

Dielectric

A Unit of SPX Corporation

PATTERN CERTIFICATION

Method of Measurement

The azimuth pattern developed for KBRQ was optimized in the following manner.

A single model of the SKM radiator at a scale of 4.4:1 was mounted on a similarly scaled model of the tower according to information provided to Dielectric by the station. Both the horizontal and vertical polarization azimuth patterns were measured in a anechoic test range. Spacing and location of the radiator off the tower in conjunction with parasitic elements were used to optimize the azimuth pattern.

STATEMENT OF QUALIFICATIONS

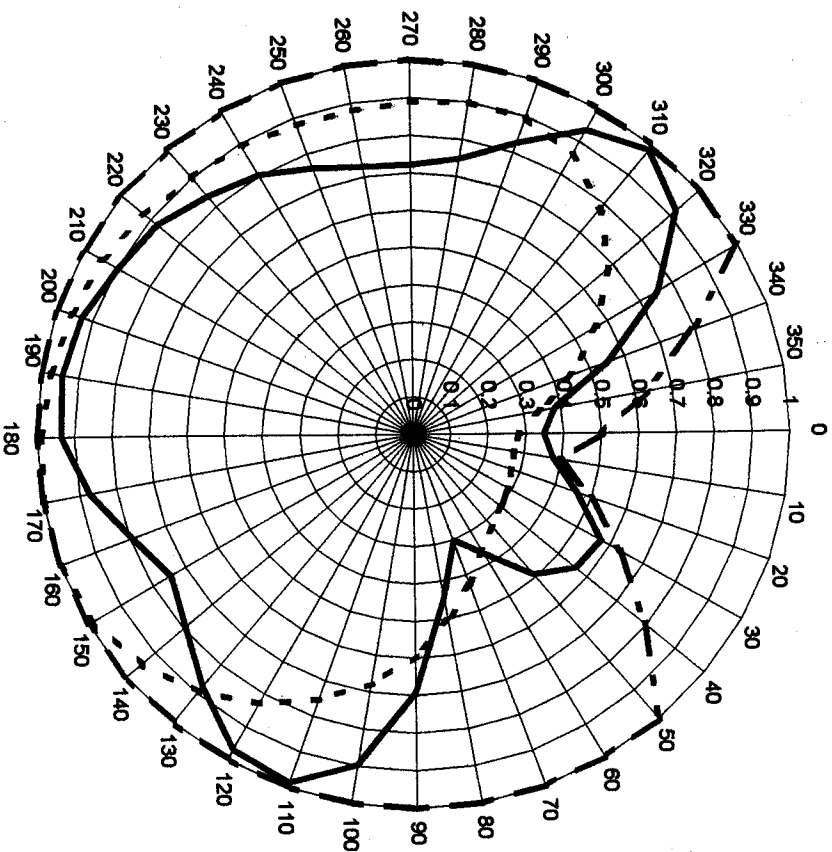
Henry Downs received a B.Sc. in Electrical Engineering from the Heriot Watt University in Scotland in 1981 and a Masters Degree in Microwave Engineering in 1985. He has over 15 years of experience in R.F. engineering and broadcast technology and has been employed by Dielectric Communications since early 1998.

Signed by: Henry Downs
Date: 6/8/01

Post Office Box 949, 22 Tower Road, Raymond, Maine 04071

Voice: 207-655-4555 1-800-341-9678 Fax: 207-655-4989 Email: dcsales@dielectric.spx.com

Norm. Field Plot



— Limits
— Hpol
- - Vpol

% Filt:	% H	Gain H	Ratio	dB
86.37441	50	1.721851	2.359857	
	% V	Gain V	1.76103	2.457669

Tabulation

Tabulation for Pattern KBRQ083000-1

Azimuth	Horizontal		Vertical	
	Rel. Field	dB	Rel. Field	dB
0	0.35	-9.21	0.28	-10.96
10	0.38	-8.49	0.27	-11.33
20	0.46	-6.72	0.28	-11.13
30	0.57	-4.86	0.29	-10.73
40	0.56	-5.05	0.30	-10.36
50	0.49	-6.21	0.33	-9.75
60	0.37	-8.65	0.36	-8.91
70	0.30	-10.42	0.43	-7.35
80	0.44	-7.06	0.51	-5.9
90	0.69	-3.23	0.59	-4.55
100	0.90	-0.96	0.68	-3.4
110	0.99	-0.10	0.75	-2.45
120	0.97	-0.27	0.83	-1.63
130	0.88	-1.16	0.90	-0.96
140	0.79	-2.02	0.95	-0.45
150	0.74	-2.56	0.99	-0.13
160	0.79	-2.00	1.00	0
170	0.87	-1.17	1.00	-0.02
180	0.94	-0.58	0.99	-0.09
190	0.94	-0.51	0.97	-0.22
200	0.93	-0.62	0.96	-0.36
210	0.90	-0.94	0.95	-0.48
220	0.88	-1.14	0.92	-0.7
230	0.83	-1.57	0.90	-0.91
240	0.80	-1.91	0.89	-0.99
250	0.76	-2.41	0.88	-1.1
260	0.73	-2.76	0.88	-1.11
270	0.72	-2.84	0.89	-1.03
280	0.75	-2.53	0.90	-0.93
290	0.83	-1.66	0.90	-0.93
300	0.94	-0.58	0.86	-1.3
310	0.98	-0.14	0.78	-2.11
320	0.92	-0.73	0.68	-3.3
330	0.75	-2.46	0.57	-4.94
340	0.55	-5.14	0.45	-6.9
350	0.38	-8.40	0.35	-9.23
RMS	0.75		0.75	
Power Split	% Power in H Pol.	50.00	% power in V. Pol	50.00

