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Antennas and Filters

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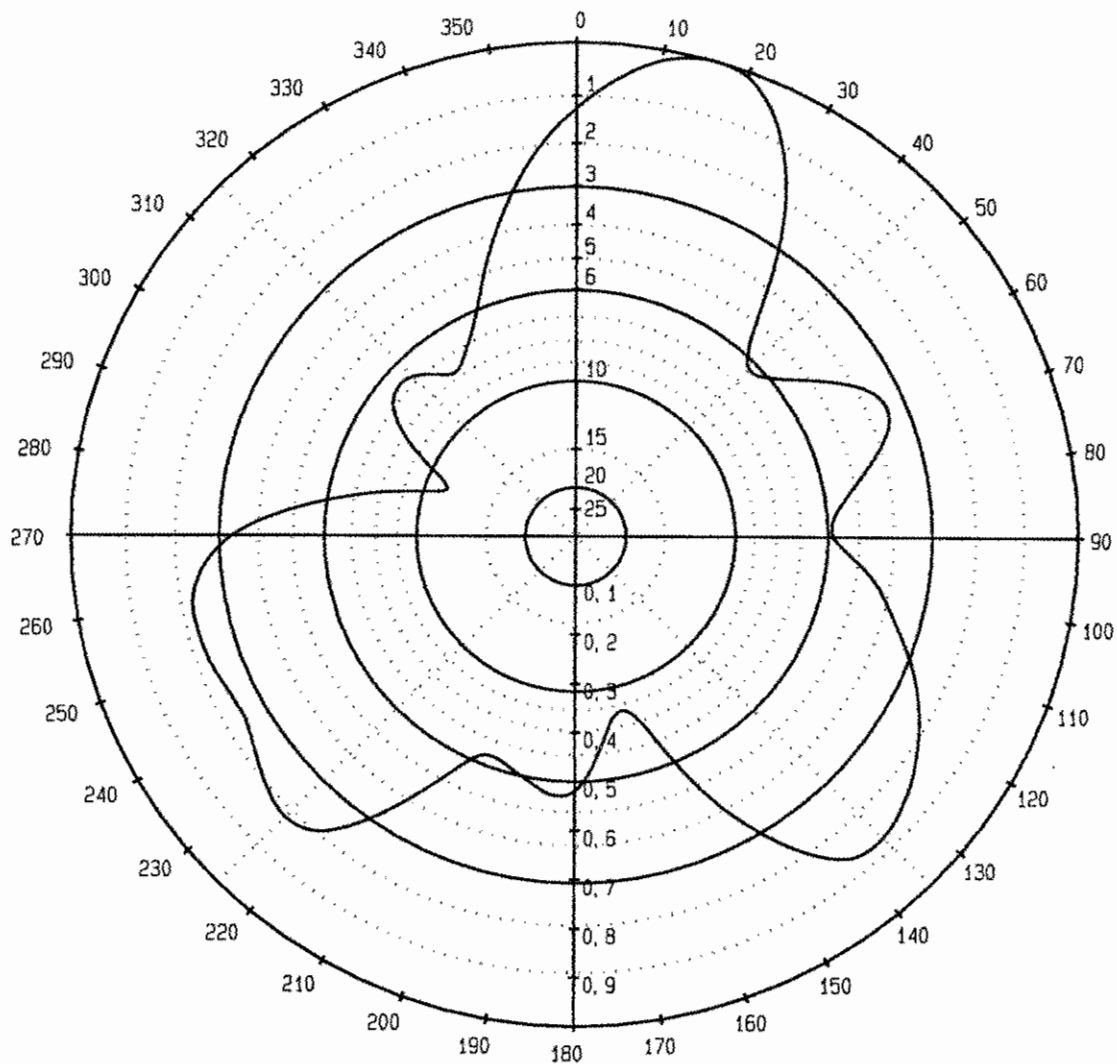


P O Box 4580, Medford, OR 97501
Tel. (541) 779-6500 Fax (541) 779-6575
e-mail: broadcast@kathrein.com

759 12862
2x3 K52 33 57 Channel 8
8.5 kW full / 4.3 kW half (power rating)

Limestone Mtn. Facility (Wyoming)

SO# 77225 / PO# Hillberry05200
Riverton Radio & TV



frequency in MHz 181.250
 down-tilt in .5
 max / mean in dB 3.68

Wyoming Public Television

SCALA Medford Oregon	2 x 3 K52 33 57 Panel array Ch: 8, 5' twr, uneven skew	Typ Nr.
MB 25.3. 5 9:47		81.:

simulation with typical exactness of +/- 8% of max signal

Azimuth Radiation Pattern in % and dB at downtilt: .5

f = 181.250MHz

azimuth	%	dB	azimuth	%	dB
0	86.6	-1.3	180	52.0	-5.7
5	92.9	-.6	185	52.9	-5.5
10	97.8	-.2	190	50.8	-5.9
15	99.9	.0	195	49.0	-6.2
20	99.0	-.1	200	47.8	-6.4
25	93.0	-.6	205	50.8	-5.9
30	83.0	-1.6	210	59.8	-4.5
35	69.0	-3.2	215	70.2	-3.1
40	54.3	-5.3	220	78.7	-2.1
45	48.3	-6.3	225	81.2	-1.8
50	50.3	-6.0	230	79.8	-2.0
55	55.7	-5.1	235	77.3	-2.2
60	62.1	-4.1	240	75.3	-2.5
65	66.6	-3.5	245	75.7	-2.4
70	65.9	-3.6	250	76.8	-2.3
75	61.0	-4.3	255	77.3	-2.2
80	55.5	-5.1	260	77.1	-2.3
85	51.6	-5.7	265	74.1	-2.6
90	51.0	-5.8	270	68.2	-3.3
95	55.8	-5.1	275	57.9	-4.7
100	61.2	-4.3	280	46.2	-6.7
105	65.4	-3.7	285	35.1	-9.1
110	70.3	-3.1	290	27.5	-11.2
115	74.9	-2.5	295	30.7	-10.3
120	78.8	-2.1	300	38.4	-8.3
125	82.1	-1.7	305	44.1	-7.1
130	84.9	-1.4	310	46.4	-6.7
135	86.5	-1.3	315	45.8	-6.8
140	85.4	-1.4	320	42.9	-7.4
145	78.1	-2.1	325	41.1	-7.7
150	67.3	-3.4	330	43.8	-7.2
155	54.6	-5.3	335	48.0	-6.4
160	41.6	-7.6	340	54.8	-5.2
165	36.7	-8.7	345	62.9	-4.0
170	39.1	-8.1	350	71.4	-2.9
175	46.0	-6.7	355	79.6	-2.0
180	52.0	-5.7	360	86.6	-1.3

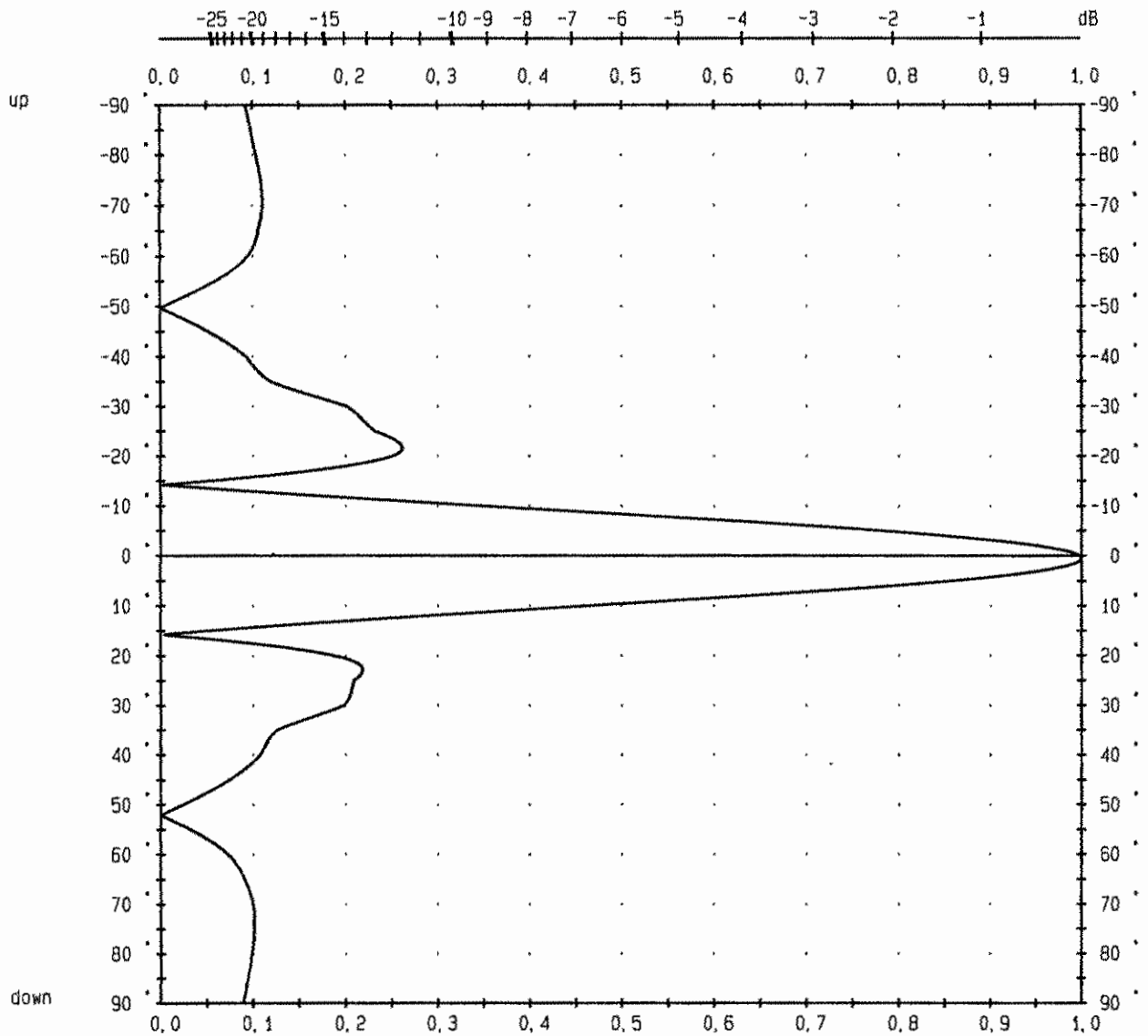
maximum fieldstrength was found at:

azimuth 16.
downtilt 1.

Wyoming Public Television

SCALA Medford Oregon	2 x 3 K52 33 57 Panel array Ch: 8, 5' twr, uneven skew	Typ Nr.
		B1.:

MB 25.3. 5 9:47



frequency in MHz 181.250
 azimuth in 17.0
 omni-dir in dBd 6.68

Wyoming Public Television

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MB 25.3. 5 9: 47	Ch: 8, 5' twr, uneven skew	Bl.:

Dimensions and Feeding of Antenna System

antenna type: K52335. 4 straigth dipole panel 174-230 MHz

operating f in MHz : 181.250 .000 .000 .000 .000
operating channels : 8 0 0 0 0
database f in MHz : 181
max. azimuth angle 180 max. declination 90 cable design frequency: 181.250 MHz
compensation in % : 76.79 .00 .00 .00 .00

bay	height	v-feed	power	cab-ph	fix-ph	panel	azipos	azidir	radius	tanoff	radoff	tilt	power	cab-ph	fix-ph
2	3200	1.0	9	0	1	10.0	10.0	600.0	247.0	.0	.0	5.0	40	0	
					2	120.0	120.0	600.0	247.0	.0	.0	4.0	-60	0	
					3	240.0	240.0	600.0	247.0	.0	.0	4.0	-180	0	

bay	height	v-feed	power	cab-ph	fix-ph	panel	azipos	azidir	radius	tanoff	radoff	tilt	power	cab-ph	fix-ph
1	0	1.0	0	0	1	10.0	10.0	600.0	247.0	.0	.0	5.0	40	0	
					2	120.0	120.0	600.0	247.0	.0	.0	4.0	-60	0	
					3	240.0	240.0	600.0	247.0	.0	.0	4.0	-180	0	

Directivity from HRP and zoomed VRP

operating f in MHz : 181.250 .000 .000 .000 .000
operating channel : 8 0 0 0 0
HRP max/mean in dB : 3.68 .00 .00 .00 .00
VRP omnidir in dB : 6.68 .00 .00 .00 .00
directivity in dB : 10.35 .00 .00 .00 .00
harness losses : .00 .00 .00 .00 .00
* gain in dB : 10.35 .00 .00 .00 .00

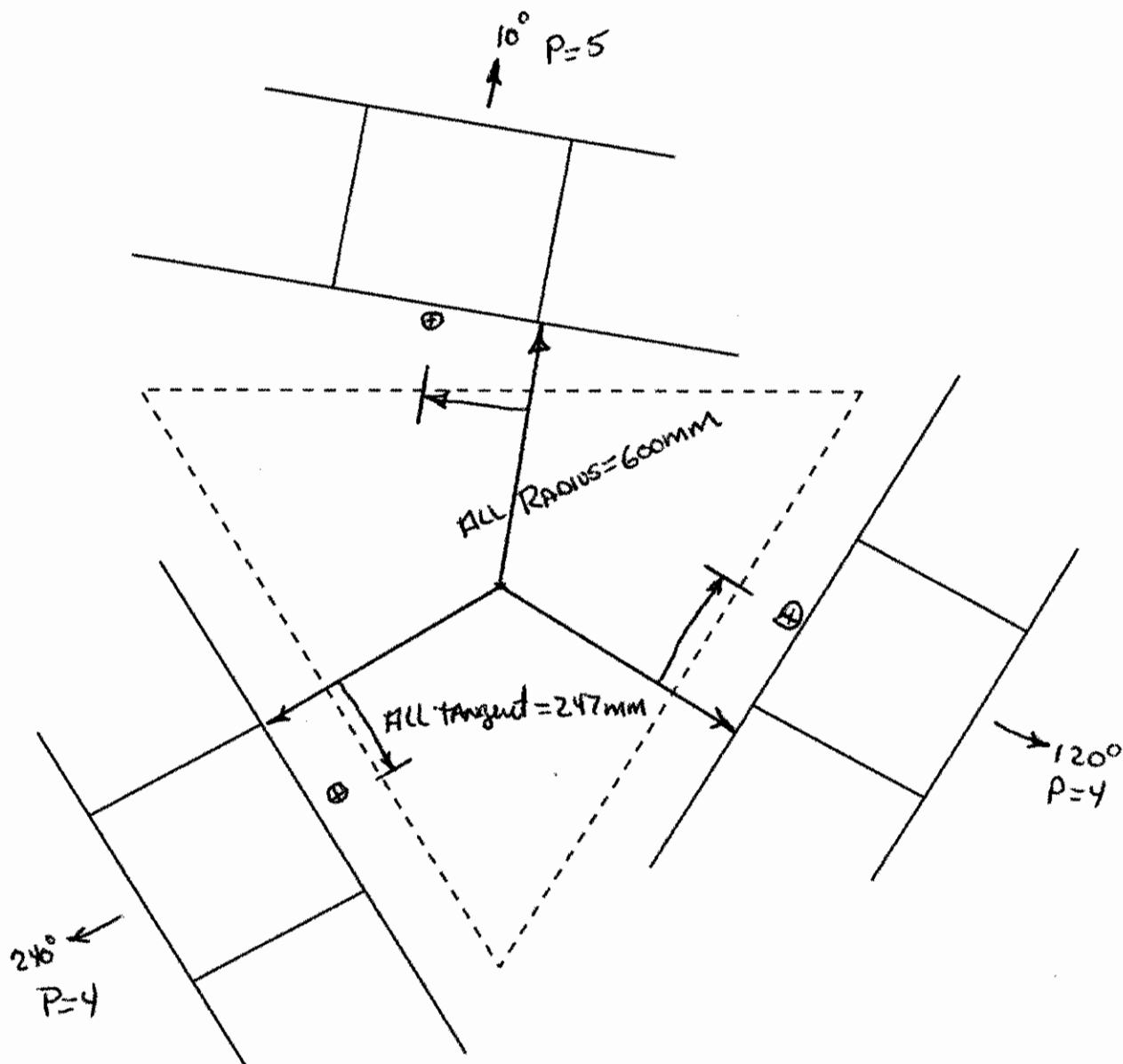
allow +/-0.5 dB tolerance for pattern variations

harness parameters at cable design frequency:

bay feeder : .0 m 4AAQ@L@ (a = .00 dB)
antenna cable: .0 m 4AAQ@L@ (a = .00 dB)

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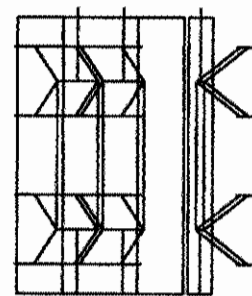
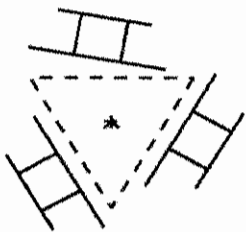
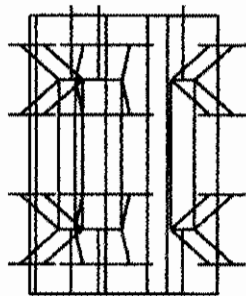
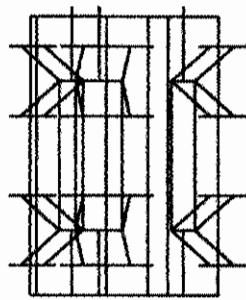


1 meter

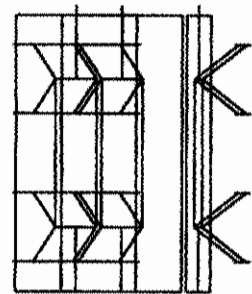
mast size in mm 1524. direction 0.
offset north 0. east 0.

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3240 mm



1 meter

mast size in mm 1524. direction 0.
offset north 0. east 0.

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