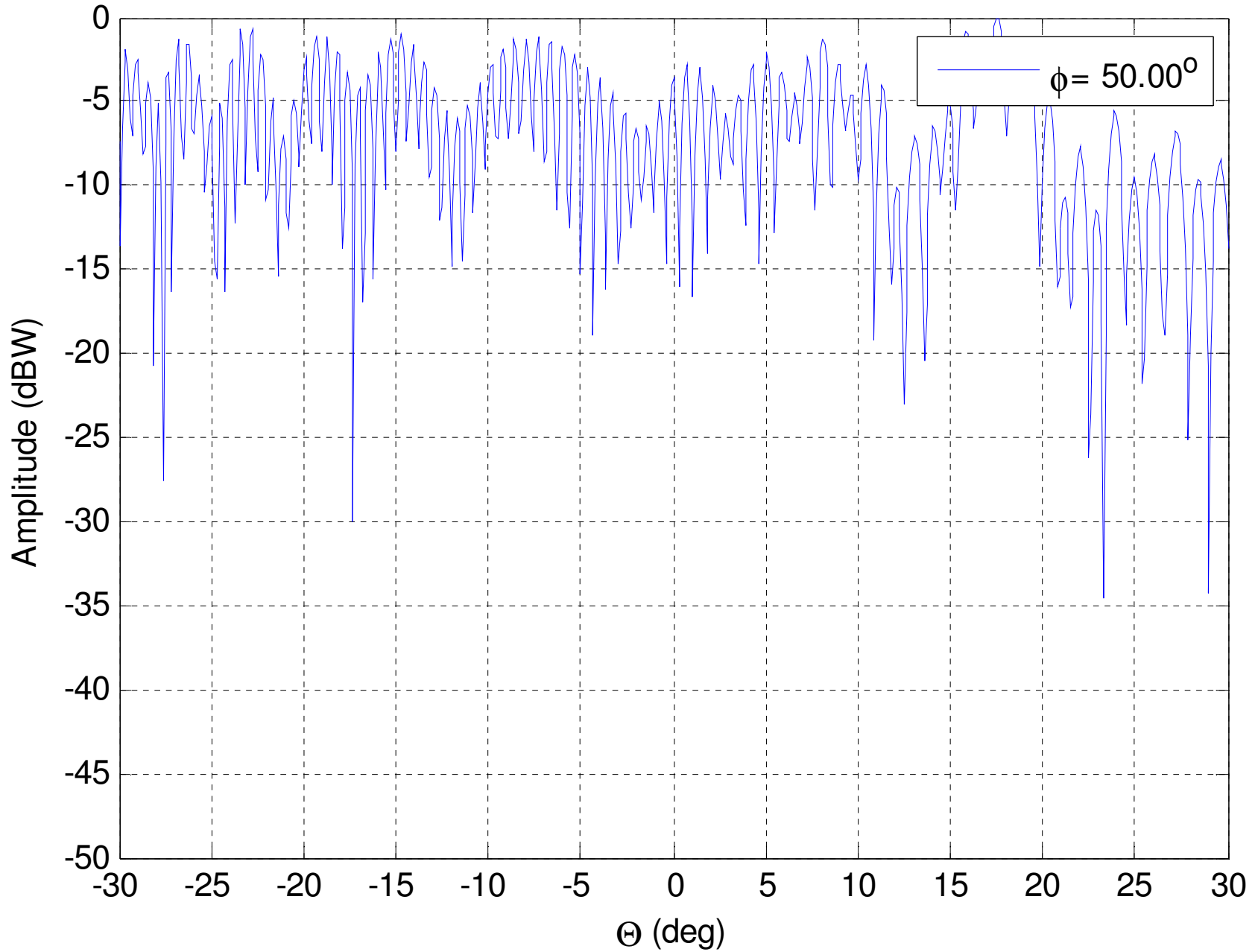
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: 1.53 dBW, Date: 16-Dec-2011



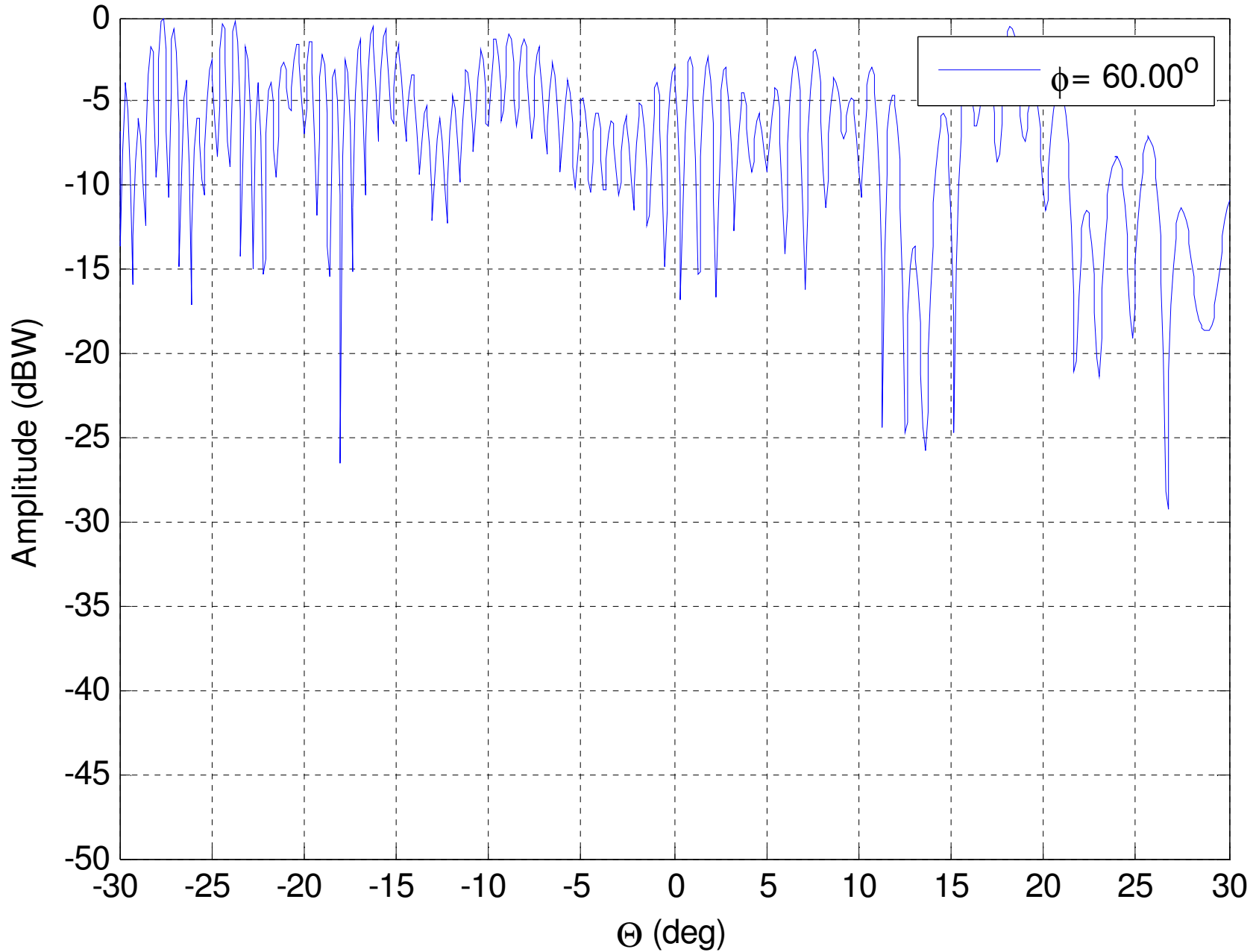
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: 1.32 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

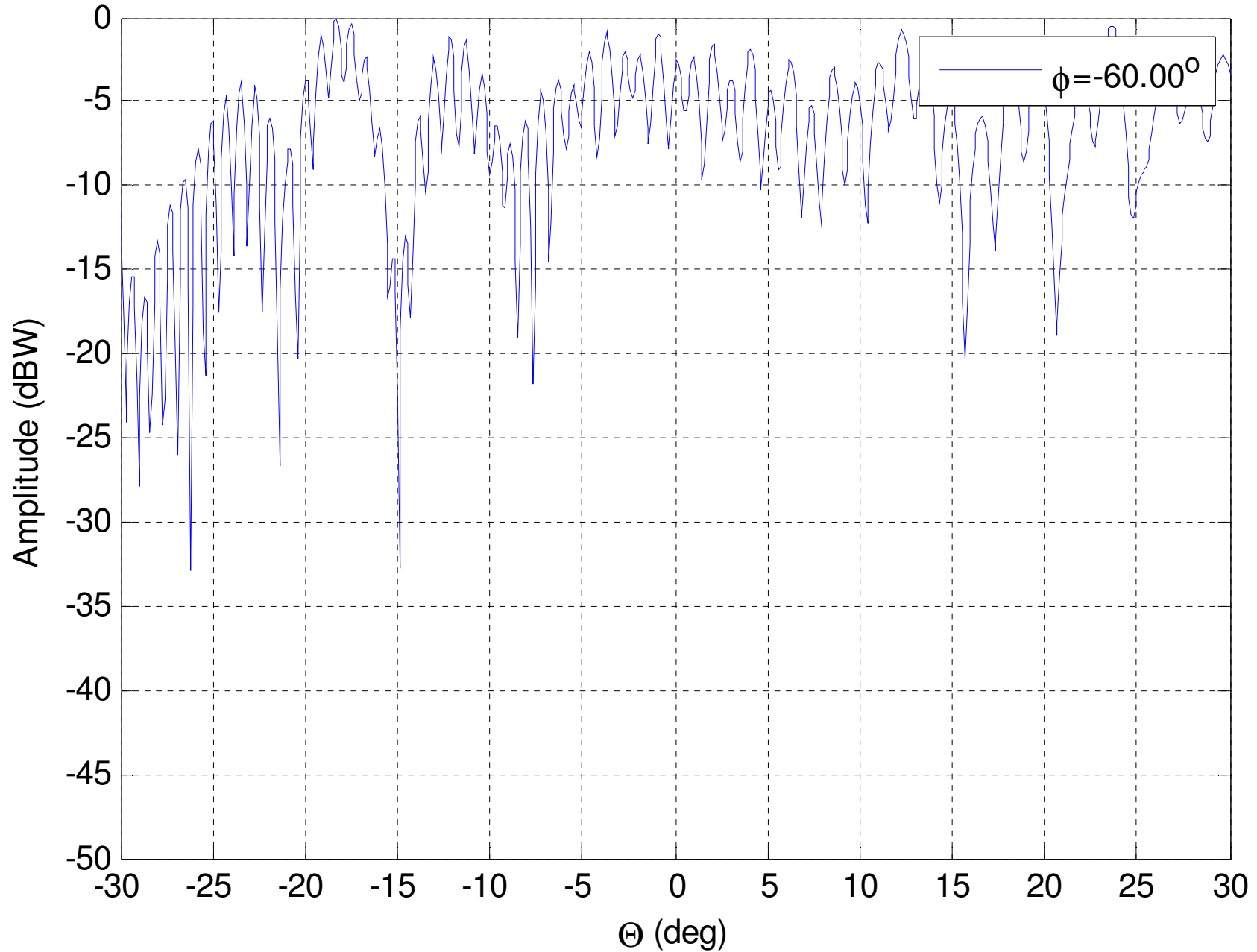
Input file: tx-17.7-rhcp-60.cut, Peak: 0.80 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

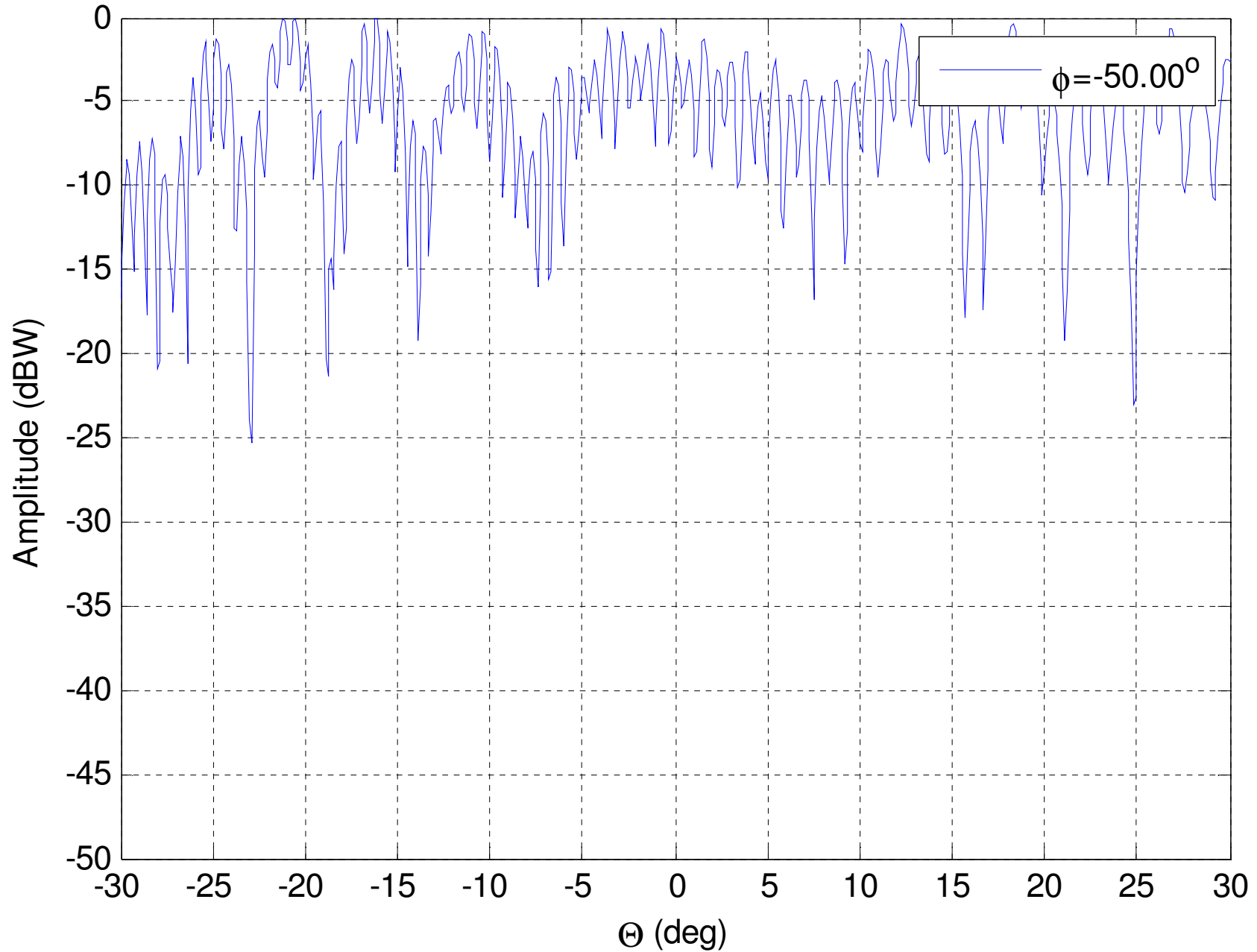
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: 1.39 dBW, Date: 16-Dec-2011



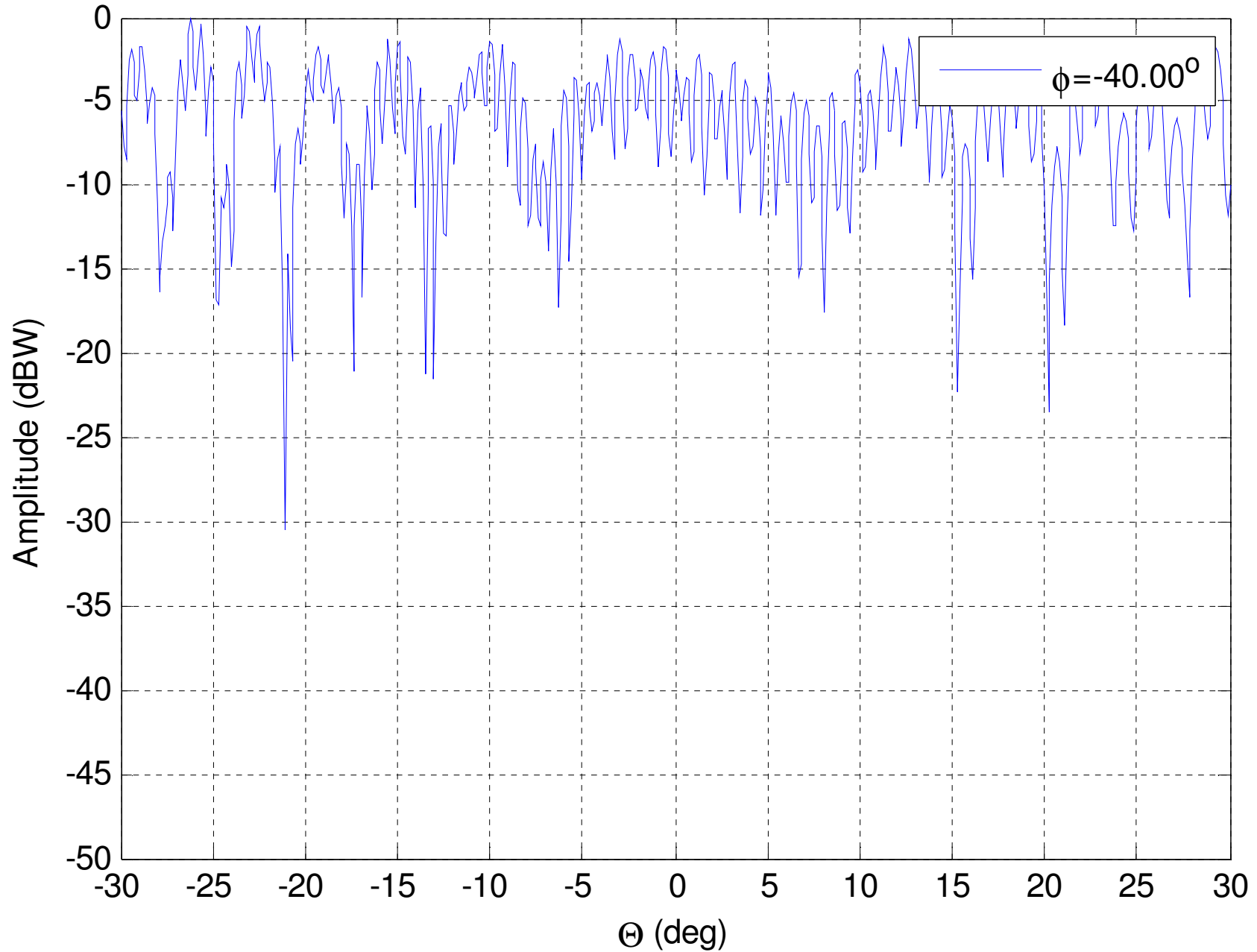
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: 1.17 dBW, Date: 16-Dec-2011



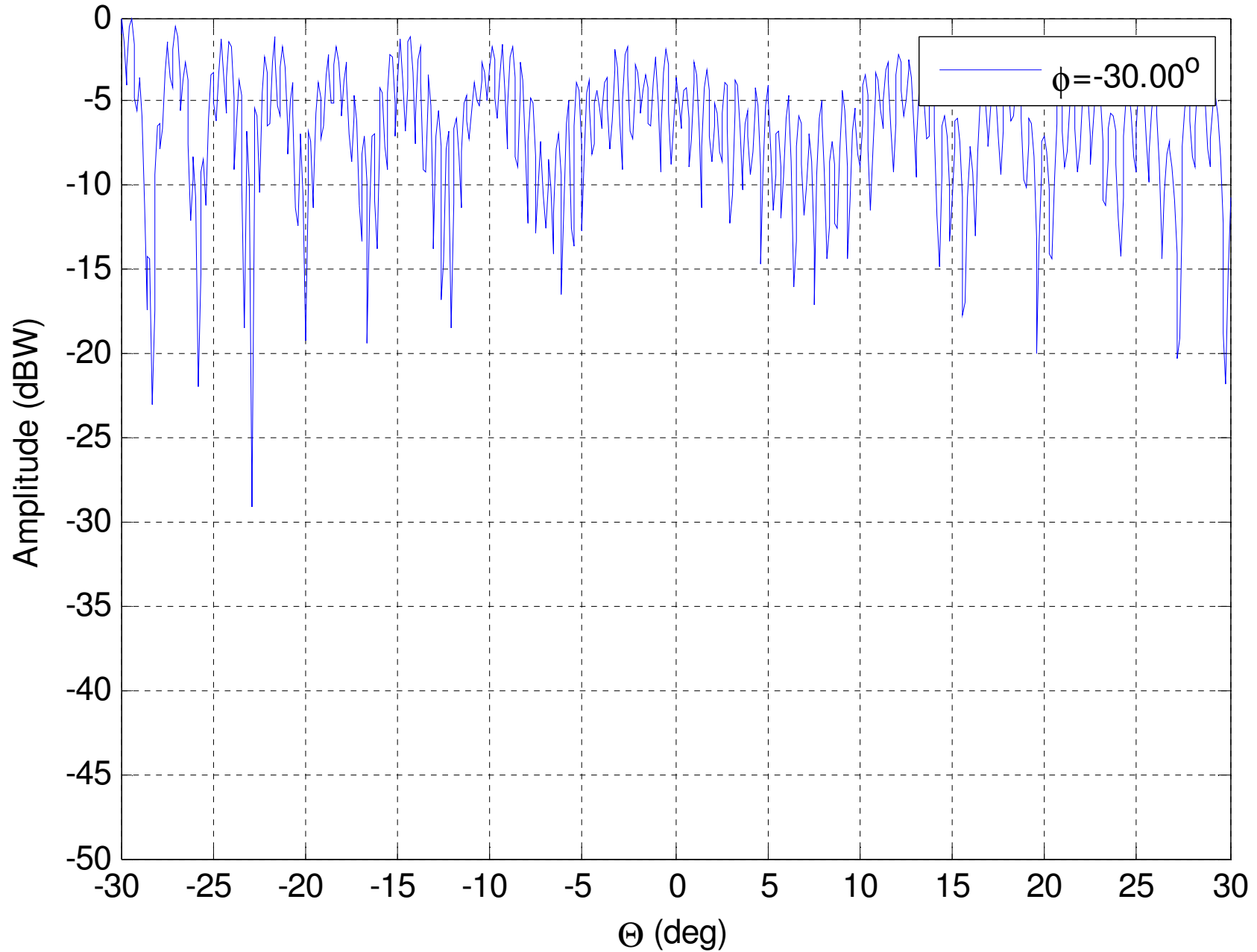
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: 1.98 dBW, Date: 16-Dec-2011



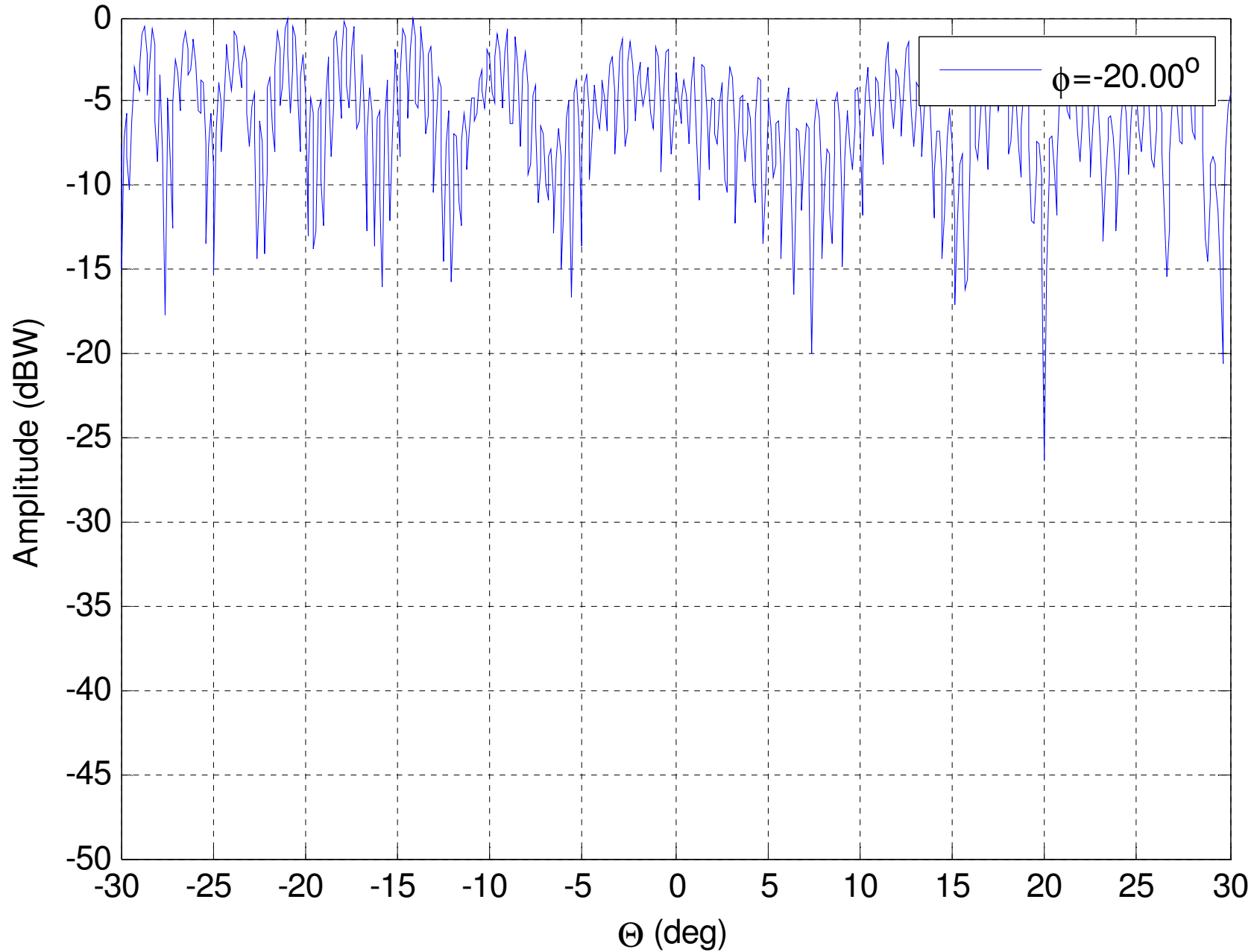
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: 2.34 dBW, Date: 16-Dec-2011



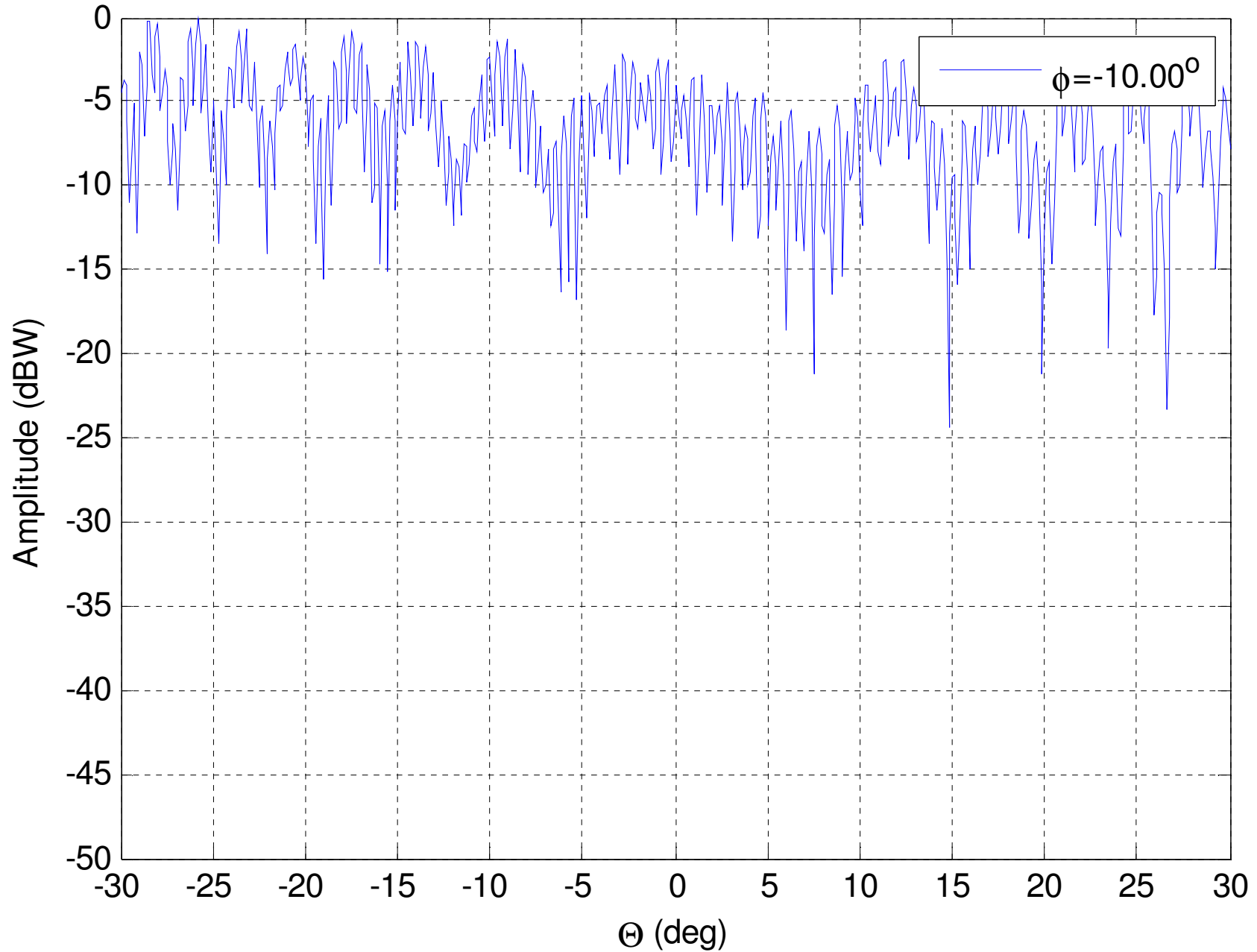
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: 2.00 dBW, Date: 16-Dec-2011



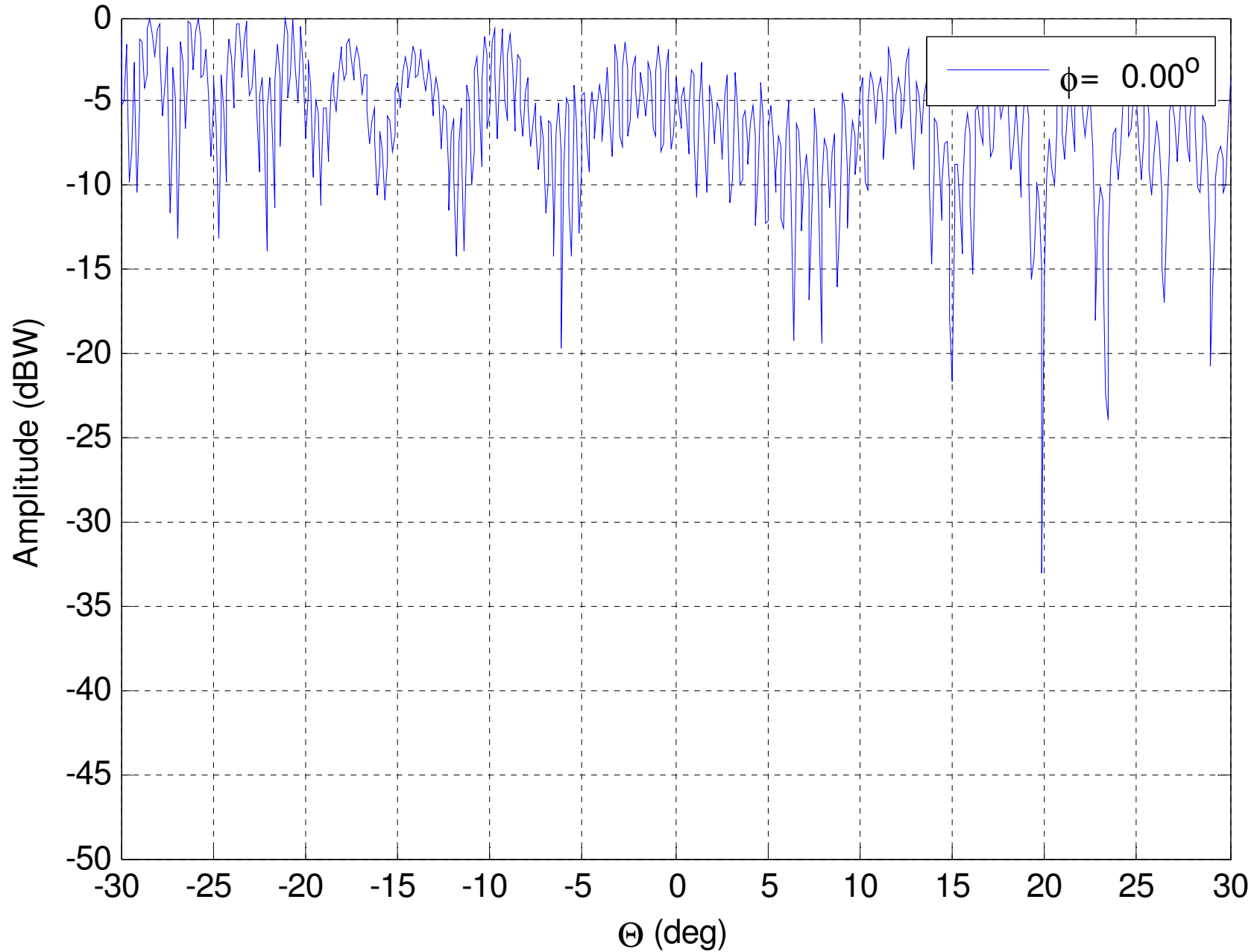
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: 2.82 dBW, Date: 16-Dec-2011



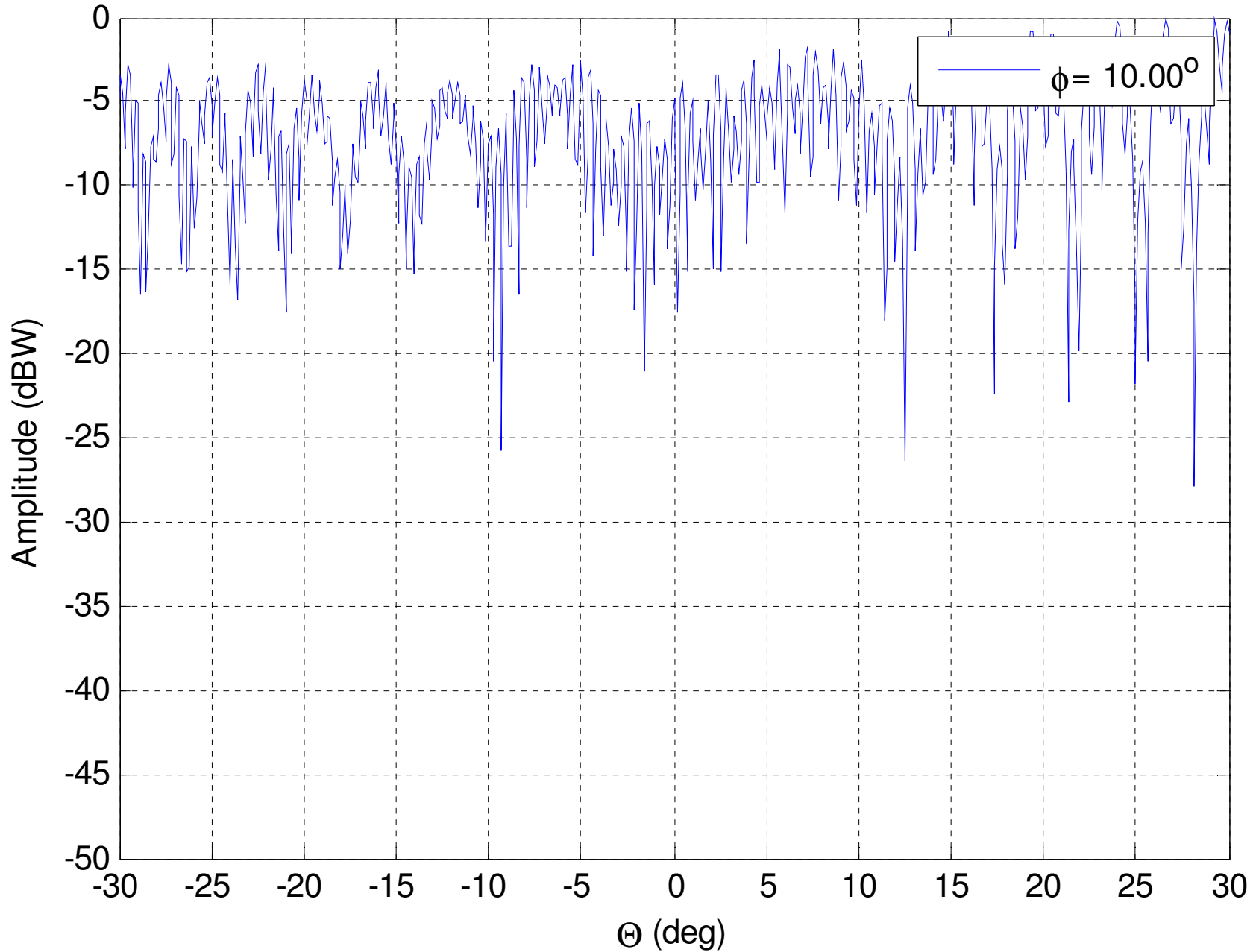
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: 2.24 dBW, Date: 16-Dec-2011



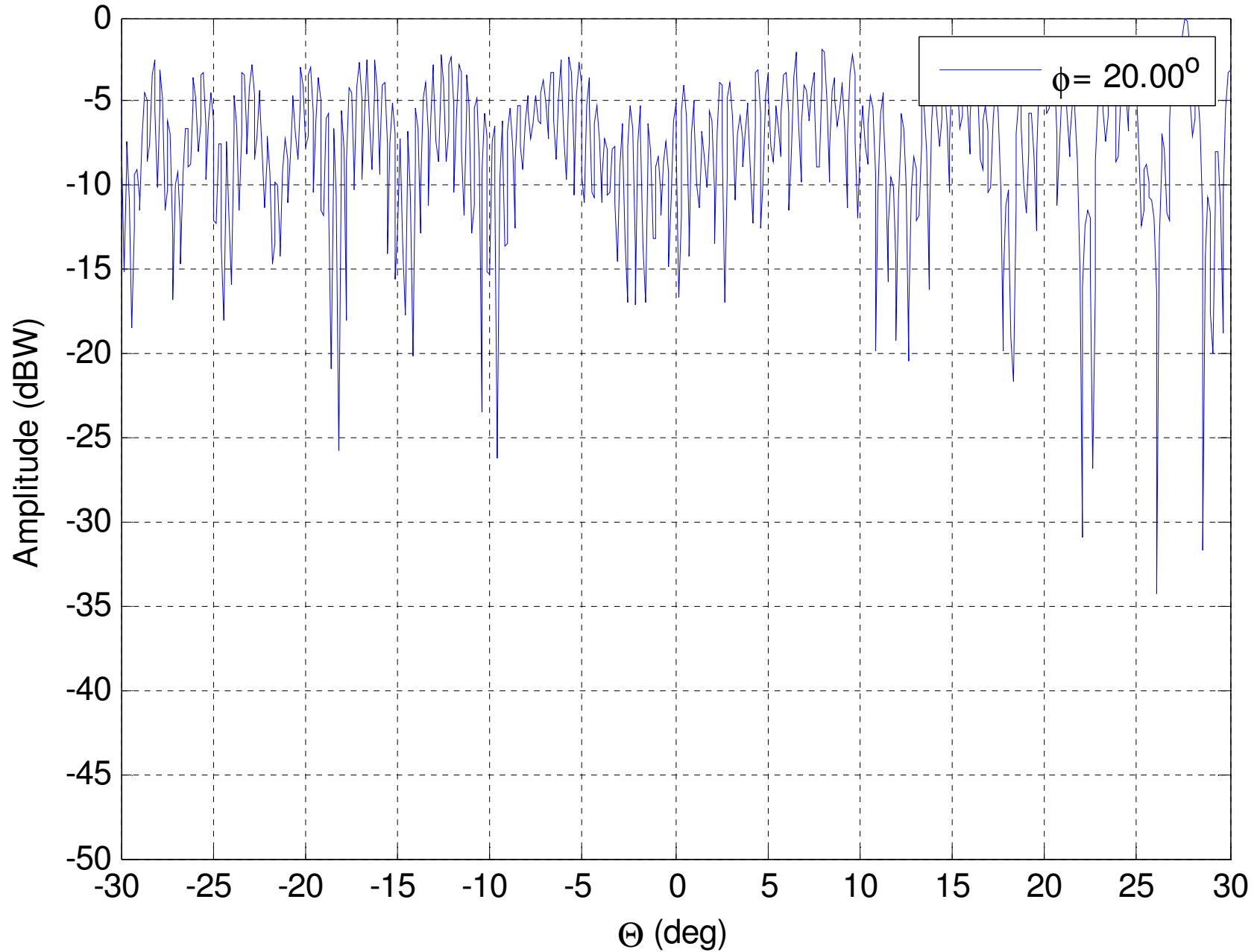
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: 2.59 dBW, Date: 16-Dec-2011



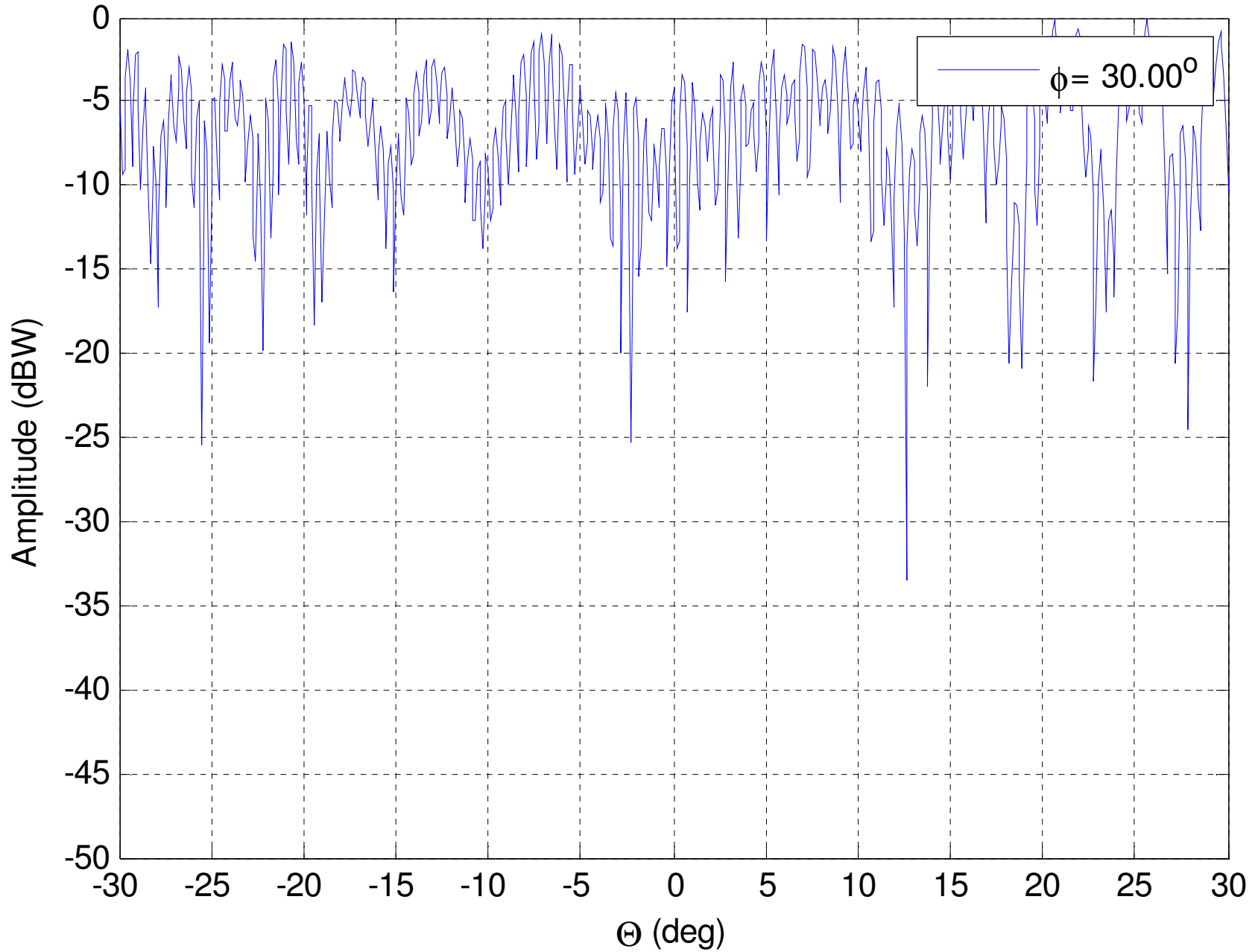
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: 2.85 dBW, Date: 16-Dec-2011



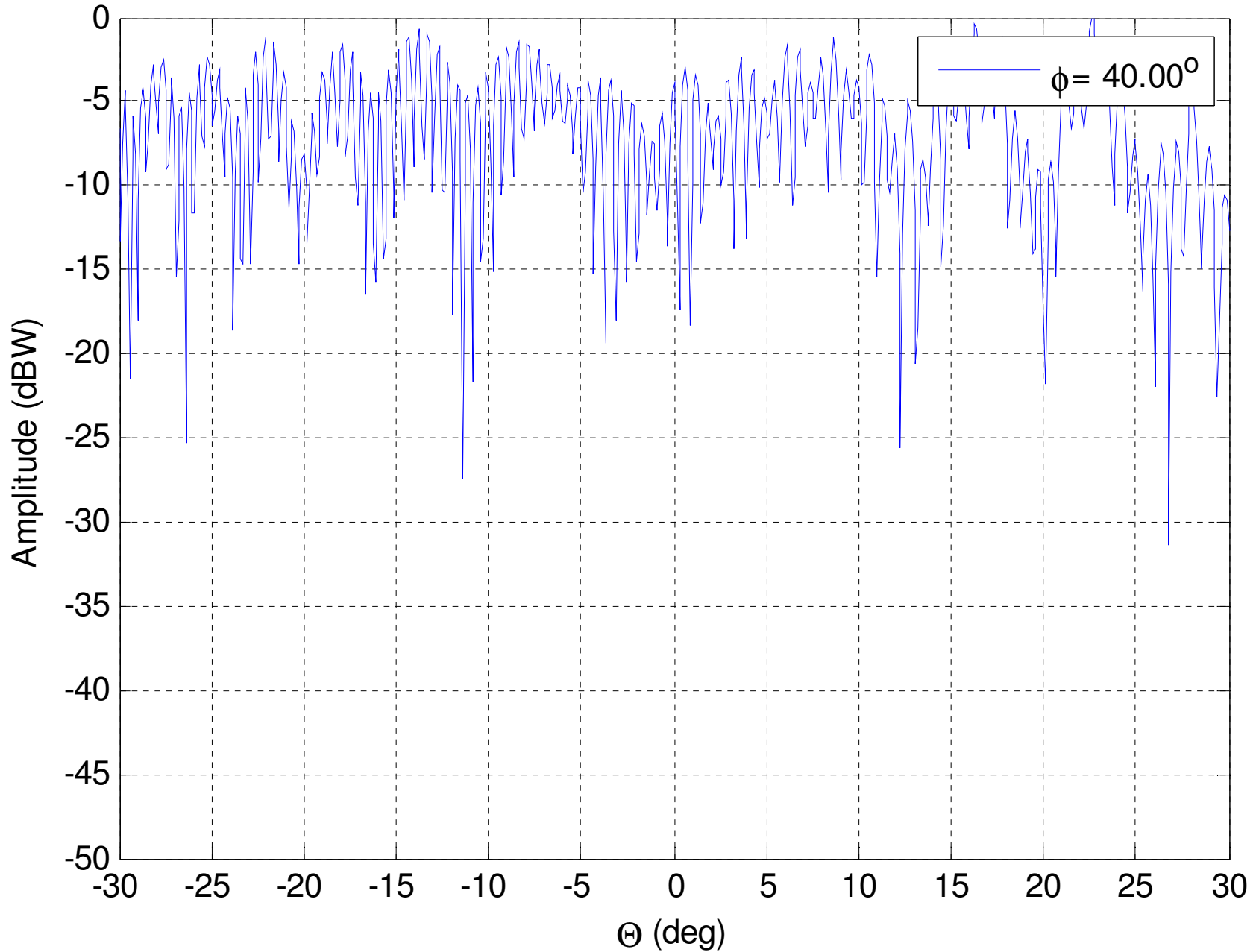
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: 2.01 dBW, Date: 16-Dec-2011



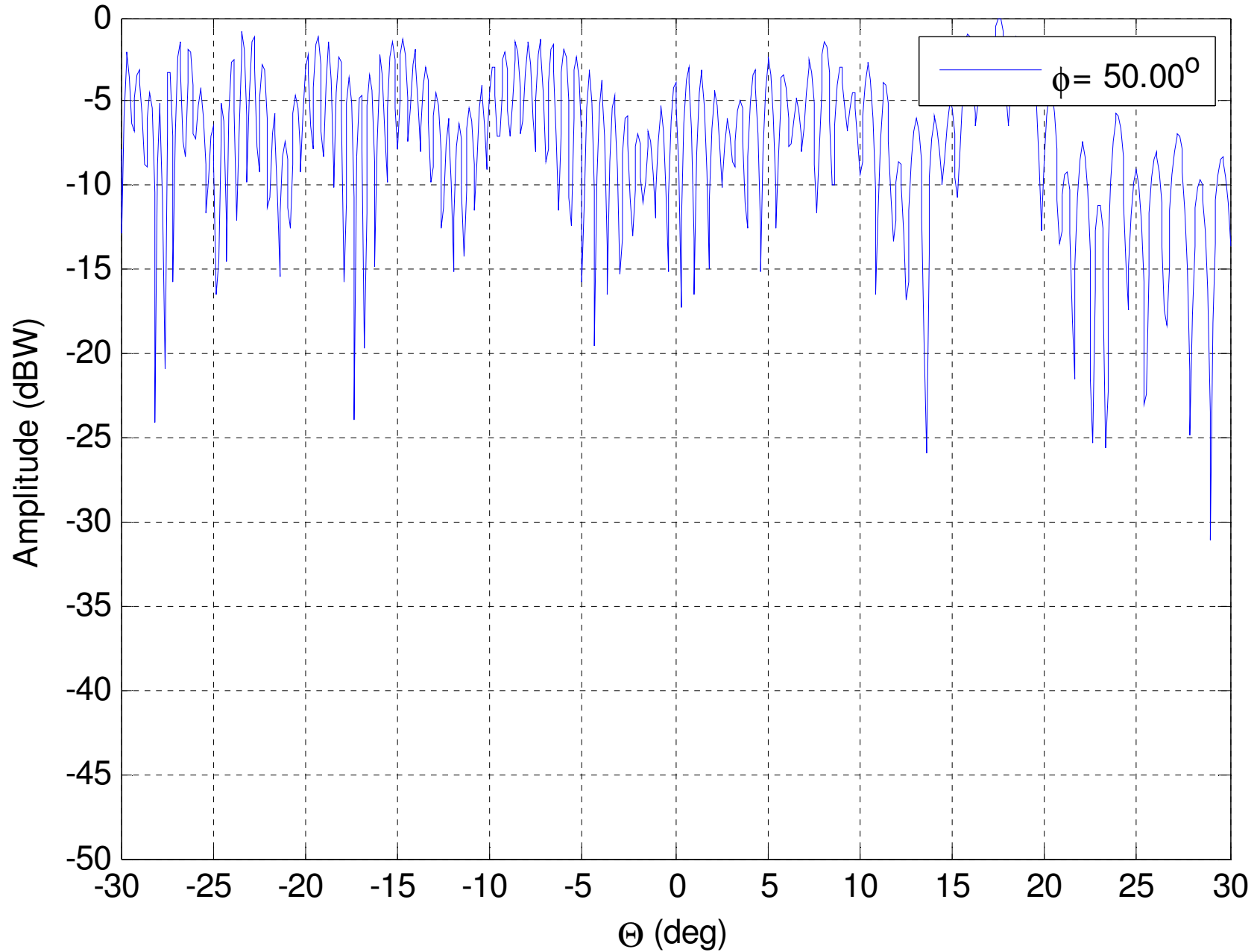
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: 1.71 dBW, Date: 16-Dec-2011



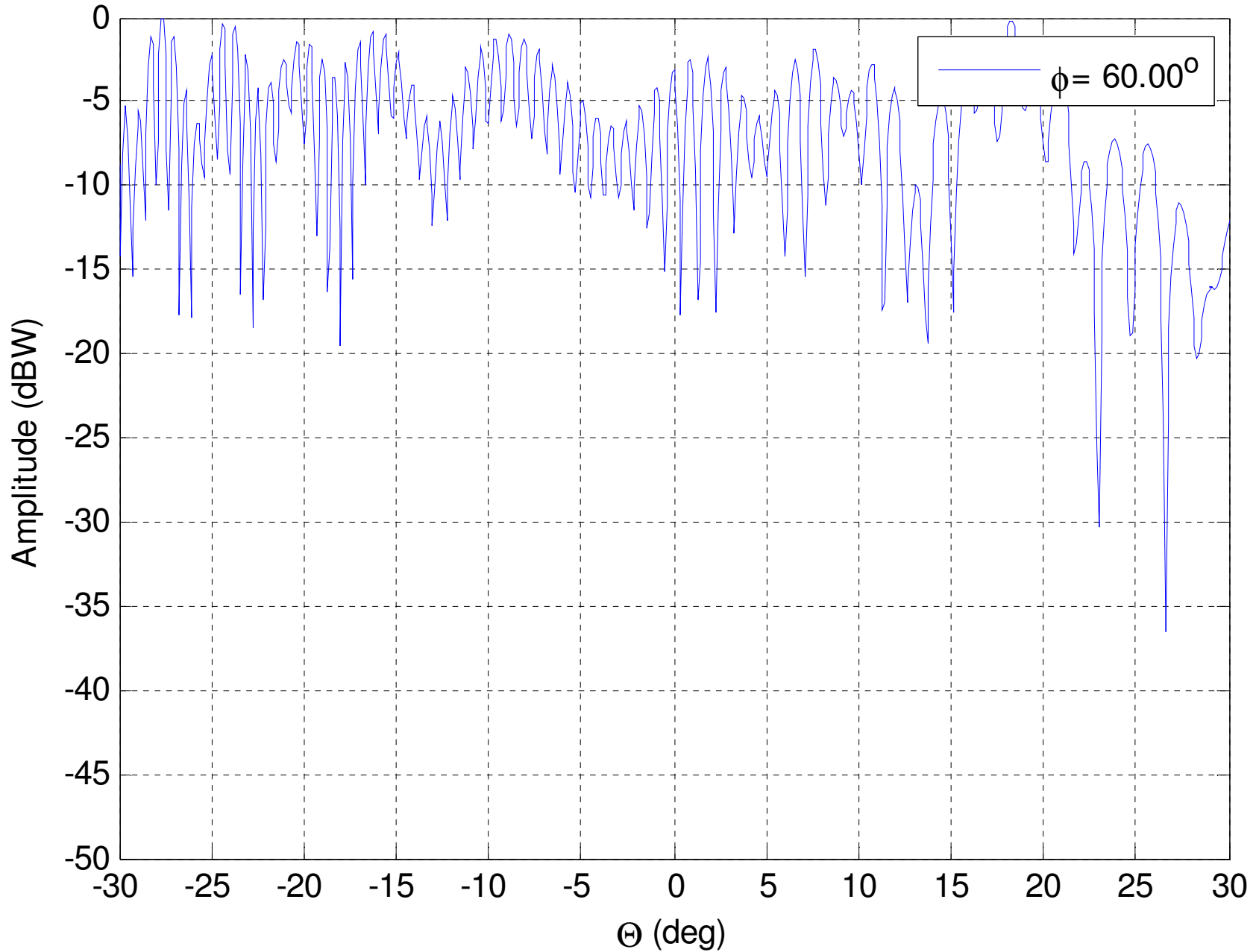
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: 1.61 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: 0.98 dBW, Date: 16-Dec-2011



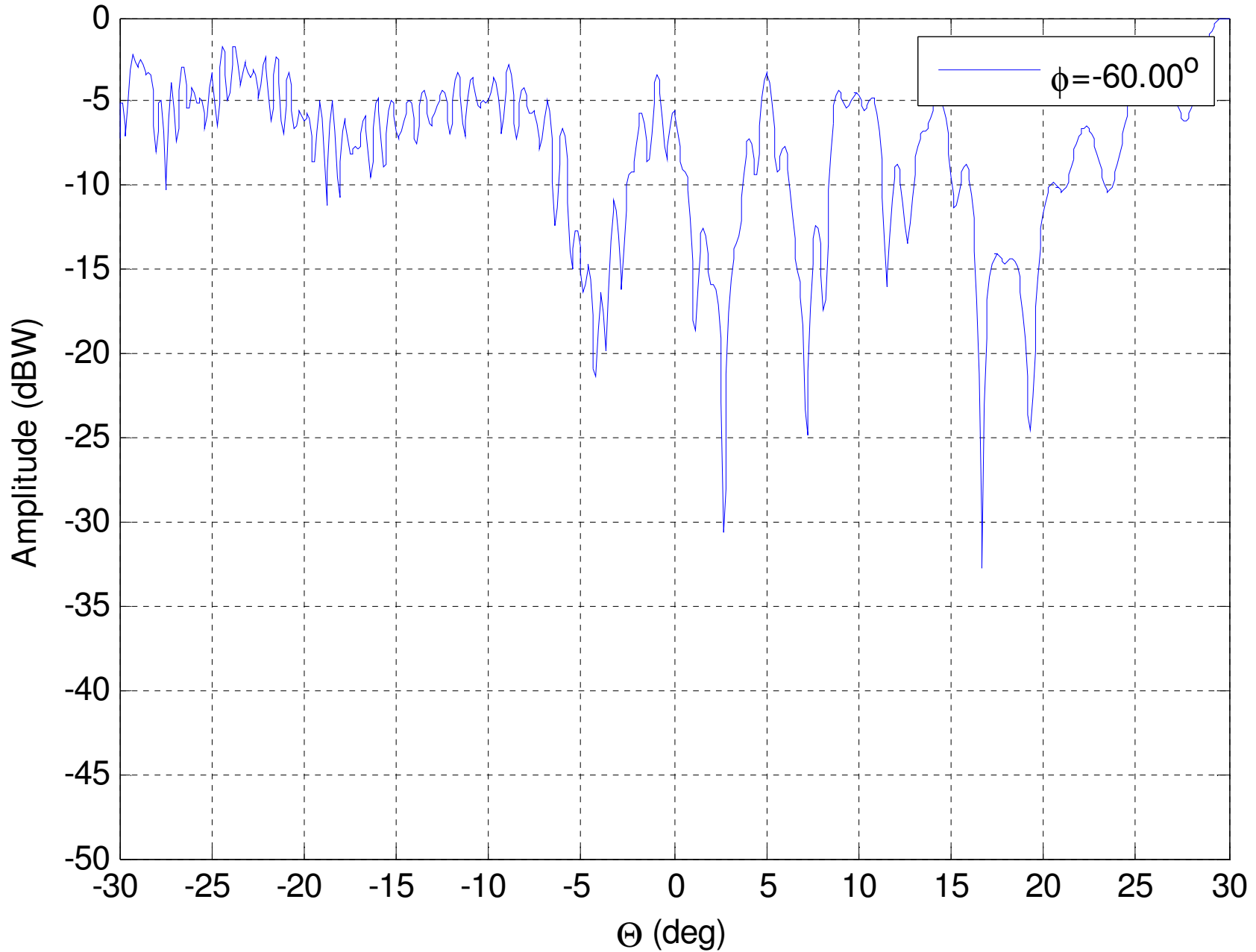
Spot Beam38, +X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: = +X-axis)
- $-60 < \phi < 60$
- Freq = 17.305, 17.5, and 17.695 GHz
- The Zero reference line is the maximum EIRP listed in the title of each plot sheet. All levels are below the required 15.4 dBW maximum
- The Zero reference for the maximum antenna gain is the maximum EIRP listed minus the power input to the antenna specified in Table I of the attached narrative.

RHCP at 17.3 GHz

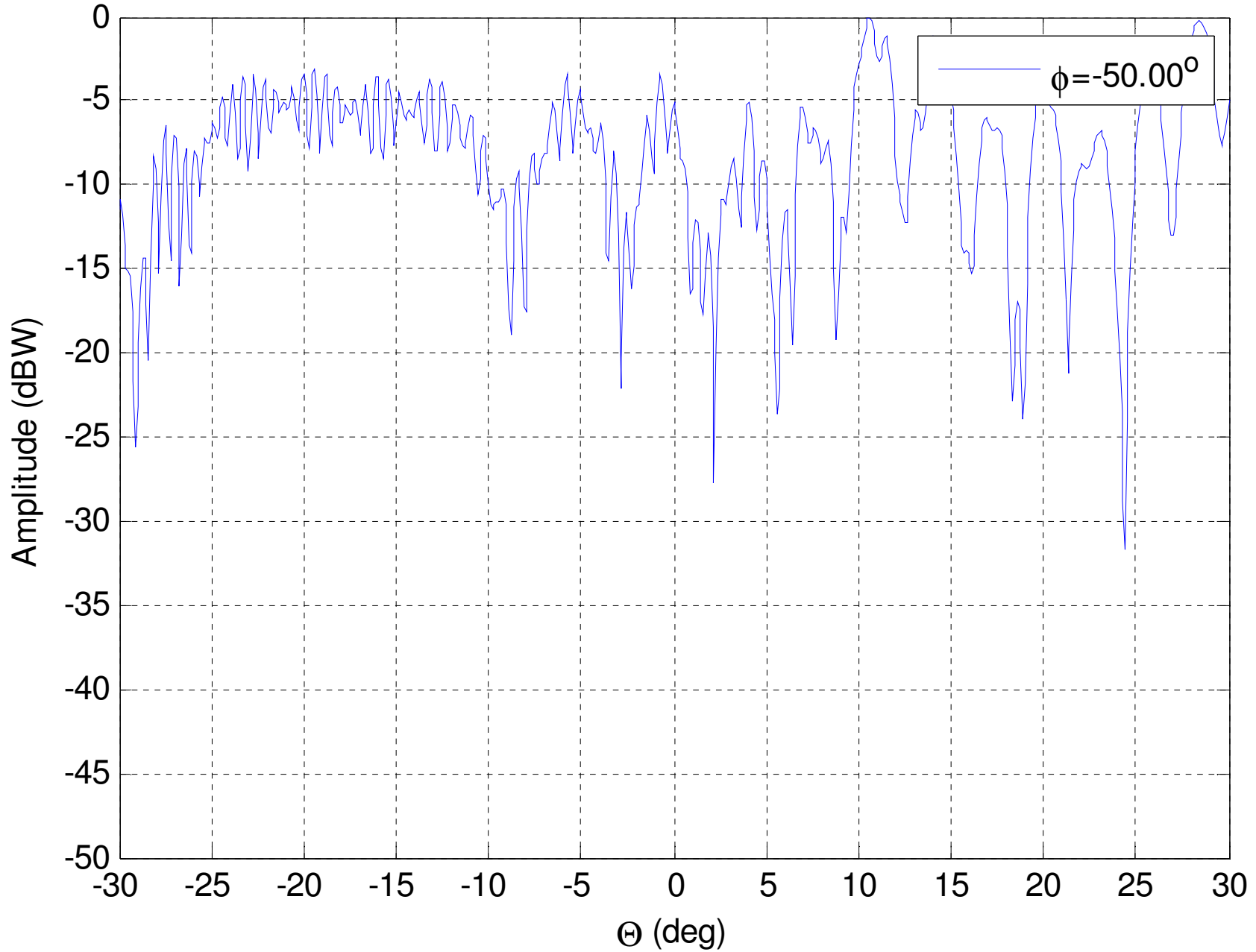
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -3.15 dBW, Date: 16-Dec-2011



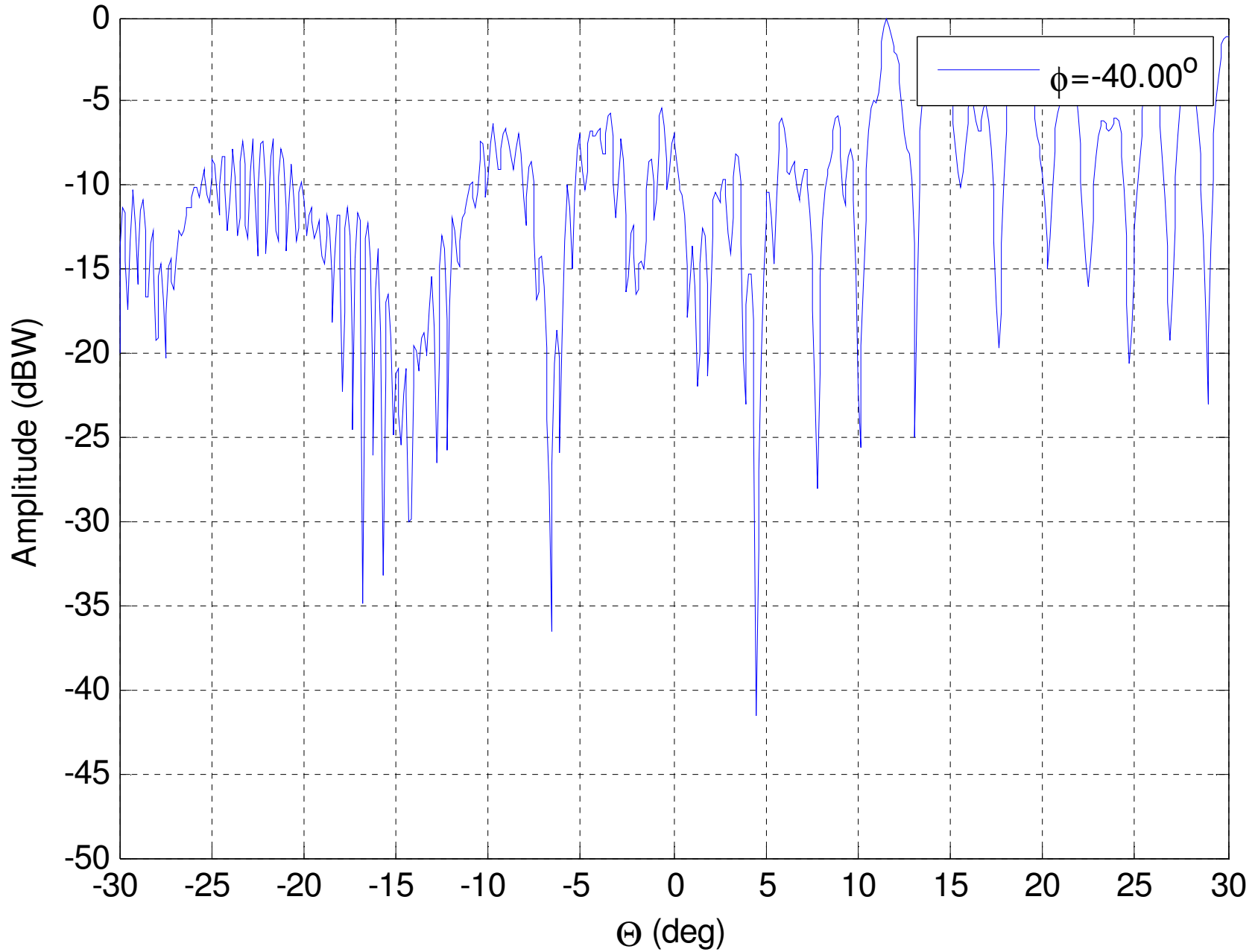
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -3.54 dBW, Date: 16-Dec-2011



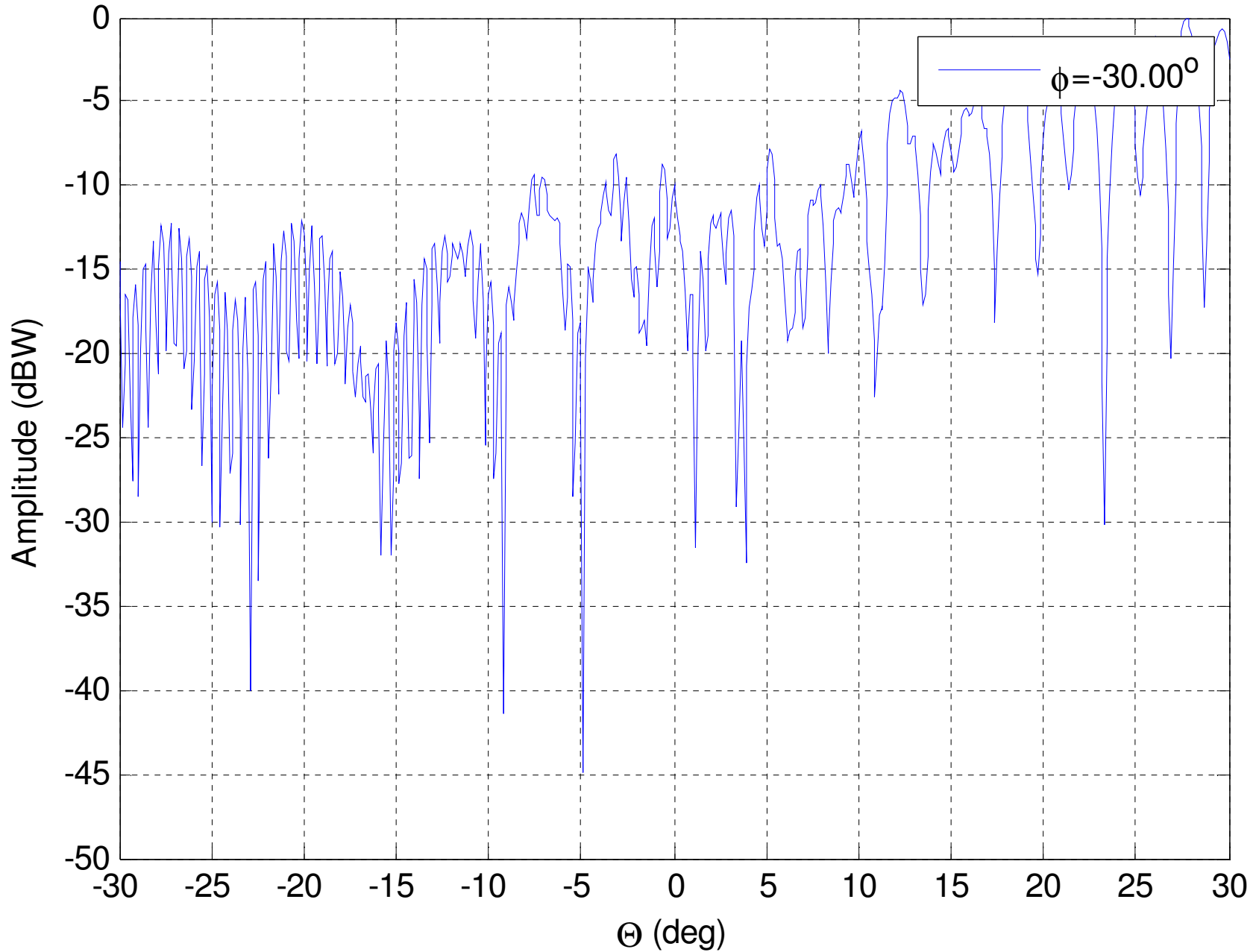
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -1.74 dBW, Date: 16-Dec-2011



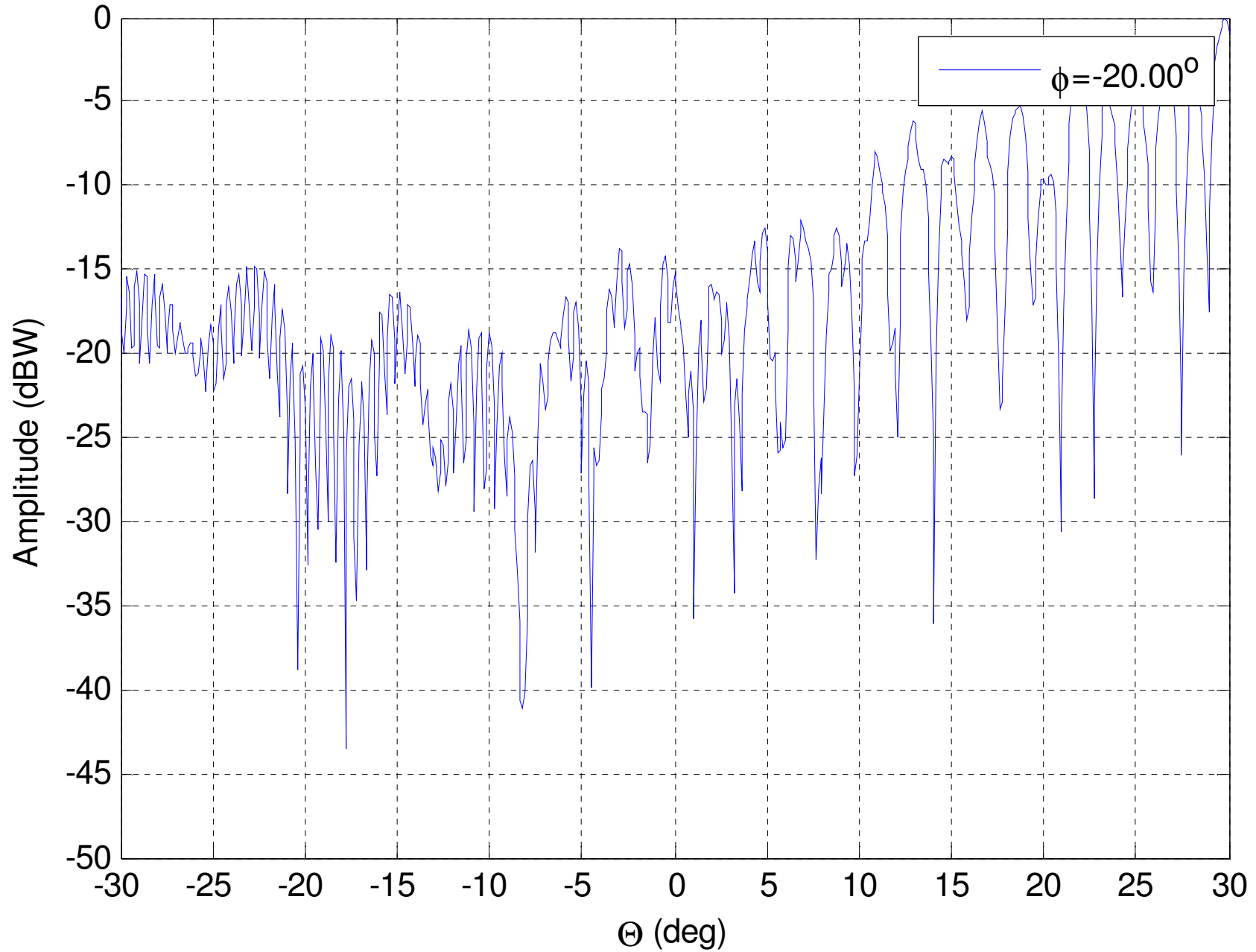
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: 1.26 dBW, Date: 16-Dec-2011



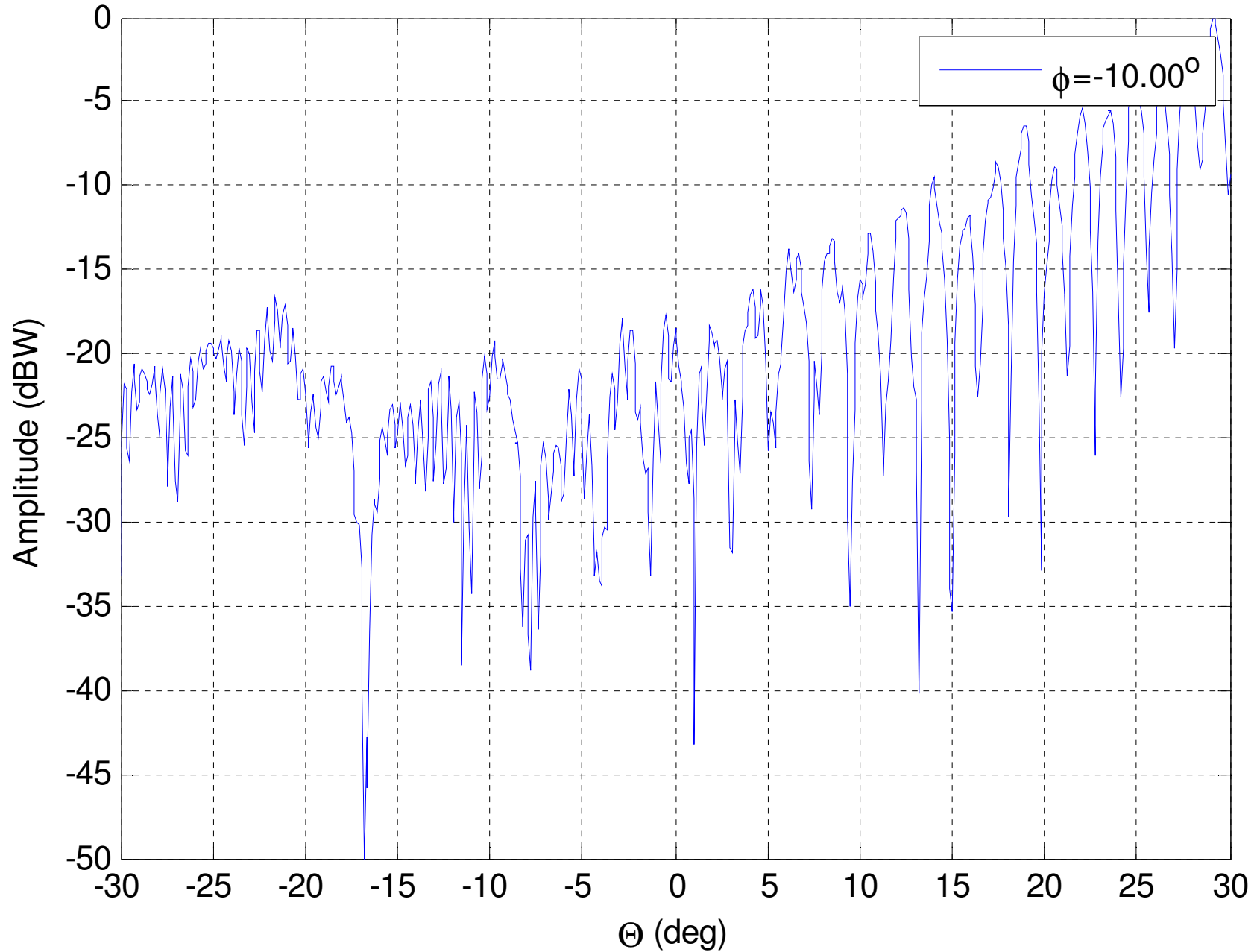
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: 6.47 dBW, Date: 16-Dec-2011



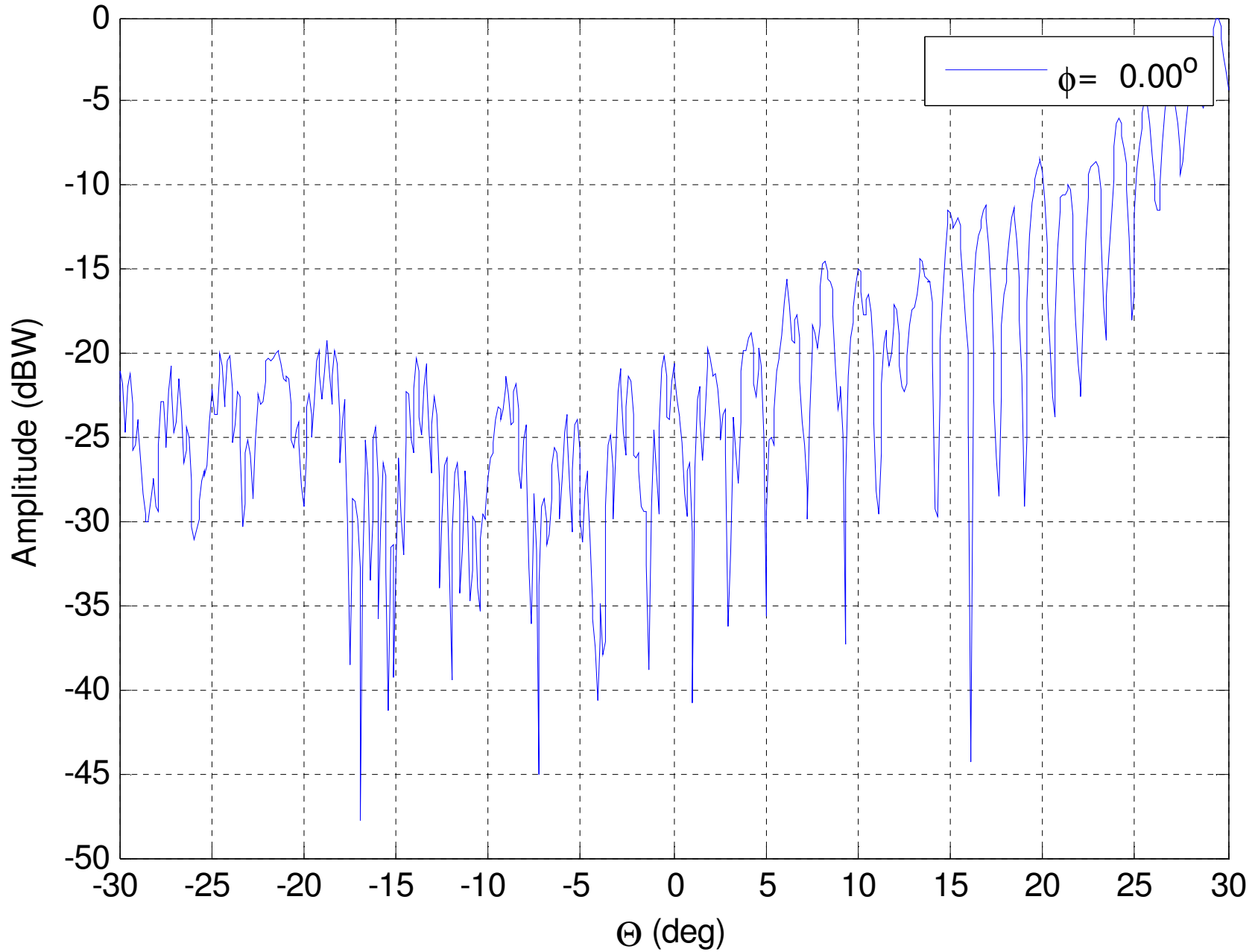
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: 9.84 dBW, Date: 16-Dec-2011



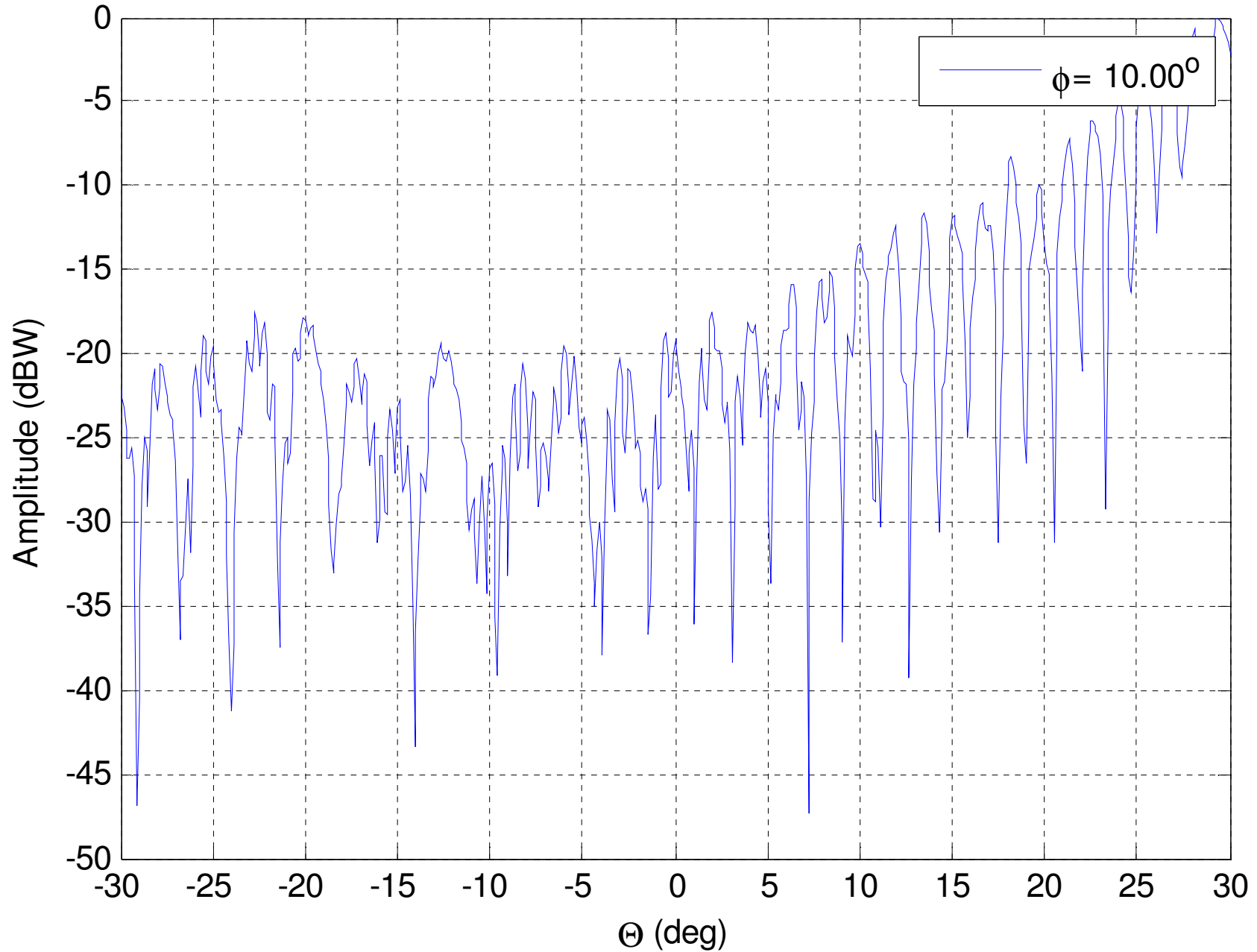
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: 11.98 dBW, Date: 16-Dec-2011



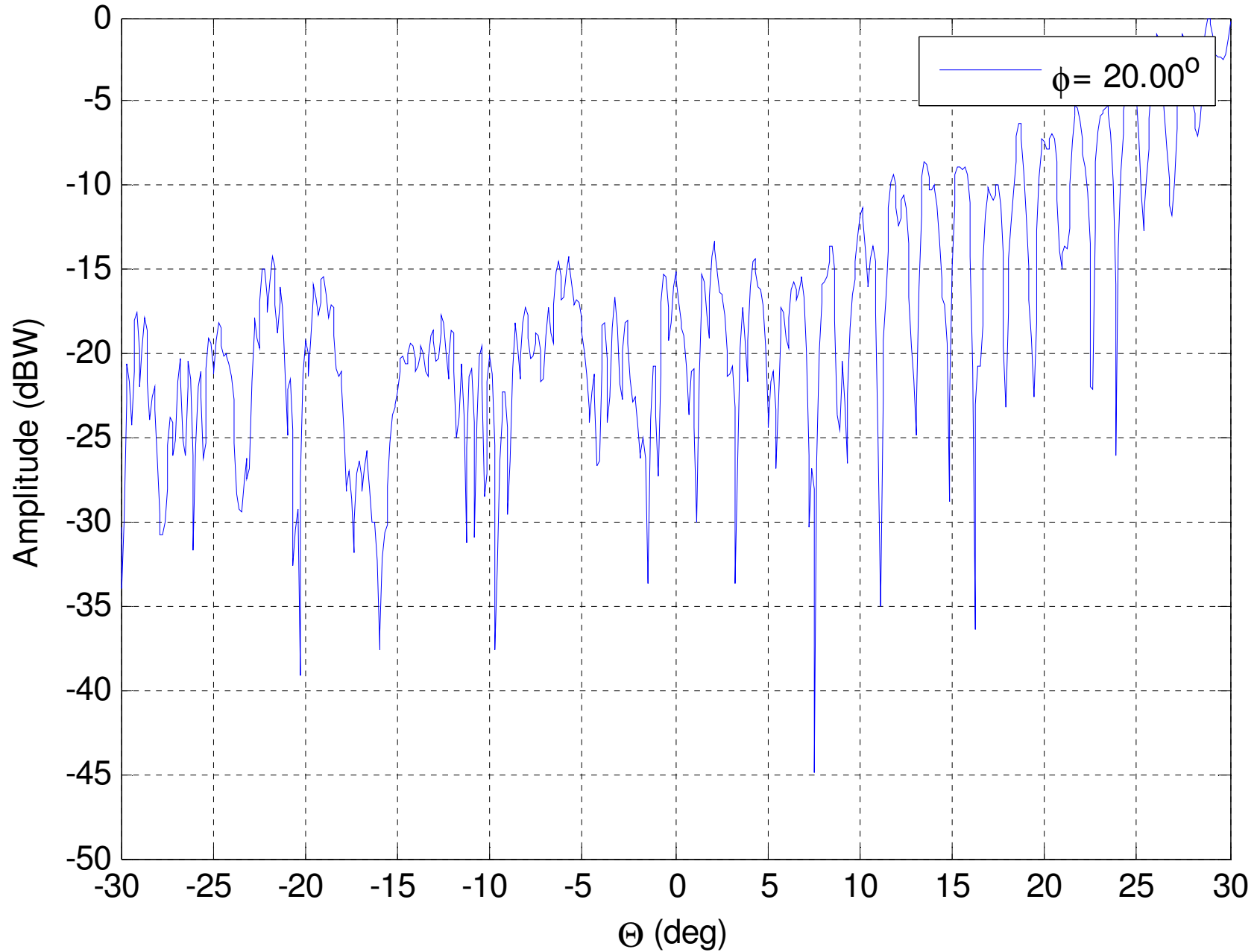
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: 10.39 dBW, Date: 16-Dec-2011



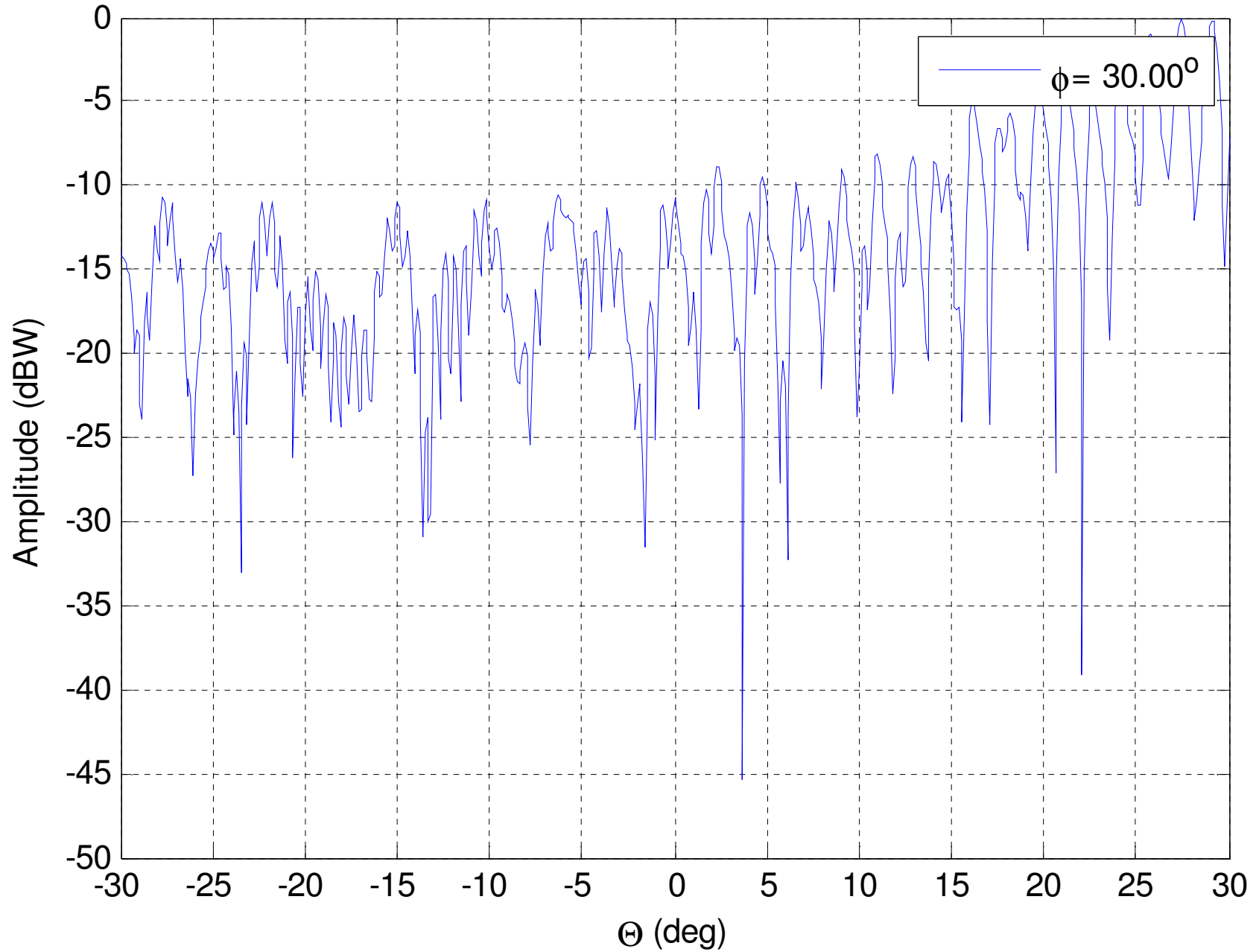
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: 6.51 dBW, Date: 16-Dec-2011



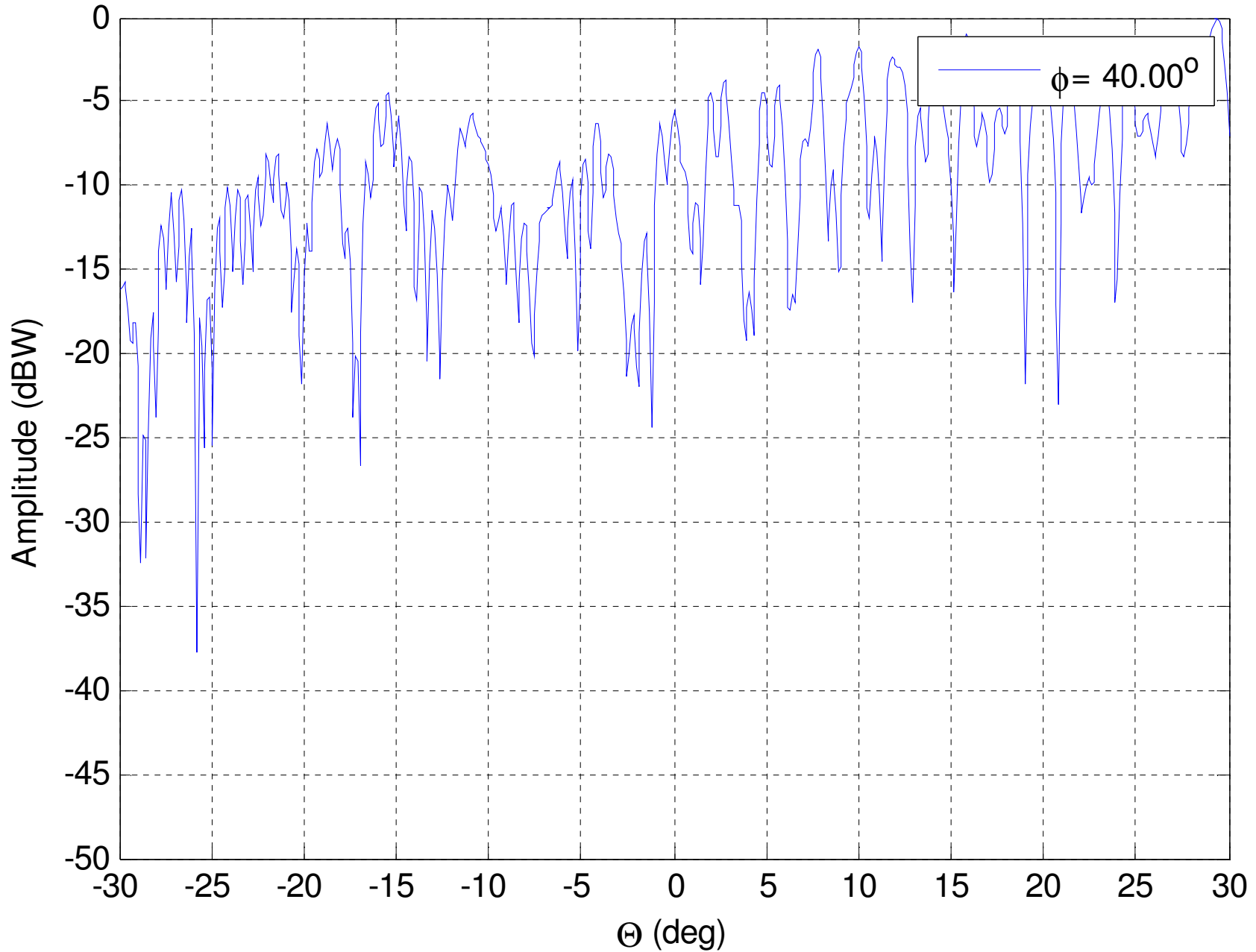
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: 2.11 dBW, Date: 16-Dec-2011



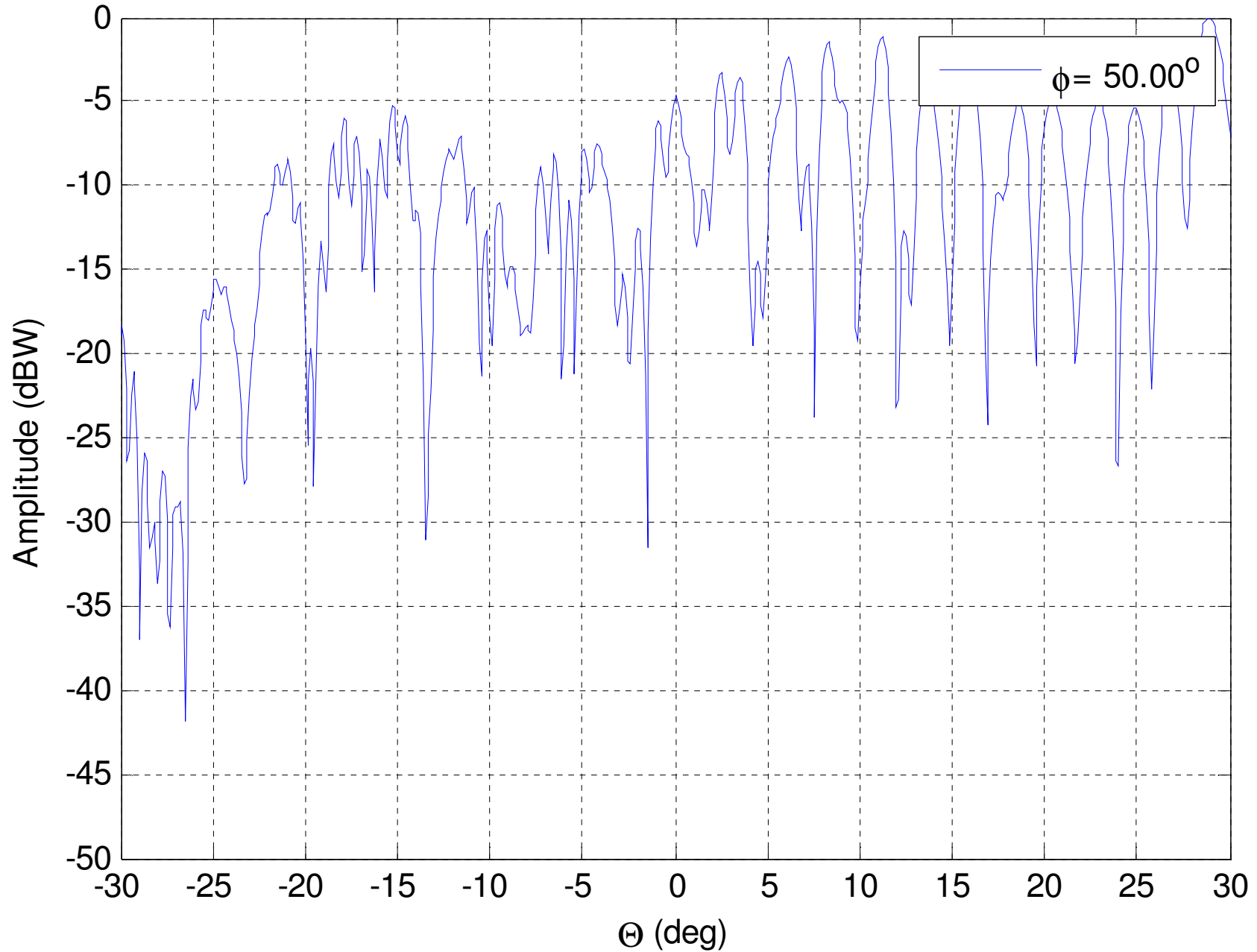
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -3.13 dBW, Date: 16-Dec-2011



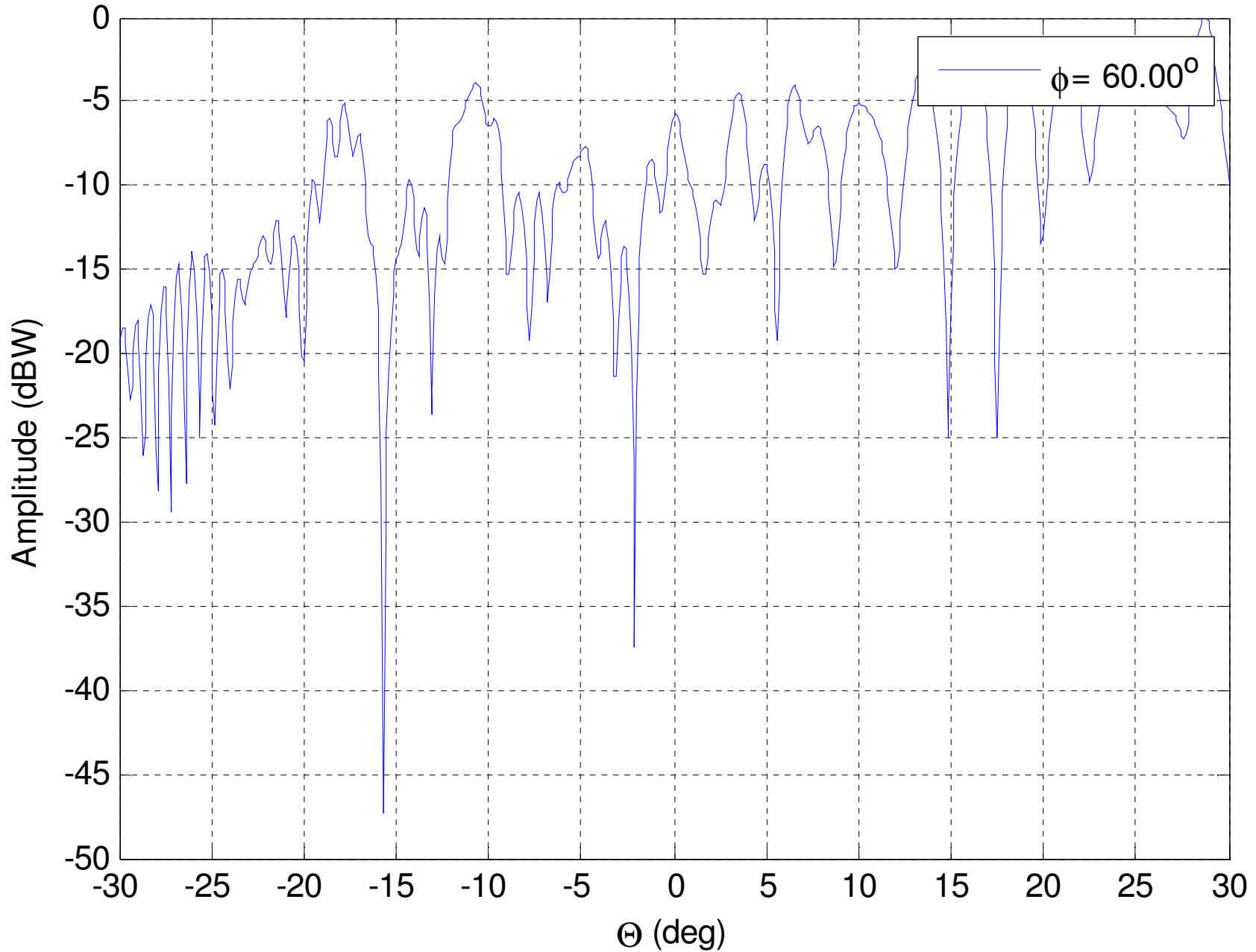
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -3.99 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

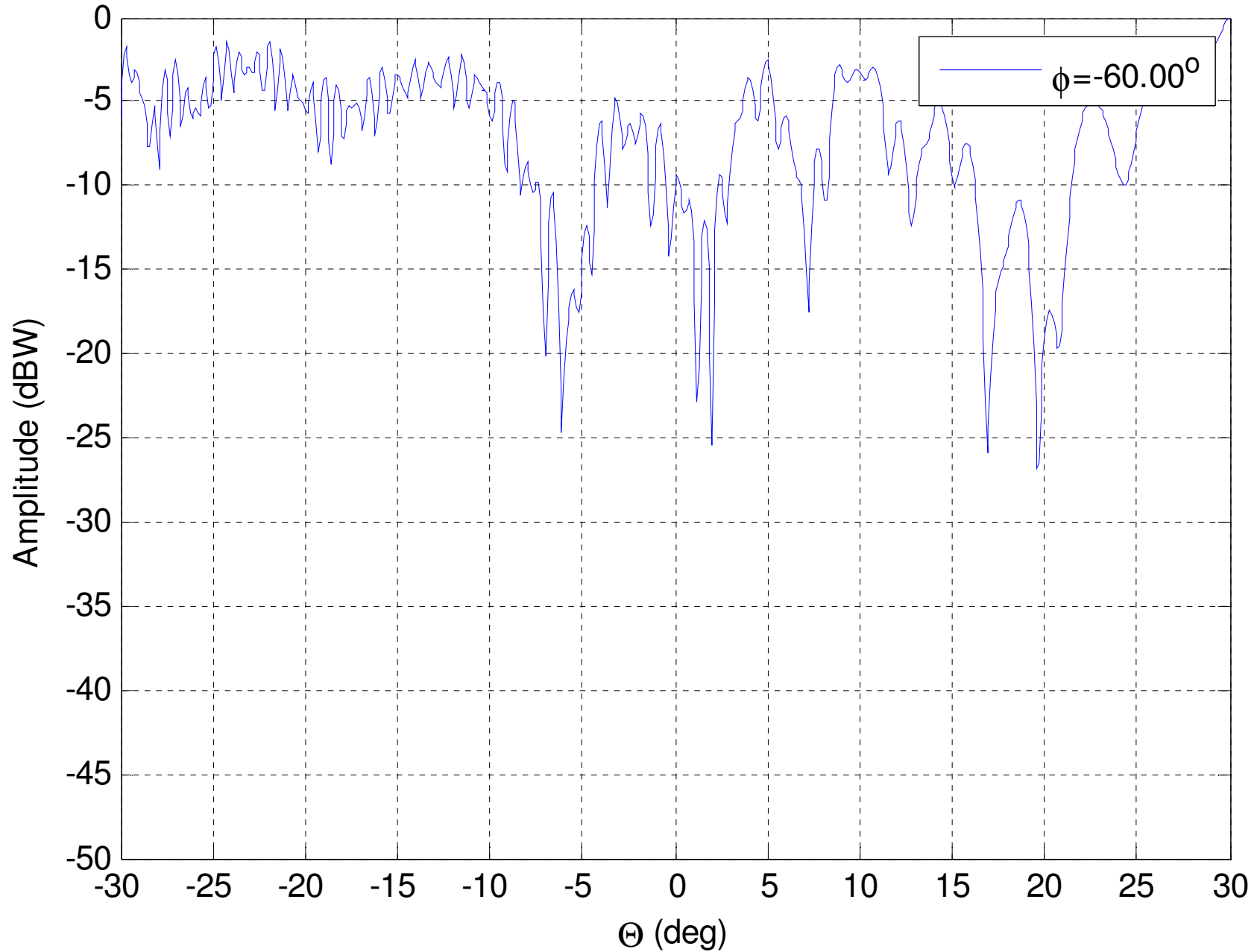
Input file: tx-17.3-rhcp-60.cut, Peak: -2.85 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

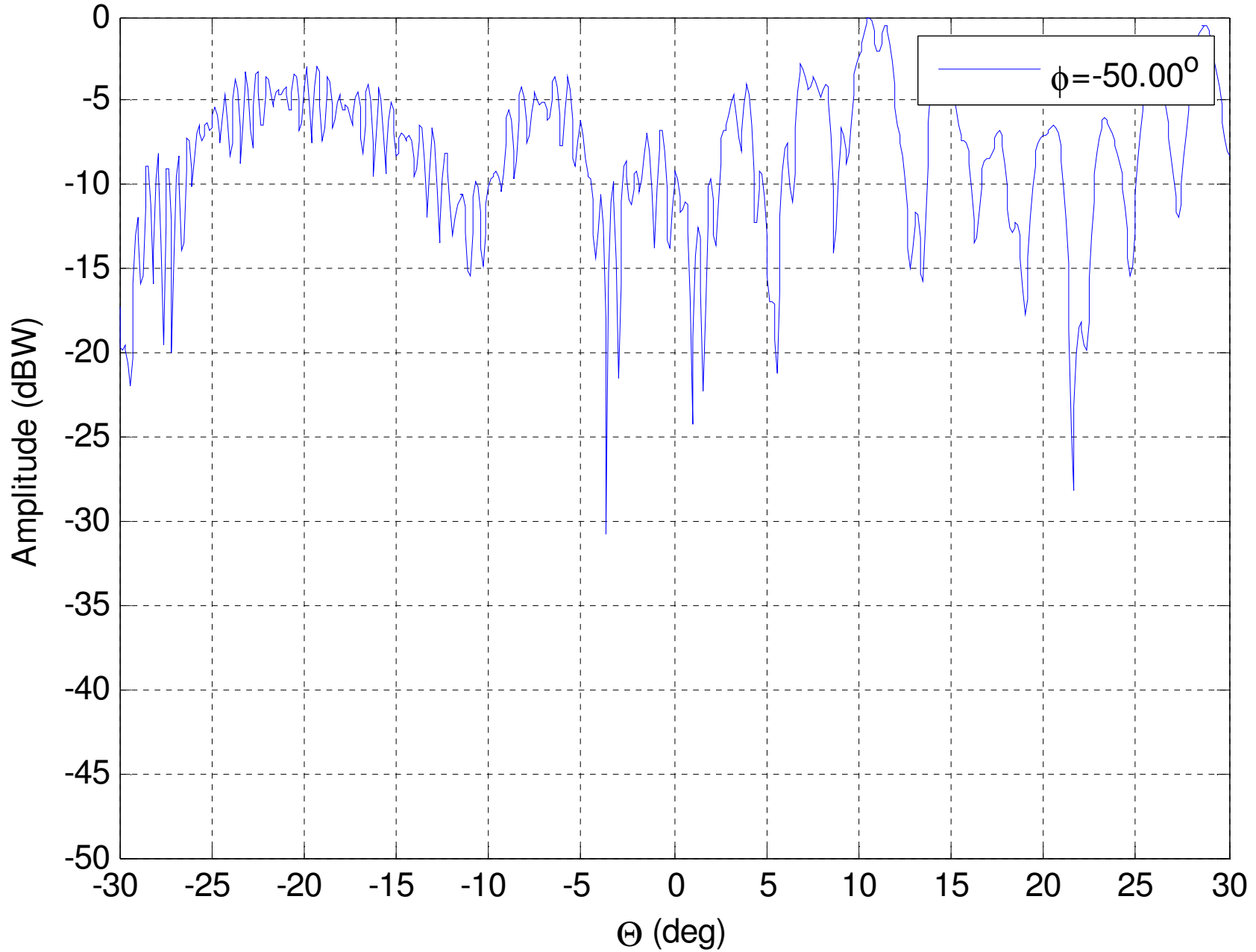
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -2.84 dBW, Date: 16-Dec-2011



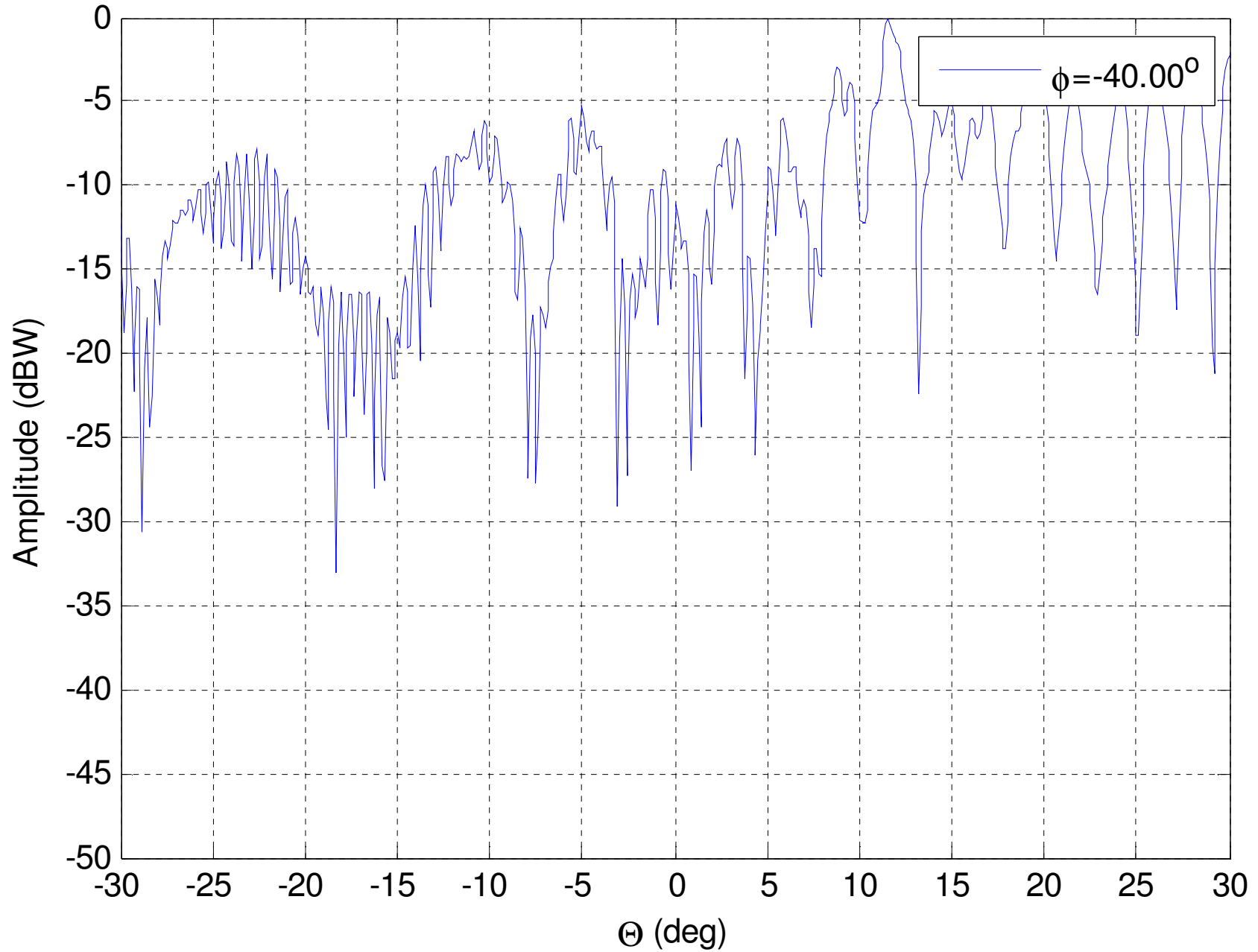
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -2.99 dBW, Date: 16-Dec-2011



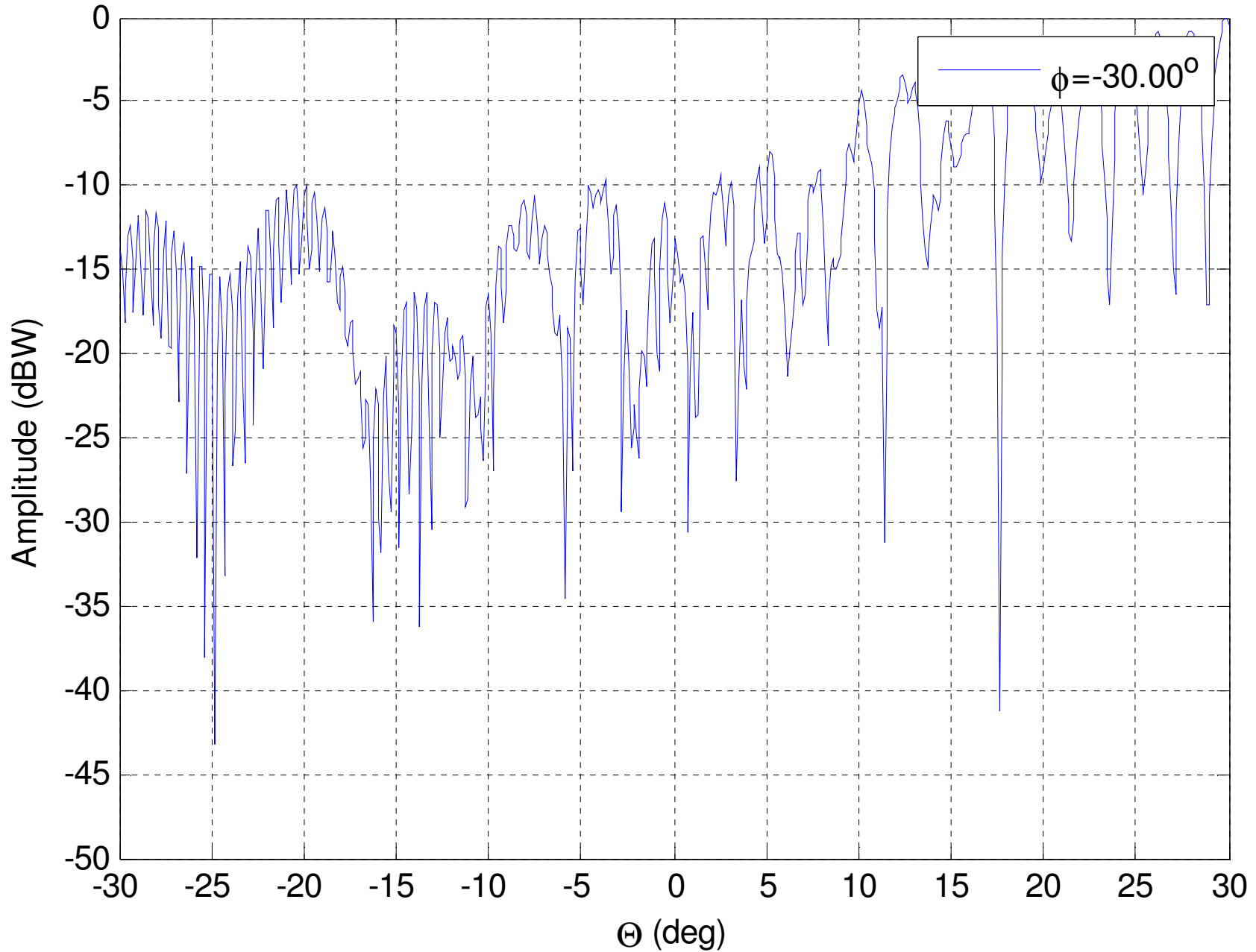
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -0.99 dBW, Date: 16-Dec-2011



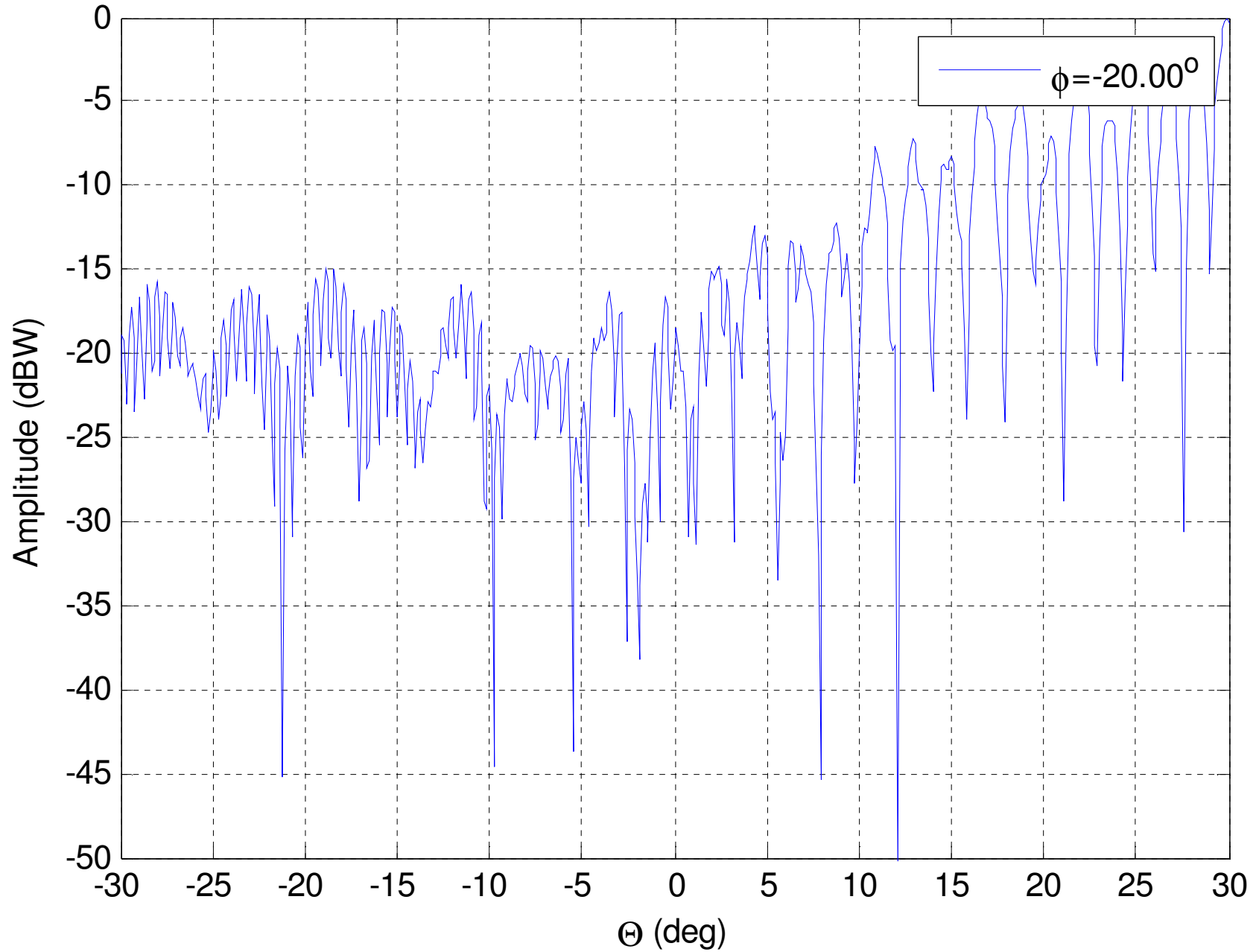
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: 0.93 dBW, Date: 16-Dec-2011



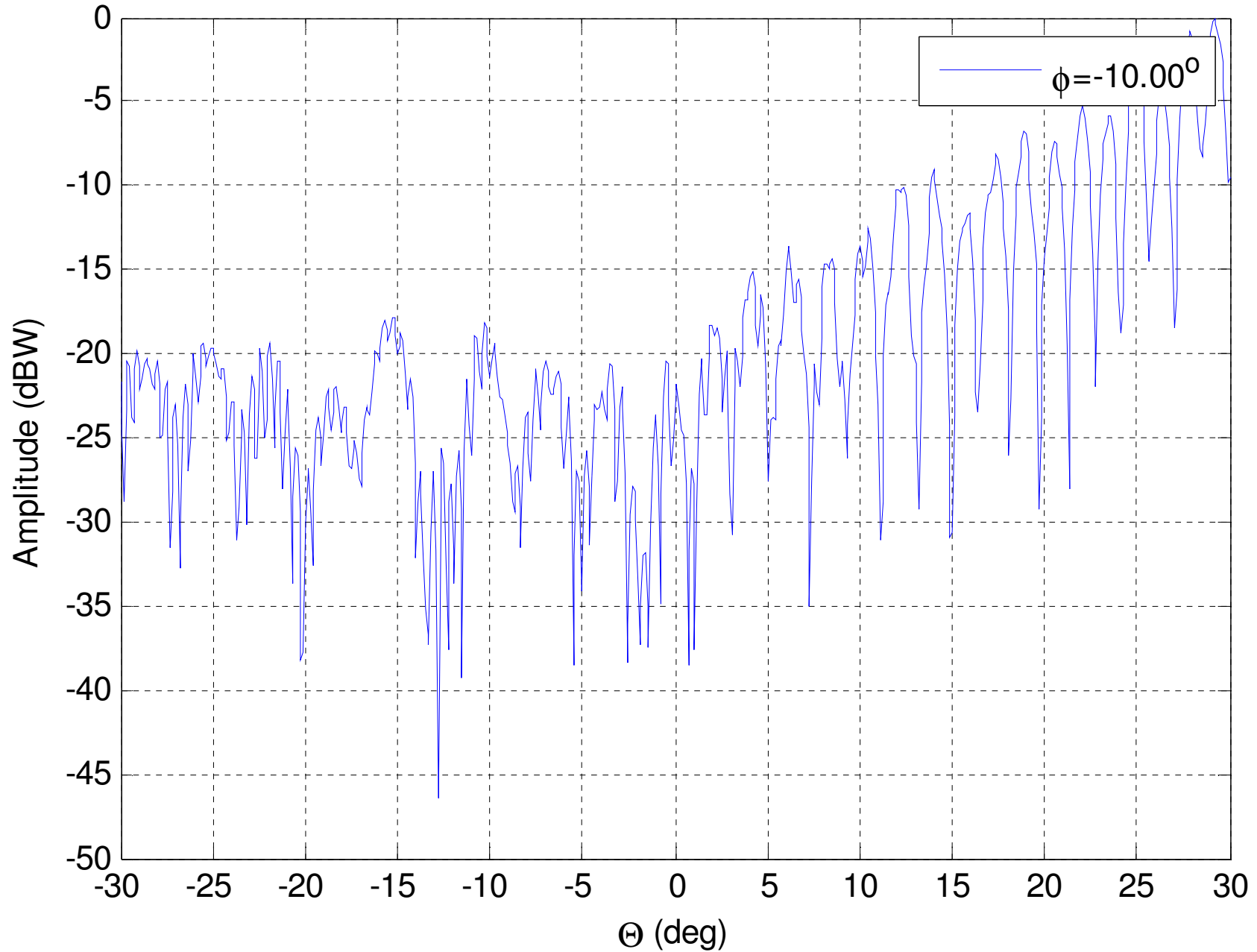
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: 6.22 dBW, Date: 16-Dec-2011



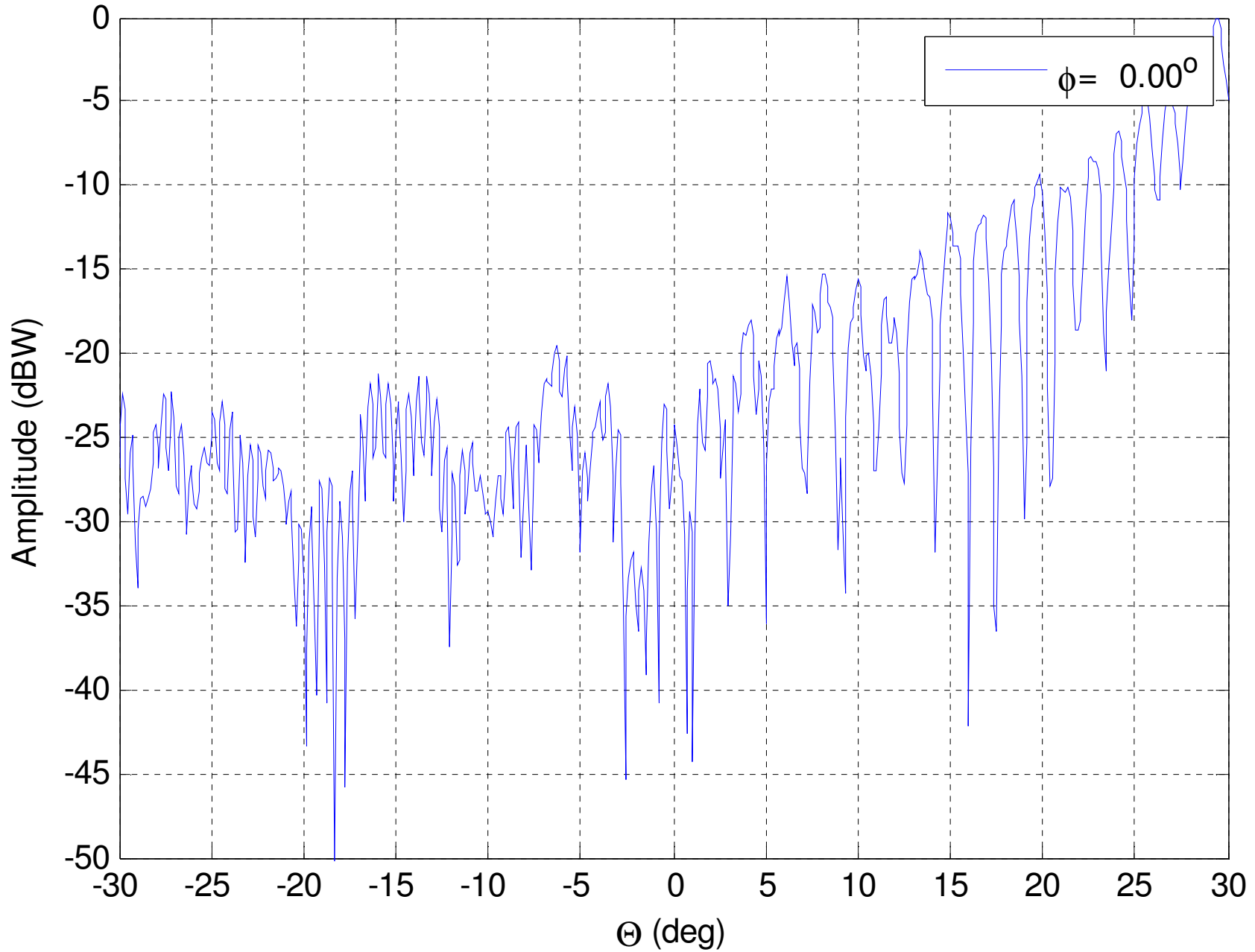
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: 9.58 dBW, Date: 16-Dec-2011



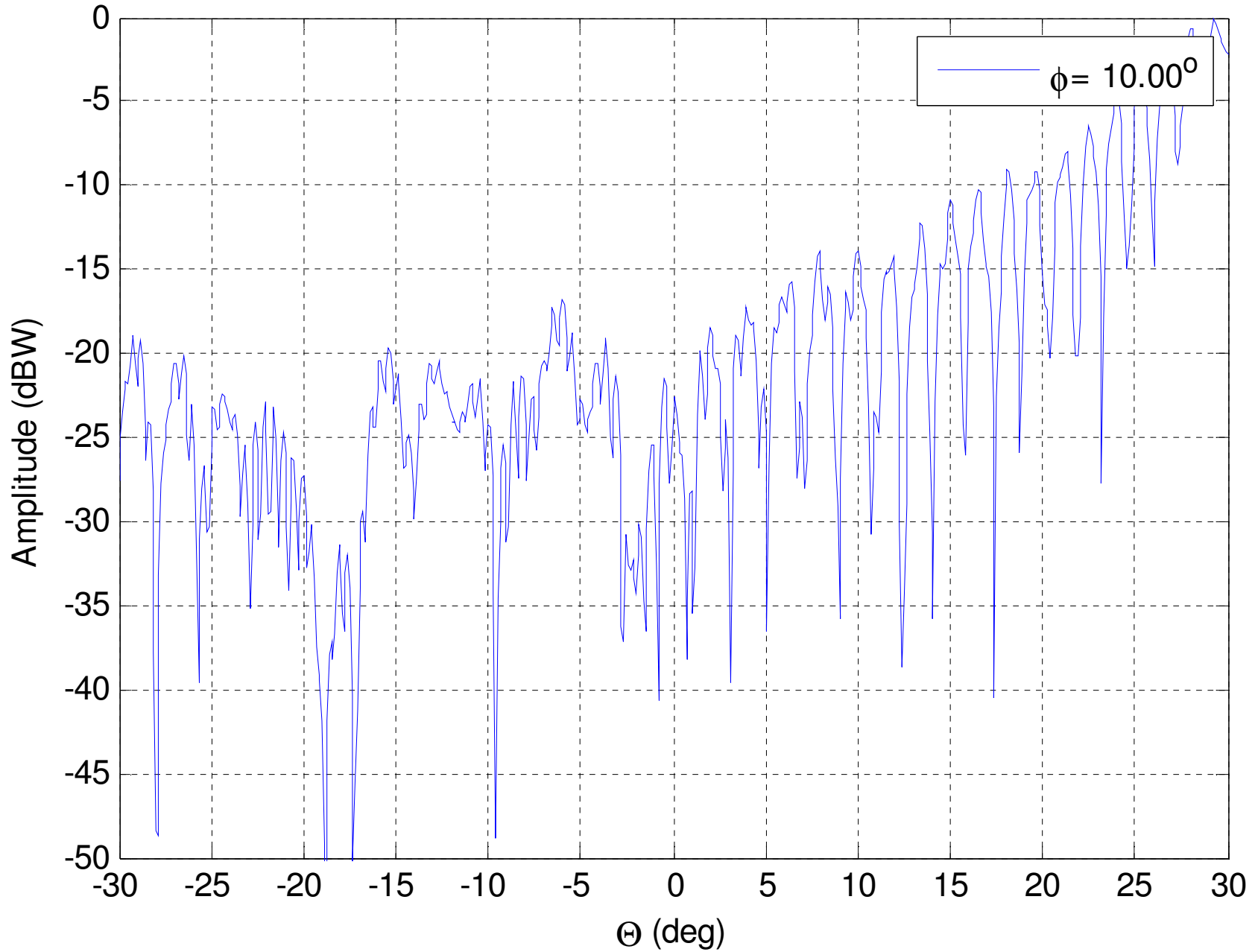
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: 12.08 dBW, Date: 16-Dec-2011



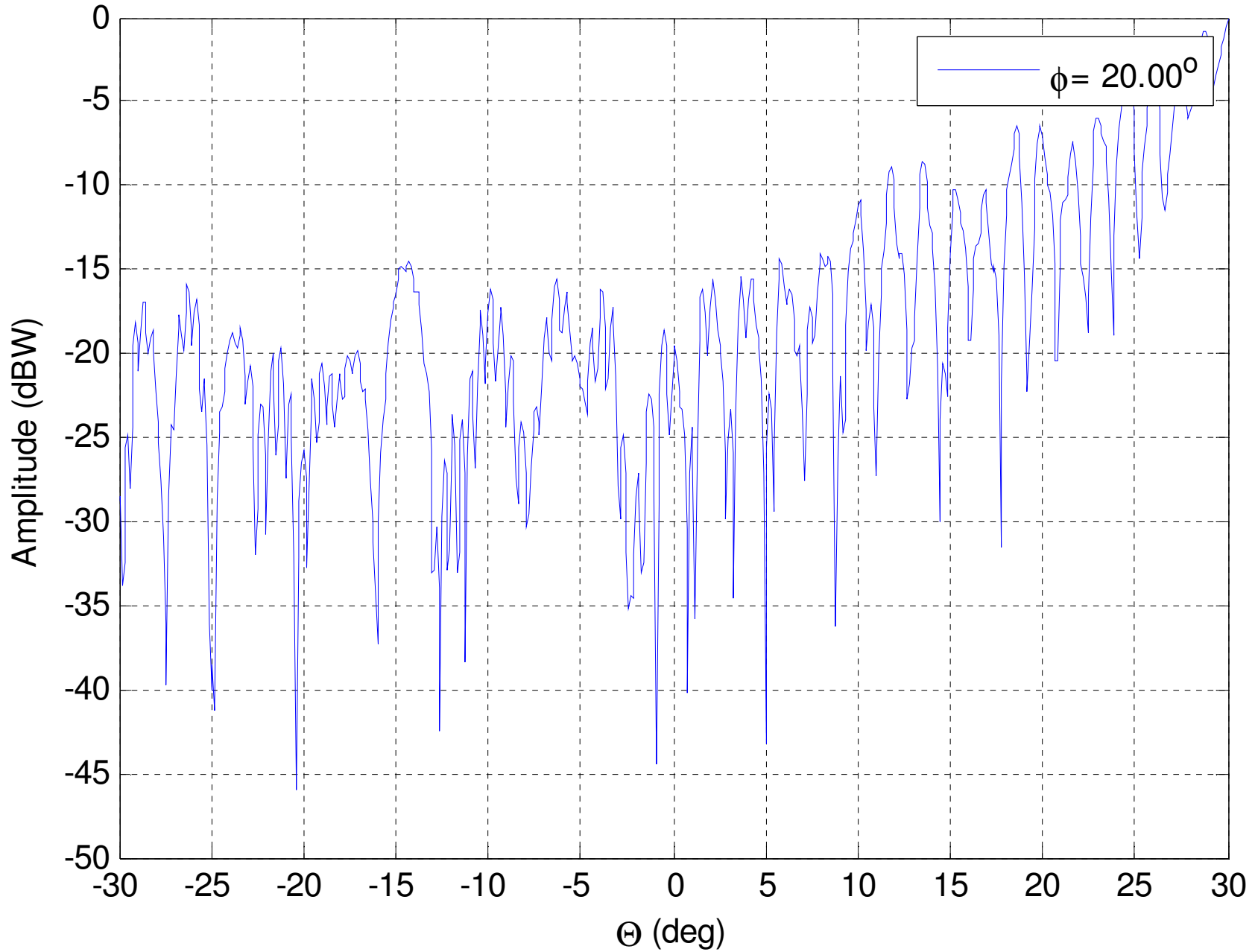
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: 10.35 dBW, Date: 16-Dec-2011



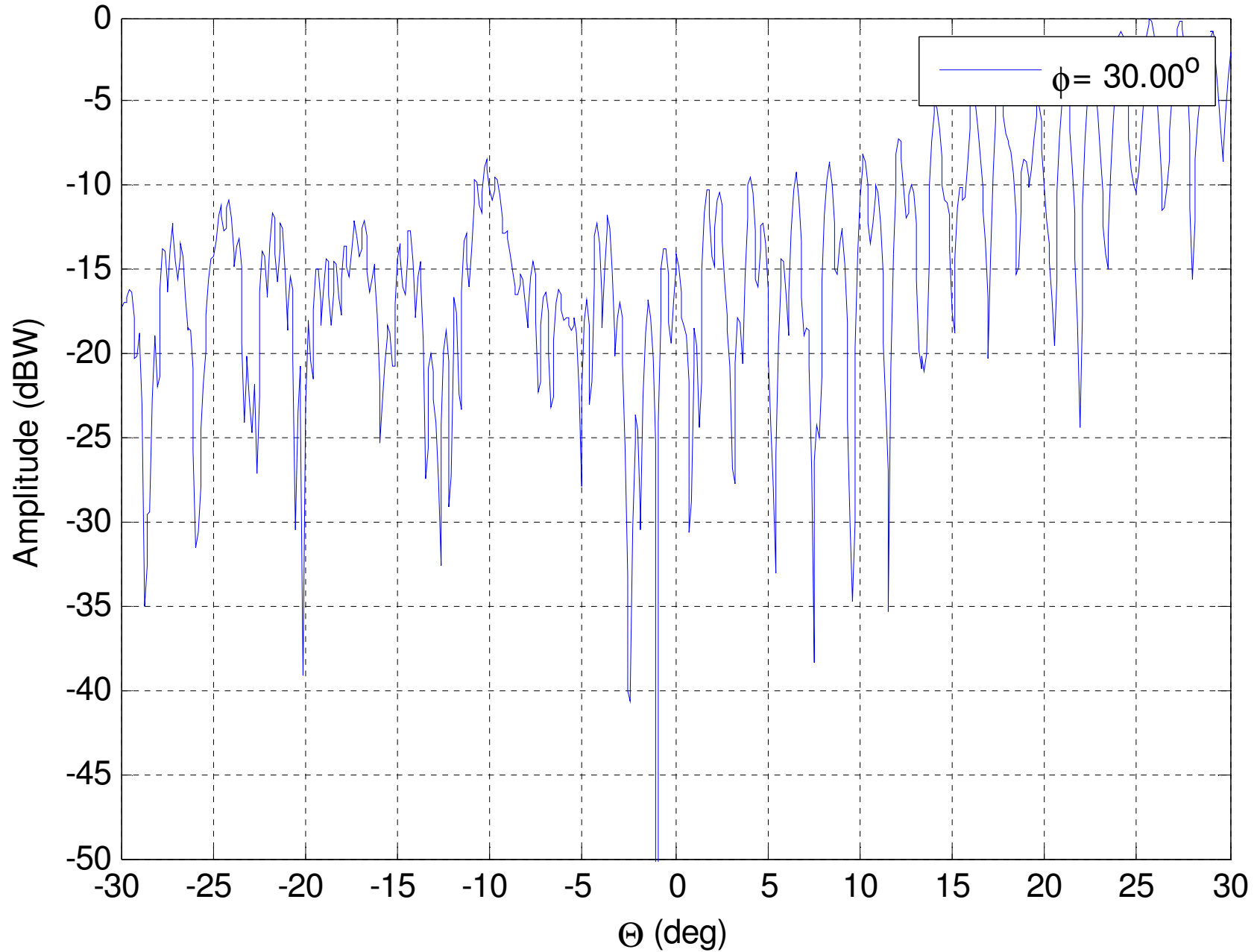
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: 7.38 dBW, Date: 16-Dec-2011



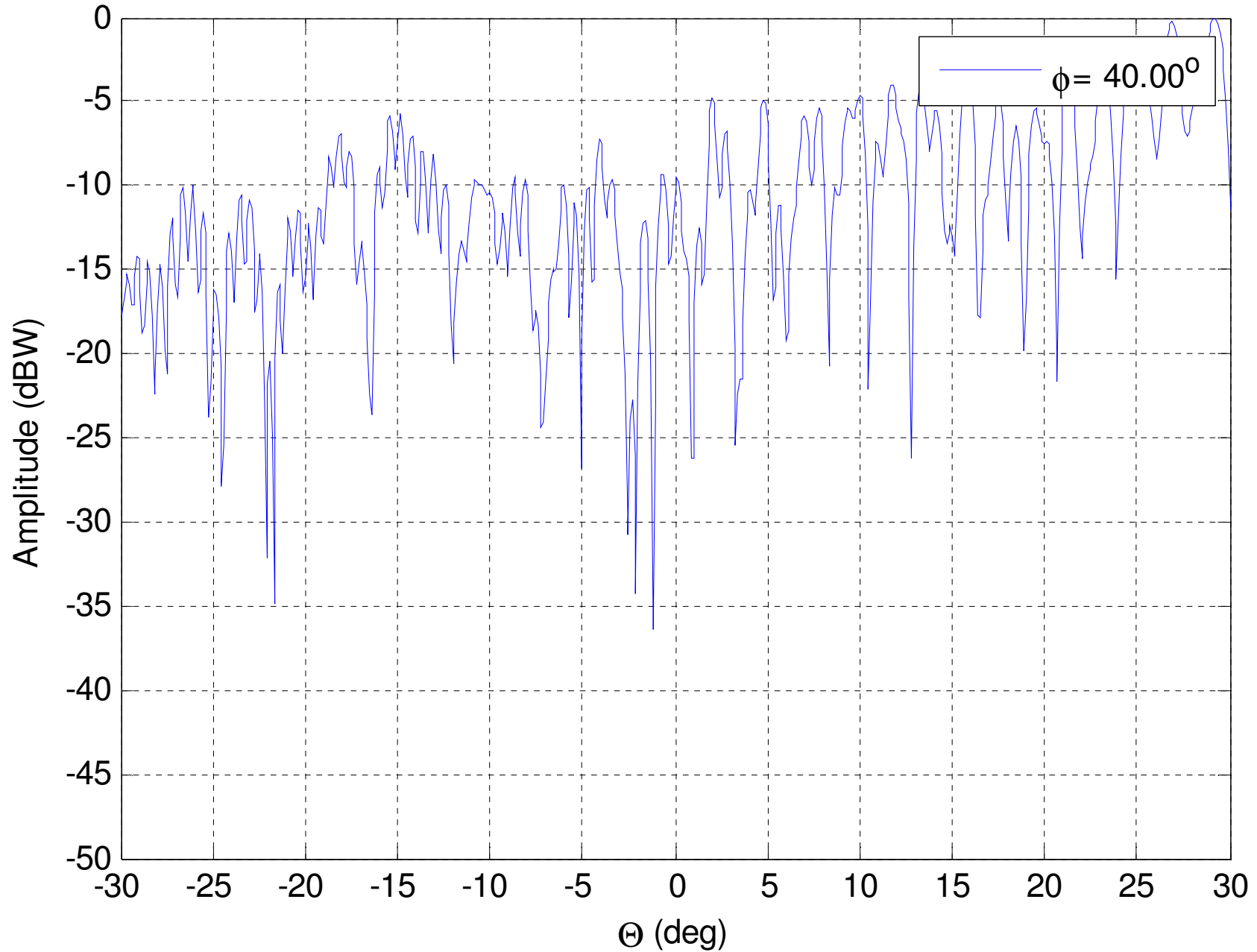
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: 2.00 dBW, Date: 16-Dec-2011



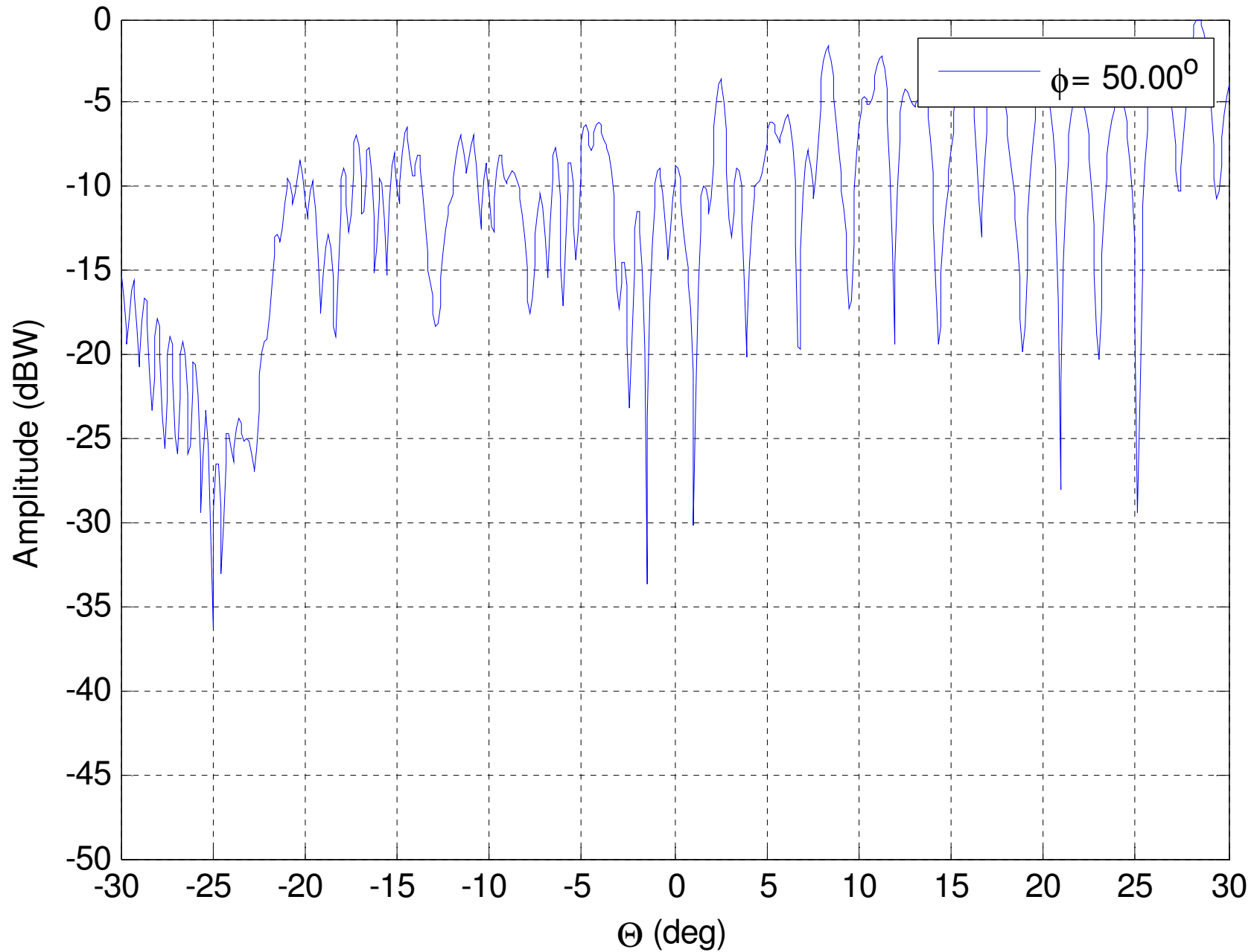
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -2.69 dBW, Date: 16-Dec-2011



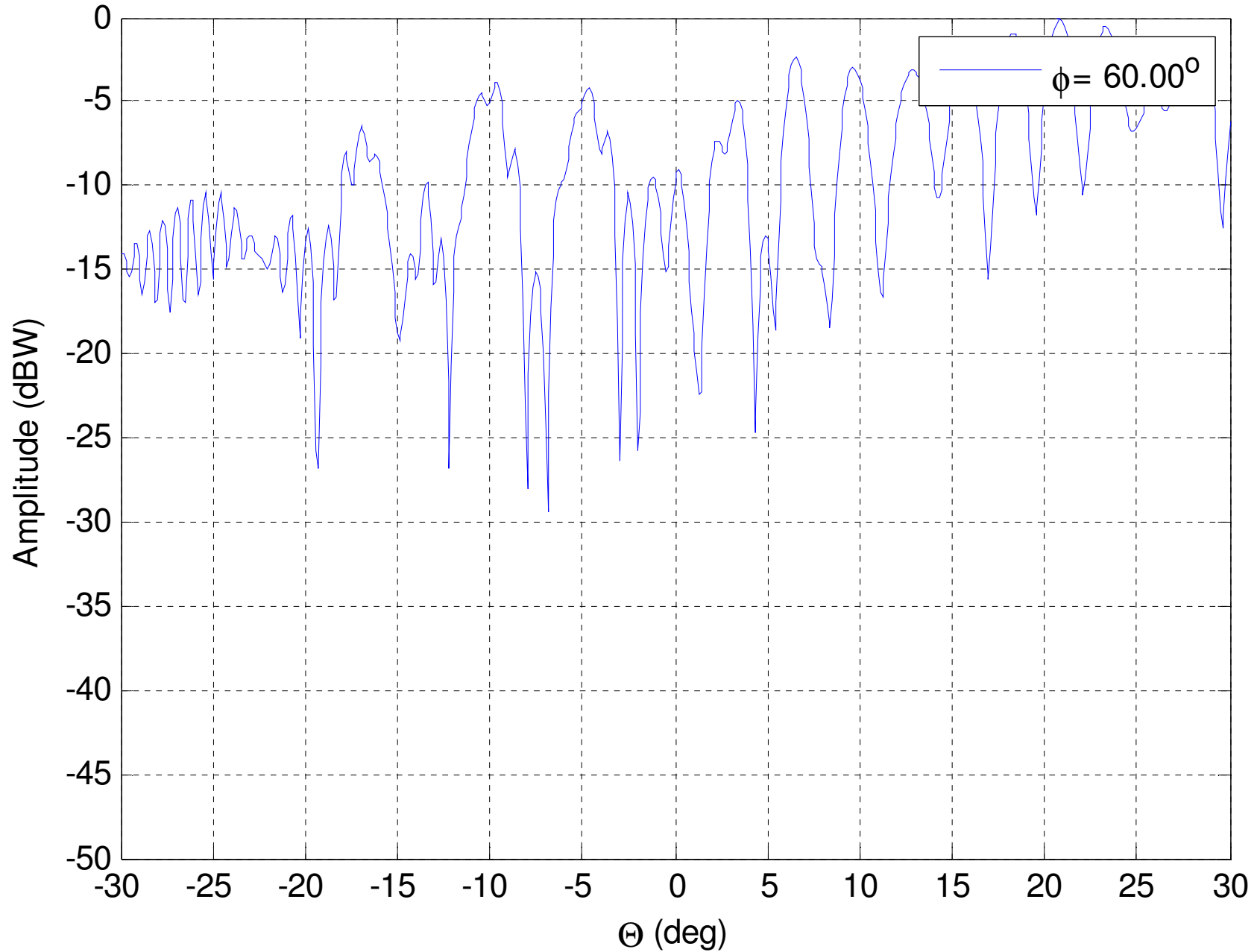
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -3.37 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

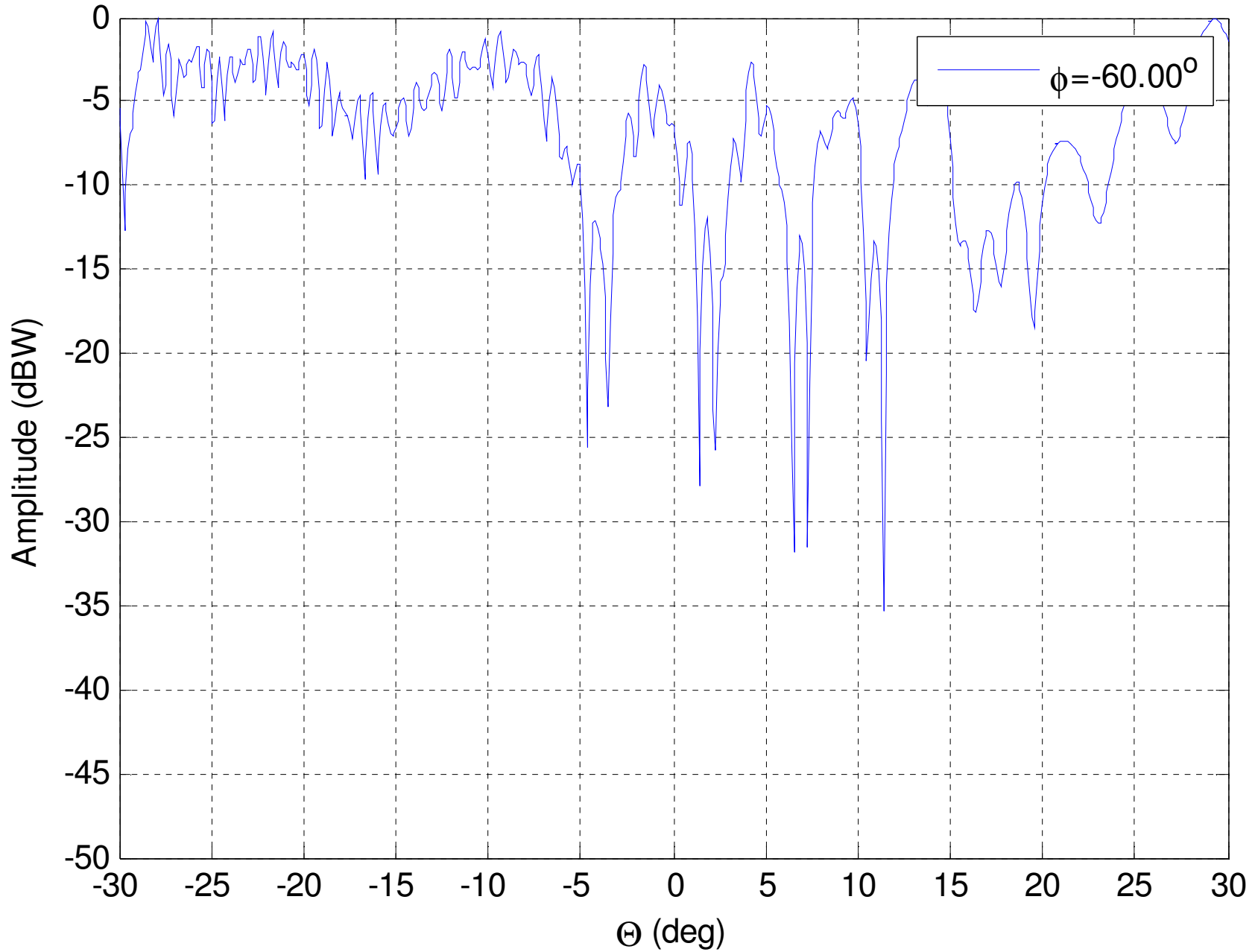
Input file: tx-17.3-lhcp-60.cut, Peak: -2.97 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

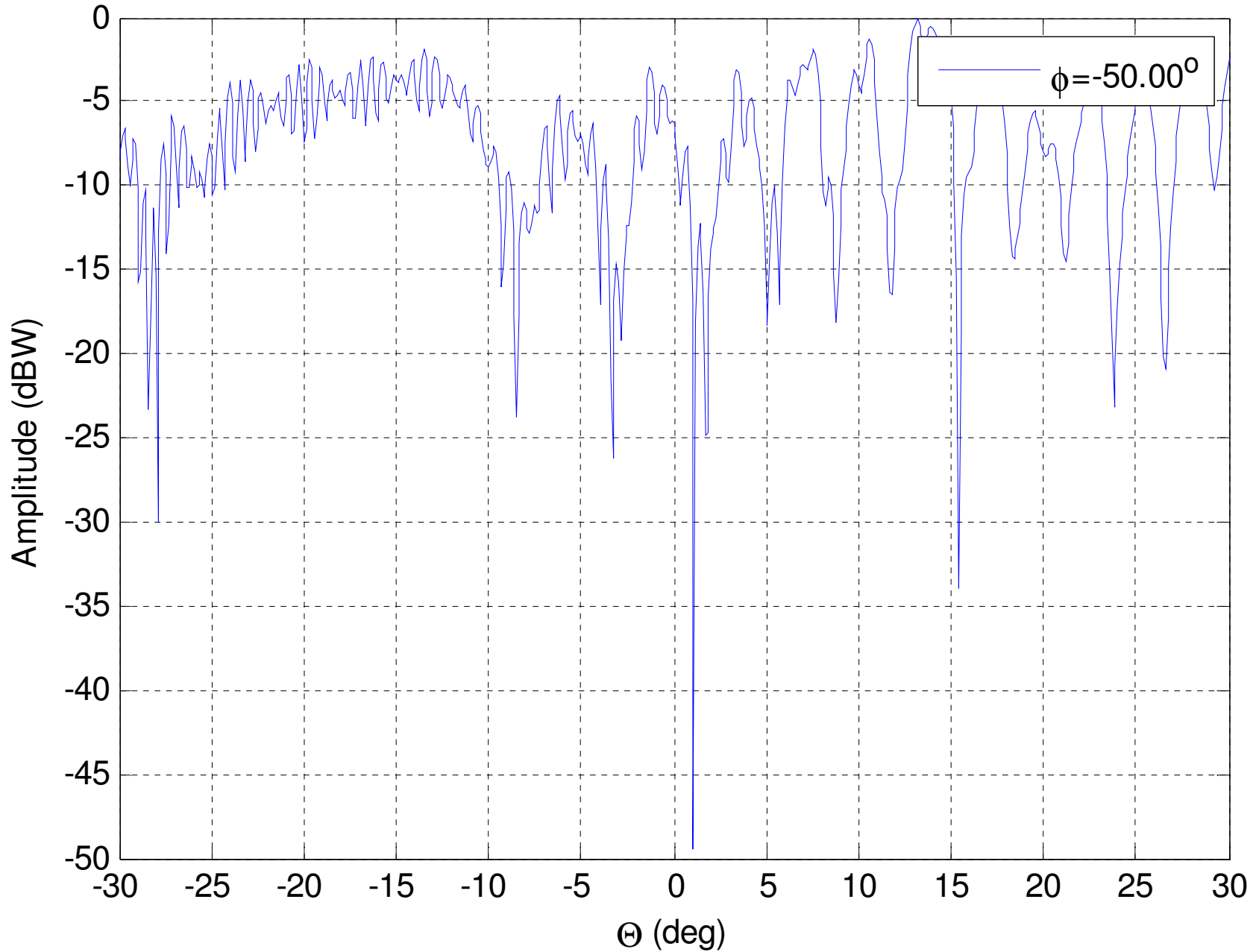
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -4.10 dBW, Date: 16-Dec-2011



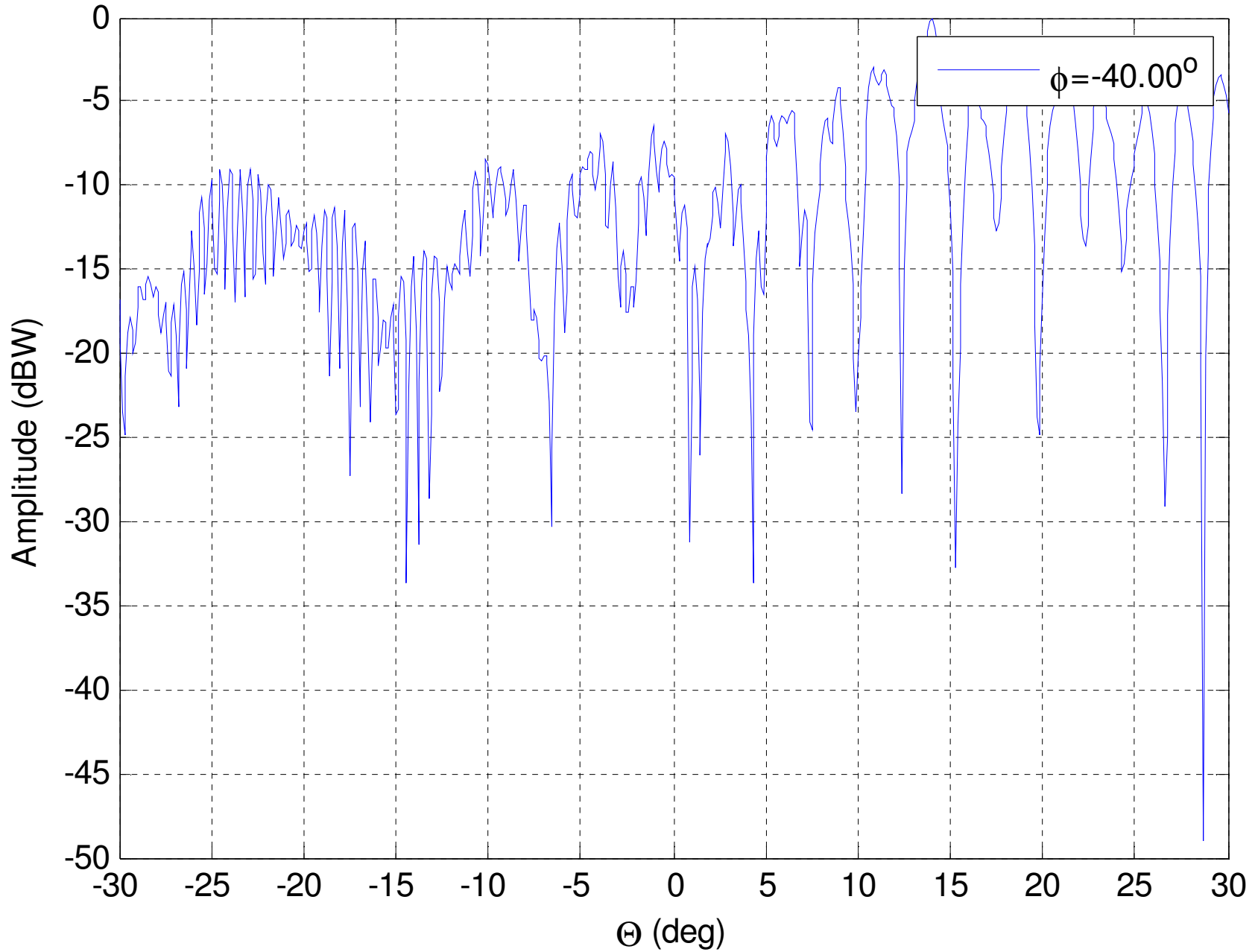
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -4.23 dBW, Date: 16-Dec-2011



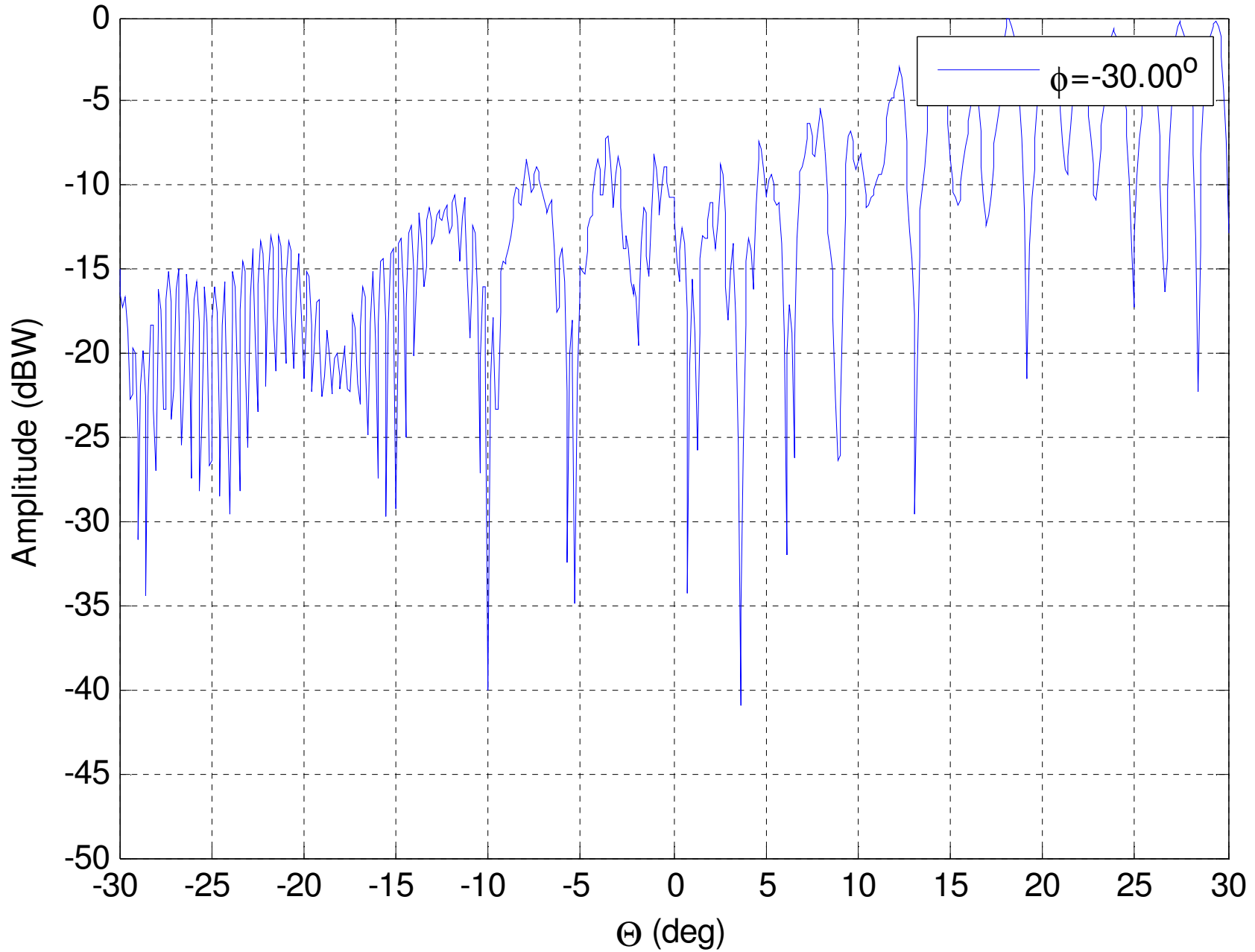
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -0.99 dBW, Date: 16-Dec-2011



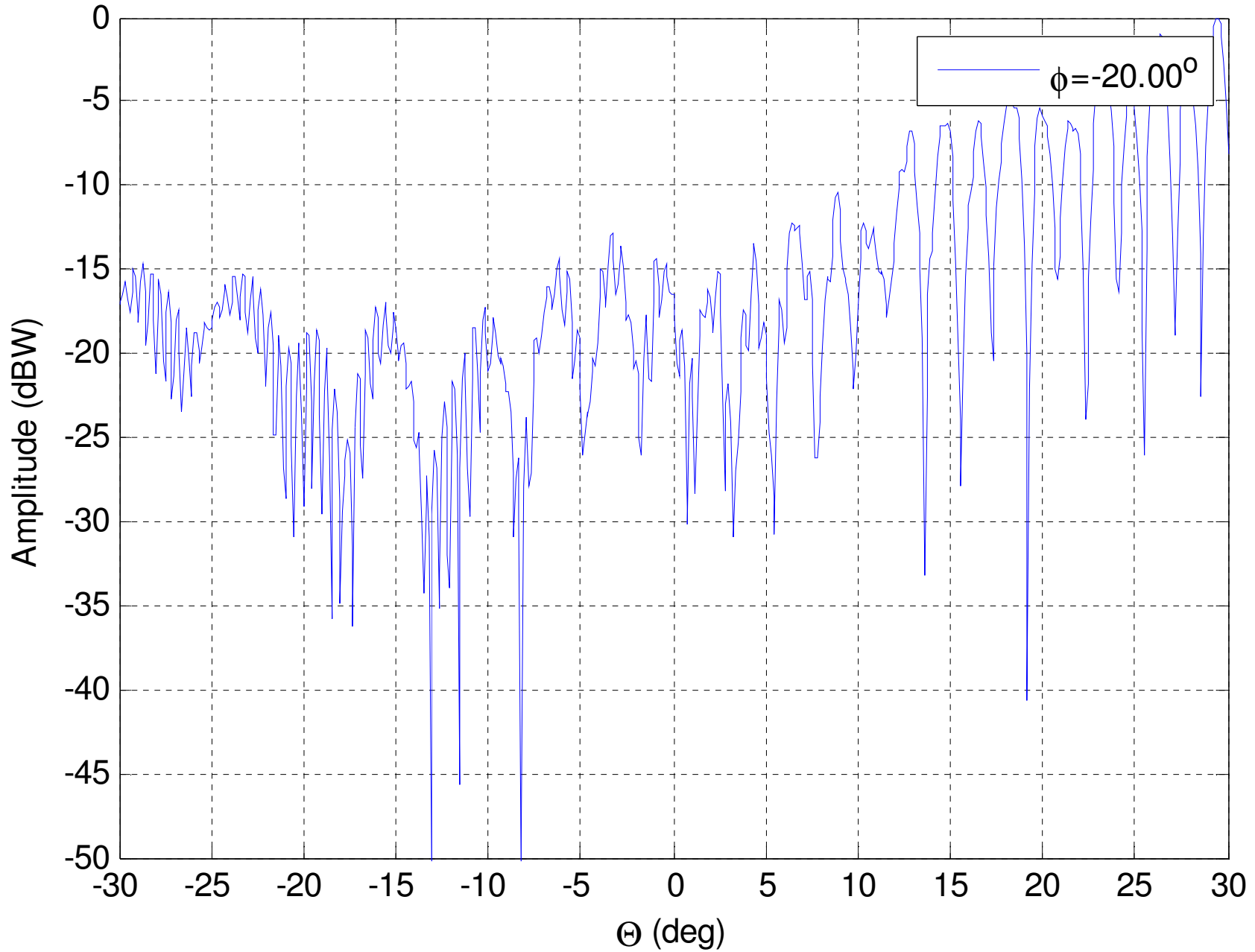
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: 0.29 dBW, Date: 16-Dec-2011



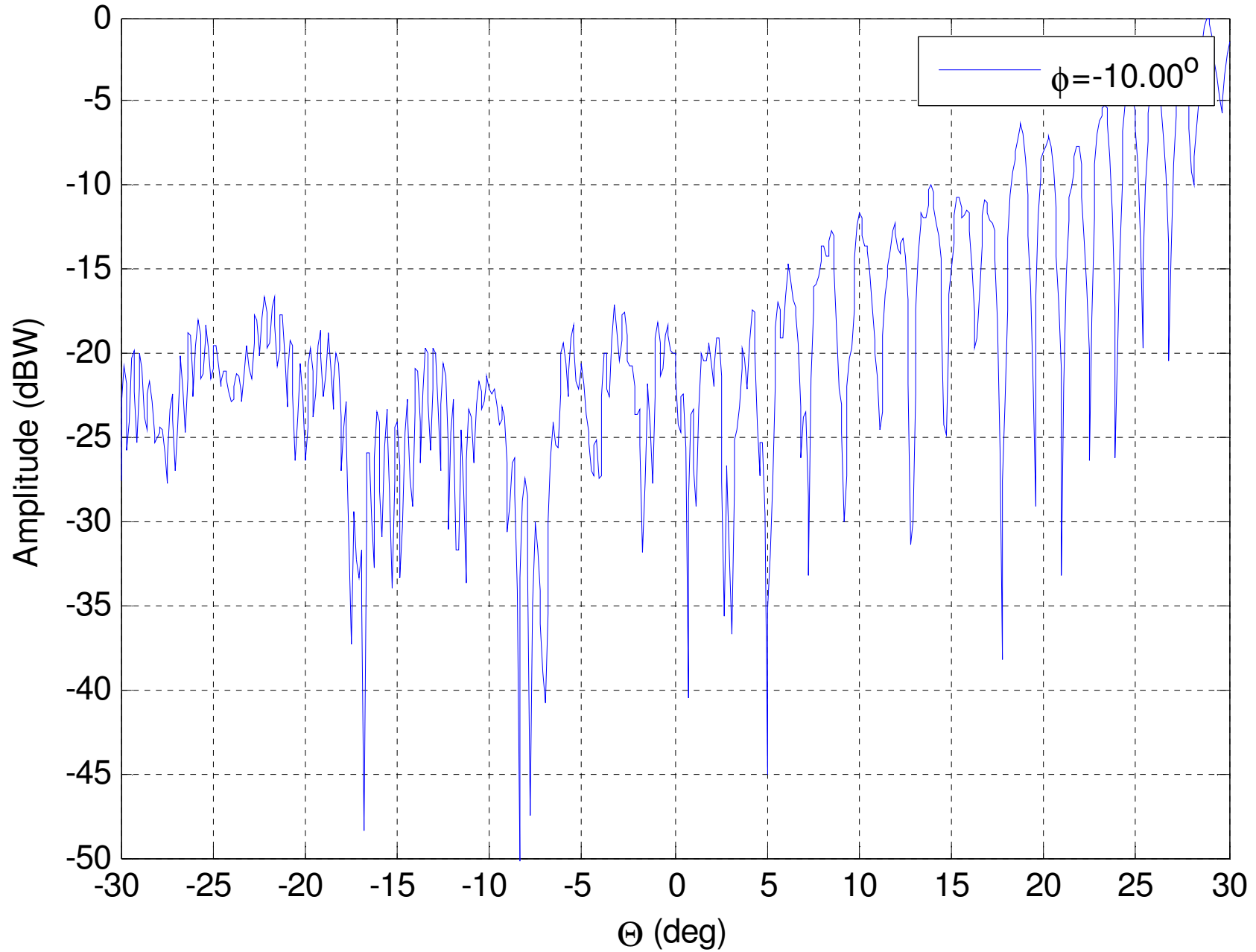
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: 6.04 dBW, Date: 16-Dec-2011



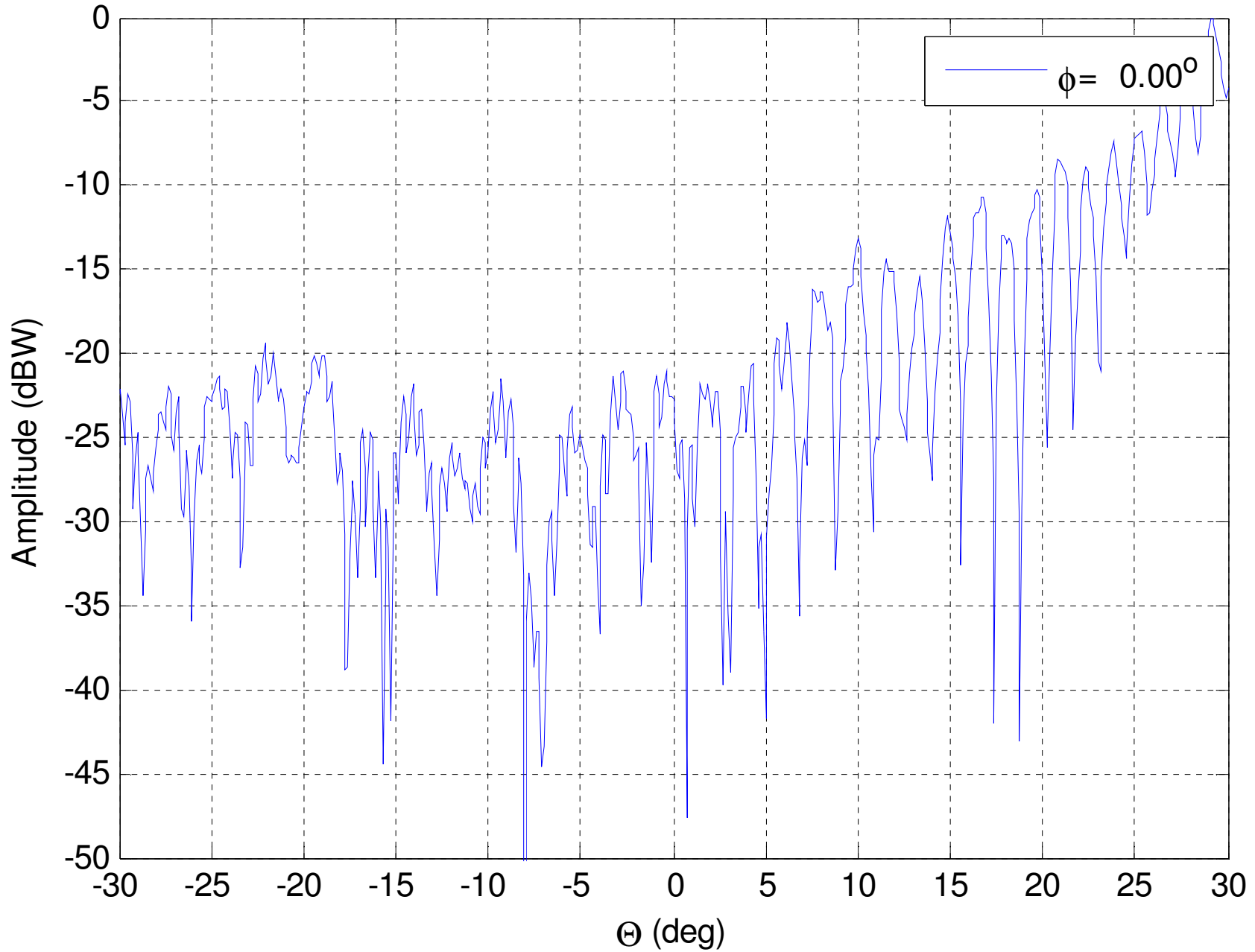
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: 9.53 dBW, Date: 16-Dec-2011



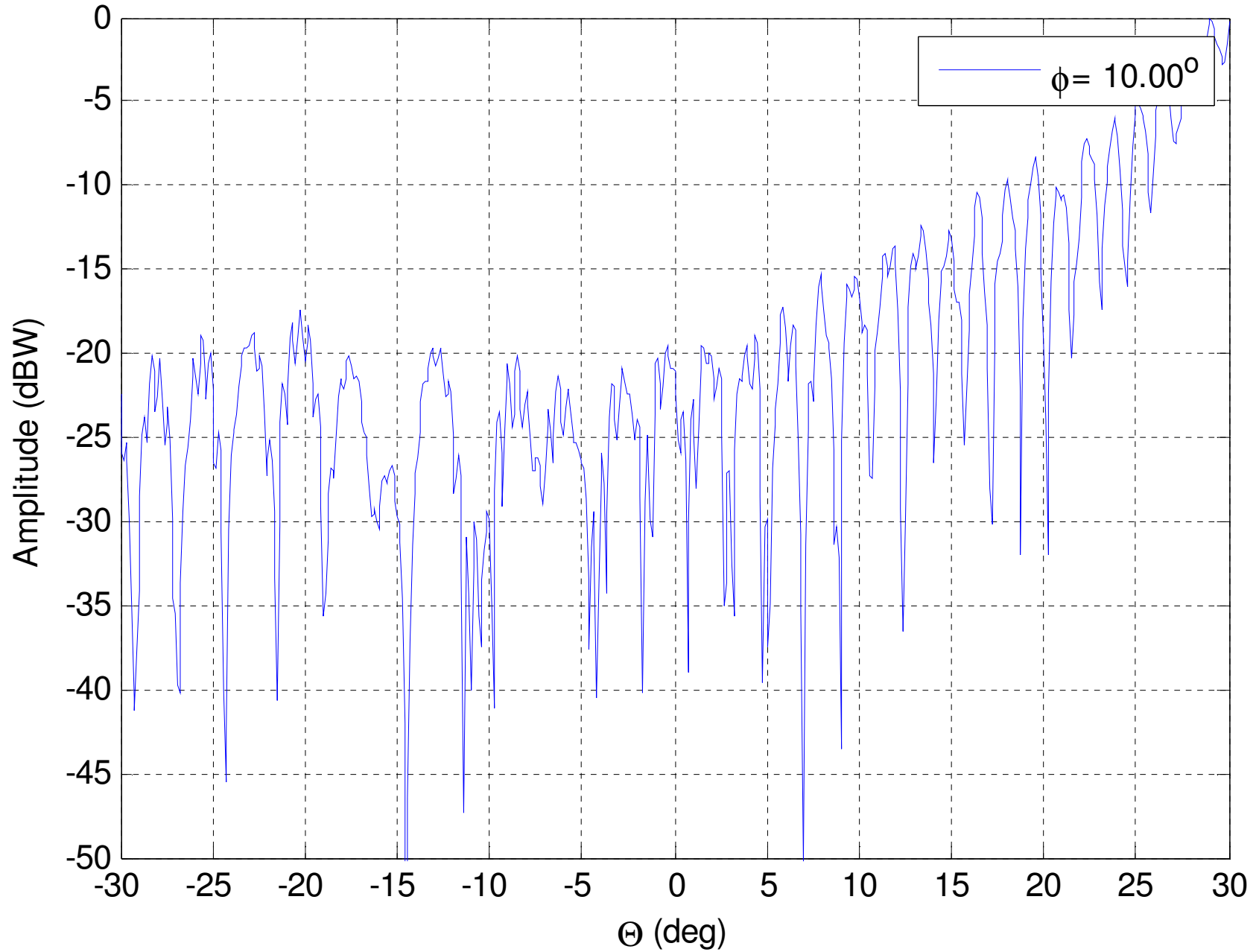
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: 12.21 dBW, Date: 16-Dec-2011



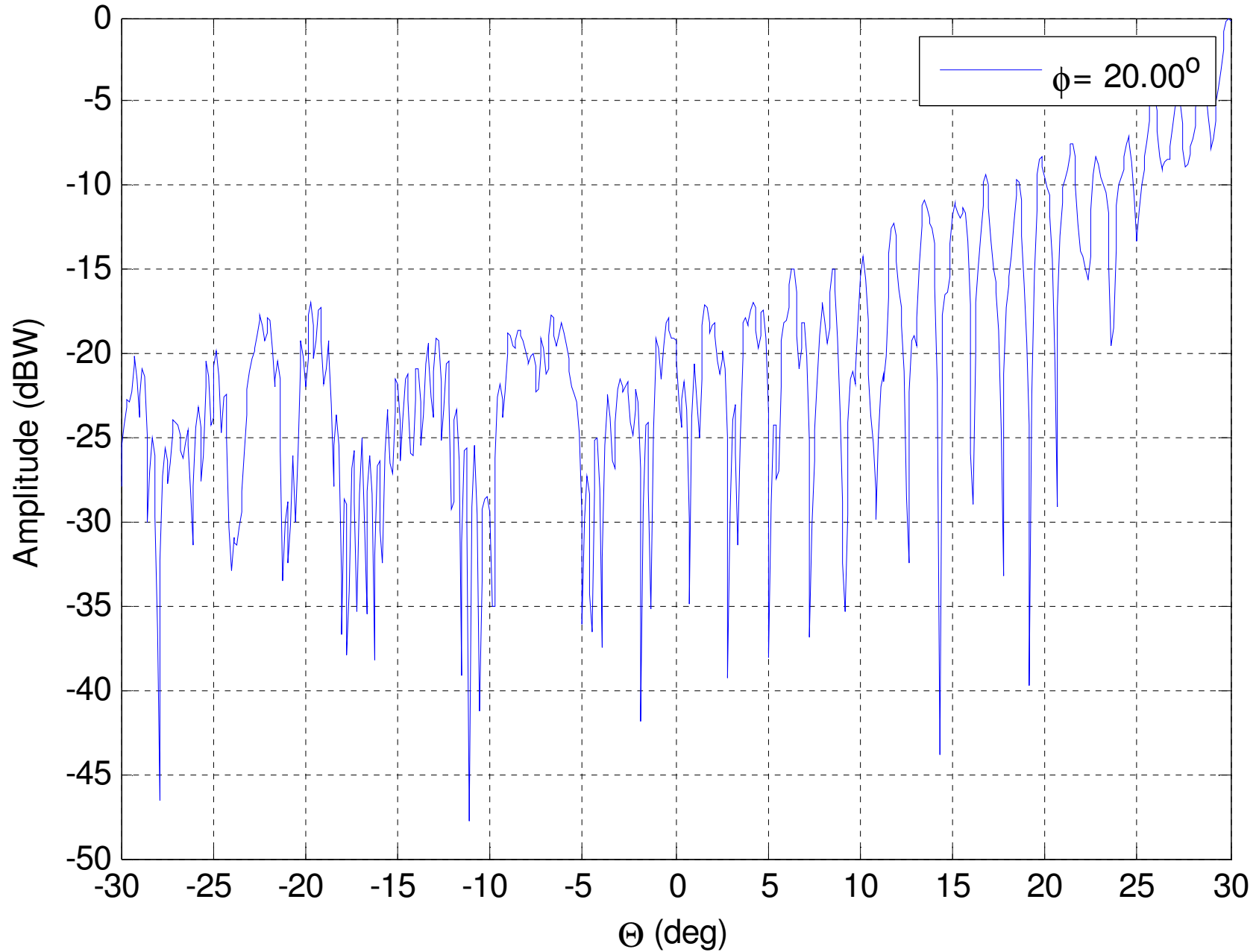
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: 10.52 dBW, Date: 16-Dec-2011



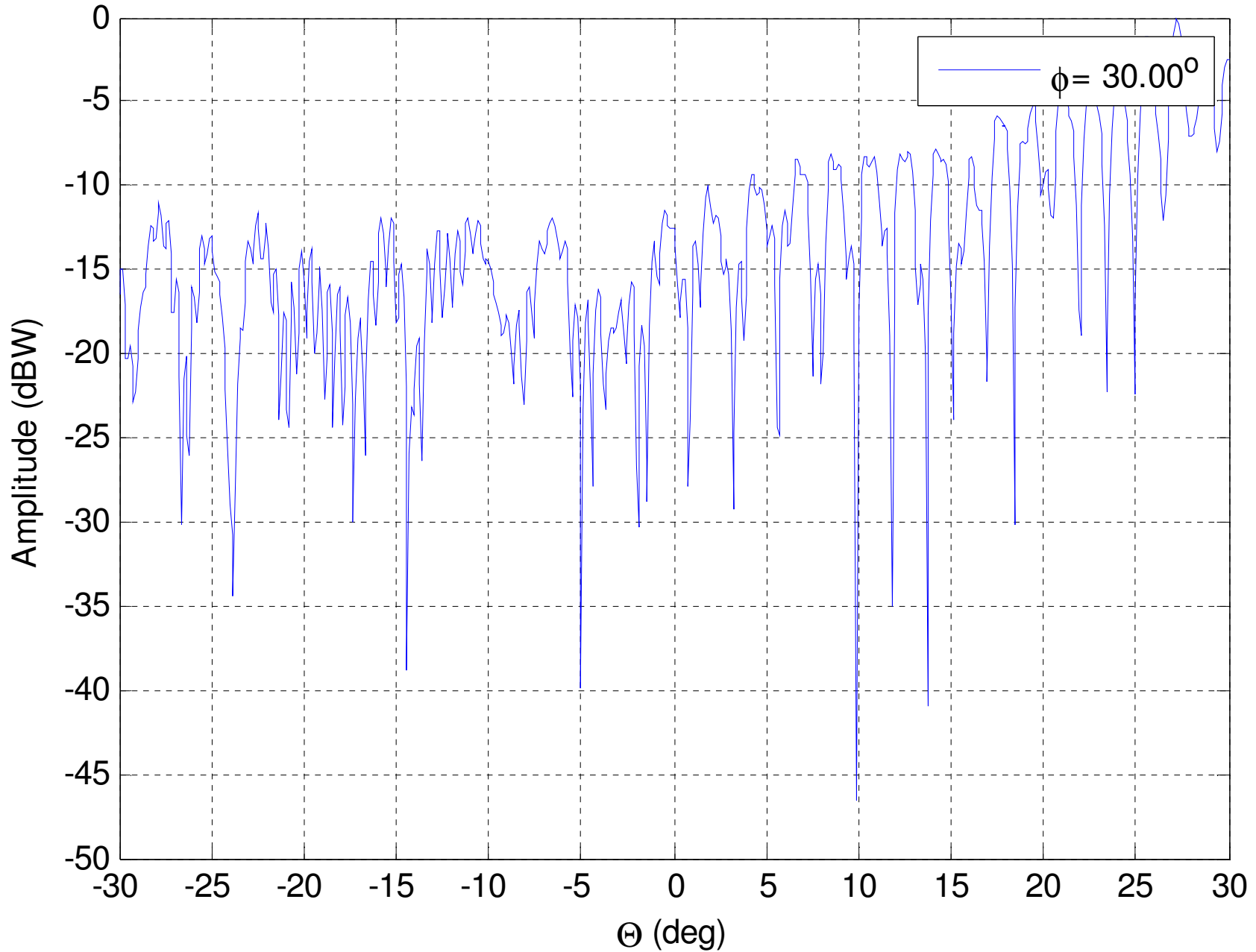
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: 8.69 dBW, Date: 16-Dec-2011



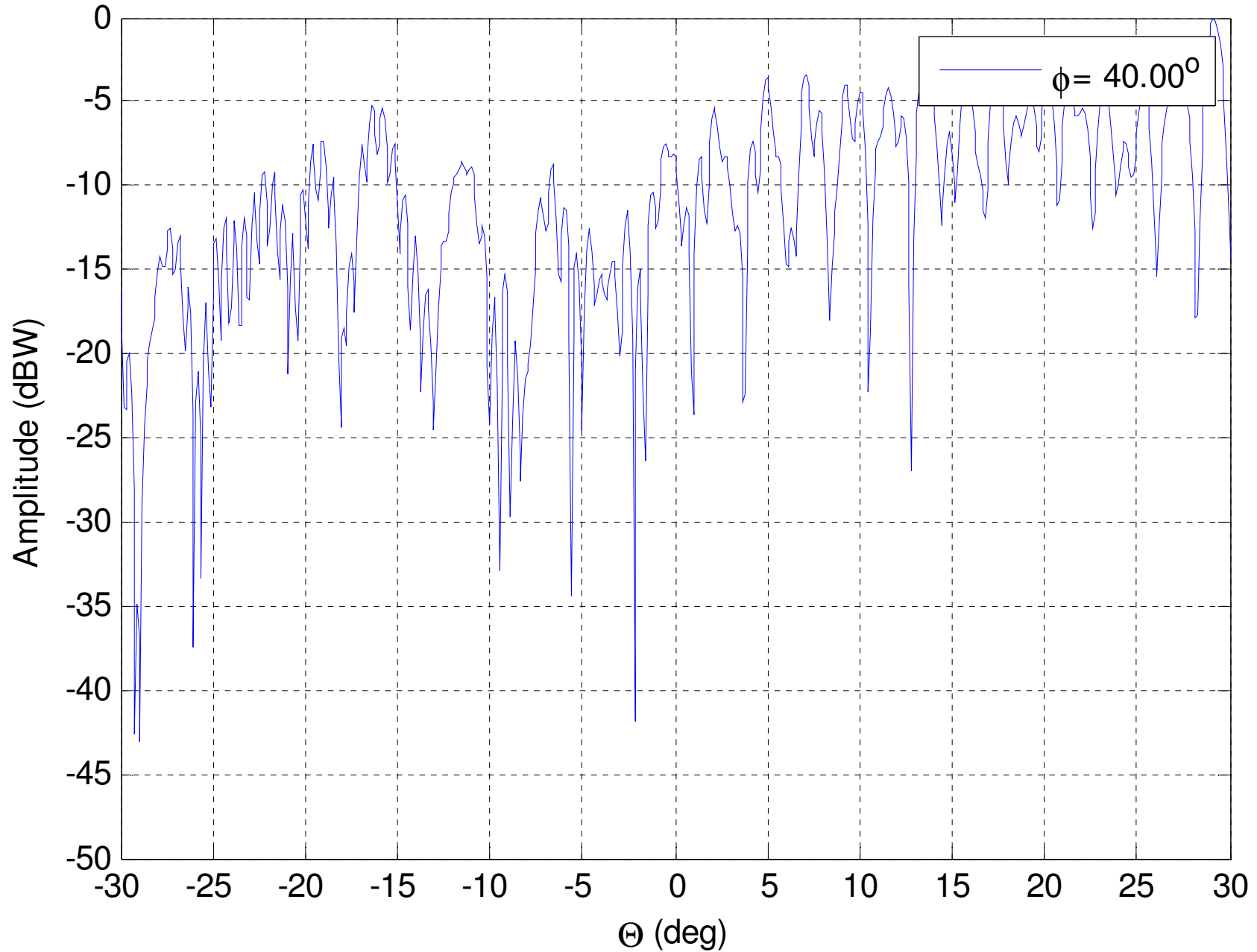
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: 2.11 dBW, Date: 16-Dec-2011



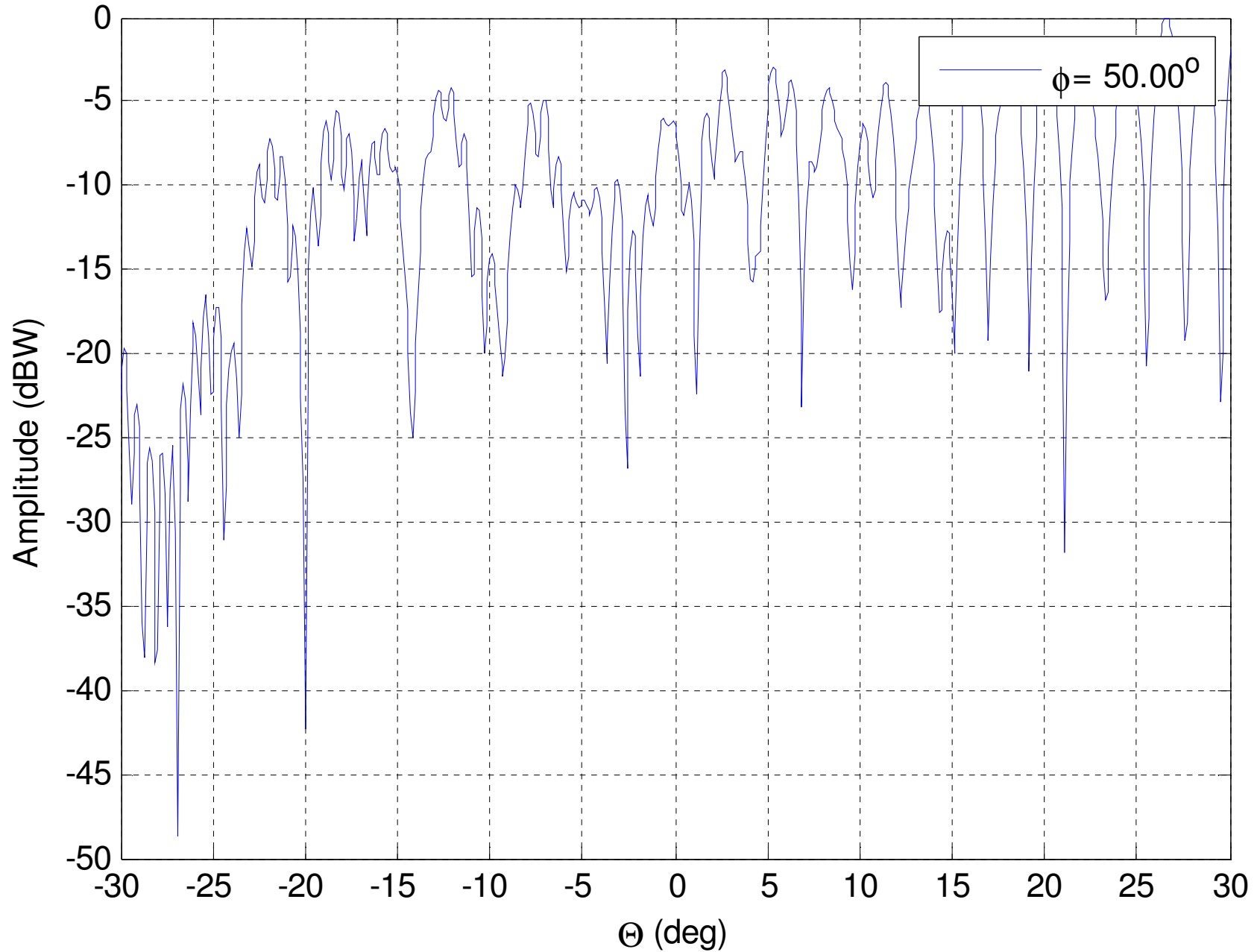
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -2.17 dBW, Date: 16-Dec-2011



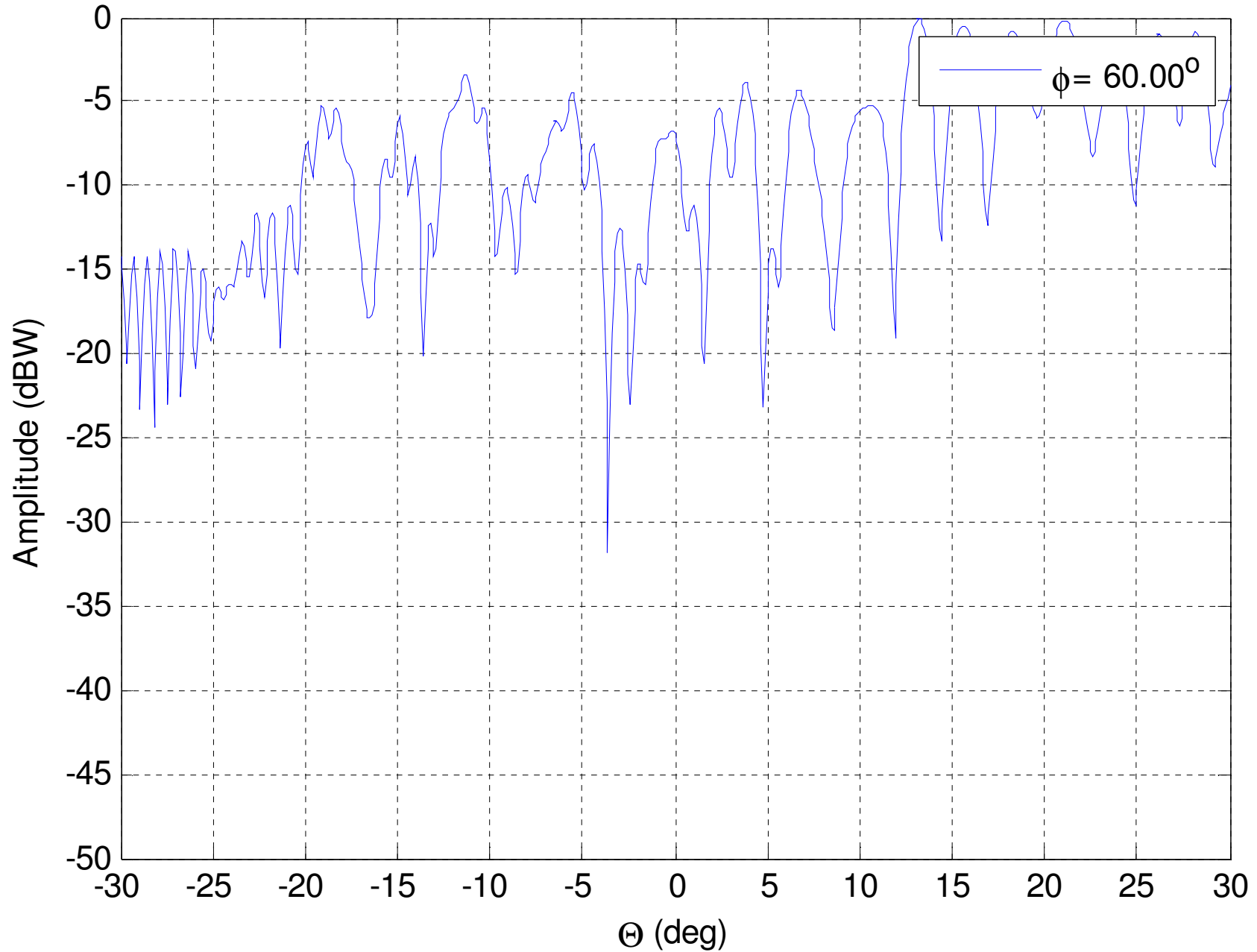
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -4.09 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

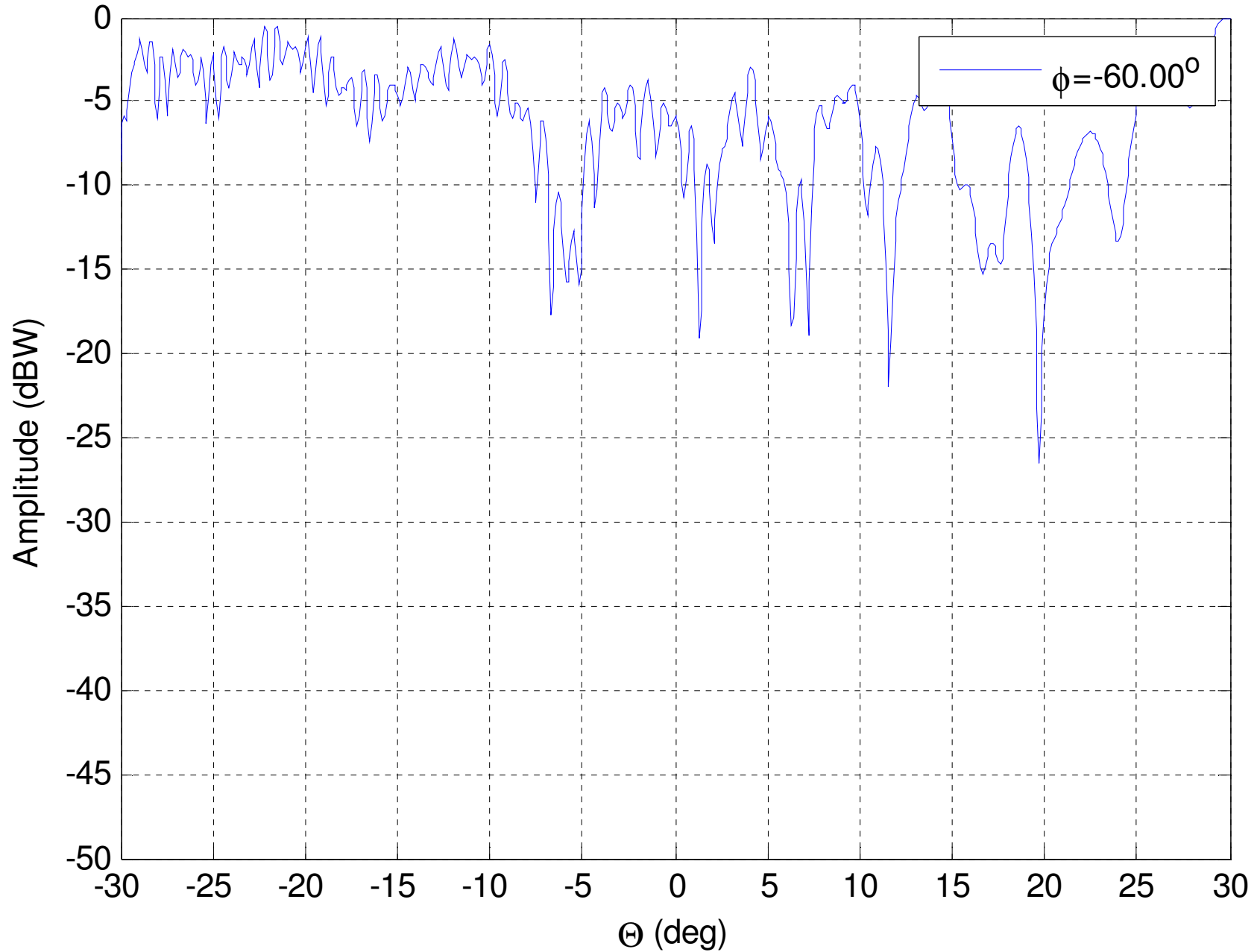
Input file: tx-17.5-rhcp-60.cut, Peak: -3.61 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

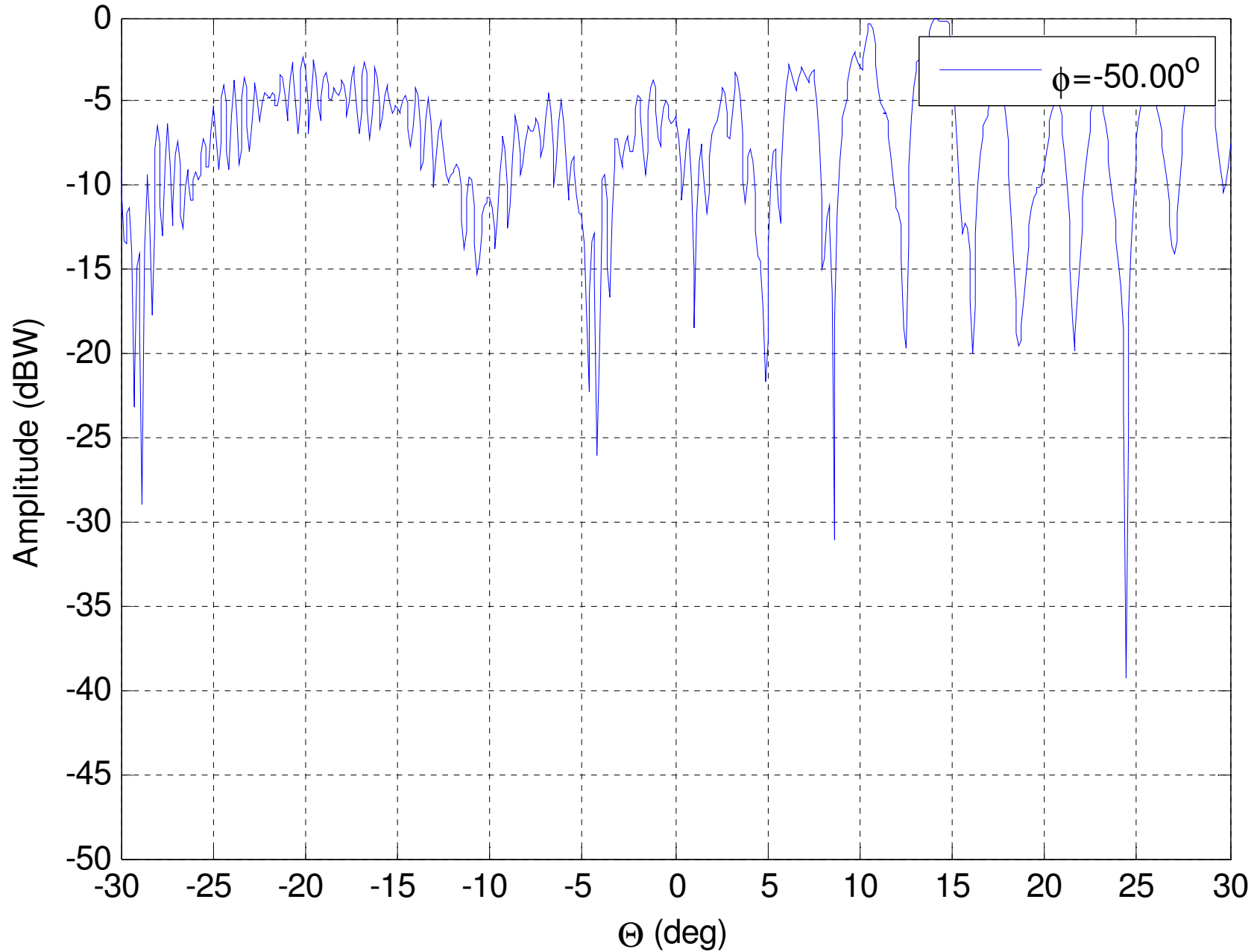
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -3.69 dBW, Date: 16-Dec-2011



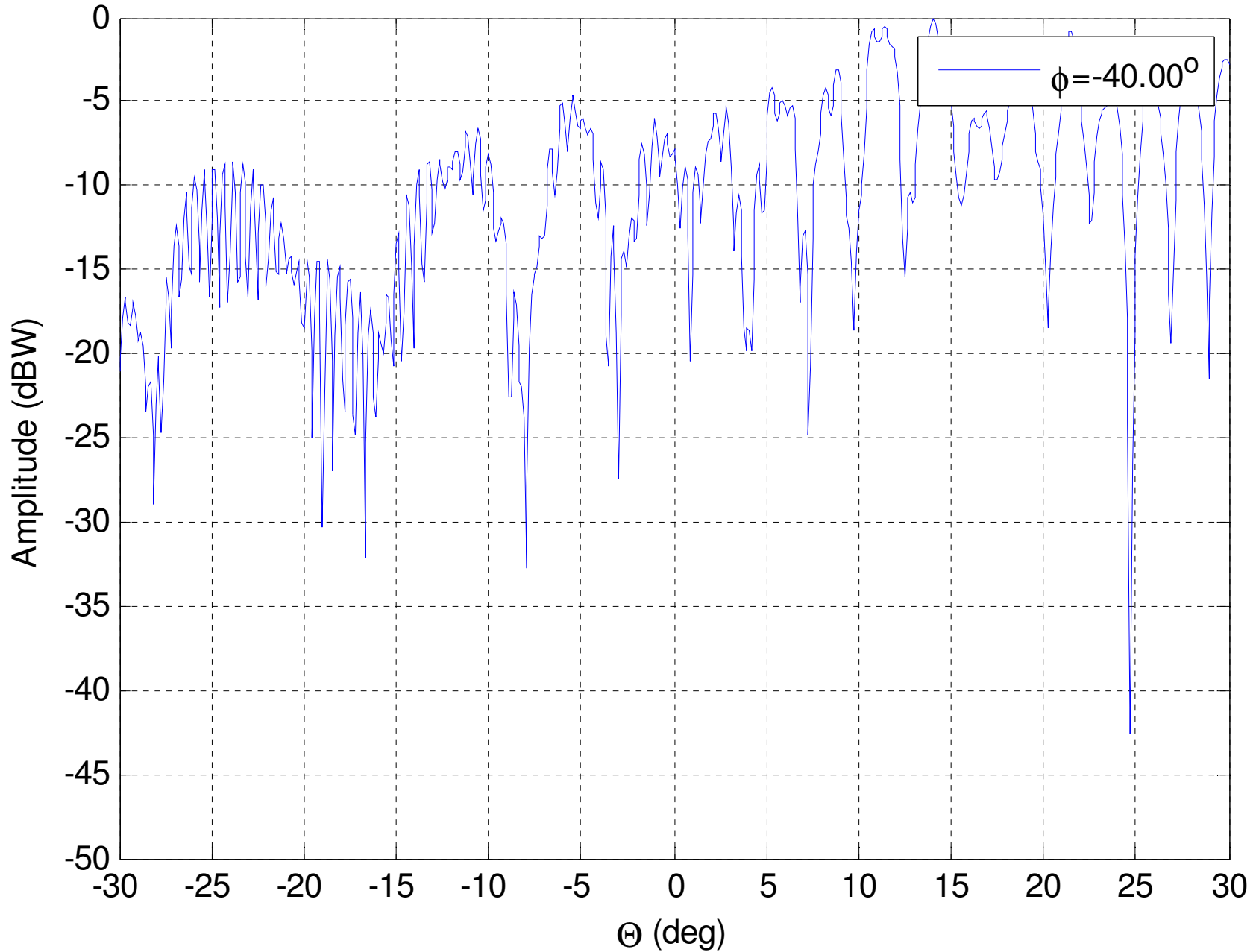
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -3.73 dBW, Date: 16-Dec-2011



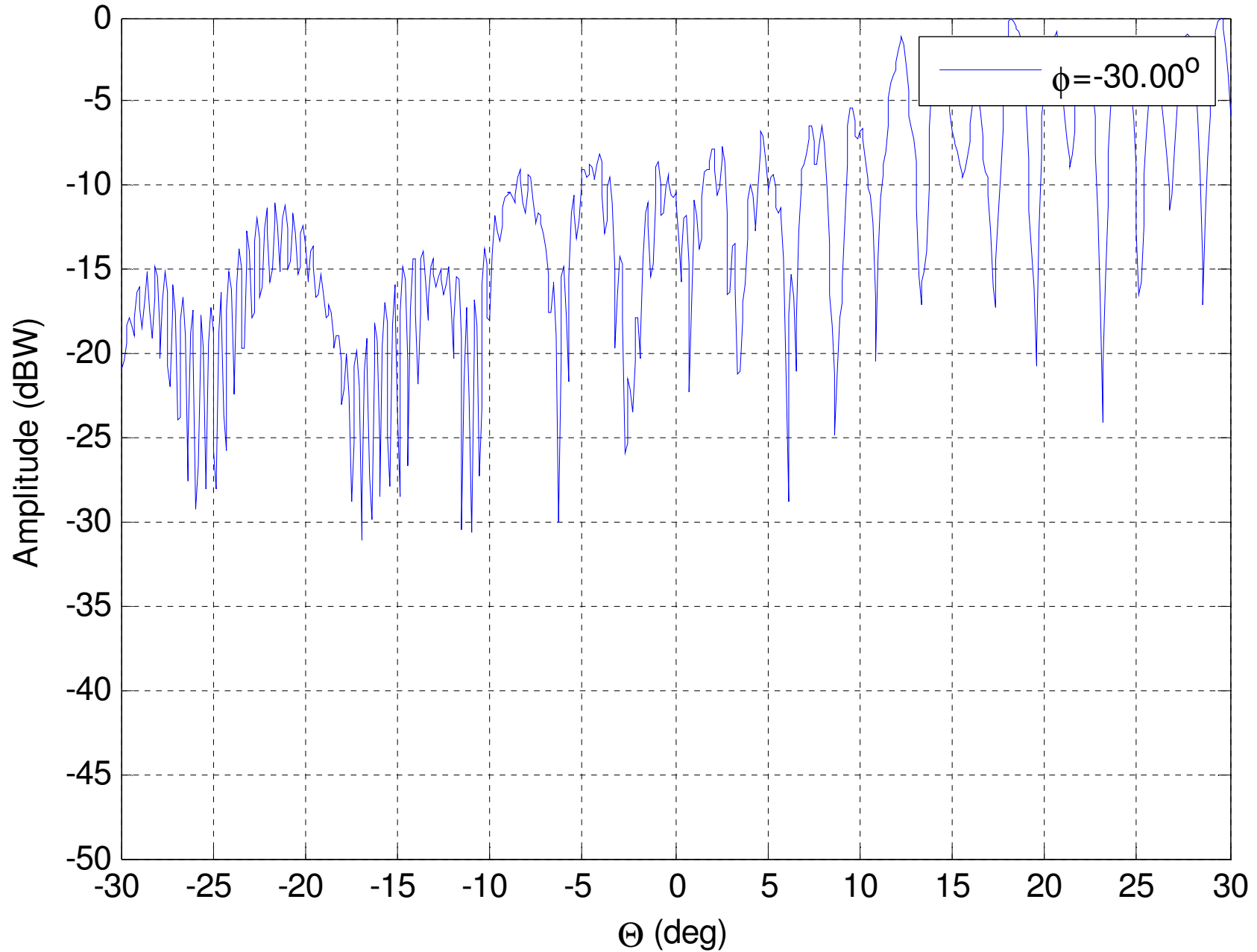
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -1.70 dBW, Date: 16-Dec-2011



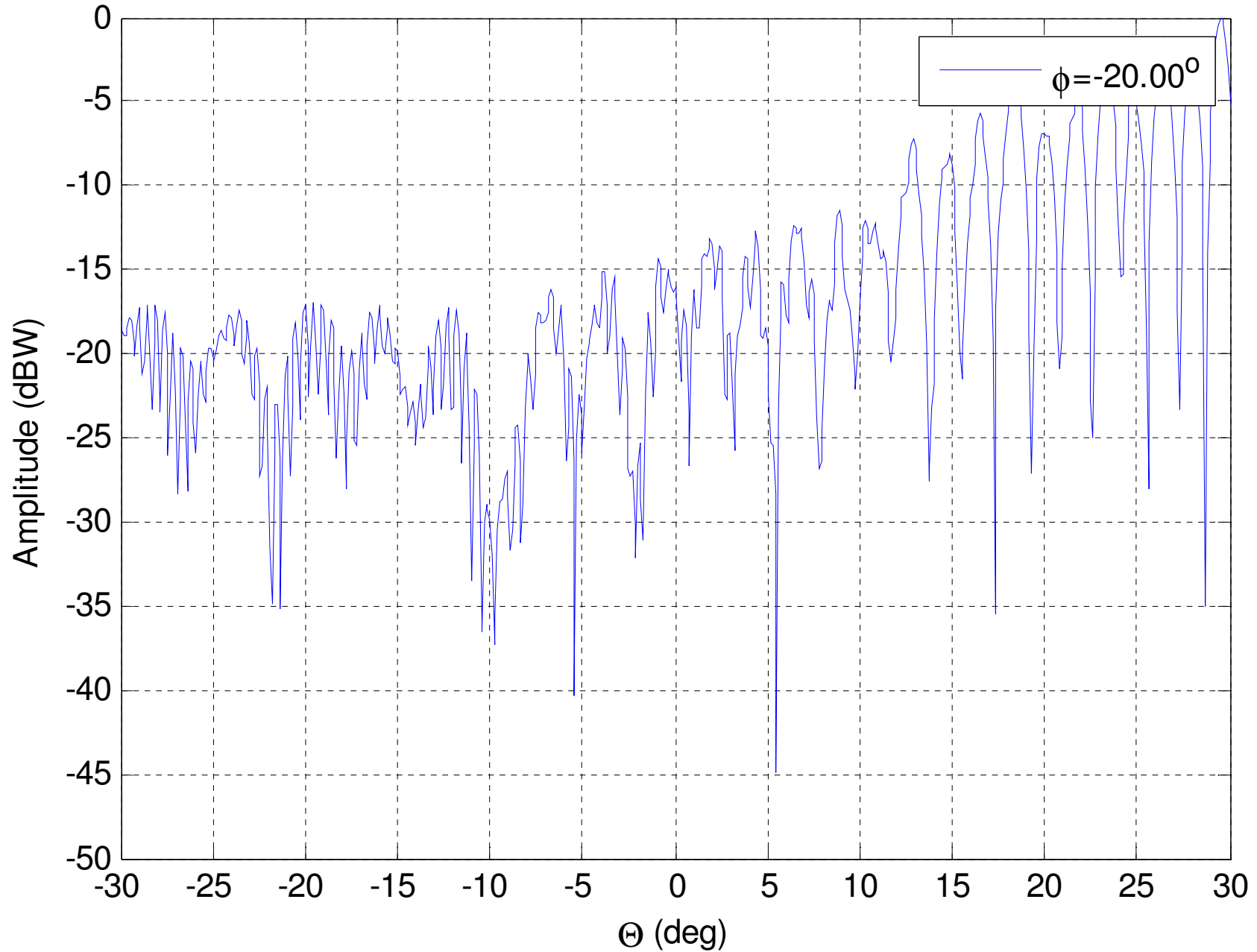
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: 0.83 dBW, Date: 16-Dec-2011



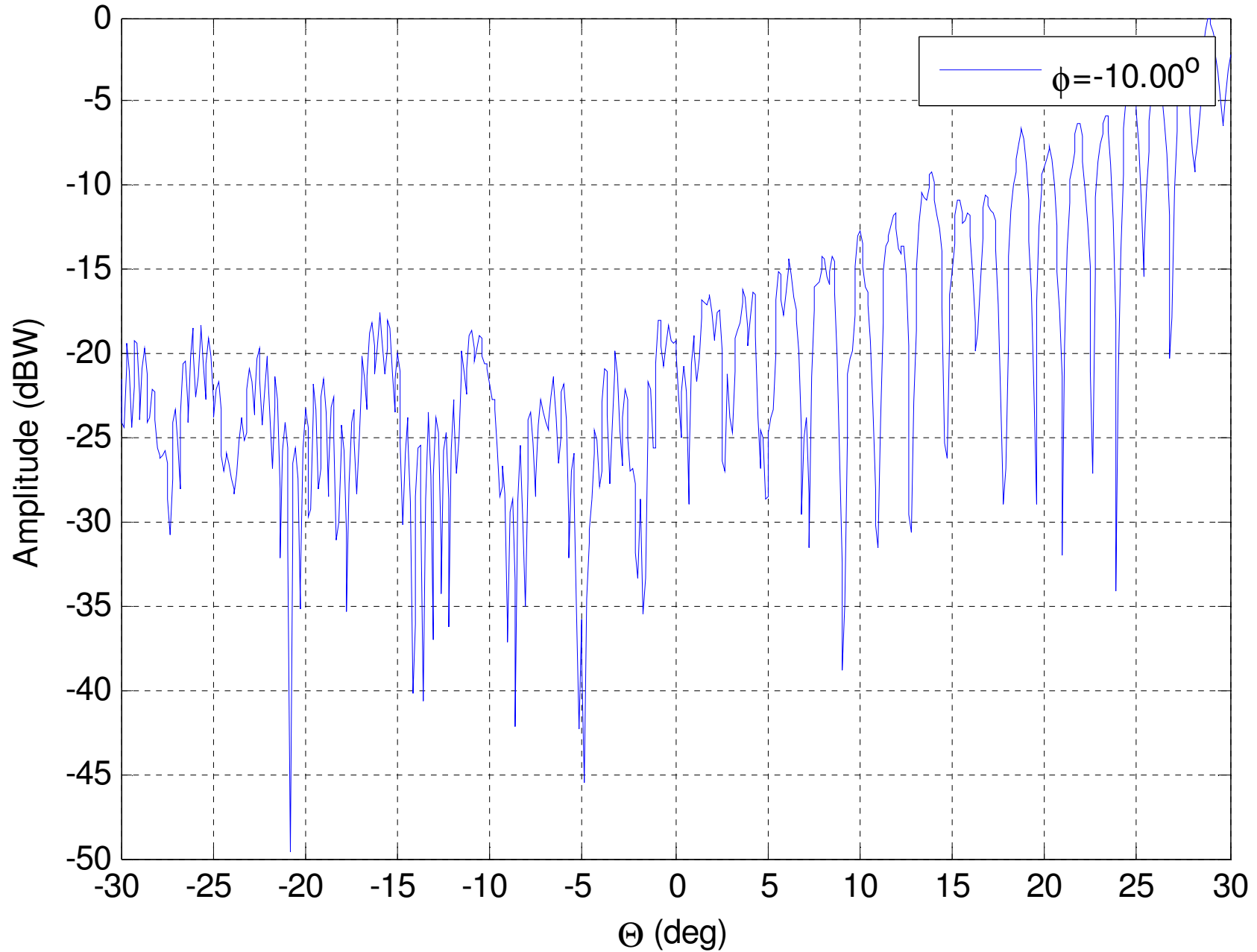
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: 6.42 dBW, Date: 16-Dec-2011



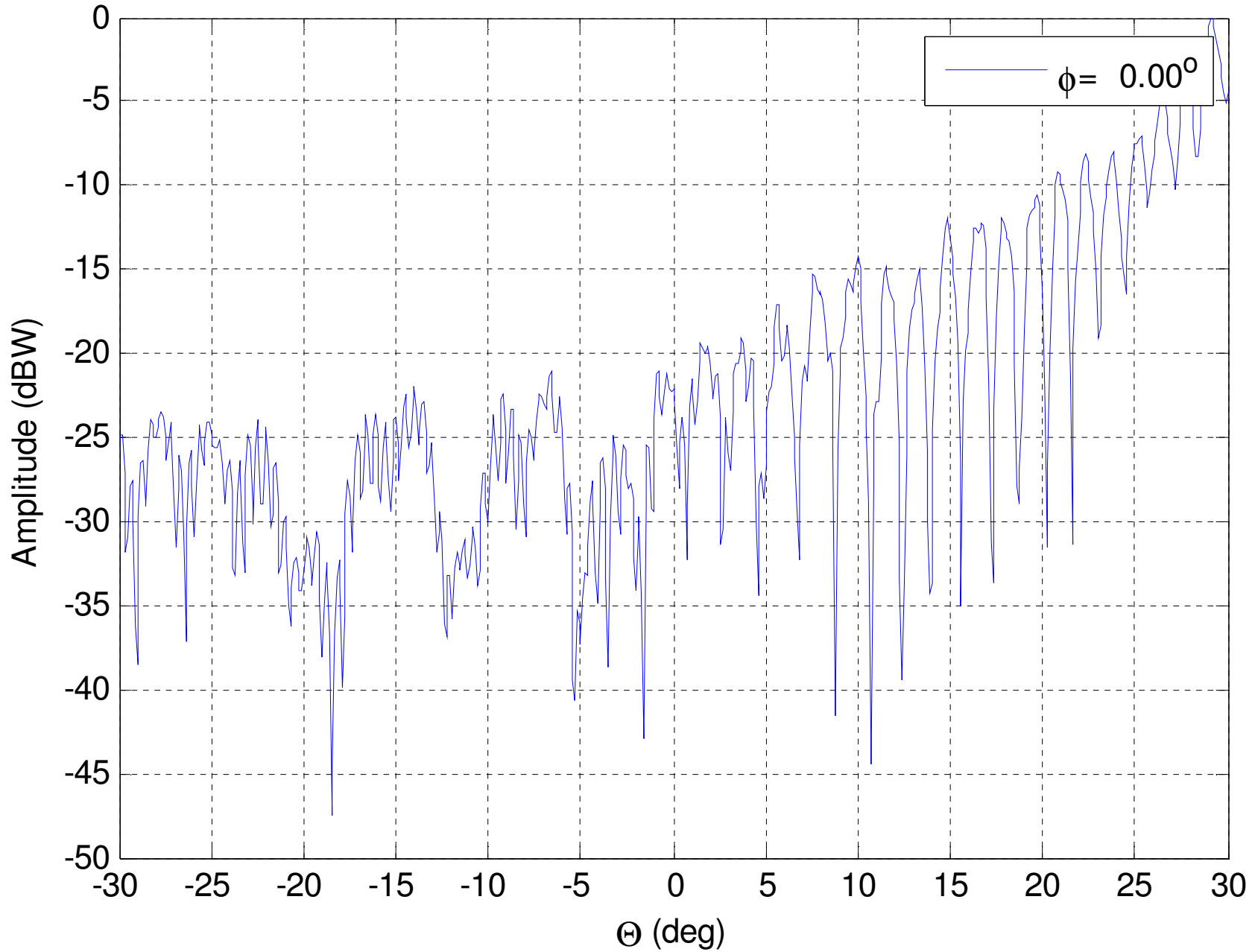
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: 9.60 dBW, Date: 16-Dec-2011



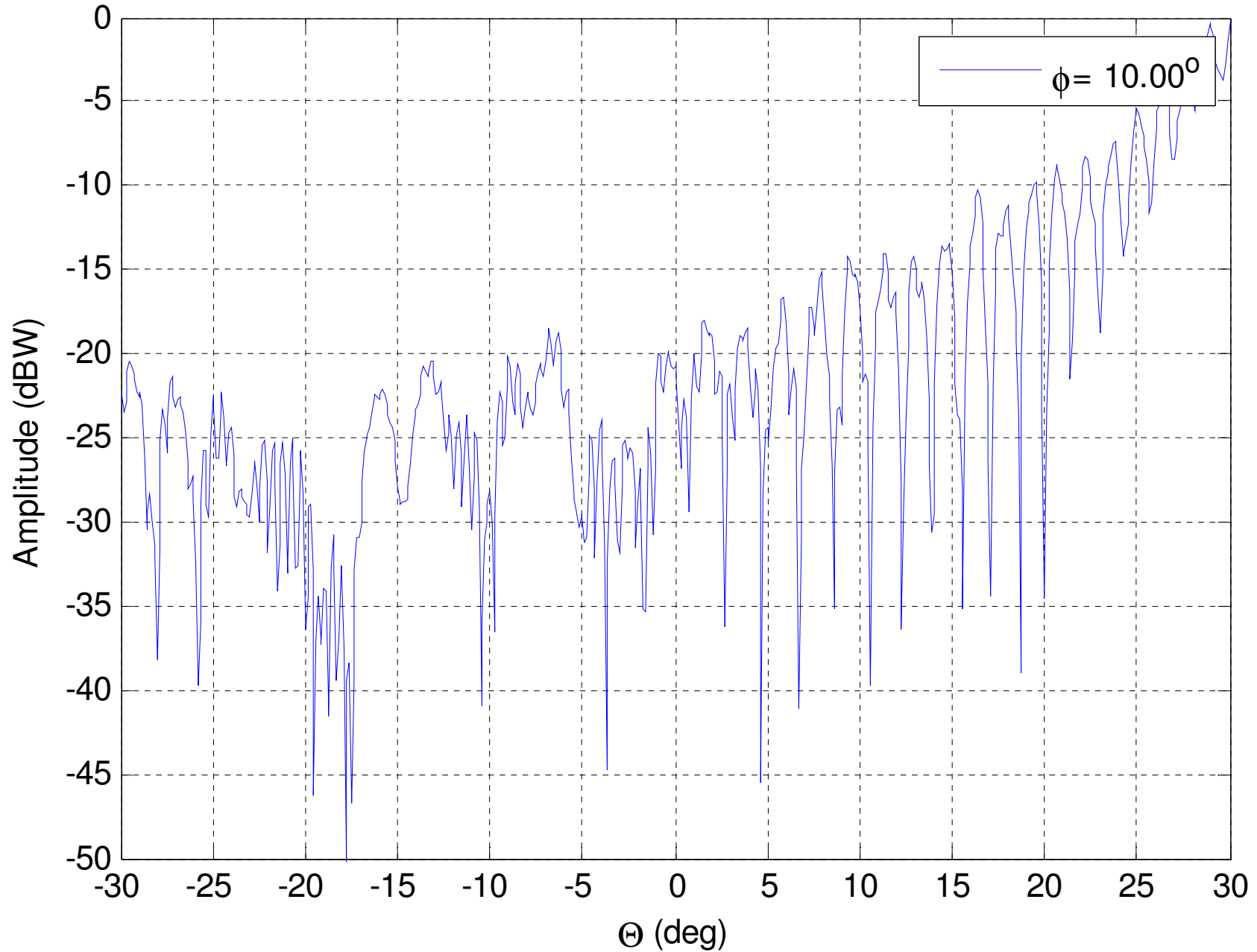
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: 12.49 dBW, Date: 16-Dec-2011



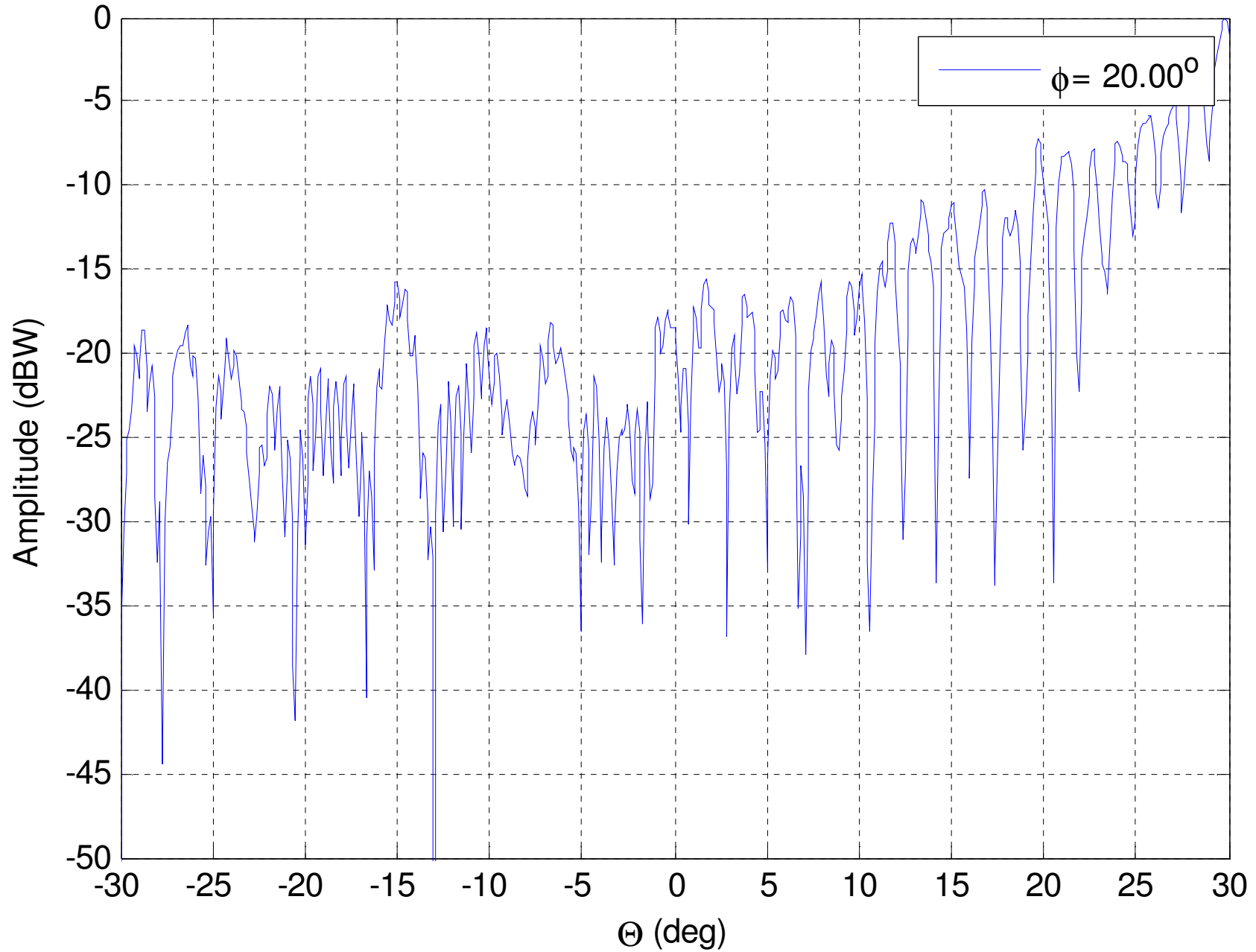
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: 11.15 dBW, Date: 16-Dec-2011



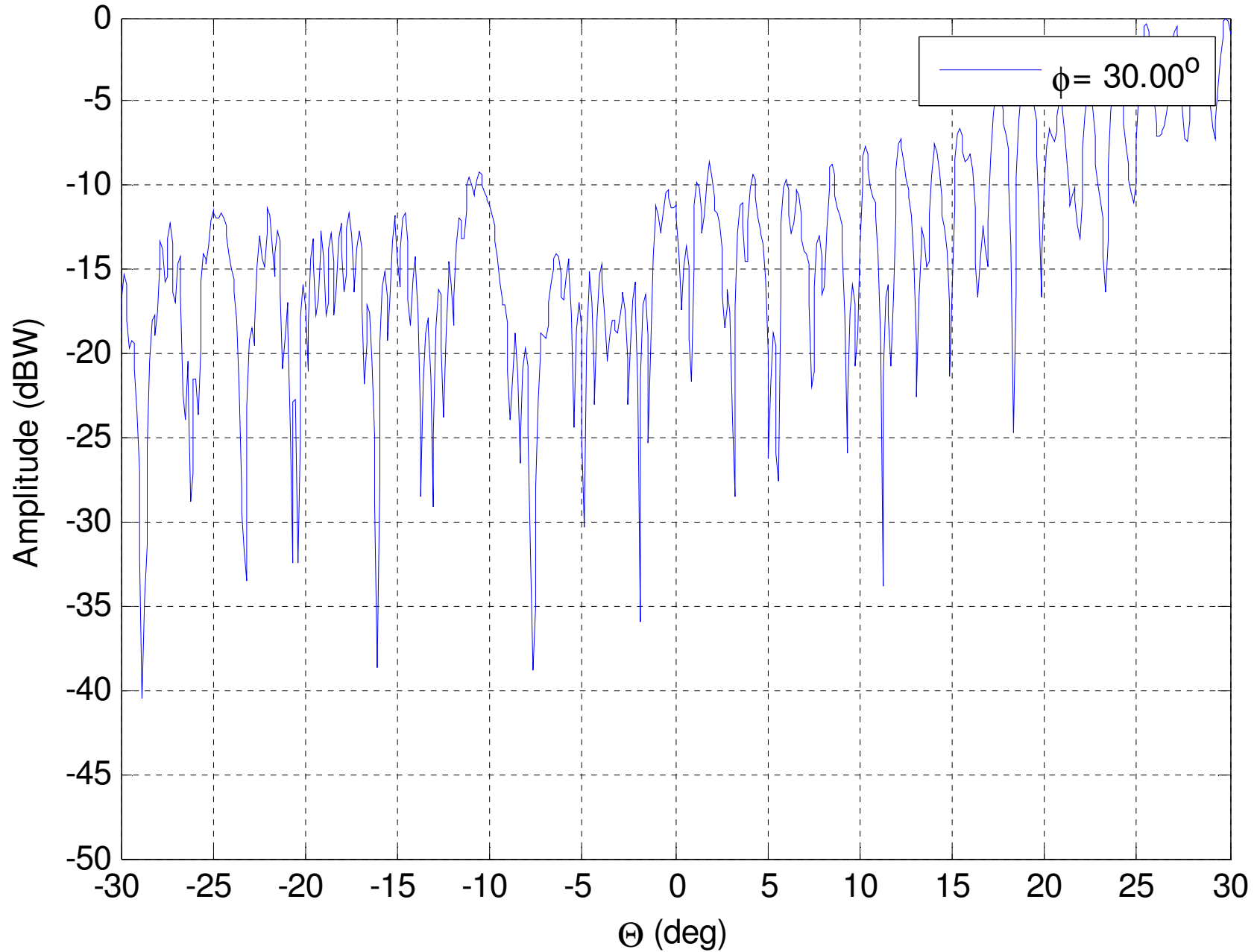
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: 8.82 dBW, Date: 16-Dec-2011



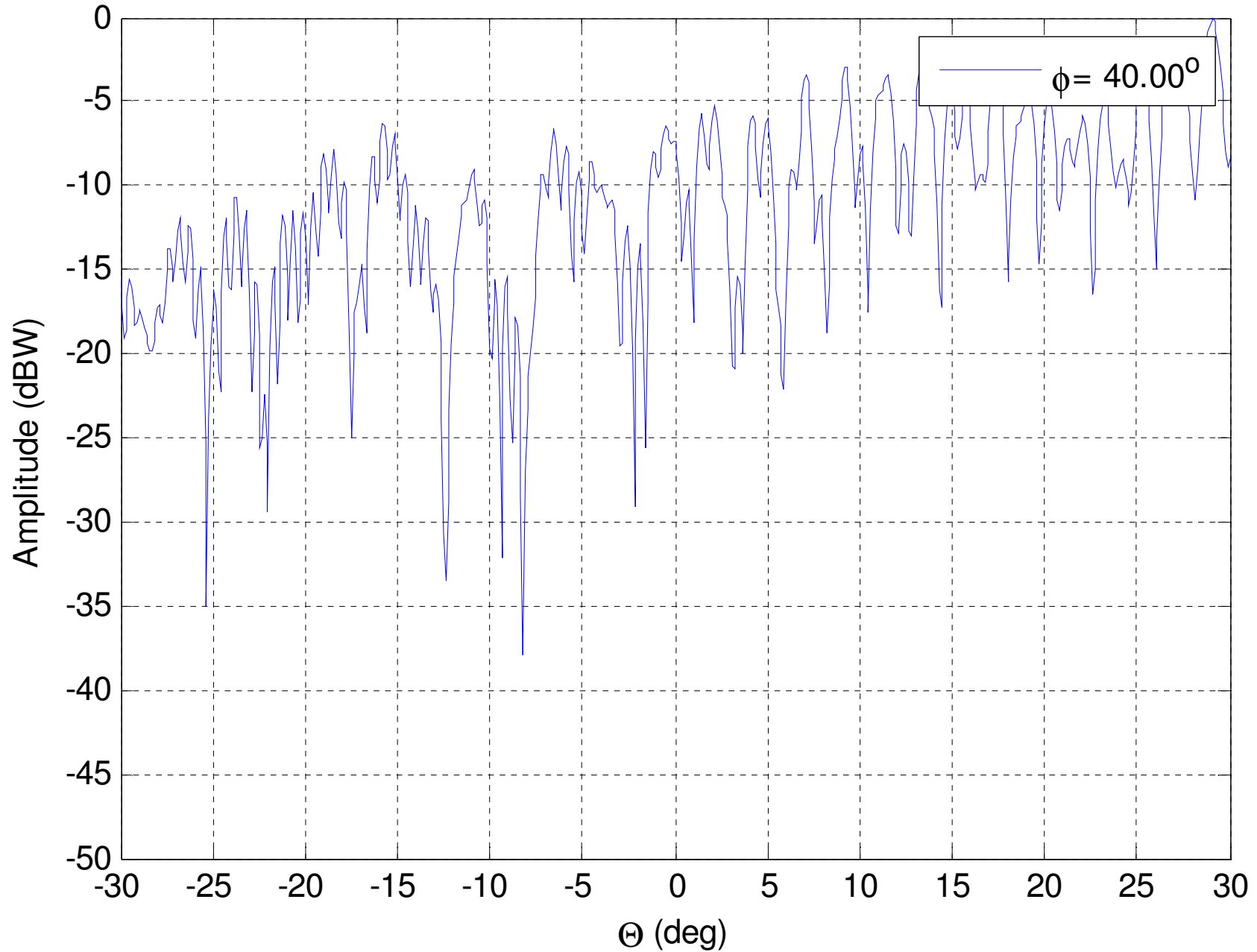
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: 1.65 dBW, Date: 16-Dec-2011



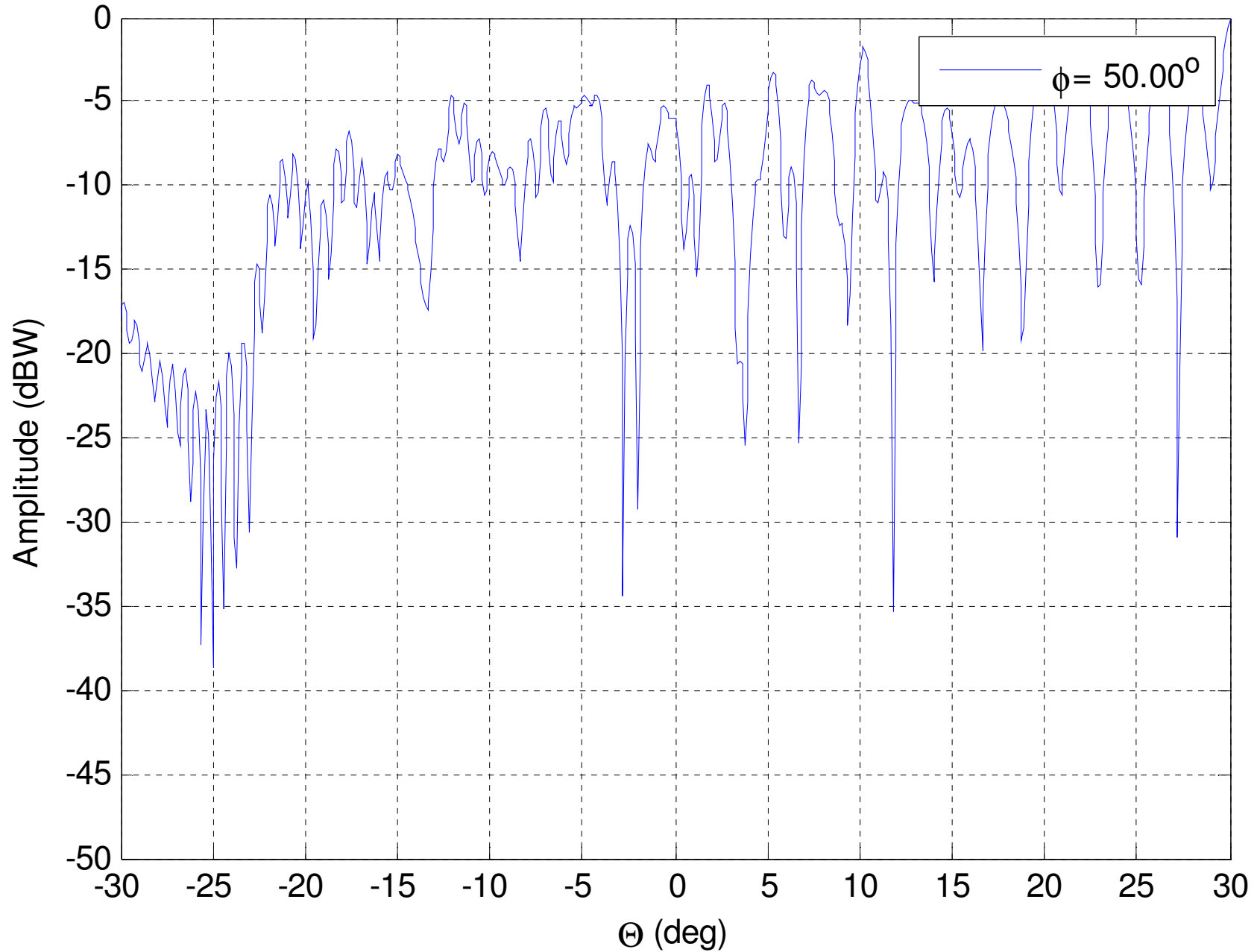
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -2.14 dBW, Date: 16-Dec-2011



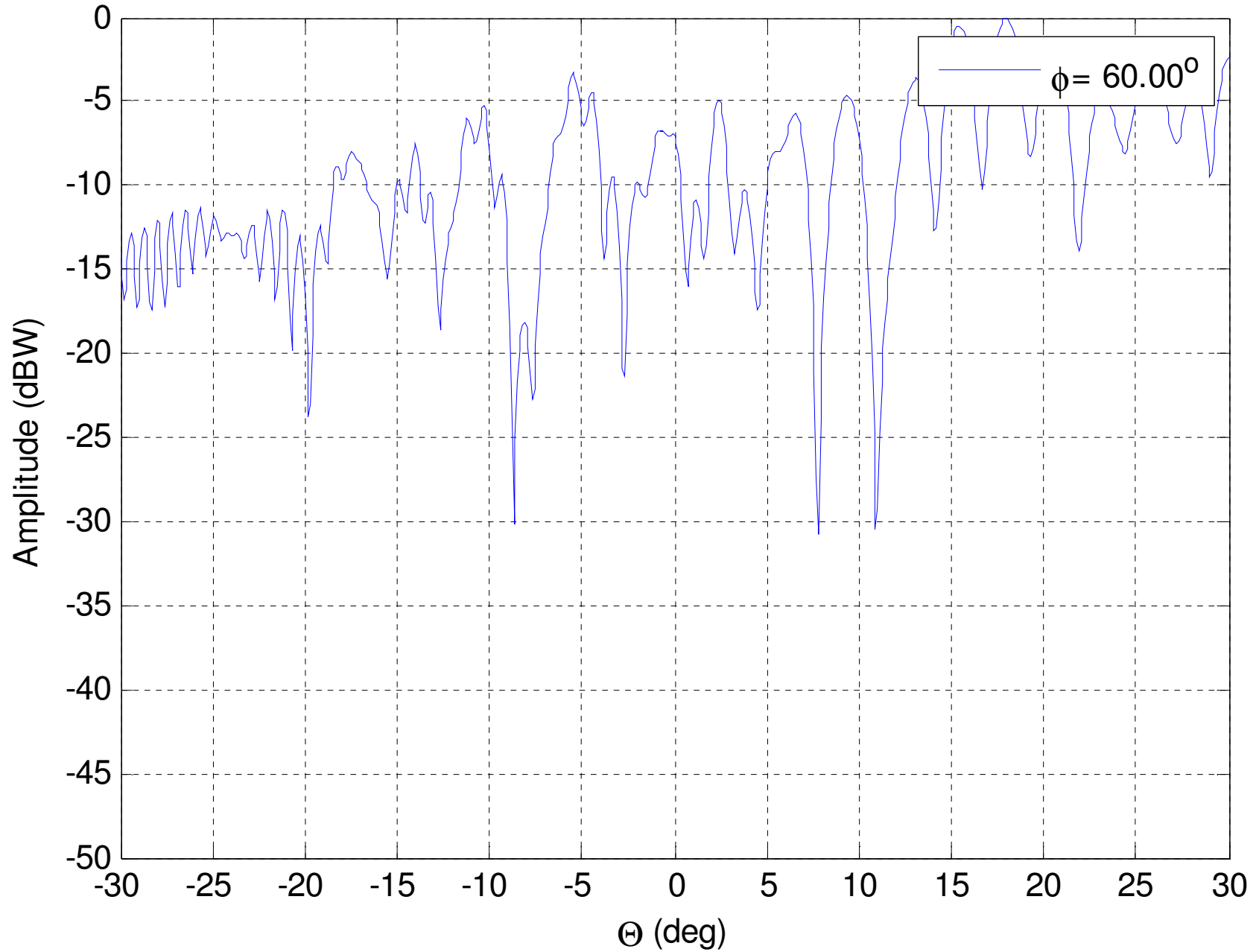
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -3.54 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

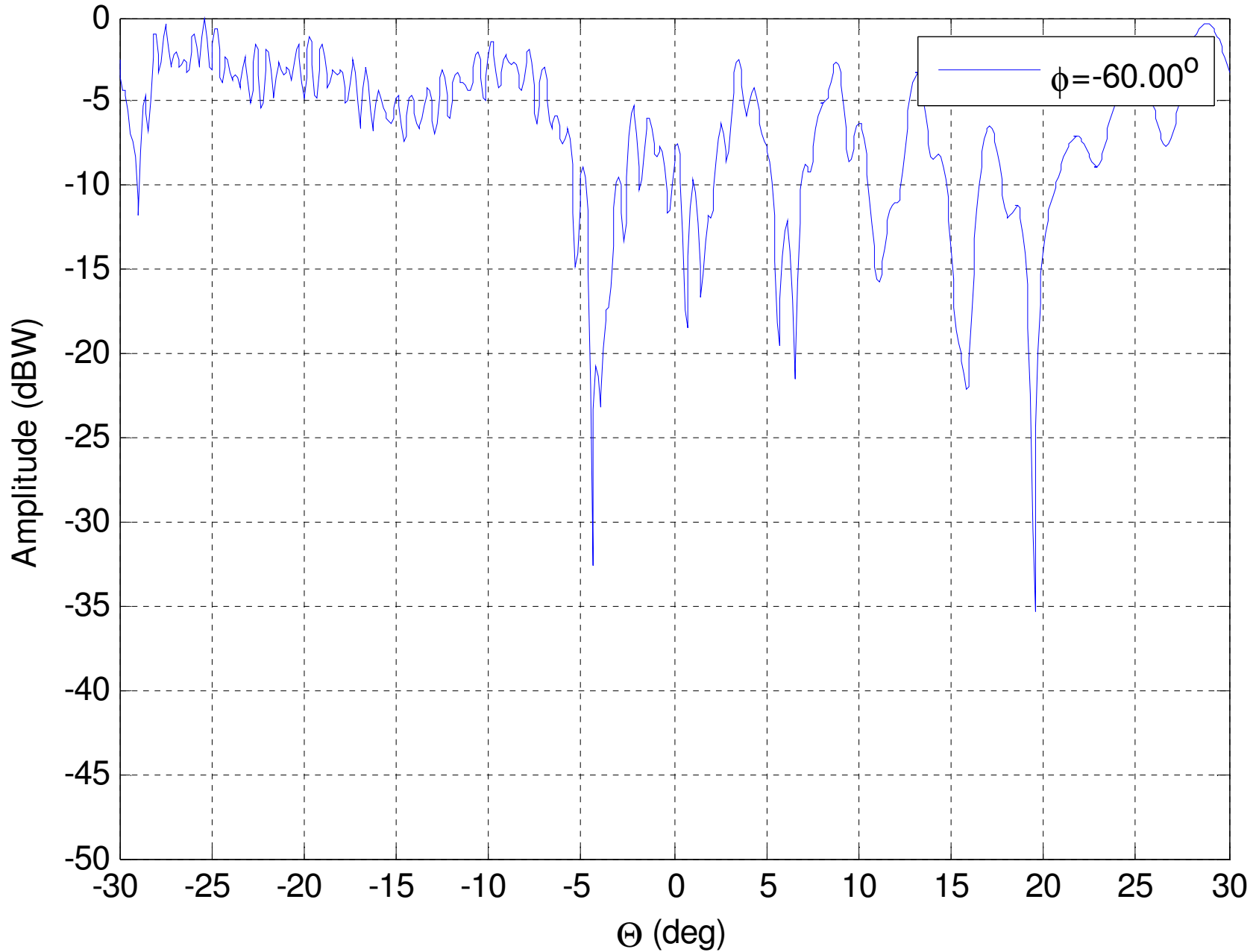
Input file: tx-17.5-lhcp-60.cut, Peak: -2.45 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

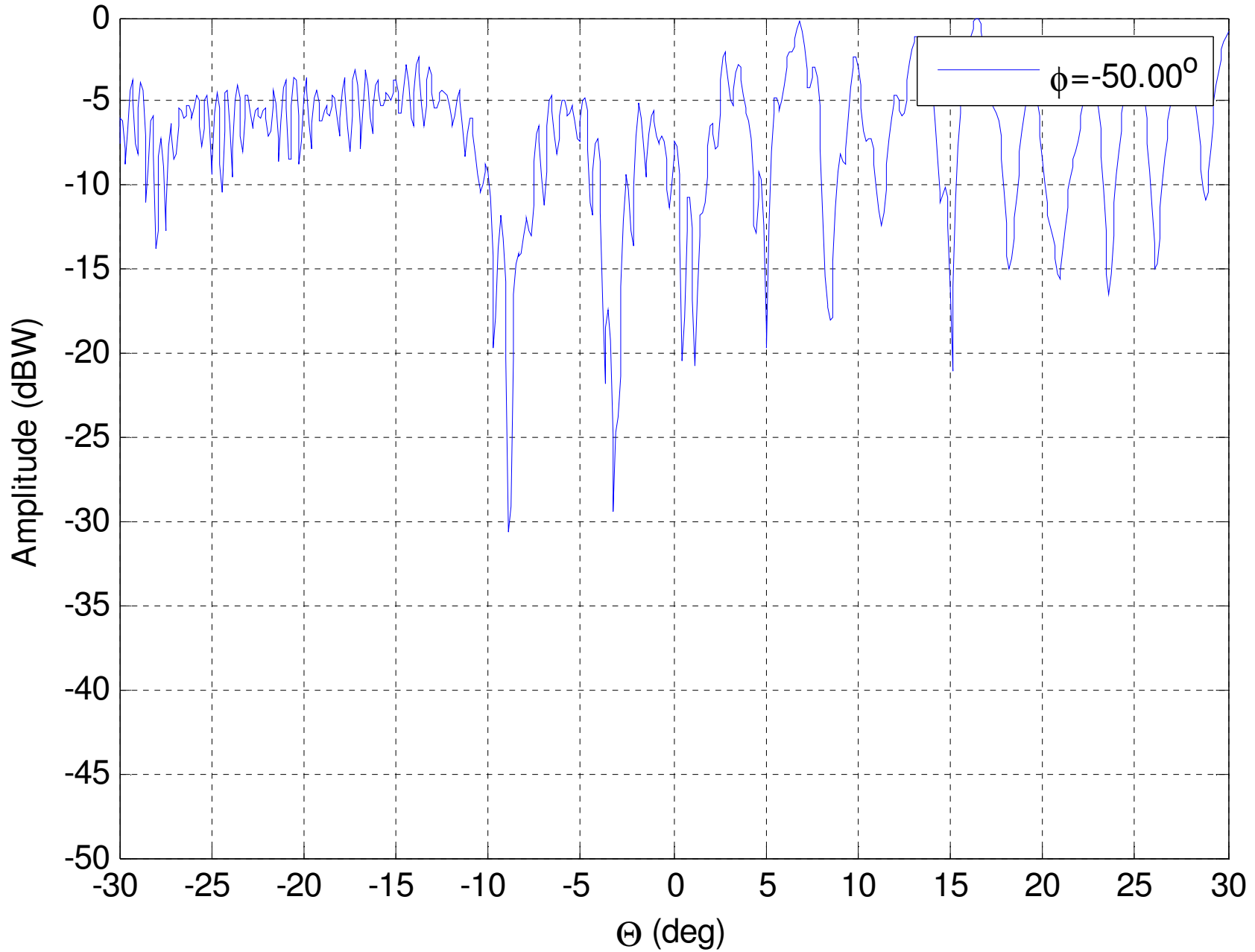
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -3.99 dBW, Date: 16-Dec-2011



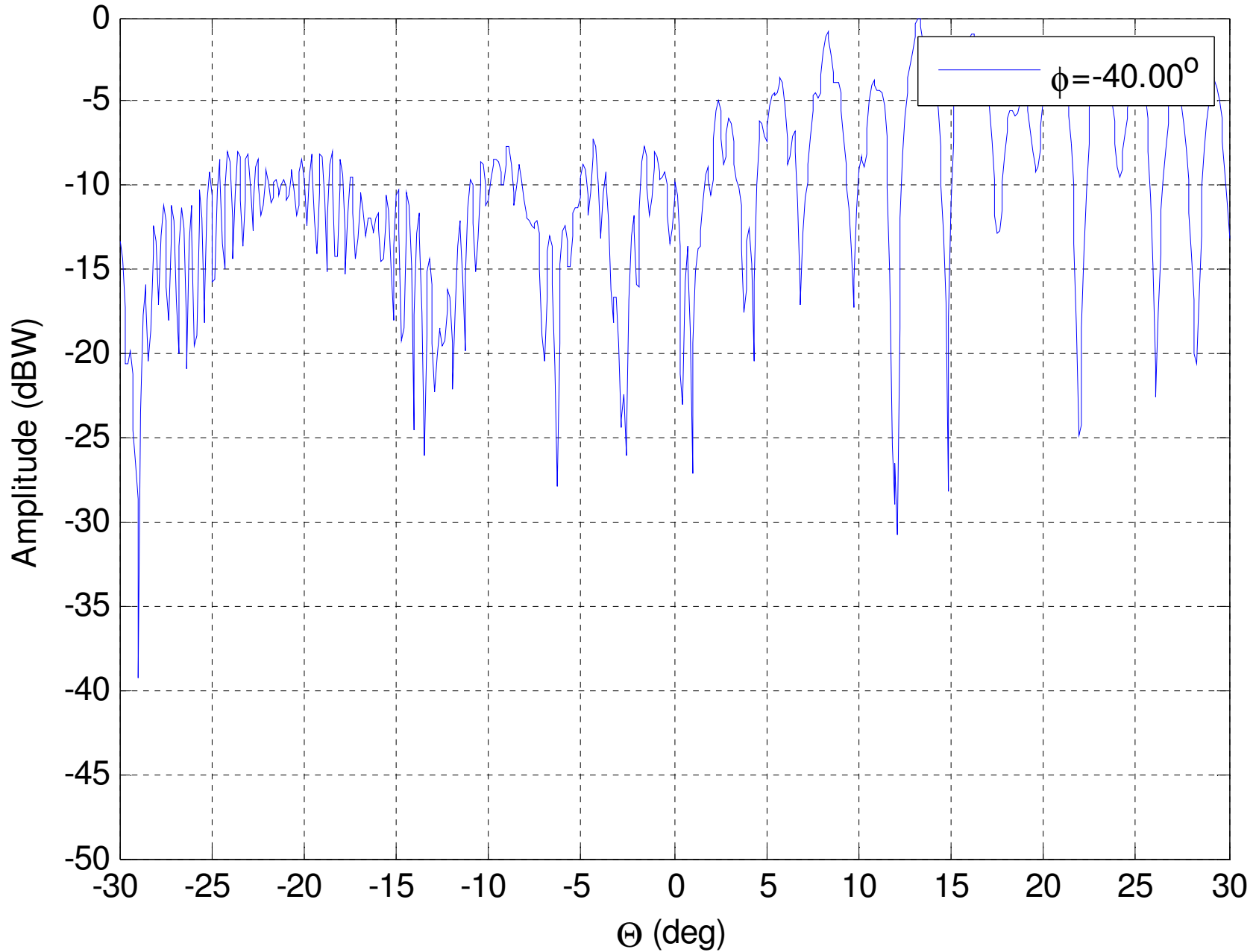
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -4.31 dBW, Date: 16-Dec-2011



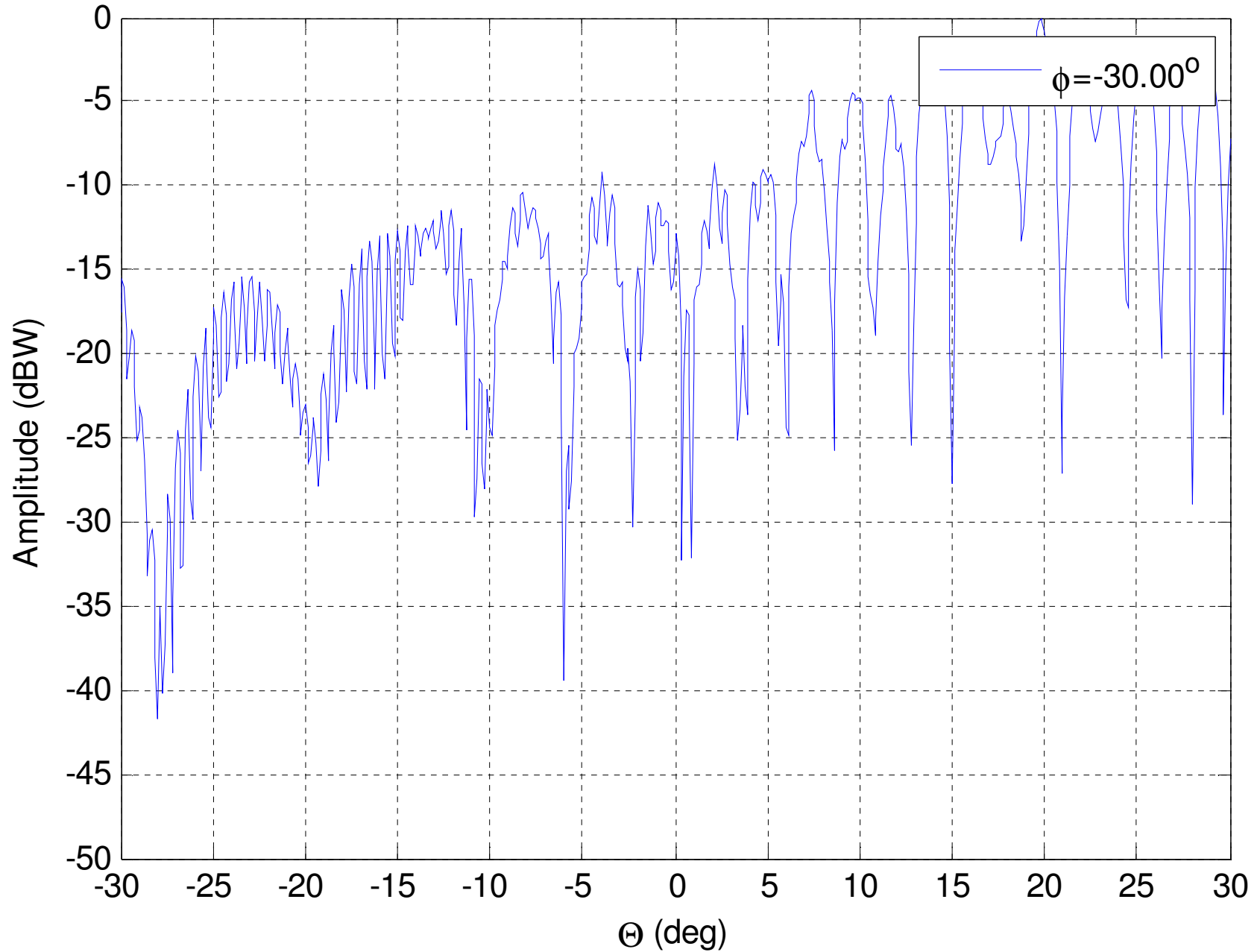
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -1.88 dBW, Date: 16-Dec-2011



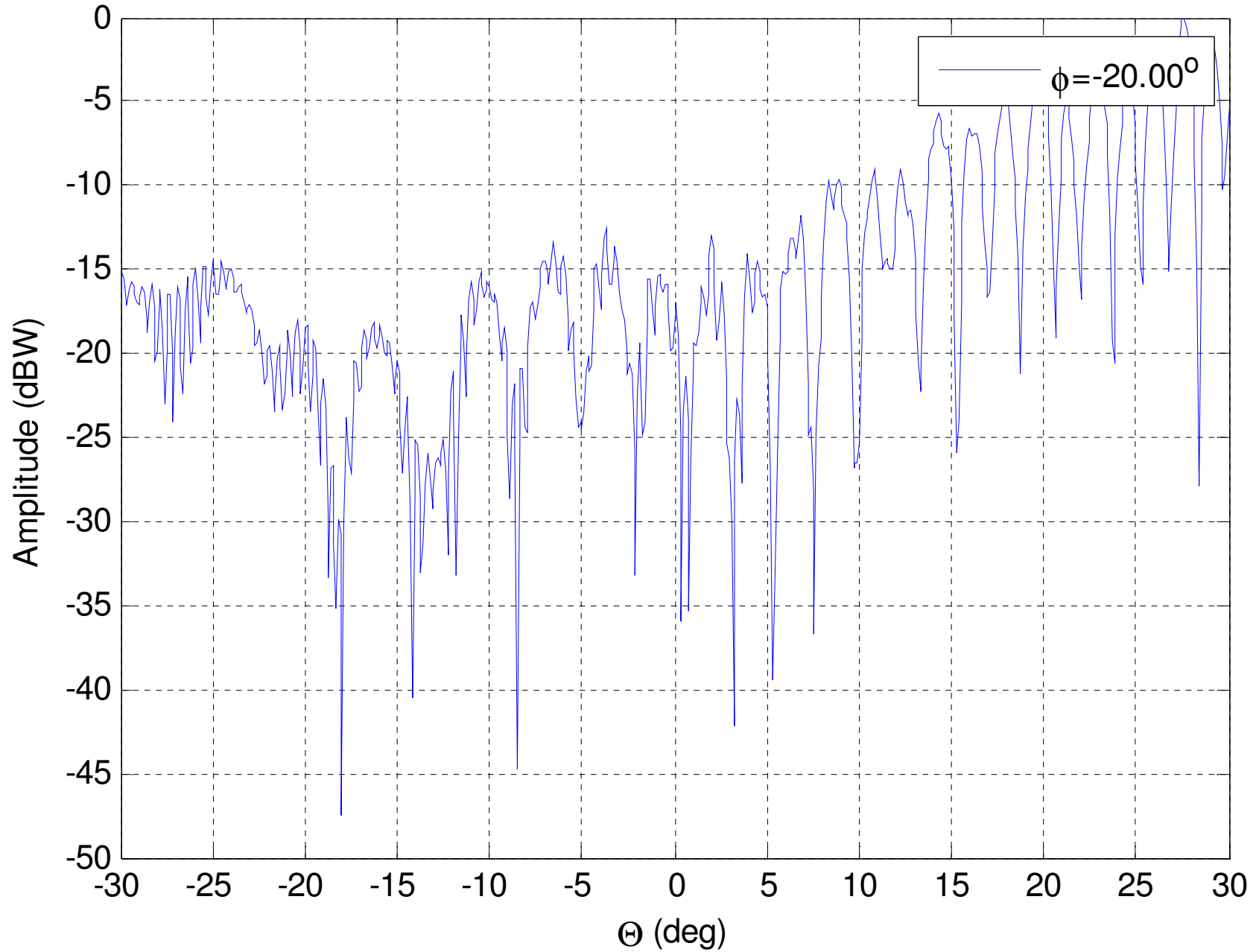
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: 1.09 dBW, Date: 16-Dec-2011



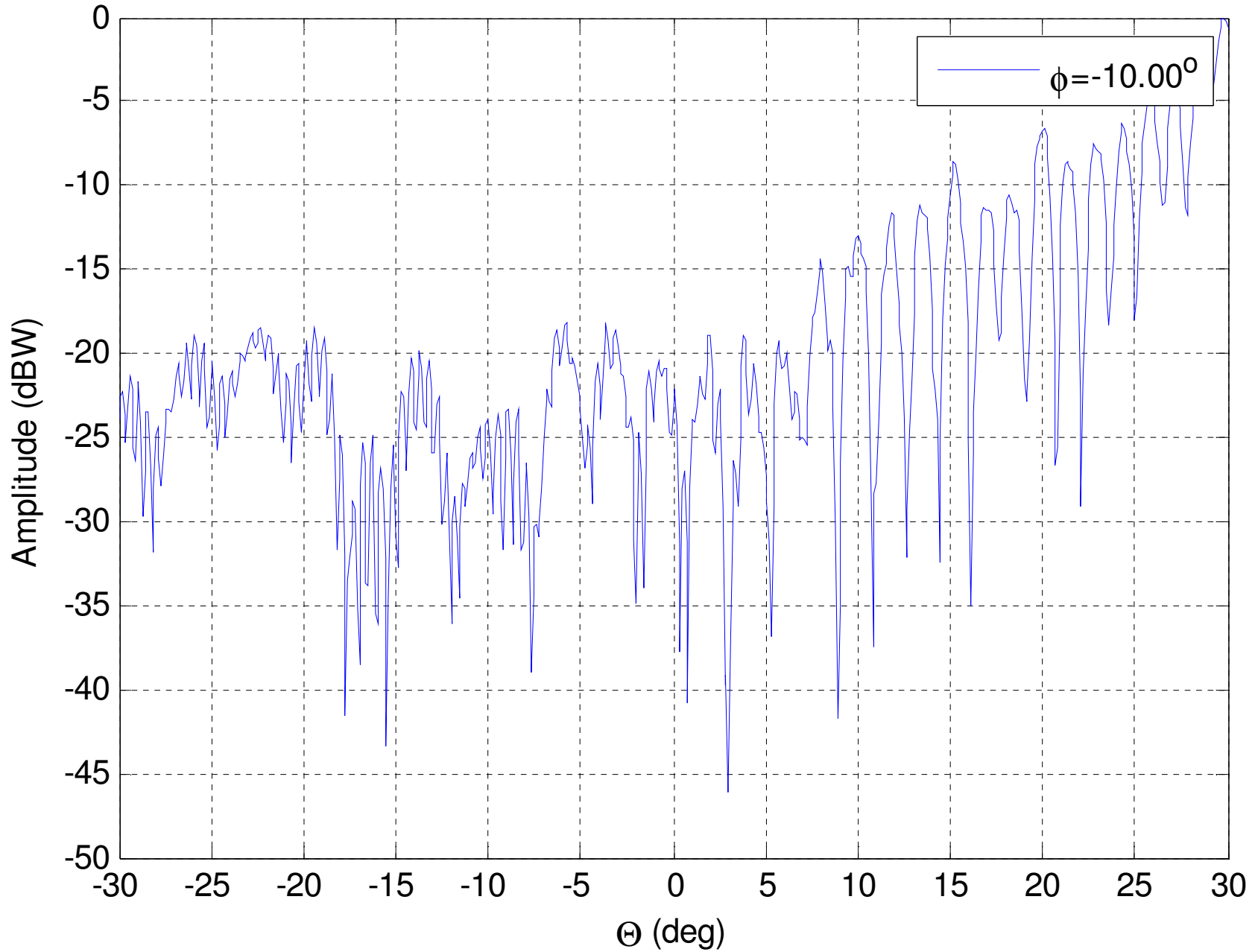
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: 5.04 dBW, Date: 16-Dec-2011



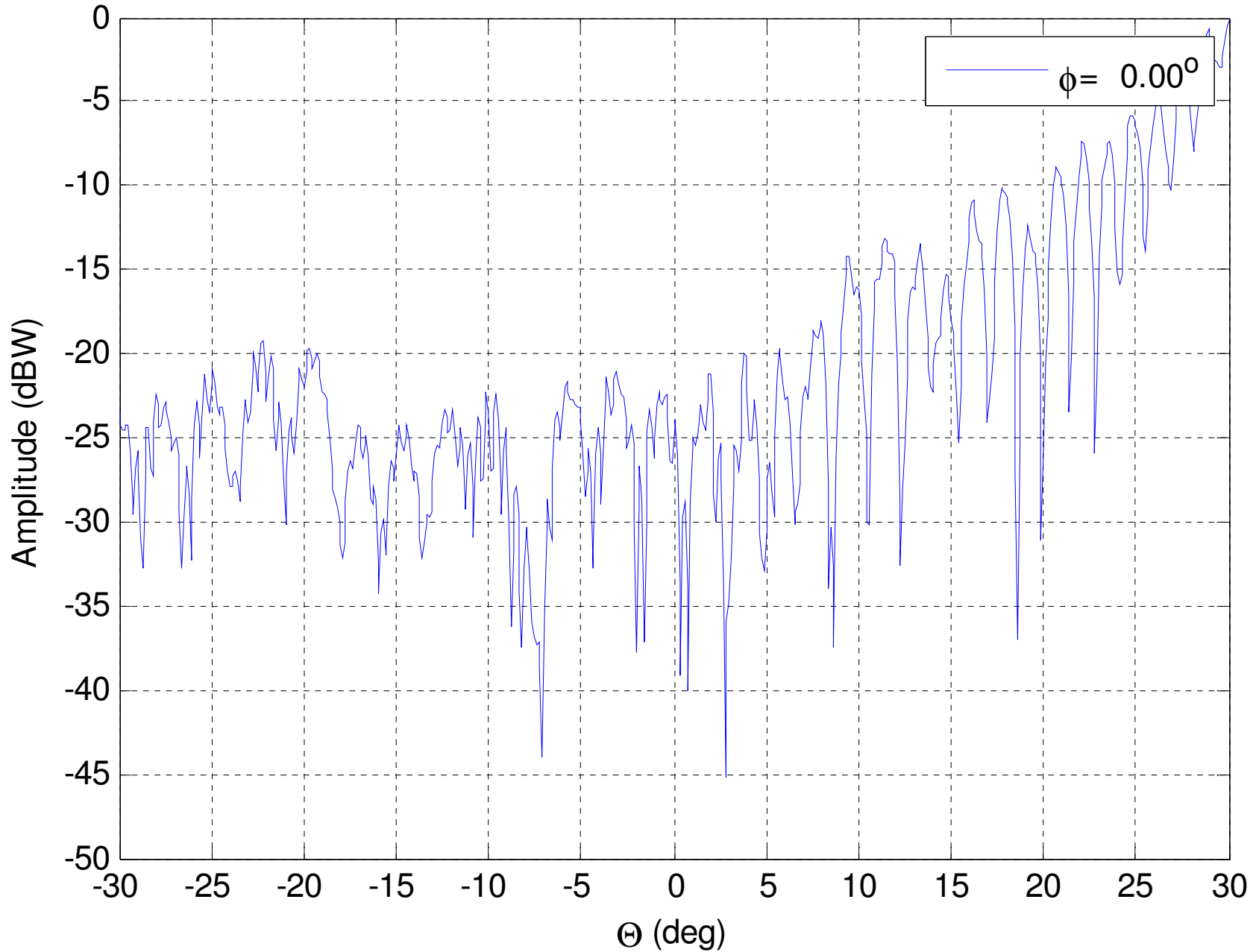
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: 10.15 dBW, Date: 16-Dec-2011



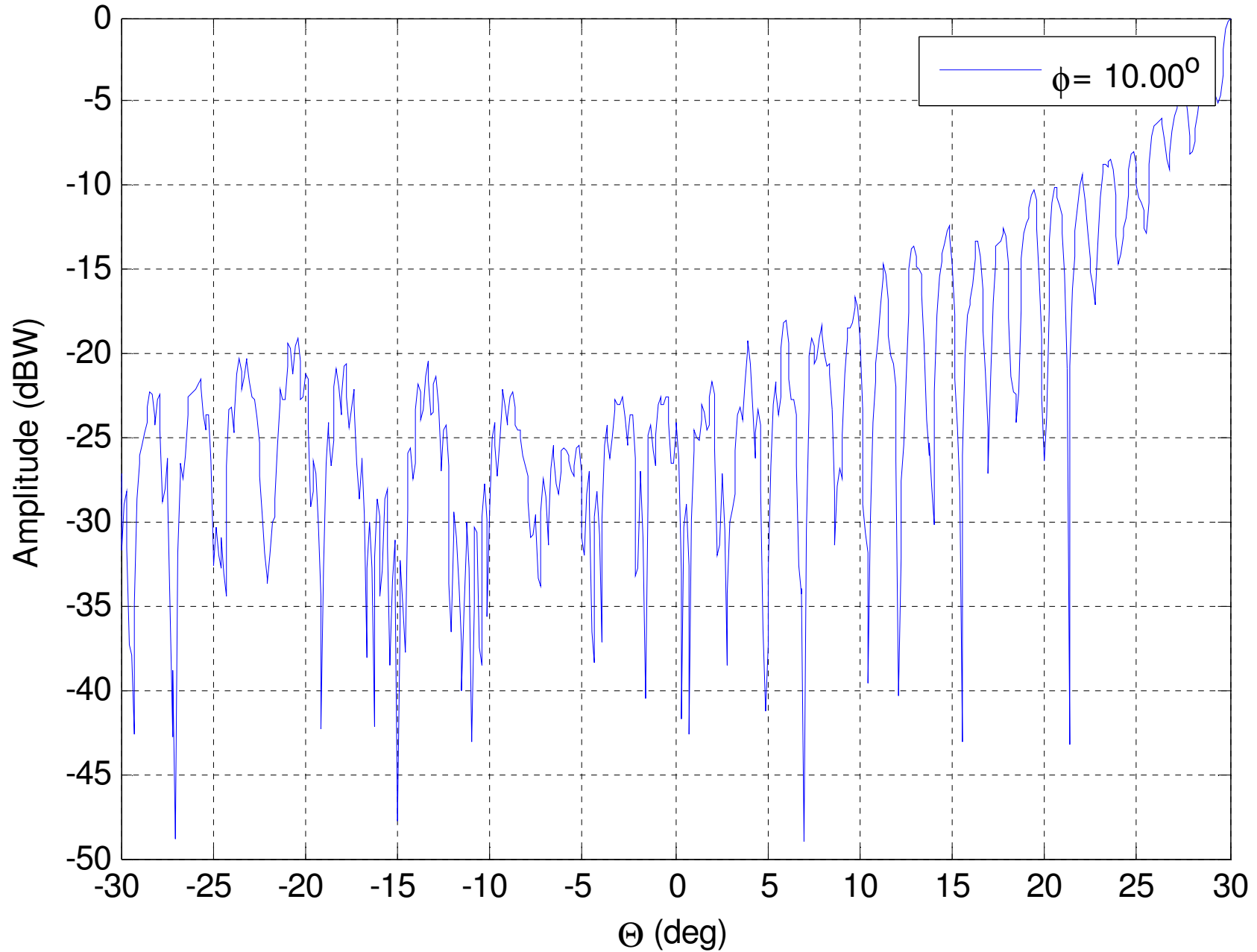
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: 11.88 dBW, Date: 16-Dec-2011



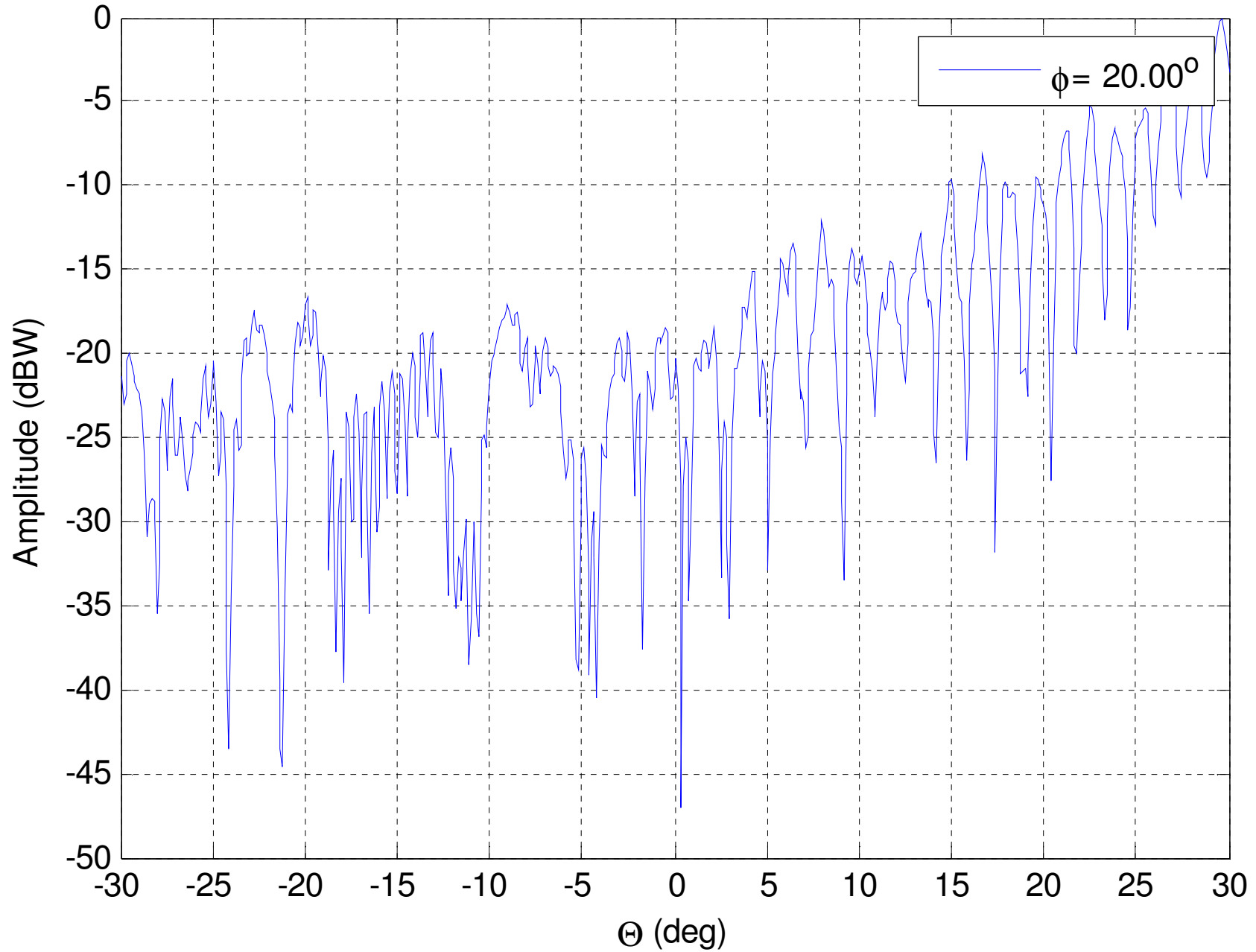
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: 12.03 dBW, Date: 16-Dec-2011



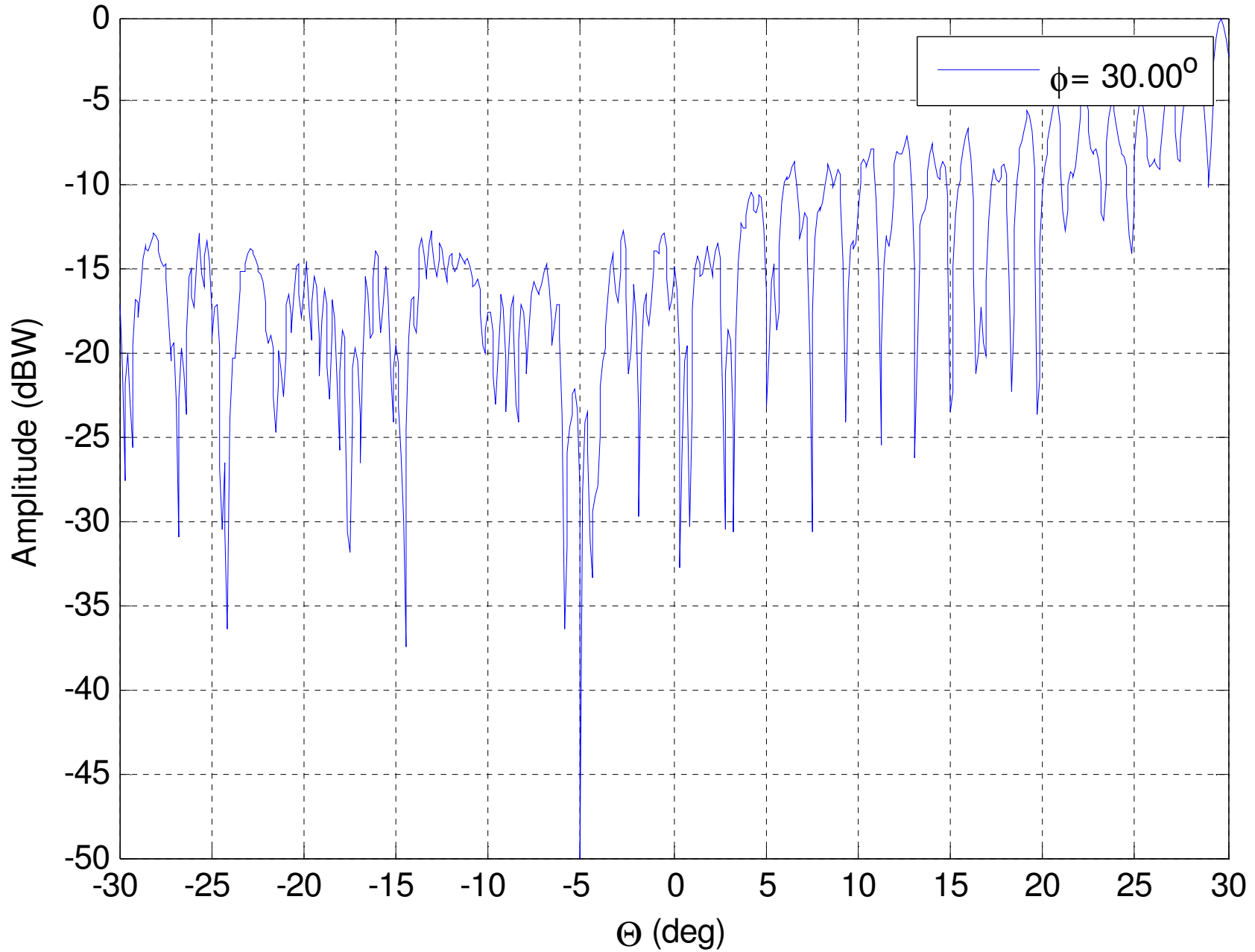
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: 8.18 dBW, Date: 16-Dec-2011



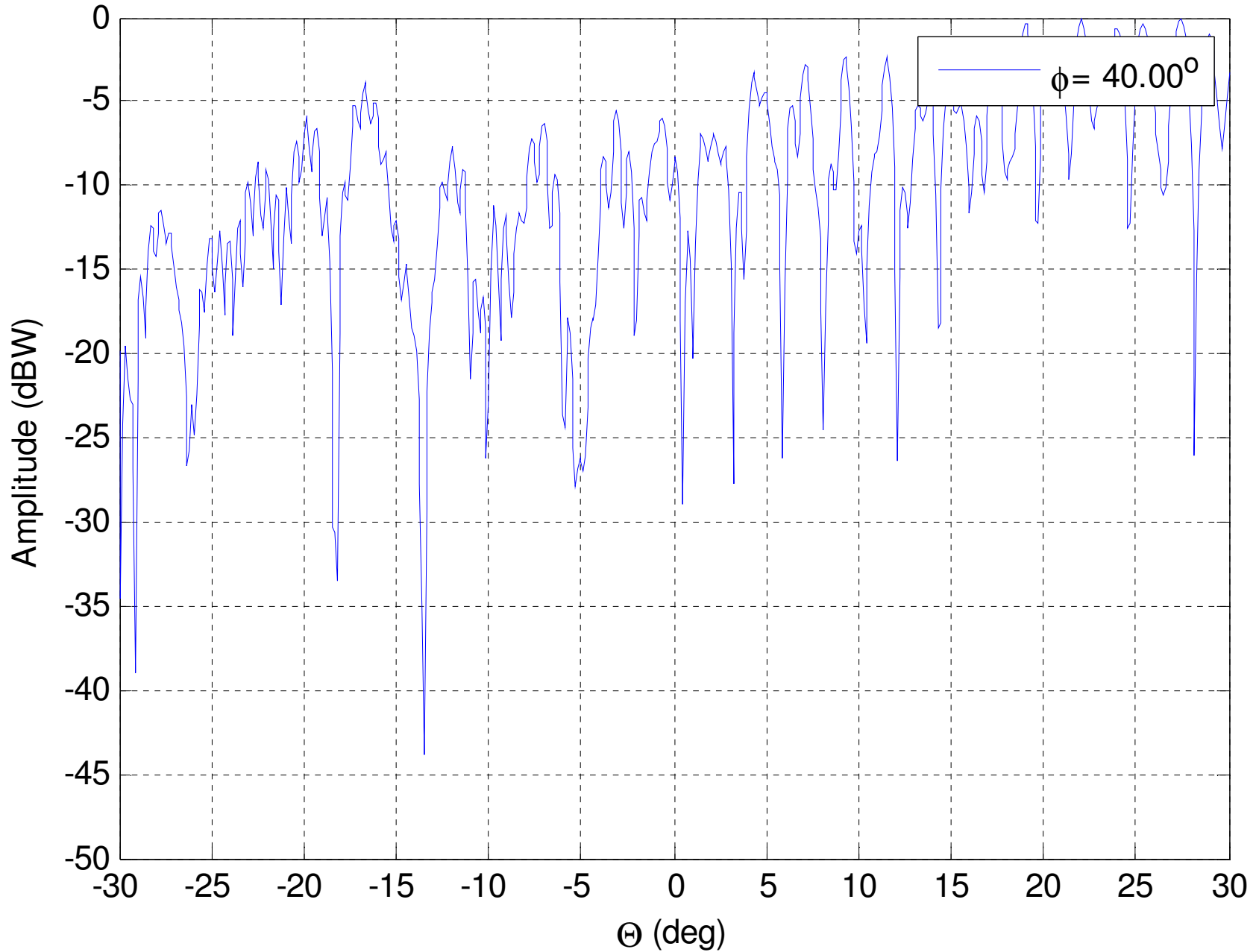
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: 2.75 dBW, Date: 16-Dec-2011



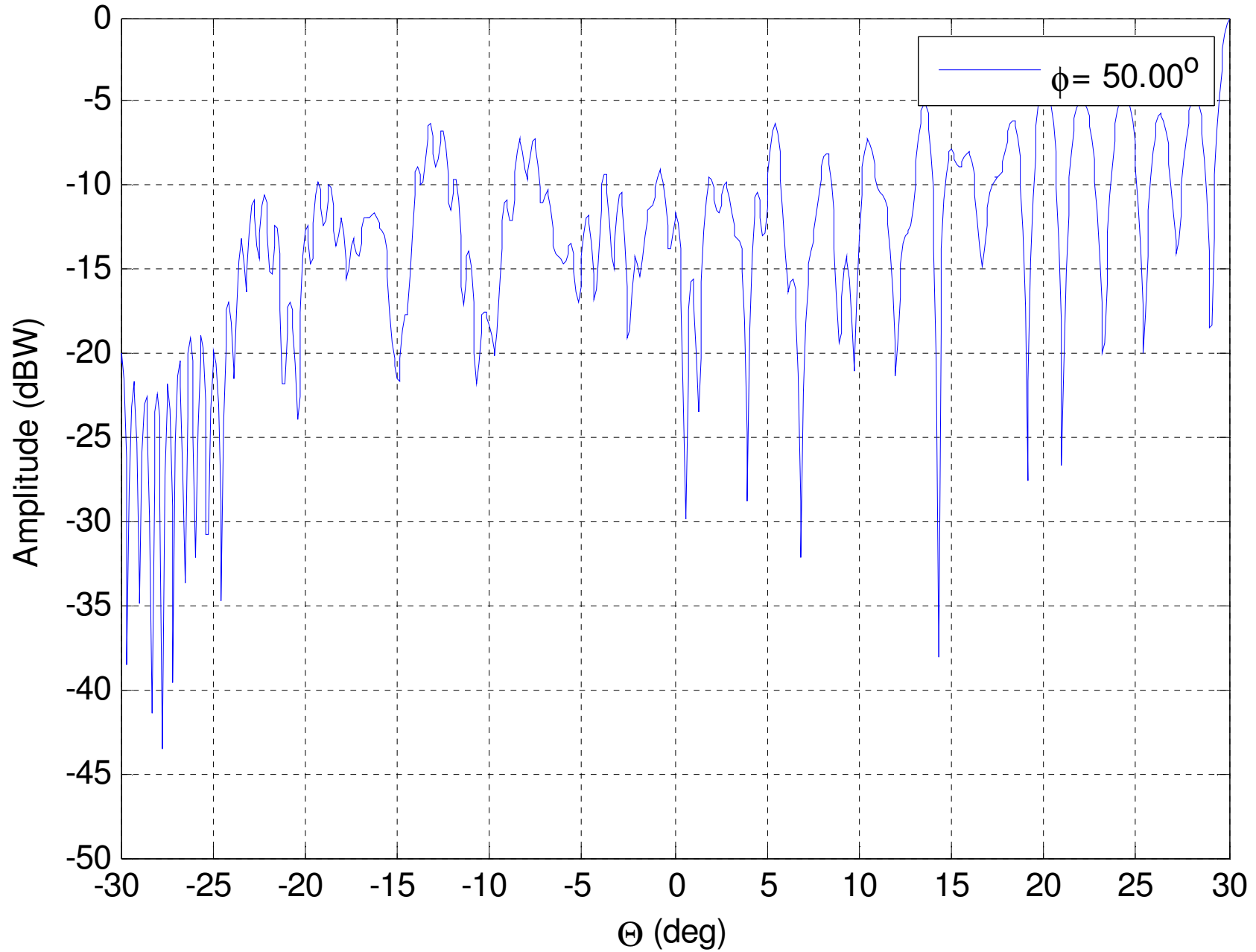
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -3.86 dBW, Date: 16-Dec-2011



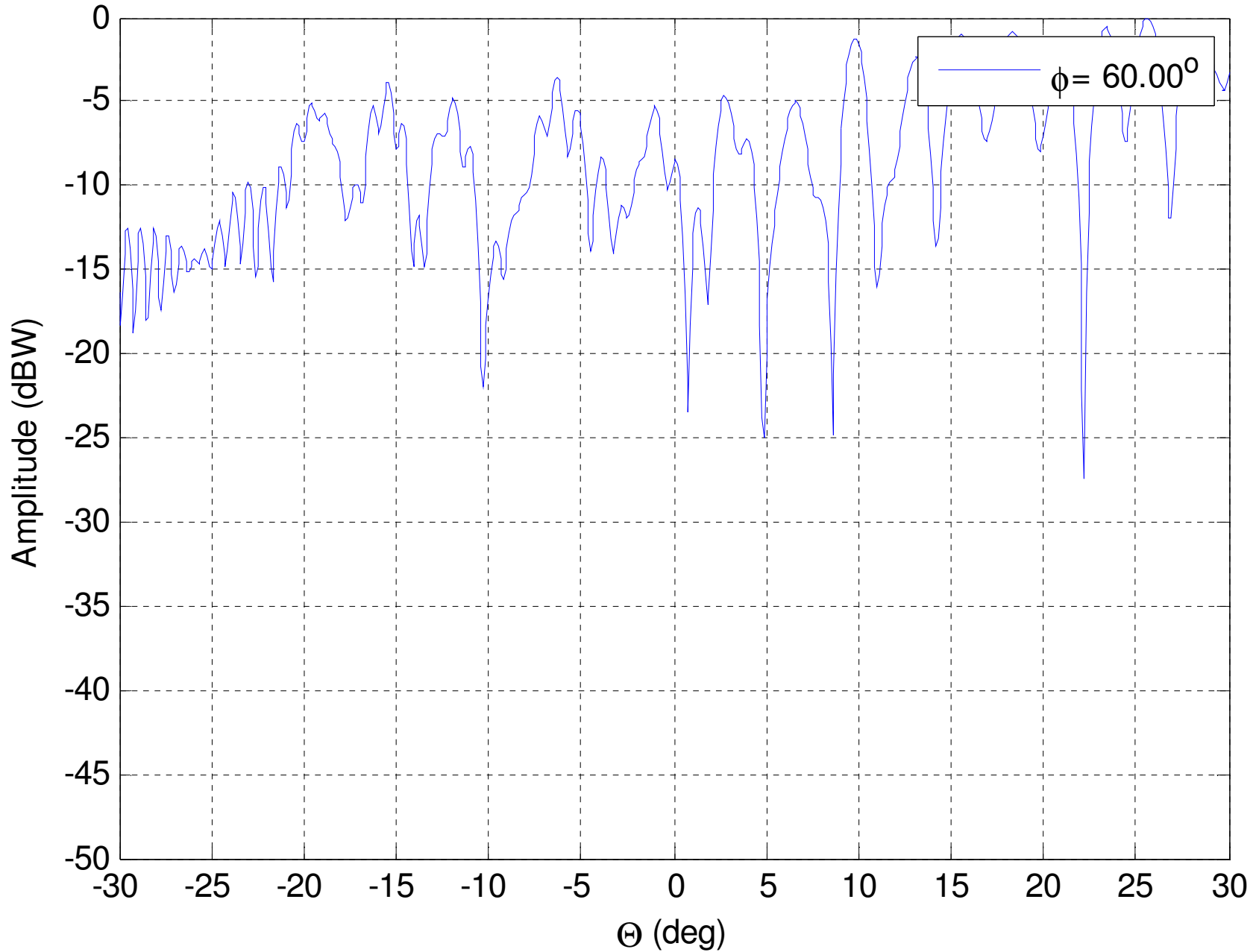
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -0.54 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

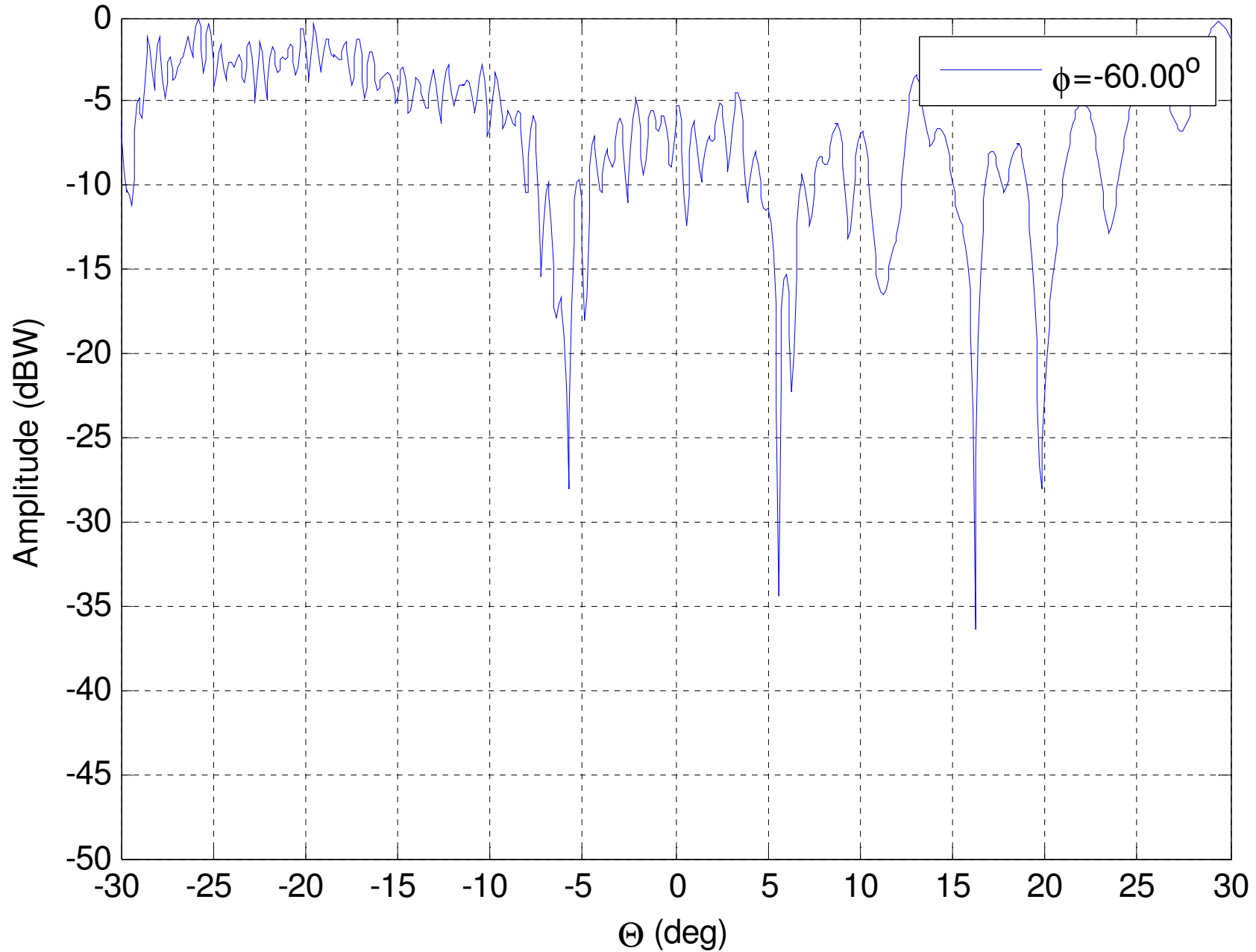
Input file: tx-17.7-rhcp-60.cut, Peak: -3.90 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

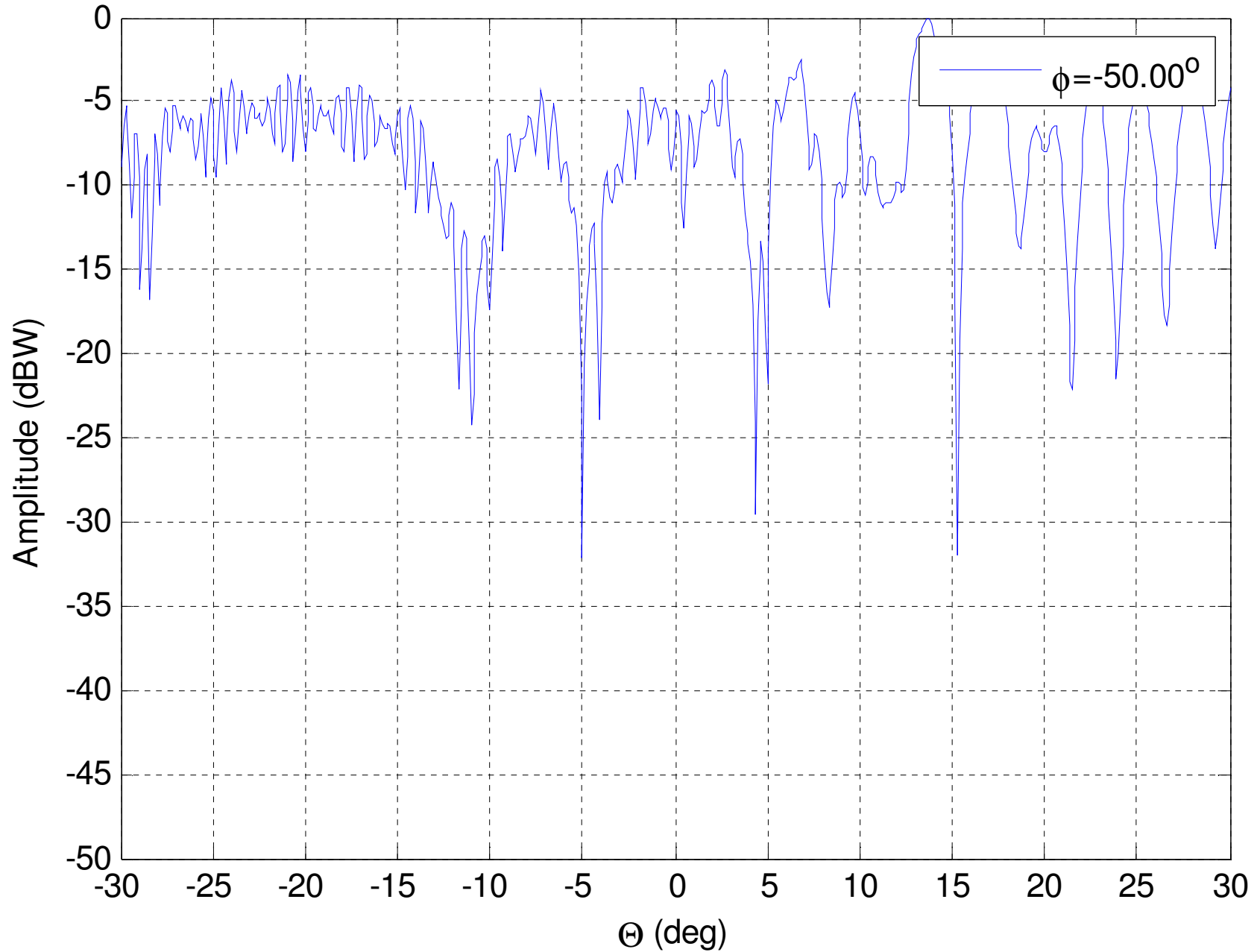
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -3.81 dBW, Date: 16-Dec-2011



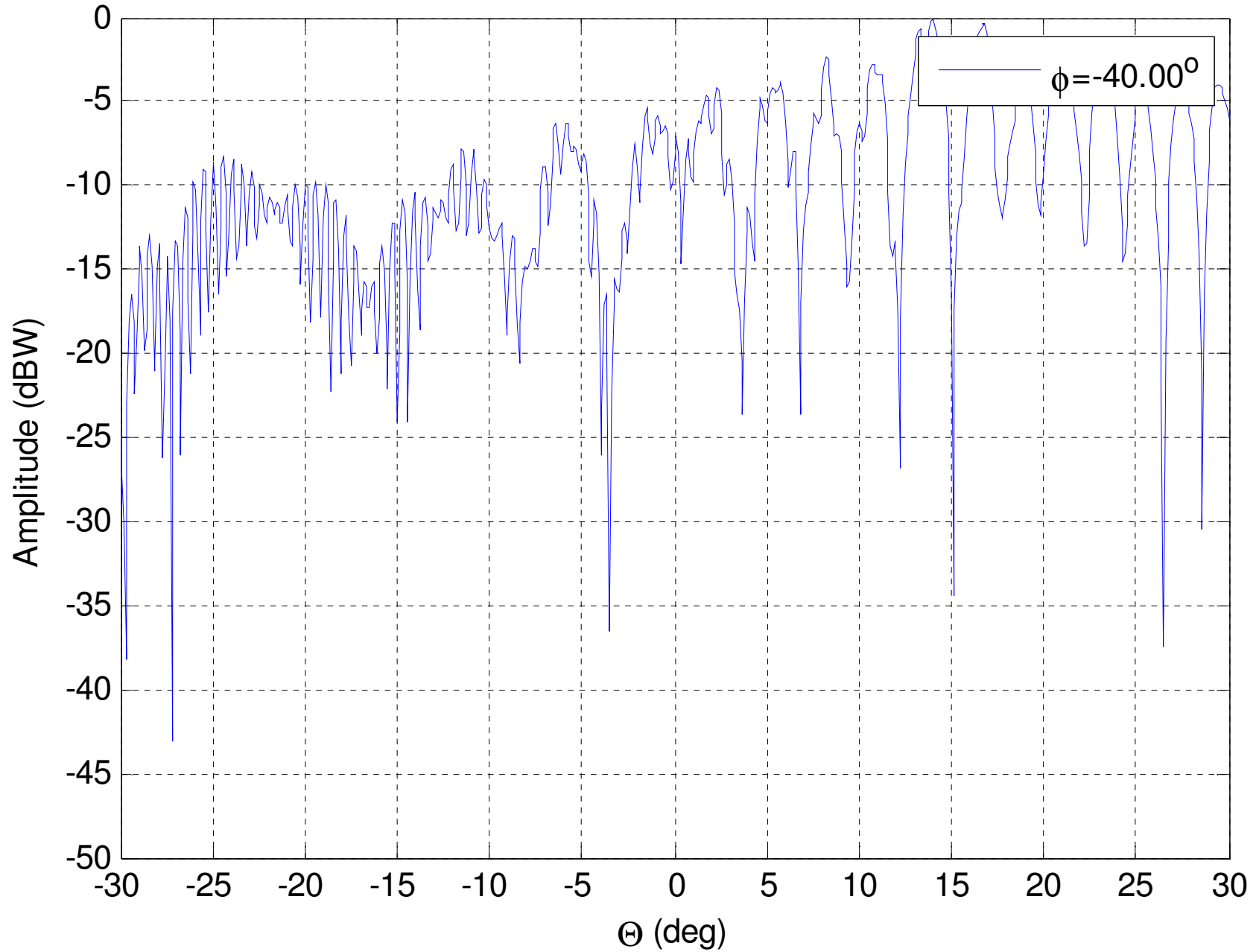
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -3.63 dBW, Date: 16-Dec-2011



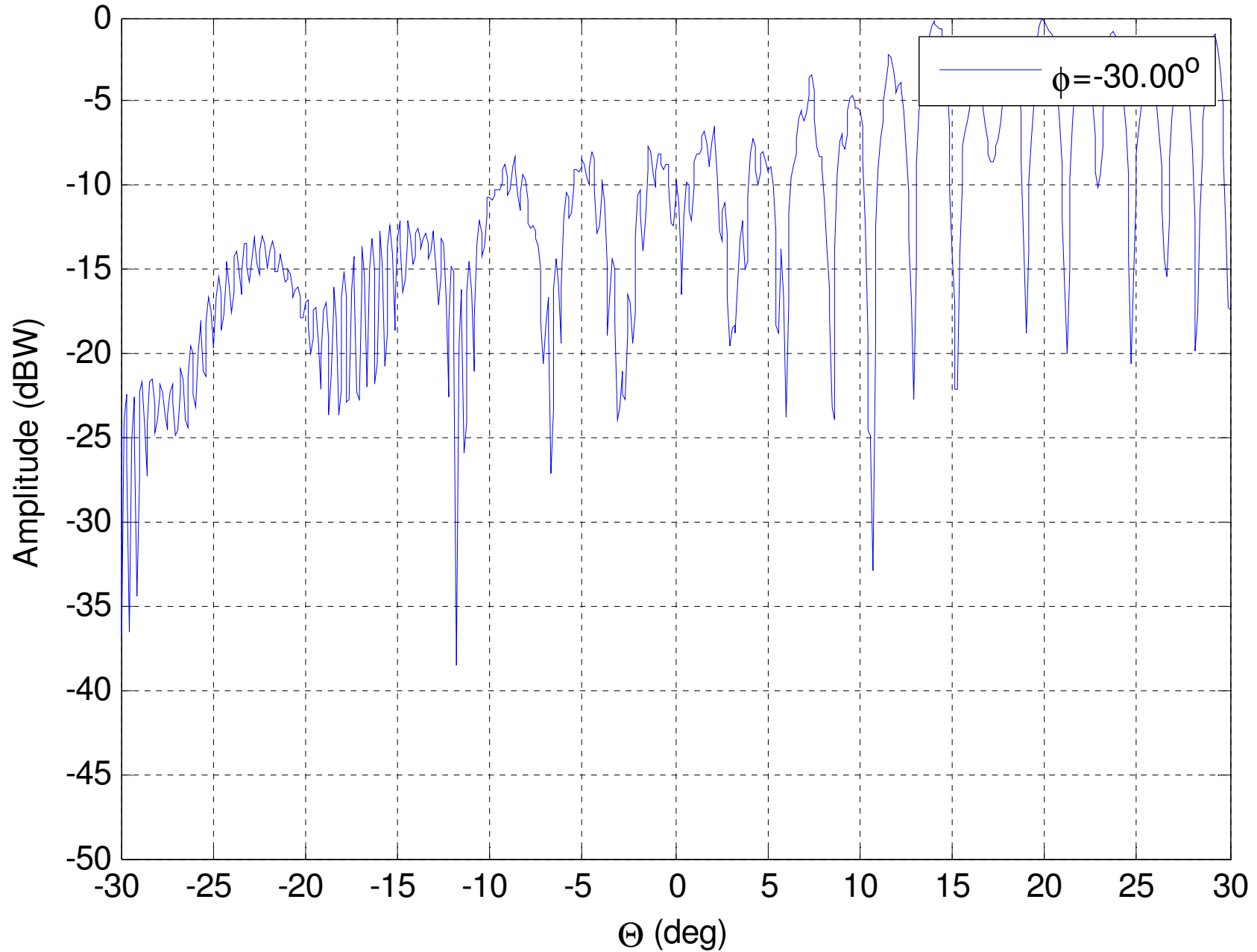
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -2.03 dBW, Date: 16-Dec-2011



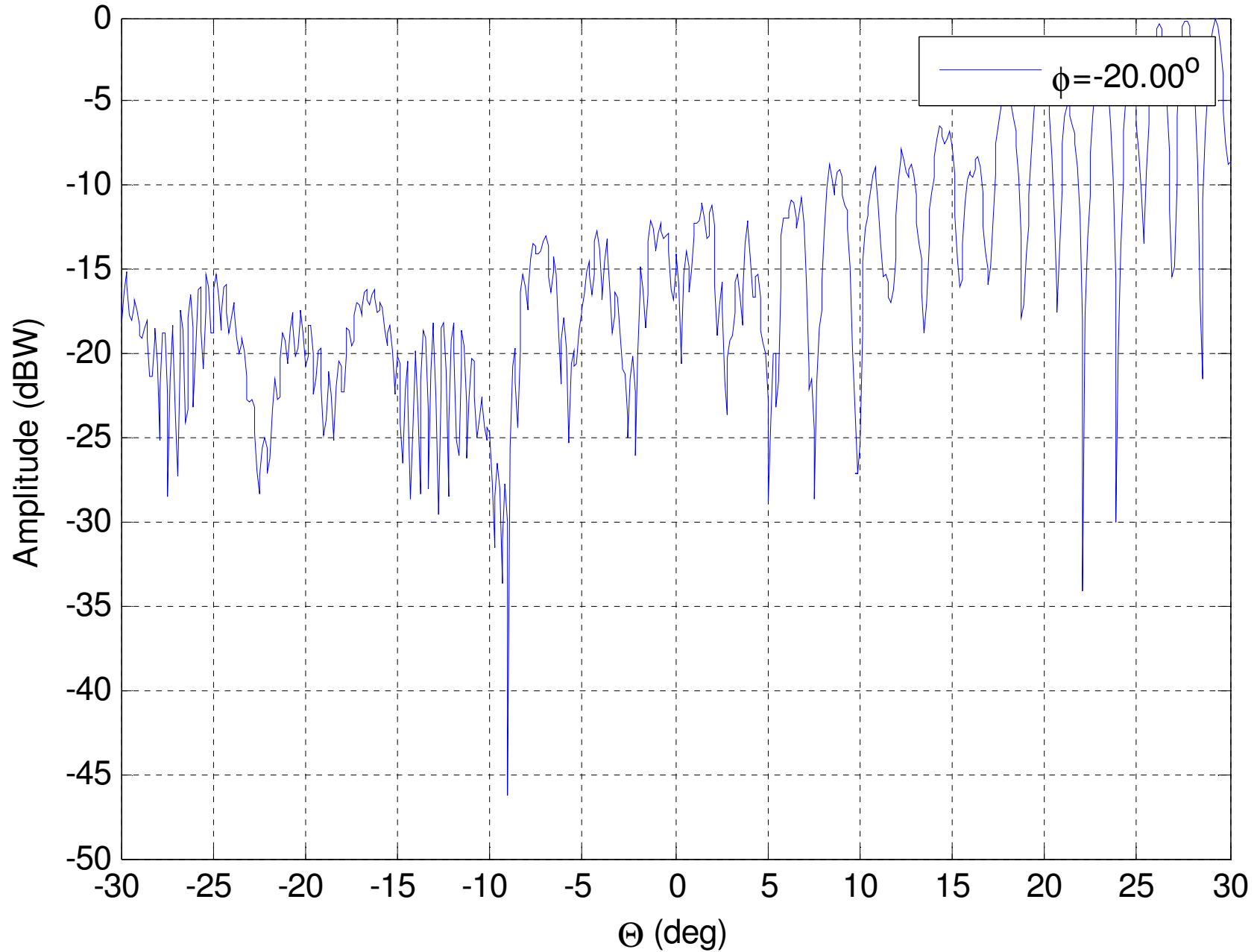
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: 0.43 dBW, Date: 16-Dec-2011



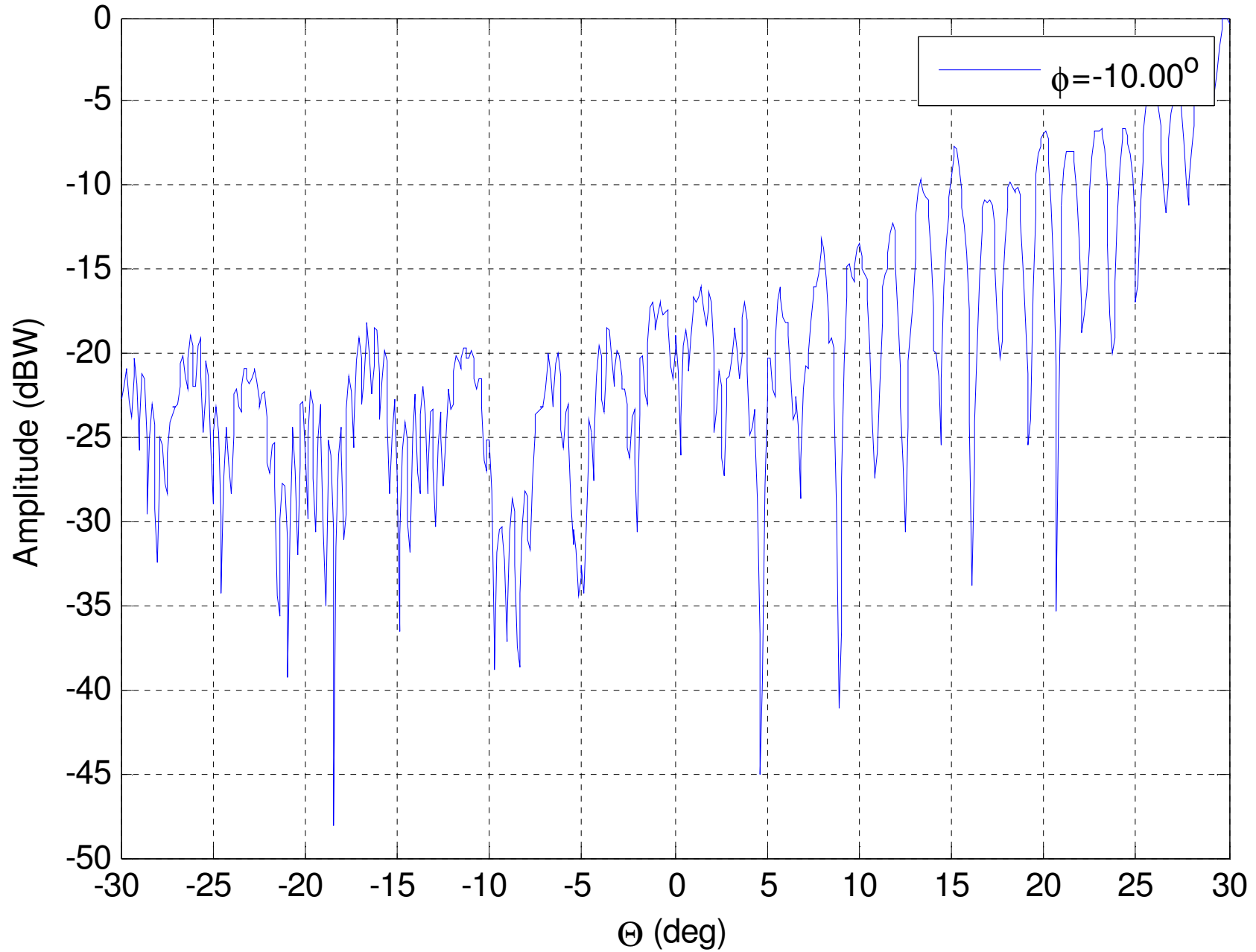
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: 4.84 dBW, Date: 16-Dec-2011



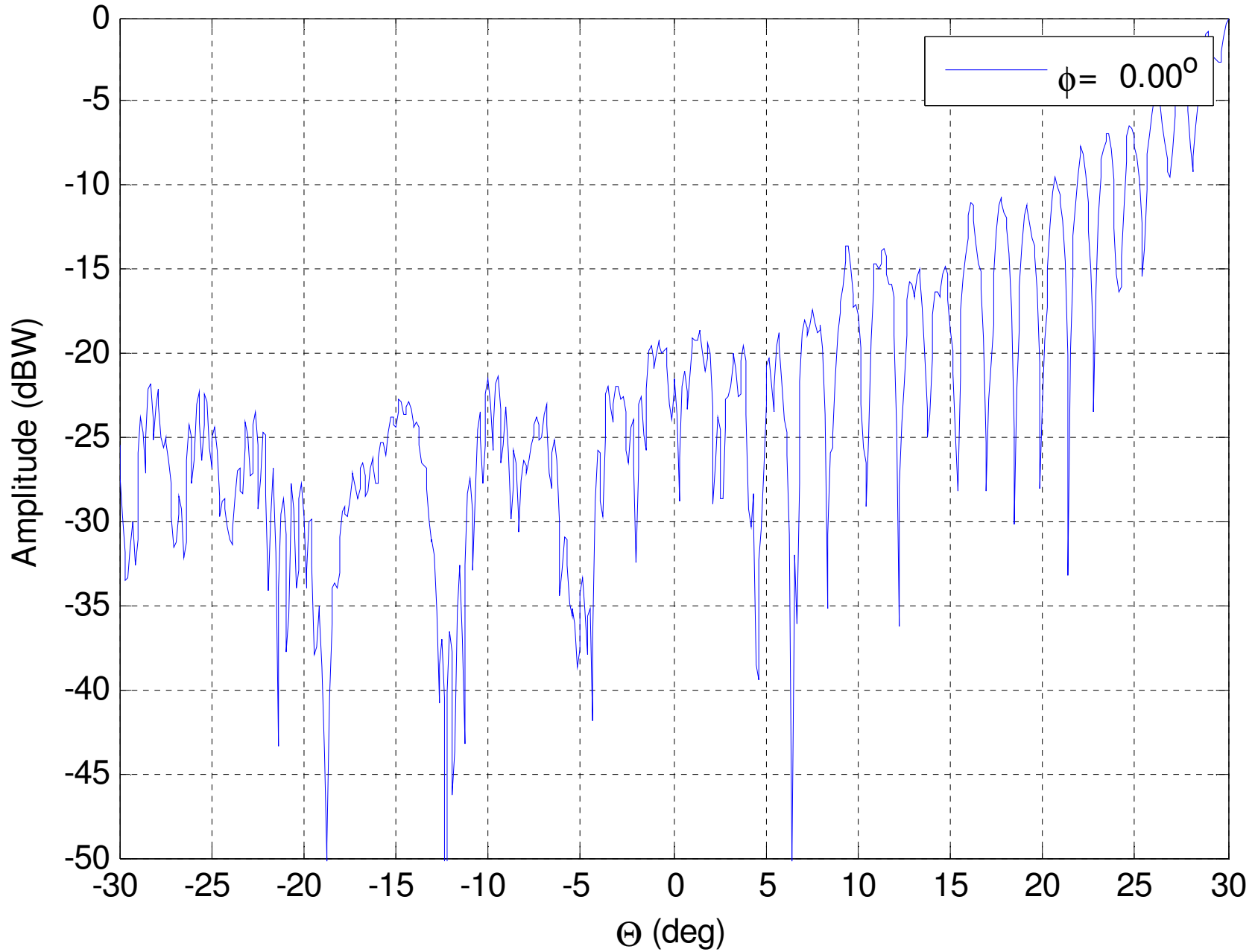
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: 9.61 dBW, Date: 16-Dec-2011



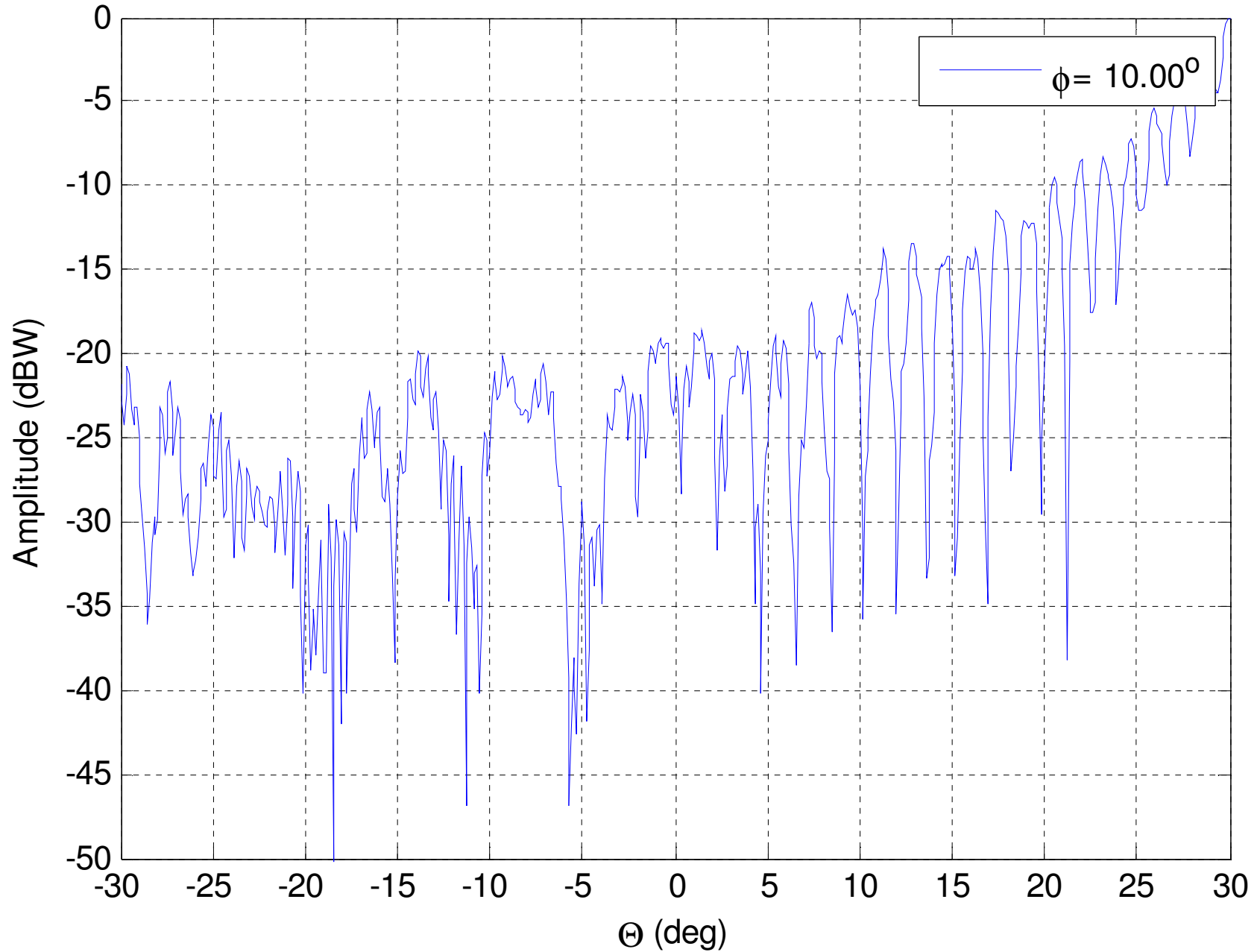
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: 12.07 dBW, Date: 16-Dec-2011



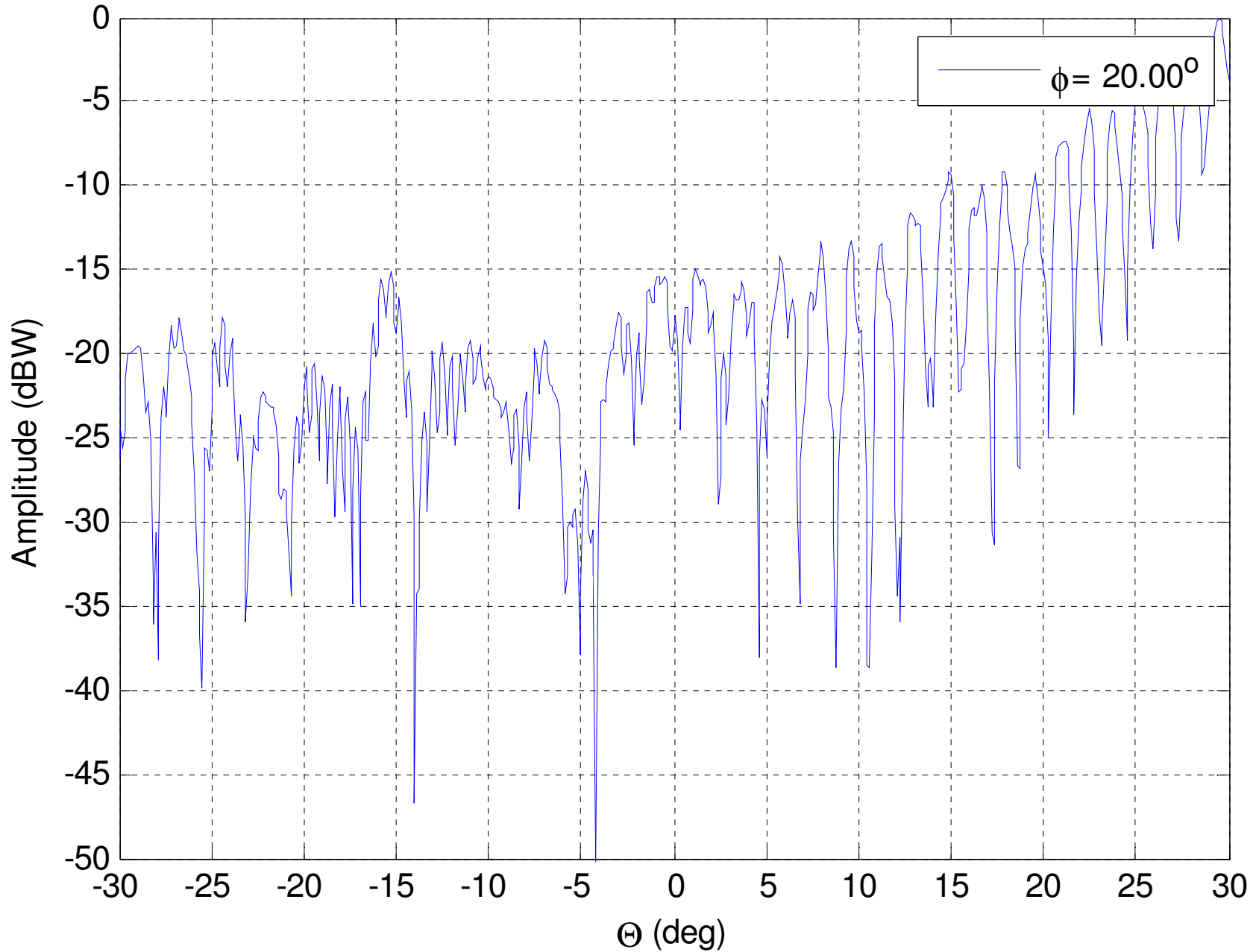
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: 11.88 dBW, Date: 16-Dec-2011



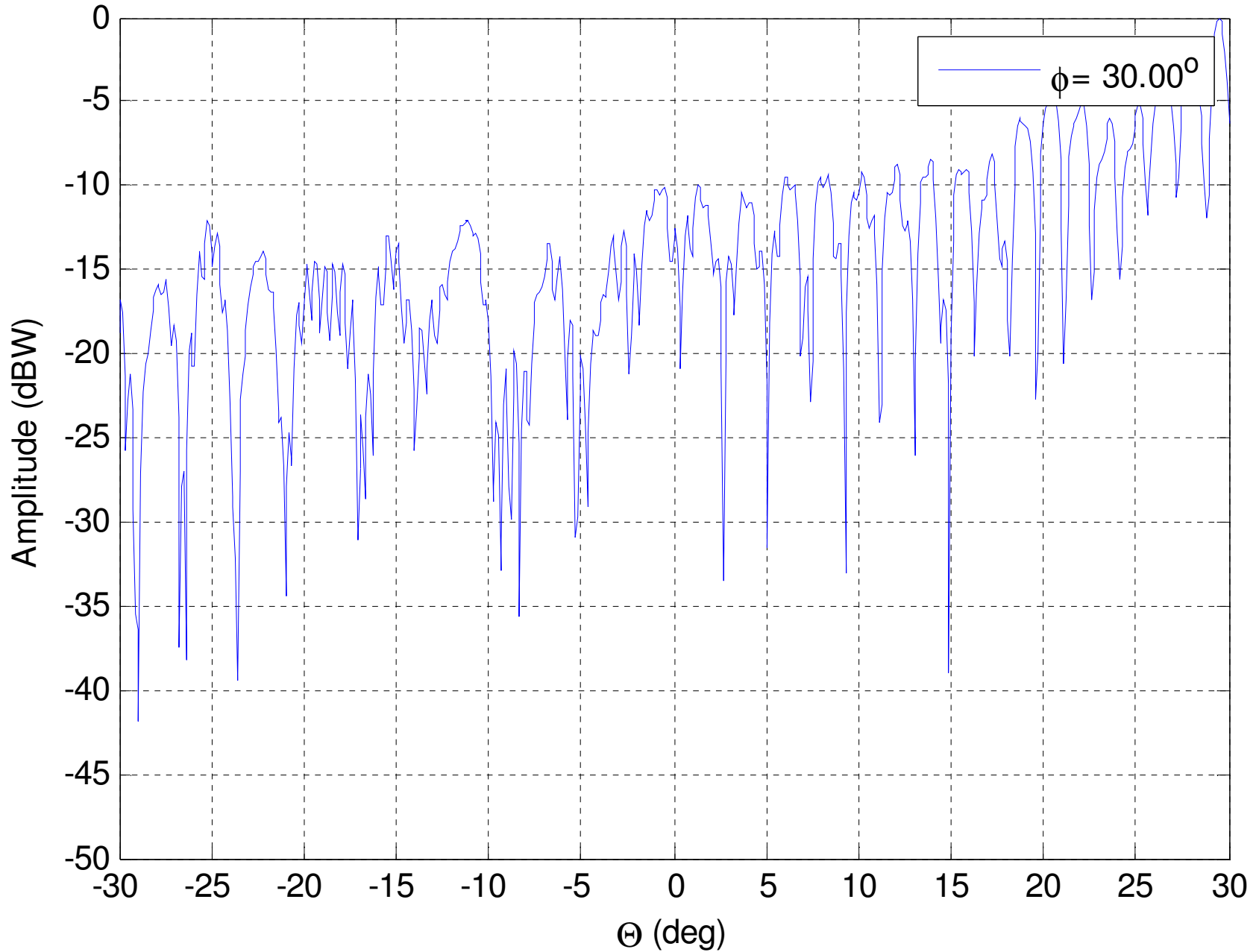
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: 8.22 dBW, Date: 16-Dec-2011



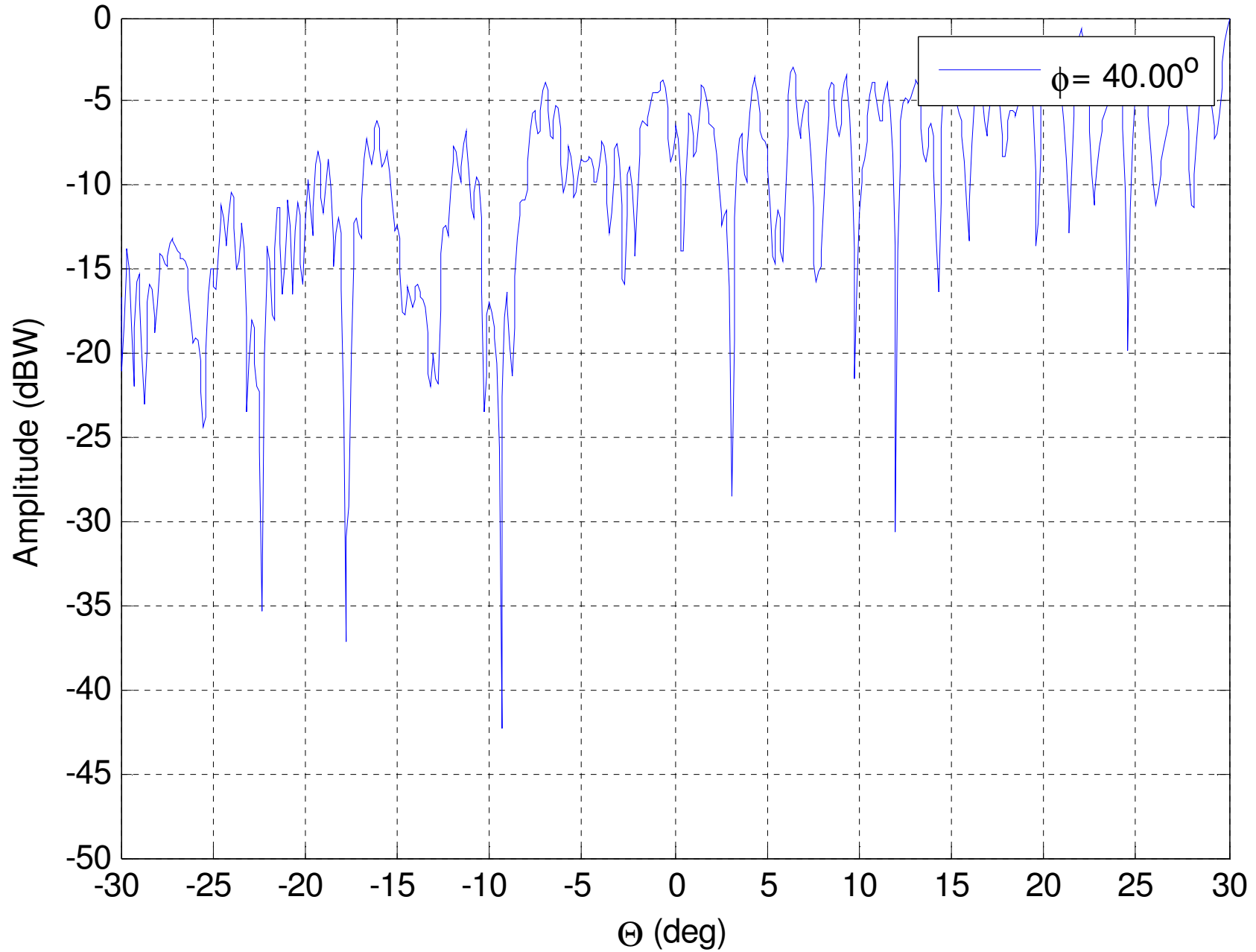
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: 3.04 dBW, Date: 16-Dec-2011



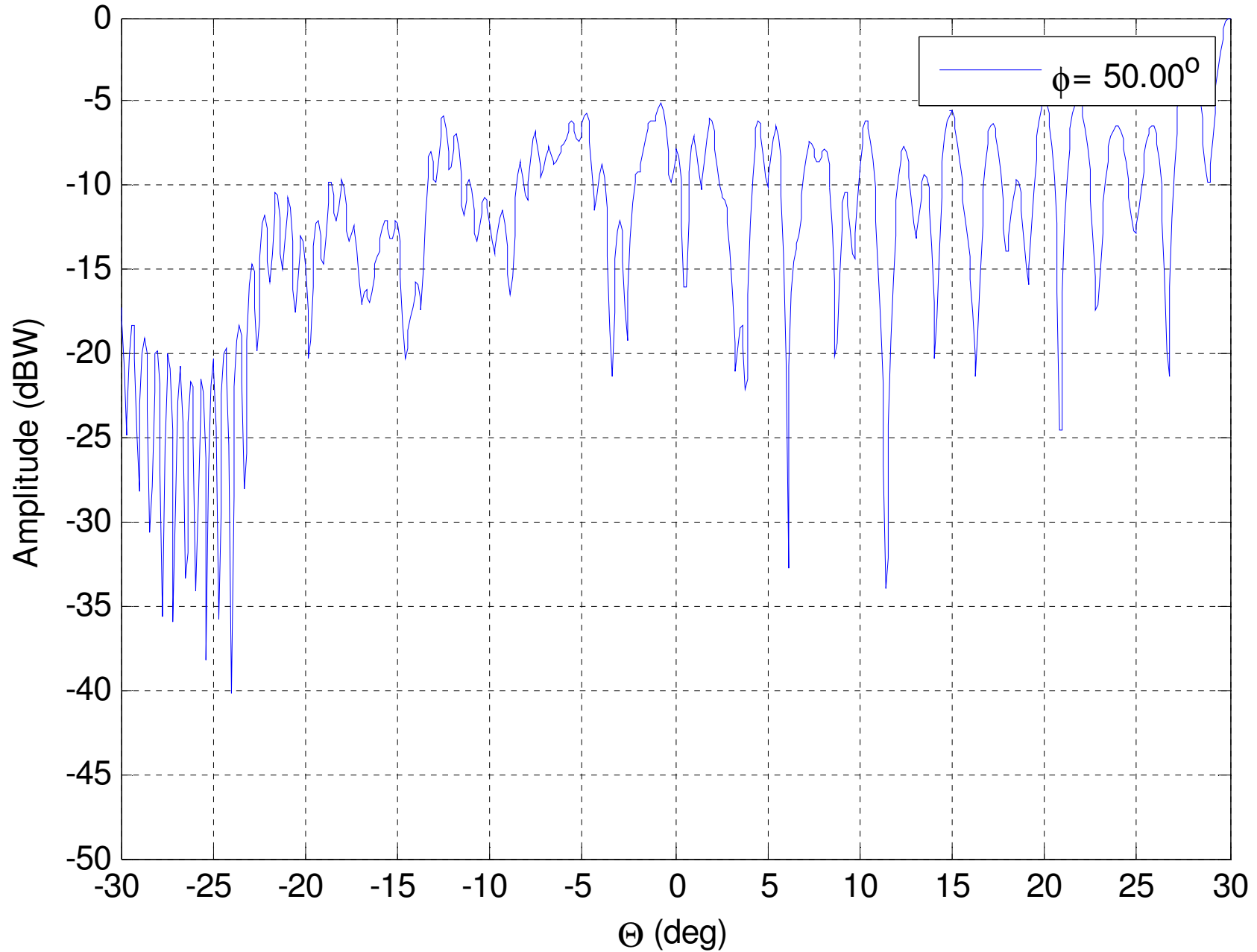
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -3.08 dBW, Date: 16-Dec-2011



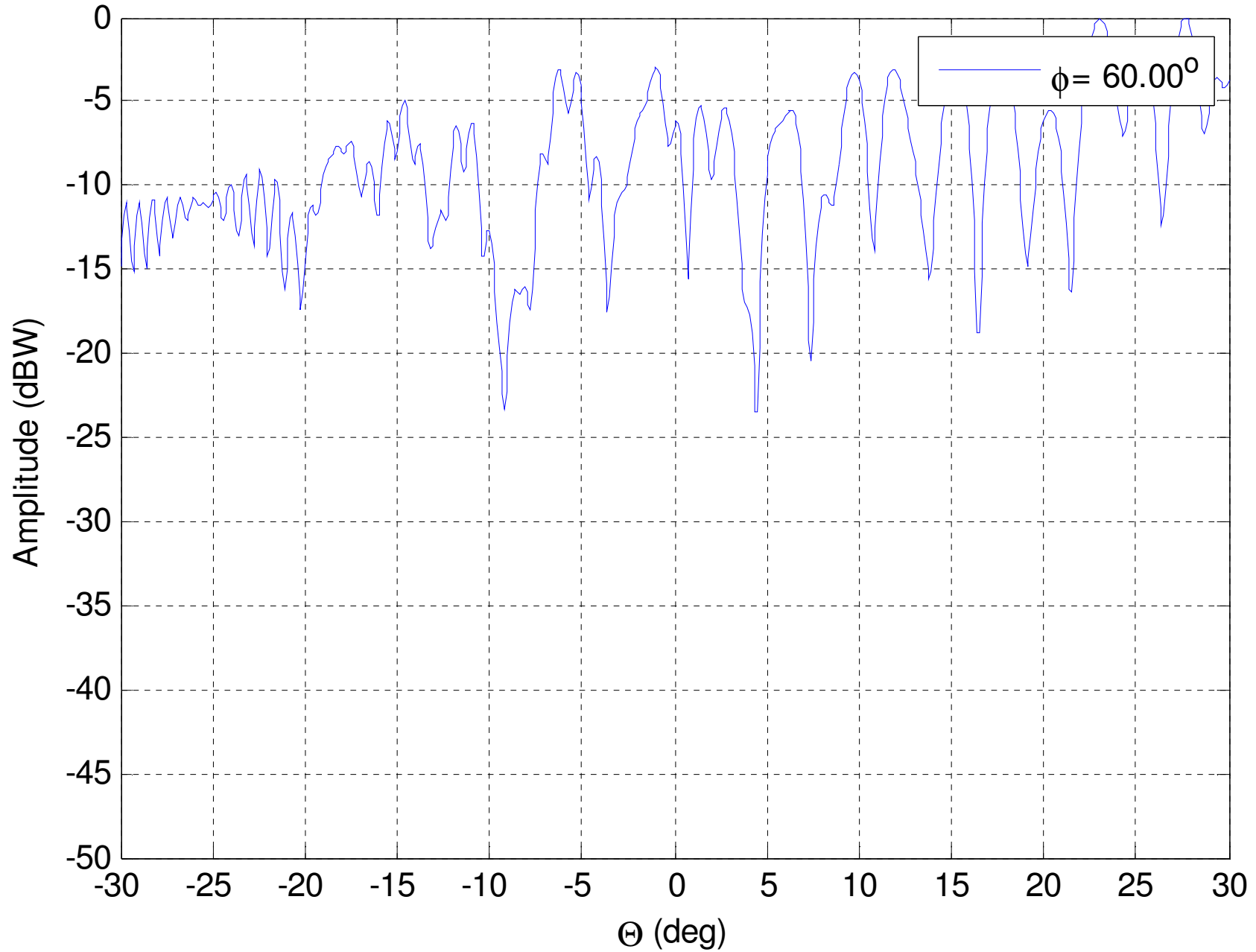
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -1.68 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -3.59 dBW, Date: 16-Dec-2011



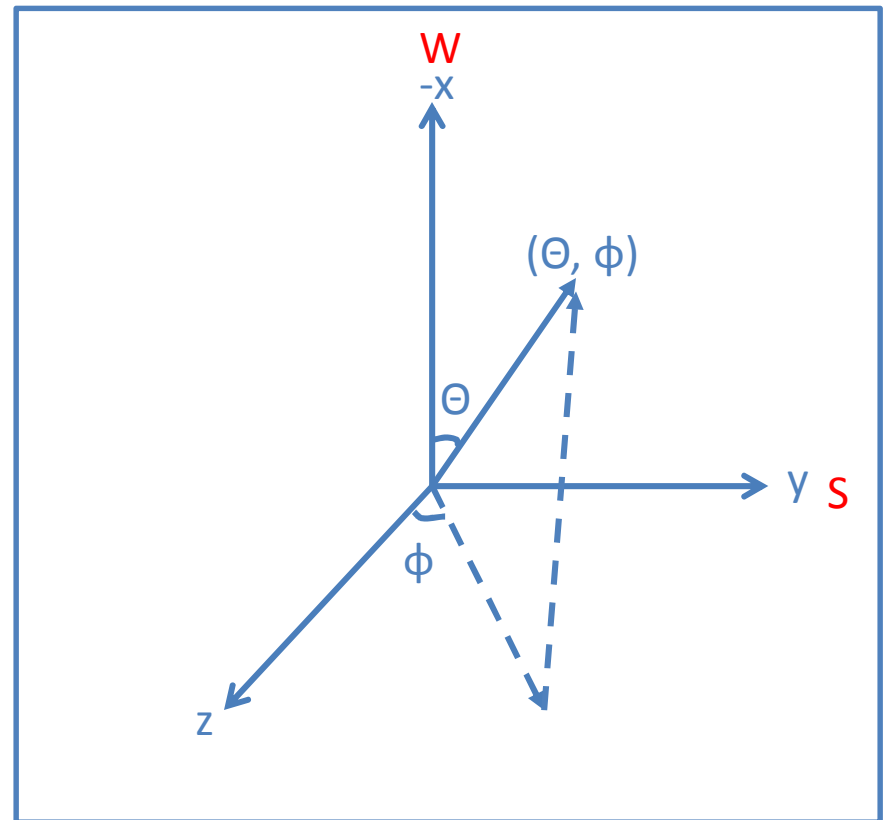
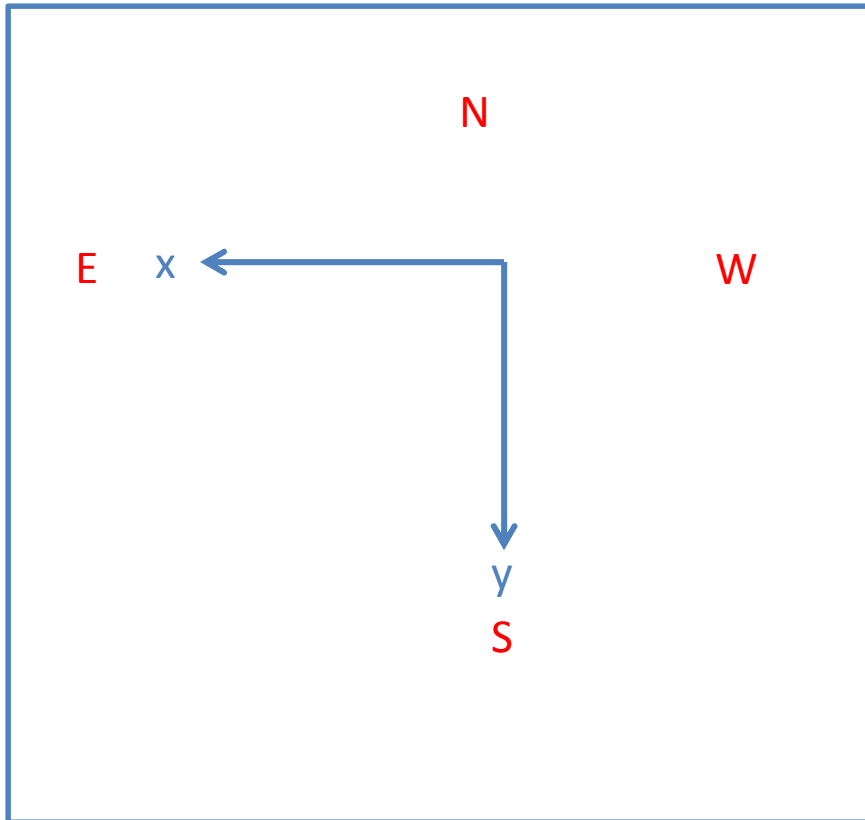
Updated: June 13, 2012

119 West Adjacent Satellite Off Axis Antenna Performance Spot Beam 39

Maximum Allowable EIRP to meet the -117dBW/m²/100 kHz

Maximum EIRP Allowed	
Spec Max flux density, dBW/m ² /100kHz	-117
Desired channel band width, MHz	25.8
Symbol rate band width modification factor	1
Effective channel bandwidth, MHz	25.8
Effective bandwidth, dB-100kHz	24.1
Flux density allowed per channel, dBW/m ²	-92.9
R, radial distance to GEO, km	42164.0
Angle of separation between satellites, deg	0.1
range between satellites, km	73.59
Spreading factor, dB/m ²	-108.3
Atmospheric loss, dB	0
Max satellite EIRP allowed, dBW	15.4

Coordinate System



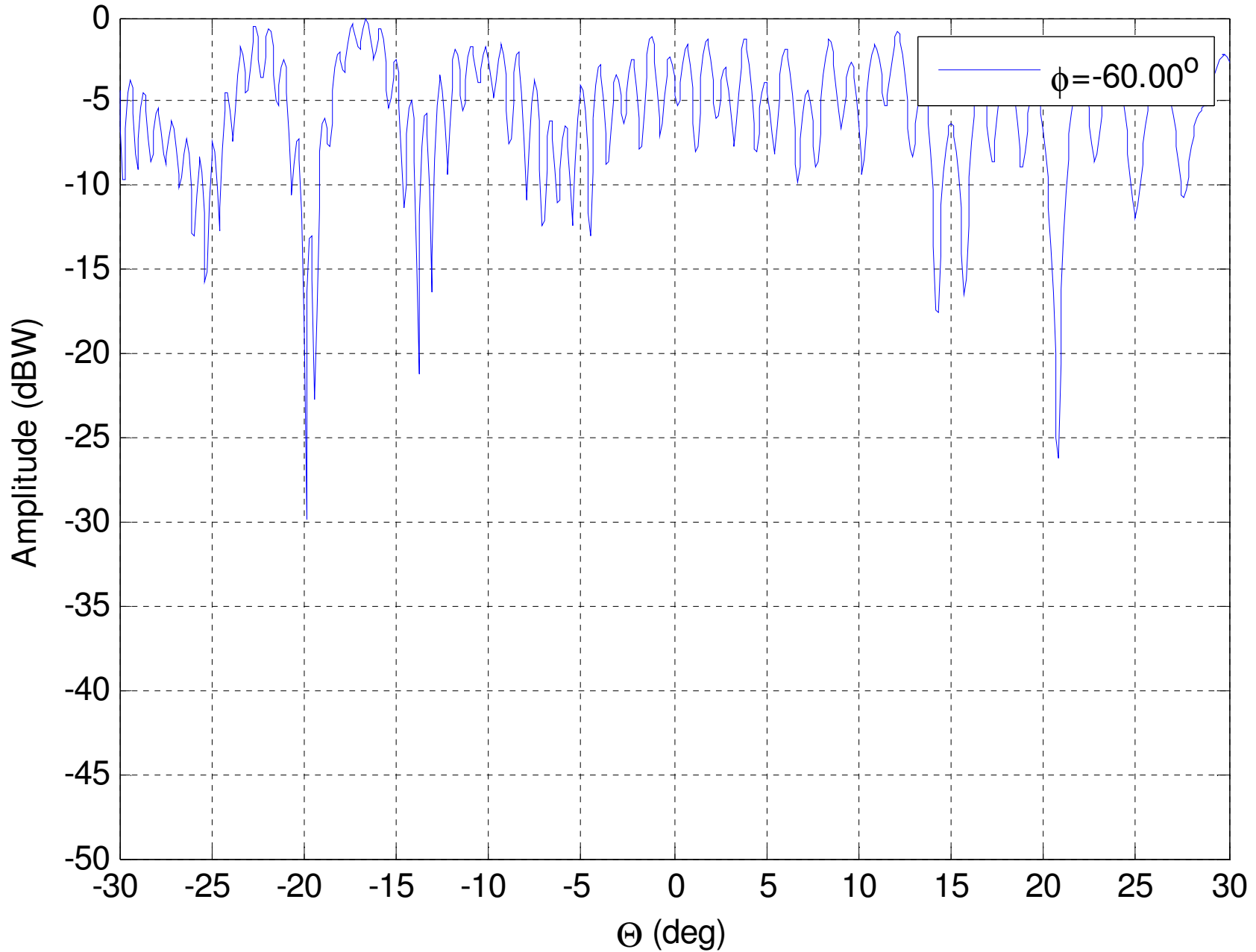
Spot Beam39, -X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: -X -axis)
- $-60 < \phi < 60$
- Freq = 17.305, 17.5, and 17.695 GHz
- The Zero reference line is the maximum EIRP listed in the title of each plot sheet. All levels are below the required 15.4 dBW maximum
- The Zero reference for the maximum antenna gain is the maximum EIRP listed minus the power input to the antenna specified in Table I of the attached narrative.

RHCP at 17.3 GHz

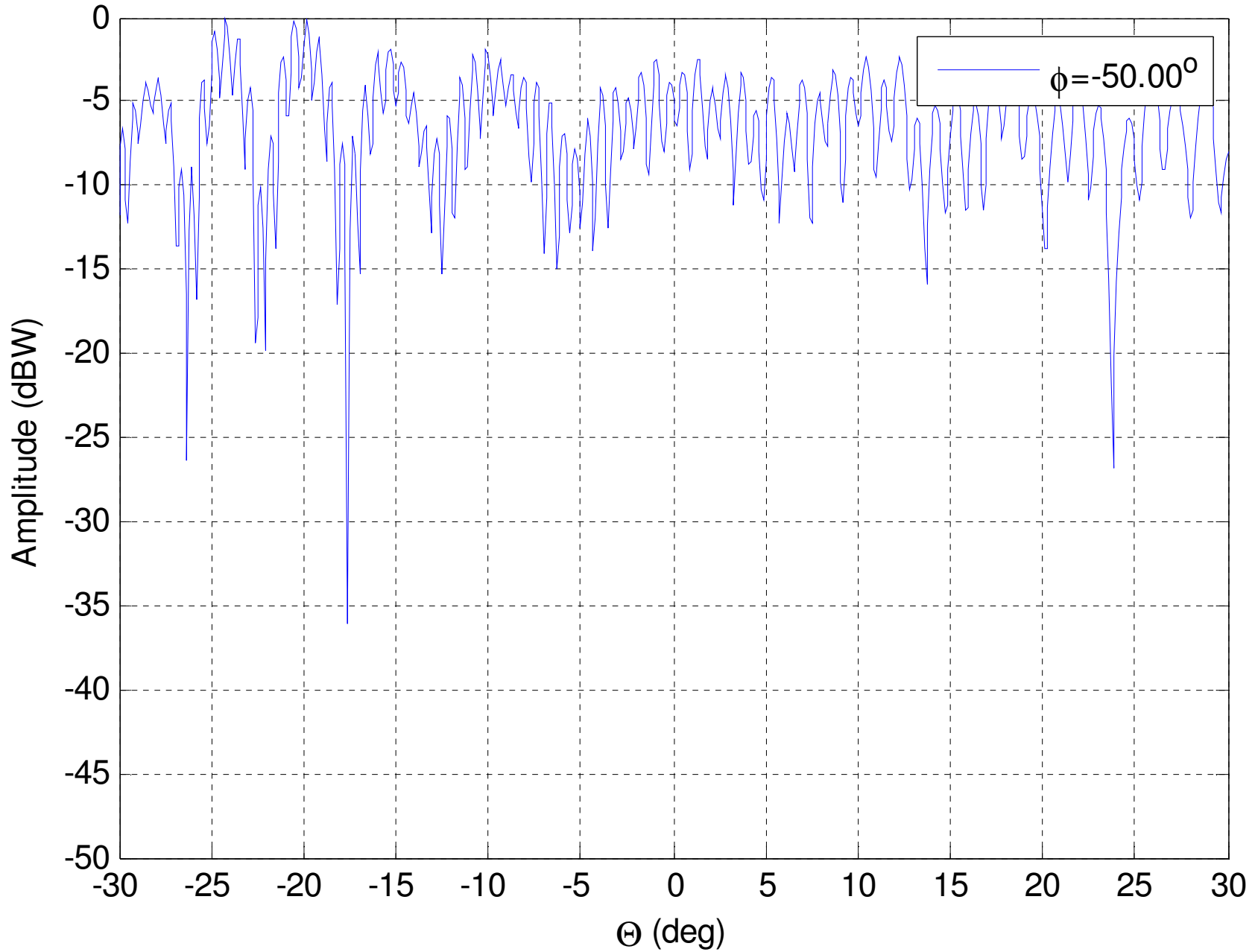
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: 1.72 dBW, Date: 16-Dec-2011



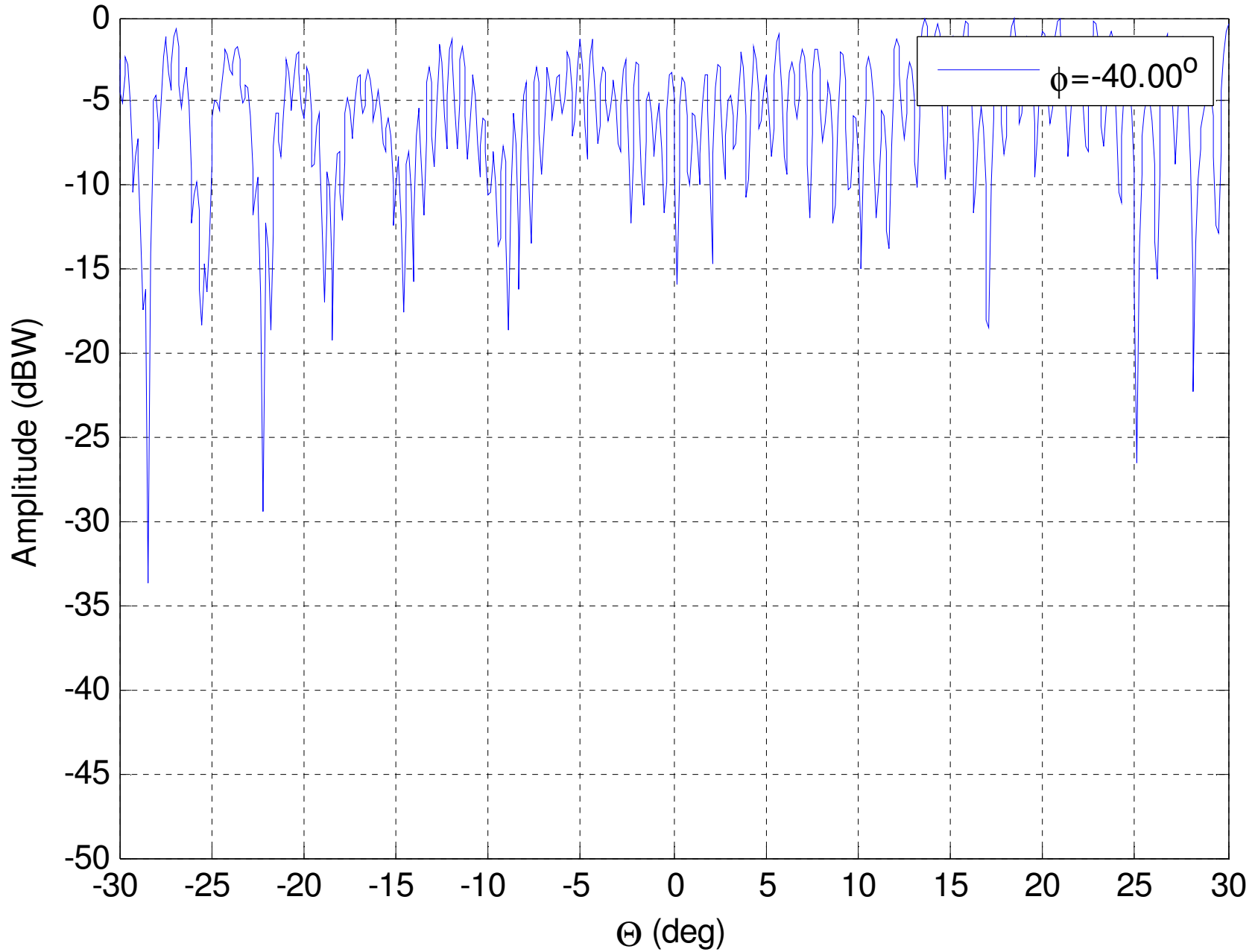
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: 3.06 dBW, Date: 16-Dec-2011



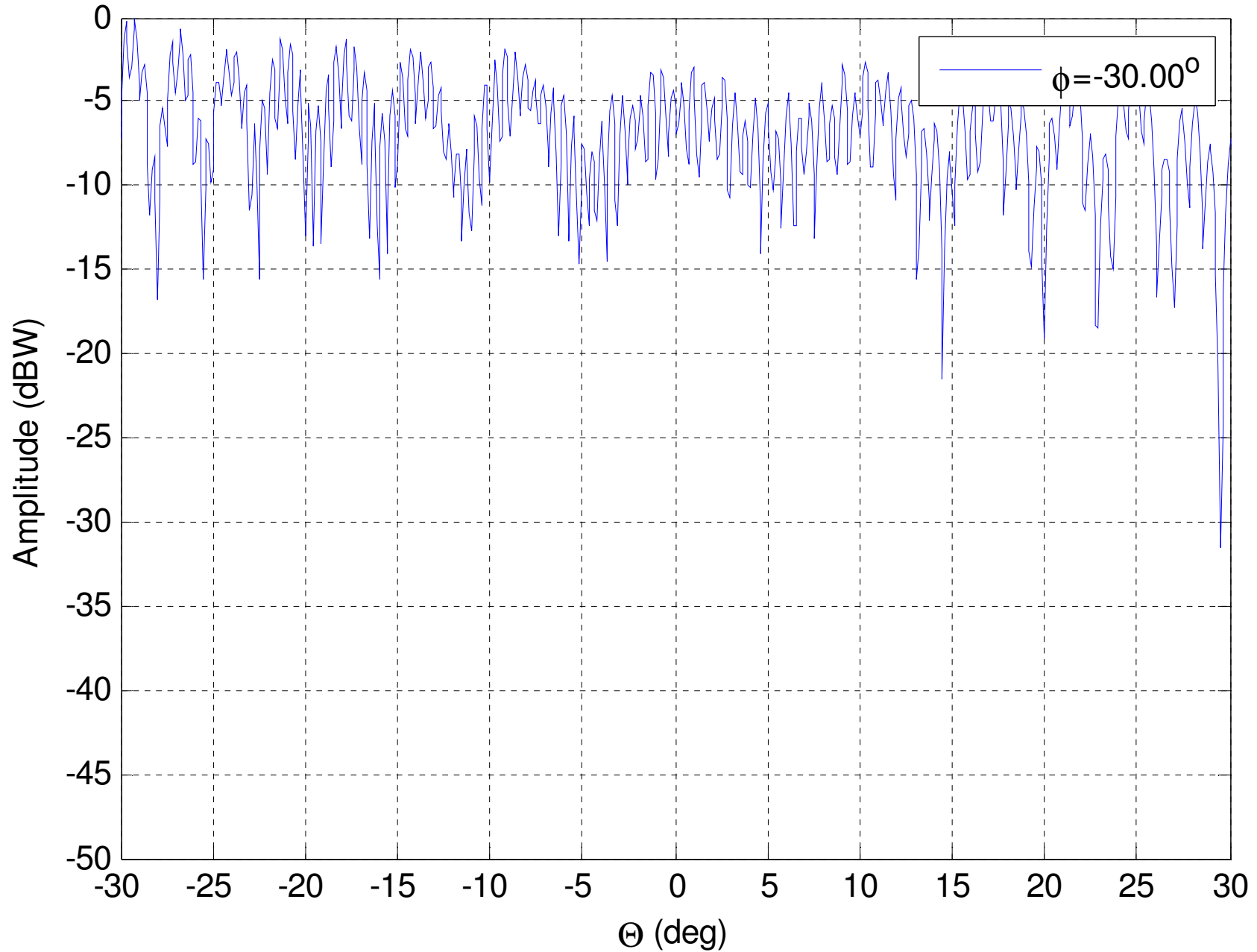
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: 2.15 dBW, Date: 16-Dec-2011



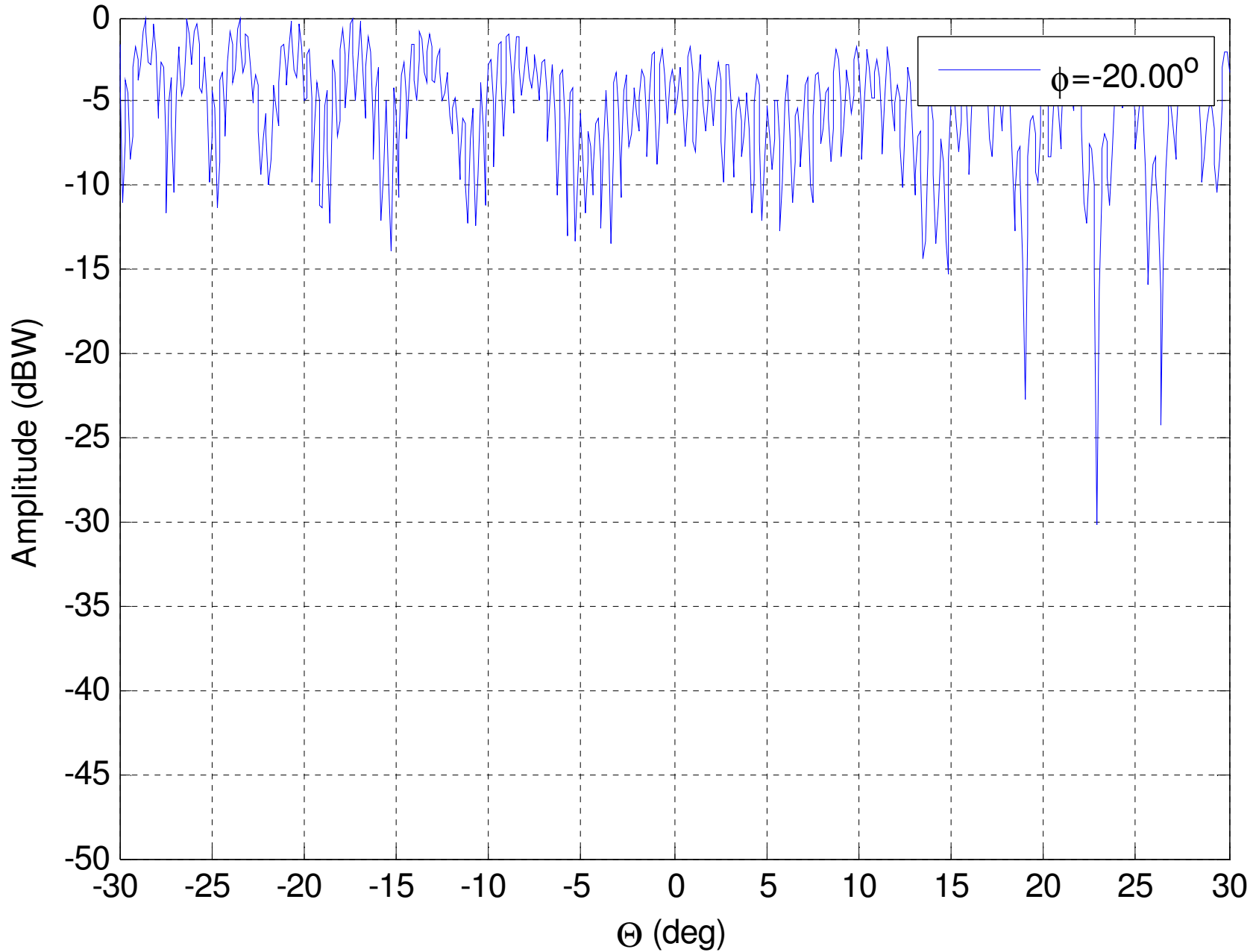
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: 3.53 dBW, Date: 16-Dec-2011



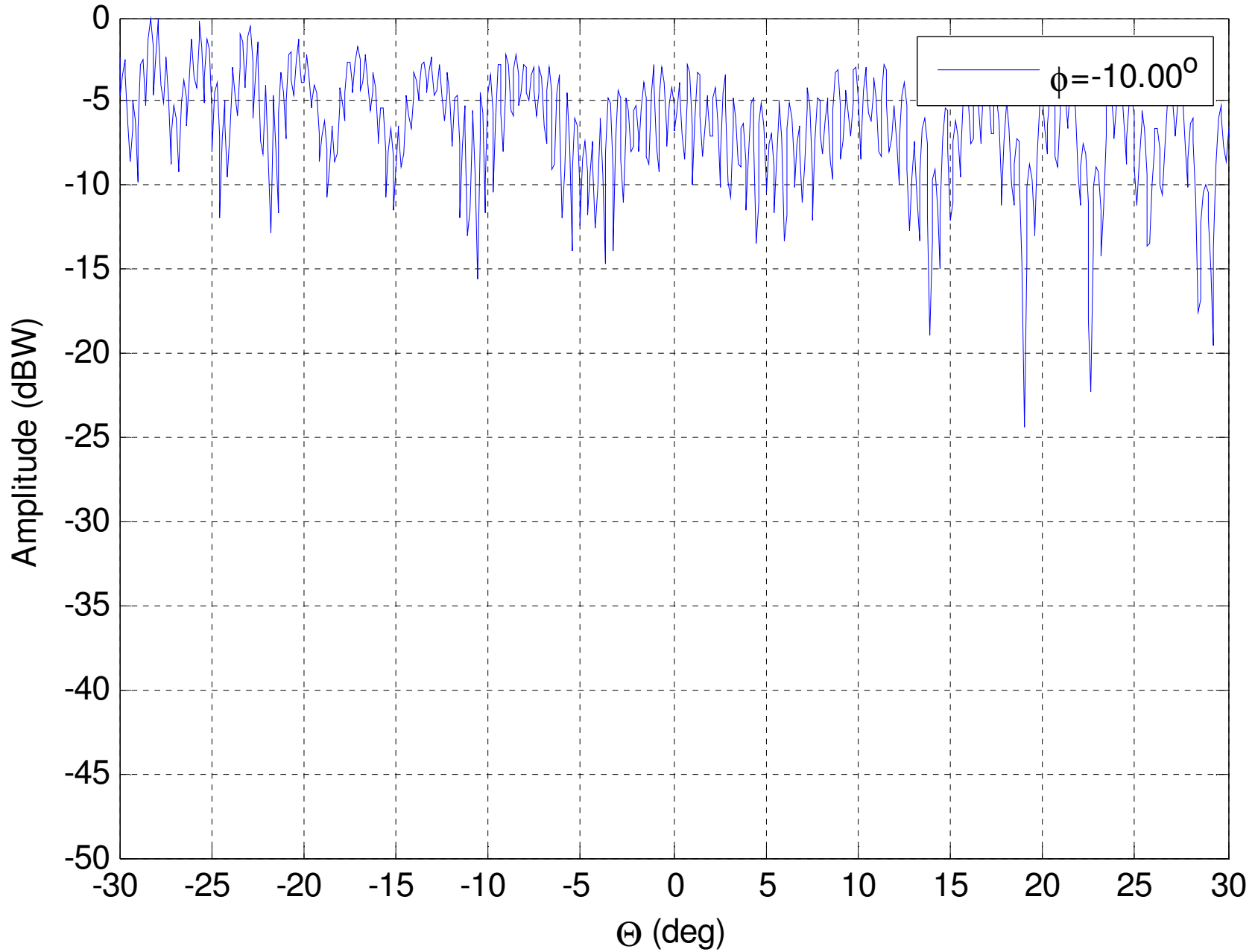
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: 2.31 dBW, Date: 16-Dec-2011



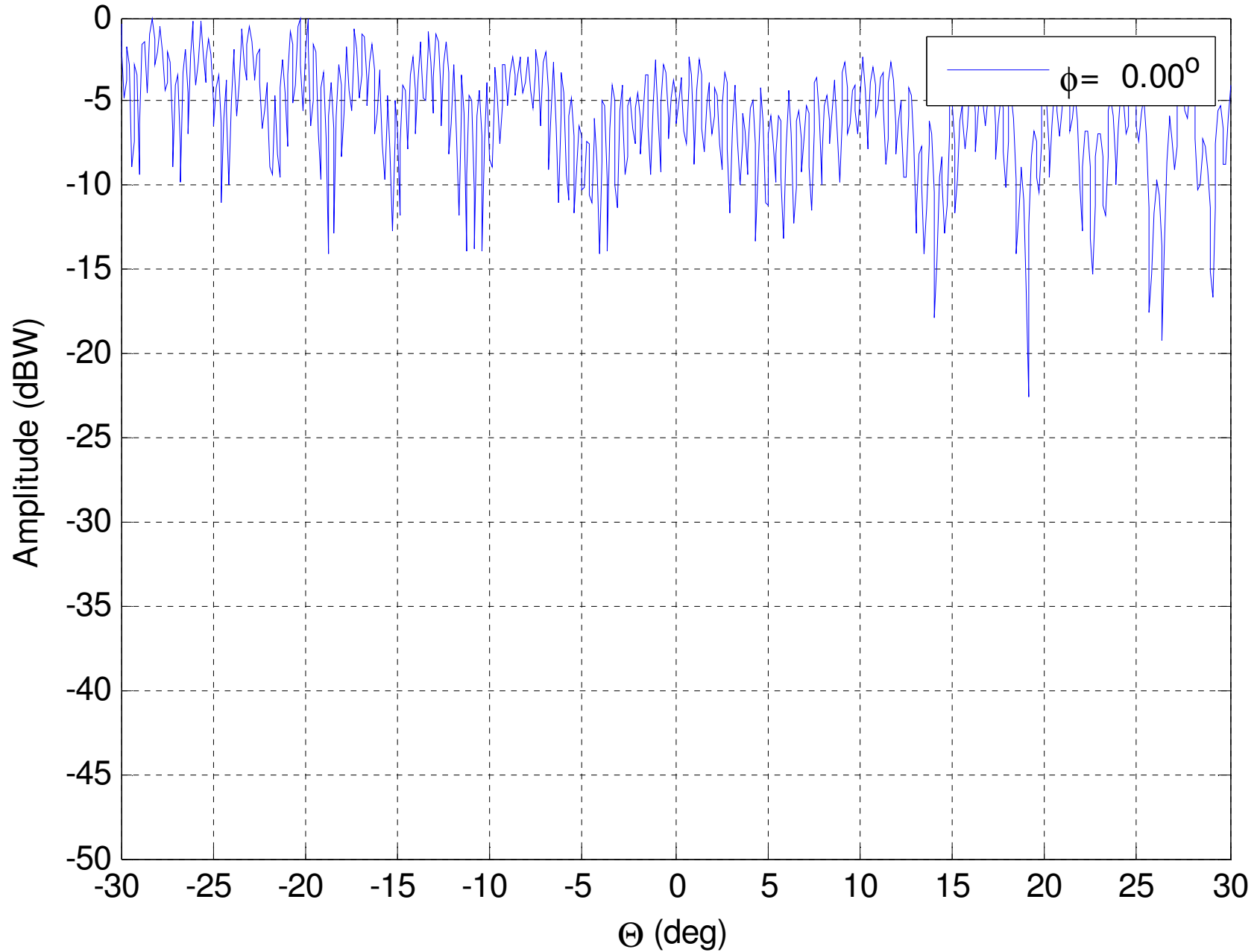
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: 3.34 dBW, Date: 16-Dec-2011



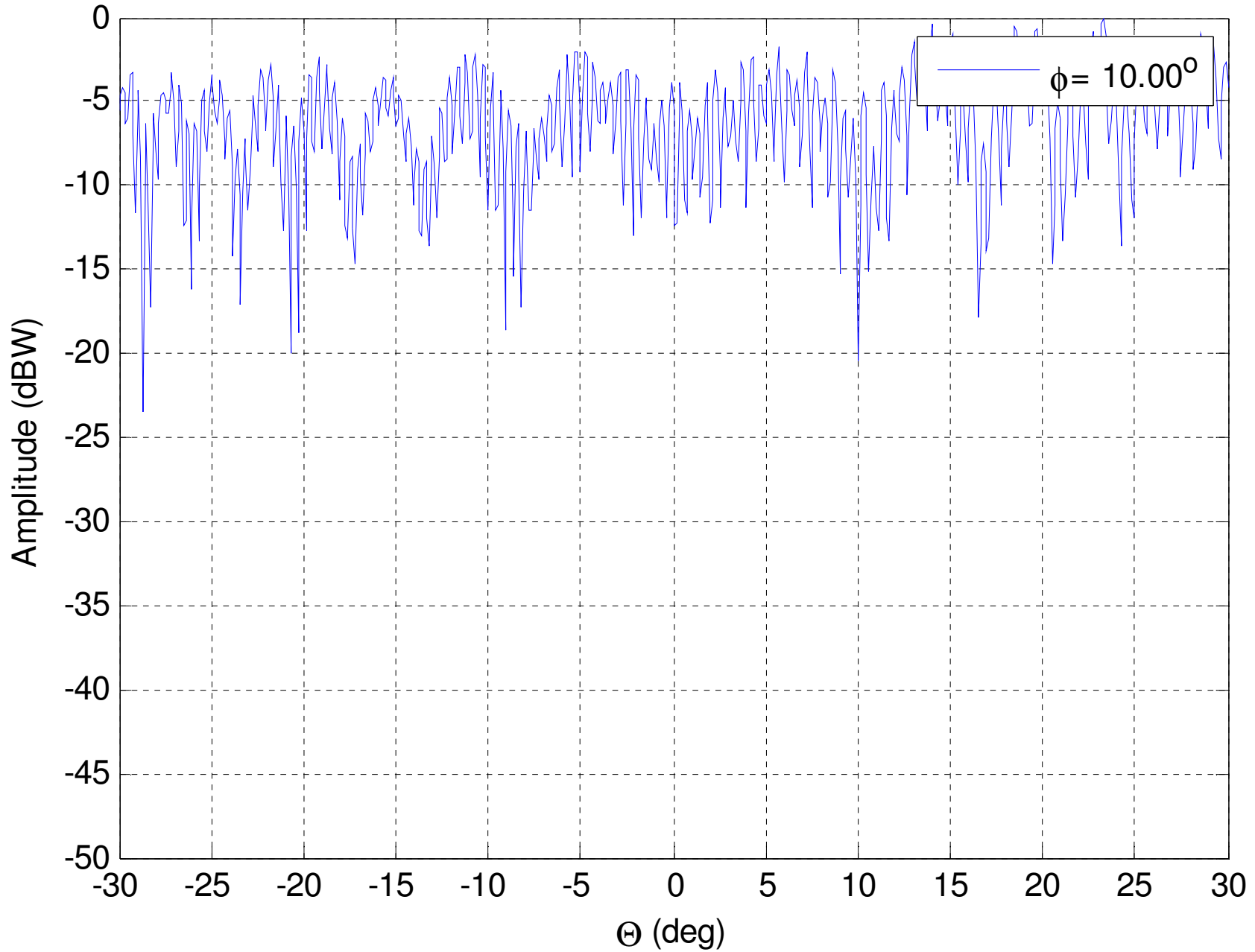
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: 2.92 dBW, Date: 16-Dec-2011



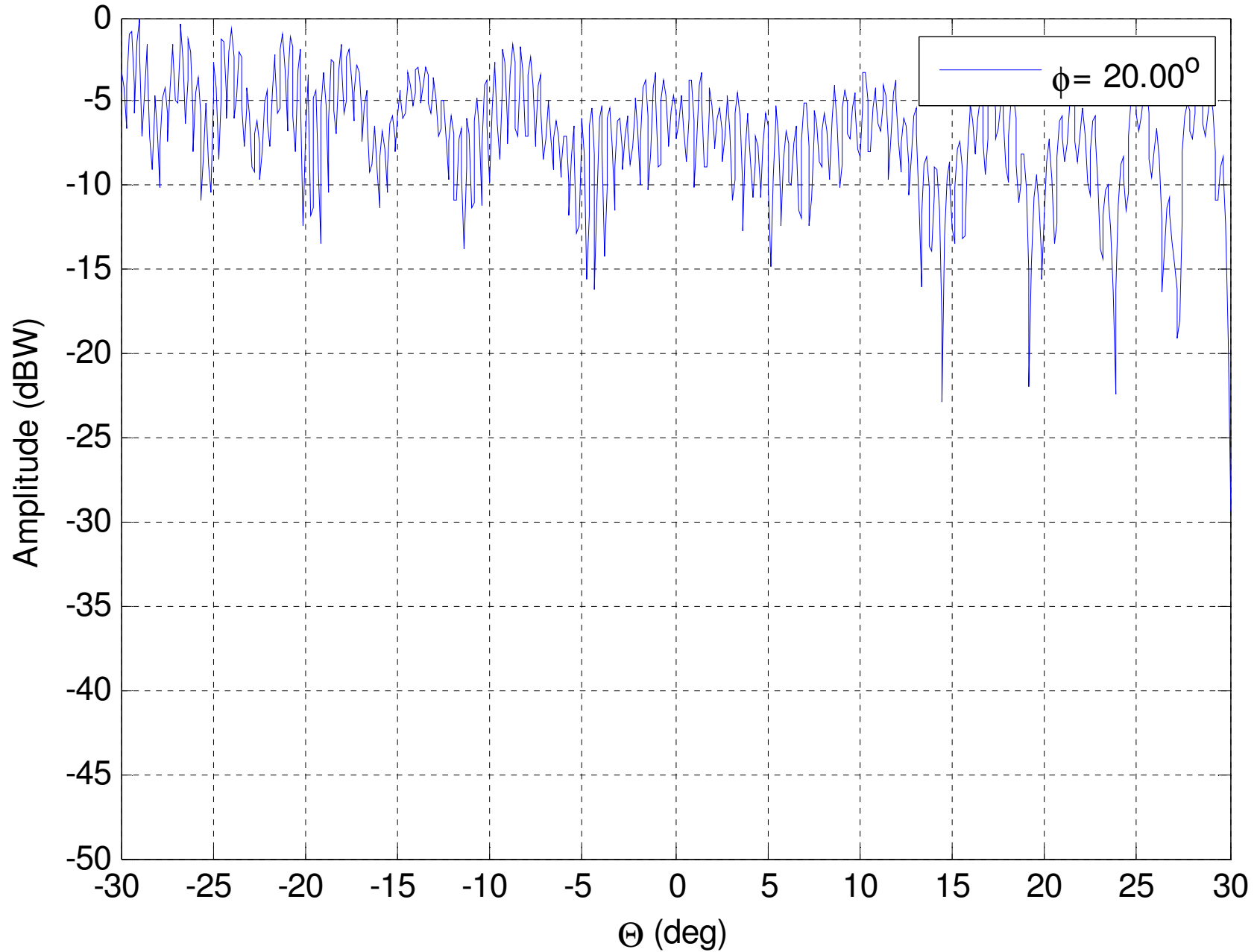
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: 2.91 dBW, Date: 16-Dec-2011



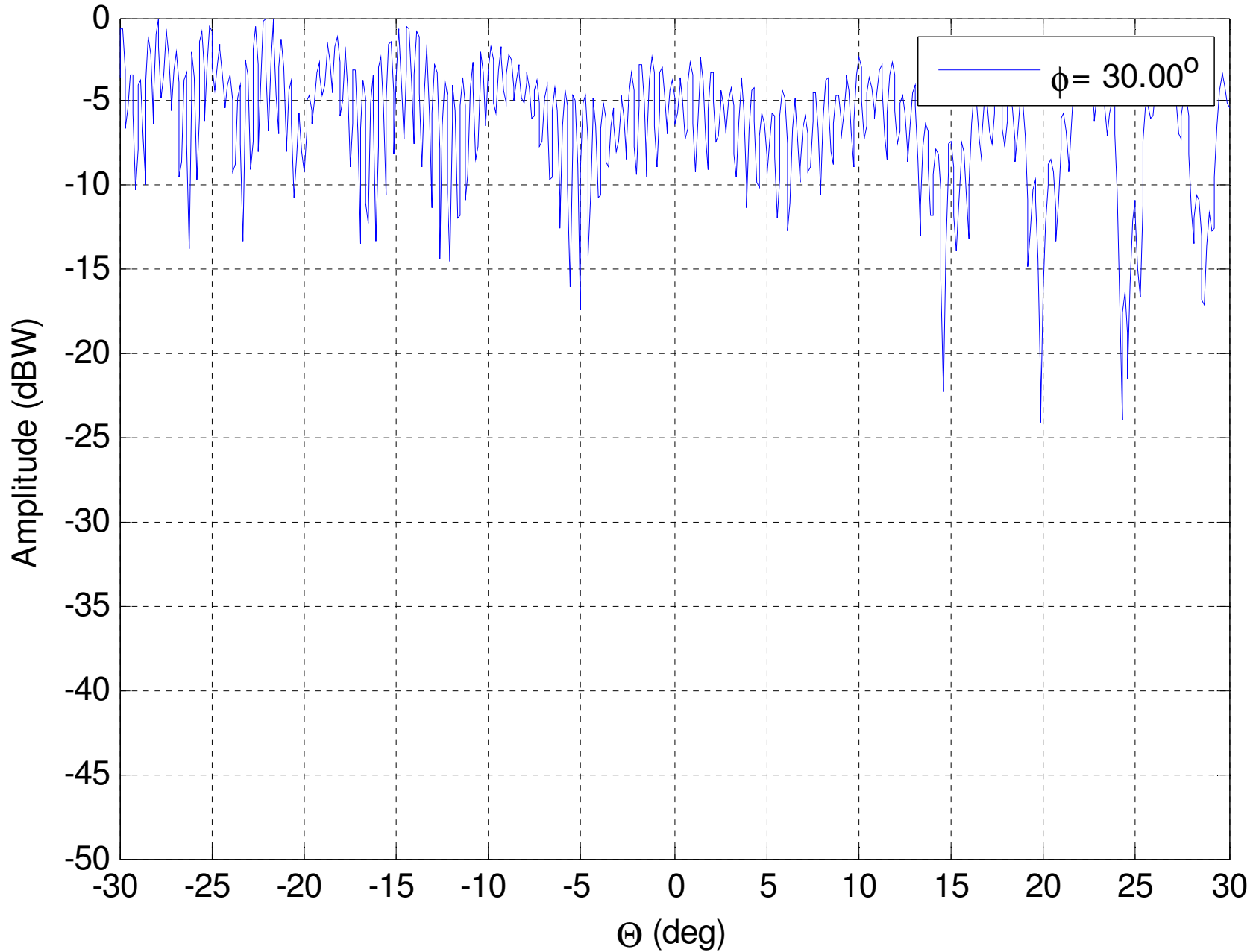
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: 3.82 dBW, Date: 16-Dec-2011



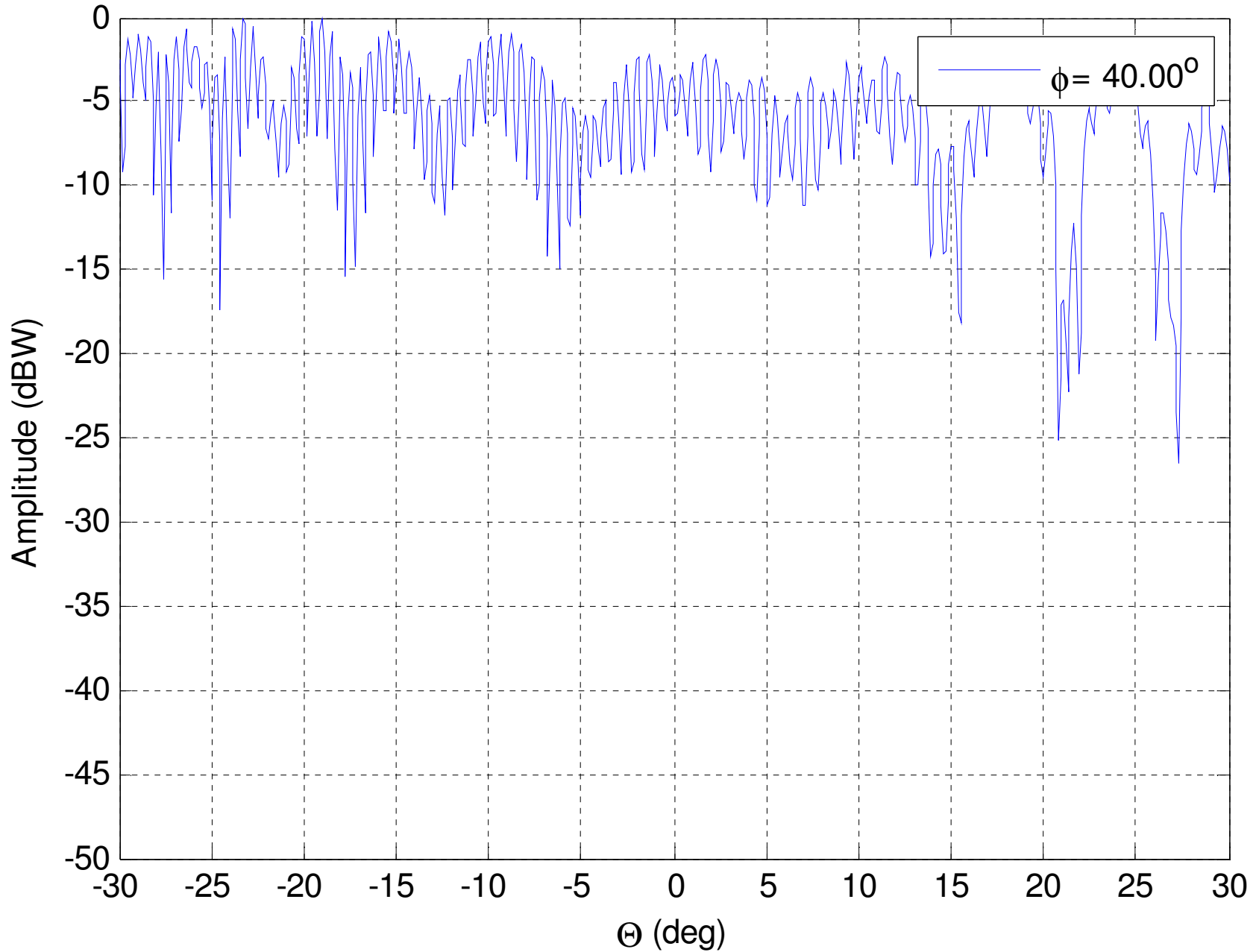
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: 2.92 dBW, Date: 16-Dec-2011



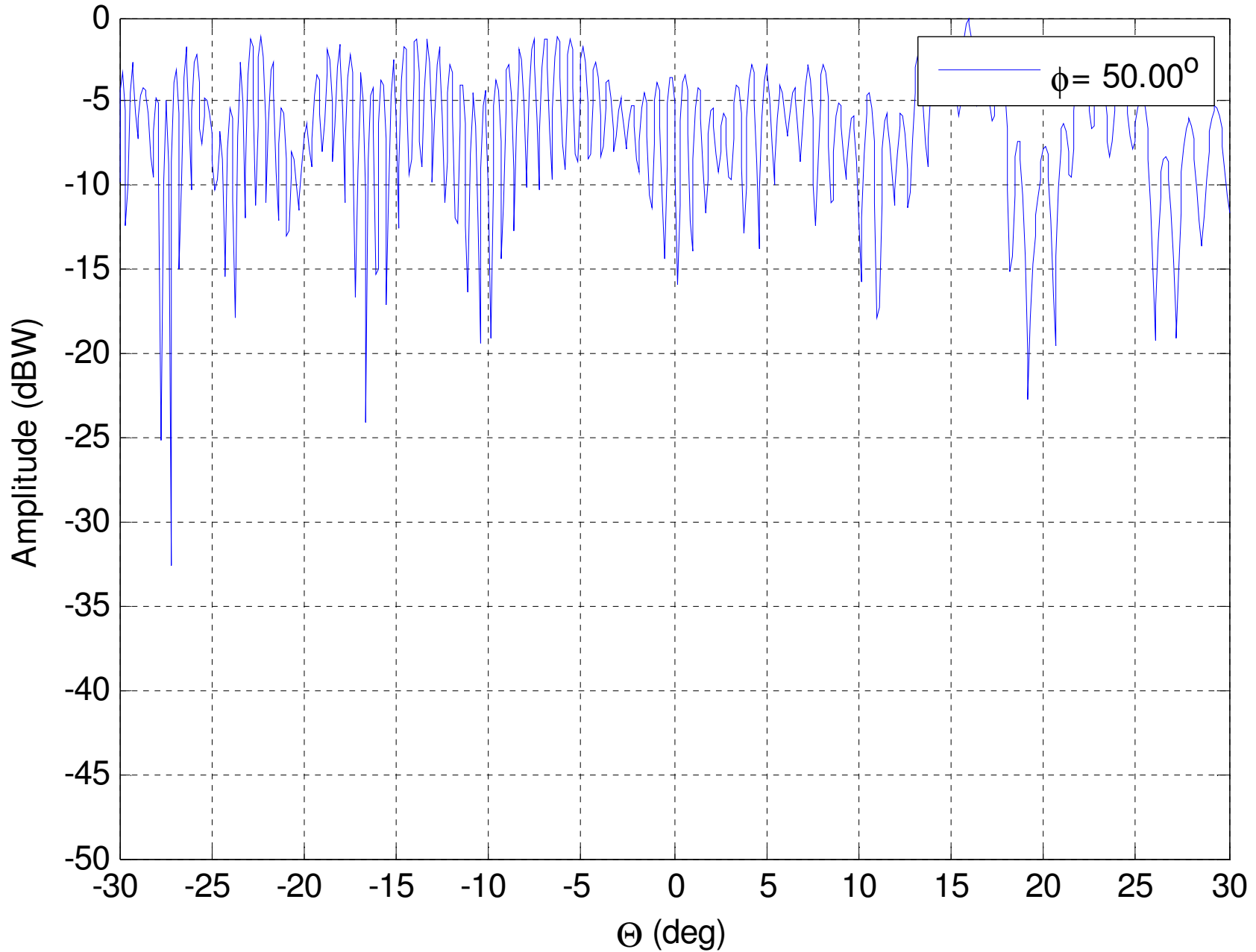
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: 2.68 dBW, Date: 16-Dec-2011



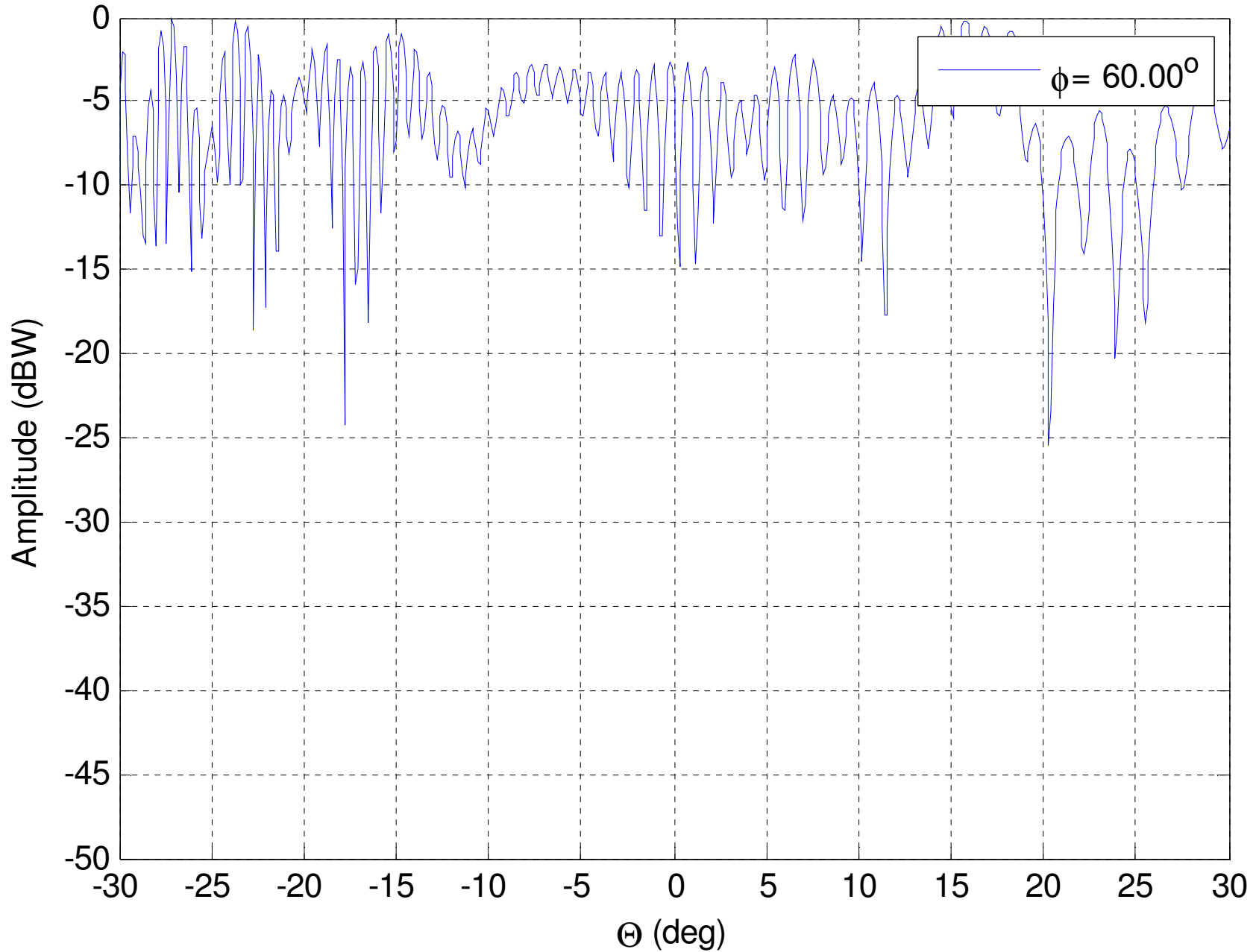
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: 2.50 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

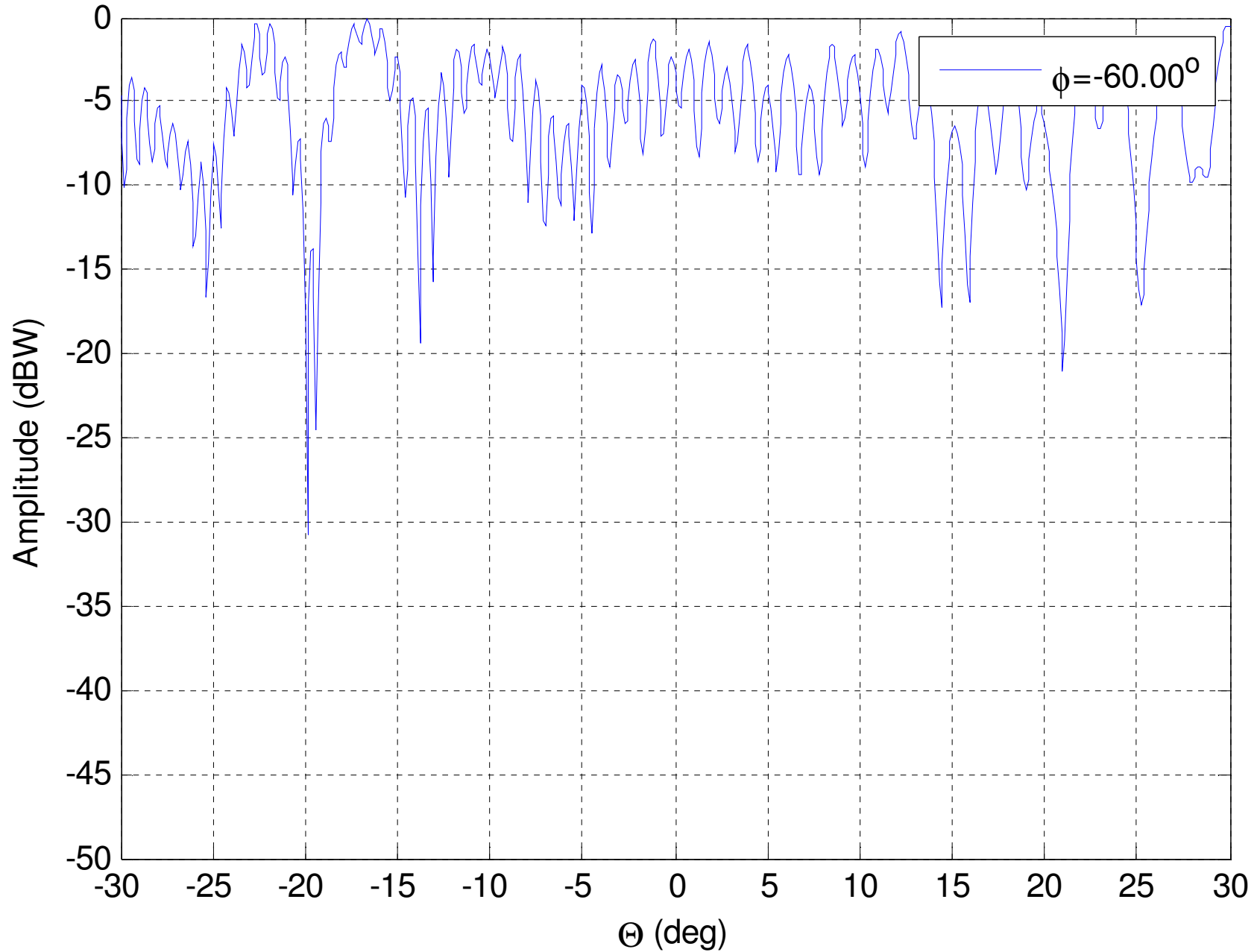
Input file: tx-17.3-rhcp-60.cut, Peak: 1.80 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

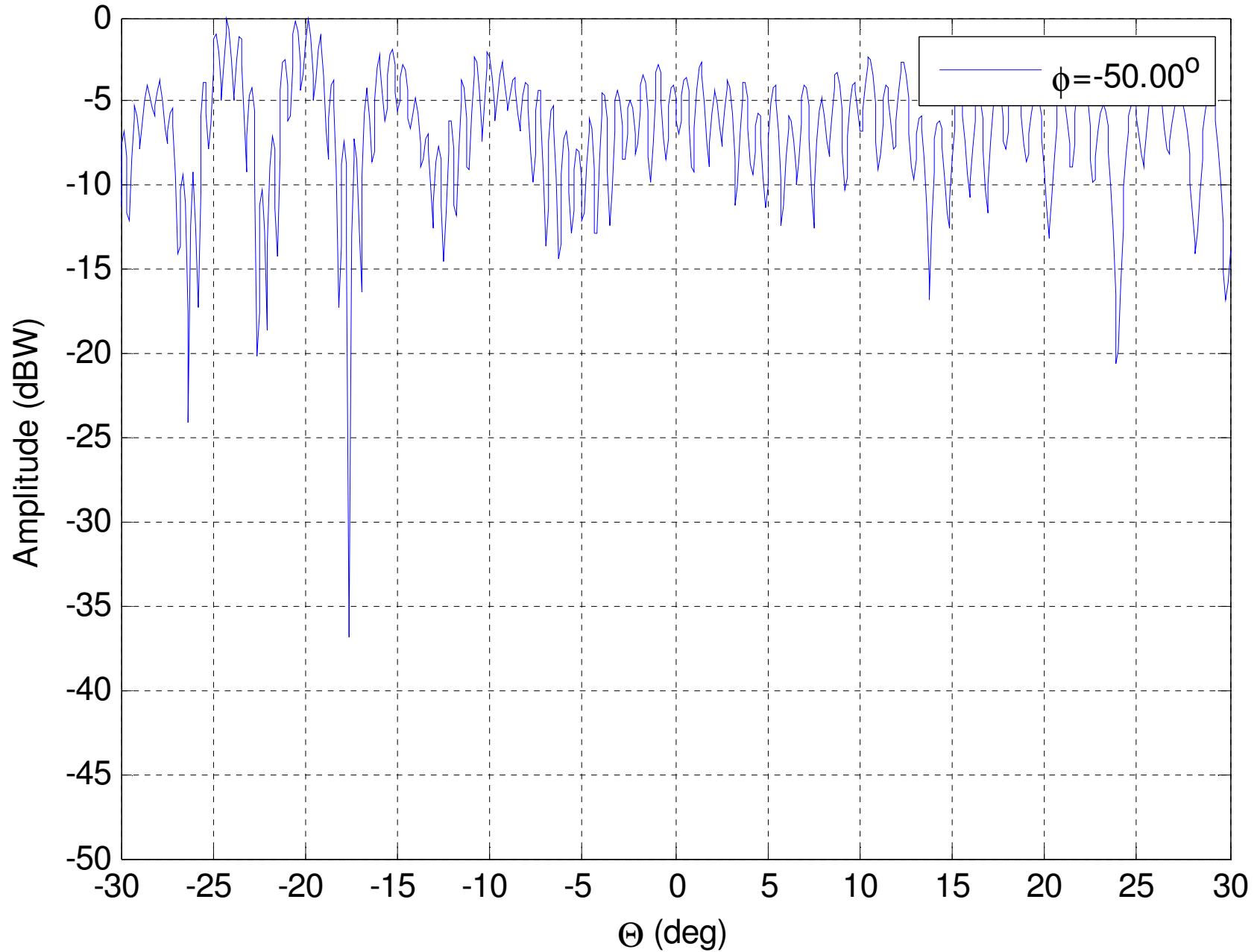
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: 1.78 dBW, Date: 16-Dec-2011



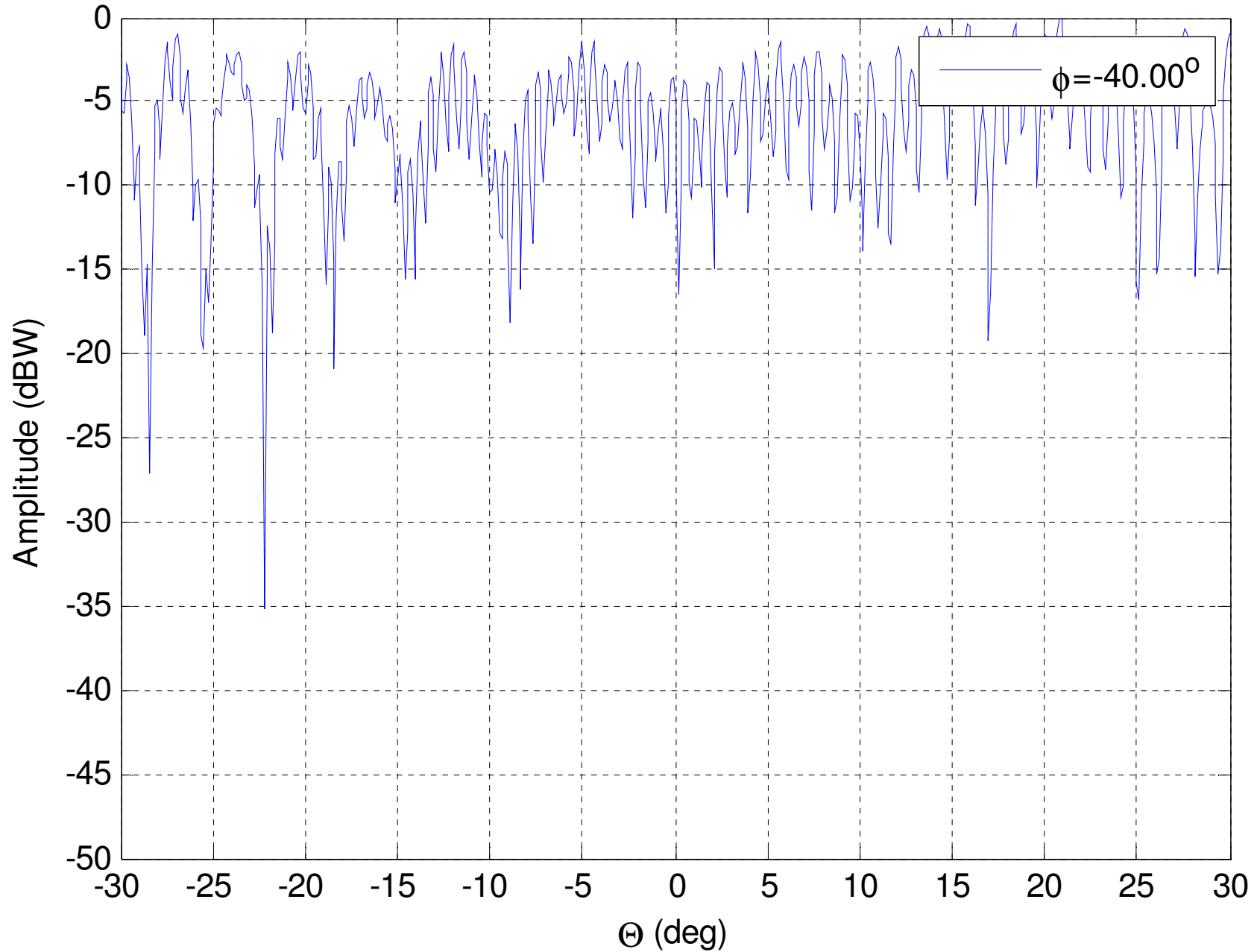
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: 3.31 dBW, Date: 16-Dec-2011



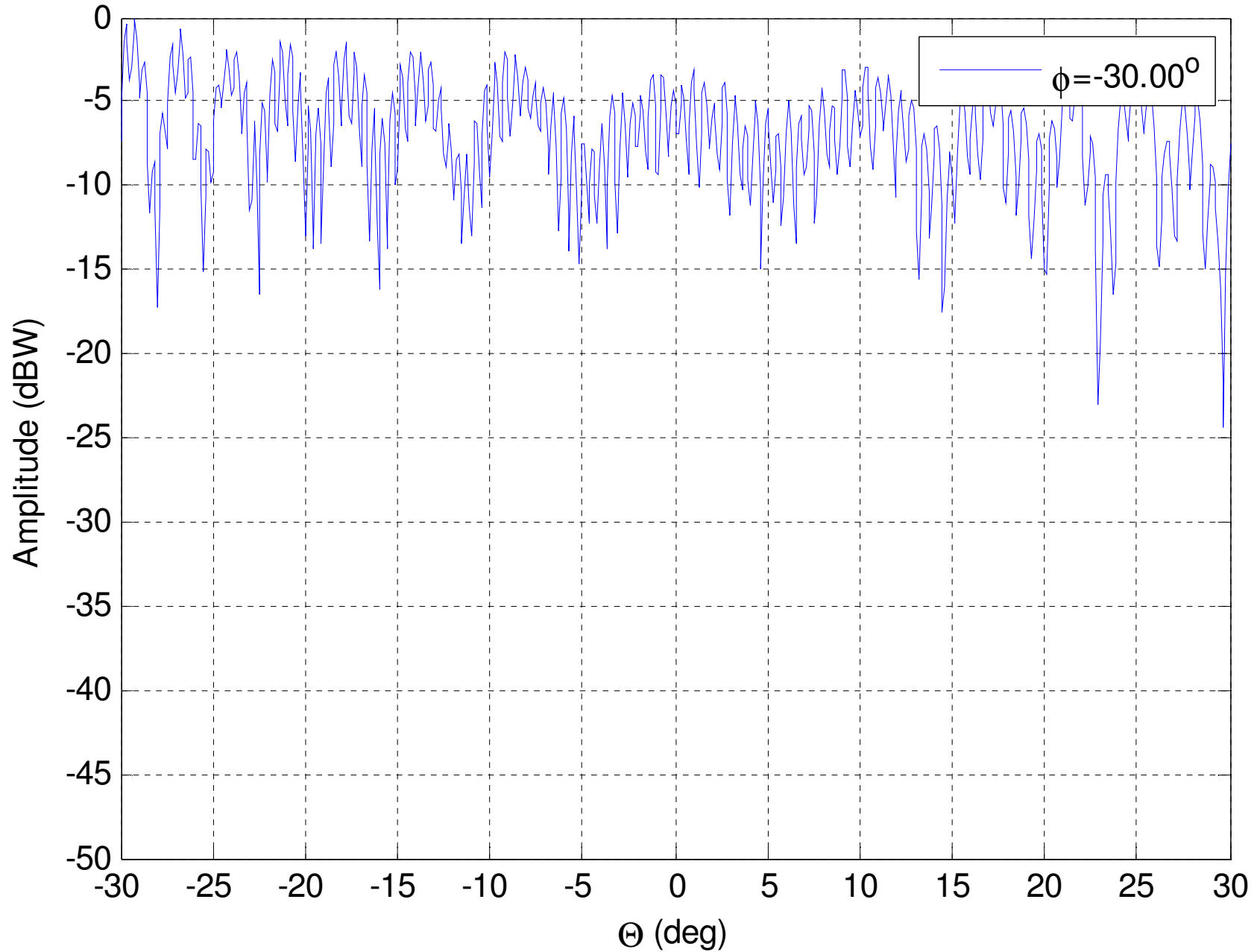
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: 2.44 dBW, Date: 16-Dec-2011



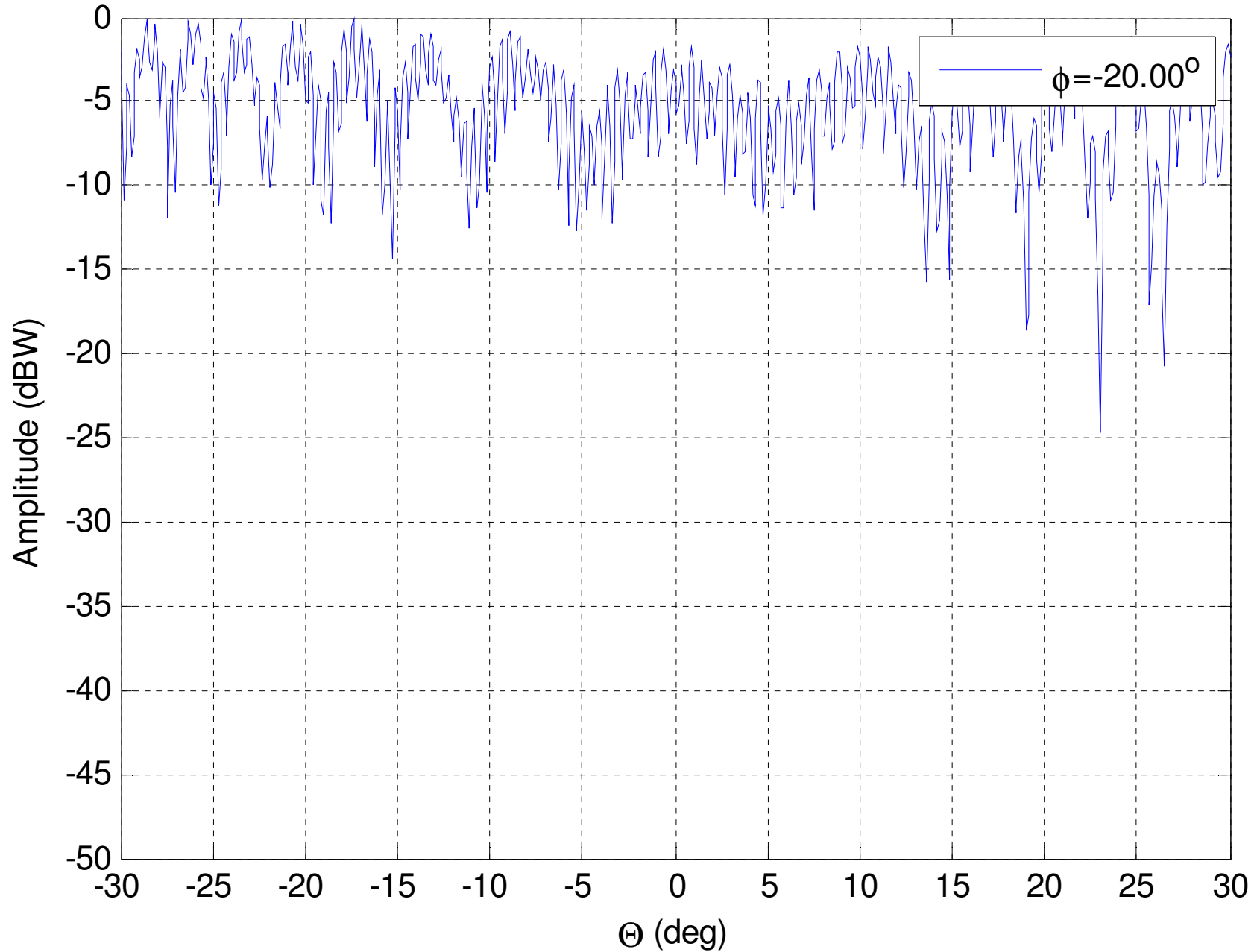
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: 3.68 dBW, Date: 16-Dec-2011



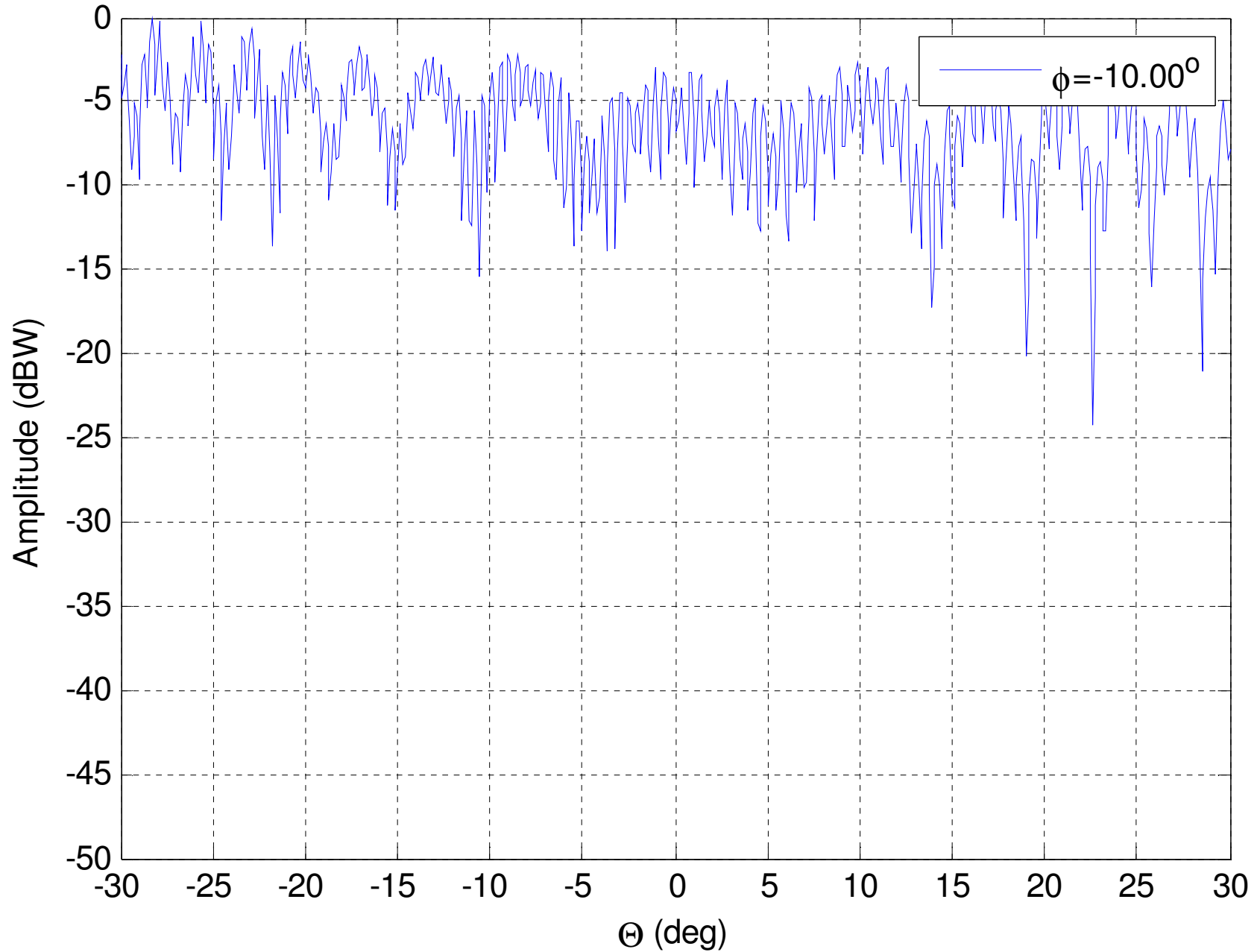
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: 2.36 dBW, Date: 16-Dec-2011



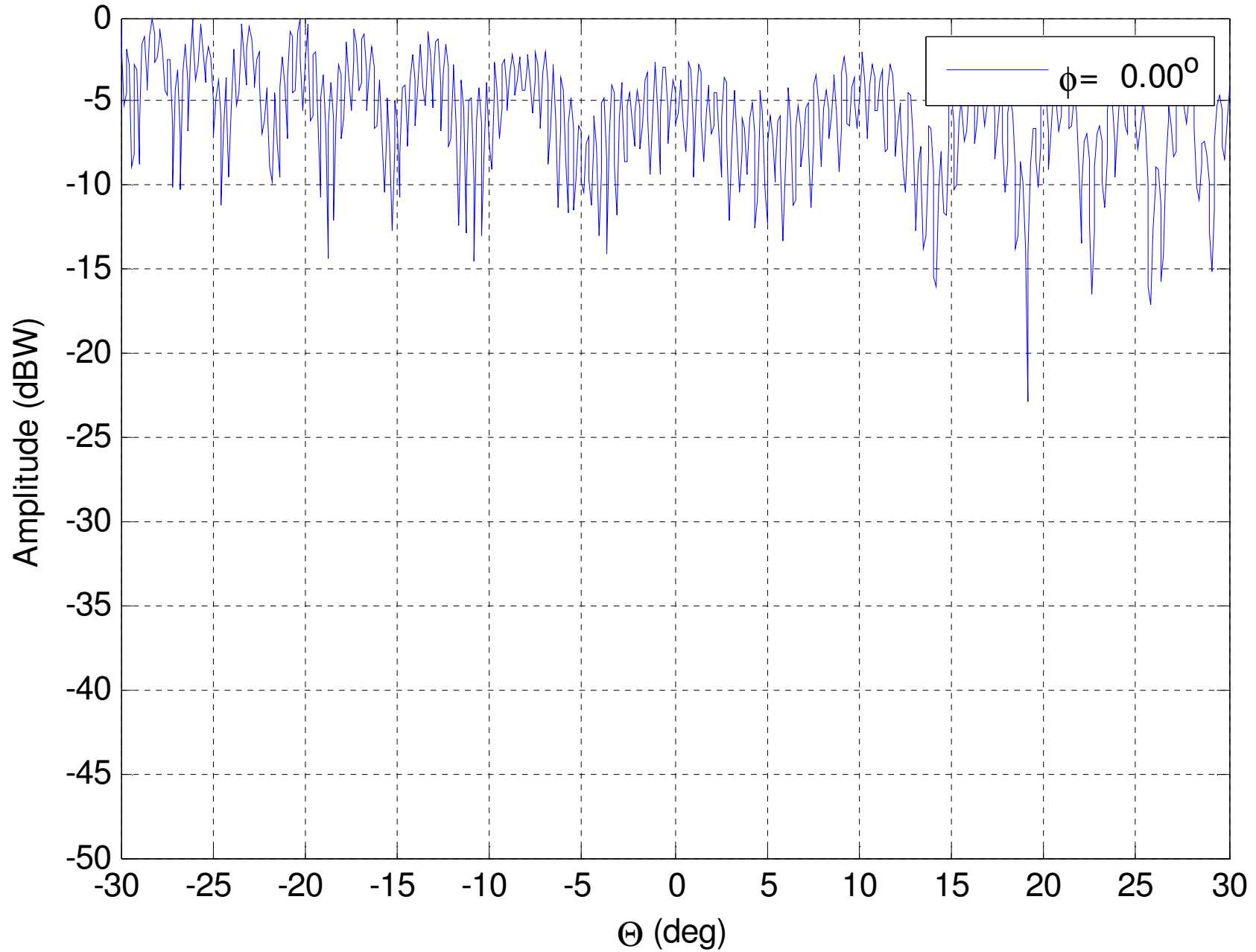
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: 3.41 dBW, Date: 16-Dec-2011



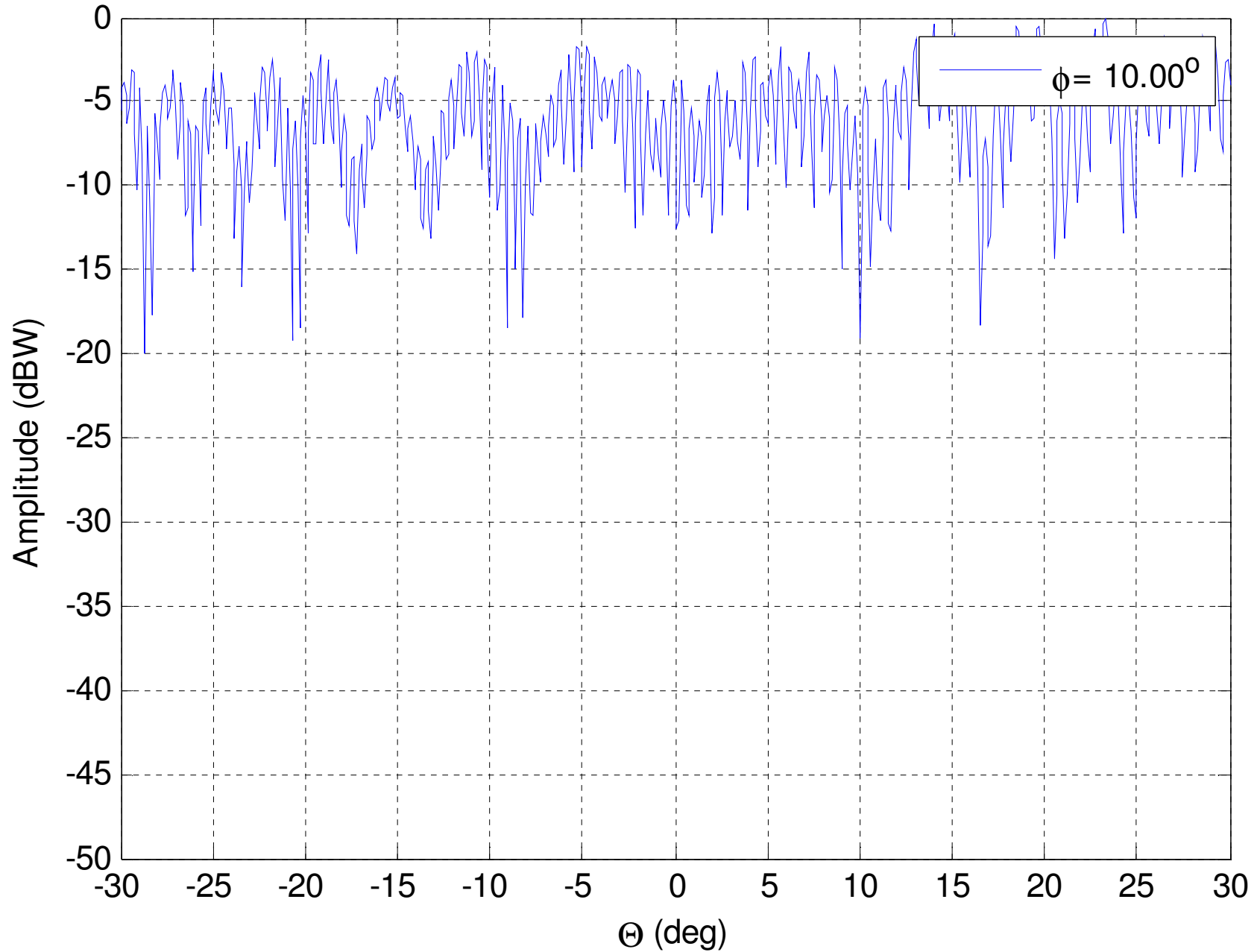
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: 2.95 dBW, Date: 16-Dec-2011



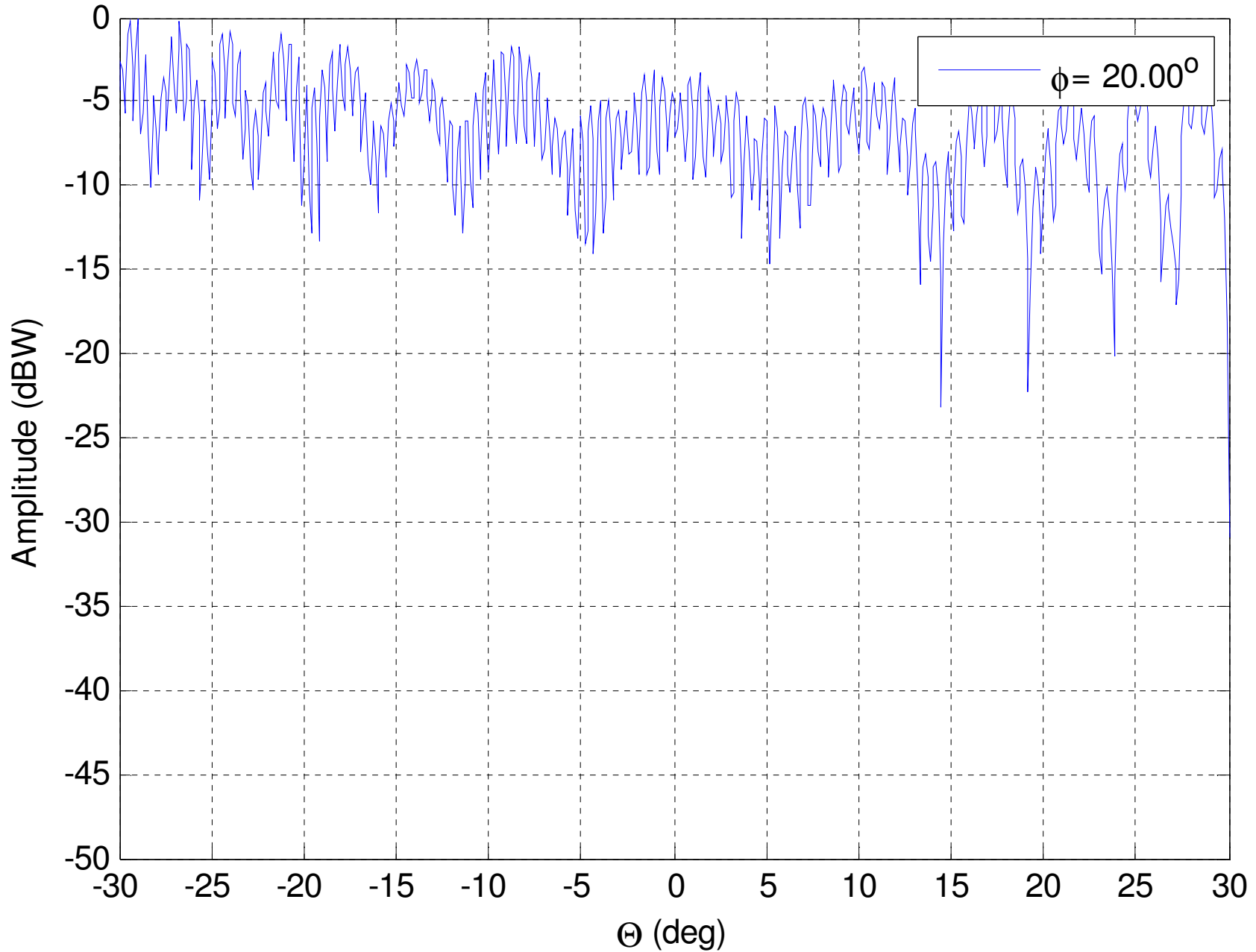
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: 2.82 dBW, Date: 16-Dec-2011



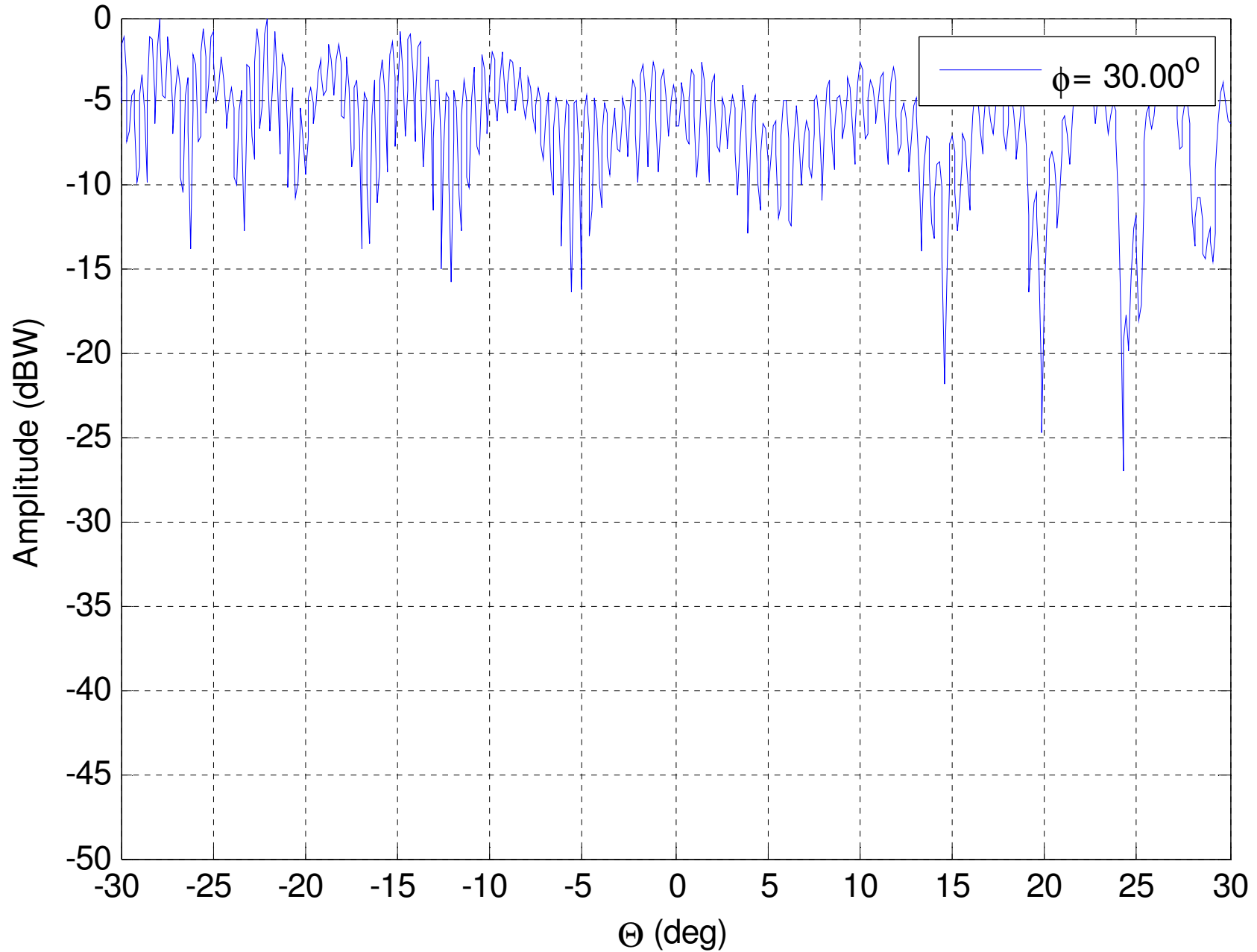
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: 3.72 dBW, Date: 16-Dec-2011



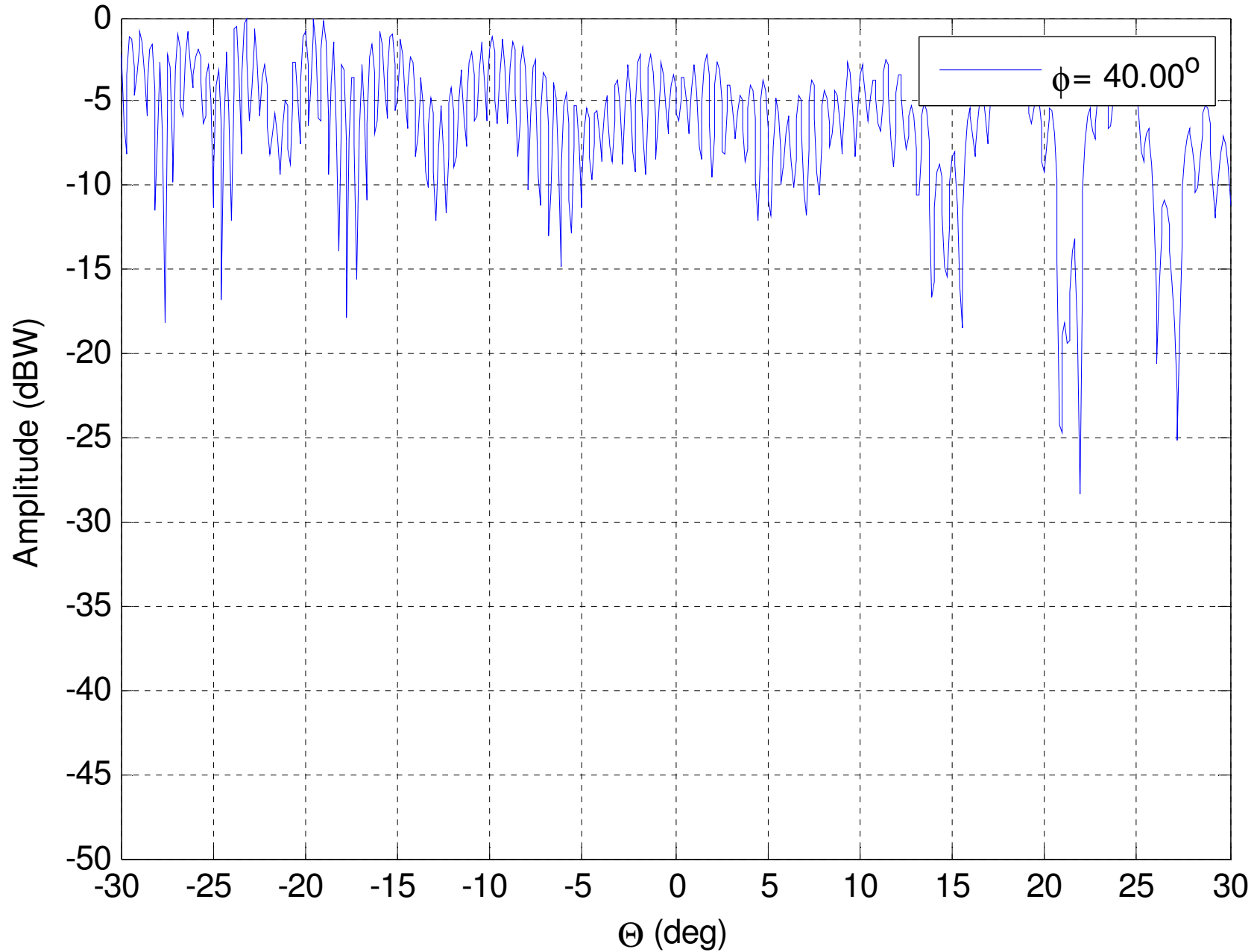
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: 3.20 dBW, Date: 16-Dec-2011



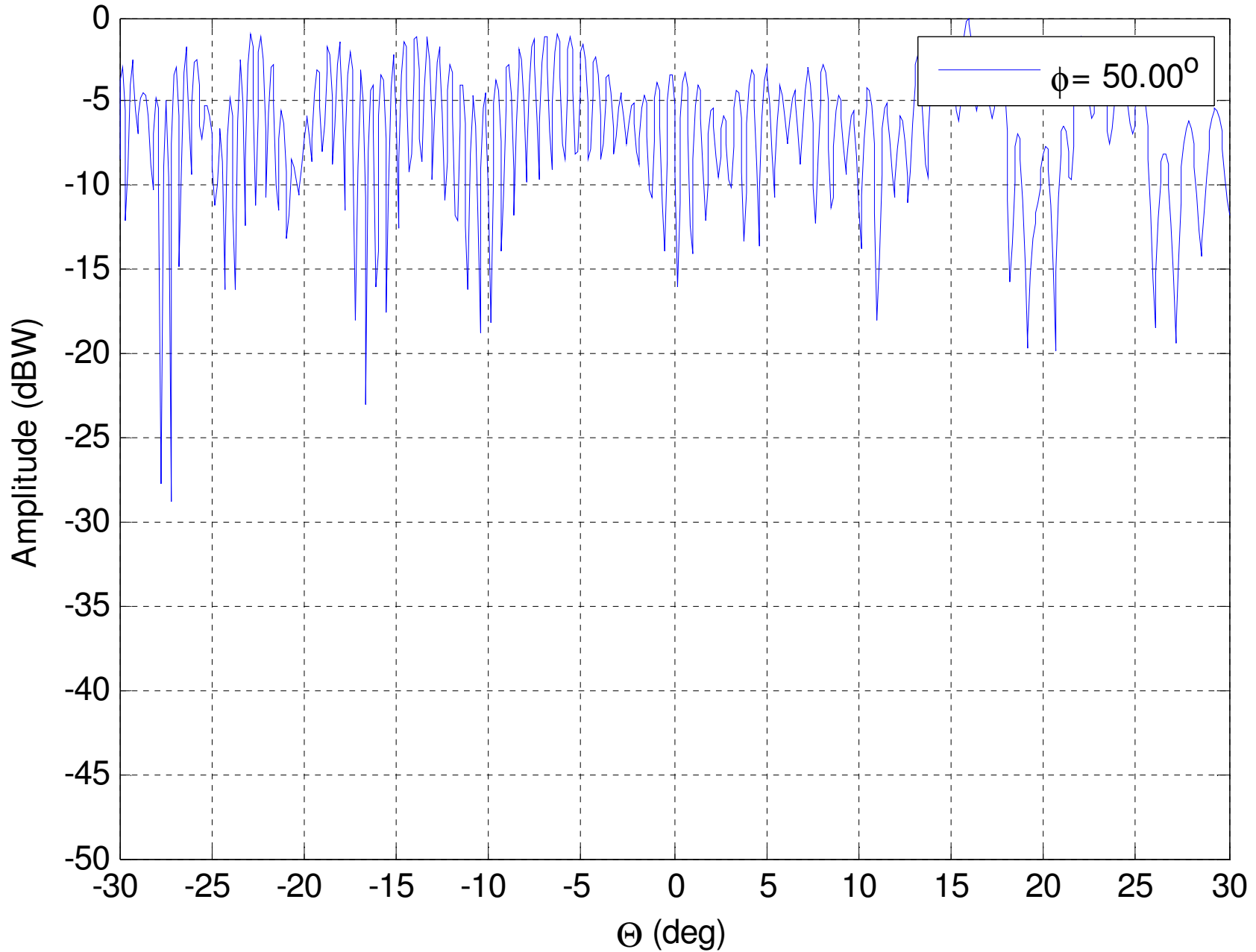
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: 2.66 dBW, Date: 16-Dec-2011



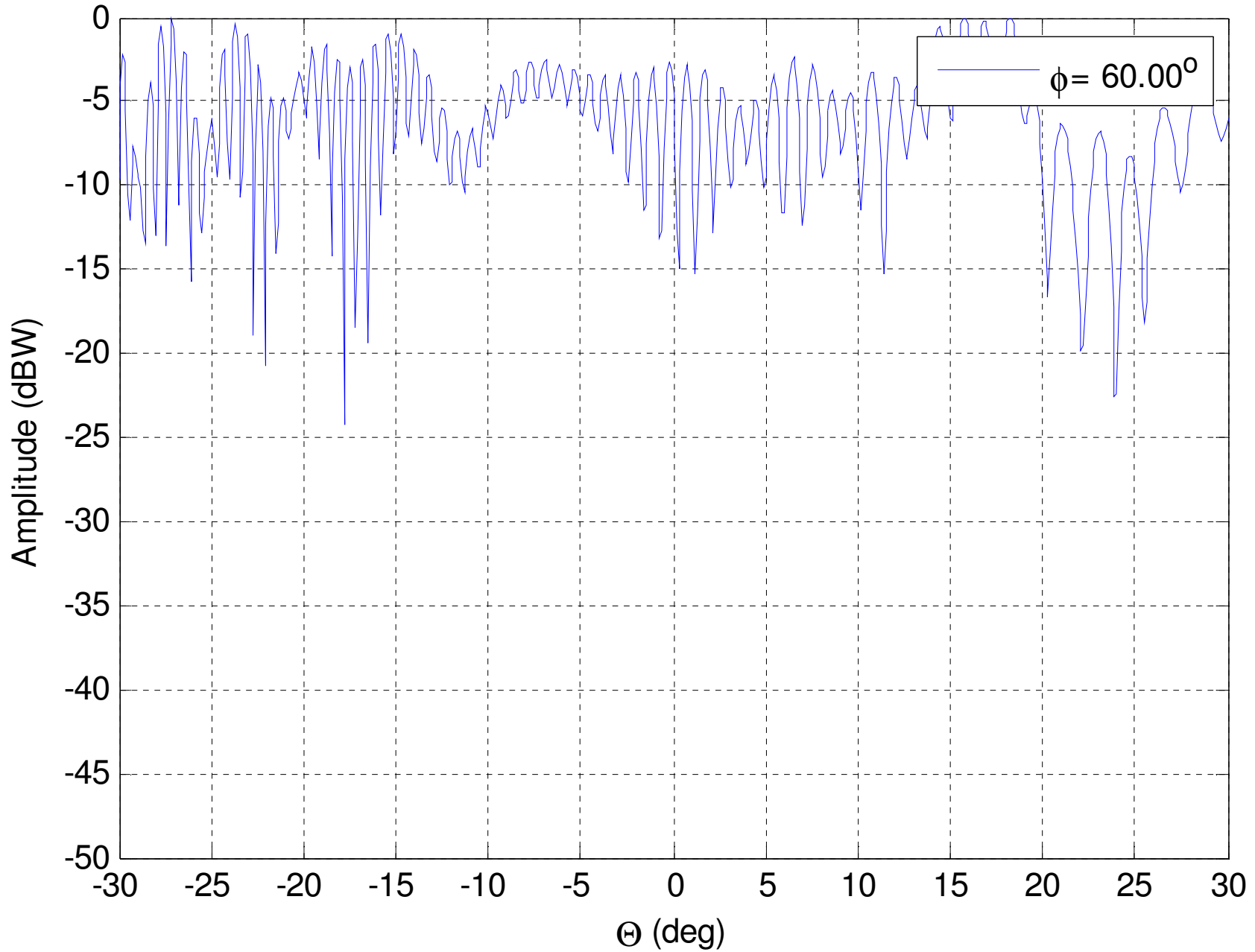
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: 2.43 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

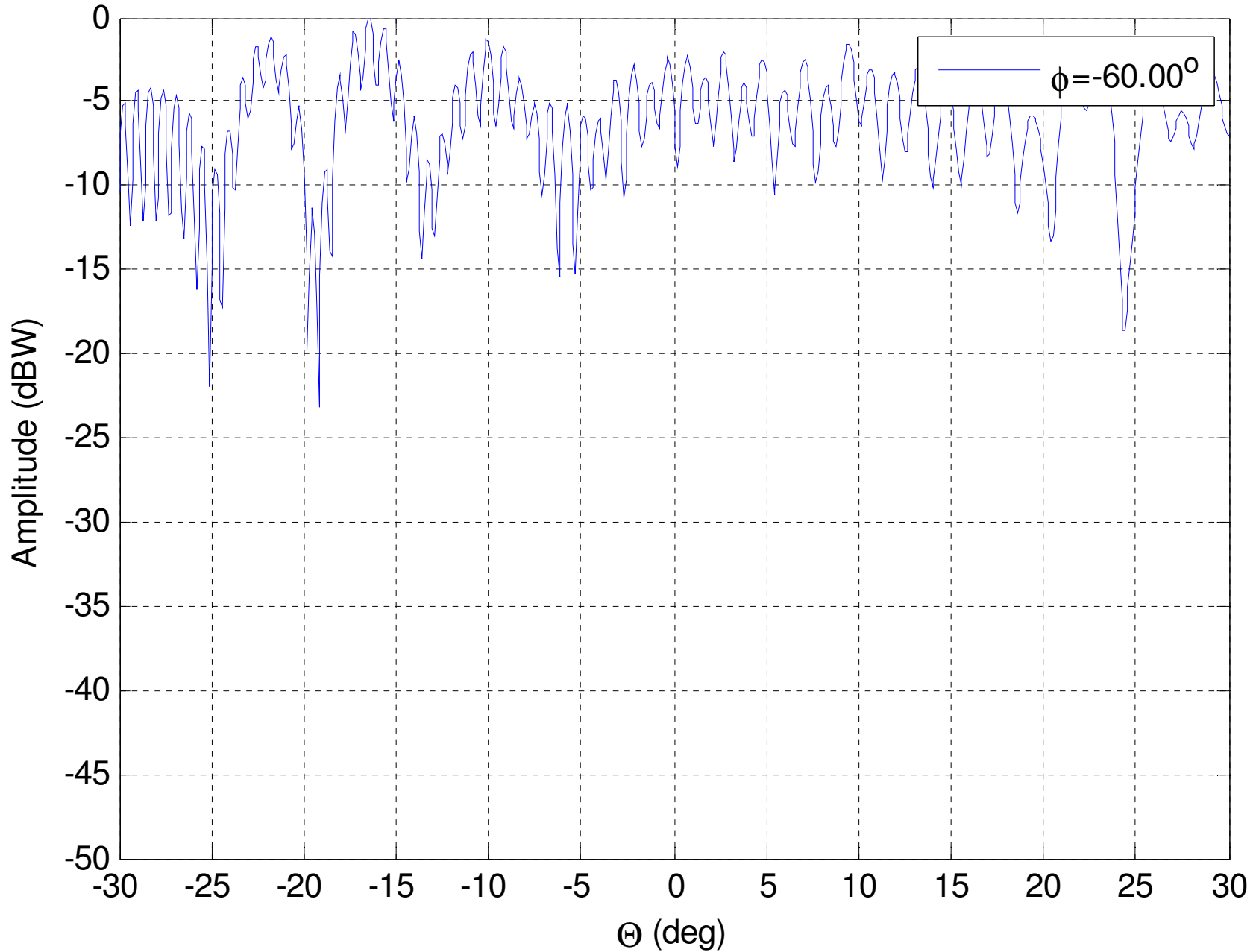
Input file: tx-17.3-lhcp-60.cut, Peak: 1.91 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

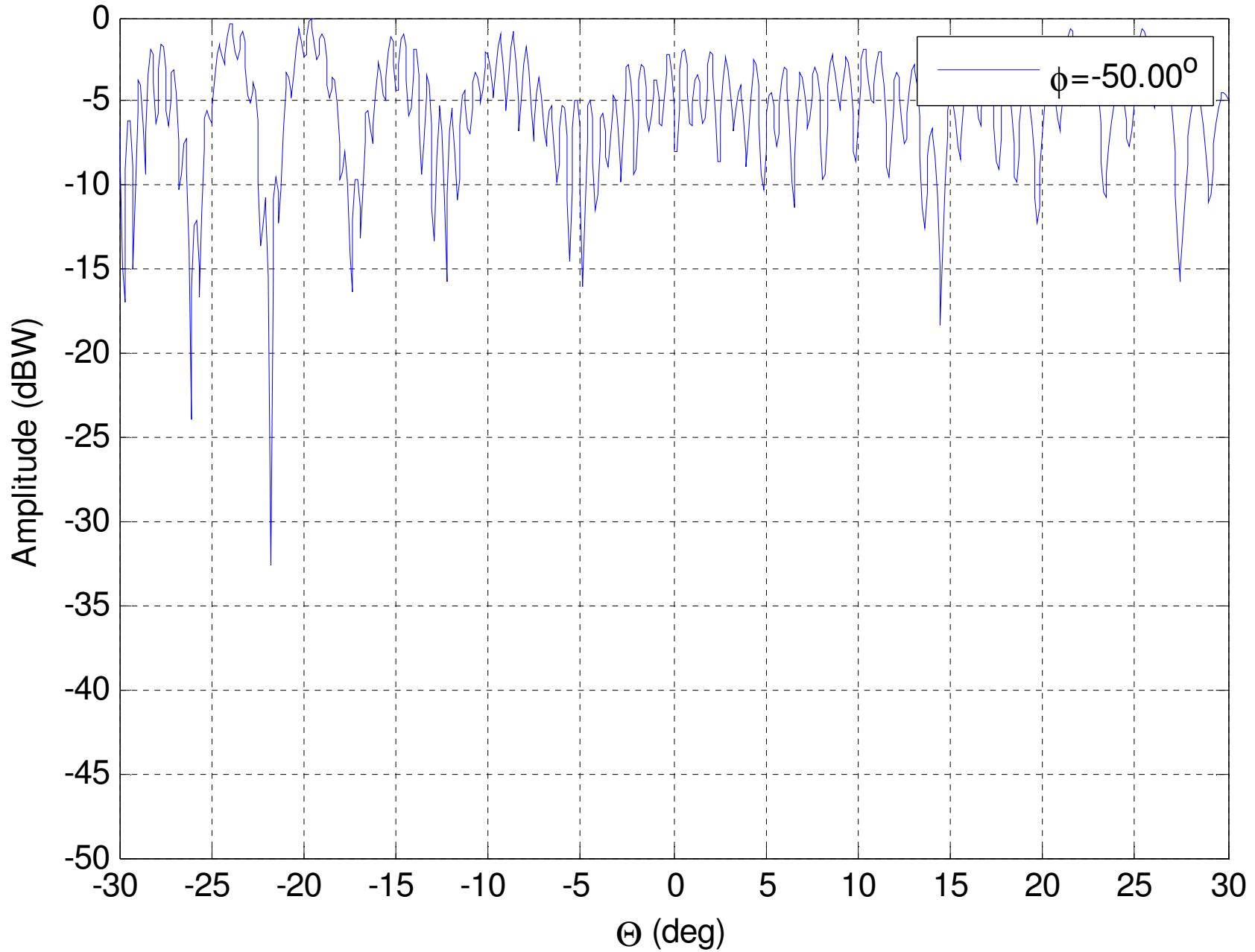
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: 2.38 dBW, Date: 16-Dec-2011



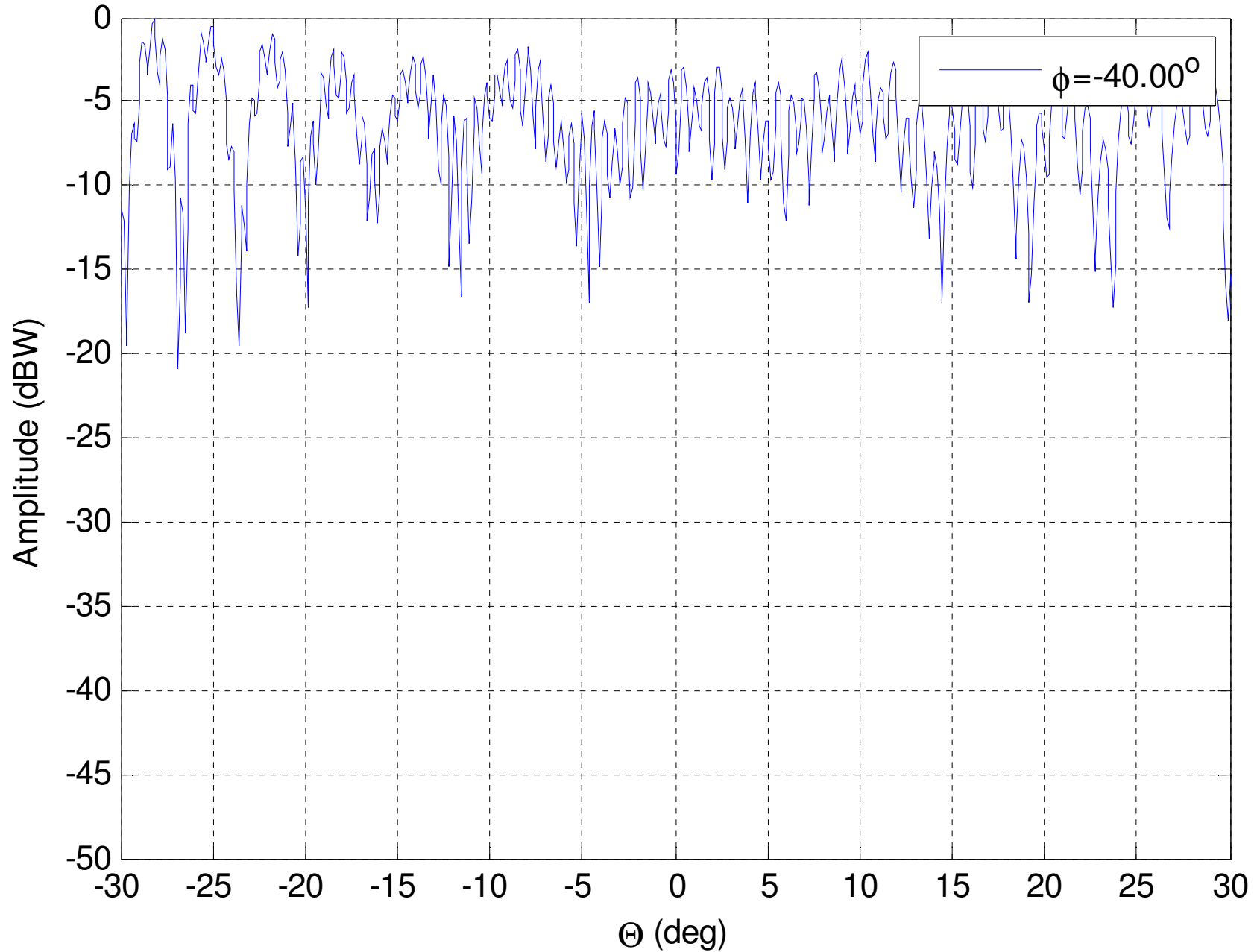
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: 2.13 dBW, Date: 16-Dec-2011



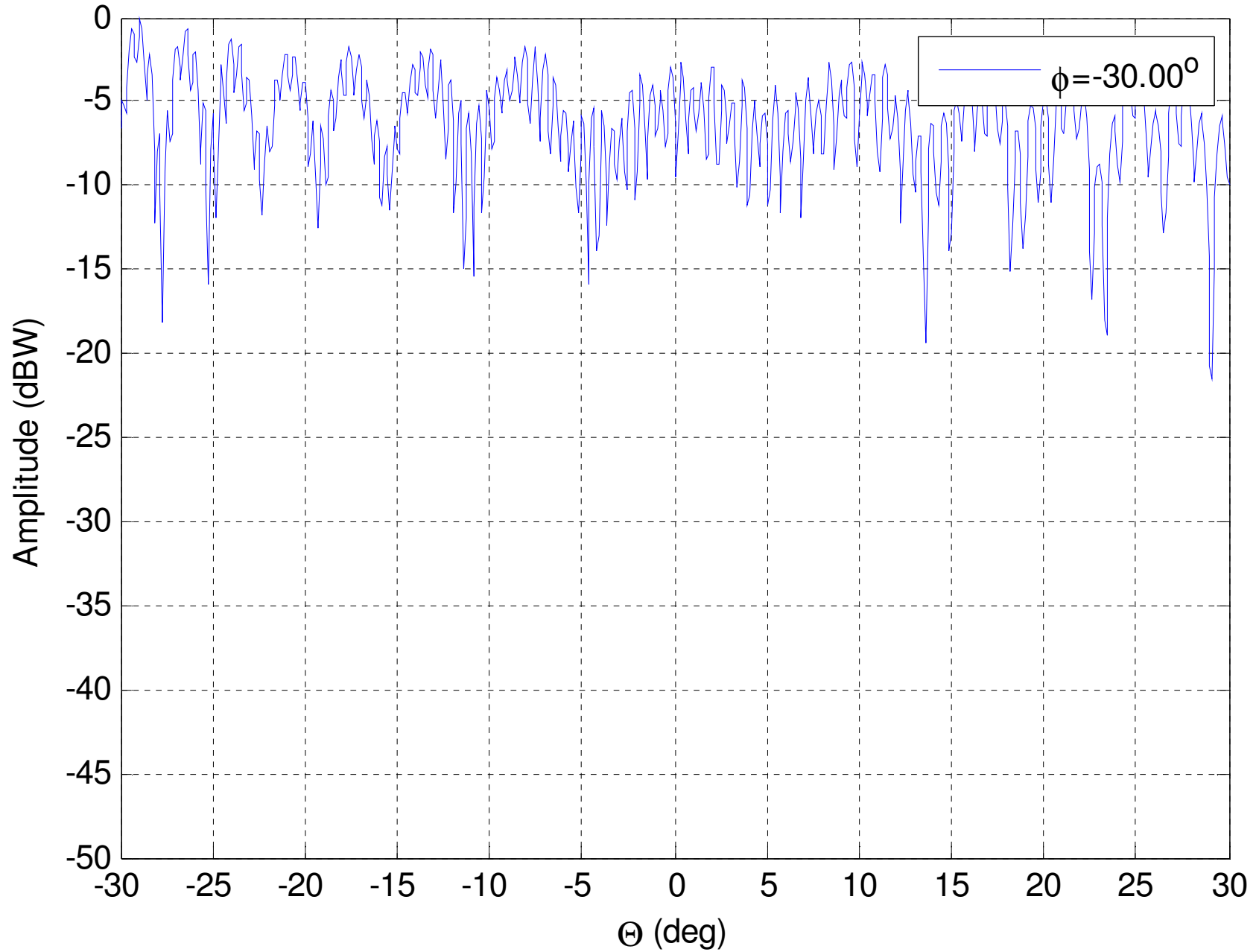
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: 3.12 dBW, Date: 16-Dec-2011



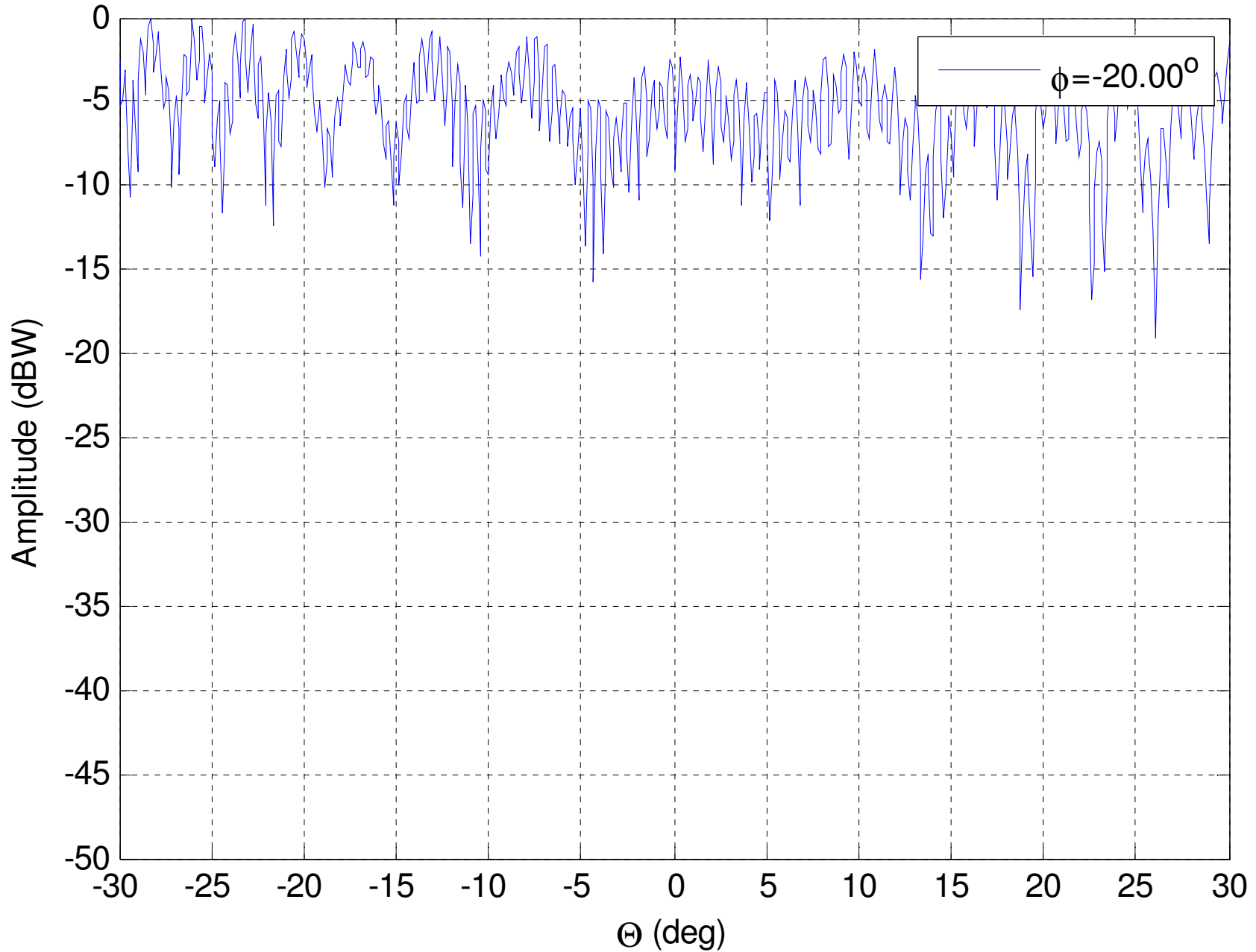
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: 3.06 dBW, Date: 16-Dec-2011



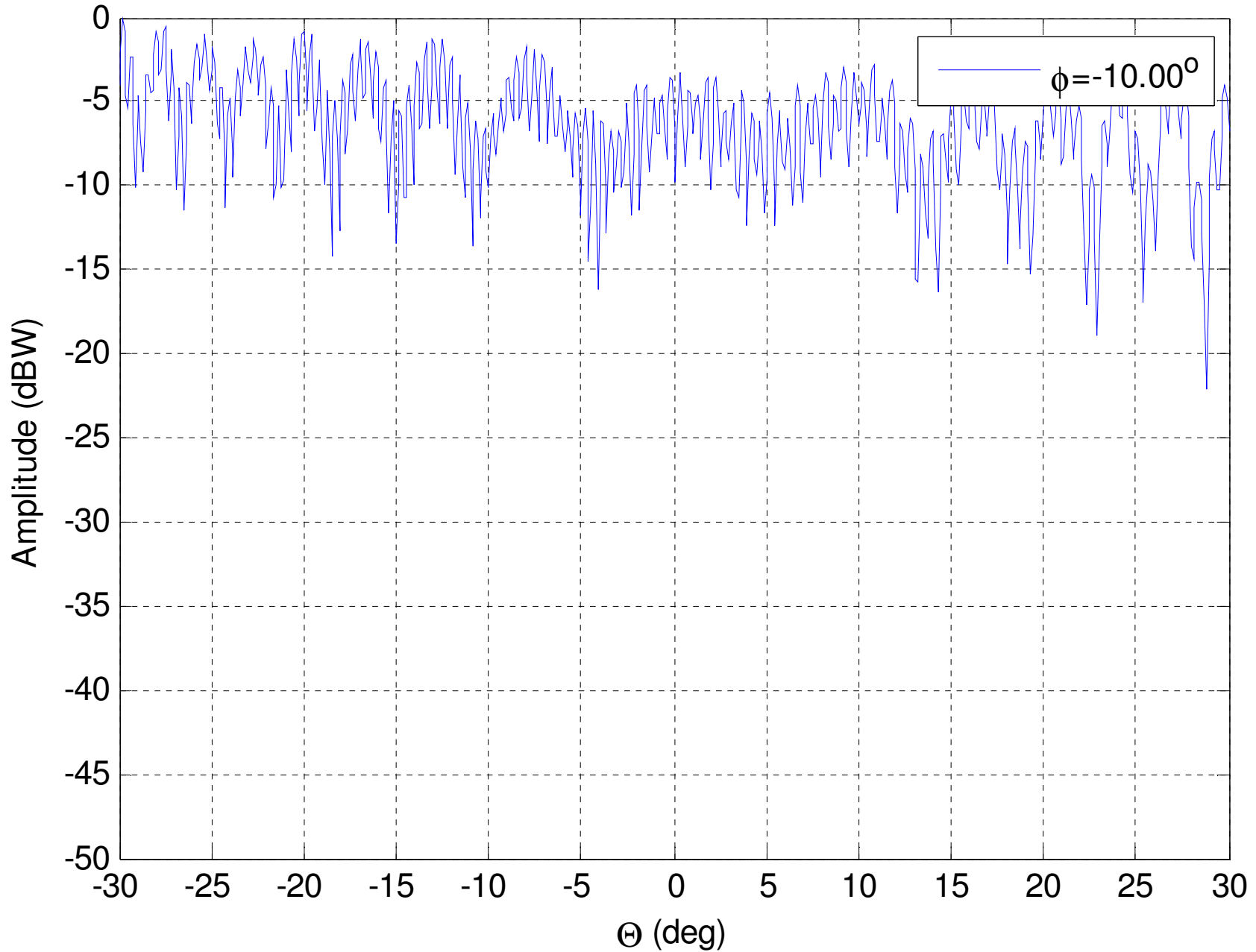
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: 2.54 dBW, Date: 16-Dec-2011



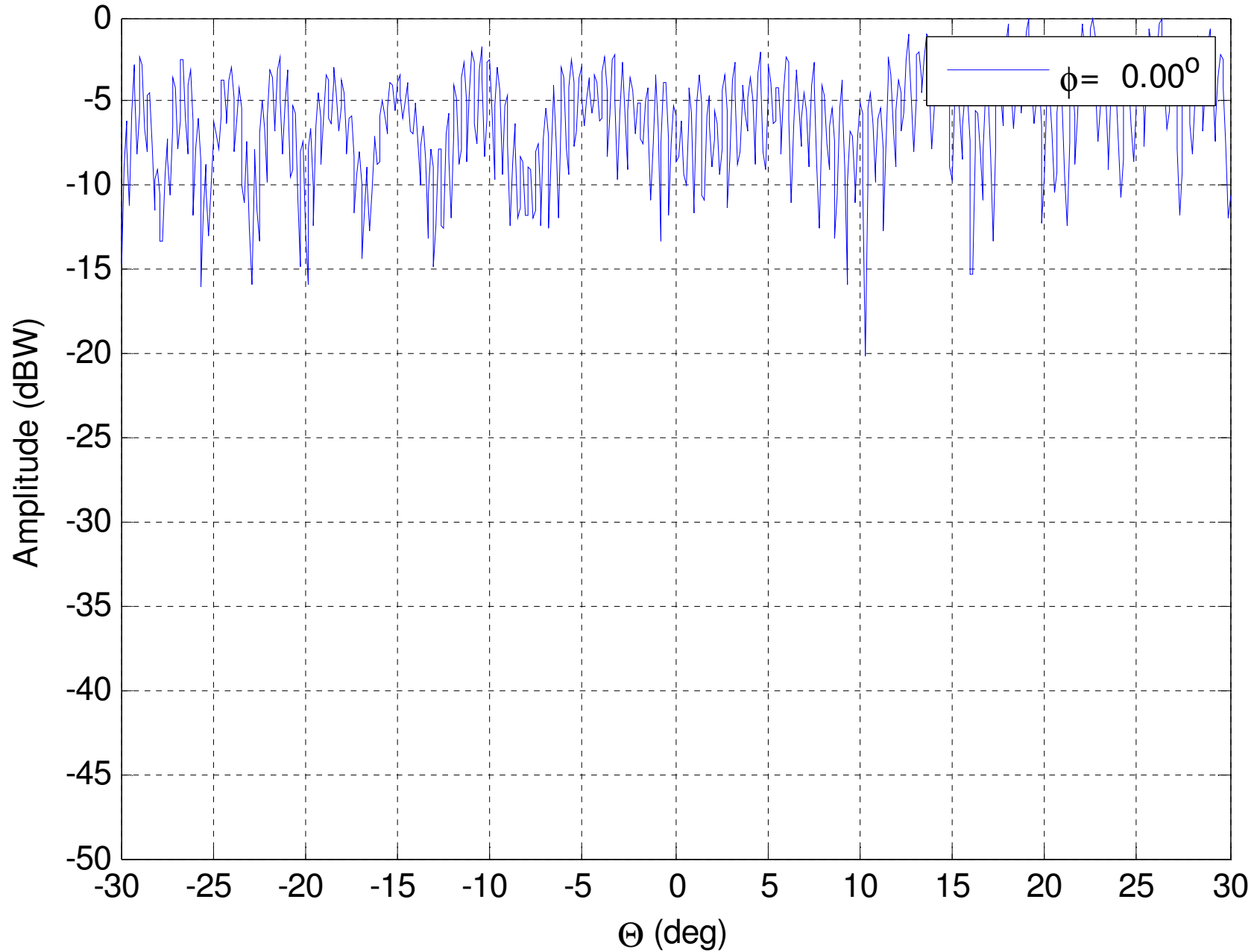
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: 3.42 dBW, Date: 16-Dec-2011



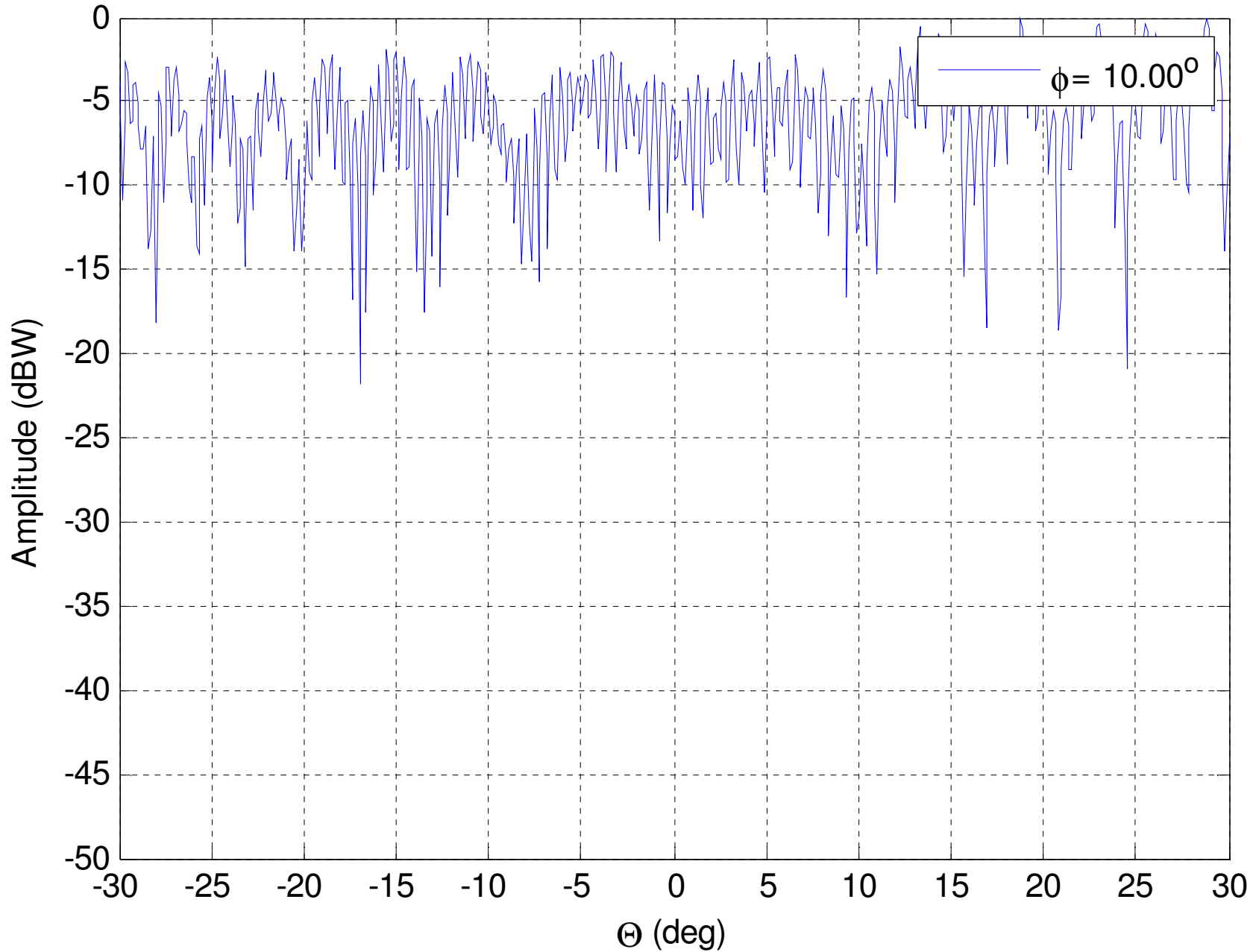
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: 2.87 dBW, Date: 16-Dec-2011



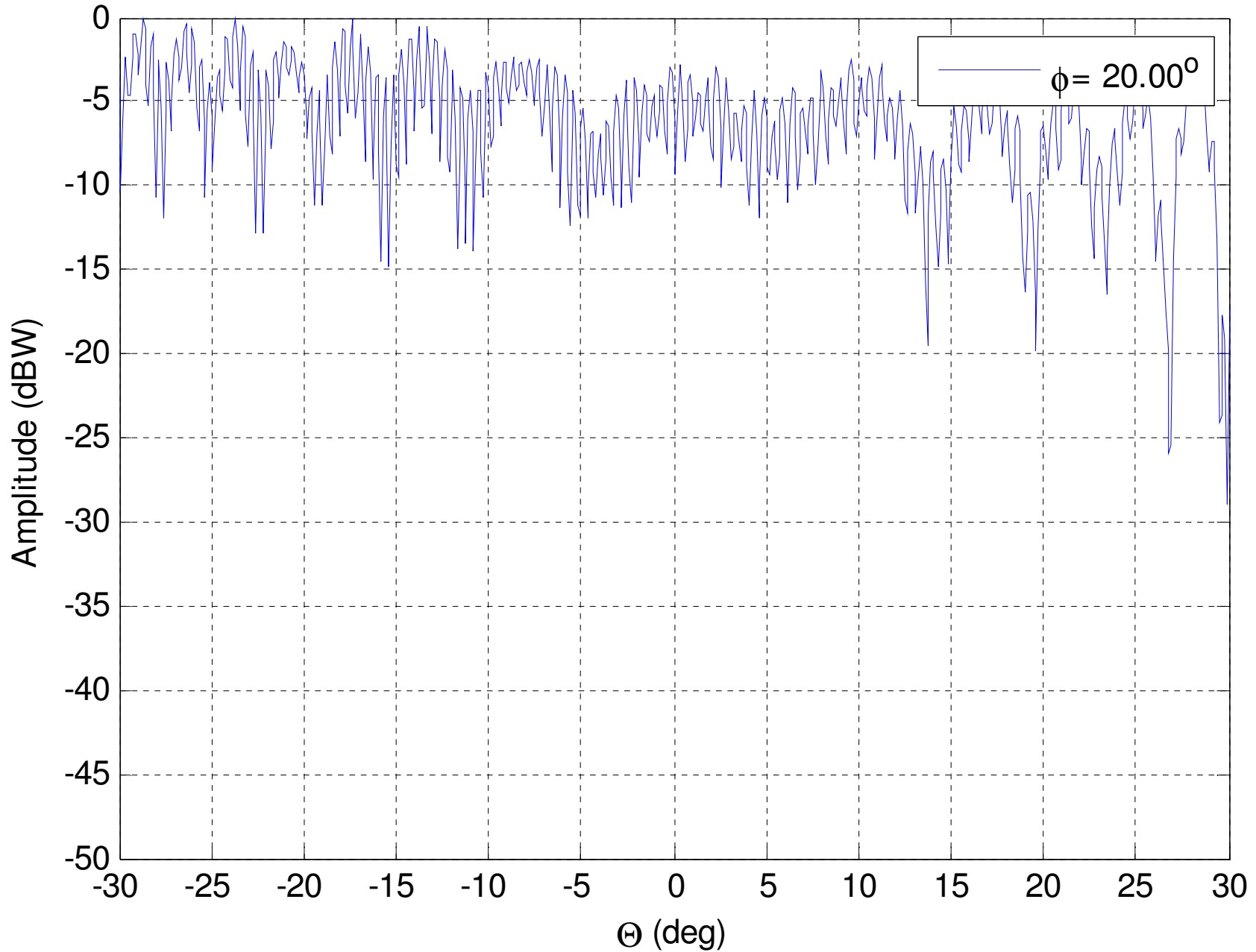
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: 2.83 dBW, Date: 16-Dec-2011



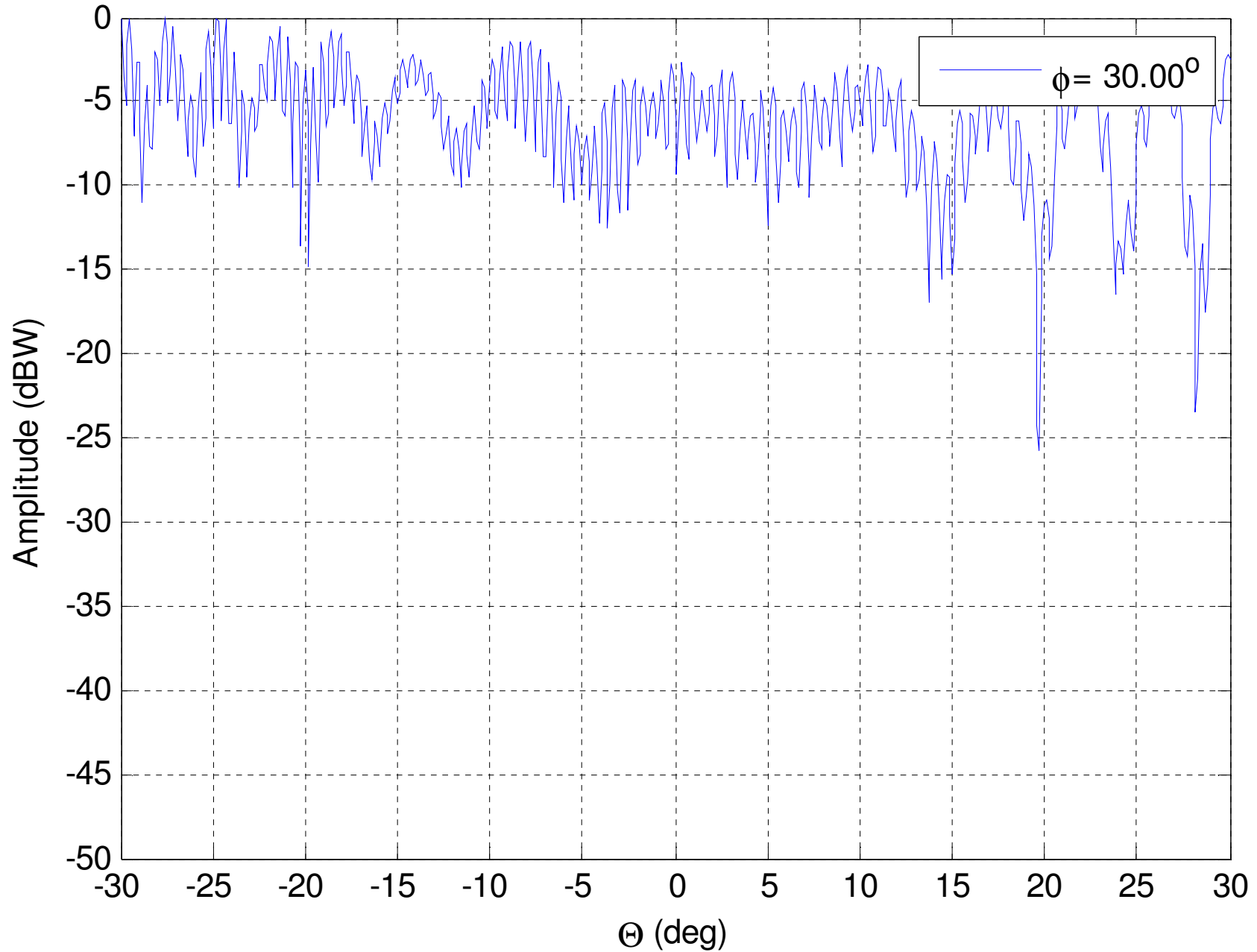
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: 2.99 dBW, Date: 16-Dec-2011



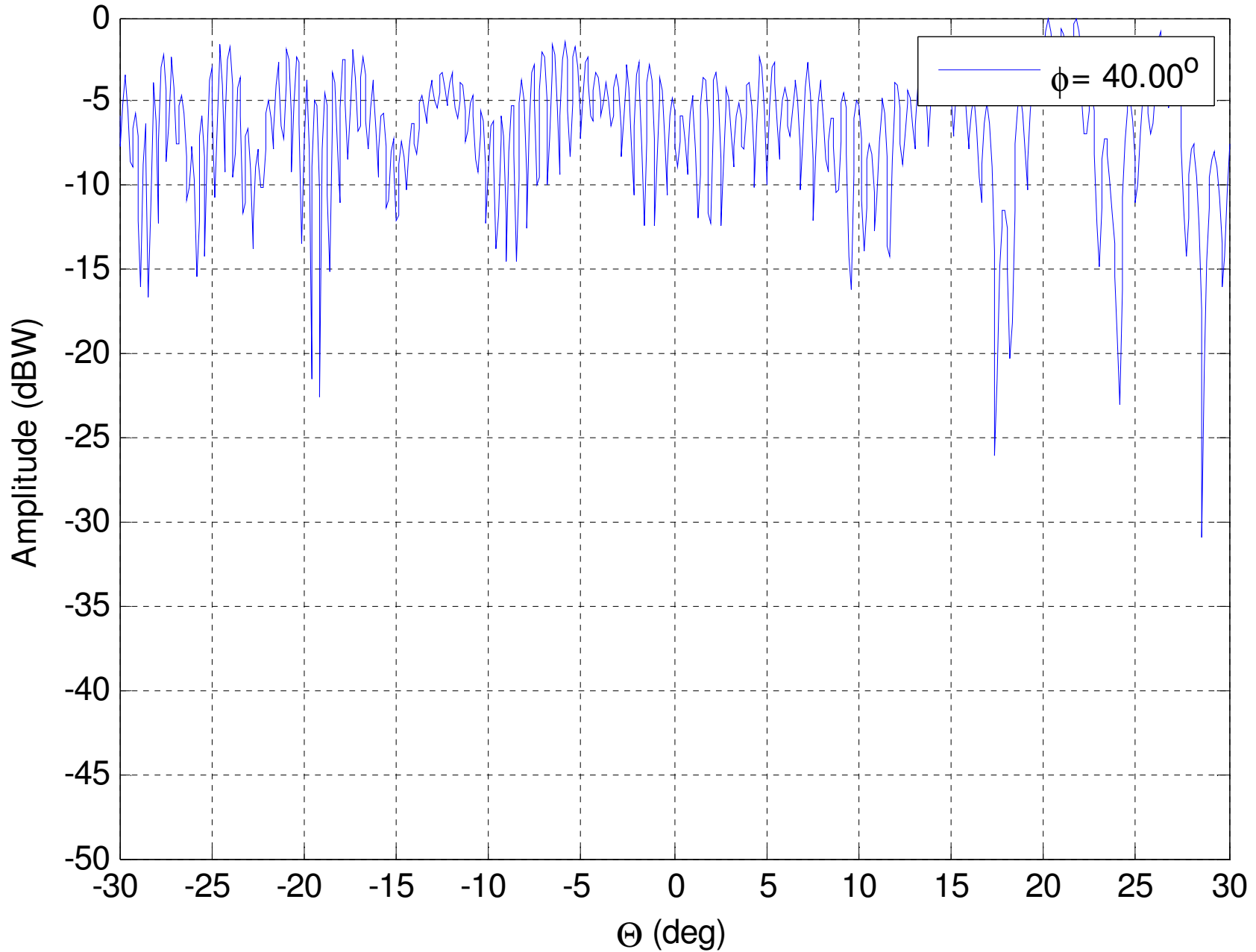
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: 2.99 dBW, Date: 16-Dec-2011



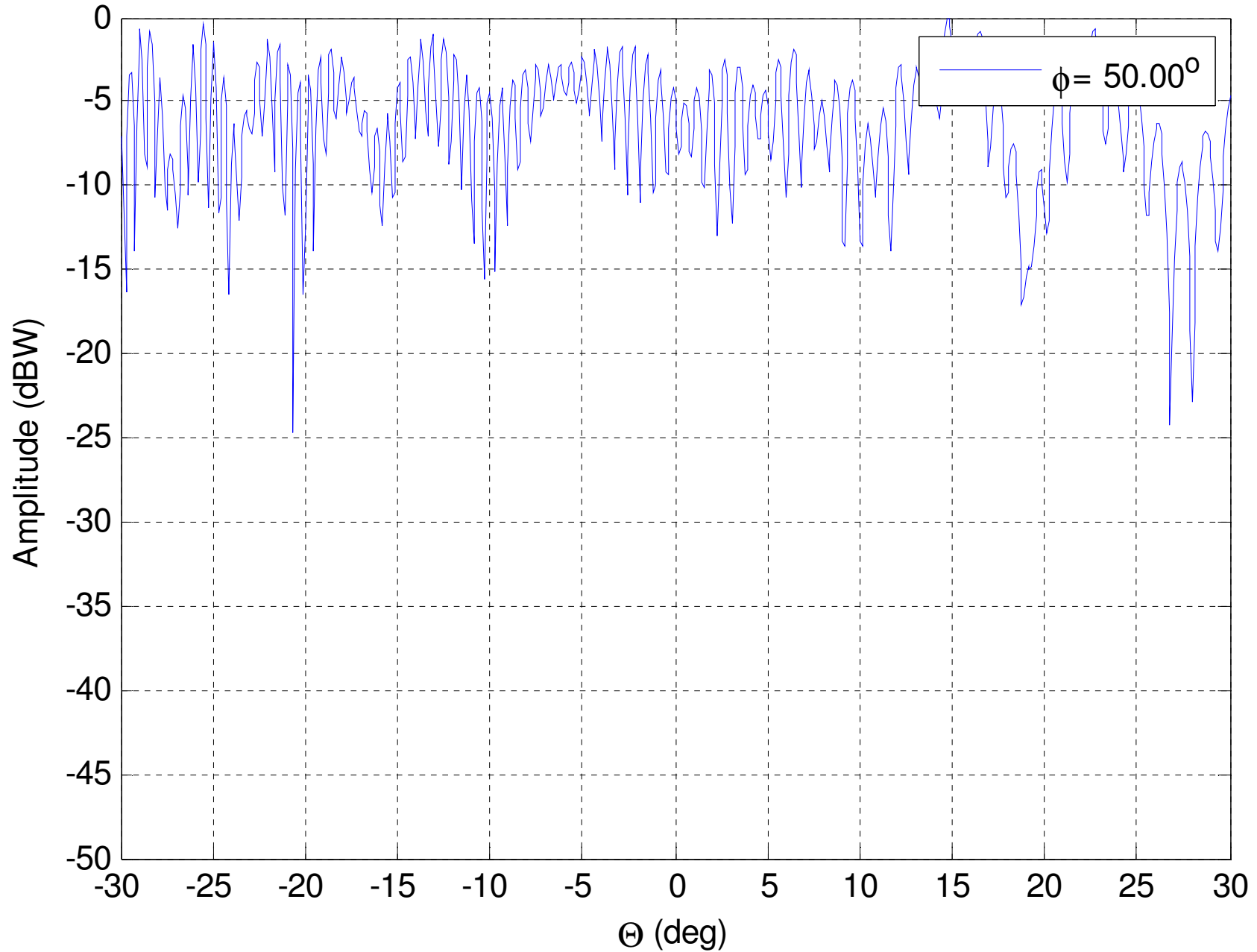
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: 2.52 dBW, Date: 16-Dec-2011



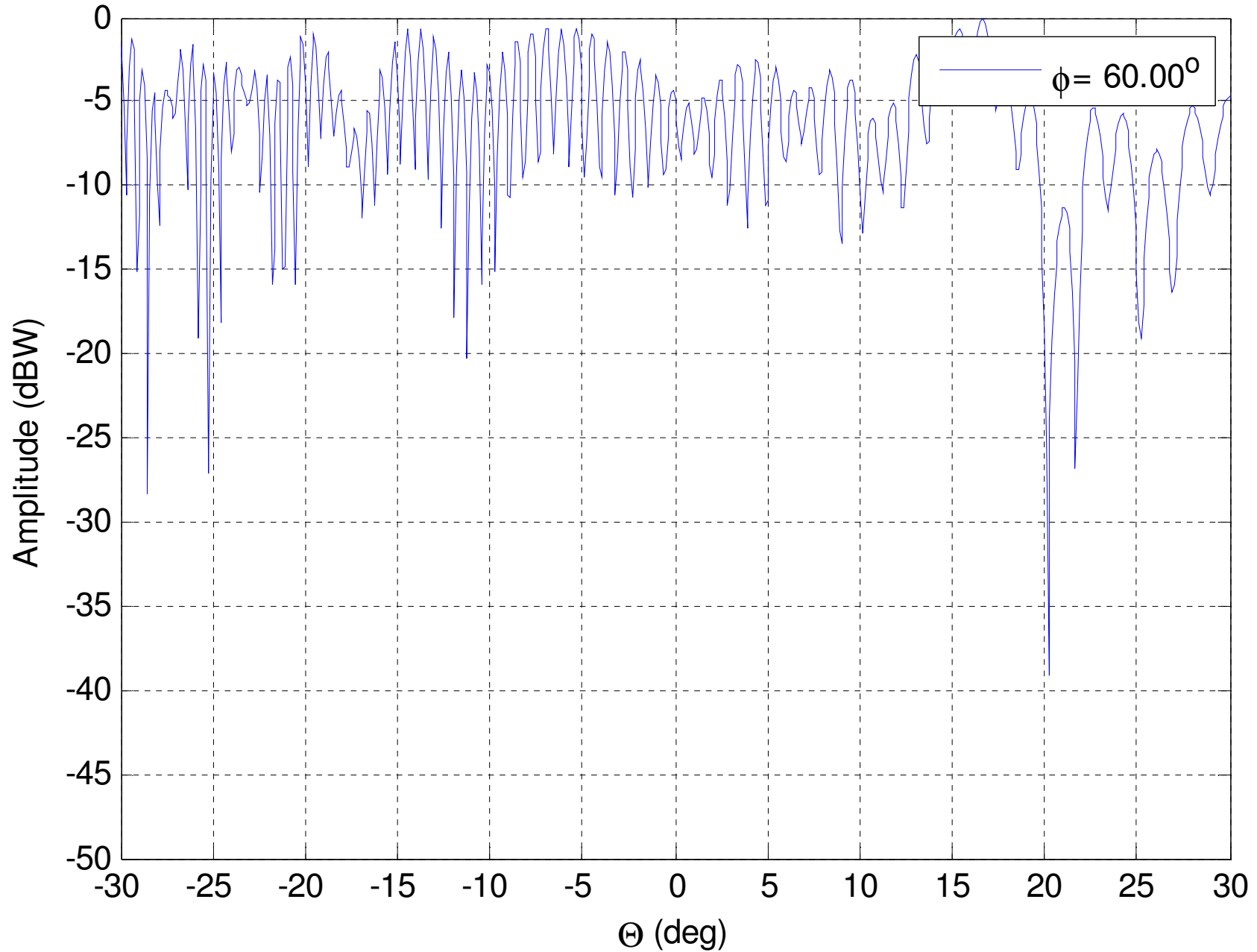
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: 1.88 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

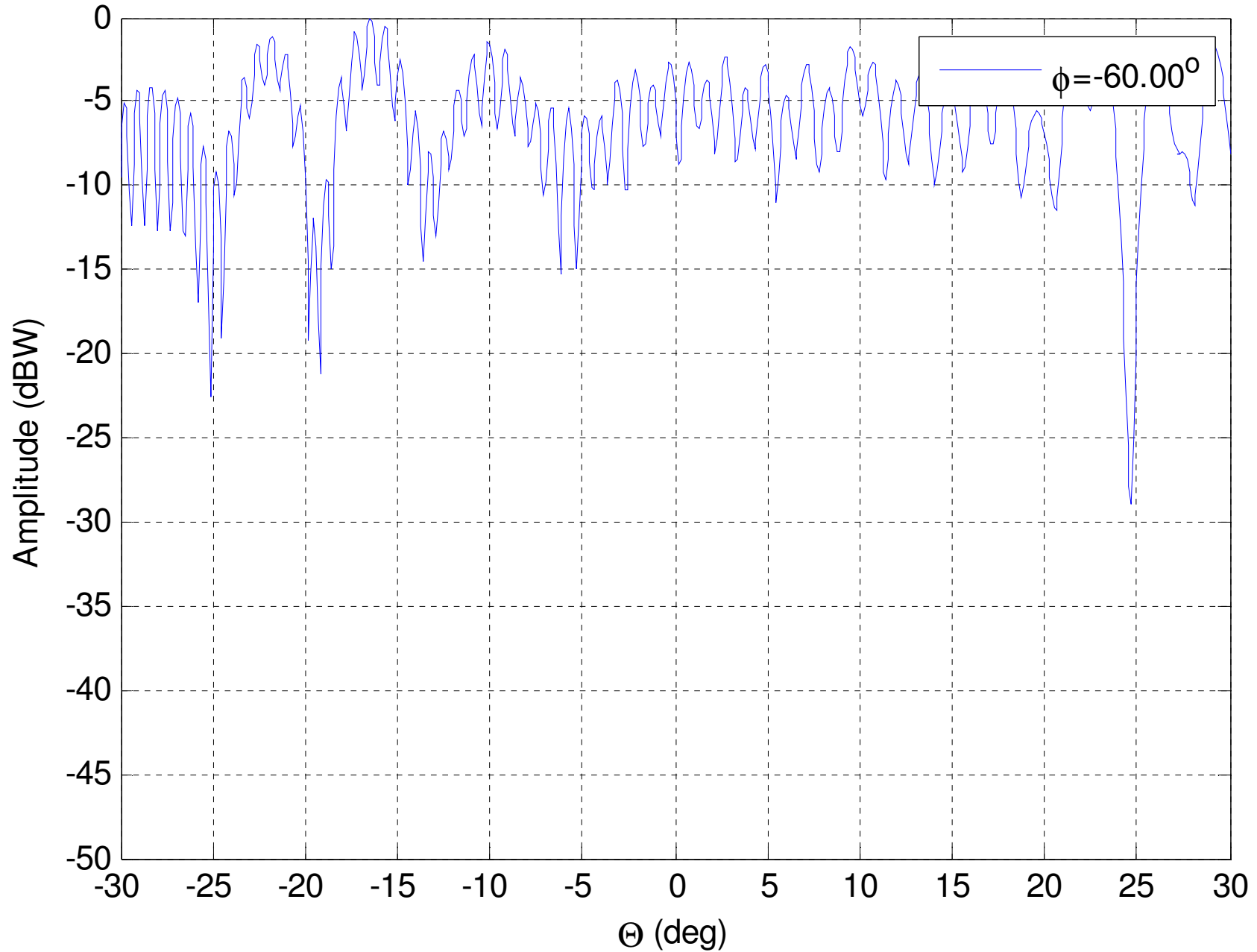
Input file: tx-17.5-rhcp-60.cut, Peak: 1.90 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

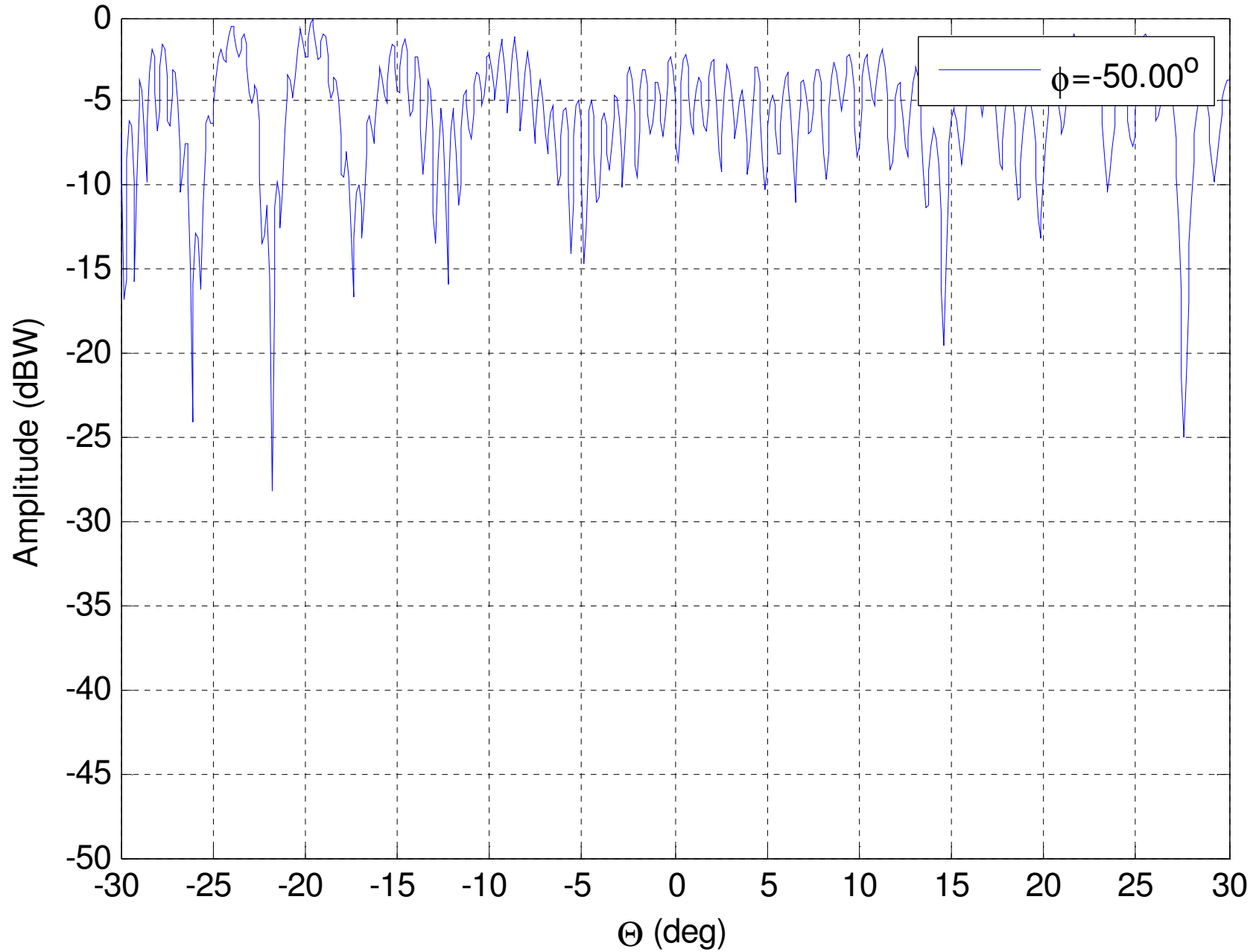
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: 2.59 dBW, Date: 16-Dec-2011



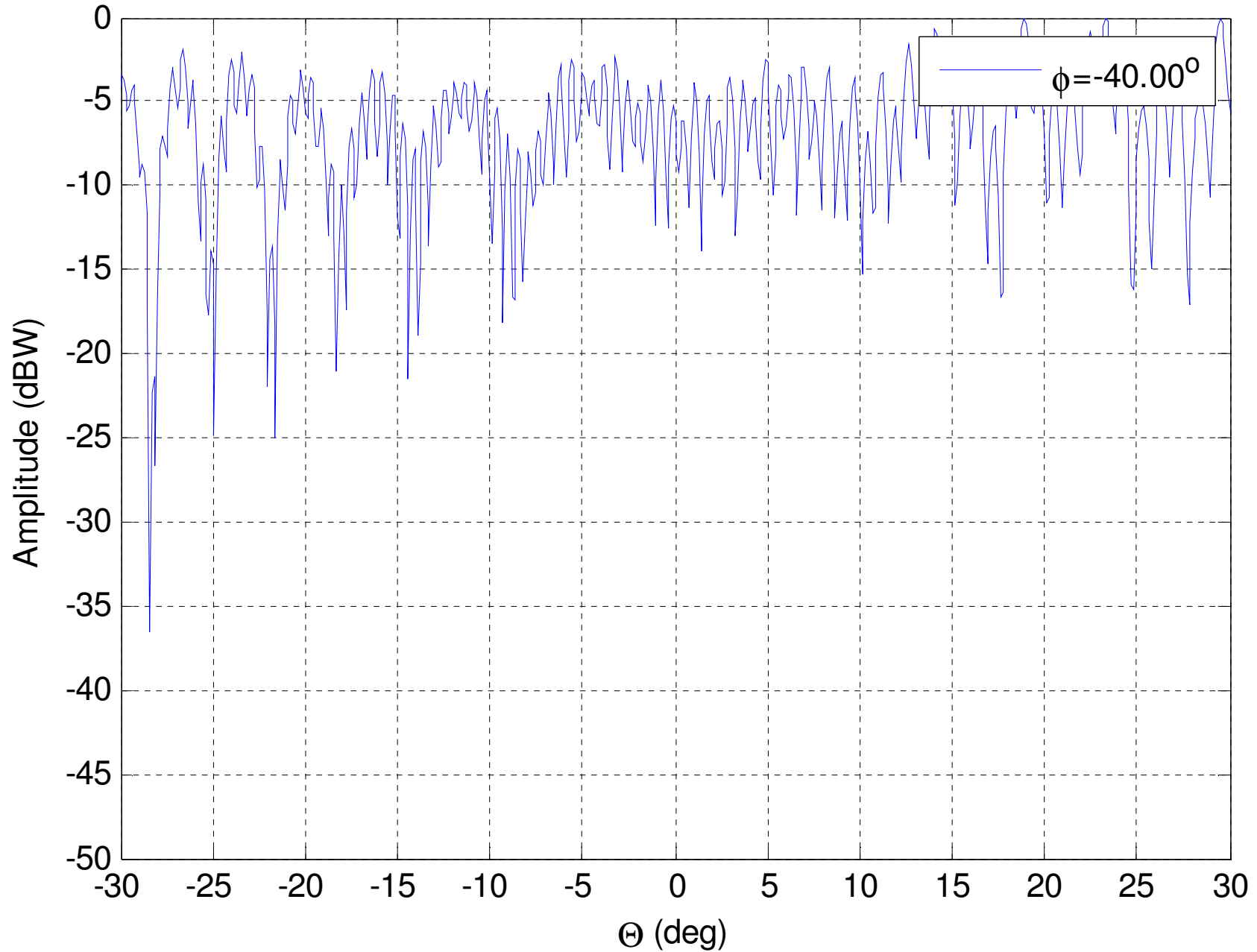
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: 2.38 dBW, Date: 16-Dec-2011



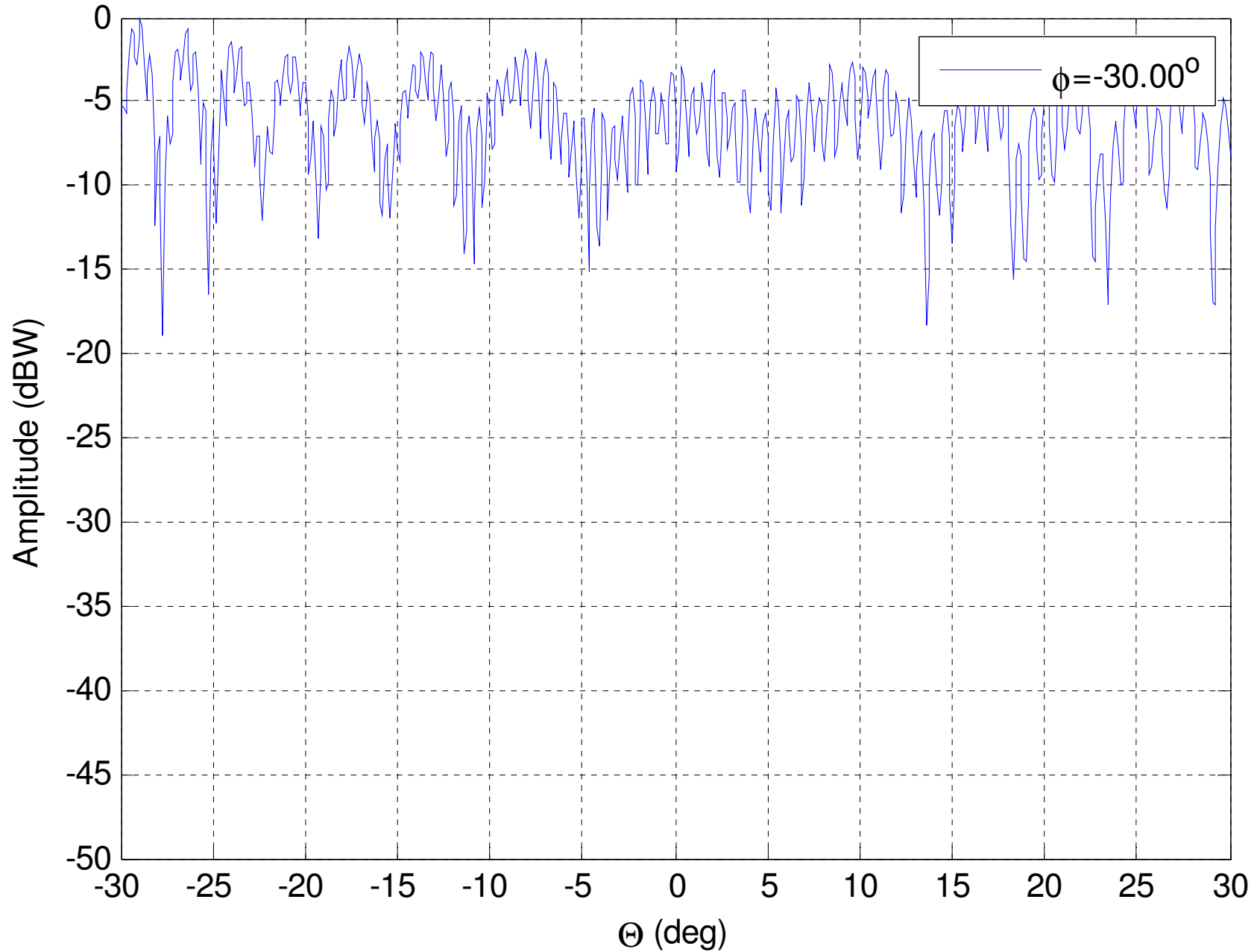
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: 3.22 dBW, Date: 16-Dec-2011



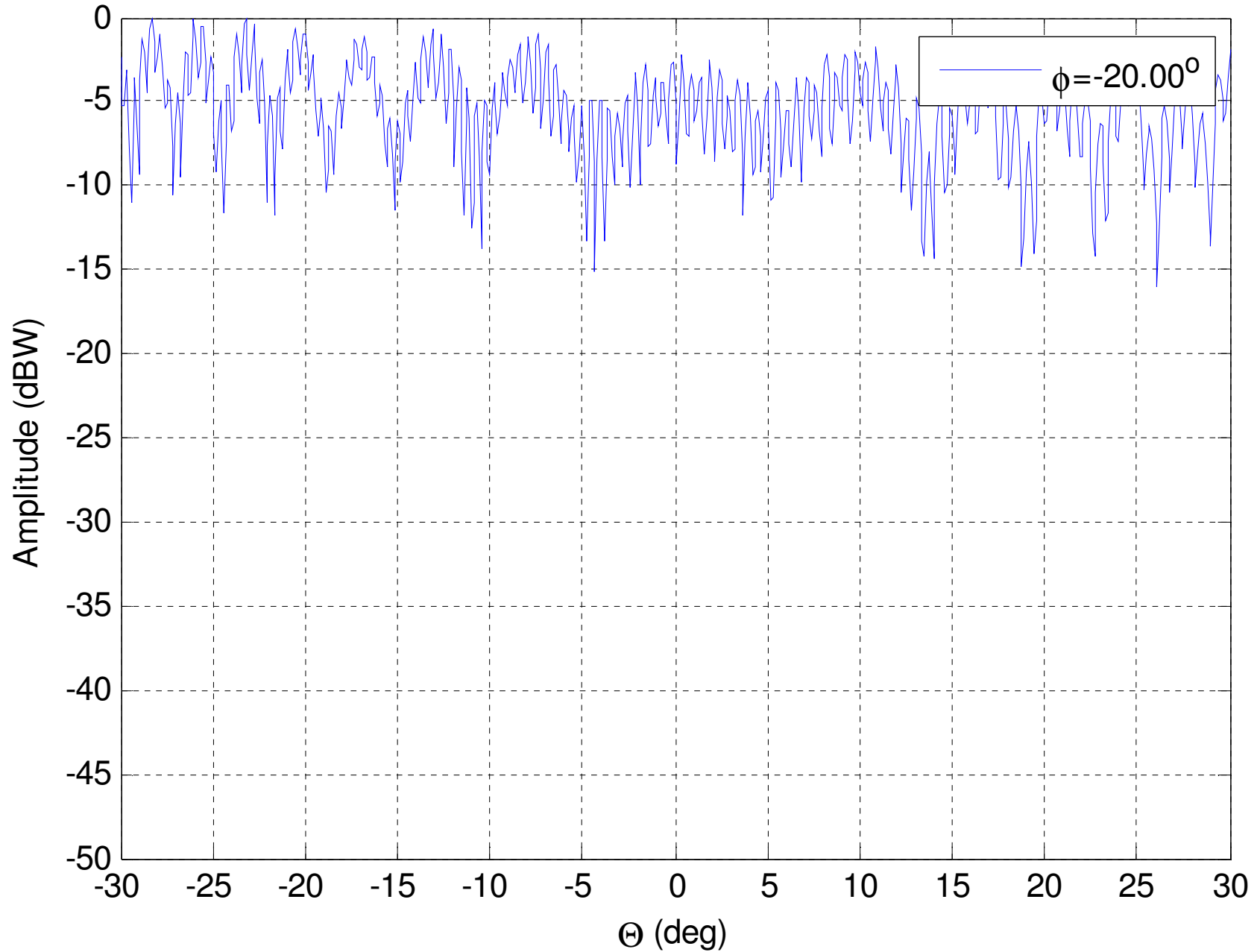
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: 3.21 dBW, Date: 16-Dec-2011



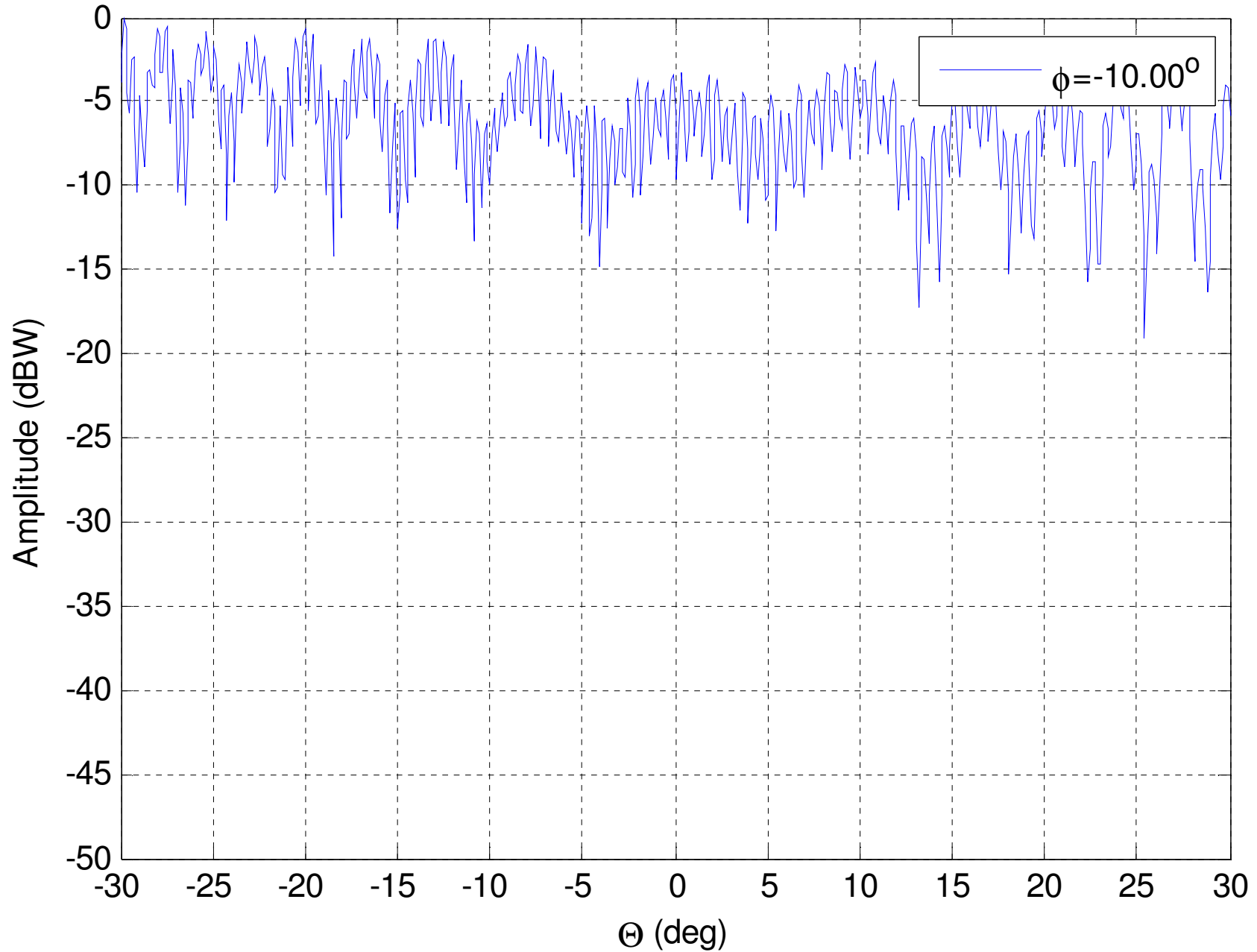
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: 2.52 dBW, Date: 16-Dec-2011



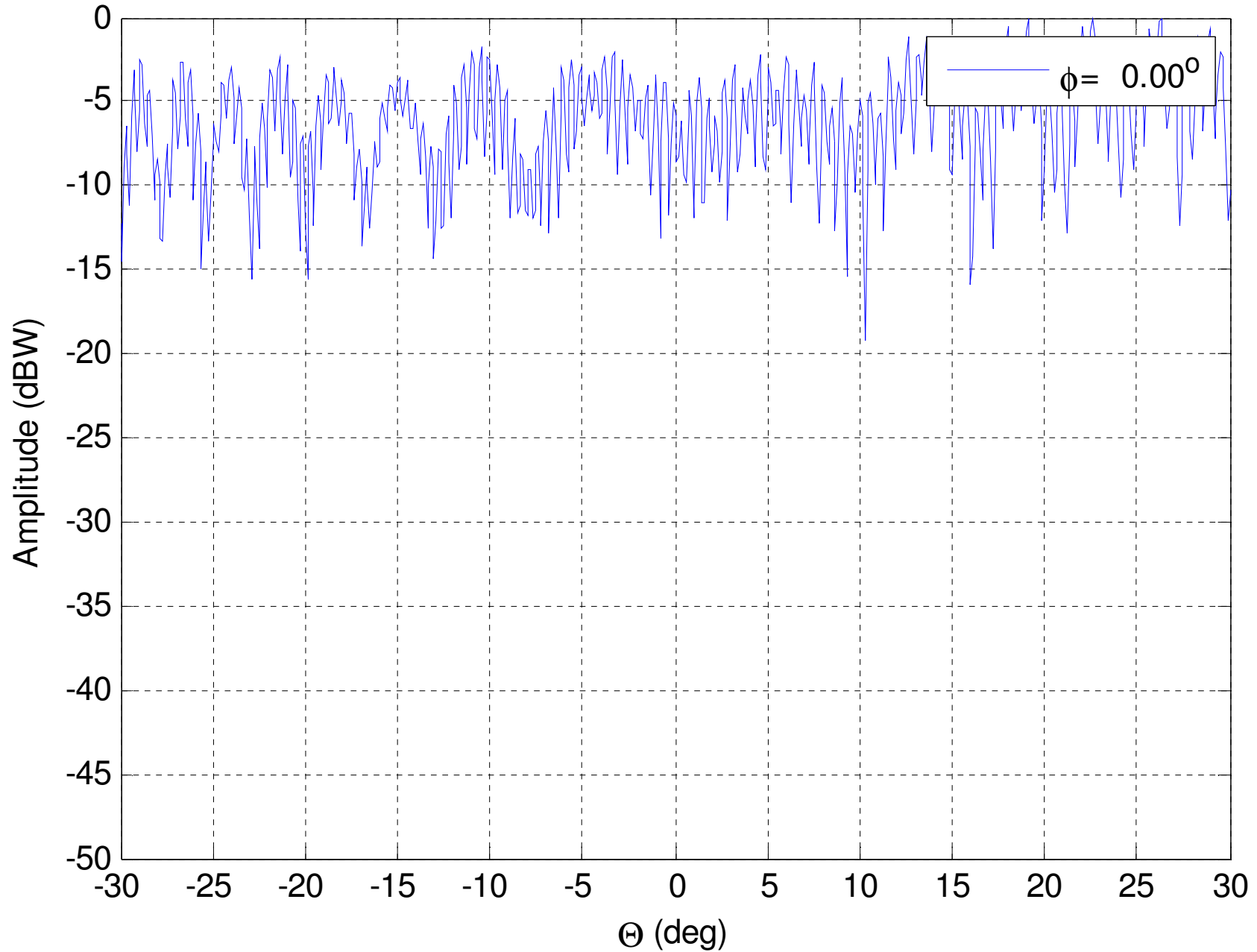
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: 3.34 dBW, Date: 16-Dec-2011



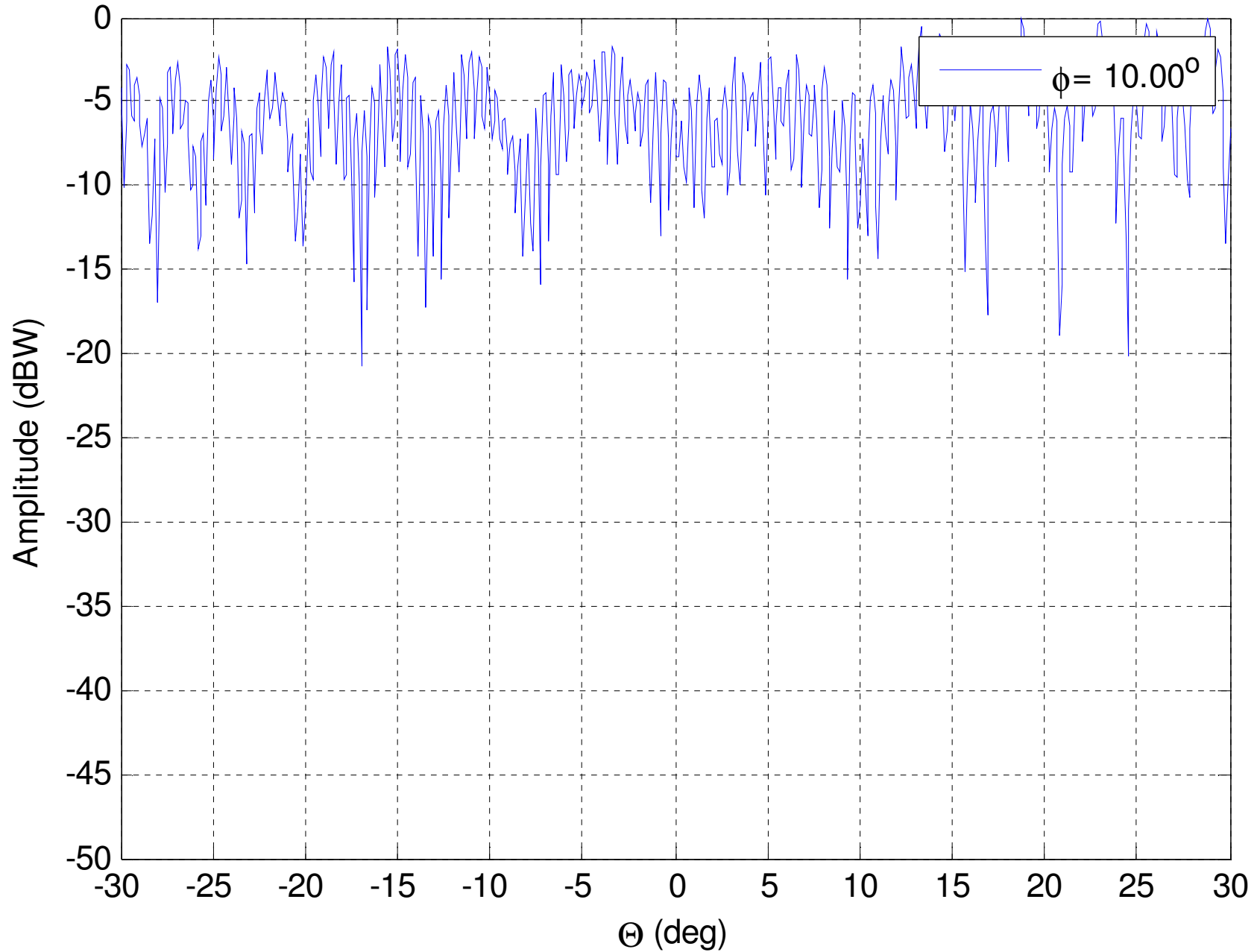
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: 2.95 dBW, Date: 16-Dec-2011



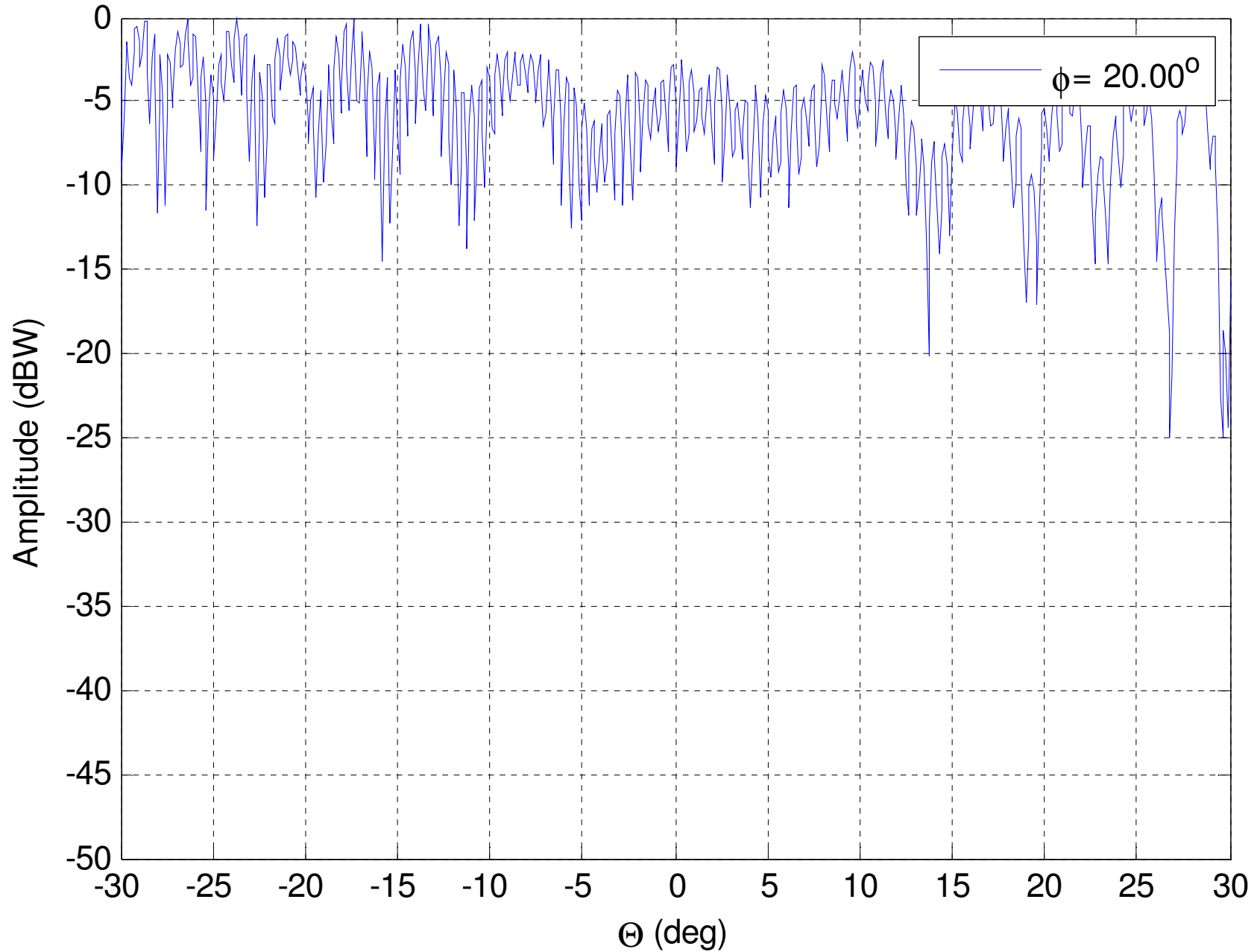
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: 2.76 dBW, Date: 16-Dec-2011



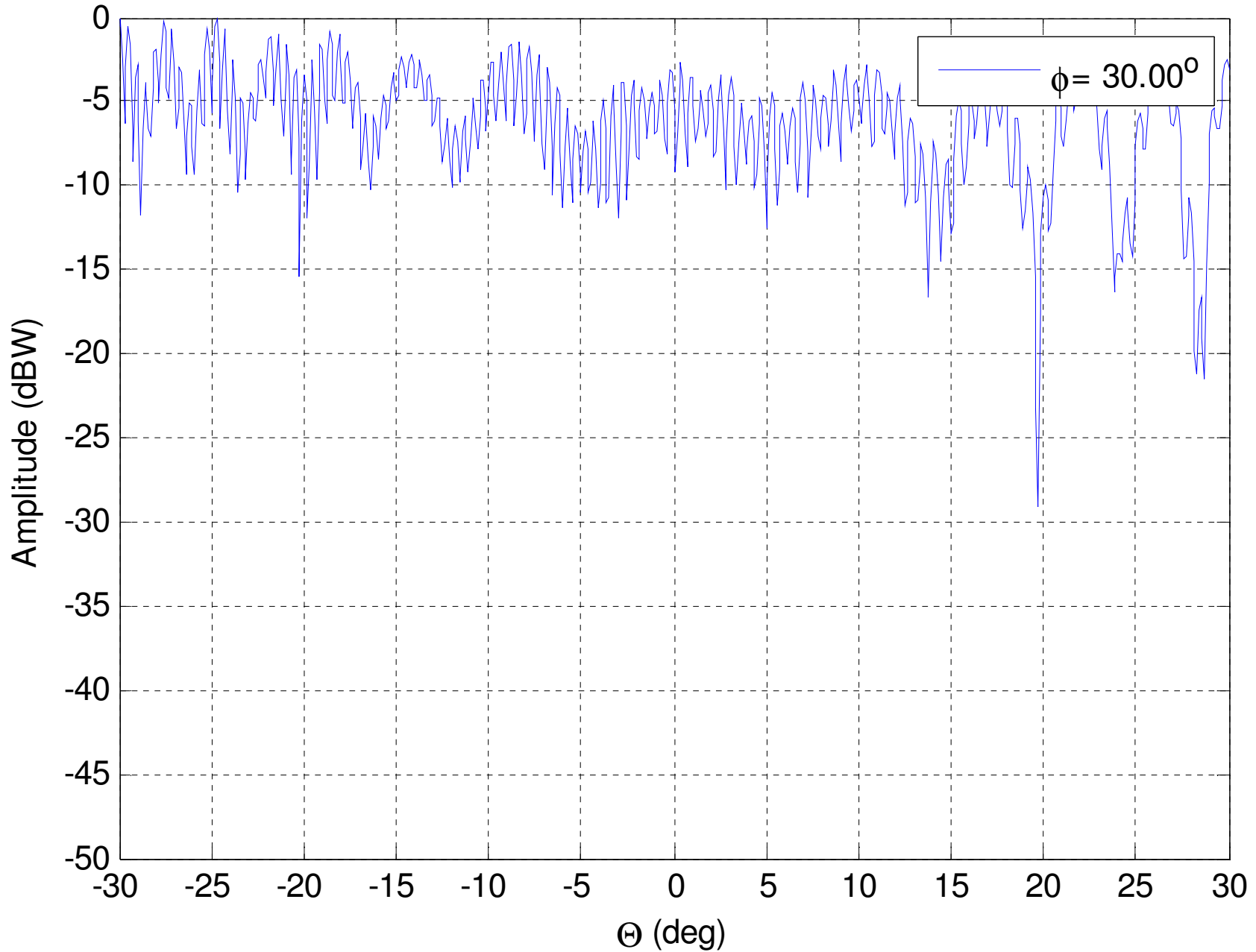
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: 2.71 dBW, Date: 16-Dec-2011



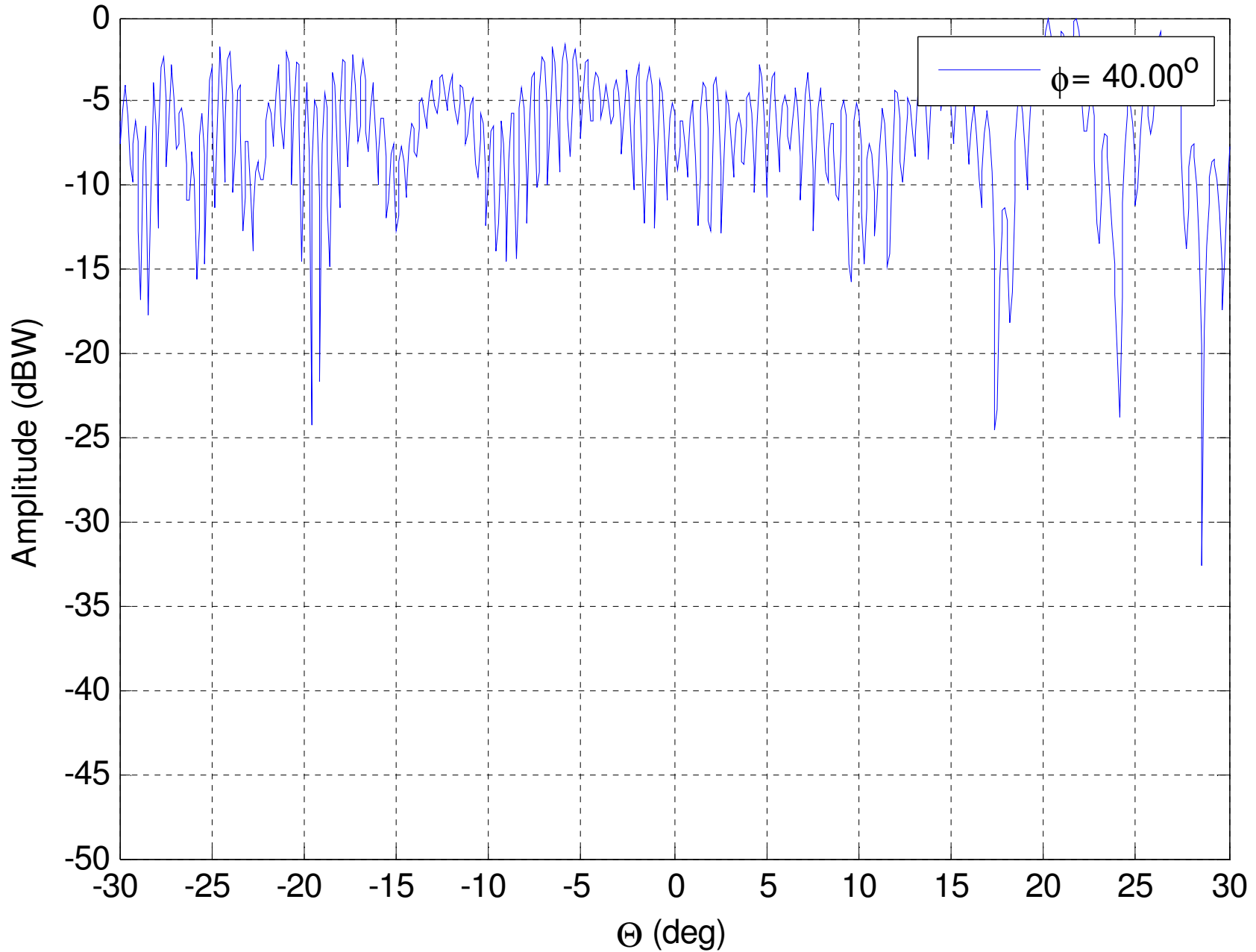
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: 3.06 dBW, Date: 16-Dec-2011



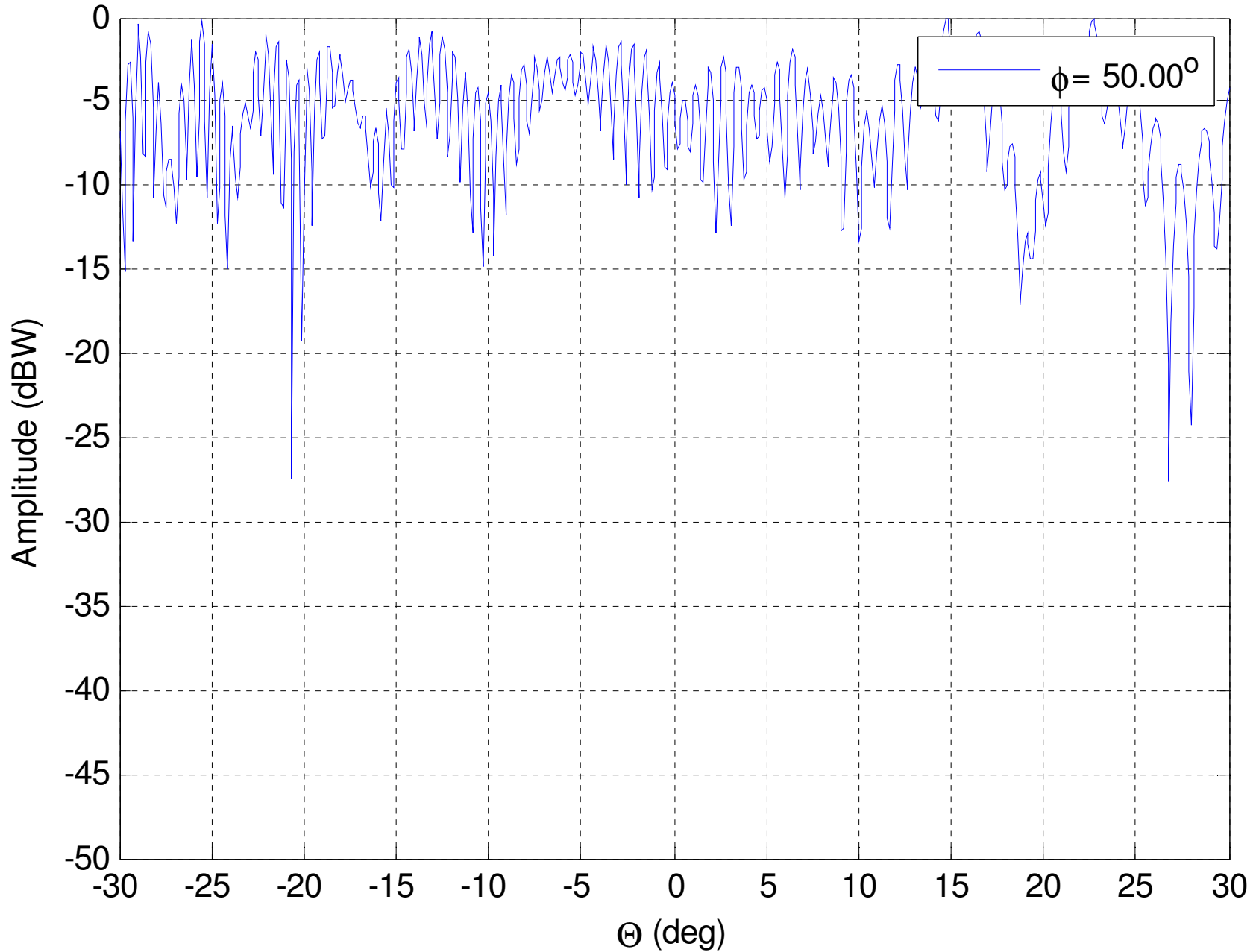
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: 2.82 dBW, Date: 16-Dec-2011



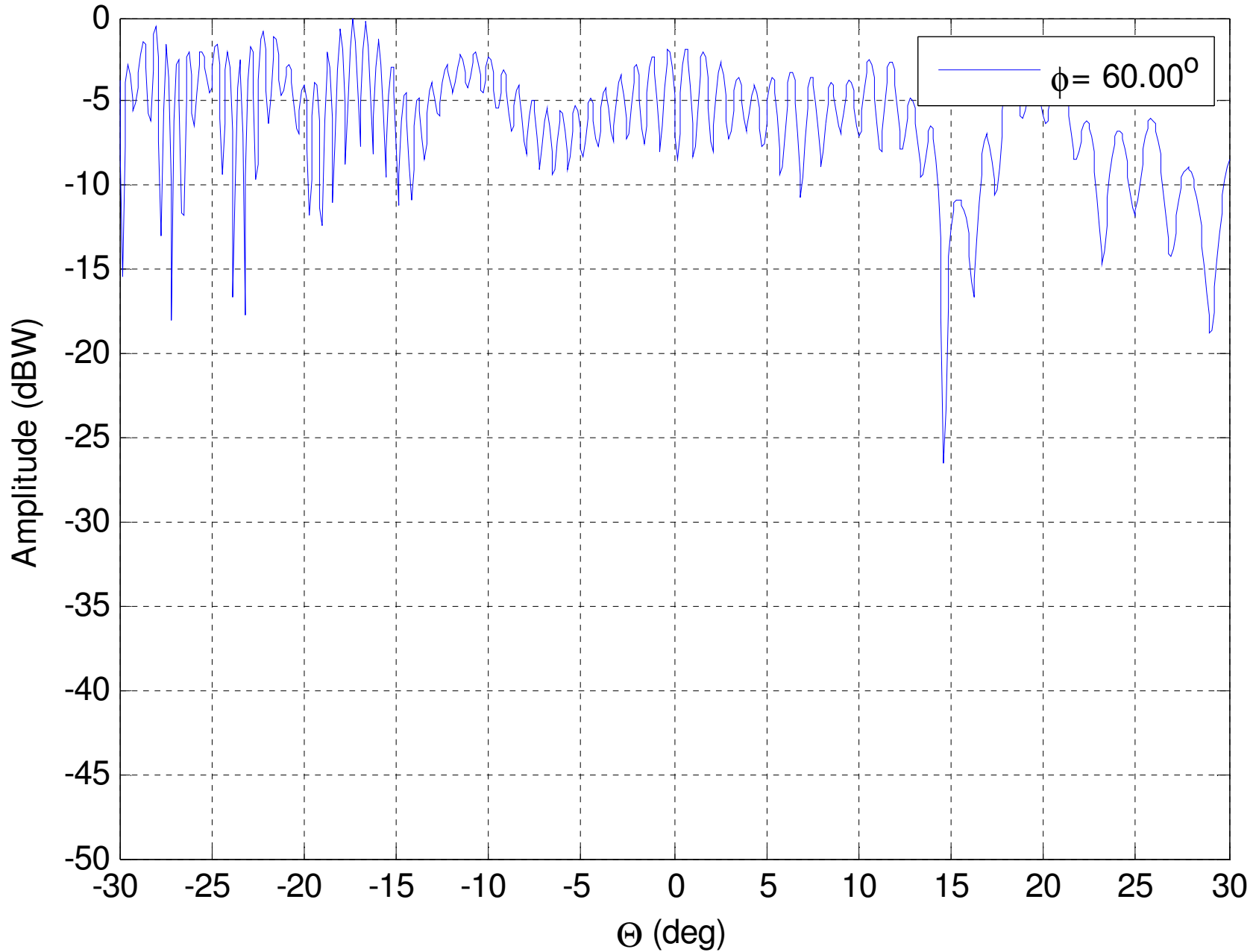
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: 1.67 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

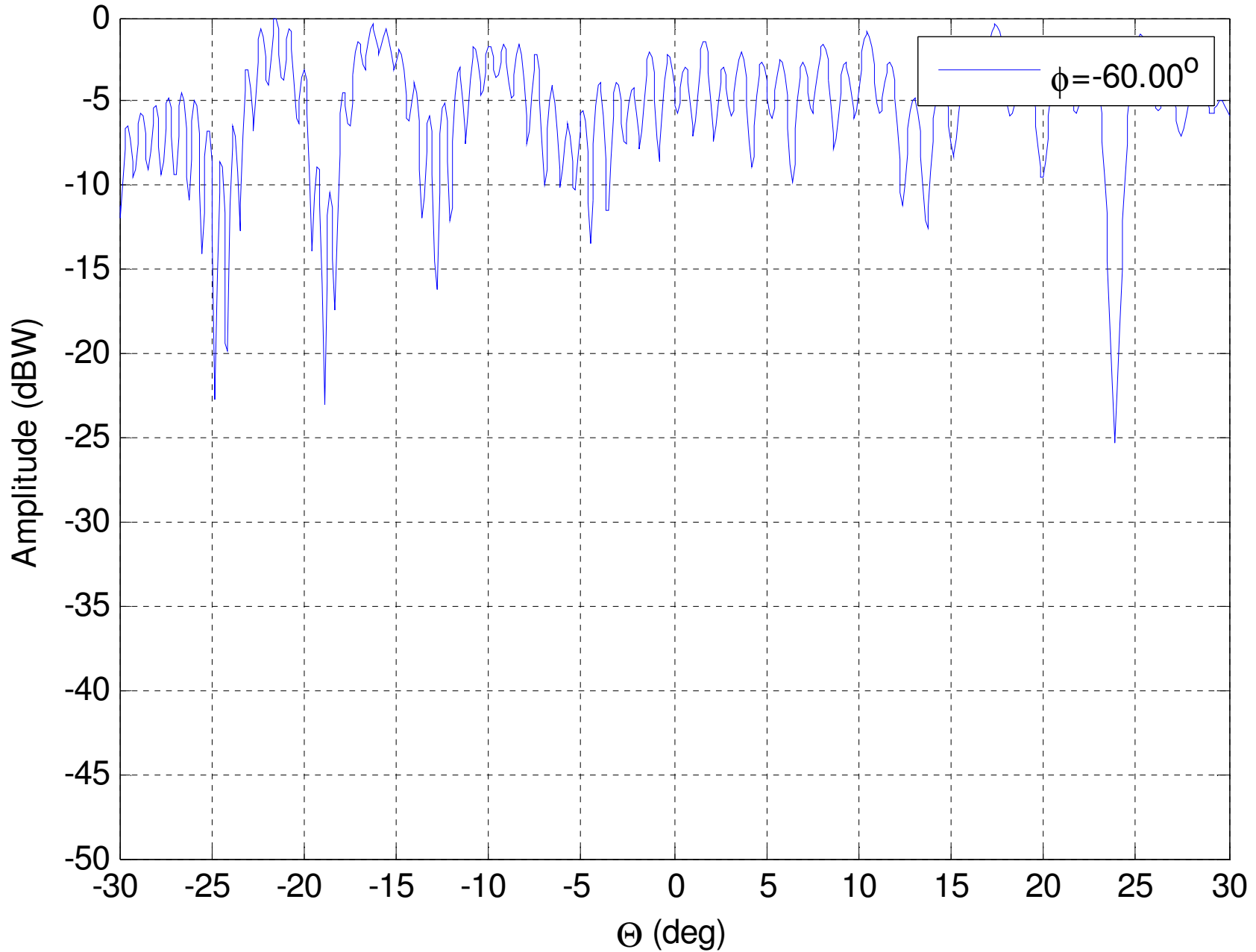
Input file: tx-17.5-lhcp-60.cut, Peak: 2.12 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

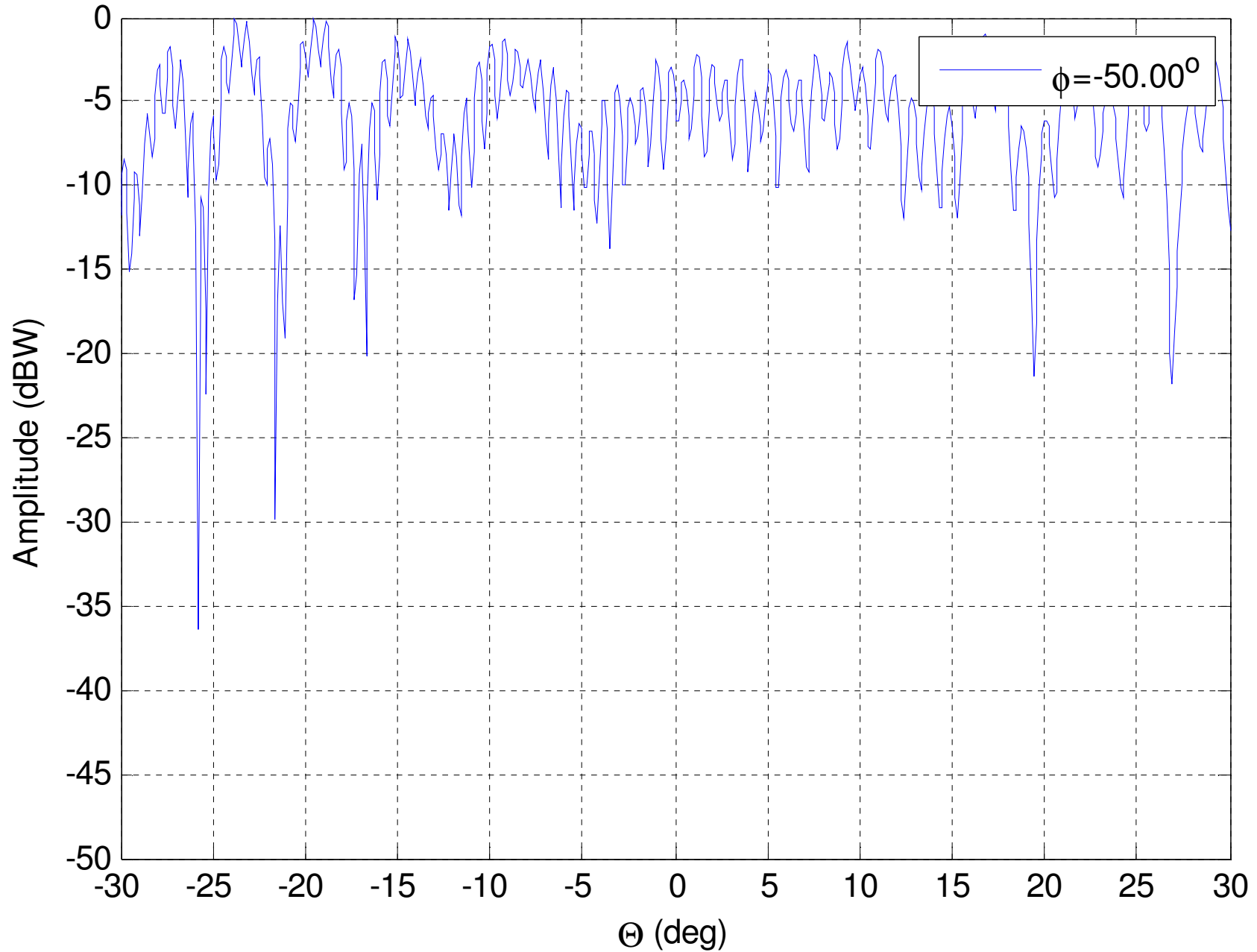
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: 1.58 dBW, Date: 16-Dec-2011



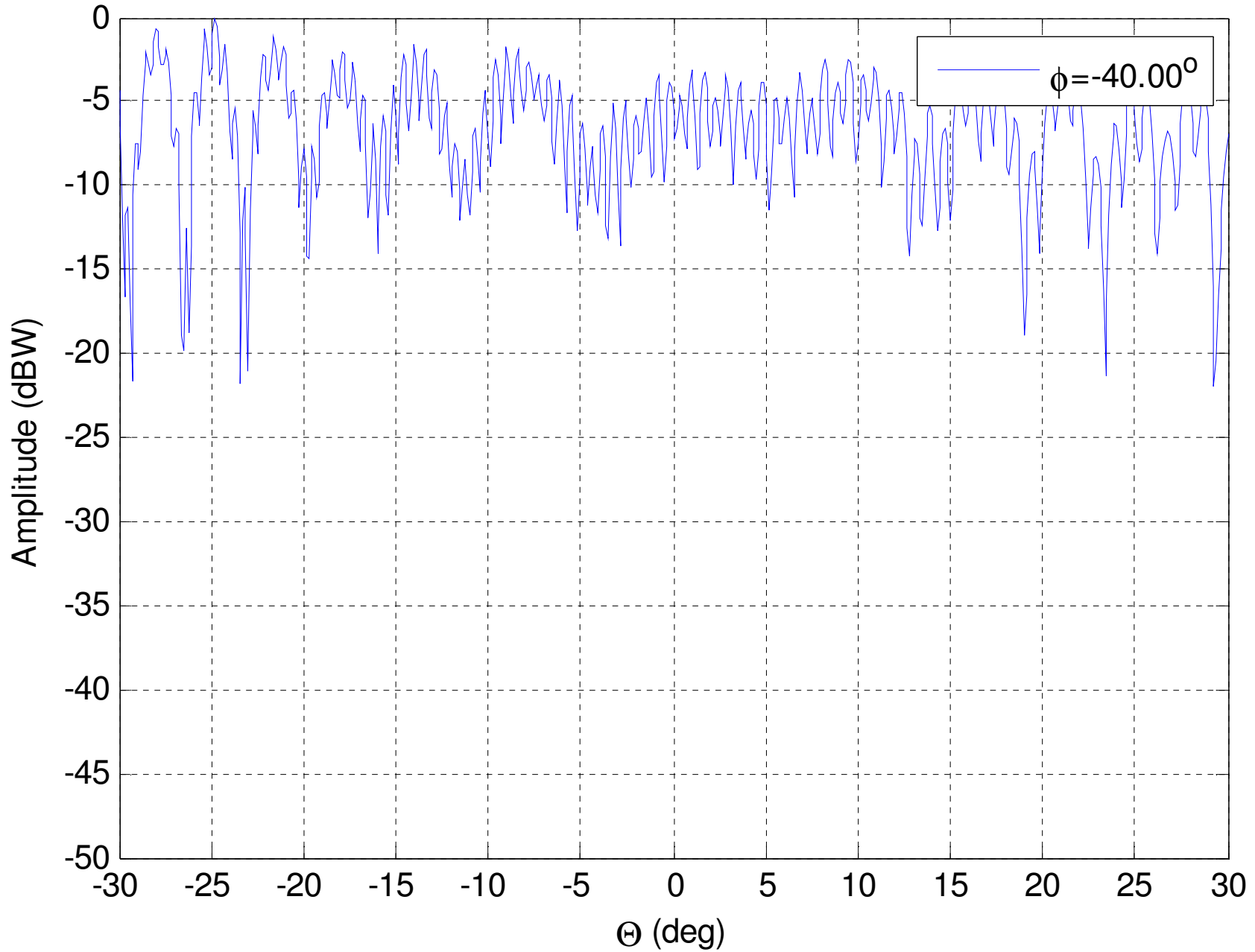
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: 2.20 dBW, Date: 16-Dec-2011



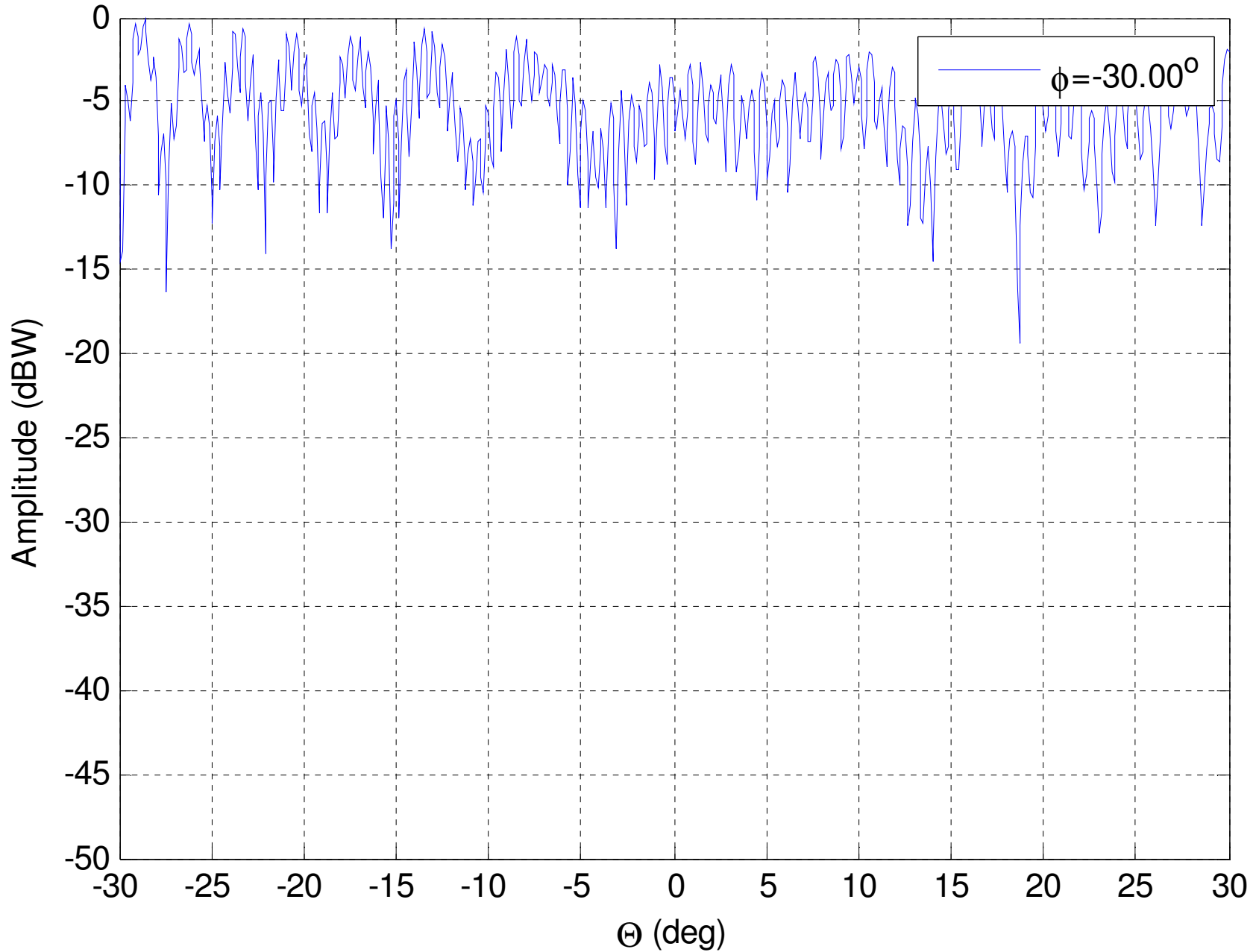
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: 3.08 dBW, Date: 16-Dec-2011



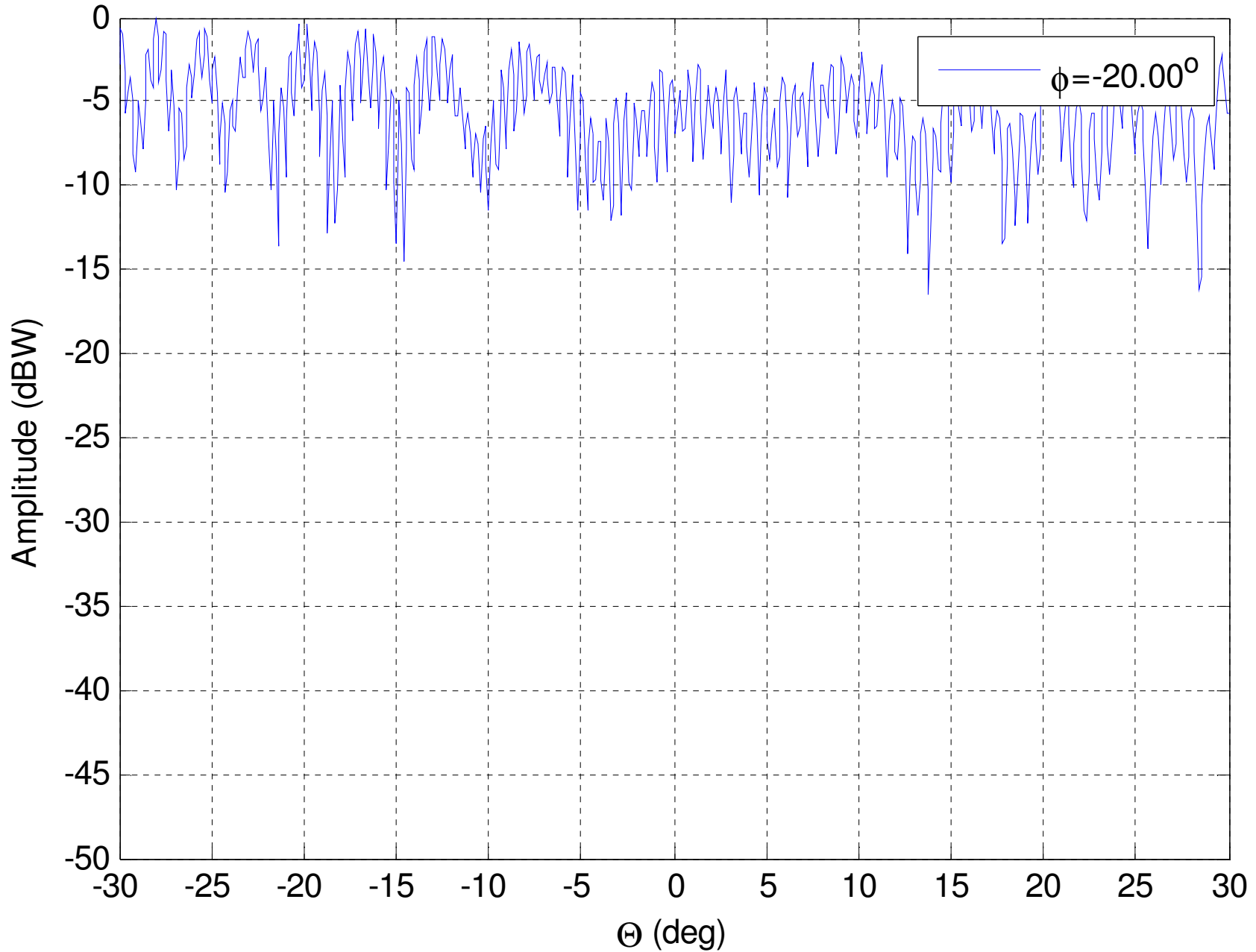
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: 2.55 dBW, Date: 16-Dec-2011



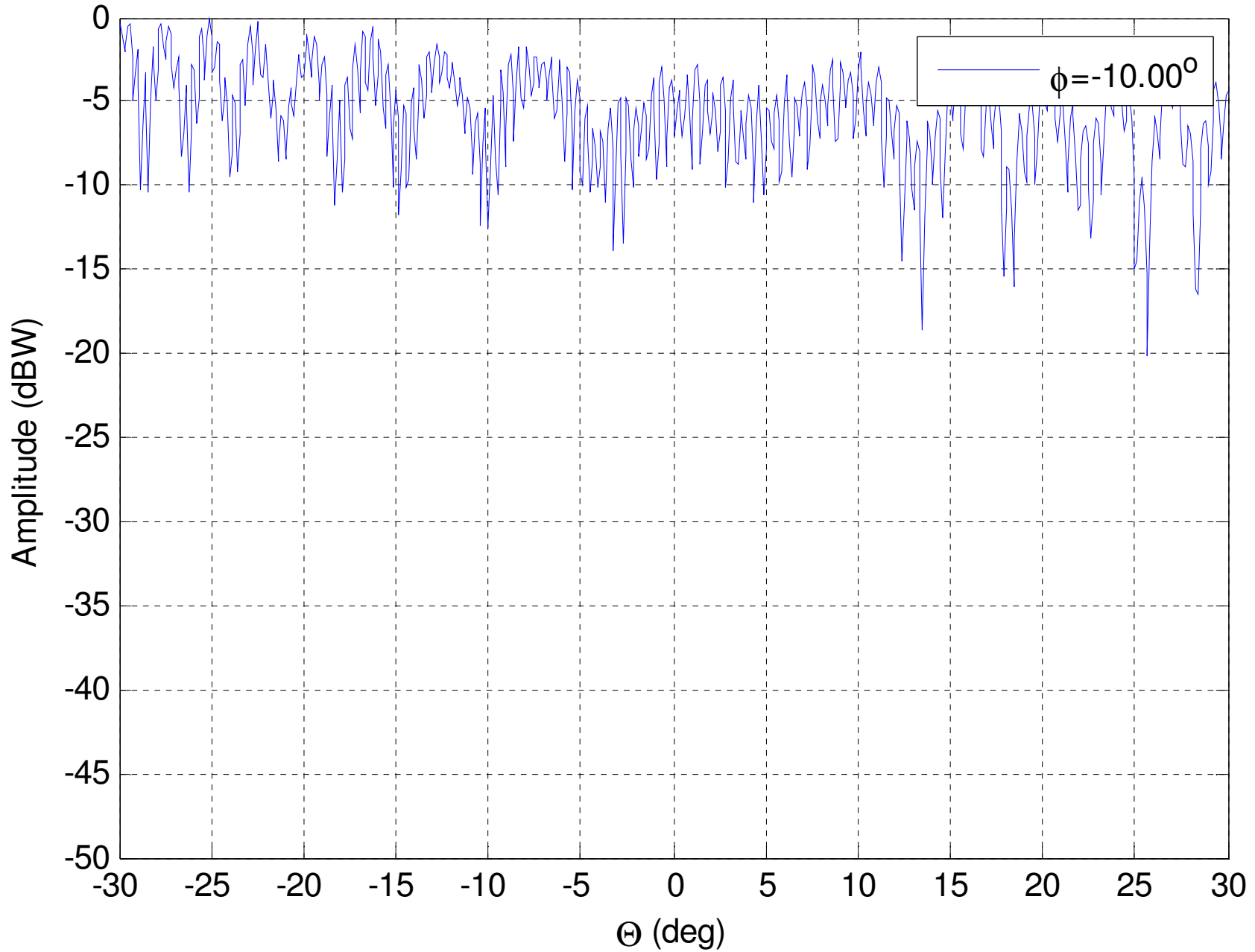
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: 2.75 dBW, Date: 16-Dec-2011



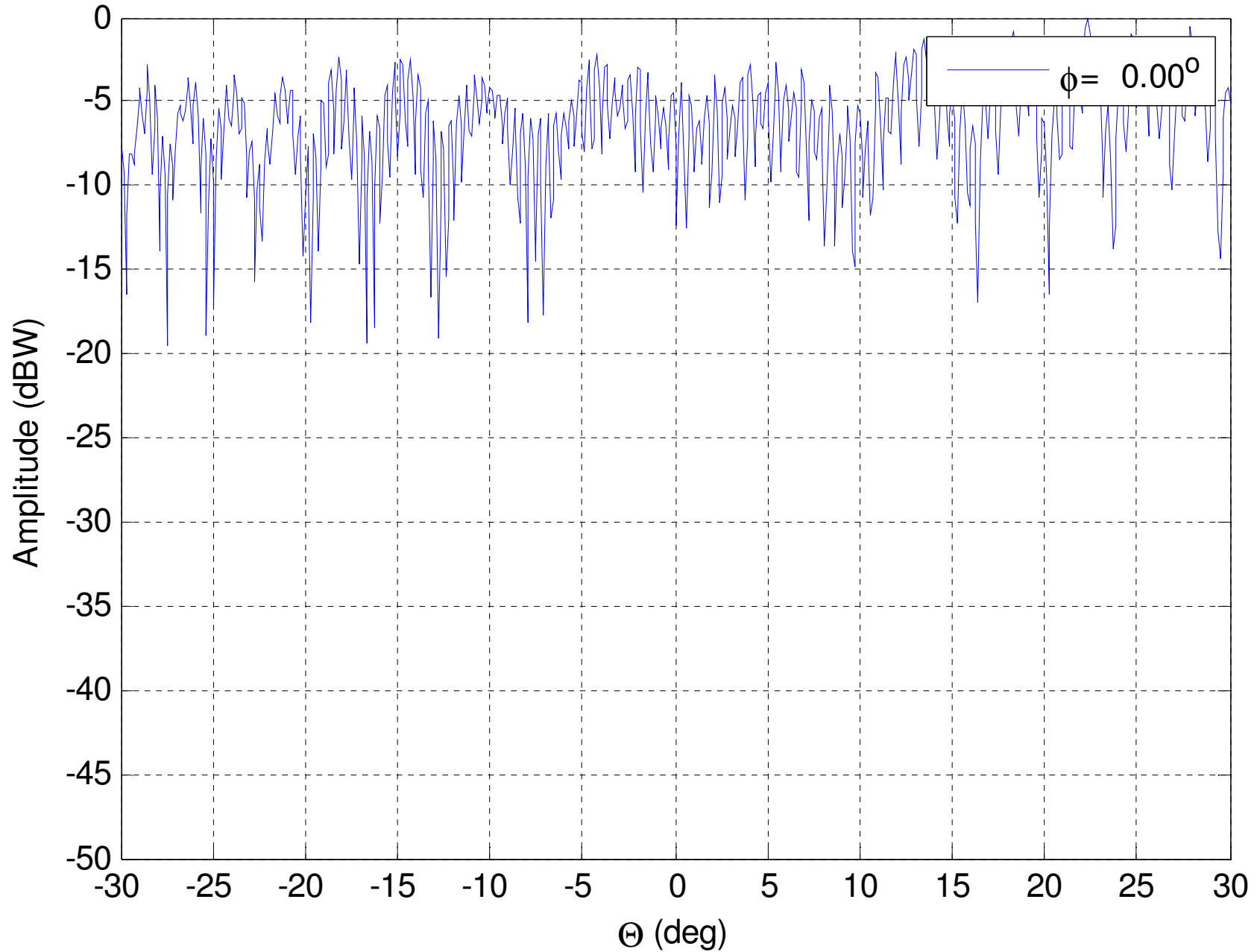
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: 2.78 dBW, Date: 16-Dec-2011



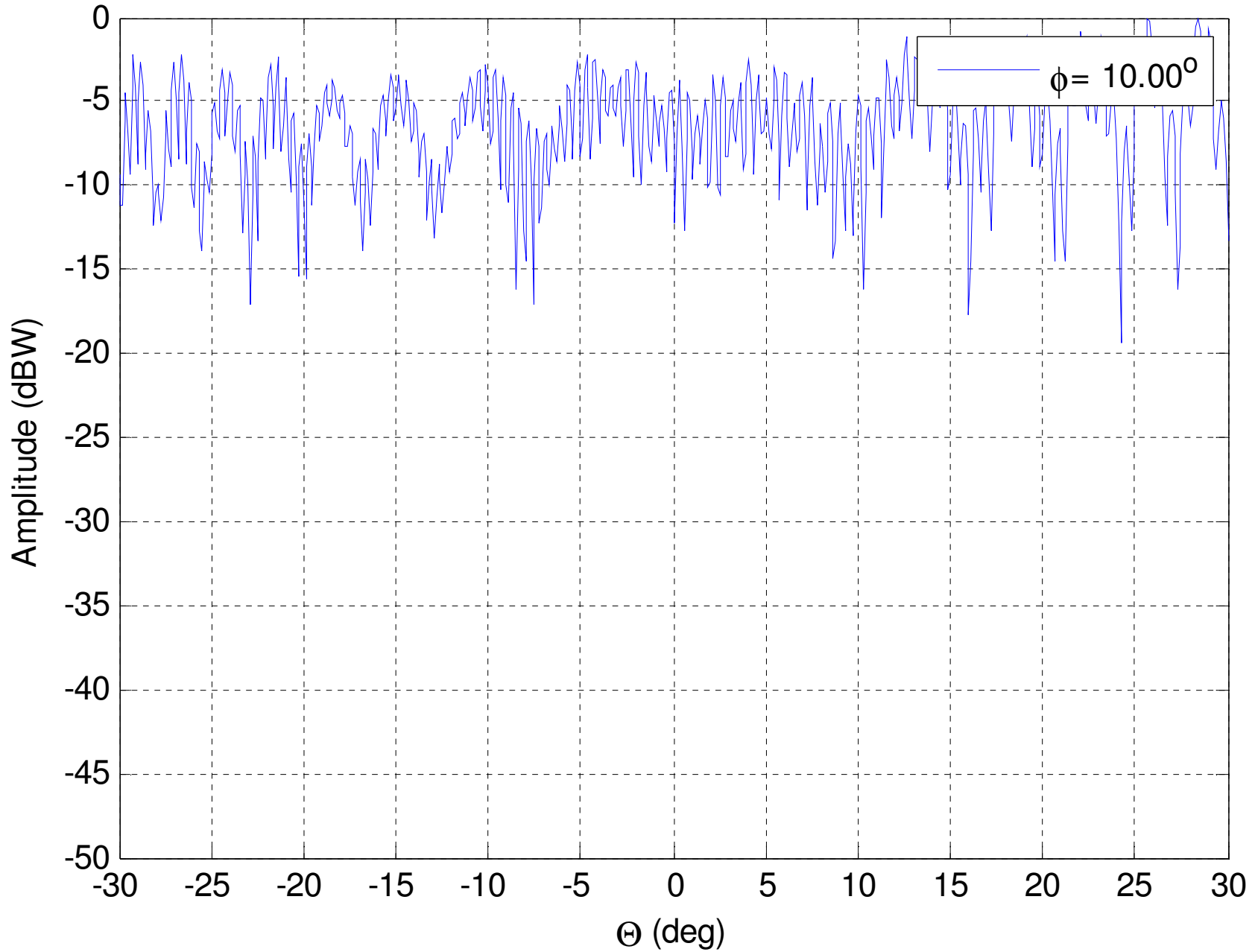
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: 3.12 dBW, Date: 16-Dec-2011



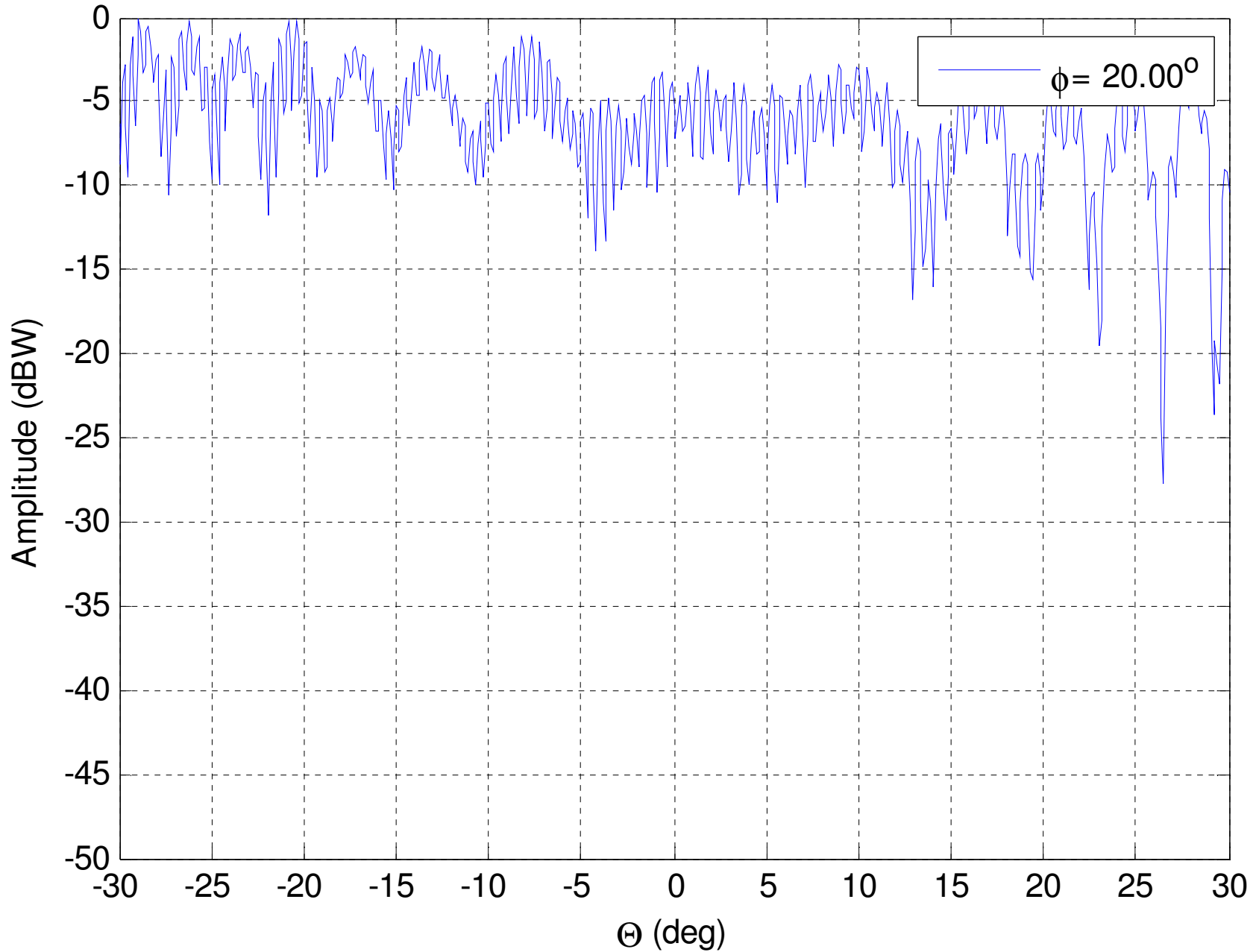
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: 3.02 dBW, Date: 16-Dec-2011



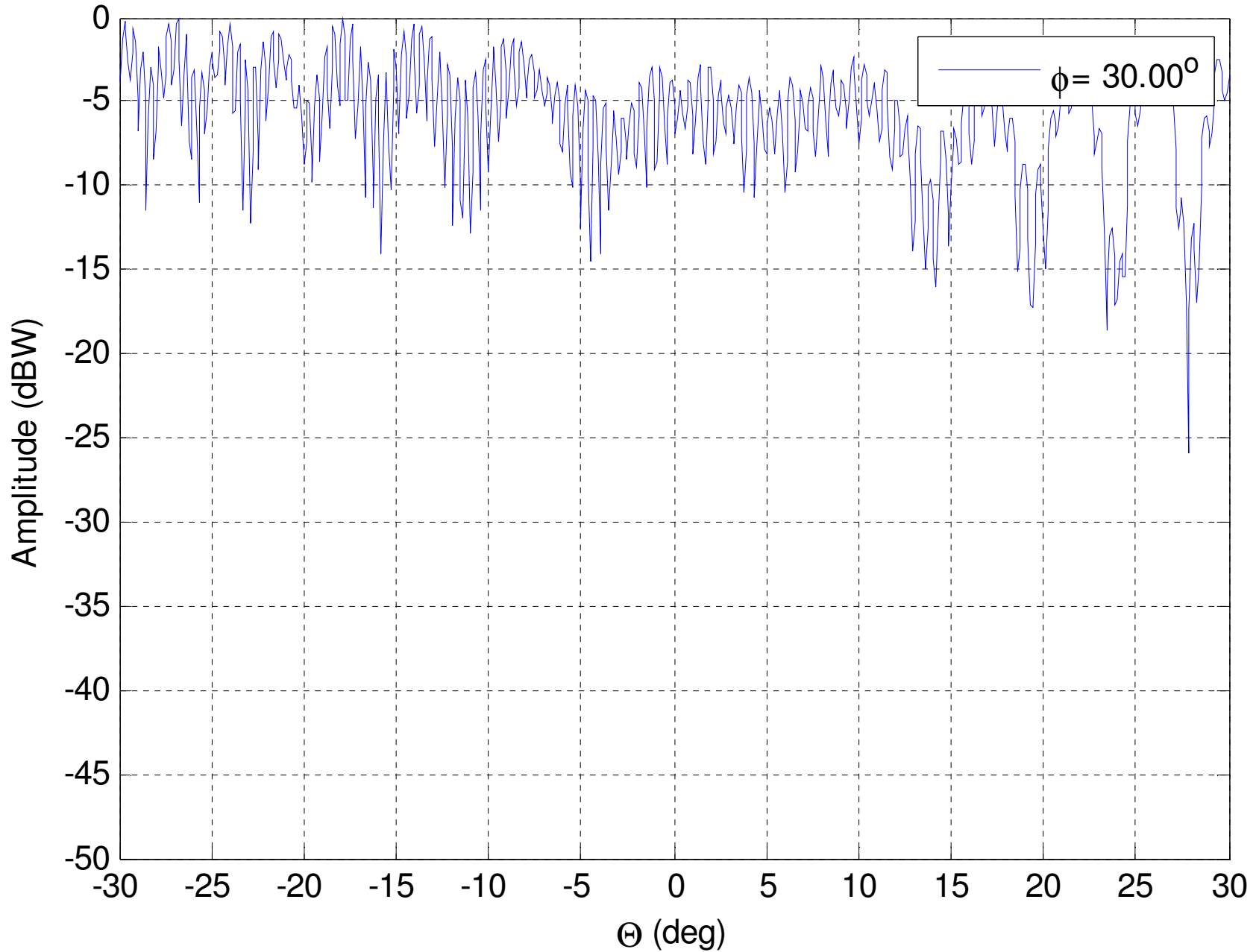
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: 2.97 dBW, Date: 16-Dec-2011



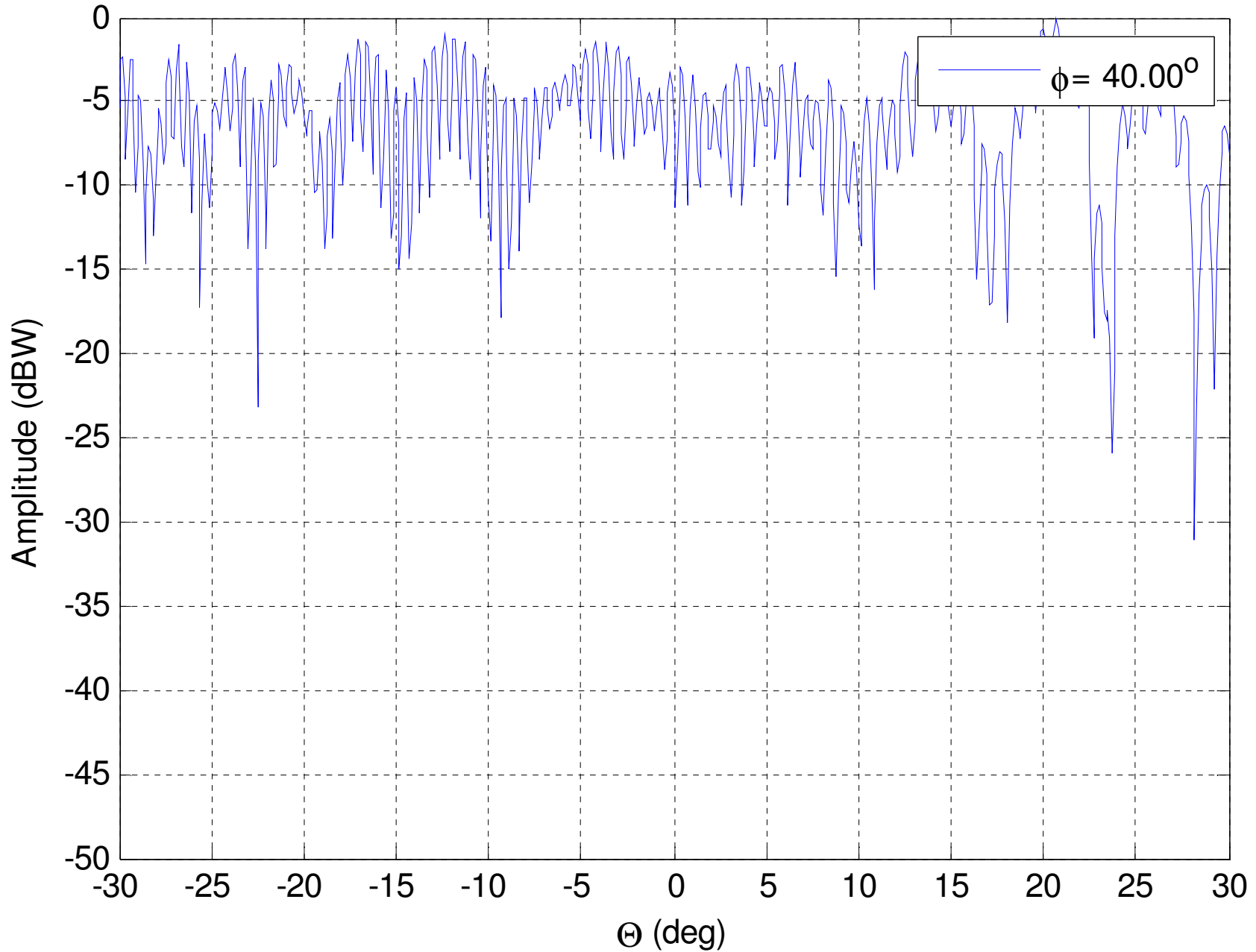
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: 2.63 dBW, Date: 16-Dec-2011



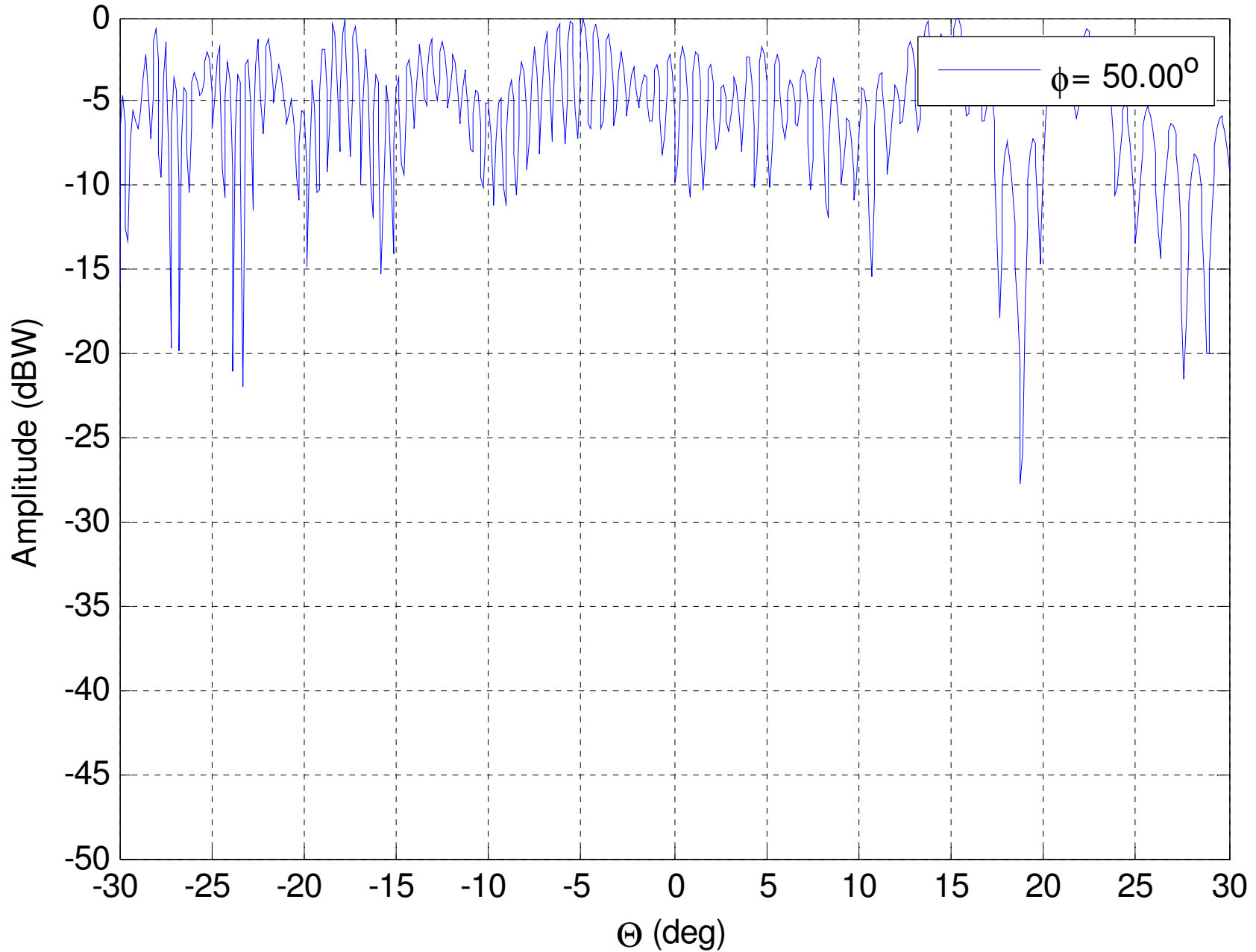
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: 2.32 dBW, Date: 16-Dec-2011



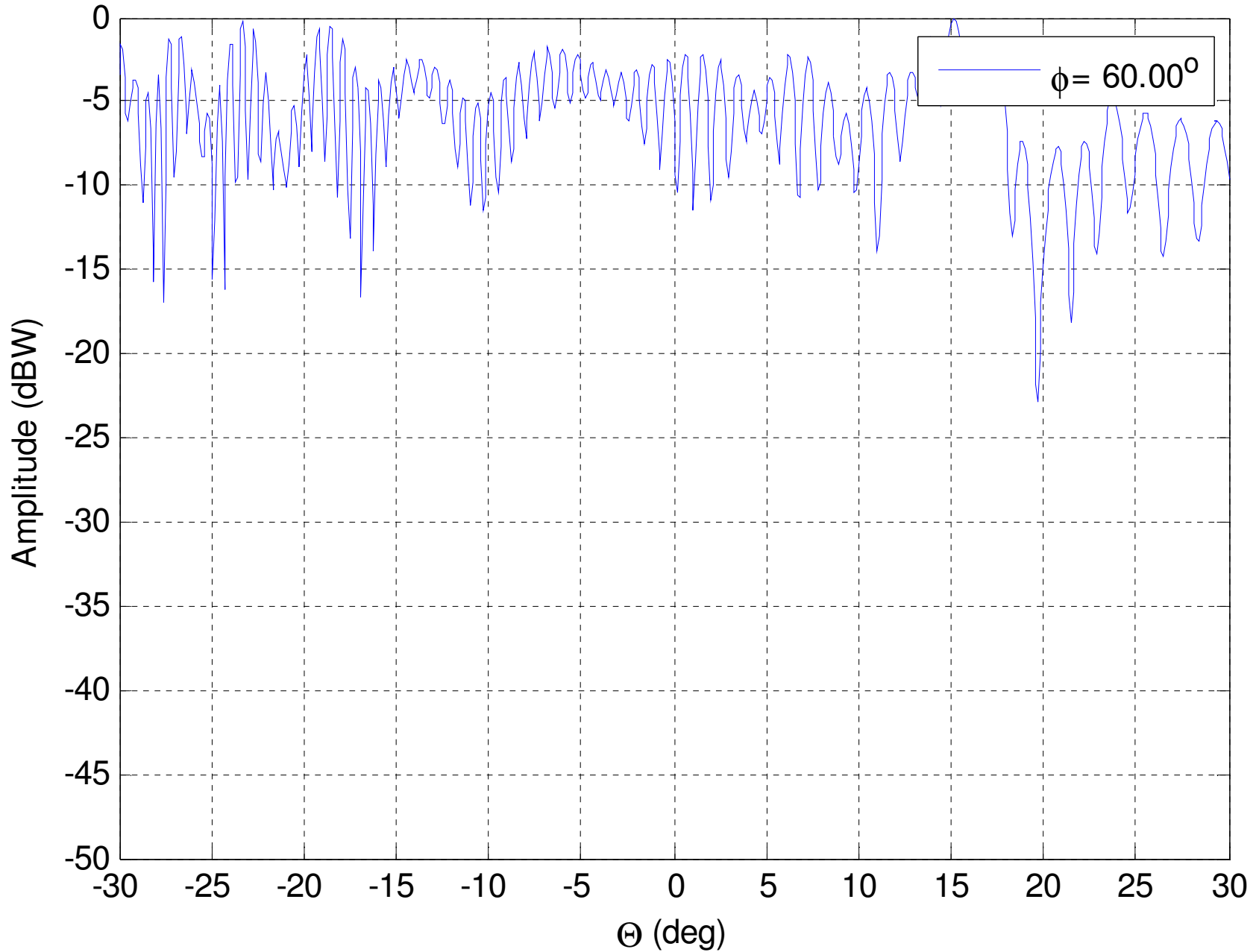
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: 1.27 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

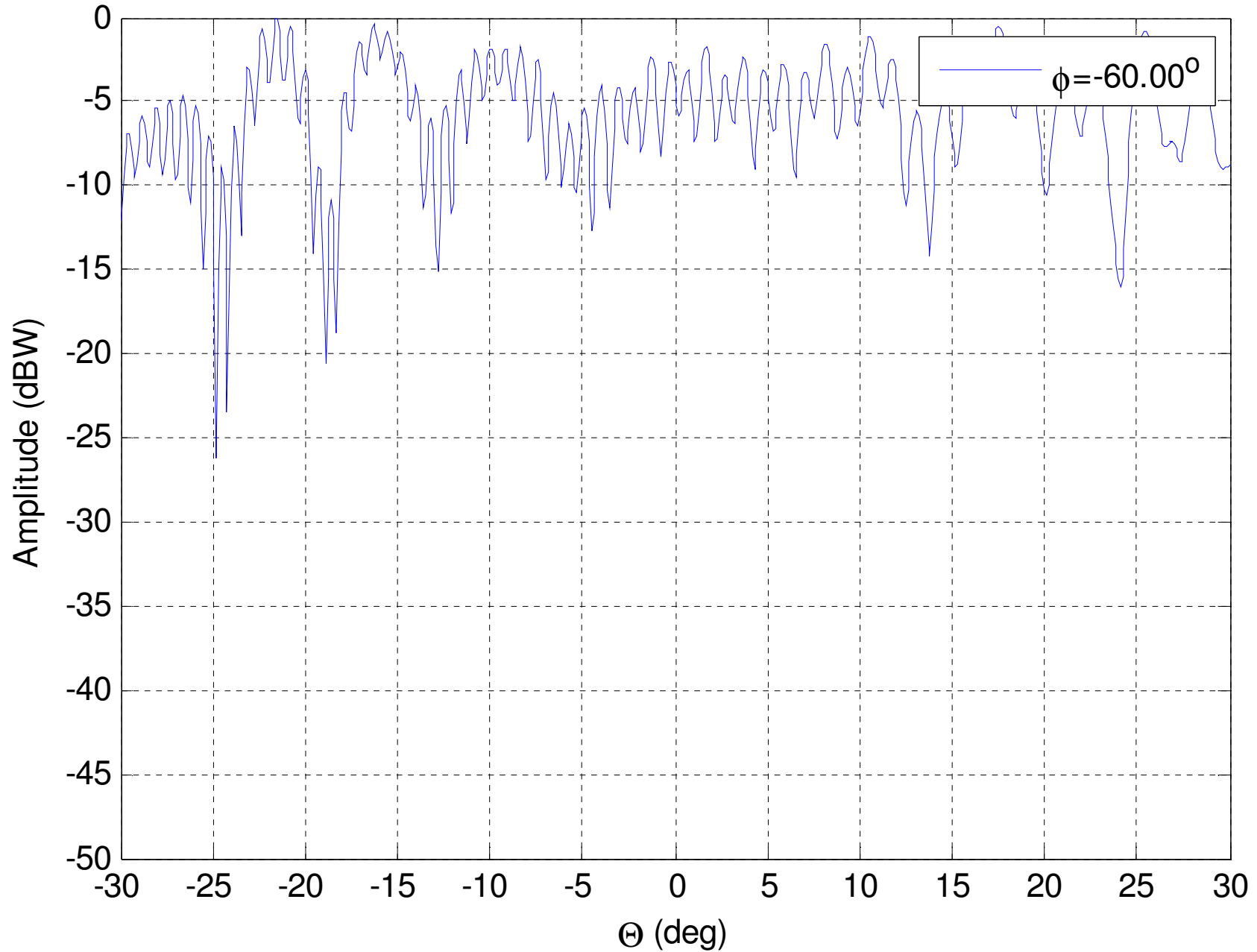
Input file: tx-17.7-rhcp-60.cut, Peak: 1.60 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

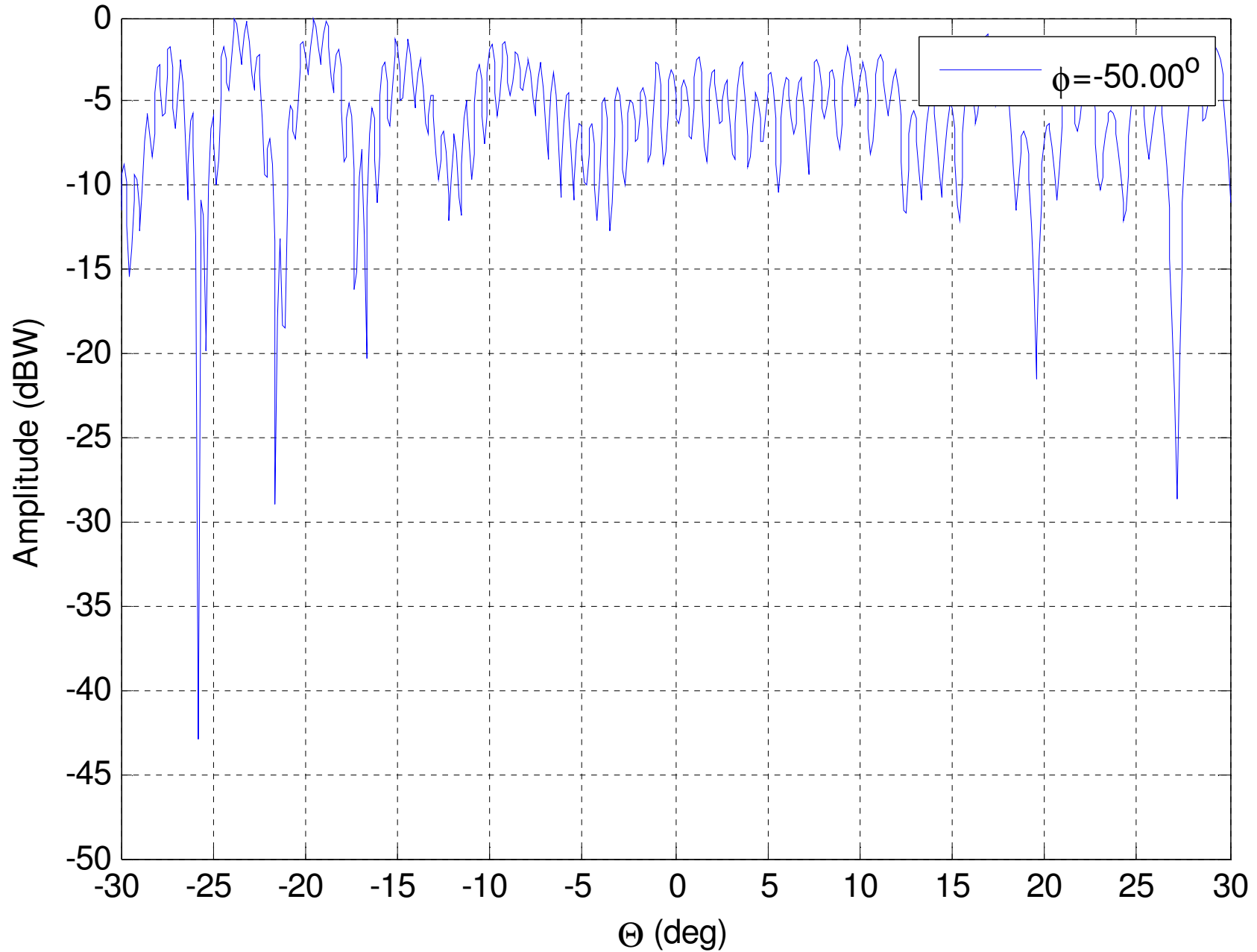
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: 1.87 dBW, Date: 16-Dec-2011



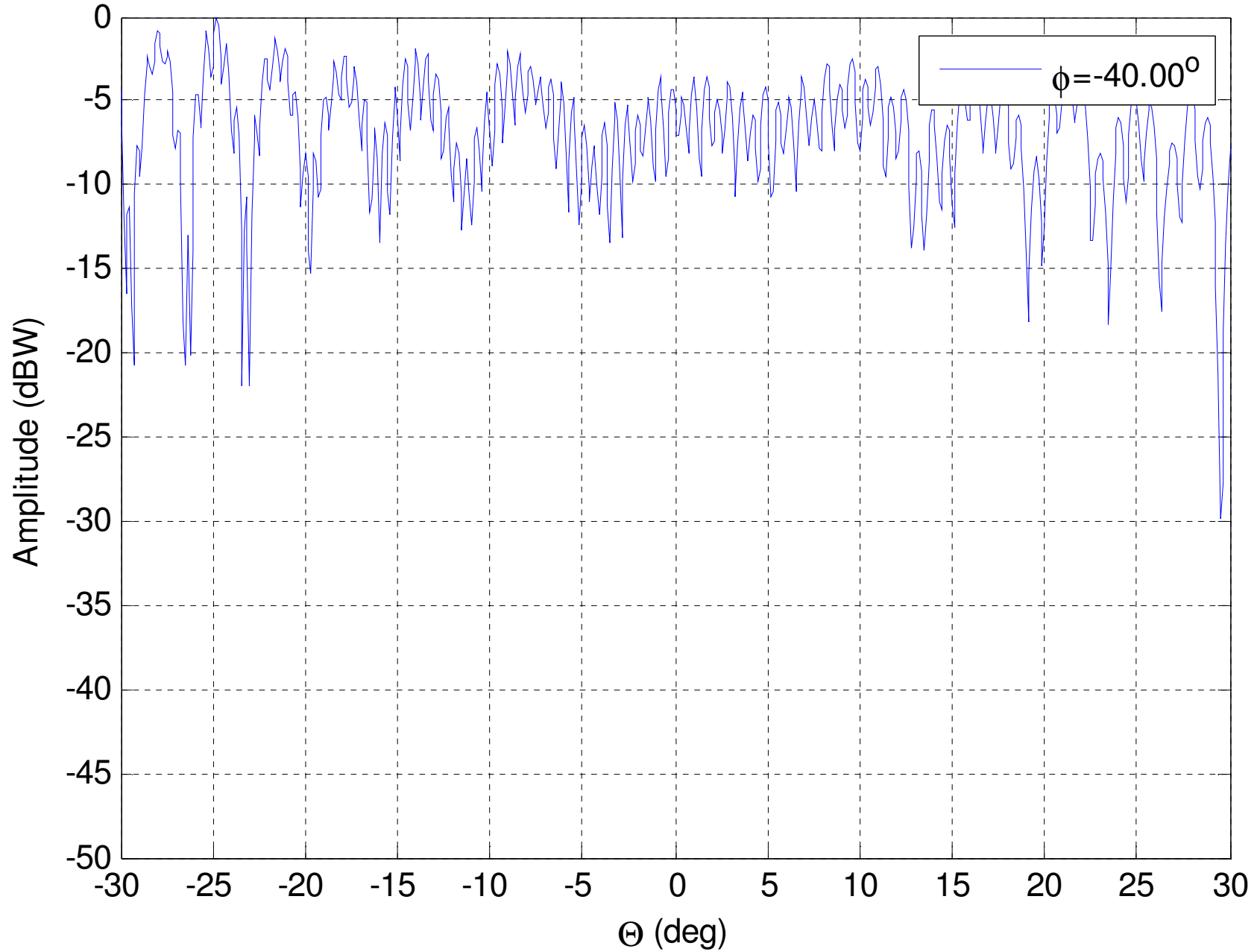
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: 2.35 dBW, Date: 16-Dec-2011



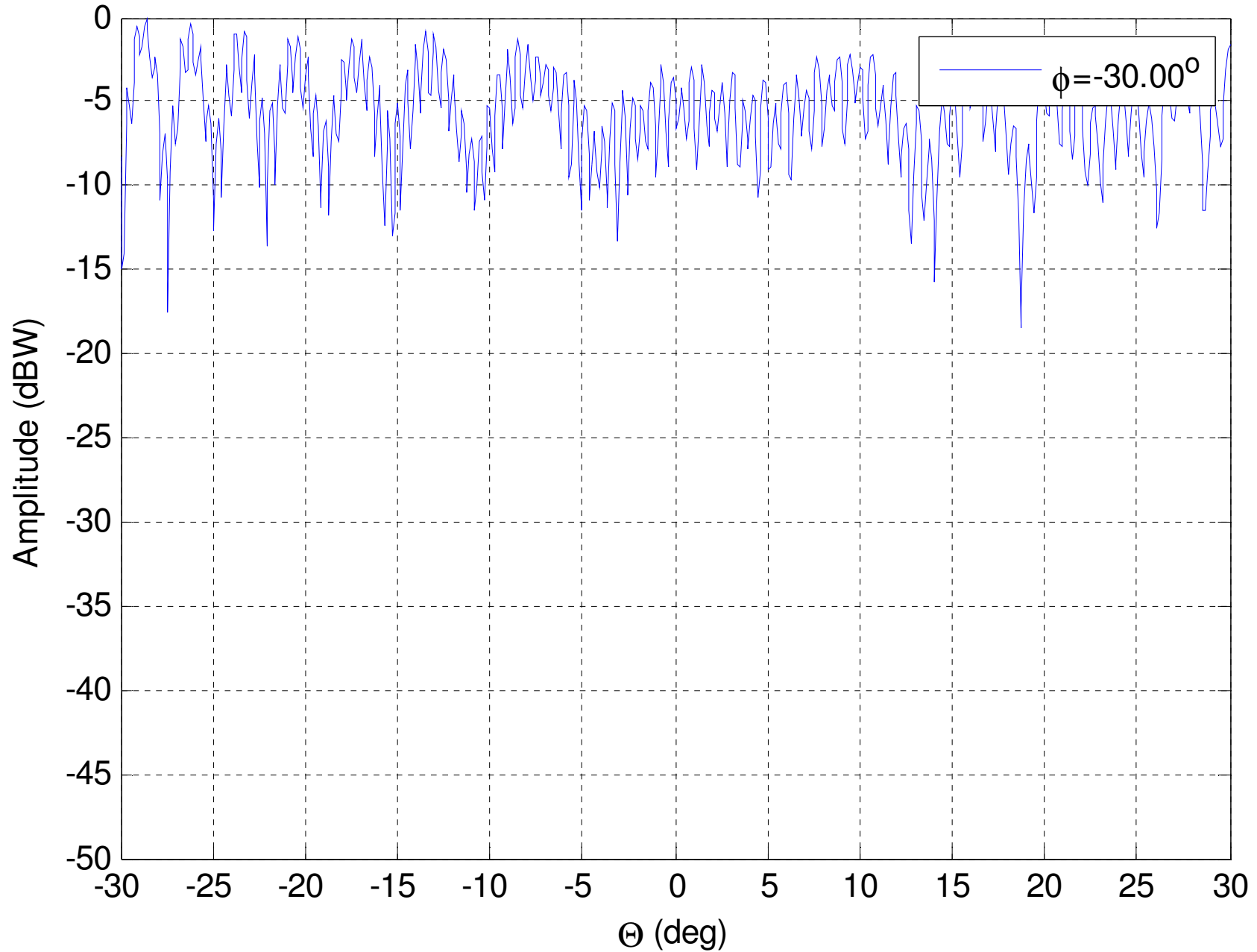
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: 3.32 dBW, Date: 16-Dec-2011



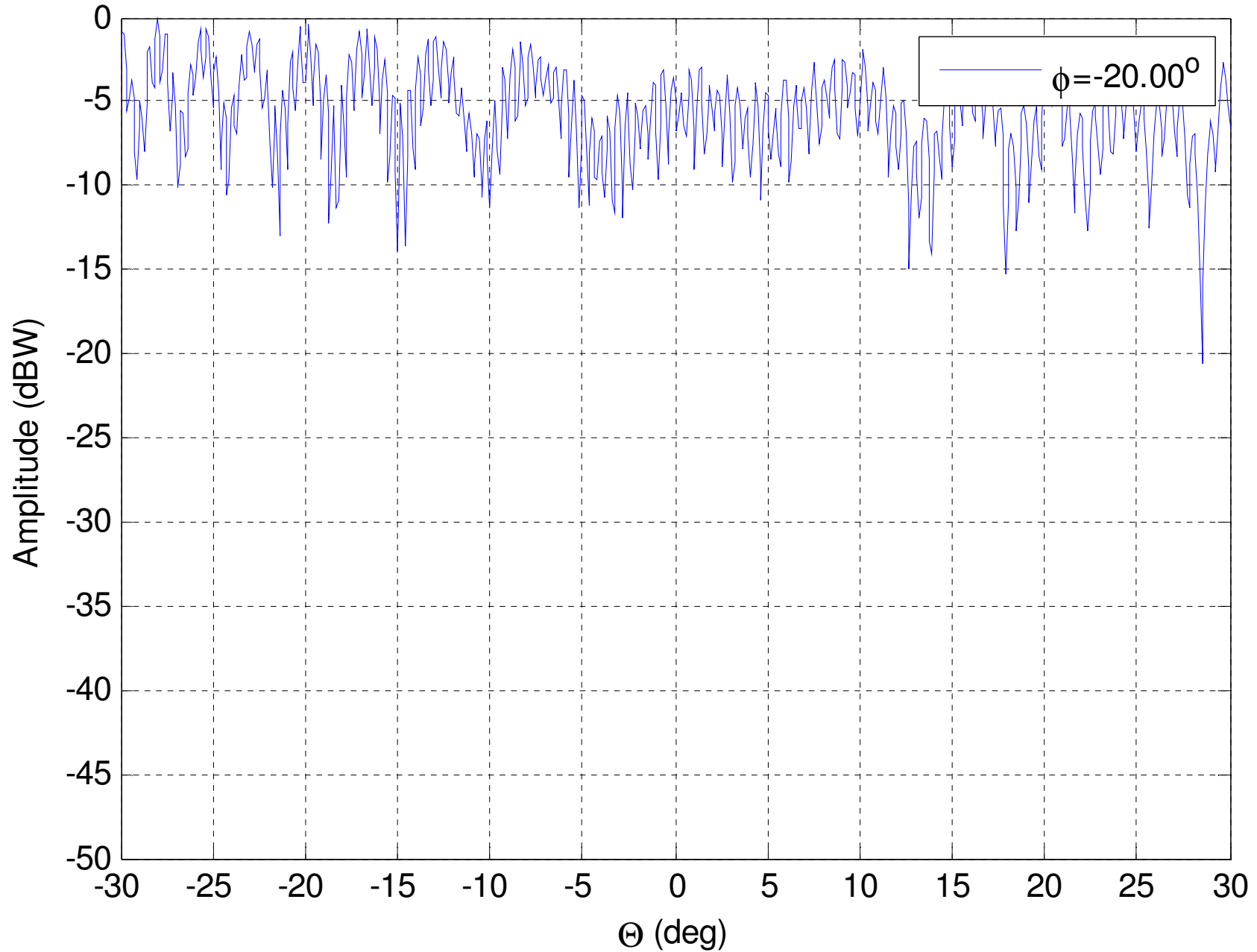
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: 2.66 dBW, Date: 16-Dec-2011



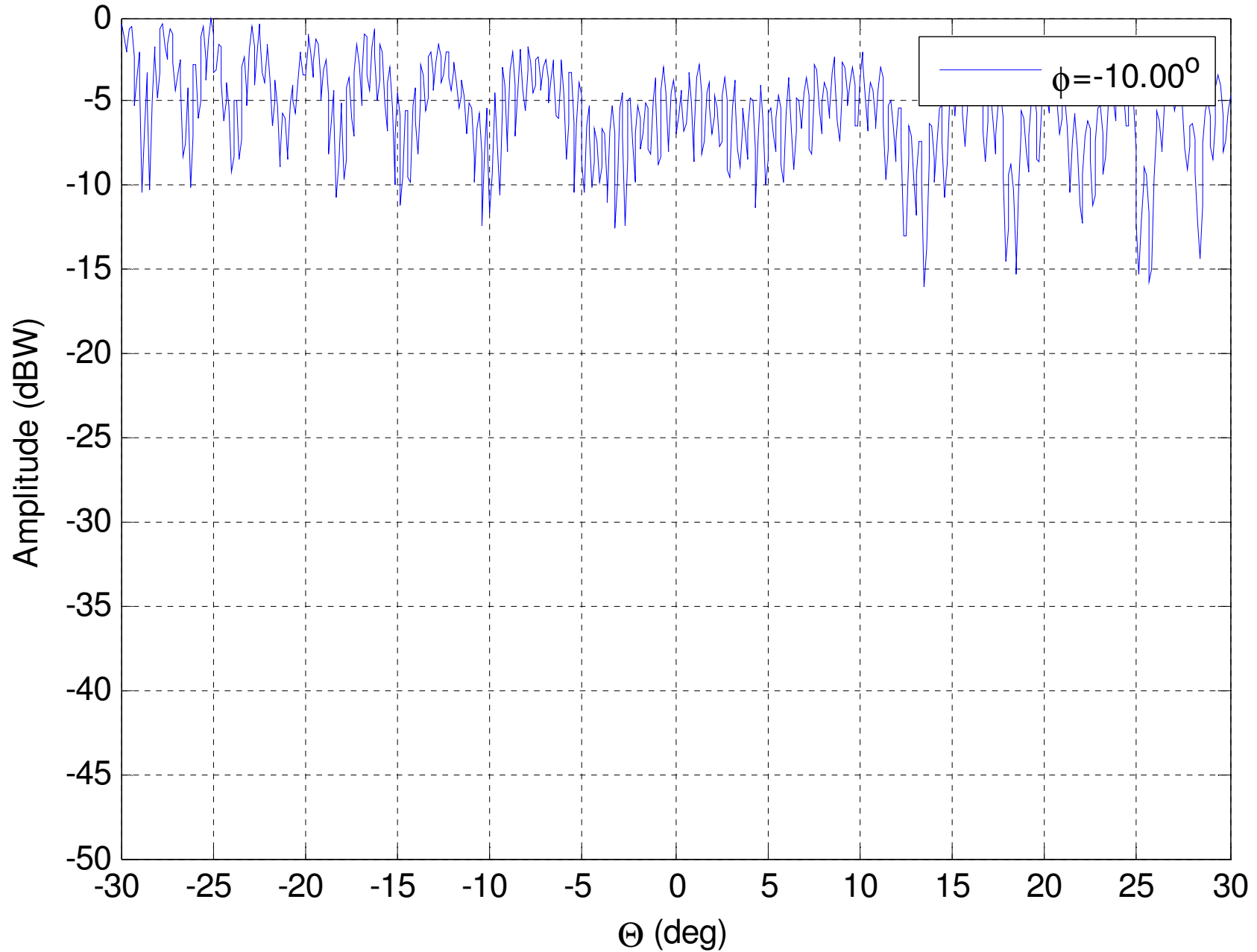
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: 2.76 dBW, Date: 16-Dec-2011



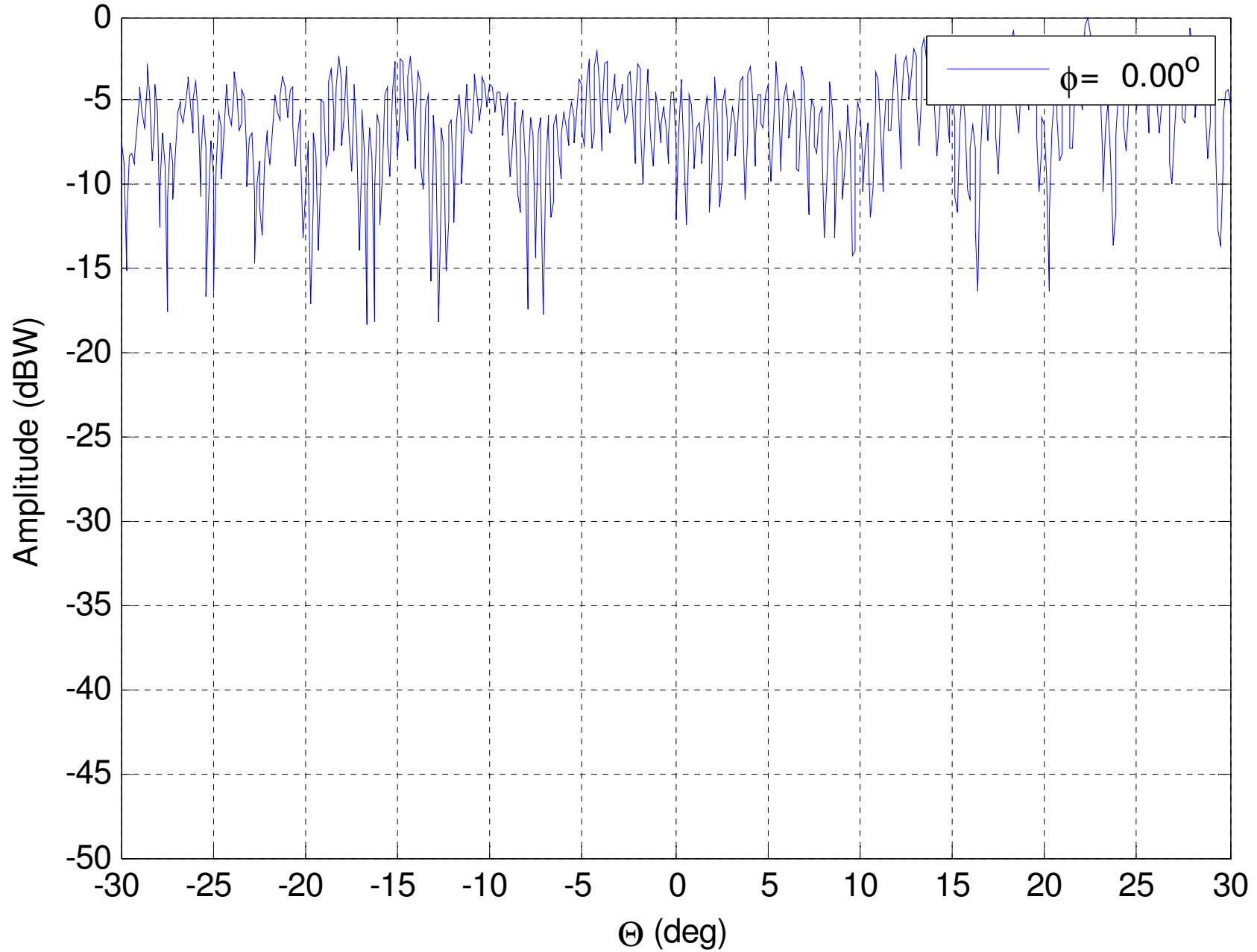
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: 2.80 dBW, Date: 16-Dec-2011



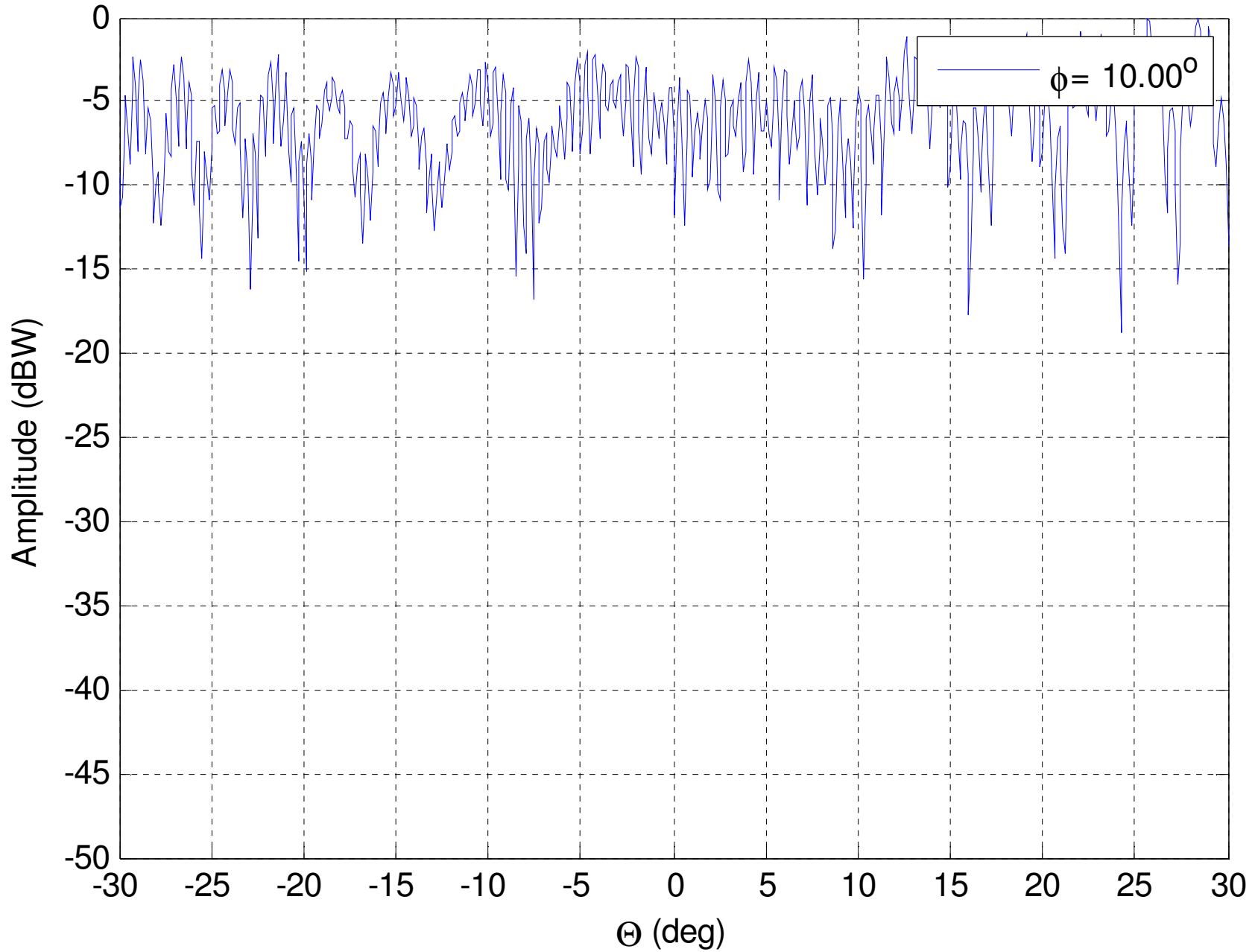
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: 3.14 dBW, Date: 16-Dec-2011



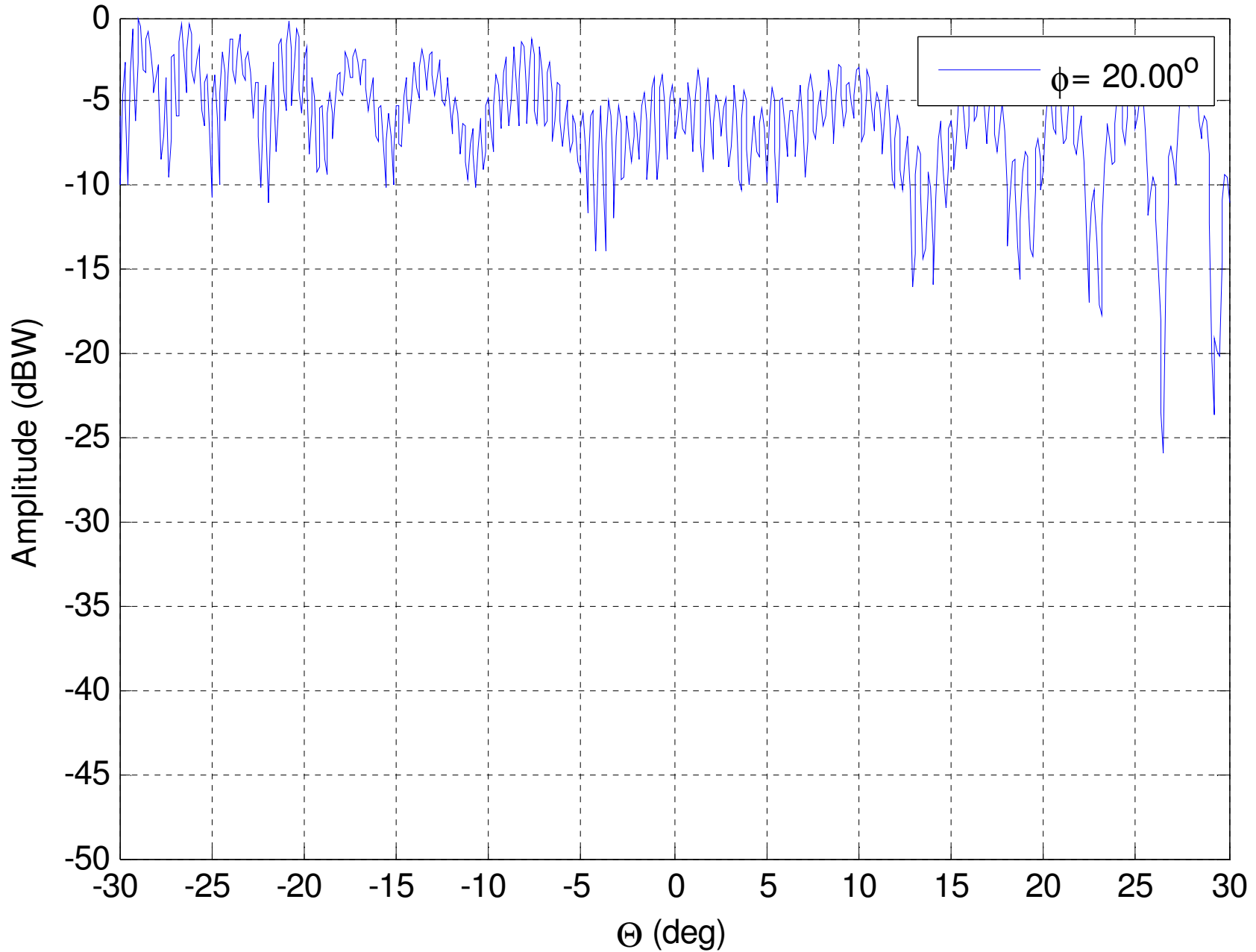
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: 2.90 dBW, Date: 16-Dec-2011



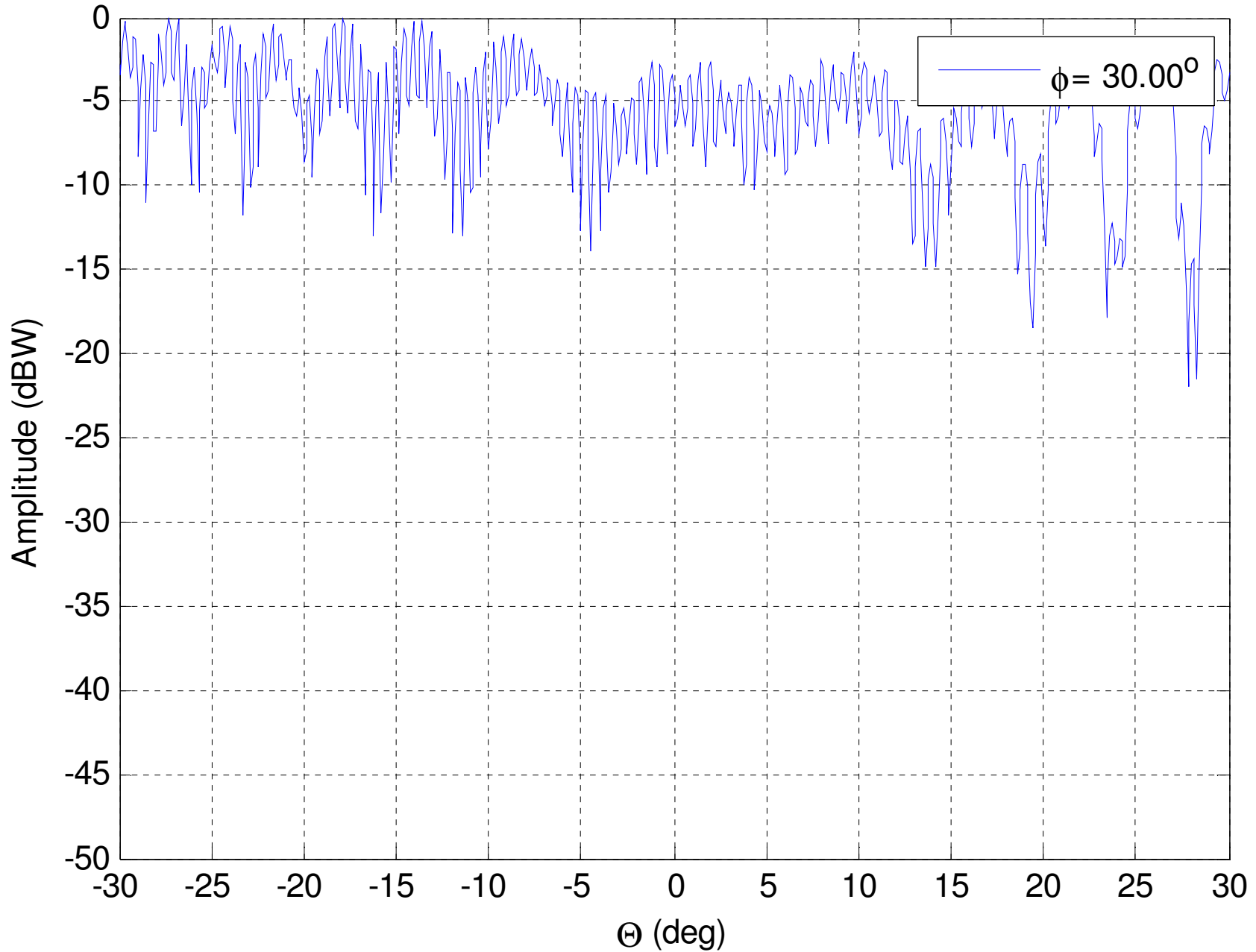
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: 3.09 dBW, Date: 16-Dec-2011



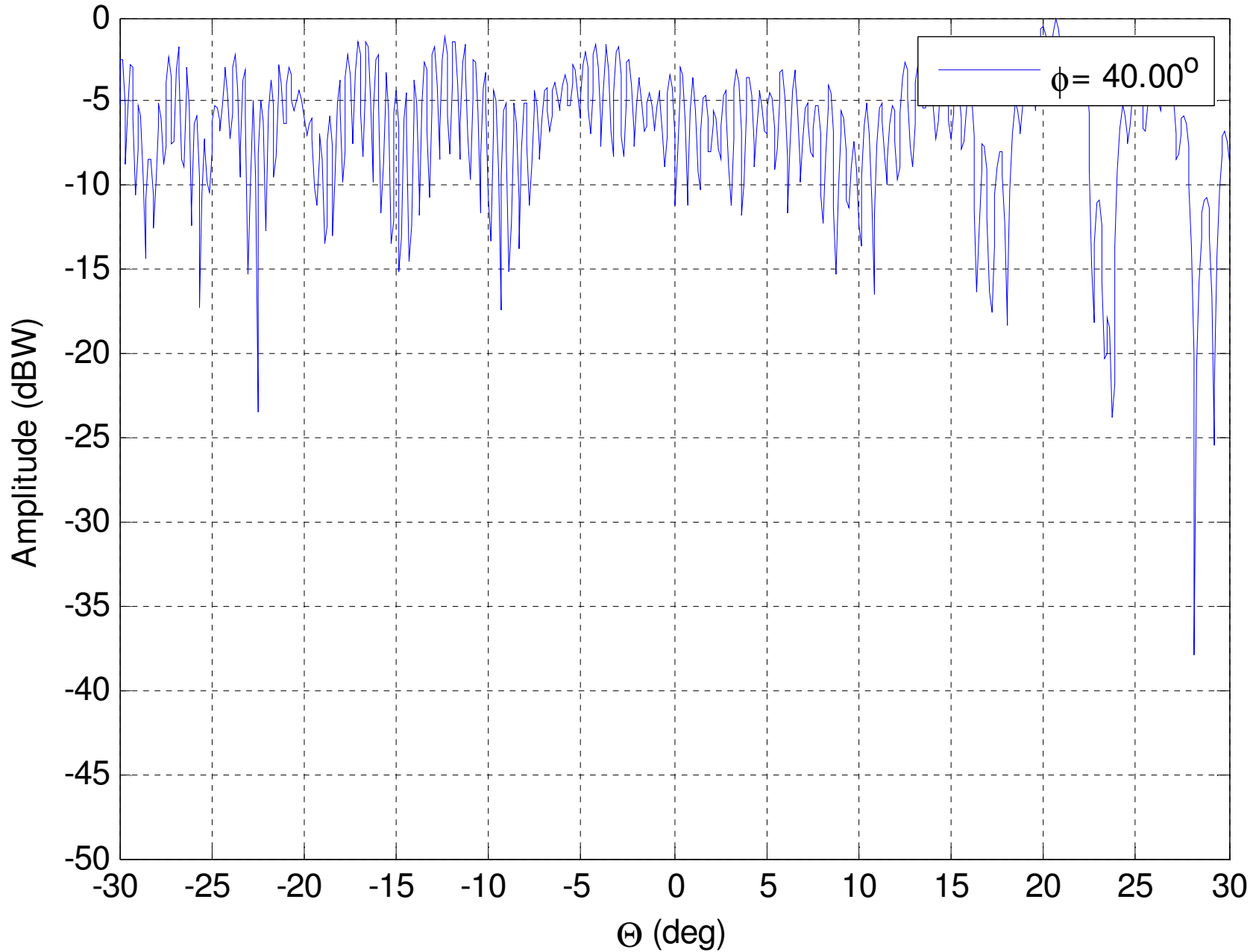
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: 2.42 dBW, Date: 16-Dec-2011



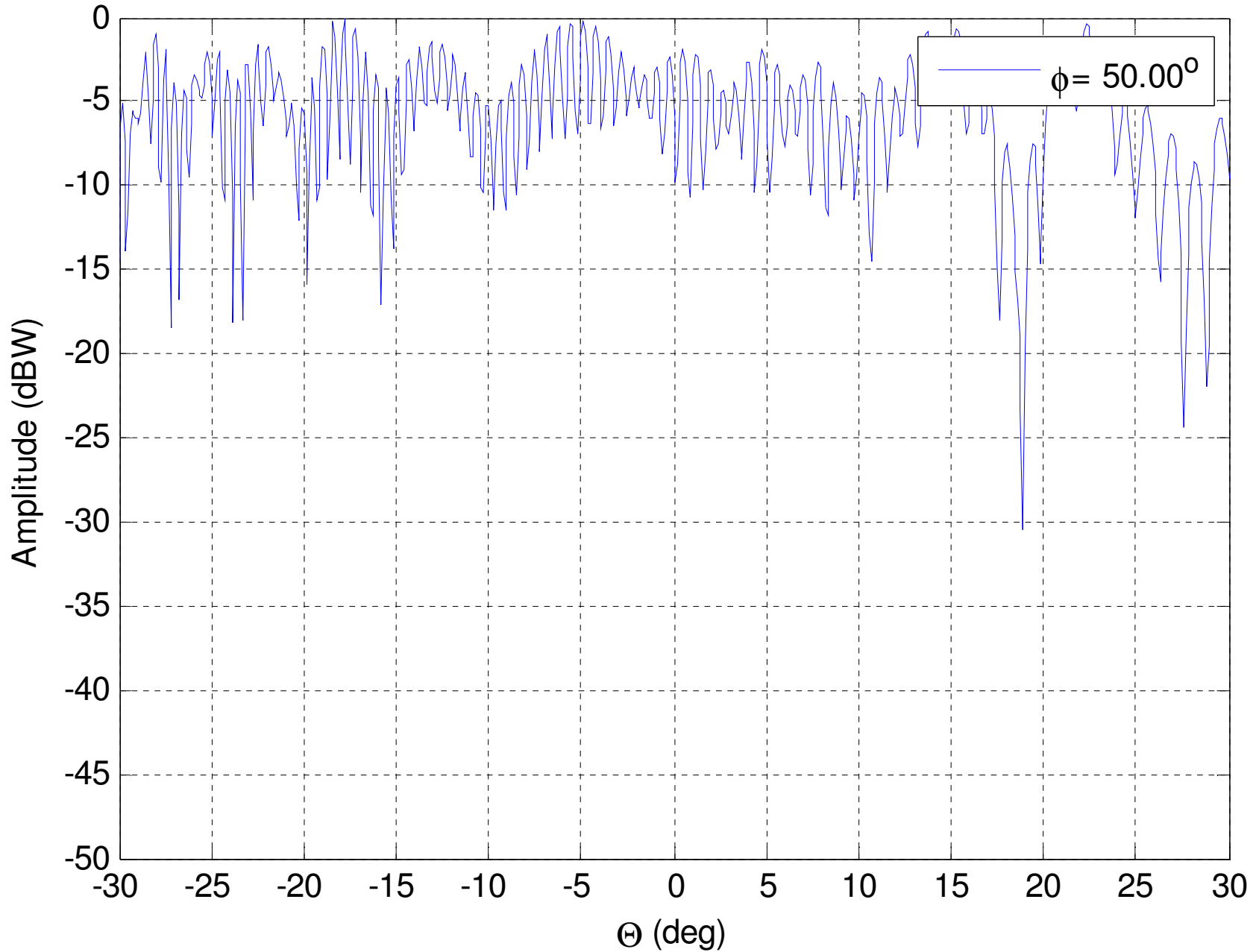
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: 2.51 dBW, Date: 16-Dec-2011



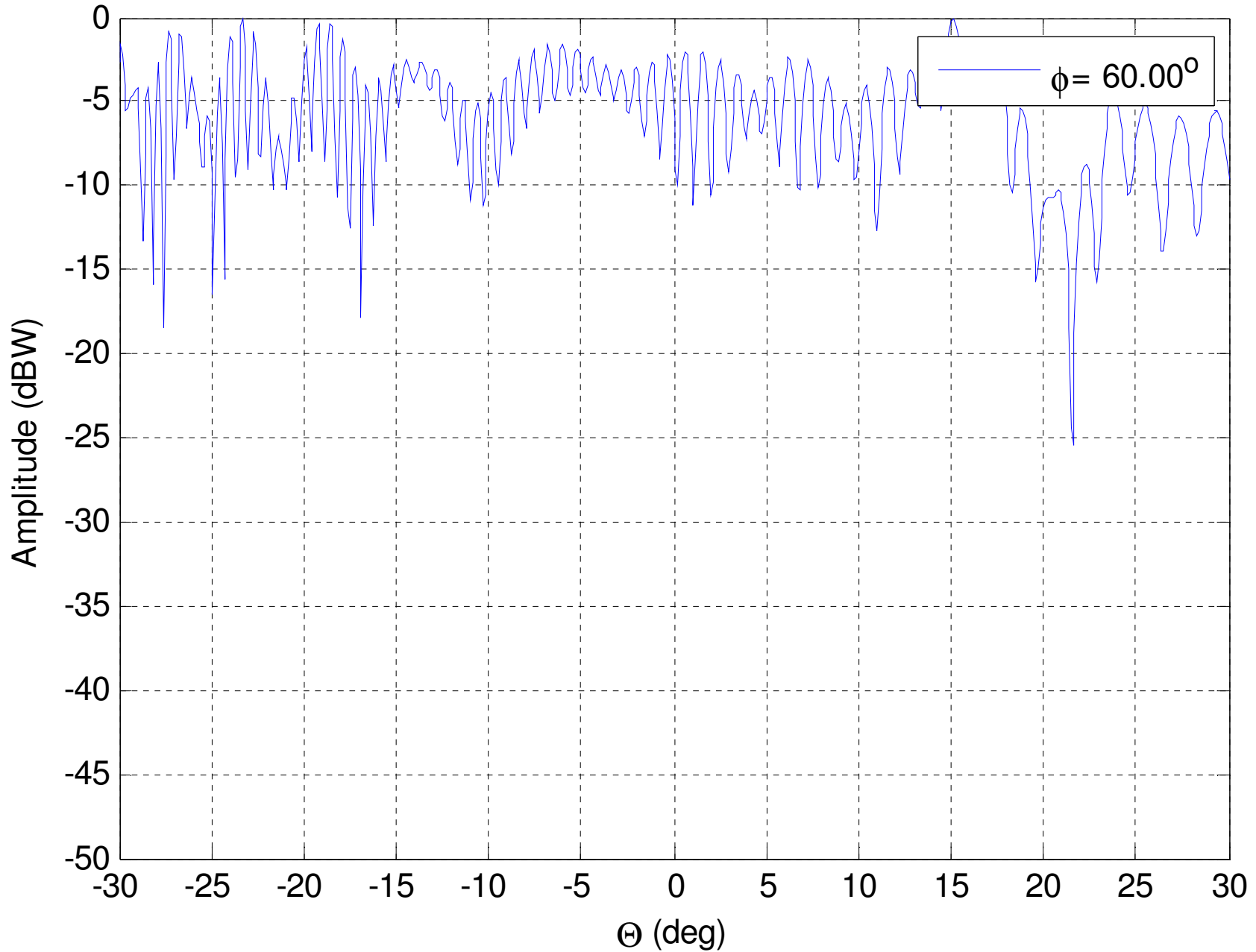
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: 1.48 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: 1.48 dBW, Date: 16-Dec-2011



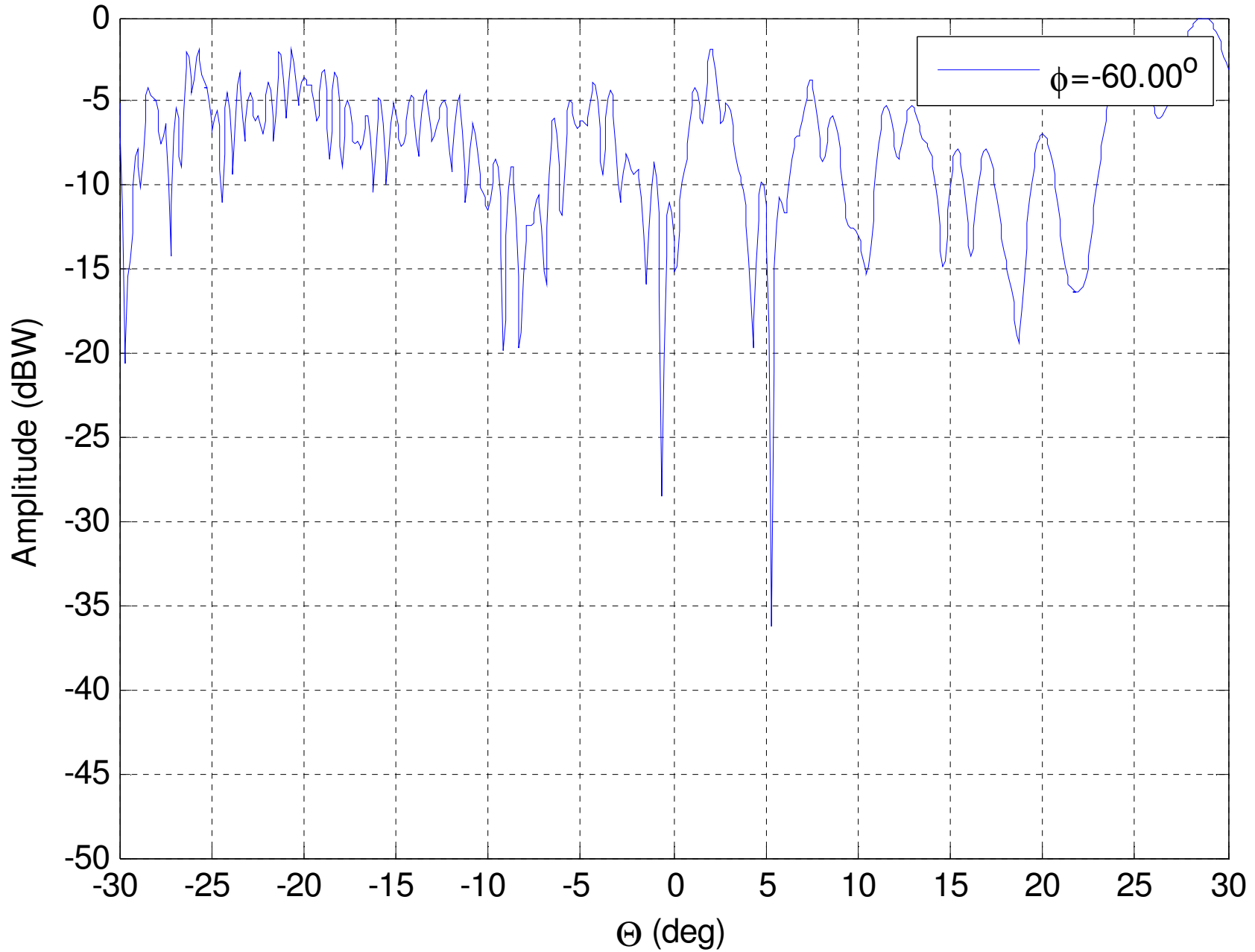
Spot Beam39, +X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: = +X-axis)
- $-60 < \phi < 60$
- Freq = 17.305, 17.5, and 17.695 GHz
- The Zero reference line is the maximum EIRP listed in the title of each plot sheet. All levels are below the required 15.4 dBW maximum
- The Zero reference for the maximum antenna gain is the maximum EIRP listed minus the power input to the antenna specified in Table I of the attached narrative.

RHCP at 17.3 GHz

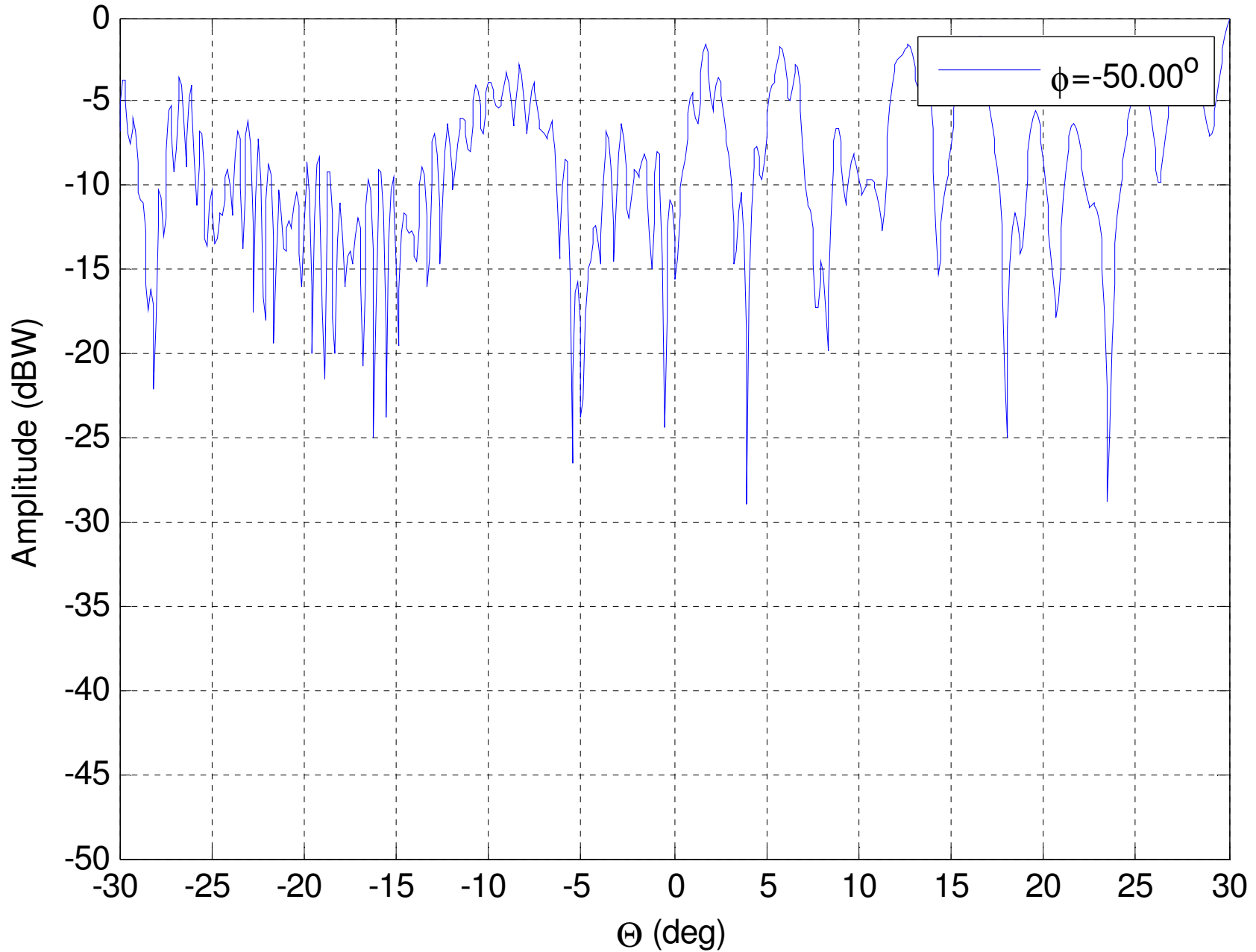
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -3.58 dBW, Date: 16-Dec-2011



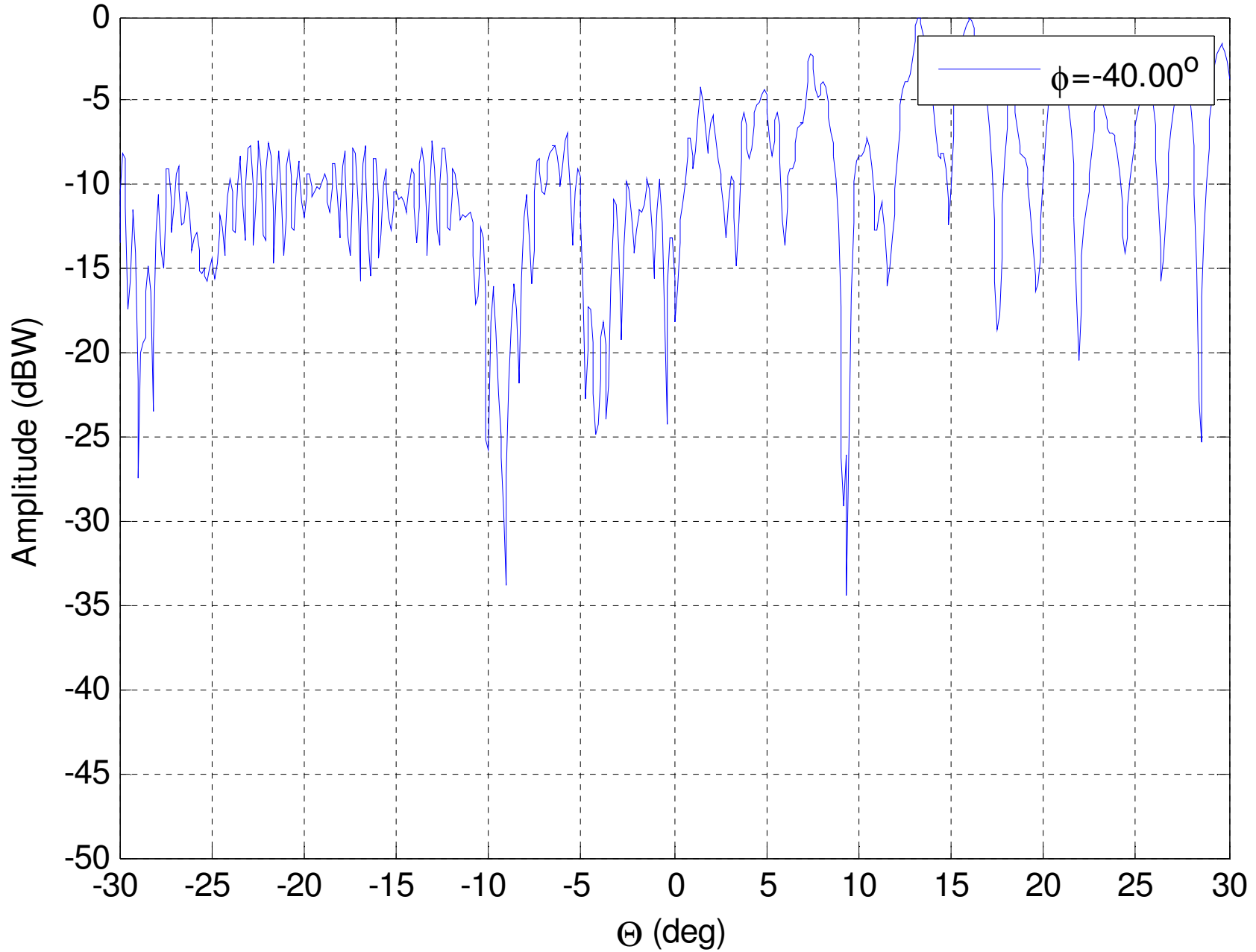
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -3.64 dBW, Date: 16-Dec-2011



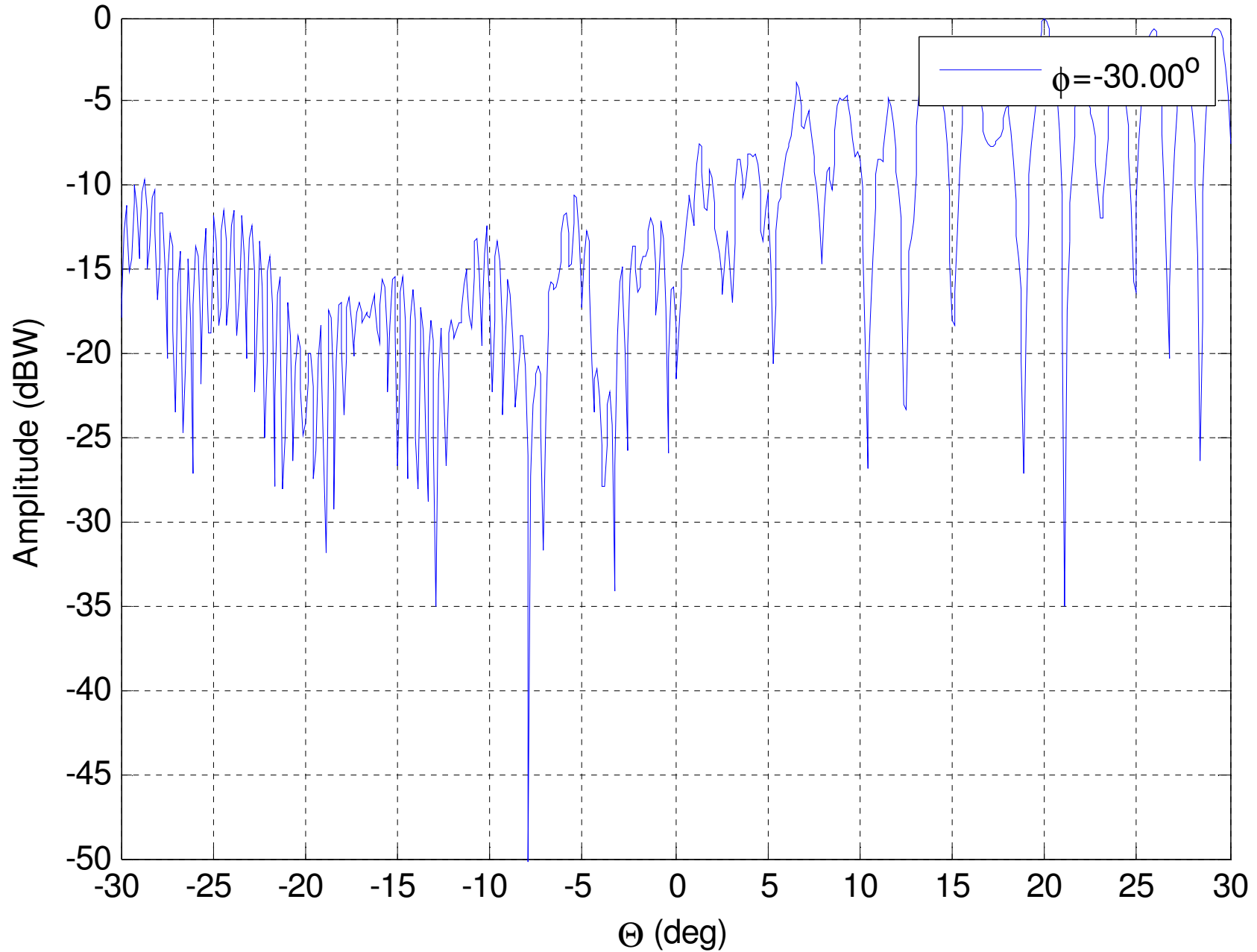
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -1.32 dBW, Date: 16-Dec-2011



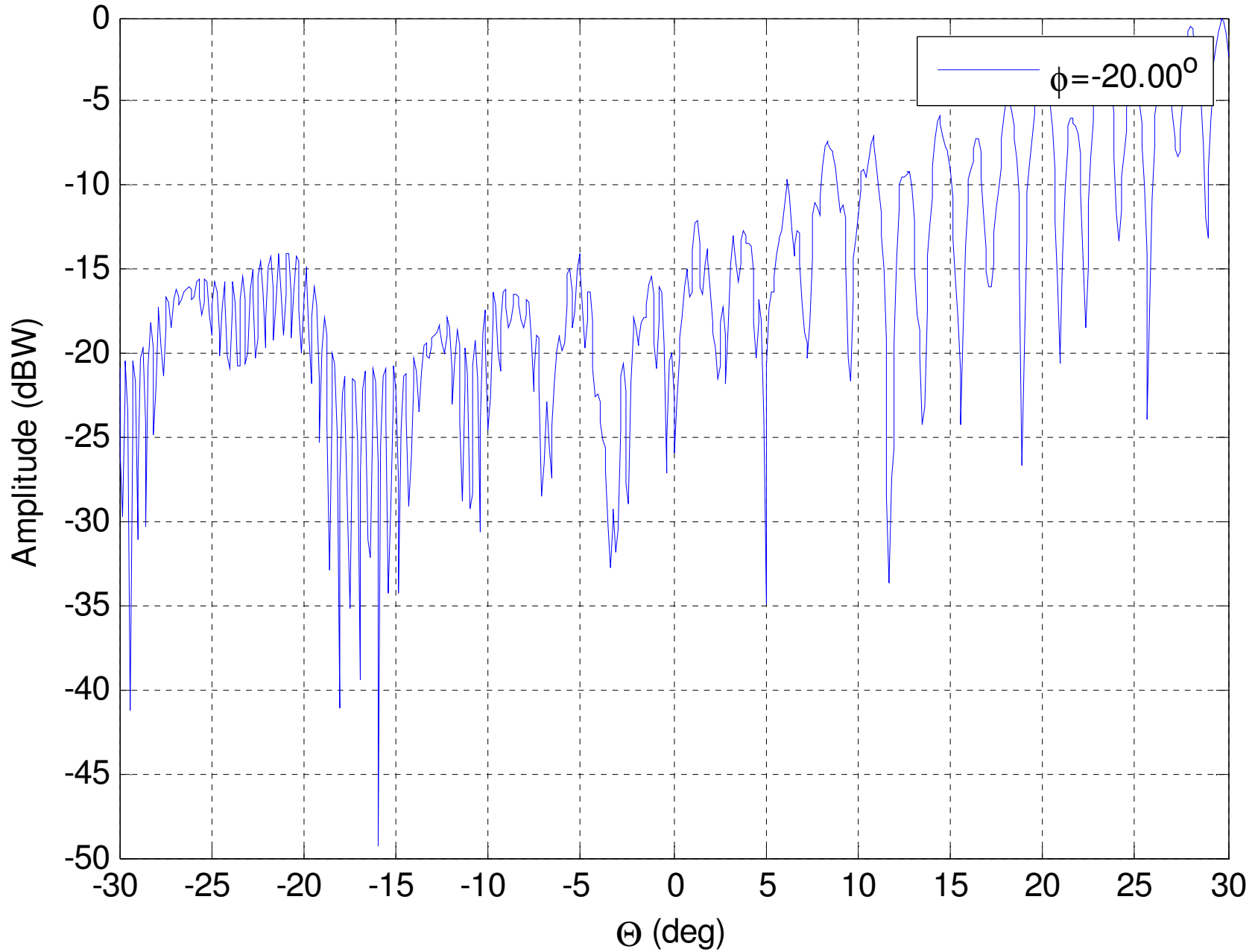
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: 1.68 dBW, Date: 16-Dec-2011



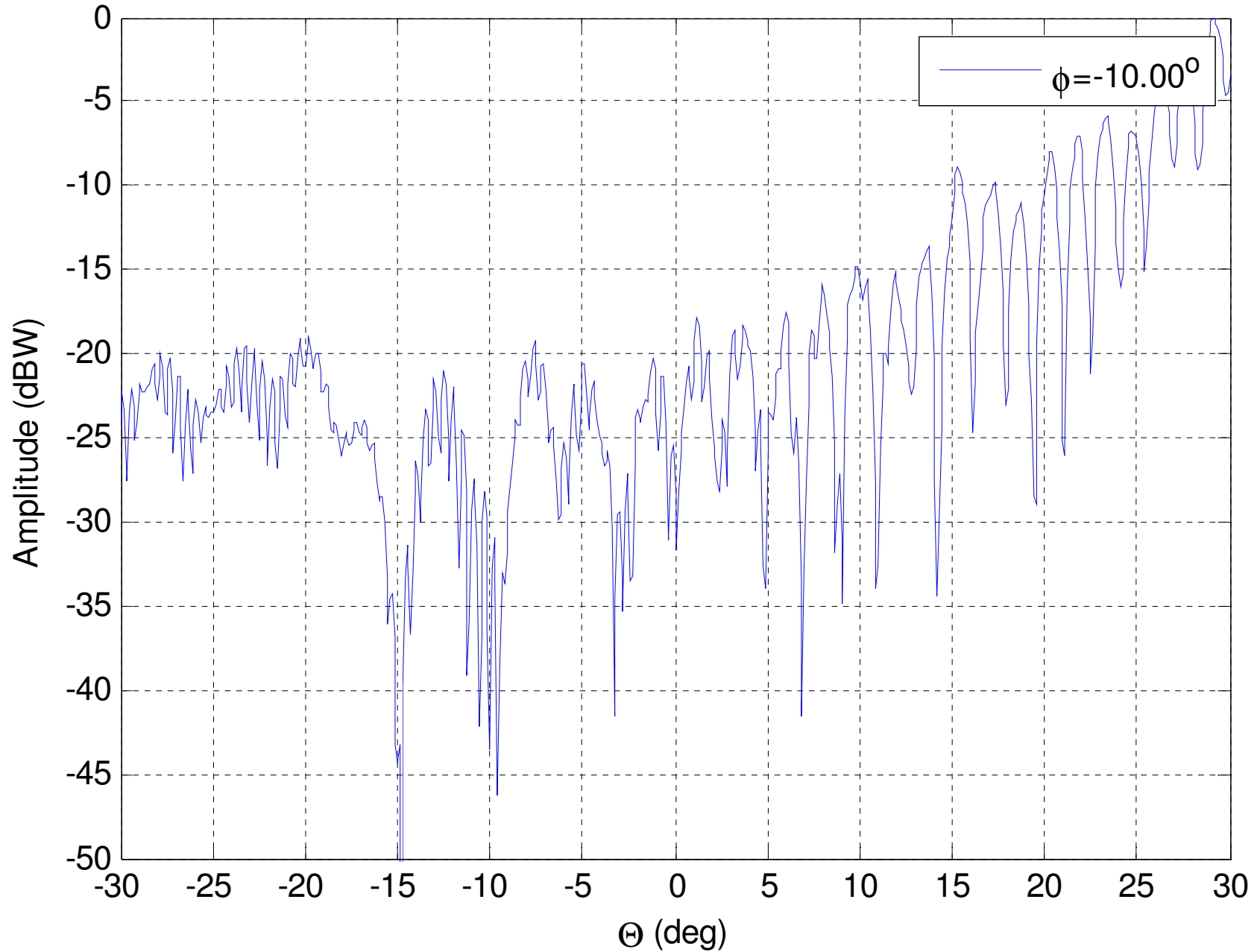
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: 5.87 dBW, Date: 16-Dec-2011



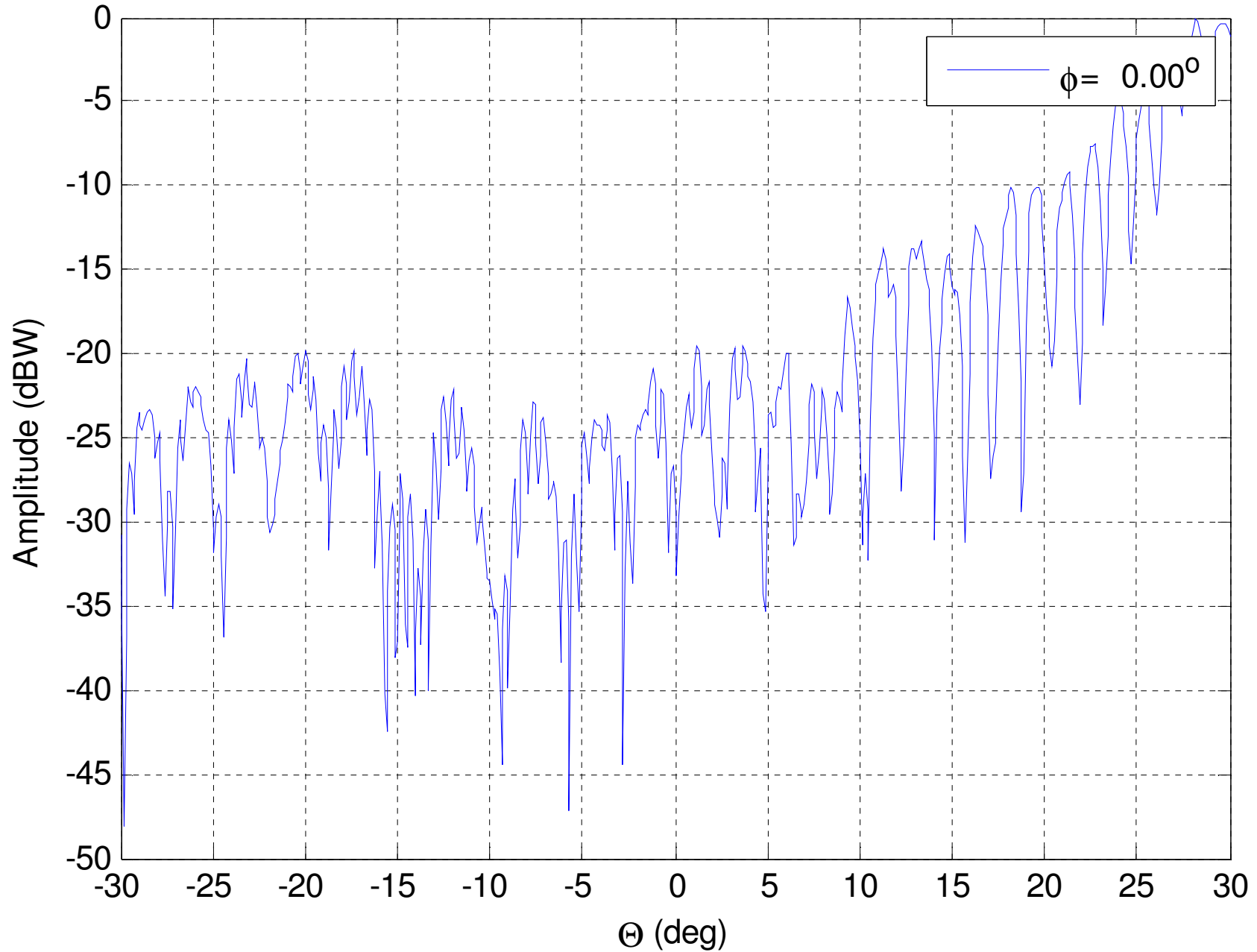
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: 11.45 dBW, Date: 16-Dec-2011



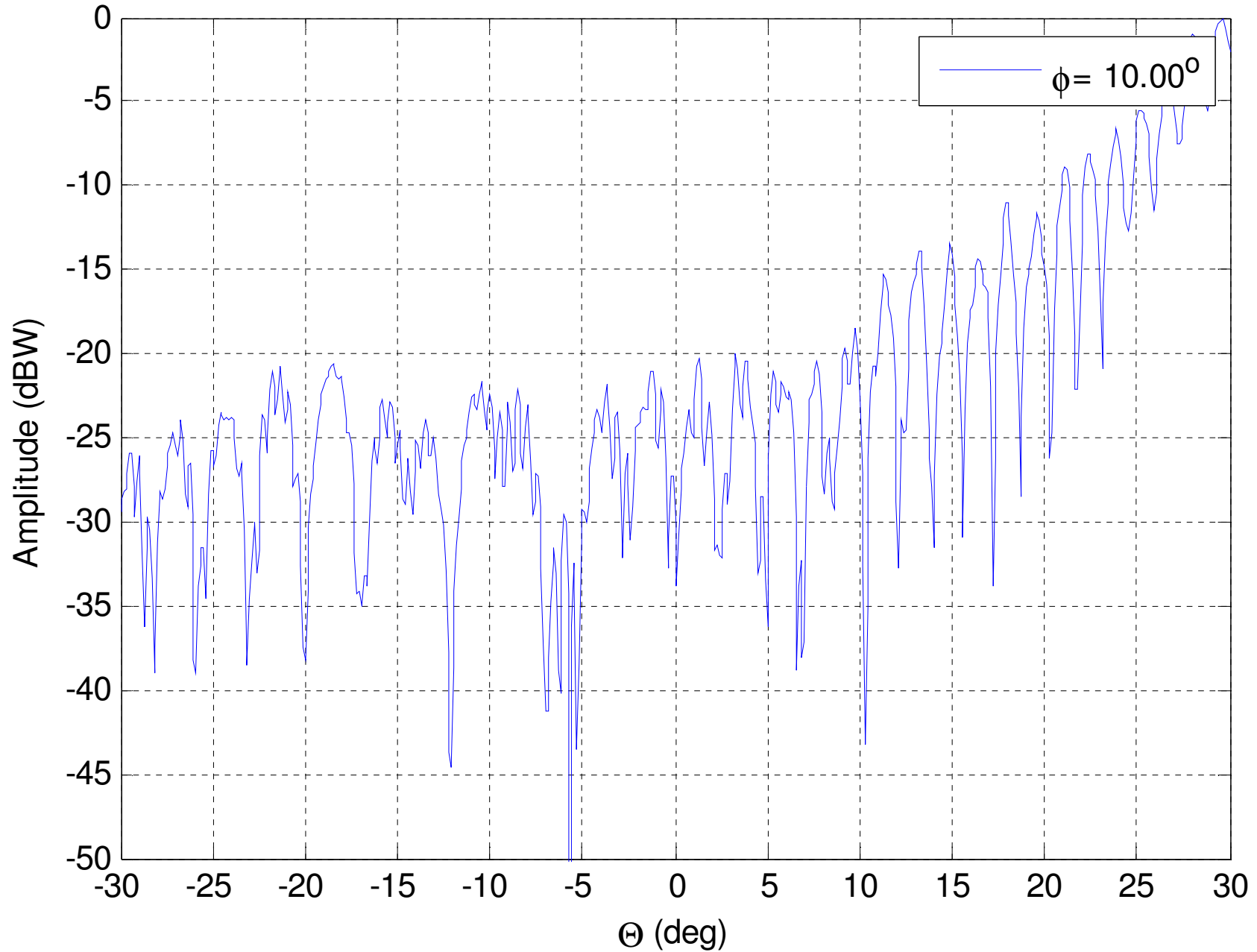
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: 12.76 dBW, Date: 16-Dec-2011



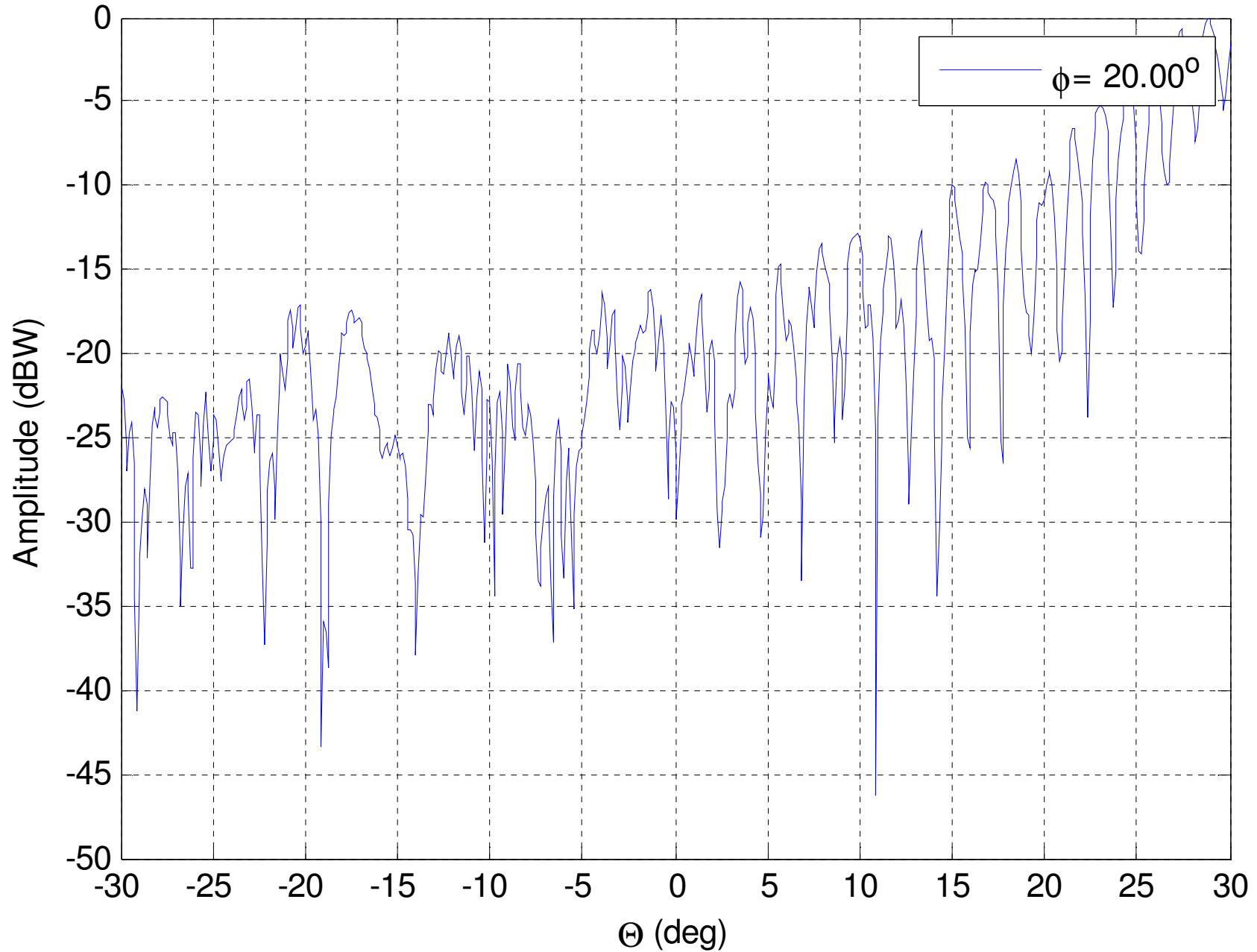
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: 13.29 dBW, Date: 16-Dec-2011



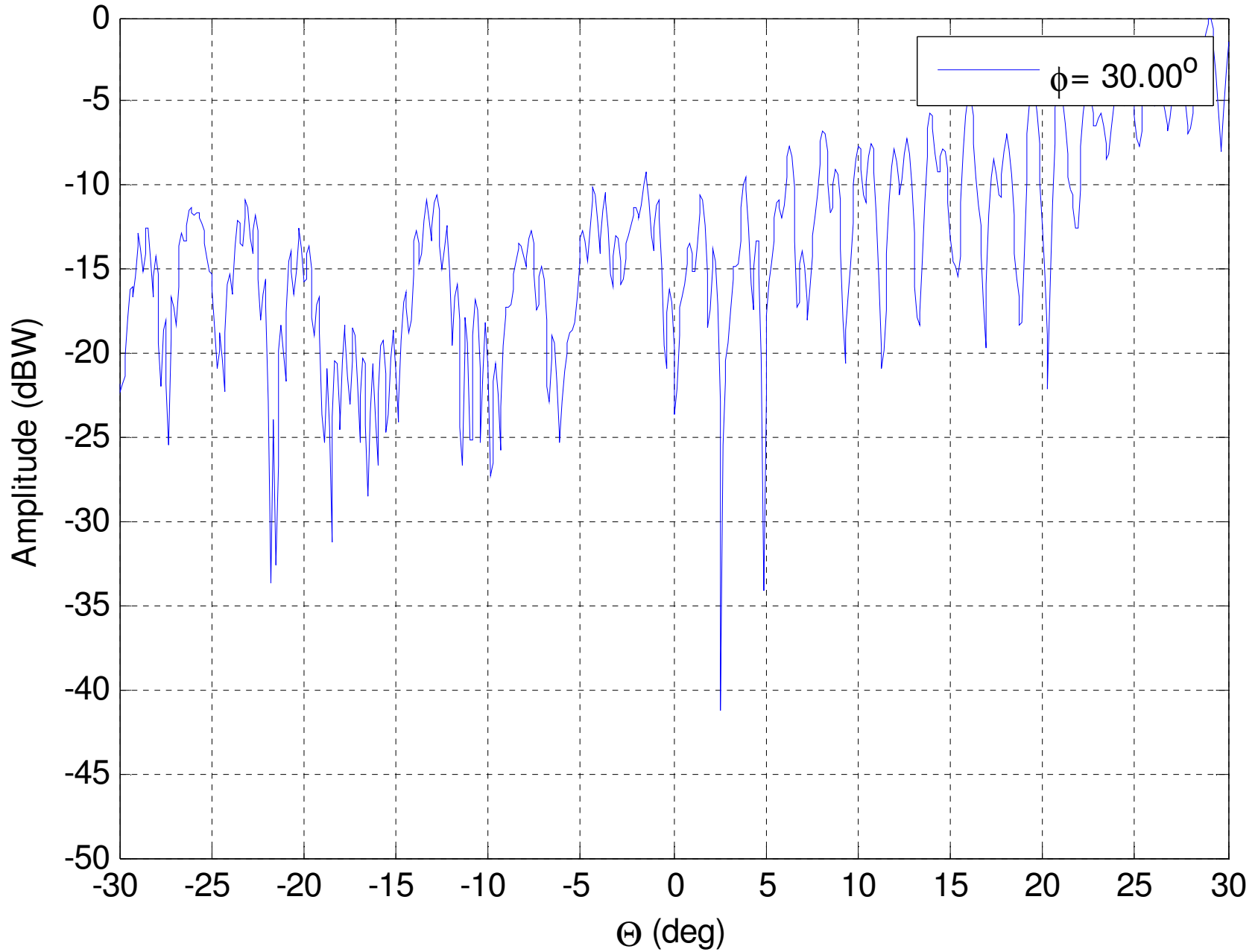
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: 9.17 dBW, Date: 16-Dec-2011



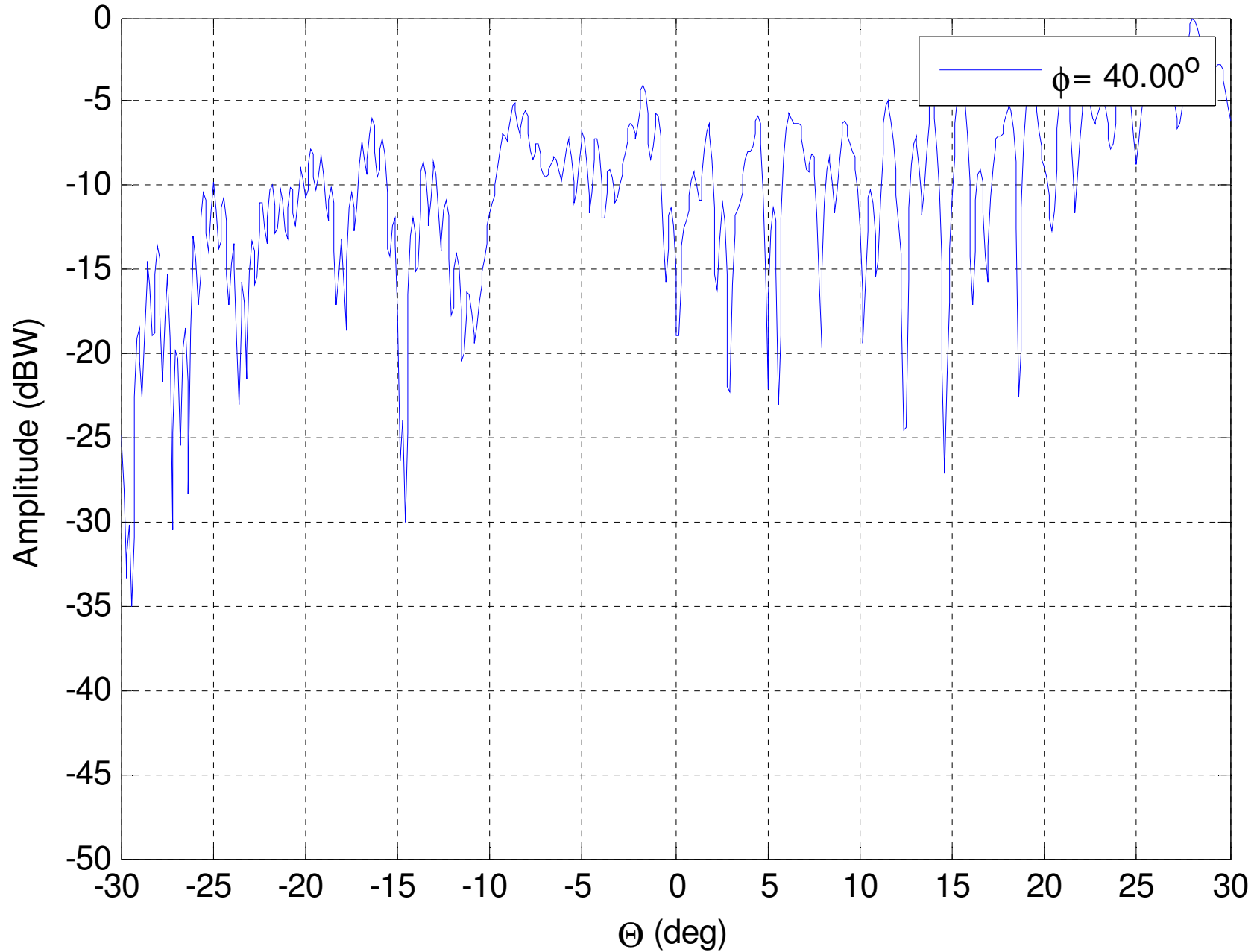
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: 2.88 dBW, Date: 16-Dec-2011



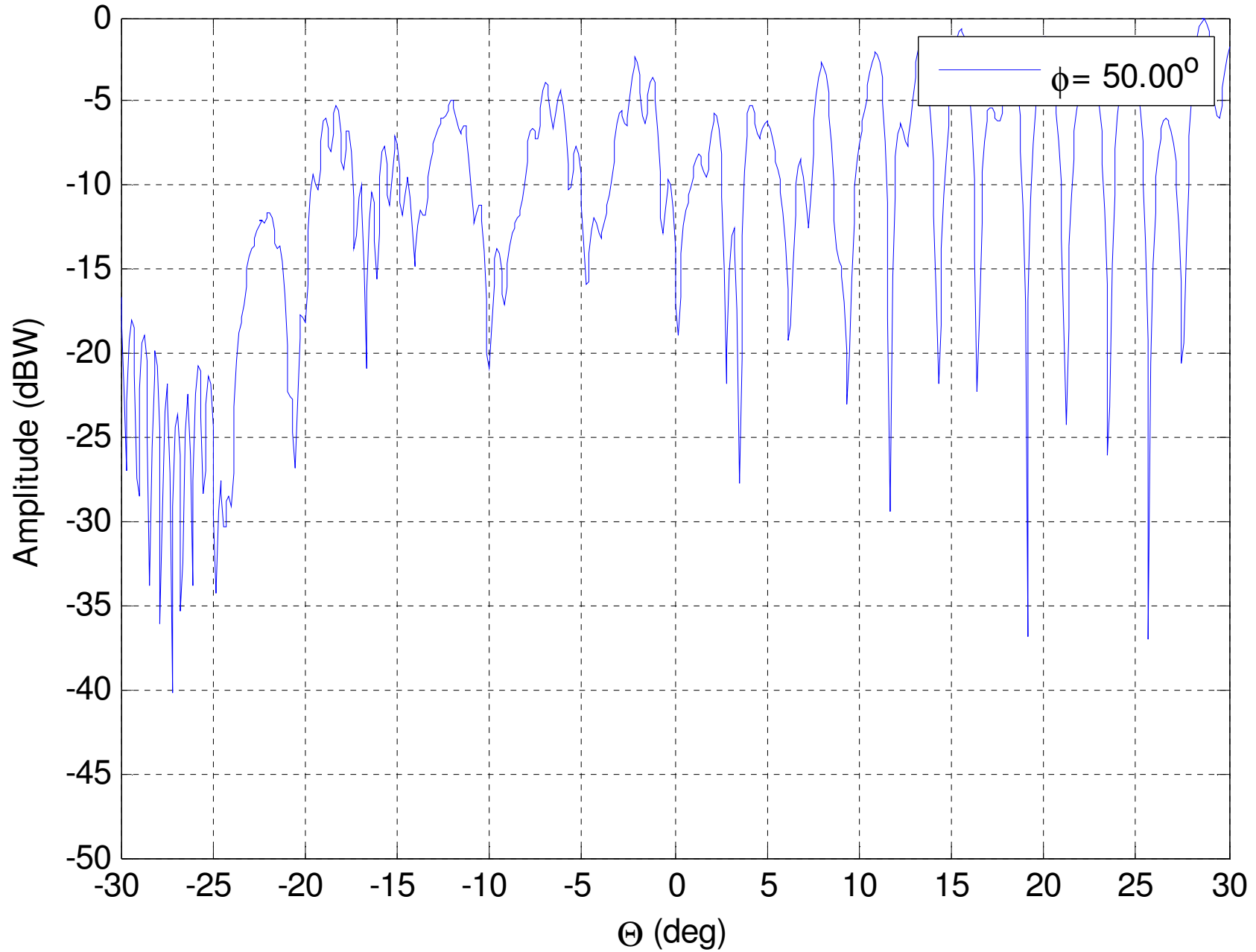
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -1.76 dBW, Date: 16-Dec-2011



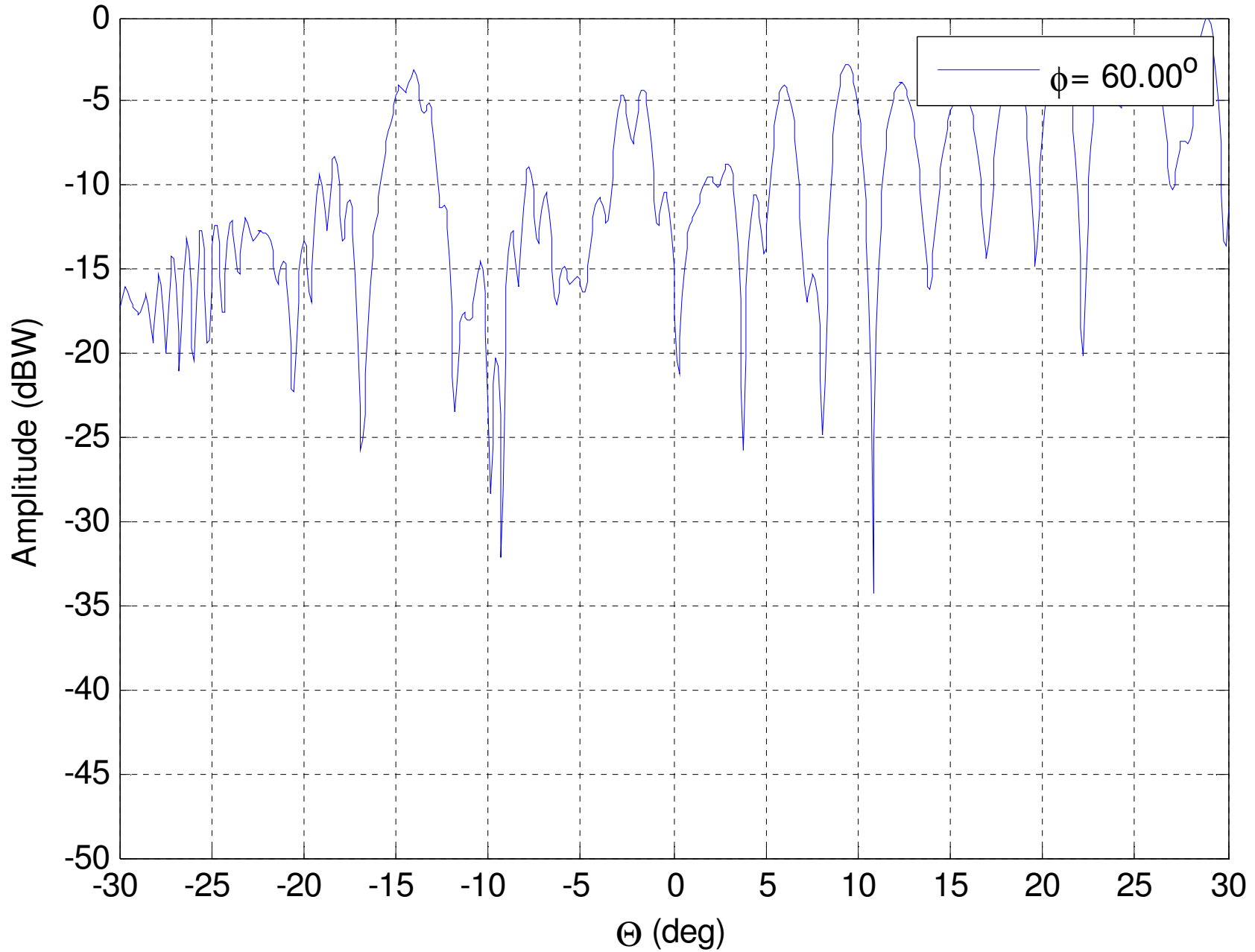
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -3.15 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

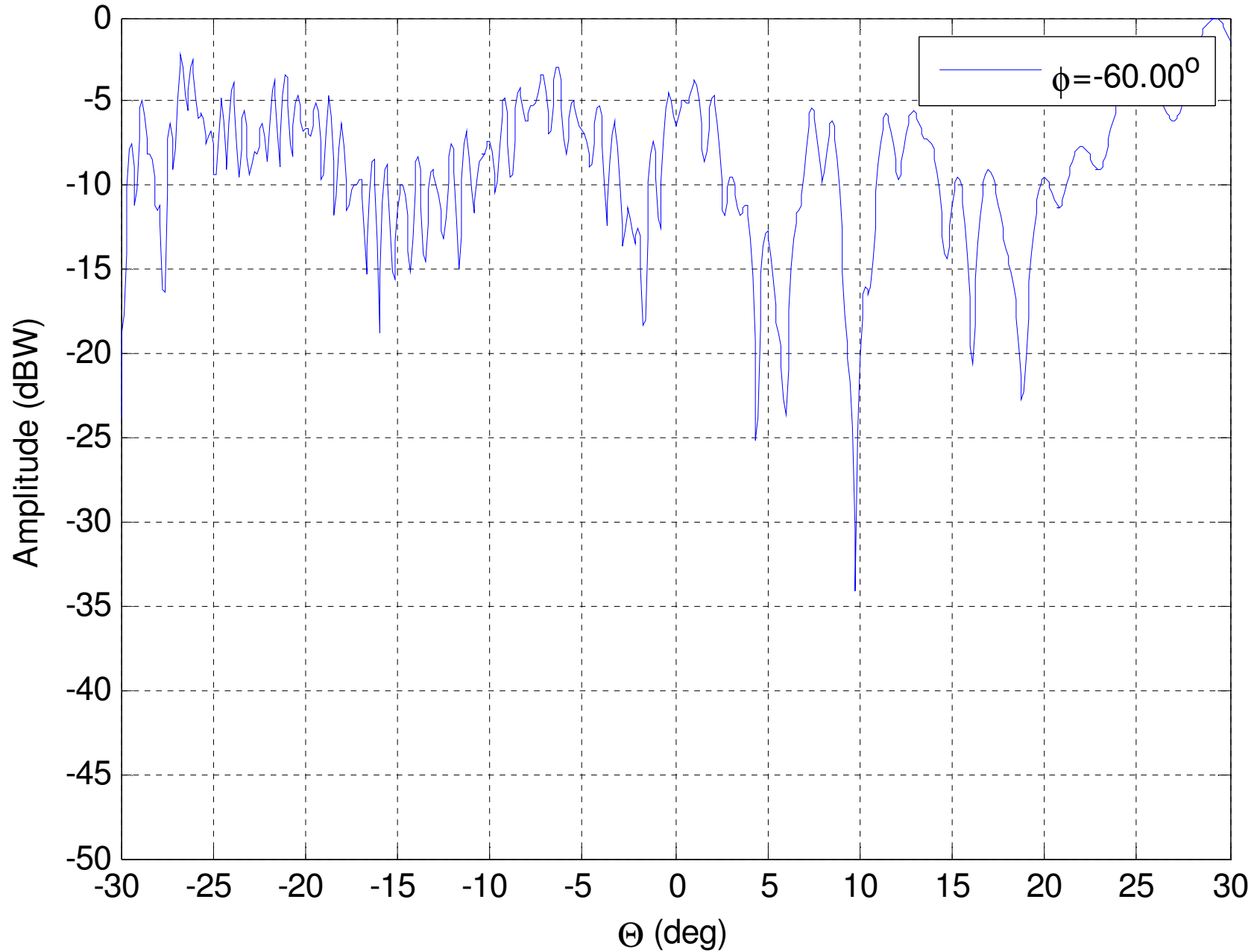
Input file: tx-17.3-rhcp-60.cut, Peak: -1.88 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

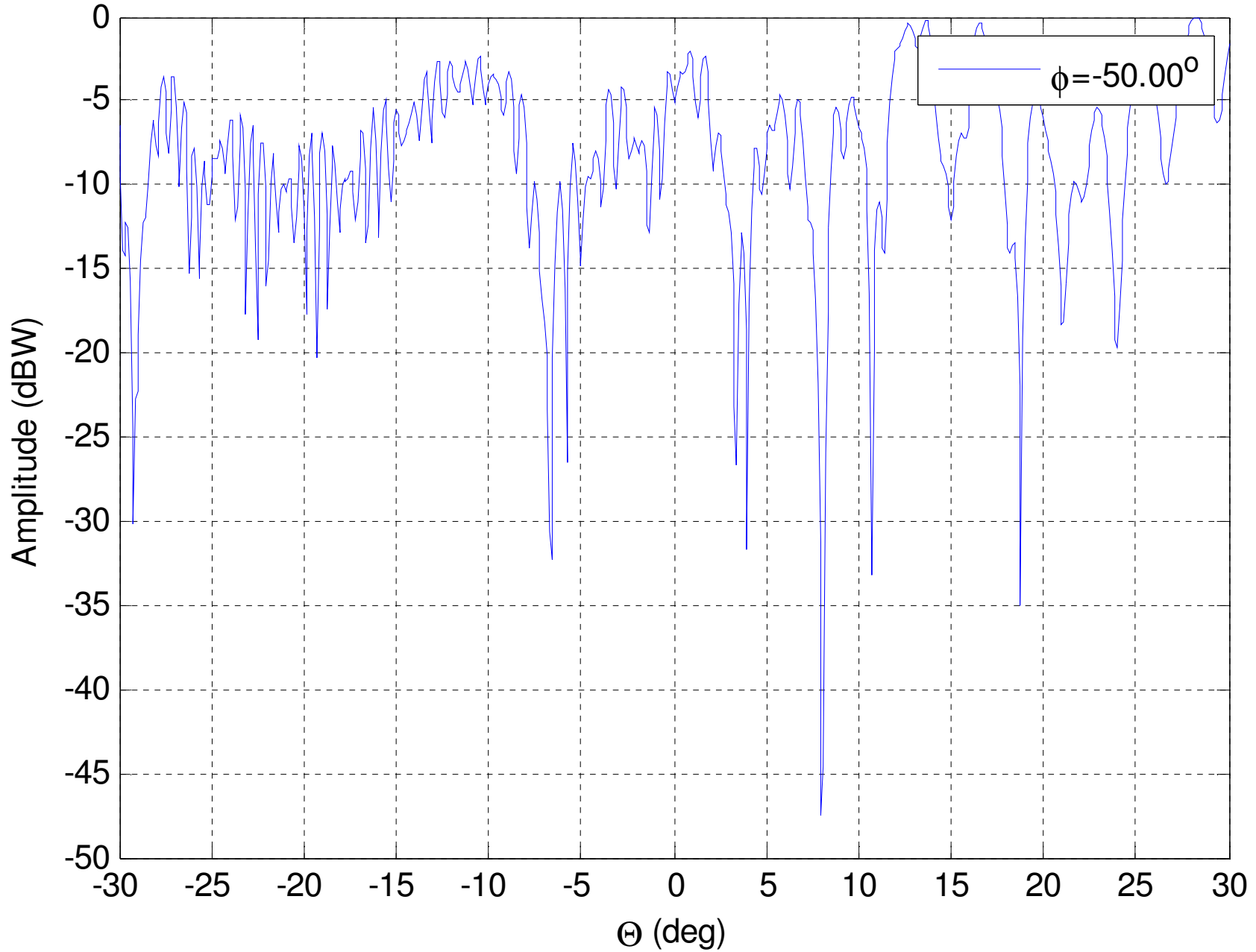
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -3.16 dBW, Date: 16-Dec-2011



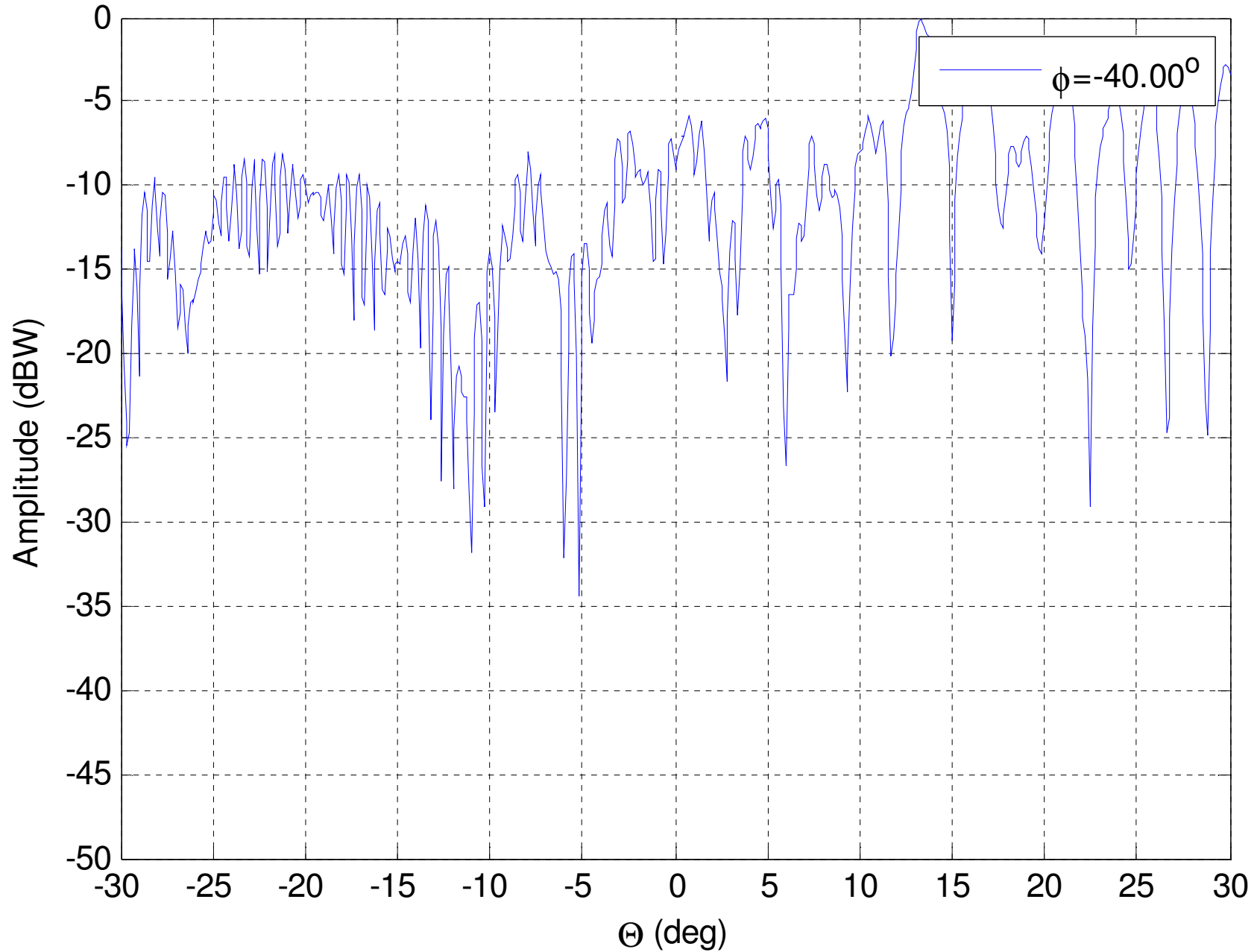
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -4.53 dBW, Date: 16-Dec-2011



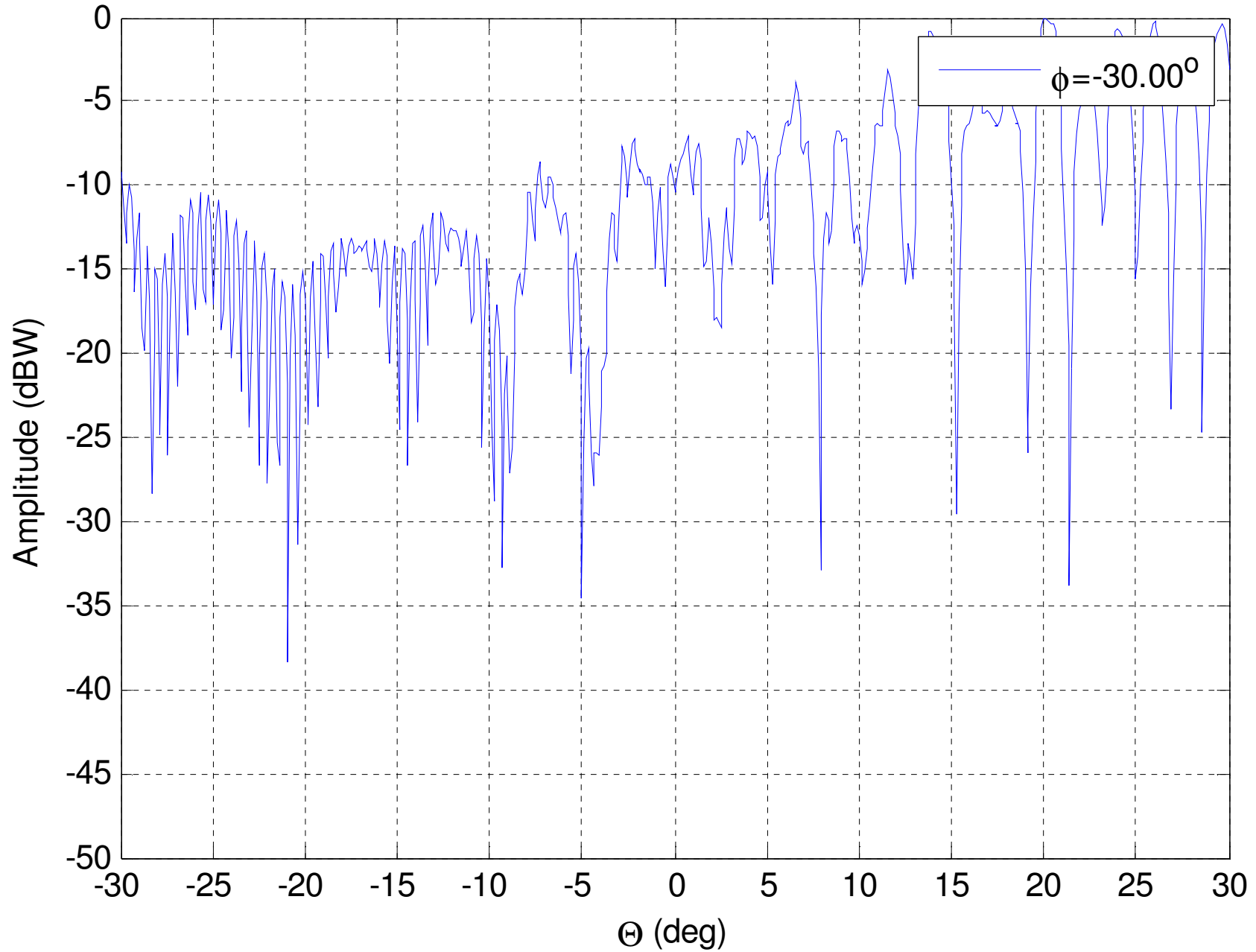
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -0.60 dBW, Date: 16-Dec-2011



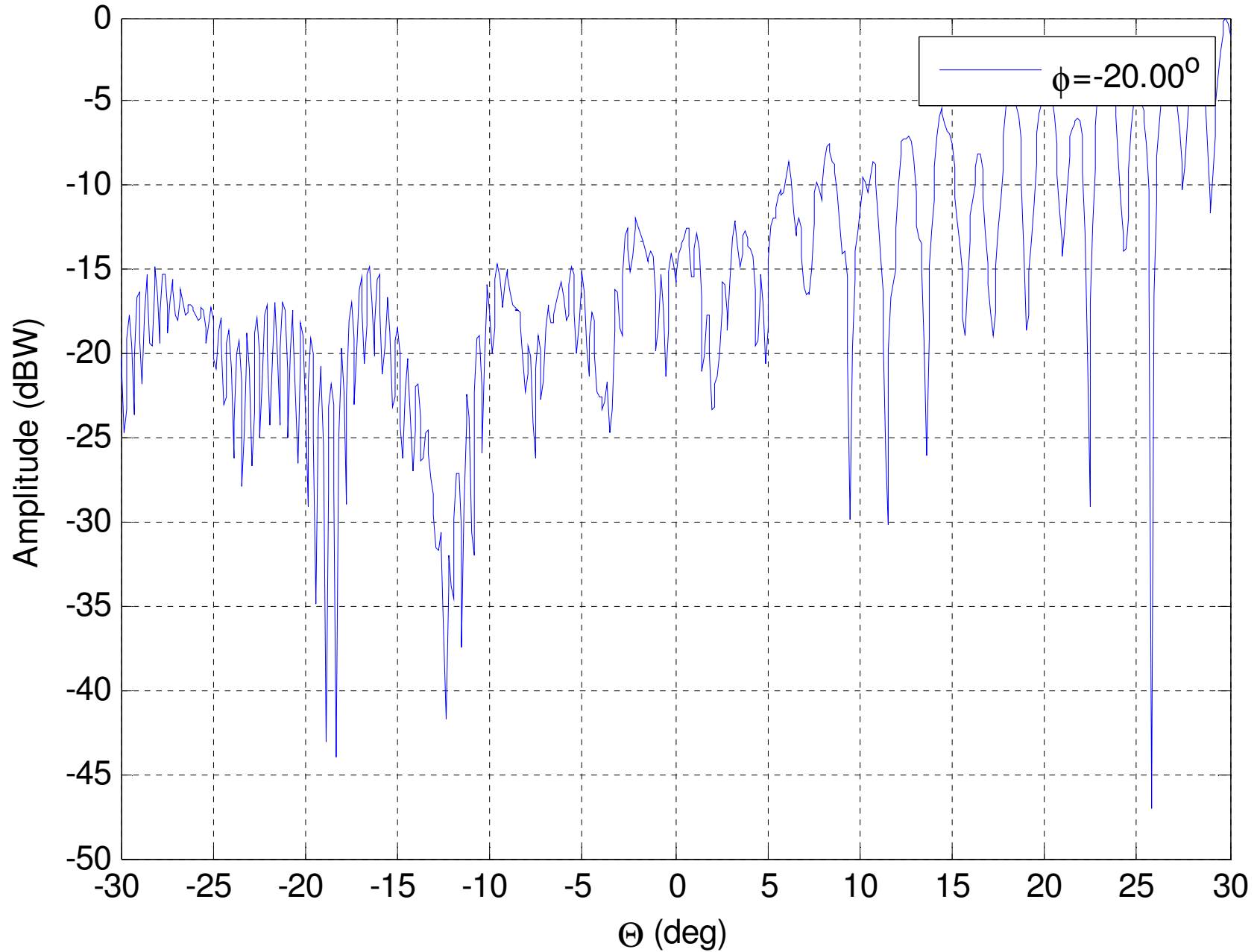
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: 0.86 dBW, Date: 16-Dec-2011



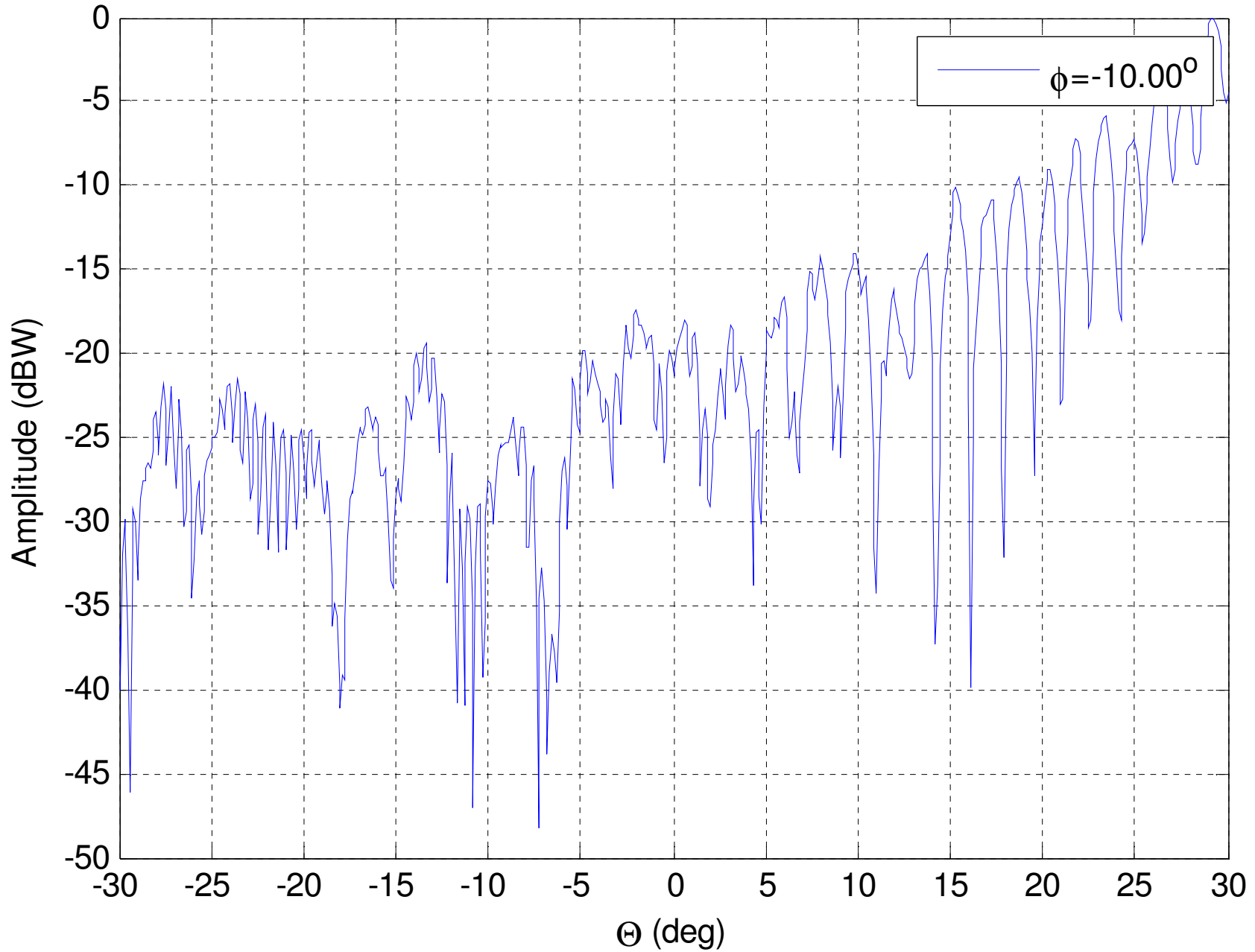
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: 6.15 dBW, Date: 16-Dec-2011



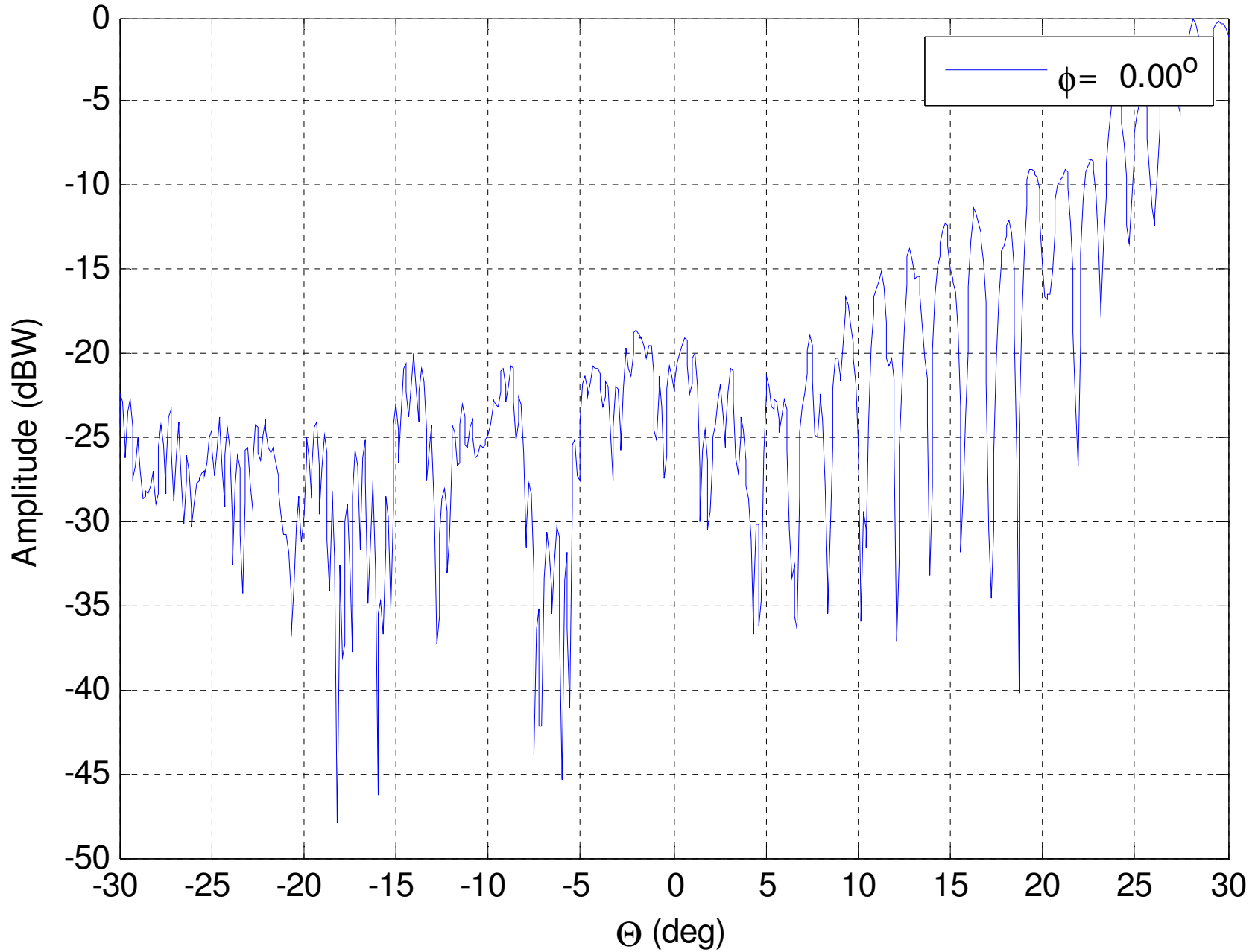
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: 11.79 dBW, Date: 16-Dec-2011



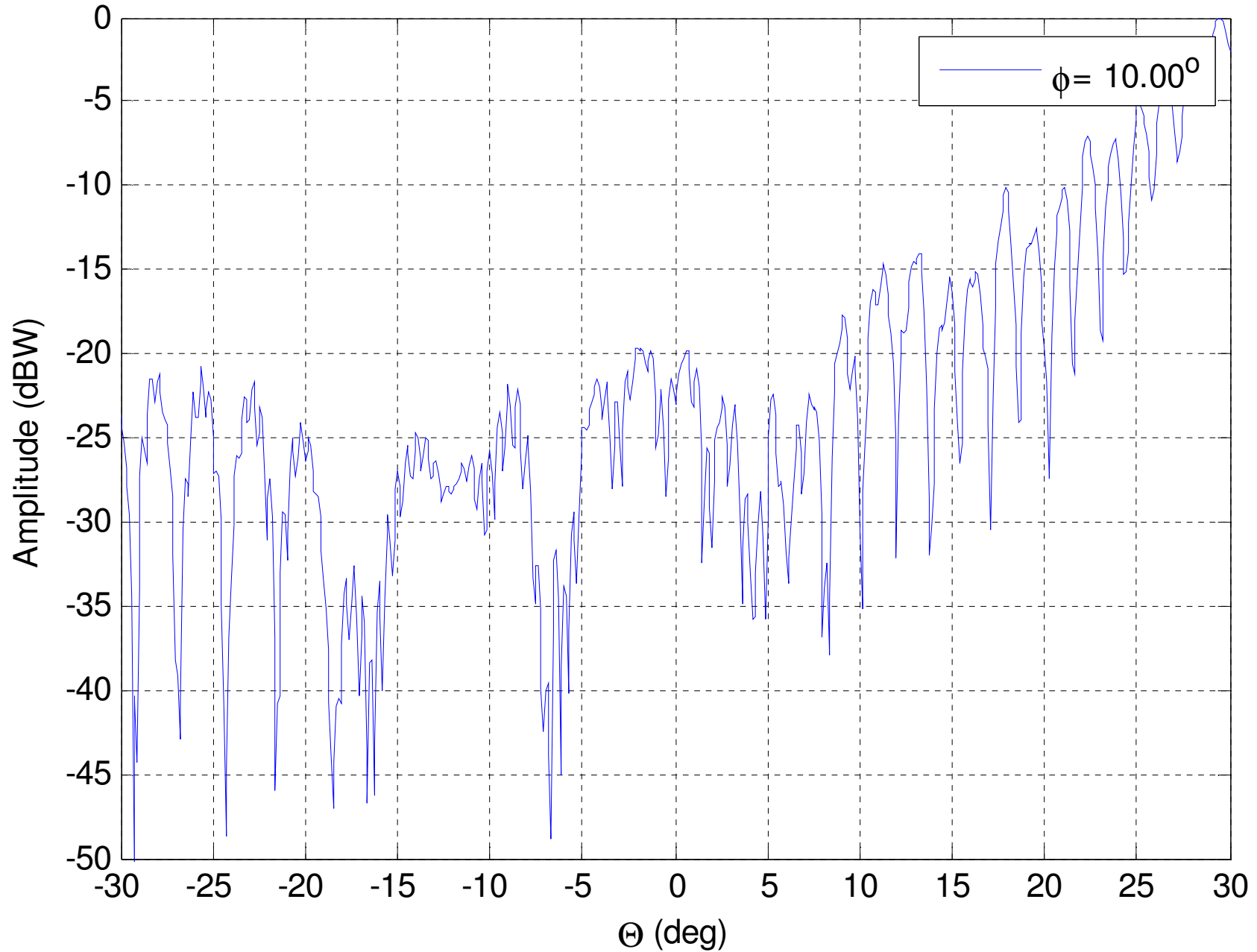
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: 12.74 dBW, Date: 16-Dec-2011



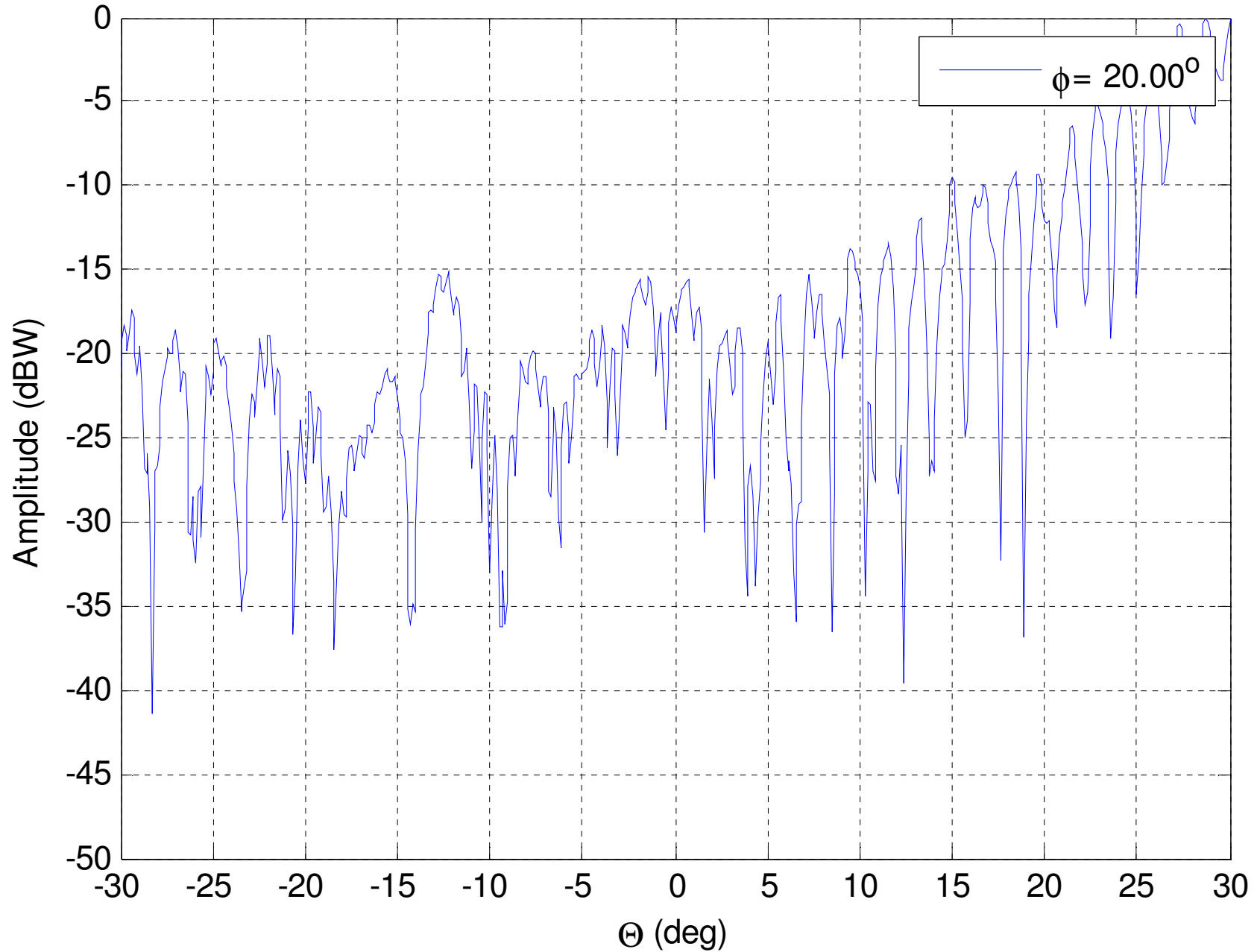
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: 13.41 dBW, Date: 16-Dec-2011



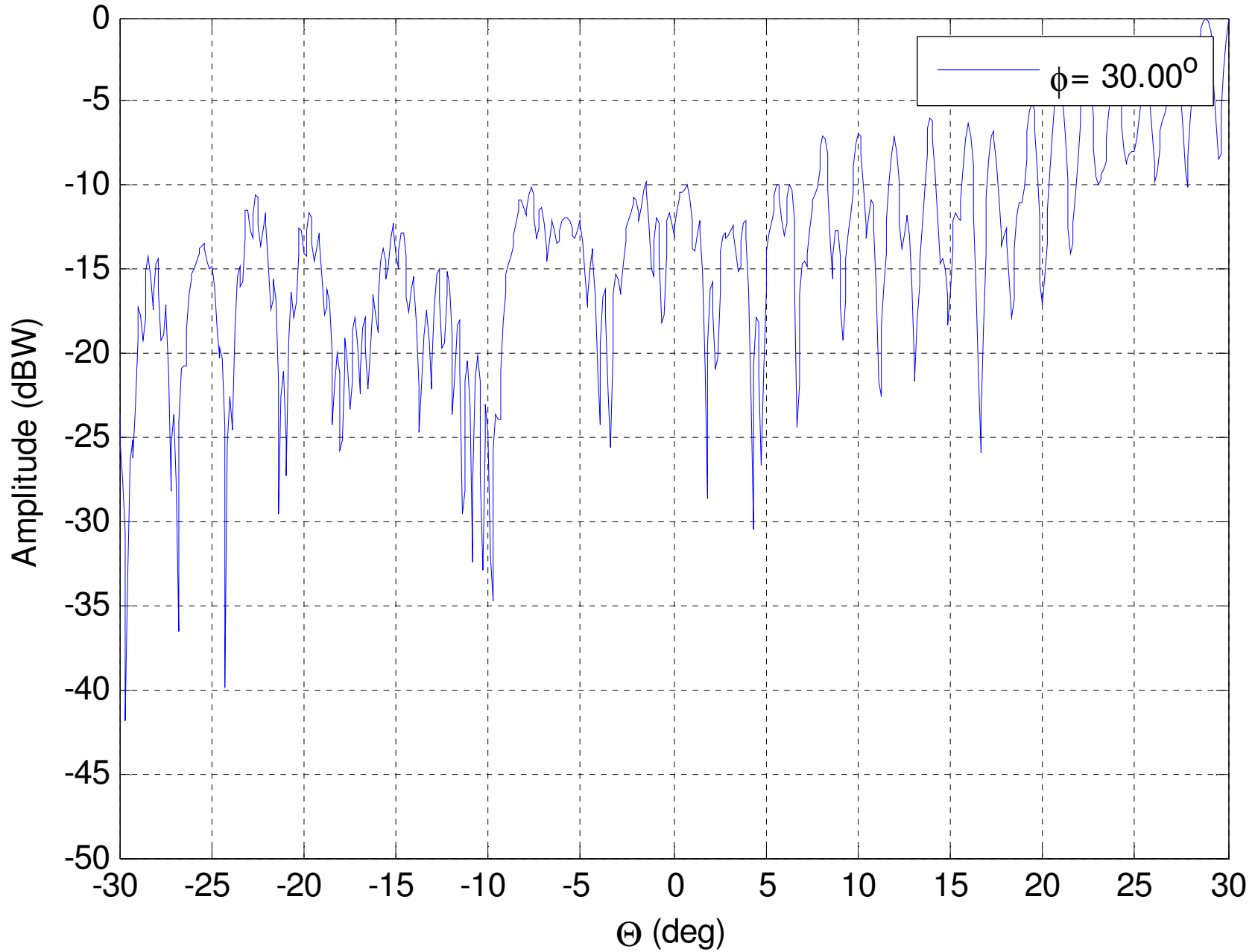
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: 9.13 dBW, Date: 16-Dec-2011



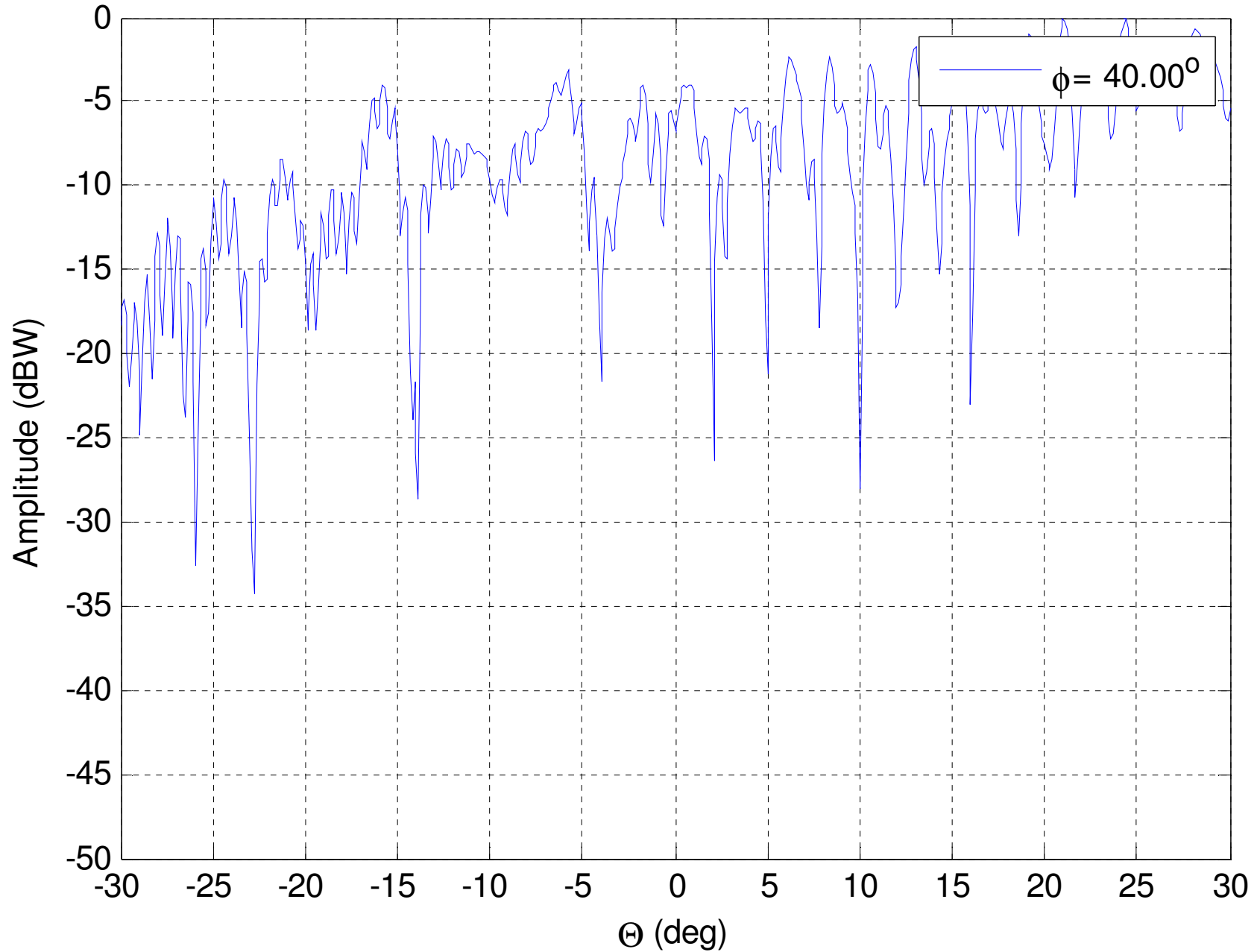
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: 3.40 dBW, Date: 16-Dec-2011



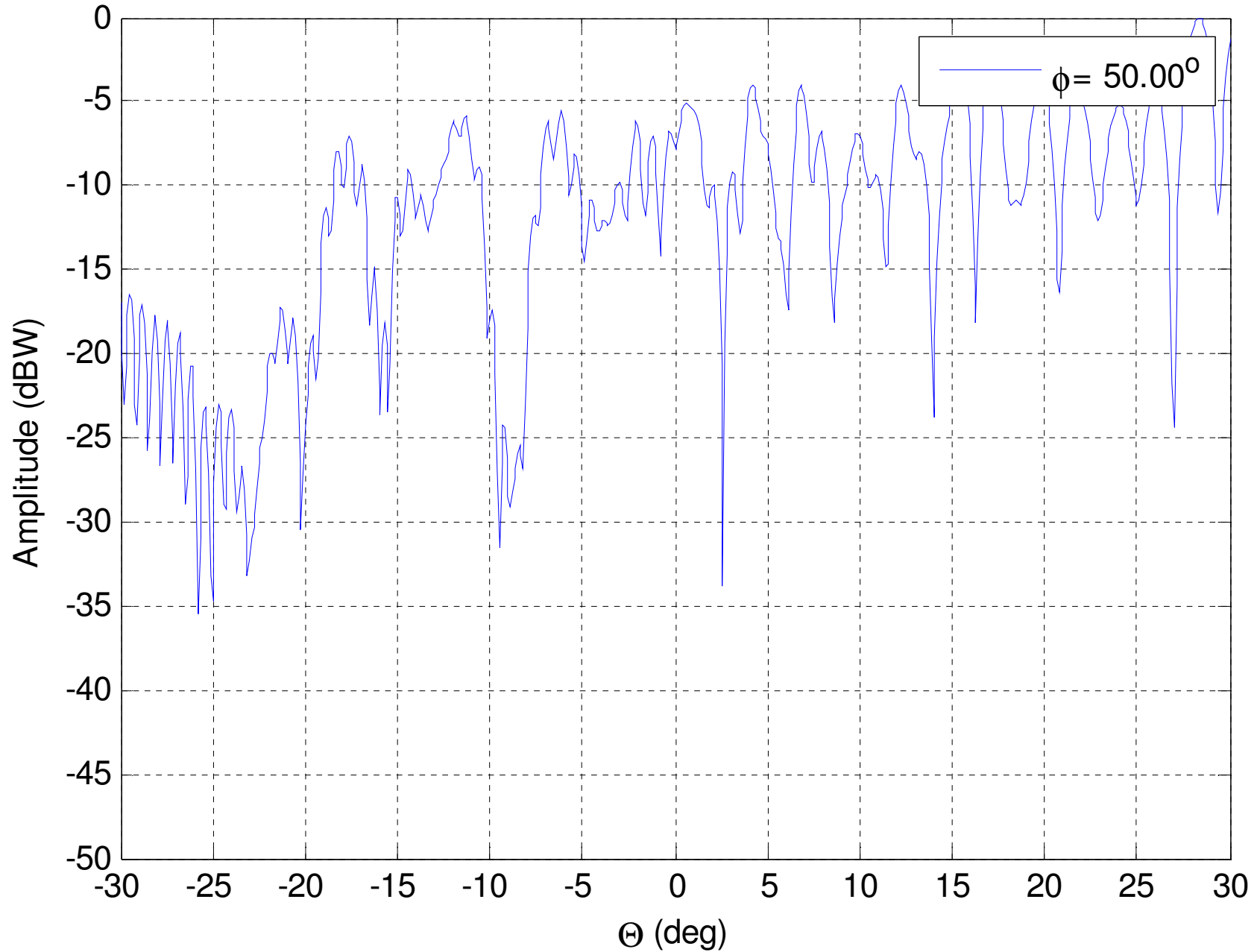
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -2.83 dBW, Date: 16-Dec-2011



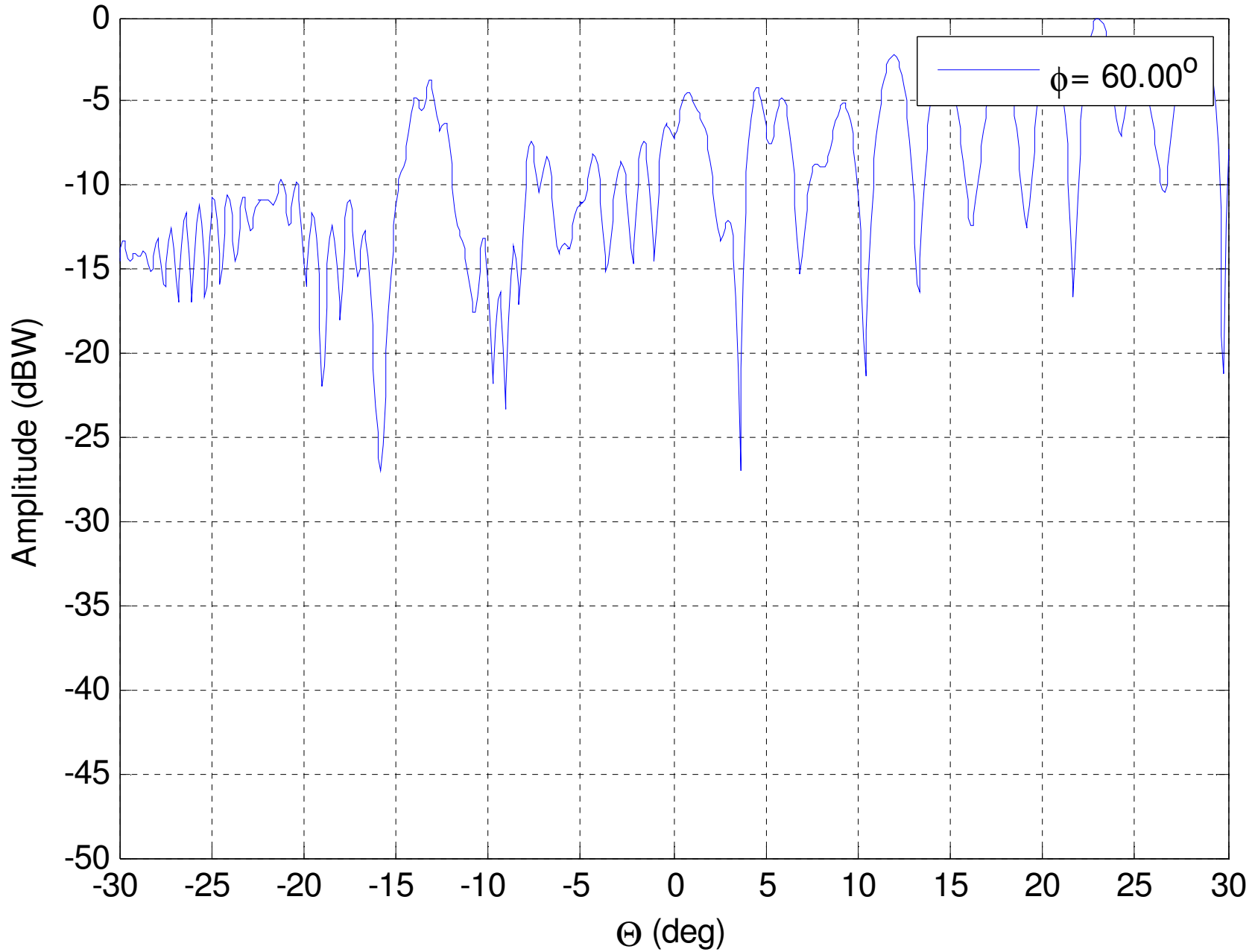
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -1.76 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

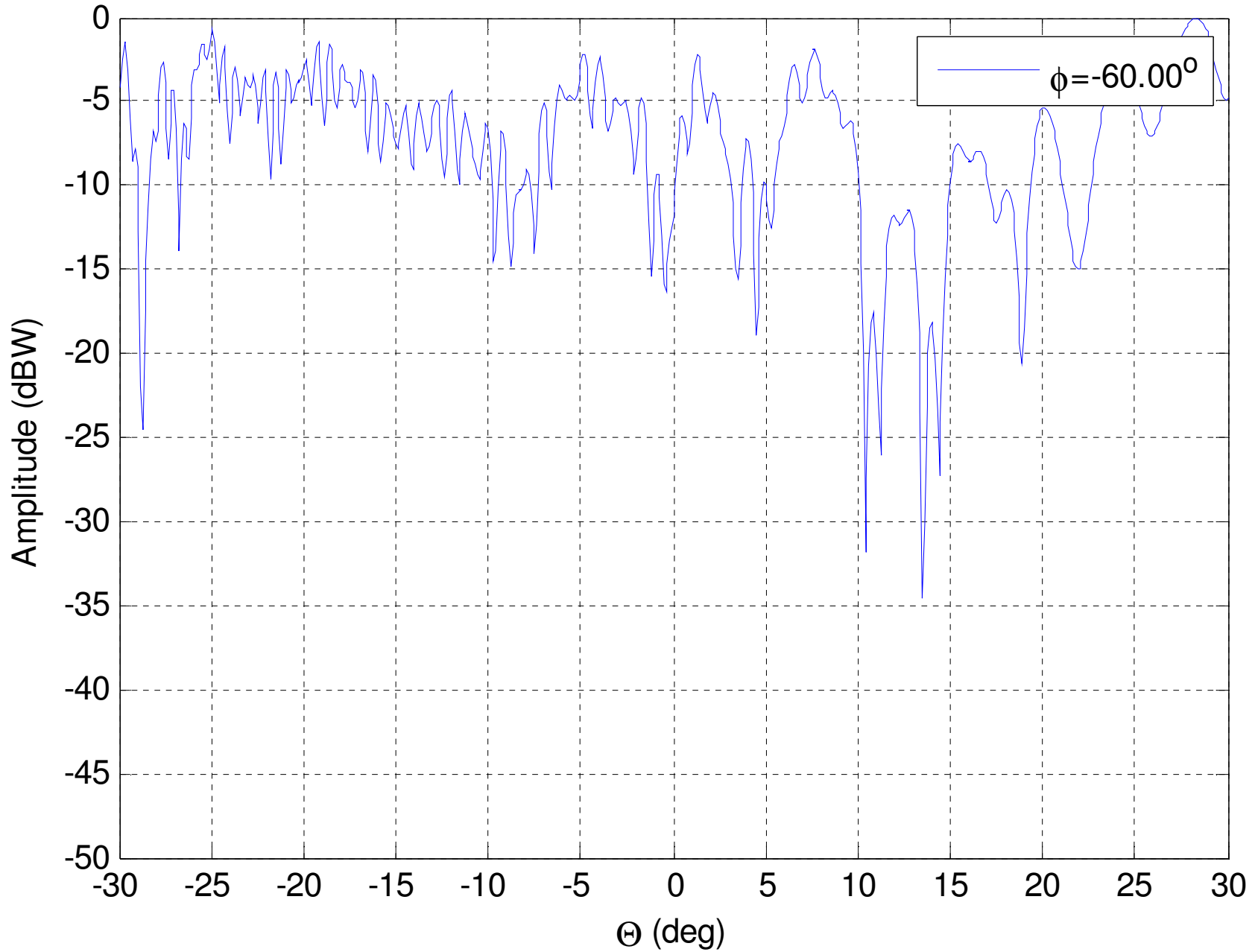
Input file: tx-17.3-lhcp-60.cut, Peak: -2.39 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

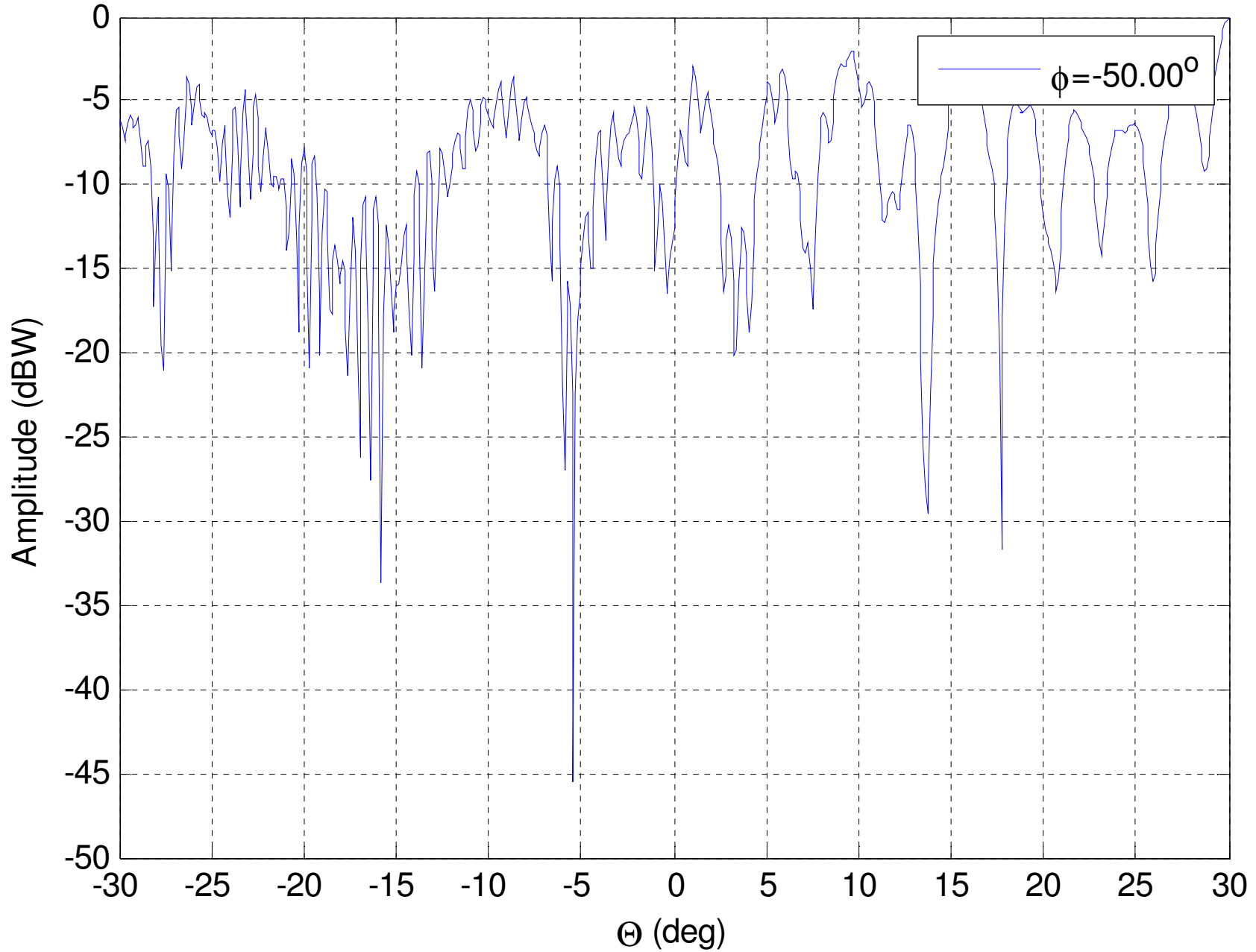
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -4.60 dBW, Date: 16-Dec-2011



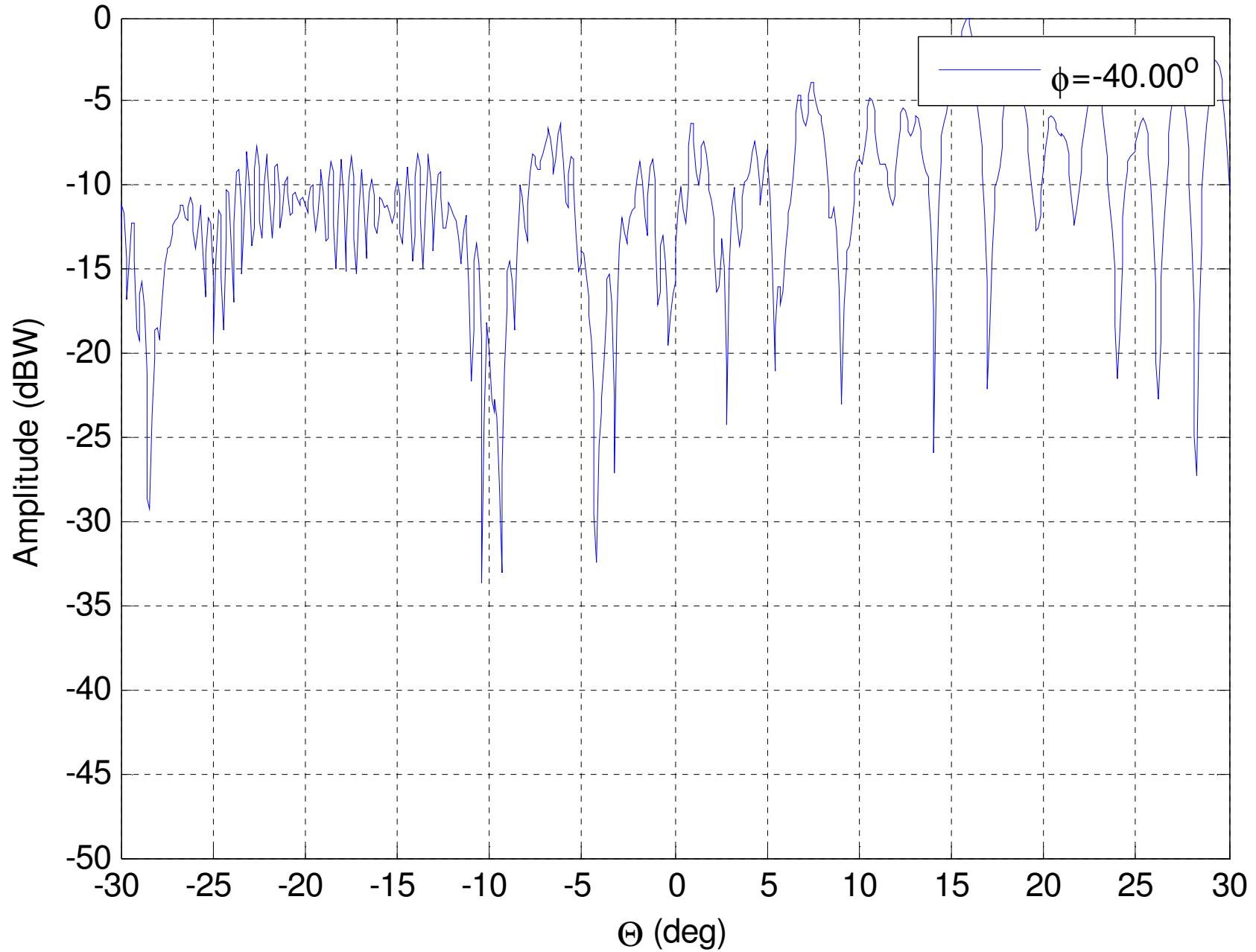
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -3.77 dBW, Date: 16-Dec-2011



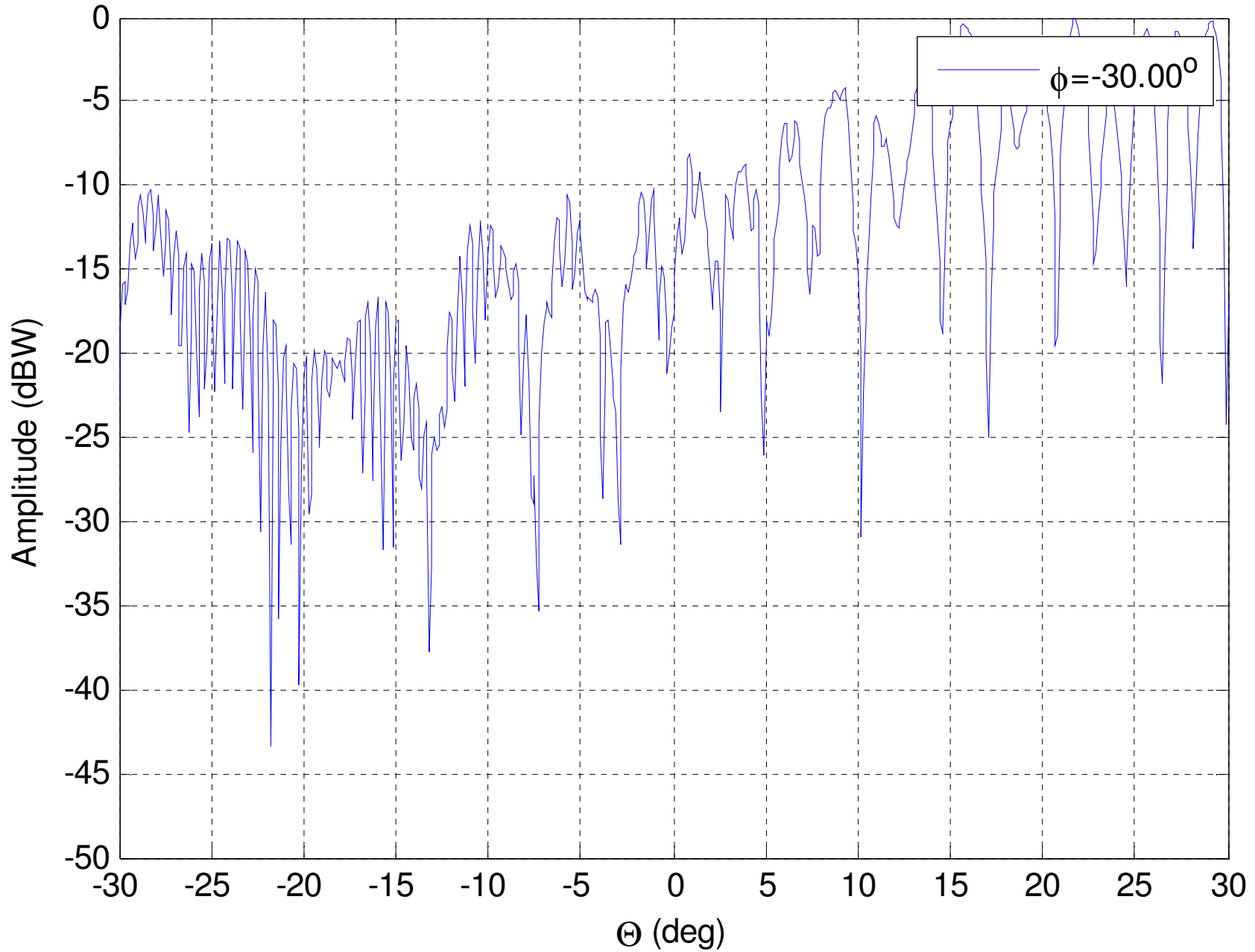
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -0.72 dBW, Date: 16-Dec-2011



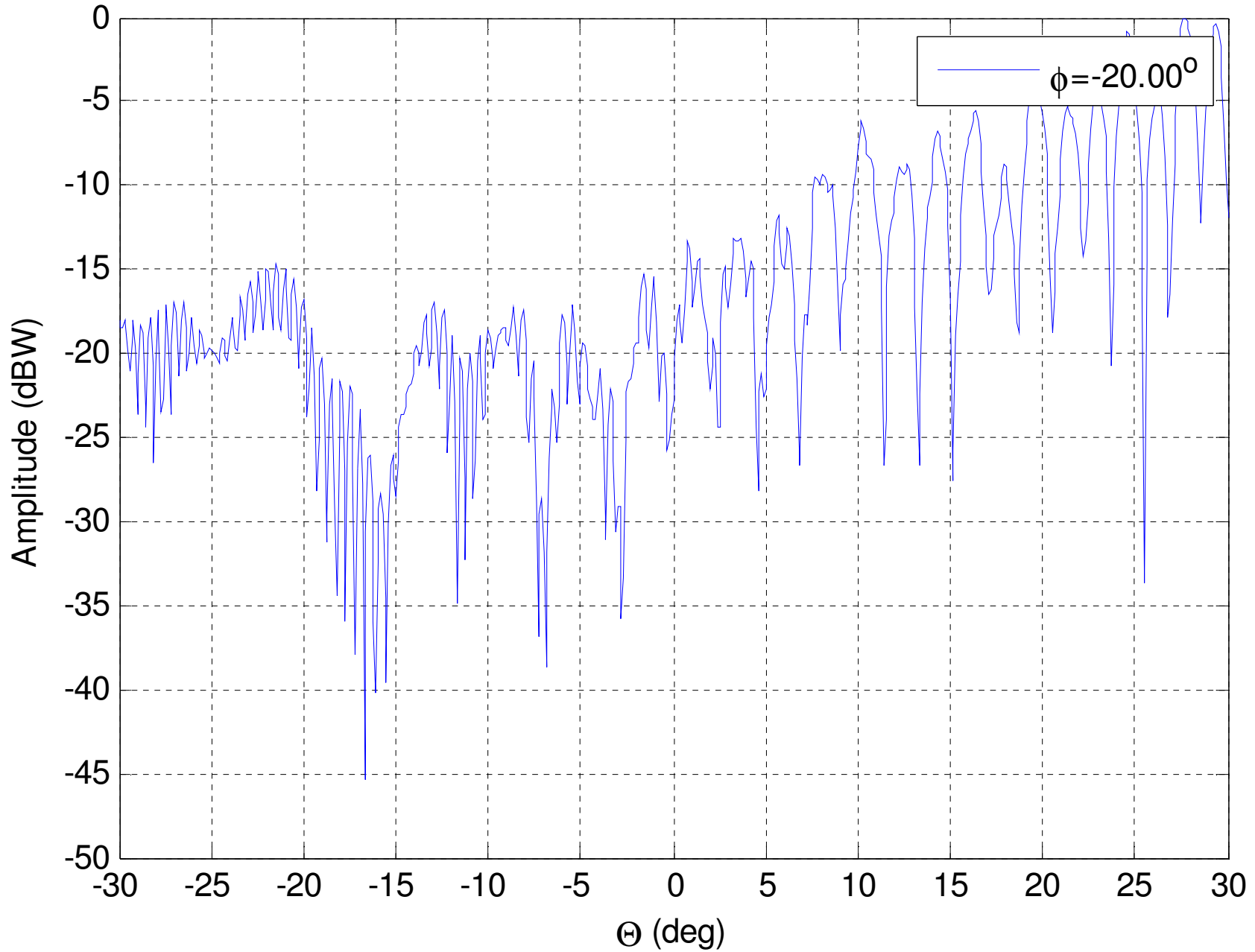
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: 1.21 dBW, Date: 16-Dec-2011



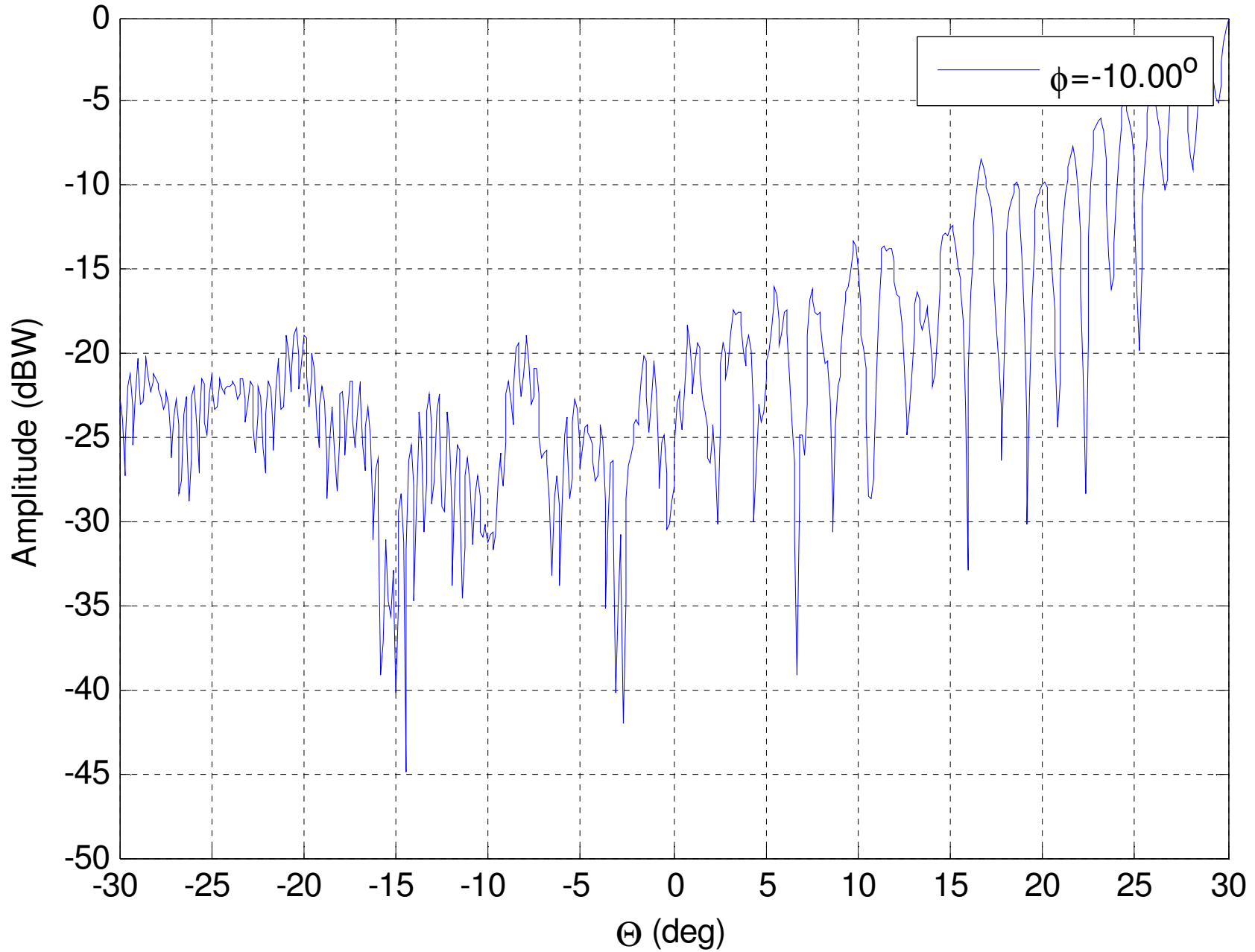
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: 6.34 dBW, Date: 16-Dec-2011



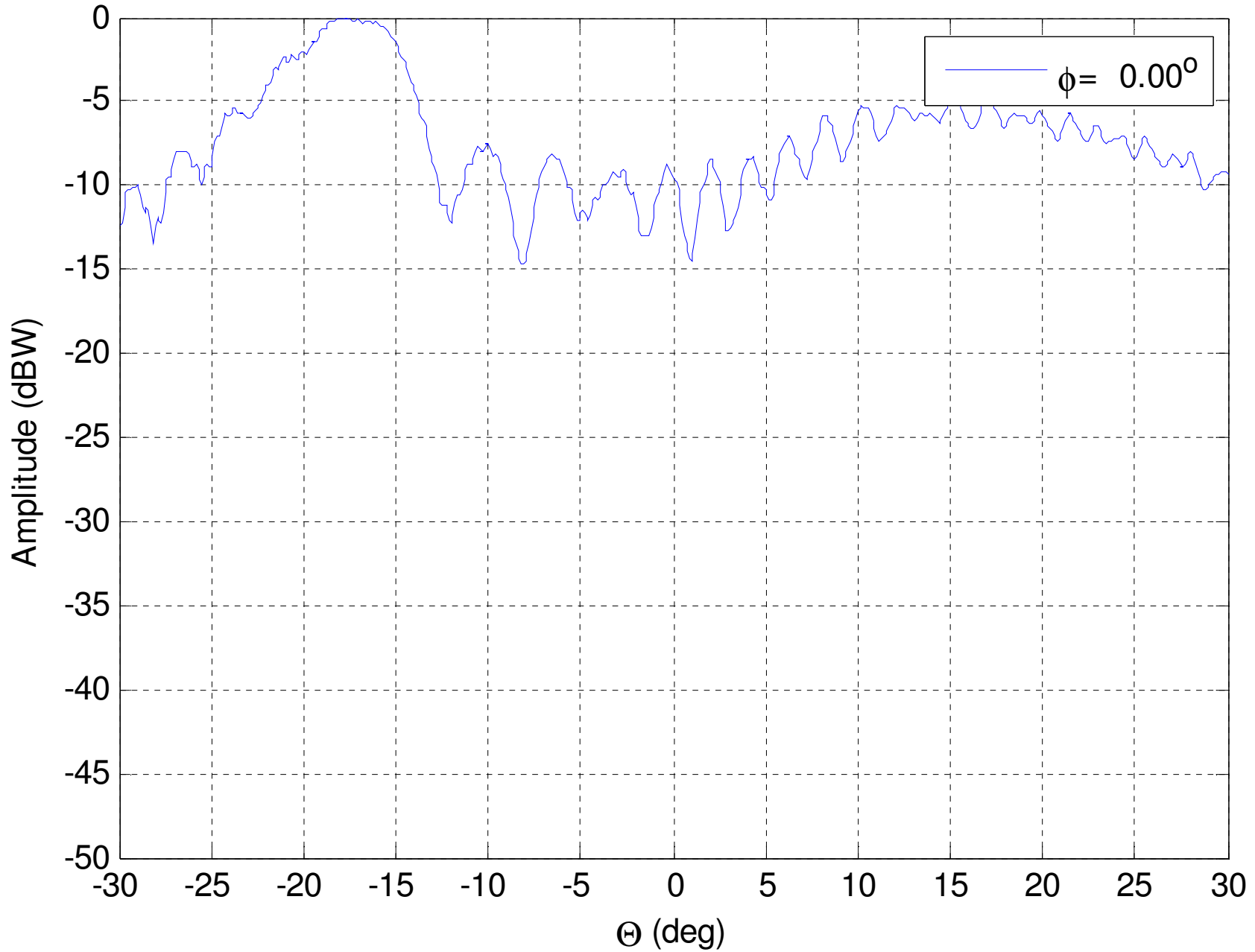
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: 11.44 dBW, Date: 16-Dec-2011



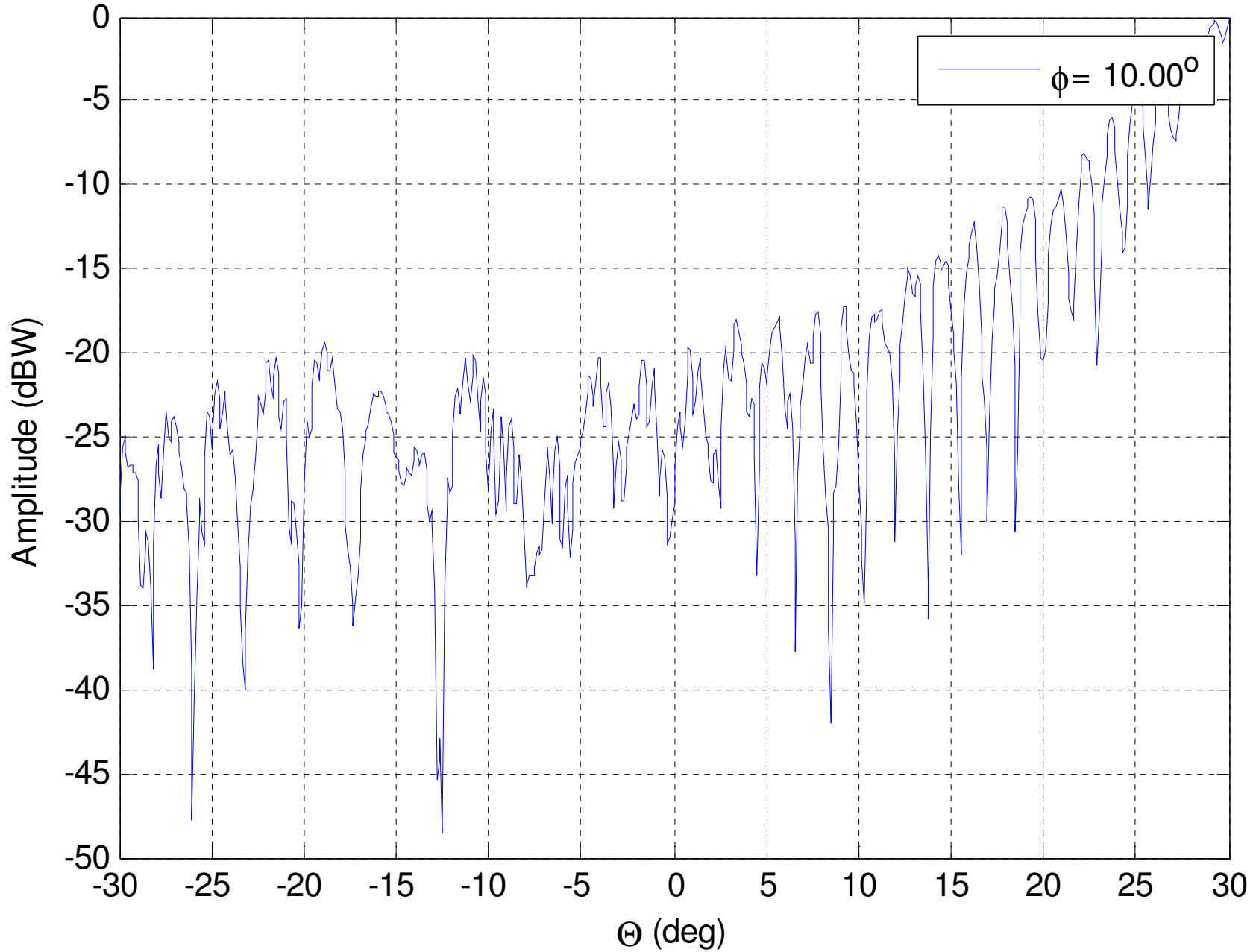
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: 12.80 dBW, Date: 16-Dec-2011



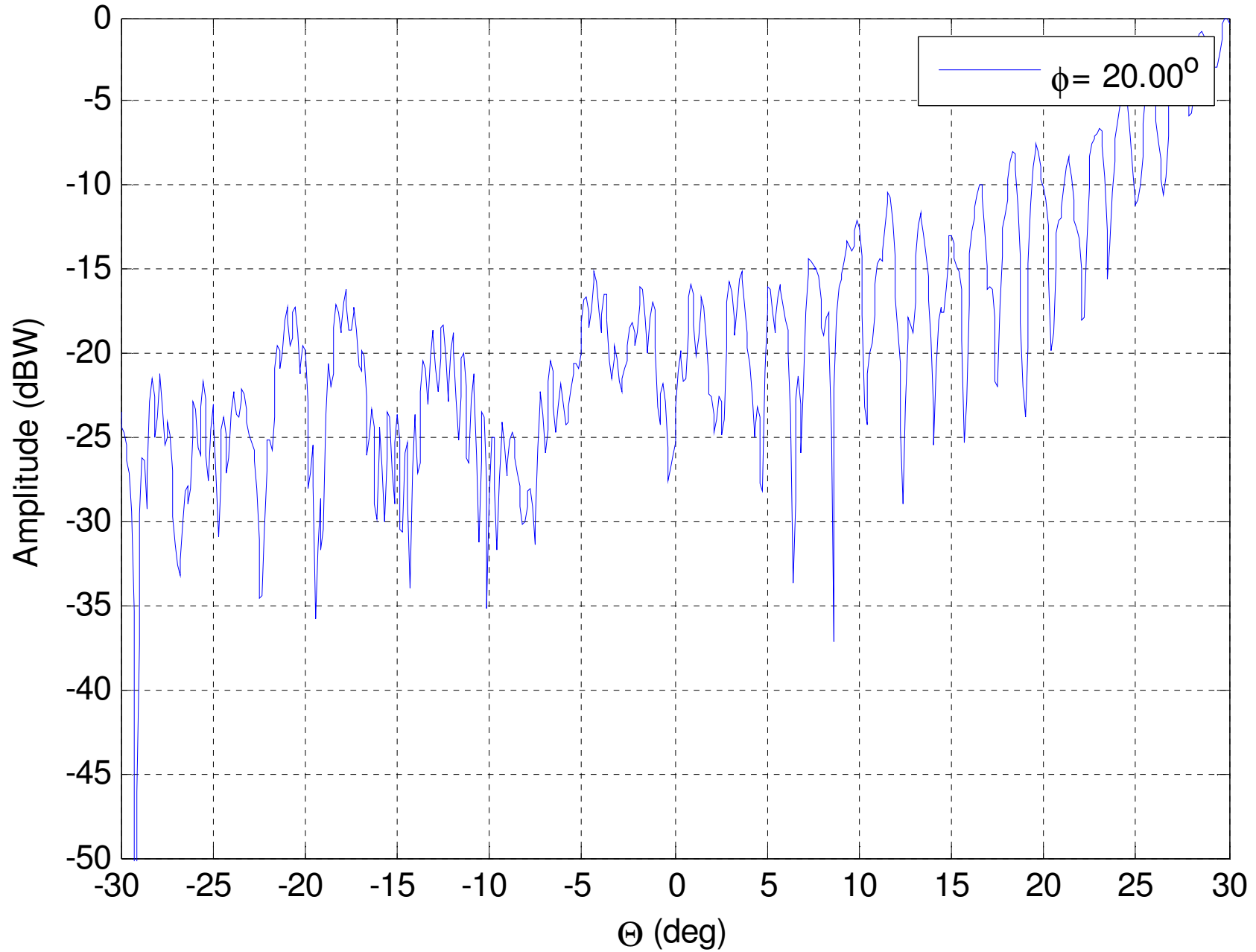
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: 12.62 dBW, Date: 16-Dec-2011



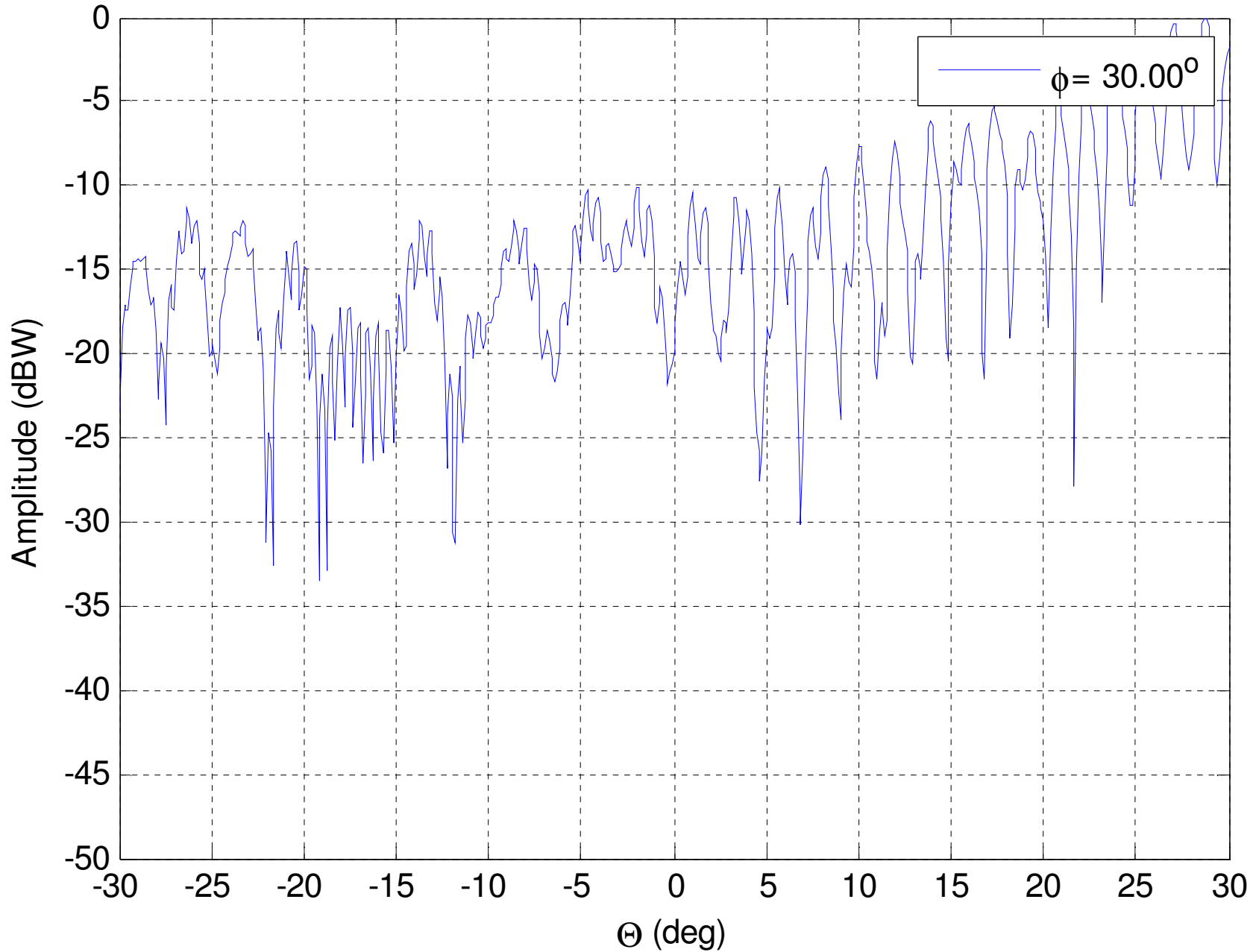
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: 8.89 dBW, Date: 16-Dec-2011



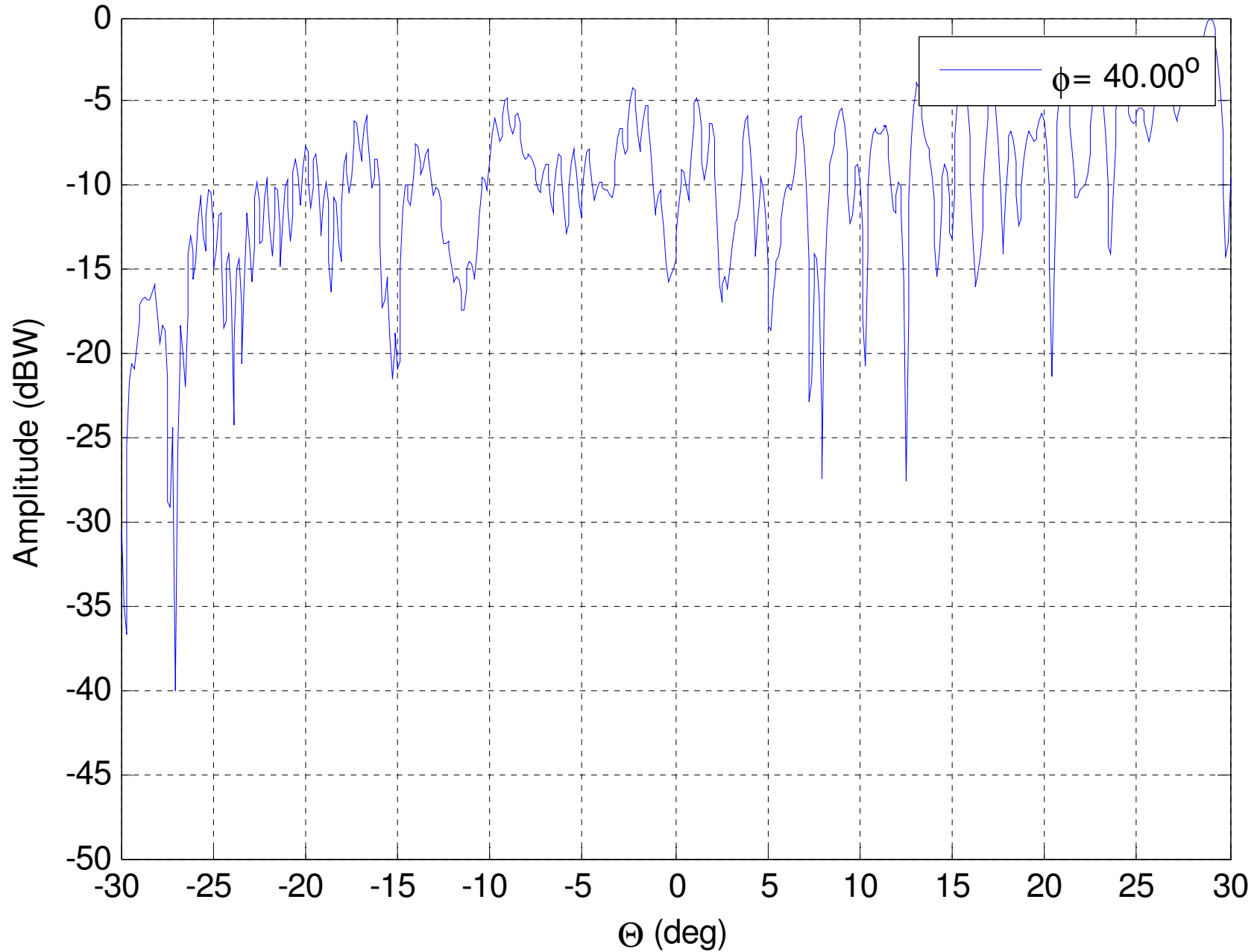
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: 3.48 dBW, Date: 16-Dec-2011



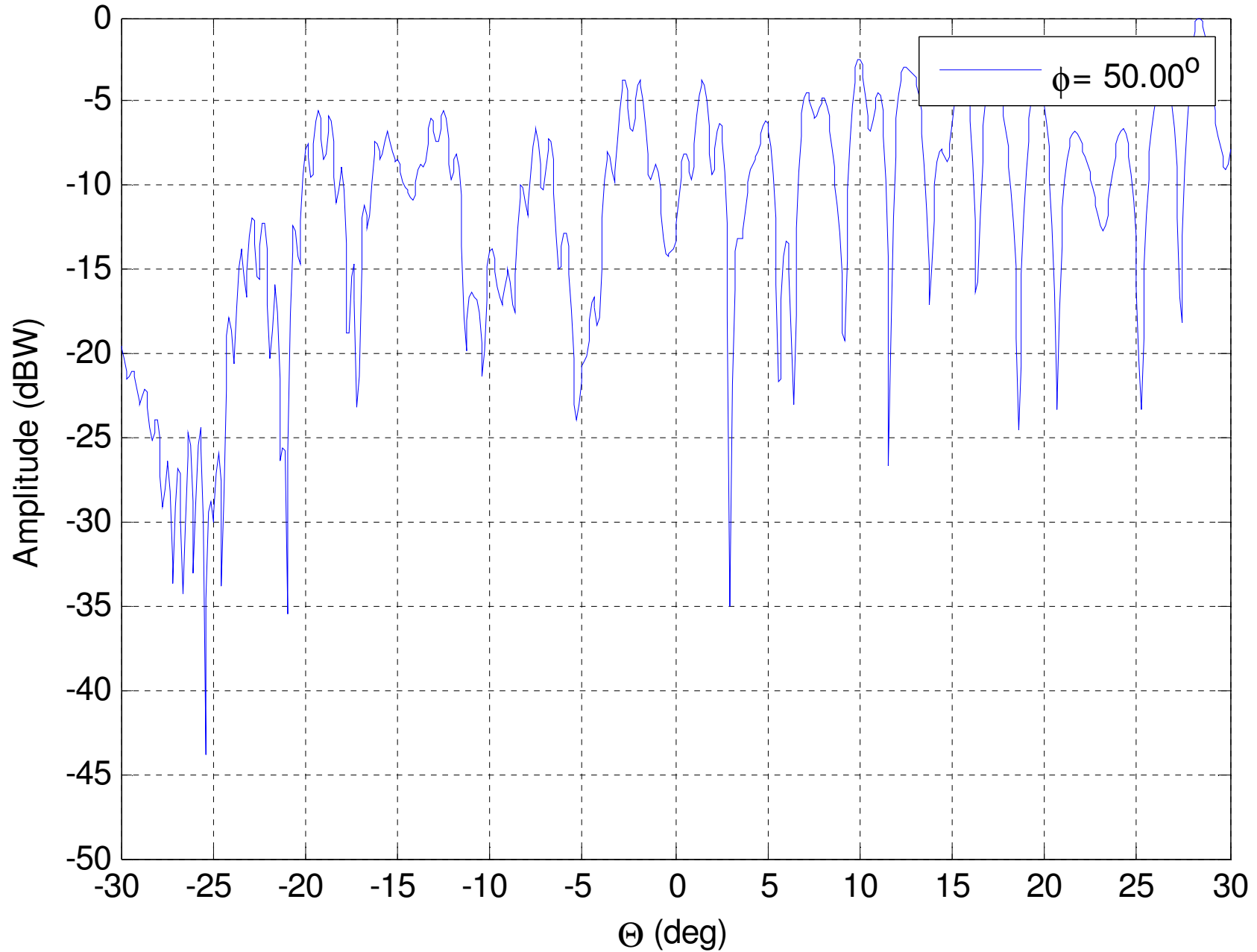
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -2.04 dBW, Date: 16-Dec-2011



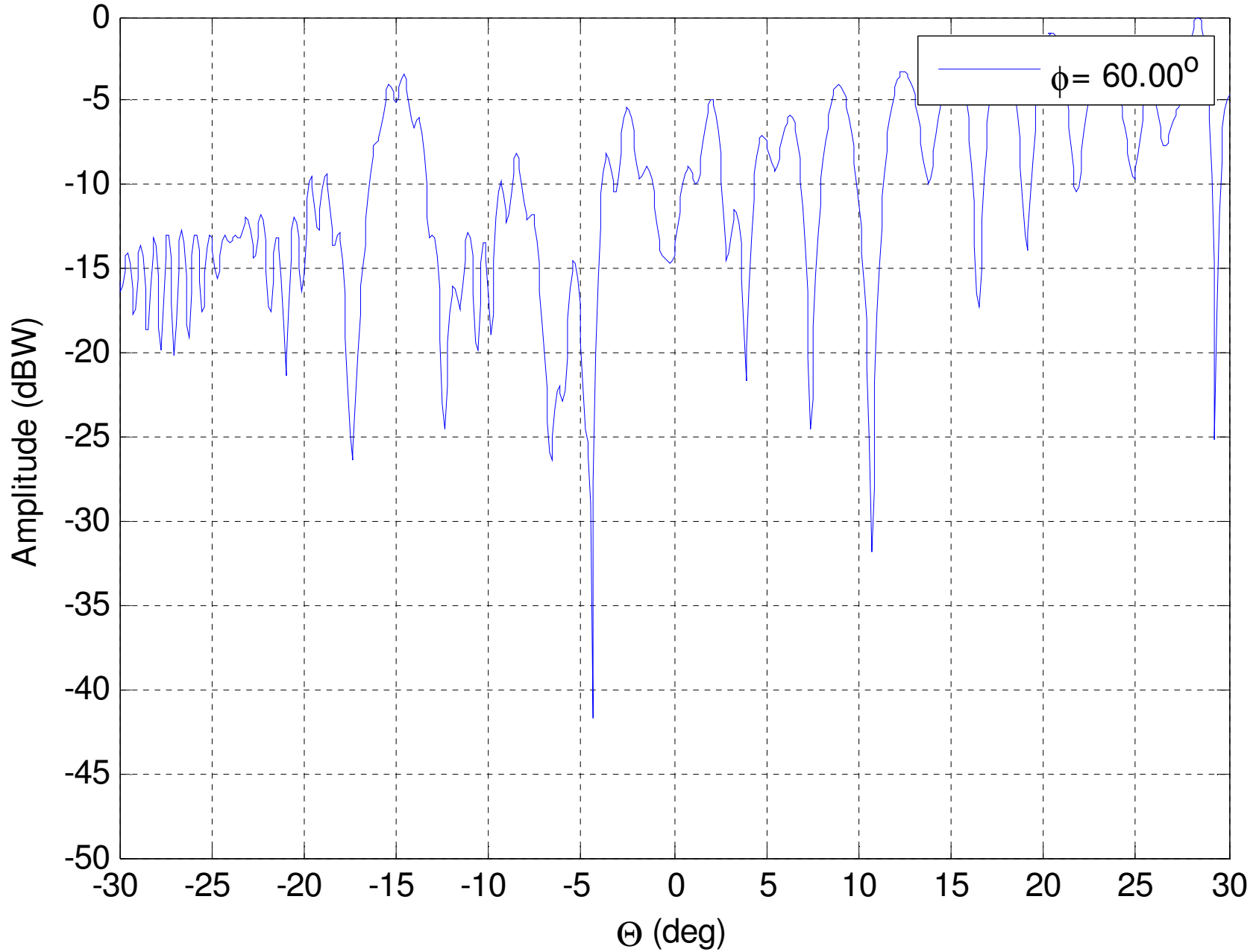
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -3.09 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

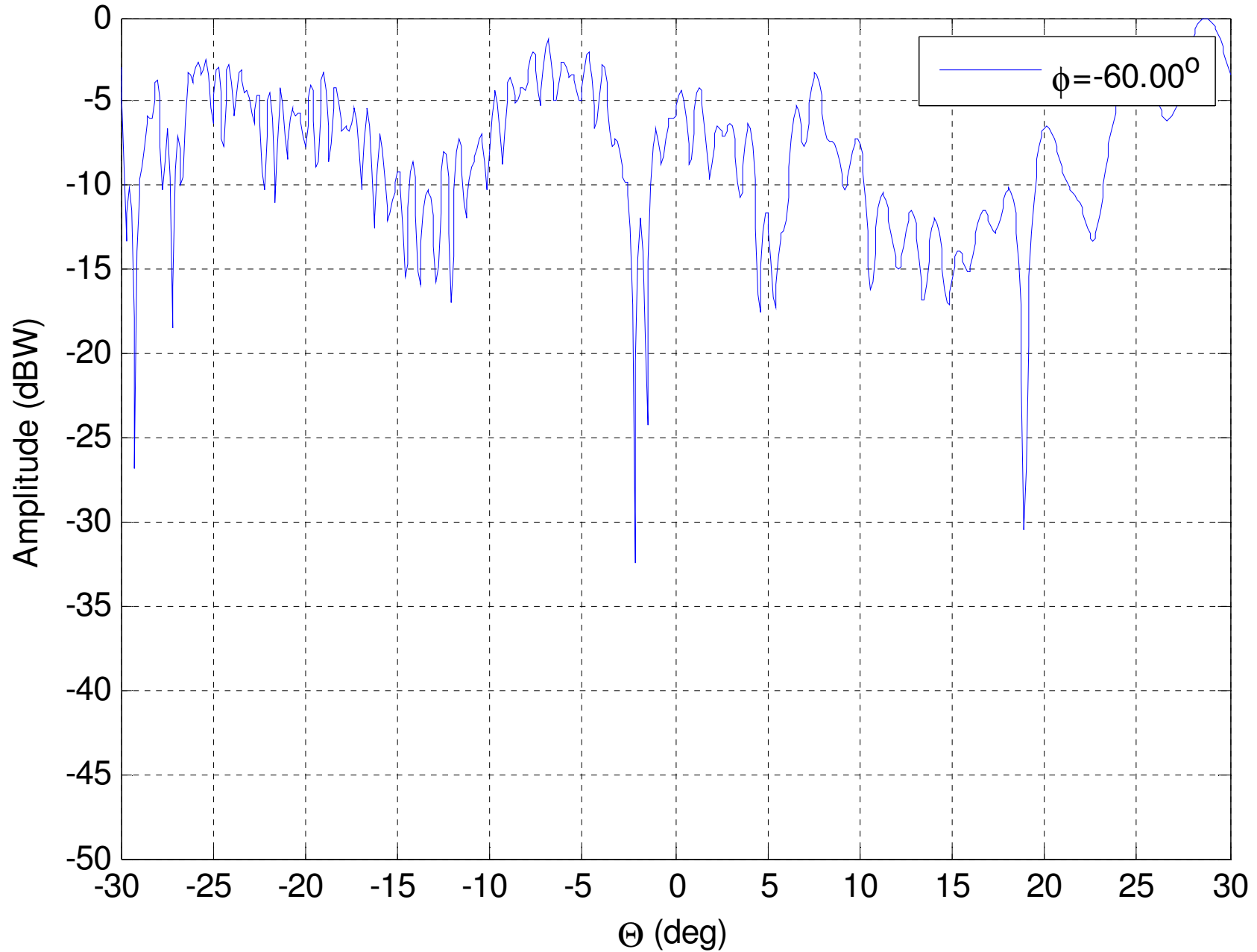
Input file: tx-17.5-rhcp-60.cut, Peak: -2.19 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

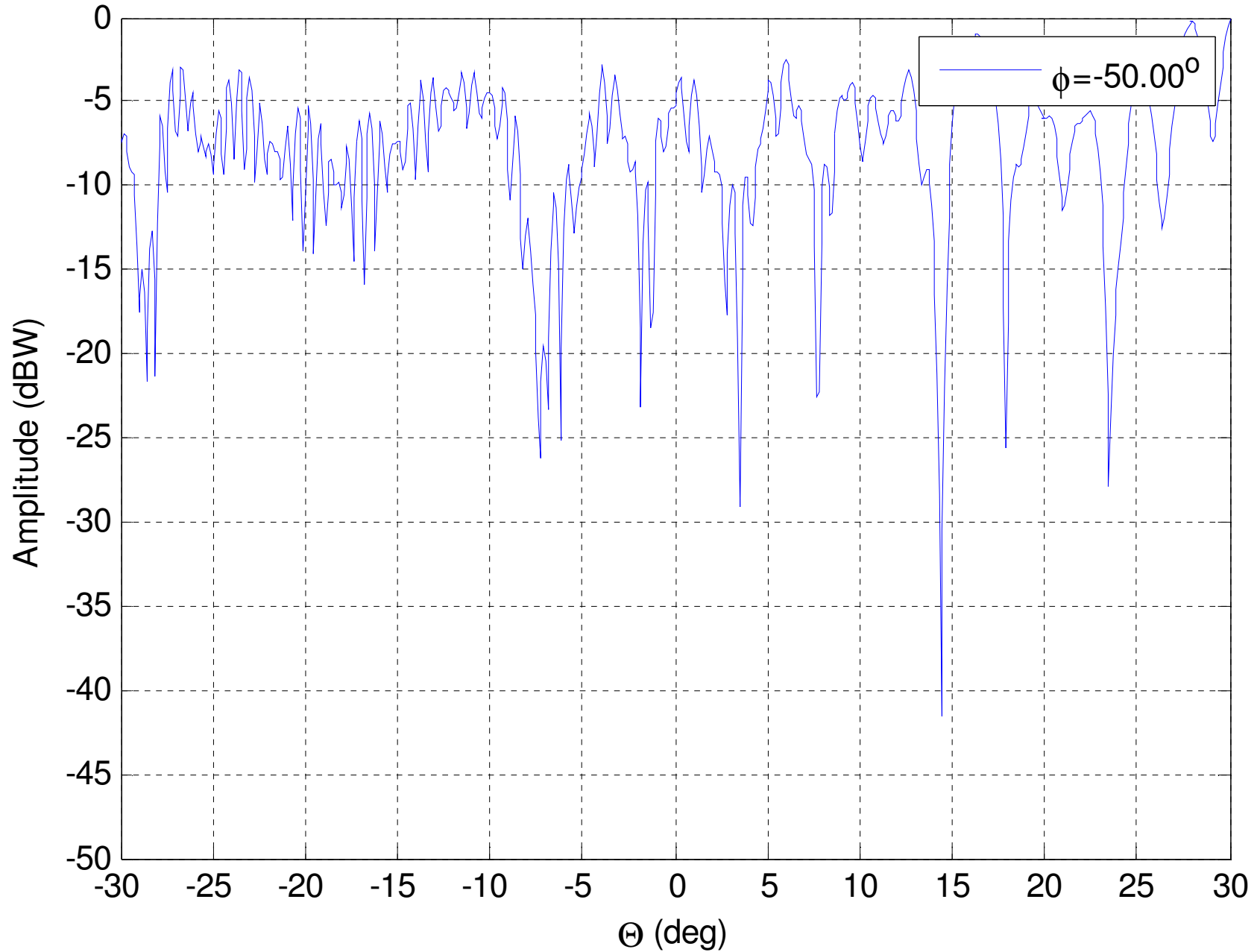
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -4.14 dBW, Date: 16-Dec-2011



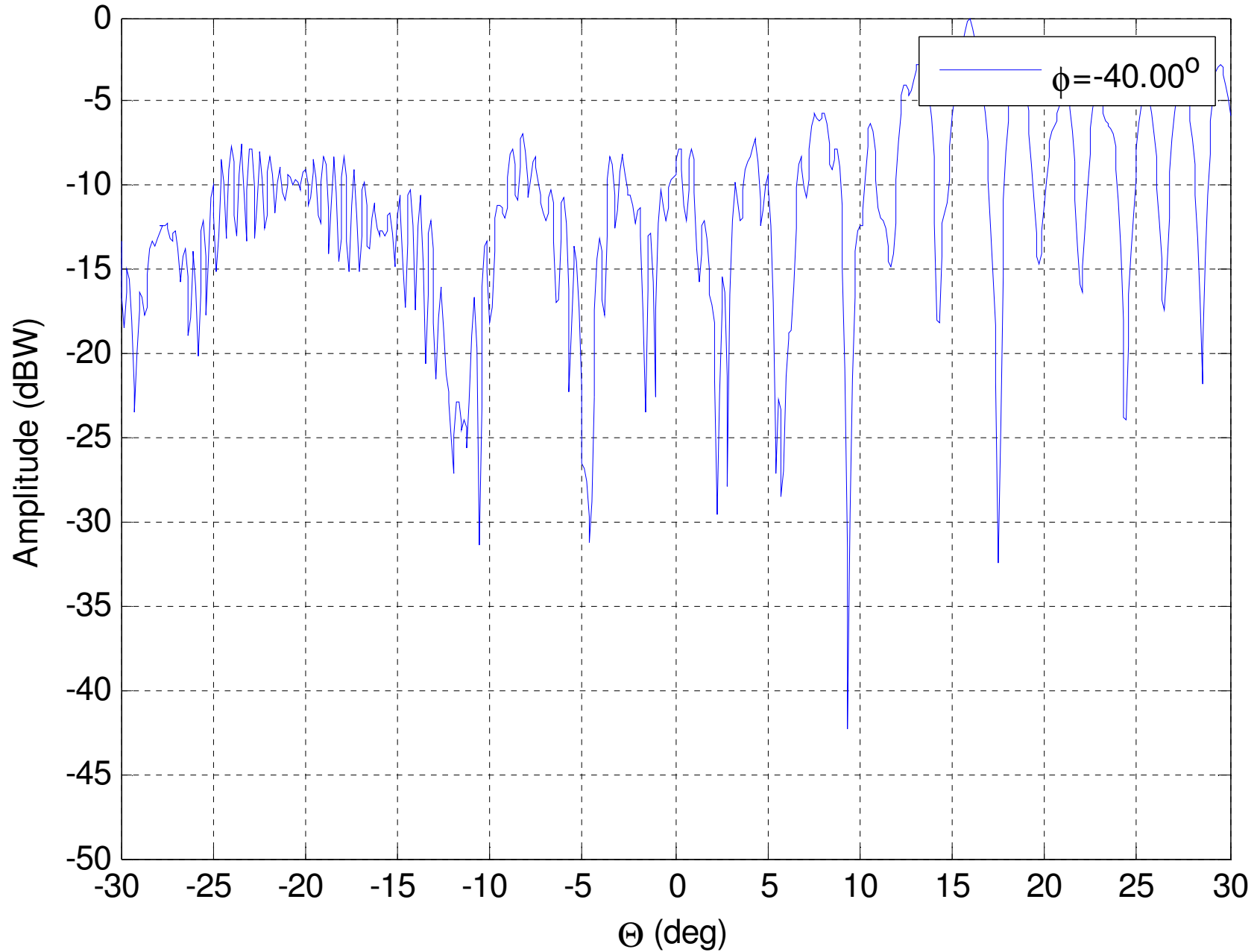
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -4.75 dBW, Date: 16-Dec-2011



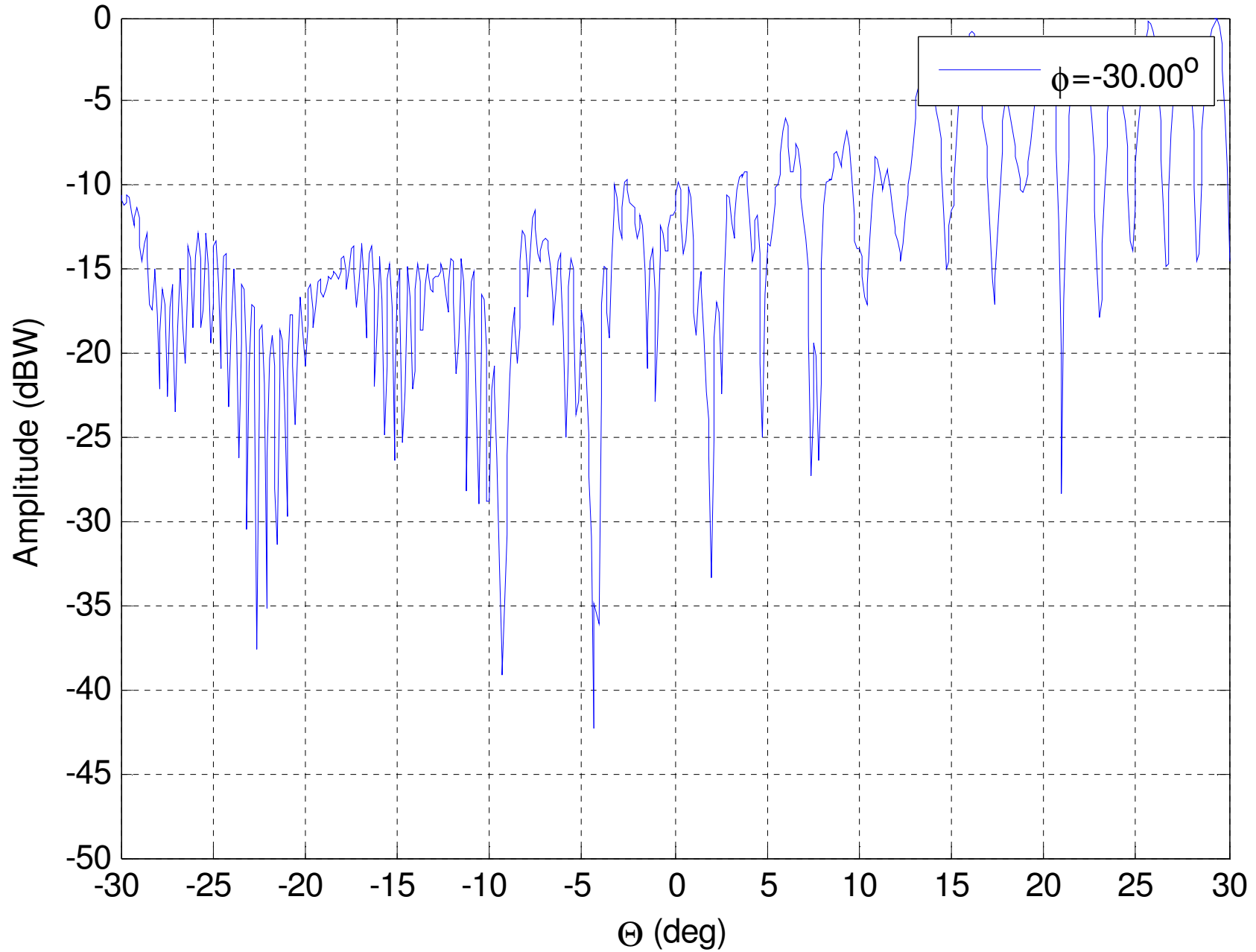
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -0.68 dBW, Date: 16-Dec-2011



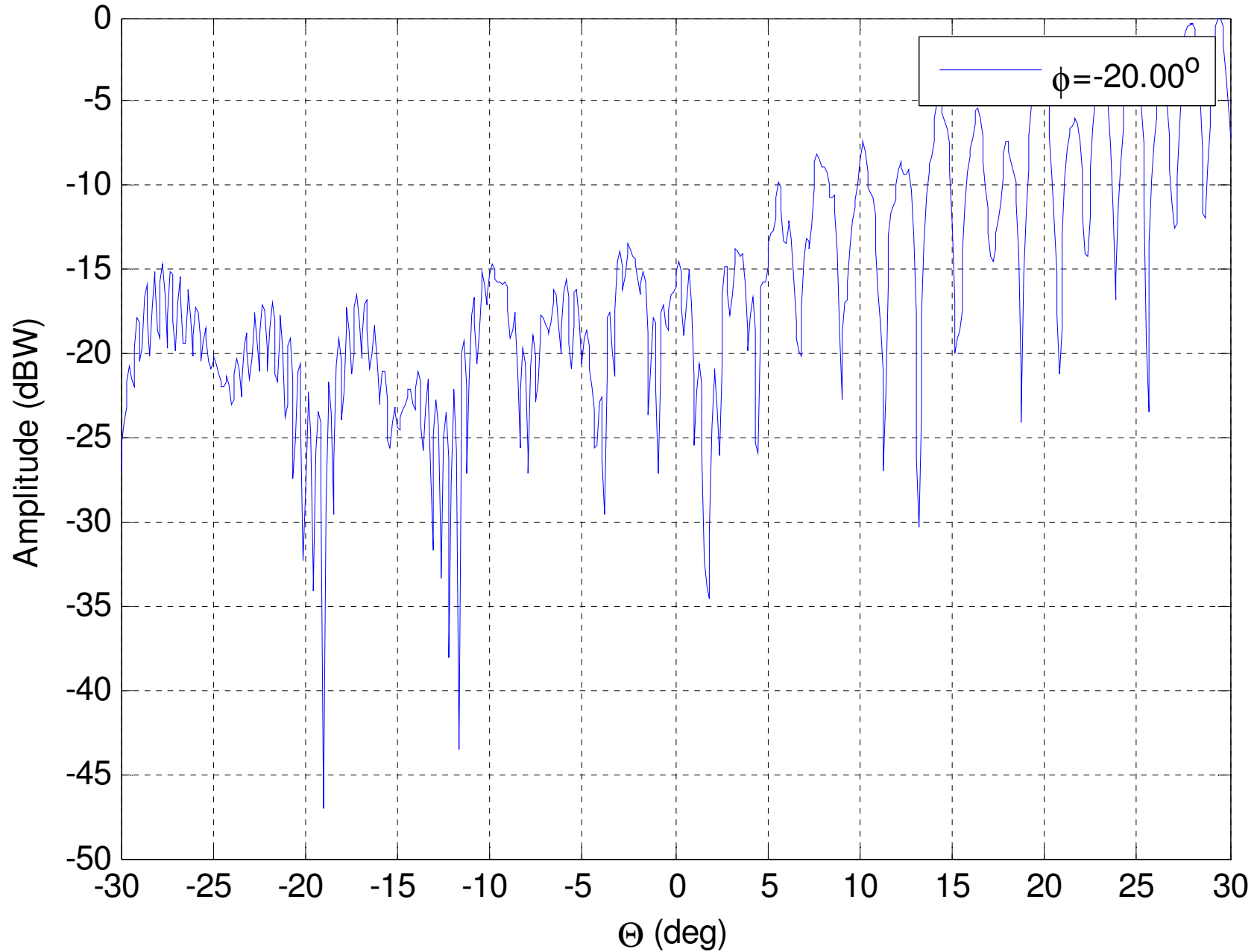
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: 1.46 dBW, Date: 16-Dec-2011



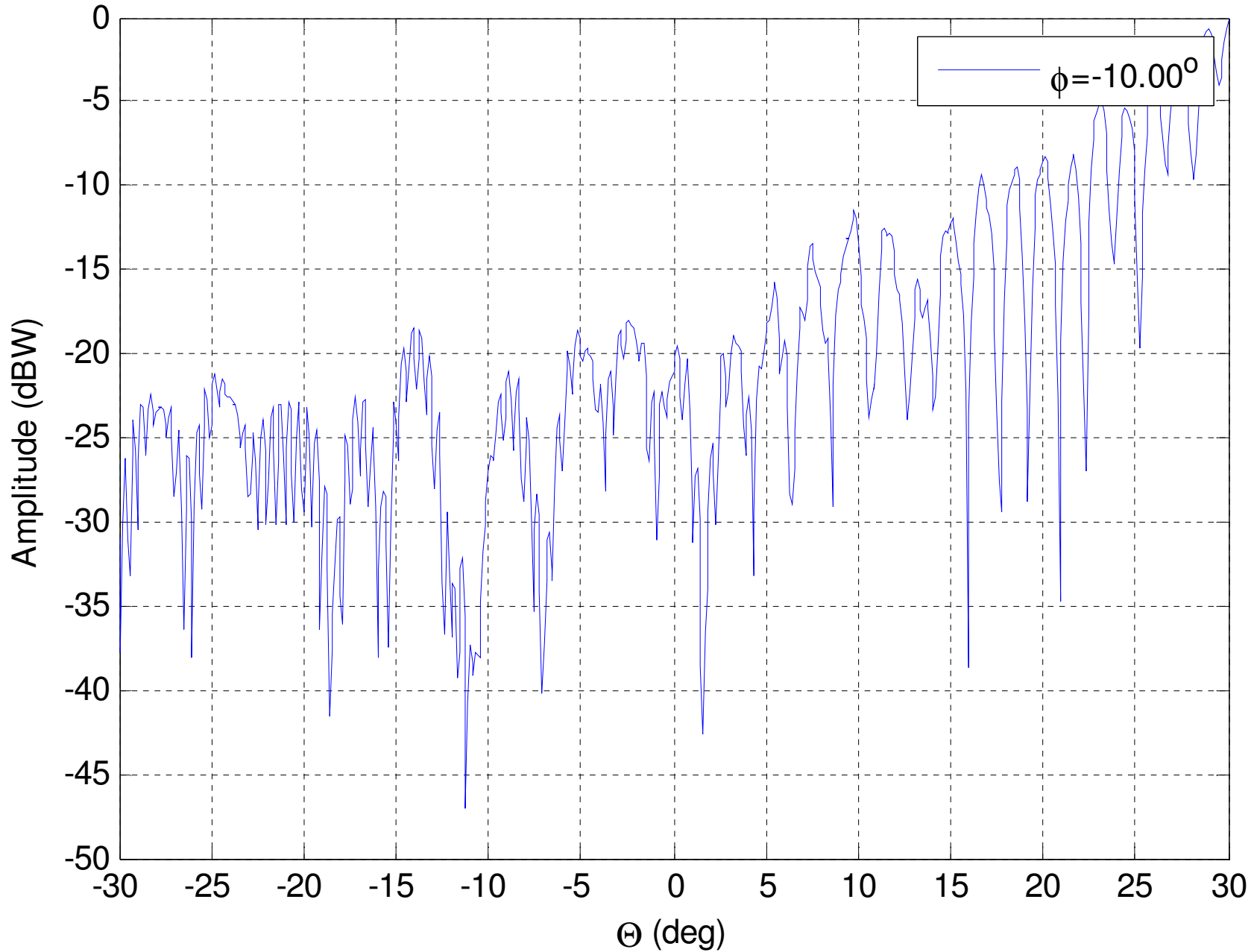
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: 6.06 dBW, Date: 16-Dec-2011



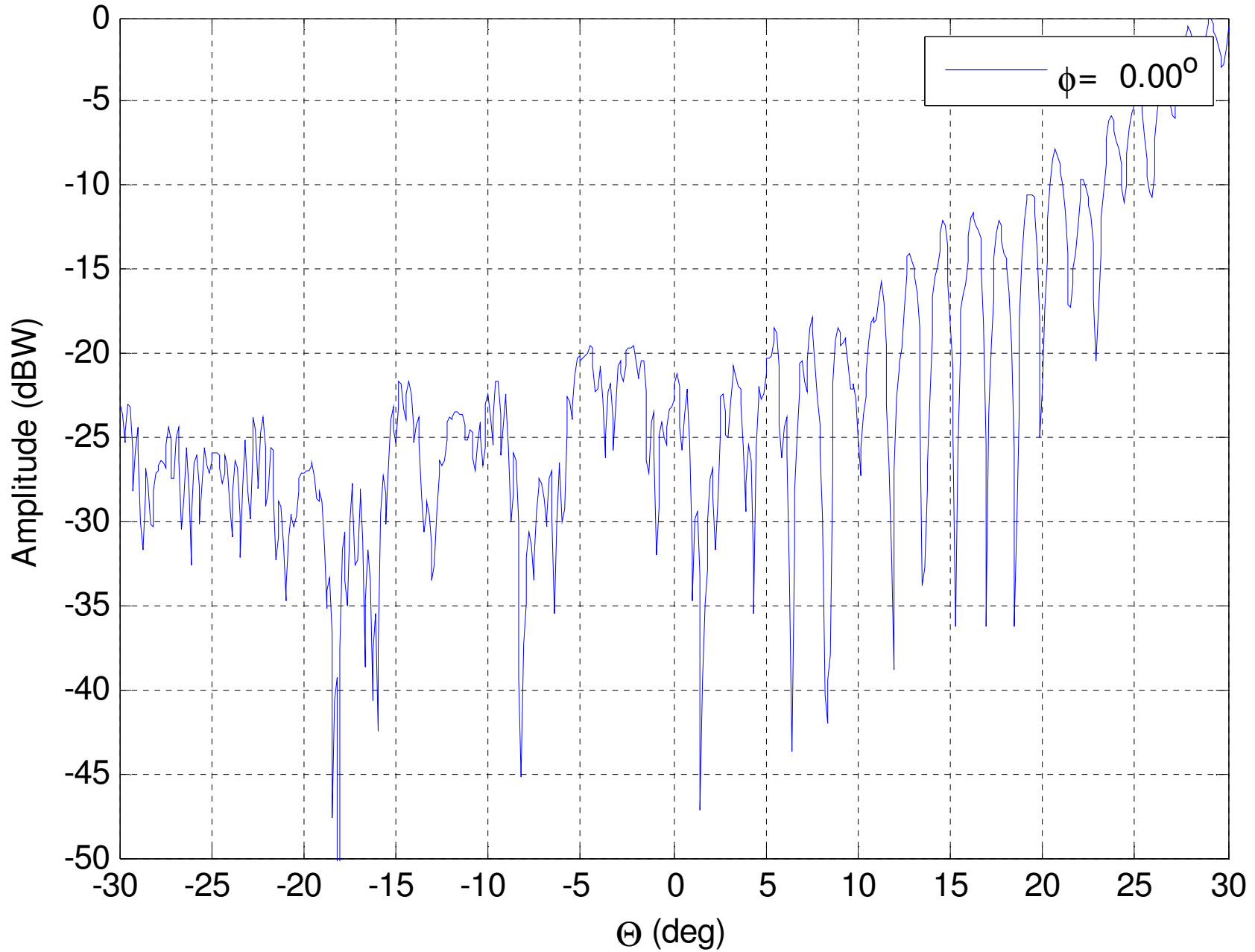
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: 11.10 dBW, Date: 16-Dec-2011



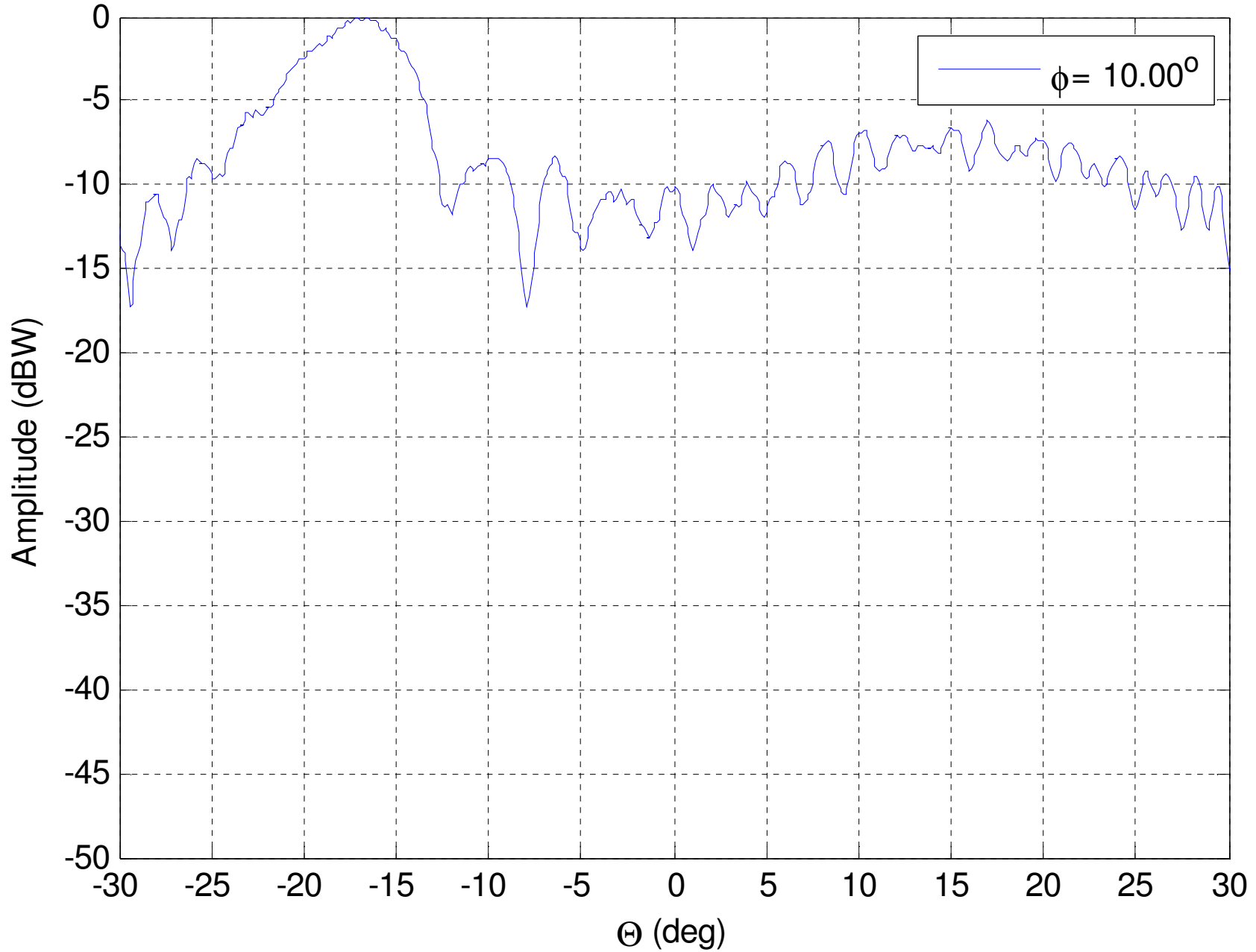
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: 12.76 dBW, Date: 16-Dec-2011



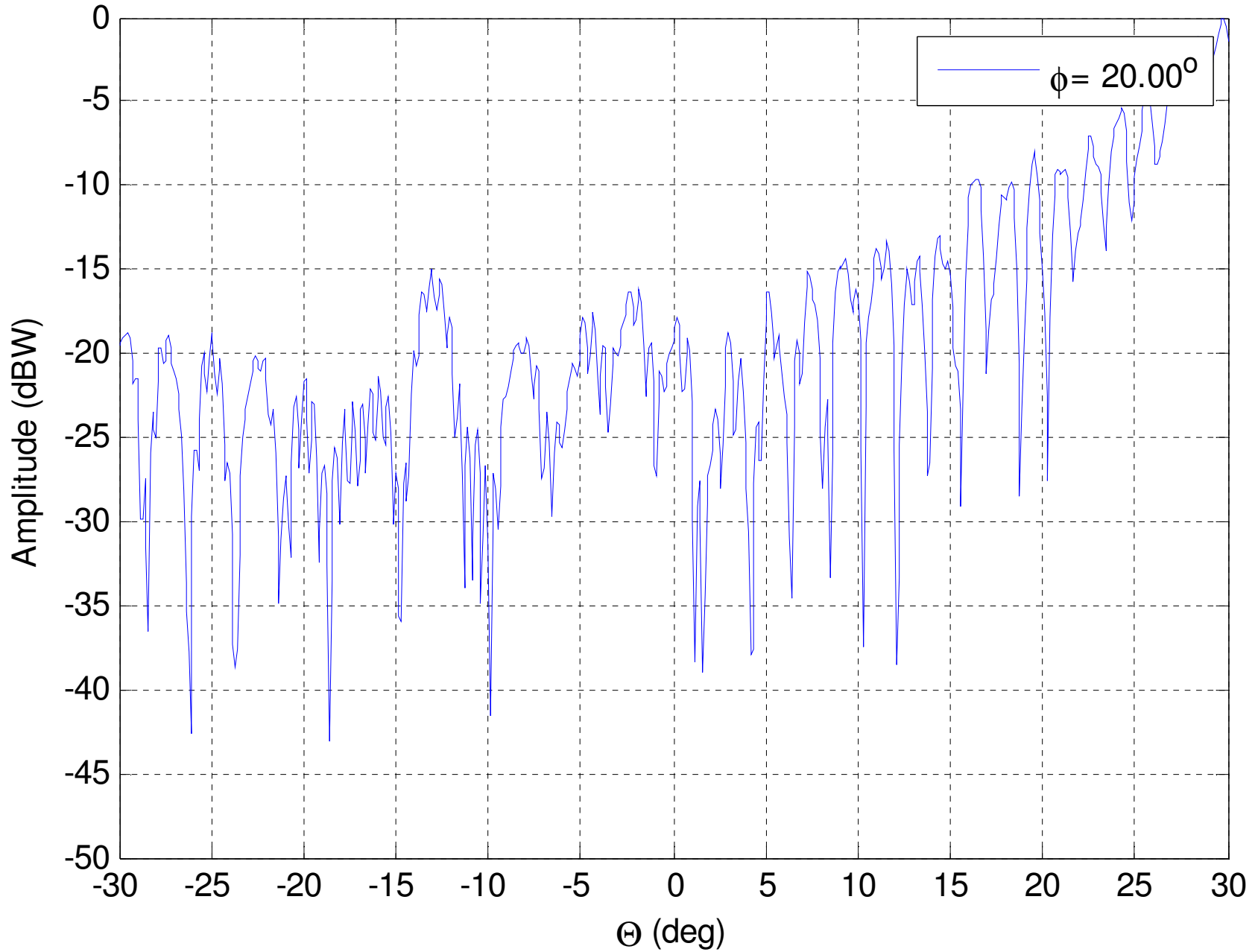
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: 13.32 dBW, Date: 16-Dec-2011



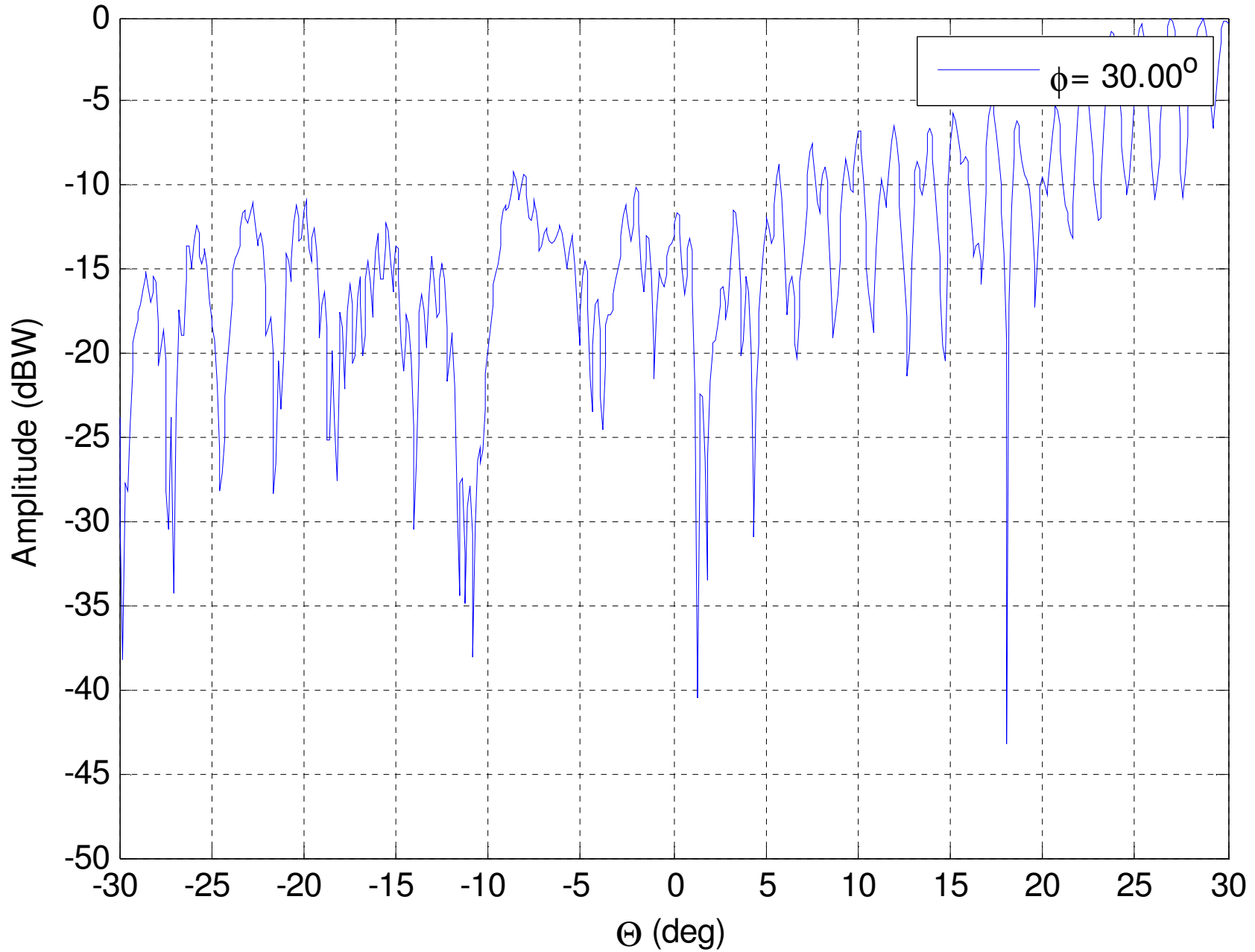
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: 9.32 dBW, Date: 16-Dec-2011



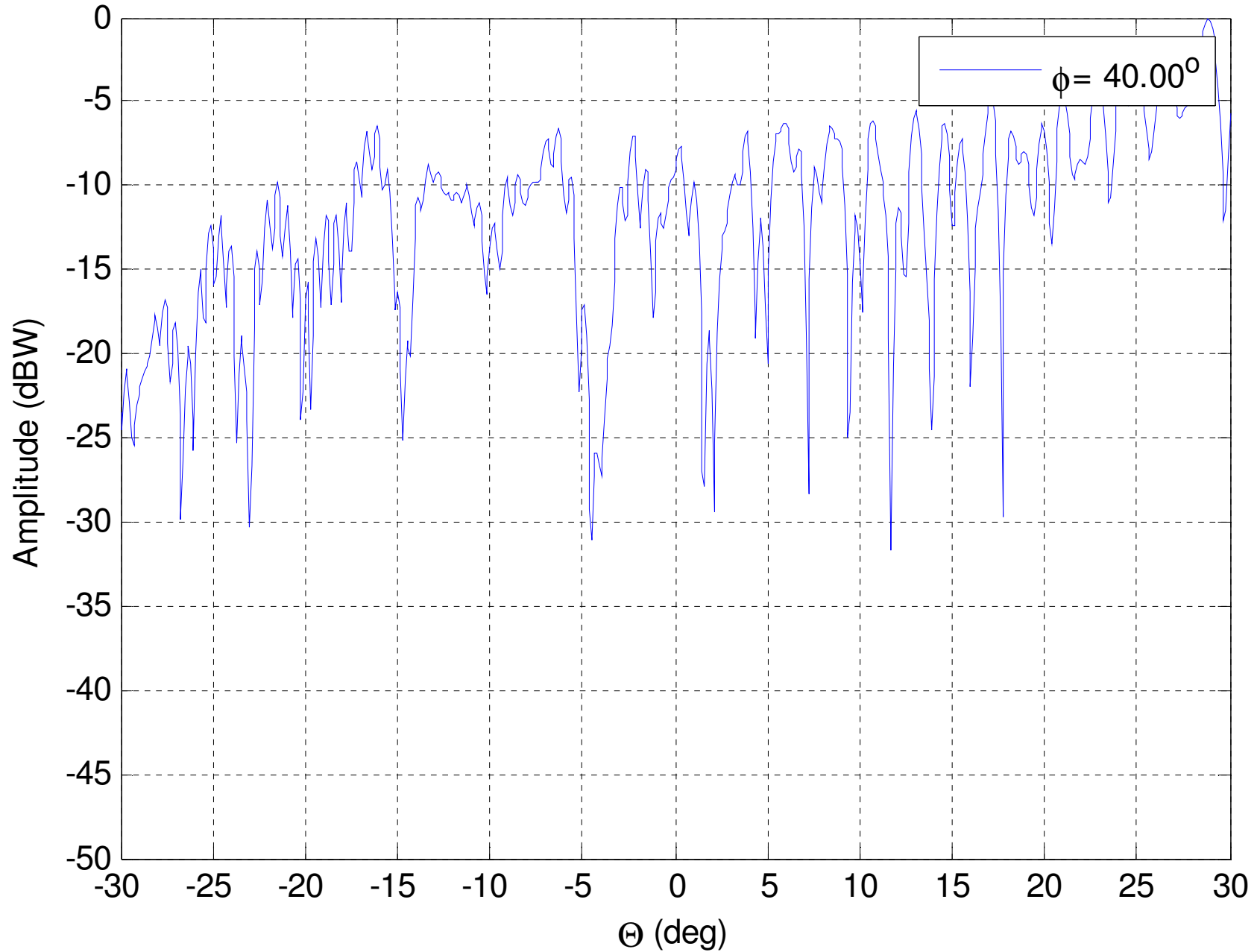
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: 3.00 dBW, Date: 16-Dec-2011



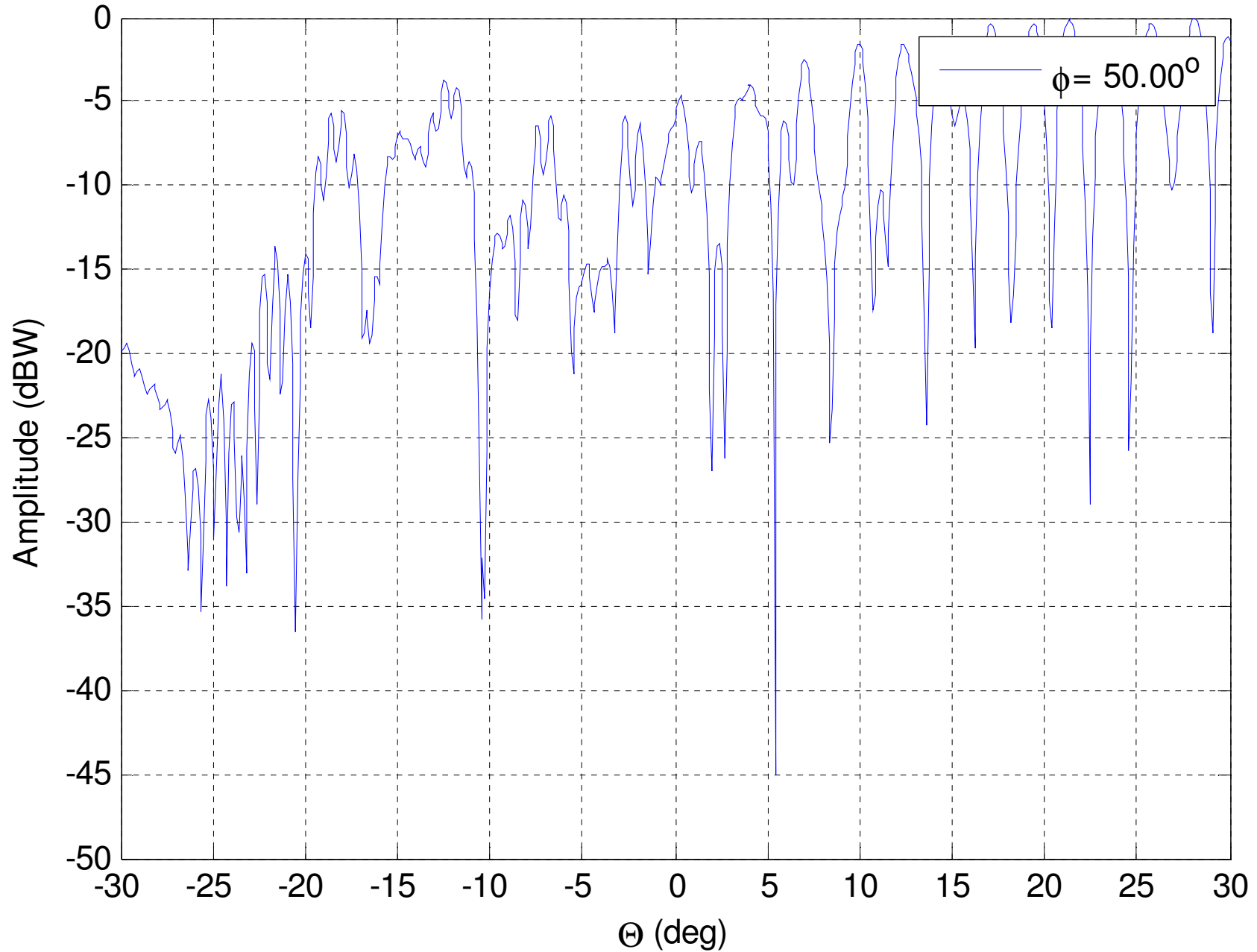
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -0.90 dBW, Date: 16-Dec-2011



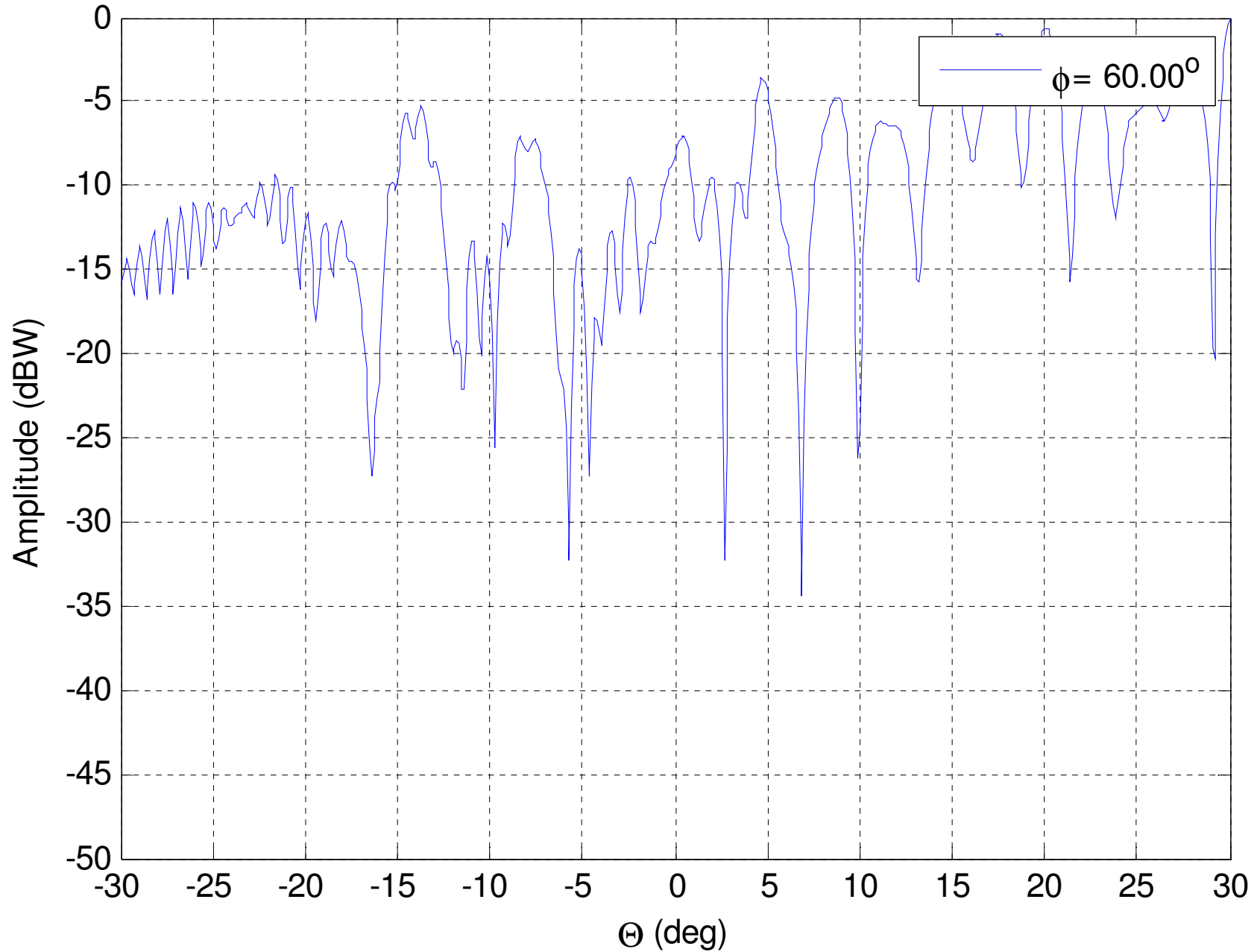
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -3.97 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

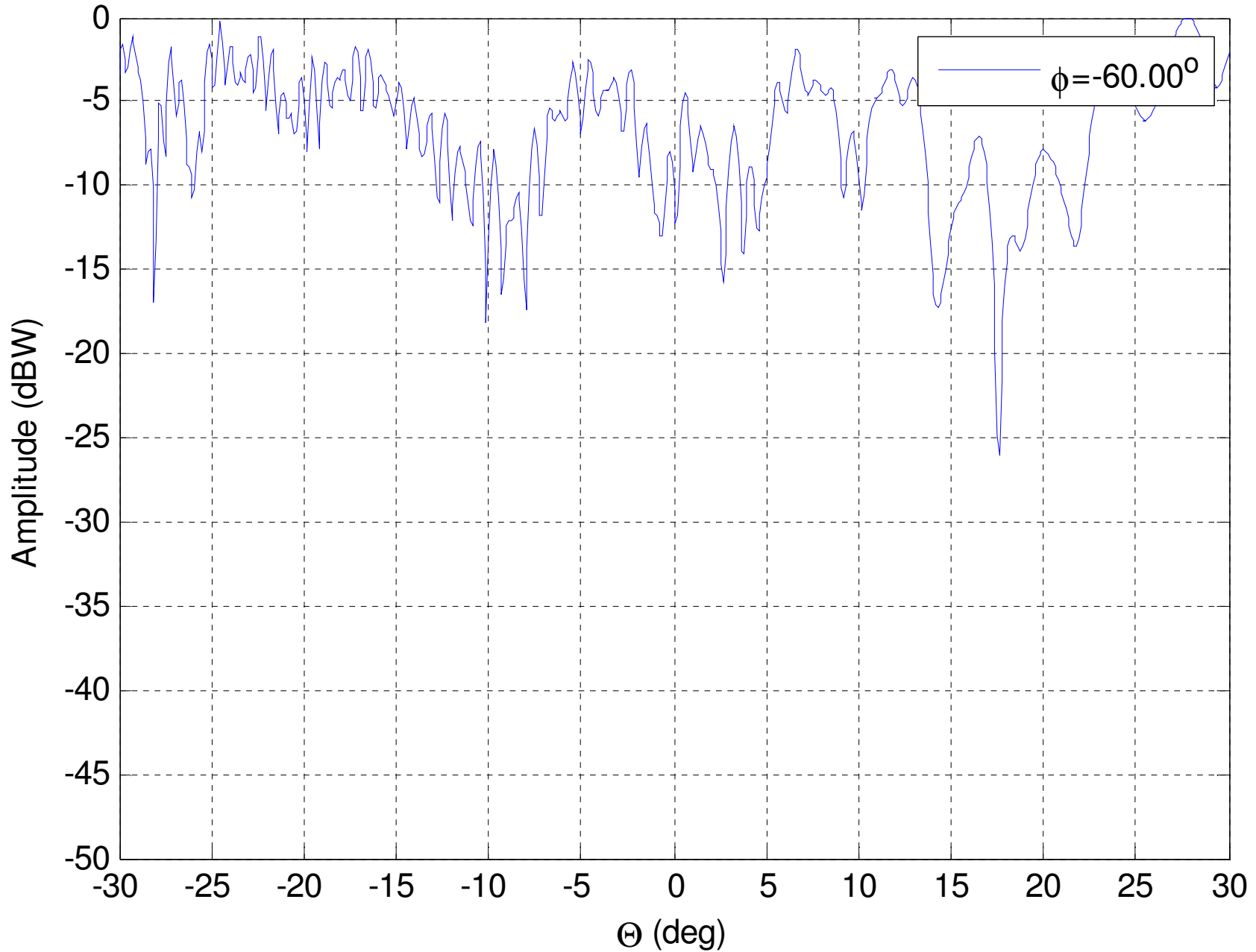
Input file: tx-17.5-lhcp-60.cut, Peak: -1.80 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

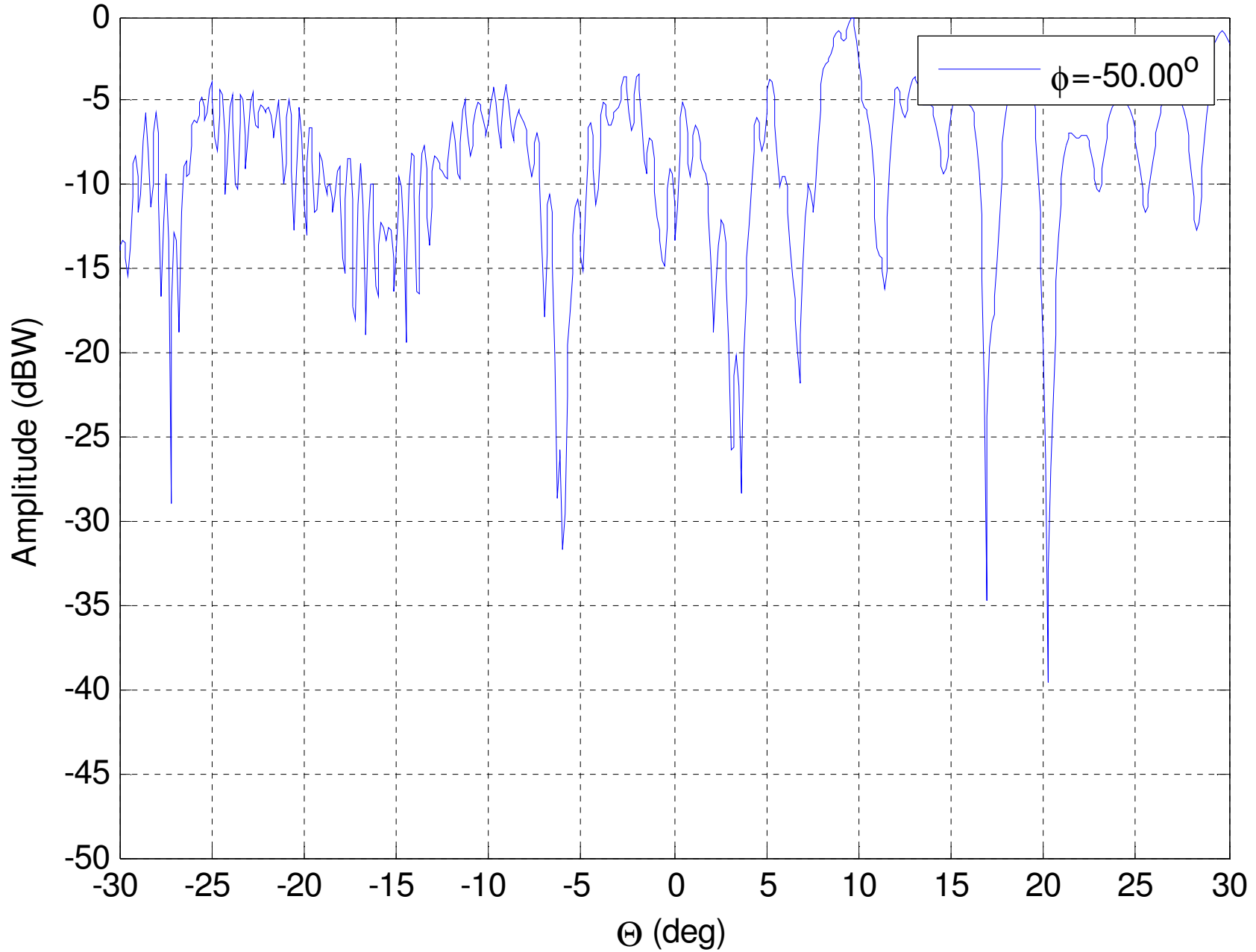
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -4.91 dBW, Date: 16-Dec-2011



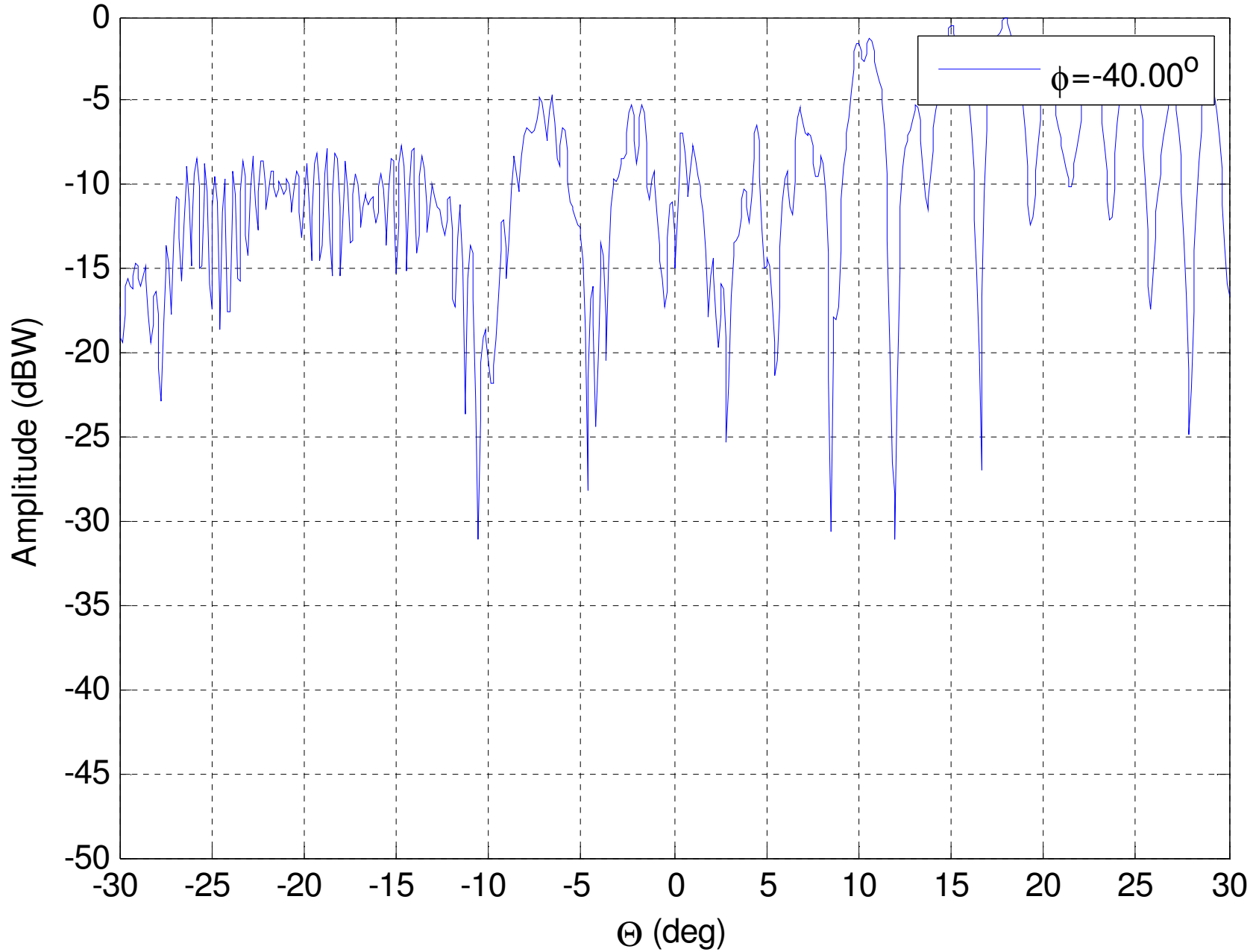
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -3.98 dBW, Date: 16-Dec-2011



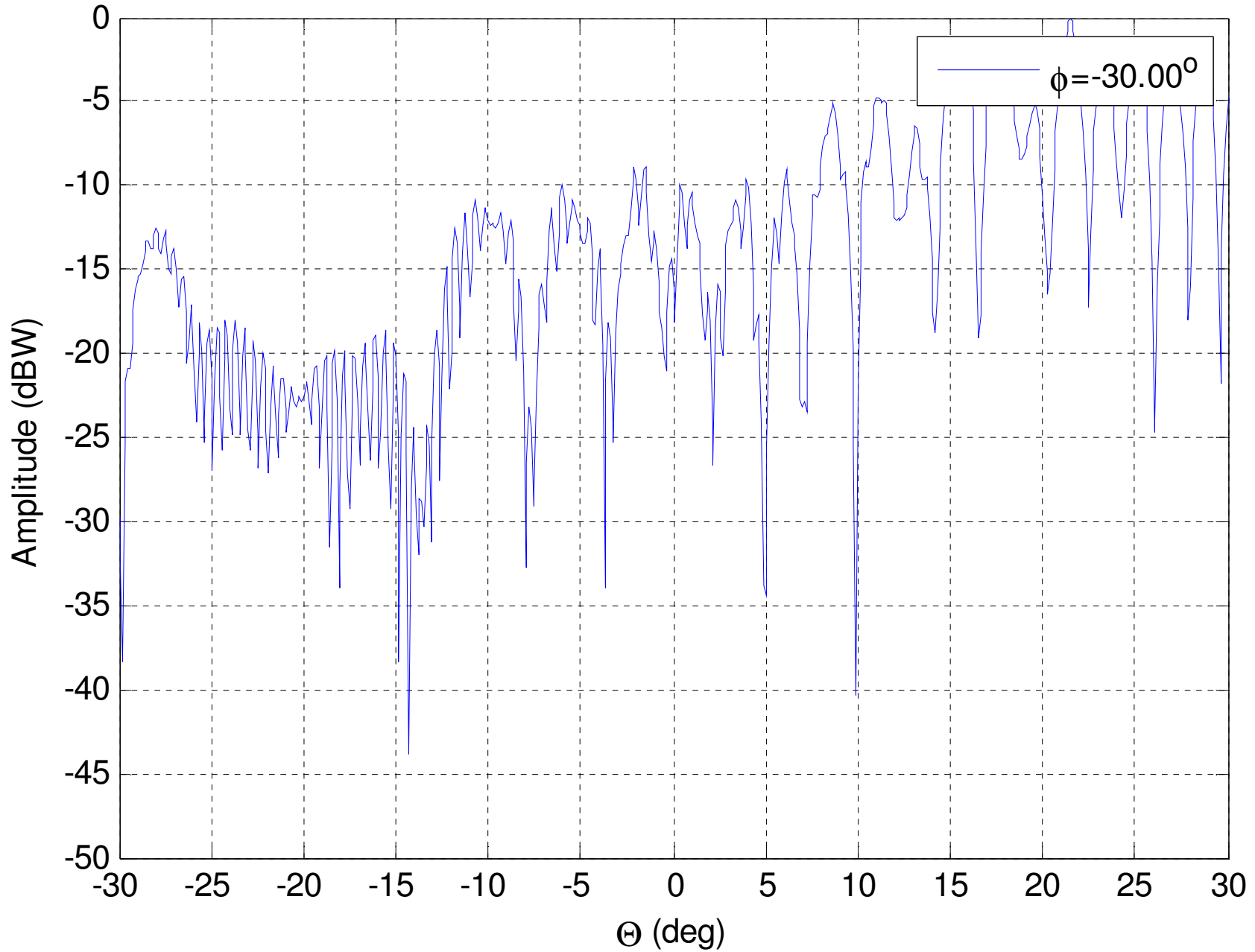
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -2.19 dBW, Date: 16-Dec-2011



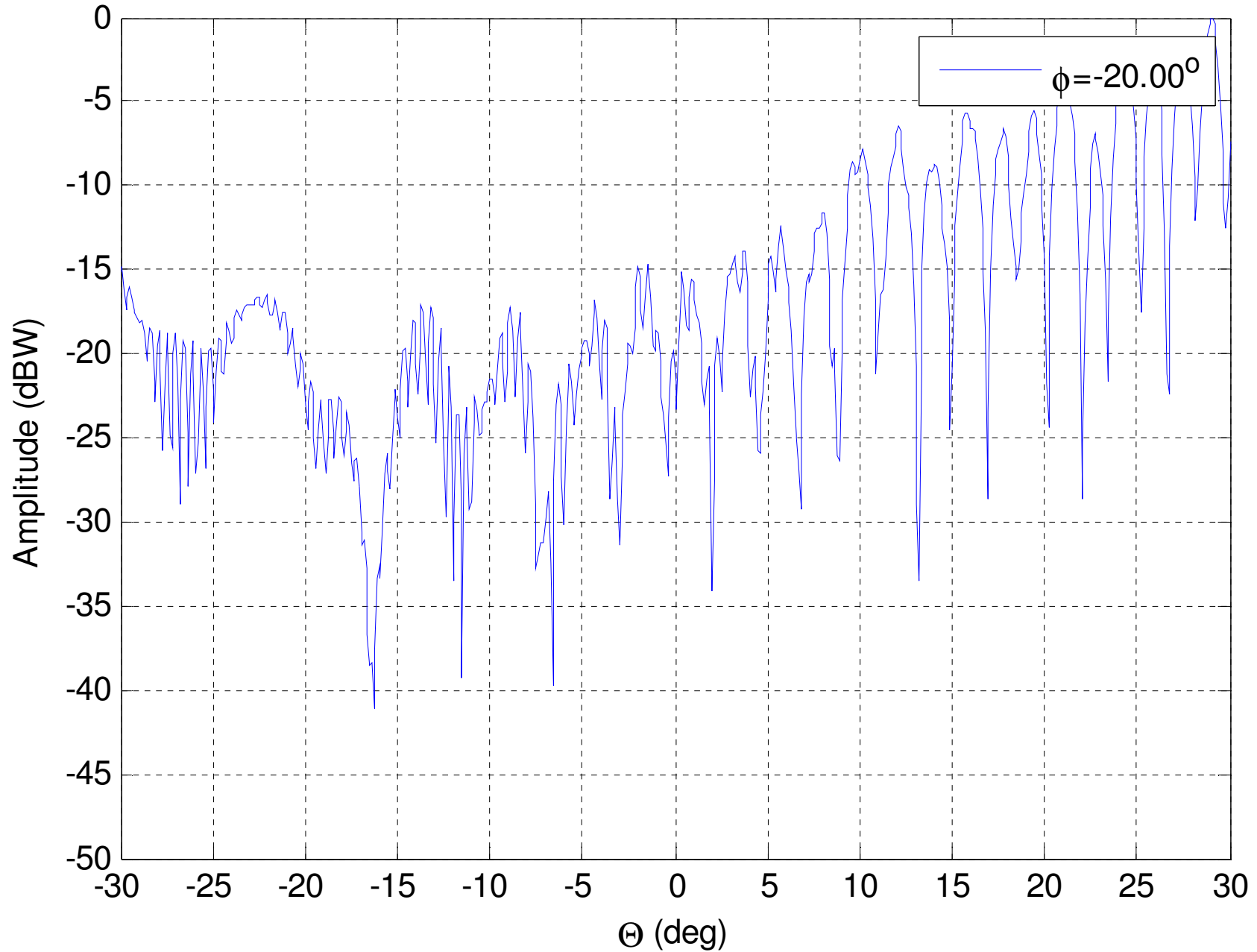
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: 1.12 dBW, Date: 16-Dec-2011



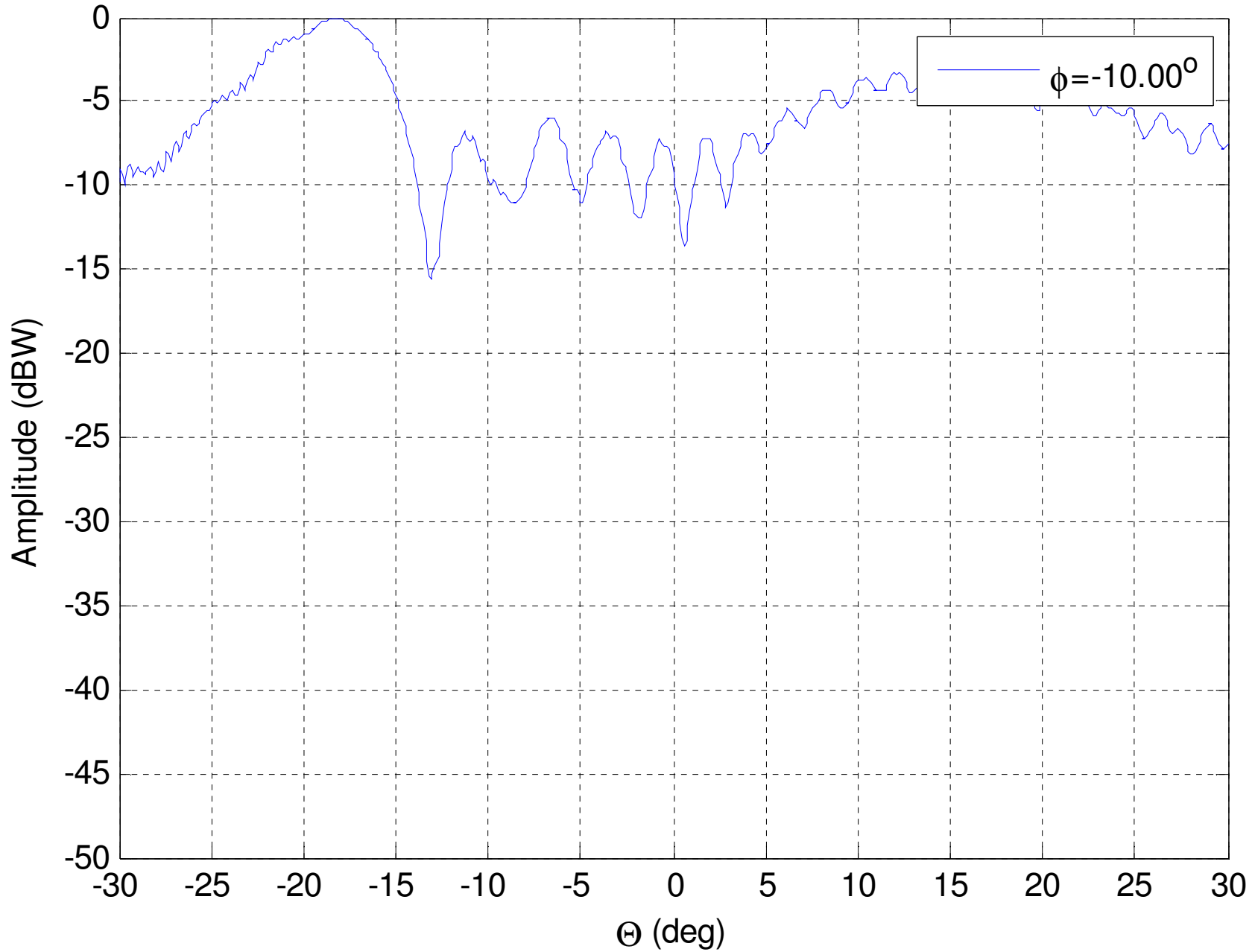
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: 6.55 dBW, Date: 16-Dec-2011



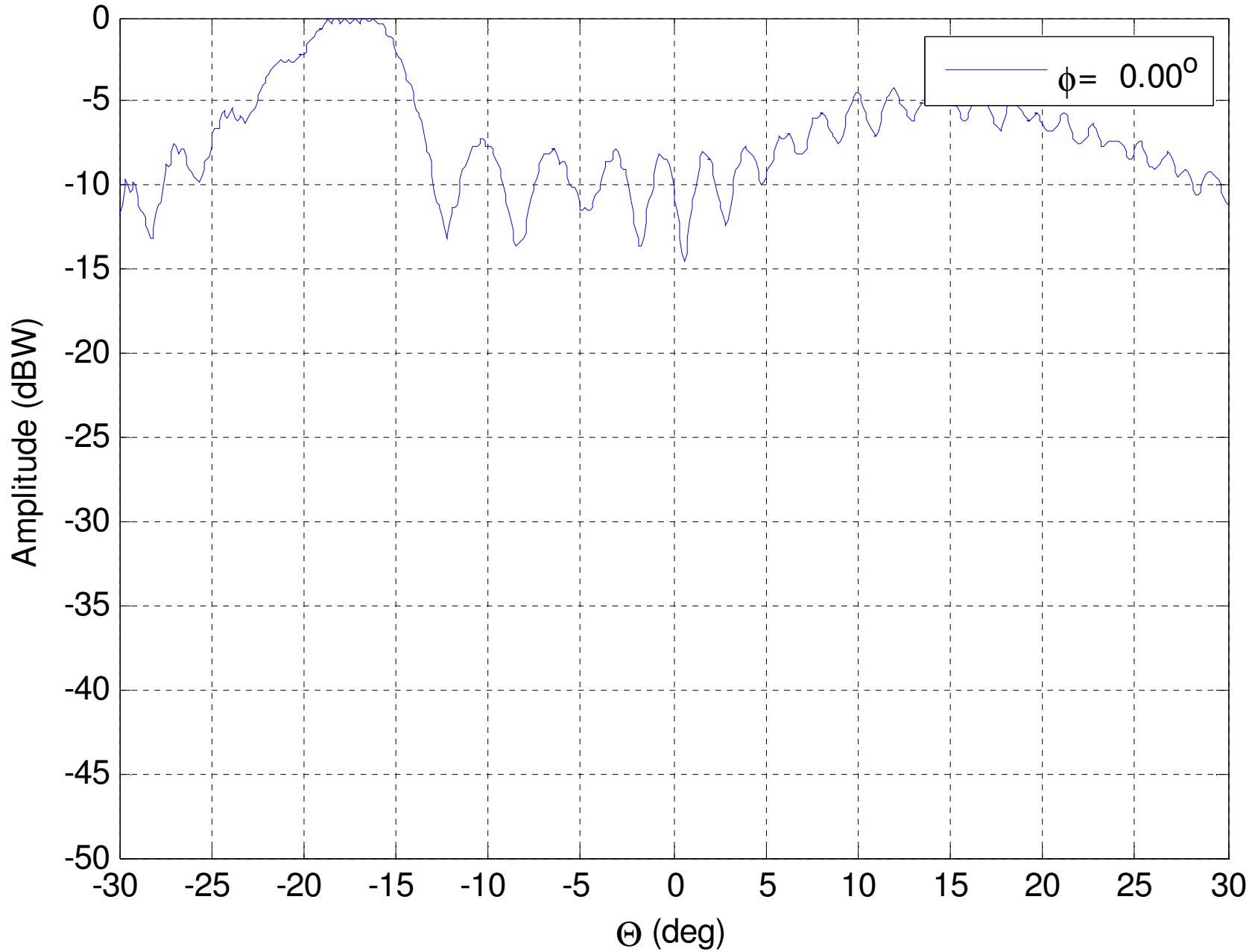
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: 11.62 dBW, Date: 16-Dec-2011



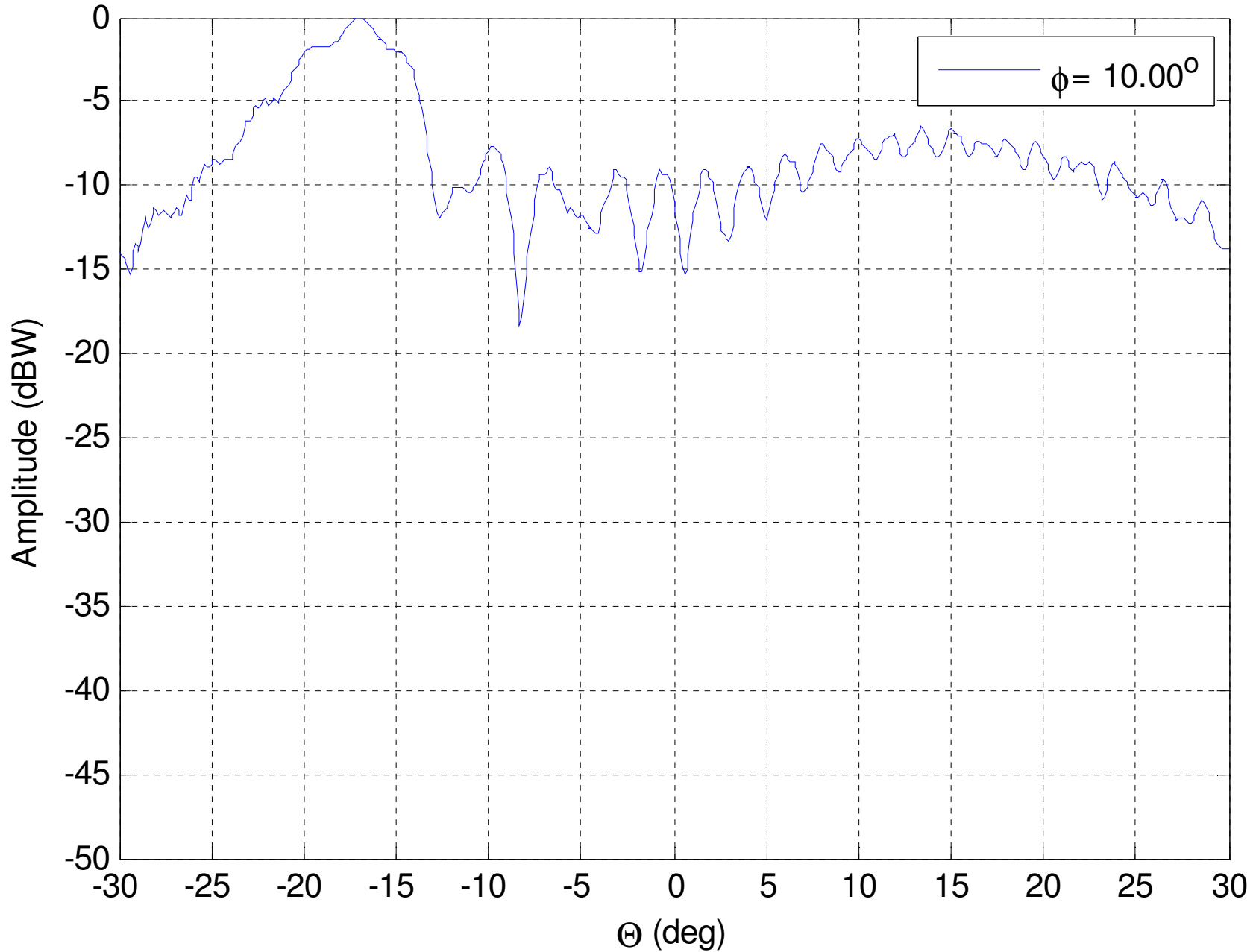
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: 12.47 dBW, Date: 16-Dec-2011



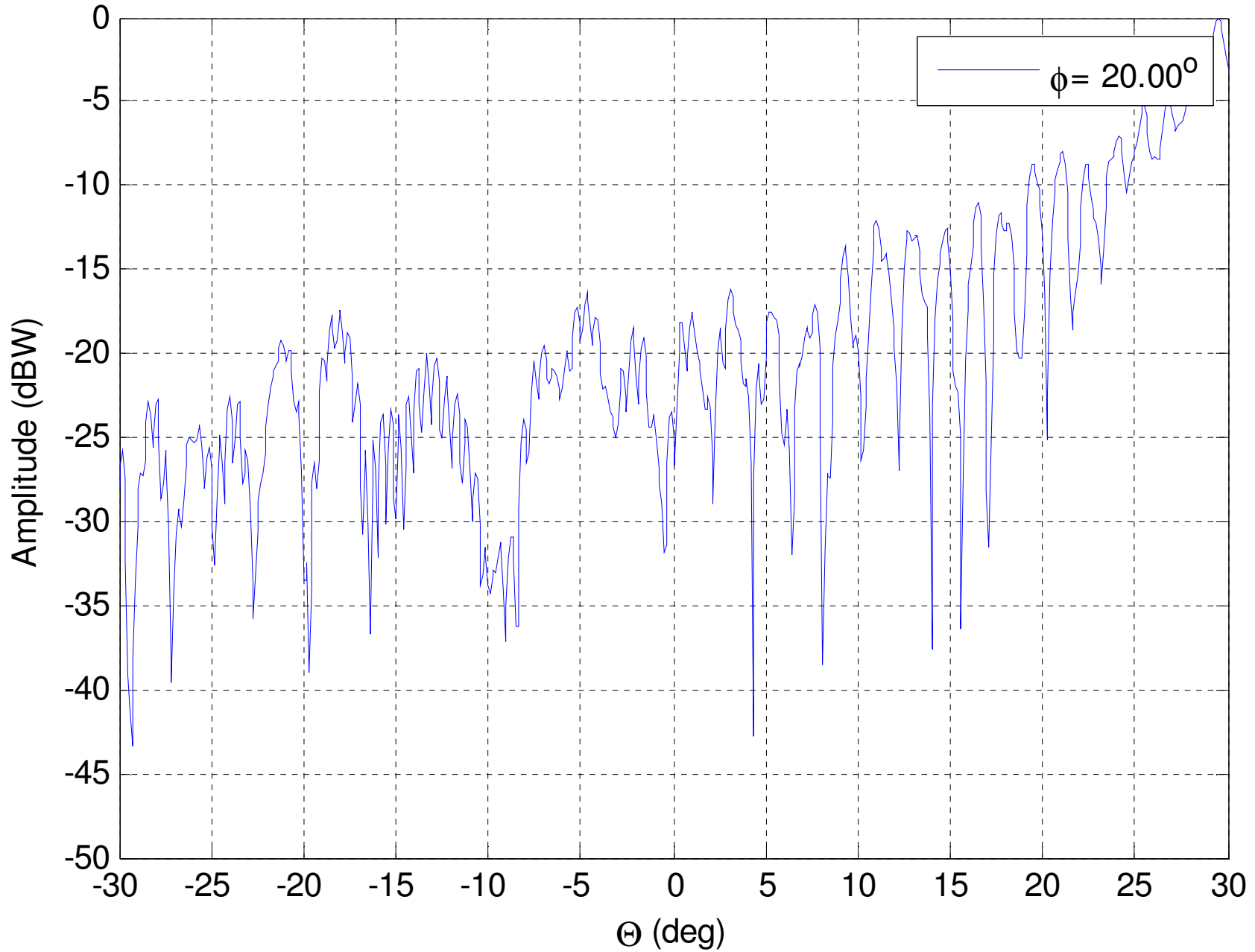
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: 13.38 dBW, Date: 16-Dec-2011



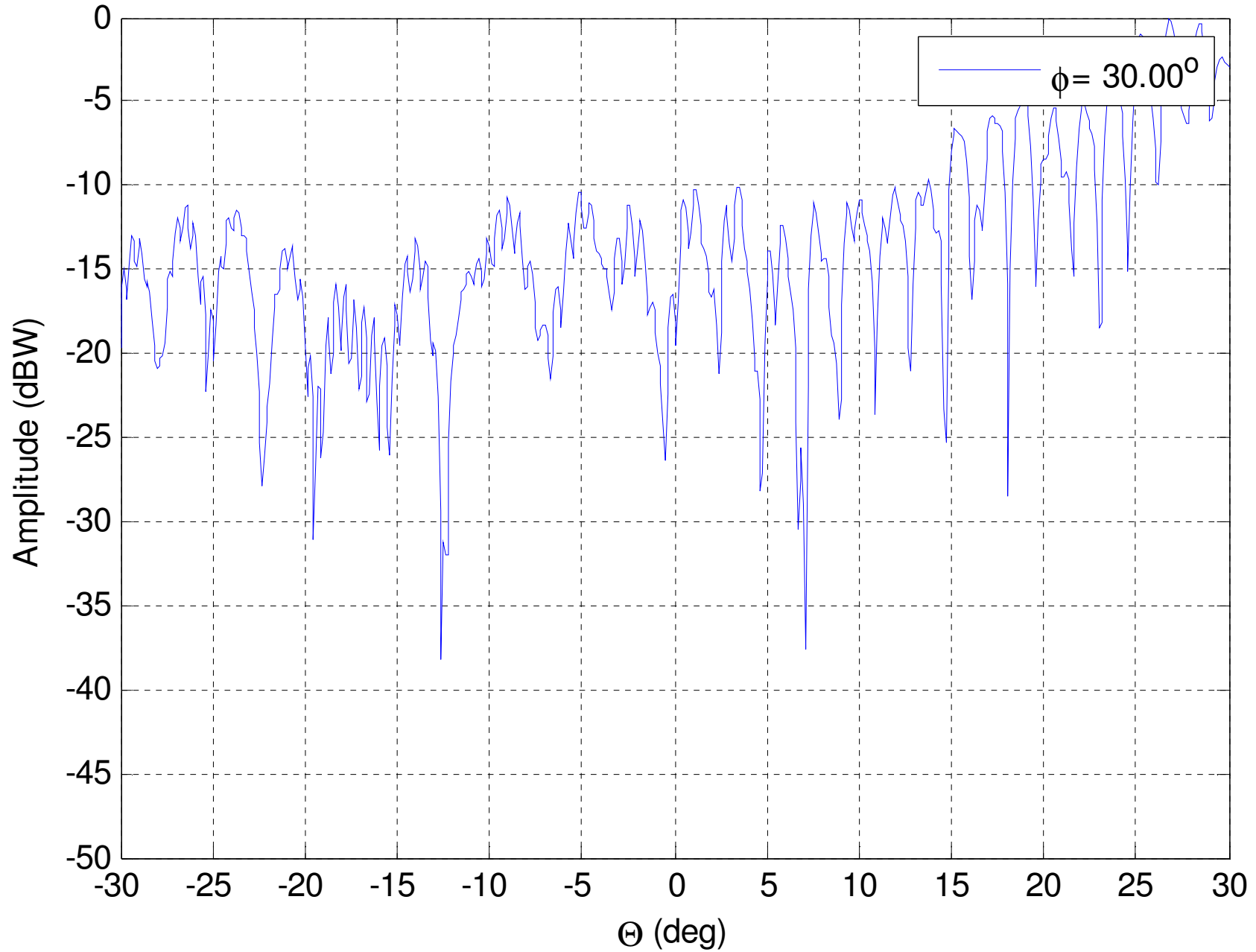
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: 9.97 dBW, Date: 16-Dec-2011



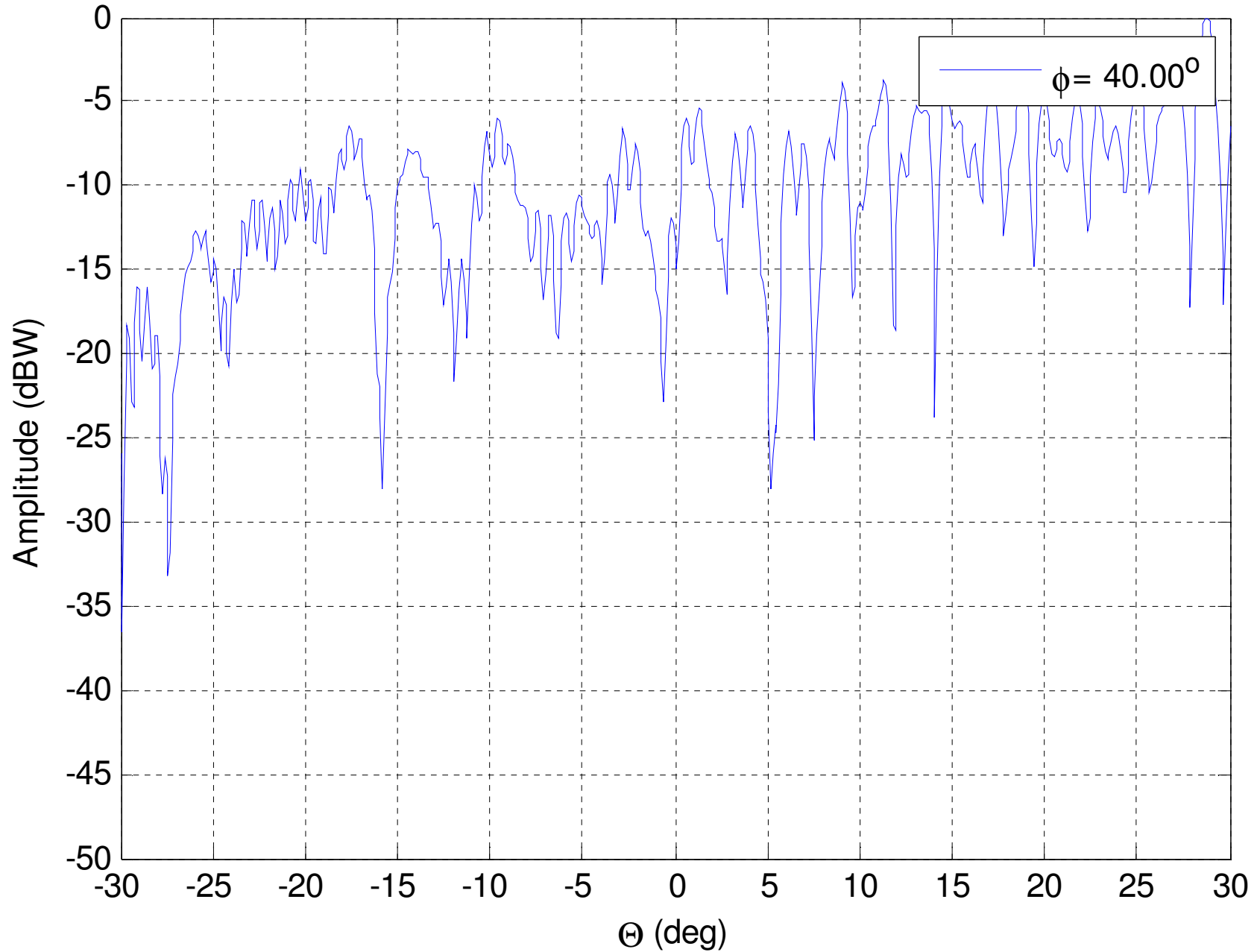
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: 2.94 dBW, Date: 16-Dec-2011



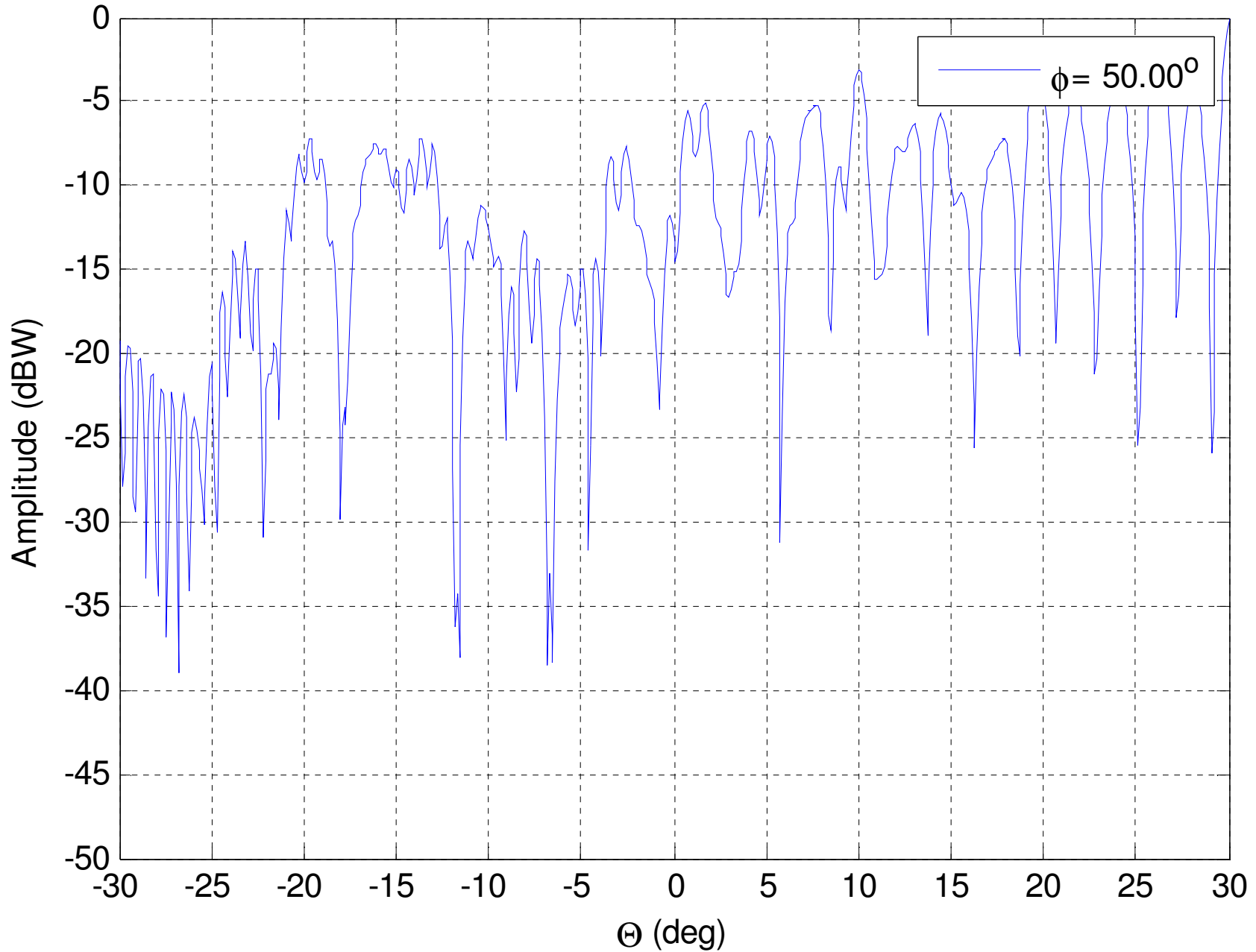
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -1.62 dBW, Date: 16-Dec-2011



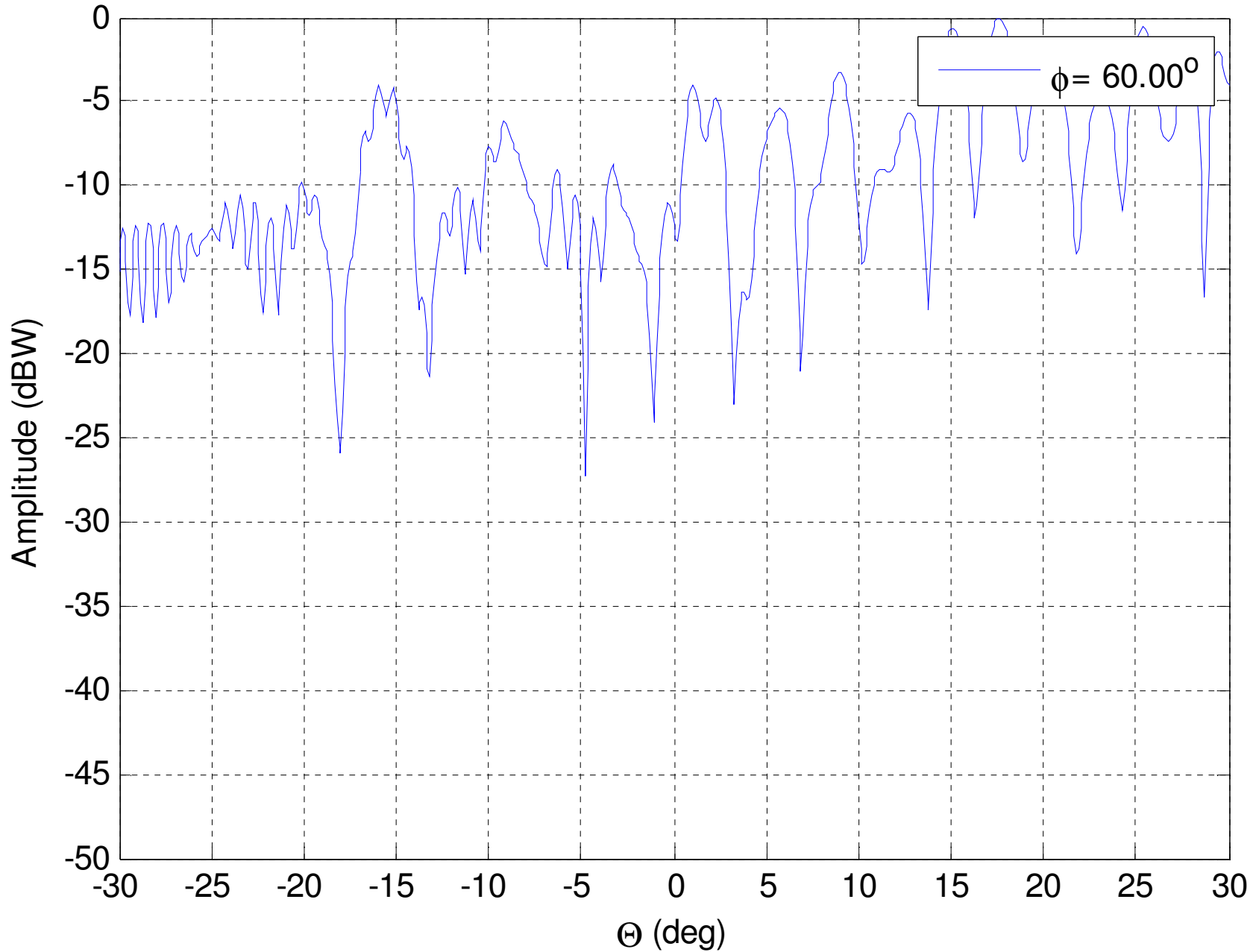
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -1.83 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

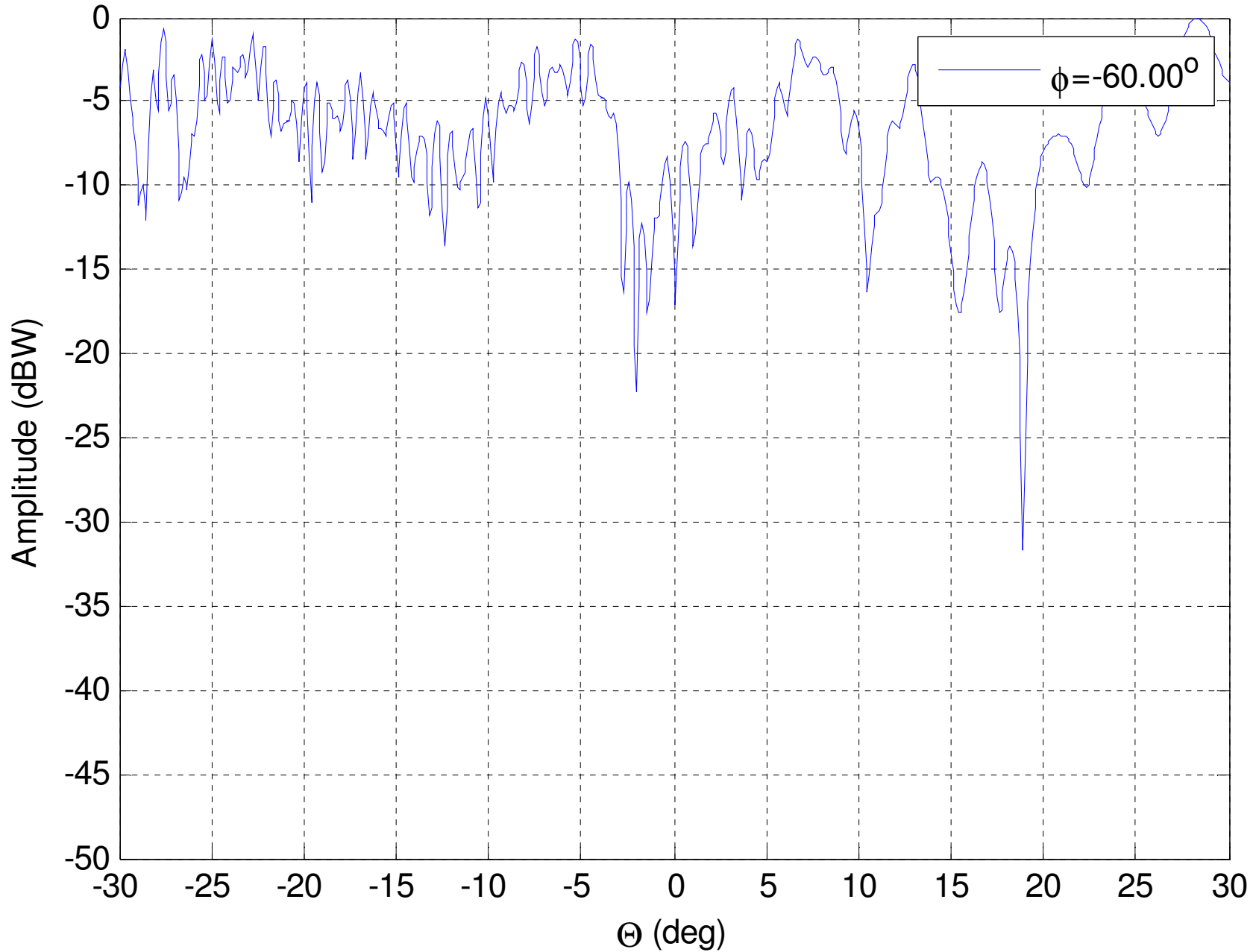
Input file: tx-17.7-rhcp-60.cut, Peak: -2.81 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

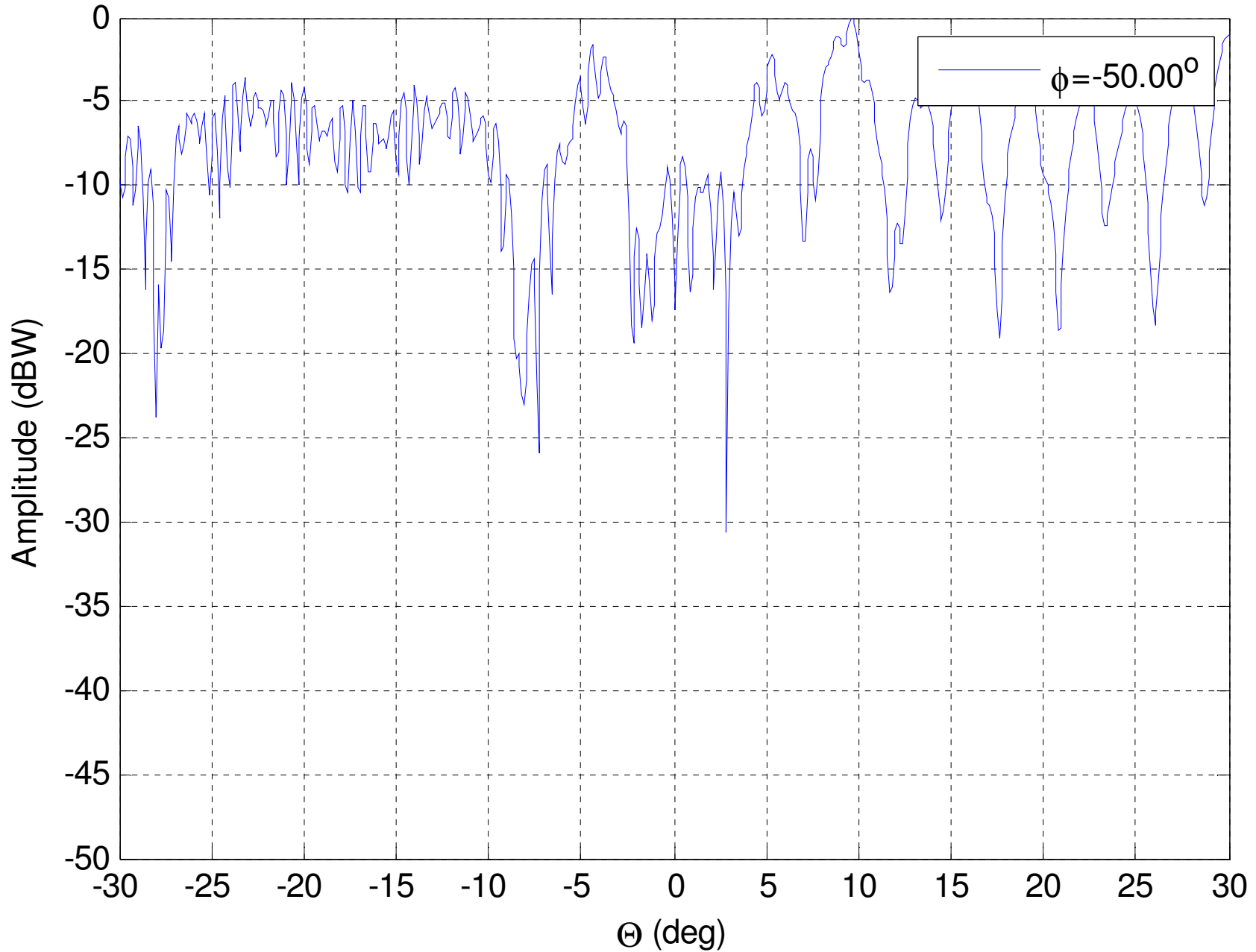
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -4.98 dBW, Date: 16-Dec-2011



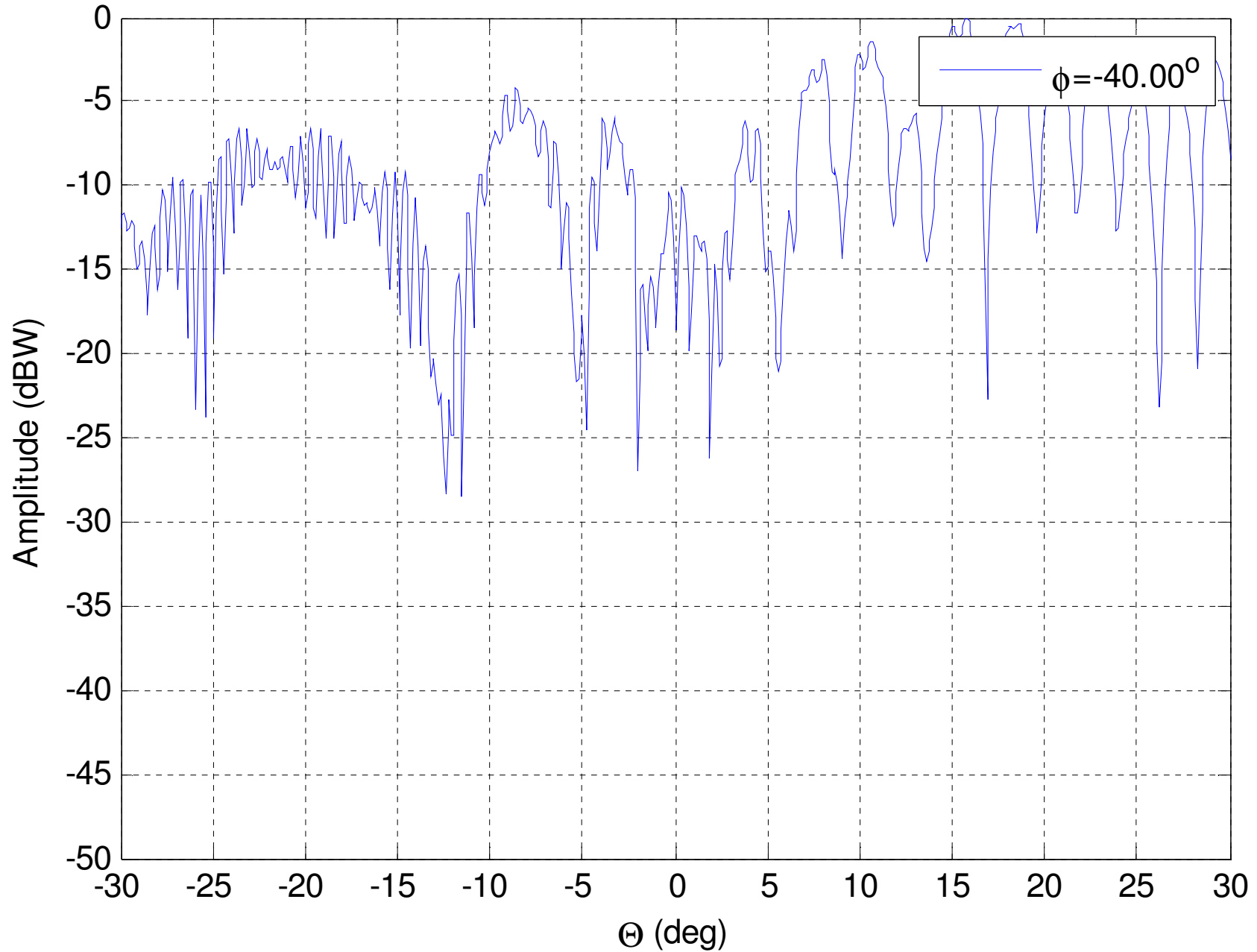
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -4.30 dBW, Date: 16-Dec-2011



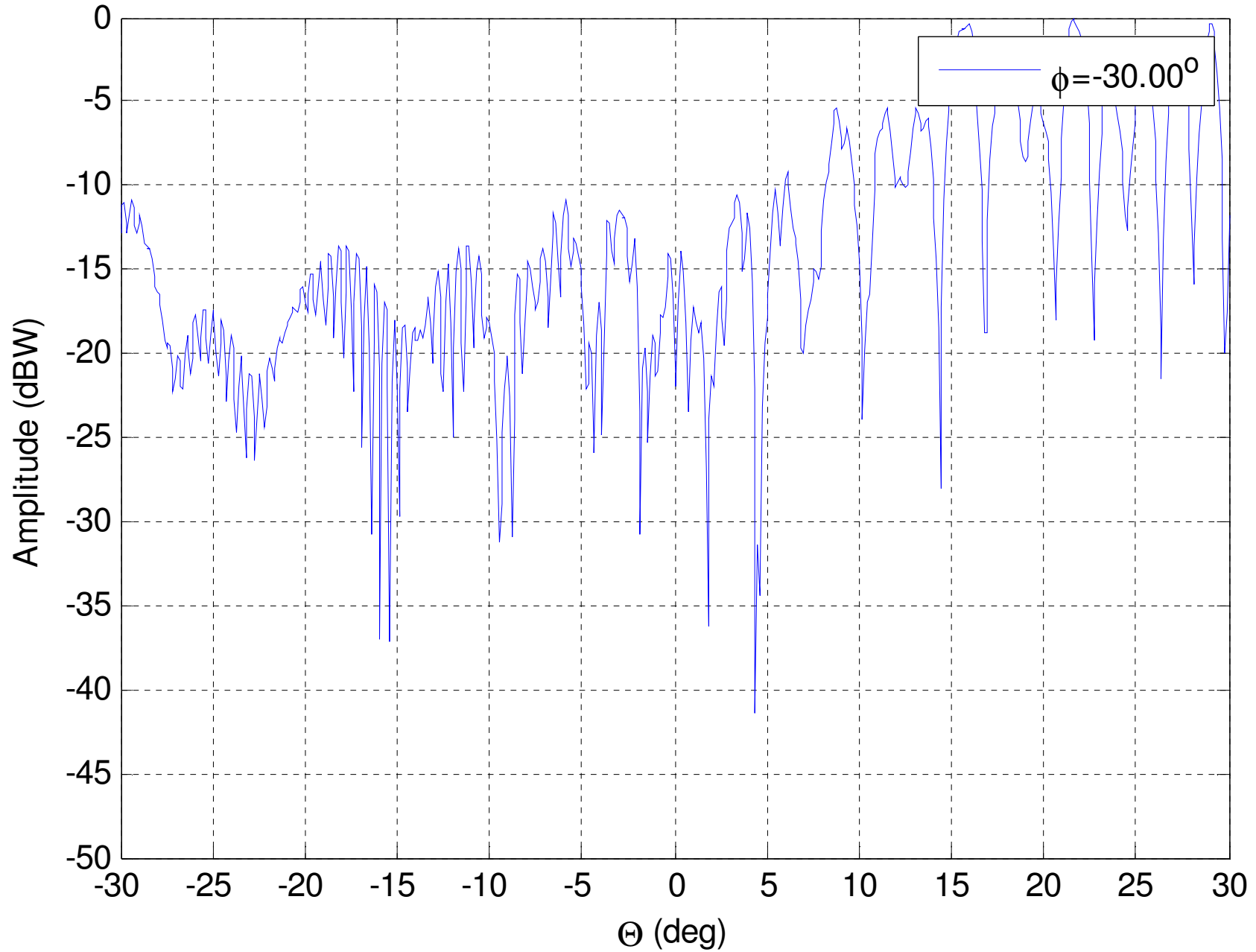
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -2.63 dBW, Date: 16-Dec-2011



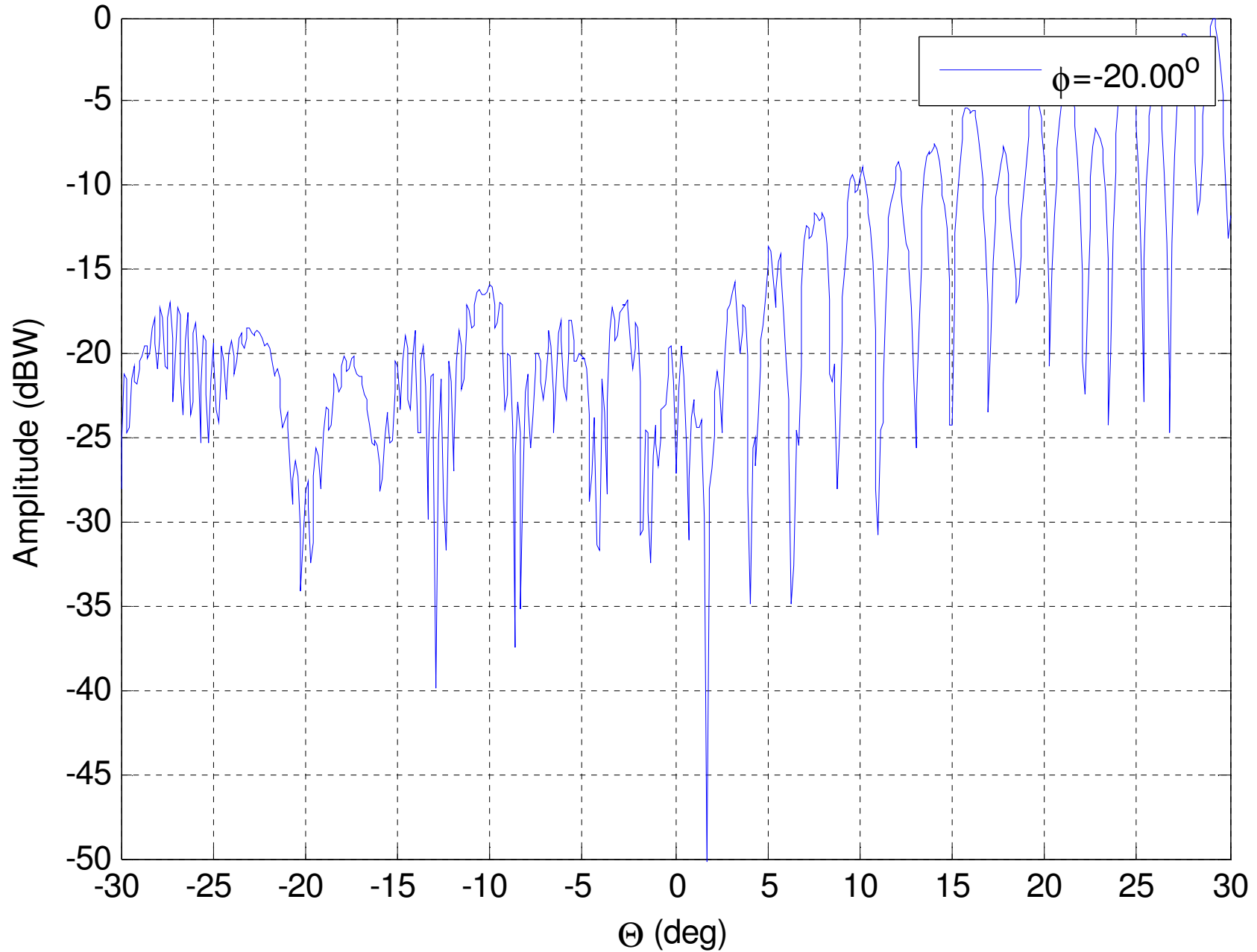
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: 1.02 dBW, Date: 16-Dec-2011



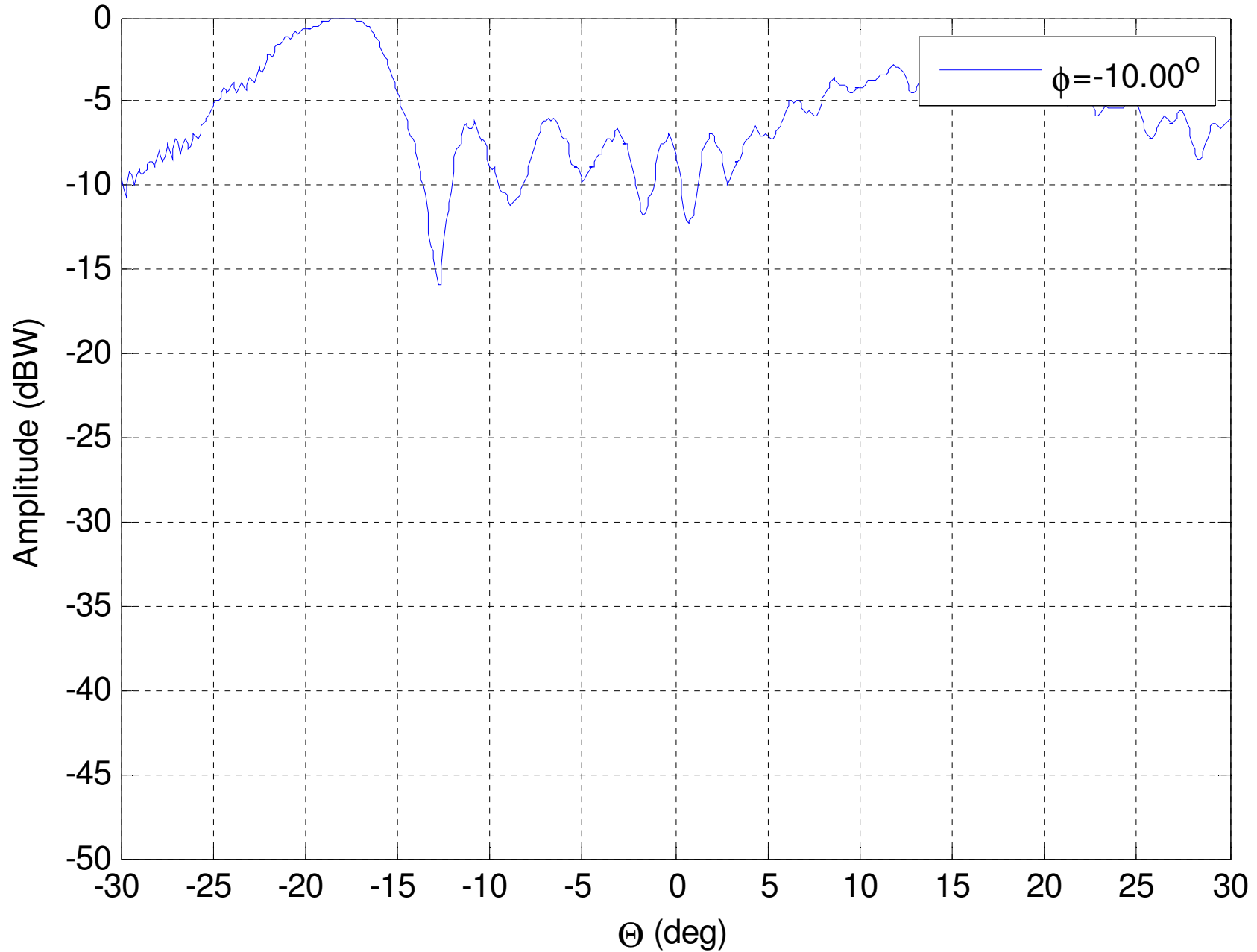
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: 6.48 dBW, Date: 16-Dec-2011



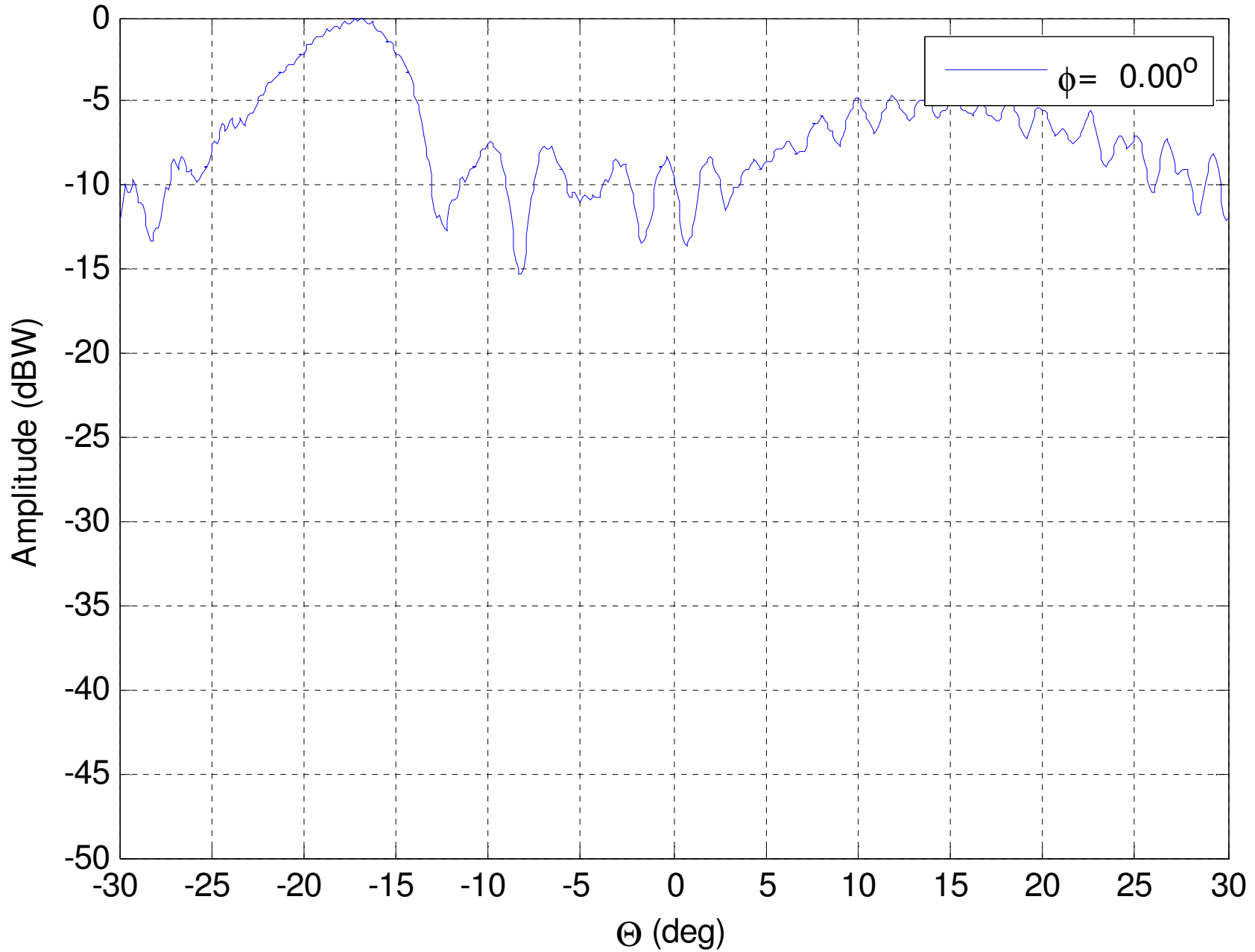
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: 11.24 dBW, Date: 16-Dec-2011



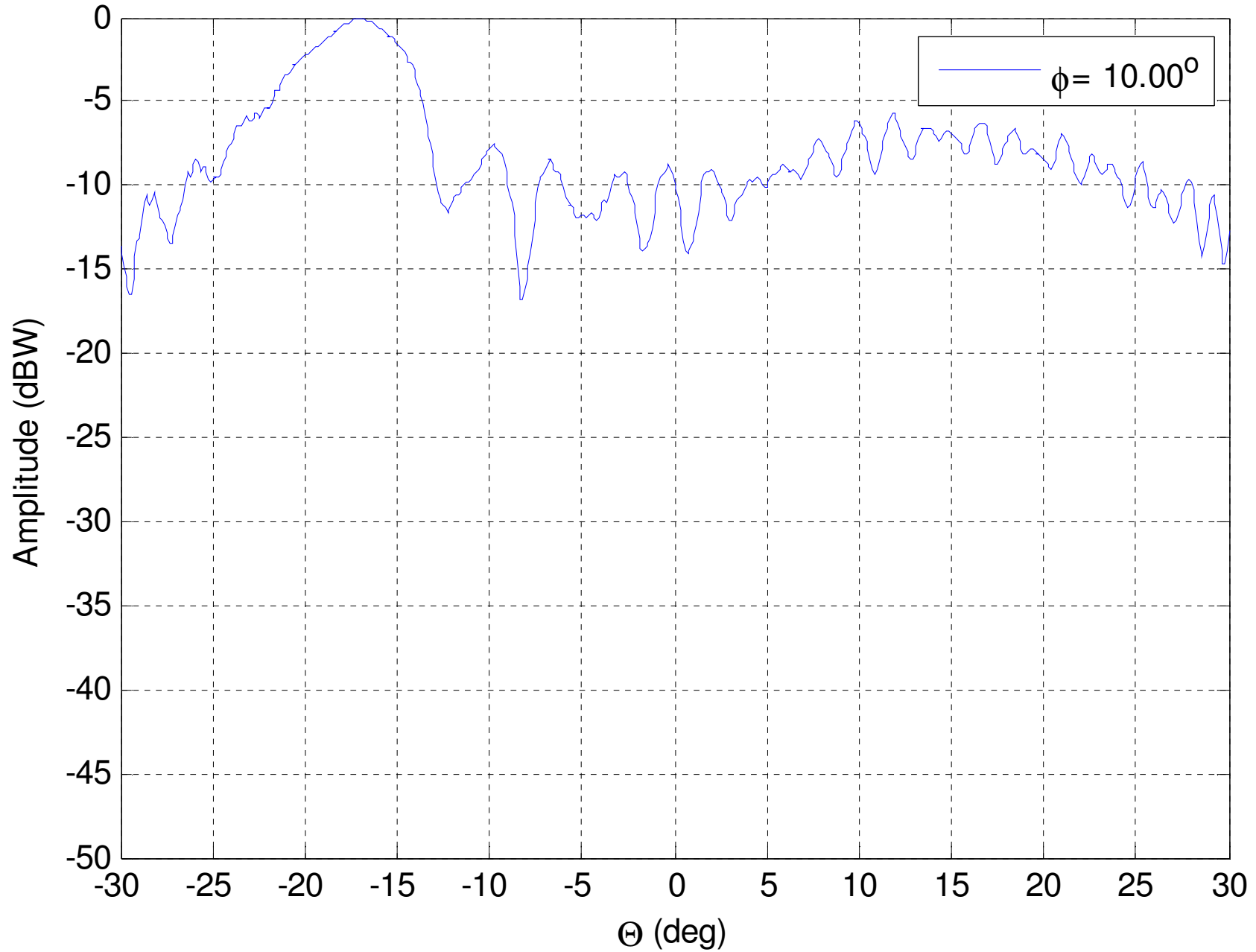
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: 12.60 dBW, Date: 16-Dec-2011



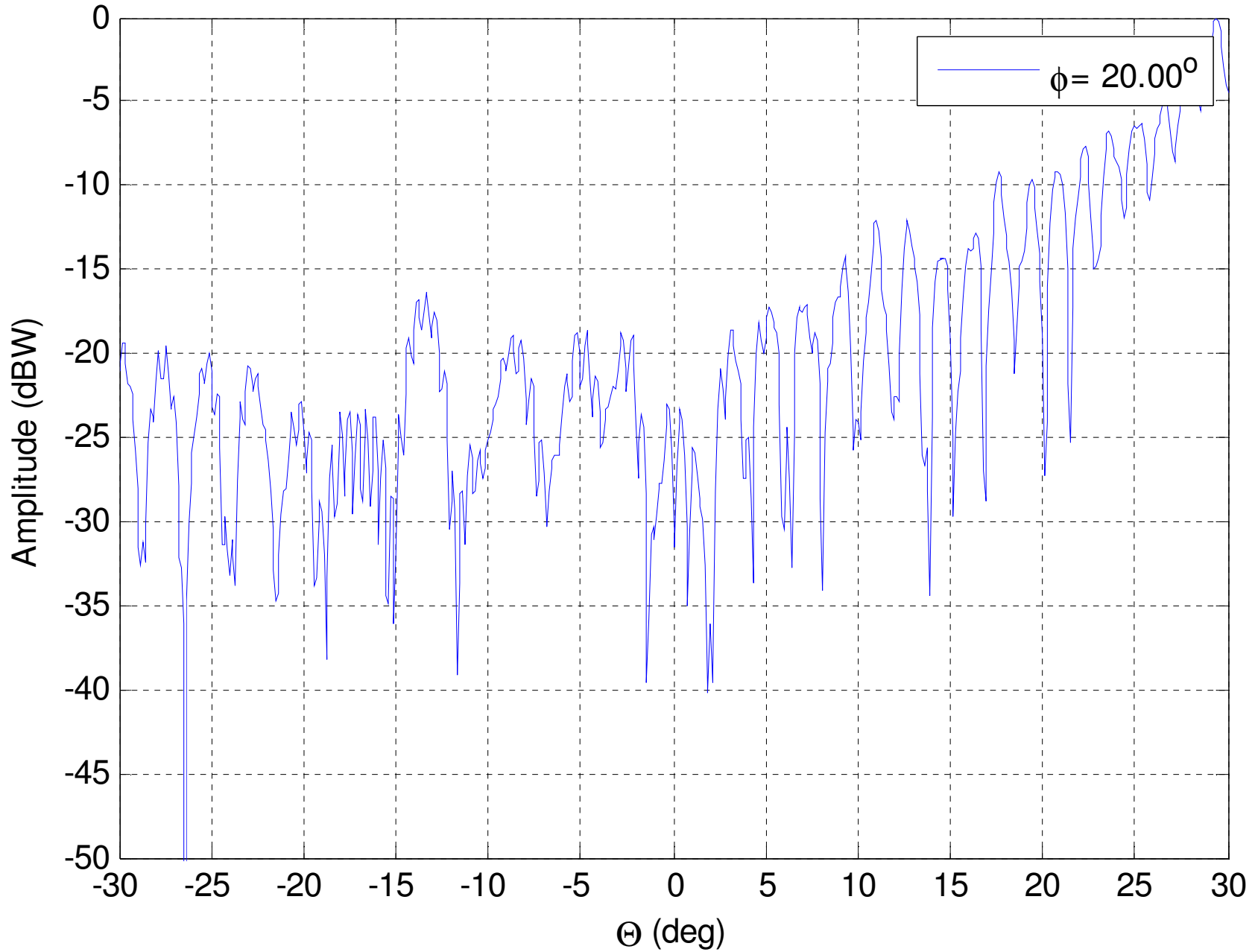
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: 13.04 dBW, Date: 16-Dec-2011



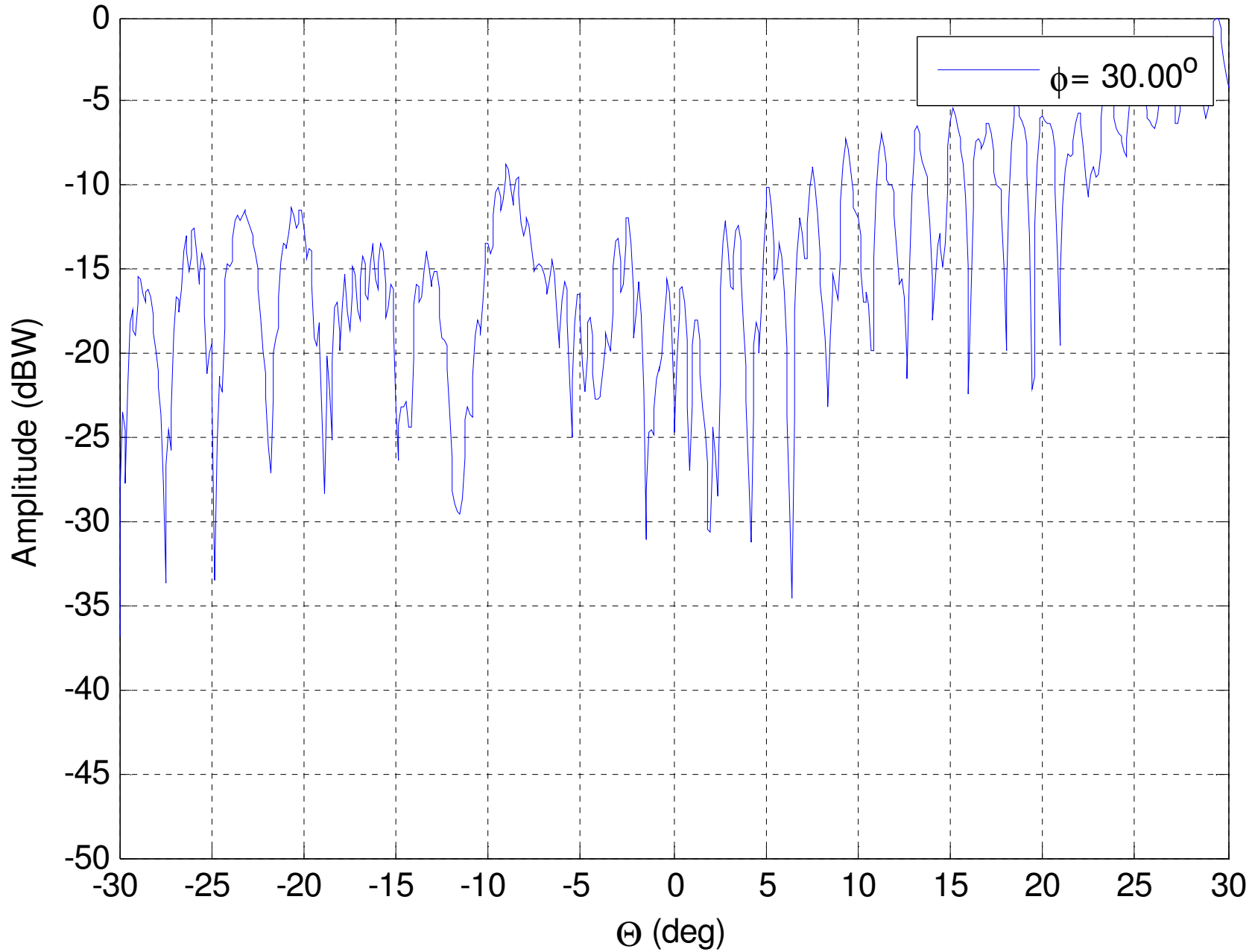
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: 10.21 dBW, Date: 16-Dec-2011



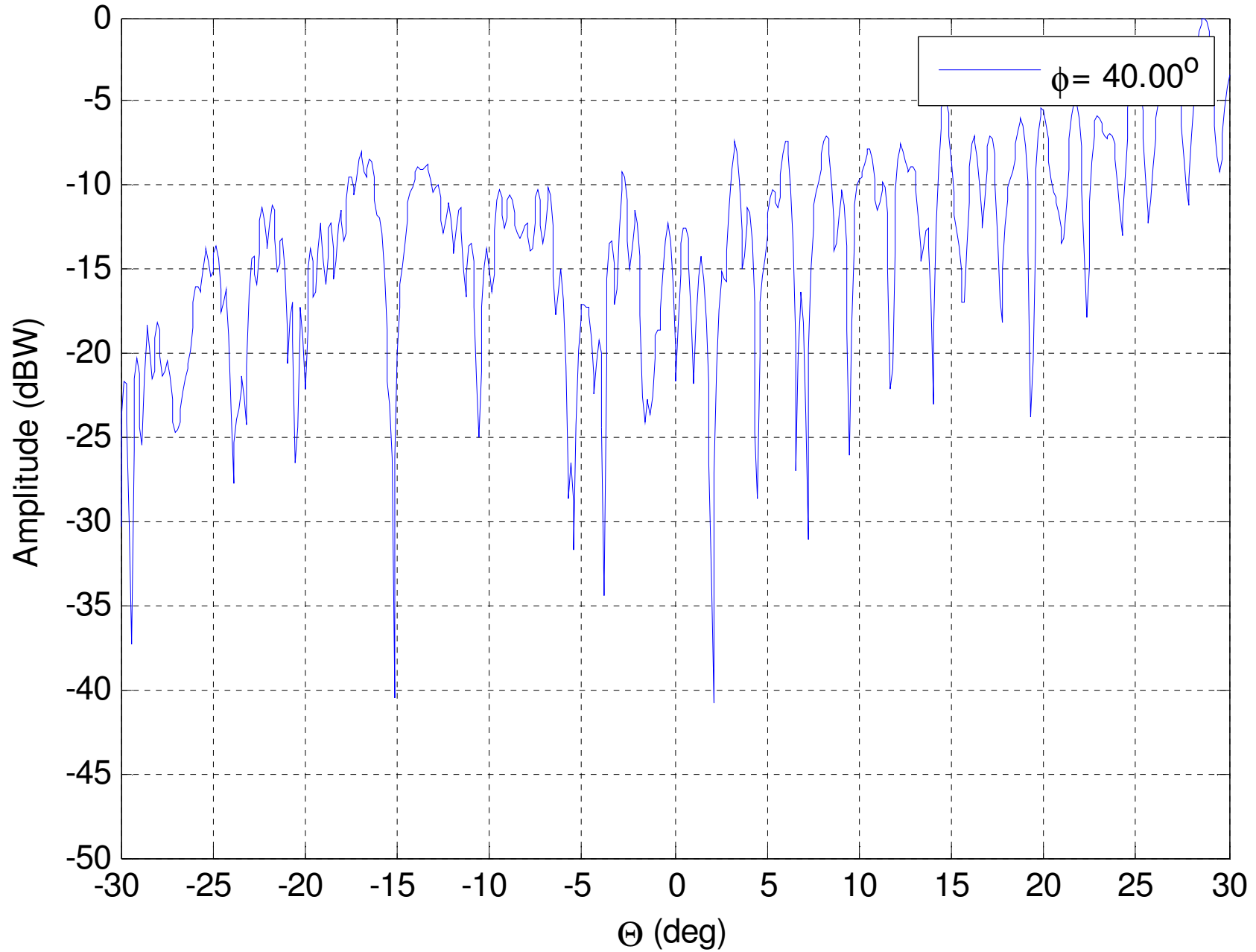
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: 2.89 dBW, Date: 16-Dec-2011



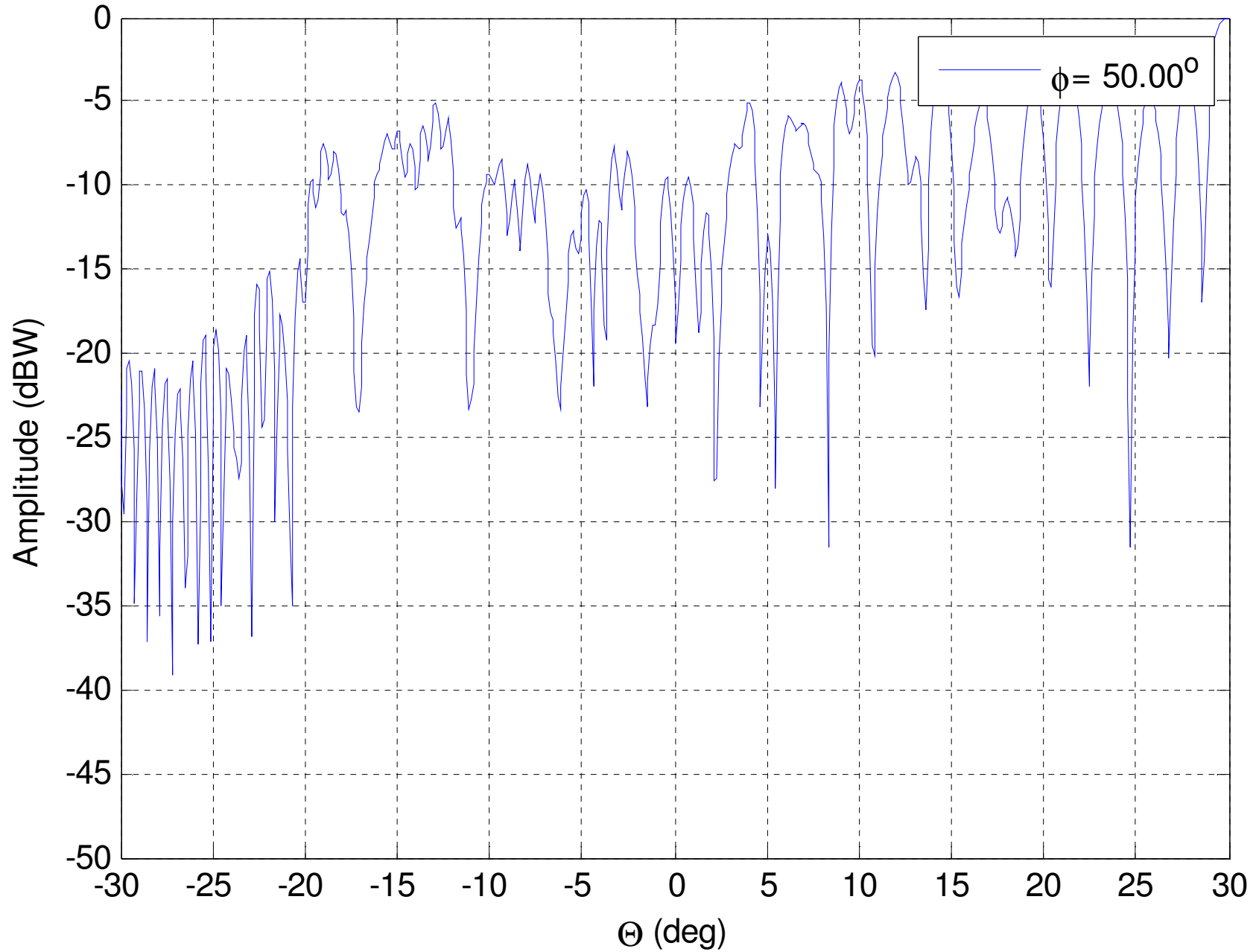
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -0.55 dBW, Date: 16-Dec-2011



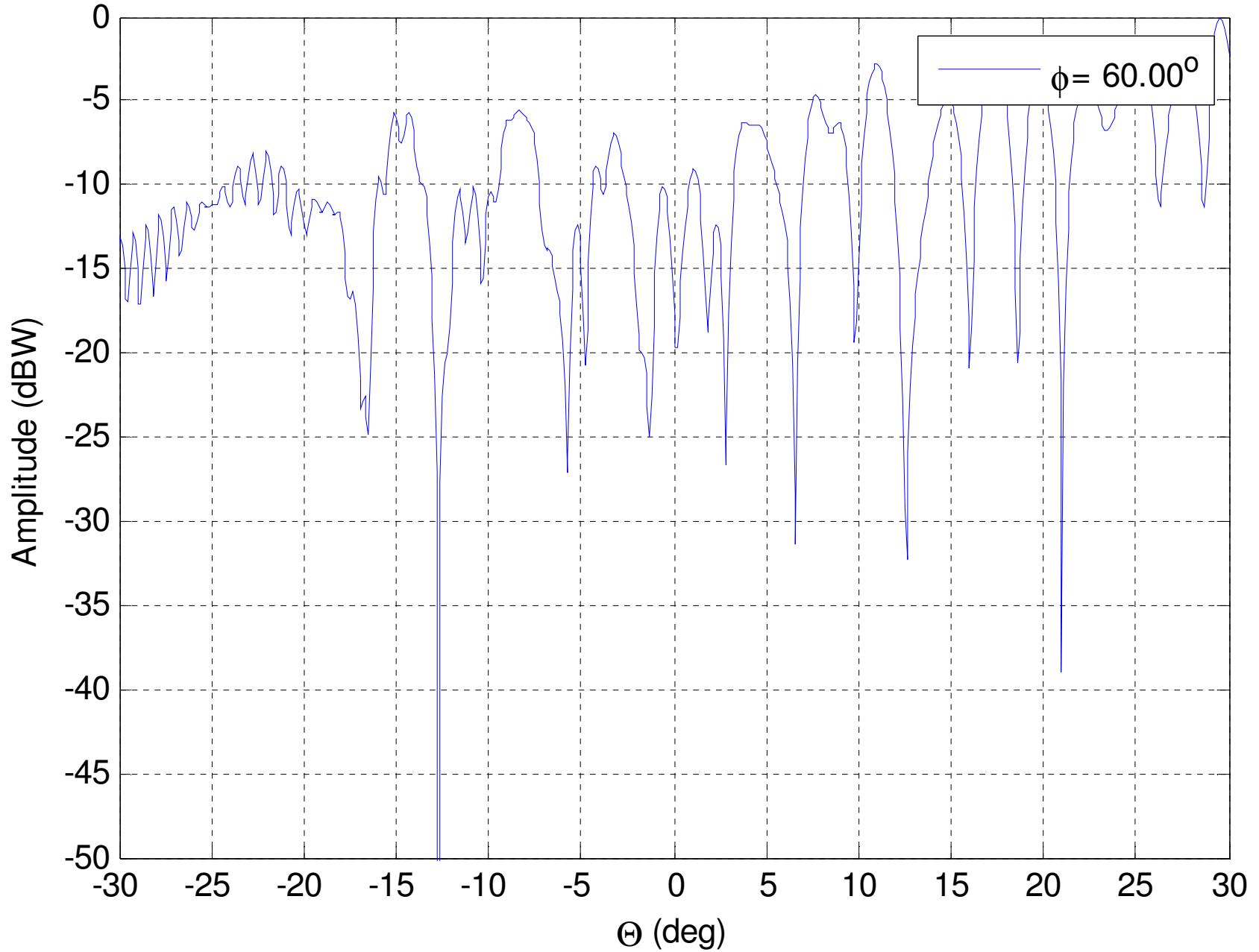
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -3.12 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -2.56 dBW, Date: 16-Dec-2011



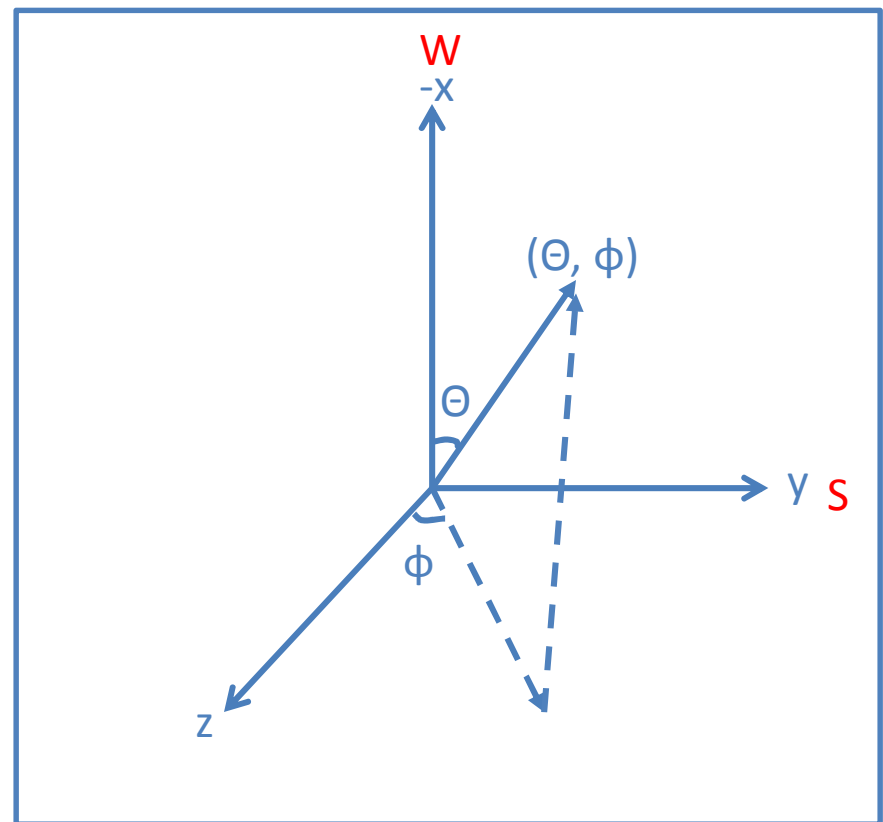
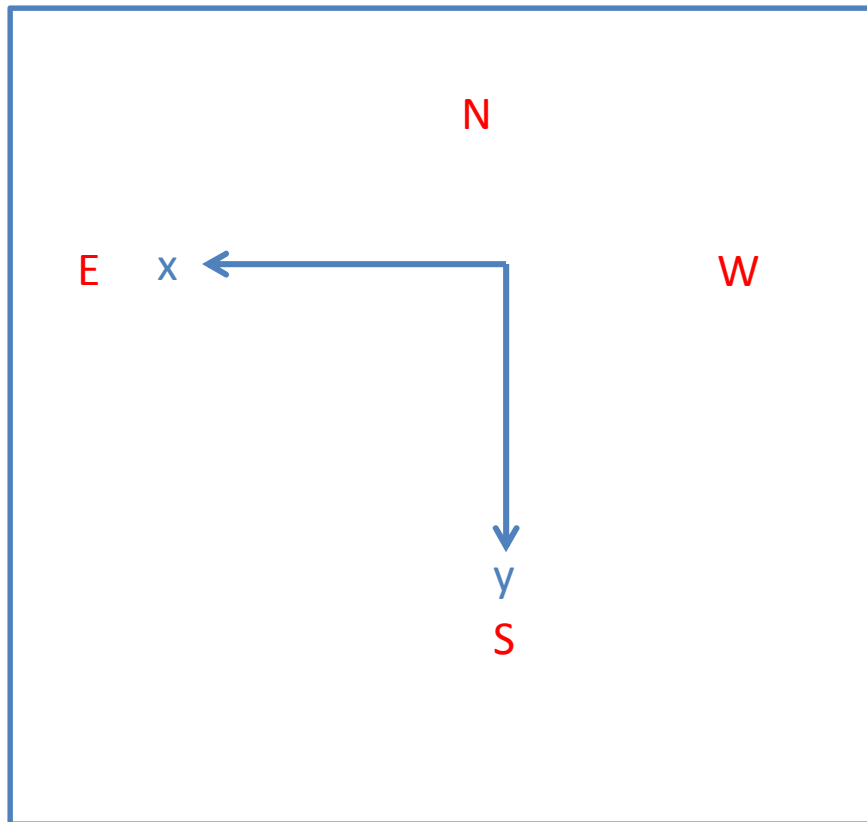
Updated: June 13, 2012

119 West Adjacent Satellite Off Axis Antenna Performance Spot Beam 40

Maximum Allowable EIRP to meet the -117dBW/m²/100 kHz

Maximum EIRP Allowed	
Spec Max flux density, dBW/m ² /100kHz	-117
Desired channel band width, MHz	25.8
Symbol rate band width modification factor	1
Effective channel bandwidth, MHz	25.8
Effective bandwidth, dB-100kHz	24.1
Flux density allowed per channel, dBW/m ²	-92.9
R, radial distance to GEO, km	42164.0
Angle of separation between satellites, deg	0.1
range between satellites, km	73.59
Spreading factor, dB/m ²	-108.3
Atmospheric loss, dB	0
Max satellite EIRP allowed, dBW	15.4

Coordinate System



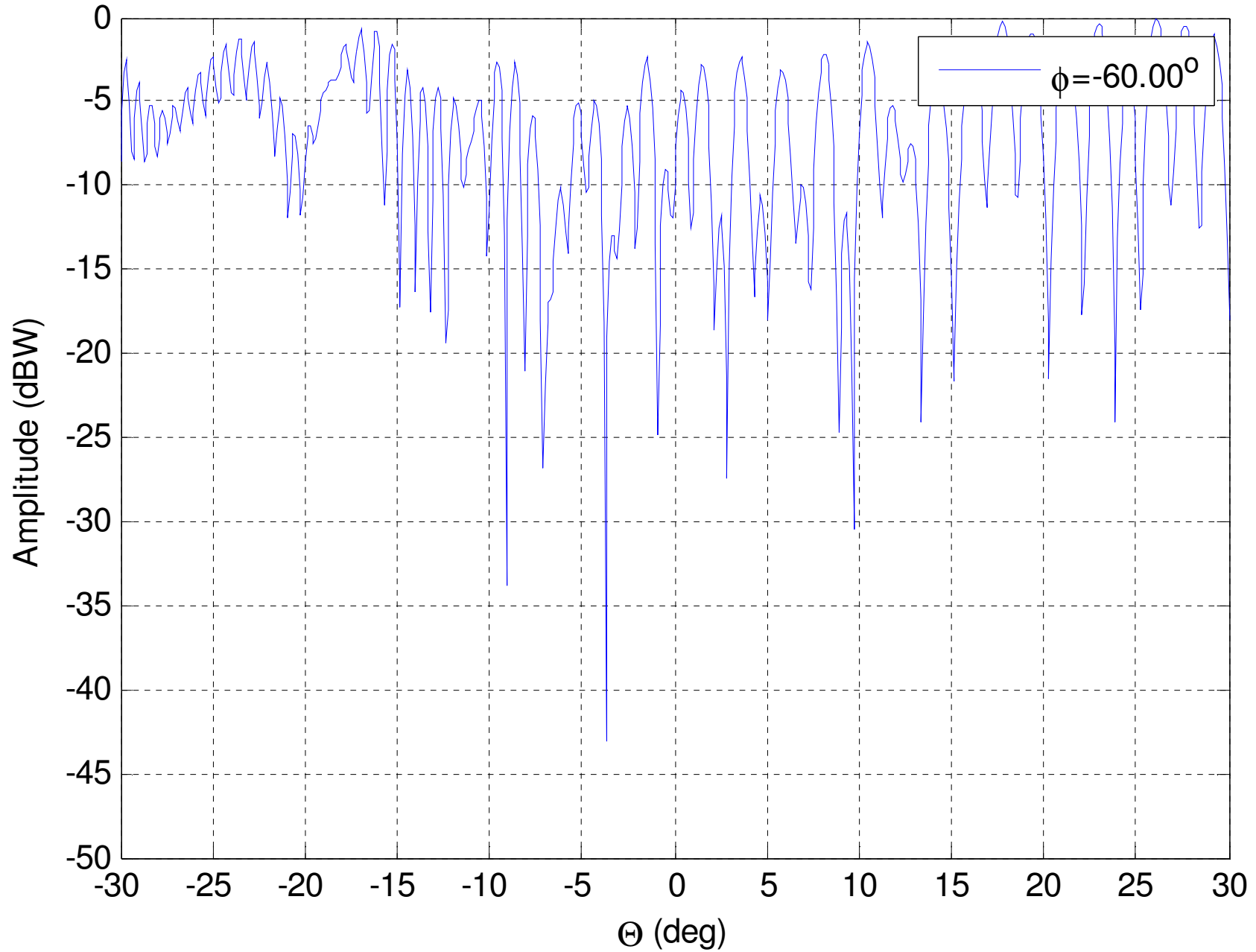
Spot Beam40, -X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: -X -axis)
- $-60 < \phi < 60$
- Freq = 17.305, 17.5, and 17.695 GHz
- The Zero reference line is the maximum EIRP listed in the title of each plot sheet. All levels are below the required 15.4 dBW maximum
- The Zero reference for the maximum antenna gain is the maximum EIRP listed minus the power input to the antenna specified in Table I of the attached narrative.

RHCP at 17.3 GHz

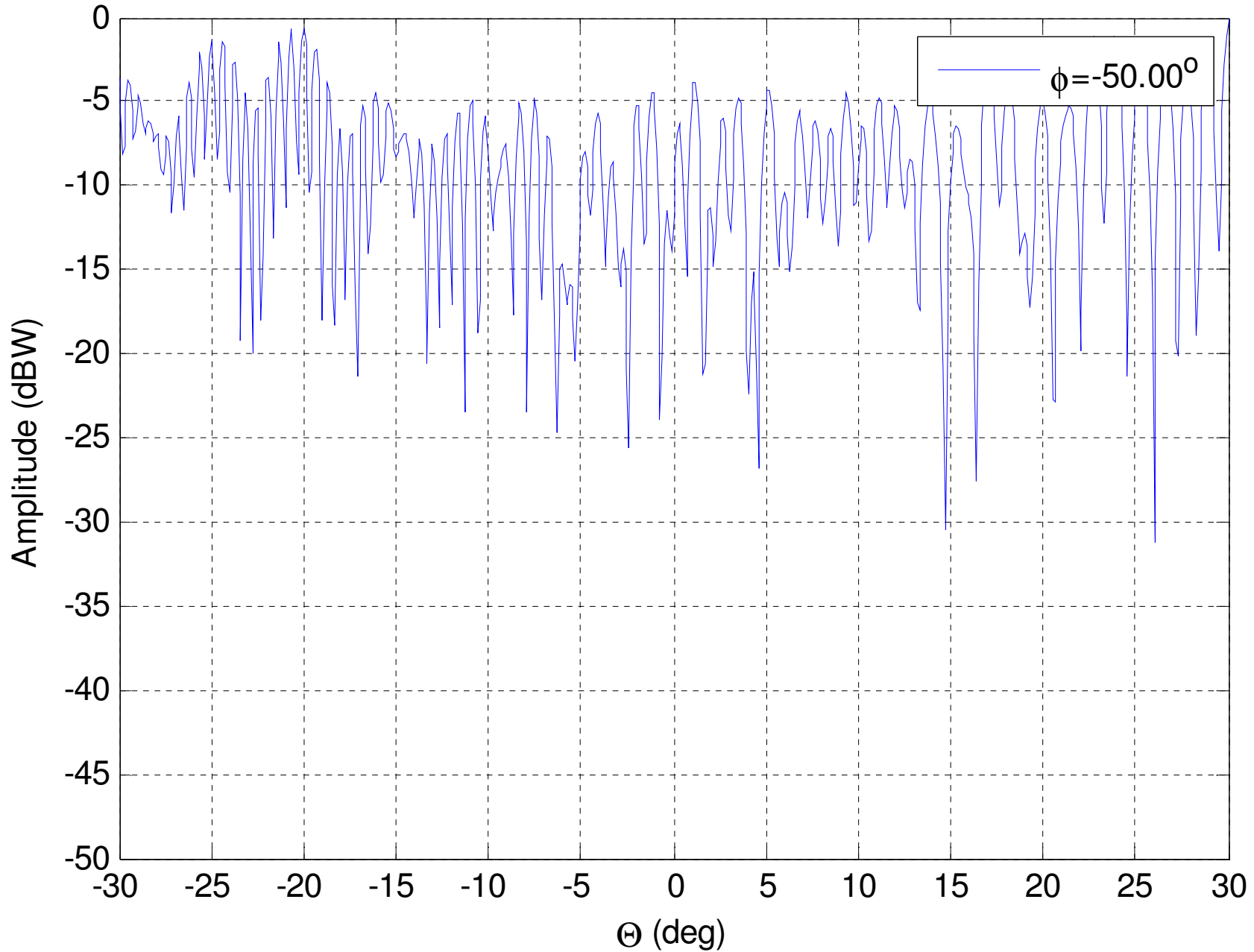
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -10.56 dBW, Date: 16-Dec-2011



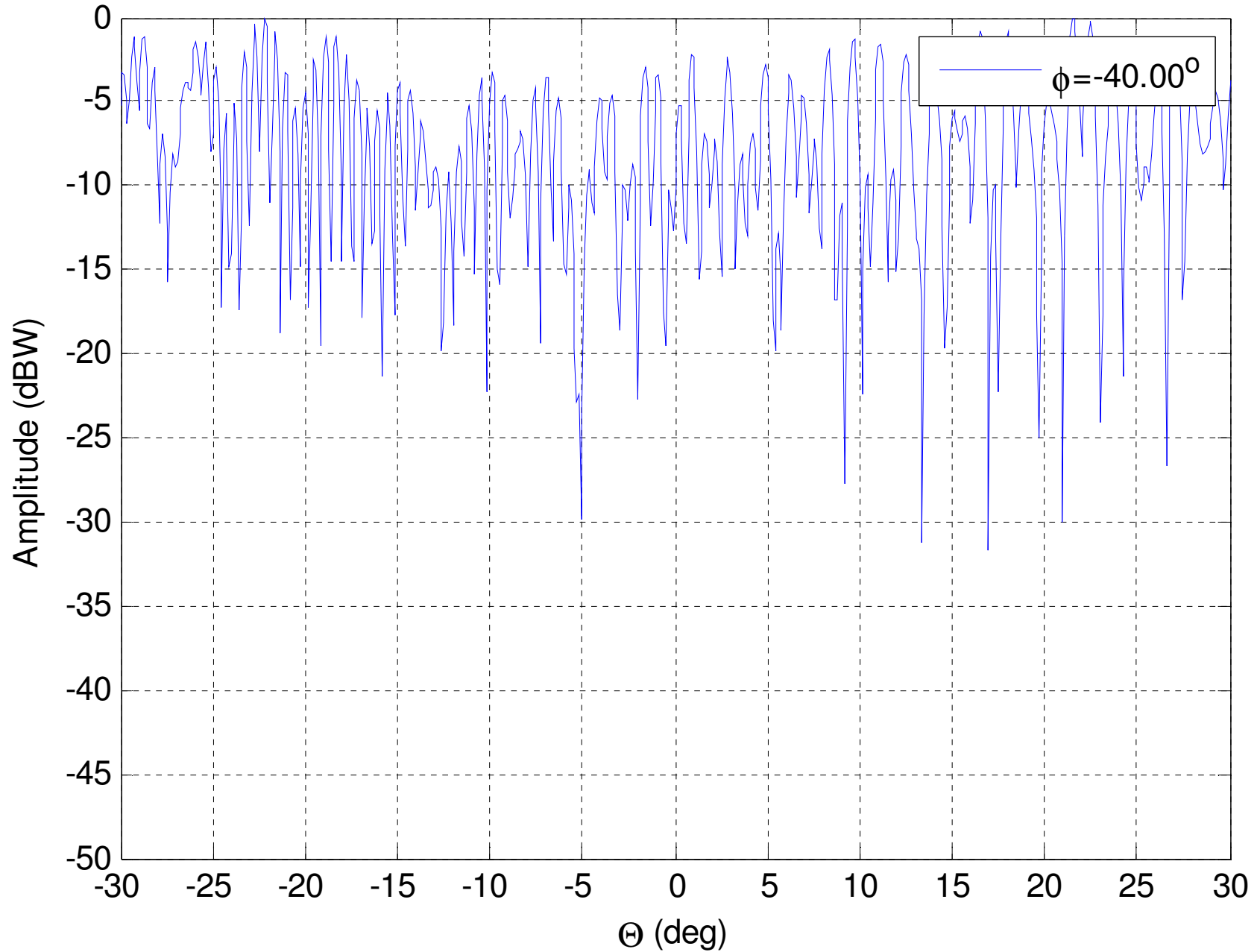
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -8.97 dBW, Date: 16-Dec-2011



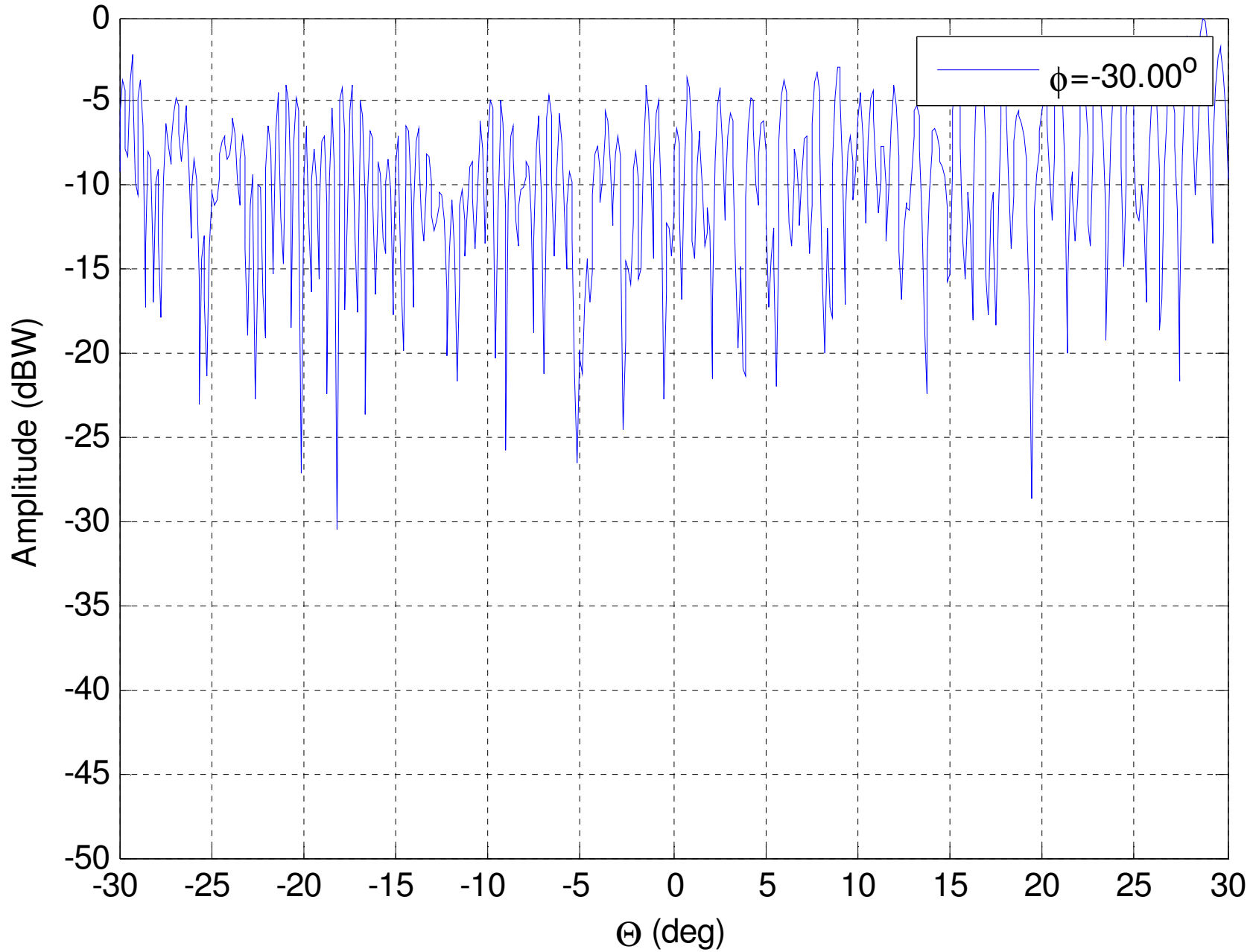
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -10.43 dBW, Date: 16-Dec-2011



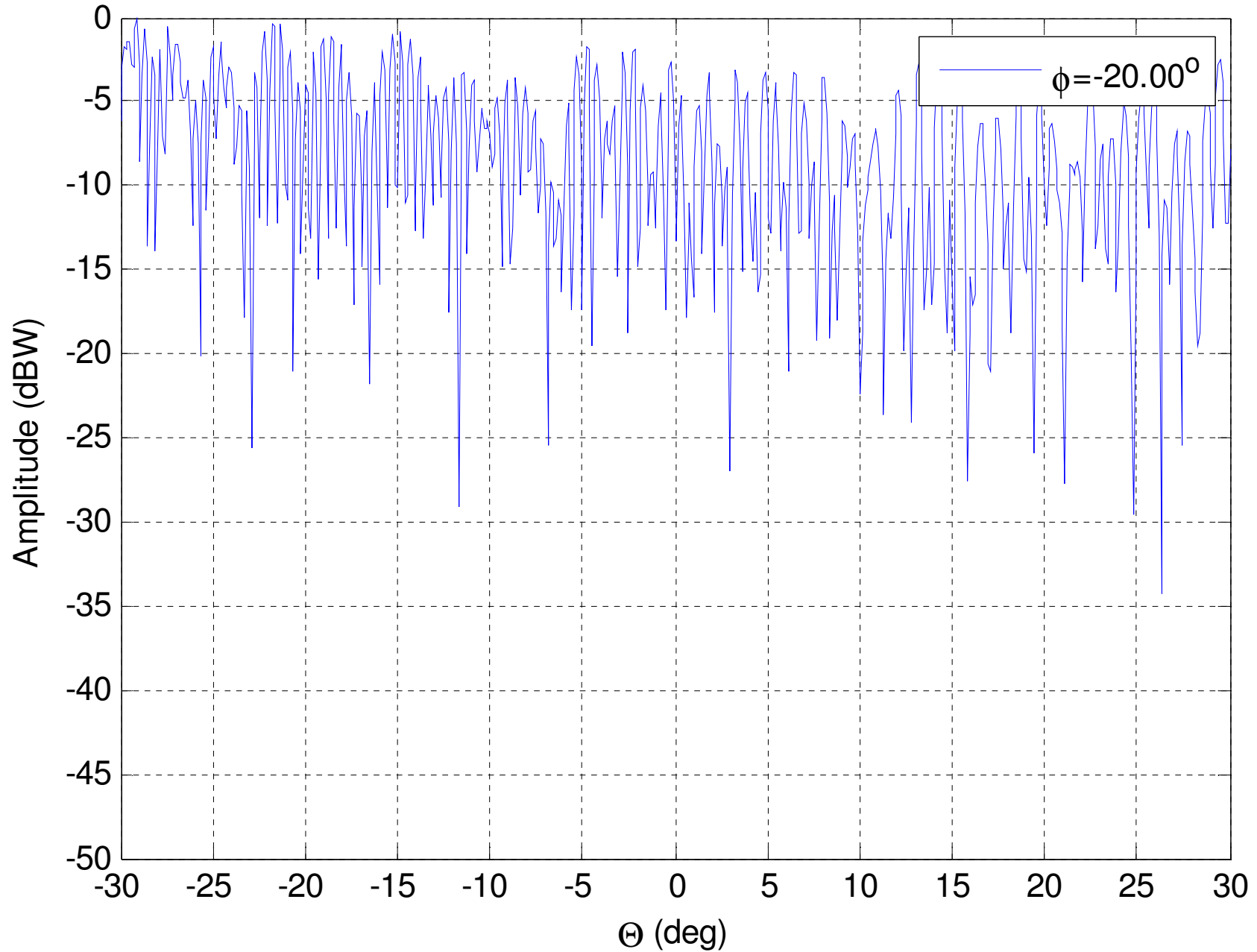
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -9.05 dBW, Date: 16-Dec-2011



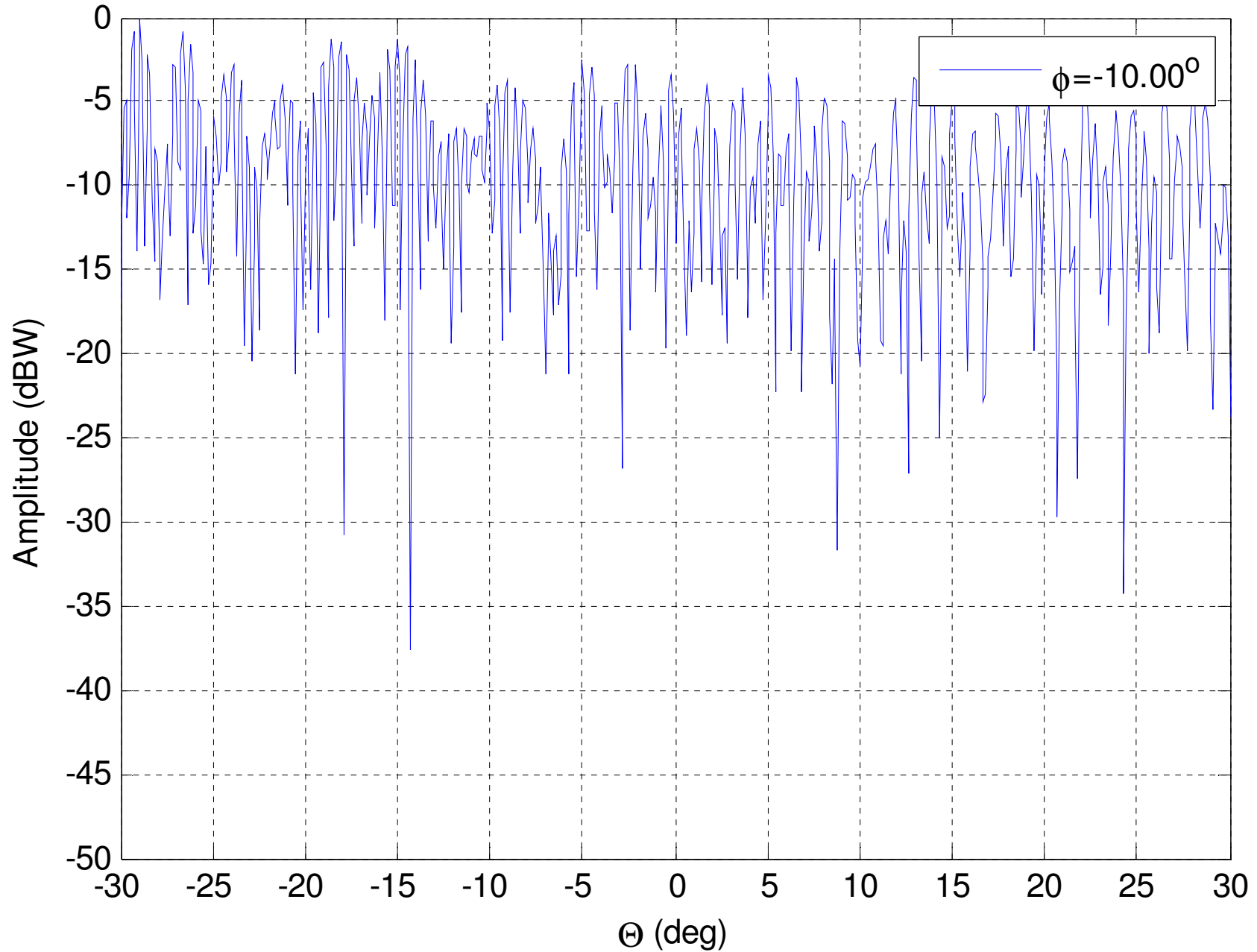
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: -11.27 dBW, Date: 16-Dec-2011



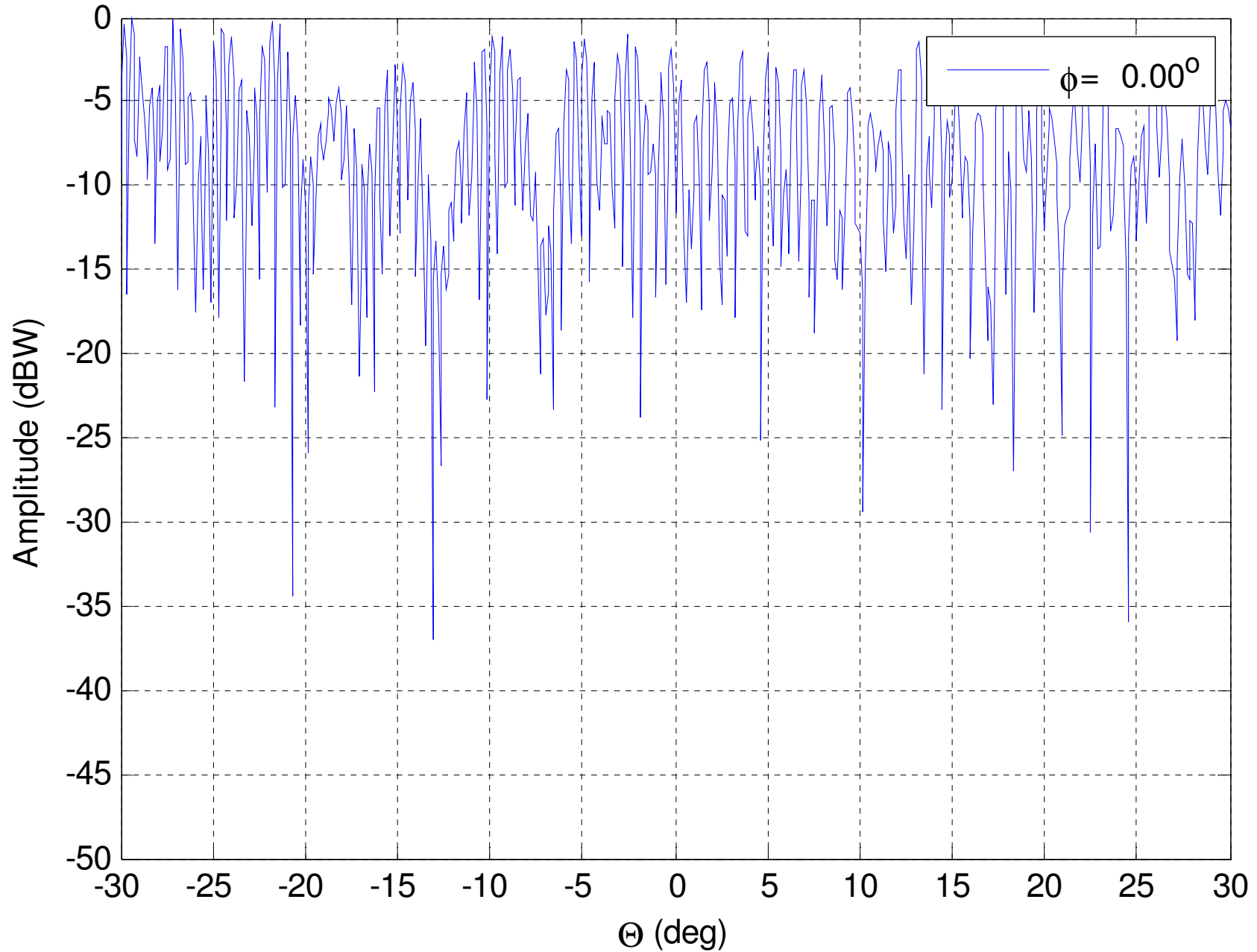
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: -10.36 dBW, Date: 16-Dec-2011



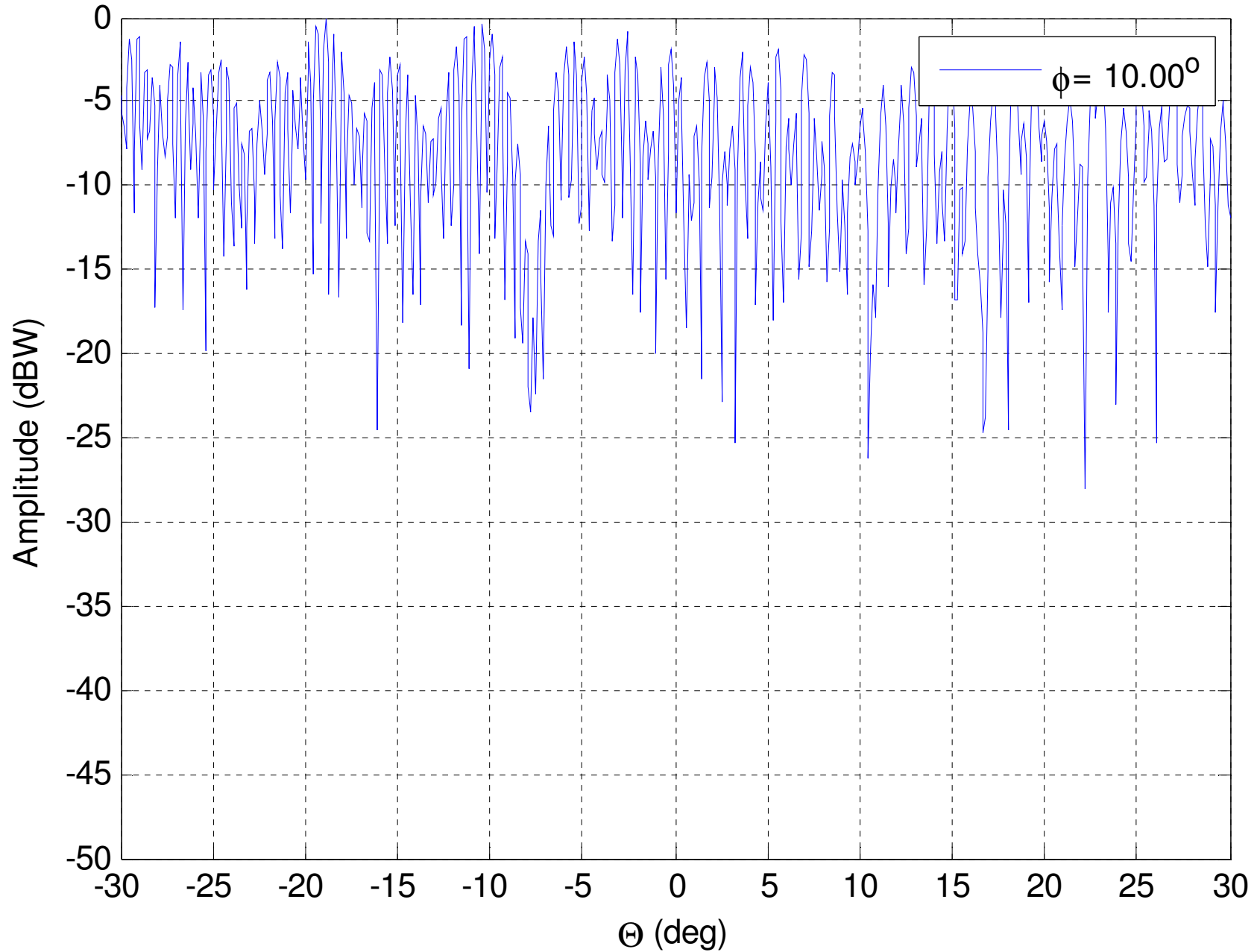
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: -11.92 dBW, Date: 16-Dec-2011



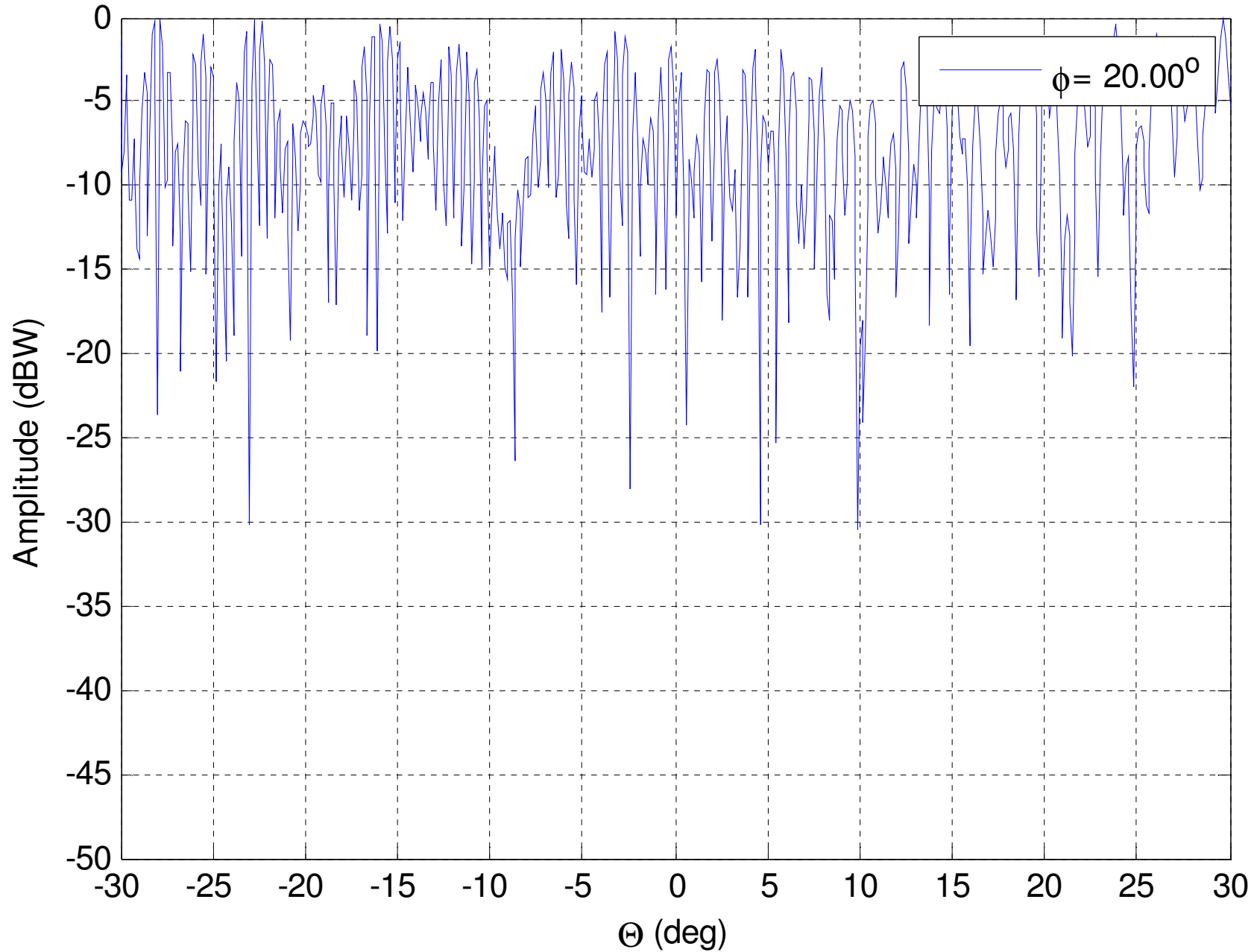
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: -11.96 dBW, Date: 16-Dec-2011



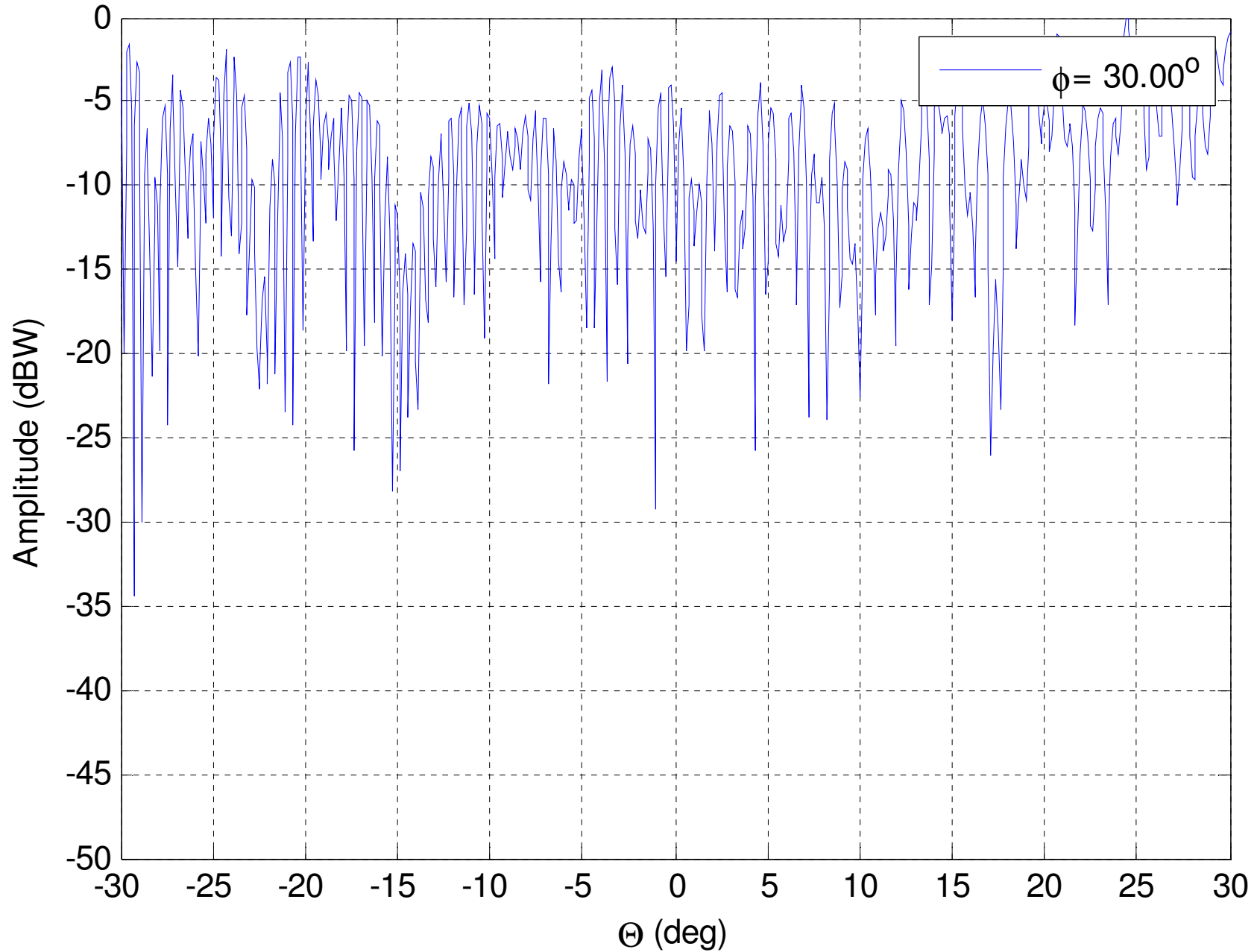
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: -12.06 dBW, Date: 16-Dec-2011



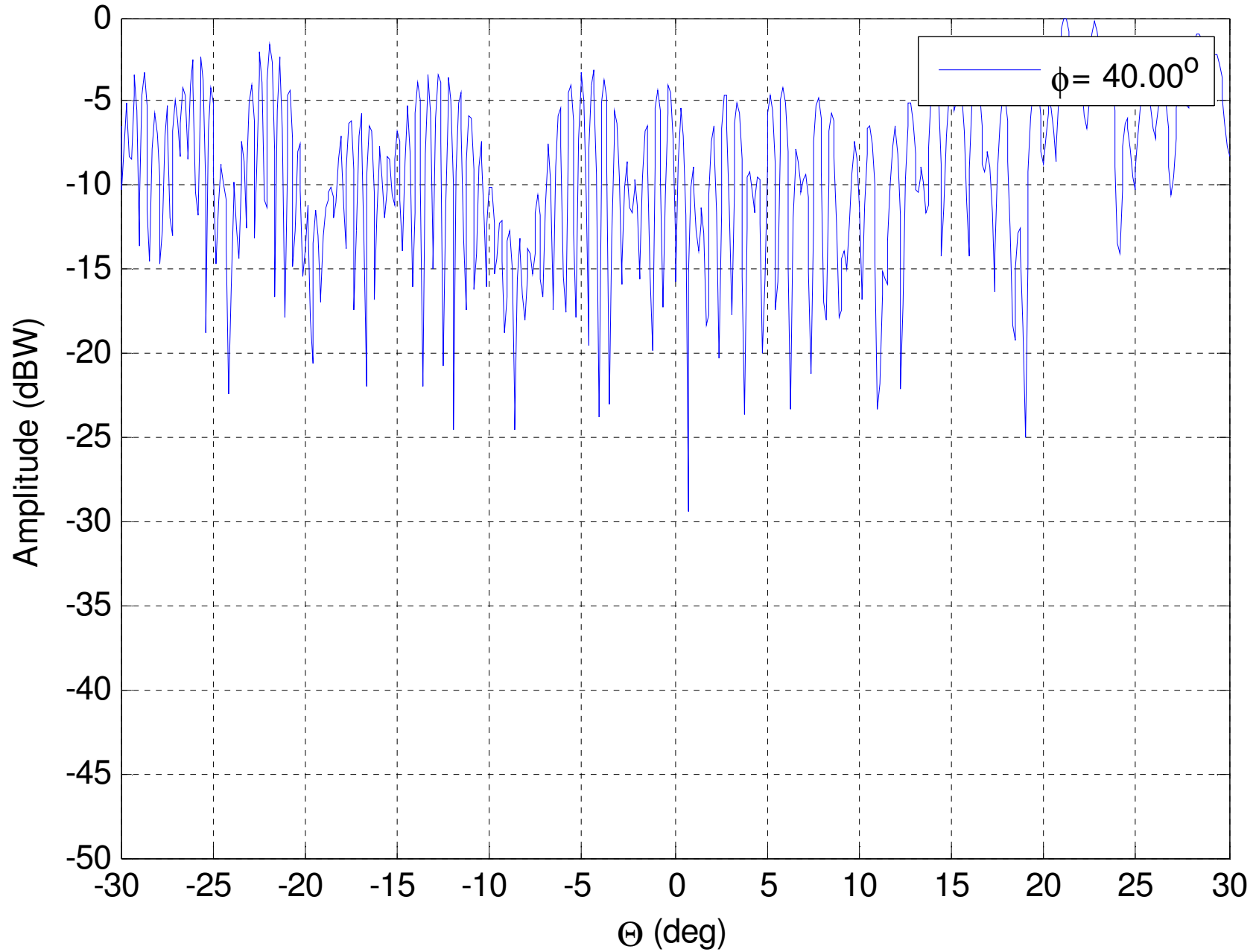
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: -10.01 dBW, Date: 16-Dec-2011



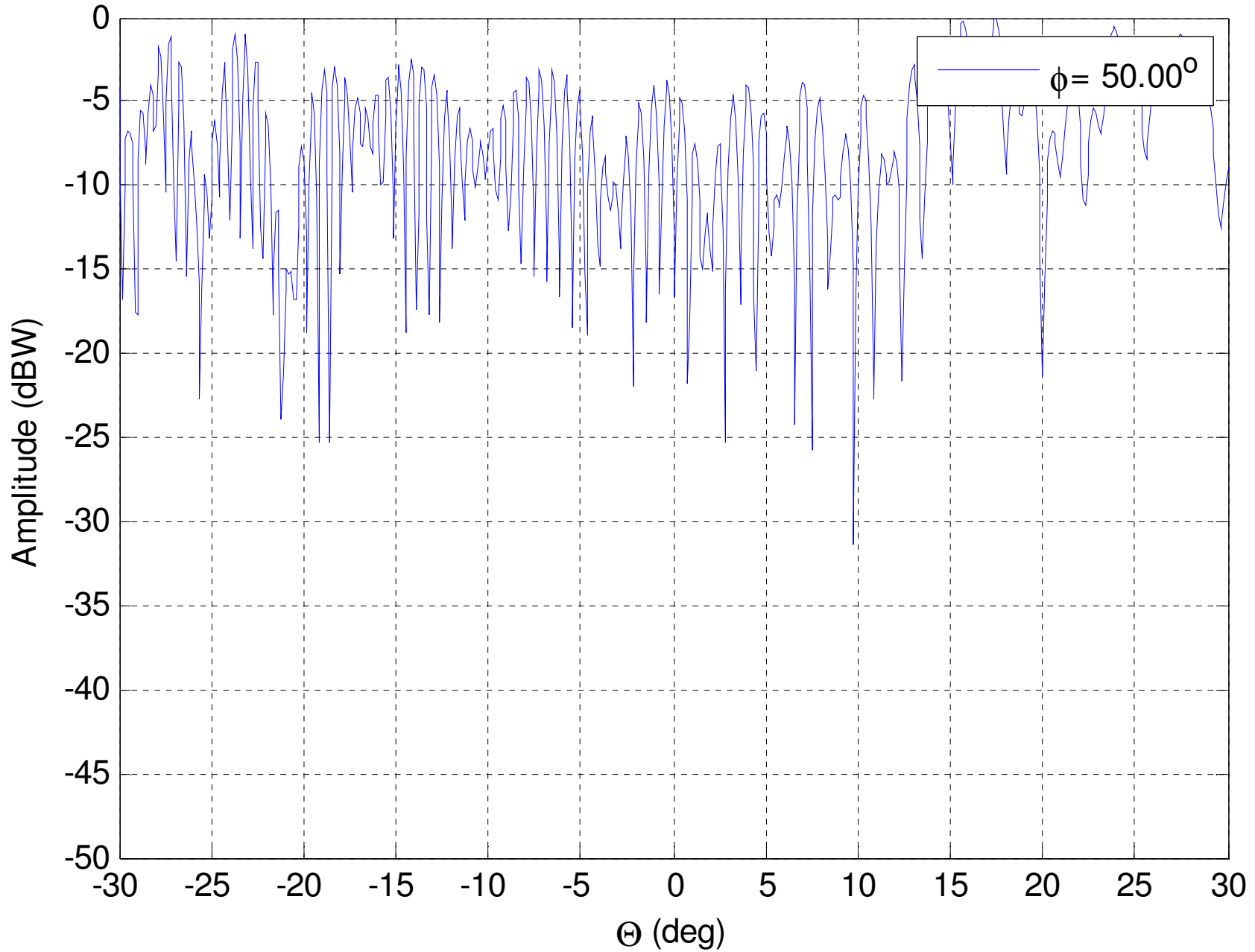
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -9.82 dBW, Date: 16-Dec-2011



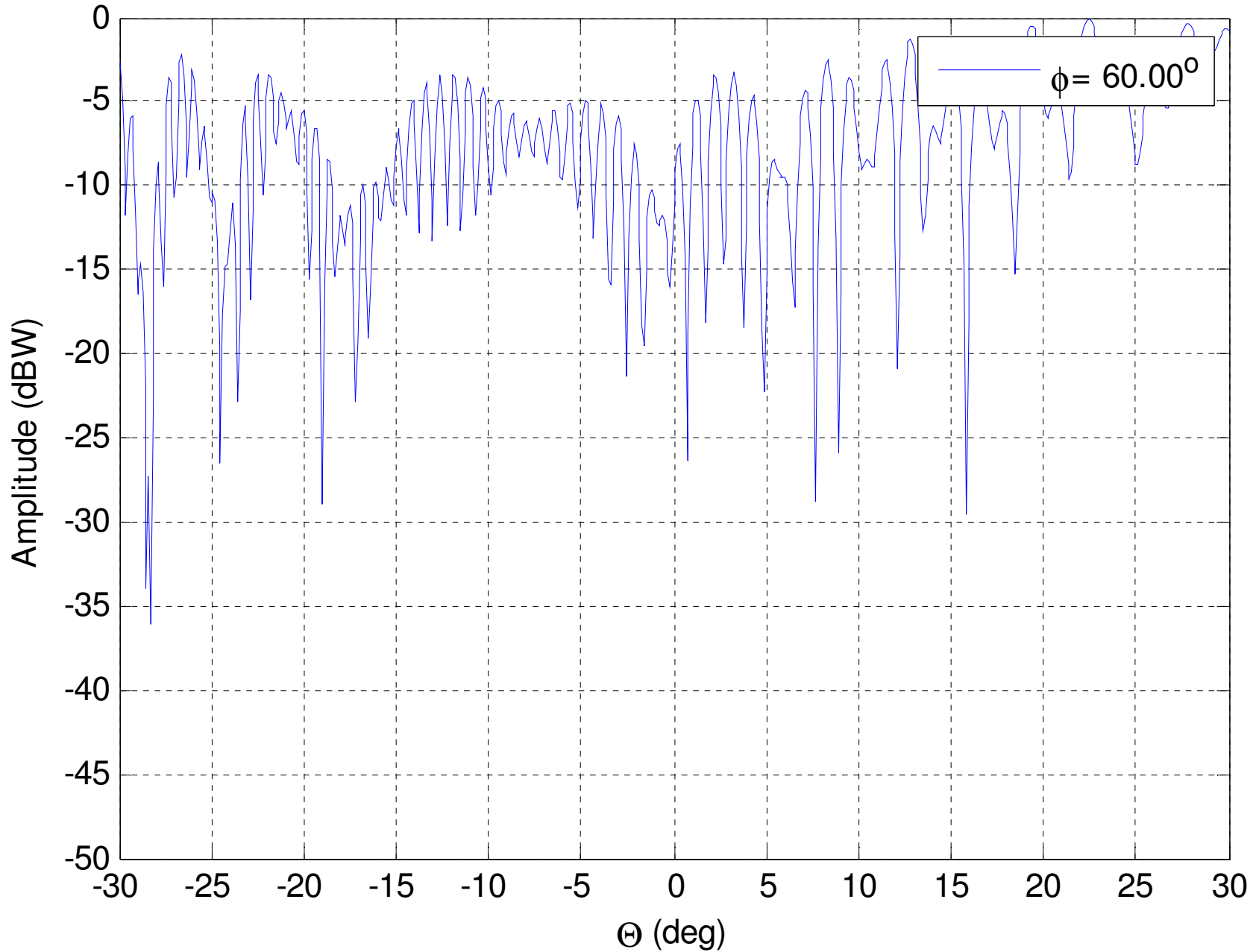
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -10.16 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

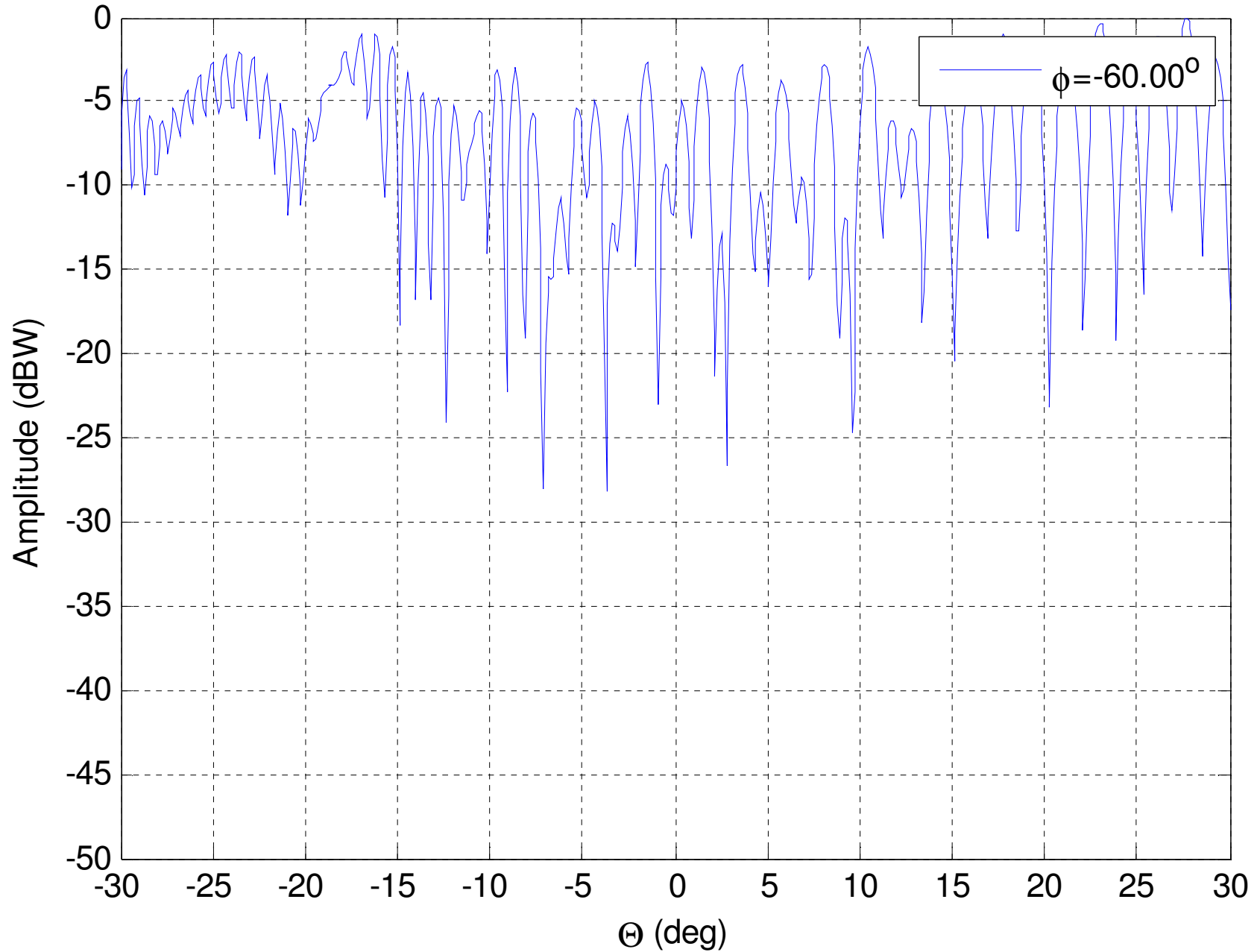
Input file: tx-17.3-rhcp-60.cut, Peak: -9.50 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

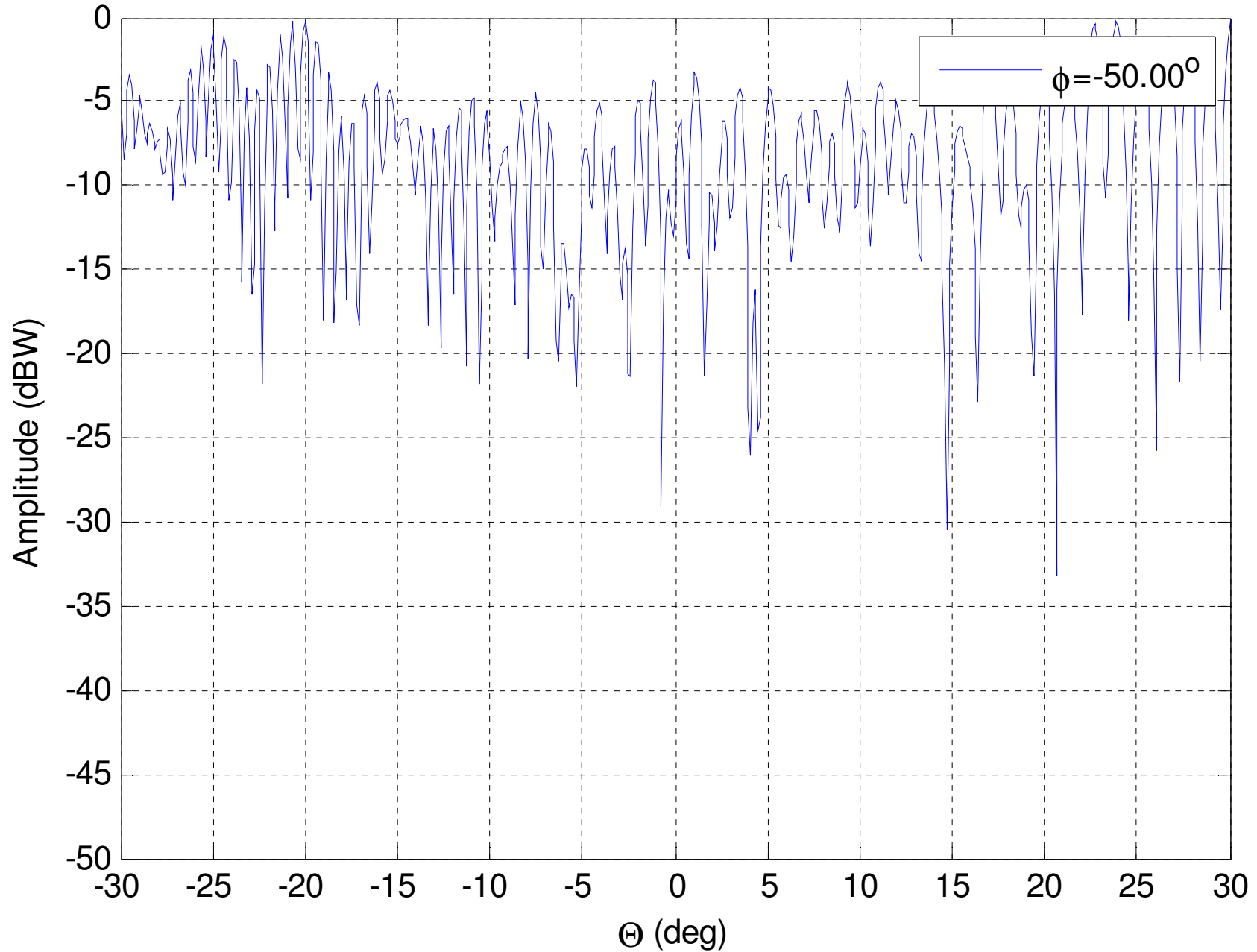
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -10.23 dBW, Date: 16-Dec-2011



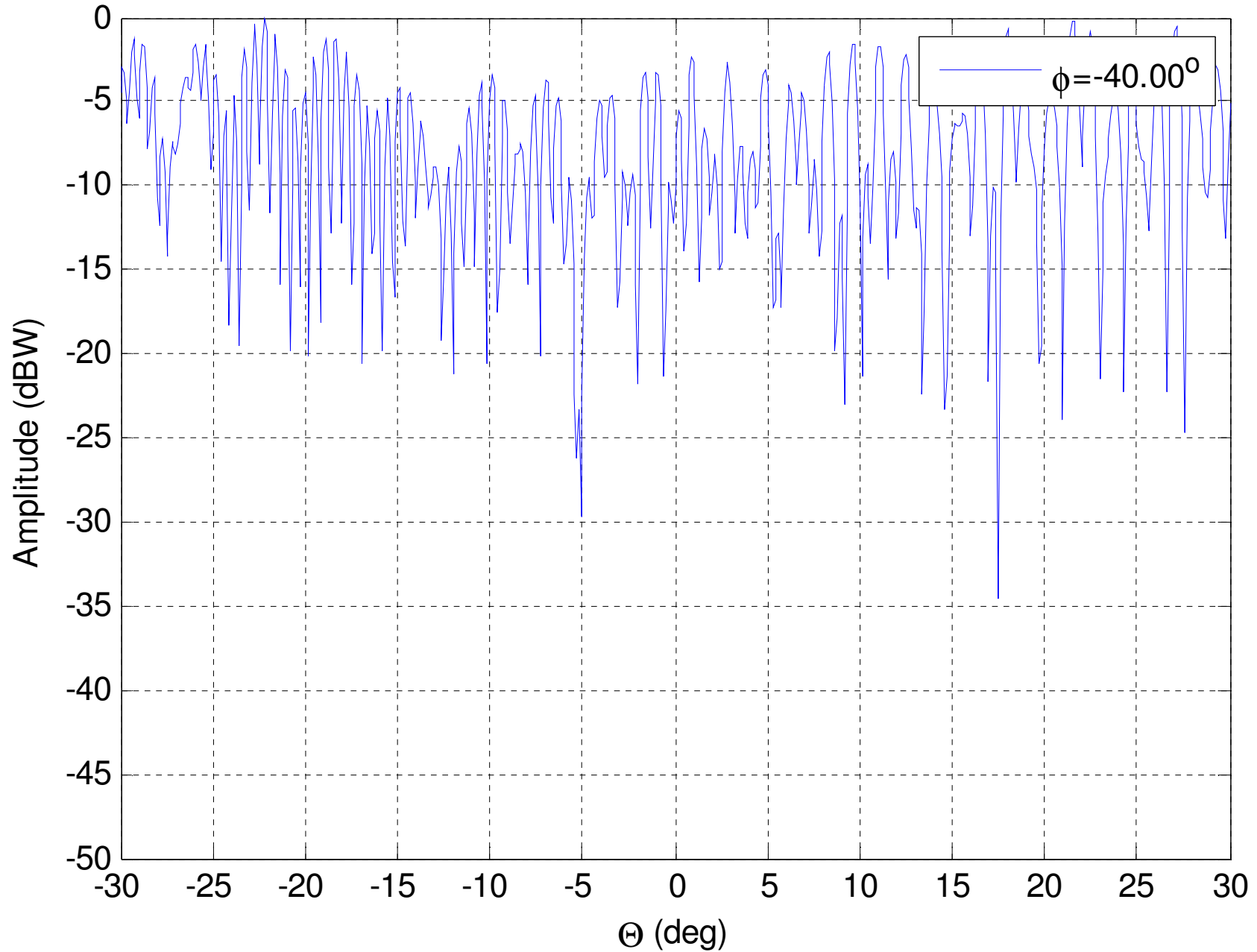
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -9.41 dBW, Date: 16-Dec-2011



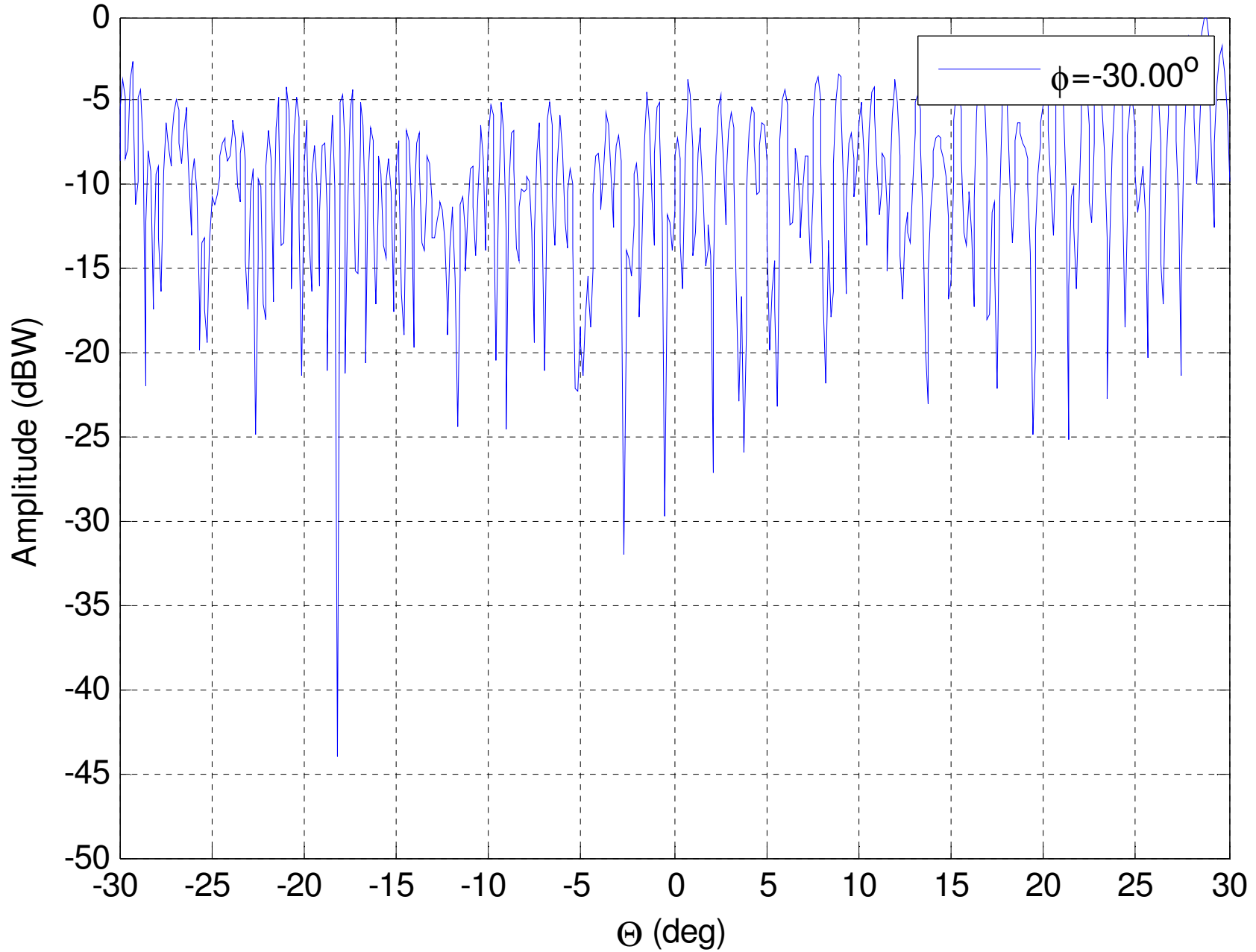
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -10.32 dBW, Date: 16-Dec-2011



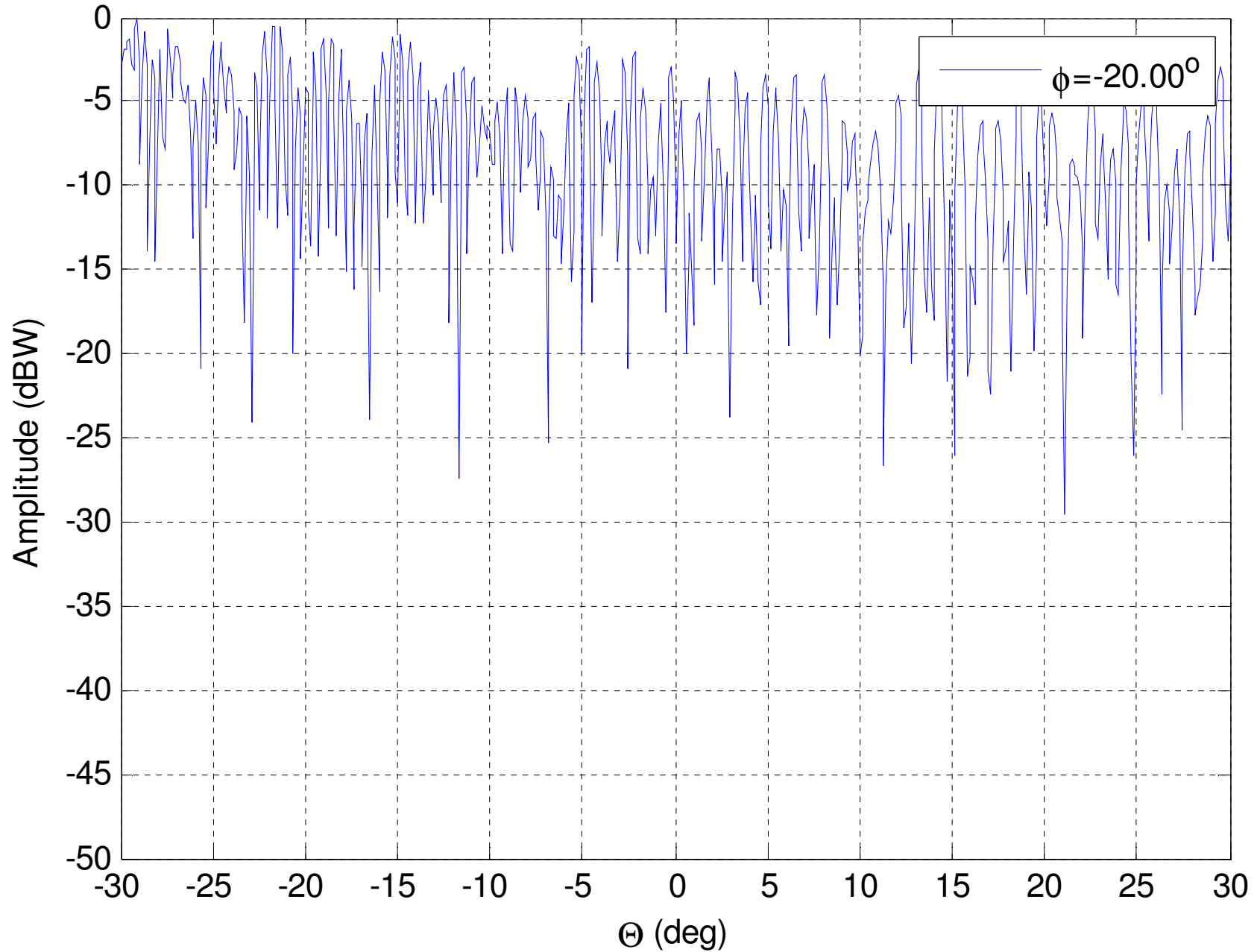
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: -8.79 dBW, Date: 16-Dec-2011



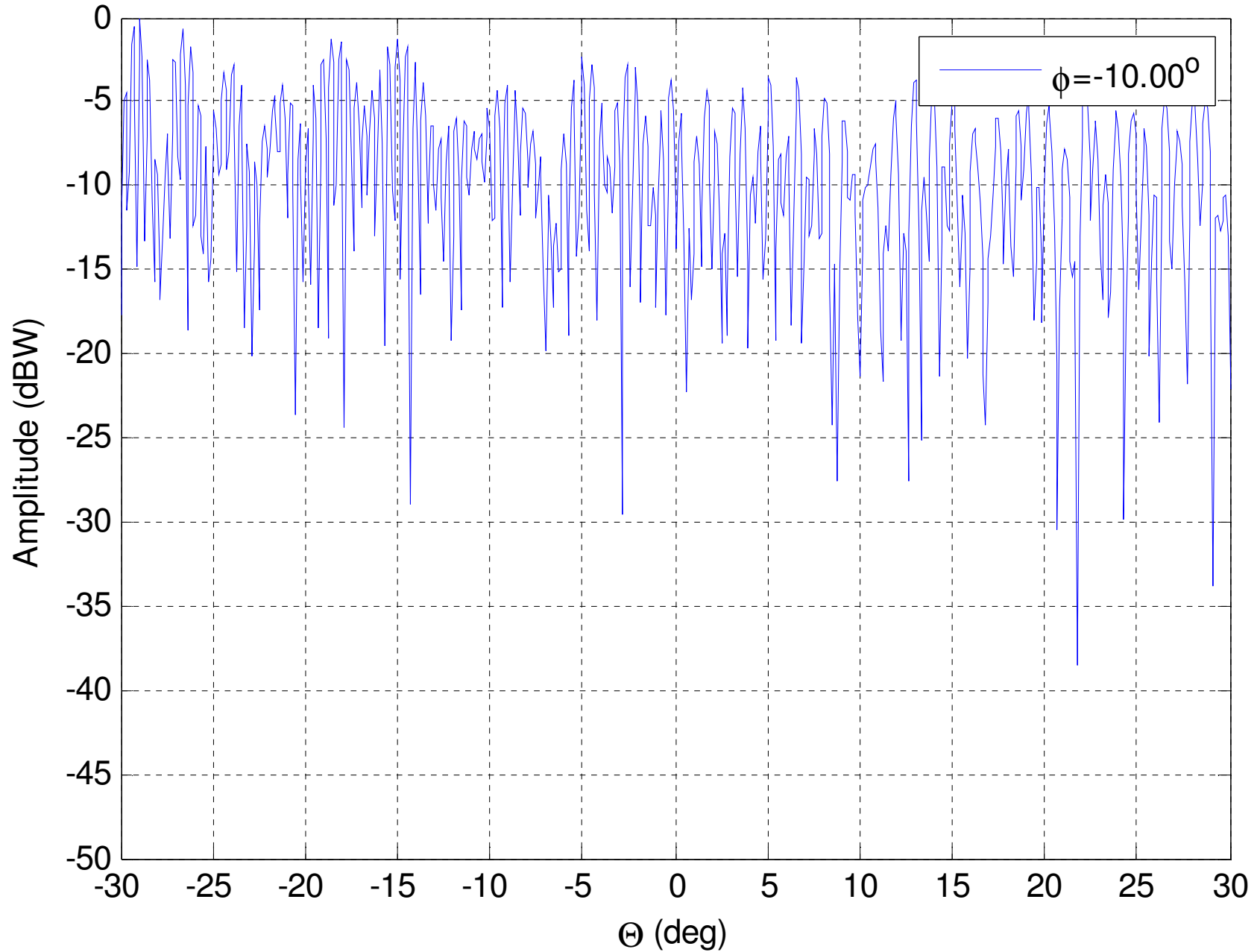
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: -11.09 dBW, Date: 16-Dec-2011



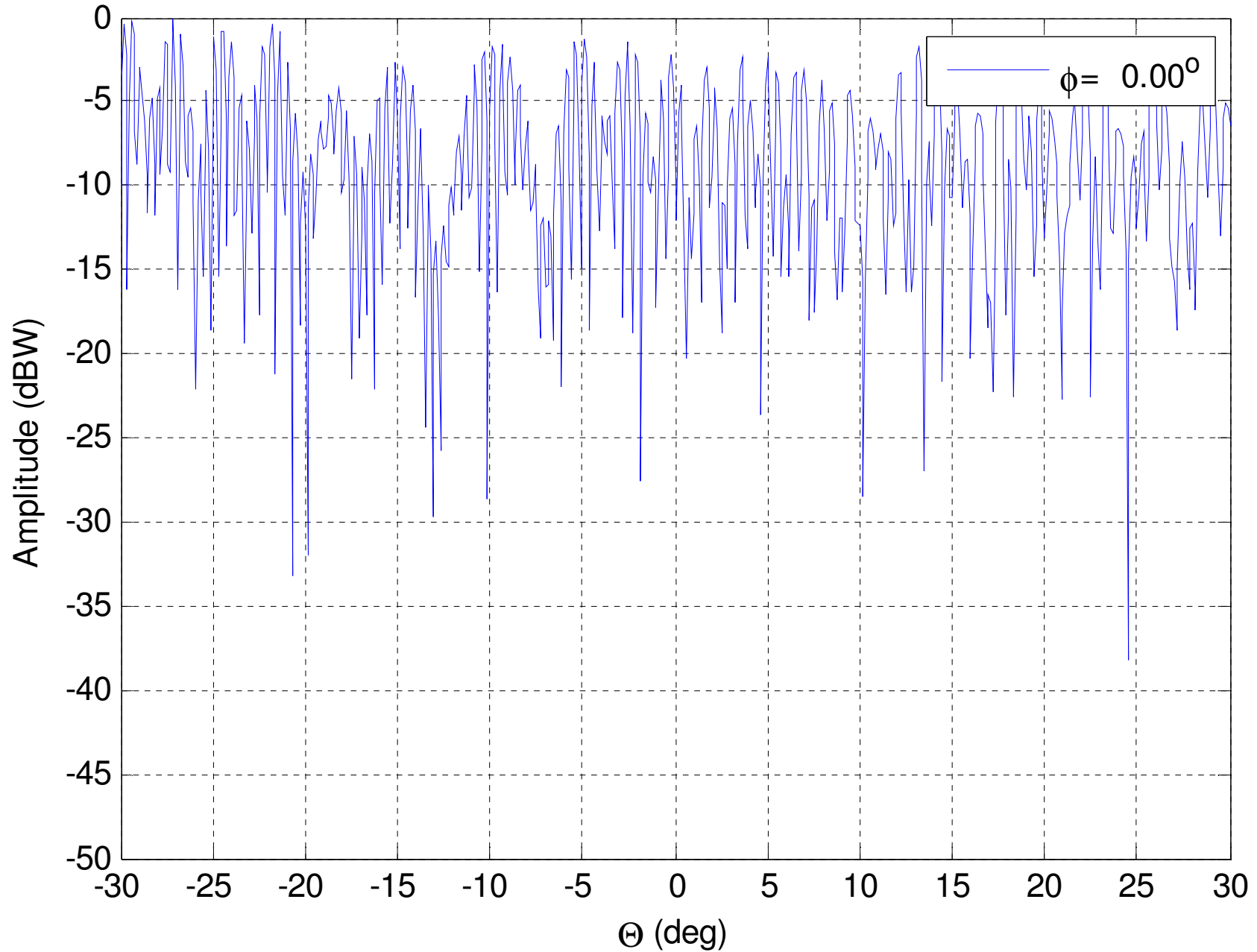
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: -10.27 dBW, Date: 16-Dec-2011



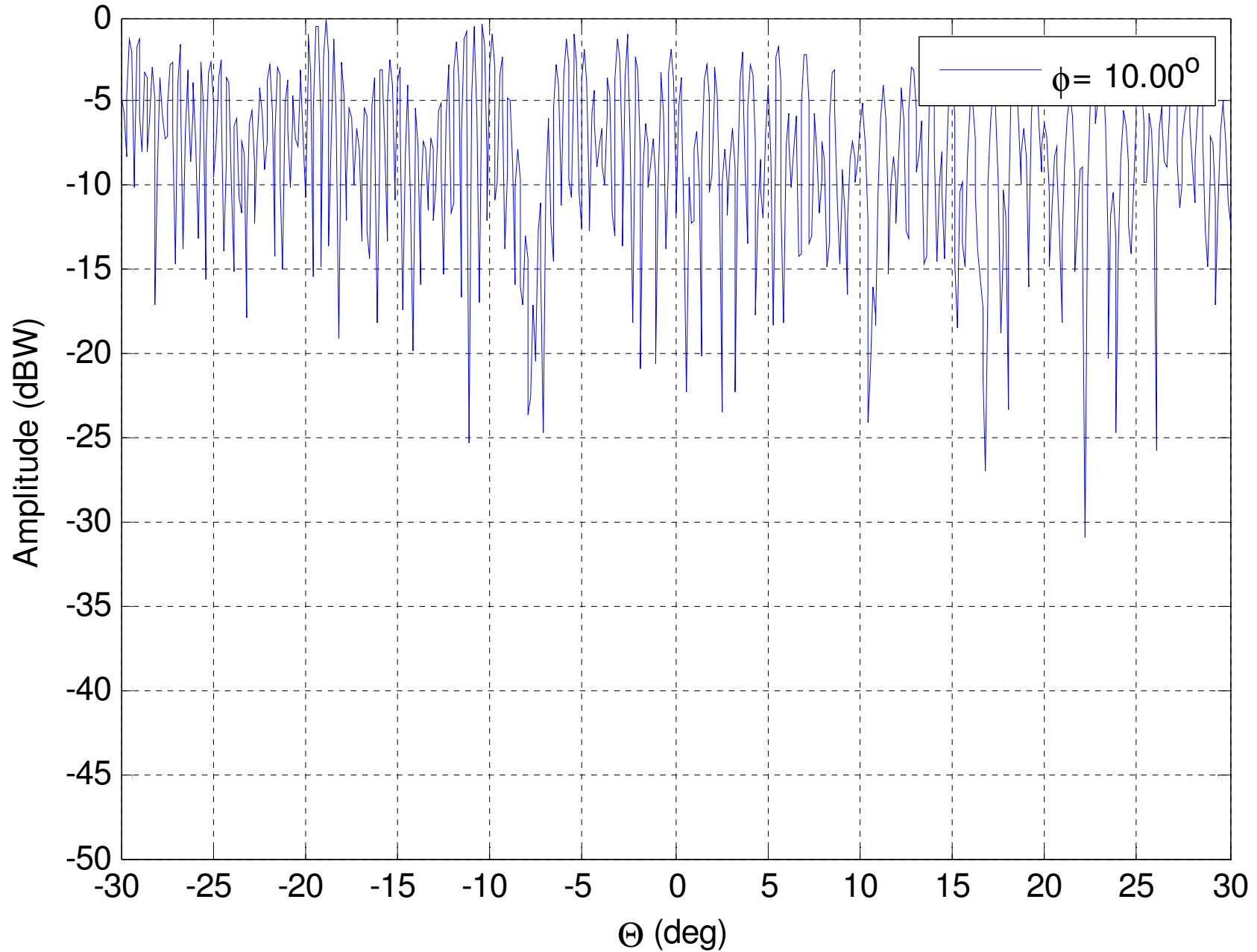
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: -11.67 dBW, Date: 16-Dec-2011



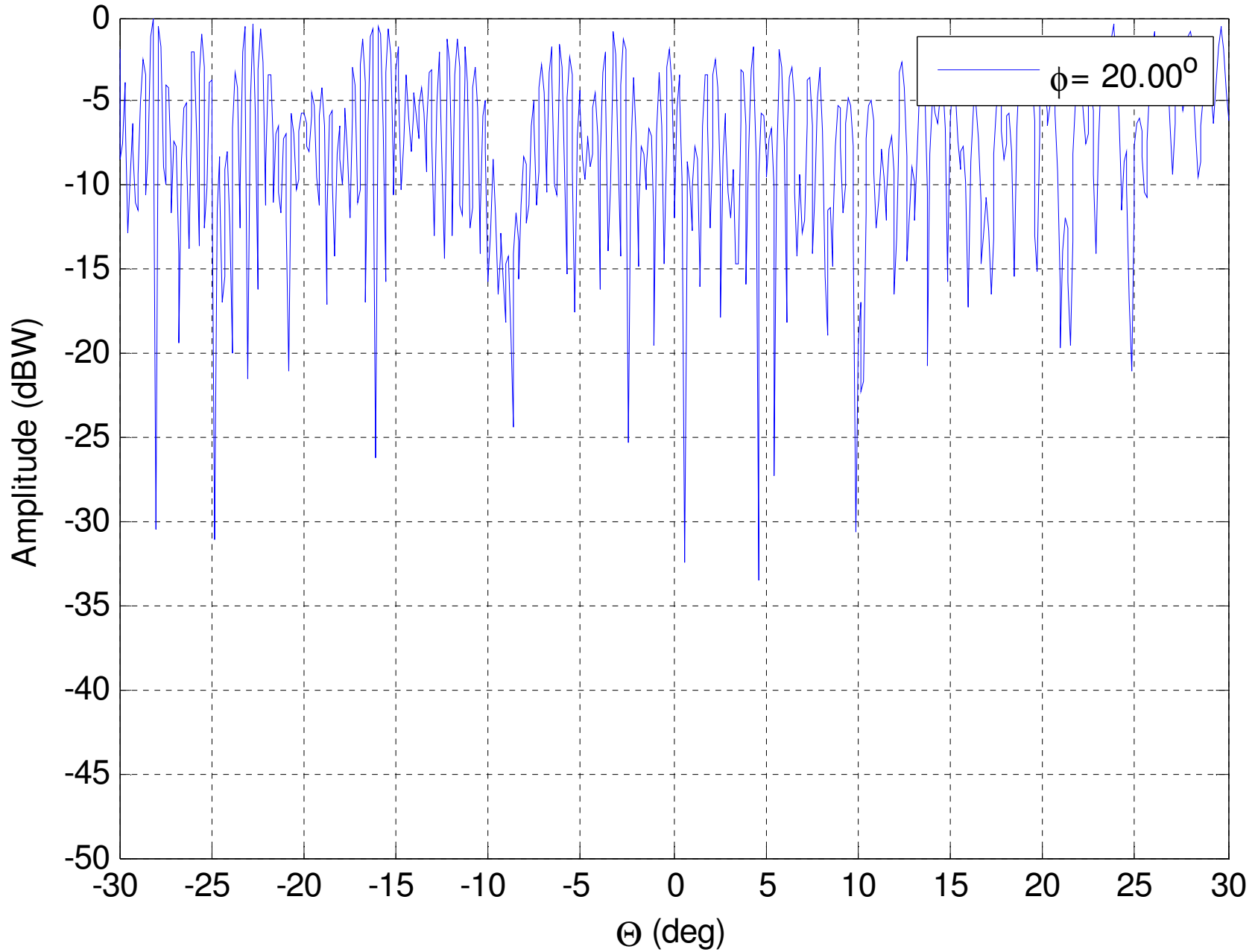
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: -12.02 dBW, Date: 16-Dec-2011



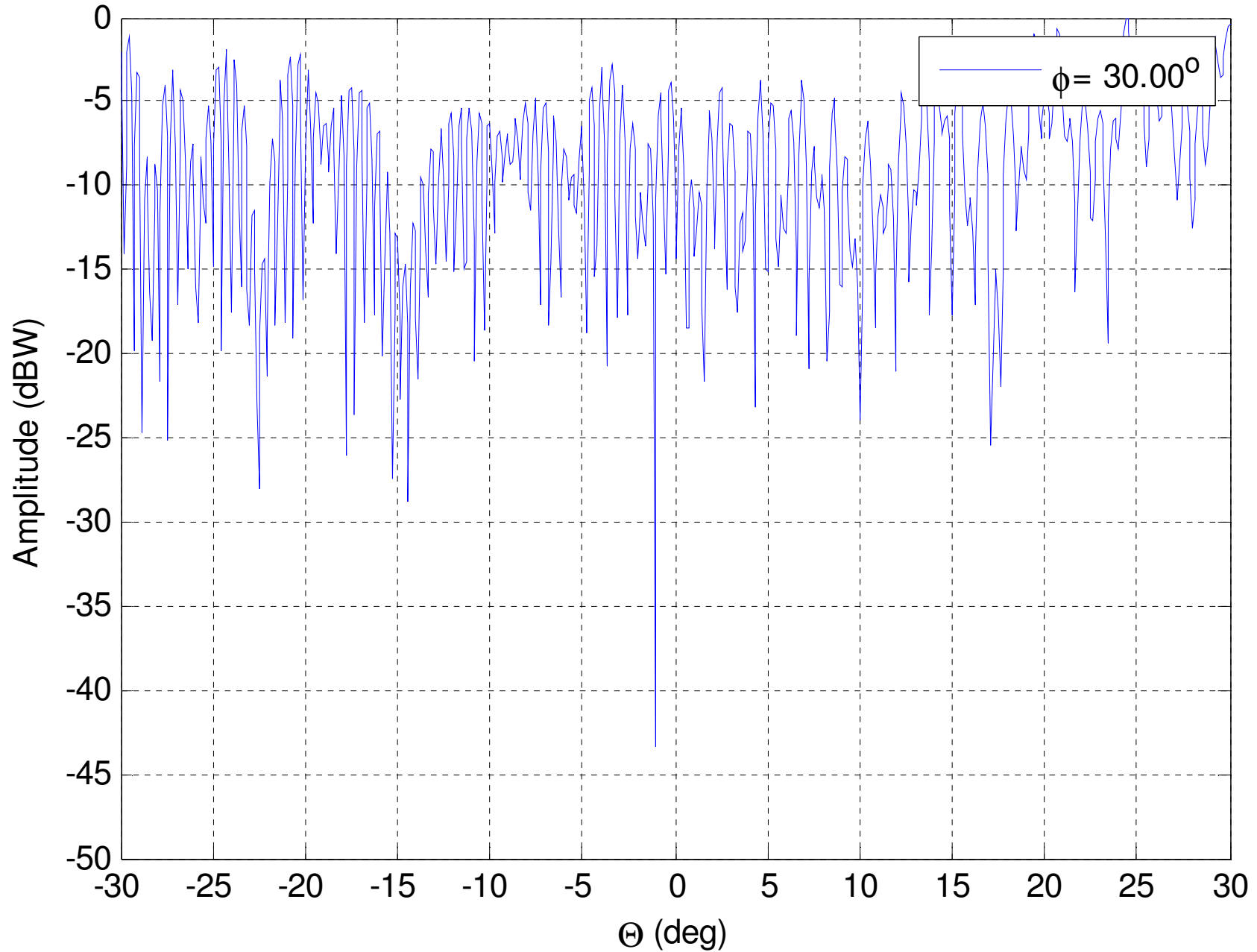
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: -12.03 dBW, Date: 16-Dec-2011



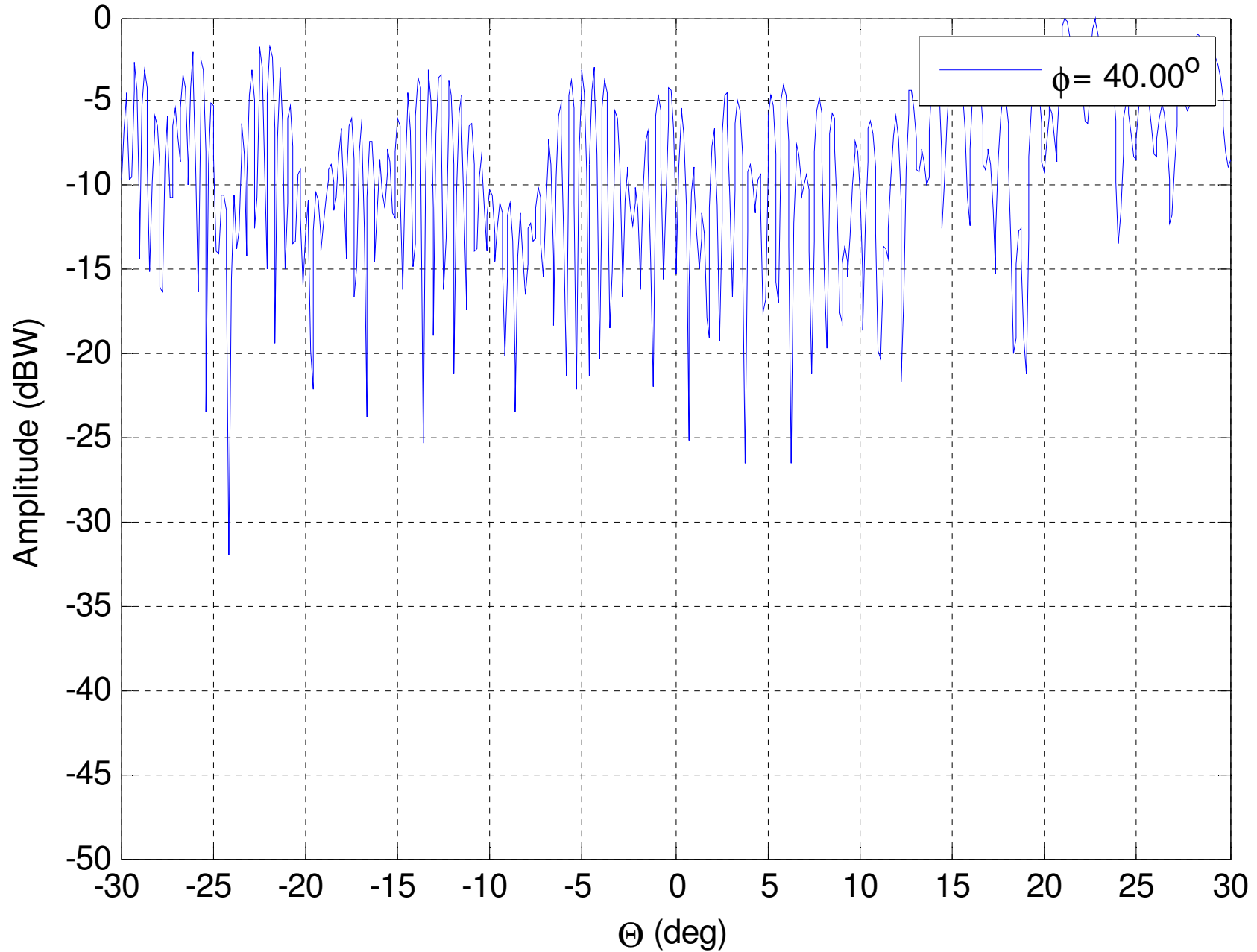
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: -10.17 dBW, Date: 16-Dec-2011



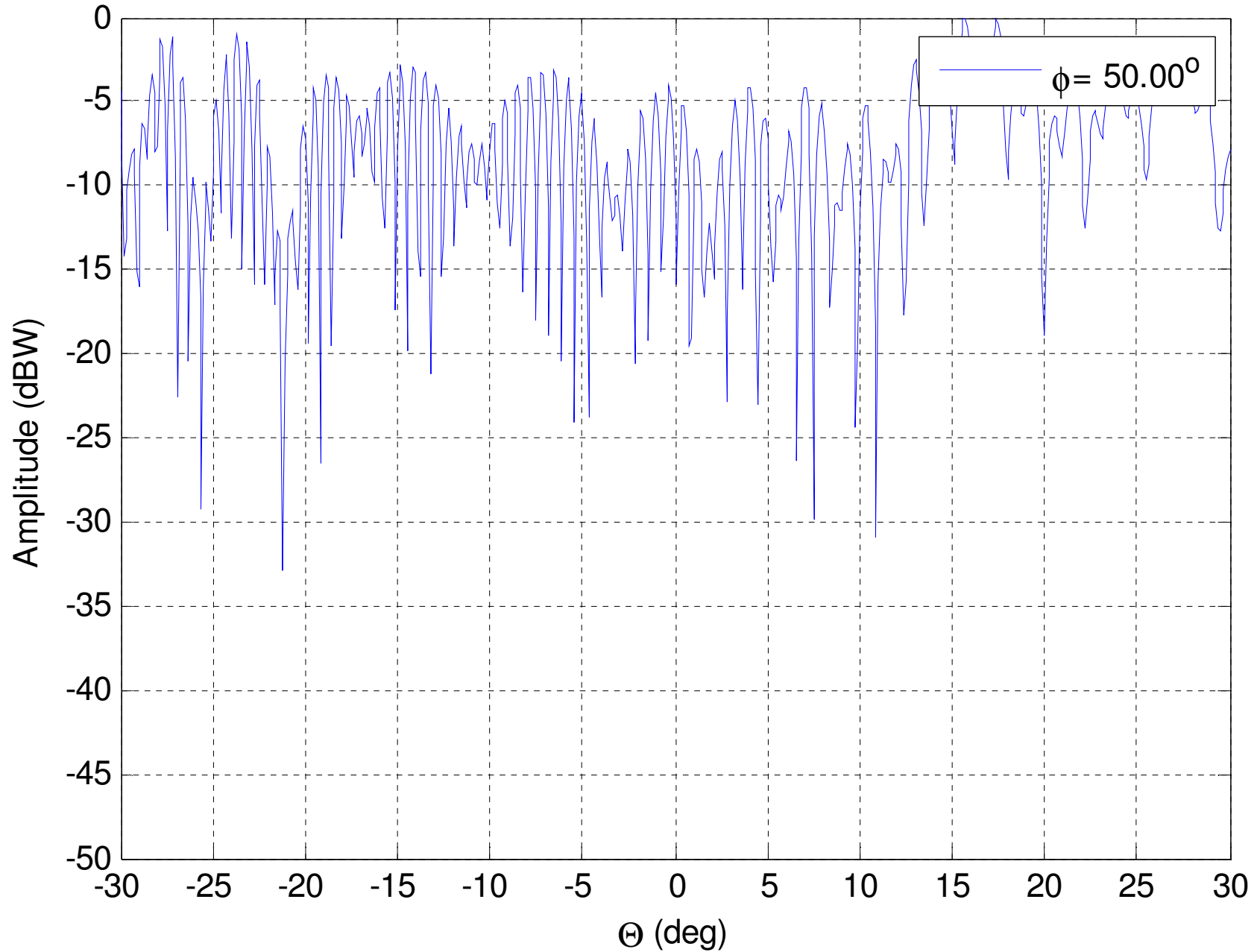
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -9.90 dBW, Date: 16-Dec-2011



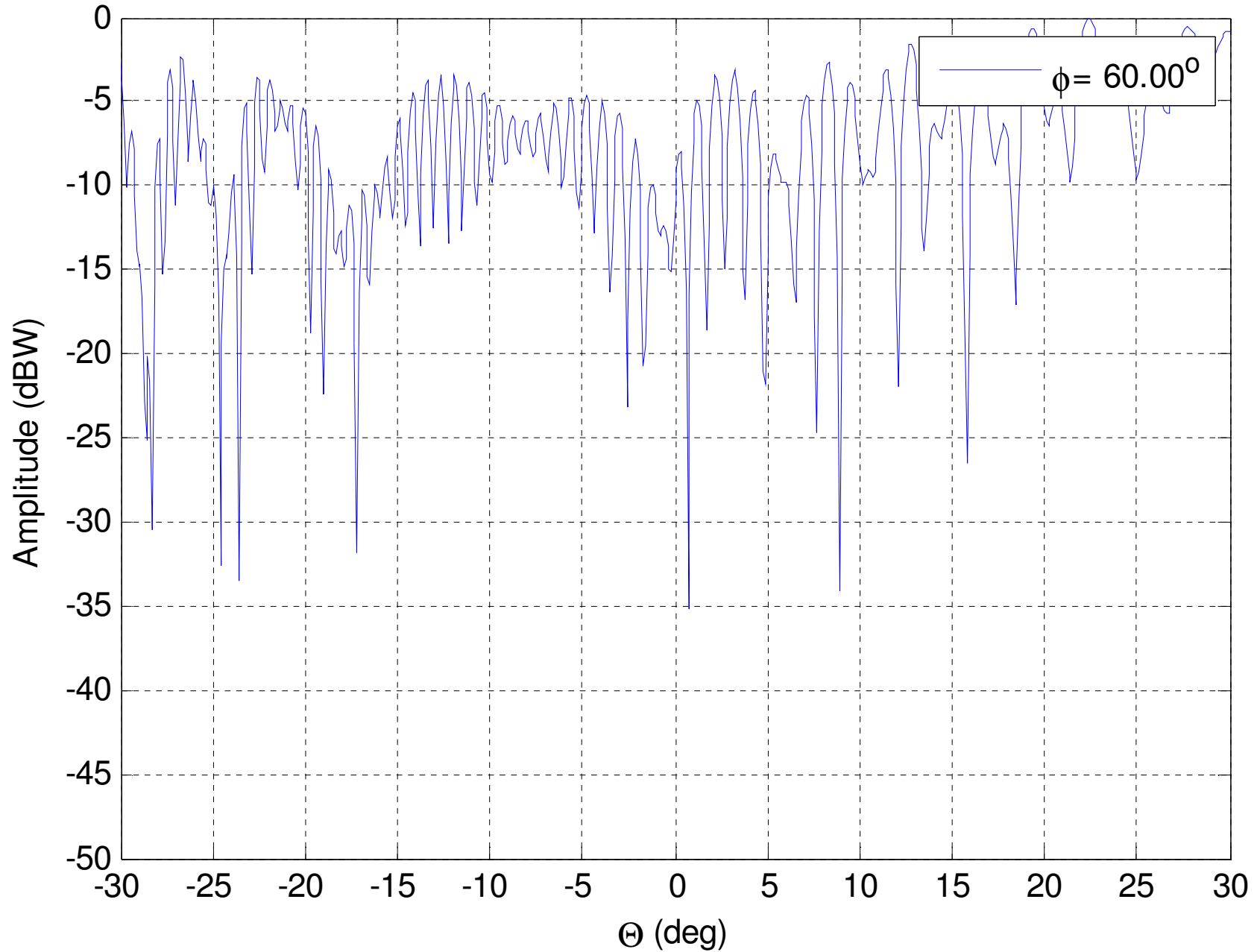
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -9.97 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

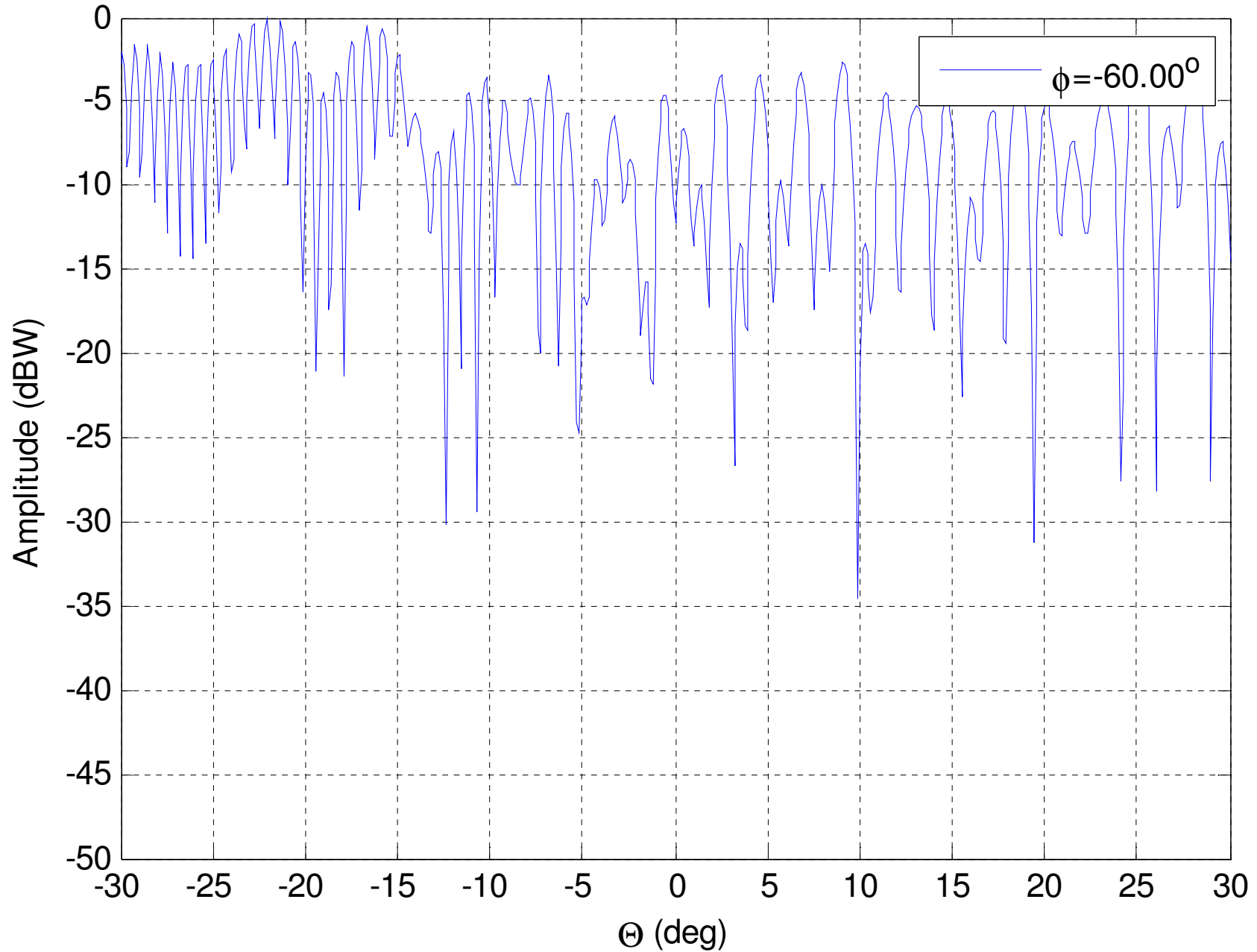
Input file: tx-17.3-lhcp-60.cut, Peak: -9.49 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

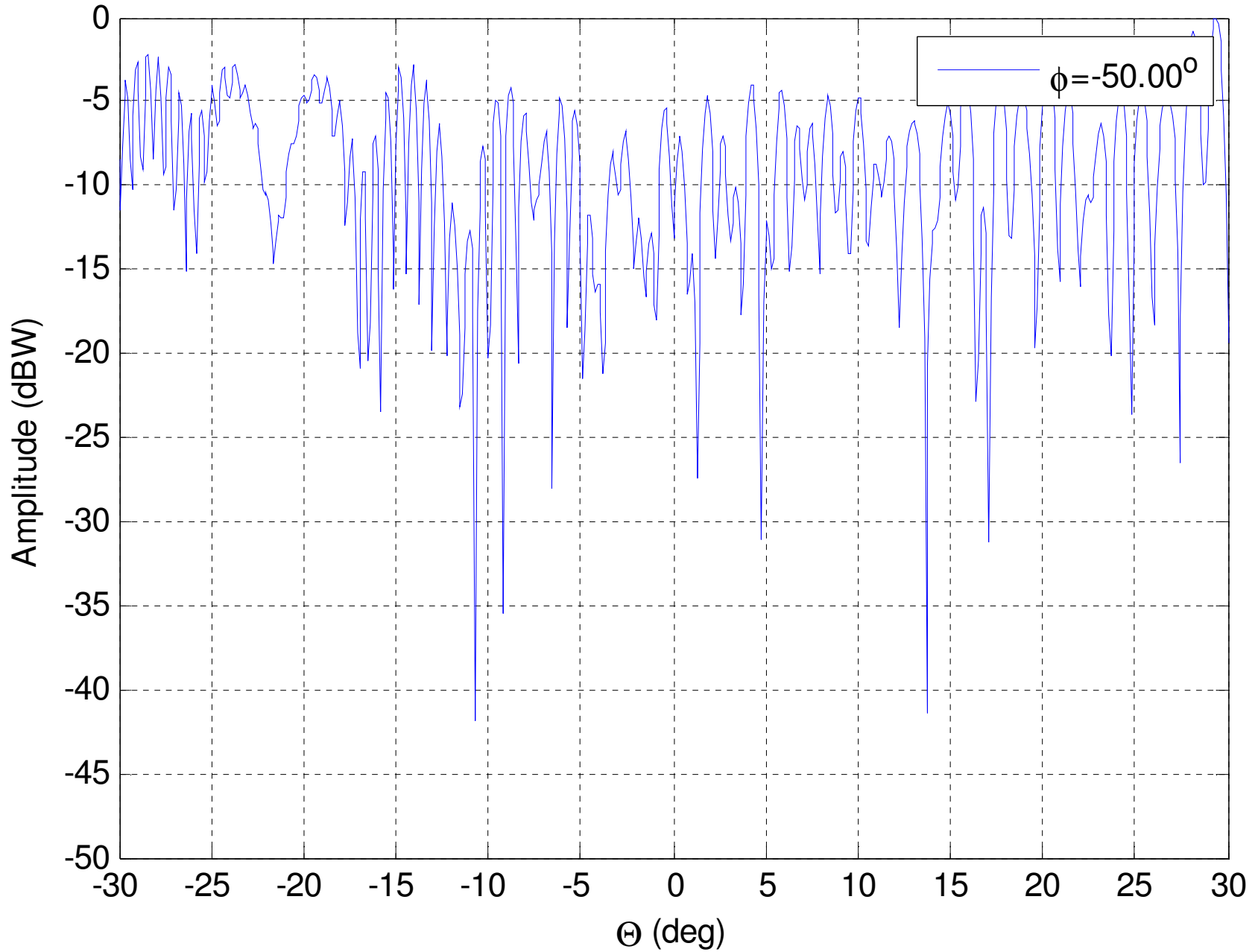
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -10.09 dBW, Date: 16-Dec-2011



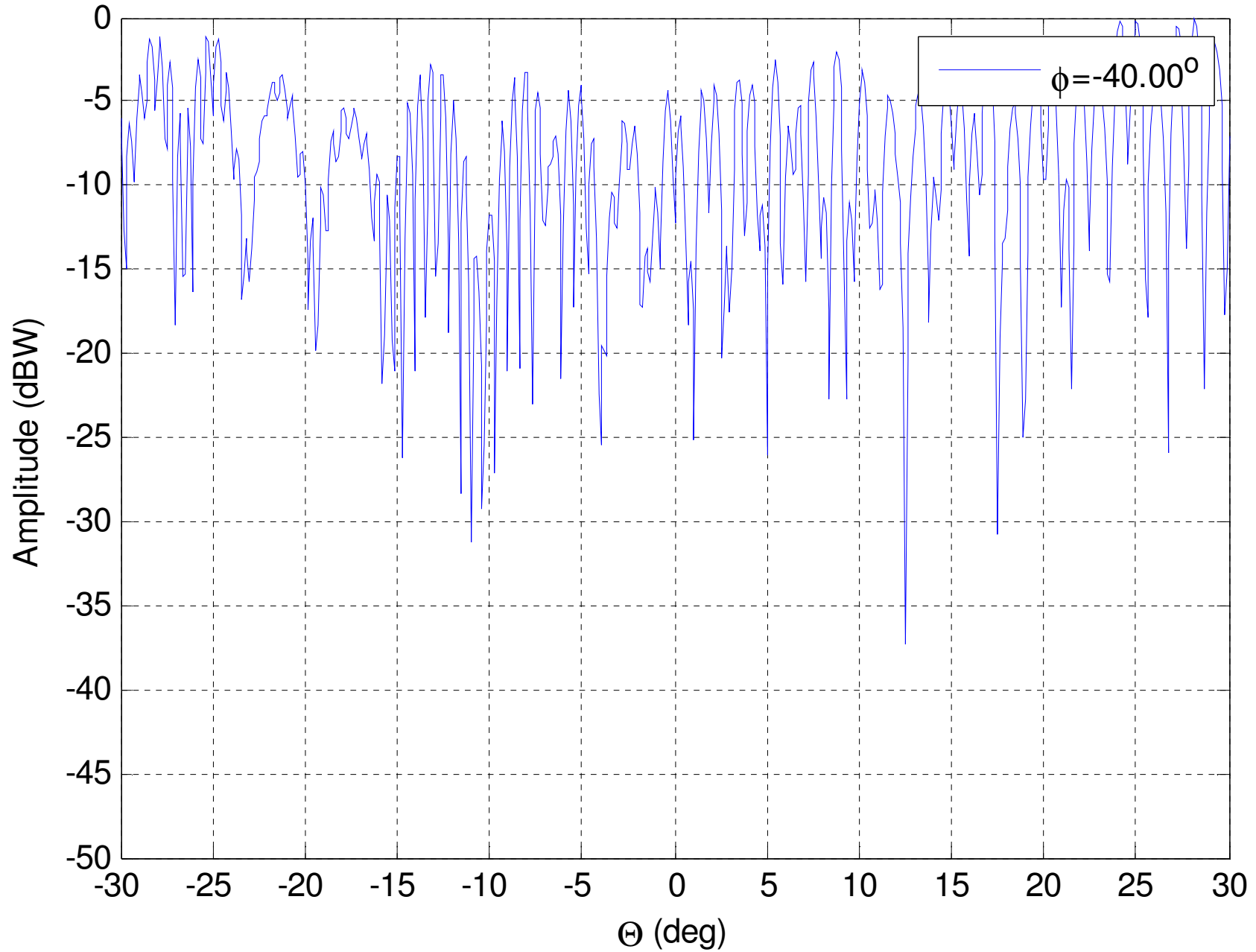
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -9.15 dBW, Date: 16-Dec-2011



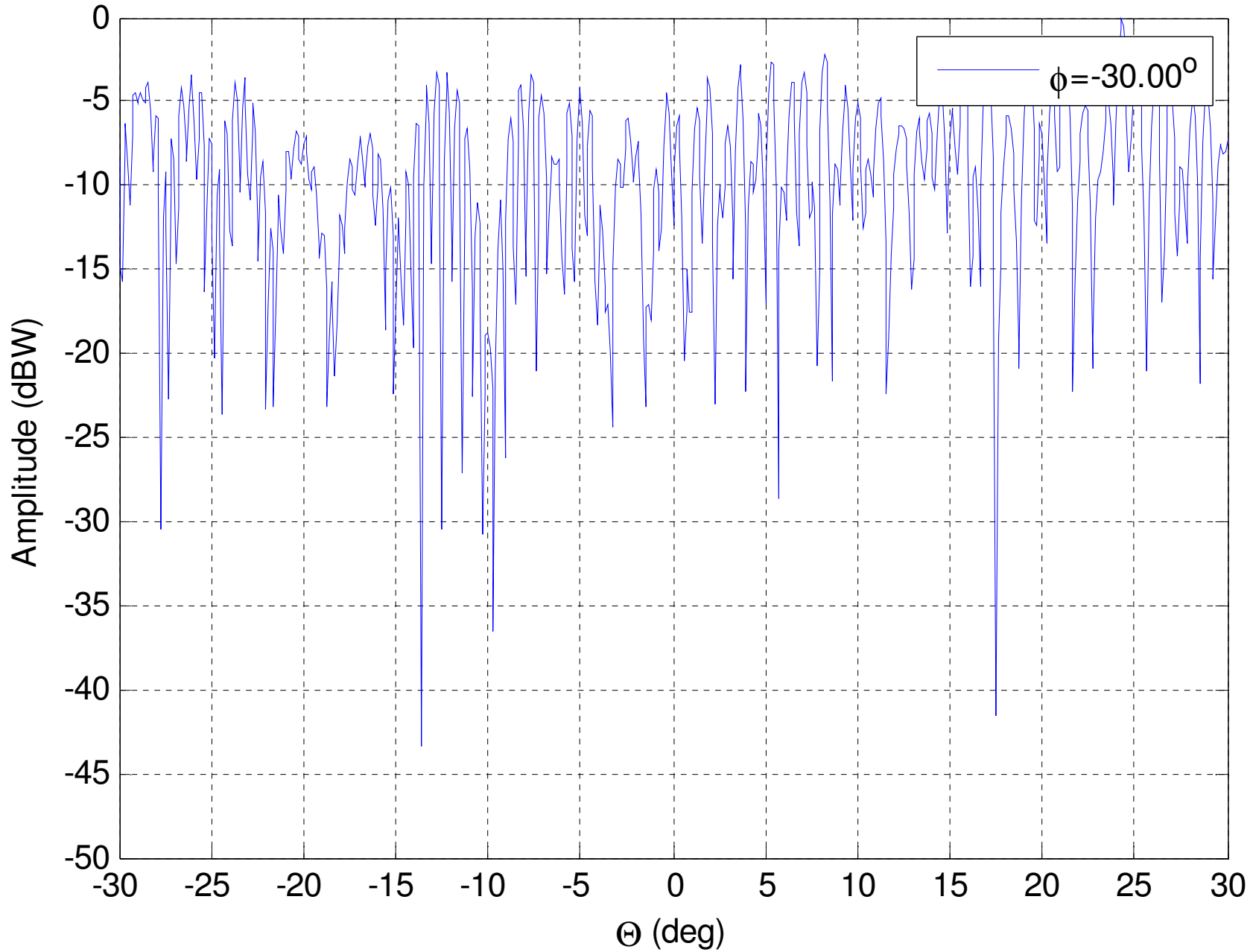
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -10.14 dBW, Date: 16-Dec-2011



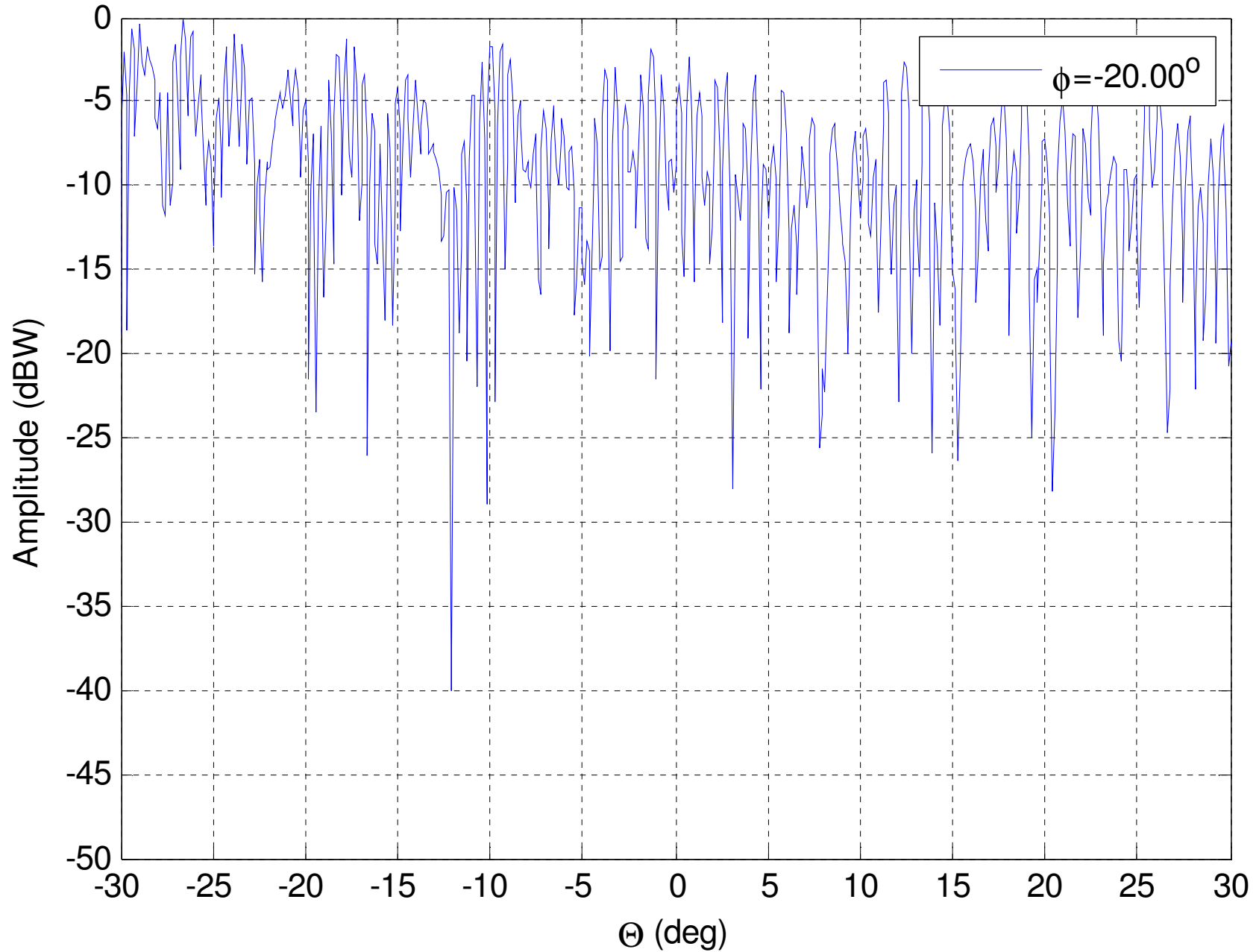
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -9.91 dBW, Date: 16-Dec-2011



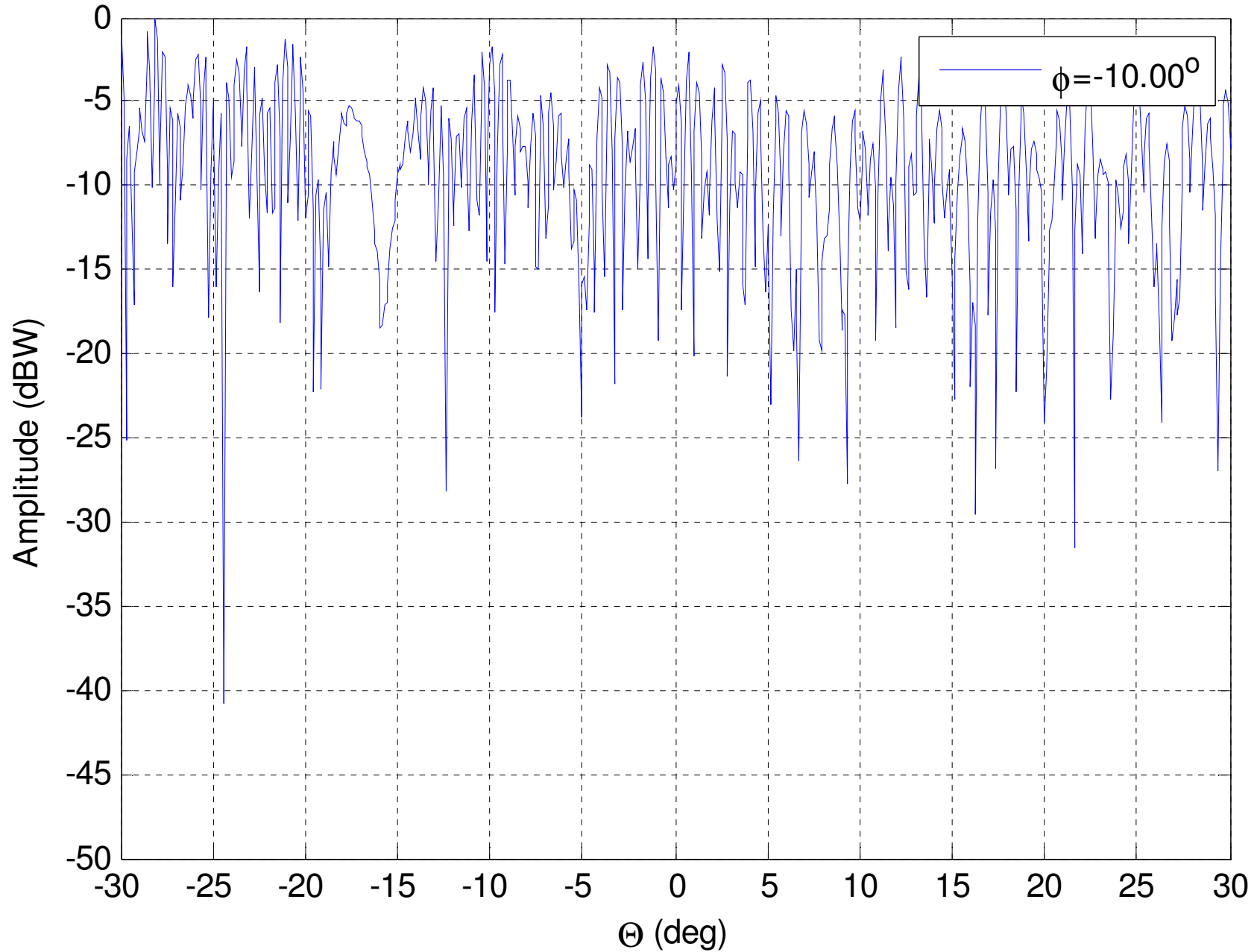
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: -11.18 dBW, Date: 16-Dec-2011



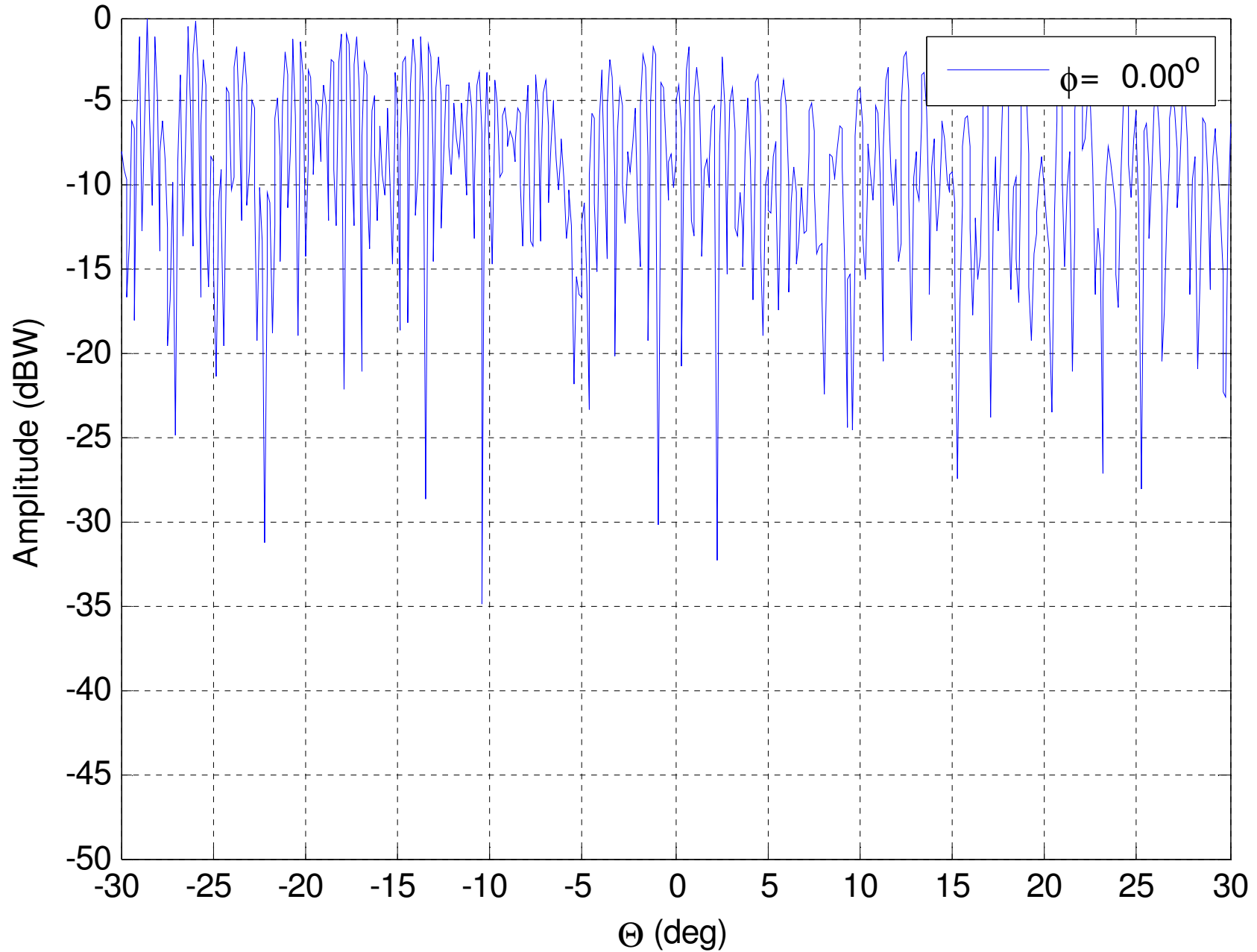
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: -11.30 dBW, Date: 16-Dec-2011



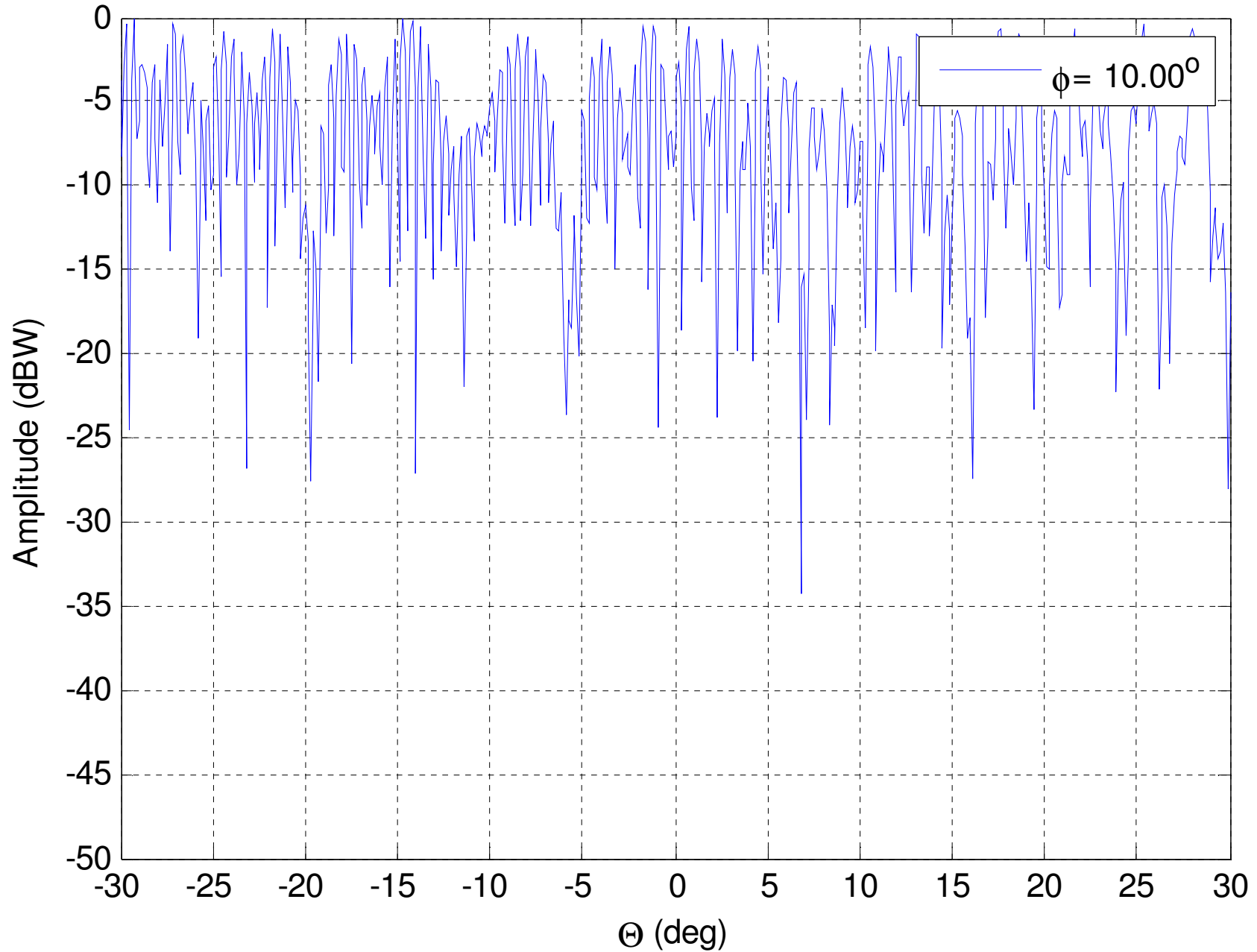
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: -11.50 dBW, Date: 16-Dec-2011



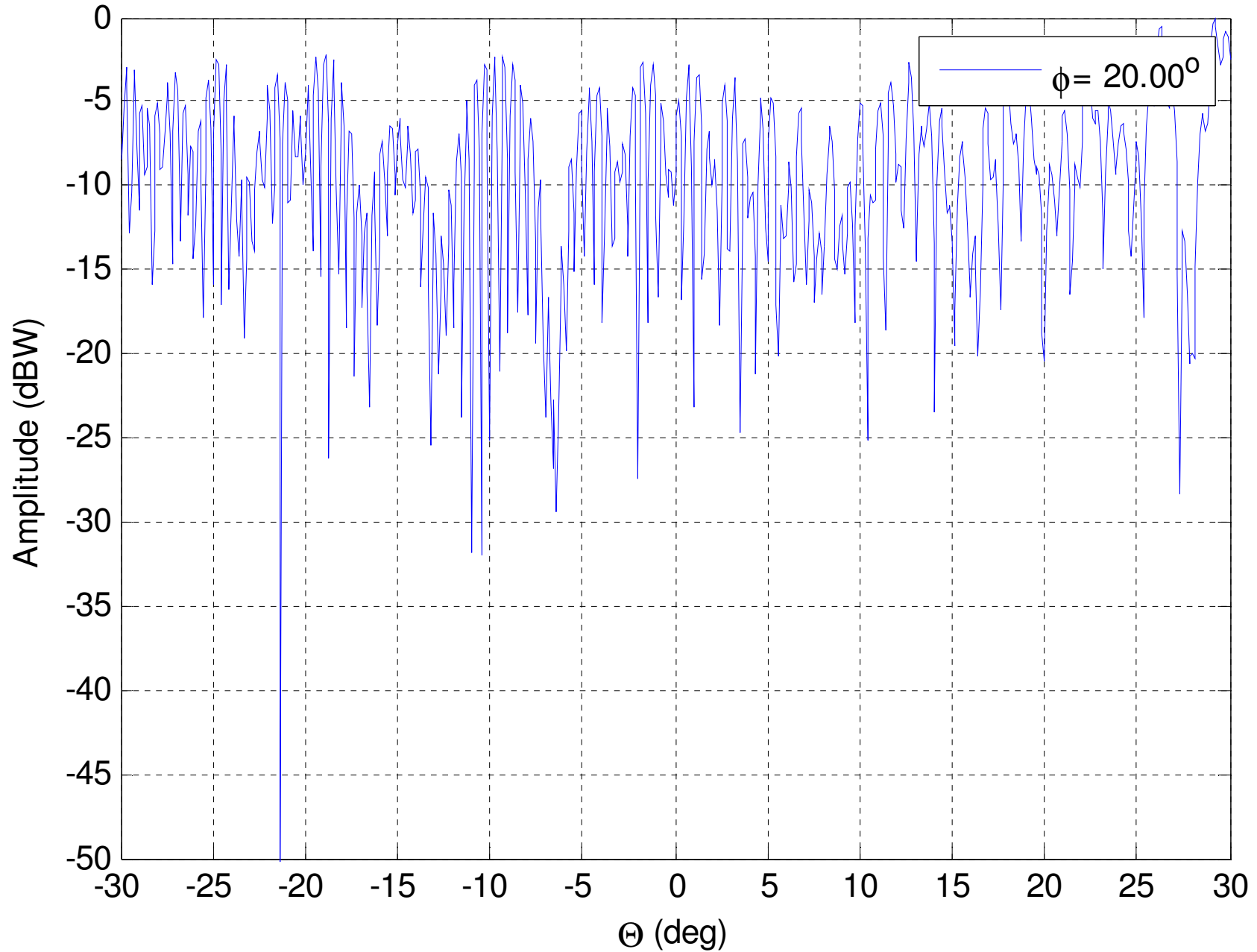
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: -12.86 dBW, Date: 16-Dec-2011



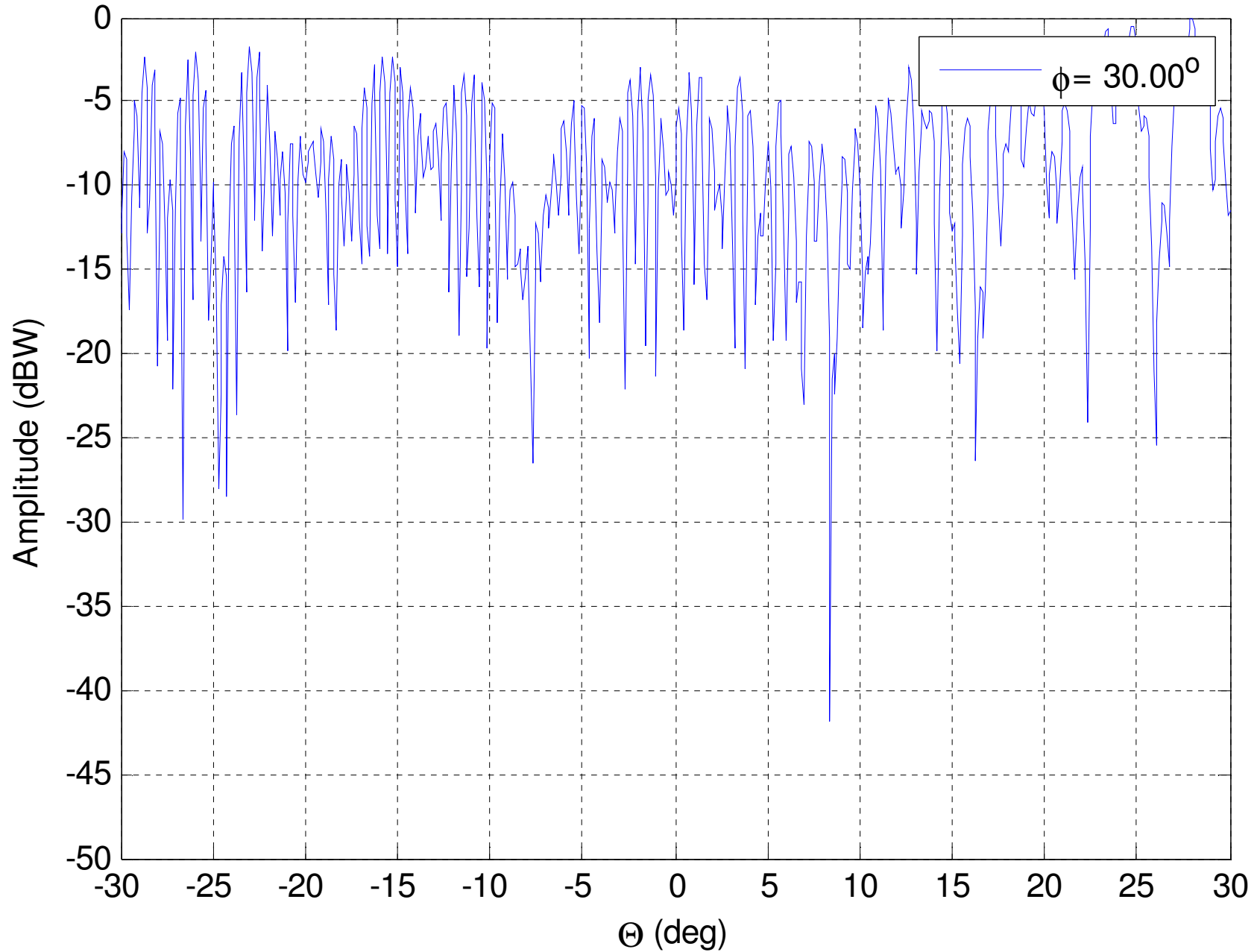
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: -10.68 dBW, Date: 16-Dec-2011



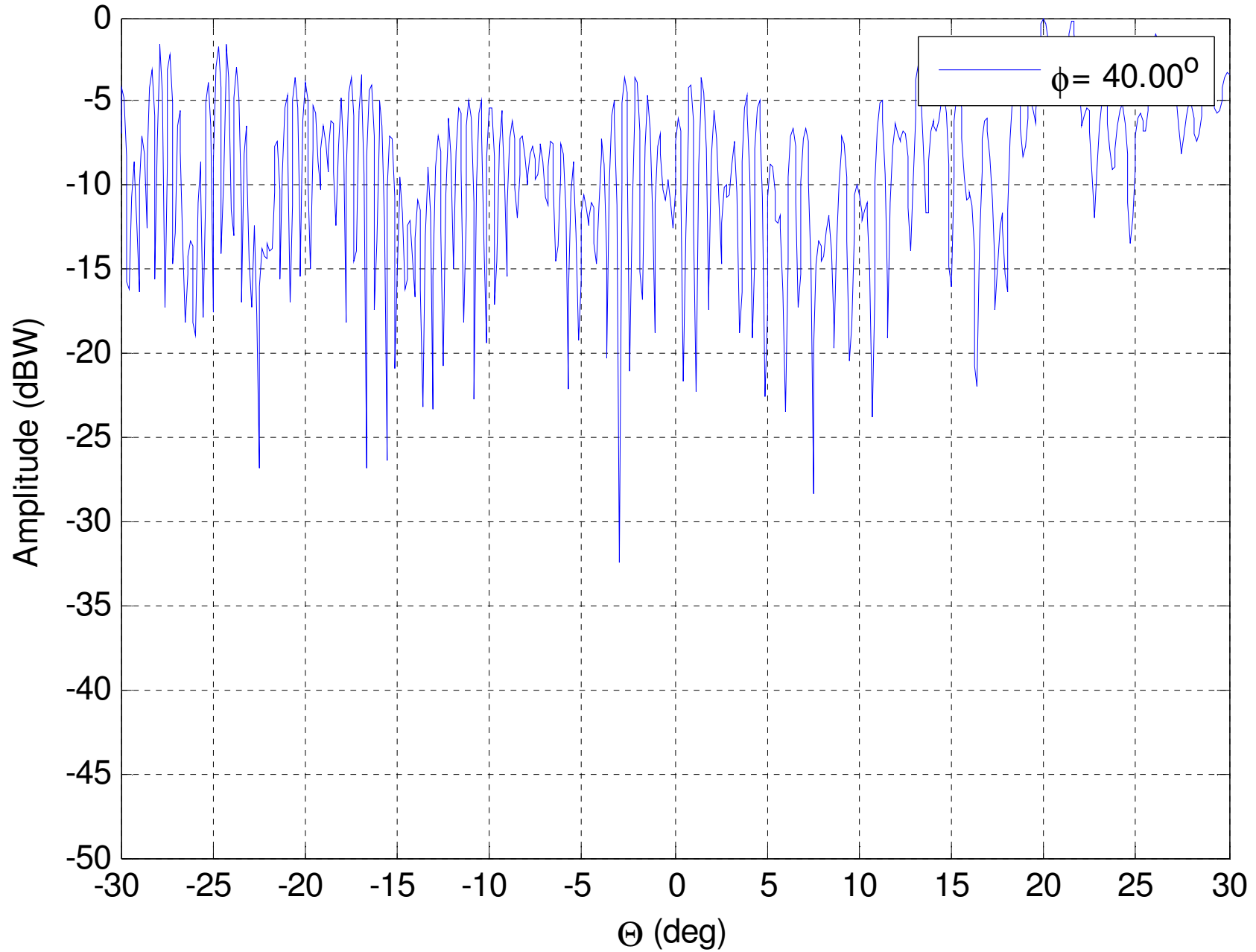
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: -10.29 dBW, Date: 16-Dec-2011



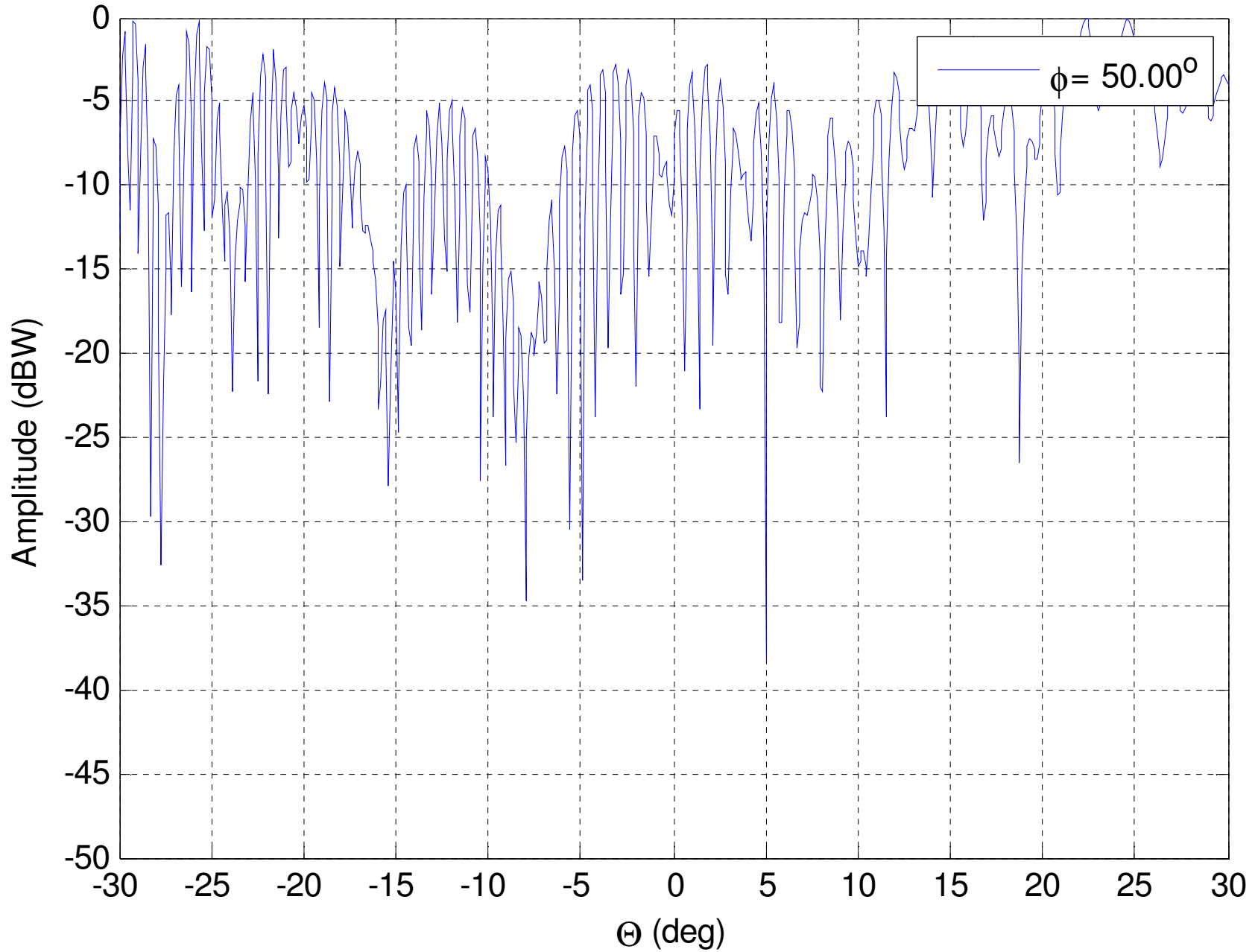
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -9.76 dBW, Date: 16-Dec-2011



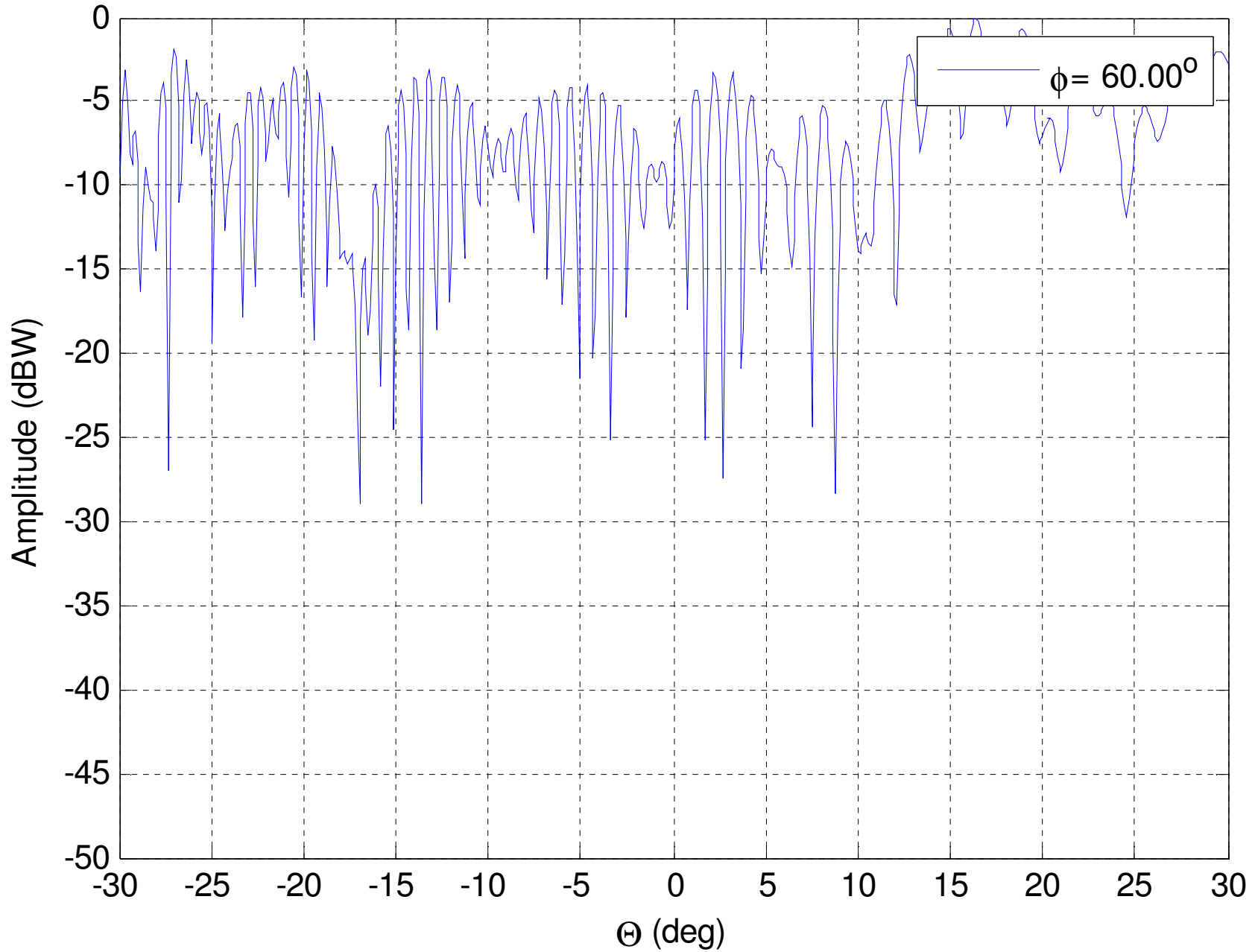
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -10.55 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

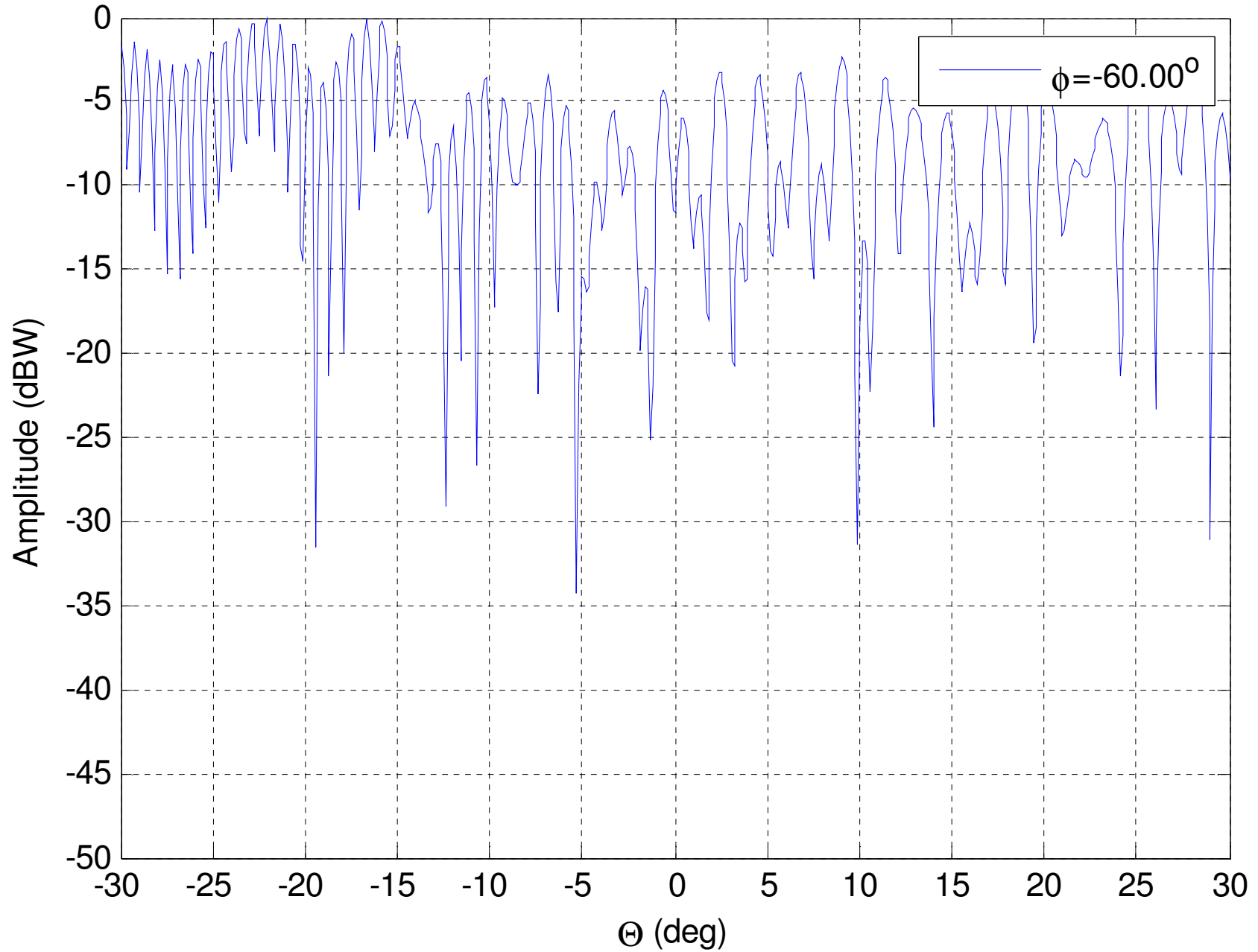
Input file: tx-17.5-rhcp-60.cut, Peak: -10.08 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

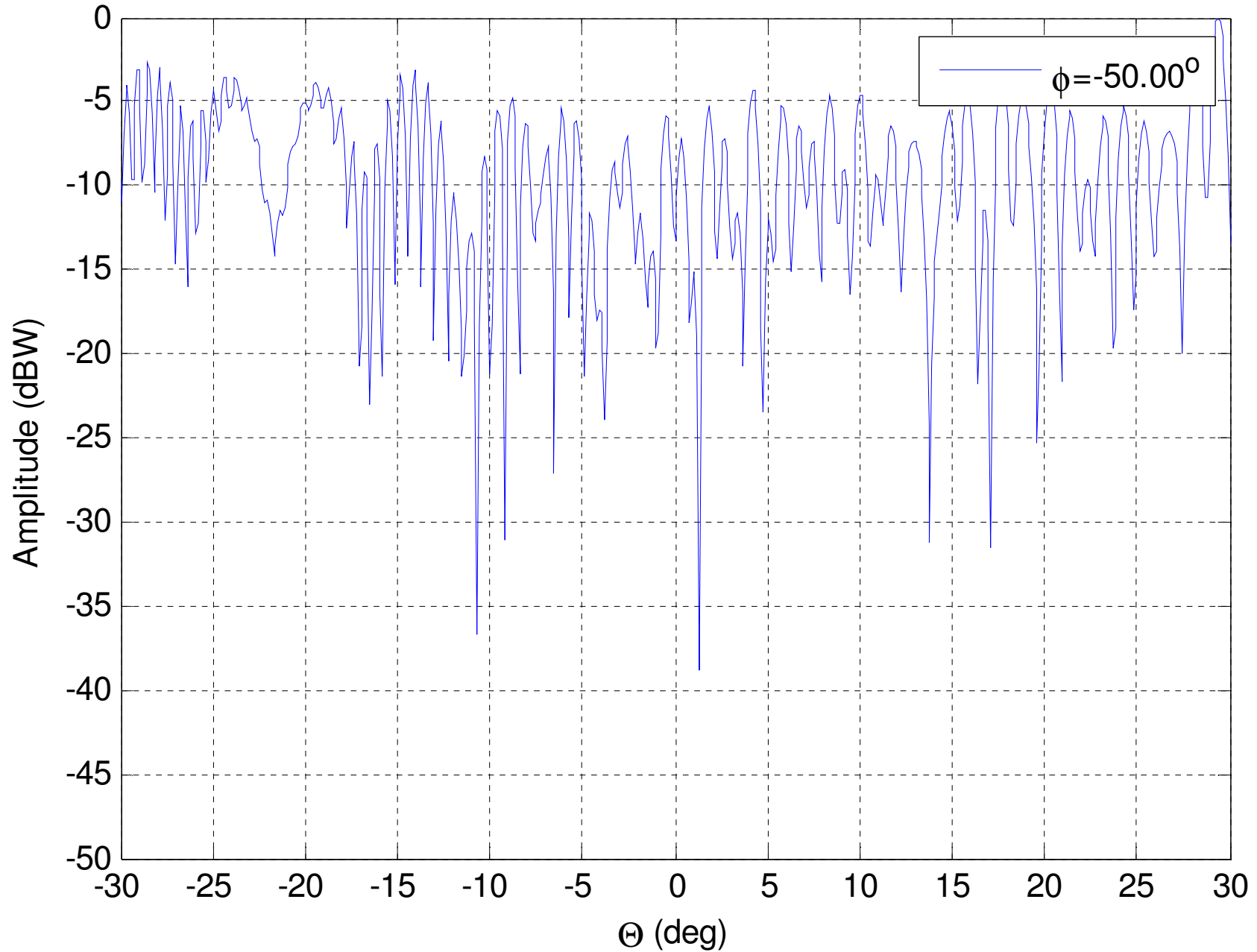
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -10.33 dBW, Date: 16-Dec-2011



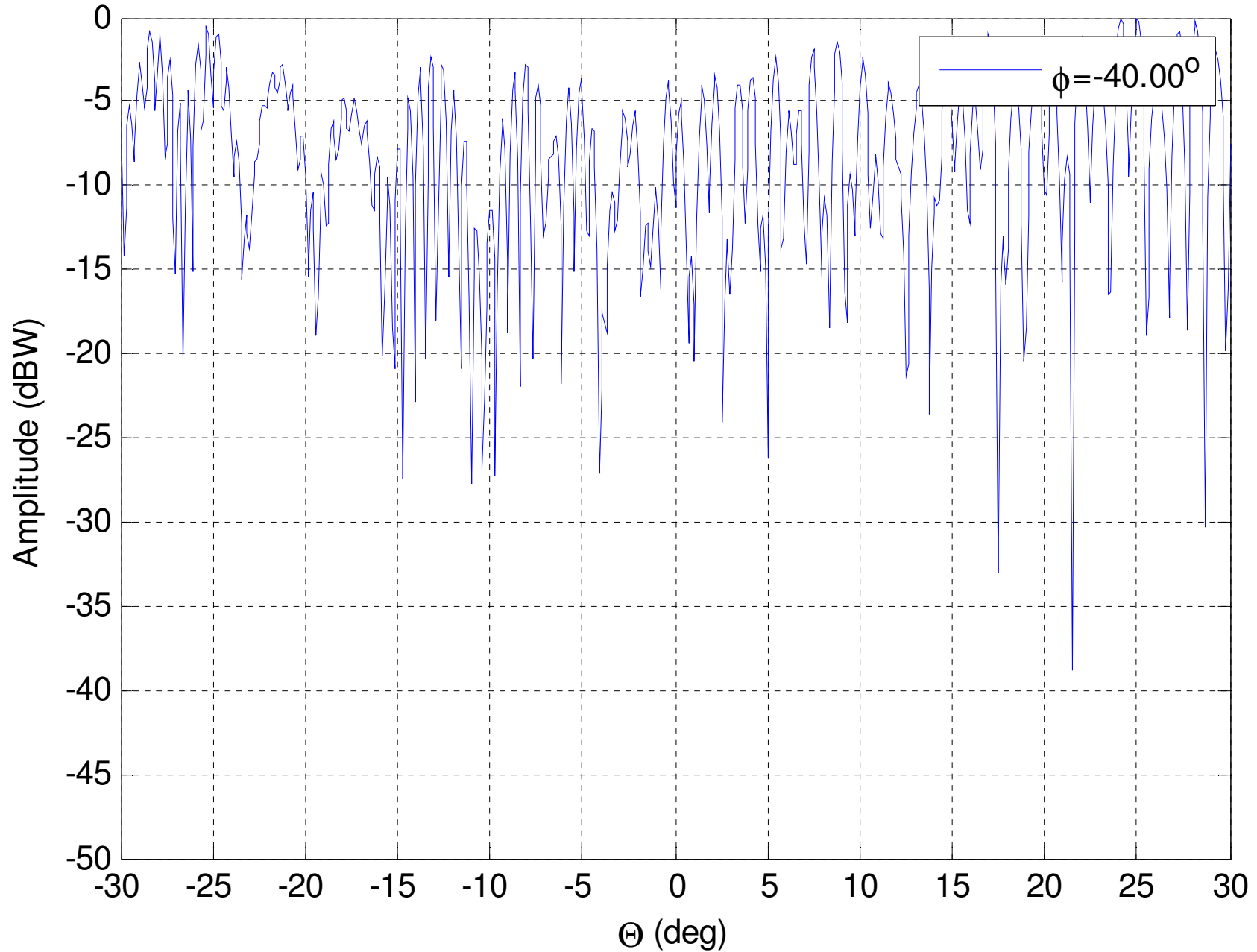
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -8.72 dBW, Date: 16-Dec-2011



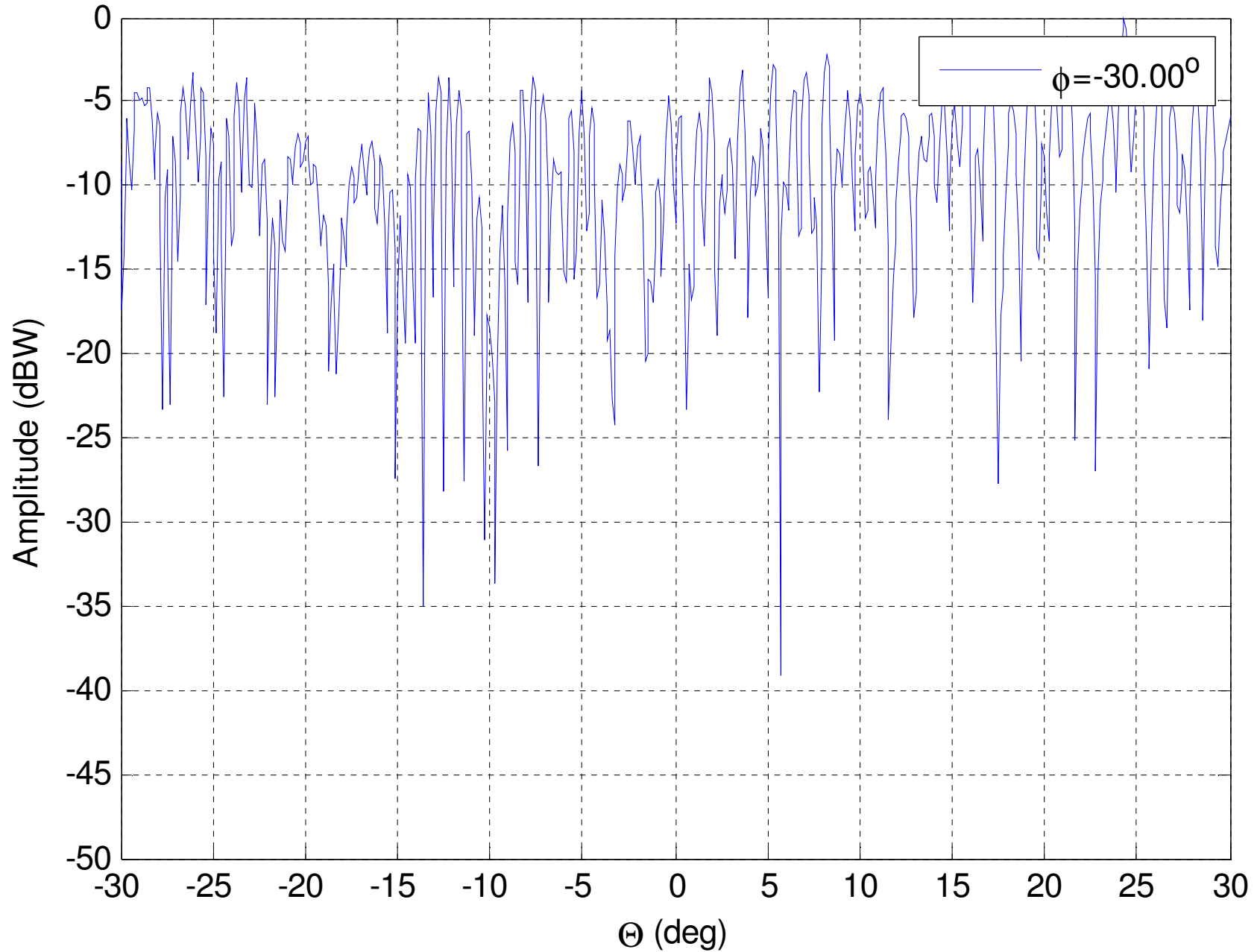
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -10.65 dBW, Date: 16-Dec-2011



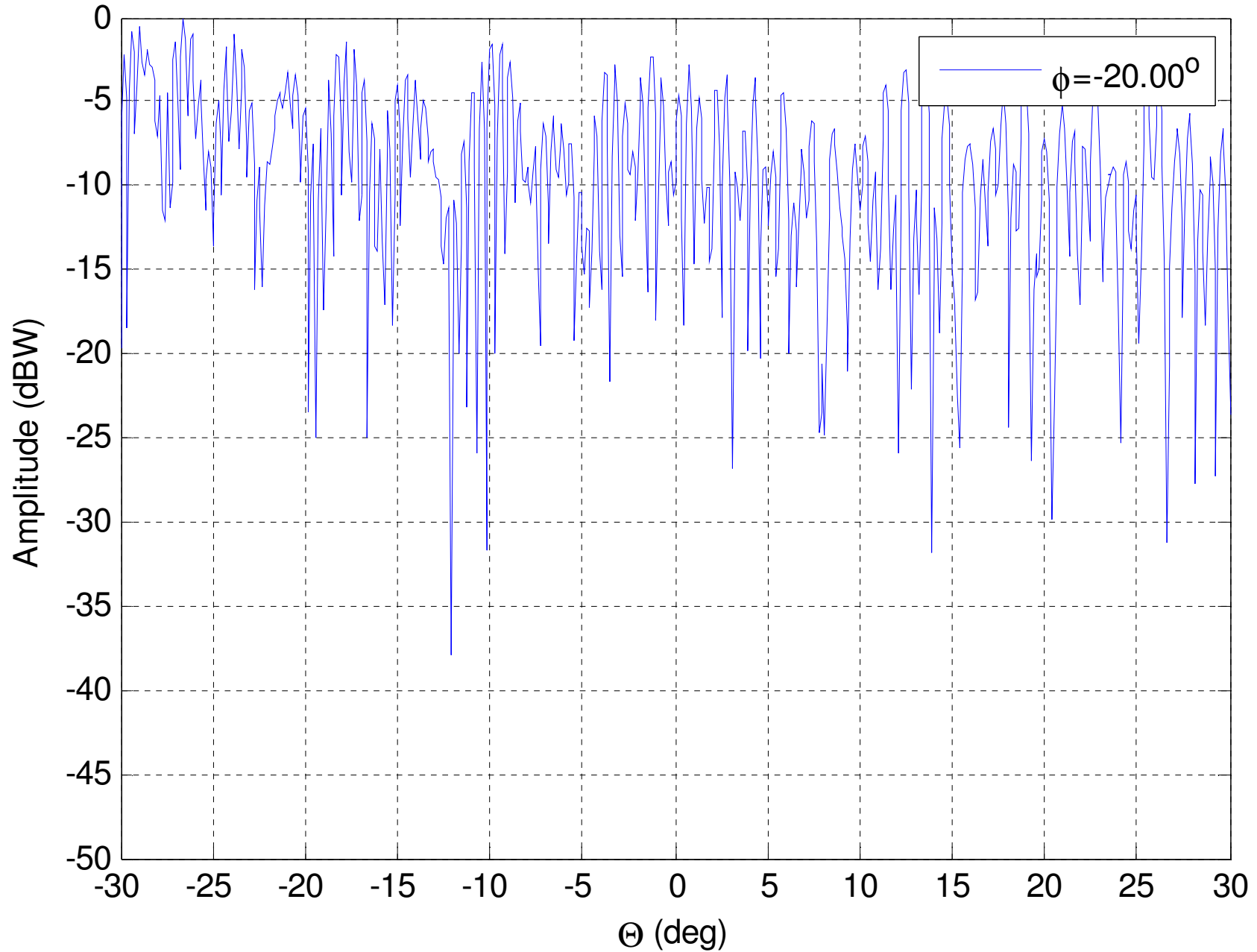
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: -9.82 dBW, Date: 16-Dec-2011



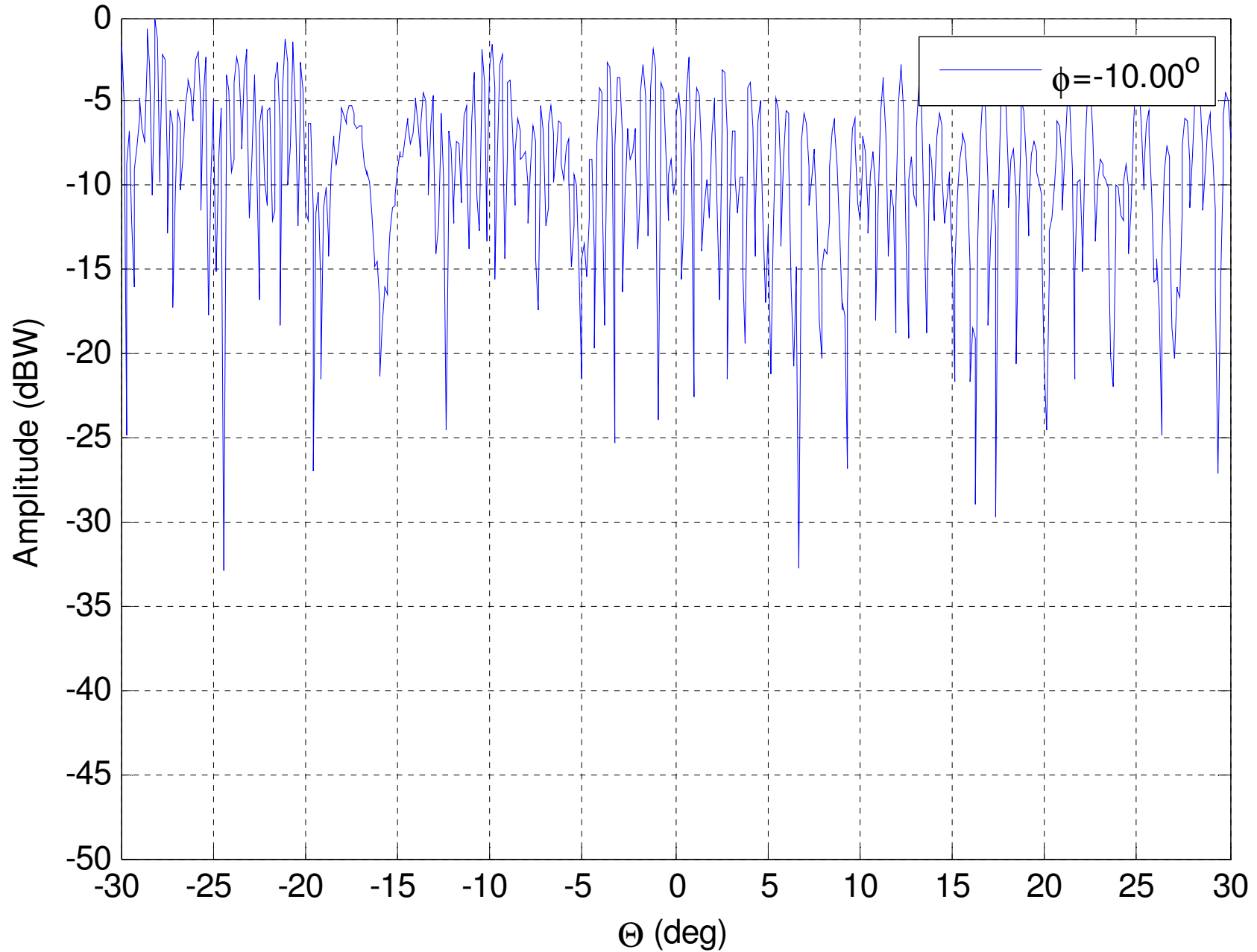
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: -10.97 dBW, Date: 16-Dec-2011



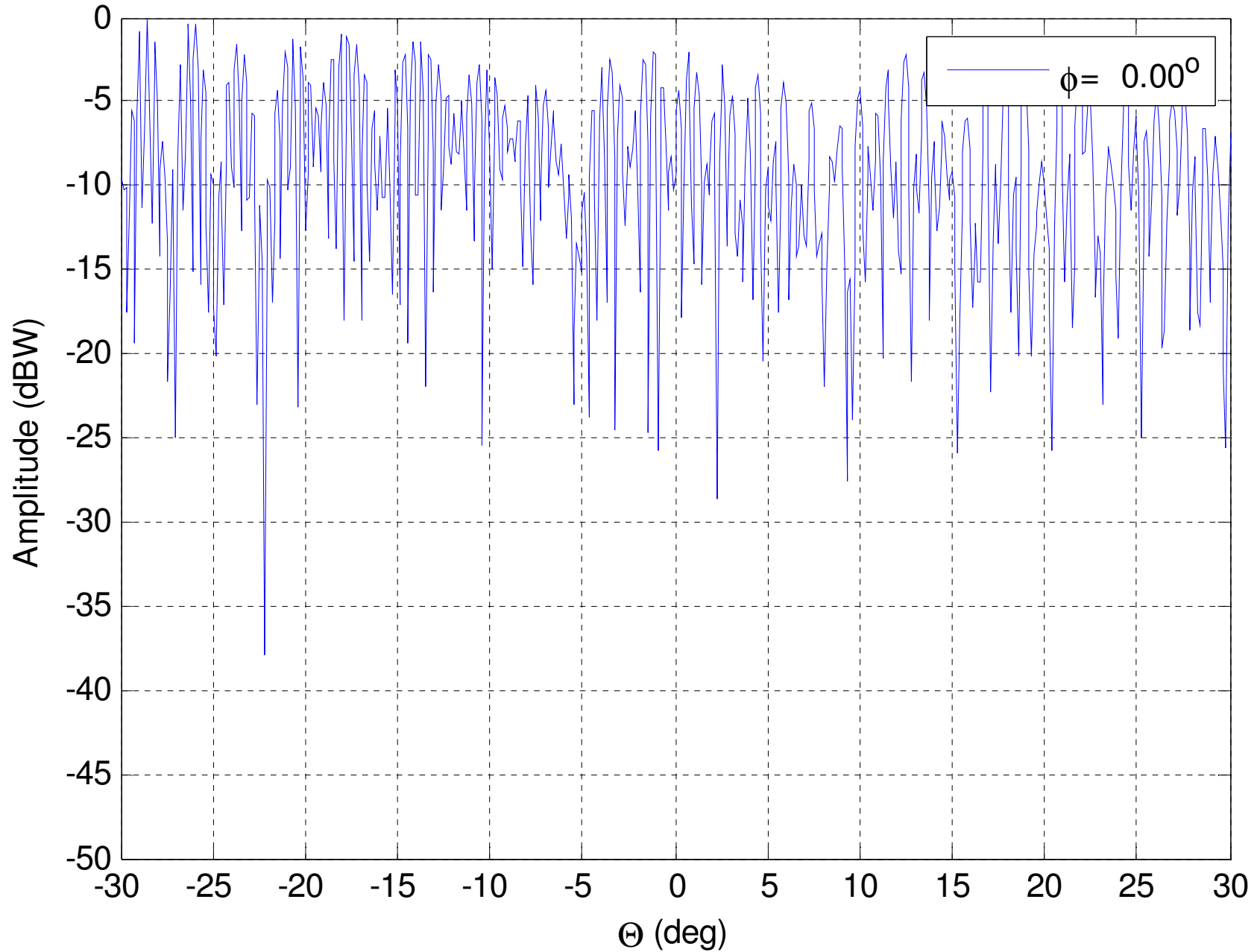
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: -11.18 dBW, Date: 16-Dec-2011



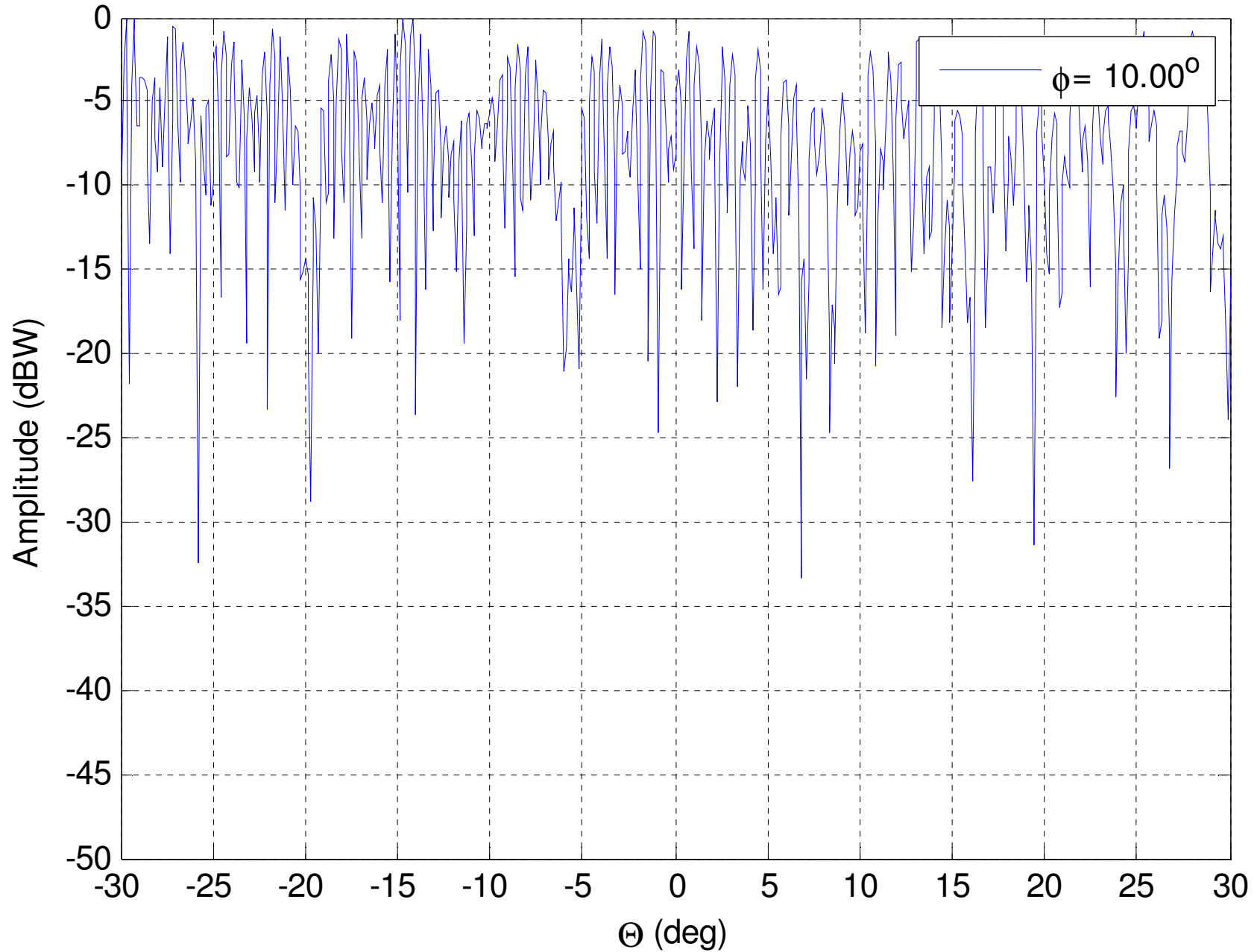
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: -11.39 dBW, Date: 16-Dec-2011



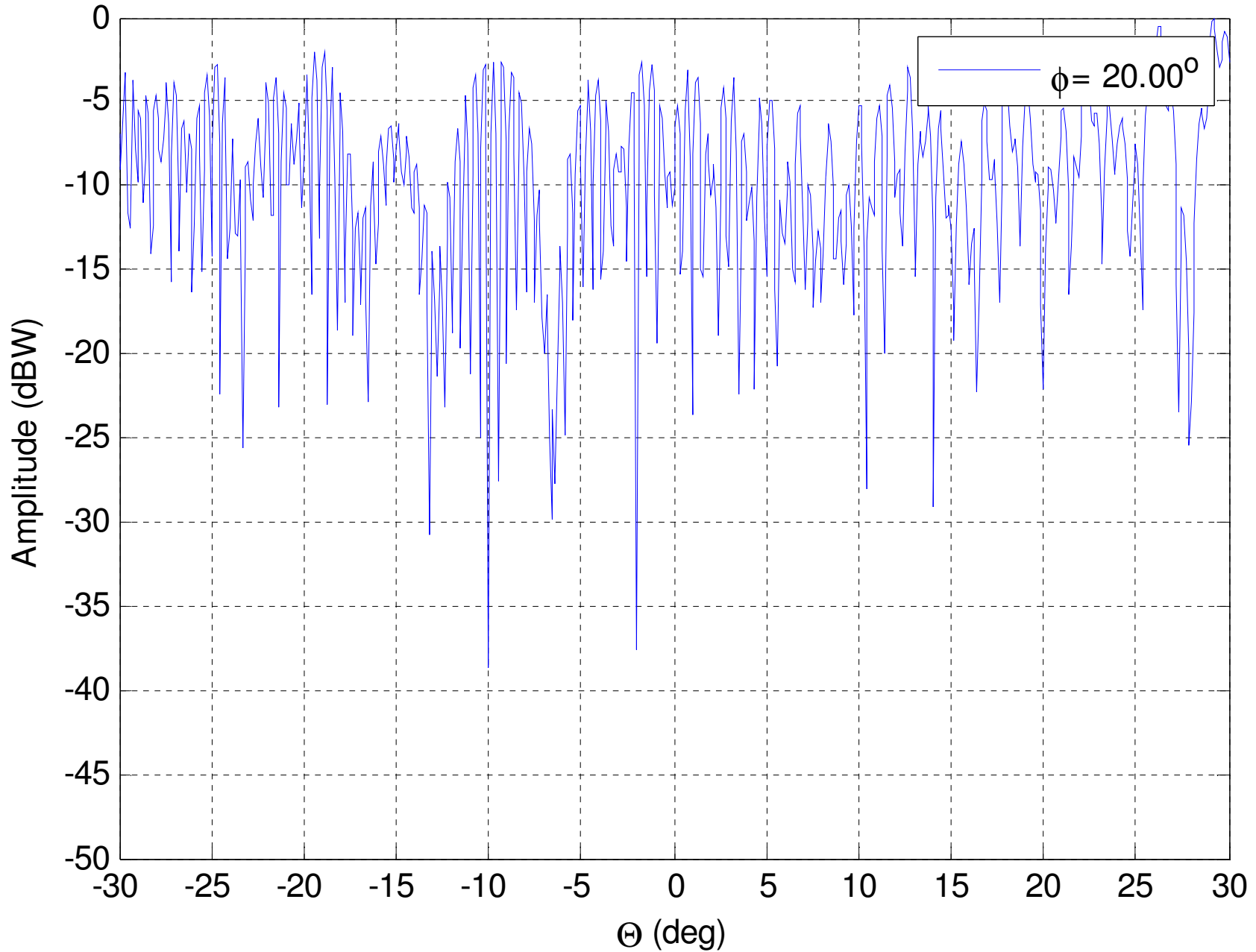
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: -12.66 dBW, Date: 16-Dec-2011



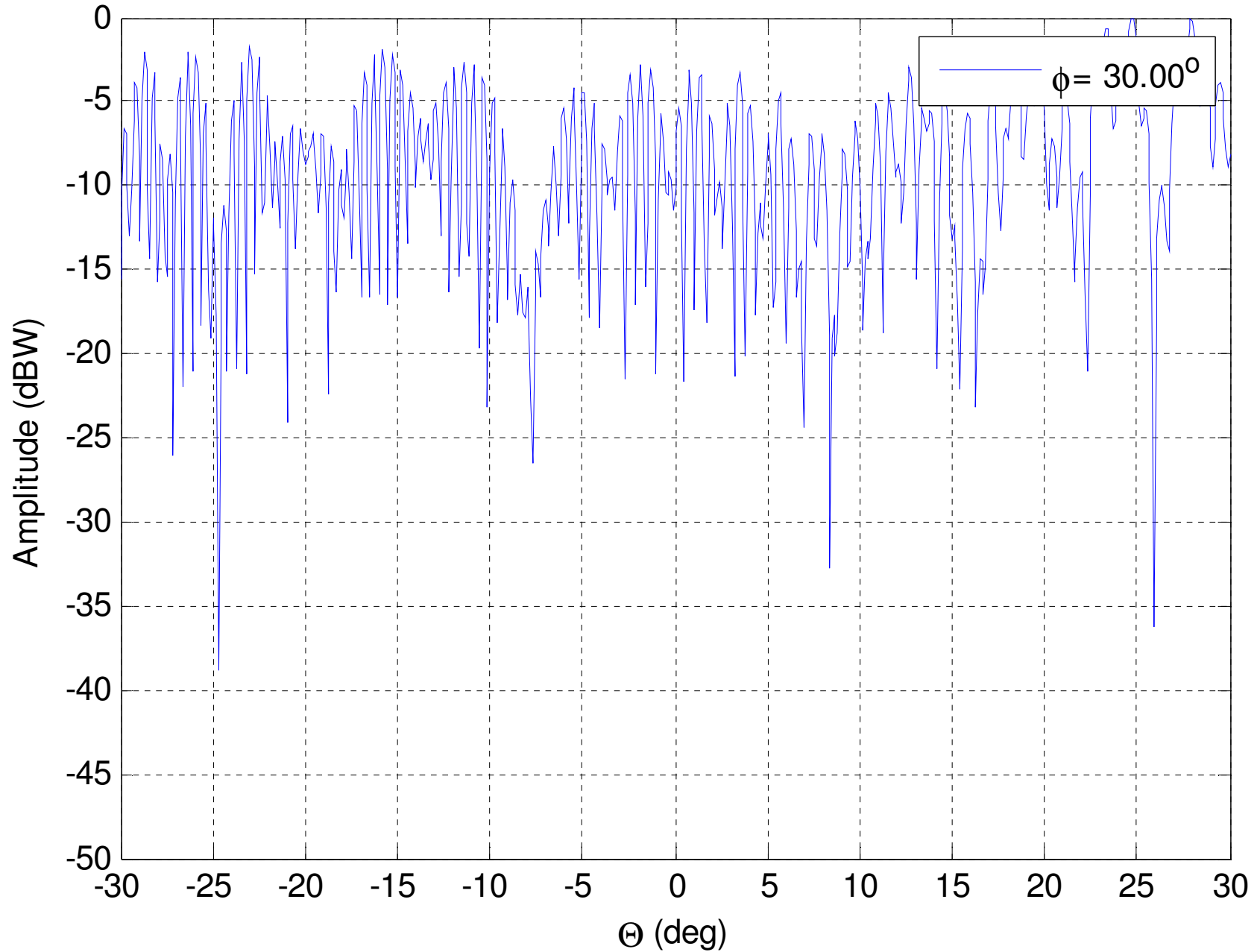
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: -10.66 dBW, Date: 16-Dec-2011



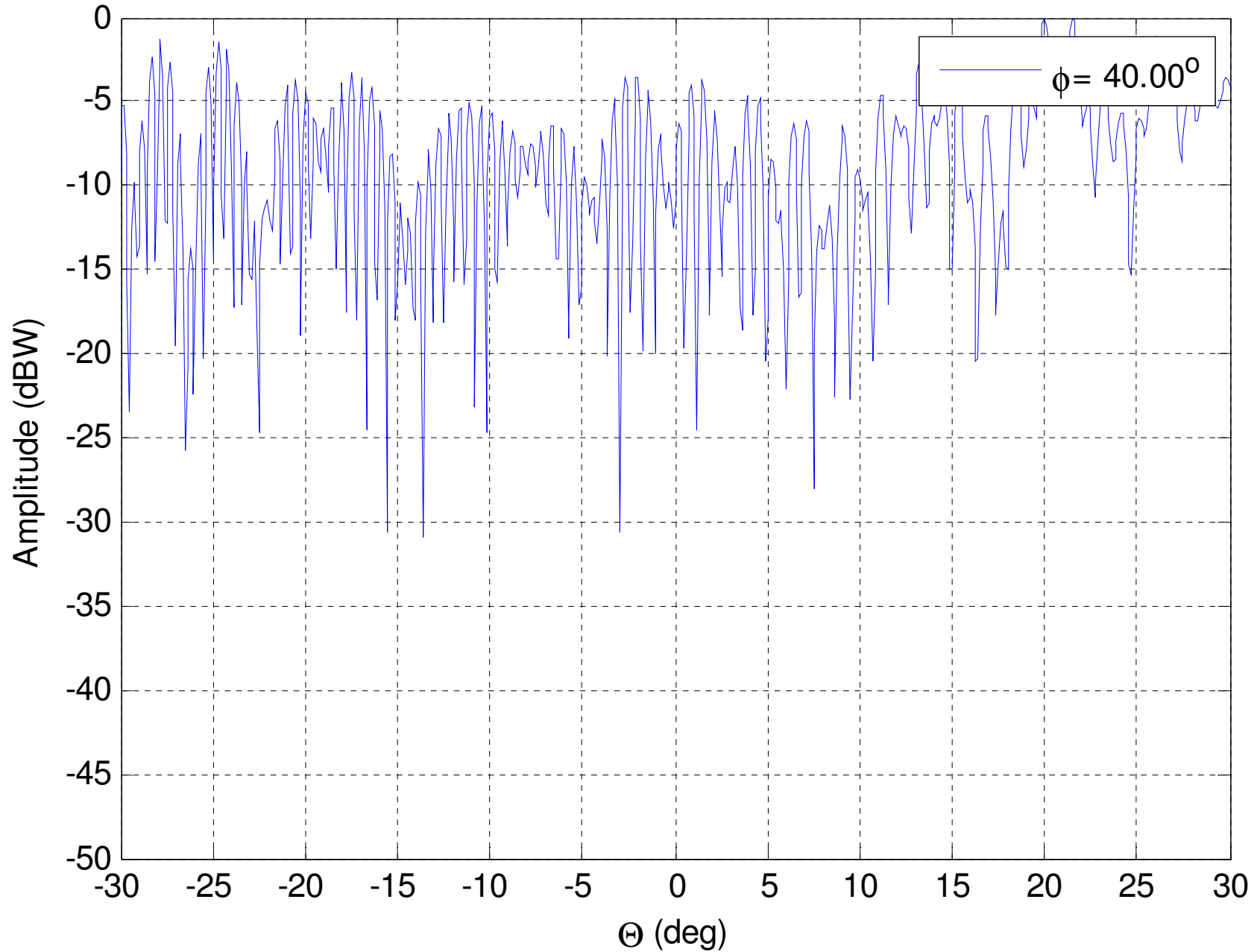
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: -10.59 dBW, Date: 16-Dec-2011



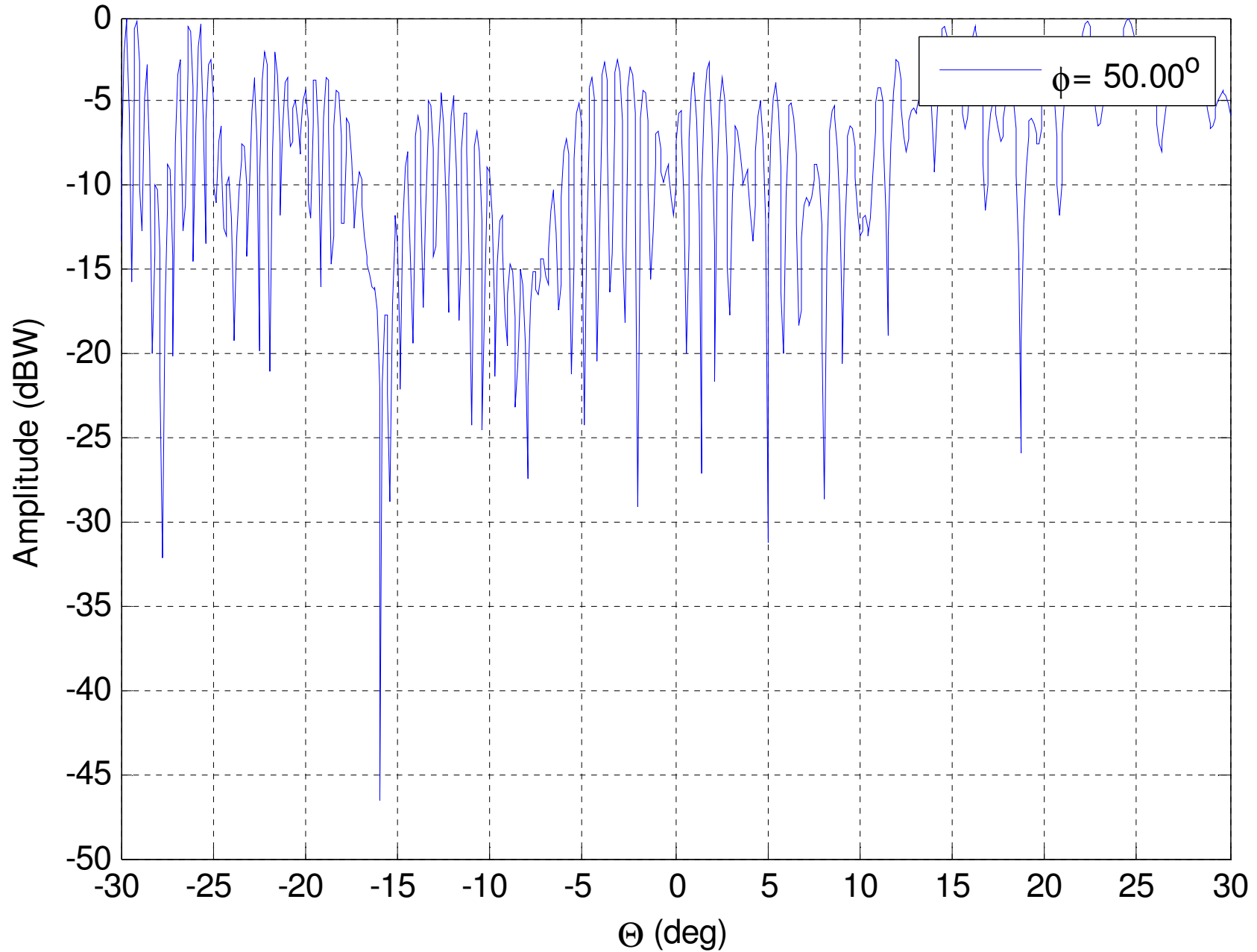
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -9.86 dBW, Date: 16-Dec-2011



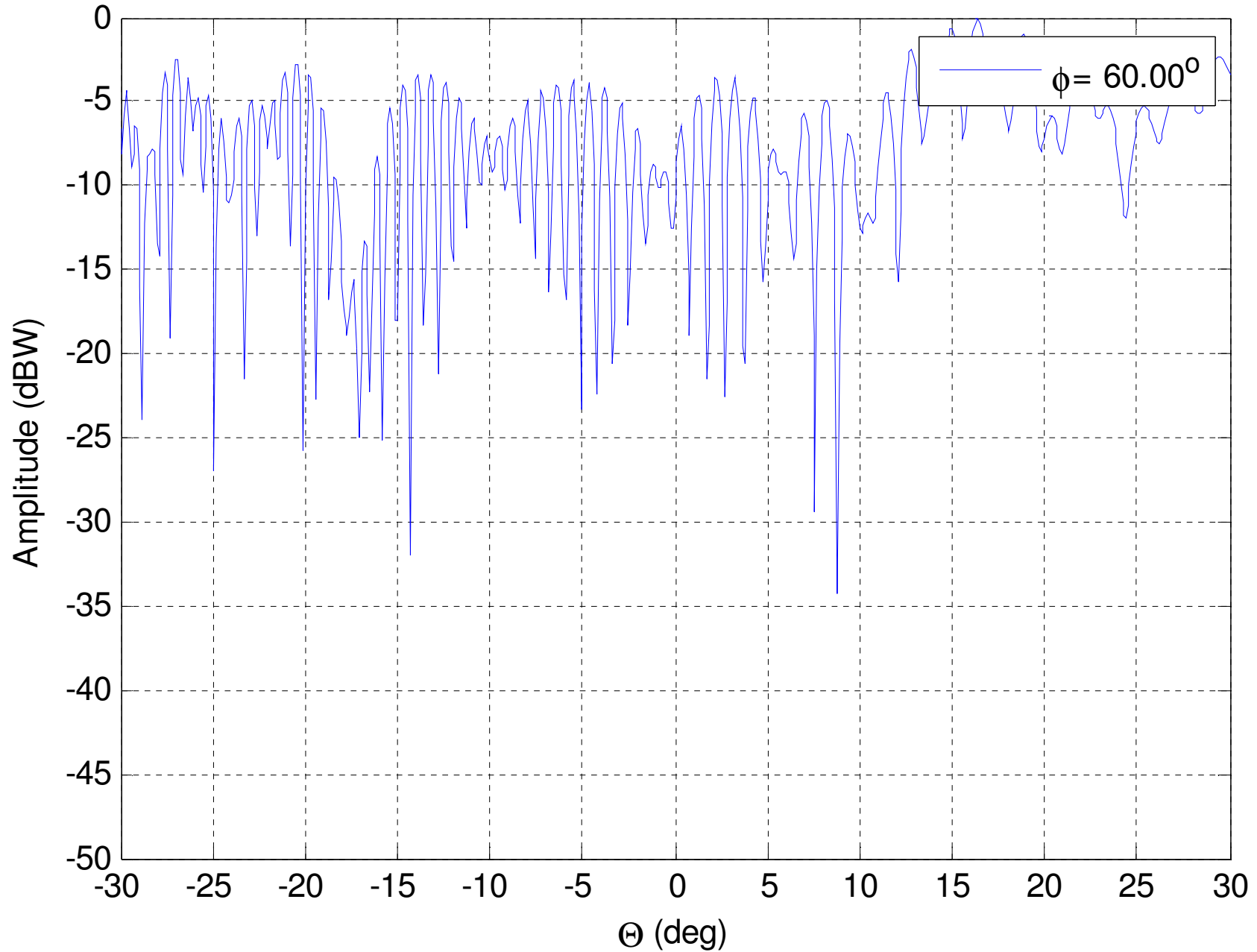
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -10.79 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

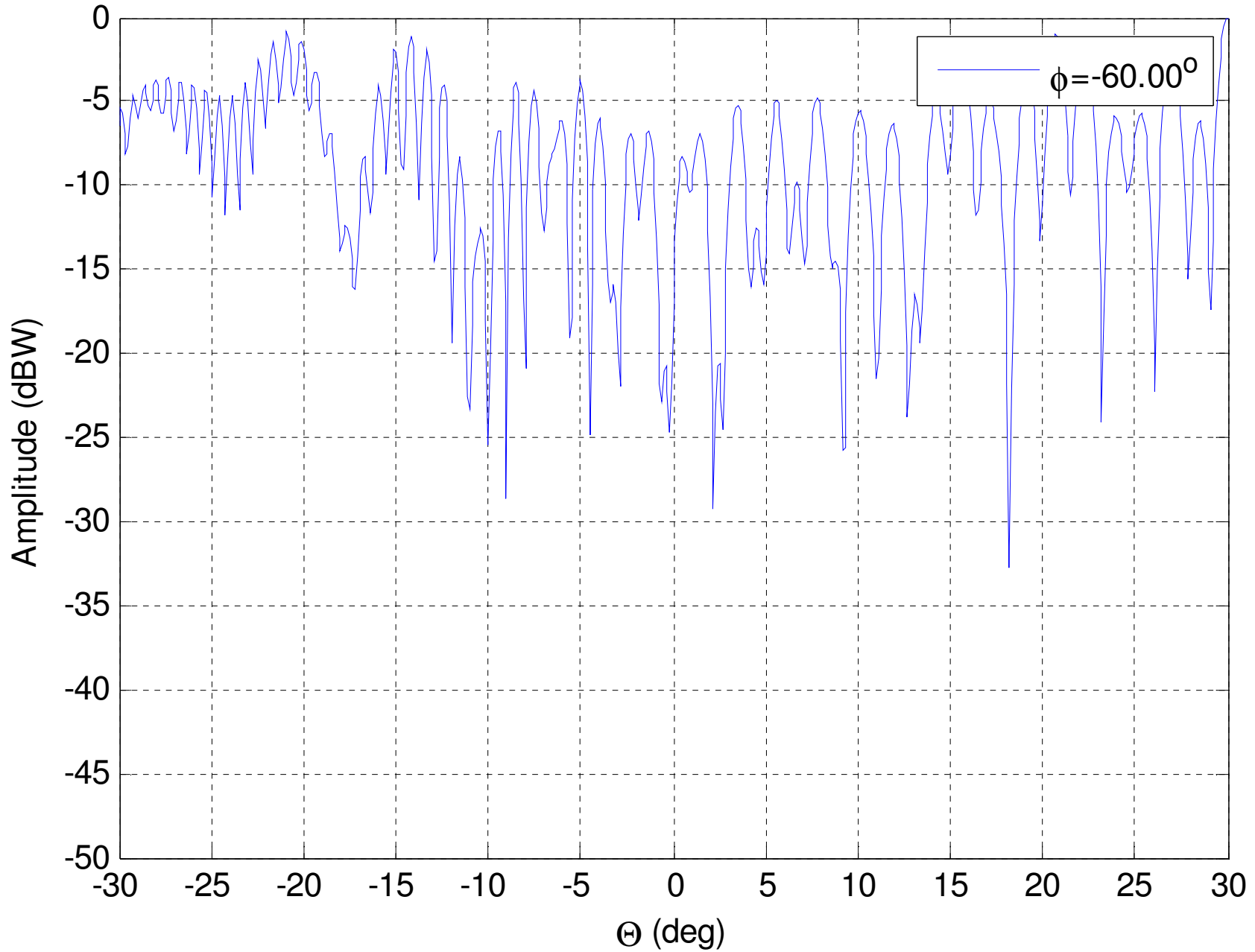
Input file: tx-17.5-lhcp-60.cut, Peak: -9.99 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

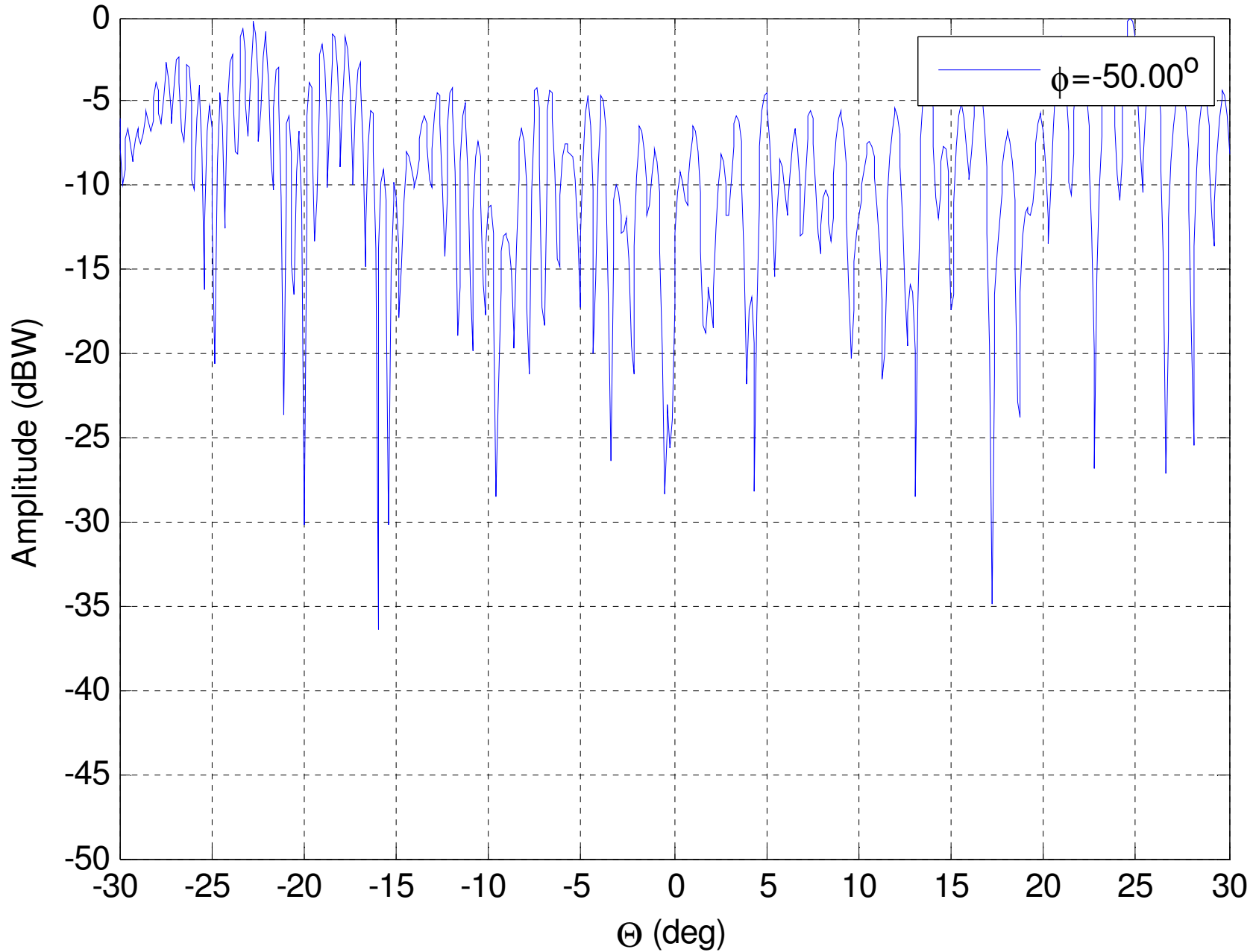
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -9.88 dBW, Date: 16-Dec-2011



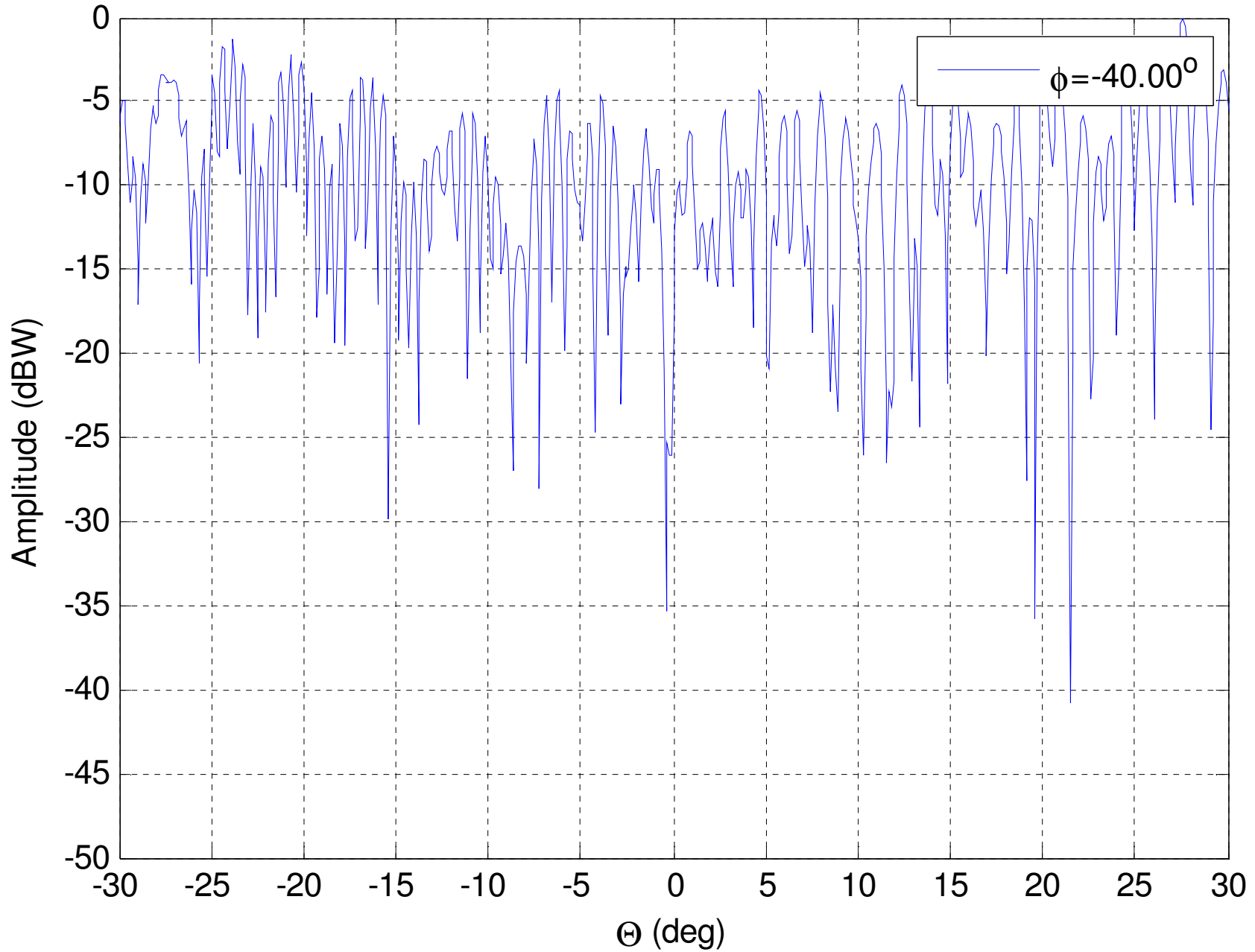
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -9.61 dBW, Date: 16-Dec-2011



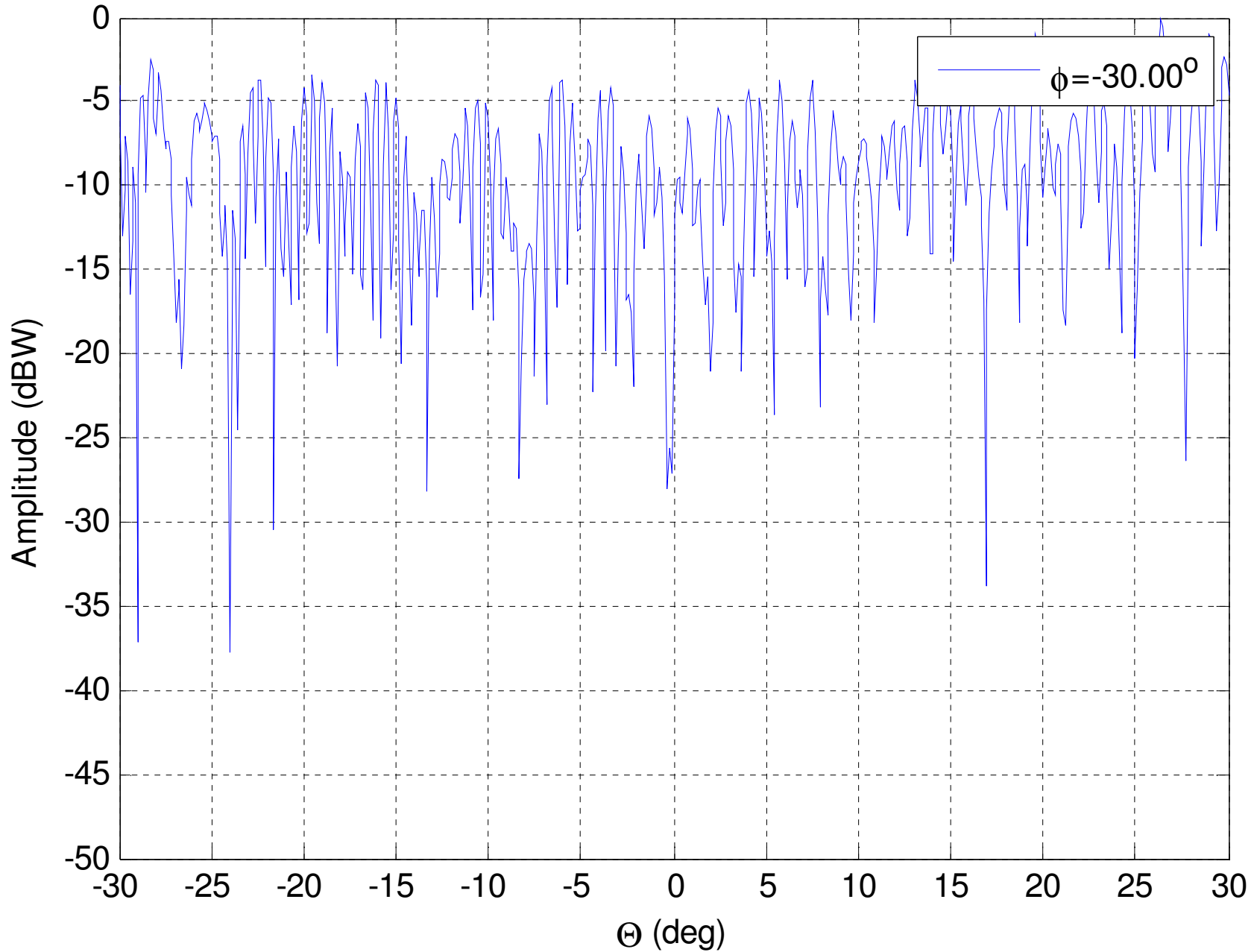
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -9.23 dBW, Date: 16-Dec-2011



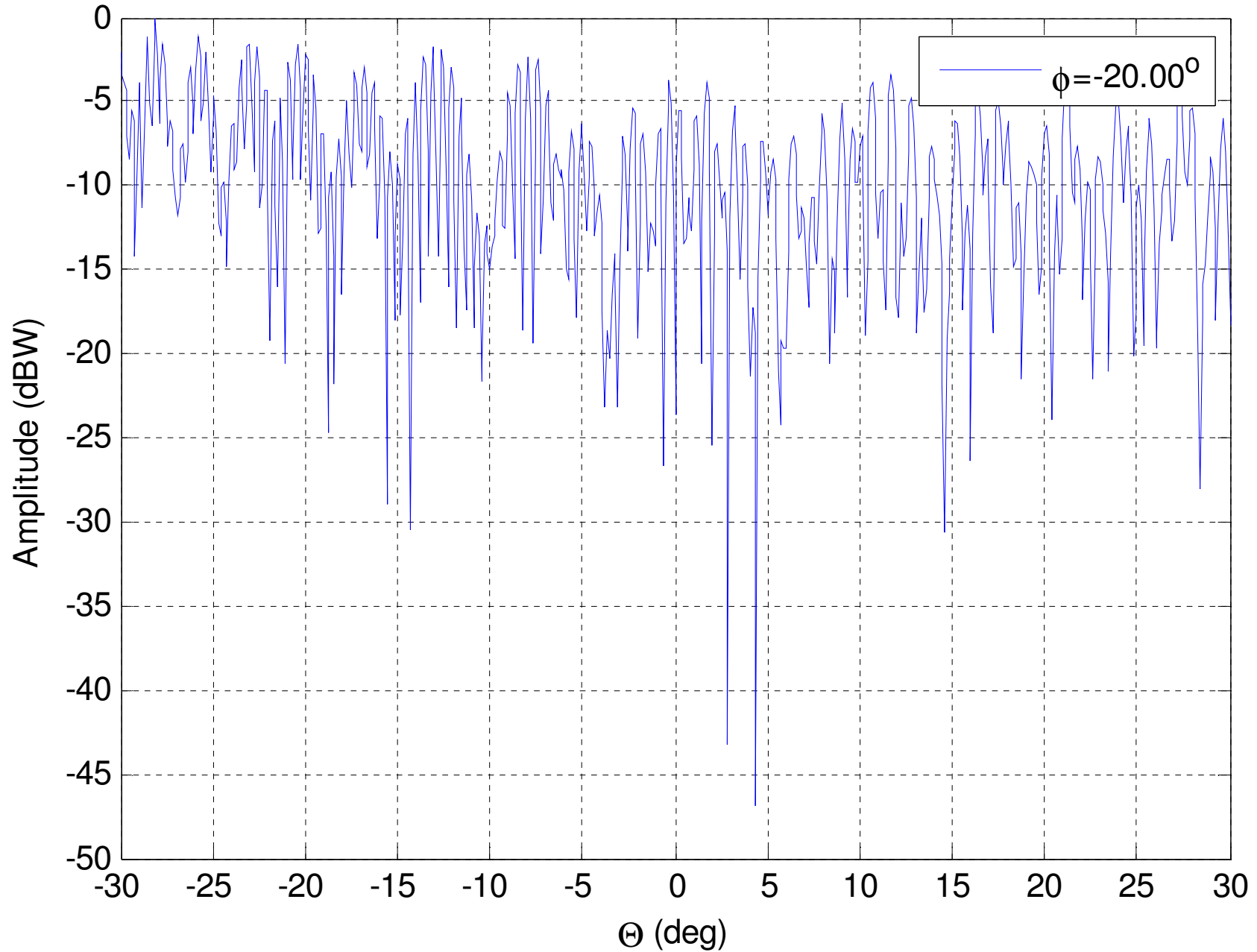
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -9.92 dBW, Date: 16-Dec-2011



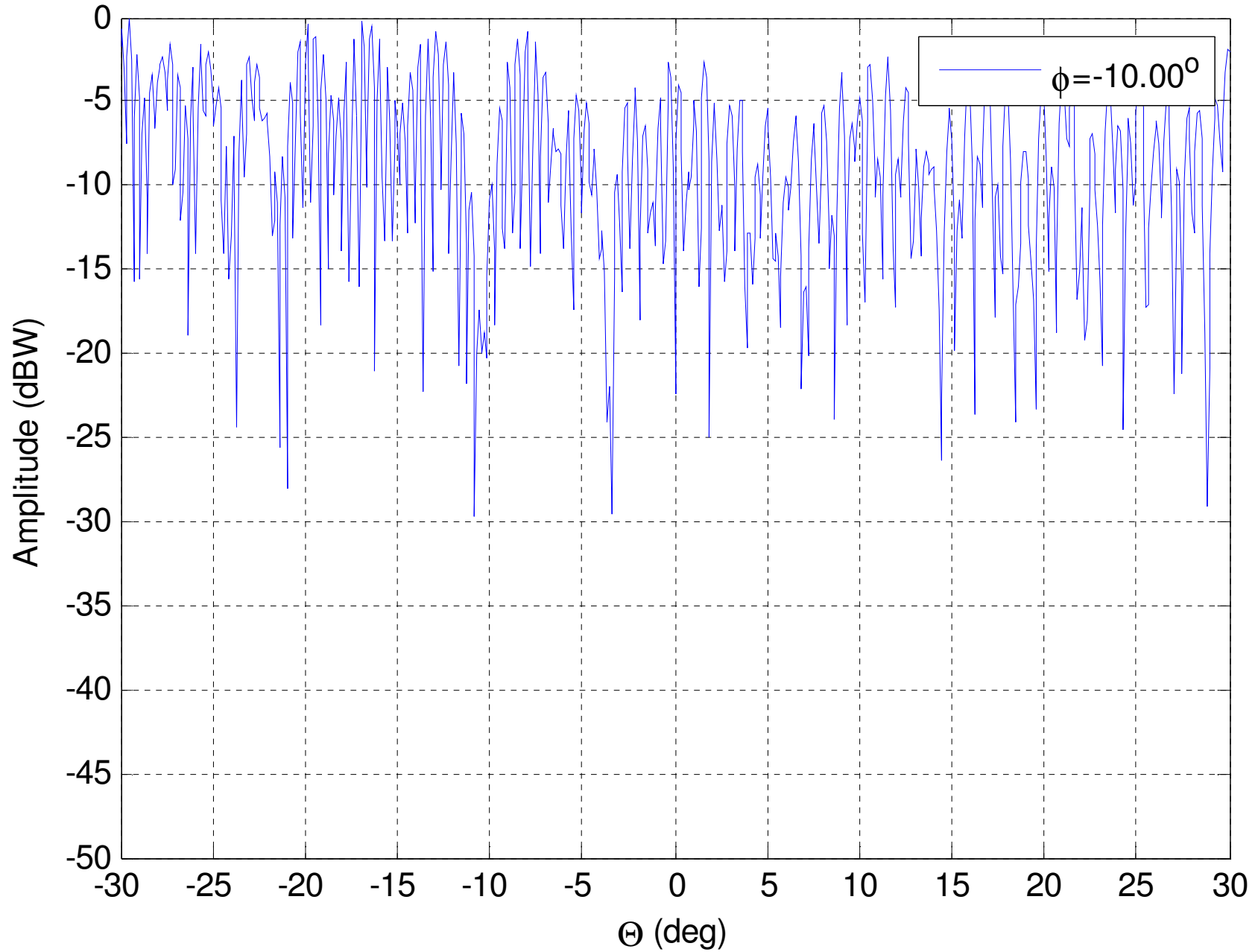
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: -10.64 dBW, Date: 16-Dec-2011



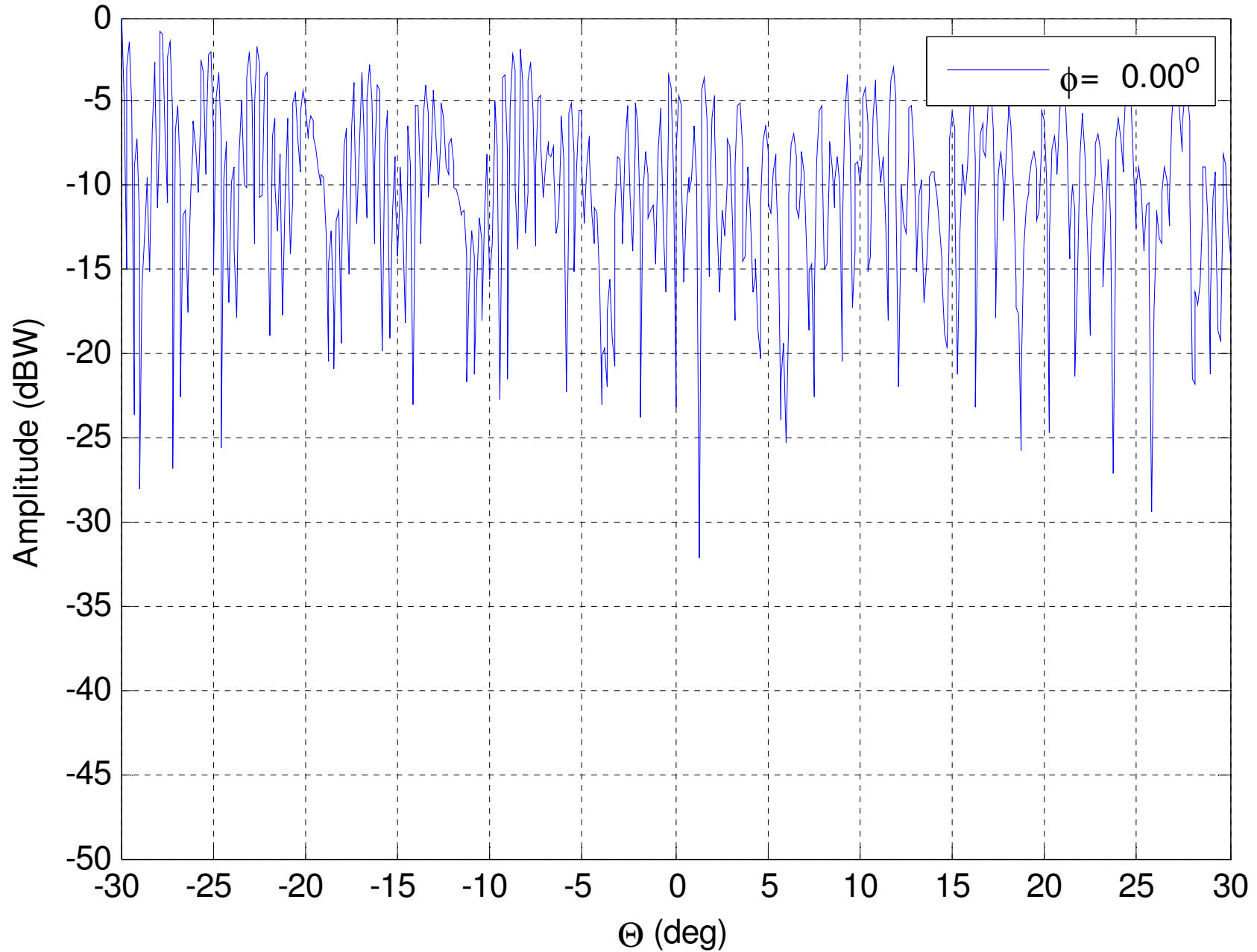
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: -11.85 dBW, Date: 16-Dec-2011



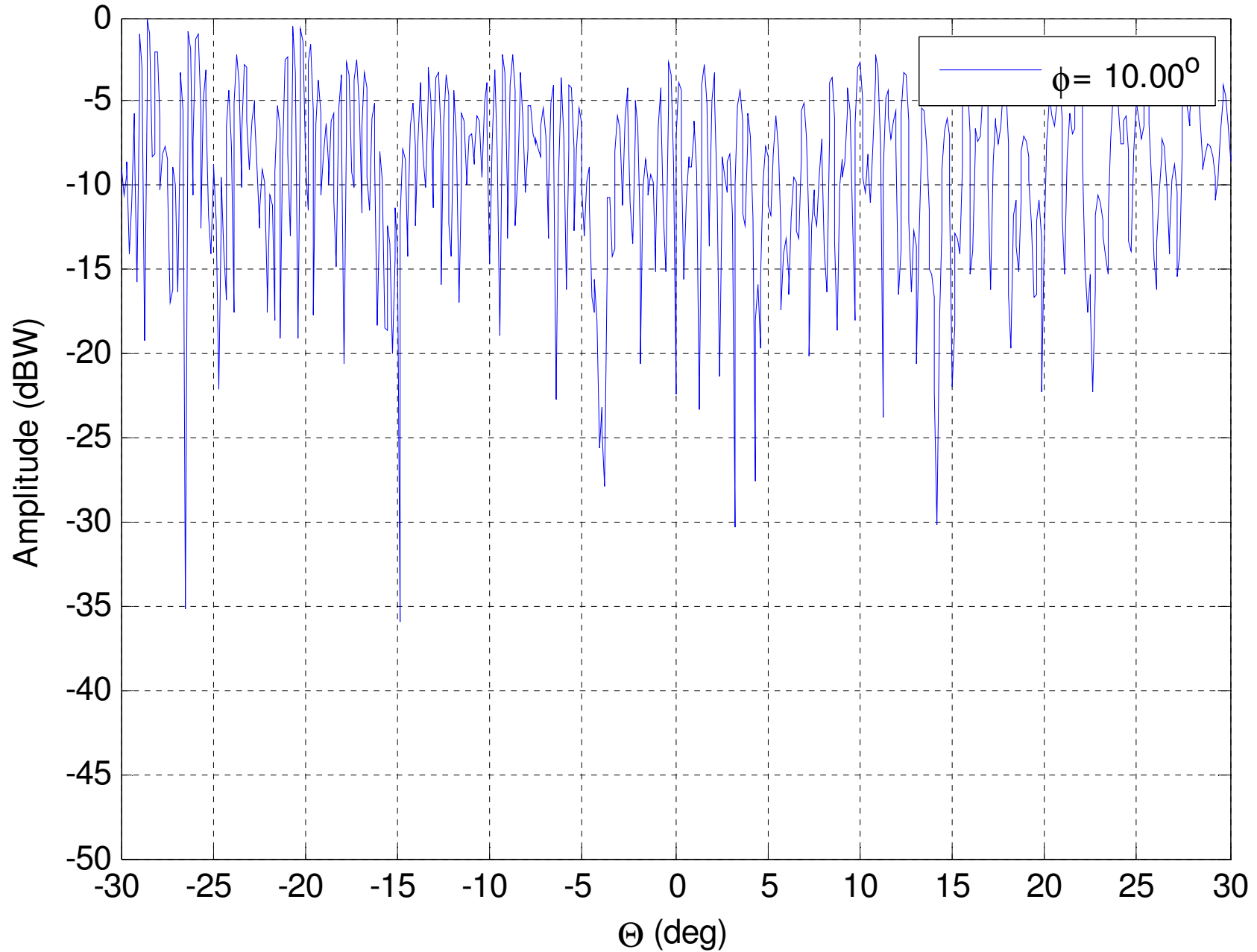
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: -11.07 dBW, Date: 16-Dec-2011



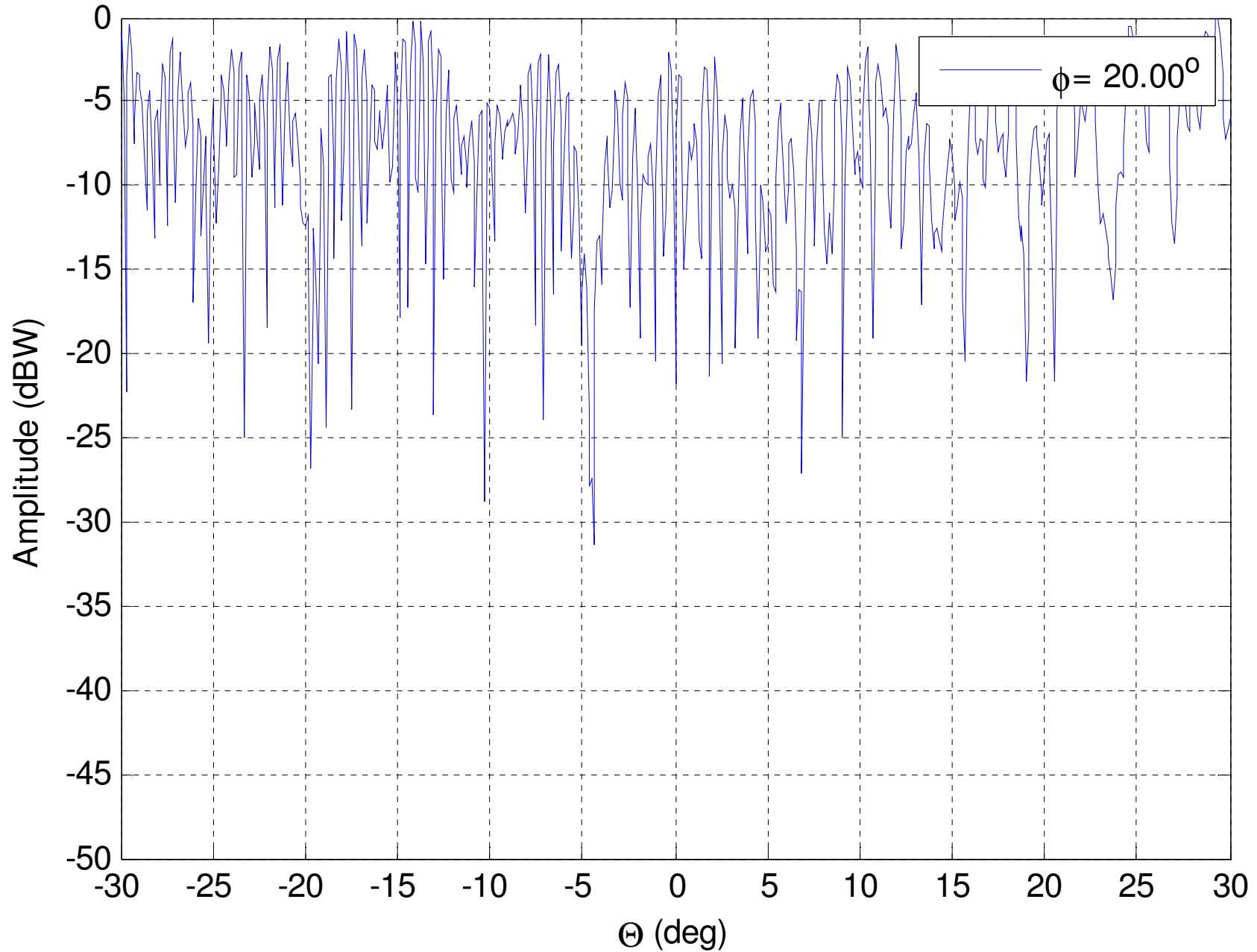
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: -11.86 dBW, Date: 16-Dec-2011



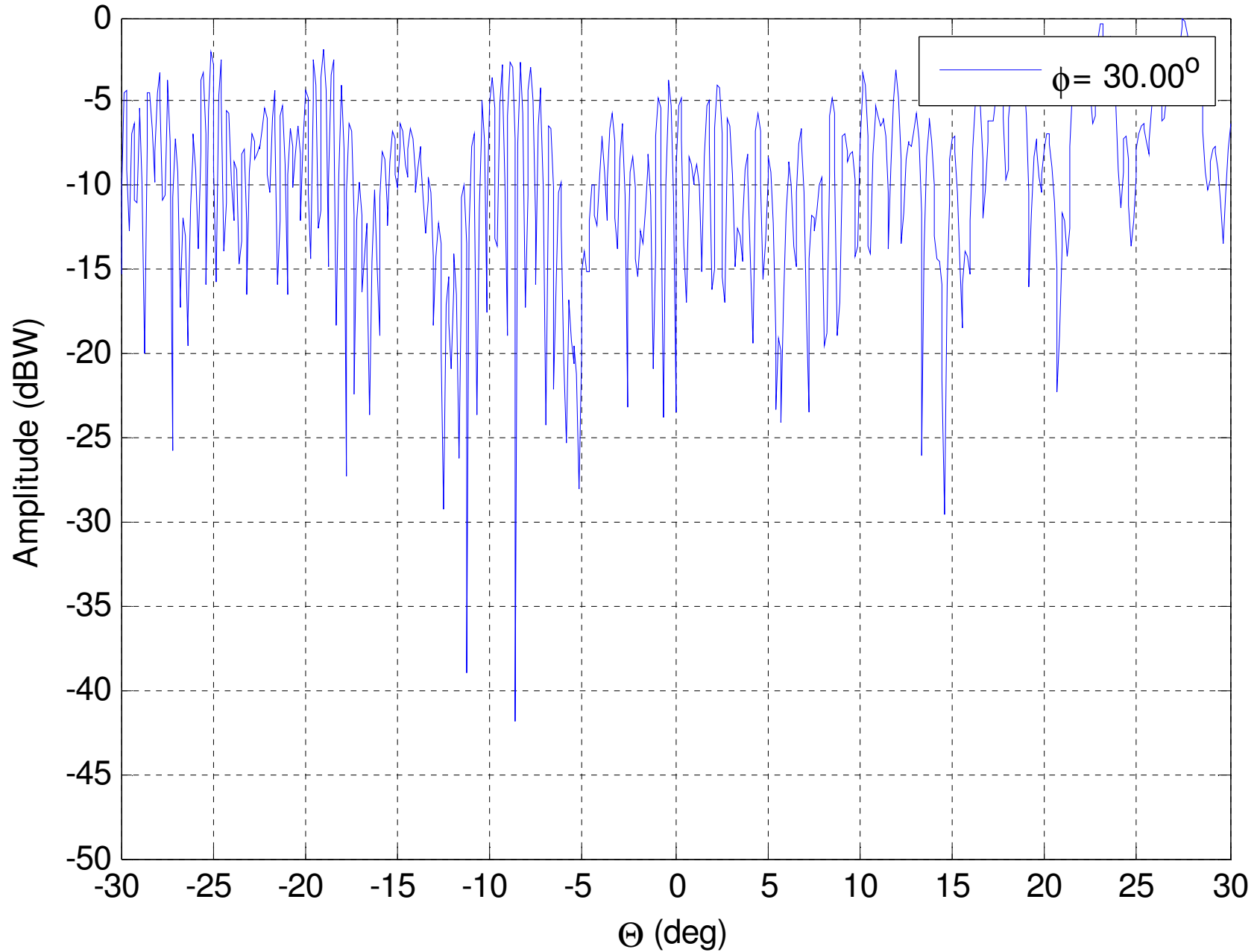
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: -12.36 dBW, Date: 16-Dec-2011



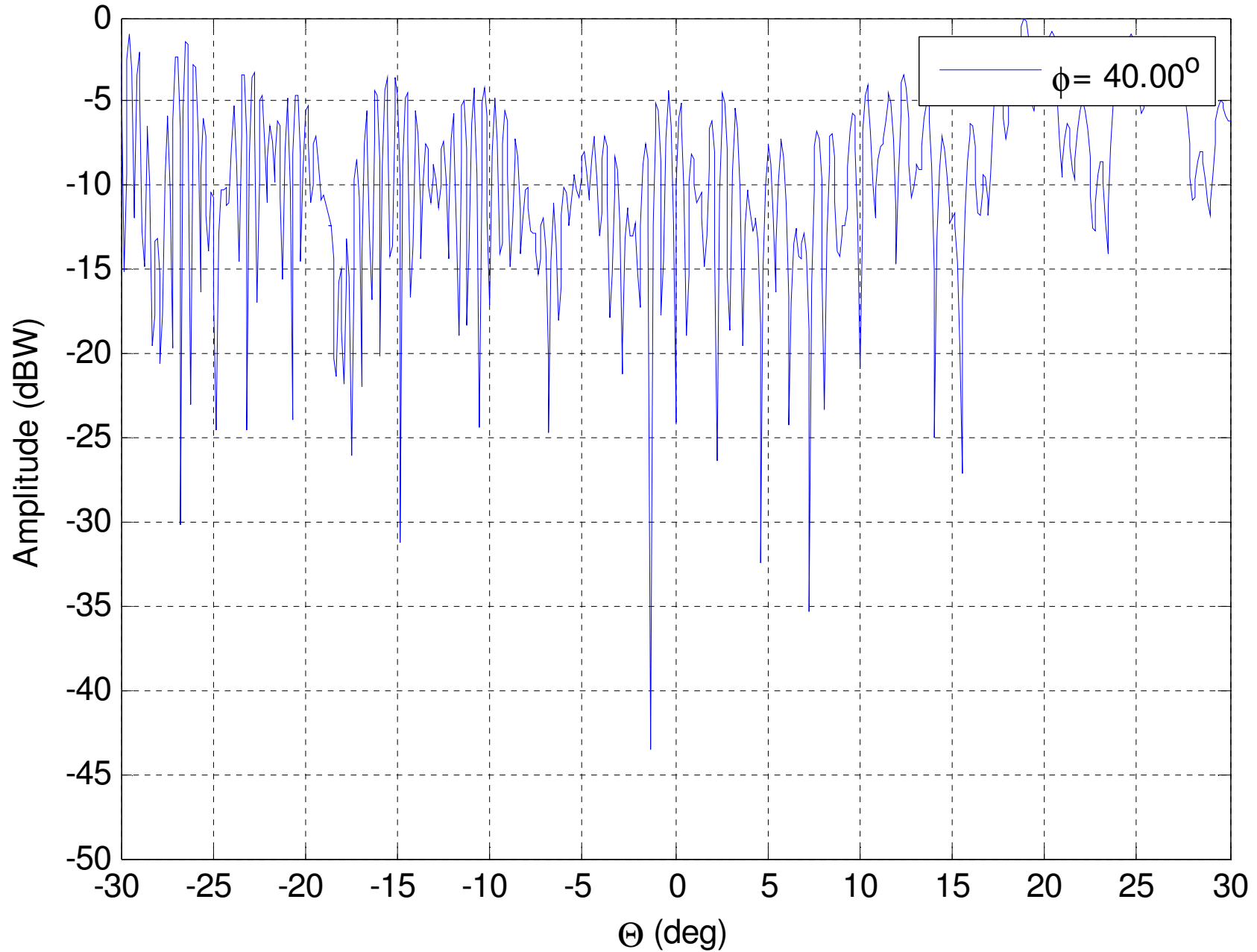
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: -10.70 dBW, Date: 16-Dec-2011



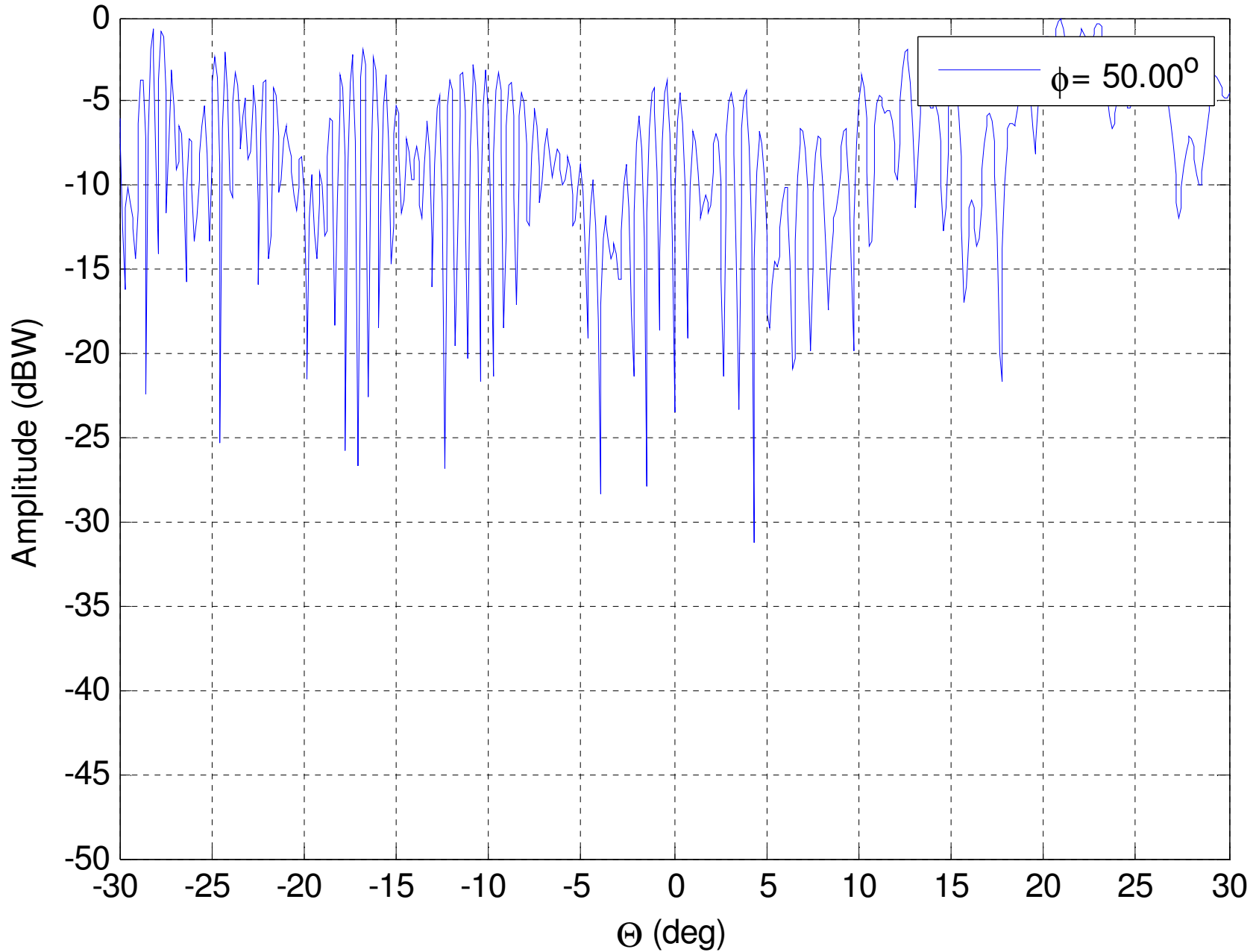
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -10.16 dBW, Date: 16-Dec-2011



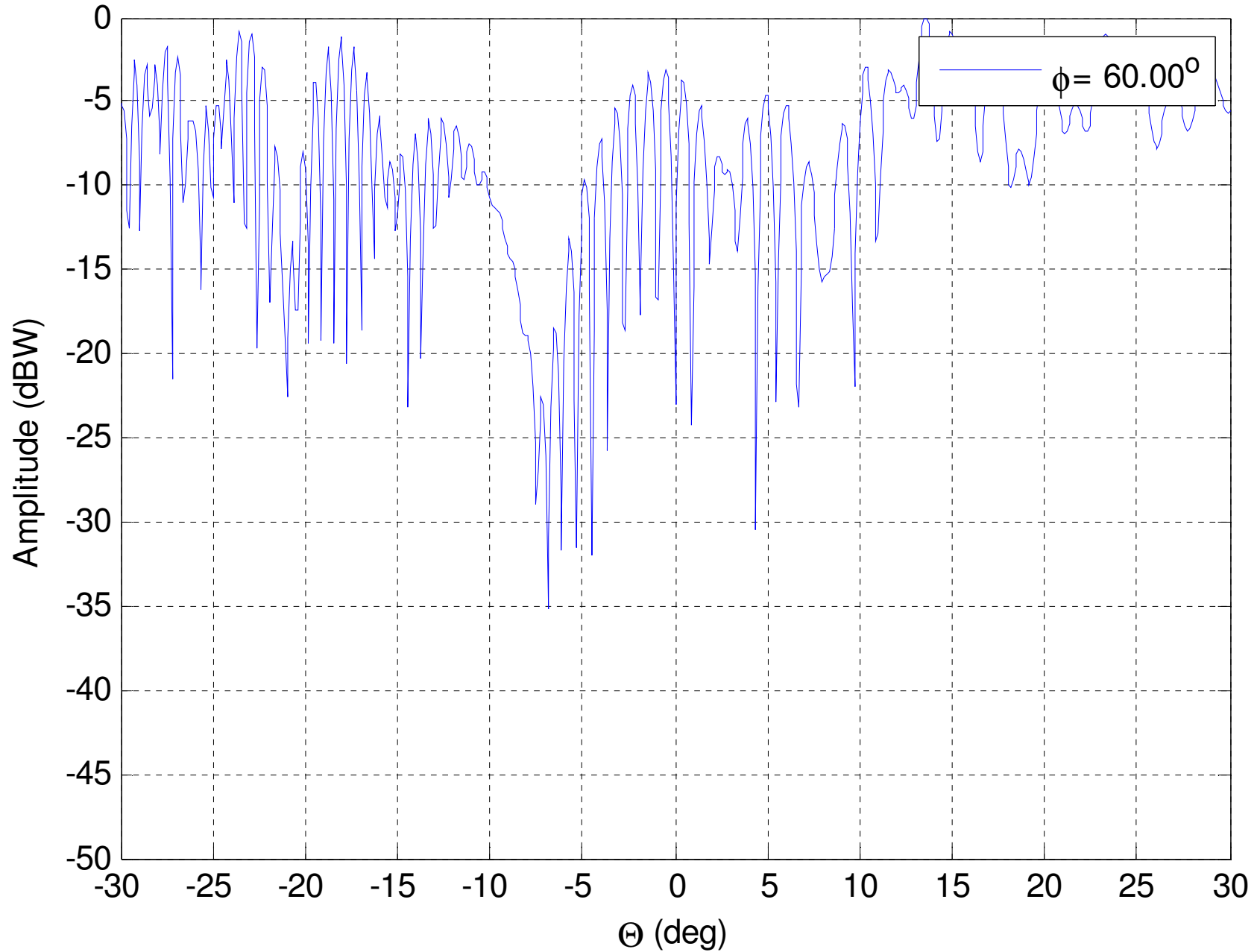
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -10.74 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

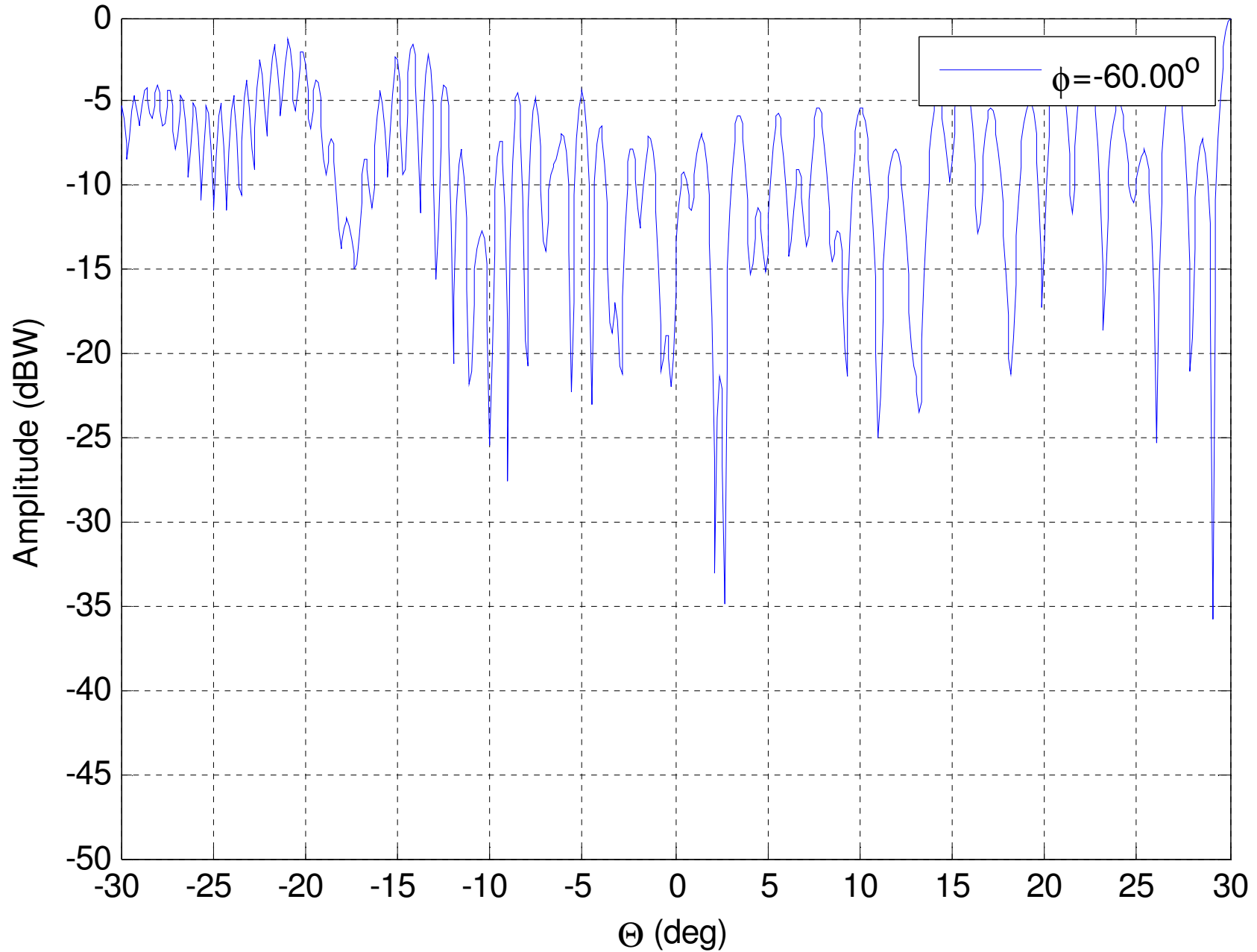
Input file: tx-17.7-rhcp-60.cut, Peak: -11.26 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

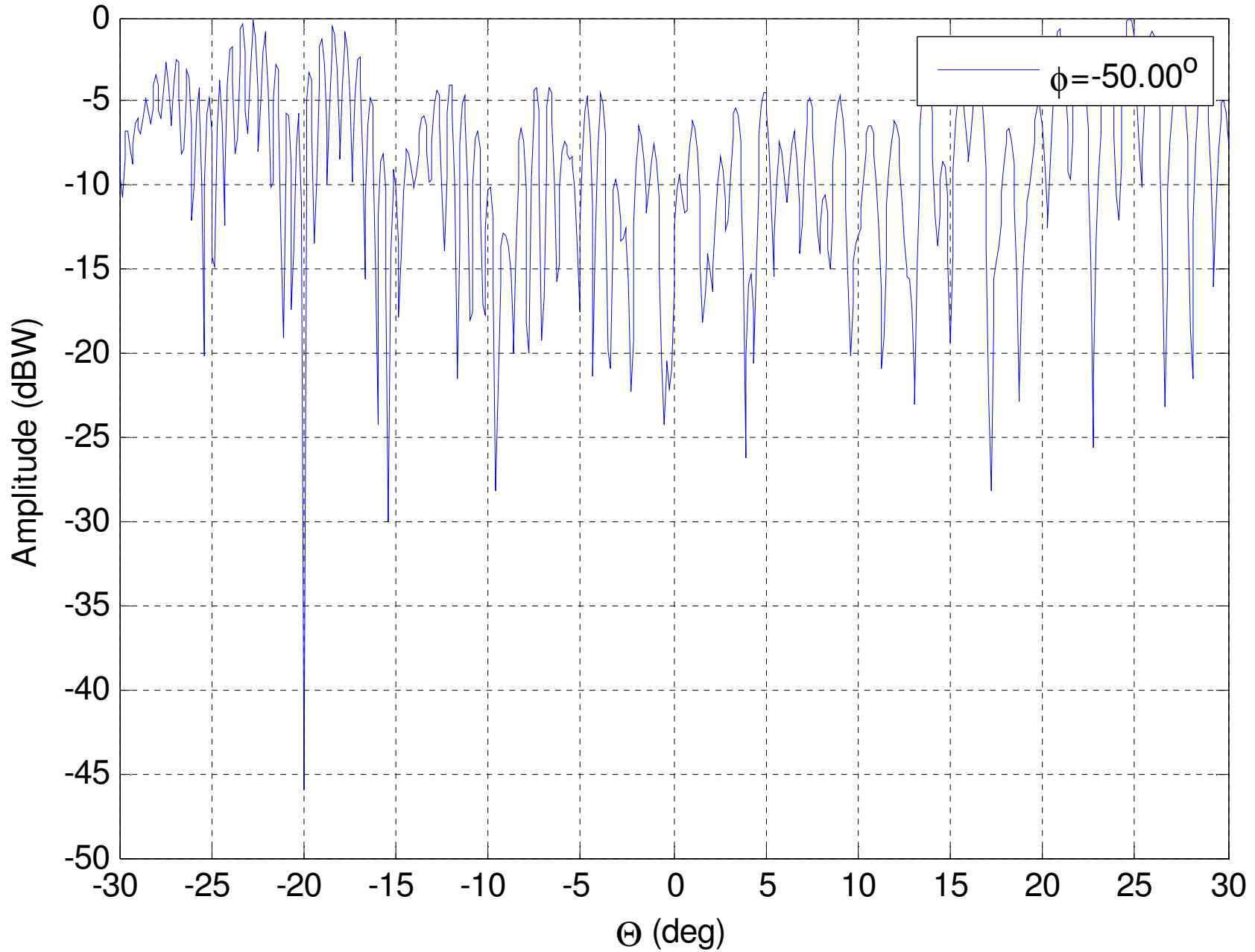
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -9.50 dBW, Date: 16-Dec-2011



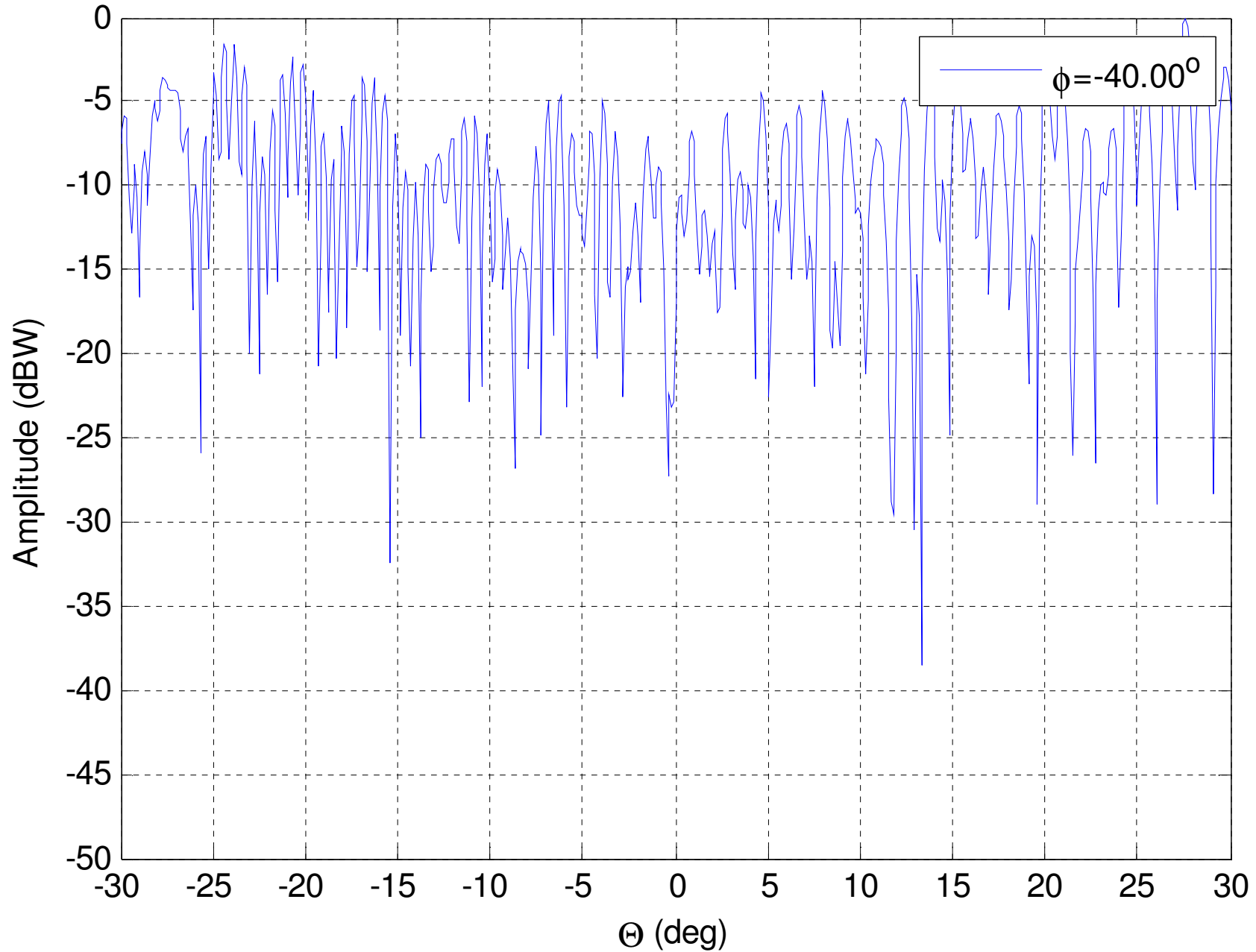
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -9.82 dBW, Date: 16-Dec-2011



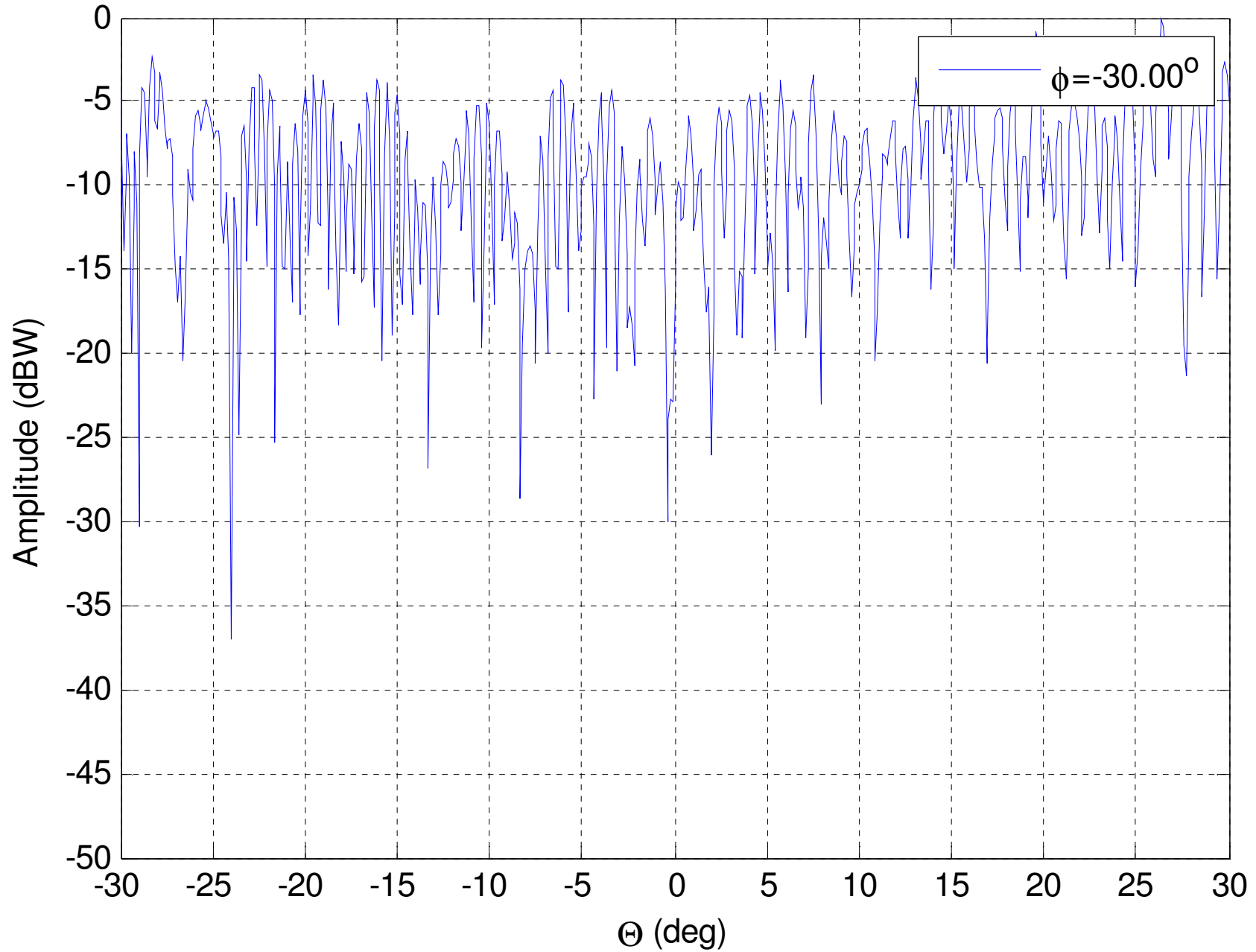
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -9.05 dBW, Date: 16-Dec-2011



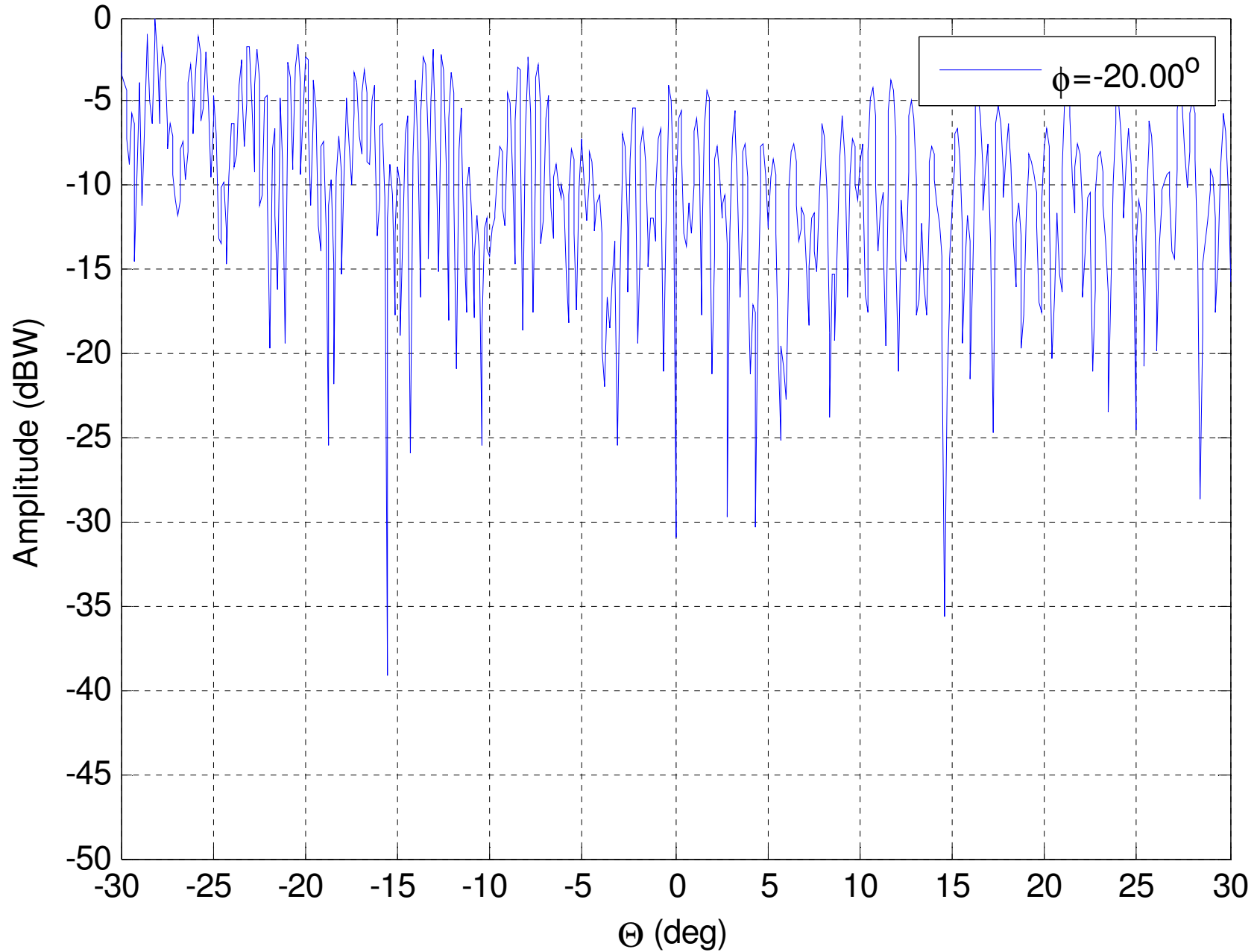
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -9.98 dBW, Date: 16-Dec-2011



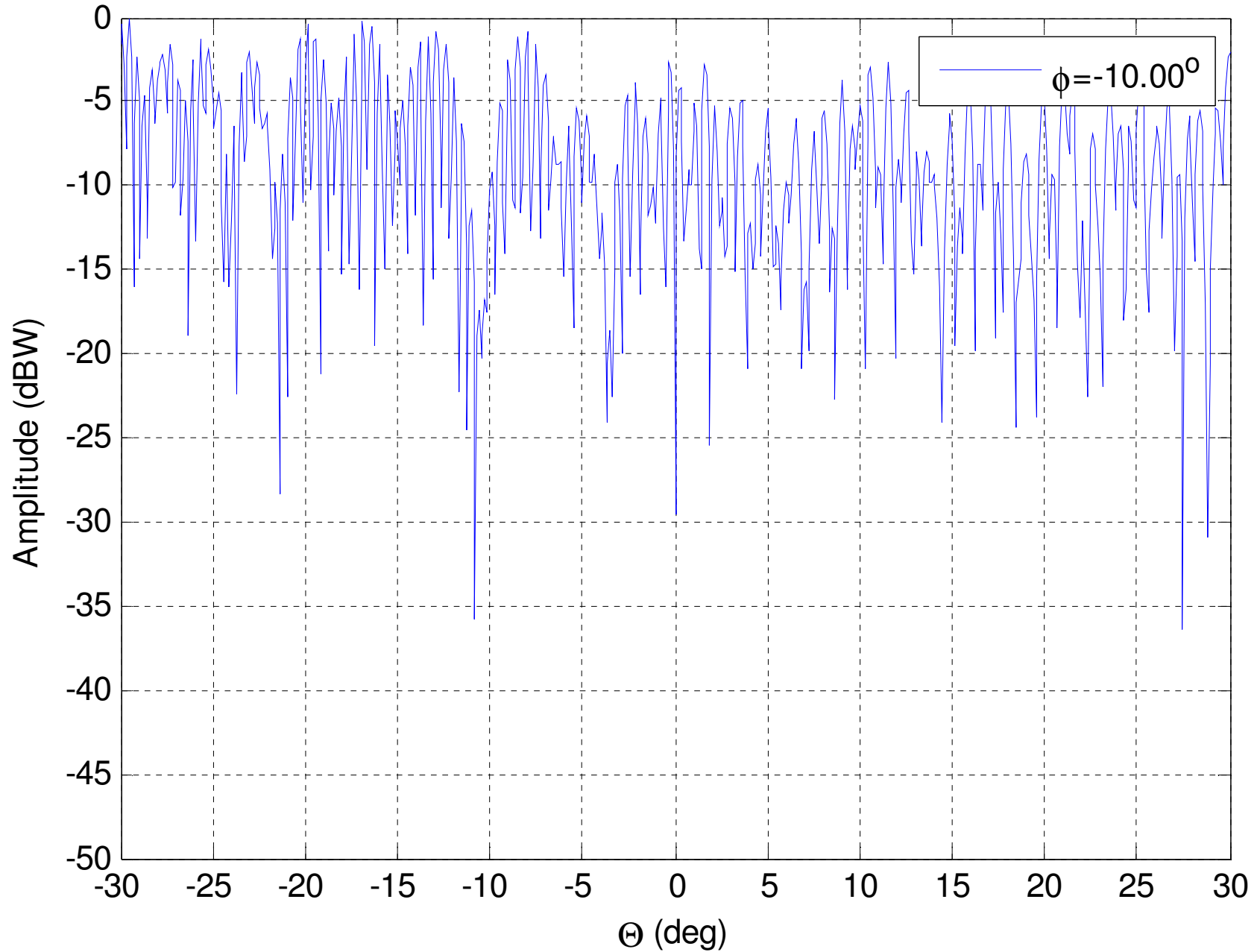
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: -10.45 dBW, Date: 16-Dec-2011



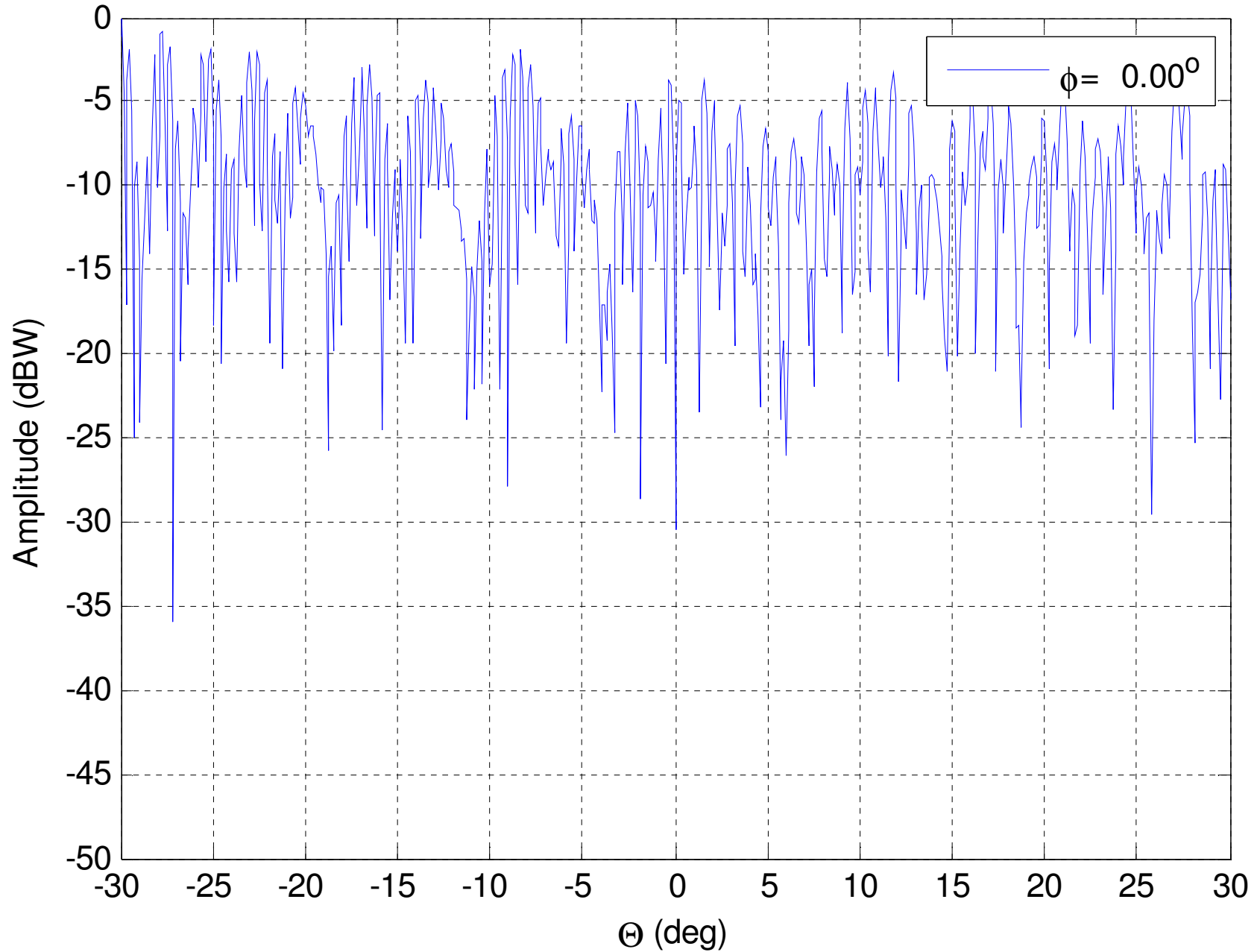
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: -11.85 dBW, Date: 16-Dec-2011



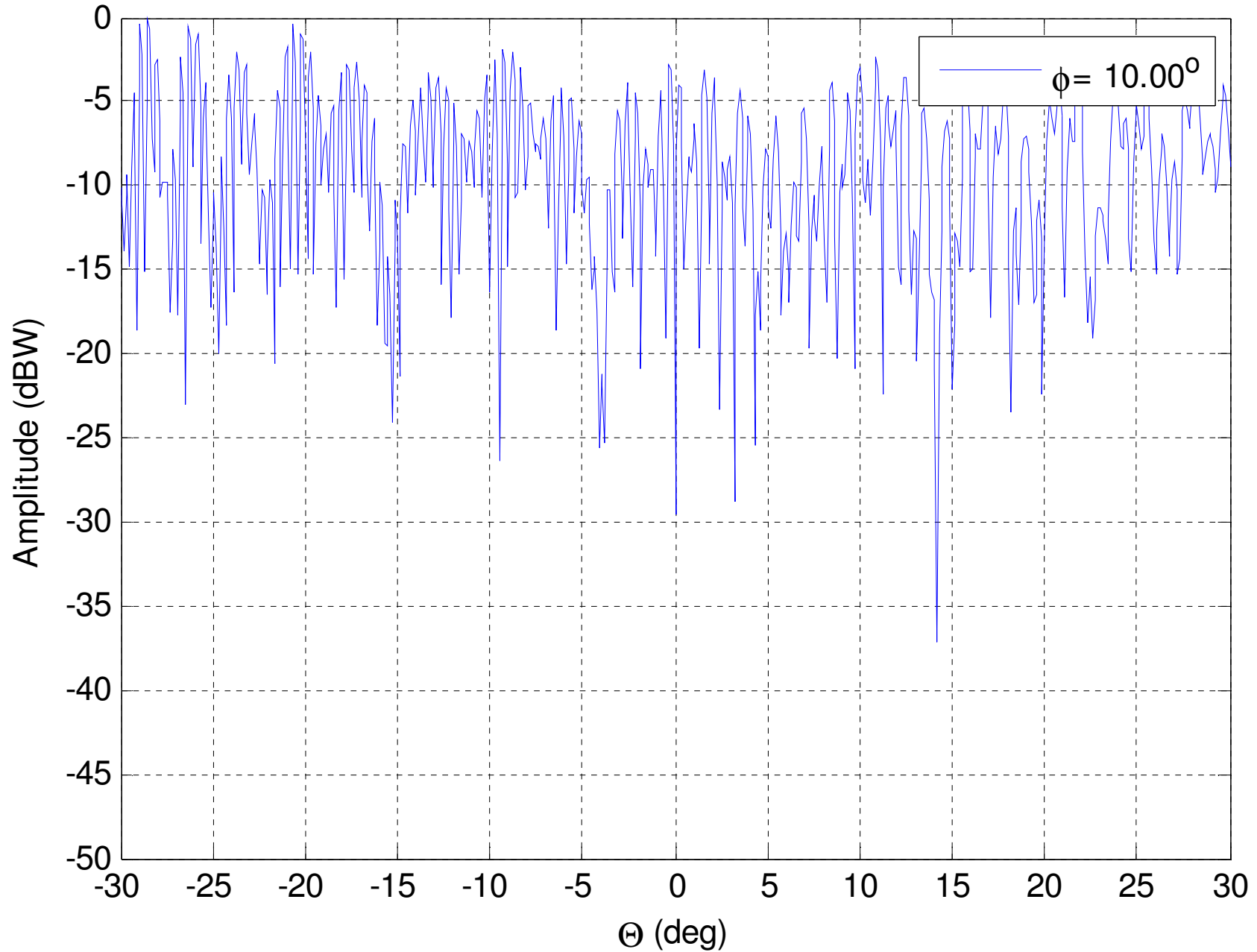
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: -11.00 dBW, Date: 16-Dec-2011



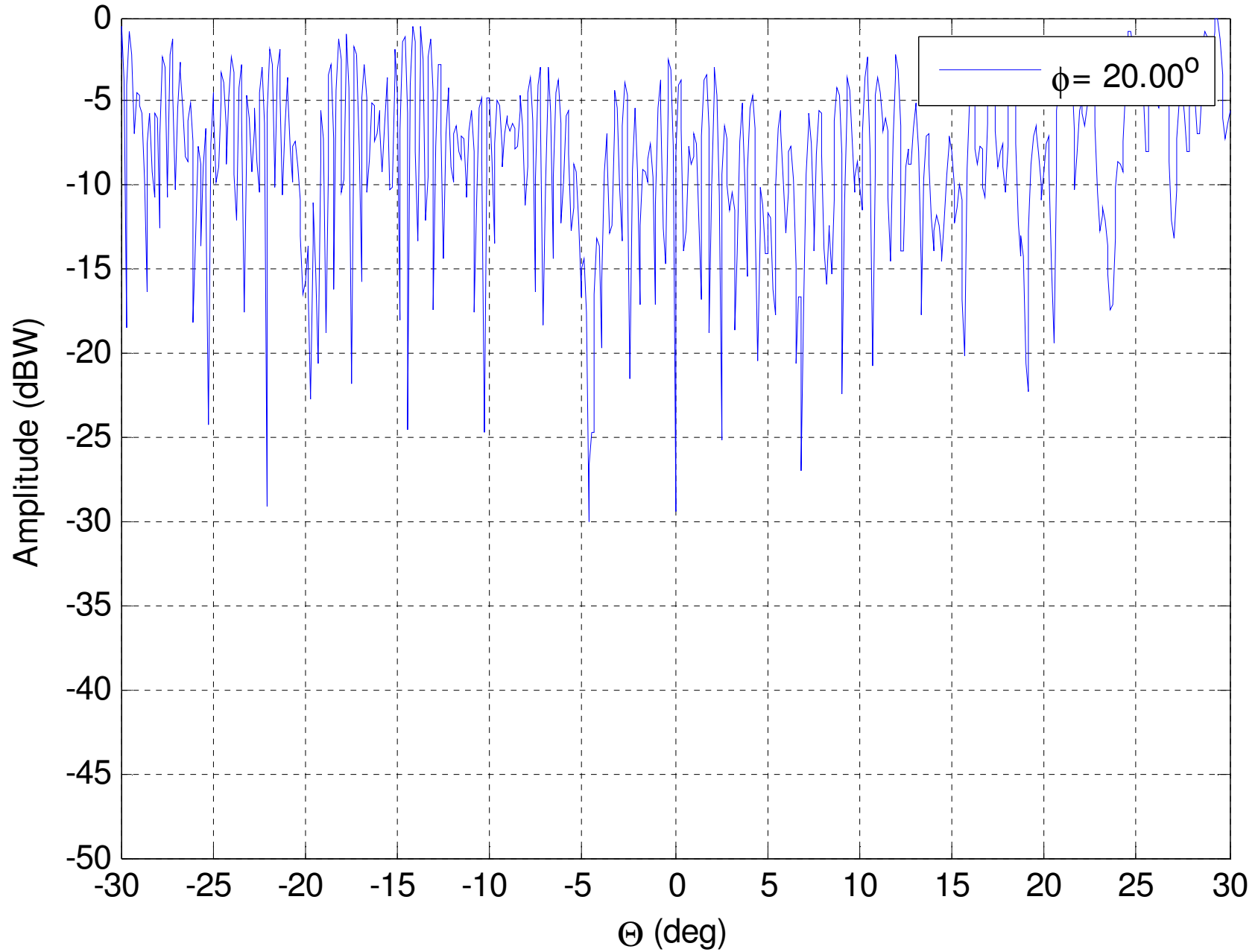
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: -11.84 dBW, Date: 16-Dec-2011



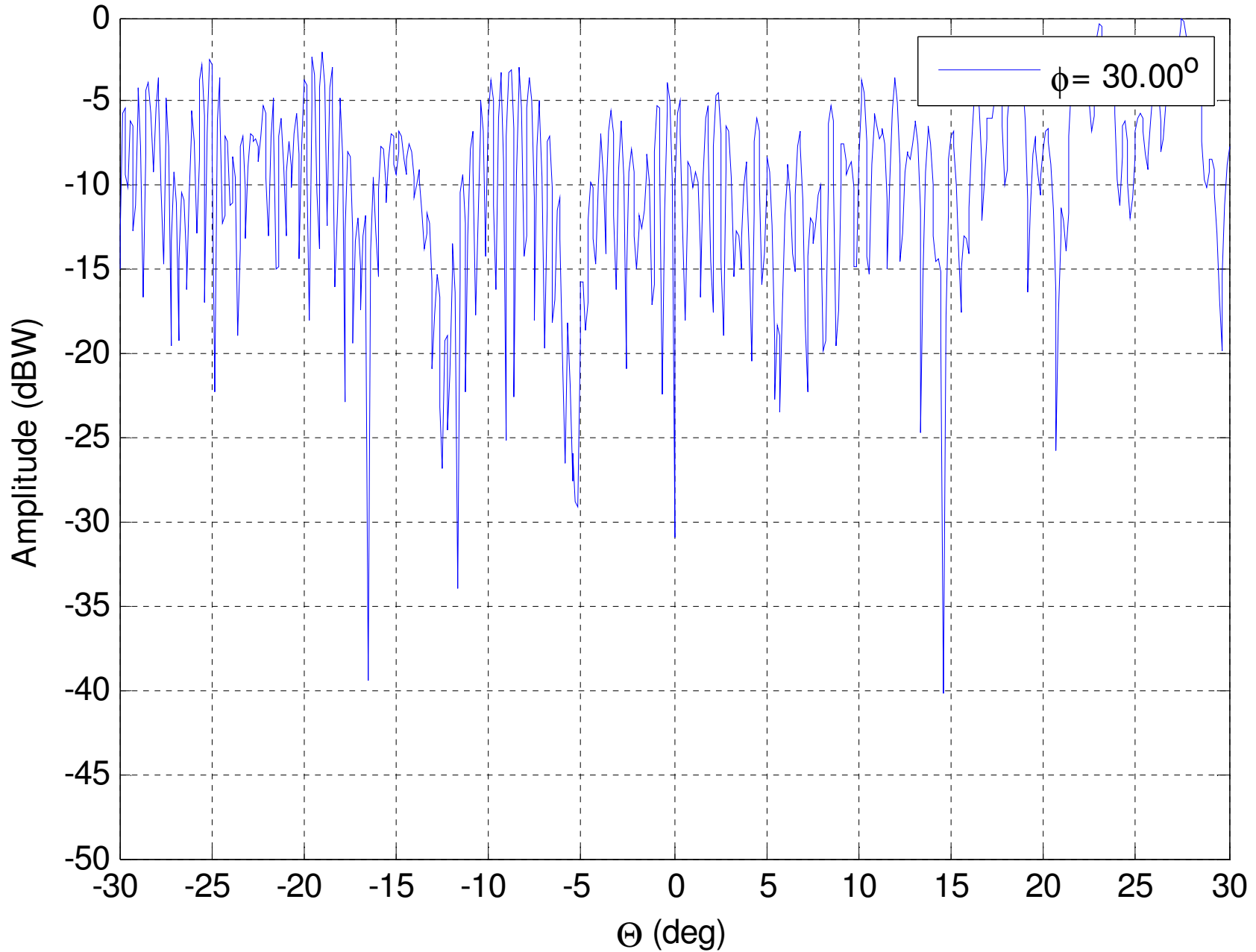
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: -11.99 dBW, Date: 16-Dec-2011



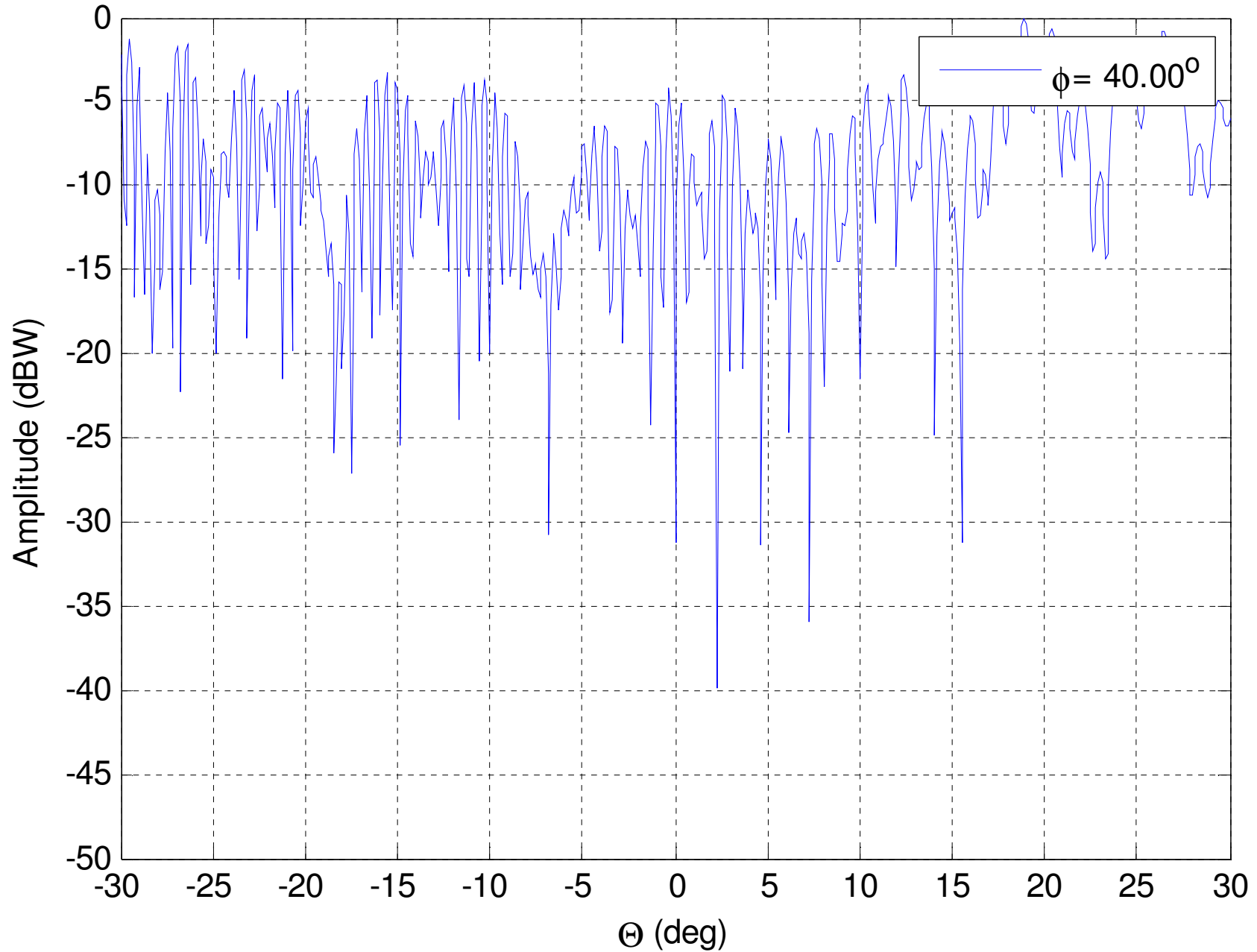
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: -10.49 dBW, Date: 16-Dec-2011



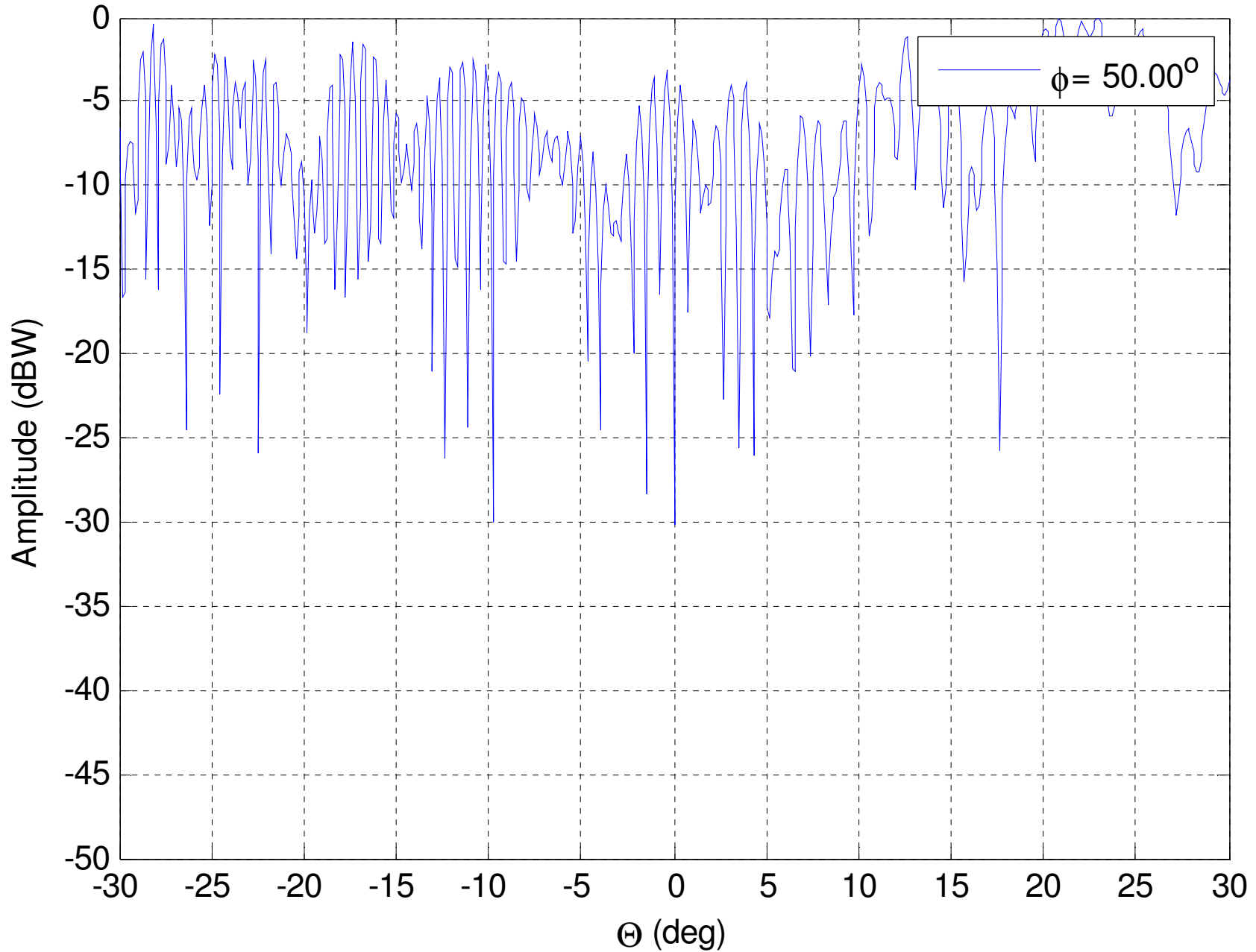
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -10.23 dBW, Date: 16-Dec-2011



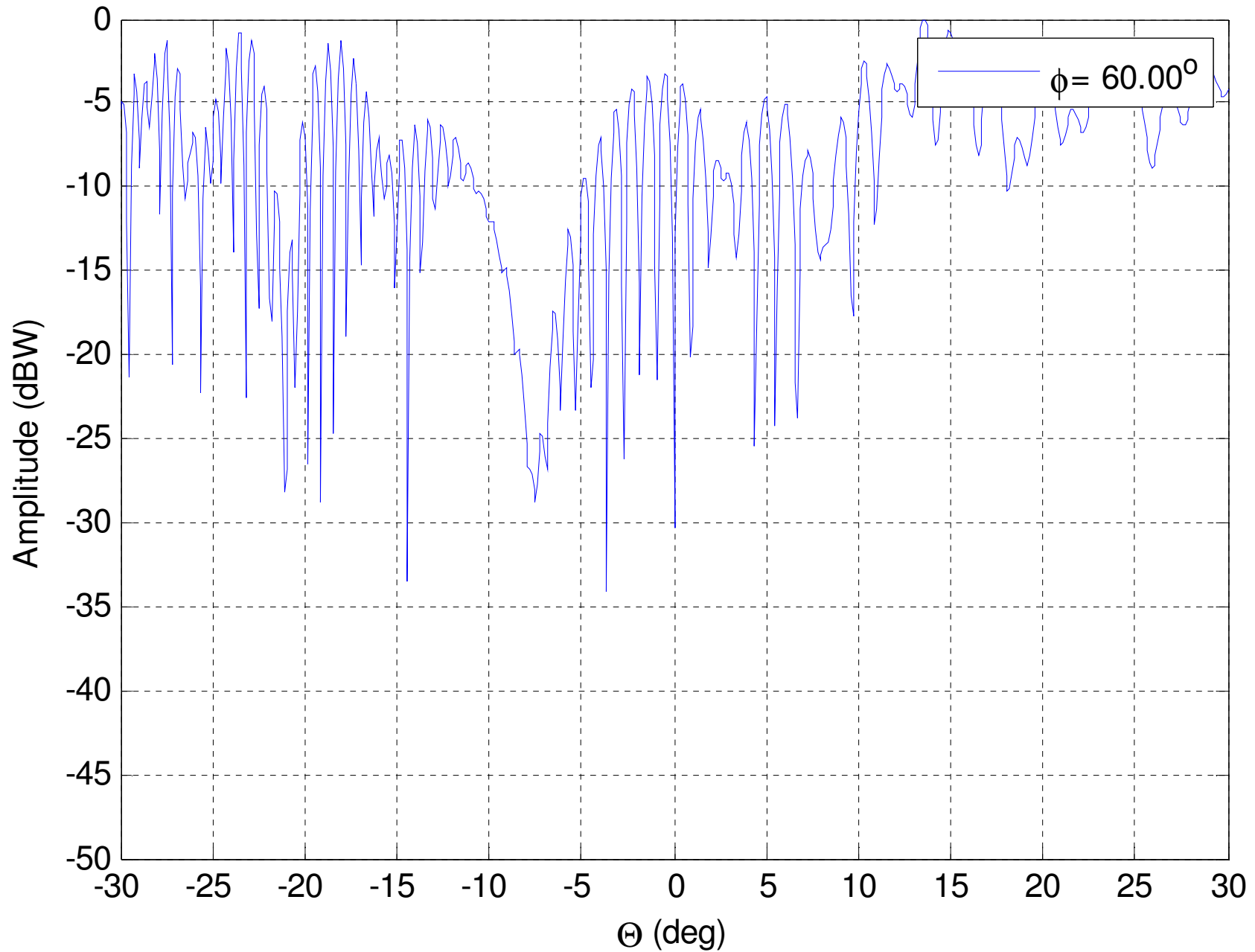
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -11.26 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -11.18 dBW, Date: 16-Dec-2011



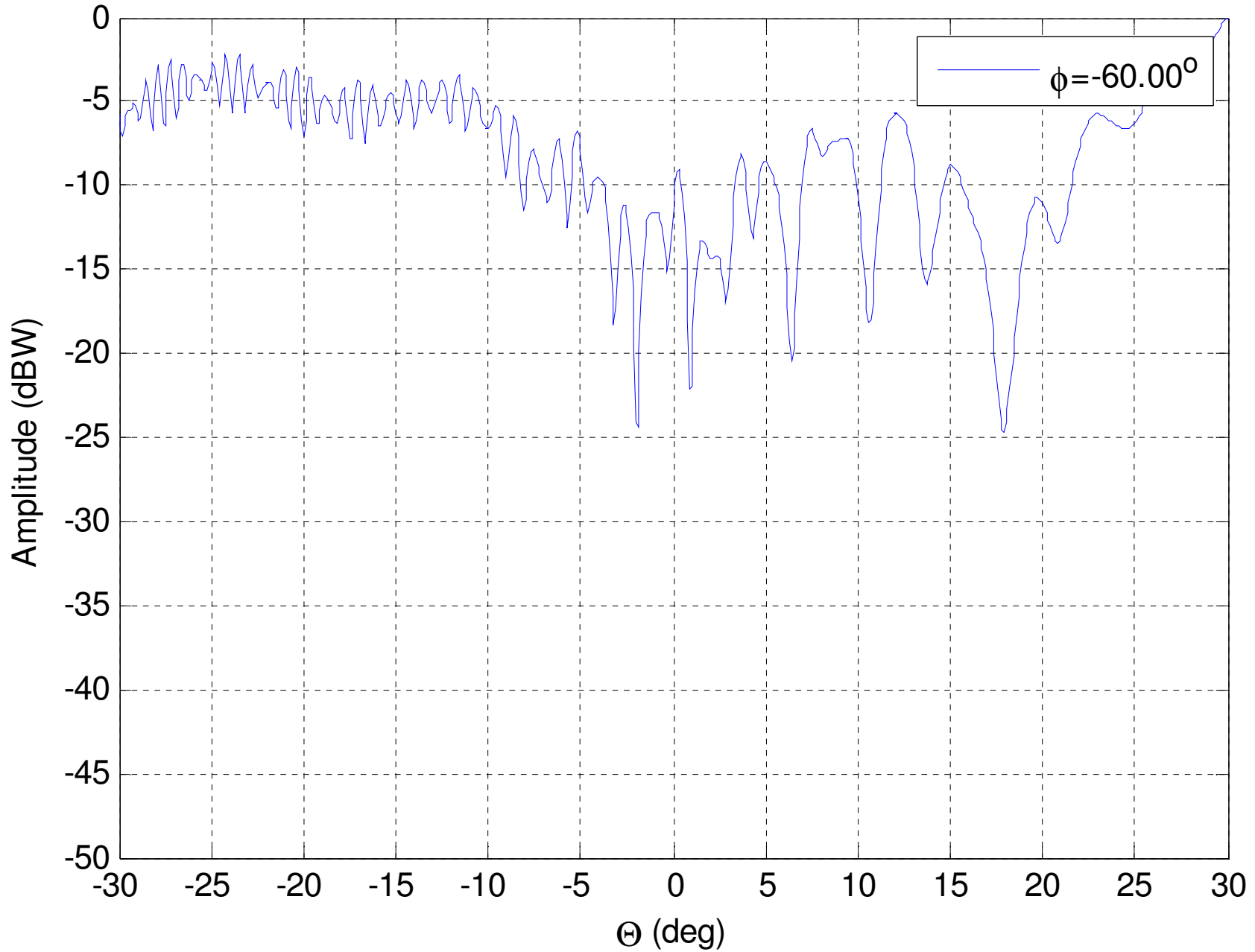
Spot Beam40, +X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: = +X-axis)
- $-60 < \phi < 60$
- Freq = 17.305, 17.5, and 17.695 GHz
- The Zero reference line is the maximum EIRP listed in the title of each plot sheet. All levels are below the required 15.4 dBW maximum
- The Zero reference for the maximum antenna gain is the maximum EIRP listed minus the power input to the antenna specified in Table I of the attached narrative.

RHCP at 17.3 GHz

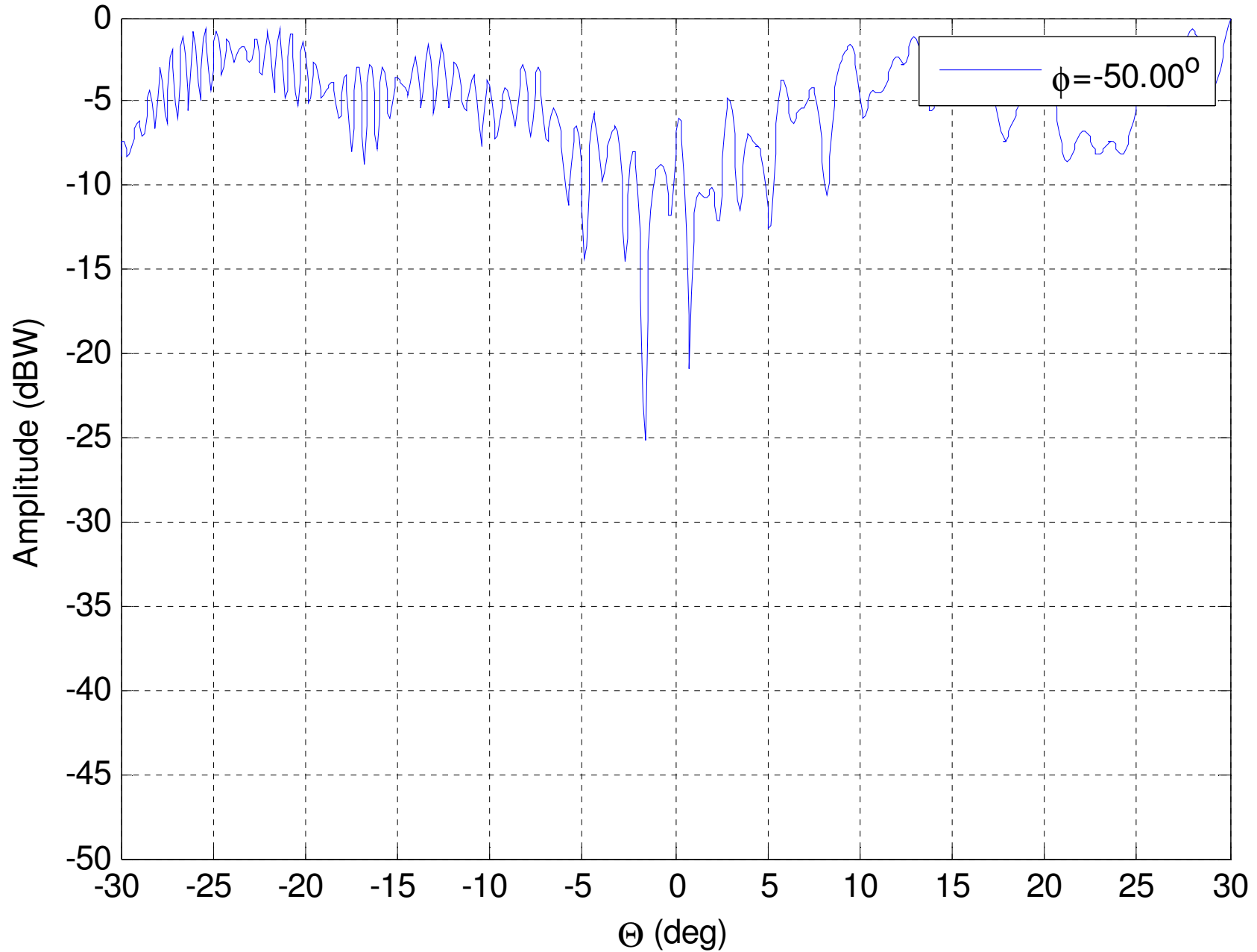
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -8.58 dBW, Date: 16-Dec-2011



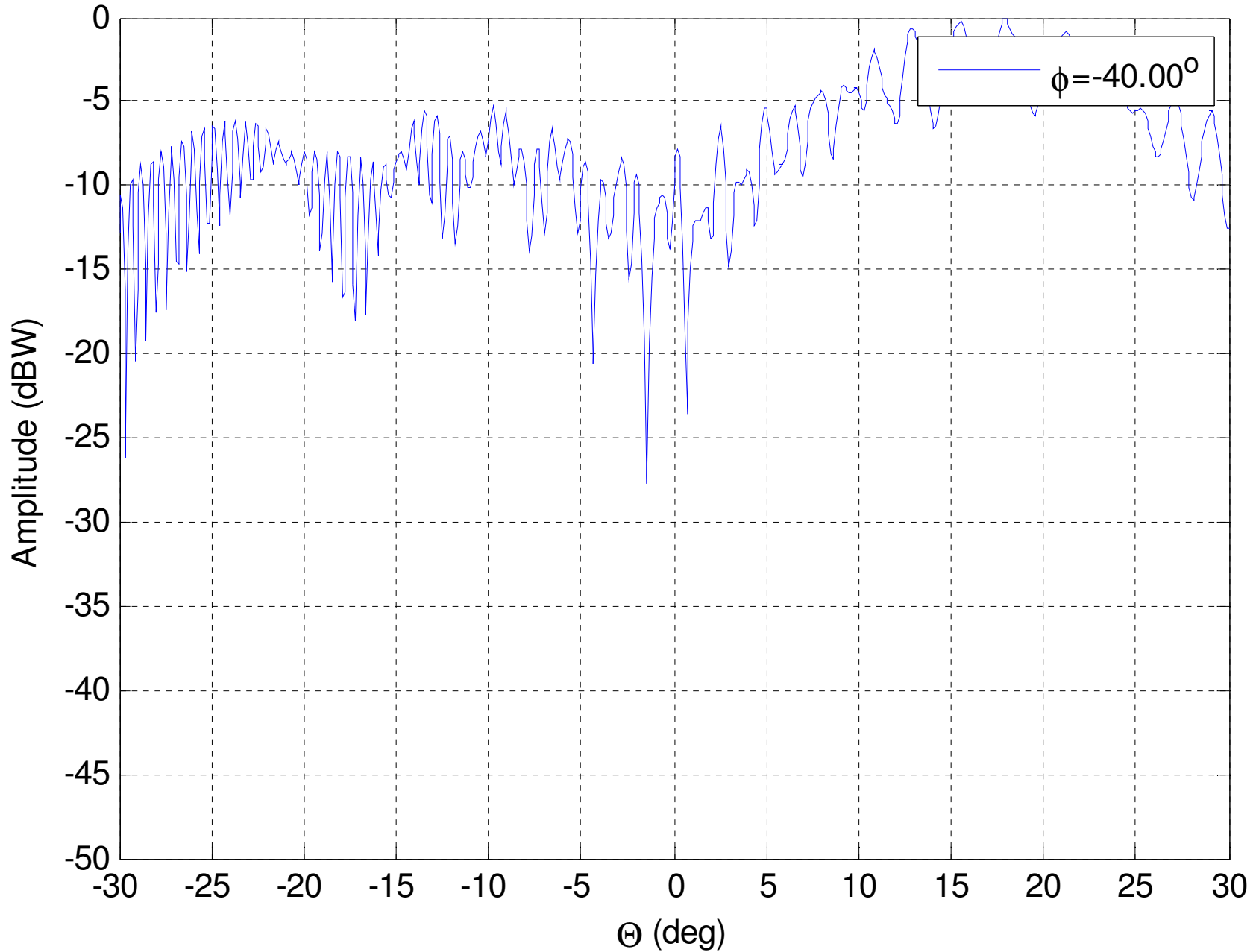
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -11.66 dBW, Date: 16-Dec-2011



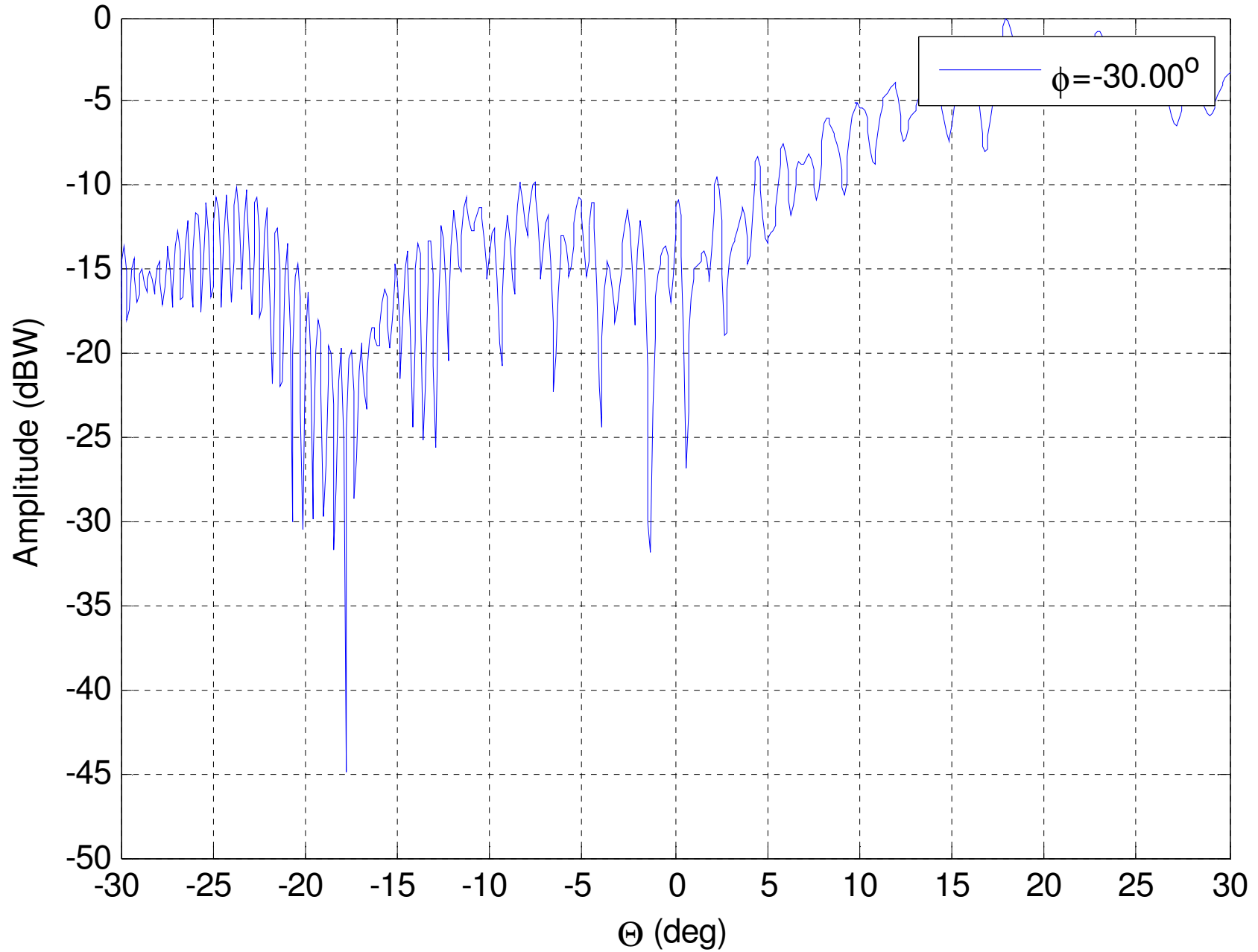
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -9.89 dBW, Date: 16-Dec-2011



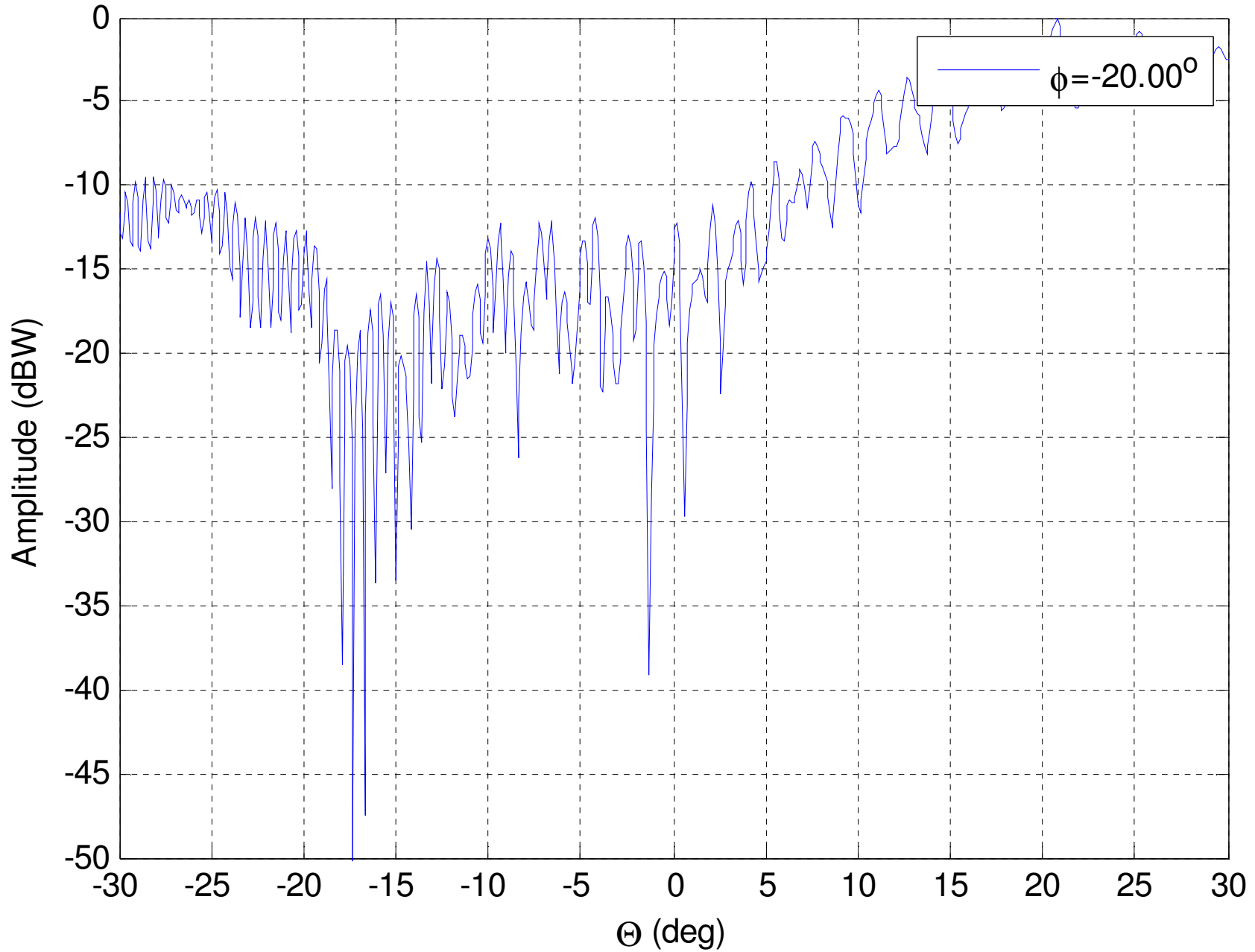
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -6.89 dBW, Date: 16-Dec-2011



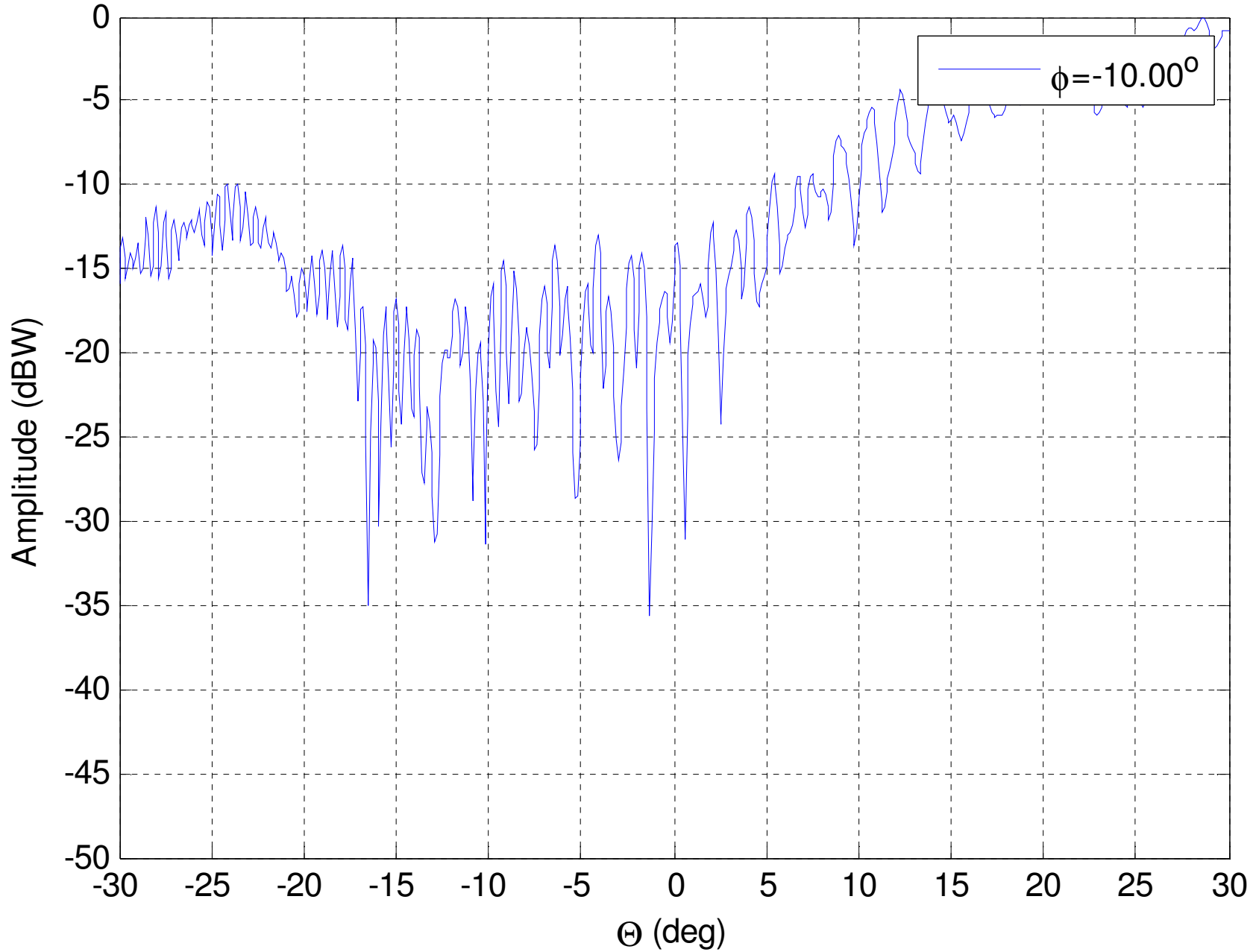
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: -5.50 dBW, Date: 16-Dec-2011



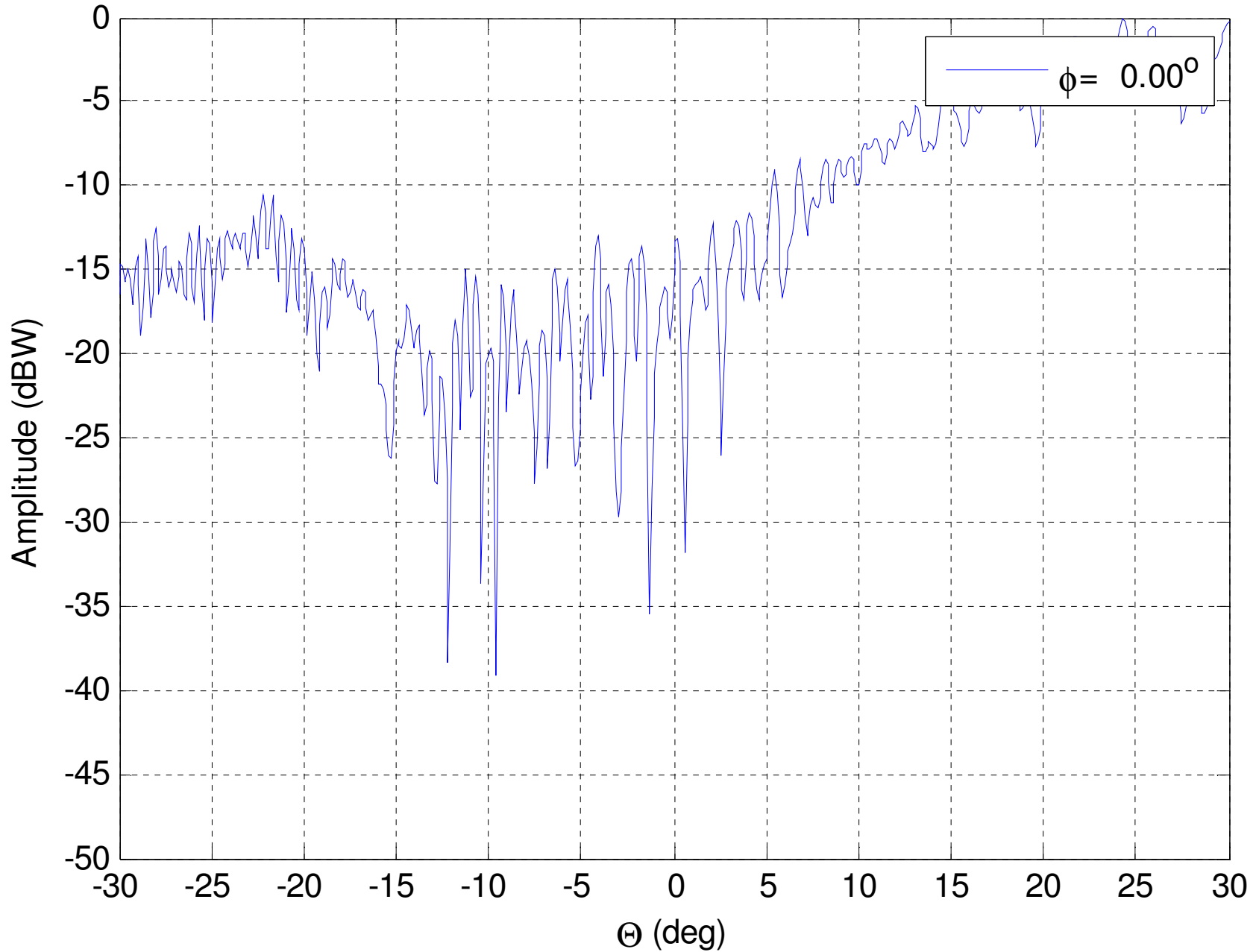
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: -4.42 dBW, Date: 16-Dec-2011



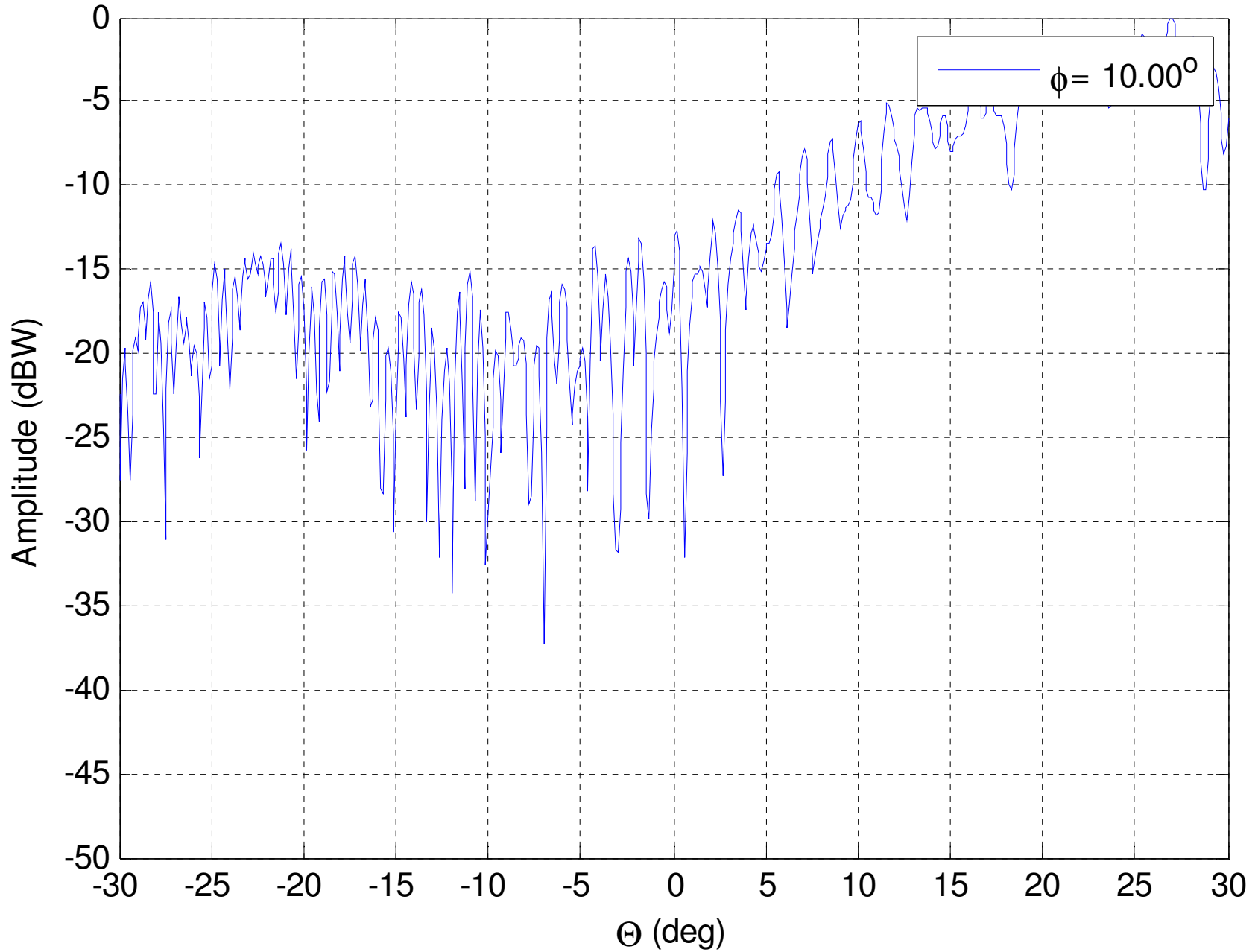
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: -4.72 dBW, Date: 16-Dec-2011



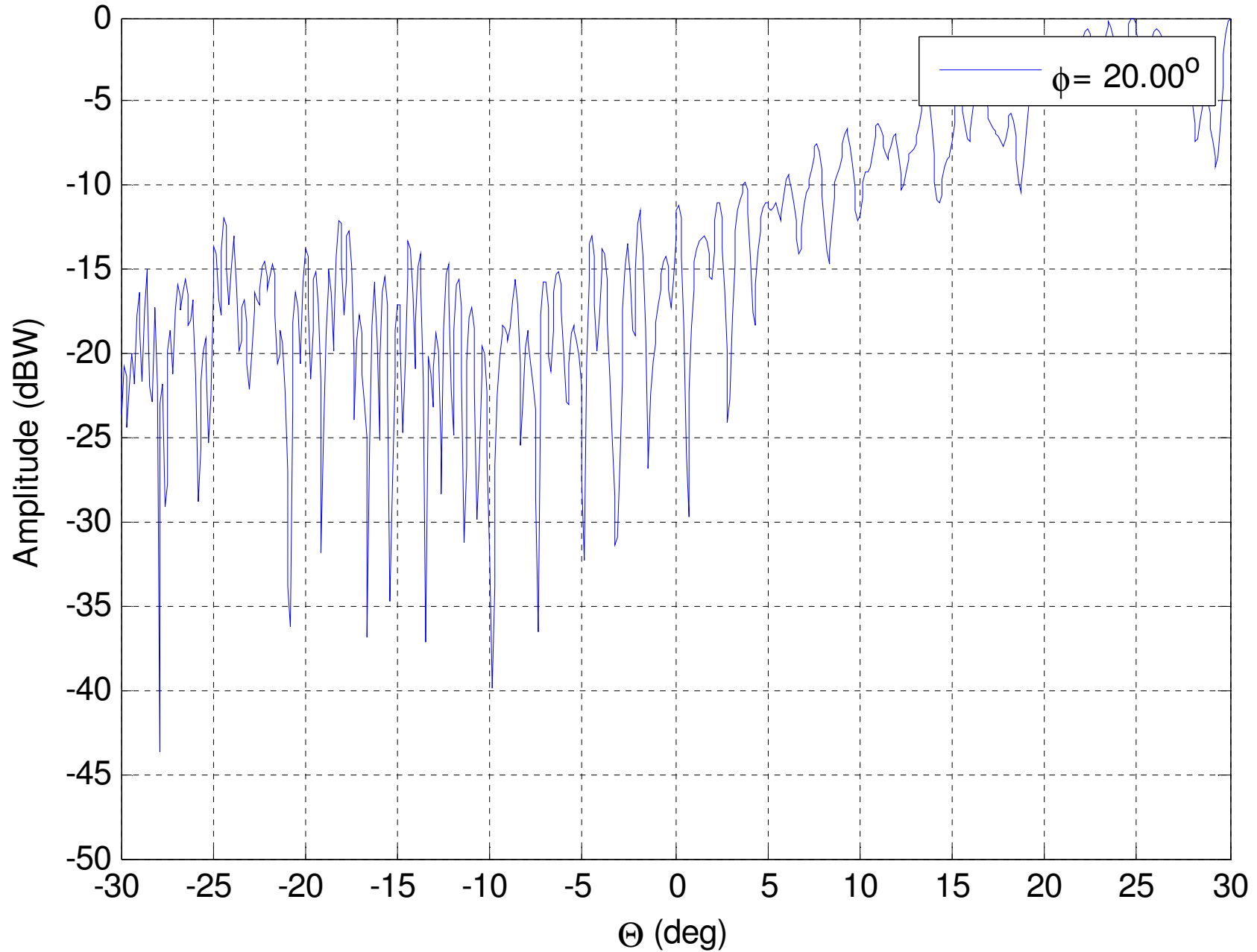
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: -5.08 dBW, Date: 16-Dec-2011



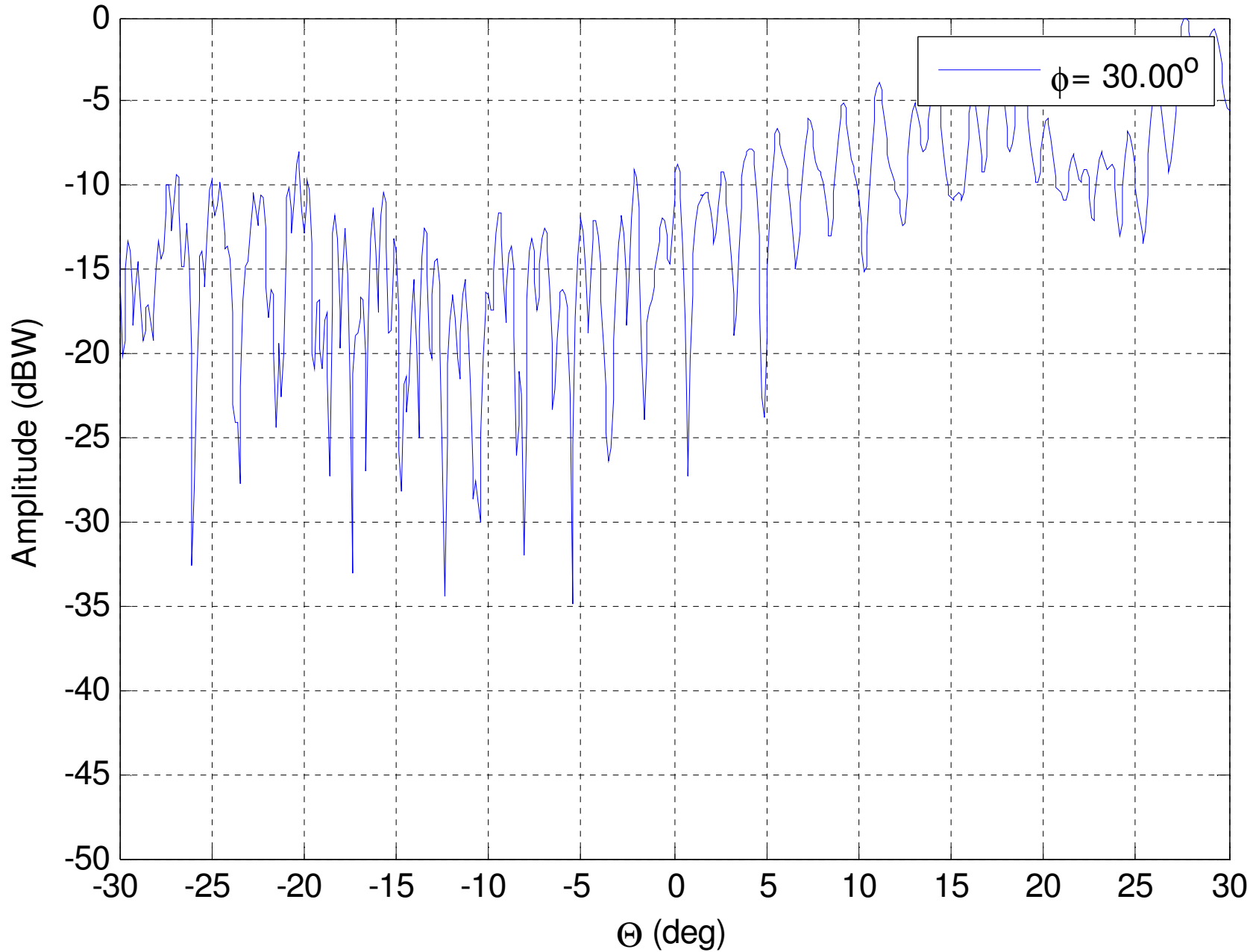
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: -6.68 dBW, Date: 16-Dec-2011



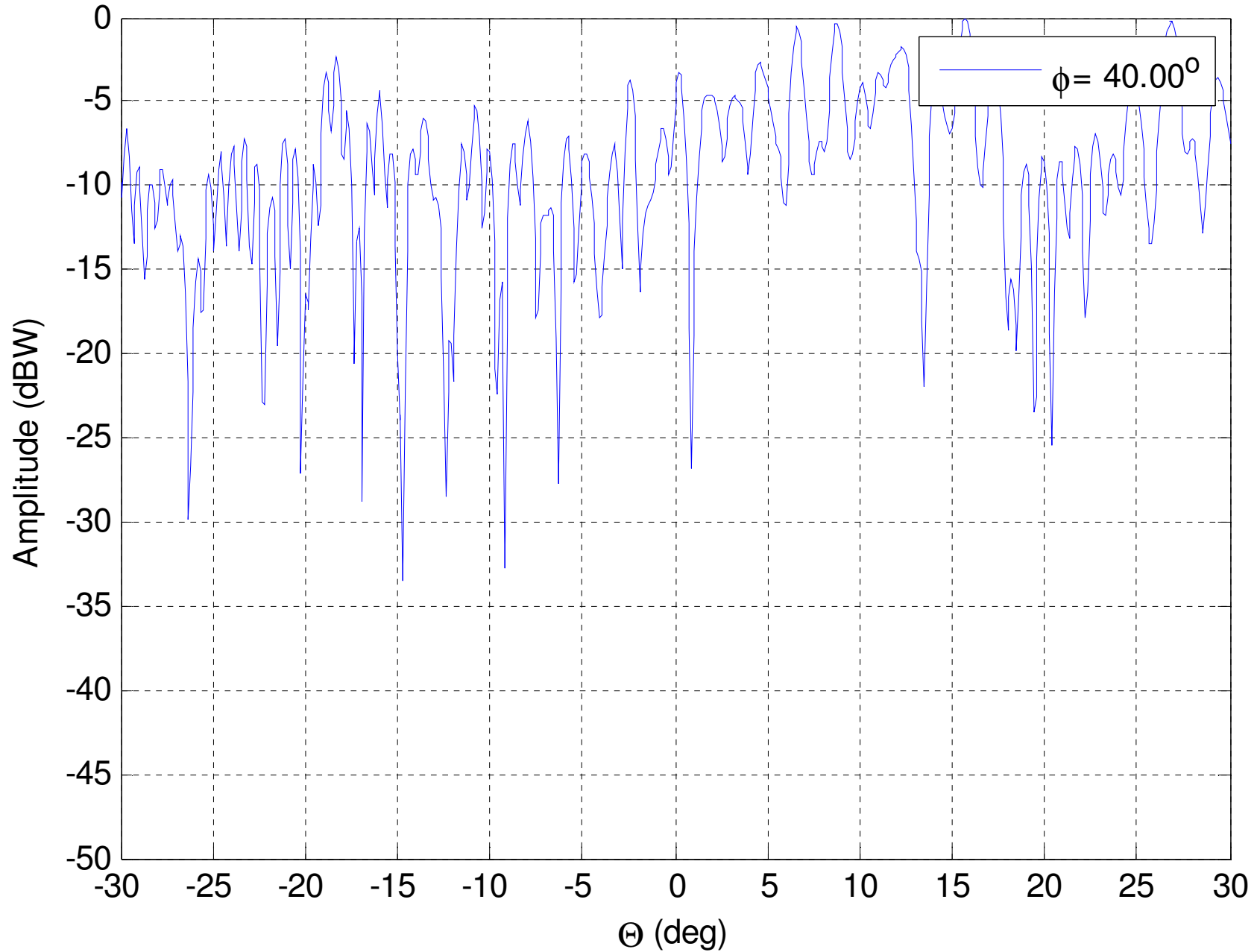
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: -9.09 dBW, Date: 16-Dec-2011



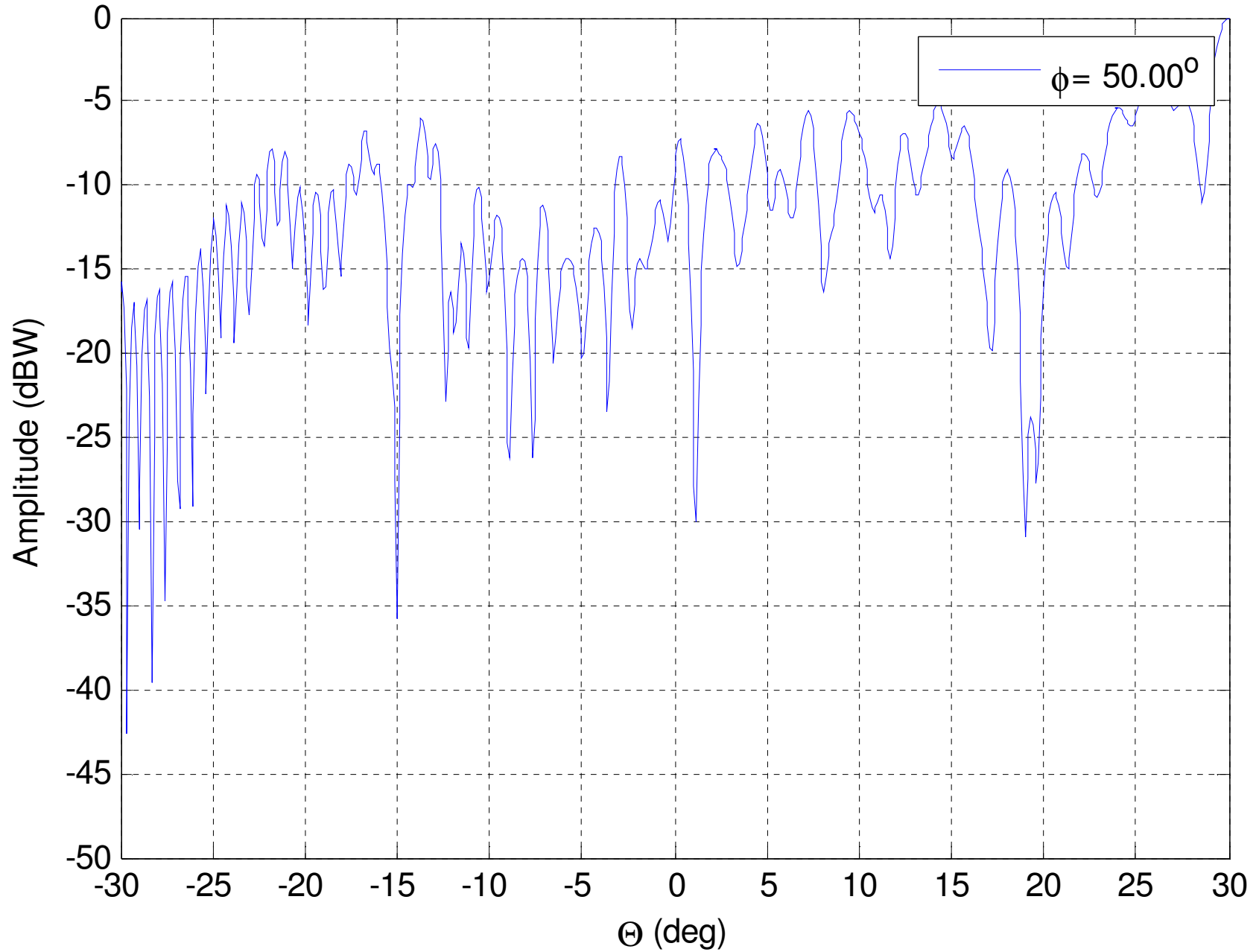
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -14.58 dBW, Date: 16-Dec-2011



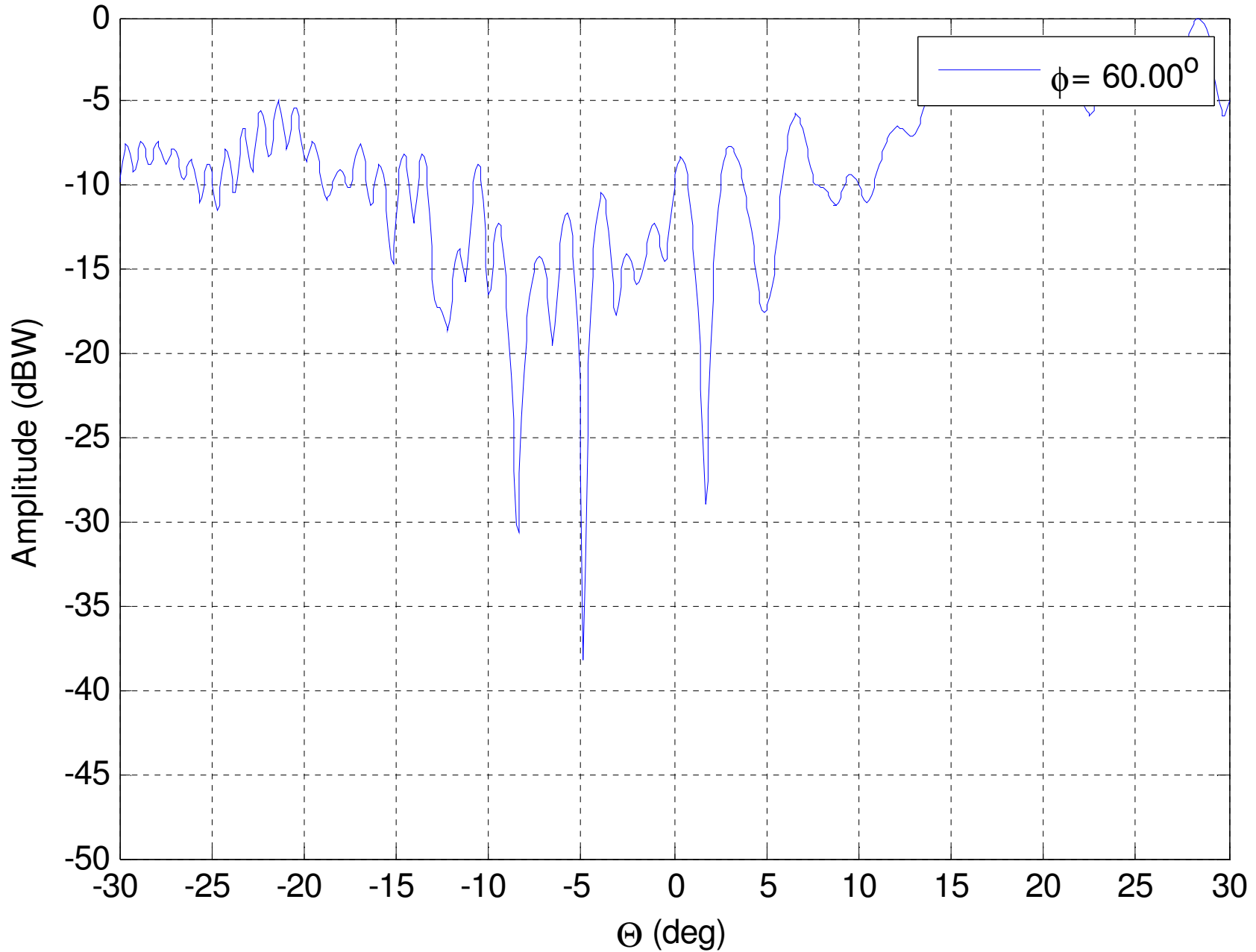
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -10.61 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

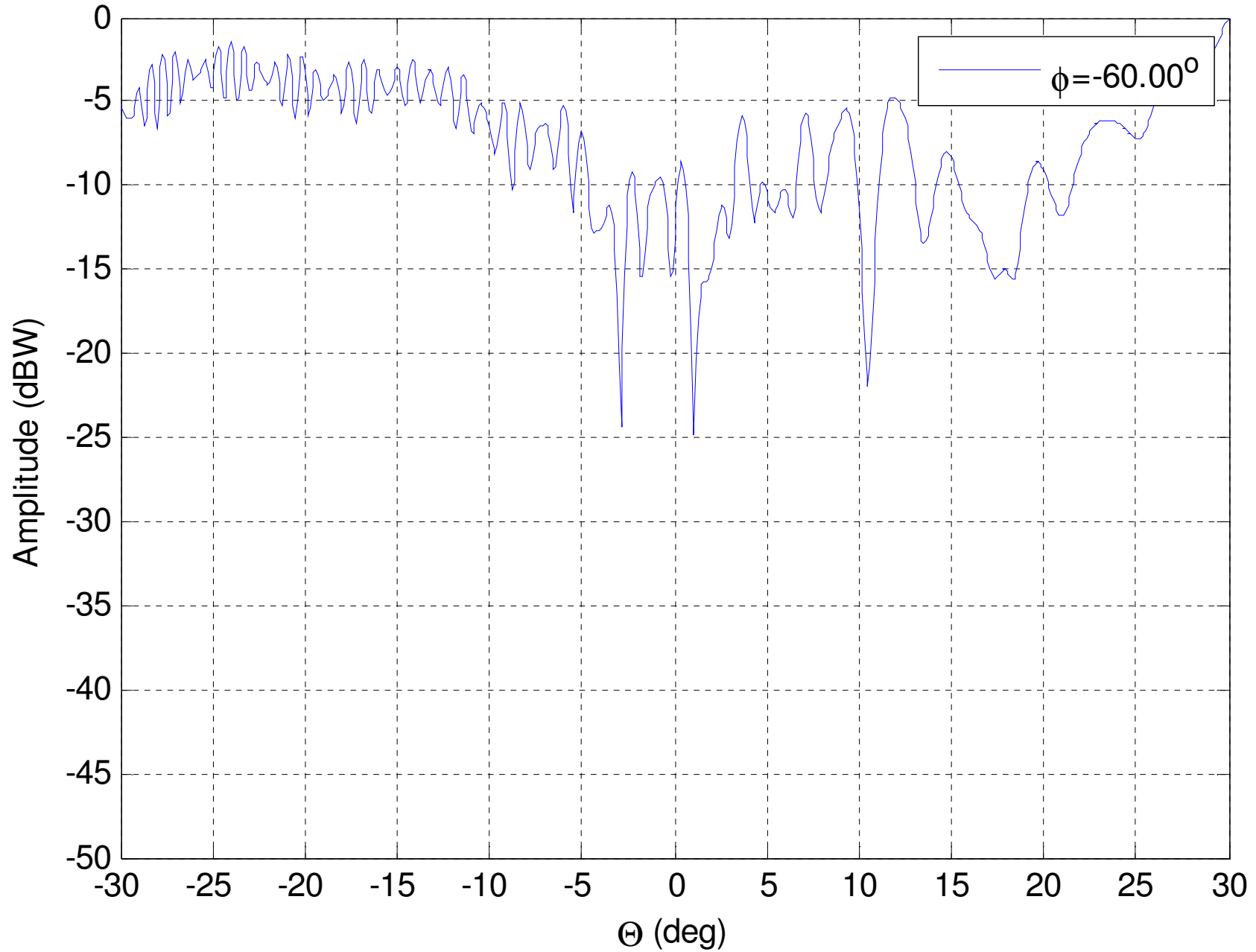
Input file: tx-17.3-rhcp-60.cut, Peak: -9.67 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

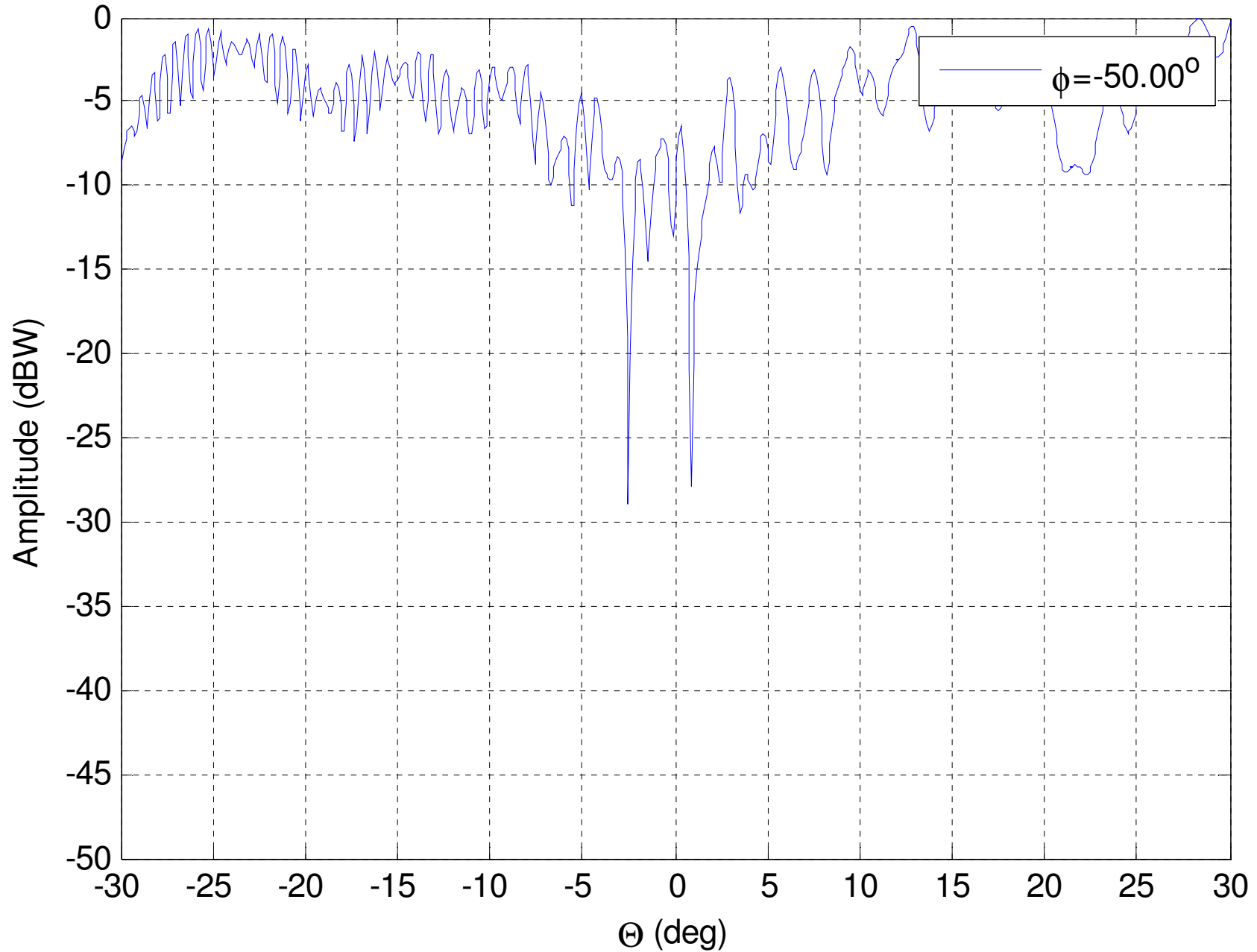
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -9.34 dBW, Date: 16-Dec-2011



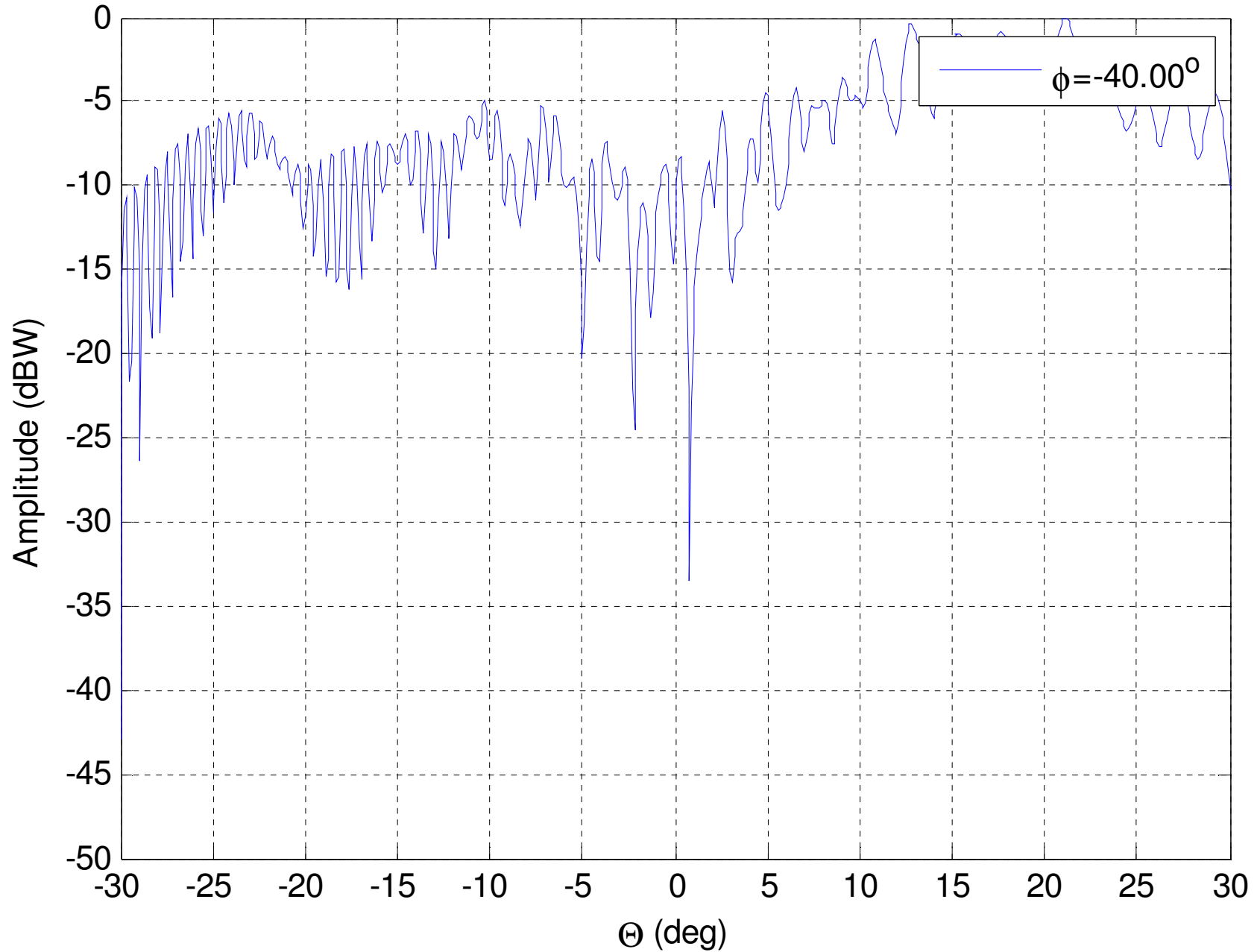
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -11.62 dBW, Date: 16-Dec-2011



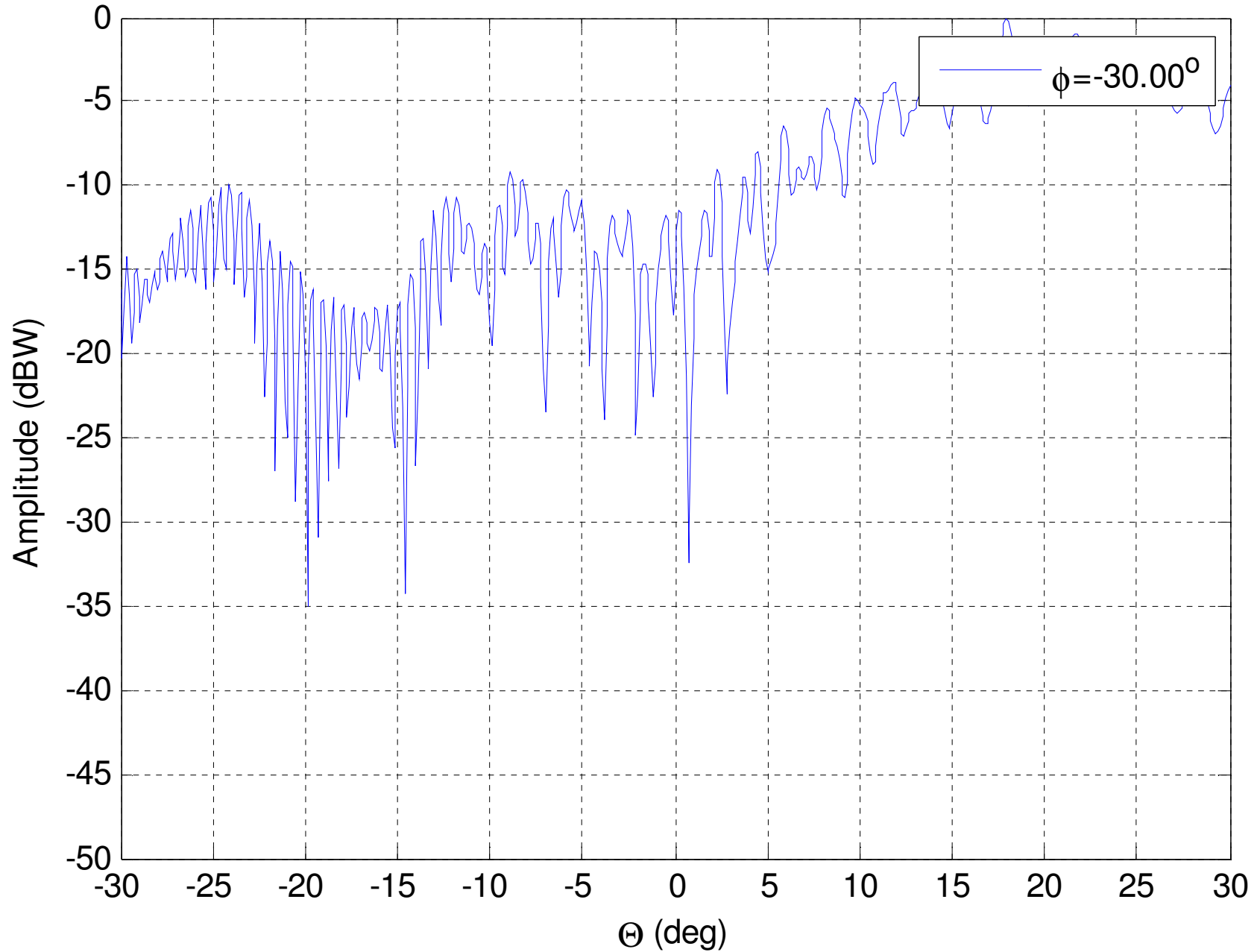
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -10.04 dBW, Date: 16-Dec-2011



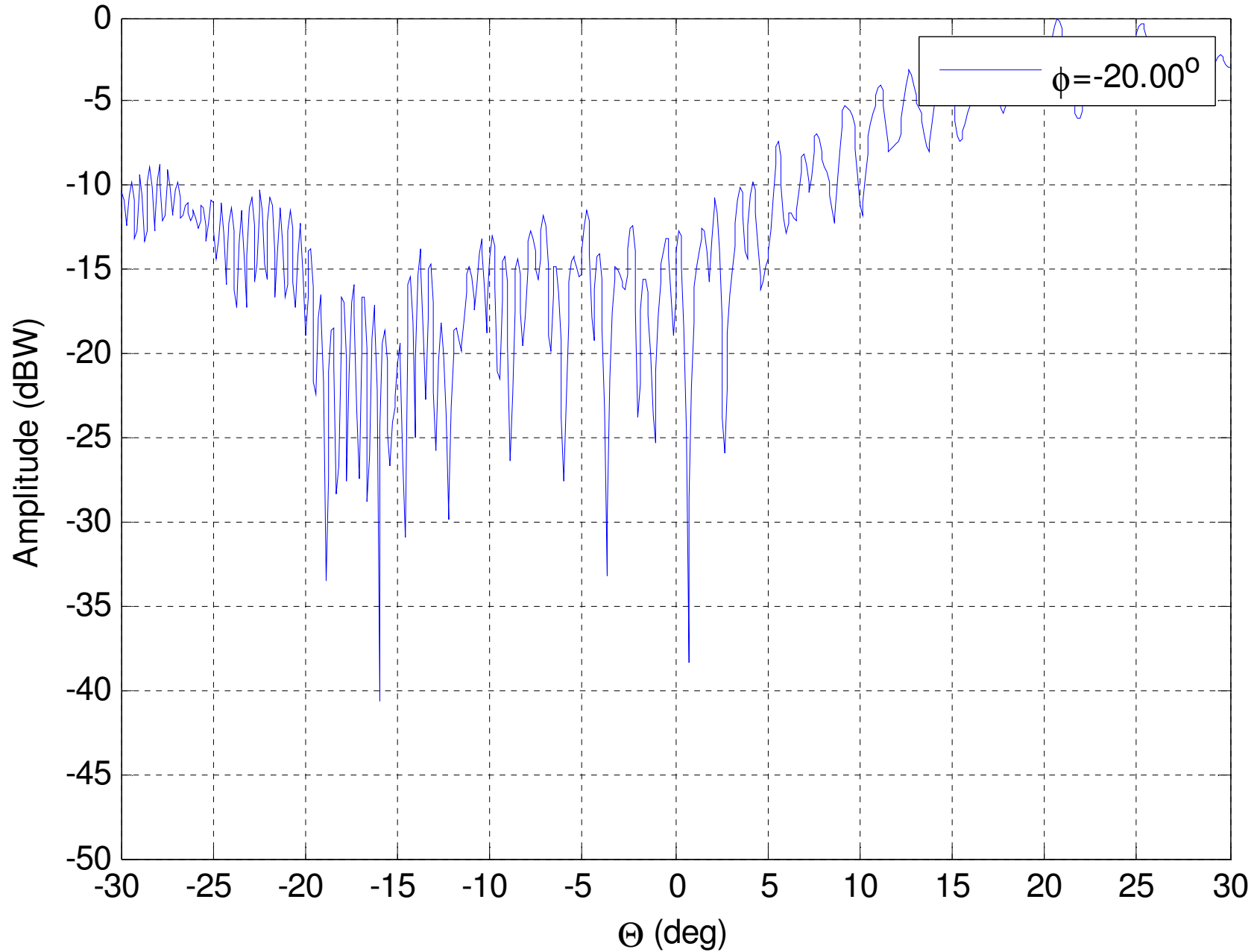
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: -6.98 dBW, Date: 16-Dec-2011



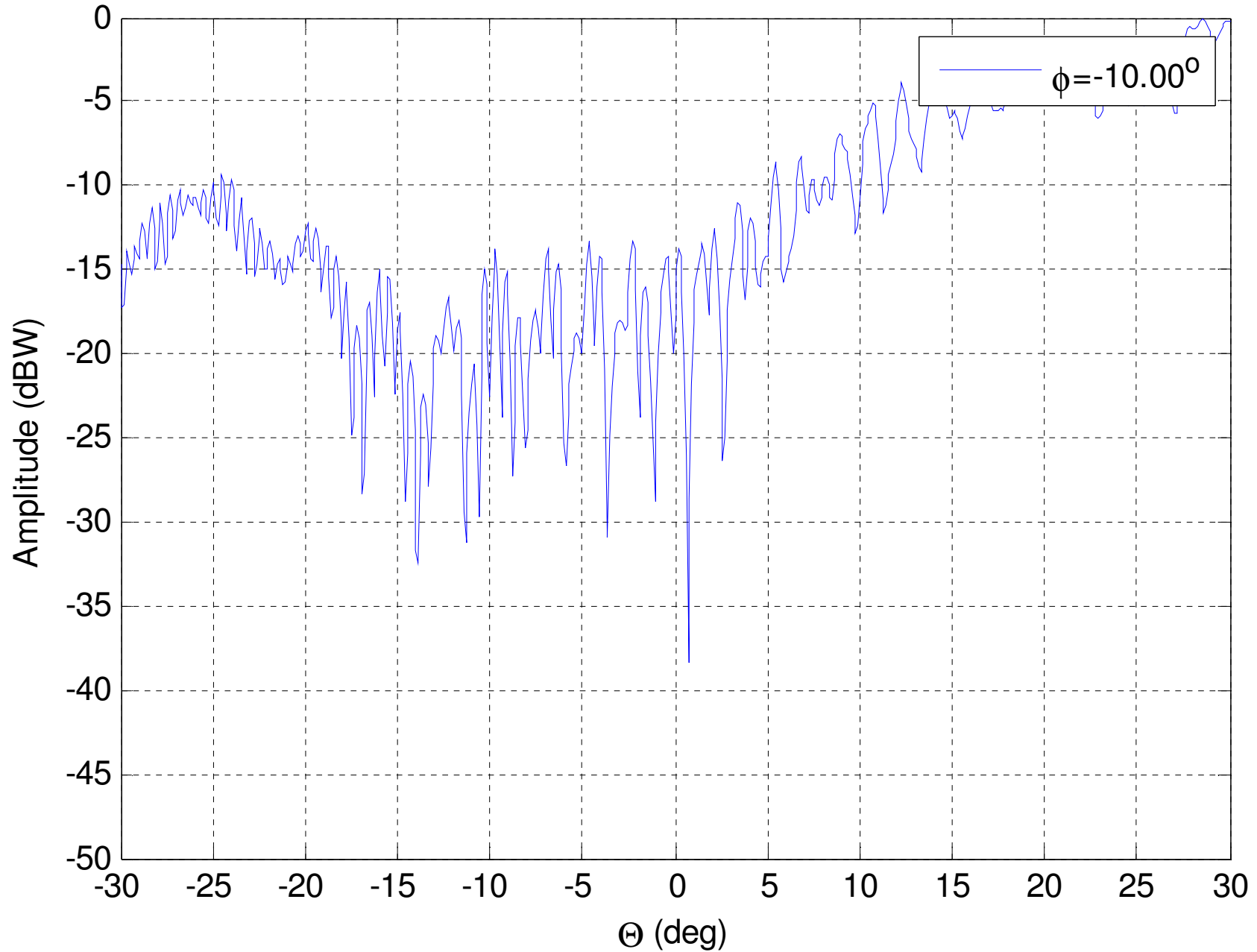
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: -5.79 dBW, Date: 16-Dec-2011



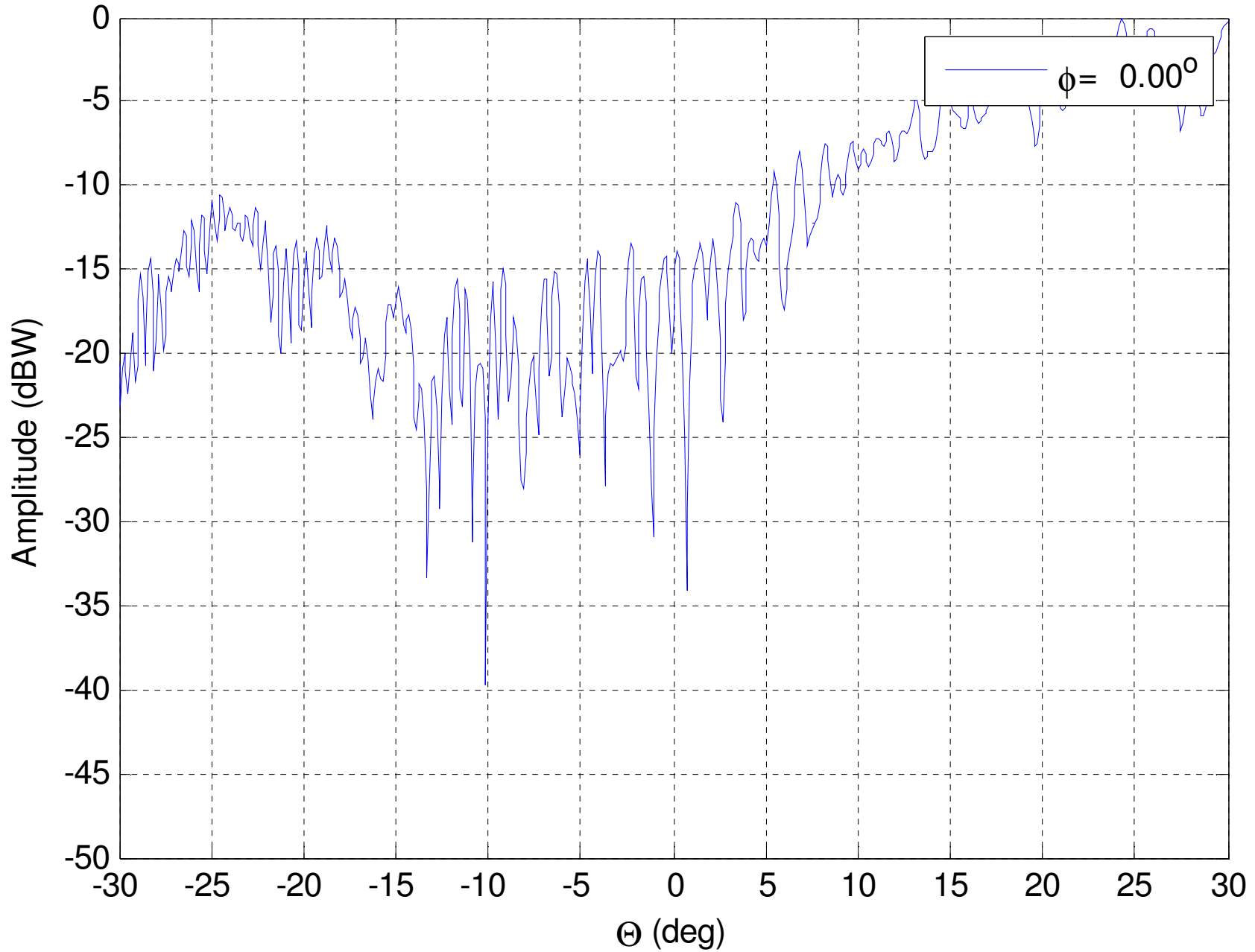
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: -4.68 dBW, Date: 16-Dec-2011



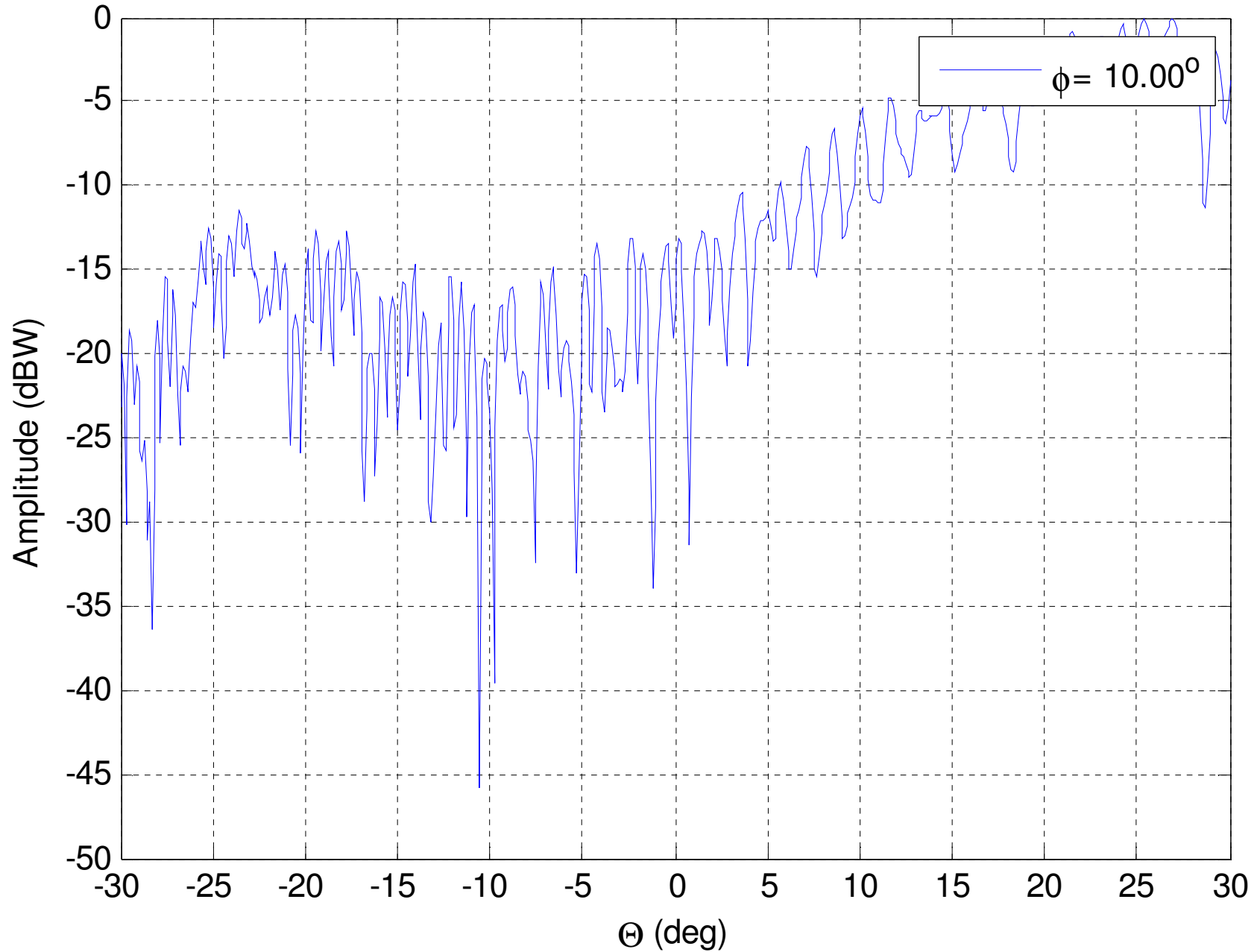
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: -4.71 dBW, Date: 16-Dec-2011



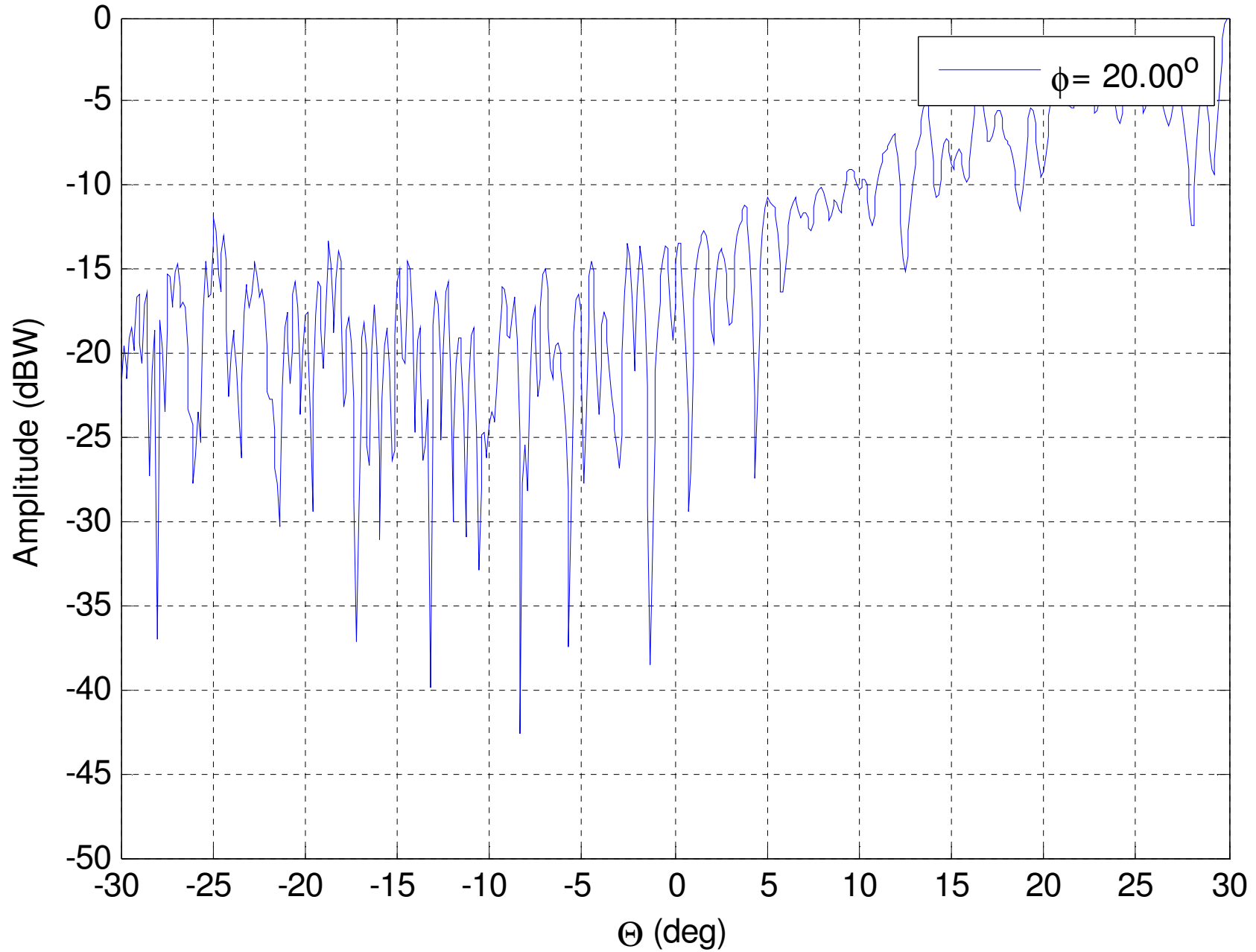
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: -5.49 dBW, Date: 16-Dec-2011



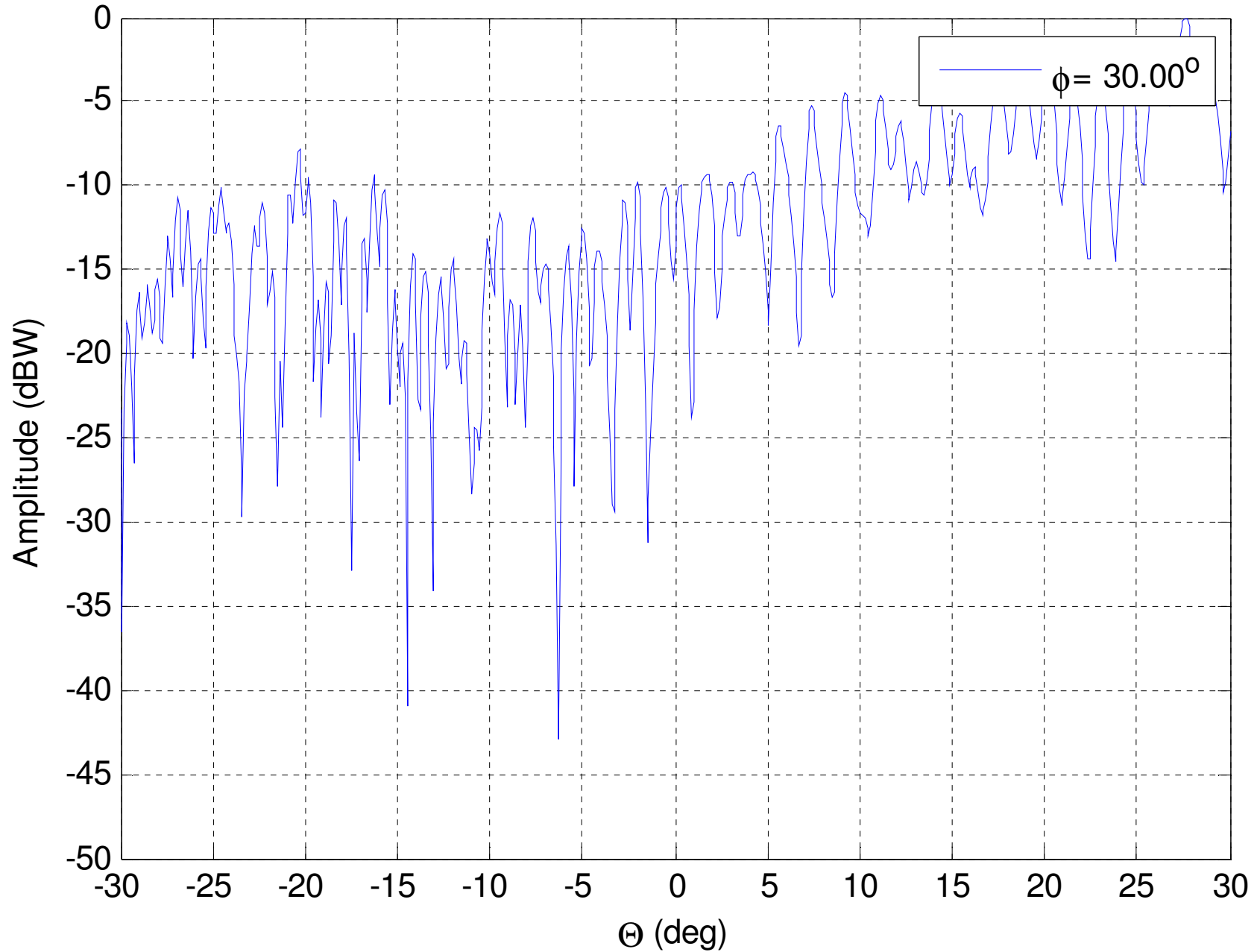
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: -5.40 dBW, Date: 16-Dec-2011



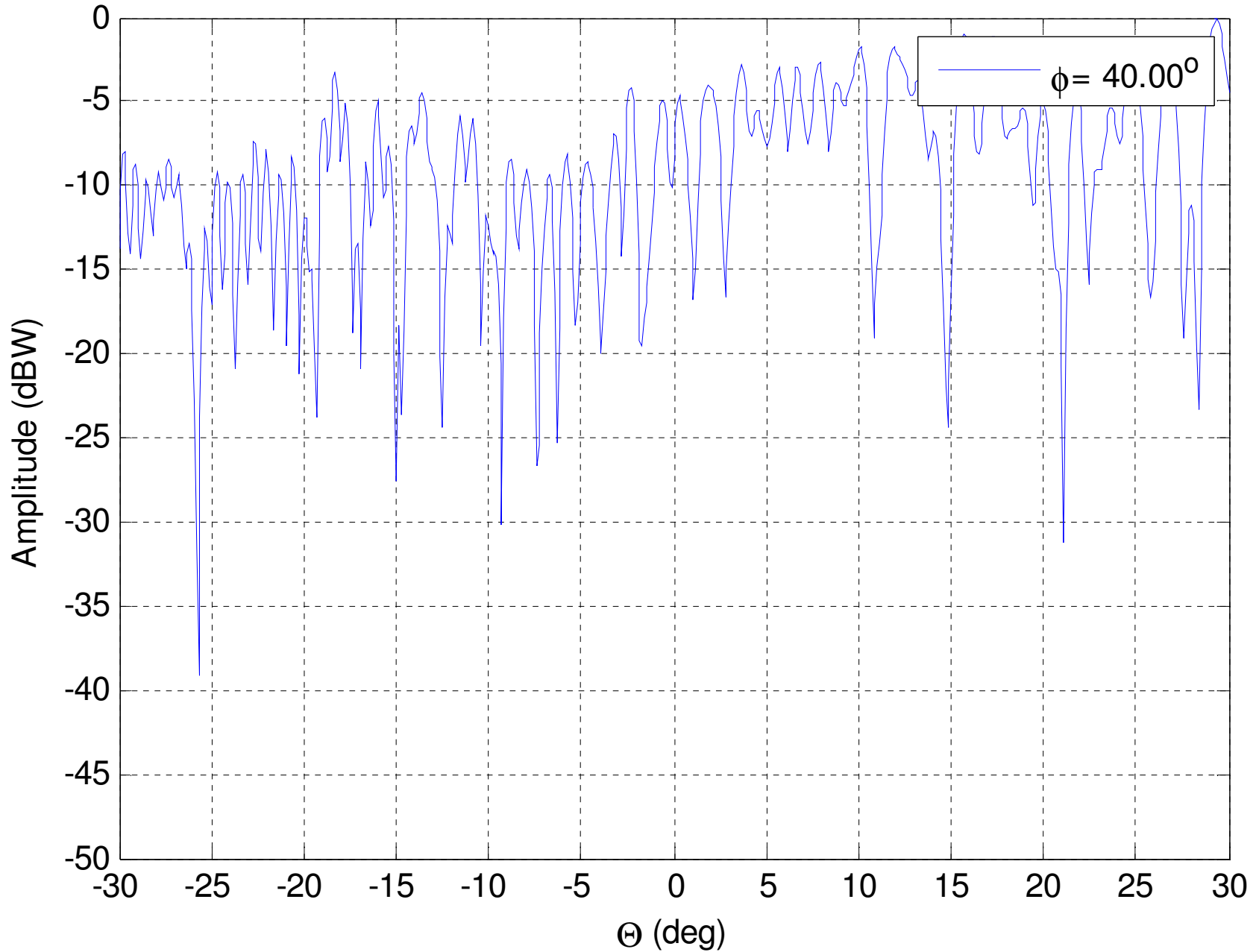
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: -8.86 dBW, Date: 16-Dec-2011



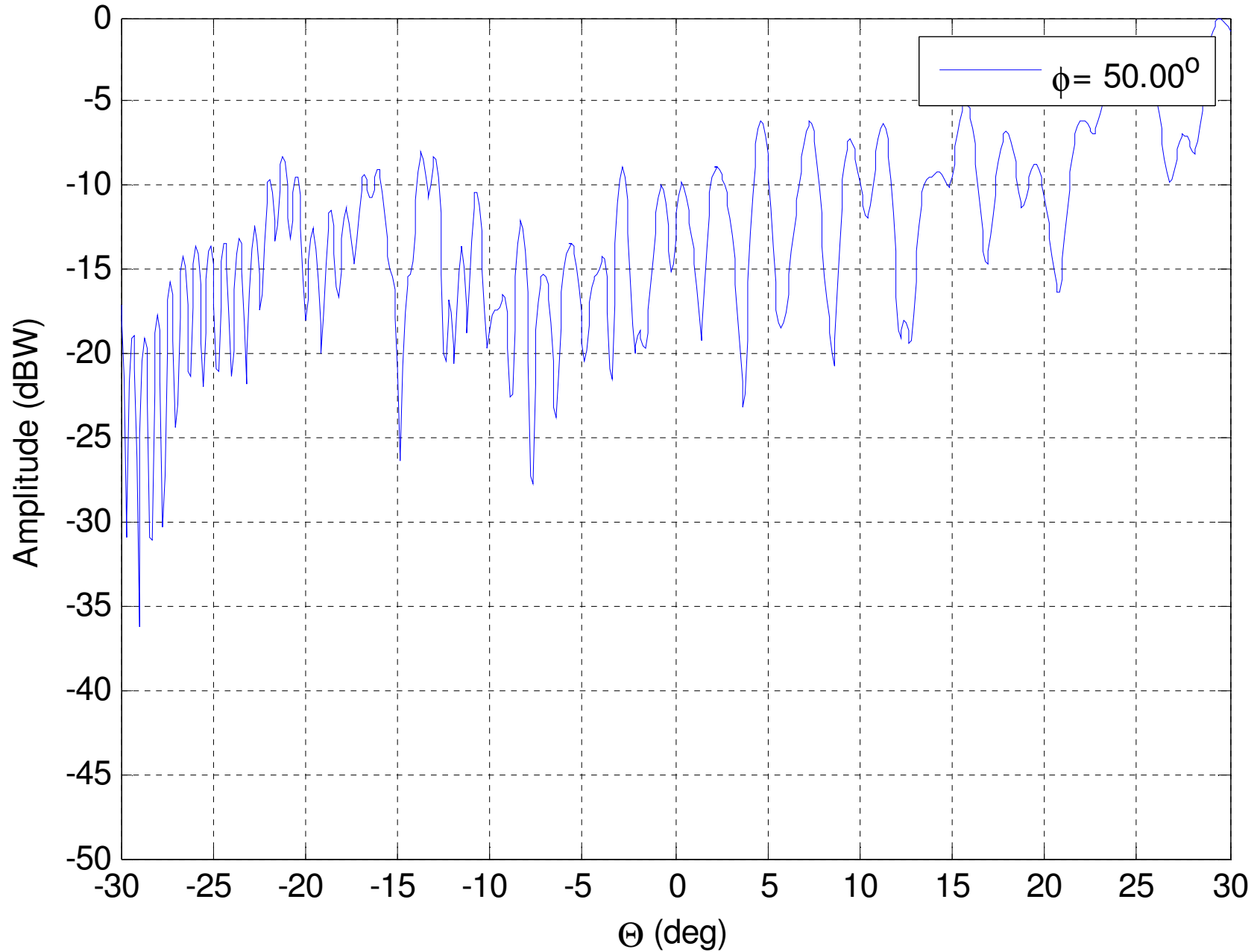
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -14.20 dBW, Date: 16-Dec-2011



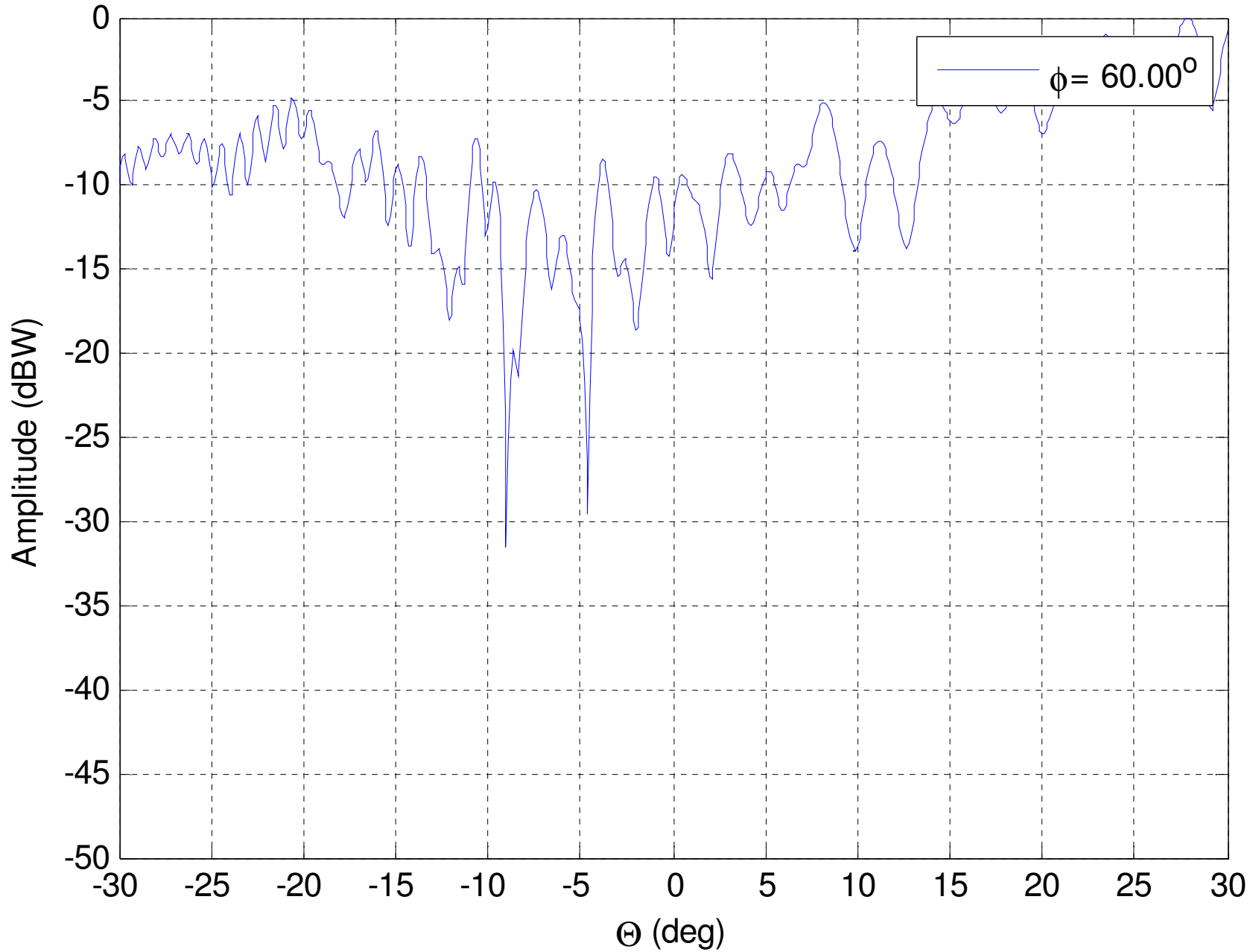
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -9.29 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

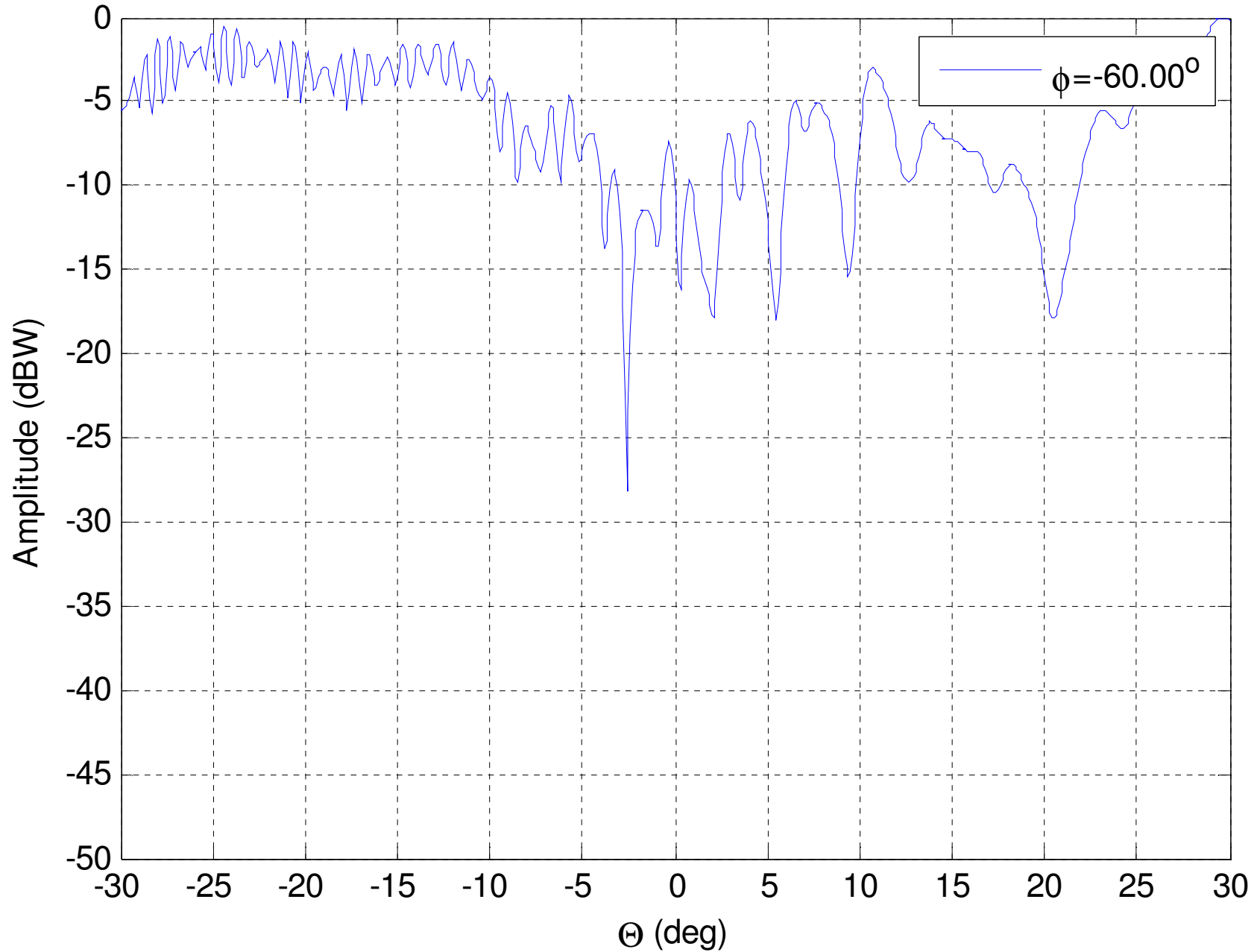
Input file: tx-17.3-lhcp-60.cut, Peak: -10.07 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

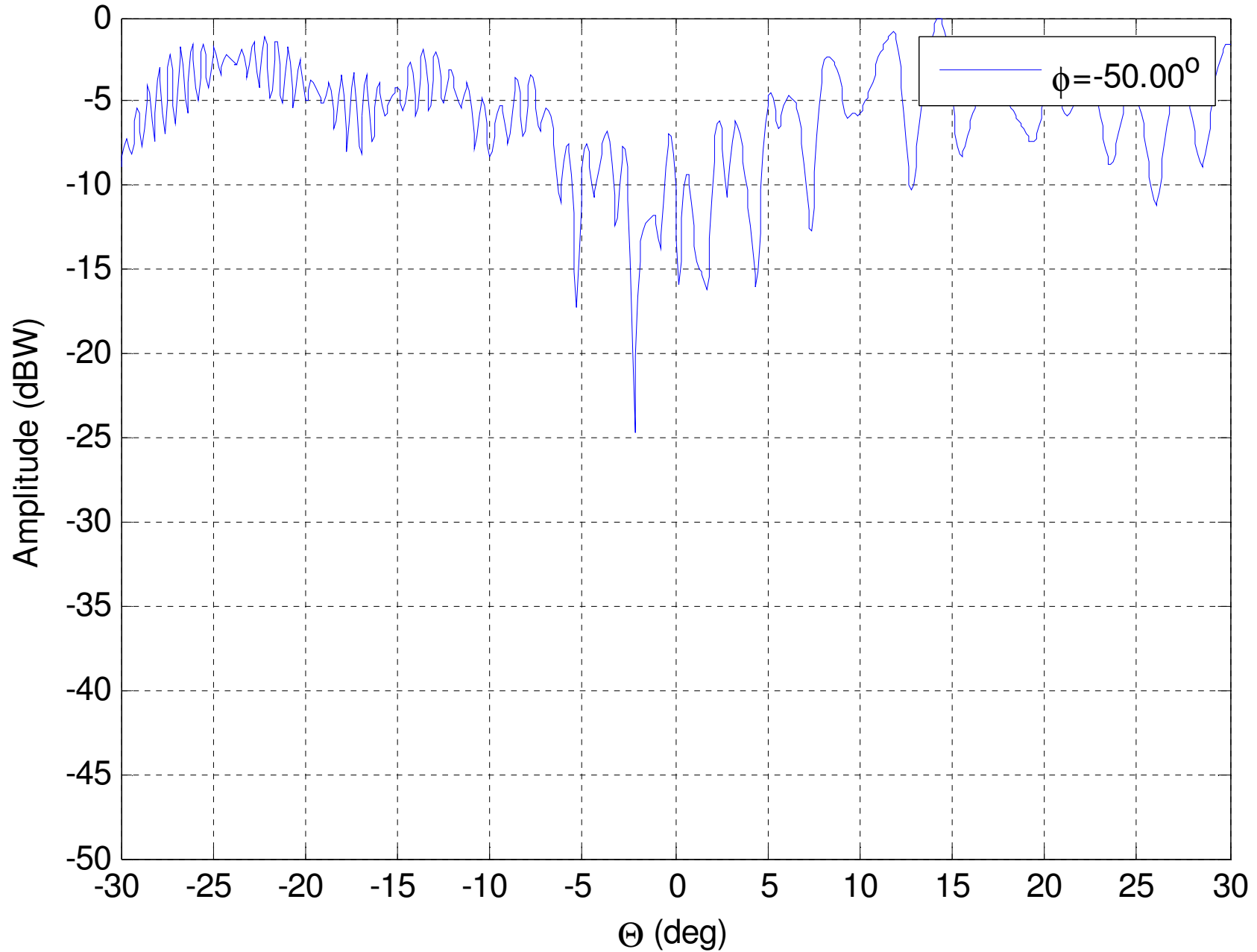
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -10.26 dBW, Date: 16-Dec-2011



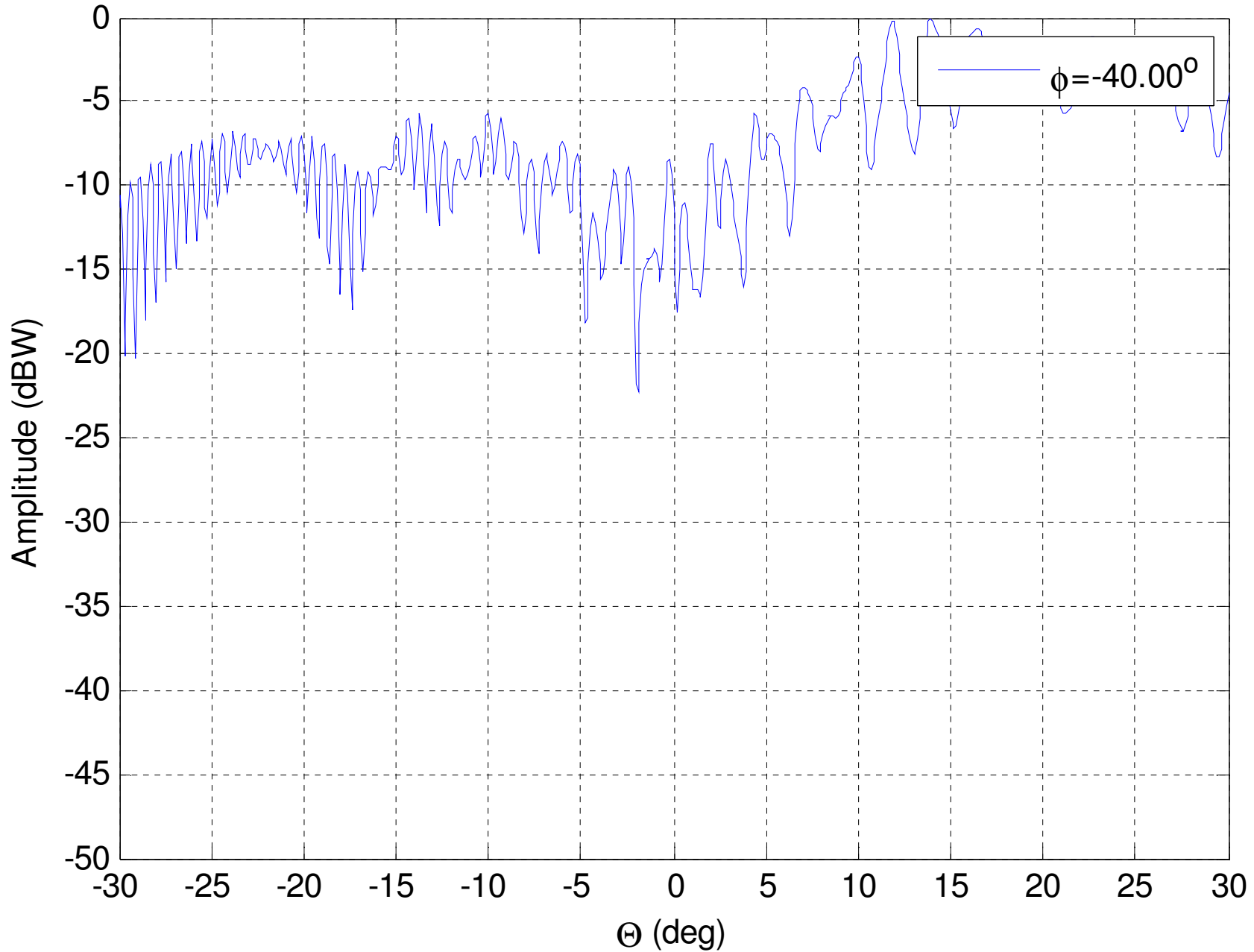
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -10.83 dBW, Date: 16-Dec-2011



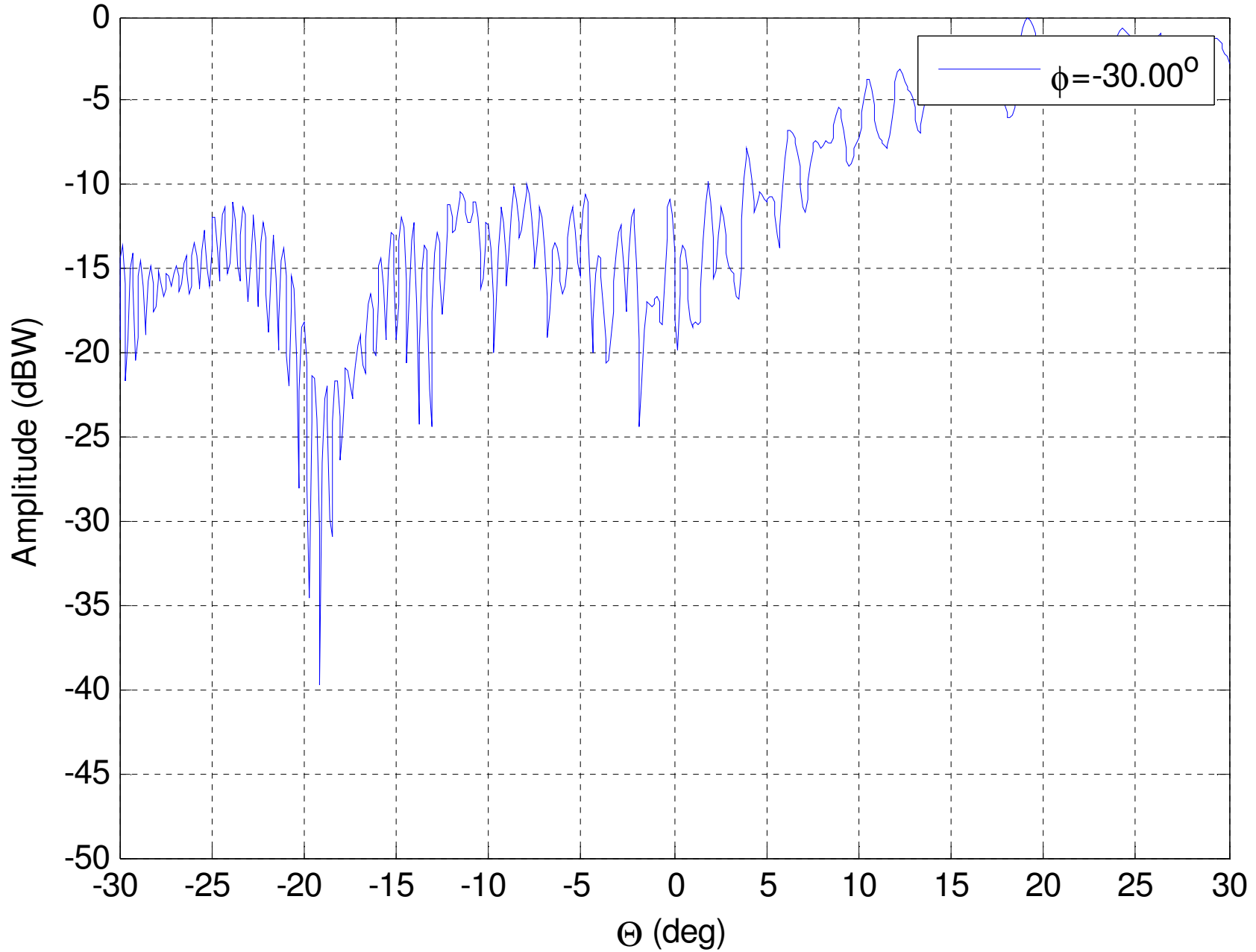
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -9.30 dBW, Date: 16-Dec-2011



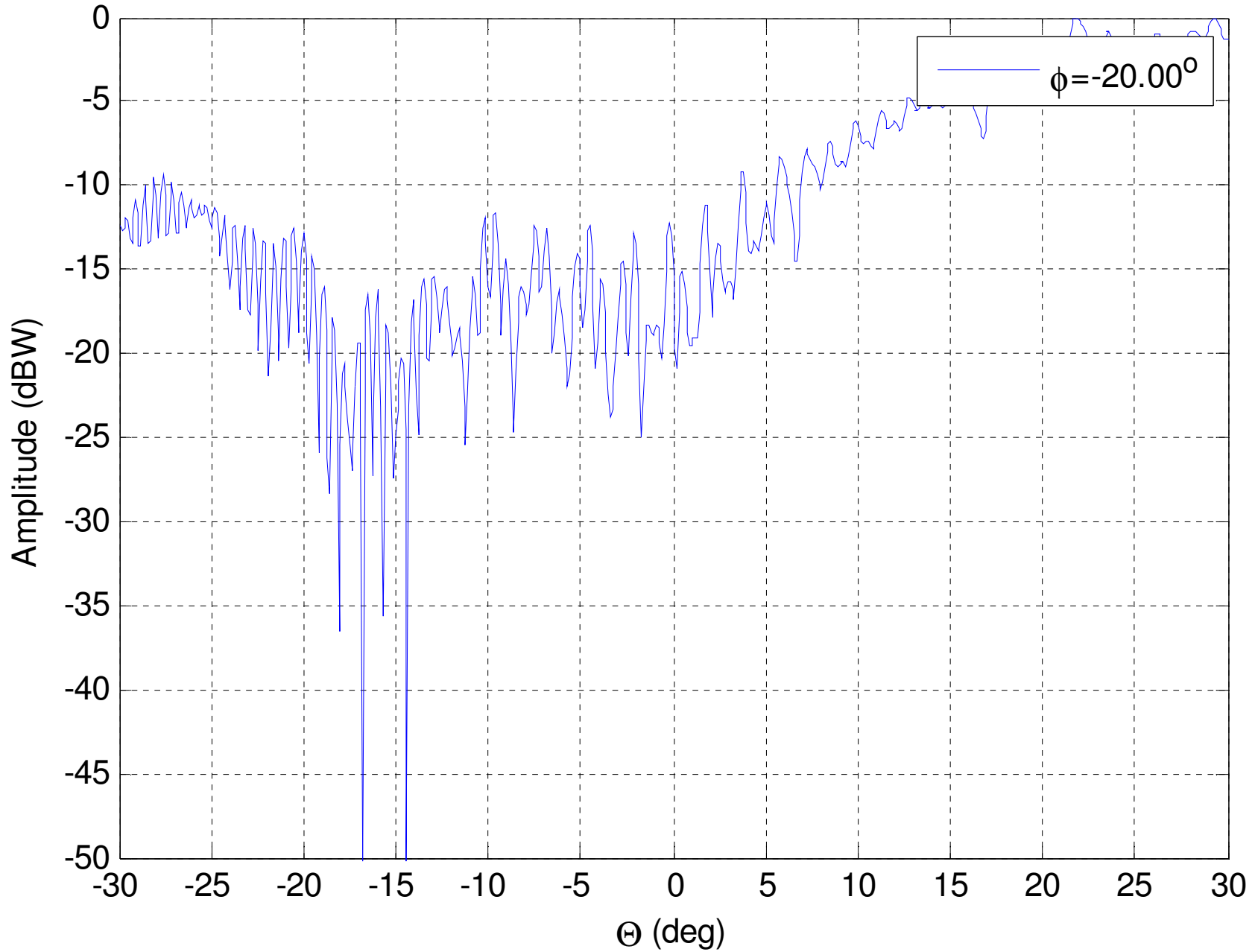
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -6.86 dBW, Date: 16-Dec-2011



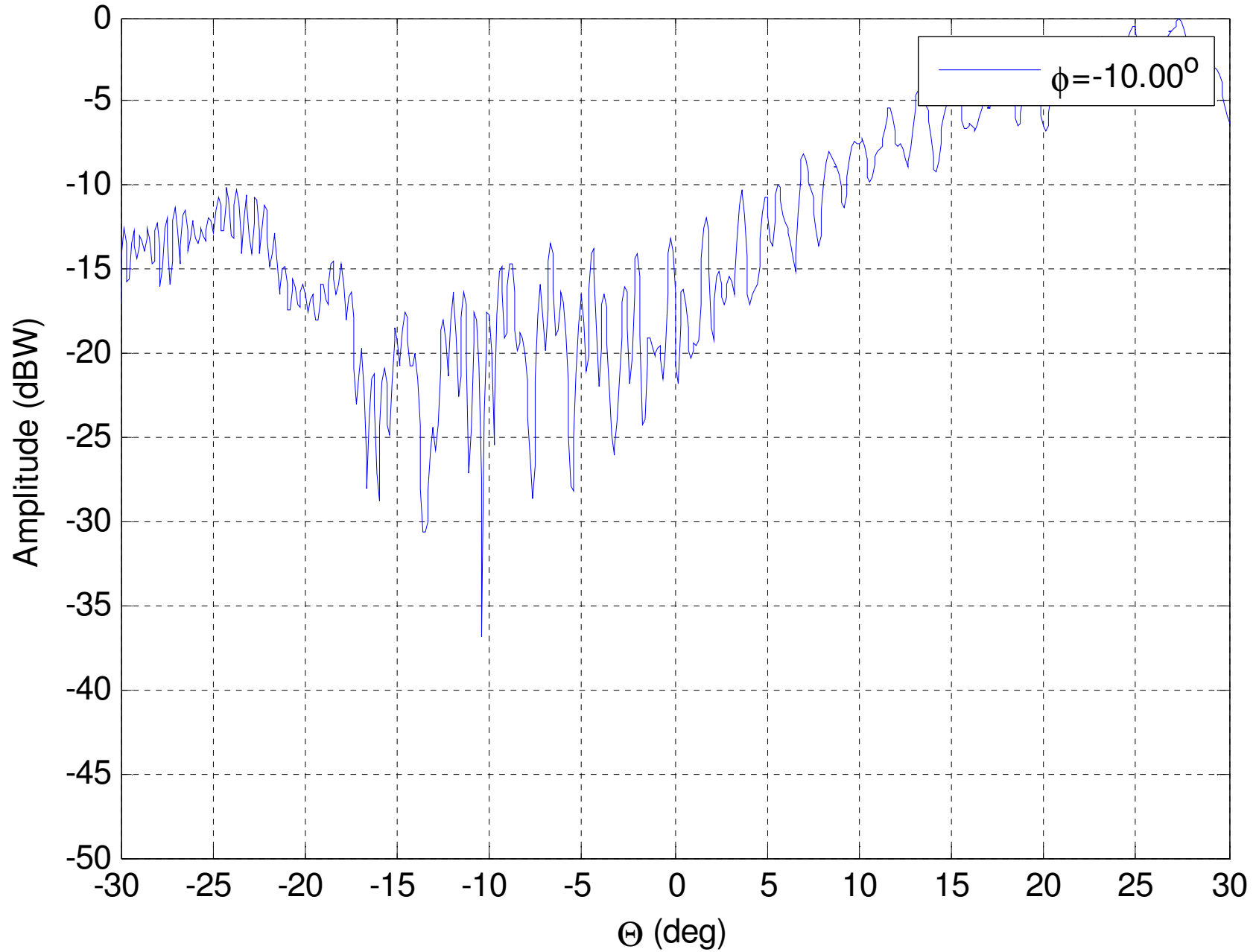
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: -5.49 dBW, Date: 16-Dec-2011



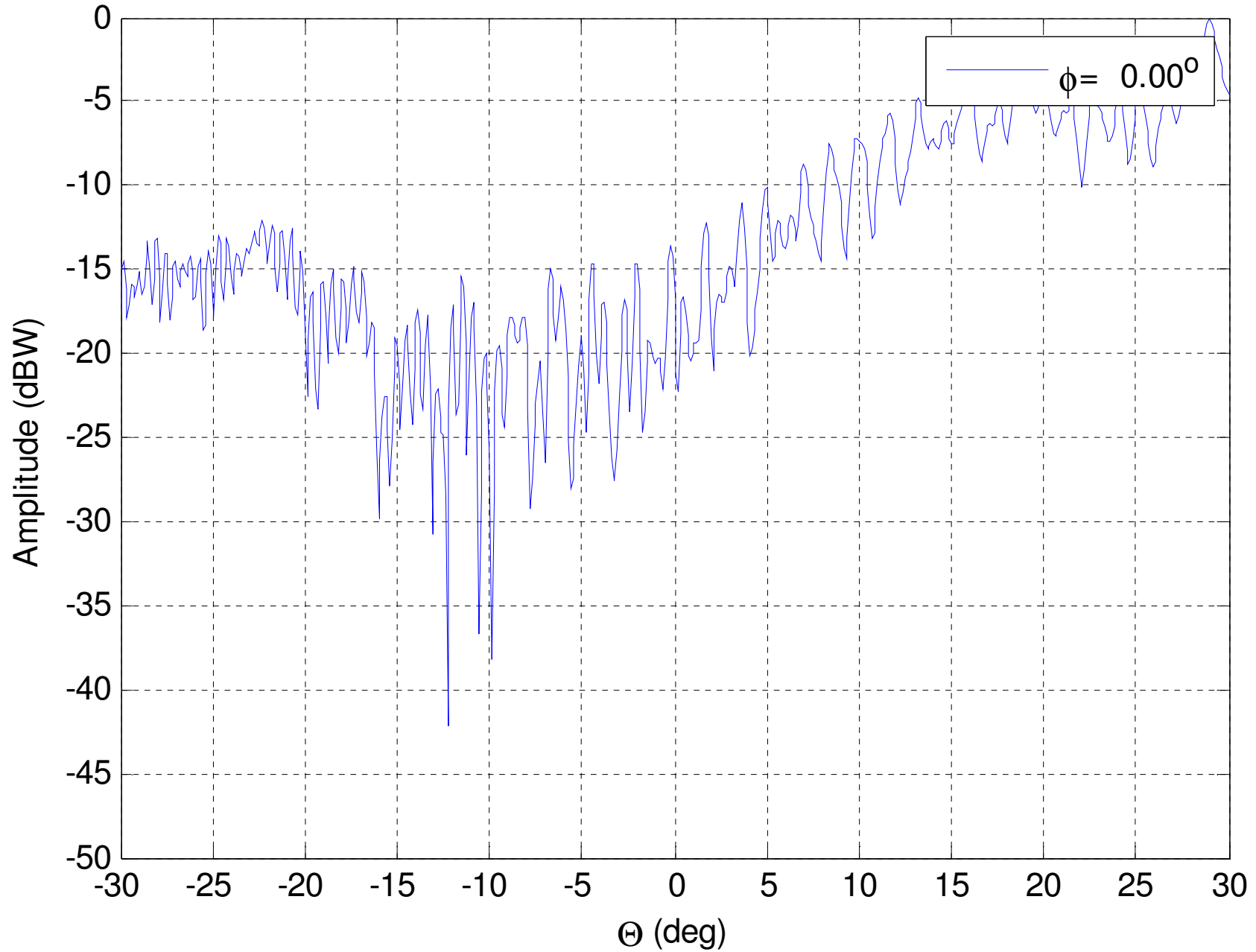
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: -4.56 dBW, Date: 16-Dec-2011



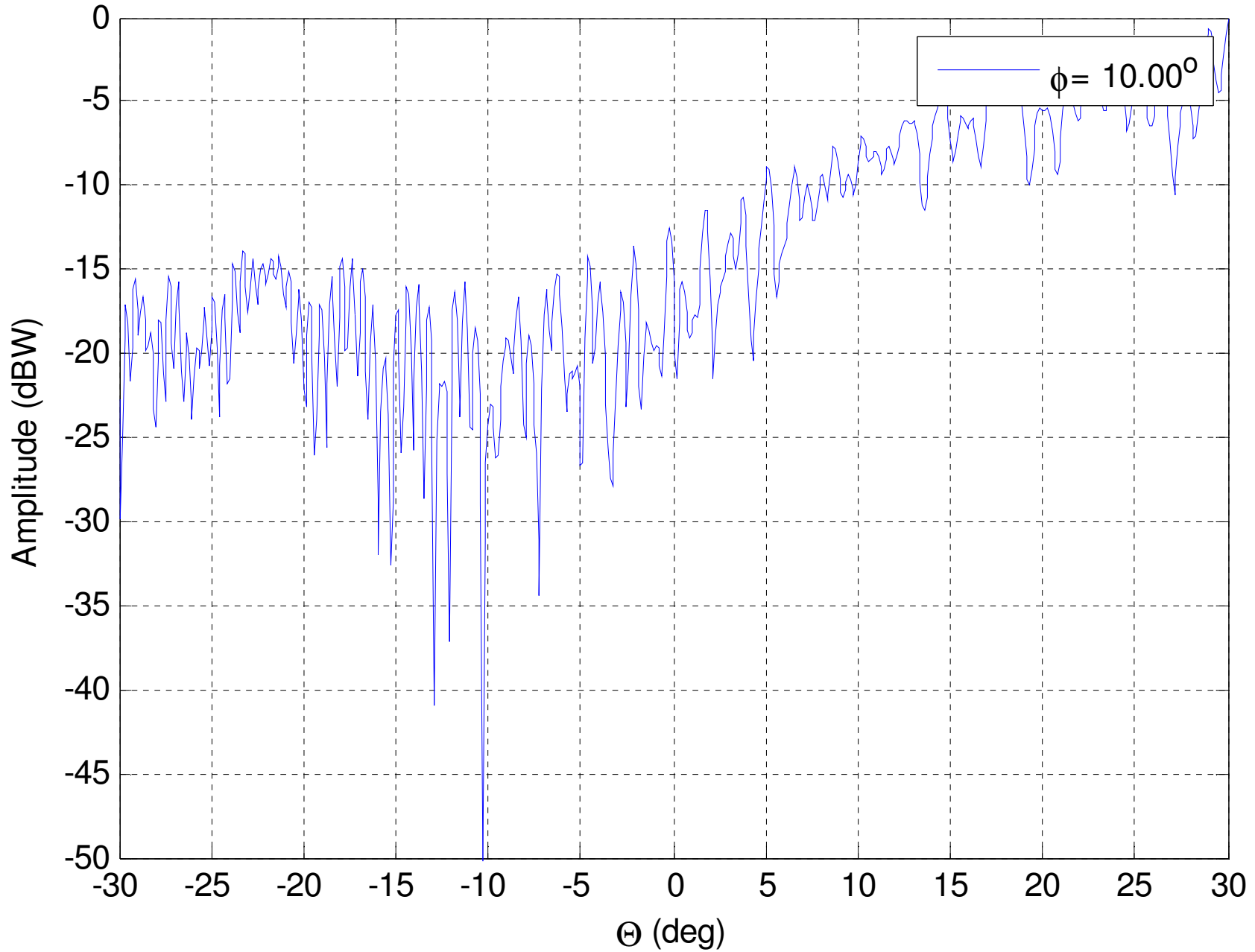
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: -4.17 dBW, Date: 16-Dec-2011



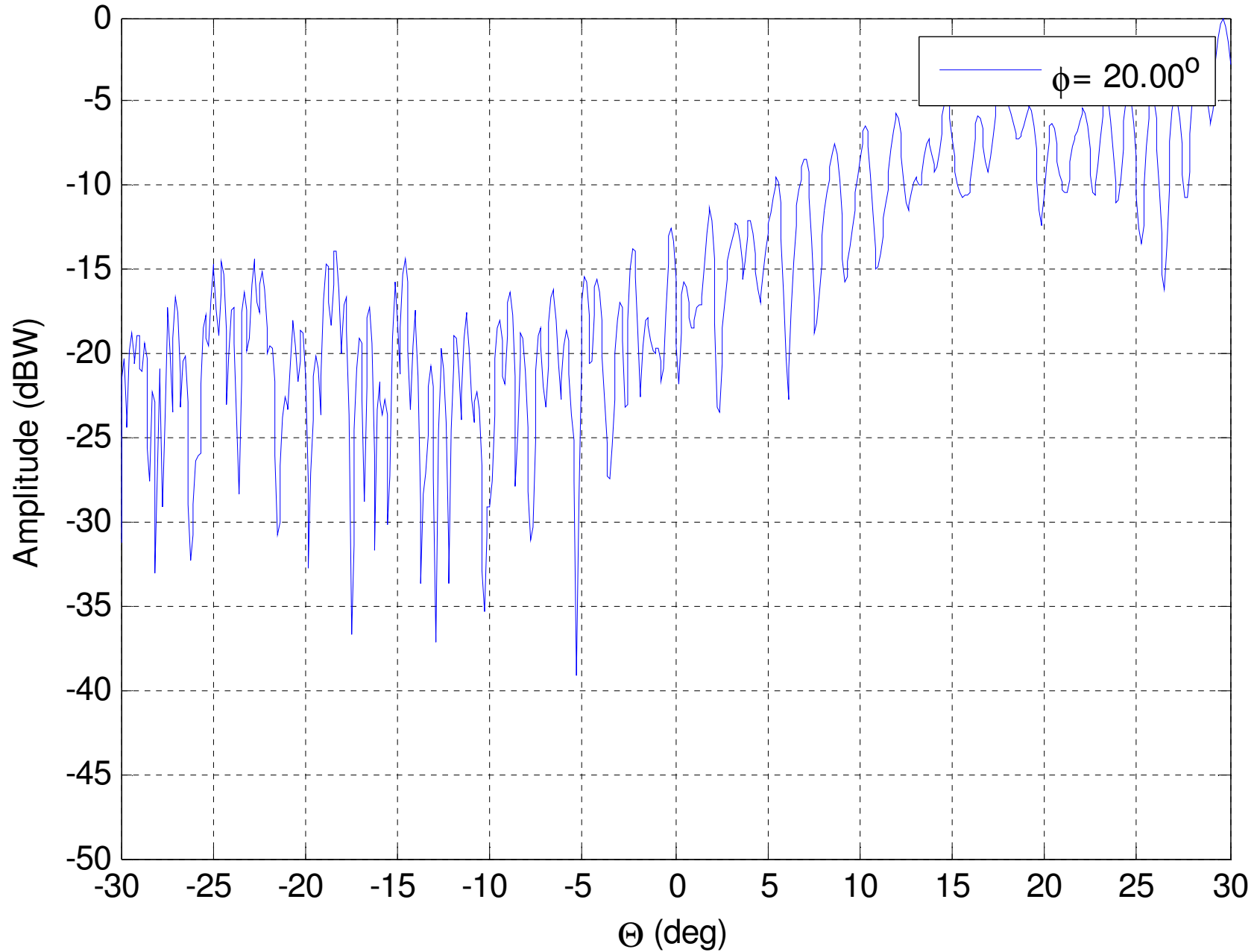
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: -5.16 dBW, Date: 16-Dec-2011



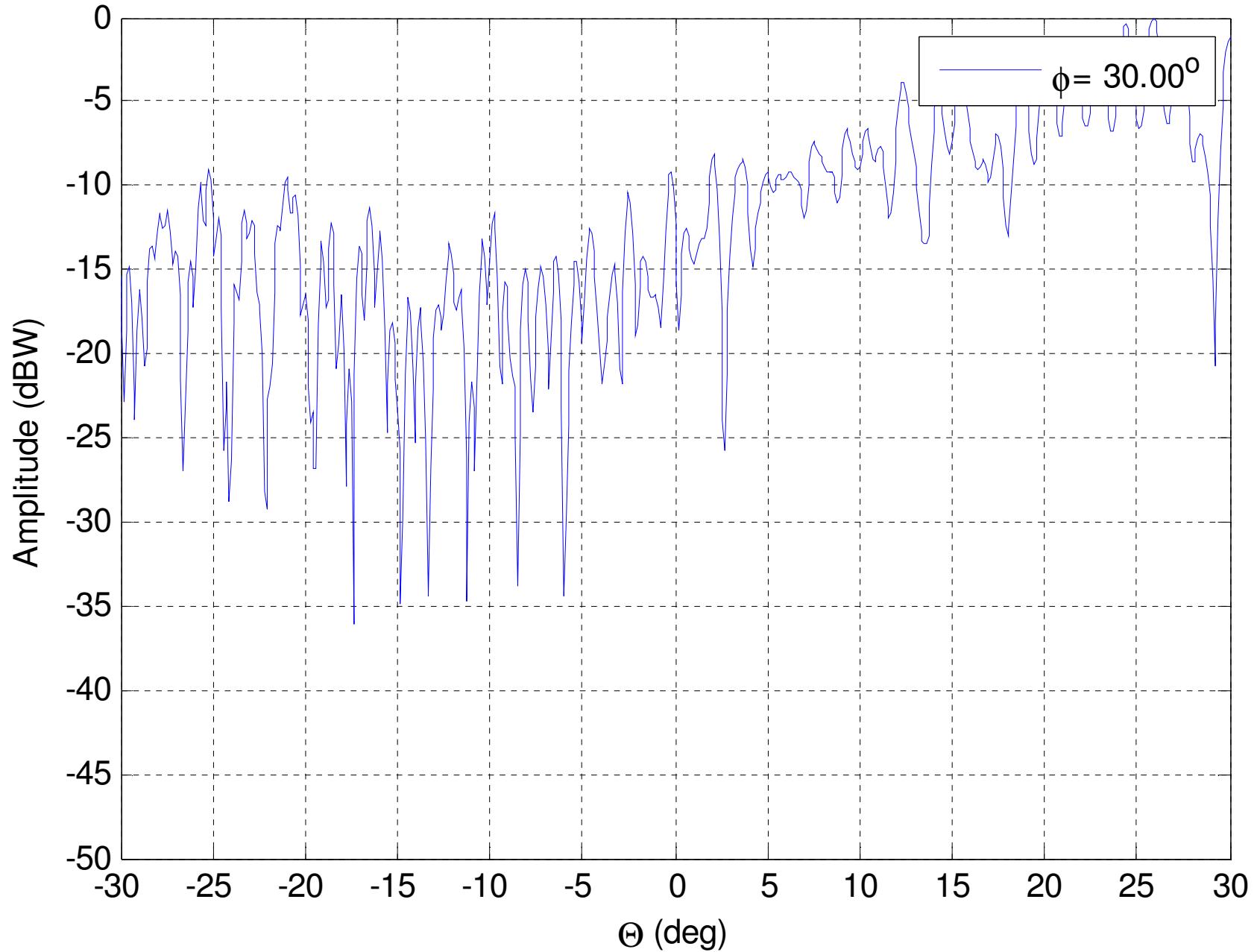
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: -5.30 dBW, Date: 16-Dec-2011



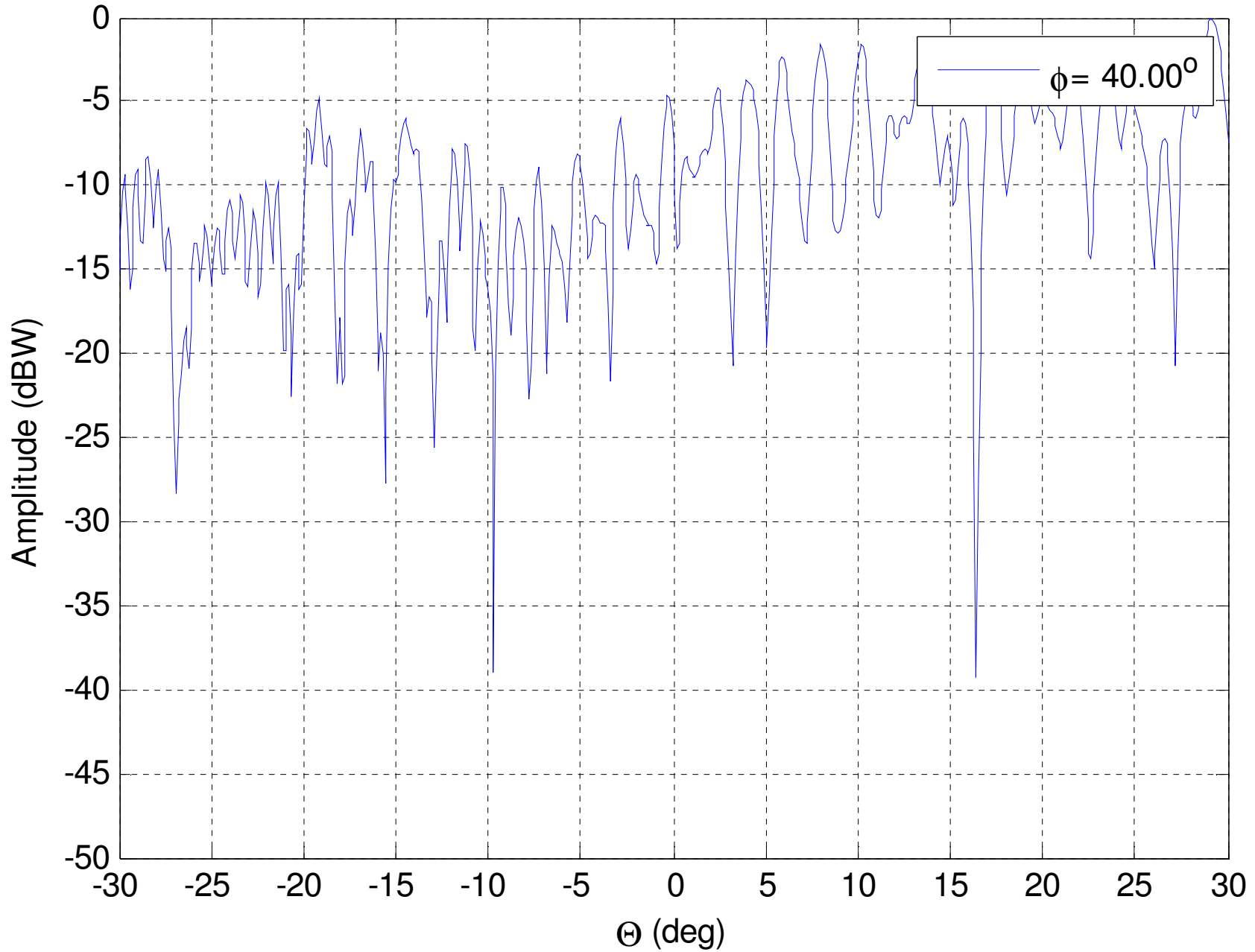
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: -8.70 dBW, Date: 16-Dec-2011



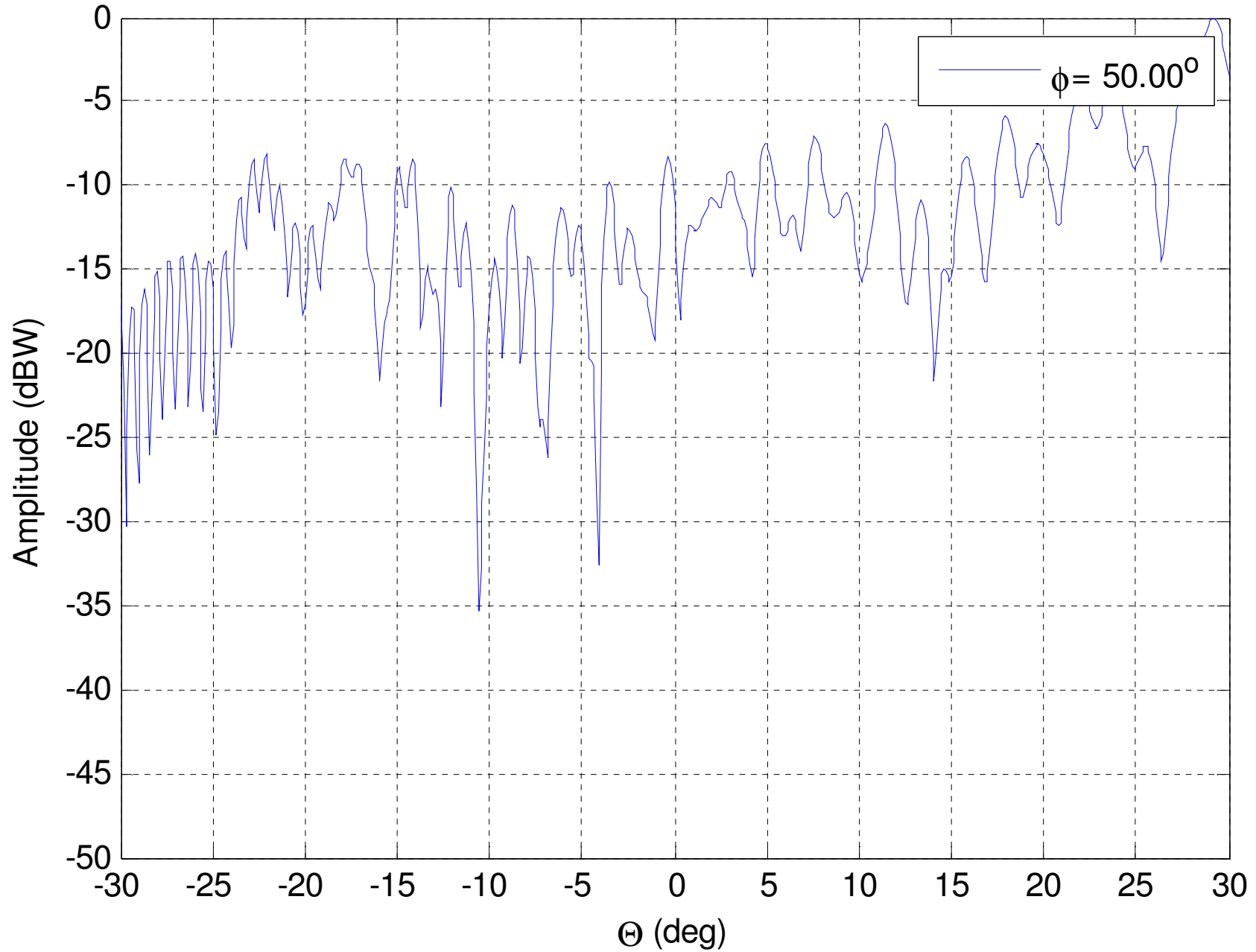
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -13.25 dBW, Date: 16-Dec-2011



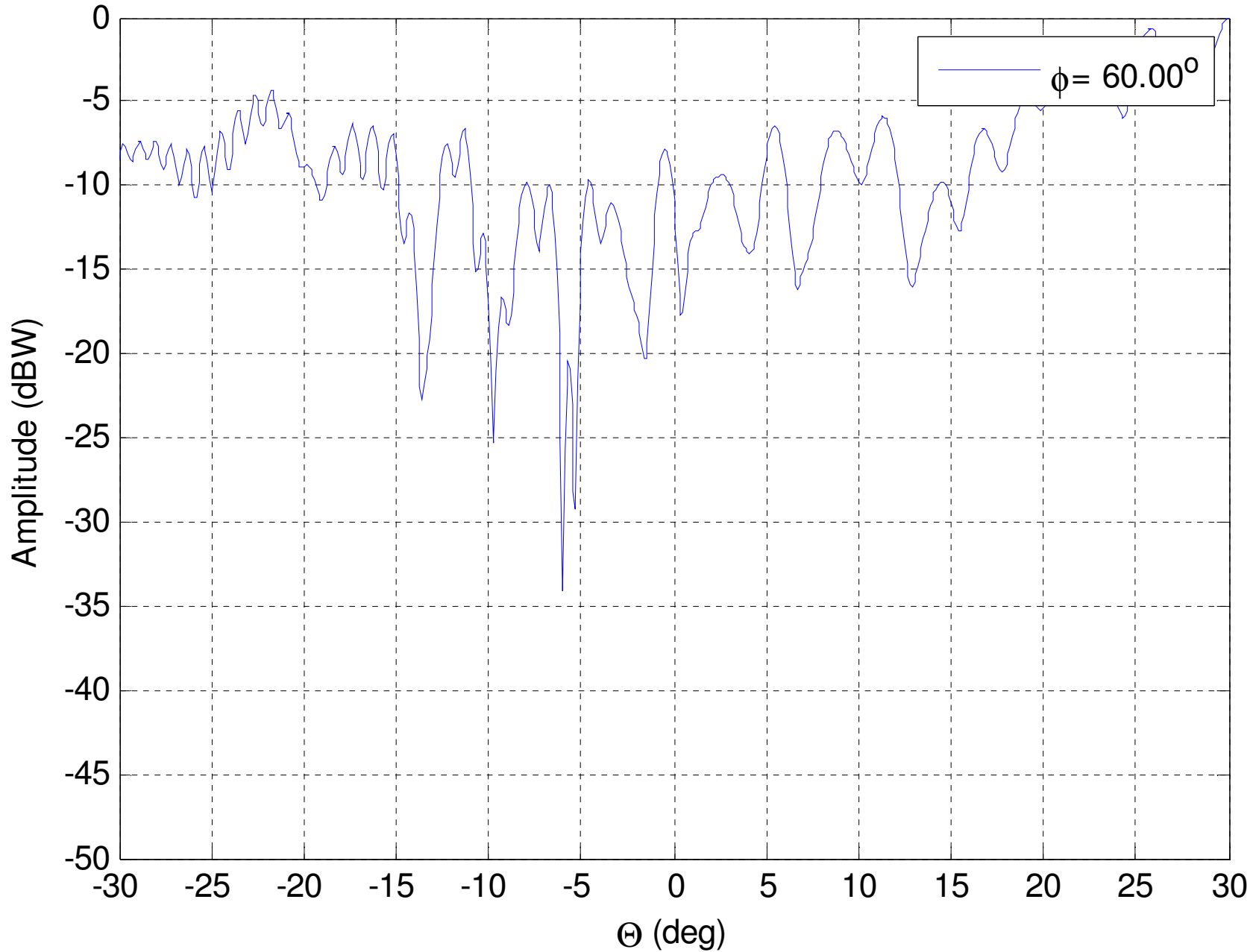
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -9.62 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

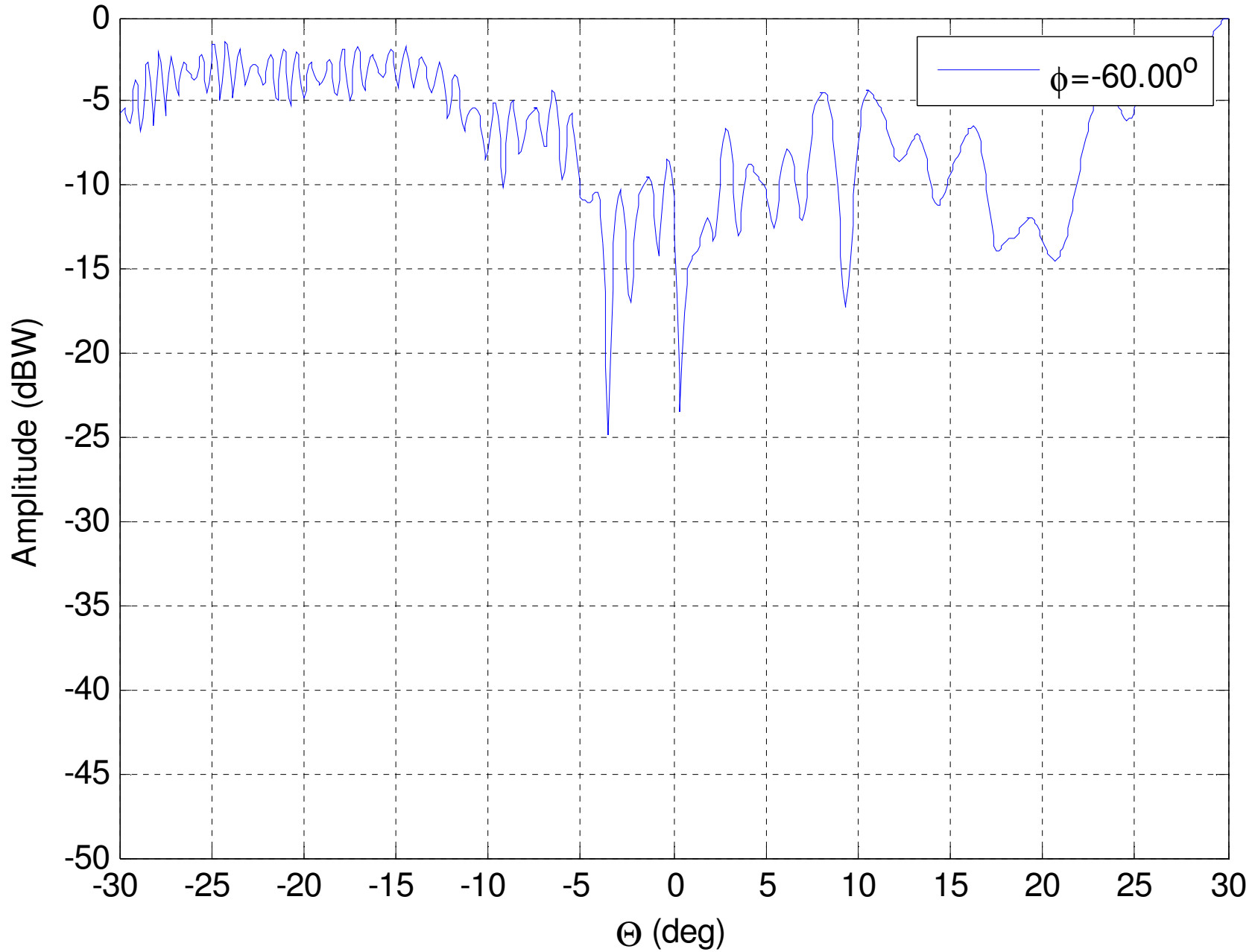
Input file: tx-17.5-rhcp-60.cut, Peak: -10.06 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

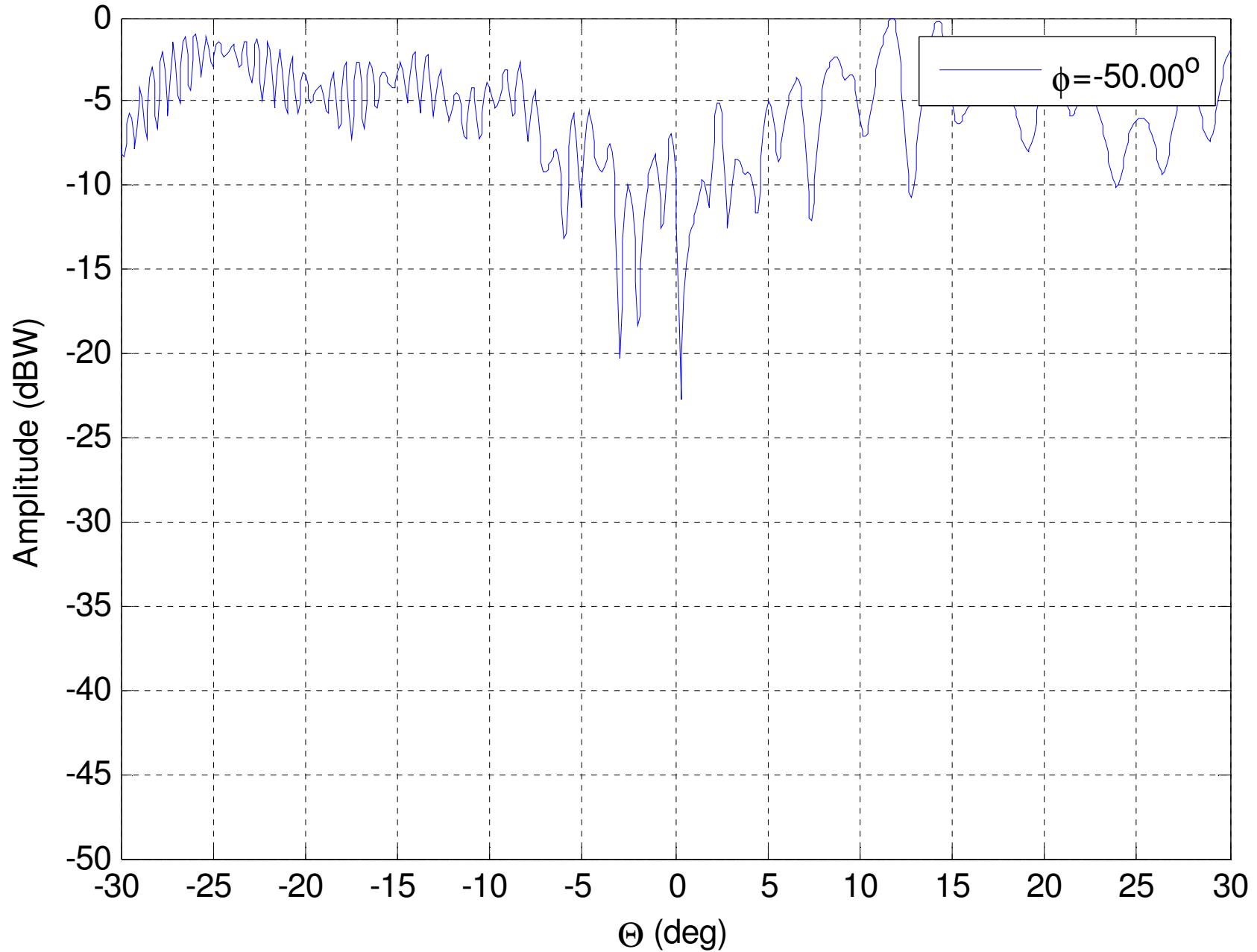
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -9.63 dBW, Date: 16-Dec-2011



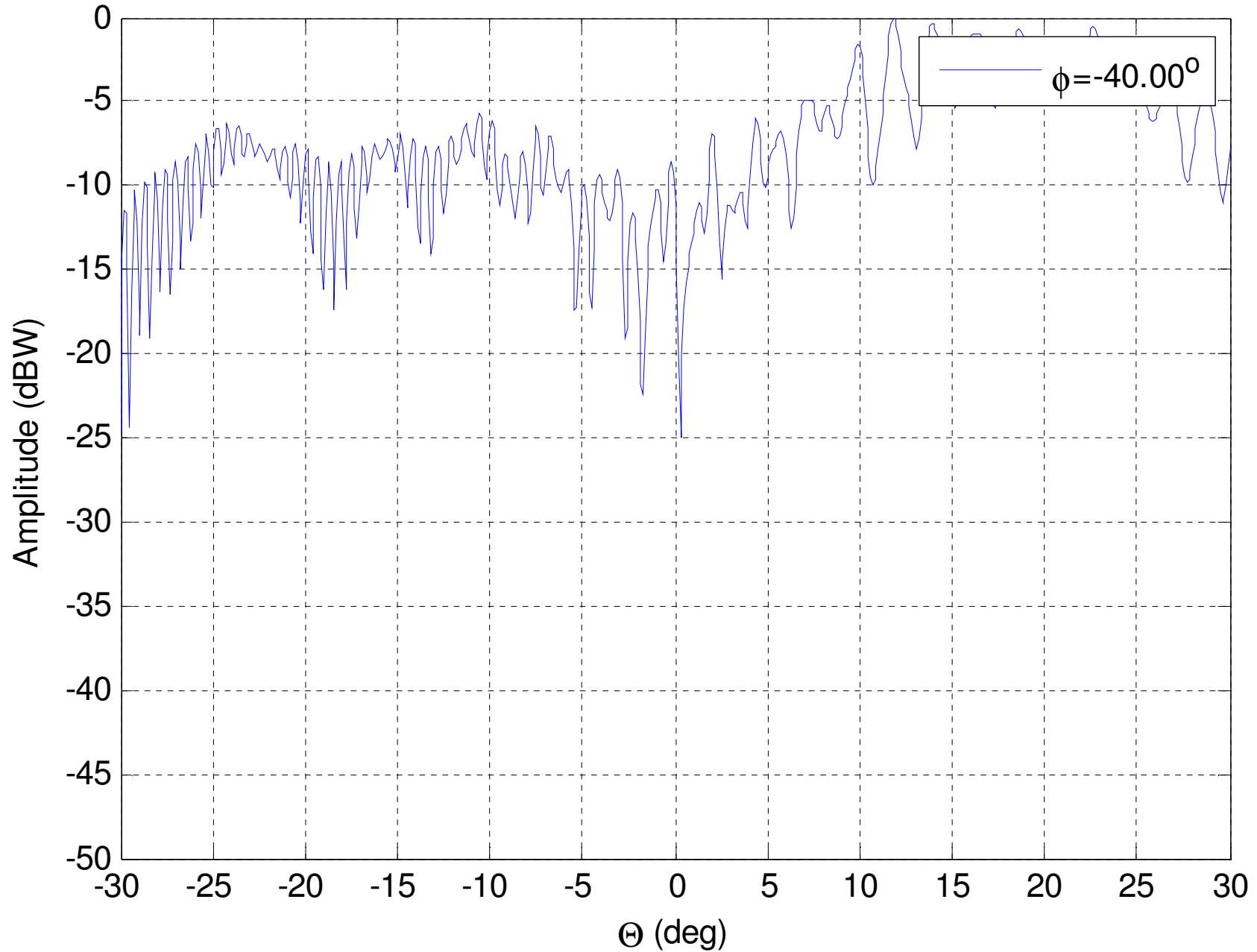
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -11.09 dBW, Date: 16-Dec-2011



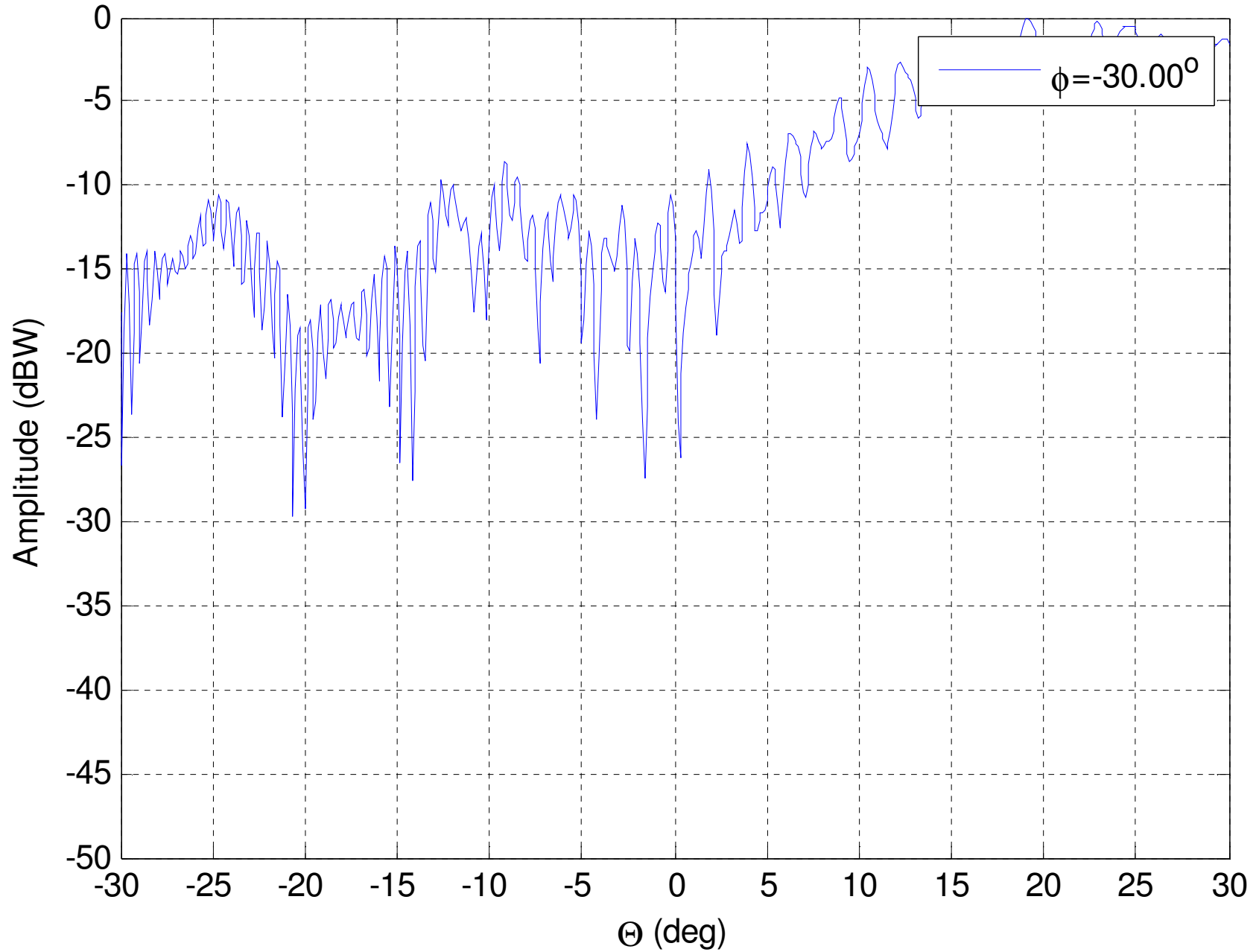
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -9.30 dBW, Date: 16-Dec-2011



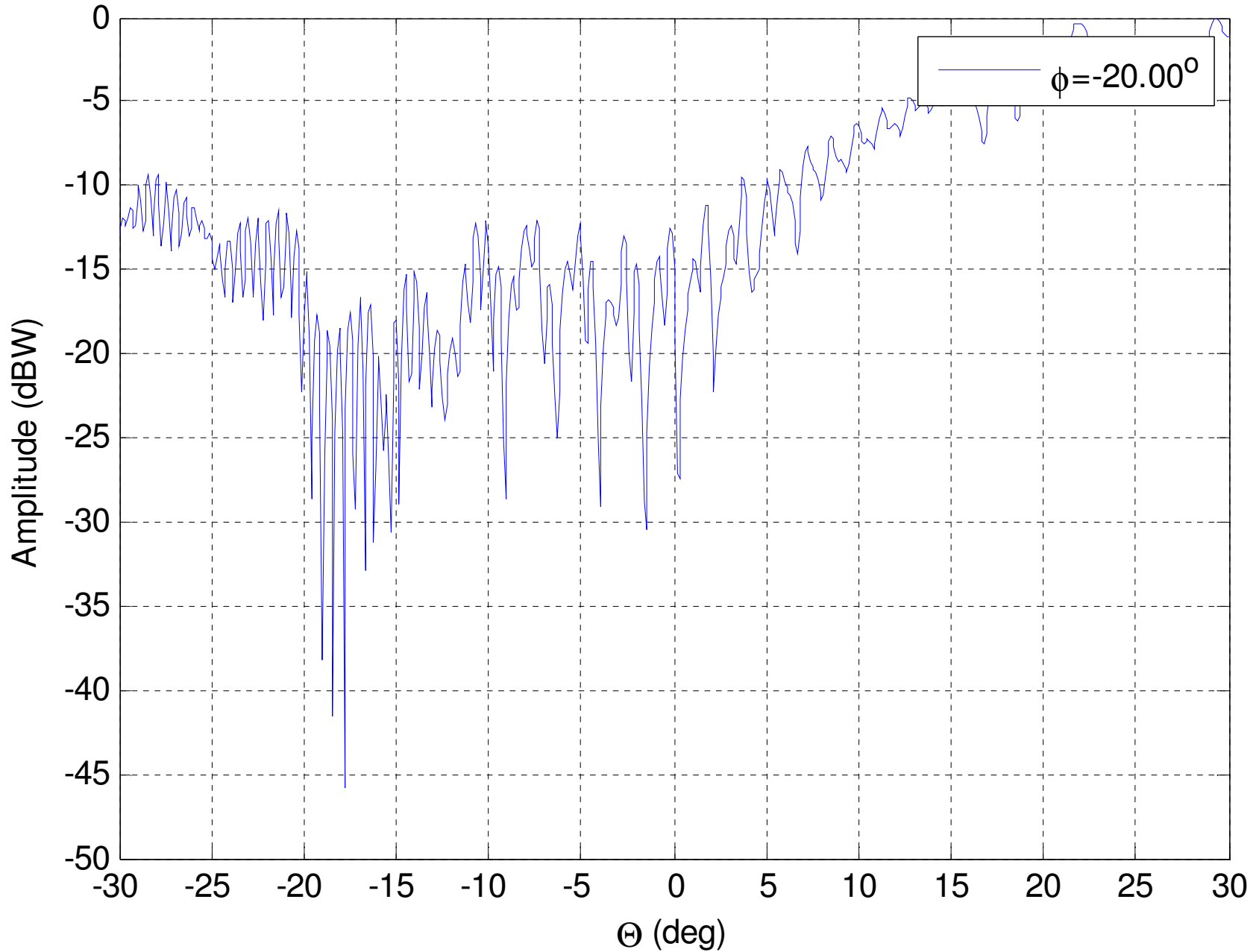
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: -7.32 dBW, Date: 16-Dec-2011



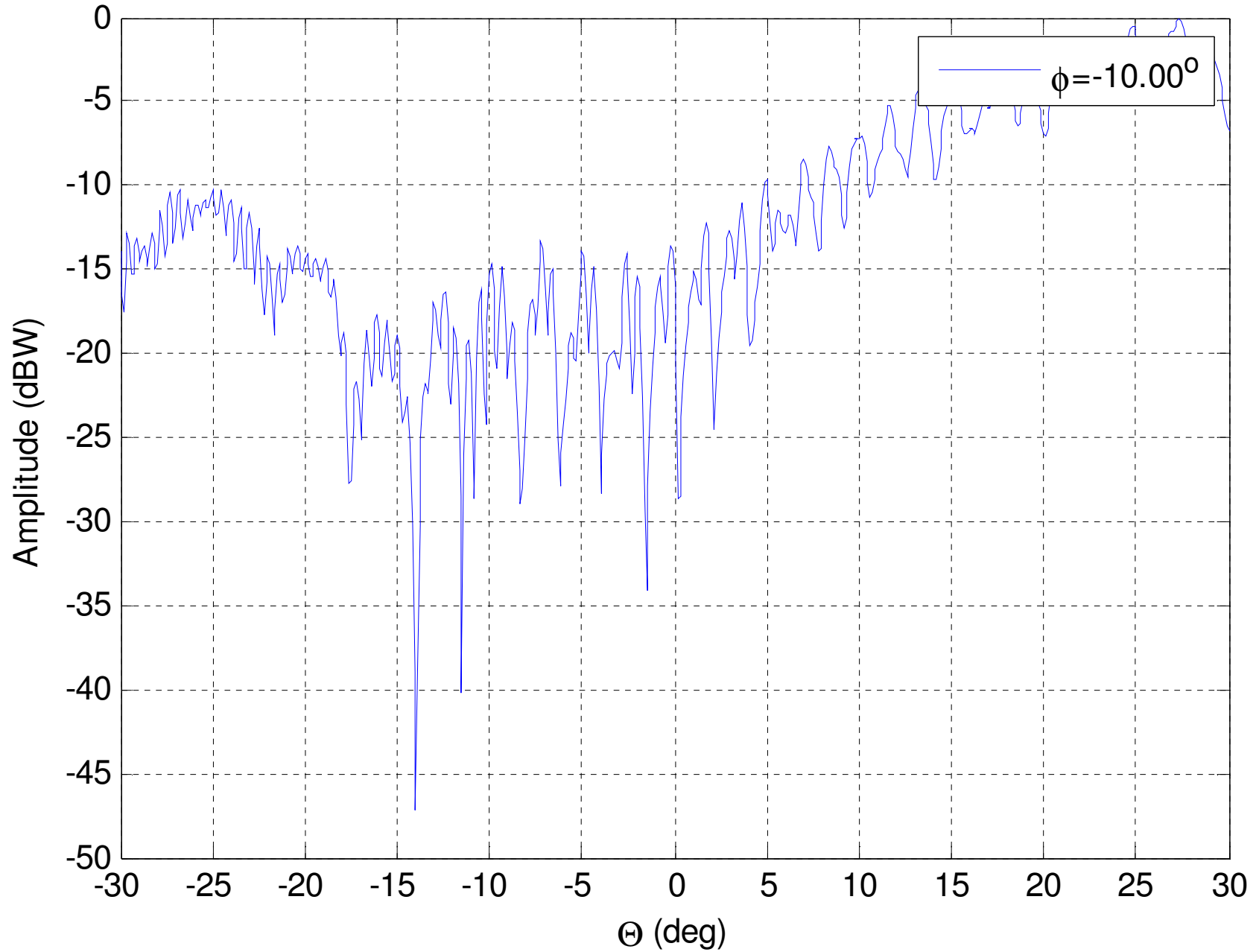
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: -5.47 dBW, Date: 16-Dec-2011



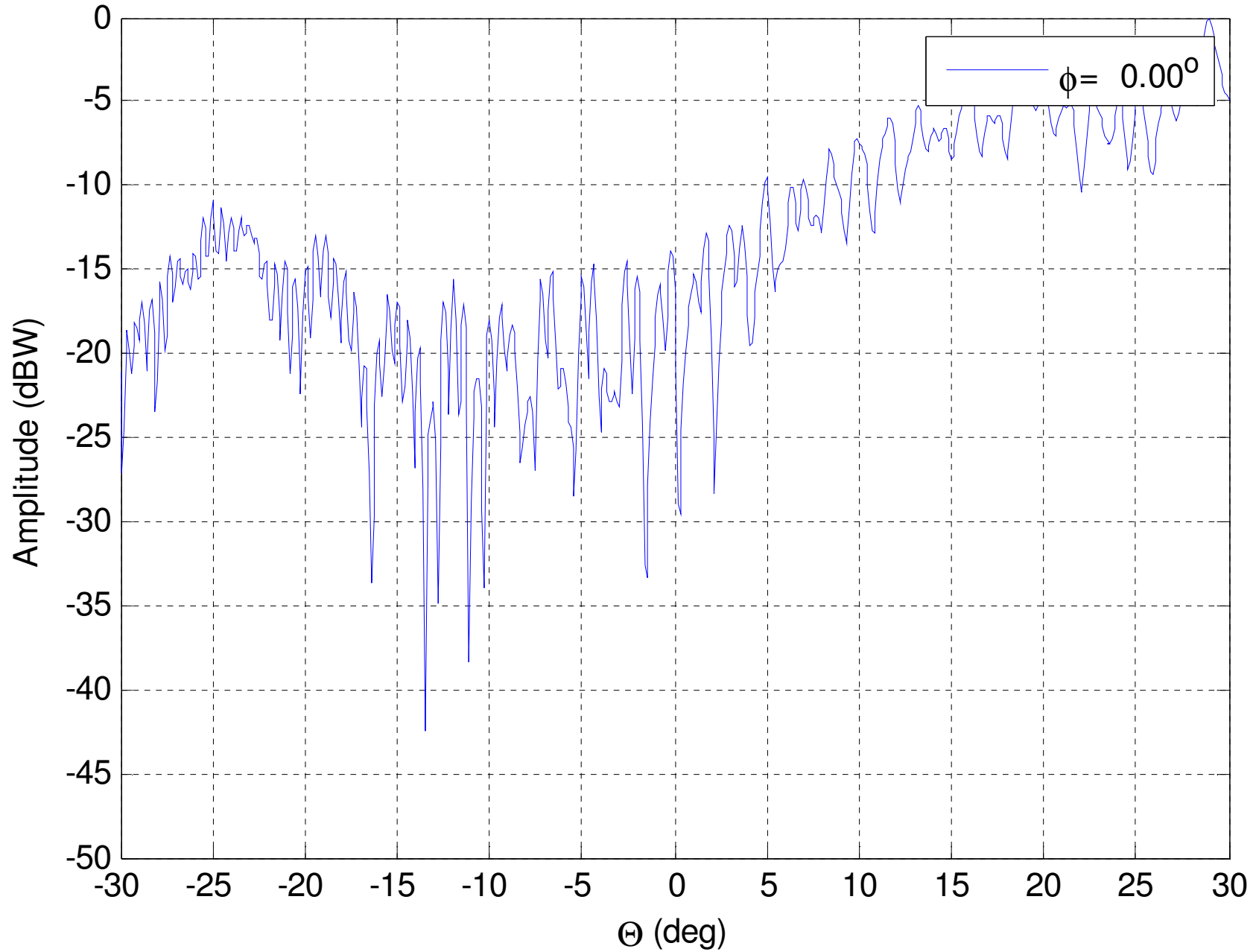
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: -4.40 dBW, Date: 16-Dec-2011



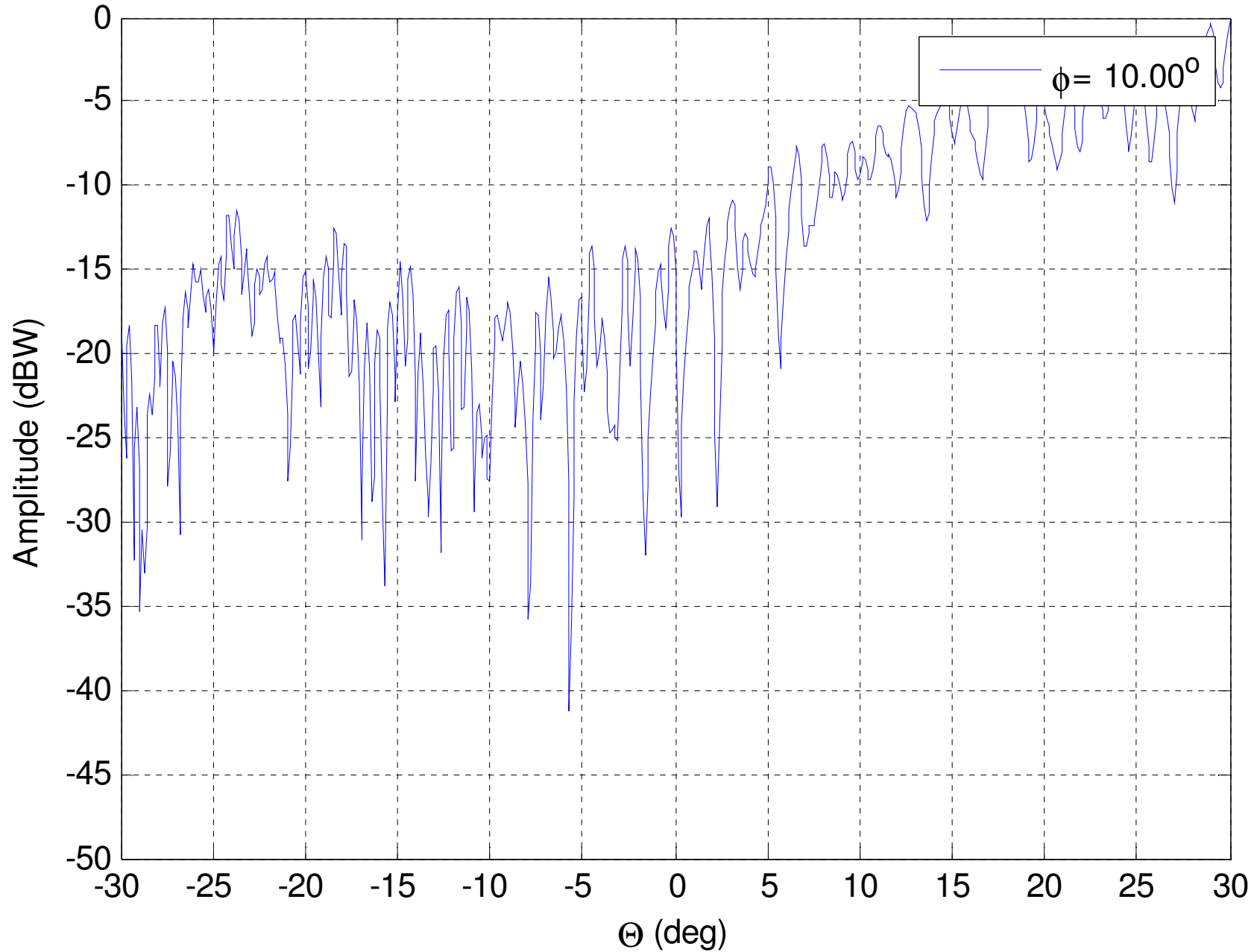
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: -4.06 dBW, Date: 16-Dec-2011



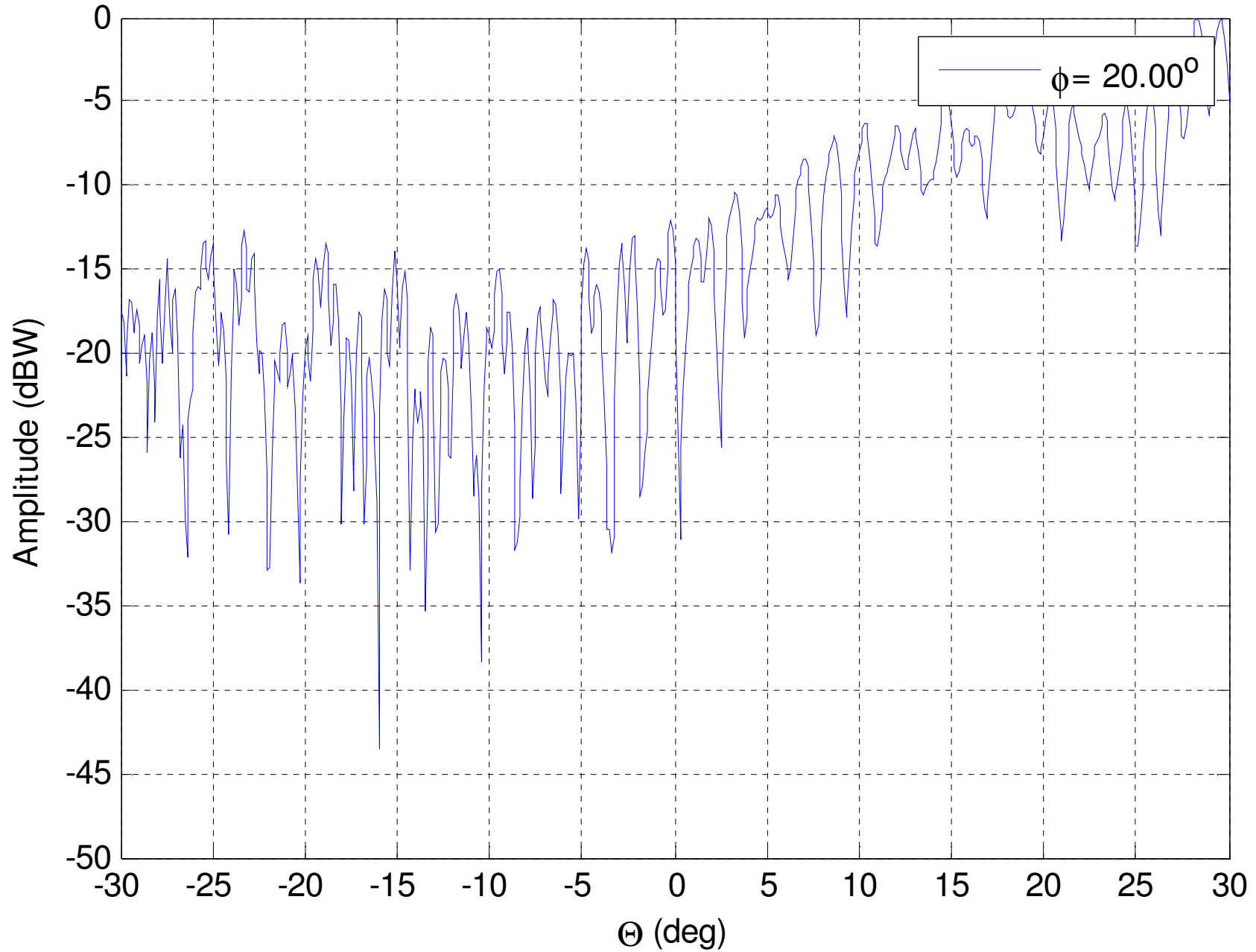
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: -5.27 dBW, Date: 16-Dec-2011



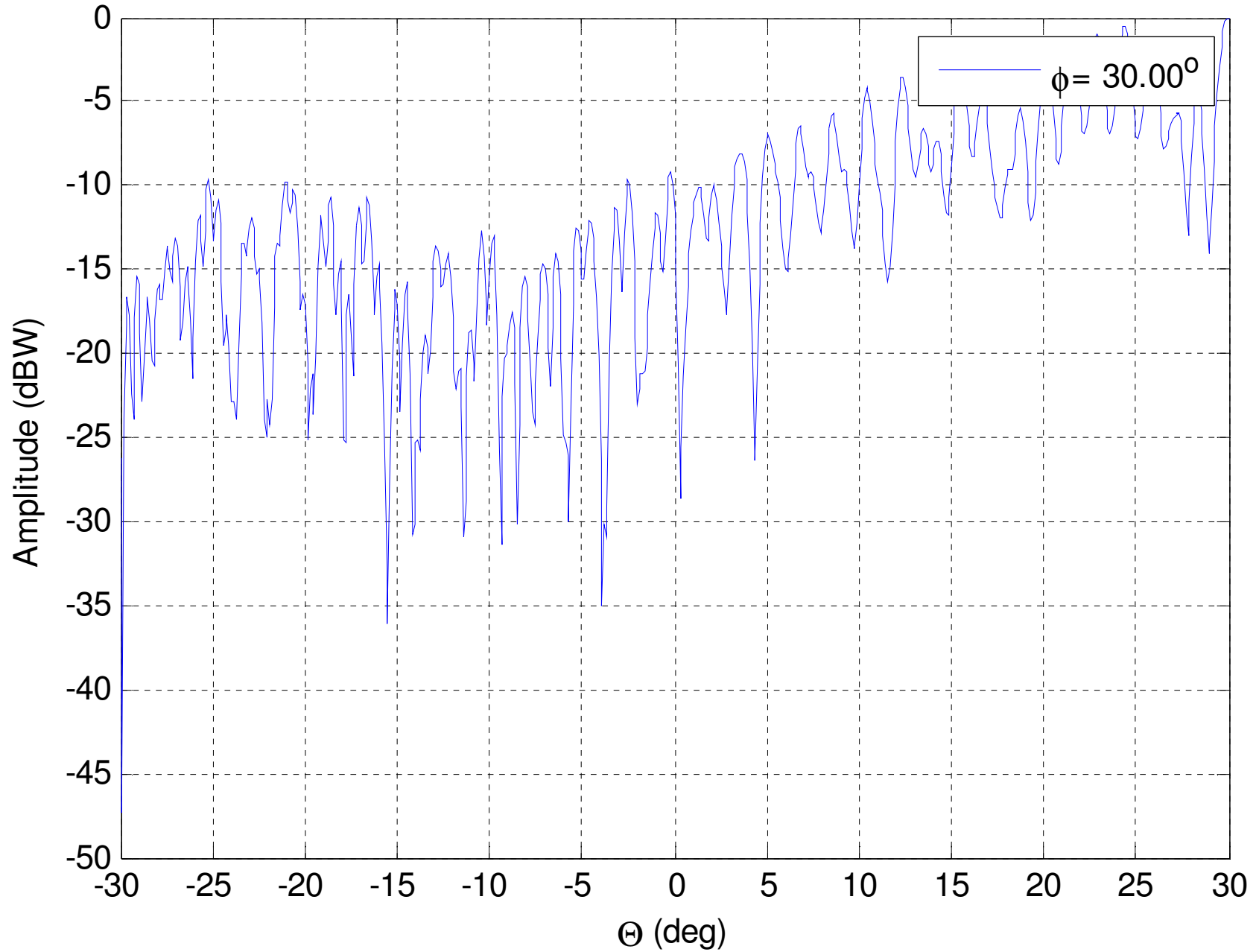
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: -5.78 dBW, Date: 16-Dec-2011



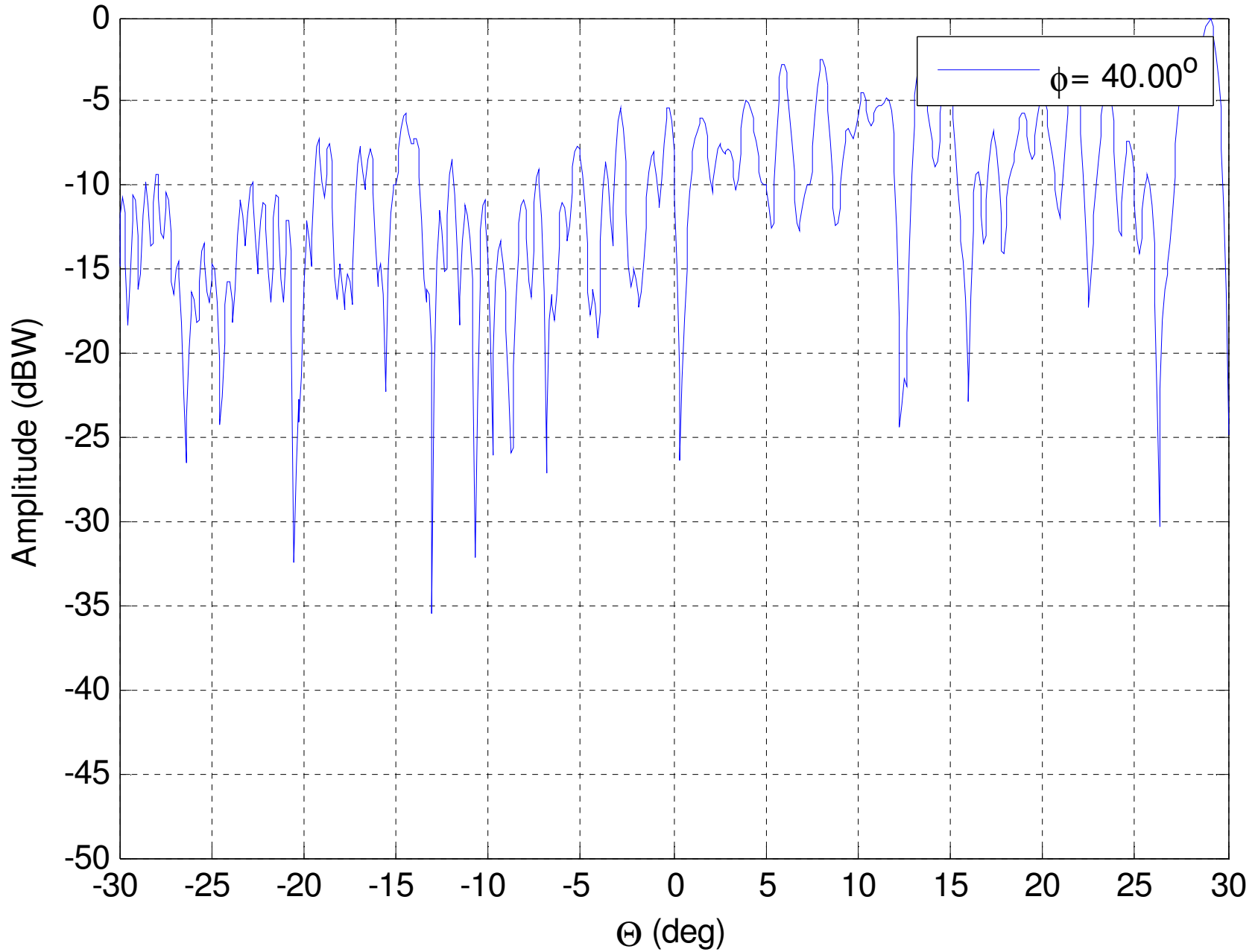
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: -8.64 dBW, Date: 16-Dec-2011



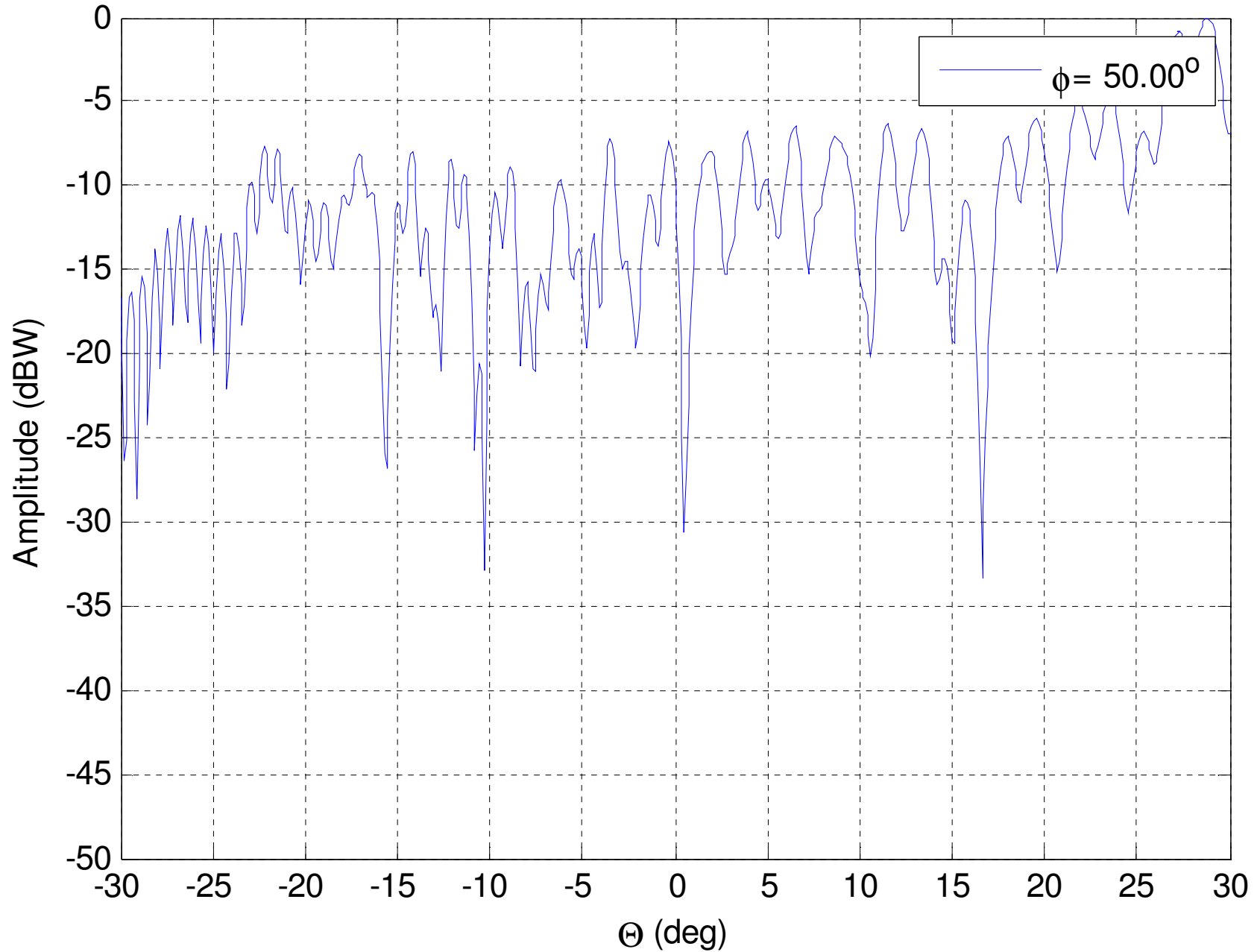
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -12.49 dBW, Date: 16-Dec-2011



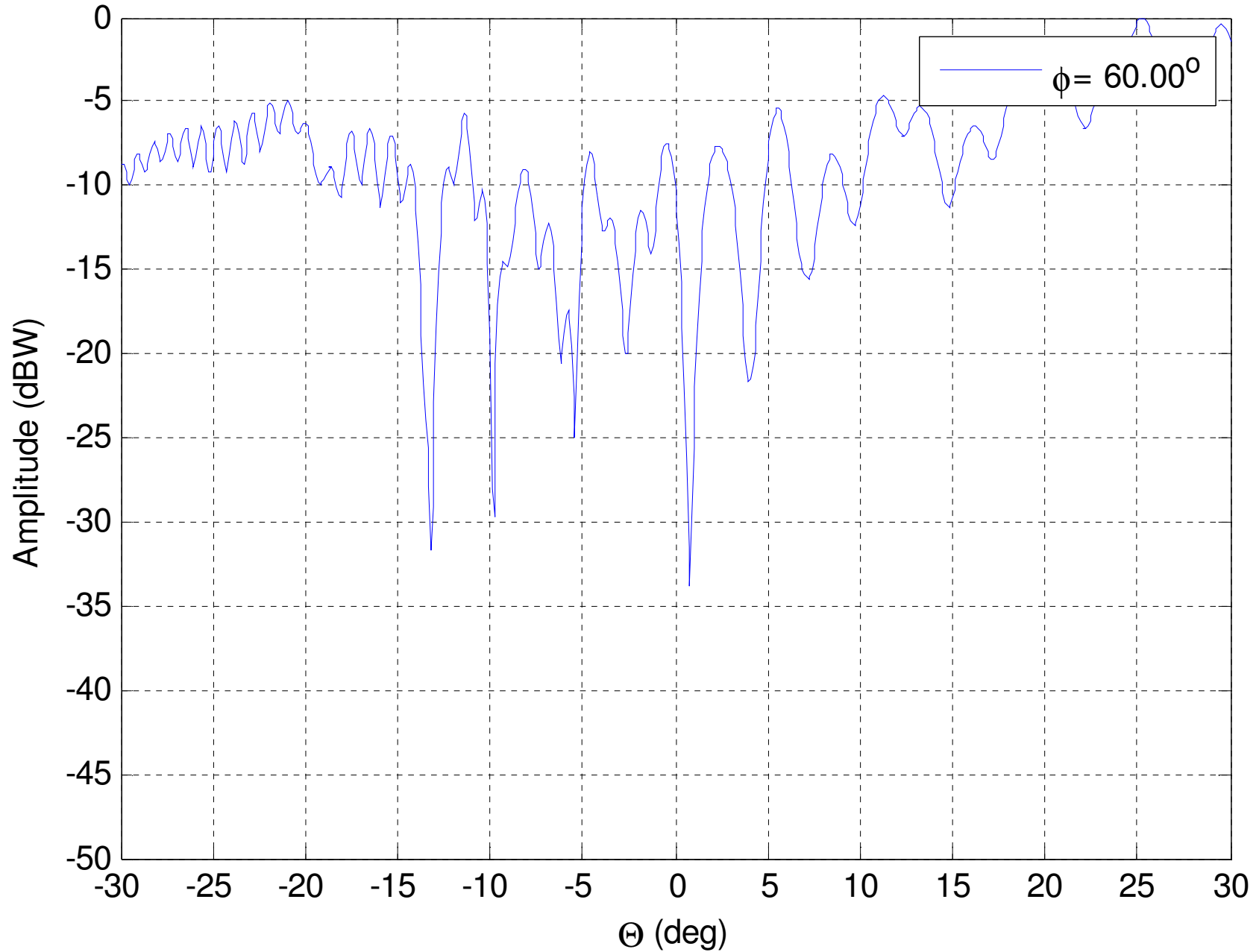
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -10.31 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

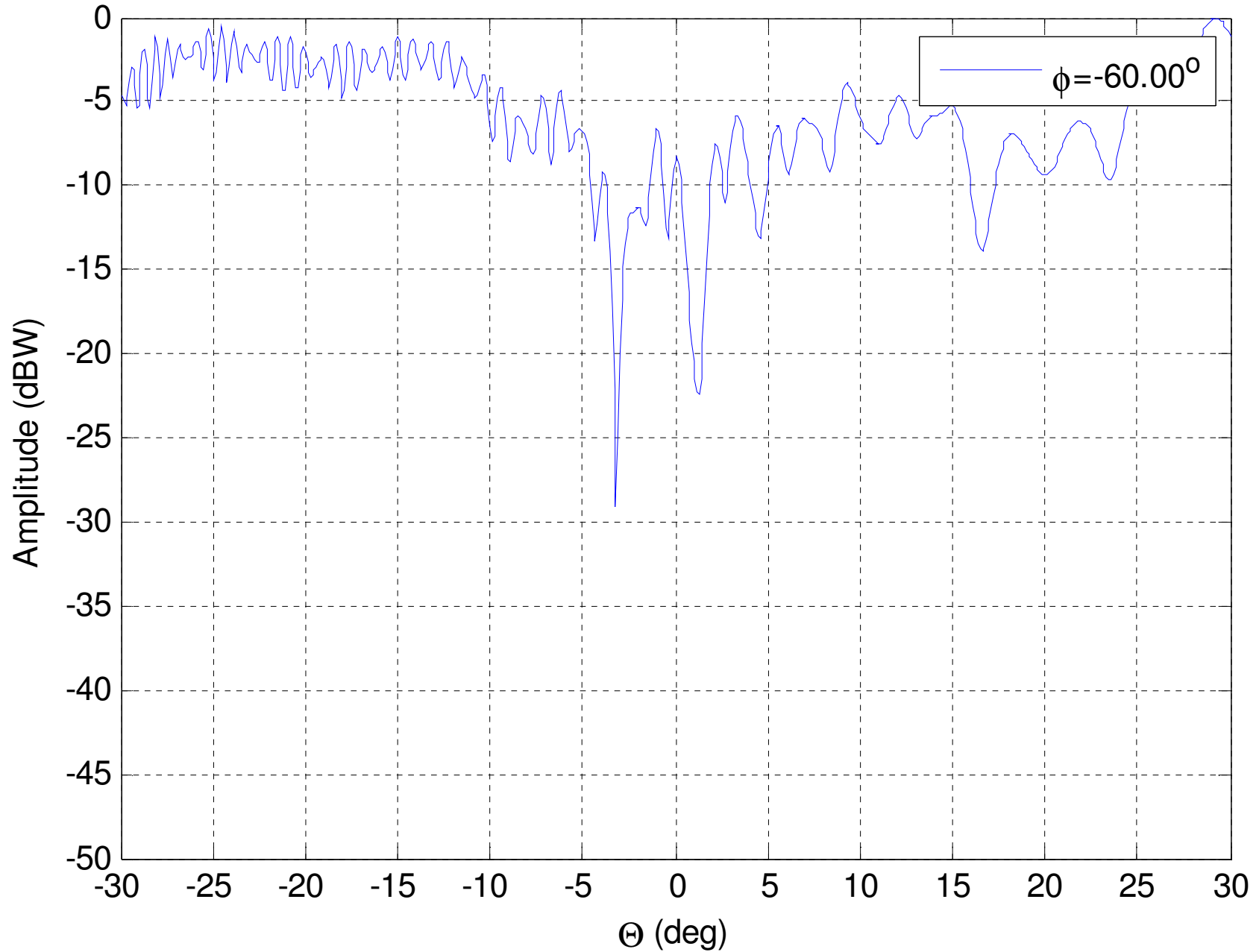
Input file: tx-17.5-lhcp-60.cut, Peak: -10.15 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

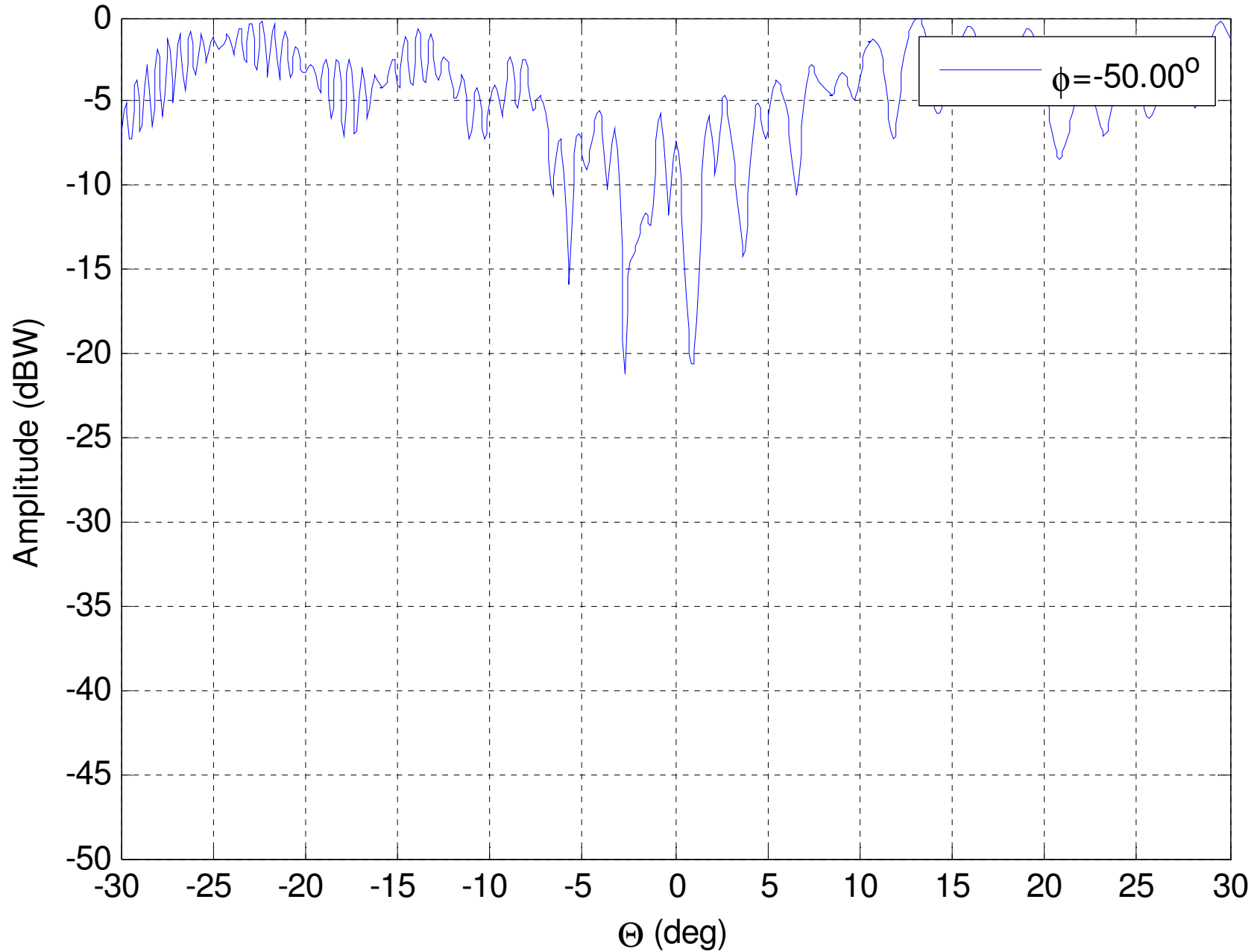
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -10.48 dBW, Date: 16-Dec-2011



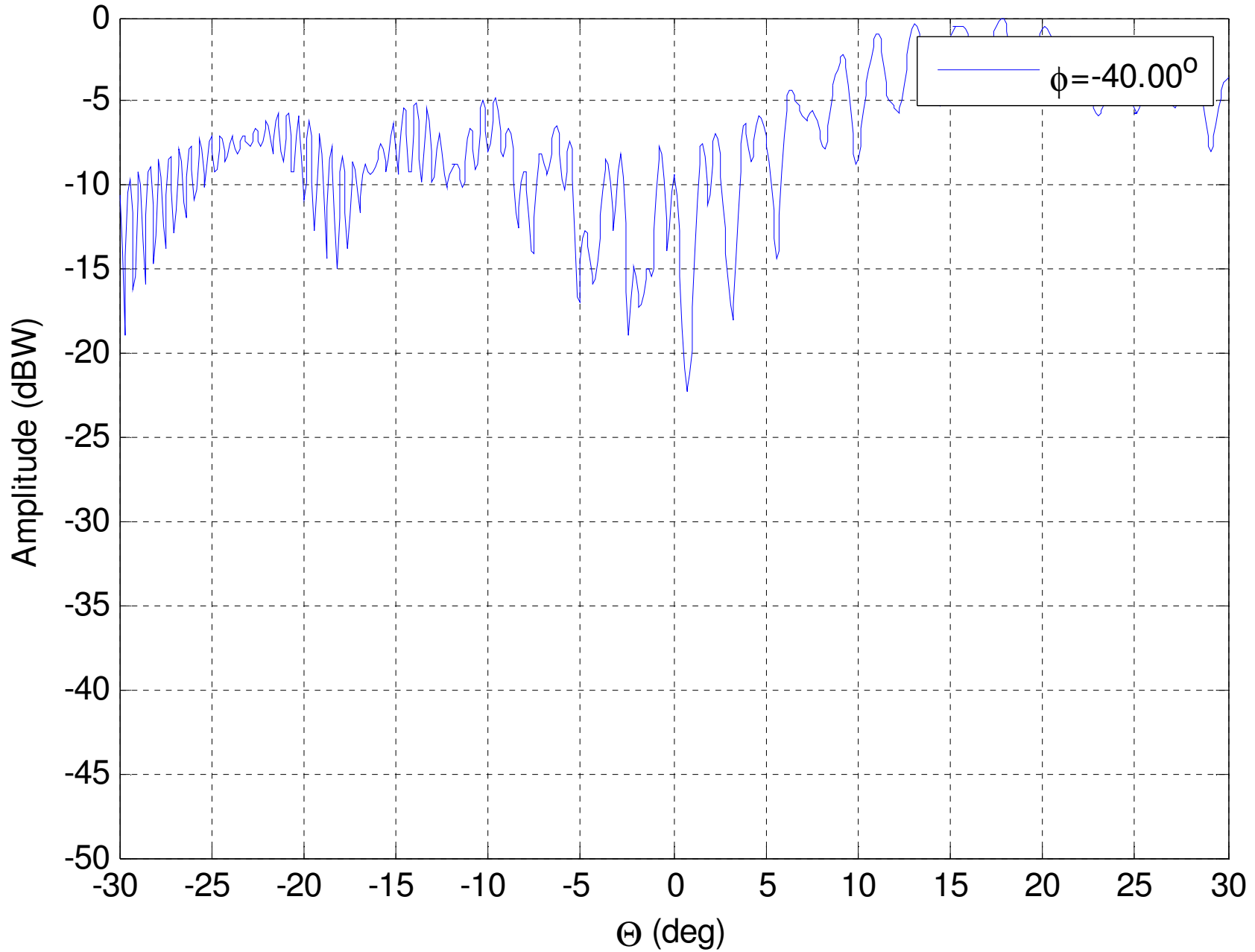
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -11.56 dBW, Date: 16-Dec-2011



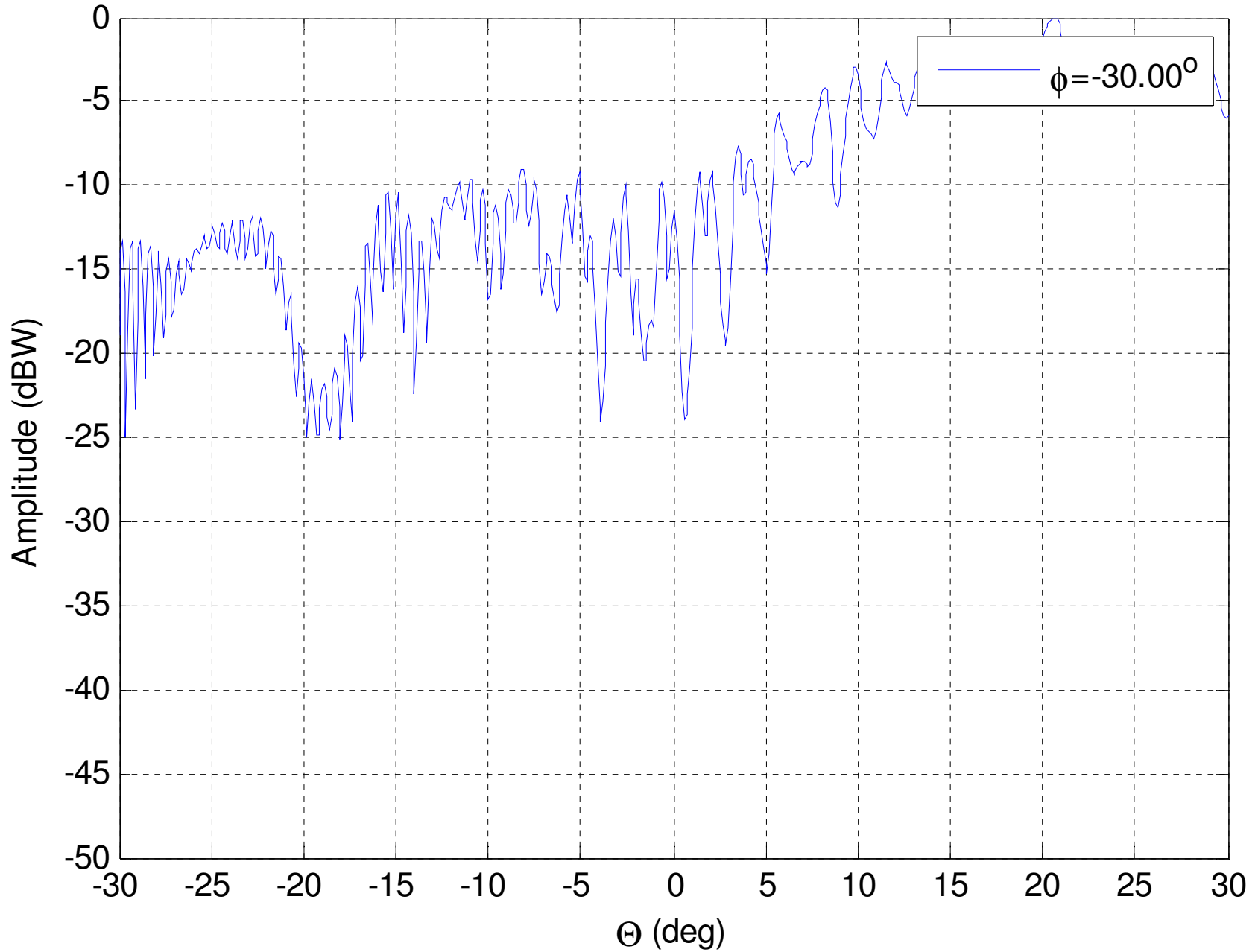
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -9.53 dBW, Date: 16-Dec-2011



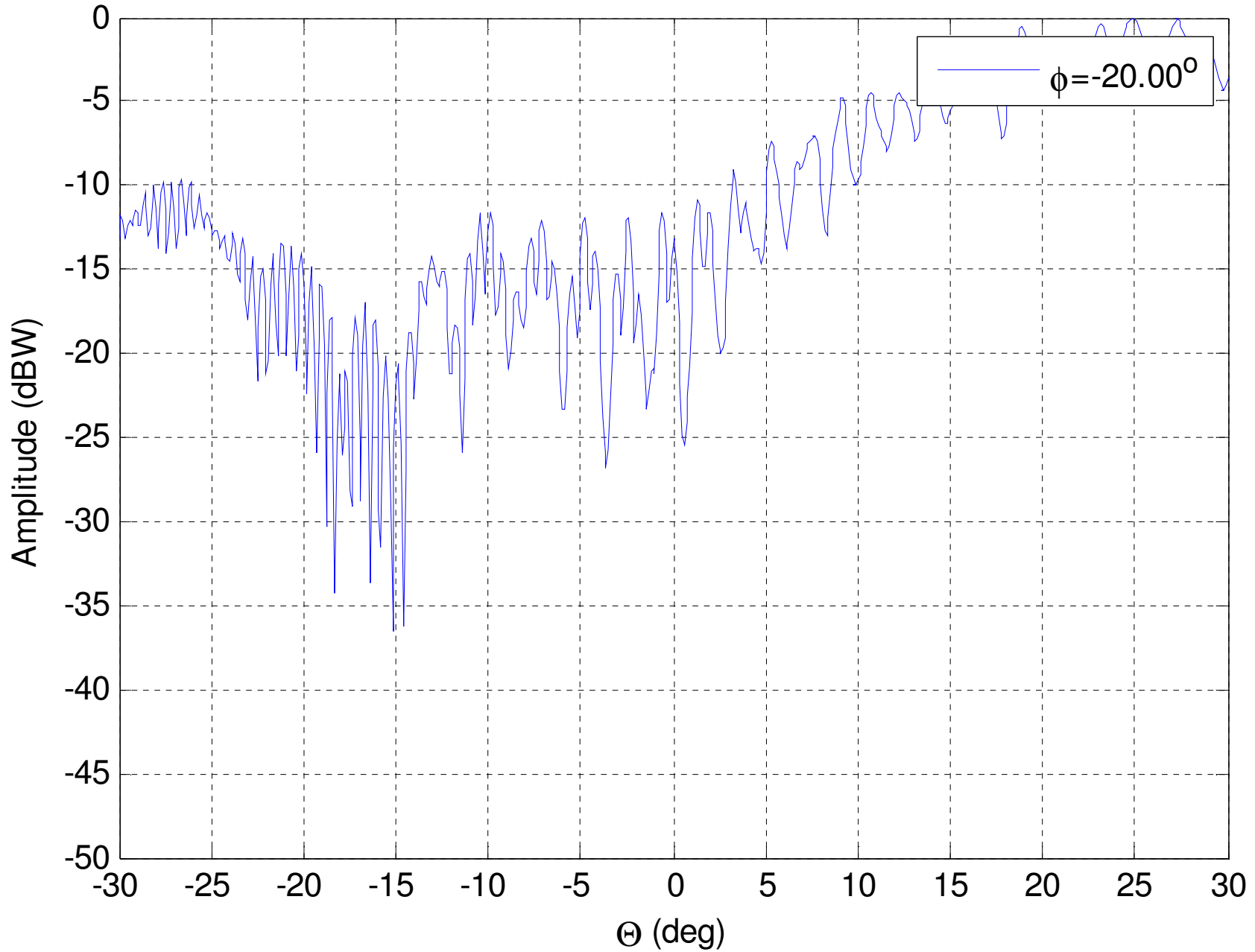
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -7.50 dBW, Date: 16-Dec-2011



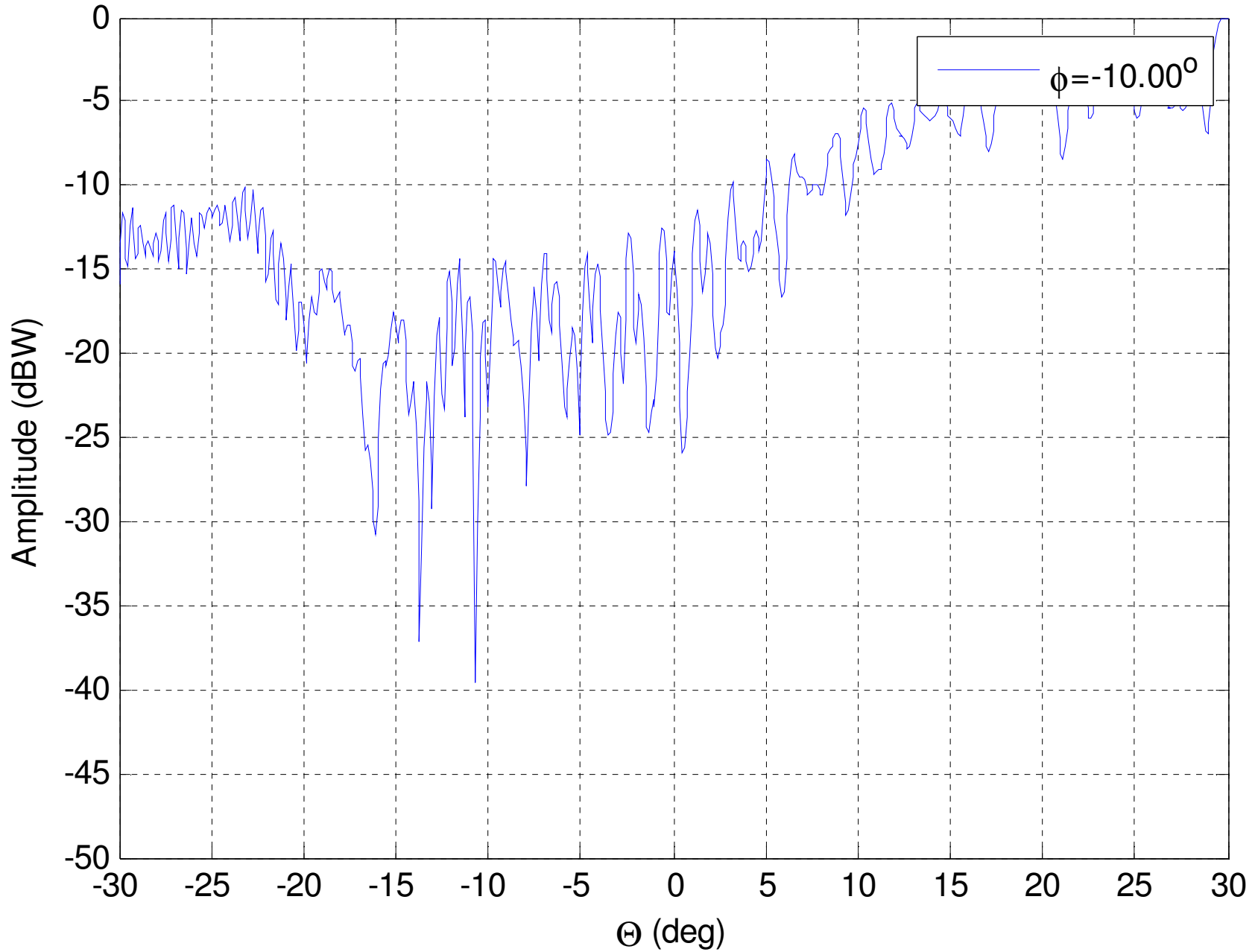
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: -5.77 dBW, Date: 16-Dec-2011



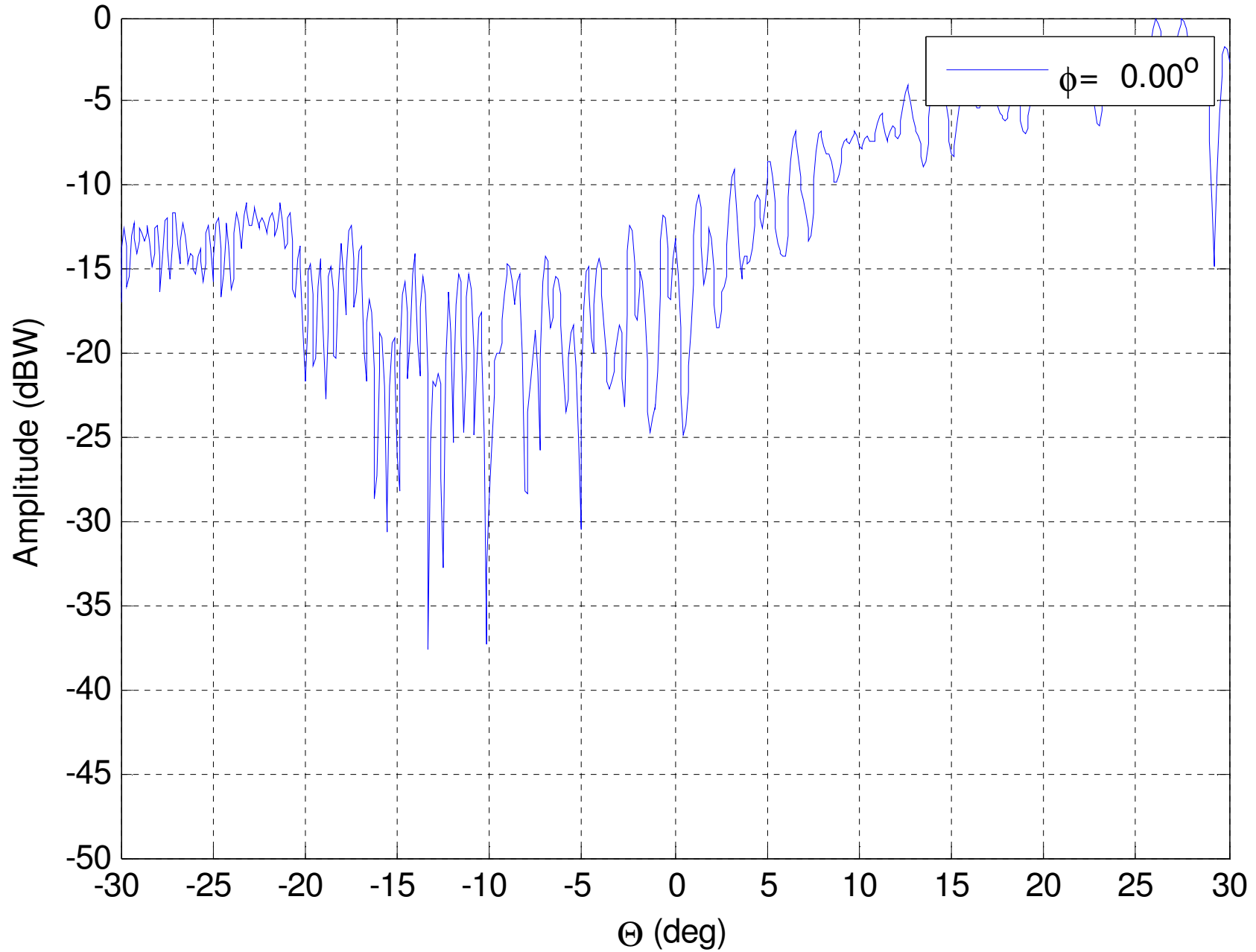
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: -4.97 dBW, Date: 16-Dec-2011



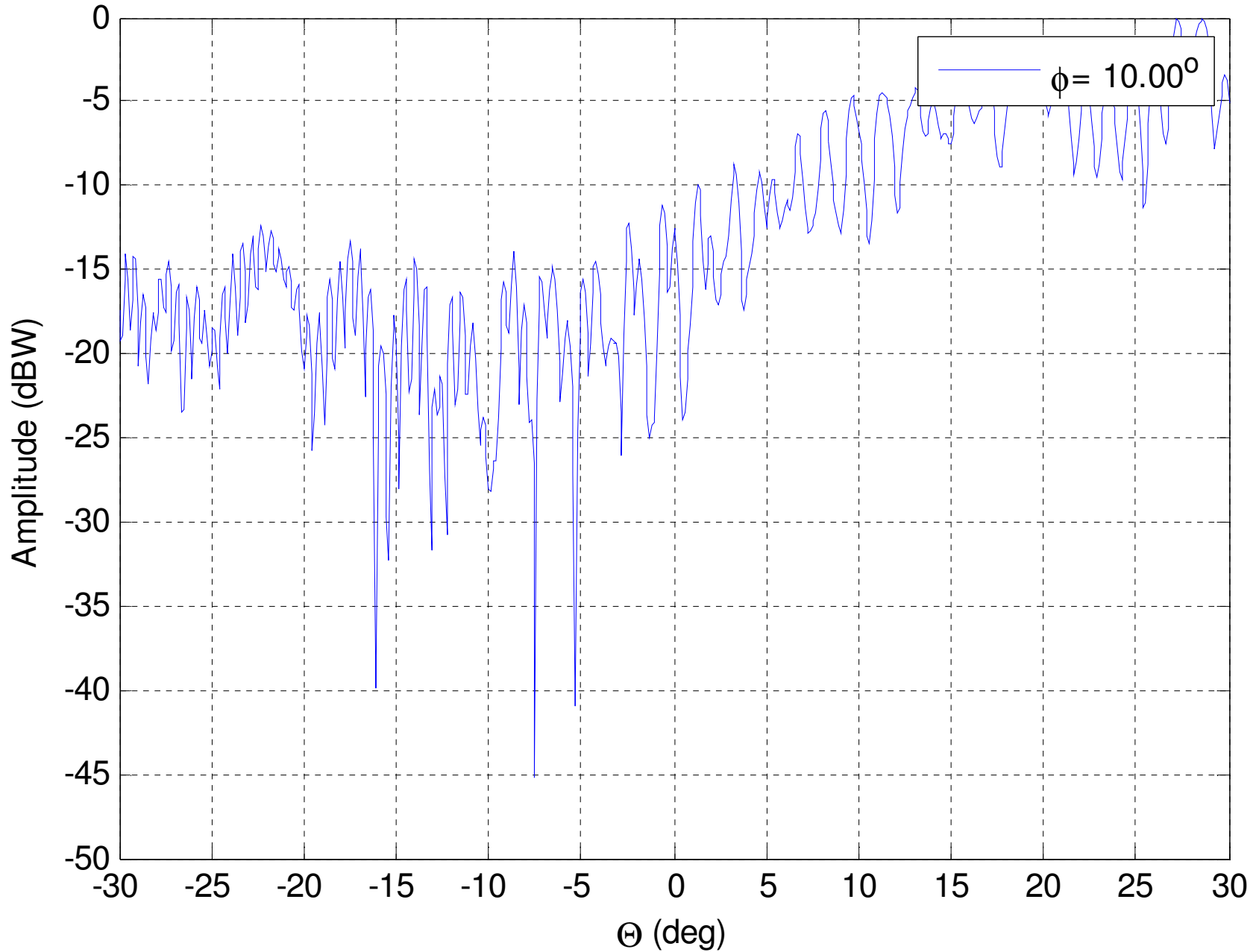
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: -5.85 dBW, Date: 16-Dec-2011



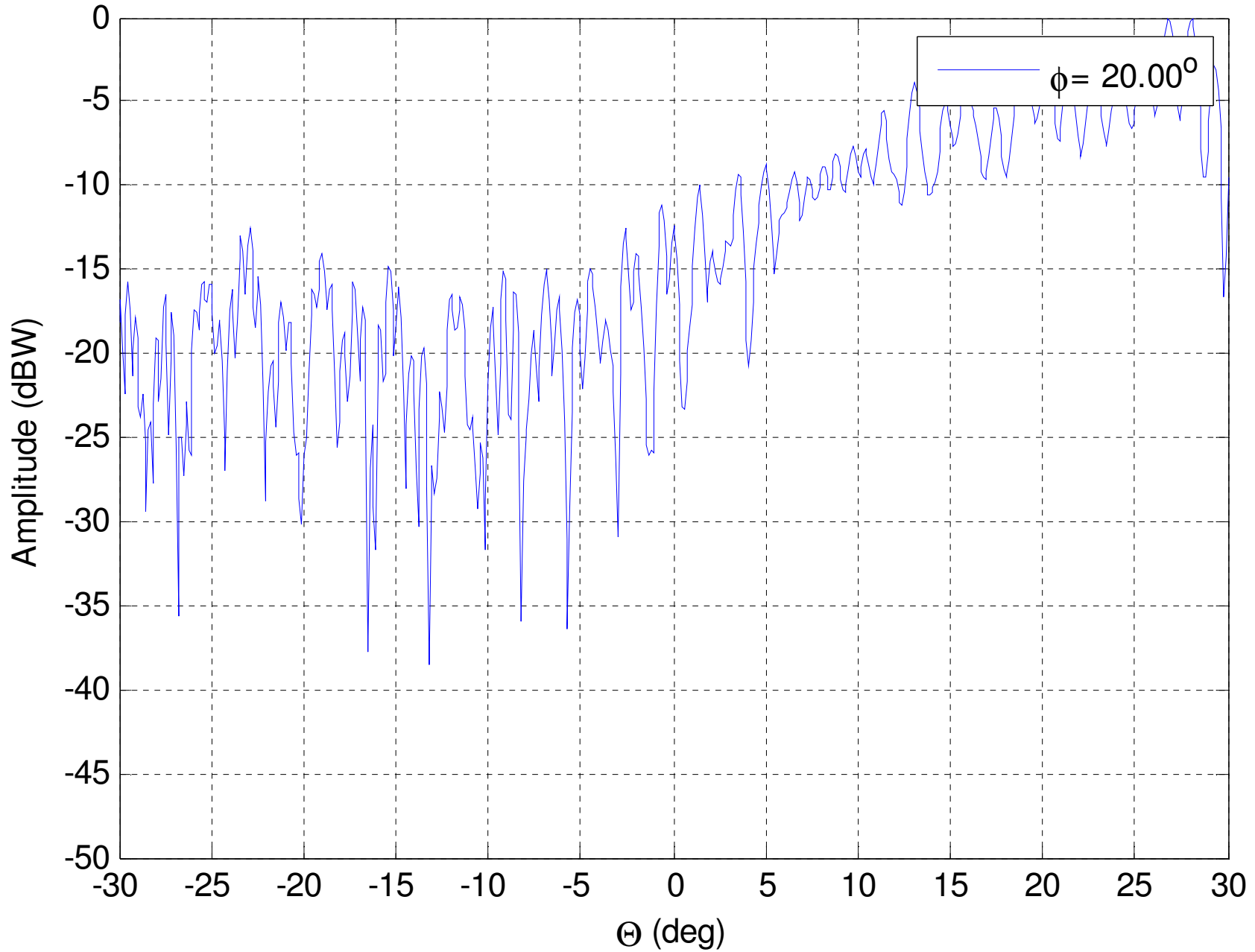
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: -6.39 dBW, Date: 16-Dec-2011



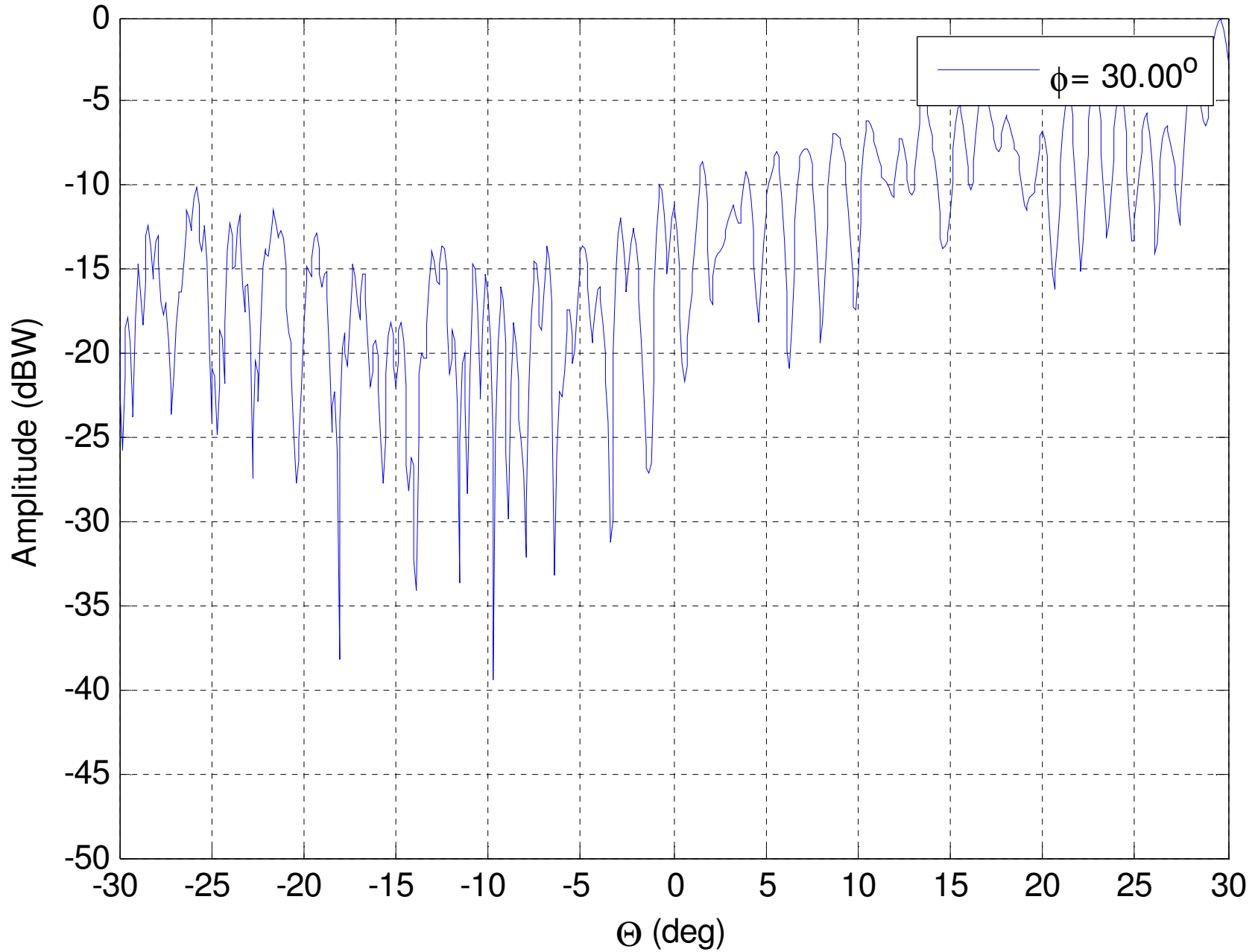
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: -6.48 dBW, Date: 16-Dec-2011



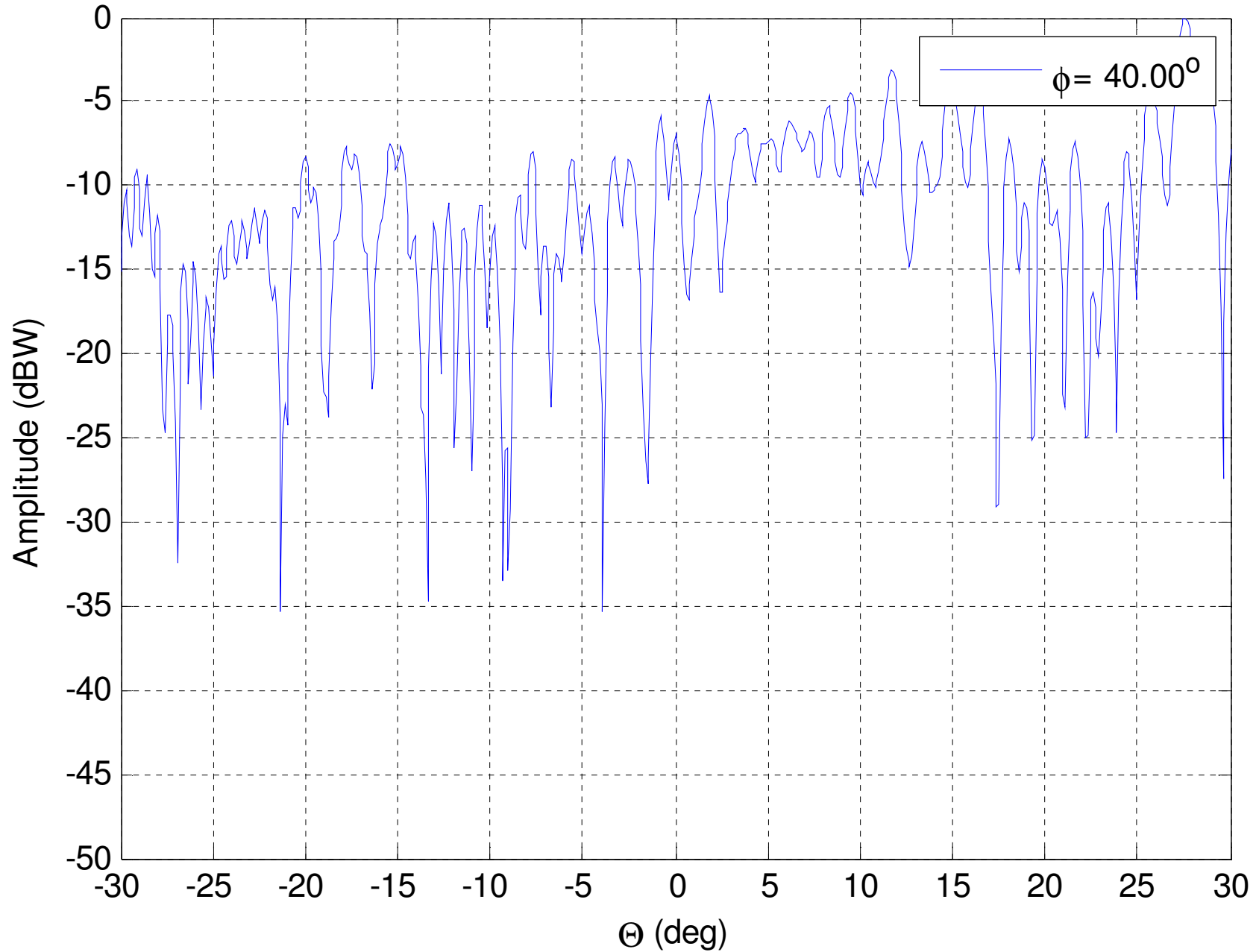
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: -7.82 dBW, Date: 16-Dec-2011



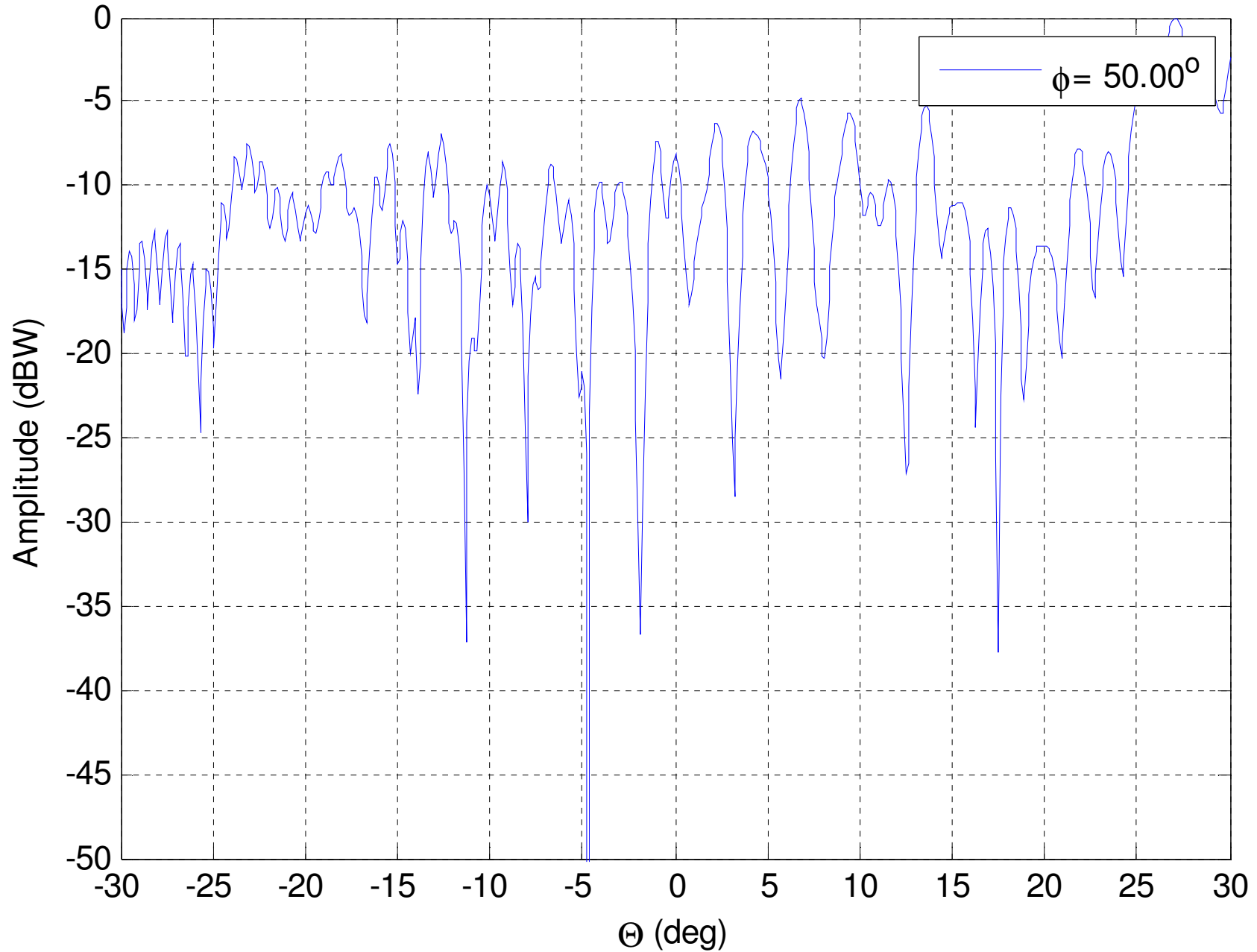
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -11.97 dBW, Date: 16-Dec-2011



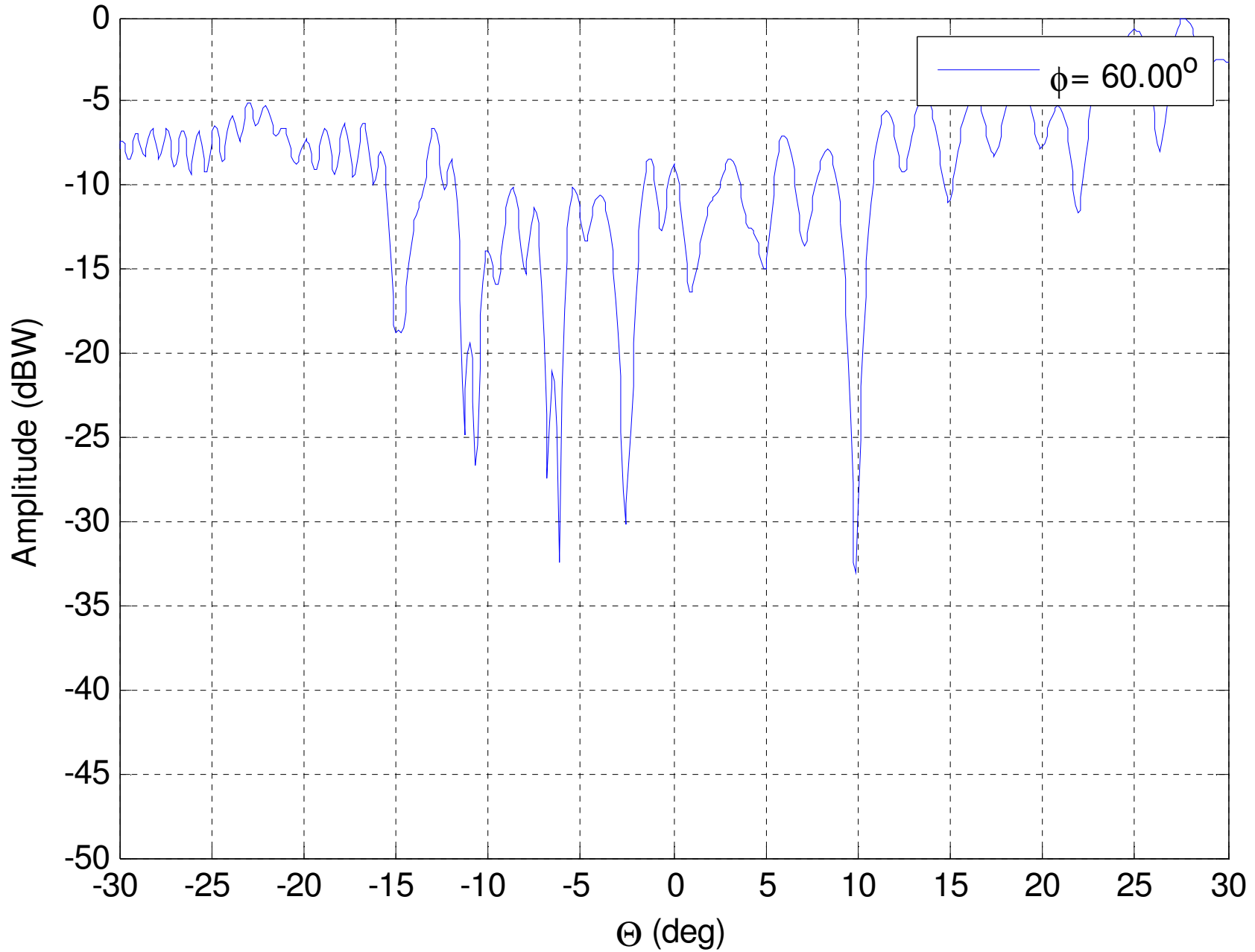
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -10.78 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

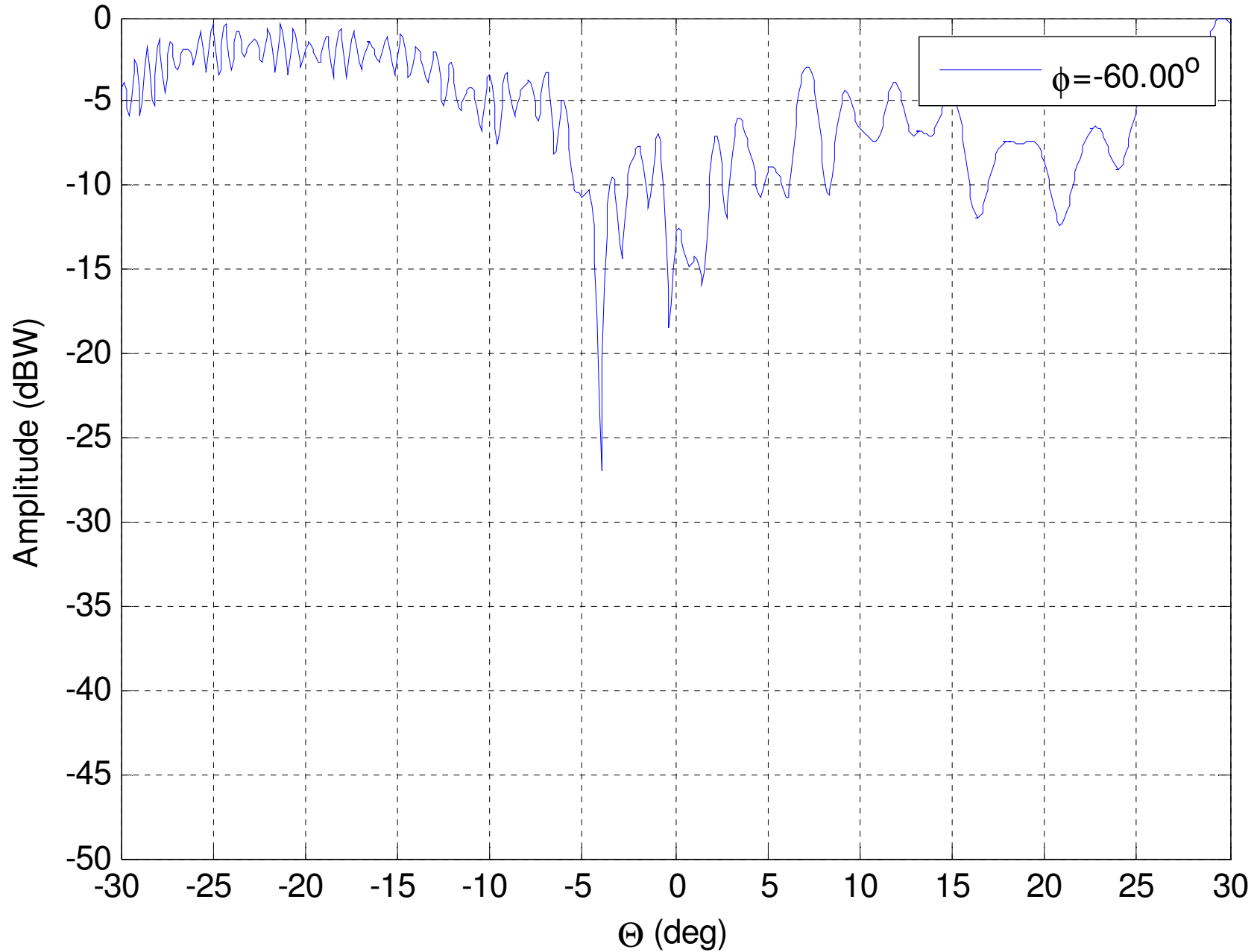
Input file: tx-17.7-rhcp-60.cut, Peak: -10.11 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

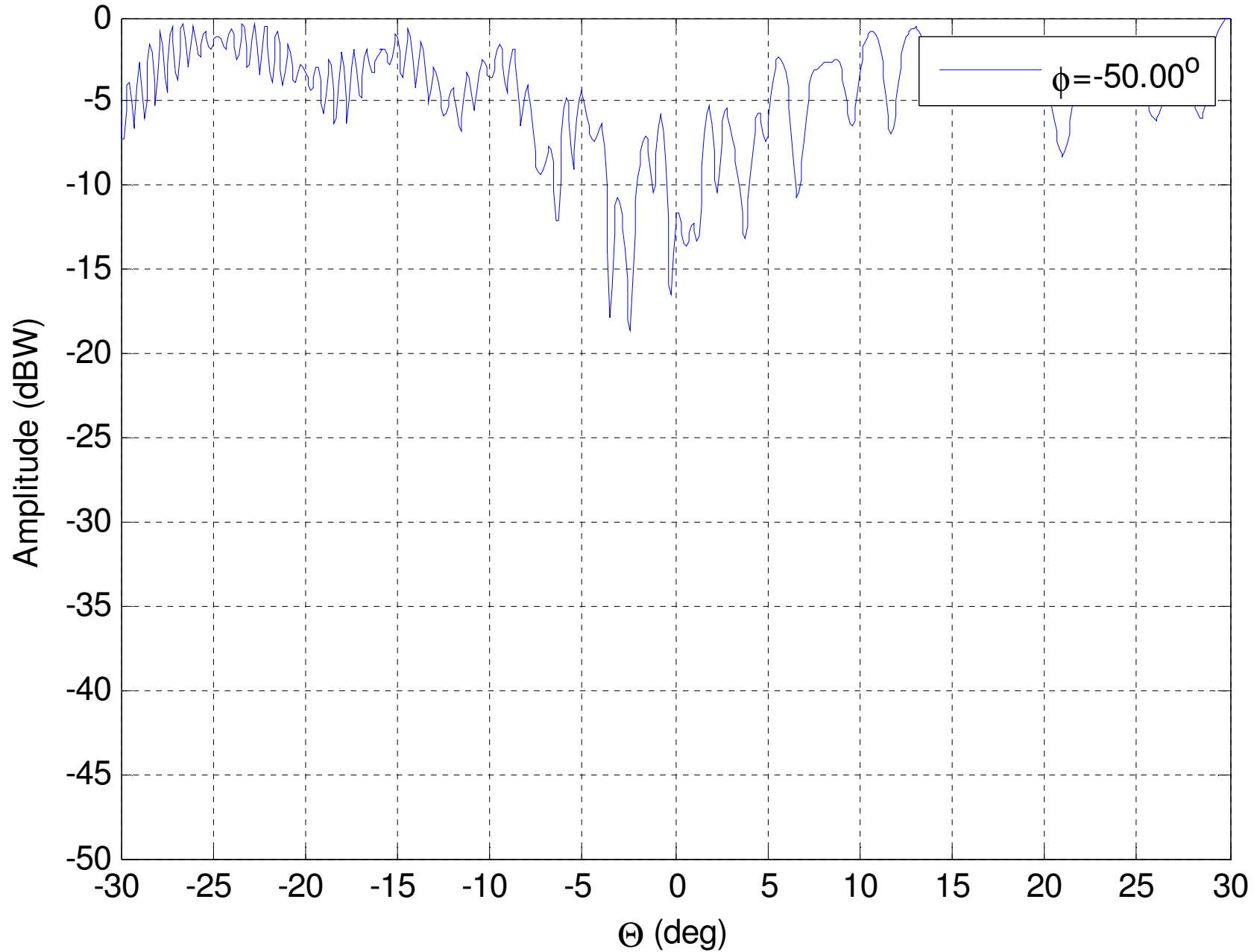
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -10.62 dBW, Date: 16-Dec-2011



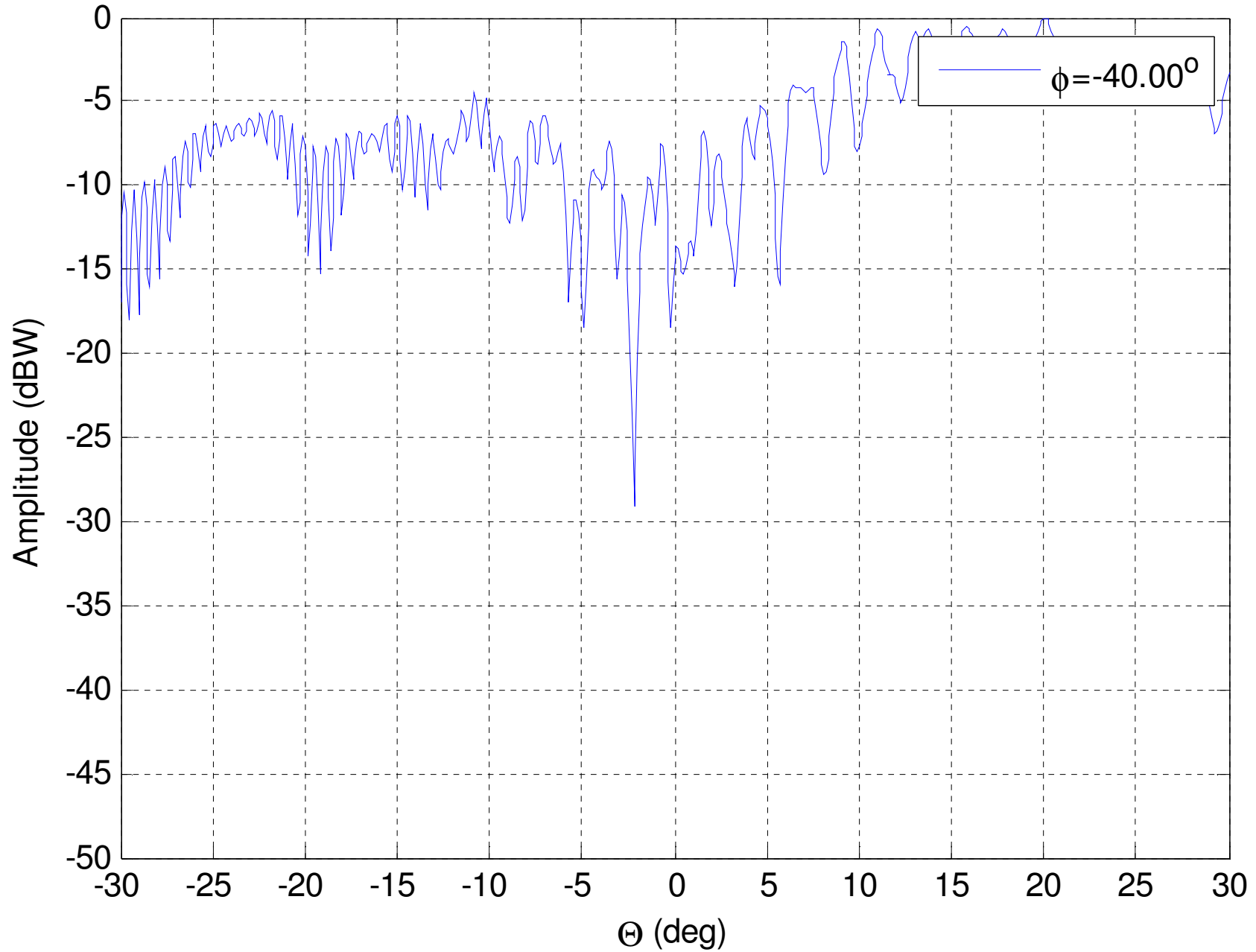
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -11.74 dBW, Date: 16-Dec-2011



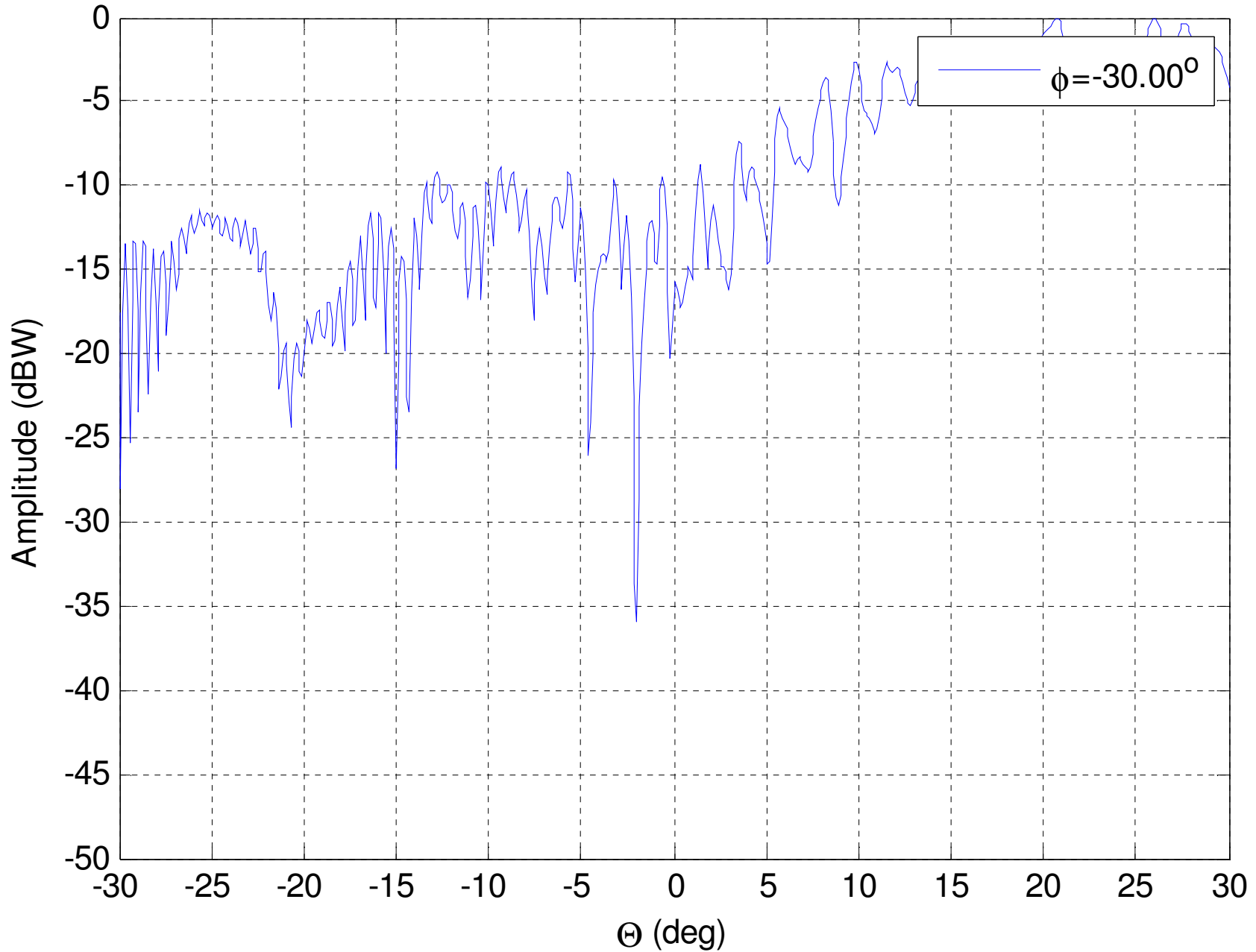
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -9.86 dBW, Date: 16-Dec-2011



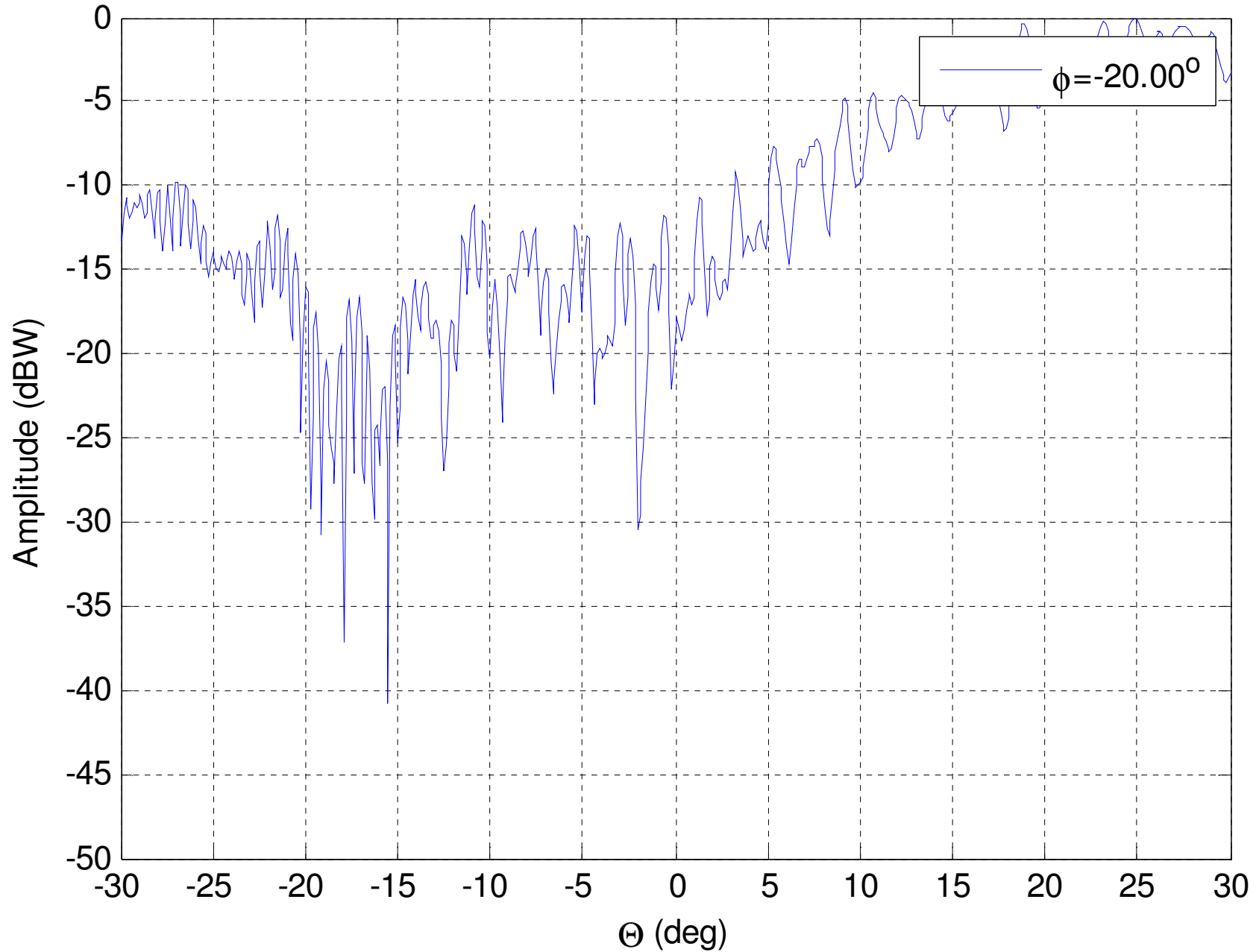
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -7.77 dBW, Date: 16-Dec-2011



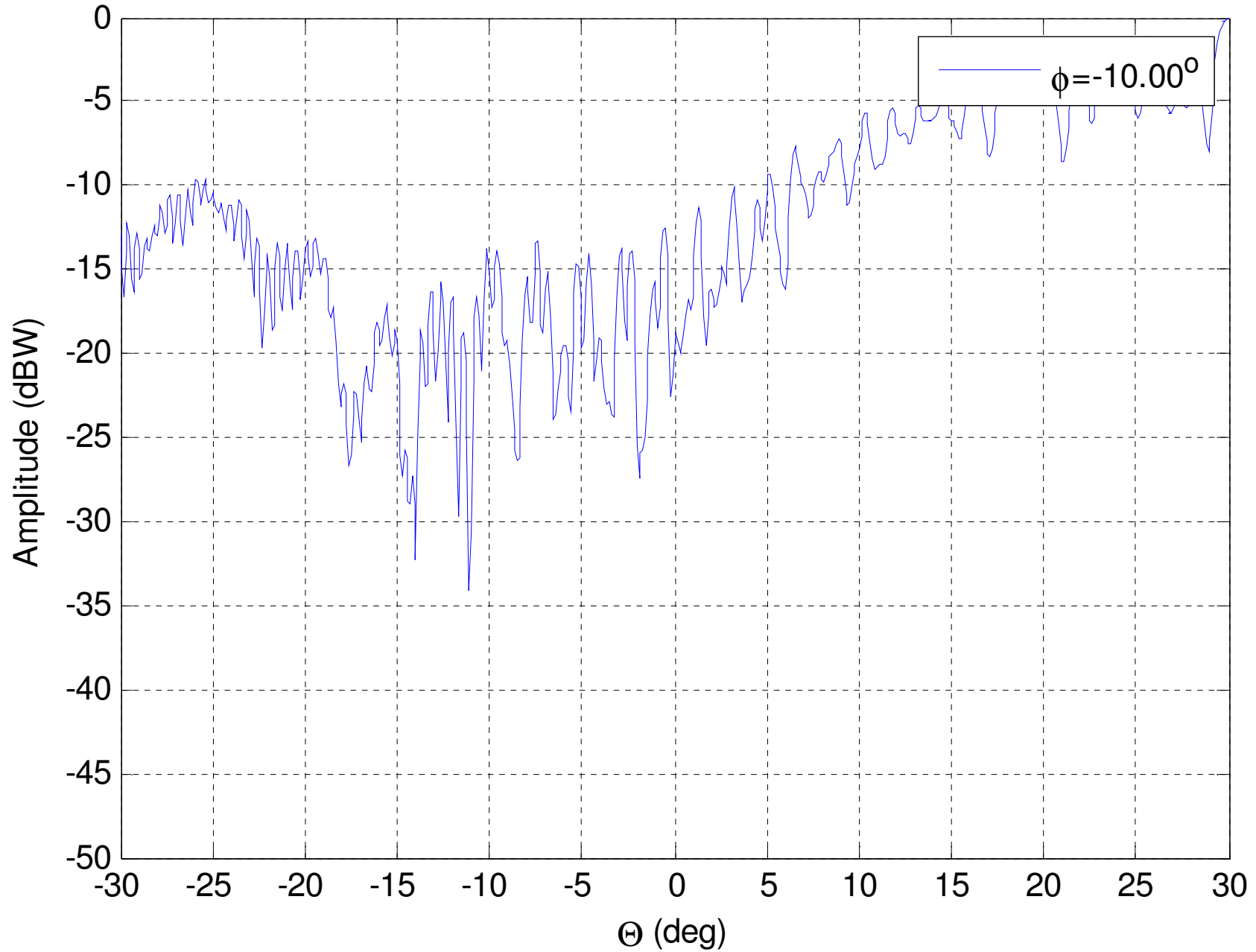
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: -5.66 dBW, Date: 16-Dec-2011



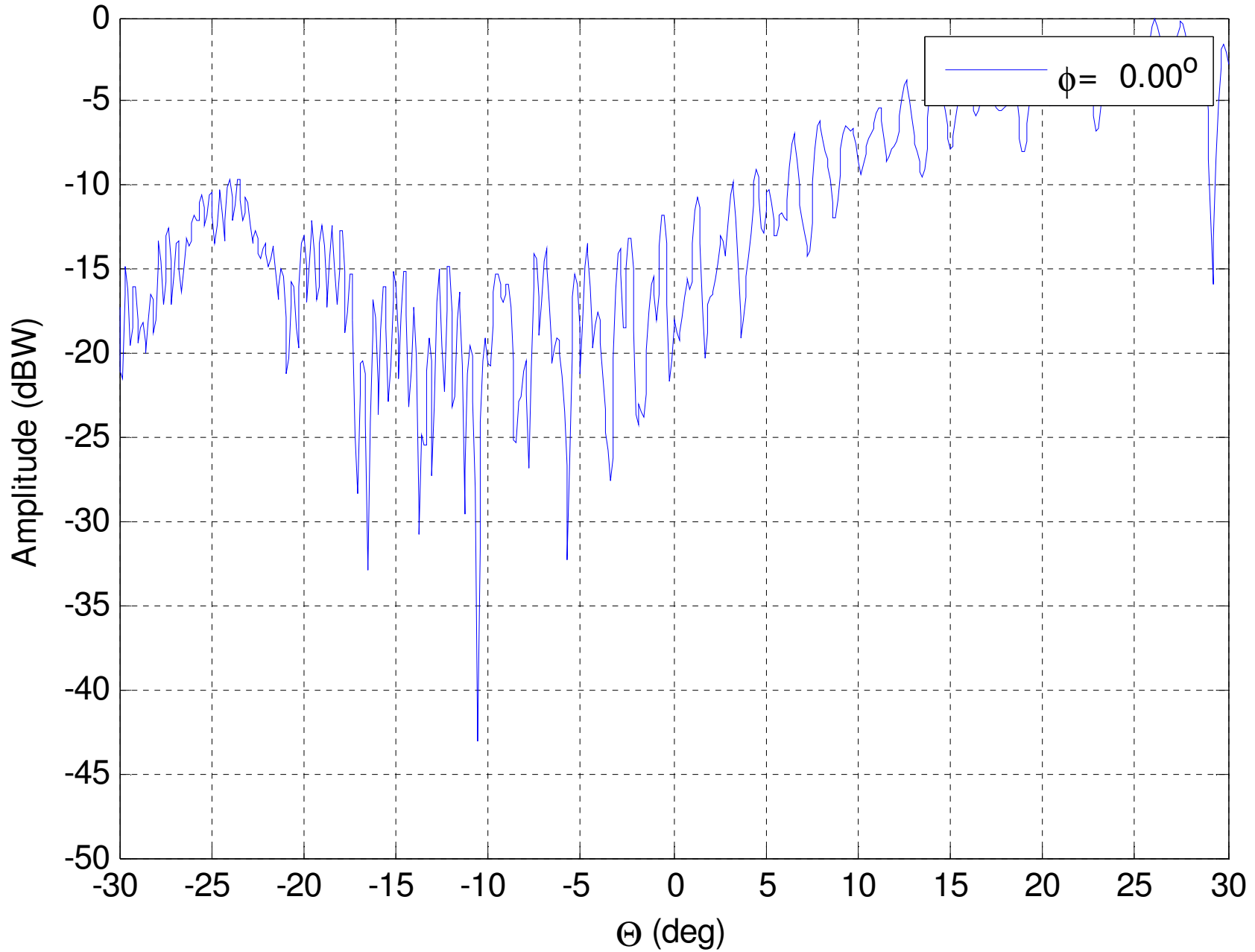
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: -4.89 dBW, Date: 16-Dec-2011



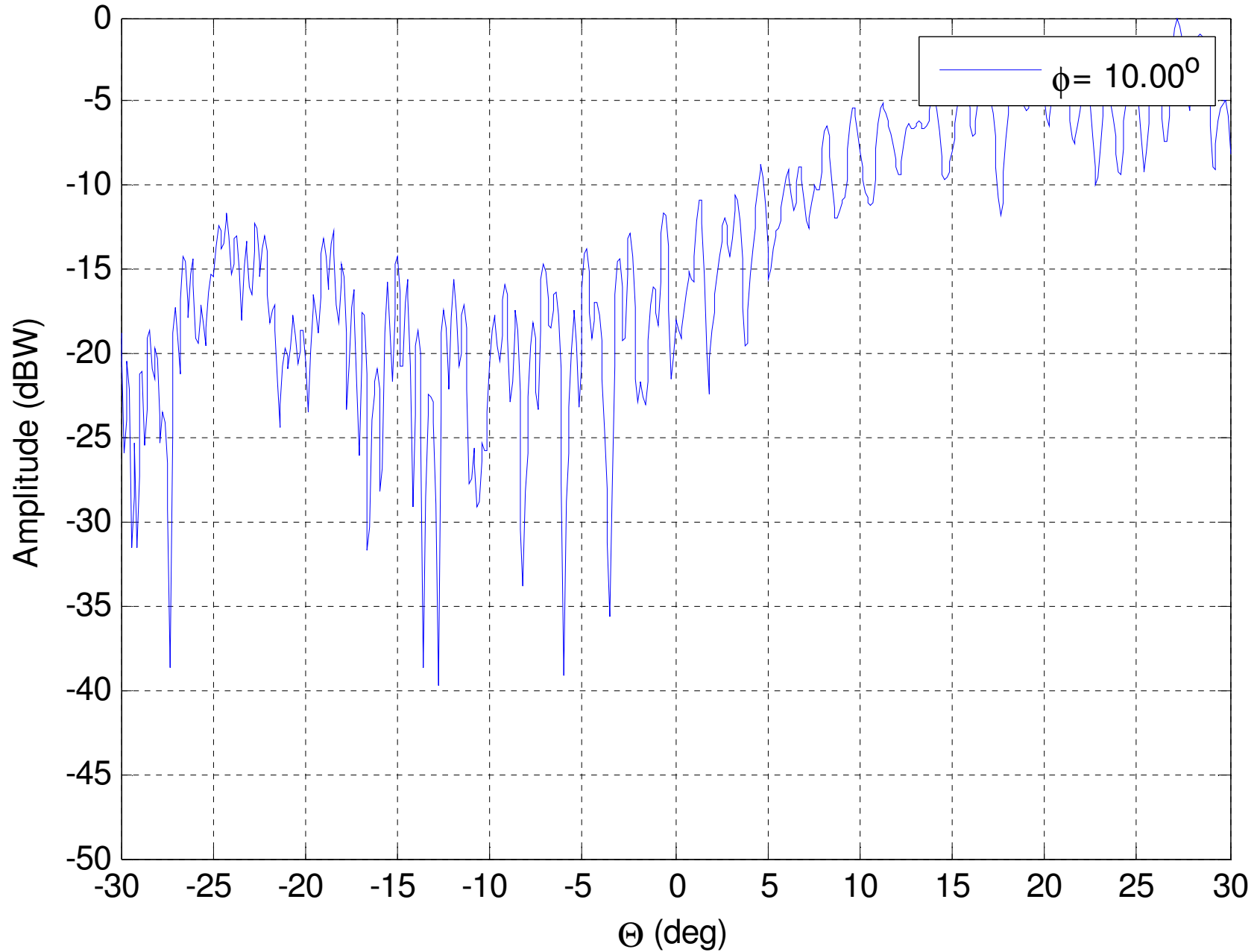
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: -5.69 dBW, Date: 16-Dec-2011



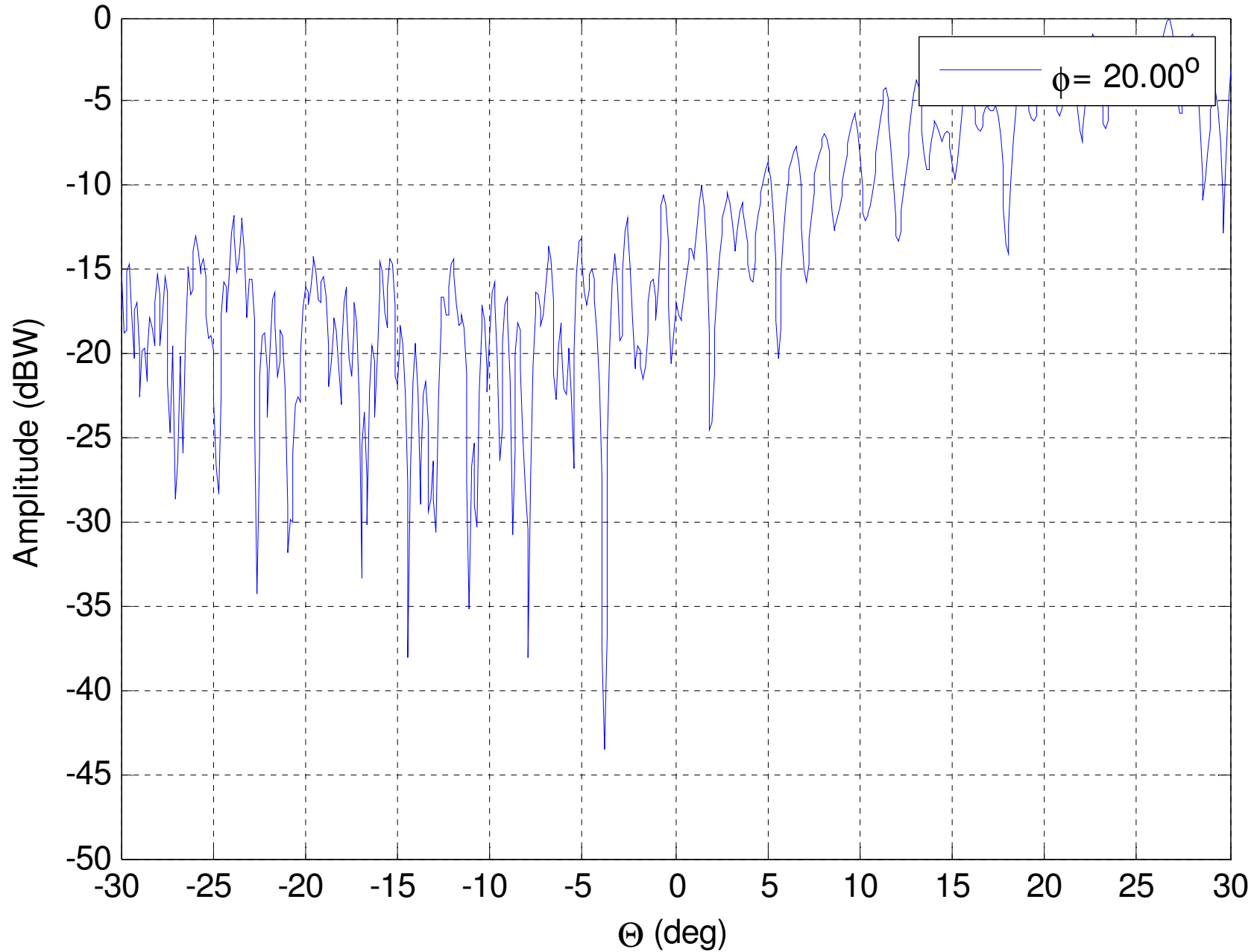
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: -5.79 dBW, Date: 16-Dec-2011



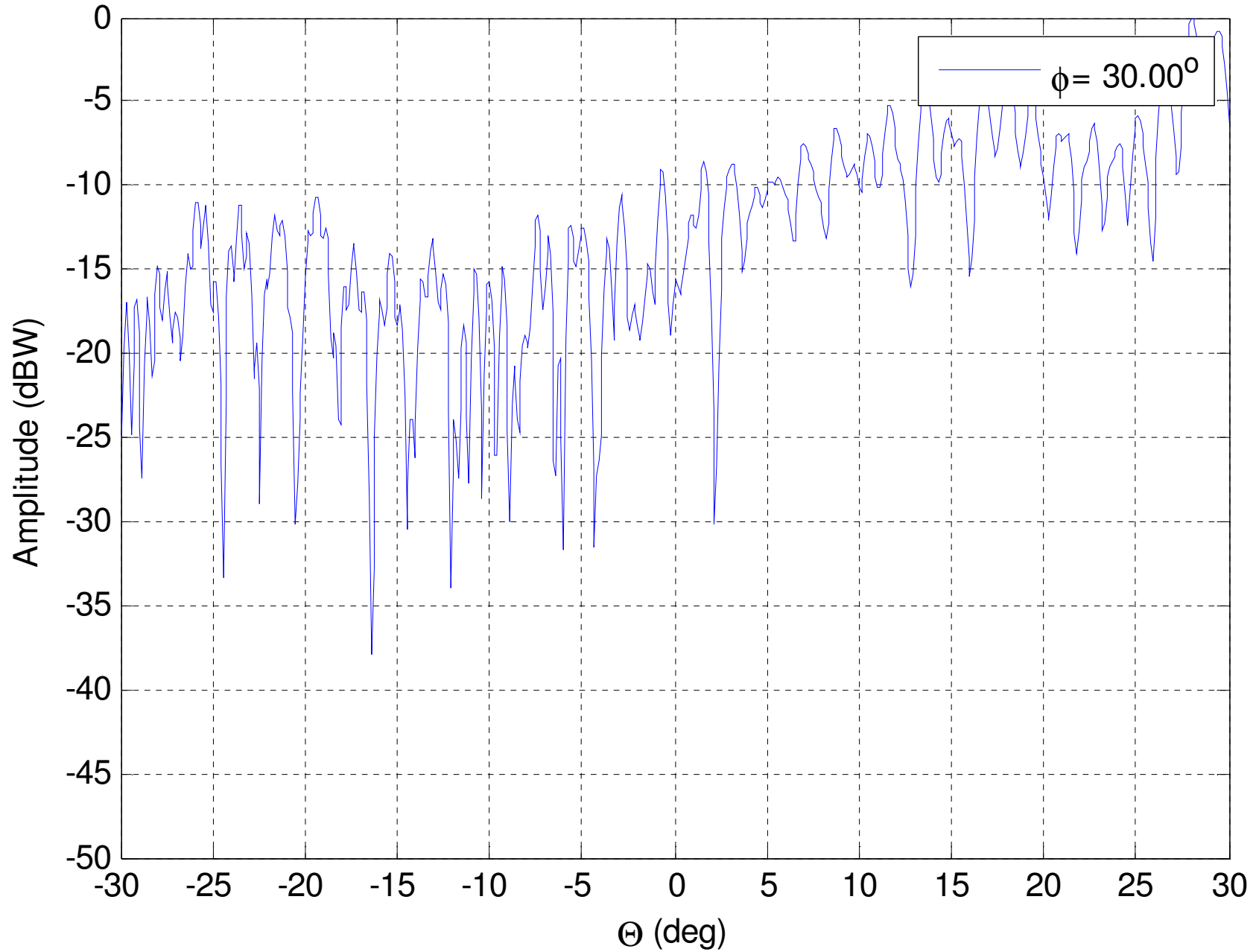
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: -6.79 dBW, Date: 16-Dec-2011



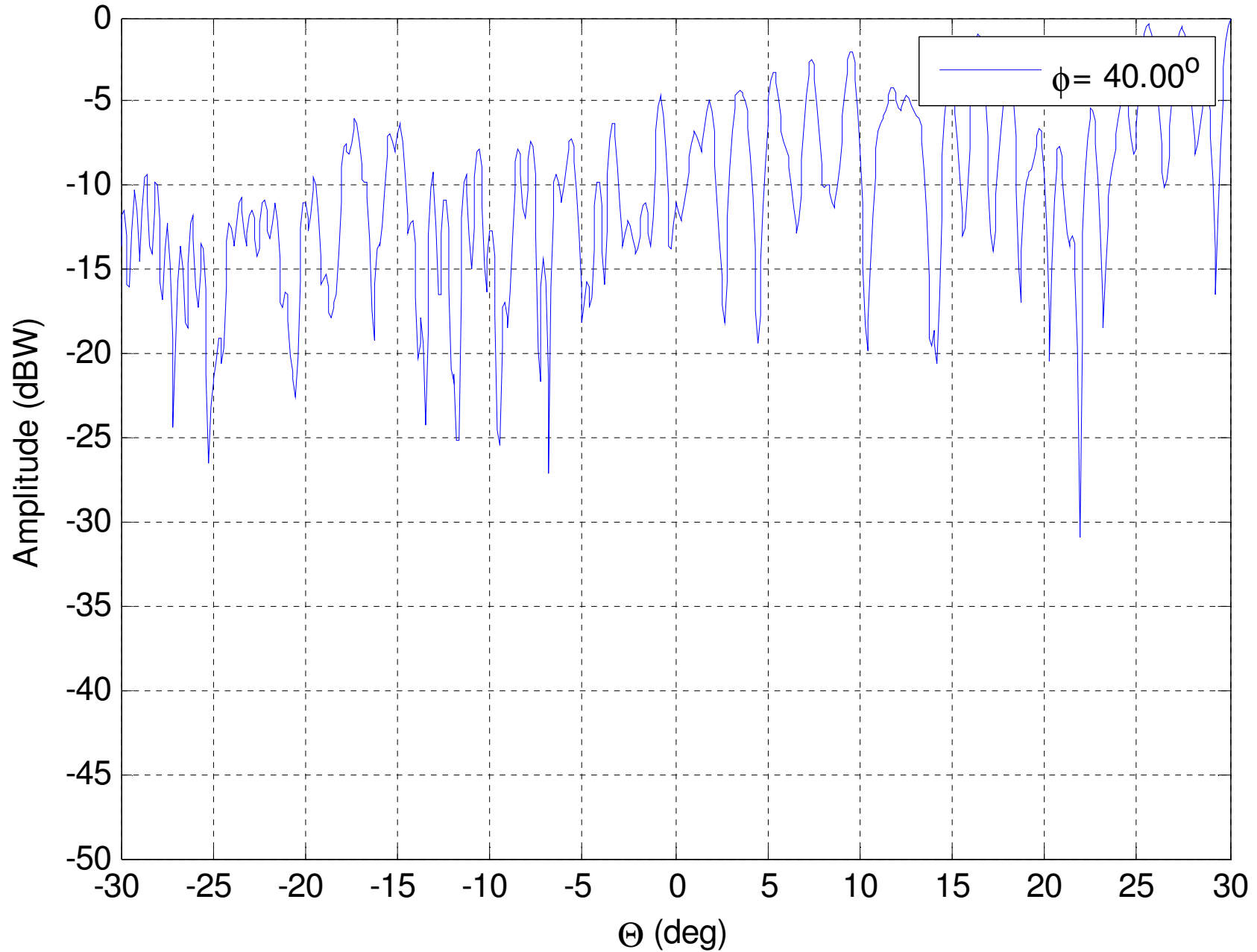
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: -8.34 dBW, Date: 16-Dec-2011



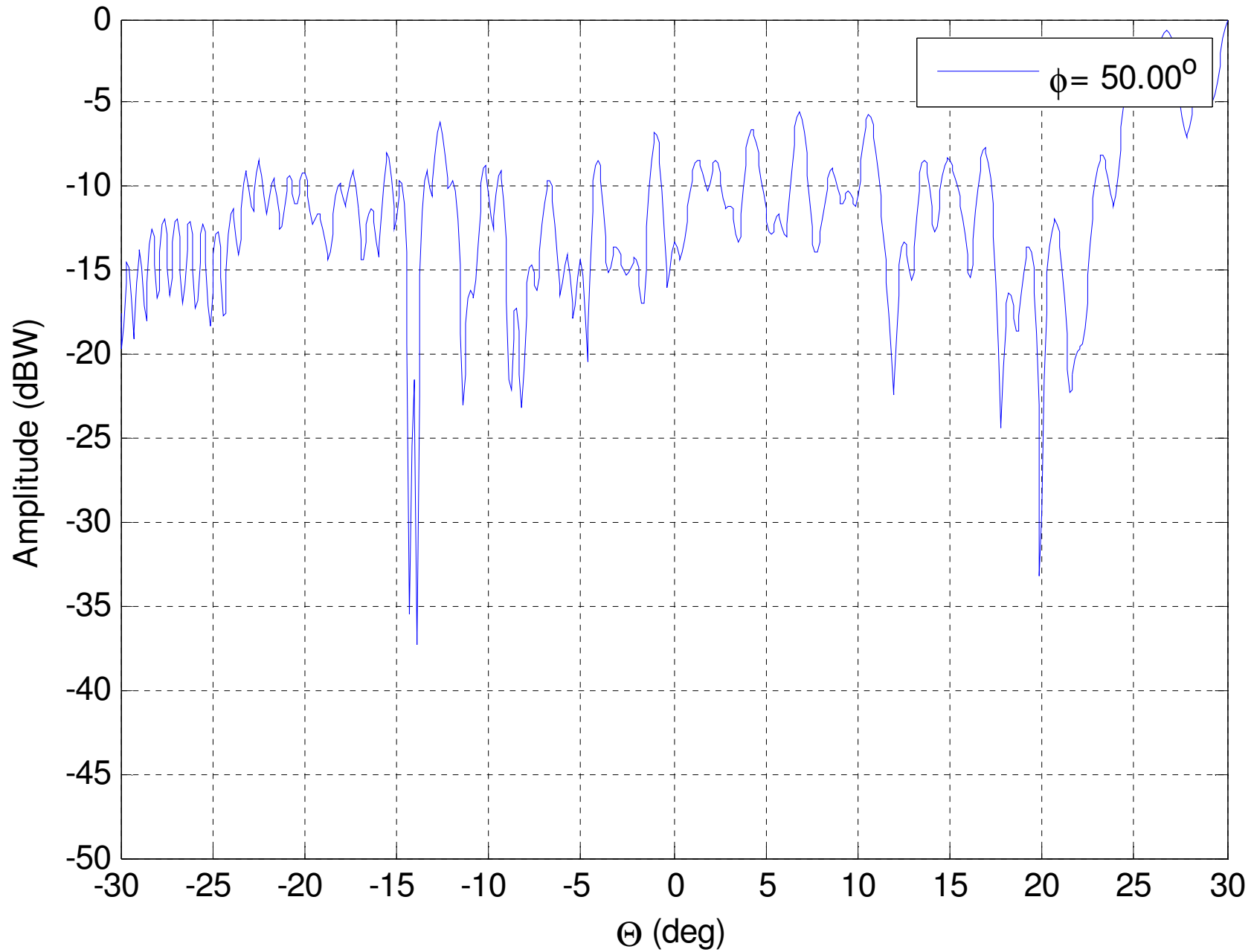
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -12.83 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -10.73 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -9.36 dBW, Date: 16-Dec-2011

