

EXHIBIT 12  
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NONIONIZING RADIATION COMPLIANCE  
Catamount Broadcasting of Chico-Redding, Inc.  
Chico, CA

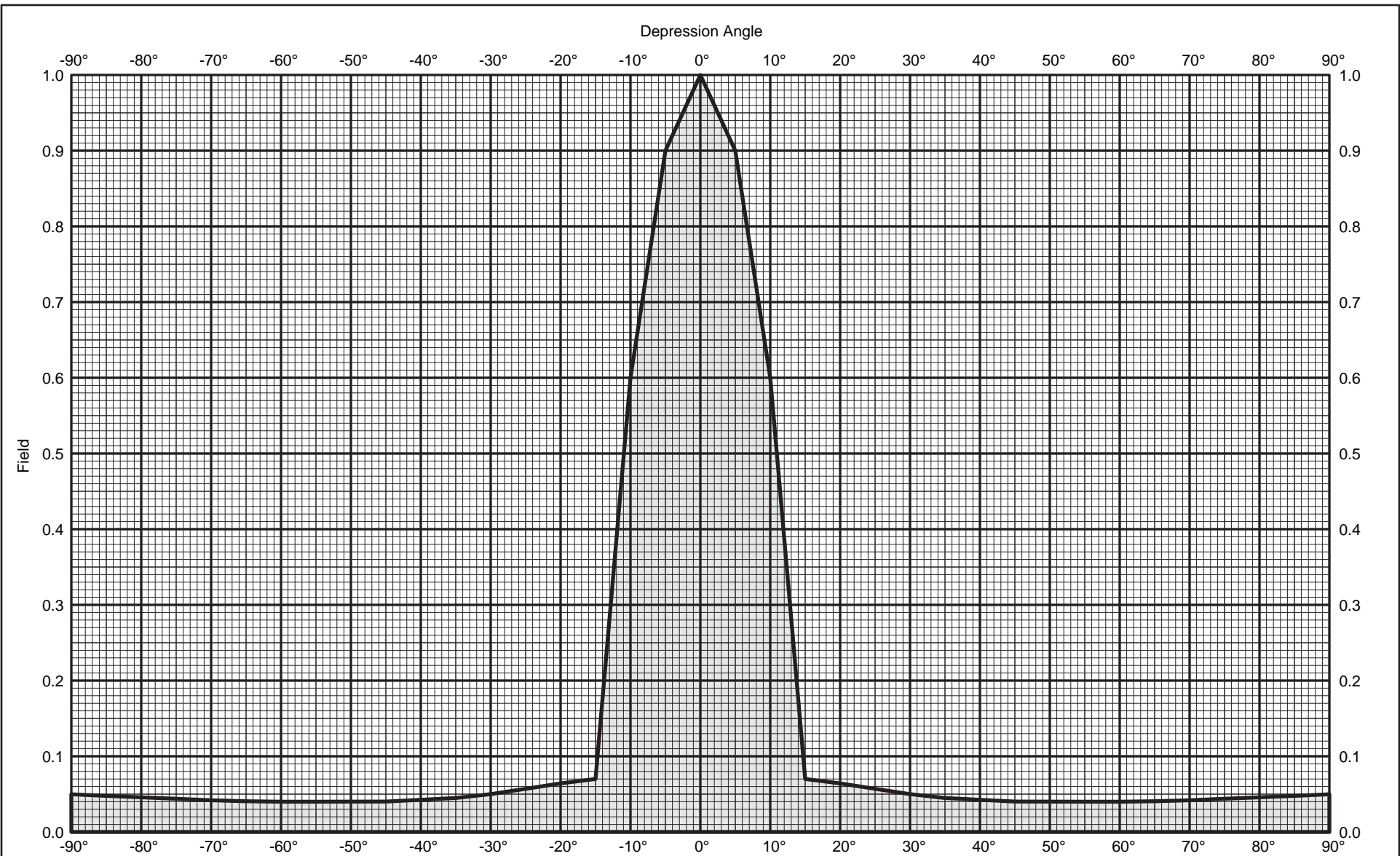
The proposed digital facilities will fully comply with the current FCC Standard with regard to human exposure to nonionizing radiation. These proposed digital facilities will utilize a composite directional antenna which will consist of two horizontally polarized Scala PR-TV paraflectors. This antenna will be located with its center of radiation 10 meters above ground on an existing 30.5 meter tower and will operate with a maximum average effective radiated power of 4.3 kilowatts. Equation (2), found on Page 30 of Supplement A to OET Bulletin 65, details the calculation technique used to determine the power density at the base of a TV broadcast tower. In this case, however, it is necessary to substitute the proposed average DTV effective radiated power (4.3 kilowatts) for the expression  $[0.4ERP_v + ERP_A]$  in this equation to compensate for the fact that DTV power levels are expressed in terms of average power, rather than peak power, as is the case for the visual portion of an analog TV signal.

Table 12.0 and Figure 12.0 present the vertical radiation pattern for this antenna. Using this vertical radiation pattern data and substituting these values into this equation yields a predicted maximum power density at two meters above ground level of  $15.59 \mu\text{W}/\text{cm}^2$ , which will occur at a depression angle of 10 degrees below horizontal. Since the maximum permitted power density for uncontrolled exposure on TV Channel 36 is  $401.3 \mu\text{W}/\text{cm}^2$ , this amounts to only 3.89% of the permitted level for uncontrolled exposure. Since this is less than 5% of the permitted level, the digital facilities are excluded from environmental processing and need not be considered in conjunction with other

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co-located and nearby facilities to establish compliance with this standard for uncontrolled exposure.

The applicant will also take appropriate steps to insure that workers who must climb this tower will not be exposed to power densities exceeding the permitted levels for controlled exposure. This will include a reduction in power or the cessation of operation, as appropriate, at any time that workers must be on this tower in any area where the total power density exceeds the permitted level for controlled exposure.





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Two PR-TV Paraflectors

Channel 36

Oriented one each at 98 and 145 degrees

Maximum array gain: 13.1 dBd (x 20.4)

Horizontal polarization

Vertical stack

Vertical plane pattern

Figure 12.0



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Channel 36

Oriented one each at 98 and 145 degrees

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Vertical stack

Vertical plane pattern

Angle	Field	Rel.dB	dBd	PwrMult	Angle	Field	Rel.dB	dBd	PwrMult
-90	0.050	-26.06	-12.96	0.05	-45	0.040	-27.92	-14.82	0.03
-89	0.049	-26.13	-13.03	0.05	-44	0.041	-27.82	-14.72	0.03
-88	0.049	-26.20	-13.10	0.05	-43	0.041	-27.72	-14.62	0.03
-87	0.049	-26.28	-13.18	0.05	-42	0.042	-27.62	-14.52	0.04
-86	0.048	-26.35	-13.25	0.05	-41	0.042	-27.53	-14.43	0.04
-85	0.048	-26.43	-13.33	0.05	-40	0.043	-27.43	-14.33	0.04
-84	0.047	-26.50	-13.40	0.05	-39	0.043	-27.33	-14.23	0.04
-83	0.047	-26.57	-13.47	0.04	-38	0.043	-27.24	-14.14	0.04
-82	0.047	-26.64	-13.54	0.04	-37	0.044	-27.14	-14.04	0.04
-81	0.046	-26.71	-13.61	0.04	-36	0.044	-27.05	-13.95	0.04
-80	0.046	-26.78	-13.68	0.04	-35	0.045	-26.96	-13.86	0.04
-79	0.045	-26.86	-13.76	0.04	-34	0.046	-26.76	-13.66	0.04
-78	0.045	-26.93	-13.83	0.04	-33	0.047	-26.57	-13.47	0.04
-77	0.045	-27.00	-13.90	0.04	-32	0.048	-26.38	-13.28	0.05
-76	0.044	-27.08	-13.98	0.04	-31	0.049	-26.20	-13.10	0.05
-75	0.044	-27.15	-14.05	0.04	-30	0.050	-26.02	-12.92	0.05
-74	0.043	-27.23	-14.13	0.04	-29	0.051	-25.78	-12.68	0.05
-73	0.043	-27.31	-14.21	0.04	-28	0.053	-25.55	-12.45	0.06
-72	0.043	-27.39	-14.29	0.04	-27	0.054	-25.32	-12.22	0.06
-71	0.042	-27.47	-14.37	0.04	-26	0.056	-25.10	-12.00	0.06
-70	0.042	-27.56	-14.46	0.04	-25	0.057	-24.88	-11.78	0.07
-69	0.042	-27.61	-14.51	0.04	-24	0.058	-24.67	-11.57	0.07
-68	0.041	-27.66	-14.56	0.03	-23	0.060	-24.45	-11.35	0.07
-67	0.041	-27.72	-14.62	0.03	-22	0.061	-24.25	-11.15	0.08
-66	0.041	-27.77	-14.67	0.03	-21	0.063	-24.05	-10.95	0.08
-65	0.041	-27.83	-14.73	0.03	-20	0.064	-23.85	-10.75	0.08
-64	0.040	-27.86	-14.76	0.03	-19	0.065	-23.69	-10.59	0.09
-63	0.040	-27.88	-14.78	0.03	-18	0.067	-23.54	-10.44	0.09
-62	0.040	-27.91	-14.81	0.03	-17	0.068	-23.39	-10.29	0.09
-61	0.040	-27.93	-14.83	0.03	-16	0.069	-23.24	-10.14	0.10
-60	0.040	-27.96	-14.86	0.03	-15	0.070	-23.10	-10.00	0.10
-59	0.040	-27.96	-14.86	0.03	-14	0.176	-15.09	-1.99	0.63
-58	0.040	-27.96	-14.86	0.03	-13	0.282	-11.00	2.10	1.62
-57	0.040	-27.96	-14.86	0.03	-12	0.388	-8.22	4.88	3.07
-56	0.040	-27.96	-14.86	0.03	-11	0.494	-6.13	6.97	4.98
-55	0.040	-27.96	-14.86	0.03	-10	0.600	-4.44	8.66	7.35
-54	0.040	-27.95	-14.85	0.03	-9	0.660	-3.61	9.49	8.89
-53	0.040	-27.95	-14.85	0.03	-8	0.720	-2.85	10.25	10.58
-52	0.040	-27.95	-14.85	0.03	-7	0.780	-2.16	10.94	12.42
-51	0.040	-27.94	-14.84	0.03	-6	0.840	-1.51	11.59	14.41
-50	0.040	-27.94	-14.84	0.03	-5	0.900	-0.92	12.18	16.54
-49	0.040	-27.93	-14.83	0.03	-4	0.920	-0.72	12.38	17.28
-48	0.040	-27.93	-14.83	0.03	-3	0.940	-0.54	12.56	18.04
-47	0.040	-27.92	-14.82	0.03	-2	0.960	-0.35	12.75	18.82
-46	0.040	-27.92	-14.82	0.03	-1	0.980	-0.18	12.92	19.61
					0	1.000	0.00	13.10	20.42

Table 12.0



Two PR-TV Paraflectors

Channel 36

Oriented one each at 98 and 145 degrees

Maximum array gain: 13.1 dBd (x 20.4)

Horizontal polarization

Vertical stack

Vertical plane pattern

Angle	Field	Rel.dB	dBd	PwrMult	Angle	Field	Rel.dB	dBd	PwrMult
0	1.000	0.00	13.10	20.42	45	0.040	-27.92	-14.82	0.03
1	0.980	-0.18	12.92	19.61	46	0.040	-27.92	-14.82	0.03
2	0.960	-0.35	12.75	18.82	47	0.040	-27.92	-14.82	0.03
3	0.940	-0.54	12.56	18.04	48	0.040	-27.93	-14.83	0.03
4	0.920	-0.72	12.38	17.28	49	0.040	-27.93	-14.83	0.03
5	0.900	-0.92	12.18	16.54	50	0.040	-27.94	-14.84	0.03
6	0.840	-1.51	11.59	14.41	51	0.040	-27.94	-14.84	0.03
7	0.780	-2.16	10.94	12.42	52	0.040	-27.95	-14.85	0.03
8	0.720	-2.85	10.25	10.58	53	0.040	-27.95	-14.85	0.03
9	0.660	-3.61	9.49	8.89	54	0.040	-27.95	-14.85	0.03
10	0.600	-4.44	8.66	7.35	55	0.040	-27.96	-14.86	0.03
11	0.494	-6.13	6.97	4.98	56	0.040	-27.96	-14.86	0.03
12	0.388	-8.22	4.88	3.07	57	0.040	-27.96	-14.86	0.03
13	0.282	-11.00	2.10	1.62	58	0.040	-27.96	-14.86	0.03
14	0.176	-15.09	-1.99	0.63	59	0.040	-27.96	-14.86	0.03
15	0.070	-23.10	-10.00	0.10	60	0.040	-27.96	-14.86	0.03
16	0.069	-23.24	-10.14	0.10	61	0.040	-27.93	-14.83	0.03
17	0.068	-23.39	-10.29	0.09	62	0.040	-27.91	-14.81	0.03
18	0.067	-23.54	-10.44	0.09	63	0.040	-27.88	-14.78	0.03
19	0.065	-23.69	-10.59	0.09	64	0.040	-27.86	-14.76	0.03
20	0.064	-23.85	-10.75	0.08	65	0.041	-27.83	-14.73	0.03
21	0.063	-24.05	-10.95	0.08	66	0.041	-27.77	-14.67	0.03
22	0.061	-24.25	-11.15	0.08	67	0.041	-27.72	-14.62	0.03
23	0.060	-24.45	-11.35	0.07	68	0.041	-27.66	-14.56	0.03
24	0.058	-24.67	-11.57	0.07	69	0.042	-27.61	-14.51	0.04
25	0.057	-24.88	-11.78	0.07	70	0.042	-27.56	-14.46	0.04
26	0.056	-25.10	-12.00	0.06	71	0.042	-27.47	-14.37	0.04
27	0.054	-25.32	-12.22	0.06	72	0.043	-27.39	-14.29	0.04
28	0.053	-25.55	-12.45	0.06	73	0.043	-27.31	-14.21	0.04
29	0.051	-25.78	-12.68	0.05	74	0.043	-27.23	-14.13	0.04
30	0.050	-26.02	-12.92	0.05	75	0.044	-27.15	-14.05	0.04
31	0.049	-26.20	-13.10	0.05	76	0.044	-27.08	-13.98	0.04
32	0.048	-26.38	-13.28	0.05	77	0.045	-27.00	-13.90	0.04
33	0.047	-26.57	-13.47	0.04	78	0.045	-26.93	-13.83	0.04
34	0.046	-26.76	-13.66	0.04	79	0.045	-26.86	-13.76	0.04
35	0.045	-26.96	-13.86	0.04	80	0.046	-26.78	-13.68	0.04
36	0.044	-27.05	-13.95	0.04	81	0.046	-26.71	-13.61	0.04
37	0.044	-27.14	-14.04	0.04	82	0.047	-26.64	-13.54	0.04
38	0.043	-27.24	-14.14	0.04	83	0.047	-26.57	-13.47	0.04
39	0.043	-27.33	-14.23	0.04	84	0.047	-26.50	-13.40	0.05
40	0.043	-27.43	-14.33	0.04	85	0.048	-26.43	-13.33	0.05
41	0.042	-27.53	-14.43	0.04	86	0.048	-26.35	-13.25	0.05
42	0.042	-27.62	-14.52	0.04	87	0.049	-26.28	-13.18	0.05
43	0.041	-27.72	-14.62	0.03	88	0.049	-26.20	-13.10	0.05
44	0.041	-27.82	-14.72	0.03	89	0.049	-26.13	-13.03	0.05
					90	0.050	-26.06	-12.96	0.05

Table 12.0