KBLR Application for Modification of Post-Repack Construction Permit

October 25, 2017

Engineering Exhibit

The purpose of this application is to request modification of post-repack construction permit (LMS File No.0000026325) for operation on channel 20 for KBLR, Paradise, NV, Facility ID 63768, licensed to Telemundo Las Vegas License LLC.

This application specifies the same antenna on the same tower at the same height as specified in the granted construction permit. This application proposes an increase in effective radiated power (ERP) to 1,000 kW at the existing height above average terrain (HAAT) of 371 meters (1060.4 meters AMSL). A TVStudy 2.2.3 analysis of the proposed ERP increase to 1000 kW ERP showed the maximum amount of new interference created to any post-auction baseline facility, any application filed in the replication and first priority window, and any granted post-auction construction permits in the LMS database dated October 20, 2017 was under 0.5% **when cell size was set to 1.0 km and terrain profile point spacing to 1 km**.

Antenna System

The proposed facility will use a directional antenna with elliptical polarization. The proposed vertically polarized ERP is 250.0 kW. The vertically polarized ERP will not exceed the horizontally polarized ERP (1000 kW) in any direction. Plots and tabulation of antenna data required by FCC Rules Section 73.625(c) is attached.

Environmental Statement

The requested facility will be installed on top an existing tower located in an antenna farm. The proposed top mount antenna will increase the height of the tower by 15.2 meters. With this increase, the overall height of the structure will not exceed the 1161.3m height AMSL specified in a previously issued FAA Determination of No Hazard (Study 2006-AWP-524-OE) for the site and the height of surrounding towers at the antenna farm. The tower owner will obtain an ASR for the tower that includes the height of the proposed antenna.

RF power density from the facility using combined horizontal and vertically polarized ERP was calculated using the procedures described in FCC Office of Engineering and Technology Bulletin 65. The ground drops off rapidly in the main beam of the antenna. The calculated peak RF power density, in the direction of the main beam is calculated to peak at 2 meters above the NW corner of the roof of the transmitter building at 0.0142 mw/cm^2 or 4.2% of the maximum permissible exposure (MPE) level of 0.339 mw/cm^2 for an uncontrolled environment. Behind the antenna, where the relative field is less than 0.34, the ground rises by up to 24 meters. The maximum calculated power density 26m above the base of the tower in this direction is 0.00385 mw/cm^2 or 1.13% of the MPE for an uncontrolled environment. At full power, RF power density on nearby towers from this facility may exceed occupational exposure levels. The access road to the site and the area around the tower is secured by locked gates with appropriate signage. KBLR will comply with the site RF exposure plan. Power will be reduced or shut off as required to protect workers on the tower from RF exposure above the limits specified Section 1.1310 of the FCC's rules.

Broadcast Facility

Compliance with 73.616:

A study using TVStudy 2.2.3 and the FCC LMS database dated 10/20/2017 showed the proposed facility complies with the interference requirements of Section 73.616 **when studied using a cell size of 1.0 km and the default 1 km terrain profile point spacing.**

Compliance with 73.622(i):

The proposed facility will operate on the channel assigned to KBLR for operation post-repack. The proposed KBLR ERP and HAAT provide coverage over a service area of 27355.2 sq. km., which is less than the 47817.1 sq. km. service area of KHSV in the same market (Las Vegas) and thus complies with the Section 73.622(f)(5) limit on permissible maximized coverage area and the ERP and HAAT limits in 73.622(f)(8) do not apply.

KBLR Application for Modification of Post-Repack Construction Permit (continued)

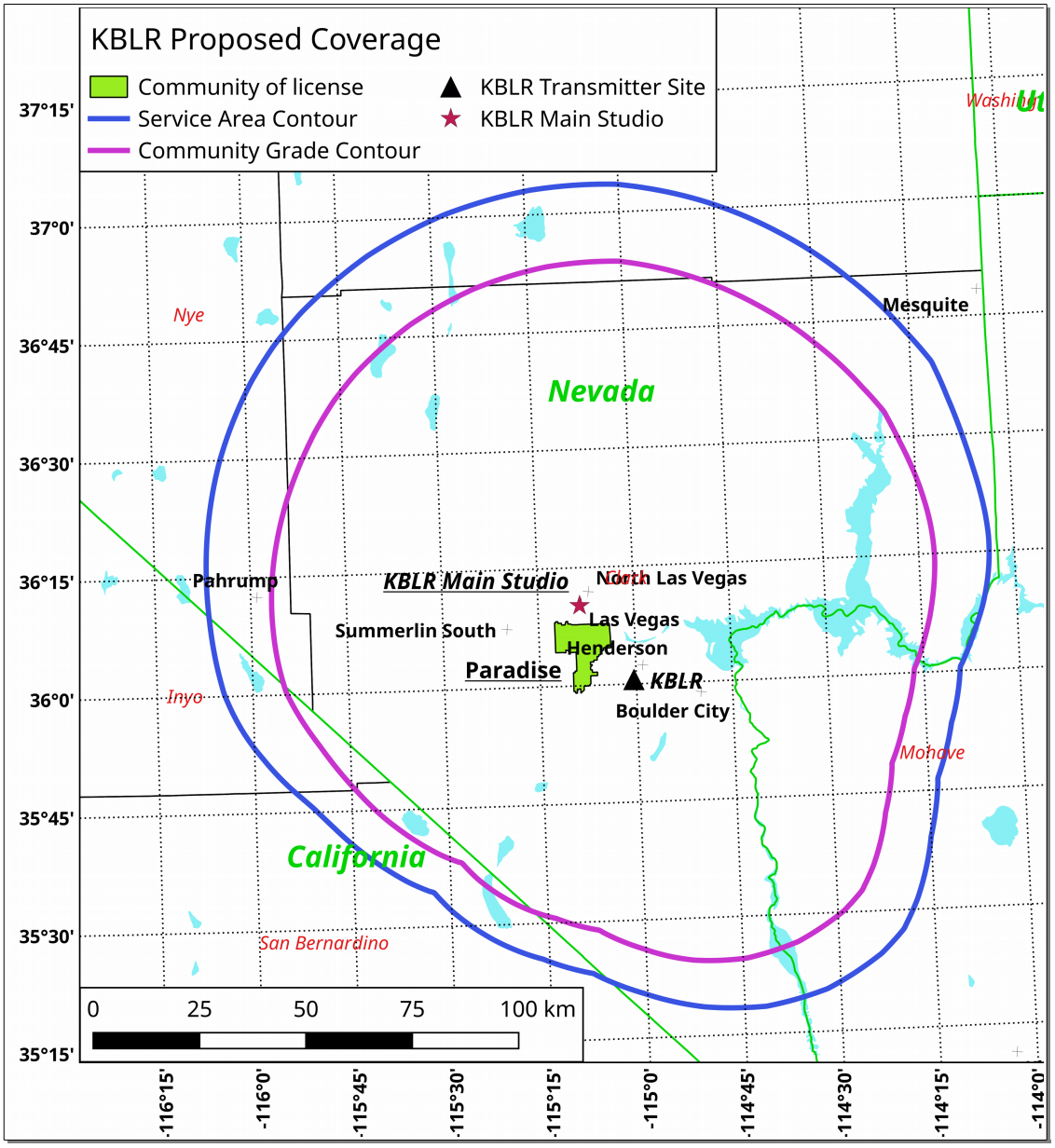
Compliance with 73.623(e):
Not applicable. This application does not propose a channel change. .

Compliance with 73.625:
The proposed facility extends the contour of the previously granted construction permit (File No.0000026325) and thus will continue to place a 48 dBμv/m principle community contour over Paradise, NV the community of license.

Compliance with 73.1030:
A TVStudy 2.2.3 study showed no facilities within range of the proposed facility that require coordination under Section 73.1030.

Compliance with 73.1125:
The proposed facility will place a 48 dBμv/m principle community contour over the main studio located at 450 Fremont St #310, Las Vegas, NV 89101.

Compliance with 73.1650 :
The proposed facility is 1443,9 km from the Canadian border and 366.7 km from the Mexican border. Coordination with Canada or Mexico is not required.


KBLR Proposed Coverage
Community of license
Service Area Contour
Community Grade Contour
KBLR Transmitter Site
KBLR Main Studio
Nevada
California
Nye
Inyo
San Bernardino
Mohave
Mesquite
Pahrump
KBLR Main Studio
North Las Vegas
Las Vegas
Summerlin South
Henderson
Paradise
KBLR
Boulder City
0 25 50 75 100 km
37°15'
37°0'
36°45'
36°30'
36°15'
36°0'
35°45'
35°30'
35°15'
-116°15'
-116°0'
-115°45'
-115°30'
-115°15'
-115°0'
-114°45'
-114°30'
-114°15'
-114°0'

AZIMUTH PATTERN (H-Pol): Dielectric TFU-17ETT/VP-R S340
Main beam axis of symmetry: 330° true
Electrical Beam Tilt: 0.75°

Main Beam Calculated Max. H-pol Azimuth Pattern Gain (peak)	3.4	(5.32 dBd)
Maximum Main Beam H-Pol. Effective Radiated Power (ERP):	1000 kW	30.00 dBk
Maximum Main Beam V-Pol. Effective Radiated Power (ERP):	250.0 kW	23.98 dBk

Tabulation of Azimuth Pattern (Horizontal polarization)

Angle	RF	dBk	ERP kW
0	0.834	28.42	695.6
10	0.732	27.29	535.8
20	0.627	25.95	393.1
30	0.532	24.52	283.0
40	0.455	23.16	207.0
50	0.400	22.04	160.0
60	0.361	21.15	130.3
70	0.330	20.37	108.9
80	0.292	19.31	85.3
90	0.243	17.71	59.0
100	0.190	15.58	36.1
110	0.166	14.40	27.6
120	0.202	16.11	40.8
130	0.267	18.53	71.3
140	0.320	20.10	102.4
150	0.339	20.60	114.9
160	0.320	20.10	102.4
170	0.267	18.53	71.3
180	0.202	16.11	40.8
190	0.166	14.40	27.6
200	0.190	15.58	36.1
210	0.243	17.71	59.0
220	0.292	19.31	85.3
230	0.330	20.37	108.9
240	0.361	21.15	130.3
250	0.400	22.04	160.0
260	0.455	23.16	207.0
270	0.532	24.52	283.0
280	0.627	25.95	393.1
290	0.732	27.29	535.8
300	0.834	28.42	695.6
310	0.921	29.29	848.2
320	0.979	29.82	958.4
330	1.000	30.00	1000.0
340	0.979	29.82	958.4
350	0.921	29.29	848.2

Maximum

Angle	RF	dBk	ERP kW
150	0.339	20.60	114.9
330	1.000	30.00	1000.0

Minimum

Angle	RF	dBk	ERP kW
110	0.166	14.40	27.6
190	0.166	14.40	27.6

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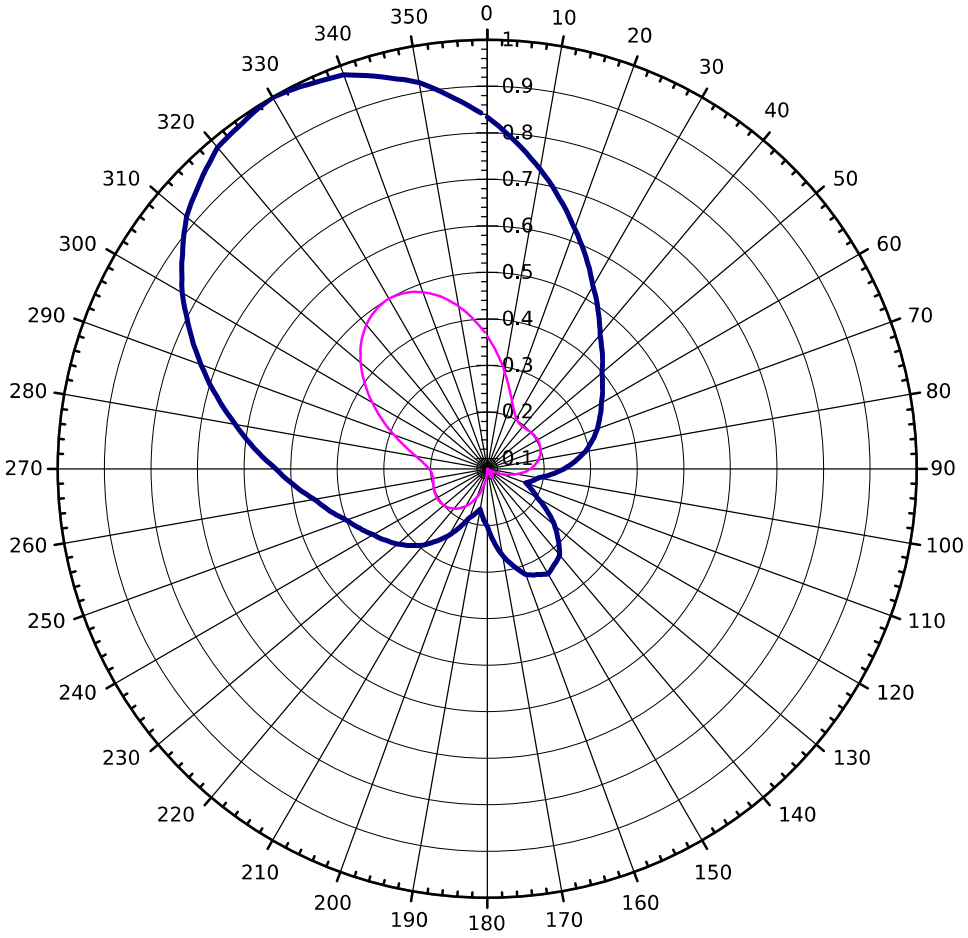
AZIMUTH PATTERN RELATIVE FIELD



Blue plot shows azimuth pattern relative field for horizontal polarization
Red plot shows azimuth pattern relative field for vertical polarization

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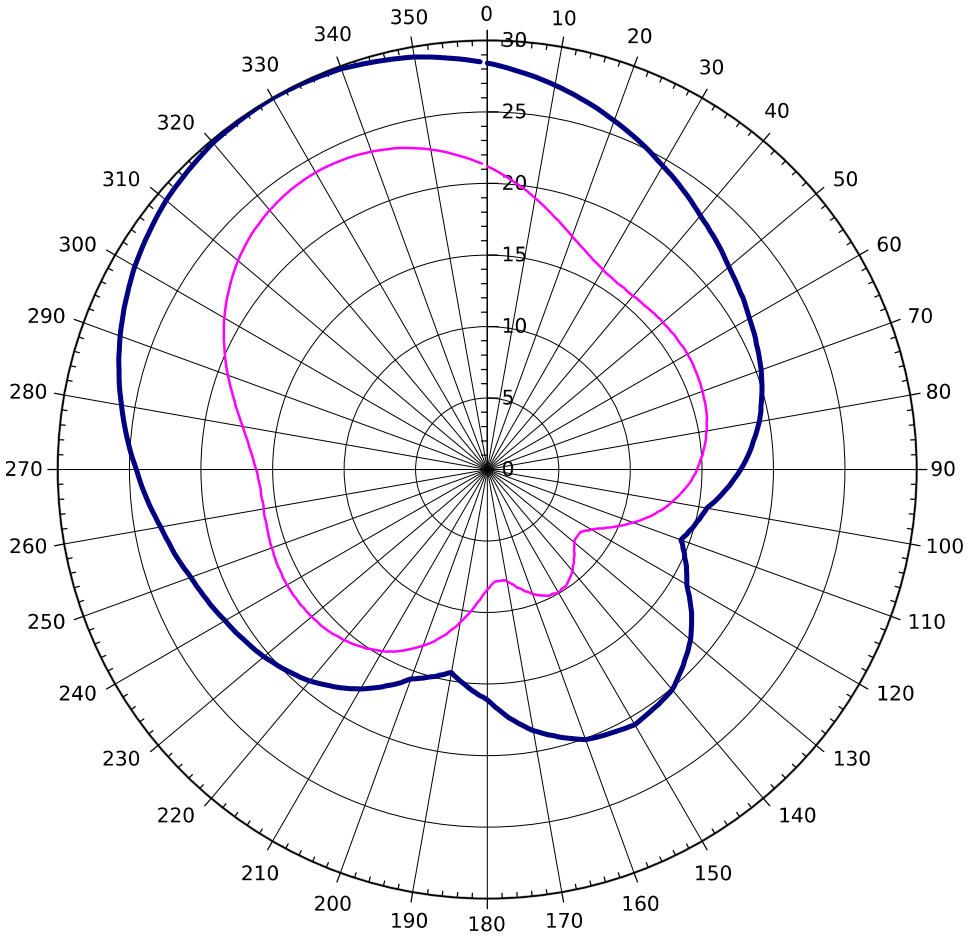
AZIMUTH PATTERN ERP (dBk)

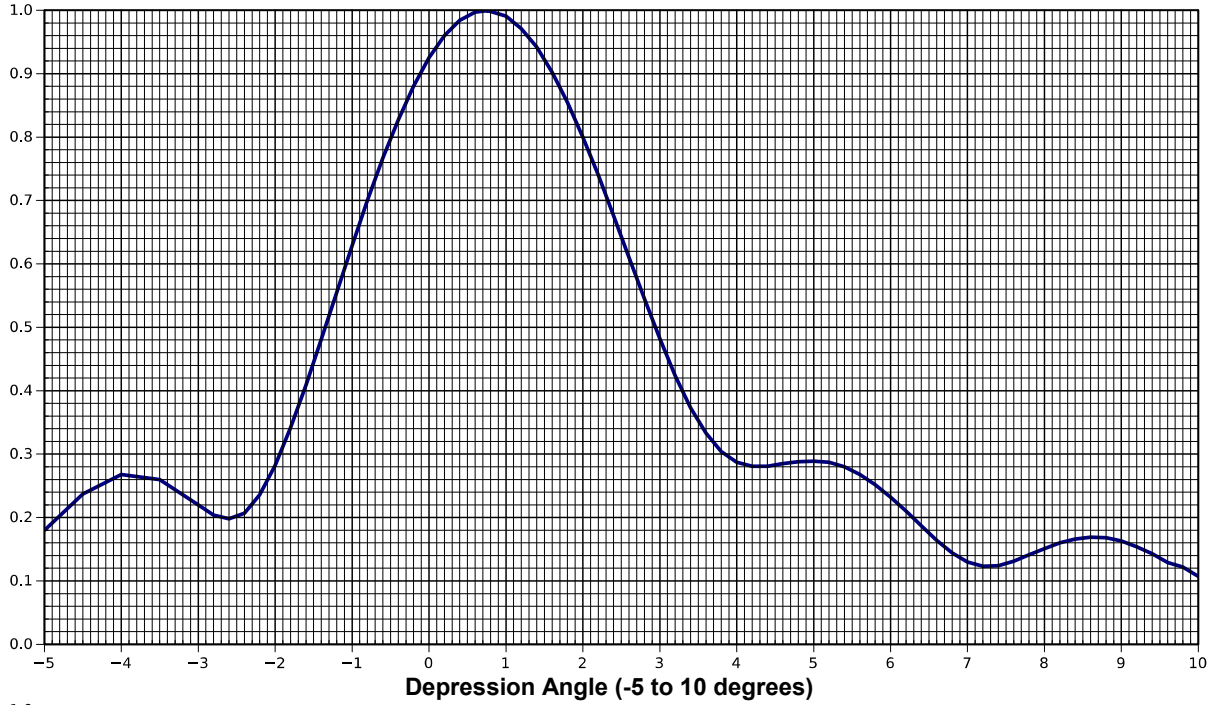


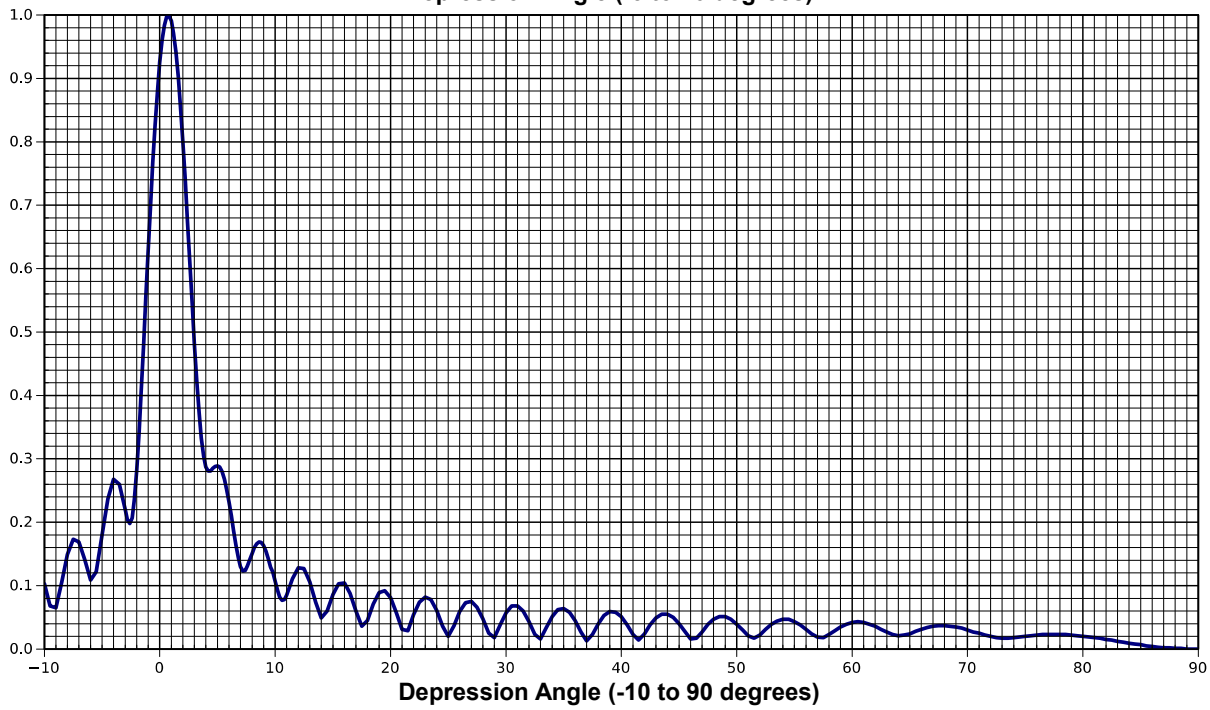
Blue plot shows effective radiated power (dBk) for horizontal polarization
Red plot shows effective radiated power (dBk) for vertical polarization

ELEVATION PATTERN Dielectric TFU-17ETT/VP-R S340

Electrical Beam Tilt: 0.75°		
Calculated Maximum Elevation Gain (H + V polarization):	16.70	12.23 dBd
RMS Gain at Horizontal (H + V polarization):	14.30	11.55 dBd
Maximum Main Beam H-Pol. Effective Radiated Power (ERP):	1000 kW	30.00 dBk
Maximum Main Beam V-Pol. Effective Radiated Power (ERP):	250.0 kW	23.98 dBk

Relative Field





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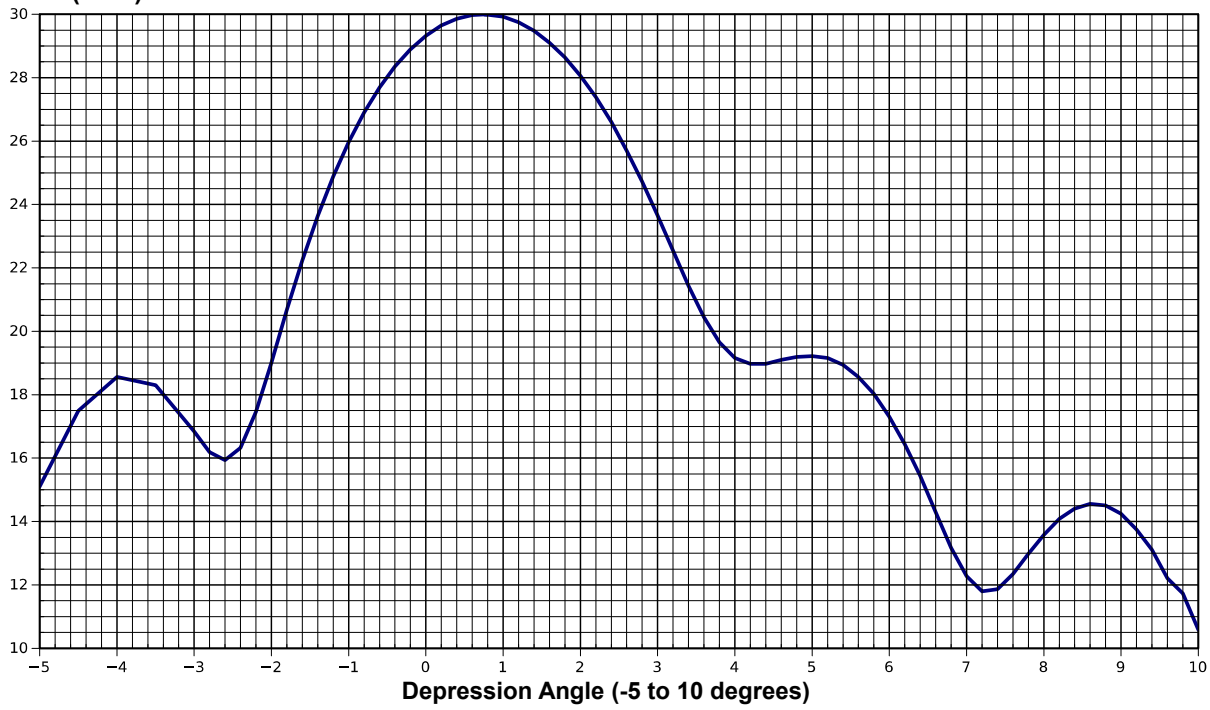
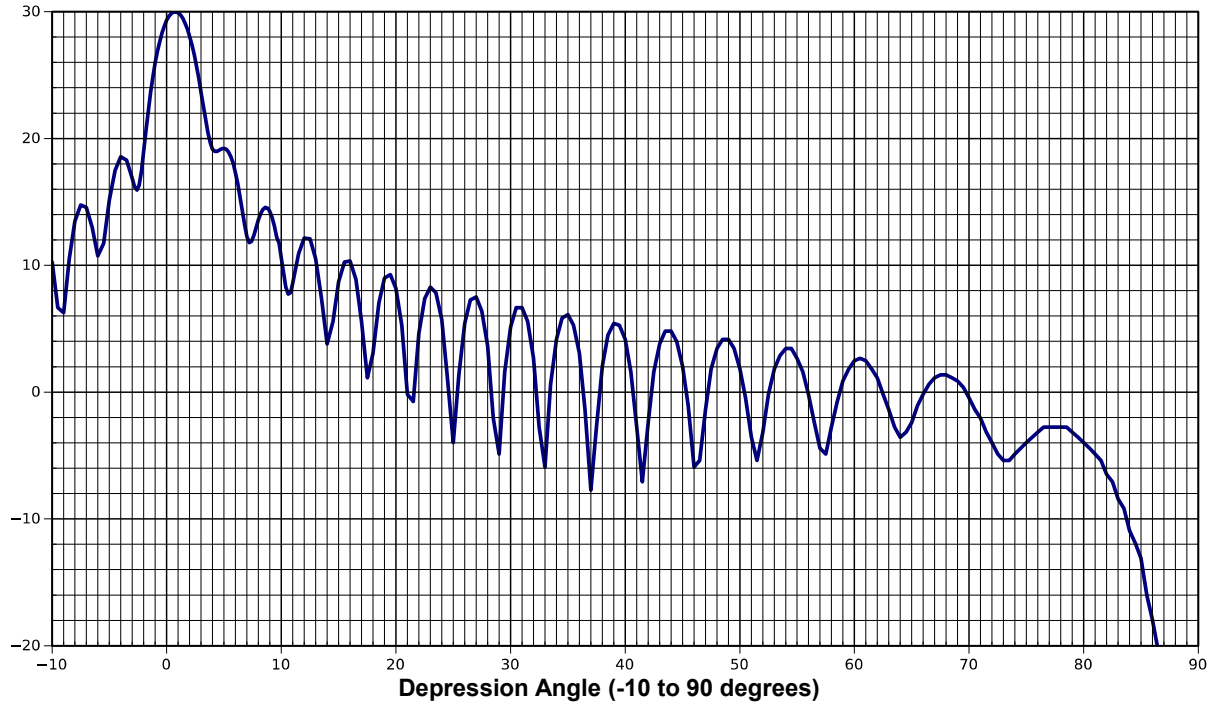
ERP (dBK)



Depression Angle (-5 to 10 degrees)



Depression Angle (-10 to 90 degrees)

ELEVATION PATTERN Dielectric TFU-17ETT/VP-R S340
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Calculated Maximum Elevation Gain (H + V polarization):	16.70	12.23 dBd
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Tabulated elevation pattern:

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.103	1.00	0.991	8.00	0.151	21.0	0.031	38.5	0.053	56.0	0.031	73.5	0.017
-9.50	0.068	1.20	0.971	8.20	0.160	21.5	0.029	39.0	0.059	56.5	0.024	74.0	0.018
-9.00	0.065	1.40	0.942	8.40	0.166	22.0	0.054	39.5	0.058	57.0	0.019	74.5	0.019
-8.50	0.106	1.60	0.902	8.60	0.169	22.5	0.074	40.0	0.051	57.5	0.018	75.0	0.020
-8.00	0.149	1.80	0.855	8.80	0.168	23.0	0.082	40.5	0.038	58.0	0.023	75.5	0.021
-7.50	0.173	2.00	0.800	9.00	0.163	23.5	0.078	41.0	0.023	58.5	0.029	76.0	0.022
-7.00	0.169	2.20	0.740	9.20	0.154	24.0	0.061	41.5	0.014	59.0	0.035	76.5	0.023
-6.50	0.141	2.40	0.676	9.40	0.143	24.5	0.036	42.0	0.024	59.5	0.039	77.0	0.023
-6.00	0.109	2.60	0.610	9.60	0.129	25.0	0.020	42.5	0.038	60.0	0.042	77.5	0.023
-5.50	0.122	2.80	0.545	9.80	0.122	25.5	0.037	43.0	0.049	60.5	0.043	78.0	0.023
-5.00	0.180	3.00	0.482	10.0	0.107	26.0	0.059	43.5	0.055	61.0	0.042	78.5	0.023
-4.50	0.237	3.20	0.424	10.2	0.093	26.5	0.073	44.0	0.055	61.5	0.039	79.0	0.022
-4.00	0.268	3.40	0.373	10.4	0.082	27.0	0.075	44.5	0.050	62.0	0.036	79.5	0.021
-3.50	0.260	3.60	0.333	10.6	0.077	27.5	0.066	45.0	0.040	62.5	0.031	80.0	0.020
-3.00	0.220	3.80	0.304	10.8	0.078	28.0	0.048	45.5	0.028	63.0	0.027	80.5	0.019
-2.80	0.204	4.00	0.287	11.0	0.085	28.5	0.025	46.0	0.016	63.5	0.023	81.0	0.018
-2.60	0.198	4.20	0.281	11.5	0.111	29.0	0.018	46.5	0.017	64.0	0.021	81.5	0.017
-2.40	0.207	4.40	0.281	12.0	0.128	29.5	0.038	47.0	0.027	64.5	0.022	82.0	0.015
-2.20	0.236	4.60	0.285	12.5	0.127	30.0	0.057	47.5	0.039	65.0	0.024	82.5	0.014
-2.00	0.282	4.80	0.288	13.0	0.106	30.5	0.068	48.0	0.047	65.5	0.028	83.0	0.012
-1.80	0.342	5.00	0.289	13.5	0.074	31.0	0.068	48.5	0.051	66.0	0.031	83.5	0.011
-1.60	0.409	5.20	0.287	14.0	0.049	31.5	0.060	49.0	0.051	66.5	0.034	84.0	0.009
-1.40	0.481	5.40	0.280	14.5	0.060	32.0	0.043	49.5	0.047	67.0	0.036	84.5	0.008
-1.20	0.555	5.60	0.268	15.0	0.086	32.5	0.023	50.0	0.039	67.5	0.037	85.0	0.007
-1.00	0.629	5.80	0.252	15.5	0.103	33.0	0.016	50.5	0.030	68.0	0.037	85.5	0.005
-0.80	0.700	6.00	0.232	16.0	0.104	33.5	0.034	51.0	0.021	68.5	0.036	86.0	0.004
-0.60	0.767	6.20	0.210	16.5	0.088	34.0	0.051	51.5	0.017	69.0	0.035	86.5	0.003
-0.40	0.827	6.40	0.187	17.0	0.060	34.5	0.062	52.0	0.022	69.5	0.033	87.0	0.002
-0.20	0.880	6.60	0.164	17.5	0.036	35.0	0.064	52.5	0.031	70.0	0.030	87.5	0.002
0.00	0.925	6.80	0.144	18.0	0.045	35.5	0.058	53.0	0.039	70.5	0.027	88.0	0.001
0.20	0.960	7.00	0.130	18.5	0.071	36.0	0.045	53.5	0.044	71.0	0.025	88.5	0.001
0.40	0.984	7.20	0.123	19.0	0.089	36.5	0.027	54.0	0.047	71.5	0.022	89.0	0.000
0.60	0.997	7.40	0.124	19.5	0.092	37.0	0.013	54.5	0.047	72.0	0.020	89.5	0.000
0.80	1.000	7.60	0.131	20.0	0.081	37.5	0.023	55.0	0.043	72.5	0.018	90.0	0.000
0.75	**1.000**	7.80	0.141	20.5	0.058	38.0	0.040	55.5	0.038	73.0	0.017		