



ENGINEERING STATEMENT

OF

BENJAMIN L. PIDEK, P.E.

**APPLICATION FOR MINOR MODIFICATION OF CONSTRUCTION PERMIT
(BDFCDTV-20110310AAR)**

FOR

K12NH

HOBBS, NM

Background

KOAT Hearst-Argyle Television, Inc. (KOAT) is the licensee of television translator station K12NH, Ch. 12, (BLTTV-20060511ABR, Facility ID 53934) at Red River, NM. In early March 2011, KOAT applied for a construction permit (which was subsequently granted on March 28, 2011) to flashcut K12NH to digital operation on Ch. 12. At the time of the filing, KOAT believed it would replace its existing analog antenna with a new antenna for the digital facility on the tower currently used by the analog facility; however, the tower is now in the process of being sold and KOAT wishes to locate the K12NH digital antenna on an alternative tower approximately 9 km north of the existing K12NH tower. The protected contour of the proposed facility (at the new tower location) will overlap the protected contour of the licensed analog facility.

Site and Tower

The site is located within the Mexican border zone and coordination with the Mexican government is requested if necessary. The antenna will be side-mounted on a registered



tower (ASR#1002832) which has an overall height of 134m AGL. No modification to the overall structure height is necessary and, therefore, notification to the FAA is not required.

Antenna and Power

KOAT is proposing to use a Scala DRV-1/2HW directional antenna (specifications and dBk table attached hereto) for the facility with a horizontally polarized ERP of 0.3 kW (no vertical polarization component).

Interference

Interference studies were run for the proposed K12NH facility with respect to domestic facilities with software that emulates the software used by the FCC (OET-69 analysis). The results of the OET-69 analysis indicate that there are no domestic full-service DTV or Class A stations predicted to receive more than the allowable 0.5% new interference from the proposed K12NH facility and, also, there are no analog or digital LPTV or translator stations predicted to receive more than the allowable 2% interference.

Environmental/RFR

This report addresses only the conditions specified in 47CFR1.1307 that deal with Radio Frequency Radiation (RFR). Any other non-RFR conditions that might require the preparation of an EA are beyond the scope of this report; however, since the structure is existing and registered, such conditions should not be an issue requiring further consideration as there will be no increase in height or change in width of the tower structure.

The location of the proposed construction is a multi-user site and it is assumed that the site is currently "in compliance" with FCC guidelines for human exposure to RFR (as defined in OET-65). The additional worst case ground level RFR contributed to the site by this proposal in public areas is calculated to be 0.00025 mW/cm^2 , which is less than 1% of the MPE for public exposure (0.2 mW/cm^2) at Ch. 12 (204-210 MHz). The contribution to the



overall RFR from the proposed facility is negligible (less than 1%) and, therefore, the site will remain "in compliance" with FCC guidelines.

KOAT agrees to comply with the Commission's requirements regarding power adjustments or cessation of operation as may be necessary to ensure a compliant environment for worker access. Workers will be trained on RFR issues and encouraged to wear personal RFR monitors when on the structure. The tower base is enclosed by a locked security fence and appropriate signage warning of potential RFR hazards is posted.

Certification

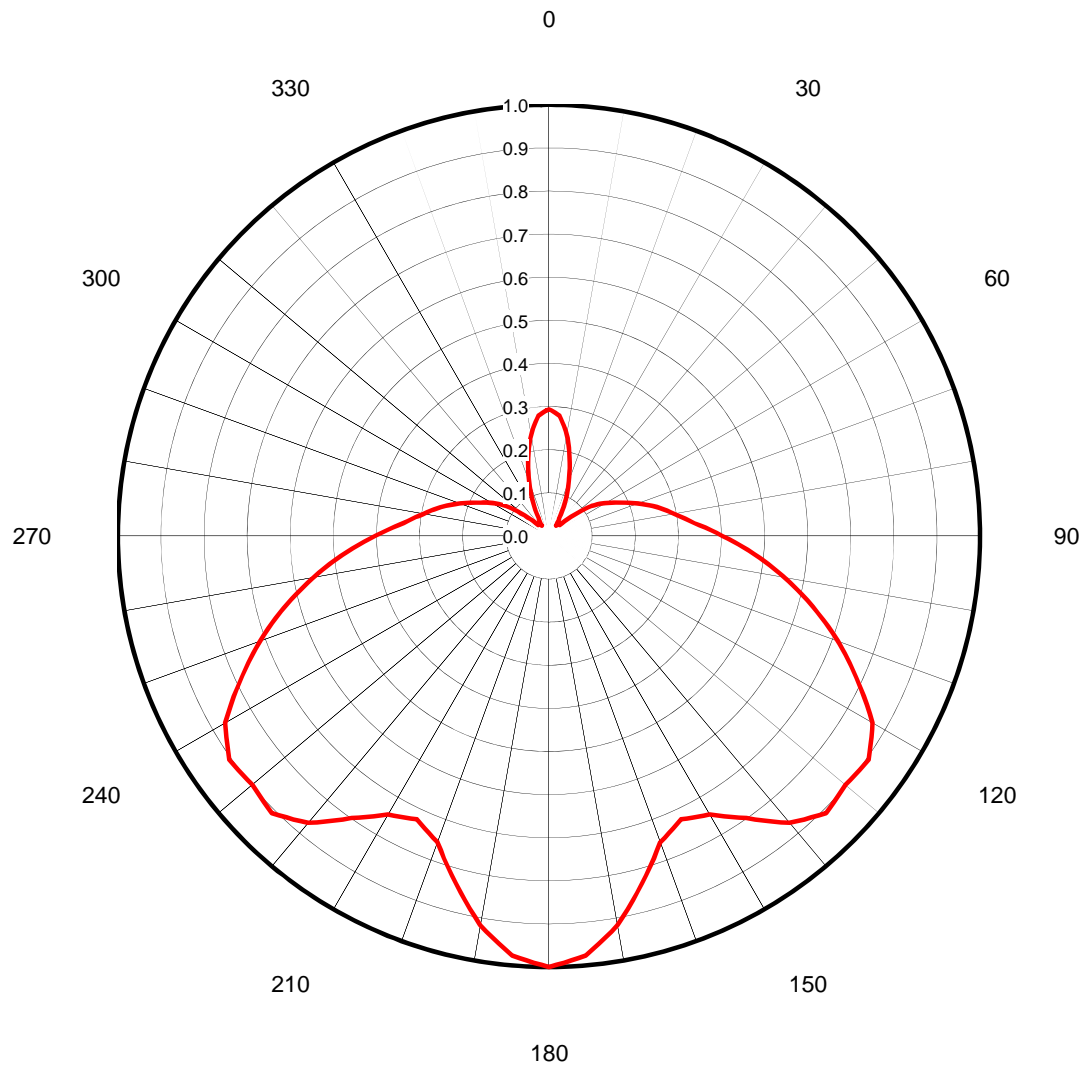
I hereby certify that the foregoing report or statement was prepared by me but may include work performed by others under my supervision or direction. The statements of fact contained therein are believed to be true and correct based on personal knowledge, information and belief unless otherwise stated; with respect to facts not known of my own personal knowledge, I believe them to be true and correct based on their origin from sources known to me to be generally reliable and accurate. I have prepared this document with due care and in accordance with applicable standards of professional practice.

Benjamin L. Pidek, P.E.

John F. X. Browne, P.E.
June 15, 2011



K12NH Azimuth Pattern

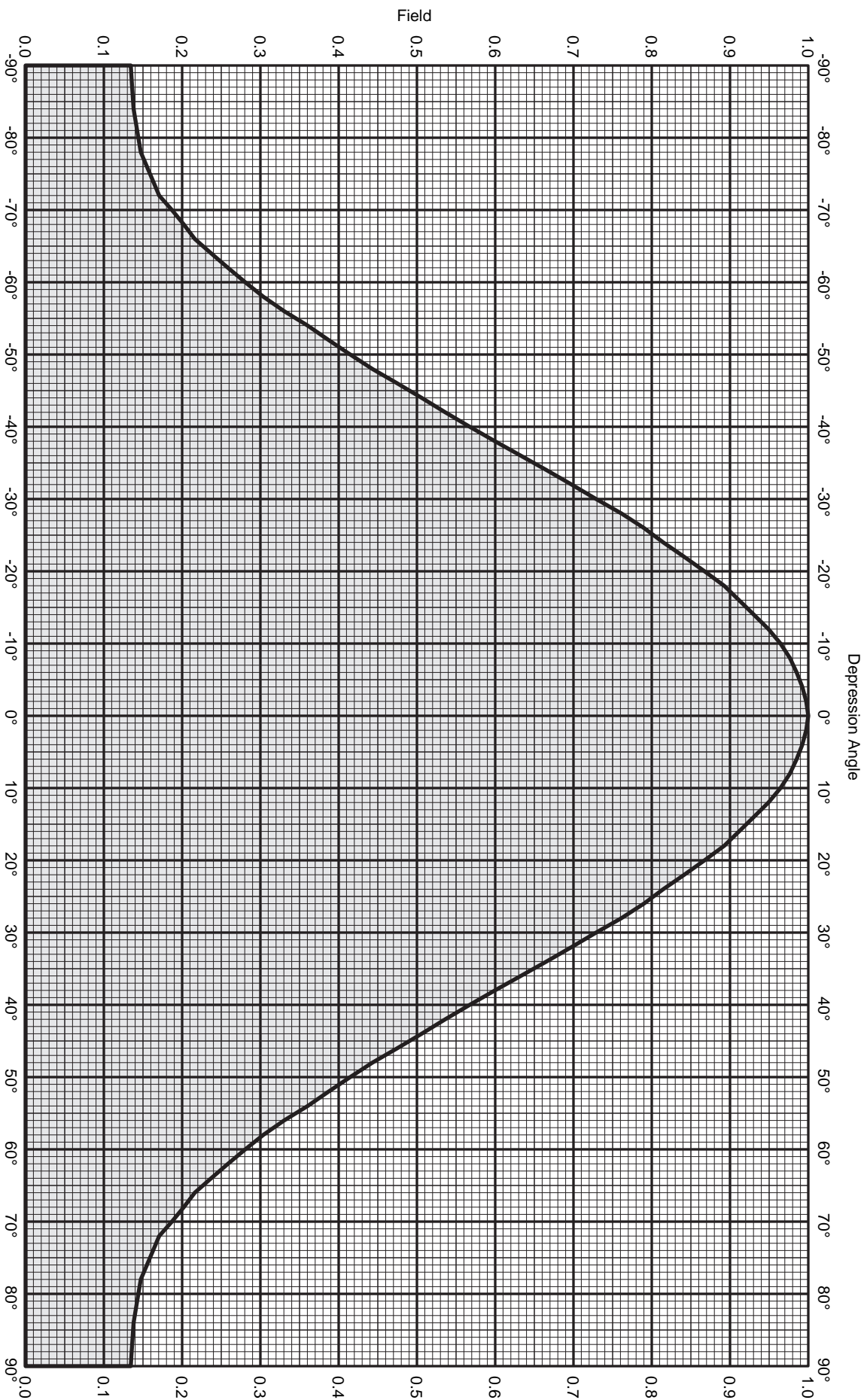


Antenna Manufacturer: Scala

Rotation: 0

Model #: DRV-1/2 HW

Azimuth	RF	Azimuth	RF	Azimuth	RF	Azimuth	RF
0	0.294	90	0.402	180	1.000	270	0.402
10	0.239	100	0.554	190	0.917	280	0.295
20	0.134	110	0.713	200	0.756	290	0.220
30	0.048	120	0.867	210	0.746	300	0.153
40	0.037	130	0.898	220	0.869	310	0.073
50	0.073	140	0.869	230	0.898	320	0.037
60	0.153	150	0.746	240	0.867	330	0.048
70	0.220	160	0.756	250	0.713	340	0.134
80	0.295	170	0.917	260	0.554	350	0.239



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DRV-1/2 HW Band-III Panel array Array

CH: 12

Oriented at 180 degrees

Gain: 4.5 dBD (x 2.82)

Horizontal Polarization

Vertical plane Pattern



DRV-1/2 HW Band-III Panel array Array

CH: 12

Oriented at 180 degrees

Gain: 4.5 dBd (x 2.82)

Horizontal Polarization

Vertical plane Pattern

Angle	Field	Rel.dB	dBd	PwrMult	Angle	Field	Rel.dB	dBd	PwrMult
-90	0.134	-17.43	-12.93	0.05	-45	0.491	-6.19	-1.69	0.68
-89	0.135	-17.39	-12.89	0.05	-44	0.506	-5.92	-1.42	0.72
-88	0.136	-17.36	-12.86	0.05	-43	0.521	-5.66	-1.16	0.77
-87	0.136	-17.32	-12.82	0.05	-42	0.536	-5.41	-0.91	0.81
-86	0.137	-17.28	-12.78	0.05	-41	0.552	-5.16	-0.66	0.86
-85	0.137	-17.24	-12.74	0.05	-40	0.567	-4.92	-0.42	0.91
-84	0.138	-17.20	-12.70	0.05	-39	0.584	-4.68	-0.18	0.96
-83	0.140	-17.11	-12.61	0.05	-38	0.600	-4.44	0.06	1.01
-82	0.141	-17.01	-12.51	0.06	-37	0.616	-4.21	0.29	1.07
-81	0.143	-16.92	-12.42	0.06	-36	0.633	-3.98	0.52	1.13
-80	0.144	-16.83	-12.33	0.06	-35	0.649	-3.75	0.75	1.19
-79	0.146	-16.74	-12.24	0.06	-34	0.666	-3.54	0.96	1.25
-78	0.147	-16.64	-12.14	0.06	-33	0.682	-3.33	1.17	1.31
-77	0.151	-16.41	-11.91	0.06	-32	0.698	-3.13	1.37	1.37
-76	0.155	-16.19	-11.69	0.07	-31	0.713	-2.93	1.57	1.43
-75	0.159	-15.97	-11.47	0.07	-30	0.729	-2.75	1.75	1.50
-74	0.163	-15.76	-11.26	0.07	-29	0.745	-2.56	1.94	1.56
-73	0.167	-15.56	-11.06	0.08	-28	0.761	-2.37	2.13	1.63
-72	0.171	-15.36	-10.86	0.08	-27	0.776	-2.21	2.29	1.70
-71	0.179	-14.95	-10.45	0.09	-26	0.790	-2.05	2.45	1.76
-70	0.187	-14.56	-10.06	0.10	-25	0.802	-1.91	2.59	1.81
-69	0.195	-14.22	-9.72	0.11	-24	0.815	-1.78	2.72	1.87
-68	0.202	-13.89	-9.39	0.12	-23	0.828	-1.64	2.86	1.93
-67	0.209	-13.59	-9.09	0.12	-22	0.842	-1.50	3.00	2.00
-66	0.216	-13.31	-8.81	0.13	-21	0.854	-1.37	3.13	2.06
-65	0.227	-12.89	-8.39	0.14	-20	0.867	-1.24	3.26	2.12
-64	0.237	-12.50	-8.00	0.16	-19	0.880	-1.11	3.39	2.18
-63	0.248	-12.12	-7.62	0.17	-18	0.892	-0.99	3.51	2.24
-62	0.259	-11.75	-7.25	0.19	-17	0.902	-0.90	3.60	2.29
-61	0.270	-11.38	-6.88	0.20	-16	0.912	-0.80	3.70	2.34
-60	0.281	-11.04	-6.54	0.22	-15	0.921	-0.72	3.78	2.39
-59	0.292	-10.69	-6.19	0.24	-14	0.930	-0.63	3.87	2.44
-58	0.304	-10.35	-5.85	0.26	-13	0.940	-0.54	3.96	2.49
-57	0.317	-9.98	-5.48	0.28	-12	0.949	-0.45	4.05	2.54
-56	0.330	-9.62	-5.12	0.31	-11	0.957	-0.38	4.12	2.58
-55	0.345	-9.23	-4.73	0.34	-10	0.964	-0.31	4.19	2.62
-54	0.360	-8.86	-4.36	0.37	-9	0.971	-0.26	4.24	2.65
-53	0.374	-8.55	-4.05	0.39	-8	0.977	-0.21	4.29	2.69
-52	0.387	-8.24	-3.74	0.42	-7	0.981	-0.17	4.33	2.71
-51	0.401	-7.94	-3.44	0.45	-6	0.985	-0.13	4.37	2.74
-50	0.415	-7.64	-3.14	0.48	-5	0.989	-0.10	4.40	2.76
-49	0.429	-7.35	-2.85	0.52	-4	0.992	-0.07	4.43	2.78
-48	0.443	-7.07	-2.57	0.55	-3	0.995	-0.04	4.46	2.79
-47	0.459	-6.76	-2.26	0.59	-2	0.997	-0.02	4.48	2.80
-46	0.475	-6.47	-1.97	0.64	-1	0.999	-0.01	4.49	2.81
					0	1.000	0.00	4.50	2.82



DRV-1/2 HW Band-III Panel array Array

Horizontal Polarization

CH: 12

Vertical plane Pattern

Oriented at 180 degrees

Gain: 4.5 dBd (x 2.82)

Angle	Field	Rel.dB	dBd	PwrMult	Angle	Field	Rel.dB	dBd	PwrMult
0	1.000	0.00	4.50	2.82	45	0.491	-6.19	-1.69	0.68
1	0.999	-0.01	4.49	2.81	46	0.475	-6.47	-1.97	0.64
2	0.997	-0.02	4.48	2.80	47	0.459	-6.76	-2.26	0.59
3	0.995	-0.04	4.46	2.79	48	0.443	-7.07	-2.57	0.55
4	0.992	-0.07	4.43	2.78	49	0.429	-7.35	-2.85	0.52
5	0.989	-0.10	4.40	2.76	50	0.415	-7.64	-3.14	0.48
6	0.985	-0.13	4.37	2.74	51	0.401	-7.94	-3.44	0.45
7	0.981	-0.17	4.33	2.71	52	0.387	-8.24	-3.74	0.42
8	0.977	-0.21	4.29	2.69	53	0.374	-8.55	-4.05	0.39
9	0.971	-0.26	4.24	2.65	54	0.360	-8.86	-4.36	0.37
10	0.964	-0.31	4.19	2.62	55	0.345	-9.23	-4.73	0.34
11	0.957	-0.38	4.12	2.58	56	0.330	-9.62	-5.12	0.31
12	0.949	-0.45	4.05	2.54	57	0.317	-9.98	-5.48	0.28
13	0.940	-0.54	3.96	2.49	58	0.304	-10.35	-5.85	0.26
14	0.930	-0.63	3.87	2.44	59	0.292	-10.69	-6.19	0.24
15	0.921	-0.72	3.78	2.39	60	0.281	-11.04	-6.54	0.22
16	0.912	-0.80	3.70	2.34	61	0.270	-11.38	-6.88	0.20
17	0.902	-0.90	3.60	2.29	62	0.259	-11.75	-7.25	0.19
18	0.892	-0.99	3.51	2.24	63	0.248	-12.12	-7.62	0.17
19	0.880	-1.11	3.39	2.18	64	0.237	-12.50	-8.00	0.16
20	0.867	-1.24	3.26	2.12	65	0.227	-12.89	-8.39	0.14
21	0.854	-1.37	3.13	2.06	66	0.216	-13.31	-8.81	0.13
22	0.842	-1.50	3.00	2.00	67	0.209	-13.59	-9.09	0.12
23	0.828	-1.64	2.86	1.93	68	0.202	-13.89	-9.39	0.12
24	0.815	-1.78	2.72	1.87	69	0.195	-14.22	-9.72	0.11
25	0.802	-1.91	2.59	1.81	70	0.187	-14.56	-10.06	0.10
26	0.790	-2.05	2.45	1.76	71	0.179	-14.95	-10.45	0.09
27	0.776	-2.21	2.29	1.70	72	0.171	-15.36	-10.86	0.08
28	0.761	-2.37	2.13	1.63	73	0.167	-15.56	-11.06	0.08
29	0.745	-2.56	1.94	1.56	74	0.163	-15.76	-11.26	0.07
30	0.729	-2.75	1.75	1.50	75	0.159	-15.97	-11.47	0.07
31	0.713	-2.93	1.57	1.43	76	0.155	-16.19	-11.69	0.07
32	0.698	-3.13	1.37	1.37	77	0.151	-16.41	-11.91	0.06
33	0.682	-3.33	1.17	1.31	78	0.147	-16.64	-12.14	0.06
34	0.666	-3.54	0.96	1.25	79	0.146	-16.74	-12.24	0.06
35	0.649	-3.75	0.75	1.19	80	0.144	-16.83	-12.33	0.06
36	0.633	-3.98	0.52	1.13	81	0.143	-16.92	-12.42	0.06
37	0.616	-4.21	0.29	1.07	82	0.141	-17.01	-12.51	0.06
38	0.600	-4.44	0.06	1.01	83	0.140	-17.11	-12.61	0.05
39	0.584	-4.68	-0.18	0.96	84	0.138	-17.20	-12.70	0.05
40	0.567	-4.92	-0.42	0.91	85	0.137	-17.24	-12.74	0.05
41	0.552	-5.16	-0.66	0.86	86	0.137	-17.28	-12.78	0.05
42	0.536	-5.41	-0.91	0.81	87	0.136	-17.32	-12.82	0.05
43	0.521	-5.66	-1.16	0.77	88	0.136	-17.36	-12.86	0.05
44	0.506	-5.92	-1.42	0.72	89	0.135	-17.39	-12.89	0.05
					90	0.134	-17.43	-12.93	0.05

DIRECTIONAL ANTENNA DATA
K12NH-LD
dBk Table

Actual Bearing	Pattern Azimuth	Relative Field	ERP (dBk)	CONTOUR F(50,90) - 48 dBu
N000E	0.00	0.294	-15.86	15.2
	10.00	0.239	-17.66	
	20.00	0.134	-22.69	
	30.00	0.048	-31.60	
	40.00	0.037	-33.86	
N045E	45.00	0.035	-34.35	7.4
	50.00	0.073	-27.96	
	60.00	0.153	-21.53	
	70.00	0.220	-18.38	
	80.00	0.295	-15.83	
N090E	90.00	0.402	-13.14	21.3
	100.00	0.554	-10.36	
	110.00	0.713	-8.17	
	120.00	0.867	-6.47	
	130.00	0.898	-6.16	
N135E	135.00	0.909	-6.06	30.1
	140.00	0.869	-6.45	
	150.00	0.746	-7.77	
	160.00	0.756	-7.66	
	170.00	0.917	-5.98	
N180E	180.00	1.000	-5.23	30.7
	190.00	0.917	-5.98	
	200.00	0.756	-7.66	
	210.00	0.746	-7.77	
	220.00	0.869	-6.45	
N225E	225.00	0.909	-6.06	27.6
	230.00	0.898	-6.16	
	240.00	0.867	-6.47	
	250.00	0.713	-8.17	
	260.00	0.554	-10.36	
N270E	270.00	0.402	-13.14	16.8
	280.00	0.295	-15.83	
	290.00	0.220	-18.38	
	300.00	0.153	-21.53	
	310.00	0.073	-27.96	
N315E	315.00	0.035	-34.35	6.2
	320.00	0.370	-13.86	
	330.00	0.048	-31.60	
	340.00	0.134	-22.69	
	350.00	0.239	-17.66	

Maximum: N180E -5.23 dBk

Minima: N045E -34.35 dBk
N315E