

***PRELIMINARY SPECIFICATION FOR
ERI AL-PLUS CIRCULARLY POLARIZED
COAXIAL SLOTTED ARRAY ANTENNA***

Prepared For Channel 34

May 31, 2018

**ANTENNA TYPE:
AL8-34-PLE**

SPECIFICATION NO:



PRELIMINARY SPECIFICATION FOR ERI AL-PLUS CIRCULARLY POLARIZED COAXIAL SLOTTED ARRAY ANTENNA

ELECTRICAL CHARACTERISTICS:

CHANNEL:	DTV:	34
FREQUENCY RANGE:	DTV:	590.00 - 596.00 MHz
AZIMUTH PATTERN NUMBER:	Hor Pol:	ALP-OC
	Ver Pol:	ALP-OC
ELEVATION PATTERN NUMBER:	Hor Pol:	AL8
	Ver Pol:	AL8
AZIMUTH DIRECTIVITY:	Hor Pol:	1.70 (2.30 dB)
	Ver Pol:	1.70 (2.30 dB)
ELEVATION DIRECTIVITY:	Hor Pol:	8.50 (9.29 dBd)
	Ver Pol:	8.50 (9.29 dBd)
ELEVATION GAIN:	Hor Pol:	4.25 (6.28 dBd)
	Ver Pol:	4.25 (6.28 dBd)
PEAK POWER GAIN:	Hor Pol:	7.22 (8.59 dBd)
	Ver Pol:	7.22 (8.59 dBd)
GAIN AT HORIZONTAL:	Hor Pol:	5.96 (7.75 dBd)
	Ver Pol:	5.96 (7.75 dBd)
GAIN RATIO: VER POL/HOR POL		1.00
ELECTRICAL BEAM TILT:		-1.75 Degrees
INPUT POWER REQUIRED:		0.415 kW Average Power, 8VSB Digital
MAXIMUM INPUT POWER:		CONTACT ERI
INPUT TYPE:		1-5/8" EIA
ANTENNA VSWR (MAXIMUM):	DTV:	1.10 Over 6 MHz of Channel

Preliminary, subject to final design and review.

PRELIMINARY SPECIFICATION FOR ERI AL-PLUS CIRCULARLY POLARIZED COAXIAL SLOTTED ARRAY ANTENNA

MECHANICAL CHARACTERISTICS:

MOUNTING CONFIGURATION:

*(Tower Interface supplied and installed by others.)

Side Mount

HEIGHT OF ANTENNA:

18.8 feet

HEIGHT OF CENTER OF
RADIATION:

9.4 feet

OVERALL HEIGHT (A):

18.8 feet

DEICING:

Unpressurized Slot Cover Radome Enclosure

RADOME DIAMETER (C):

CONTACT ERI

RADOME COLOR:

GRAY

CLIMBING DEVICE:

NOT APPLICABLE

CALCULATED WEIGHT¹:

120 lbs.

ANTENNA AREA³:

FRONT AREA:

$C_A A_C$: 6.7 square feet

A_C : 5.6 square feet

SIDE AREA:

$C_A A_C$: 9.7 square feet

A_C : 8.1 square feet

This antenna is designed to be supported by a structure that can resist the antenna base reactions and which provides a support that is rigid in the three translational and three rotational degrees of freedom.

¹ Calculated weight is based on the PRELIMINARY design of the antenna. The actual weight of the antenna will be within $\pm 10\%$ of the calculated weight. The actual weight will be given in the technical manual that accompanies the antenna. This figure is for the antenna only and does not include the antenna input section.

³ Antenna Area is calculated per EIA/TIA-RS222-F.

Note: Localized conditions may require higher wind speed specifications than TIA/EIA specifications. Check with local authorities to verify wind speed requirements.

Preliminary, subject to final design and review.

Broadcast Antenna System

Power Analysis

Channel 34

AL8-34-PLE

ANTENNA PARAMETERS

Azimuth Directivity:

Hor. Pol: 1.70 (2.30 dBd)
Ver. Pol: 1.70 (2.30 dBd)

Elevation Directivity:

Hor. Pol: 8.50 (9.29 dBd)
Ver. Pol: 8.50 (9.29 dBd)

TRANSMISSION LINE:

VERTICAL RUN:

Type: HJ5-50
Length, ft: 50 ft.
Attenuation, dB/100 ft: 0.955 dB/100 ft.

HORIZONTAL RUN:

Type: HJ5-50
Length, ft: 10 ft.
Attenuation, dB/100 ft: 0.955 dB/100 ft.

Line Efficiency: 87.63 %

ERP:

Hor. Pol: 3.00 kW (4.77 dBk)
Ver. Pol: 3.00 kW (4.77 dBk)

POWER GAIN:

Hor. Pol: 7.22 (8.59 dBd)
Ver. Pol: 7.22 (8.59 dBd)

ANTENNA INPUT:

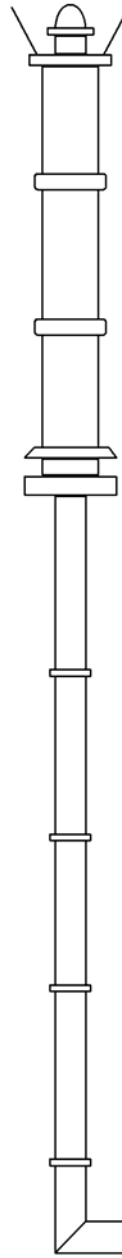
kW: 0.42
dBk: -3.82

LINE LOSS:

kW: 0.06
dB: 0.57

TRANSMITTER POWER:

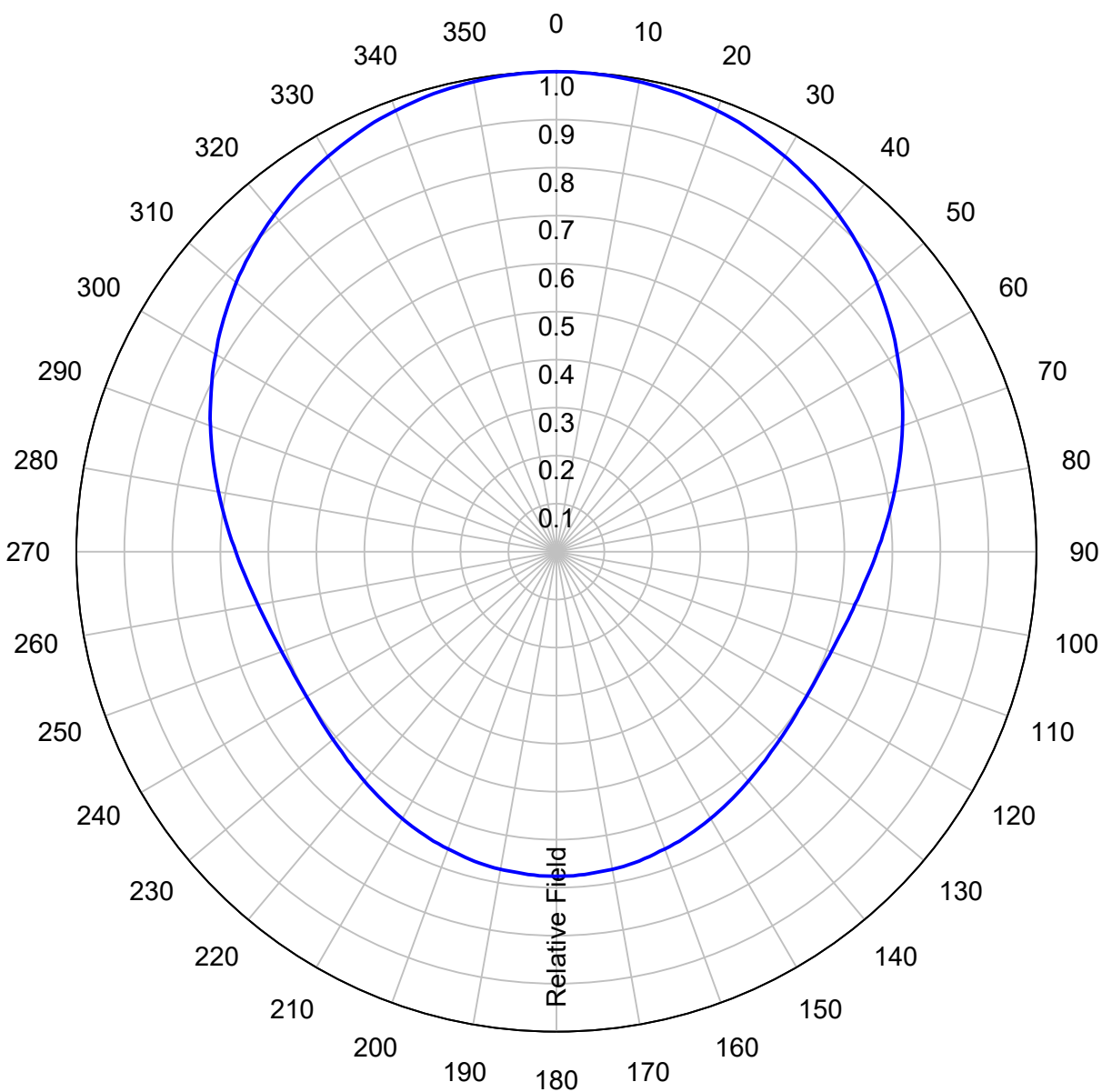
kW: 0.47
dBk: -3.24



Preliminary, subject to final design and review.

AZIMUTH PATTERN**Type:**ALP-OC**Channel:**34**Directivity:**NumericdBd**Peak(s) at:**1.702.30**Location:****Polarization:**Horizontal

Note: Pattern shape and directivity may vary with channel and mouting configuration.



Preliminary, subject to final design and review.

TABULATED DATA FOR AZIMUTH PATTERN

Type: ALP-OC

PolarizationHorizontal

ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB
0	1.000	0.00	92	0.660	-3.61	184	0.675	-3.41	276	0.695	-3.16
2	1.000	0.00	94	0.652	-3.72	186	0.674	-3.43	278	0.705	-3.04
4	0.999	-0.01	96	0.644	-3.82	188	0.673	-3.44	280	0.715	-2.91
6	0.998	-0.02	98	0.638	-3.90	190	0.672	-3.45	282	0.725	-2.79
8	0.996	-0.03	100	0.631	-4.00	192	0.670	-3.48	284	0.735	-2.67
10	0.994	-0.05	102	0.626	-4.07	194	0.668	-3.50	286	0.746	-2.55
12	0.992	-0.07	104	0.621	-4.14	196	0.665	-3.54	288	0.756	-2.43
14	0.989	-0.10	106	0.616	-4.21	198	0.662	-3.58	290	0.767	-2.30
16	0.986	-0.12	108	0.612	-4.26	200	0.659	-3.62	292	0.778	-2.18
18	0.982	-0.16	110	0.609	-4.31	202	0.656	-3.66	294	0.788	-2.07
20	0.978	-0.19	112	0.606	-4.35	204	0.653	-3.70	296	0.799	-1.95
22	0.974	-0.23	114	0.604	-4.38	206	0.649	-3.76	298	0.810	-1.83
24	0.969	-0.27	116	0.603	-4.39	208	0.646	-3.80	300	0.820	-1.72
26	0.963	-0.33	118	0.602	-4.41	210	0.642	-3.85	302	0.831	-1.61
28	0.957	-0.38	120	0.602	-4.41	212	0.638	-3.90	304	0.841	-1.50
30	0.951	-0.44	122	0.602	-4.41	214	0.634	-3.96	306	0.851	-1.40
32	0.945	-0.49	124	0.603	-4.39	216	0.630	-4.01	308	0.861	-1.30
34	0.938	-0.56	126	0.604	-4.38	218	0.627	-4.05	310	0.871	-1.20
36	0.931	-0.62	128	0.606	-4.35	220	0.623	-4.11	312	0.880	-1.11
38	0.923	-0.70	130	0.608	-4.32	222	0.619	-4.17	314	0.889	-1.02
40	0.915	-0.77	132	0.610	-4.29	224	0.616	-4.21	316	0.898	-0.93
42	0.907	-0.85	134	0.613	-4.25	226	0.613	-4.25	318	0.907	-0.85
44	0.898	-0.93	136	0.616	-4.21	228	0.610	-4.29	320	0.915	-0.77
46	0.889	-1.02	138	0.619	-4.17	230	0.608	-4.32	322	0.923	-0.70
48	0.880	-1.11	140	0.623	-4.11	232	0.606	-4.35	324	0.931	-0.62
50	0.871	-1.20	142	0.627	-4.05	234	0.604	-4.38	326	0.938	-0.56
52	0.861	-1.30	144	0.630	-4.01	236	0.603	-4.39	328	0.945	-0.49
54	0.851	-1.40	146	0.634	-3.96	238	0.602	-4.41	330	0.951	-0.44
56	0.841	-1.50	148	0.638	-3.90	240	0.602	-4.41	332	0.957	-0.38
58	0.831	-1.61	150	0.642	-3.85	242	0.602	-4.41	334	0.963	-0.33
60	0.820	-1.72	152	0.646	-3.80	244	0.603	-4.39	336	0.969	-0.27
62	0.810	-1.83	154	0.649	-3.76	246	0.604	-4.38	338	0.974	-0.23
64	0.799	-1.95	156	0.653	-3.70	248	0.606	-4.35	340	0.978	-0.19
66	0.788	-2.07	158	0.656	-3.66	250	0.609	-4.31	342	0.982	-0.16
68	0.778	-2.18	160	0.659	-3.62	252	0.612	-4.26	344	0.986	-0.12
70	0.767	-2.30	162	0.662	-3.58	254	0.616	-4.21	346	0.989	-0.10
72	0.756	-2.43	164	0.665	-3.54	256	0.621	-4.14	348	0.992	-0.07
74	0.746	-2.55	166	0.668	-3.50	258	0.626	-4.07	350	0.994	-0.05
76	0.735	-2.67	168	0.670	-3.48	260	0.631	-4.00	352	0.996	-0.03
78	0.725	-2.79	170	0.672	-3.45	262	0.638	-3.90	354	0.998	-0.02
80	0.715	-2.91	172	0.673	-3.44	264	0.644	-3.82	356	0.999	-0.01
82	0.705	-3.04	174	0.674	-3.43	266	0.652	-3.72	358	1.000	0.00
84	0.695	-3.16	176	0.675	-3.41	268	0.660	-3.61	360	1.000	0.00
86	0.686	-3.27	178	0.676	-3.40	270	0.668	-3.50			
88	0.677	-3.39	180	0.676	-3.40	272	0.677	-3.39			
90	0.668	-3.50	182	0.676	-3.40	274	0.686	-3.27			

Preliminary, subject to final design and review.

TABULATED DATA FOR AZIMUTH PATTERN FCC FILING FORMAT

Type: ALP-OC

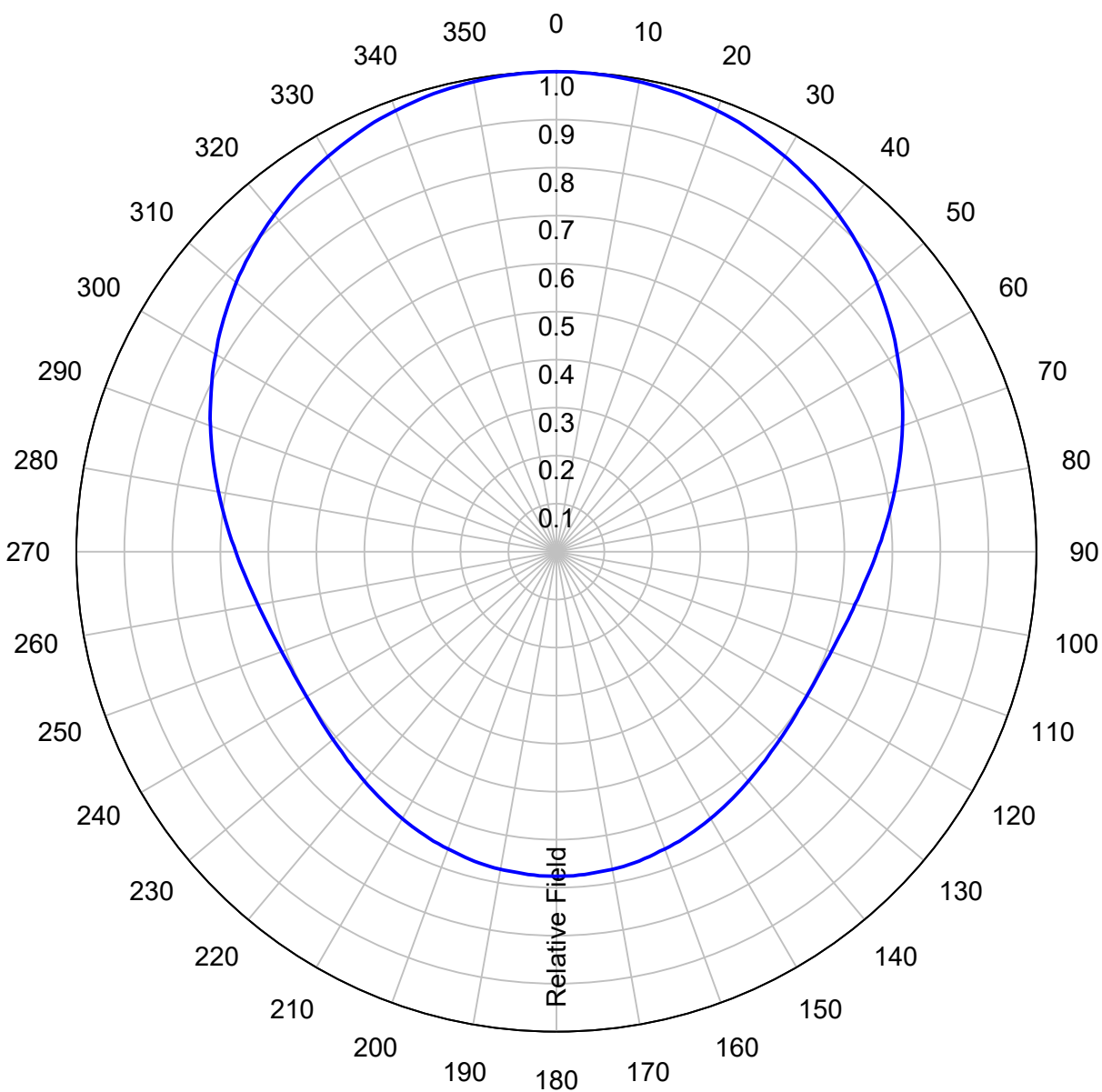
PolarizationHorizontal

ANGLE	FIELD	ERP (kW)	ERP (dBk)
0	1.000	3.000	4.771
10	0.994	2.964	4.719
20	0.978	2.869	4.578
30	0.951	2.713	4.335
40	0.915	2.512	4.000
50	0.871	2.276	3.572
60	0.820	2.017	3.047
70	0.767	1.765	2.467
80	0.715	1.534	1.857
90	0.668	1.339	1.267
100	0.631	1.194	0.772
110	0.609	1.113	0.464
120	0.602	1.087	0.363
130	0.608	1.109	0.449
140	0.623	1.164	0.661
150	0.642	1.236	0.922
160	0.659	1.303	1.149
170	0.672	1.355	1.319
180	0.676	1.371	1.370
190	0.672	1.355	1.319
200	0.659	1.303	1.149
210	0.642	1.236	0.922
220	0.623	1.164	0.661
230	0.608	1.109	0.449
240	0.602	1.087	0.363
250	0.609	1.113	0.464
260	0.631	1.194	0.772
270	0.668	1.339	1.267
280	0.715	1.534	1.857
290	0.767	1.765	2.467
300	0.820	2.017	3.047
310	0.871	2.276	3.572
320	0.915	2.512	4.000
330	0.951	2.713	4.335
340	0.978	2.869	4.578
350	0.994	2.964	4.719

Preliminary, subject to final design and review.

AZIMUTH PATTERN**Type:**ALP-OC**Channel:**34**Directivity:**NumericdBd**Peak(s) at:**1.702.30**Location:****Polarization:**Vertical

Note: Pattern shape and directivity may vary with channel and mouting configuration.



Preliminary, subject to final design and review.

TABULATED DATA FOR AZIMUTH PATTERN

Type: ALP-OC

Polarization: Vertical

ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB
0	1.000	0.00	92	0.660	-3.61	184	0.675	-3.41	276	0.695	-3.16
2	1.000	0.00	94	0.652	-3.72	186	0.674	-3.43	278	0.705	-3.04
4	0.999	-0.01	96	0.644	-3.82	188	0.673	-3.44	280	0.715	-2.91
6	0.998	-0.02	98	0.638	-3.90	190	0.672	-3.45	282	0.725	-2.79
8	0.996	-0.03	100	0.631	-4.00	192	0.670	-3.48	284	0.735	-2.67
10	0.994	-0.05	102	0.626	-4.07	194	0.668	-3.50	286	0.746	-2.55
12	0.992	-0.07	104	0.621	-4.14	196	0.665	-3.54	288	0.756	-2.43
14	0.989	-0.10	106	0.616	-4.21	198	0.662	-3.58	290	0.767	-2.30
16	0.986	-0.12	108	0.612	-4.26	200	0.659	-3.62	292	0.778	-2.18
18	0.982	-0.16	110	0.609	-4.31	202	0.656	-3.66	294	0.788	-2.07
20	0.978	-0.19	112	0.606	-4.35	204	0.653	-3.70	296	0.799	-1.95
22	0.974	-0.23	114	0.604	-4.38	206	0.649	-3.76	298	0.810	-1.83
24	0.969	-0.27	116	0.603	-4.39	208	0.646	-3.80	300	0.820	-1.72
26	0.963	-0.33	118	0.602	-4.41	210	0.642	-3.85	302	0.831	-1.61
28	0.957	-0.38	120	0.602	-4.41	212	0.638	-3.90	304	0.841	-1.50
30	0.951	-0.44	122	0.602	-4.41	214	0.634	-3.96	306	0.851	-1.40
32	0.945	-0.49	124	0.603	-4.39	216	0.630	-4.01	308	0.861	-1.30
34	0.938	-0.56	126	0.604	-4.38	218	0.627	-4.05	310	0.871	-1.20
36	0.931	-0.62	128	0.606	-4.35	220	0.623	-4.11	312	0.880	-1.11
38	0.923	-0.70	130	0.608	-4.32	222	0.619	-4.17	314	0.889	-1.02
40	0.915	-0.77	132	0.610	-4.29	224	0.616	-4.21	316	0.898	-0.93
42	0.907	-0.85	134	0.613	-4.25	226	0.613	-4.25	318	0.907	-0.85
44	0.898	-0.93	136	0.616	-4.21	228	0.610	-4.29	320	0.915	-0.77
46	0.889	-1.02	138	0.619	-4.17	230	0.608	-4.32	322	0.923	-0.70
48	0.880	-1.11	140	0.623	-4.11	232	0.606	-4.35	324	0.931	-0.62
50	0.871	-1.20	142	0.627	-4.05	234	0.604	-4.38	326	0.938	-0.56
52	0.861	-1.30	144	0.630	-4.01	236	0.603	-4.39	328	0.945	-0.49
54	0.851	-1.40	146	0.634	-3.96	238	0.602	-4.41	330	0.951	-0.44
56	0.841	-1.50	148	0.638	-3.90	240	0.602	-4.41	332	0.957	-0.38
58	0.831	-1.61	150	0.642	-3.85	242	0.602	-4.41	334	0.963	-0.33
60	0.820	-1.72	152	0.646	-3.80	244	0.603	-4.39	336	0.969	-0.27
62	0.810	-1.83	154	0.649	-3.76	246	0.604	-4.38	338	0.974	-0.23
64	0.799	-1.95	156	0.653	-3.70	248	0.606	-4.35	340	0.978	-0.19
66	0.788	-2.07	158	0.656	-3.66	250	0.609	-4.31	342	0.982	-0.16
68	0.778	-2.18	160	0.659	-3.62	252	0.612	-4.26	344	0.986	-0.12
70	0.767	-2.30	162	0.662	-3.58	254	0.616	-4.21	346	0.989	-0.10
72	0.756	-2.43	164	0.665	-3.54	256	0.621	-4.14	348	0.992	-0.07
74	0.746	-2.55	166	0.668	-3.50	258	0.626	-4.07	350	0.994	-0.05
76	0.735	-2.67	168	0.670	-3.48	260	0.631	-4.00	352	0.996	-0.03
78	0.725	-2.79	170	0.672	-3.45	262	0.638	-3.90	354	0.998	-0.02
80	0.715	-2.91	172	0.673	-3.44	264	0.644	-3.82	356	0.999	-0.01
82	0.705	-3.04	174	0.674	-3.43	266	0.652	-3.72	358	1.000	0.00
84	0.695	-3.16	176	0.675	-3.41	268	0.660	-3.61	360	1.000	0.00
86	0.686	-3.27	178	0.676	-3.40	270	0.668	-3.50			
88	0.677	-3.39	180	0.676	-3.40	272	0.677	-3.39			
90	0.668	-3.50	182	0.676	-3.40	274	0.686	-3.27			

Preliminary, subject to final design and review.

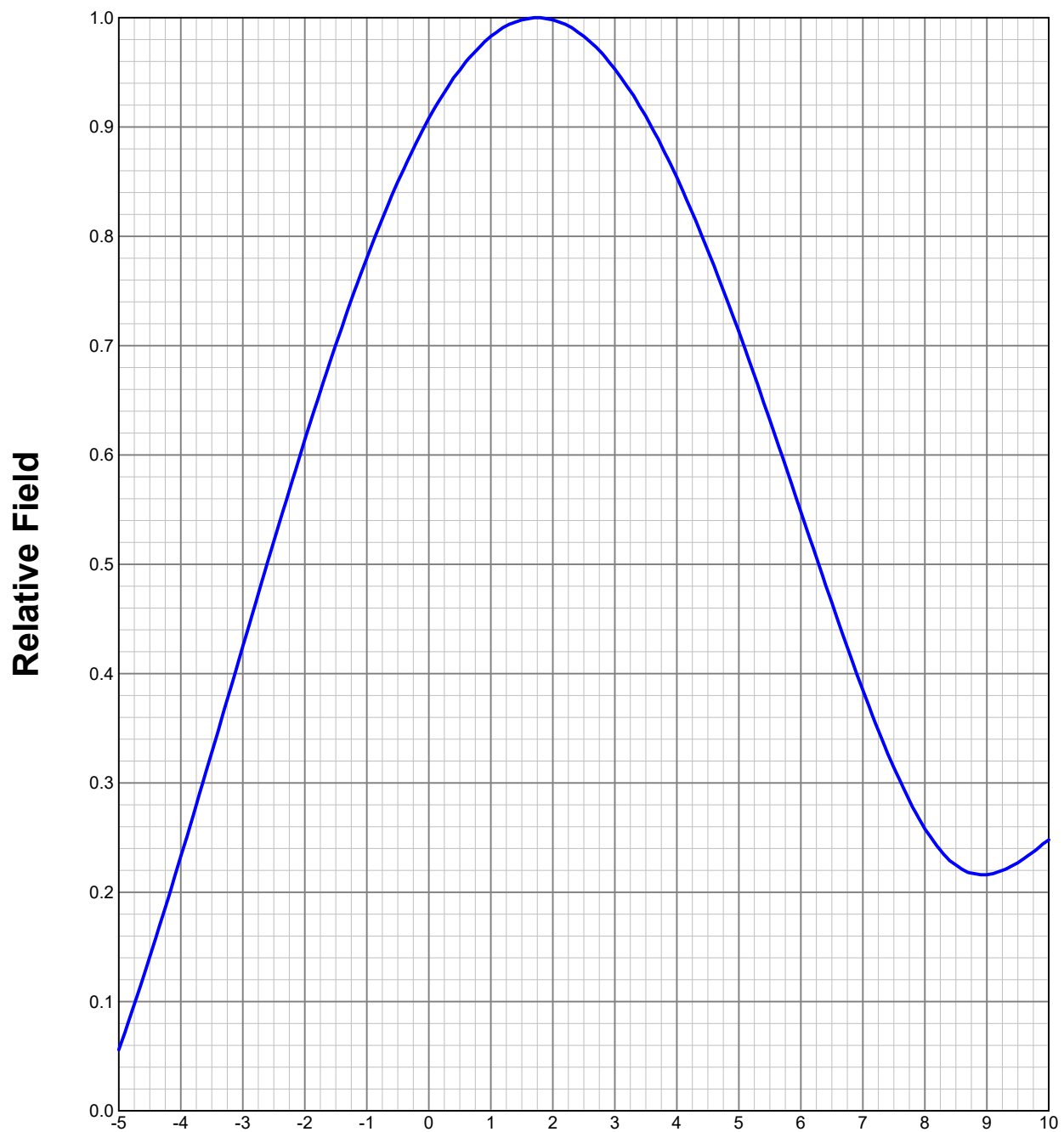
TABULATED DATA FOR AZIMUTH PATTERN FCC FILING FORMAT

Type: ALP-OC

Polarization: Vertical

ANGLE	FIELD	ERP (kW)	ERP (dBk)
0	1.000	3.000	4.771
10	0.994	2.964	4.719
20	0.978	2.869	4.578
30	0.951	2.713	4.335
40	0.915	2.512	4.000
50	0.871	2.276	3.572
60	0.820	2.017	3.047
70	0.767	1.765	2.467
80	0.715	1.534	1.857
90	0.668	1.339	1.267
100	0.631	1.194	0.772
110	0.609	1.113	0.464
120	0.602	1.087	0.363
130	0.608	1.109	0.449
140	0.623	1.164	0.661
150	0.642	1.236	0.922
160	0.659	1.303	1.149
170	0.672	1.355	1.319
180	0.676	1.371	1.370
190	0.672	1.355	1.319
200	0.659	1.303	1.149
210	0.642	1.236	0.922
220	0.623	1.164	0.661
230	0.608	1.109	0.449
240	0.602	1.087	0.363
250	0.609	1.113	0.464
260	0.631	1.194	0.772
270	0.668	1.339	1.267
280	0.715	1.534	1.857
290	0.767	1.765	2.467
300	0.820	2.017	3.047
310	0.871	2.276	3.572
320	0.915	2.512	4.000
330	0.951	2.713	4.335
340	0.978	2.869	4.578
350	0.994	2.964	4.719

Preliminary, subject to final design and review.

ELEVATION PATTERN**Type:****AL8****Channel:****34****Directivity:****Numeric****dBd****Location:****Main Lobe:****8.50****9.29****Beam Tilt:****-1.75****Horizontal:****7.01****8.46****Polarization:****Horizontal***Preliminary, subject to final design and review.*

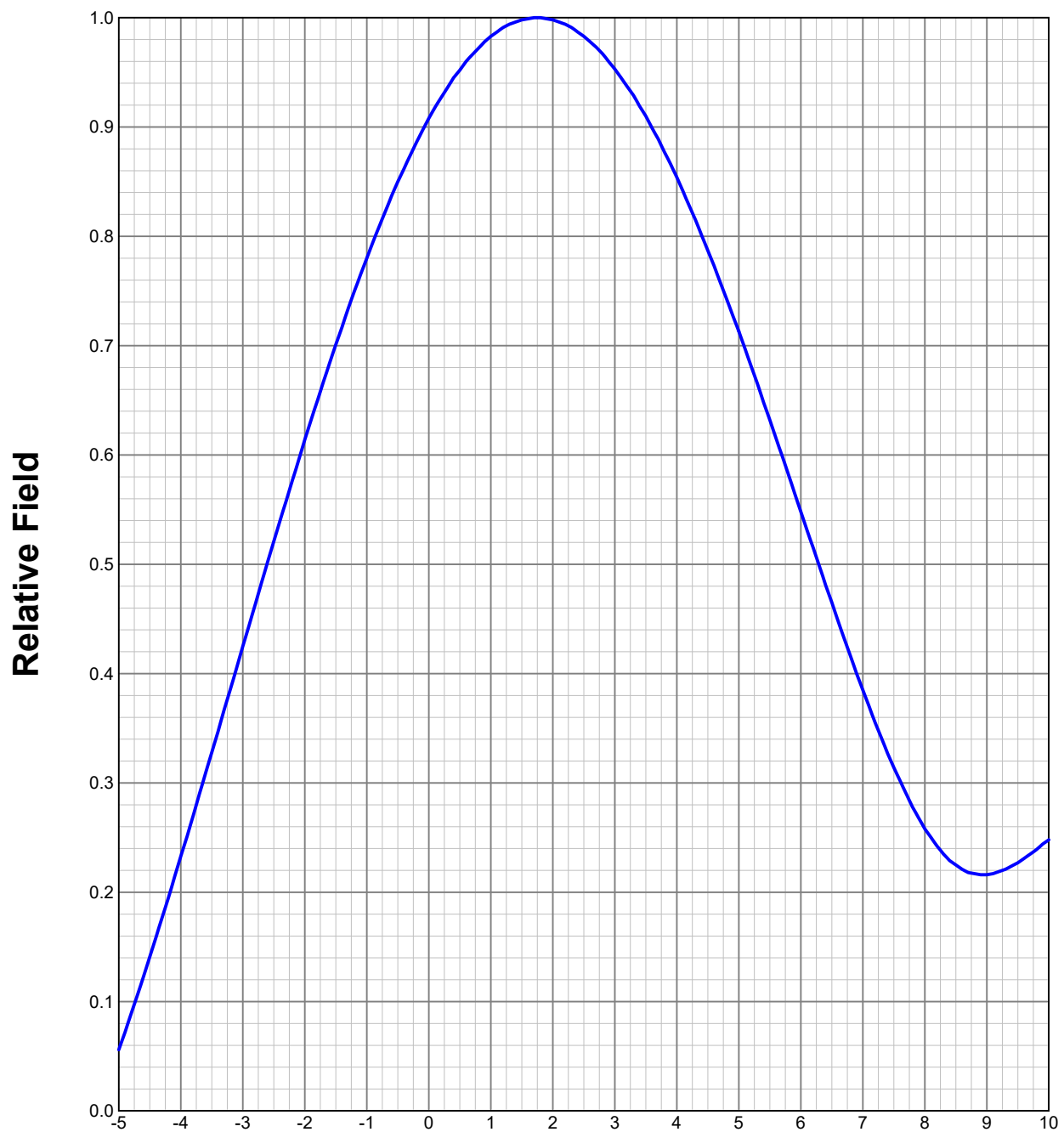
TABULATED DATA FOR ELEVATION PATTERN

Type: AL8

Polarization: Horizontal

ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB
-5.00	0.056	-25.04	6.75	0.424	-7.45	27.00	0.112	-19.02	50.50
-4.75	0.098	-20.22	7.00	0.385	-8.29	27.50	0.122	-18.27	51.00
-4.50	0.141	-17.02	7.25	0.348	-9.17	28.00	0.128	-17.86	51.50
-4.25	0.186	-14.61	7.50	0.314	-10.06	28.50	0.131	-17.65	52.00
-4.00	0.233	-12.65	7.75	0.284	-10.93	29.00	0.129	-17.79	52.50
-3.75	0.280	-11.06	8.00	0.258	-11.77	29.50	0.124	-18.13	53.00
-3.50	0.328	-9.68	8.25	0.238	-12.45	30.00	0.115	-18.79	53.50
-3.25	0.377	-8.48	8.50	0.225	-12.96	30.50	0.103	-19.74	54.00
-3.00	0.425	-7.43	8.75	0.217	-13.25	31.00	0.088	-21.11	54.50
-2.75	0.473	-6.50	9.00	0.216	-13.31	31.50	0.073	-22.73	55.00
-2.50	0.521	-5.66	9.25	0.220	-13.15	32.00	0.056	-25.04	55.50
-2.25	0.568	-4.92	9.50	0.227	-12.88	32.50	0.042	-27.54	56.00
-2.00	0.614	-4.24	9.75	0.237	-12.51	33.00	0.034	-29.37	56.50
-1.75	0.658	-3.64	10.00	0.248	-12.11	33.50	0.037	-28.64	57.00
-1.50	0.701	-3.09	10.50	0.270	-11.37	34.00	0.048	-26.38	57.50
-1.25	0.742	-2.59	11.00	0.287	-10.84	34.50	0.061	-24.29	58.00
-1.00	0.780	-2.16	11.50	0.298	-10.52	35.00	0.075	-22.50	58.50
-0.75	0.816	-1.77	12.00	0.299	-10.49	35.50	0.087	-21.21	59.00
-0.50	0.850	-1.41	12.50	0.292	-10.69	36.00	0.098	-20.18	59.50
-0.25	0.880	-1.11	13.00	0.277	-11.15	36.50	0.105	-19.58	60.00
0.00	0.908	-0.84	13.50	0.255	-11.87	37.00	0.110	-19.17	60.50
0.25	0.931	-0.62	14.00	0.227	-12.88	37.50	0.112	-19.02	61.00
0.50	0.952	-0.43	14.50	0.195	-14.20	38.00	0.111	-19.09	61.50
0.75	0.969	-0.27	15.00	0.161	-15.86	38.50	0.107	-19.41	62.00
1.00	0.983	-0.15	15.50	0.128	-17.86	39.00	0.100	-20.00	62.50
1.25	0.992	-0.07	16.00	0.101	-19.91	39.50	0.091	-20.82	63.00
1.50	0.998	-0.02	16.50	0.087	-21.21	40.00	0.080	-21.94	63.50
1.75	1.000	0.00	17.00	0.090	-20.92	40.50	0.068	-23.35	64.00
2.00	0.998	-0.02	17.50	0.105	-19.58	41.00	0.055	-25.19	64.50
2.25	0.992	-0.07	18.00	0.125	-18.06	41.50	0.041	-27.74	65.00
2.50	0.983	-0.15	18.50	0.144	-16.83	42.00	0.029	-30.75	65.50
2.75	0.970	-0.26	19.00	0.159	-15.97	42.50	0.022	-33.15	66.00
3.00	0.953	-0.42	19.50	0.169	-15.44	43.00	0.026	-31.70	66.50
3.25	0.933	-0.60	20.00	0.174	-15.19	43.50	0.037	-28.64	67.00
3.50	0.910	-0.82	20.50	0.173	-15.24	44.00	0.050	-26.02	67.50
3.75	0.883	-1.08	21.00	0.167	-15.55	44.50	0.062	-24.15	68.00
4.00	0.854	-1.37	21.50	0.155	-16.19	45.00	0.074	-22.62	68.50
4.25	0.821	-1.71	22.00	0.140	-17.08	45.50	0.084	-21.51	69.00
4.50	0.787	-2.08	22.50	0.120	-18.42	46.00	0.092	-20.72	69.50
4.75	0.750	-2.49	23.00	0.099	-20.09	46.50	0.099	-20.09	70.00
5.00	0.713	-2.94	23.50	0.078	-22.16	47.00	0.104	-19.66	70.50
5.25	0.673	-3.44	24.00	0.060	-24.44	47.50	0.106	-19.49	71.00
5.50	0.632	-3.99	24.50	0.050	-26.02	48.00	0.106	-19.49	71.50
5.75	0.591	-4.58	25.00	0.053	-25.51	48.50	0.105	-19.58	72.00
6.00	0.548	-5.22	25.50	0.066	-23.61	49.00	0.101	-19.91	72.50
6.25	0.506	-5.91	26.00	0.083	-21.62	49.50	0.096	-20.35	73.00
6.50	0.465	-6.65	26.50	0.098	-20.18	50.00	0.089	-21.01	73.50

Preliminary, subject to final design and review.

ELEVATION PATTERN**Type:****AL8****Channel:****34****Directivity:****Numeric****dBd****Location:****Main Lobe:****8.50****9.29****Beam Tilt:****-1.75****Horizontal:****7.01****8.46****Polarization:****Vertical***Preliminary, subject to final design and review.*

TABULATED DATA FOR ELEVATION PATTERN

Type: AL8

Polarization: Vertical

ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB
-5.00	0.056	-25.04	6.75	0.424	-7.45	27.00	0.112	-19.02	50.50
-4.75	0.098	-20.22	7.00	0.385	-8.29	27.50	0.122	-18.27	51.00
-4.50	0.141	-17.02	7.25	0.348	-9.17	28.00	0.128	-17.86	51.50
-4.25	0.186	-14.61	7.50	0.314	-10.06	28.50	0.131	-17.65	52.00
-4.00	0.233	-12.65	7.75	0.284	-10.93	29.00	0.129	-17.79	52.50
-3.75	0.280	-11.06	8.00	0.258	-11.77	29.50	0.124	-18.13	53.00
-3.50	0.328	-9.68	8.25	0.238	-12.45	30.00	0.115	-18.79	53.50
-3.25	0.377	-8.48	8.50	0.225	-12.96	30.50	0.103	-19.74	54.00
-3.00	0.425	-7.43	8.75	0.217	-13.25	31.00	0.088	-21.11	54.50
-2.75	0.473	-6.50	9.00	0.216	-13.31	31.50	0.073	-22.73	55.00
-2.50	0.521	-5.66	9.25	0.220	-13.15	32.00	0.056	-25.04	55.50
-2.25	0.568	-4.92	9.50	0.227	-12.88	32.50	0.042	-27.54	56.00
-2.00	0.614	-4.24	9.75	0.237	-12.51	33.00	0.034	-29.37	56.50
-1.75	0.658	-3.64	10.00	0.248	-12.11	33.50	0.037	-28.64	57.00
-1.50	0.701	-3.09	10.50	0.270	-11.37	34.00	0.048	-26.38	57.50
-1.25	0.742	-2.59	11.00	0.287	-10.84	34.50	0.061	-24.29	58.00
-1.00	0.780	-2.16	11.50	0.298	-10.52	35.00	0.075	-22.50	58.50
-0.75	0.816	-1.77	12.00	0.299	-10.49	35.50	0.087	-21.21	59.00
-0.50	0.850	-1.41	12.50	0.292	-10.69	36.00	0.098	-20.18	59.50
-0.25	0.880	-1.11	13.00	0.277	-11.15	36.50	0.105	-19.58	60.00
0.00	0.908	-0.84	13.50	0.255	-11.87	37.00	0.110	-19.17	60.50
0.25	0.931	-0.62	14.00	0.227	-12.88	37.50	0.112	-19.02	61.00
0.50	0.952	-0.43	14.50	0.195	-14.20	38.00	0.111	-19.09	61.50
0.75	0.969	-0.27	15.00	0.161	-15.86	38.50	0.107	-19.41	62.00
1.00	0.983	-0.15	15.50	0.128	-17.86	39.00	0.100	-20.00	62.50
1.25	0.992	-0.07	16.00	0.101	-19.91	39.50	0.091	-20.82	63.00
1.50	0.998	-0.02	16.50	0.087	-21.21	40.00	0.080	-21.94	63.50
1.75	1.000	0.00	17.00	0.090	-20.92	40.50	0.068	-23.35	64.00
2.00	0.998	-0.02	17.50	0.105	-19.58	41.00	0.055	-25.19	64.50
2.25	0.992	-0.07	18.00	0.125	-18.06	41.50	0.041	-27.74	65.00
2.50	0.983	-0.15	18.50	0.144	-16.83	42.00	0.029	-30.75	65.50
2.75	0.970	-0.26	19.00	0.159	-15.97	42.50	0.022	-33.15	66.00
3.00	0.953	-0.42	19.50	0.169	-15.44	43.00	0.026	-31.70	66.50
3.25	0.933	-0.60	20.00	0.174	-15.19	43.50	0.037	-28.64	67.00
3.50	0.910	-0.82	20.50	0.173	-15.24	44.00	0.050	-26.02	67.50
3.75	0.883	-1.08	21.00	0.167	-15.55	44.50	0.062	-24.15	68.00
4.00	0.854	-1.37	21.50	0.155	-16.19	45.00	0.074	-22.62	68.50
4.25	0.821	-1.71	22.00	0.140	-17.08	45.50	0.084	-21.51	69.00
4.50	0.787	-2.08	22.50	0.120	-18.42	46.00	0.092	-20.72	69.50
4.75	0.750	-2.49	23.00	0.099	-20.09	46.50	0.099	-20.09	70.00
5.00	0.713	-2.94	23.50	0.078	-22.16	47.00	0.104	-19.66	70.50
5.25	0.673	-3.44	24.00	0.060	-24.44	47.50	0.106	-19.49	71.00
5.50	0.632	-3.99	24.50	0.050	-26.02	48.00	0.106	-19.49	71.50
5.75	0.591	-4.58	25.00	0.053	-25.51	48.50	0.105	-19.58	72.00
6.00	0.548	-5.22	25.50	0.066	-23.61	49.00	0.101	-19.91	72.50
6.25	0.506	-5.91	26.00	0.083	-21.62	49.50	0.096	-20.35	73.00
6.50	0.465	-6.65	26.50	0.098	-20.18	50.00	0.089	-21.01	73.50

Preliminary, subject to final design and review.