Hi-VHF Folded Dipole Performance per 4nec2 Simulations

Hi-VHF Folded Dipole (ONLY), Opt for 193 MHz, El#1 SOURCE, 4nec2 by holl_ands
Length = 27.0 inches, Folded Dipole Separation = 2.0 inches.
O.D. = 1.0 inch Copper. Impedance = 300 ohms.

CH	Freq (MHz)	Raw Gain	300 ohm SWR	R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio
7	174	2.04	1.59	244.07	-113.31	1.81	0.00	
7	175	2.04	1.55	244.90	-105.34	1.84	0.00	
7	176	2.04	1.50	245.97	-97.59	1.86	0.00	
7	177	2.05	1.46	247.26	-90.07	1.89	0.00	
7	178	2.05	1.43	248.78	-82.75	1.91	0.00	
7	179	2.06	1.39	250.52	-75.64	1.94	0.00	
8	180	2.06	1.35	252.48	-68.73	1.96	0.00	
8	181	2.06	1.32	254.65	-62.00	1.98	0.00	
8	182	2.07	1.29	257.05	-55.45	2.00	0.00	
8	183	2.07	1.26	259.66	-49.09	2.01	0.00	
8	184	2.08	1.22	262.48	-42.90	2.04	0.00	
8	185	2.08	1.20	265.52	-36.88	2.05	0.00	
8	186	2.08	1.17	268.78	-31.03	2.05	0.00	
9	187	2.09	1.14	272.26	-25.36	2.07	0.00	
9	188	2.09	1.11	275.96	-19.85	2.08	0.00	
9	189	2.10	1.09	279.89	-14.52	2.09	0.00	
9	190	2.10	1.07	284.04	-9.36	2.10	0.00	
9	191	2.10	1.04	288.42	-4.38	2.10	0.00	
9	192	2.11	1.02	293.03	0.43	2.11	0.00	
10	193	2.11	1.02	297.88	5.04	2.11	0.00	
10	194	2.11	1.03	302.96	9.47	2.11	0.00	
10	195	2.12	1.05	308.28	13.70	2.12	0.00	
10	196	2.12	1.08	313.85	17.72	2.11	0.00	
10	197	2.13	1.10	319.67	21.52	2.12	0.00	
10	198	2.13	1.12	325.73	25.10	2.12	0.00	
11	199	2.13	1.15	332.05	28.44	2.11	0.00	
11	200	2.14	1.17	338.62	31.53	2.11	0.00	
11	201	2.14	1.19	345.44	34.35	2.11	0.00	
11	202	2.14	1.22	352.52	36.89	2.10	0.00	
11	203	2.15	1.24	359.86	39.14	2.10	0.00	
11	204	2.15	1.27	367.45	41.06	2.09	0.00	
12	205	2.15	1.29	375.30	42.65	2.08	0.00	
12	206	2.16	1.32	383.39	43.89	2.08	0.00	
12	207	2.16	1.35	391.73	44.74	2.06	0.00	
12	208	2.16	1.37	400.30	45.19	2.05	0.00	
12	209	2.17	1.40	409.11	45.21	2.05	0.00	
12	210	2.17	1.43	418.13	44.78	2.03	0.00	
13	211	2.17	1.45	427.35	43.87	2.02	0.00	
13	212	2.18	1.48	436.75	42.44	2.01	0.00	
13	213	2.18	1.51	446.33	40.48	2.00	0.00	

13	214	2.18	1.54	456.04	37.96	1.98	0.00	
13	215	2.19	1.57	465.87	34.84	1.97	0.00	
13	216	2.19	1.60	475.79	31.09	1.95	0.00	

Hi-VHF Folded Dipole (ONLY), Opt for 191 MHz, El#1 SOURCE, 4nec2 by holl_ands
Length = 28.0 inches, Folded Dipole Separation = 1.0 inches.
Quarter inch O.D. Copper. Impedance = 300 ohms.

CH	Freq (MHz)	Raw Gain	300 ohm SWR	R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio
7	174	2.06	2.08	262.12	-206.96	1.49	0.00	
7	175	2.06	1.99	261.34	-192.10	1.56	0.00	
7	176	2.06	1.90	260.85	-177.66	1.62	0.00	
7	177	2.07	1.81	260.63	-163.61	1.69	0.00	
7	178	2.07	1.73	260.68	-149.91	1.75	0.00	
7	179	2.08	1.65	260.98	-136.54	1.81	0.00	
8	180	2.08	1.58	261.53	-123.49	1.85	0.00	
8	181	2.08	1.51	262.32	-110.72	1.90	0.00	
8	182	2.09	1.45	263.35	-98.21	1.94	0.00	
8	183	2.09	1.39	264.61	-85.95	1.97	0.00	
8	184	2.10	1.33	266.11	-73.92	2.01	0.00	
8	185	2.10	1.28	267.83	-62.11	2.03	0.00	
8	186	2.10	1.23	269.78	-50.49	2.05	0.00	
9	187	2.11	1.18	271.96	-39.05	2.08	0.00	
9	188	2.11	1.14	274.37	-27.79	2.09	0.00	
9	189	2.12	1.10	277.01	-16.68	2.11	0.00	
9	190	2.12	1.07	279.89	-5.72	2.11	0.00	
9	191	2.13	1.06	283.00	5.10	2.13	0.00	
9	192	2.13	1.07	286.35	15.79	2.12	0.00	
10	193	2.13	1.10	289.94	26.37	2.12	0.00	
10	194	2.14	1.13	293.78	36.84	2.12	0.00	
10	195	2.14	1.17	297.88	47.20	2.11	0.00	
10	196	2.15	1.21	302.24	57.46	2.11	0.00	
10	197	2.15	1.25	306.87	67.64	2.10	0.00	
10	198	2.16	1.29	311.78	77.73	2.09	0.00	
11	199	2.16	1.33	316.97	87.74	2.07	0.00	
11	200	2.16	1.38	322.47	97.67	2.05	0.00	
11	201	2.17	1.42	328.26	107.53	2.04	0.00	
11	202	2.17	1.47	334.38	117.31	2.01	0.00	
11	203	2.18	1.51	340.83	127.03	1.99	0.00	
11	204	2.18	1.56	347.62	136.67	1.97	0.00	
12	205	2.19	1.61	354.78	146.24	1.95	0.00	
12	206	2.19	1.65	362.30	155.74	1.92	0.00	
12	207	2.20	1.70	370.22	165.16	1.90	0.00	
12	208	2.20	1.75	378.54	174.50	1.86	0.00	
12	209	2.20	1.80	387.29	183.76	1.83	0.00	
12	210	2.21	1.85	396.49	192.92	1.80	0.00	

13	211	2.21	1.90	406.15	201.98	1.77	0.00	
13	212	2.22	1.95	416.30	210.92	1.74	0.00	
13	213	2.22	2.00	426.96	219.74	1.71	0.00	
13	214	2.23	2.06	438.15	228.42	1.68	0.00	
13	215	2.23	2.11	449.90	236.94	1.64	0.00	
13	216	2.24	2.16	462.24	245.29	1.61	0.00	

Hi-VHF Folded Dipole (ONLY), Opt for 192 MHz, El#1 SOURCE, 4nec2 by holl_ands
Length = 28.25 inches, Folded Dipole Separation = 1.0 inches.
Driven Element: AWG12 Copper. Impedance = 300 ohms.

CH	Freq (MHz)	Raw Gain	300 ohm SWR	R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio
7	174	2.06	2.54	250.84	-260.58	1.15	0.00	
7	175	2.06	2.40	251.21	-243.31	1.25	0.00	
7	176	2.07	2.27	251.77	-226.42	1.36	0.00	
7	177	2.07	2.15	252.52	-209.90	1.45	0.00	
7	178	2.07	2.03	253.47	-193.71	1.54	0.00	
7	179	2.08	1.92	254.60	-177.84	1.63	0.00	
8	180	2.08	1.82	255.92	-162.27	1.70	0.00	
8	181	2.09	1.72	257.41	-146.97	1.77	0.00	
8	182	2.09	1.63	259.09	-131.92	1.83	0.00	
8	183	2.10	1.55	260.96	-117.11	1.89	0.00	
8	184	2.10	1.47	263.00	-102.51	1.94	0.00	
8	185	2.10	1.40	265.22	-88.12	1.98	0.00	
8	186	2.11	1.33	267.63	-73.92	2.02	0.00	
9	187	2.11	1.26	270.22	-59.89	2.05	0.00	
9	188	2.12	1.20	272.99	-46.02	2.08	0.00	
9	189	2.12	1.15	275.96	-32.29	2.10	0.00	
9	190	2.12	1.10	279.12	-18.70	2.11	0.00	
9	191	2.13	1.06	282.47	-5.24	2.13	0.00	
9	192	2.13	1.06	286.03	8.12	2.13	0.00	
10	193	2.14	1.08	289.79	21.37	2.13	0.00	
10	194	2.14	1.13	293.76	34.54	2.12	0.00	
10	195	2.15	1.17	297.95	47.62	2.12	0.00	
10	196	2.15	1.22	302.35	60.62	2.11	0.00	
10	197	2.15	1.27	306.99	73.56	2.09	0.00	
10	198	2.16	1.33	311.87	86.45	2.07	0.00	
11	199	2.16	1.38	316.98	99.29	2.05	0.00	
11	200	2.17	1.44	322.36	112.08	2.03	0.00	
11	201	2.17	1.50	327.99	124.84	1.99	0.00	
11	202	2.18	1.56	333.90	137.57	1.97	0.00	
11	203	2.18	1.62	340.10	150.27	1.93	0.00	
11	204	2.19	1.68	346.59	162.96	1.90	0.00	
12	205	2.19	1.74	353.38	175.64	1.86	0.00	
12	206	2.20	1.81	360.50	188.30	1.82	0.00	
12	207	2.20	1.87	367.96	200.96	1.78	0.00	

12	208	2.20	1.94	375.77	213.62	1.73	0.00	
12	209	2.21	2.01	383.94	226.28	1.69	0.00	
12	210	2.21	2.08	392.50	238.95	1.64	0.00	
13	211	2.22	2.14	401.47	251.61	1.60	0.00	
13	212	2.22	2.21	410.85	264.29	1.55	0.00	
13	213	2.23	2.29	420.68	276.96	1.51	0.00	
13	214	2.23	2.36	430.98	289.64	1.45	0.00	
13	215	2.24	2.43	441.77	302.31	1.41	0.00	
13	216	2.24	2.50	453.08	314.99	1.36	0.00	

Hi-VHF Folded Dipole (ONLY), Opt for 192 MHz, El#1 SOURCE, 4nec2 by holl_ands
Length = 28.5 inches, Folded Dipole Separation = 1.0 inches.
Driven Element: AWG24 Copper. Impedance = 300 ohms.

CH	Freq (MHz)	Raw Gain	300 ohm SWR	R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio
7	174	2.06	3.04	245.95	-313.63	0.78	0.00	
7	175	2.07	2.85	246.94	-293.47	0.93	0.00	
7	176	2.07	2.67	248.09	-273.69	1.06	0.00	
7	177	2.07	2.50	249.40	-254.28	1.19	0.00	
7	178	2.08	2.34	250.86	-235.19	1.32	0.00	
7	179	2.08	2.19	252.48	-216.41	1.43	0.00	
8	180	2.09	2.05	254.26	-197.92	1.54	0.00	
8	181	2.09	1.93	256.18	-179.70	1.63	0.00	
8	182	2.09	1.81	258.27	-161.73	1.72	0.00	
8	183	2.10	1.70	260.51	-143.99	1.80	0.00	
8	184	2.10	1.59	262.90	-126.46	1.87	0.00	
8	185	2.11	1.50	265.45	-109.13	1.93	0.00	
8	186	2.11	1.41	268.17	-91.98	1.98	0.00	
9	187	2.11	1.32	271.04	-75.00	2.02	0.00	
9	188	2.12	1.25	274.09	-58.17	2.07	0.00	
9	189	2.12	1.18	277.30	-41.48	2.09	0.00	
9	190	2.13	1.11	280.68	-24.91	2.12	0.00	
9	191	2.13	1.06	284.24	-8.46	2.13	0.00	
9	192	2.14	1.05	287.98	7.90	2.14	0.00	
10	193	2.14	1.09	291.90	24.17	2.13	0.00	
10	194	2.14	1.15	296.01	40.36	2.12	0.00	
10	195	2.15	1.21	300.32	56.48	2.11	0.00	
10	196	2.15	1.27	304.83	72.55	2.09	0.00	
10	197	2.16	1.34	309.55	88.57	2.07	0.00	
10	198	2.16	1.41	314.49	104.56	2.03	0.00	
11	199	2.17	1.48	319.65	120.53	2.00	0.00	
11	200	2.17	1.55	325.04	136.48	1.96	0.00	
11	201	2.18	1.63	330.67	152.42	1.92	0.00	
11	202	2.18	1.71	336.56	168.37	1.87	0.00	
11	203	2.18	1.79	342.70	184.33	1.82	0.00	
11	204	2.19	1.87	349.11	200.31	1.77	0.00	

12	205	2.19	1.96	355.80	216.32	1.71	0.00	
12	206	2.20	2.04	362.79	232.36	1.66	0.00	
12	207	2.20	2.13	370.09	248.46	1.59	0.00	
12	208	2.21	2.22	377.71	264.60	1.54	0.00	
12	209	2.21	2.31	385.67	280.80	1.47	0.00	
12	210	2.22	2.41	393.98	297.07	1.41	0.00	
13	211	2.22	2.50	402.65	313.42	1.34	0.00	
13	212	2.23	2.60	411.72	329.84	1.28	0.00	
13	213	2.23	2.69	421.20	346.36	1.20	0.00	
13	214	2.24	2.79	431.10	362.96	1.14	0.00	
13	215	2.24	2.89	441.45	379.66	1.07	0.00	
13	216	2.25	3.00	452.28	396.47	1.00	0.00	

Hi-VHF Folded Dipole (ONLY), Opt for 190 MHz, El#1 SOURCE, 4nec2 by holl_ands
Length = 28.0 inches, Folded Dipole Separation = 1.0 inches.
O.D. = 5/16 inch Copper. Impedance = 300 ohms.

CH	Freq (MHz)	Raw Gain	300 ohm SWR	R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio
7	174	2.06	1.95	265.45	-188.97	1.58	0.00	
7	175	2.06	1.86	264.40	-174.75	1.65	0.00	
7	176	2.06	1.78	263.65	-160.95	1.70	0.00	
7	177	2.07	1.71	263.21	-147.53	1.76	0.00	
7	178	2.07	1.63	263.06	-134.47	1.81	0.00	
7	179	2.08	1.57	263.19	-121.73	1.86	0.00	
8	180	2.08	1.50	263.58	-109.30	1.90	0.00	
8	181	2.08	1.44	264.24	-97.15	1.94	0.00	
8	182	2.09	1.38	265.16	-85.27	1.98	0.00	
8	183	2.09	1.33	266.33	-73.62	2.00	0.00	
8	184	2.10	1.28	267.74	-62.21	2.03	0.00	
8	185	2.10	1.23	269.40	-51.00	2.05	0.00	
8	186	2.11	1.19	271.31	-39.99	2.08	0.00	
9	187	2.11	1.15	273.46	-29.17	2.09	0.00	
9	188	2.11	1.11	275.86	-18.51	2.10	0.00	
9	189	2.12	1.08	278.51	-8.01	2.11	0.00	
9	190	2.12	1.07	281.40	2.34	2.12	0.00	
9	191	2.13	1.07	284.54	12.56	2.12	0.00	
9	192	2.13	1.09	287.94	22.65	2.12	0.00	
10	193	2.13	1.12	291.61	32.61	2.12	0.00	
10	194	2.14	1.15	295.53	42.47	2.12	0.00	
10	195	2.14	1.19	299.73	52.21	2.11	0.00	
10	196	2.15	1.23	304.21	61.86	2.10	0.00	
10	197	2.15	1.27	308.98	71.41	2.09	0.00	
10	198	2.16	1.31	314.04	80.86	2.08	0.00	
11	199	2.16	1.35	319.41	90.23	2.06	0.00	
11	200	2.17	1.39	325.09	99.51	2.05	0.00	
11	201	2.17	1.43	331.11	108.70	2.03	0.00	

11	202	2.17	1.47	337.46	117.81	2.01	0.00	
11	203	2.18	1.51	344.17	126.83	1.99	0.00	
11	204	2.18	1.56	351.24	135.76	1.97	0.00	
12	205	2.19	1.60	358.70	144.60	1.95	0.00	
12	206	2.19	1.65	366.56	153.34	1.92	0.00	
12	207	2.20	1.69	374.83	161.98	1.90	0.00	
12	208	2.20	1.74	383.54	170.51	1.87	0.00	
12	209	2.20	1.78	392.70	178.92	1.84	0.00	
12	210	2.21	1.83	402.34	187.20	1.82	0.00	
13	211	2.21	1.88	412.47	195.34	1.79	0.00	
13	212	2.22	1.93	423.13	203.31	1.76	0.00	
13	213	2.22	1.97	434.32	211.11	1.73	0.00	
13	214	2.23	2.02	446.08	218.71	1.70	0.00	
13	215	2.23	2.07	458.43	226.09	1.67	0.00	
13	216	2.24	2.12	471.40	233.21	1.64	0.00	

Hi-VHF Folded Dipole (ONLY), Opt for 191 MHz, El#1 SOURCE, 4nec2 by holl_ands
Length = 27.5 inches, Folded Dipole Separation = 2.0 inches.
O.D. = 0.569-in Copper Tubing (1/2-in Type M). Impedance = 300 ol

CH	Freq (MHz)	Raw Gain	300 ohm SWR	R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio
7	174	2.06	1.69	242.25	-131.24	1.76	0.00	
7	175	2.07	1.63	243.60	-121.66	1.81	0.00	
7	176	2.07	1.58	245.15	-112.31	1.85	0.00	
7	177	2.07	1.53	246.89	-103.16	1.88	0.00	
7	178	2.08	1.48	248.82	-94.22	1.92	0.00	
7	179	2.08	1.43	250.95	-85.46	1.94	0.00	
8	180	2.09	1.38	253.26	-76.88	1.98	0.00	
8	181	2.09	1.34	255.76	-68.48	2.00	0.00	
8	182	2.10	1.30	258.46	-60.24	2.03	0.00	
8	183	2.10	1.26	261.35	-52.16	2.04	0.00	
8	184	2.10	1.22	264.44	-44.23	2.06	0.00	
8	185	2.11	1.19	267.72	-36.45	2.08	0.00	
8	186	2.11	1.15	271.21	-28.82	2.09	0.00	
9	187	2.12	1.12	274.89	-21.32	2.11	0.00	
9	188	2.12	1.09	278.79	-13.97	2.11	0.00	
9	189	2.13	1.07	282.90	-6.75	2.13	0.00	
9	190	2.13	1.04	287.22	0.34	2.13	0.00	
9	191	2.13	1.04	291.76	7.29	2.13	0.00	
9	192	2.14	1.05	296.53	14.10	2.14	0.00	
10	193	2.14	1.07	301.53	20.78	2.13	0.00	
10	194	2.15	1.10	306.77	27.32	2.14	0.00	
10	195	2.15	1.12	312.25	33.72	2.14	0.00	
10	196	2.15	1.15	317.97	39.98	2.13	0.00	
10	197	2.16	1.18	323.96	46.08	2.13	0.00	
10	198	2.16	1.21	330.20	52.04	2.12	0.00	

11	199	2.17	1.24	336.72	57.83	2.12	0.00	
11	200	2.17	1.27	343.51	63.46	2.11	0.00	
11	201	2.17	1.30	350.59	68.91	2.10	0.00	
11	202	2.18	1.33	357.96	74.17	2.09	0.00	
11	203	2.18	1.36	365.62	79.23	2.08	0.00	
11	204	2.19	1.39	373.60	84.09	2.07	0.00	
12	205	2.19	1.43	381.88	88.72	2.05	0.00	
12	206	2.19	1.46	390.49	93.11	2.04	0.00	
12	207	2.20	1.49	399.42	97.25	2.03	0.00	
12	208	2.20	1.52	408.69	101.12	2.01	0.00	
12	209	2.21	1.56	418.29	104.69	2.00	0.00	
12	210	2.21	1.59	428.24	107.94	1.98	0.00	
13	211	2.21	1.62	438.53	110.86	1.96	0.00	
13	212	2.22	1.66	449.17	113.41	1.95	0.00	
13	213	2.22	1.69	460.17	115.57	1.92	0.00	
13	214	2.23	1.73	471.51	117.30	1.91	0.00	
13	215	2.23	1.76	483.21	118.58	1.89	0.00	
13	216	2.23	1.80	495.25	119.37	1.86	0.00	

CH6 Folded Dipole (ONLY), Opt for 85 MHz, El#1 SOURCE, 4nec2 by holl_ands
Length = 63.0 inches, Folded Dipole Separation = 2.5 inches.
O.D. = 0.569-in Copper Tubing (1/2-in Type M). Impedance = 300 ol

CH	Freq (MHz)	Raw Gain	300 ohm SWR	R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio
5	75	2.04	2.62	263.53	-279.57	1.07	0.00	
5	76	2.05	2.35	259.92	-242.69	1.28	0.00	
5	77	2.05	2.11	257.86	-208.37	1.46	0.00	
5	78	2.06	1.90	257.19	-176.21	1.62	0.00	
5	79	2.07	1.72	257.80	-145.87	1.76	0.00	
5	80	2.08	1.55	259.59	-117.08	1.87	0.00	
5	81	2.09	1.41	262.52	-89.61	1.96	0.00	
6	82	2.10	1.29	266.56	-63.26	2.03	0.00	
6	83	2.11	1.18	271.69	-37.86	2.08	0.00	
6	84	2.12	1.09	277.94	-13.27	2.11	0.00	
6	85	2.13	1.06	285.34	10.62	2.13	0.00	
6	86	2.14	1.12	293.92	33.91	2.13	0.00	
6	87	2.15	1.21	303.75	56.69	2.11	0.00	
FM	88	2.16	1.30	314.92	79.01	2.09	0.00	
FM	89	2.17	1.39	327.52	100.92	2.05	0.00	
FM	90	2.18	1.49	341.67	122.44	2.01	0.00	
FM	91	2.19	1.60	357.52	143.58	1.95	0.00	
FM	92	2.20	1.70	375.21	164.31	1.90	0.00	
FM	93	2.21	1.81	394.94	184.59	1.83	0.00	
FM	94	2.22	1.92	416.90	204.33	1.76	0.00	
FM	95	2.23	2.04	441.35	223.39	1.69	0.00	
FM	96	2.24	2.15	468.53	241.60	1.62	0.00	

FM	97	2.25	2.27	498.72	258.70	1.54	0.00	
FM	98	2.26	2.39	532.22	274.35	1.46	0.00	
FM	99	2.27	2.51	569.34	288.11	1.38	0.00	
FM	100	2.28	2.64	610.36	299.41	1.30	0.00	
FM	101	2.29	2.76	655.55	307.52	1.21	0.00	
FM	102	2.30	2.89	705.08	311.53	1.13	0.00	
FM	103	2.32	3.02	759.00	310.33	1.06	0.00	
FM	104	2.33	3.15	817.11	302.60	0.98	0.00	
FM	105	2.34	3.28	878.92	286.79	0.89	0.00	
FM	106	2.35	3.41	943.44	261.26	0.81	0.00	
FM	107	2.36	3.55	1009.10	224.30	0.73	0.00	
FM	108	2.37	3.68	1073.60	174.44	0.64	0.00	
	109	2.39	3.82	1133.88	110.68	0.57	0.00	
	110	2.40	3.96	1186.21	32.93	0.49	0.00	

CH6 Folded Dipole (ONLY), Opt for 85 MHz, El#1 SOURCE, 4nec2 by holl_ands
Length = 63.0 inches, Folded Dipole Separation = 0.5 inches.
AWG12 Copper Wire. Impedance = 300 ohms.

CH	Freq (MHz)	Raw Gain	300 ohm SWR	R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio
5	75	2.04	4.67	287.16	-498.17	-0.32	0.00	
5	76	2.05	3.99	278.01	-431.86	0.12	0.00	
5	77	2.06	3.41	271.52	-371.38	0.52	0.00	
5	78	2.07	2.91	267.30	-315.65	0.88	0.00	
5	79	2.08	2.49	265.05	-263.77	1.21	0.00	
5	80	2.09	2.13	264.56	-215.03	1.48	0.00	
5	81	2.10	1.82	265.71	-168.85	1.71	0.00	
6	82	2.11	1.57	268.40	-124.73	1.89	0.00	
6	83	2.11	1.35	272.61	-82.25	2.01	0.00	
6	84	2.12	1.17	278.33	-41.04	2.09	0.00	
6	85	2.13	1.05	285.61	-0.78	2.13	0.00	
6	86	2.14	1.14	294.52	38.82	2.12	0.00	
6	87	2.15	1.29	305.17	78.01	2.08	0.00	
FM	88	2.16	1.46	317.71	117.04	2.00	0.00	
FM	89	2.17	1.65	332.35	156.11	1.90	0.00	
FM	90	2.18	1.85	349.33	195.44	1.78	0.00	
FM	91	2.19	2.06	368.95	235.20	1.64	0.00	
FM	92	2.21	2.28	391.60	275.55	1.49	0.00	
FM	93	2.22	2.51	417.74	316.65	1.33	0.00	
FM	94	2.23	2.76	447.95	358.59	1.16	0.00	
FM	95	2.24	3.01	482.93	401.43	0.98	0.00	
FM	96	2.25	3.27	523.55	445.14	0.80	0.00	
FM	97	2.26	3.55	570.86	489.57	0.63	0.00	
FM	98	2.27	3.83	626.16	534.40	0.45	0.00	
FM	99	2.29	4.11	691.03	579.01	0.28	0.00	
FM	100	2.30	4.40	767.36	622.37	0.10	0.00	

FM	101	2.31	4.70	857.38	662.81	-0.07	0.00
FM	102	2.32	5.01	963.60	697.71	-0.24	0.00
FM	103	2.33	5.32	1088.63	723.07	-0.40	0.00
FM	104	2.35	5.63	1234.76	732.93	-0.56	0.00
FM	105	2.36	5.95	1403.04	718.84	-0.71	0.00
FM	106	2.37	6.27	1591.65	669.47	-0.87	0.00
FM	107	2.39	6.60	1793.41	571.18	-1.01	0.00
FM	108	2.40	6.93	1992.79	410.68	-1.16	0.00
	109	2.41	7.27	2164.30	180.70	-1.30	0.00
	110	2.43	7.60	2275.54	-111.99	-1.43	0.00

holl_ands 14-Jun-09

hms.

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Hi-VHF Square Loop Performance per 4nec2 Simulations **holl_ands**

Hi-VHF Square Loop, Element#1 SOURCE, 4nec2 by holl_ands - 27Jun2009
OD=0.546-in. Type M Copper Pipe. 20.0-in per side (Ctr-to-Ctr).
Optimized for SWR & Net Gain. Impedance = 300-ohm.

CH	Freq (MHz)	Raw Gain	300 ohm SWR	R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio
7	174	3.64	1.97	154.43	31.31	3.15	0.00	
7	175	3.66	1.94	157.90	37.54	3.19	0.00	
7	176	3.68	1.91	161.52	43.78	3.23	0.00	
7	177	3.70	1.89	165.29	50.02	3.27	0.00	
7	178	3.72	1.86	169.22	56.28	3.31	0.00	
7	179	3.74	1.84	173.31	62.55	3.34	0.00	
8	180	3.75	1.82	177.59	68.83	3.37	0.00	
8	181	3.77	1.80	182.05	75.12	3.40	0.00	
8	182	3.79	1.79	186.71	81.43	3.43	0.00	
8	183	3.81	1.78	191.57	87.75	3.46	0.00	
8	184	3.83	1.76	196.66	94.07	3.48	0.00	
8	185	3.84	1.76	201.98	100.40	3.50	0.00	
8	186	3.86	1.75	207.55	106.74	3.53	0.00	
9	187	3.88	1.74	213.38	113.08	3.55	0.00	
9	188	3.89	1.74	219.48	119.41	3.56	0.00	
9	189	3.91	1.74	225.88	125.74	3.58	0.00	
9	190	3.93	1.74	232.58	132.04	3.60	0.00	
9	191	3.94	1.74	239.62	138.33	3.61	0.00	
9	192	3.96	1.75	247.00	144.58	3.63	0.00	
10	193	3.97	1.75	254.75	150.78	3.63	0.00	
10	194	3.99	1.76	262.89	156.93	3.65	0.00	
10	195	4.00	1.77	271.44	163.00	3.65	0.00	
10	196	4.01	1.78	280.43	168.98	3.65	0.00	
10	197	4.03	1.80	289.89	174.85	3.66	0.00	
10	198	4.04	1.81	299.83	180.58	3.66	0.00	
11	199	4.05	1.83	310.28	186.14	3.66	0.00	
11	200	4.06	1.84	321.28	191.51	3.66	0.00	
11	201	4.08	1.86	332.85	196.64	3.67	0.00	
11	202	4.09	1.88	345.02	201.49	3.66	0.00	
11	203	4.10	1.90	357.82	206.01	3.66	0.00	
11	204	4.10	1.92	371.27	210.15	3.64	0.00	
12	205	4.11	1.94	385.39	213.84	3.64	0.00	
12	206	4.12	1.97	400.22	217.01	3.63	0.00	
12	207	4.13	1.99	415.76	219.59	3.62	0.00	
12	208	4.13	2.02	432.04	221.48	3.61	0.00	
12	209	4.14	2.04	449.05	222.58	3.60	0.00	
12	210	4.14	2.07	466.79	222.79	3.58	0.00	
13	211	4.14	2.10	485.25	221.99	3.56	0.00	
13	212	4.15	2.13	504.39	220.04	3.55	0.00	
13	213	4.15	2.15	524.17	216.81	3.53	0.00	

13	214	4.15	2.18		544.51	212.16	3.50	0.00
13	215	4.14	2.21		565.33	205.92	3.47	0.00
13	216	4.14	2.24		586.50	197.96	3.45	0.00

Hi-VHF Square Loop, Element#1 SOURCE, 4nec2 by holl_ands - 27Jun2009
OD=0.25-in. Copper Tubing. 18.5-in per side (Ctr-to-Ctr).
Optimized for SWR & Net Gain. Impedance = 300-ohm.

CH	Freq (MHz)	Raw Gain	300 ohm SWR		R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio
7	174	3.39	2.40		126.09	-25.81	2.58		
7	175	3.41	2.35		128.18	-18.00	2.64		
7	176	3.43	2.30		130.35	-10.19	2.69		
7	177	3.44	2.26		132.60	-2.38	2.74		
7	178	3.46	2.22		134.93	5.45	2.78		
7	179	3.48	2.19		137.36	13.29	2.83		
8	180	3.50	2.16		139.87	21.15	2.87		
8	181	3.52	2.13		142.48	29.03	2.91		
8	182	3.54	2.11		145.19	36.93	2.95		
8	183	3.55	2.09		148.01	44.87	2.98		
8	184	3.57	2.07		150.94	52.83	3.01		
8	185	3.59	2.05		153.99	60.84	3.04		
8	186	3.61	2.04		157.16	68.89	3.07		
9	187	3.63	2.04		160.45	76.98	3.09		
9	188	3.64	2.03		163.89	85.13	3.11		
9	189	3.66	2.03		167.46	93.33	3.13		
9	190	3.68	2.03		171.19	101.58	3.15		
9	191	3.69	2.04		175.07	109.90	3.15		
9	192	3.71	2.04		179.12	118.28	3.17		
10	193	3.73	2.05		183.35	126.74	3.18		
10	194	3.74	2.06		187.76	135.26	3.18		
10	195	3.76	2.08		192.37	143.87	3.19		
10	196	3.78	2.09		197.19	152.55	3.20		
10	197	3.79	2.11		202.23	161.32	3.20		
10	198	3.81	2.13		207.51	170.18	3.20		
11	199	3.82	2.16		213.04	179.13	3.19		
11	200	3.84	2.18		218.83	188.17	3.20		
11	201	3.85	2.21		224.91	197.31	3.19		
11	202	3.87	2.24		231.29	206.55	3.19		
11	203	3.88	2.27		237.99	215.89	3.17		
11	204	3.89	2.30		245.03	225.33	3.16		
12	205	3.91	2.33		252.43	234.87	3.16		
12	206	3.92	2.36		260.23	244.51	3.14		
12	207	3.93	2.40		268.44	254.26	3.12		
12	208	3.95	2.43		277.10	264.11	3.12		
12	209	3.96	2.47		286.23	274.05	3.10		
12	210	3.97	2.51		295.88	284.08	3.08		

13	211	3.98	2.55	306.07	294.19	3.06
13	212	3.99	2.59	316.85	304.37	3.04
13	213	4.00	2.63	328.26	314.62	3.02
13	214	4.01	2.68	340.35	324.91	3.00
13	215	4.02	2.72	353.16	335.23	2.98
13	216	4.03	2.76	366.75	345.55	2.95

Hi-VHF Square Loop, Element#1 SOURCE, 4nec2 by holl_ands - 27Jun2009
AWG24 Copper Wire. 16.75-in per side (Ctr-to-Ctr).
Optimized for SWR & Net Gain. Impedance = 300-ohm.

CH	Freq (MHz)	Raw Gain	300 ohm SWR	R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio
7	174	3.08	3.75	108.99	-171.95	1.30		
7	175	3.10	3.58	110.09	-158.92	1.44		
7	176	3.12	3.41	111.24	-145.96	1.58		
7	177	3.14	3.26	112.44	-133.07	1.70		
7	178	3.15	3.12	113.68	-120.24	1.81		
7	179	3.17	2.99	114.98	-107.46	1.93		
8	180	3.19	2.88	116.32	-94.72	2.03		
8	181	3.21	2.77	117.71	-82.02	2.13		
8	182	3.22	2.68	119.15	-69.35	2.21		
8	183	3.24	2.59	120.64	-56.71	2.29		
8	184	3.26	2.52	122.19	-44.08	2.36		
8	185	3.28	2.46	123.80	-31.46	2.43		
8	186	3.29	2.40	125.47	-18.84	2.48		
9	187	3.31	2.36	127.20	-6.22	2.53		
9	188	3.33	2.33	128.98	6.41	2.58		
9	189	3.34	2.30	130.84	19.06	2.60		
9	190	3.36	2.29	132.76	31.73	2.63		
9	191	3.38	2.29	134.75	44.44	2.66		
9	192	3.39	2.29	136.82	57.19	2.66		
10	193	3.41	2.31	138.96	69.98	2.67		
10	194	3.42	2.33	141.18	82.82	2.67		
10	195	3.44	2.36	143.49	95.72	2.66		
10	196	3.46	2.40	145.87	108.70	2.66		
10	197	3.47	2.44	148.35	121.74	2.63		
10	198	3.49	2.49	150.93	134.88	2.62		
11	199	3.50	2.55	153.60	148.10	2.58		
11	200	3.52	2.61	156.37	161.42	2.56		
11	201	3.53	2.68	159.25	174.85	2.51		
11	202	3.55	2.76	162.25	188.40	2.48		
11	203	3.56	2.84	165.36	202.07	2.43		
11	204	3.58	2.92	168.60	215.87	2.39		
12	205	3.59	3.01	171.97	229.82	2.33		
12	206	3.61	3.10	175.48	243.93	2.29		
12	207	3.62	3.20	179.14	258.20	2.23		

12	208	3.63	3.30	182.95	272.64	2.17
12	209	3.65	3.41	186.92	287.27	2.11
12	210	3.66	3.51	191.07	302.09	2.05
13	211	3.67	3.63	195.39	317.13	1.98
13	212	3.69	3.74	199.91	332.38	1.92
13	213	3.70	3.86	204.64	347.87	1.85
13	214	3.71	3.98	209.58	363.60	1.78
13	215	3.73	4.11	214.75	379.60	1.72
13	216	3.74	4.23	220.16	395.87	1.65

27-Jun-09

Hi-VHF 4-Element Yagi Performance per 4nec2 Simulations **holl_ands**

Hi-VHF 4-Element Folded Dipole Yagi, Opt for 187 MHz, El#2 SOURCE, 4nec2 by holl_ands - 3(
Dave47's Dimensions: from K7MEM Javascript Calculator with DL6WU Spacings. Impedar
Driven Element: 0.5 inch O.D. Others: 0.25 inch O.D.

CH	Freq (MHz)	Raw Gain	300 ohm SWR		R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio
7	174	6.93	174.00	2.54	118.12	-11.26	6.02	4.83	4.83
7	175	7.33	175.00	2.44	122.80	4.48	6.49	5.92	5.92
7	176	7.67	176.00	2.35	128.47	19.96	6.90	7.05	7.05
7	177	7.96	177.00	2.26	135.12	35.16	7.26	8.20	8.20
7	178	8.21	178.00	2.18	142.77	50.14	7.57	9.35	9.35
7	179	8.41	179.00	2.10	151.50	64.96	7.82	10.45	10.45
8	180	8.59	180.00	2.04	161.53	79.70	8.05	11.49	11.49
8	181	8.74	181.00	1.97	173.22	94.42	8.25	12.39	12.39
8	182	8.87	182.00	1.92	187.12	109.07	8.42	13.07	13.07
8	183	8.98	183.00	1.86	204.02	123.42	8.57	13.48	13.48
8	184	9.08	184.00	1.81	225.02	136.88	8.70	13.60	13.60
8	185	9.16	185.00	1.75	251.58	148.19	8.82	13.45	13.45
8	186	9.23	186.00	1.69	285.38	154.82	8.93	13.11	13.11
9	187	9.29	187.00	1.63	327.79	151.92	9.03	12.64	12.64
9	188	9.33	188.00	1.57	377.69	131.02	9.11	12.10	12.10
9	189	9.35	189.00	1.51	426.10	80.42	9.16	11.54	11.54
9	190	9.36	190.00	1.50	448.90	-5.74	9.18	11.01	11.01
9	191	9.36	191.00	1.55	415.02	-105.80	9.15	10.52	10.52
9	192	9.34	192.00	1.73	325.37	-171.52	9.02	10.09	10.09
10	193	9.31	193.00	2.09	222.21	-178.86	8.73	9.73	9.73
10	194	9.28	194.00	2.75	139.98	-145.27	8.21	9.46	9.46
10	195	9.25	195.00	3.92	84.92	-95.50	7.37	9.31	9.31
10	196	9.23	196.00	6.06	50.56	-43.30	6.10	9.28	9.28
10	197	9.24	197.00	10.13	29.62	6.35	4.39	9.37	9.37
10	198	9.26	198.00	18.16	17.03	52.49	2.22	9.43	9.43
11	199	9.24	199.00	34.11	9.69	95.55	-0.32	8.93	8.93
11	200	8.86	200.00	62.64	5.78	136.32	-3.23	6.69	6.69
11	201	7.27	201.00	94.69	4.25	175.56	-6.56	2.43	2.43
11	202	3.87	202.00	100.03	4.53	213.99	-10.20	-2.48	-2.48
11	203	0.65	203.00	81.51	6.28	252.19	-12.55	-5.90	-5.90
11	204	-0.19	204.00	61.97	9.39	290.65	-12.23	-6.47	-6.47
12	205	0.14	205.00	47.95	13.83	329.83	-10.83	-5.80	-5.80
12	206	0.53	206.00	38.51	19.67	370.13	-9.53	-5.11	-5.11
12	207	0.79	207.00	32.04	27.07	411.93	-8.51	-4.60	-4.60
12	208	0.92	208.00	27.46	36.23	455.59	-7.76	-4.25	-4.25
12	209	0.97	209.00	24.10	47.45	501.48	-7.18	-4.01	-4.01
12	210	0.96	210.00	21.57	61.11	549.98	-6.75	-3.86	-3.86
13	211	0.92	211.00	19.59	77.68	601.48	-6.41	-3.75	-3.75
13	212	0.85	212.00	18.03	97.76	656.38	-6.16	-3.69	-3.69
13	213	0.77	213.00	16.76	122.11	715.09	-5.96	-3.65	-3.65

13	214	0.69	214.00	15.72	151.70	778.05	-5.79	-3.62	-3.62
13	215	0.6	215.00	14.85	187.74	845.67	-5.66	-3.60	-3.60
13	216	0.51	216.00	14.12	231.79	918.29	-5.56	-3.59	-3.59

Hi-VHF 4-Element Fatter Folded Dipole Yagi, Opt for 187 MHz, El#2 SOURCE, 4nec2 by holl_a
Hi-VHDimensions from K7MEM Javascript Calculator with DL6WU Spacings. Impedance = 300-
Driven Element: 0.75 inch O.D. Others: 0.25 inch O.D.

CH	Freq (MHz)	Raw Gain	300 ohm SWR	R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio
7	174	6.92	2.47	121.60	1.69	6.06	4.83	4.83
7	175	7.32	2.38	126.71	16.45	6.53	5.93	5.93
7	176	7.66	2.29	132.92	30.92	6.94	7.06	7.06
7	177	7.95	2.20	140.20	45.08	7.29	8.20	8.20
7	178	8.2	2.12	148.57	58.97	7.60	9.35	9.35
7	179	8.4	2.05	158.15	72.64	7.85	10.46	10.46
8	180	8.58	1.98	169.18	86.15	8.08	11.50	11.50
8	181	8.73	1.91	182.07	99.49	8.28	12.40	12.40
8	182	8.86	1.85	197.40	112.56	8.45	13.09	13.09
8	183	8.97	1.79	216.04	124.99	8.61	13.51	13.51
8	184	9.06	1.73	239.12	135.96	8.74	13.63	13.63
8	185	9.15	1.67	268.07	143.82	8.87	13.50	13.50
8	186	9.22	1.61	304.32	145.41	8.98	13.16	13.16
9	187	9.27	1.55	348.35	135.01	9.06	12.68	12.68
9	188	9.32	1.50	396.78	103.60	9.14	12.16	12.16
9	189	9.34	1.48	436.64	41.32	9.17	11.60	11.60
9	190	9.35	1.51	441.83	-50.02	9.17	11.06	11.06
9	191	9.35	1.62	390.23	-140.33	9.10	10.57	10.57
9	192	9.33	1.86	296.57	-188.10	8.92	10.14	10.14
10	193	9.31	2.28	201.05	-183.74	8.59	9.78	9.78
10	194	9.27	3.00	127.88	-147.19	8.02	9.50	9.50
10	195	9.25	4.24	78.92	-98.76	7.16	9.34	9.34
10	196	9.23	6.43	47.90	-48.95	5.91	9.29	9.29
10	197	9.24	10.49	28.60	-1.47	4.26	9.36	9.36
10	198	9.28	18.28	16.75	43.04	2.22	9.41	9.41
11	199	9.27	33.45	9.69	85.03	-0.21	8.90	8.90
11	200	8.92	60.20	5.85	125.25	-3.00	6.74	6.74
11	201	7.43	90.20	4.33	164.45	-6.20	2.63	2.63
11	202	4.13	95.05	4.61	203.32	-9.72	-2.19	-2.19
11	203	0.88	76.92	6.45	242.46	-12.07	-5.65	-5.65
11	204	-0.1	57.89	9.78	282.43	-11.85	-6.36	-6.36
12	205	0.16	44.35	14.65	323.77	-10.48	-5.76	-5.76
12	206	0.53	35.32	21.23	366.97	-9.17	-5.08	-5.08
12	207	0.78	29.18	29.78	412.54	-8.14	-4.58	-4.58
12	208	0.92	24.88	40.70	461.02	-7.36	-4.22	-4.22
12	209	0.96	21.74	54.48	512.97	-6.78	-3.99	-3.99
12	210	0.96	19.39	71.84	569.01	-6.33	-3.82	-3.82

13	211	0.91	17.57	93.68	629.80	-6.00	-3.72	-3.72
13	212	0.85	16.14	121.22	696.06	-5.73	-3.65	-3.65
13	213	0.77	14.99	156.09	768.53	-5.53	-3.61	-3.61
13	214	0.68	14.05	200.48	847.96	-5.37	-3.59	-3.59
13	215	0.59	13.27	257.35	934.96	-5.25	-3.57	-3.57
13	216	0.51	12.62	330.71	1029.80	-5.14	-3.56	-3.56

Hi-VHF 4-Element Yagi, Opt for 187 MHz, El#2 SOURCE, 4nec2 by holl_ands - 30May2009
Hi-VHDimensions from K7MEM Javascript Calculator with DL6WU Spacings. Impedance = 75-o
Driven Element: 0.5 inch O.D. Others: 0.25 inch O.D.

CH	Freq (MHz)	Raw Gain	75 ohm SWR	R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio
7	174	6.92	11.89	25.43	-26.32	5.42	4.76	4.76
7	175	7.32	11.40	26.44	-21.53	6.00	5.85	5.85
7	176	7.67	10.88	27.65	-16.76	6.52	6.99	6.99
7	177	7.97	10.35	29.03	-12.02	6.97	8.14	8.14
7	178	8.22	9.81	30.59	-7.30	7.35	9.29	9.29
7	179	8.43	9.28	32.33	-2.57	7.68	10.41	10.41
8	180	8.61	8.75	34.29	2.18	7.96	11.45	11.45
8	181	8.76	8.22	36.53	6.98	8.19	12.33	12.33
8	182	8.89	7.67	39.16	11.85	8.39	13.01	13.01
8	183	9	7.11	42.31	16.77	8.56	13.40	13.40
8	184	9.1	6.53	46.20	21.70	8.71	13.51	13.51
8	185	9.18	5.91	51.13	26.50	8.83	13.34	13.34
8	186	9.25	5.28	57.50	30.88	8.94	12.98	12.98
9	187	9.31	4.62	65.82	34.19	9.04	12.50	12.50
9	188	9.35	3.97	76.61	35.12	9.12	11.95	11.95
9	189	9.37	3.38	89.70	31.19	9.18	11.39	11.39
9	190	9.38	2.94	102.52	18.74	9.23	10.86	10.86
9	191	9.37	2.79	107.37	-3.95	9.23	10.36	10.36
9	192	9.35	3.19	94.96	-28.81	9.17	9.94	9.94
10	193	9.32	4.45	68.74	-40.85	8.97	9.59	9.59
10	194	9.29	7.09	42.94	-36.78	8.55	9.34	9.34
10	195	9.26	12.13	24.89	-24.32	7.75	9.21	9.21
10	196	9.26	21.52	13.96	-9.87	6.44	9.23	9.23
10	197	9.29	39.16	7.66	3.97	4.55	9.38	9.38
10	198	9.34	73.00	4.12	16.58	2.11	9.51	9.51
11	199	9.34	137.51	2.20	28.02	-0.75	8.92	8.92
11	200	8.86	241.80	1.26	38.51	-3.99	6.26	6.26
11	201	6.8	324.95	0.95	48.27	-7.75	1.49	1.49
11	202	2.81	294.17	1.06	57.48	-11.76	-3.68	-3.68
11	203	-0.26	213.09	1.48	66.28	-13.90	-6.75	-6.75
11	204	-0.63	148.98	2.14	74.78	-13.18	-6.79	-6.79
12	205	-0.12	107.46	3.01	83.05	-11.70	-5.94	-5.94
12	206	0.31	80.80	4.06	91.14	-10.47	-5.22	-5.22

12	207	0.58	63.06	5.28	99.10	-9.54	-4.70	-4.70
12	208	0.71	50.75	6.66	106.96	-8.86	-4.37	-4.37
12	209	0.76	41.88	8.21	114.75	-8.35	-4.14	-4.14
12	210	0.75	35.28	9.92	122.48	-7.98	-3.99	-3.99
13	211	0.71	30.23	11.80	130.16	-7.69	-3.89	-3.89
13	212	0.64	26.27	13.83	137.80	-7.47	-3.83	-3.83
13	213	0.57	23.11	16.04	145.42	-7.30	-3.79	-3.79
13	214	0.49	20.55	18.41	153.00	-7.16	-3.76	-3.76
13	215	0.41	18.44	20.95	160.56	-7.05	-3.74	-3.74
13	216	0.33	16.68	23.66	168.10	-6.96	-3.72	-3.72

30-May-09

0May2009
nce = 300-ohm.

nds - 30May2009
ohm.

hm.

Hi-VHF 5-Element K6STI Yagi Performance per 4nec2 Simulations **holl_ands**

Hi-VHF 5-Element K6STI Yagi, Element#2 SOURCE, 4nec2 by holl_ands - 12Jun200

Brian Beasley Dimensions from AO 8.06 Antenna Optimizer. Impedance = 75-ohm.

All Elements: 0.375 inch O.D. Driven Element swept back 15-deg.

CH	Freq (MHz)	Raw Gain	75.00 ohm SWR	R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio
7	174	7.65	1.36	70.02	21.96	7.55	20.65	20.65
7	175	7.64	1.36	75.30	22.95	7.54	23.18	22.95
7	176	7.62	1.36	80.14	23.48	7.52	26.06	22.86
7	177	7.61	1.38	84.52	23.64	7.50	29.24	22.74
7	178	7.60	1.39	88.43	23.53	7.48	31.85	22.60
7	179	7.60	1.41	91.90	23.22	7.47	31.98	22.46
8	180	7.60	1.43	94.94	22.78	7.46	30.14	22.32
8	181	7.61	1.45	97.58	22.24	7.46	28.15	22.19
8	182	7.62	1.46	99.85	21.66	7.47	26.53	22.08
8	183	7.64	1.47	101.76	21.05	7.48	25.26	21.98
8	184	7.66	1.48	103.35	20.44	7.49	24.27	21.89
8	185	7.69	1.49	104.62	19.85	7.52	23.50	21.82
8	186	7.72	1.50	105.60	19.29	7.54	22.89	21.76
9	187	7.75	1.50	106.30	18.77	7.57	22.42	21.71
9	188	7.79	1.50	106.71	18.31	7.61	22.06	21.68
9	189	7.84	1.50	106.86	17.91	7.66	21.80	21.67
9	190	7.89	1.50	106.75	17.60	7.71	21.62	21.61
9	191	7.94	1.49	106.39	17.39	7.77	21.51	21.49
9	192	7.99	1.48	105.77	17.28	7.82	21.47	21.44
10	193	8.05	1.47	104.90	17.31	7.89	21.51	21.45
10	194	8.11	1.46	103.80	17.48	7.95	21.60	21.50
10	195	8.18	1.45	102.47	17.83	8.03	21.77	21.61
10	196	8.24	1.44	100.92	18.36	8.10	22.00	21.74
10	197	8.31	1.43	99.17	19.11	8.17	22.31	21.91
10	198	8.39	1.42	97.24	20.09	8.26	22.71	22.03
11	199	8.46	1.41	95.14	21.33	8.33	23.19	22.08
11	200	8.54	1.41	92.90	22.85	8.41	23.78	22.14
11	201	8.62	1.42	90.56	24.66	8.49	24.50	22.21
11	202	8.70	1.44	88.16	26.80	8.56	25.36	22.29
11	203	8.79	1.47	85.73	29.26	8.63	26.40	22.38
11	204	8.87	1.52	83.33	32.06	8.68	27.63	22.39
12	205	8.95	1.57	81.02	35.20	8.73	29.04	22.39
12	206	9.03	1.65	78.88	38.67	8.76	30.54	22.40
12	207	9.11	1.74	76.98	42.46	8.78	31.69	22.42
12	208	9.19	1.84	75.43	46.51	8.79	31.78	22.41
12	209	9.26	1.95	74.36	50.77	8.78	30.57	22.29
12	210	9.32	2.06	73.93	55.11	8.76	28.74	22.20
13	211	9.38	2.17	74.35	59.31	8.74	26.92	22.16
13	212	9.42	2.25	75.85	62.97	8.72	25.33	22.16
13	213	9.45	2.29	78.67	65.32	8.73	24.09	22.25

Freq (MHz)
174.00
177.00
183.00
189.00
195.00
201.00
207.00
213.00
216.00

13	214	9.45	2.24	82.70	64.93	8.76	23.21	22.42
13	215	9.42	2.09	86.51	59.46	8.85	22.78	22.62
13	216	9.34	1.81	84.96	47.08	8.96	22.90	22.16

Hi-VHF 5-Element K6STI Yagi_TT, Element#2 SOURCE, 4nec2 by holl_ands - 12Jun2

Brian Beasley Dimensions from AO 8.06 Antenna Optimizer. Impedance = 75-ohm.

TT: Driven Element Halves **SHORTENED by 1.05-in**. All Elements: 0.375 inch

CH	Freq (MHz)	Raw Gain	75.00 ohm SWR	R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio	Gain Impmt	F/B Impvmt
7	174	7.57	1.64	56.27	-26.50	7.31	22.21	22.21	-0.24	1.56
7	175	7.55	1.54	60.25	-25.20	7.35	25.23	23.09	-0.19	2.05
7	176	7.54	1.47	63.88	-24.24	7.38	29.16	22.97	-0.14	3.10
7	177	7.53	1.42	67.15	-23.54	7.40	35.04	22.81	-0.10	5.80
7	178	7.52	1.38	70.06	-23.03	7.41	44.06	22.64	-0.07	12.21
7	179	7.52	1.36	72.63	-22.65	7.42	37.01	22.48	-0.05	5.03
8	180	7.53	1.35	74.89	-22.36	7.43	31.90	22.33	-0.03	1.76
8	181	7.54	1.34	76.84	-22.13	7.45	28.95	22.19	-0.02	0.80
8	182	7.55	1.33	78.51	-21.93	7.46	27.00	22.06	-0.01	0.47
8	183	7.57	1.33	79.93	-21.75	7.48	25.60	21.94	0.00	0.34
8	184	7.59	1.33	81.10	-21.57	7.50	24.55	21.85	0.01	0.28
8	185	7.62	1.33	82.04	-21.38	7.53	23.76	21.77	0.01	0.26
8	186	7.66	1.33	82.76	-21.17	7.57	23.15	21.71	0.03	0.26
9	187	7.69	1.33	83.27	-20.93	7.60	22.68	21.66	0.03	0.26
9	188	7.74	1.33	83.58	-20.65	7.65	22.34	21.63	0.04	0.28
9	189	7.78	1.32	83.68	-20.33	7.70	22.08	21.61	0.03	0.28
9	190	7.83	1.31	83.59	-19.96	7.75	21.92	21.61	0.03	0.30
9	191	7.88	1.31	83.30	-19.53	7.80	21.83	21.62	0.03	0.32
9	192	7.94	1.30	82.82	-19.02	7.87	21.82	21.64	0.04	0.35
10	193	8.00	1.29	82.15	-18.42	7.93	21.87	21.65	0.04	0.36
10	194	8.06	1.27	81.29	-17.71	8.00	21.99	21.69	0.04	0.39
10	195	8.13	1.26	80.25	-16.89	8.07	22.19	21.79	0.04	0.42
10	196	8.20	1.24	79.04	-15.93	8.15	22.45	21.84	0.05	0.45
10	197	8.27	1.22	77.66	-14.82	8.23	22.80	21.87	0.05	0.49
10	198	8.35	1.20	76.13	-13.53	8.32	23.23	21.92	0.06	0.52
11	199	8.42	1.17	74.46	-12.05	8.39	23.75	21.96	0.06	0.56
11	200	8.50	1.15	72.68	-10.35	8.48	24.38	22.02	0.07	0.60
11	201	8.58	1.14	70.80	-8.43	8.56	25.12	22.09	0.08	0.62
11	202	8.67	1.13	68.86	-6.26	8.65	26.01	22.17	0.10	0.65
11	203	8.75	1.13	66.89	-3.83	8.73	27.00	22.20	0.10	0.60
11	204	8.83	1.16	64.93	-1.14	8.81	28.09	22.18	0.12	0.46
12	205	8.92	1.19	63.04	1.83	8.89	29.15	22.18	0.16	0.11
12	206	9.00	1.24	61.26	5.06	8.95	29.86	22.18	0.19	-0.68
12	207	9.08	1.30	59.66	8.56	9.01	29.86	22.19	0.22	-1.83
12	208	9.15	1.37	58.33	12.28	9.04	29.01	22.10	0.25	-2.77
12	209	9.22	1.44	57.36	16.18	9.08	27.62	21.97	0.29	-2.95
12	210	9.29	1.51	56.89	20.17	9.11	26.09	21.88	0.34	-2.65

13	211	9.34	1.58	57.08	24.09	9.12	24.63	21.83	0.37	-2.29
13	212	9.38	1.63	58.13	27.67	9.13	23.37	21.83	0.40	-1.96
13	213	9.40	1.64	60.25	30.32	9.14	22.36	21.90	0.41	-1.73
13	214	9.40	1.61	63.47	30.98	9.16	21.67	21.67	0.40	-1.54
13	215	9.36	1.50	66.88	27.75	9.18	21.36	21.36	0.34	-1.42
13	216	9.28	1.34	66.67	18.76	9.19	21.51	21.51	0.23	-1.39

Hi-VHF 5-Element Folded K6STI Yagi_TT, Element#2 SOURCE, 4nec2 by holl_ands -

Brian Beasley Dimensions from AO 8.06 Antenna Optimizer. Impedance = 300-ohm.

TT: Driven Element Halves **SHORTENED by 0.65-in**. All Elements: 0.375 inch

CH	Freq (MHz)	Raw Gain	### ohm SWR	R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio	Gain Impmt	F/B Impvmt
7	174	7.61	1.34	265.65	75.22	7.52	21.14	21.14	-0.03	0.49
7	175	7.60	1.30	285.17	75.51	7.53	23.81	22.70	-0.01	0.63
7	176	7.58	1.28	303.15	73.60	7.52	27.02	22.59	0.00	0.96
7	177	7.57	1.26	319.43	69.89	7.51	31.12	22.45	0.01	1.88
7	178	7.57	1.26	333.92	64.72	7.51	35.98	22.31	0.03	4.13
7	179	7.56	1.26	346.61	58.42	7.50	36.63	22.15	0.03	4.65
8	180	7.57	1.26	357.52	51.28	7.51	32.92	22.02	0.05	2.78
8	181	7.58	1.27	366.71	43.54	7.52	29.94	21.89	0.05	1.79
8	182	7.59	1.28	374.25	35.39	7.53	27.85	21.76	0.06	1.32
8	183	7.61	1.28	380.21	27.03	7.54	26.34	21.66	0.06	1.08
8	184	7.63	1.29	384.66	18.60	7.56	25.21	21.57	0.07	0.94
8	185	7.66	1.29	387.69	10.24	7.59	24.36	21.49	0.07	0.86
8	186	7.69	1.30	389.38	2.05	7.62	23.70	21.43	0.07	0.81
9	187	7.73	1.30	389.78	-5.85	7.66	23.19	21.39	0.08	0.77
9	188	7.77	1.30	388.97	-13.36	7.70	22.82	21.36	0.08	0.76
9	189	7.81	1.30	387.02	-20.39	7.74	22.54	21.34	0.07	0.74
9	190	7.86	1.30	384.00	-26.84	7.79	22.36	21.34	0.07	0.74
9	191	7.91	1.29	379.98	-32.64	7.84	22.26	21.35	0.07	0.75
9	192	7.97	1.28	375.03	-37.69	7.90	22.24	21.38	0.08	0.77
10	193	8.03	1.27	369.25	-41.92	7.97	22.29	21.41	0.08	0.78
10	194	8.09	1.26	362.71	-45.25	8.03	22.42	21.46	0.08	0.82
10	195	8.15	1.25	355.52	-47.60	8.10	22.61	21.51	0.06	0.84
10	196	8.22	1.24	347.76	-48.91	8.17	22.88	21.55	0.07	0.88
10	197	8.29	1.22	339.56	-49.12	8.25	23.24	21.59	0.07	0.93
10	198	8.37	1.20	331.02	-48.18	8.33	23.70	21.64	0.08	0.99
11	199	8.44	1.18	322.28	-46.05	8.41	24.25	21.69	0.08	1.06
11	200	8.52	1.16	313.46	-42.70	8.50	24.92	21.75	0.09	1.14
11	201	8.60	1.14	304.70	-38.10	8.58	25.73	21.82	0.10	1.23
11	202	8.68	1.12	296.15	-32.25	8.67	26.70	21.90	0.11	1.34
11	203	8.76	1.10	287.99	-25.15	8.75	27.84	21.94	0.12	1.44
11	204	8.85	1.09	280.38	-16.82	8.84	29.14	21.94	0.16	1.51
12	205	8.93	1.10	273.53	-7.32	8.92	30.46	21.94	0.19	1.42
12	206	9.01	1.12	267.67	3.28	9.00	31.44	21.95	0.23	0.90
12	207	9.09	1.15	263.08	14.84	9.07	31.48	21.96	0.29	-0.21

12	208	9.16	1.19	260.08	27.14	9.13	30.39	21.88	0.33	-1.39
12	209	9.23	1.23	259.07	39.84	9.18	28.69	21.77	0.40	-1.88
12	210	9.29	1.26	260.53	52.32	9.23	26.90	21.67	0.47	-1.84
13	211	9.34	1.29	264.97	63.56	9.27	25.28	21.61	0.52	-1.64
13	212	9.38	1.31	272.78	71.76	9.30	23.92	21.60	0.58	-1.41
13	213	9.40	1.29	283.67	73.80	9.33	22.84	21.66	0.60	-1.25
13	214	9.40	1.24	294.95	64.85	9.35	22.08	21.81	0.59	-1.13
13	215	9.37	1.14	297.85	39.84	9.35	21.71	21.71	0.50	-1.07
13	216	9.28	1.09	274.60	2.36	9.27	21.73	21.73	0.31	-1.17

Hi-VHF 5-Element K6STI Yagi Orig, Element#2 SOURCE, 4nec2 by holl_ands - 19Jur

Brian Beasley Dimensions from AO 8.06 Antenna Optimizer. Impedance = 75-ohm.

All Elements: 0.375 inch O.D. Driven Element swept back 15.07153-deg. [Cal

CH	Freq (MHz)	Raw Gain	75 ohm SWR	R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio	**Freq (MHz)**
7	174	7.65	1.36	69.97	21.89	7.55	20.64	20.64	174.00
7	175	7.64	1.35	75.25	22.89	7.54	23.16	22.95	177.00
7	176	7.62	1.36	80.08	23.42	7.52	26.03	22.86	183.00
7	177	7.61	1.37	84.46	23.59	7.50	29.20	22.74	189.00
7	178	7.60	1.39	88.37	23.48	7.48	31.80	22.60	195.00
7	179	7.60	1.41	91.84	23.18	7.47	31.94	22.46	201.00
8	180	7.60	1.43	94.88	22.73	7.46	30.12	22.32	207.00
8	181	7.61	1.44	97.53	22.20	7.46	28.14	22.20	213.00
8	182	7.62	1.46	99.79	21.62	7.47	26.52	22.08	216.00
8	183	7.64	1.47	101.71	21.01	7.48	25.26	21.98	
8	184	7.66	1.48	103.30	20.41	7.49	24.27	21.89	
8	185	7.69	1.49	104.57	19.82	7.52	23.50	21.82	
8	186	7.72	1.50	105.55	19.25	7.54	22.89	21.76	
9	187	7.75	1.50	106.25	18.74	7.57	22.41	21.71	
9	188	7.79	1.50	106.66	18.28	7.61	22.05	21.68	
9	189	7.84	1.50	106.82	17.88	7.66	21.79	21.67	
9	190	7.89	1.50	106.71	17.57	7.72	21.62	21.60	
9	191	7.94	1.49	106.34	17.36	7.77	21.51	21.49	
9	192	7.99	1.48	105.72	17.25	7.82	21.47	21.43	
10	193	8.05	1.47	104.86	17.28	7.89	21.50	21.45	
10	194	8.11	1.46	103.76	17.46	7.95	21.60	21.50	
10	195	8.18	1.45	102.43	17.80	8.03	21.77	21.61	
10	196	8.24	1.44	100.88	18.33	8.10	22.00	21.74	
10	197	8.31	1.43	99.13	19.08	8.17	22.31	21.91	
10	198	8.39	1.42	97.20	20.06	8.26	22.71	22.03	
11	199	8.46	1.41	95.10	21.30	8.33	23.18	22.08	
11	200	8.54	1.41	92.87	22.82	8.41	23.78	22.15	
11	201	8.62	1.42	90.53	24.64	8.49	24.49	22.22	
11	202	8.70	1.44	88.12	26.77	8.56	25.35	22.29	
11	203	8.78	1.47	85.69	29.23	8.62	26.38	22.38	
11	204	8.87	1.52	83.30	32.03	8.68	27.62	22.40	

12	205	8.95	1.57	80.99	35.17	8.73	29.03	22.40
12	206	9.03	1.65	78.85	38.64	8.76	30.53	22.41
12	207	9.11	1.74	76.95	42.43	8.78	31.69	22.43
12	208	9.19	1.84	75.40	46.48	8.79	31.79	22.42
12	209	9.26	1.95	74.33	50.74	8.79	30.58	22.30
12	210	9.32	2.06	73.90	55.08	8.76	28.75	22.21
13	211	9.38	2.17	74.32	59.28	8.74	26.93	22.16
13	212	9.42	2.25	75.82	62.93	8.72	25.35	22.17
13	213	9.45	2.29	78.64	65.28	8.73	24.09	22.26
13	214	9.45	2.24	82.67	64.90	8.76	23.22	22.42
13	215	9.42	2.09	86.47	59.43	8.85	22.79	22.63
13	216	9.34	1.81	84.93	47.06	8.96	22.91	22.16

Hi-VHF 5-Element K6STI Yagi RevA, Element#2 SOURCE, 4nec2 by holl_ands - 19Ju

Brian Beasley Dimensions from AO 8.06 Antenna Optimizer. Impedance = 75-ohm.

All Elements: 0.375 inch O.D. Driven Element swept back 17.49393-deg. [Cal

CH	Freq (MHz)	Raw Gain	75 ohm SWR	R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio
7	174	7.66	1.38	69.69	22.83	7.55	20.22	20.22
7	175	7.64	1.37	75.64	24.03	7.53	22.81	22.37
7	176	7.62	1.38	81.16	24.65	7.51	25.96	22.56
7	177	7.61	1.40	86.21	24.79	7.49	30.10	22.72
7	178	7.60	1.42	90.77	24.56	7.47	36.12	22.65
7	179	7.60	1.44	94.84	24.05	7.45	40.51	22.56
8	180	7.60	1.47	98.43	23.35	7.44	34.85	22.44
8	181	7.60	1.49	101.57	22.51	7.43	30.85	22.28
8	182	7.61	1.50	104.29	21.58	7.43	28.34	22.14
8	183	7.63	1.52	106.60	20.60	7.44	26.61	22.01
8	184	7.65	1.53	108.53	19.60	7.45	25.36	21.89
8	185	7.67	1.54	110.11	18.61	7.47	24.41	21.79
8	186	7.70	1.55	111.36	17.64	7.49	23.71	21.70
9	187	7.74	1.56	112.28	16.71	7.53	23.18	21.63
9	188	7.77	1.56	112.89	15.84	7.56	22.77	21.56
9	189	7.82	1.56	113.20	15.04	7.61	22.50	21.52
9	190	7.86	1.55	113.22	14.34	7.65	22.31	21.48
9	191	7.91	1.55	112.96	13.73	7.71	22.22	21.46
9	192	7.97	1.54	112.43	13.25	7.77	22.22	21.46
10	193	8.02	1.52	111.63	12.92	7.83	22.28	21.46
10	194	8.08	1.51	110.58	12.75	7.90	22.43	21.47
10	195	8.15	1.49	109.30	12.77	7.98	22.66	21.50
10	196	8.22	1.48	107.79	12.99	8.06	22.98	21.54
10	197	8.29	1.46	106.08	13.45	8.14	23.38	21.56
10	198	8.36	1.44	104.19	14.16	8.22	23.87	21.58
11	199	8.44	1.42	102.16	15.13	8.31	24.49	21.62
11	200	8.52	1.41	100.00	16.40	8.39	25.23	21.65
11	201	8.60	1.40	97.77	17.97	8.48	26.11	21.70

Freq (MHz)
174.00
177.00
183.00
189.00
195.00
201.00
207.00
213.00
216.00

11	202	8.68	1.40		95.50	19.85	8.56	27.17	21.75
11	203	8.77	1.41		93.24	22.05	8.64	28.41	21.81
11	204	8.85	1.42		91.05	24.57	8.72	29.81	21.86
12	205	8.94	1.45		89.00	27.40	8.79	31.23	21.86
12	206	9.02	1.50		87.14	30.51	8.84	32.22	21.87
12	207	9.11	1.55		85.58	33.87	8.90	32.15	21.90
12	208	9.19	1.62		84.41	37.41	8.94	30.94	21.94
12	209	9.27	1.69		83.74	41.04	8.98	29.20	21.94
12	210	9.35	1.76		83.73	44.59	9.01	27.46	21.90
13	211	9.42	1.83		84.52	47.78	9.03	25.93	21.90
13	212	9.48	1.88		86.27	50.16	9.06	24.66	21.95
13	213	9.52	1.89		89.00	50.94	9.09	23.68	22.05
13	214	9.55	1.85		92.27	48.83	9.15	23.05	22.22
13	215	9.56	1.72		94.34	42.17	9.24	22.84	22.39
13	216	9.53	1.51		90.90	30.44	9.35	23.21	21.77

14-Jun-09

9

K6STI's SWR
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O.D. F/R Impvmt
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12Jun2009

O.D.
F/R
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Hi-VHF 8-Element Yagi Performance per 4nec2 Simulations

Hi-VHF 8-Element Yagi, Optimized for 200 MHz, Element#2 SOURCE, 4nec2 by holl_
Dimensions from K7MEM Javascript Calculator with DL6WU Spacings. Impedar

CH	Freq (MHz)	Raw Gain	75 ohm SWR	R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio
7	174							
7	175							
7	176							
7	177	No Data for Lo Freqs: 4NEC2 Plots Reverse Gain when F/B Ratio is Negativ						
7	178	5.42	5.95	24.71	-71.49	2.34		
7	179	5.91	5.58	24.76	-66.72	3.03		
8	180	6.46	5.19	24.93	-61.83	3.80		
8	181	7.02	4.80	25.27	-56.83	4.58		
8	182	7.59	4.41	25.81	-51.76	5.39		
8	183	8.15	4.02	26.56	-46.62	6.20		
8	184	8.67	3.65	27.57	-41.47	6.97		
8	185	9.15	3.29	28.85	-36.34	7.69		
8	186	9.58	2.96	30.39	-31.28	8.36		
9	187	9.96	2.67	32.22	-26.31	8.95		
9	188	10.29	2.41	34.34	-21.49	9.48		
9	189	10.58	2.17	36.76	-16.84	9.94		
9	190	10.82	1.97	39.52	-12.42	10.33		
9	191	11.04	1.79	42.64	-8.31	10.68		
9	192	11.23	1.63	46.16	-4.63	10.97		
10	193	11.4	1.50	50.09	-1.57	11.22		
10	194	11.54	1.38	54.39	0.61	11.43		
10	195	11.67	1.28	58.86	1.60	11.61		
10	196	11.78	1.19	63.12	1.06	11.75		
10	197	11.87	1.13	66.47	-1.20	11.85		
10	198	11.96	1.13	68.00	-4.98	11.94		
11	199	12.03	1.19	66.86	-9.45	12.00		
11	200	12.09	1.30	62.77	-13.29	12.02		
11	201	12.16	1.45	56.29	-15.17	12.01		
11	202	12.23	1.64	48.62	-14.36	11.97		
11	203	12.3	1.88	40.98	-10.90	11.87		
11	204	12.39	2.21	34.21	-5.31	11.73		
12	205	12.5	2.61	28.72	1.78	11.53		
12	206	12.62	3.11	24.62	9.86	11.29		
12	207	12.75	3.65	21.95	18.62	11.05		
12	208	12.87	4.13	20.86	27.95	10.85		
12	209	12.97	4.36	21.90	37.81	10.80		
12	210	13.02	4.05	26.79	47.88	11.05		
13	211	13.01	3.05	40.16	54.22	11.72		
13	212	12.95	1.83	55.32	34.22	12.56		
13	213	12.82	3.21	25.10	19.46	11.42		
13	214	12.53	11.81	7.89	36.74	7.12		

13	215	11.65	31.70	3.51	52.10	2.39		
13	216	9.78	52.73	2.47	64.36	-1.58		

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Hi-VHF 8-Element Yagi, Optimized for 208 MHz, Element#2 SOURCE, 4nec2 by holl_a

Dimensions from K7MEM Javascript Calculator with DL6WU Spacings. Impedar

CH	Freq (MHz)	Raw Gain	75 ohm SWR	R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio
7	174							
7	175							
7	176							
7	177							
7	178							
7	179							
8	180							
8	181	No Data for Lo Freqs: 4NEC2 Plots REVERSE Gain when F/B Ratio is Negati						
8	182	4.55	7.21	24.73	-86.00	0.86	0.02	0.02
8	183	4.79	6.89	24.51	-81.87	1.25	0.19	0.19
8	184	5.09	6.56	24.31	-77.63	1.71	0.45	0.45
8	185	5.46	6.23	24.14	-73.29	2.24	0.79	0.79
8	186	5.88	5.90	24.03	-68.82	2.83	1.22	1.22
9	187	6.35	5.56	23.99	-64.22	3.48	1.74	1.74
9	188	6.87	5.21	24.06	-59.50	4.20	2.36	2.36
9	189	7.42	4.85	24.26	-54.65	4.96	3.06	3.06
9	190	7.98	4.48	24.64	-49.68	5.73	3.85	3.85
9	191	8.54	4.12	25.23	-44.61	6.53	4.70	4.70
9	192	9.08	3.75	26.07	-39.46	7.30	5.61	5.61
10	193	9.59	3.40	27.21	-34.25	8.06	6.55	6.55
10	194	10.05	3.06	28.67	-29.03	8.75	7.49	7.49
10	195	10.47	2.75	30.52	-23.84	9.40	8.43	8.43
10	196	10.84	2.46	32.81	-18.76	9.99	9.33	9.33
10	197	11.16	2.20	35.59	-13.88	10.50	10.16	10.16
10	198	11.43	1.97	38.93	-9.36	10.94	10.88	10.88
11	199	11.67	1.76	42.84	-5.41	11.32	11.49	11.49
11	200	11.86	1.59	47.27	-2.33	11.63	11.95	11.95
11	201	12.02	1.44	52.02	-0.48	11.88	12.29	12.29
11	202	12.15	1.32	56.62	-0.20	12.06	12.53	12.53
11	203	12.26	1.24	60.33	-1.64	12.21	12.71	12.71
11	204	12.34	1.22	62.20	-4.46	12.30	12.87	12.87
12	205	12.41	1.26	61.54	-7.70	12.35	13.06	13.06
12	206	12.47	1.34	58.31	-10.03	12.38	13.34	13.34
12	207	12.53	1.46	53.25	-10.34	12.38	13.75	13.75
12	208	12.59	1.61	47.50	-8.13	12.35	14.34	14.34
12	209	12.66	1.79	42.12	-3.48	12.30	15.19	15.19
12	210	12.75	1.98	37.89	3.25	12.25	16.36	16.36
13	211	12.83	2.19	35.39	11.75	12.18	17.85	17.85

Opt for Ch8-10

13	212	12.9	2.34	35.39	21.88	12.13	19.33	19.33
13	213	12.92	2.38	39.56	33.60	12.12	19.58	19.58
13	214	12.84	2.21	52.33	45.63	12.18	17.80	17.80
13	215	12.63	1.78	82.88	45.60	12.27	15.28	15.28
13	216	12.29	1.33	98.69	-6.14	12.20	13.13	13.13

Hi-VHF 8-Element Yagi, Optimized for 188 MHz, Element#2 SOURCE, 4nec2 by holl_a

Dimensions from K7MEM Javascript Calculator with DL6WU Spacings. Impedar

CH	Freq (MHz)	Raw Gain	75 ohm SWR	R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio
7	174	9.21	3.61	27.09	-39.25	7.53		
7	175	9.75	3.22	28.50	-33.41	8.34		
7	176	10.25	2.86	30.36	-27.58	9.10		
7	177	10.69	2.52	32.75	-21.84	9.79		
7	178	11.07	2.22	35.75	-16.32	10.39		
7	179	11.39	1.96	39.45	-11.21	10.91		
8	180	11.67	1.73	43.88	-6.82	11.35		
8	181	11.89	1.54	48.97	-3.59	11.69		
8	182	12.07	1.38	54.36	-2.04	11.96		
8	183	12.21	1.27	59.27	-2.61	12.15		
8	184	12.31	1.22	62.47	-5.27	12.27		
8	185	12.4	1.25	62.74	-9.03	12.35		
8	186	12.47	1.34	59.64	-12.12	12.38		
9	187	12.53	1.47	54.06	-12.81	12.37		
9	188	12.59	1.62	47.60	-10.34	12.34		
9	189	12.67	1.81	41.77	-4.87	12.30		
9	190	12.75	2.00	37.64	3.05	12.24		
9	191	12.83	2.16	36.11	12.93	12.20		
9	192	12.86	2.20	38.73	24.41	12.20		
10	193	12.8	2.02	49.59	35.81	12.27		
10	194	12.58	1.56	75.94	33.86	12.37		
10	195	12.2	1.16	78.74	-11.12	12.17		
10	196	11.73	2.30	34.16	-14.91	10.99		
10	197	11.33	4.64	16.40	8.98	8.99		
10	198	10.93	4.99	18.96	37.41	8.38		
11	199	9.96	3.45	22.92	-16.53	8.39		
11	200	9.08	84.69	1.00	27.22	-4.28		
11	201	7.35	245.84	0.41	43.70	-10.57		
11	202	0.82	215.17	0.54	55.72	-16.53		
11	203	-1.85	146.15	0.91	66.12	-17.54		
11	204	-2.54	104.02	1.46	75.69	-16.77		
12	205	-2.74	79.35	2.15	84.76	-15.82		
12	206	-2.82	63.96	3.00	93.52	-14.99		
12	207	-2.86	53.70	3.99	102.06	-14.30		
12	208	-2.88	46.48	5.12	110.43	-13.72		

12	209	-2.91	41.19	6.39	118.69	-13.25
12	210	-2.94	37.17	7.81	126.85	-12.85
13	211	-2.96	34.03	9.37	134.95	-12.51
13	212	-2.98	31.52	11.07	142.98	-12.22
13	213	-3	29.48	12.91	150.97	-11.96
13	214	-3.03	27.80	14.90	158.91	-11.76
13	215	-3.05	26.38	17.03	166.81	-11.57
13	216	-3.07	25.19	19.30	174.69	-11.40

Hi-VHF 8-Element Yagi, Optimized for 185 MHz, Element#2 SOURCE, 4nec2 by holl_

Dimensions from K7MEM Javascript Calculator with DL6WU Spacings. Impedar

CH	Freq (MHz)	Raw Gain	75 ohm SWR	R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio
7	174	10.59	2.63	31.72	-22.97	9.61		
7	175	10.99	2.32	34.52	-17.19	10.25		
7	176	11.34	2.04	38.02	-11.74	10.80		
7	177	11.63	1.79	42.30	-6.90	11.26		
7	178	11.87	1.59	47.32	-3.09	11.64		
7	179	12.06	1.42	52.85	-0.86	11.93		
8	180	12.21	1.29	58.18	-0.77	12.14		
8	181	12.32	1.21	62.10	-2.97	12.28		
8	182	12.41	1.22	63.20	-6.69	12.37		
8	183	12.48	1.29	60.74	-10.13	12.41		
8	184	12.54	1.42	55.38	-11.32	12.41		
8	185	12.61	1.58	48.82	-9.18	12.39		
8	186	12.69	1.76	42.77	-3.76	12.35		
9	187	12.77	1.96	38.48	4.38	12.29		
9	188	12.85	2.13	37.00	14.75	12.24		
9	189	12.88	2.19	40.19	27.01	12.23		
9	190	12.79	2.01	53.14	39.23	12.27		
9	191	12.54	1.55	84.71	33.58	12.34		
9	192	12.11	1.30	78.30	-19.96	12.04		
10	193	11.63	2.58	30.52	-15.47	10.69		
10	194	11.27	5.12	14.94	10.43	8.65		
10	195	10.94	4.62	21.44	41.21	8.61		
10	196	9.79	7.07	10.62	-2.99	6.17		
10	197	8.67	109.75	0.80	31.31	-5.79		
10	198	5.9	245.23	0.42	46.67	-12.01		
11	199	0.29	199.49	0.60	58.48	-16.73		
11	200	-1.83	135.80	1.02	68.89	-17.20		
11	201	-2.45	97.62	1.61	78.55	-16.41		
11	202	-2.66	75.10	2.37	87.75	-15.51		
11	203	-2.76	60.93	3.28	96.66	-14.73		
11	204	-2.82	51.42	4.34	105.36	-14.08		
12	205	-2.87	44.70	5.55	113.90	-13.55		

12	206	-2.9	39.75	6.92	122.32	-13.09
12	207	-2.93	35.98	8.43	130.66	-12.71
12	208	-2.96	33.02	10.10	138.93	-12.39
12	209	-2.99	30.66	11.91	147.13	-12.11
12	210	-3.01	28.73	13.87	155.29	-11.87
13	211	-3.04	27.13	15.99	163.40	-11.67
13	212	-3.06	25.80	18.25	171.48	-11.49
13	213	-3.08	24.66	20.66	179.51	-11.32
13	214	-3.1	23.69	23.22	187.52	-11.18
13	215	-3.11	22.85	25.93	195.48	-11.05
13	216	-3.12	22.12	28.78	203.42	-10.93

Hi-VHF 8-Element Yagi, Optimized for 190 MHz, Element#2 SOURCE, 4nec2 by holl_

Dimensions from K7MEM Javascript Calculator with DL6WU Spacings. Impedar

CH	Freq (MHz)	Raw Gain	75 ohm SWR	R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio
7	174	8.21	4.34	25.36	-49.25	6.05	4.27	4.27
7	175	8.8	3.94	26.13	-43.61	6.90	5.21	5.21
7	176	9.37	3.54	27.21	-37.88	7.74	6.22	6.22
7	177	9.89	3.16	28.68	-32.11	8.52	7.25	7.25
7	178	10.37	2.81	30.58	-26.36	9.26	8.29	8.29
7	179	10.78	2.48	33.00	-20.69	9.91	9.28	9.28
8	180	11.14	2.19	36.02	-15.25	10.49	10.20	10.20
8	181	11.45	1.94	39.72	-10.22	10.98	11.01	11.01
8	182	11.71	1.72	44.14	-5.89	11.40	11.66	11.66
8	183	11.92	1.53	49.19	-2.69	11.73	12.14	12.14
8	184	12.09	1.38	54.55	-1.11	11.98	12.47	12.47
8	185	12.23	1.26	59.46	-1.61	12.17	12.69	12.69
8	186	12.33	1.21	62.75	-4.13	12.29	12.86	12.86
9	187	12.41	1.23	63.22	-7.79	12.36	13.04	13.04
9	188	12.48	1.31	60.41	-10.88	12.40	13.31	13.31
9	189	12.54	1.43	55.09	-11.69	12.40	13.74	13.74
9	190	12.61	1.58	48.82	-9.39	12.39	14.41	14.41
9	191	12.68	1.75	43.11	-4.06	12.35	15.43	15.43
9	192	12.77	1.93	39.07	3.80	12.31	16.95	16.95
10	193	12.84	2.08	37.70	13.75	12.27	19.03	19.03
10	194	12.87	2.13	40.71	25.47	12.27	21.04	21.04
10	195	12.8	1.97	52.58	37.31	12.31	20.35	20.35
10	196	12.58	1.57	81.77	34.95	12.36	17.23	17.23
10	197	12.18	1.27	85.96	-15.87	12.12	14.40	14.40
10	198	11.71	2.26	36.64	-21.58	11.01	12.71	12.71
11	199	11.33	4.47	16.80	2.74	9.09	12.57	12.57
11	200	11.09	5.39	16.05	28.83	8.32	14.63	14.63
11	201	10.31	1.94	41.47	-17.28	9.84	13.59	13.19
11	202	8.84	59.43	1.39	24.00	-3.02	7.02	7.02

Opt for Ch11-1

11	203	7.59	214.18	0.45	40.96	-9.74	0.19	0.19
11	204	2.41	233.73	0.48	53.06	-15.29	-6.01	-6.01
12	205	-1	165.91	0.78	63.45	-17.23	-8.44	-8.44
12	206	-2.12	116.86	1.25	72.99	-16.85	-8.88	-8.88
12	207	-2.5	87.62	1.88	82.03	-16.00	-8.80	-8.80
12	208	-2.67	69.55	2.66	90.73	-15.20	-8.63	-8.63
12	209	-2.75	57.68	3.58	99.20	-14.49	-8.44	-8.44
12	210	-2.81	49.45	4.64	107.51	-13.91	-8.26	-8.26
13	211	-2.86	43.48	5.84	115.70	-13.42	-8.11	-8.11
13	212	-2.89	38.99	7.18	123.79	-13.00	-7.96	-7.96
13	213	-2.93	35.51	8.66	131.81	-12.65	-7.84	-7.84
13	214	-2.96	32.76	10.27	139.76	-12.35	-7.72	-7.72
13	215	-2.98	30.53	12.03	147.67	-12.09	-7.60	-7.60
13	216	-3.01	28.69	13.93	155.54	-11.86	-7.50	-7.50

Hi-VHF 8-Element Yagi, Optimized for 190 MHz, Element#2 SOURCE, 4nec2 by holl_a

Dimensions from VK5DJ Yagi Calculator with DL6WU Spacings. Impedance = 7

CH	Freq (MHz)	Raw Gain	75 ohm SWR	R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio
7	174	8.22	5.62	23.25	-62.88	5.32	4.28	4.28
7	175	8.82	5.09	23.92	-57.39	6.21	5.22	5.22
7	176	9.39	4.57	24.88	-51.82	7.09	6.22	6.22
7	177	9.92	4.05	26.19	-46.21	7.95	7.25	7.25
7	178	10.39	3.57	27.91	-40.59	8.74	8.27	8.27
7	179	10.81	3.11	30.12	-35.05	9.48	9.25	9.25
8	180	11.18	2.71	32.90	-29.70	10.15	10.16	10.16
8	181	11.49	2.35	36.33	-24.73	10.72	10.94	10.94
8	182	11.75	2.04	40.47	-20.42	11.21	11.56	11.56
8	183	11.96	1.79	45.25	-17.19	11.60	12.01	12.01
8	184	12.13	1.60	50.34	-15.56	11.89	12.31	12.31
8	185	12.26	1.49	54.98	-15.95	12.09	12.51	12.51
8	186	12.35	1.46	58.00	-18.34	12.20	12.66	12.66
9	187	12.43	1.51	58.18	-21.77	12.25	12.85	12.85
9	188	12.49	1.62	55.17	-24.50	12.24	13.12	13.12
9	189	12.55	1.77	49.82	-24.90	12.20	13.56	13.56
9	190	12.62	1.93	43.71	-22.25	12.16	14.25	14.25
9	191	12.69	2.09	38.27	-16.75	12.11	15.28	15.28
9	192	12.77	2.21	34.49	-8.93	12.10	16.78	16.78
10	193	12.85	2.26	33.24	0.78	12.15	18.74	18.74
10	194	12.87	2.15	36.10	12.13	12.25	20.26	20.26
10	195	12.79	1.82	47.45	23.52	12.41	19.17	19.17
10	196	12.53	1.31	75.30	20.21	12.45	16.28	16.28
10	197	12.11	1.44	73.50	-27.31	11.97	13.81	13.81
10	198	11.61	2.93	29.18	-25.98	10.41	12.53	12.53
11	199	11.21	5.57	13.47	-1.88	8.34	13.22	13.22
11	200	10.79	5.86	14.53	27.04	7.76	18.00	18.00

11	201	9.51	3.02	36.93	-47.99	8.24	13.73	11.11
11	202	8.03	66.09	1.16	10.28	-4.28	6.61	6.57
11	203	7.12	212.08	0.40	27.44	-10.17	-0.27	-0.27
11	204	1.06	201.98	0.47	39.30	-16.02	-6.86	-6.86
12	205	-1.9	135.49	0.79	49.36	-17.26	-8.92	-8.92
12	206	-2.67	94.17	1.28	58.53	-16.48	-9.13	-9.13
12	207	-2.88	70.58	1.92	67.17	-15.47	-8.96	-8.96
12	208	-2.96	56.22	2.69	75.48	-14.59	-8.75	-8.75
12	209	-2.99	46.86	3.59	83.56	-13.86	-8.54	-8.54
12	210	-3.01	40.39	4.62	91.46	-13.26	-8.35	-8.35
13	211	-3.03	35.70	5.79	99.25	-12.78	-8.18	-8.18
13	212	-3.05	32.19	7.08	106.93	-12.37	-8.03	-8.03
13	213	-3.07	29.48	8.50	114.54	-12.03	-7.90	-7.90
13	214	-3.09	27.33	10.05	122.08	-11.75	-7.78	-7.78
13	215	-3.11	25.59	11.73	129.57	-11.50	-7.67	-7.67
13	216	-3.13	24.17	13.54	137.01	-11.29	-7.56	-7.56

holl_ands 22-Jan-09

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Hi-VHF LPDA & Zig-Zag LPA Performance per 4nec2 Simulations

Hi-VHF 14-Element ZS6BTE LPDA (1-in Metal Boom), 4nec2 by holl_ands

Elements: Quarter Inch O.D. Copper Tubes with Zig-Zag Transmission Fee

CH	Freq (MHz)	Raw Gain	75 ohm SWR	R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio
	162	9.52	1.47	61.24	22.38	9.36	11.72	11.72
	165	9.85	1.23	79.08	15.48	9.80	13.34	13.34
	168	10.12	1.11	82.71	3.64	10.11	15.27	15.27
	171	10.35	1.07	79.88	-1.34	10.35	17.56	17.56
7	174	10.53	1.06	78.51	-2.22	10.53	20.29	20.29
7	177	10.68	1.06	78.67	-3.12	10.68	23.62	23.62
8	180	10.79	1.08	78.48	-4.57	10.78	27.73	27.73
8	183	10.86	1.08	77.75	-5.51	10.85	32.44	32.44
9	186	10.87	1.09	77.39	-6.04	10.86	34.13	34.13
9	189	10.84	1.10	77.23	-7.13	10.83	31.61	31.61
10	192	10.76	1.12	76.09	-8.73	10.75	29.25	29.25
10	195	10.66	1.14	73.53	-9.48	10.64	27.66	27.66
11	198	10.54	1.14	70.66	-8.21	10.52	26.42	26.42
11	201	10.38	1.11	69.09	-4.97	10.37	24.24	24.19
12	204	10.02	1.05	71.76	-0.64	10.02	16.56	16.56
12	207	10.48	1.03	73.28	-1.23	10.48	22.89	22.89
13	210	10.49	1.02	76.02	-0.99	10.49	27.12	27.12
13	213	10.53	1.06	78.09	-2.84	10.53	30.51	30.51
13	216	10.58	1.08	78.36	-5.03	10.57	34.76	34.68
	219	10.63	1.09	77.79	-6.11	10.62	39.17	39.17
	222	10.66	1.10	77.95	-6.39	10.65	36.73	36.73
	225	10.65	1.12	79.20	-7.37	10.64	32.73	32.73
	228	10.61	1.16	80.26	-10.21	10.59	30.12	30.12

Hi-VHF 14-Element Wedge Zig-Zag (No Boom), 4nec2 by holl_ands

Bare RG-59, Wedge Opening = 18 degrees.

CH	Freq (MHz)	Raw Gain	300 ohm SWR	R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio
	168	10.19	1.11	281.00	-22.76	10.18	14.61	14.61
	170	10.13	1.09	274.98	-2.03	10.12	15.28	15.28
	171	10.07	1.11	275.22	17.66	10.06	15.95	15.95
	173	10.02	1.15	280.61	35.15	10.00	16.62	16.62
7	174	9.98	1.19	290.18	49.50	9.95	17.28	17.28
7	176	9.96	1.22	302.89	59.85	9.92	17.93	17.93
7	177	9.96	1.25	317.45	65.49	9.91	18.57	18.57
7	179	9.97	1.26	332.22	66.03	9.91	19.17	18.97
8	180	10.01	1.27	345.34	61.71	9.95	19.75	19.16
8	182	10.07	1.26	355.07	53.62	10.01	20.28	19.39
8	183	10.14	1.25	360.33	43.63	10.08	20.75	19.65
8	185	10.22	1.24	361.07	33.93	10.17	21.16	19.95
9	186	10.31	1.22	358.36	26.31	10.27	21.51	20.27
9	188	10.4	1.19	353.88	21.72	10.37	21.79	20.61
9	189	10.48	1.18	349.36	20.09	10.45	22.01	20.98
9	191	10.55	1.17	346.08	20.62	10.52	22.18	21.35
10	192	10.6	1.17	344.69	22.13	10.57	22.31	21.69
10	194	10.63	1.17	345.19	23.45	10.60	22.41	21.98
10	195	10.63	1.18	347.08	23.62	10.60	22.49	22.22
10	197	10.62	1.18	349.51	22.09	10.59	22.57	22.43
11	198	10.58	1.18	351.58	18.77	10.55	22.64	22.58
11	200	10.52	1.18	352.46	14.00	10.49	22.72	22.70
11	201	10.44	1.17	351.65	8.40	10.41	22.79	22.79
11	203	10.35	1.16	348.98	2.69	10.33	22.88	22.88
12	204	10.24	1.15	344.58	-2.47	10.22	22.97	22.97
12	206	10.13	1.13	338.82	-6.61	10.11	23.07	23.07
12	207	10	1.11	332.12	-9.46	9.99	23.17	23.17
12	209	9.88	1.09	324.94	-10.94	9.87	23.29	23.29
13	210	9.74	1.07	317.63	-11.12	9.74	23.40	23.40
13	212	9.61	1.05	310.48	-10.14	9.61	23.51	23.51
13	213	9.48	1.03	303.69	-8.19	9.48	23.63	23.63
13	215	9.34	1.02	297.36	-5.44	9.34	23.73	23.73
13	216	9.21	1.03	291.56	-2.08	9.21	23.82	23.82
	218	9.08	1.05	286.29	1.74	9.08	23.90	23.60
	219	8.96	1.07	281.54	5.89	8.96	23.96	23.37
	221	8.84	1.09	277.26	10.27	8.83	23.99	23.14
	222	8.73	1.11	273.42	14.80	8.72	24.00	22.91

Hi-VHF 14-Element Stacked Zig-Zag (No Boom), 4nec2 by holl_ands

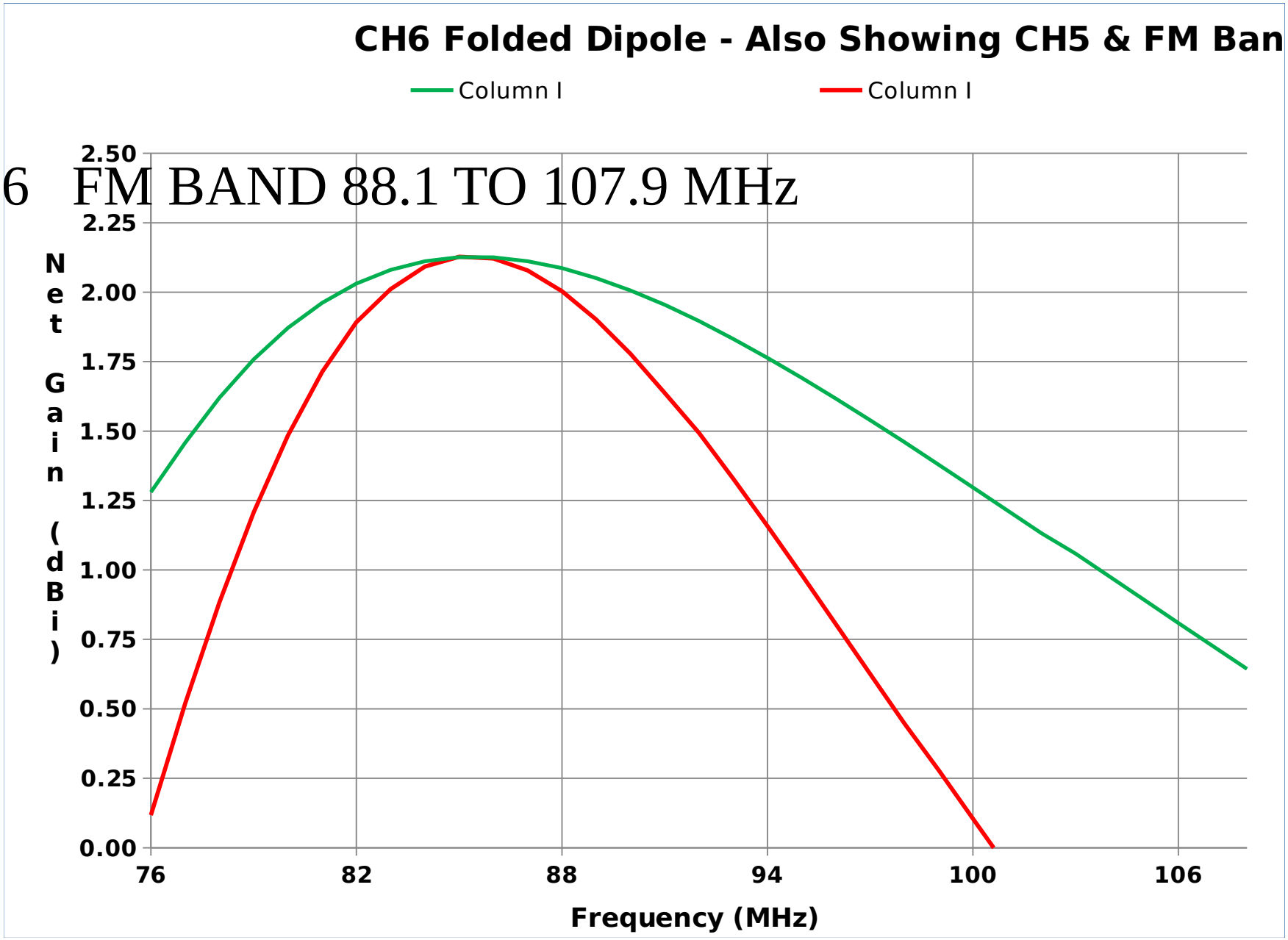
Bare RG-59, Stacking Height = 3.25 inches.

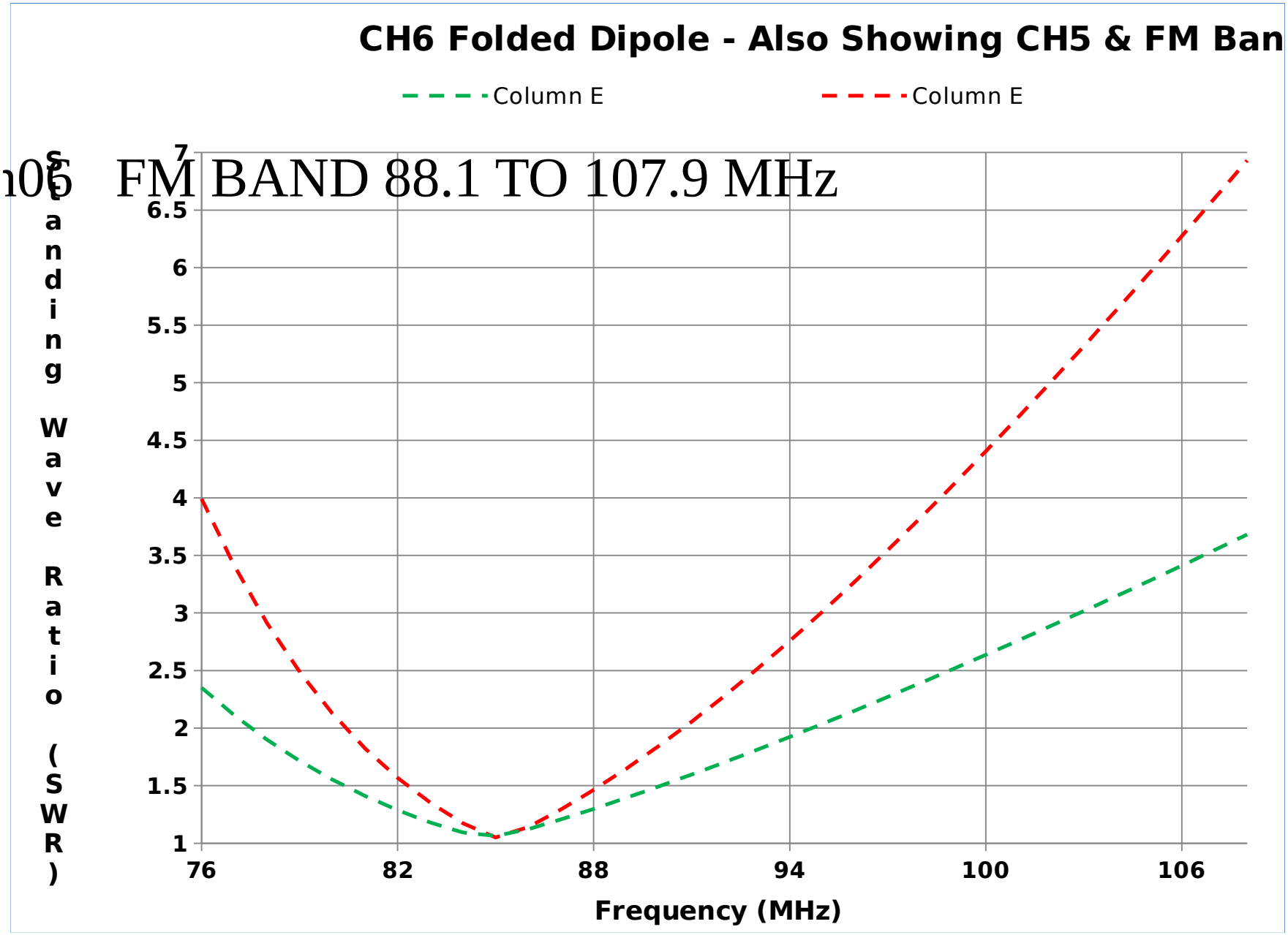
CH	Freq (MHz)	Raw Gain	300 ohm SWR	R in Real	X in Imag	Net Gain	F/B Ratio	F/R Ratio
	162	8.67	1.16	337.97	-28.68	8.65	19.68	19.45
	165	8.56	1.18	351.73	-10.72	8.53	20.95	19.80
	168	8.46	1.22	366.56	-3.83	8.42	21.80	20.06
	171	8.39	1.26	378.13	-3.79	8.33	22.21	20.31
7	174	8.37	1.29	385.89	-6.66	8.30	22.33	20.63
7	177	8.38	1.31	391.05	-10.41	8.30	22.31	20.93
8	180	8.42	1.32	394.76	-14.69	8.34	22.28	21.34
8	183	8.48	1.33	397.42	-19.84	8.39	22.31	21.75
9	186	8.54	1.34	398.80	-26.13	8.45	22.42	22.18
9	189	8.58	1.35	398.38	-33.56	8.48	22.61	22.58
10	192	8.61	1.35	395.52	-41.78	8.51	22.89	22.72
10	195	8.61	1.35	389.68	-49.99	8.51	23.25	22.17
11	198	8.59	1.34	380.72	-57.02	8.50	23.71	21.67
11	201	8.56	1.32	369.22	-61.63	8.48	24.30	21.22
12	204	8.5	1.29	356.38	-63.04	8.43	25.02	20.83
12	207	8.44	1.26	343.61	-61.22	8.38	25.90	20.55
13	210	8.37	1.23	332.04	-56.94	8.32	26.77	20.42
13	213	8.27	1.20	322.09	-51.35	8.24	27.20	20.46
13	216	8.15	1.17	313.35	-45.47	8.12	26.71	20.68
	219	7.99	1.14	304.94	-39.60	7.97	25.38	20.85
	222	7.82	1.12	296.23	-33.30	7.81	23.81	20.78
	225	7.63	1.10	287.20	-25.91	7.62	22.35	20.36
	228	7.45	1.10	278.28	-17.02	7.44	21.14	20.08

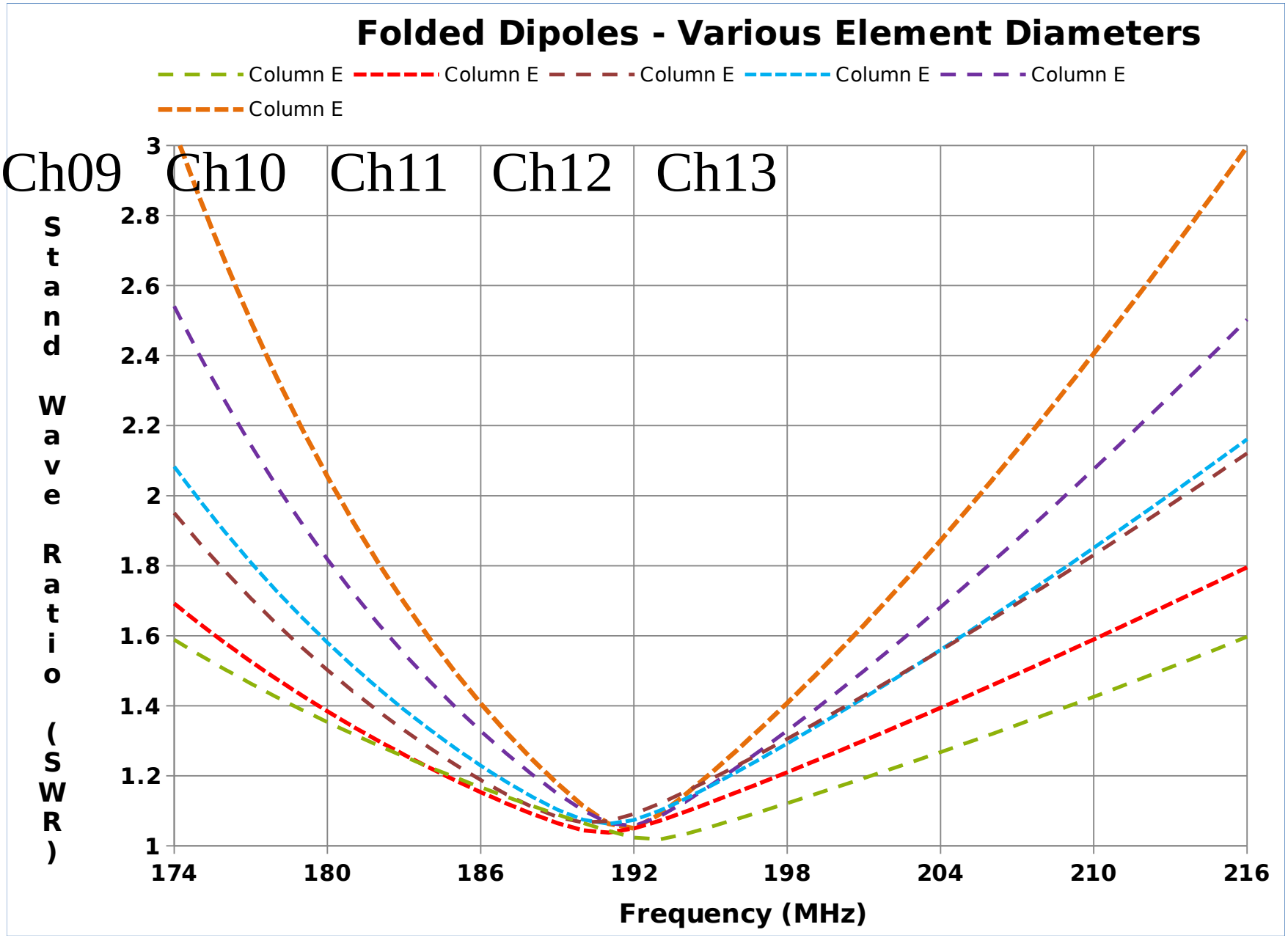
holl_ands 27-May-09

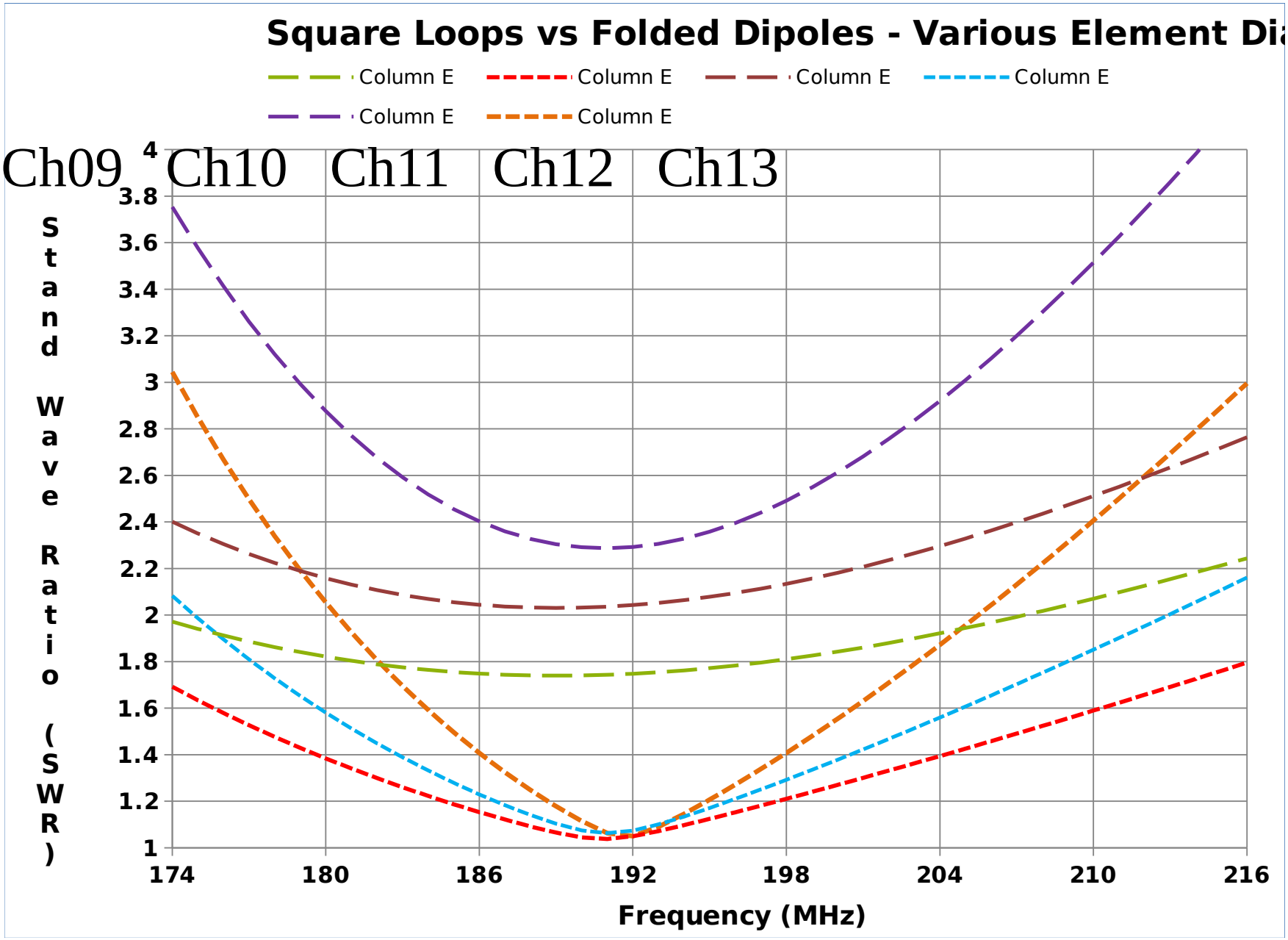
edline

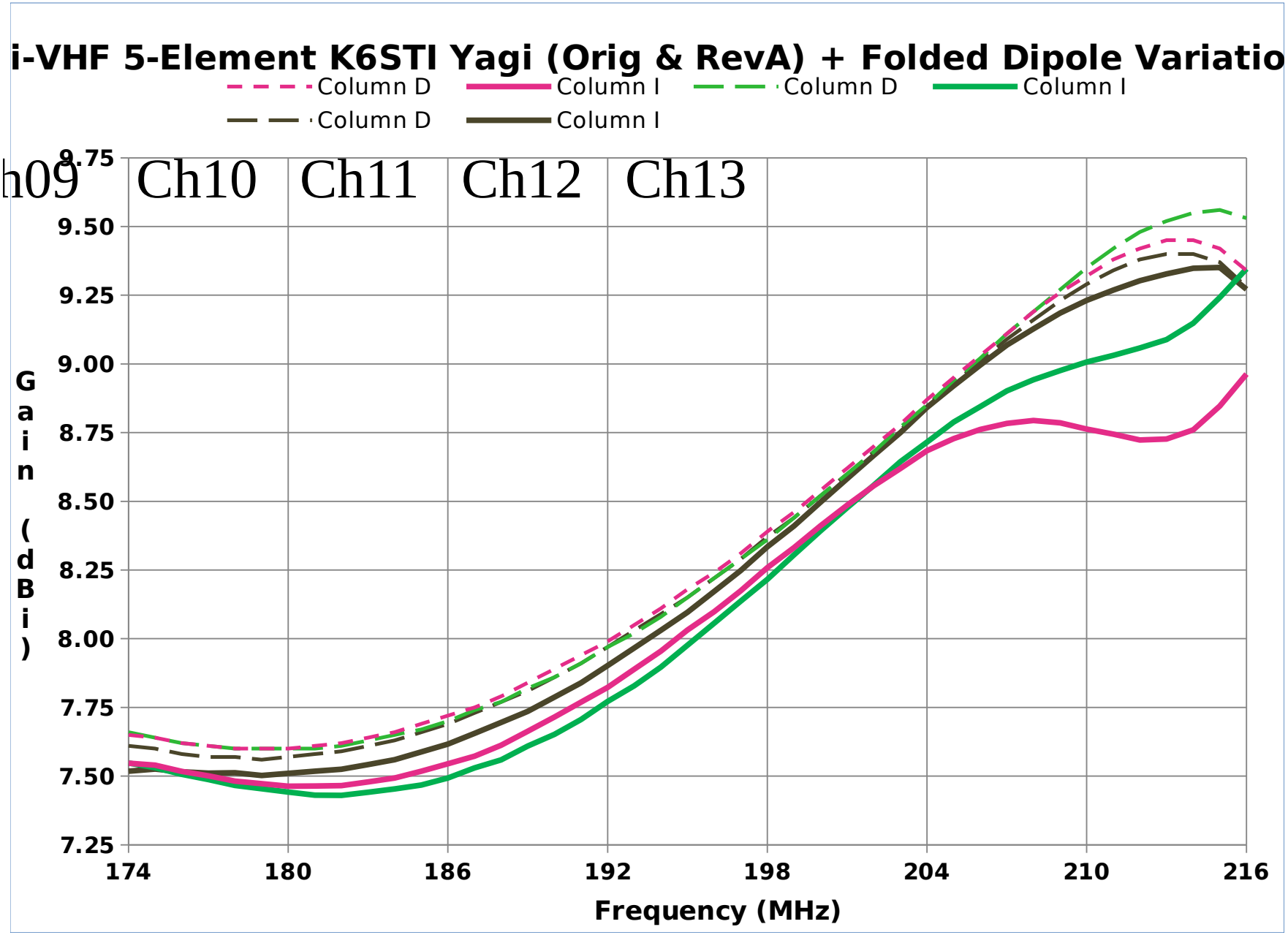
)6 FM BAND 88.1 TO 107.9 MHz

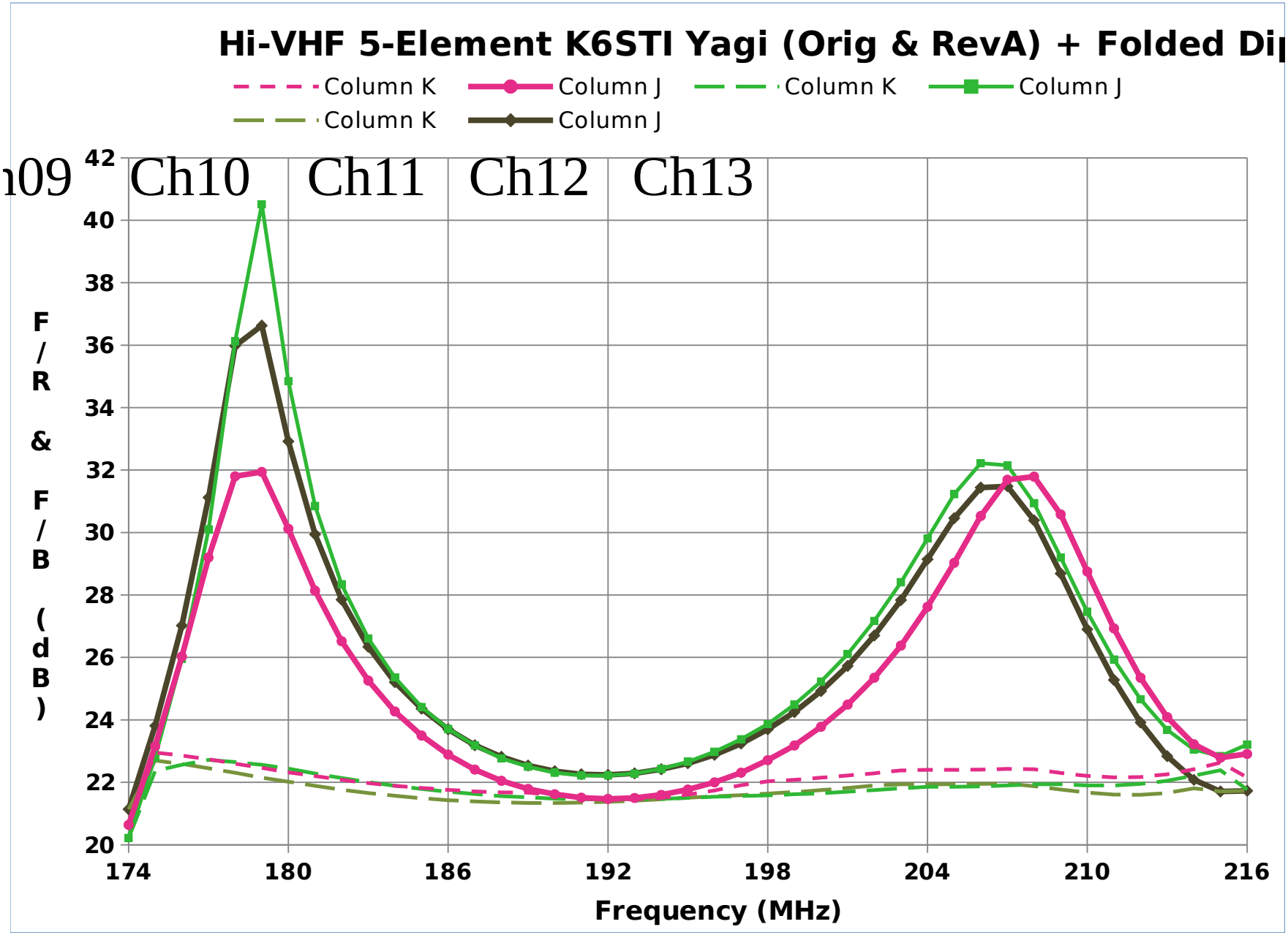


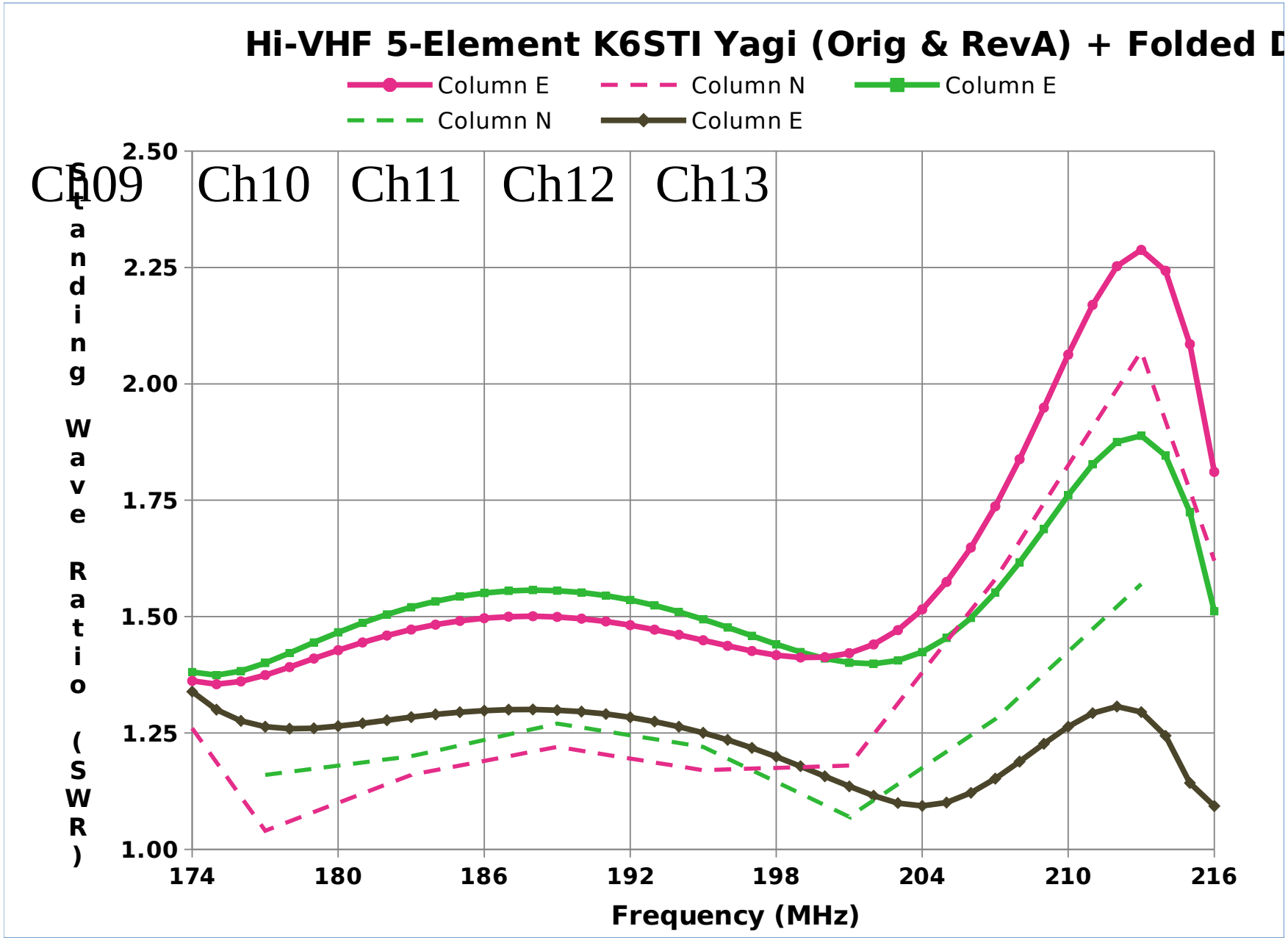

CH6 Folded Dipole - Also Showing CH5 & FM Ban
Column E
Column E
105 FM BAND 88.1 TO 107.9 MHz
Standing Wave Ratio (SWR)
7
6.5
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
76
82
88
94
100
106
Frequency (MHz)

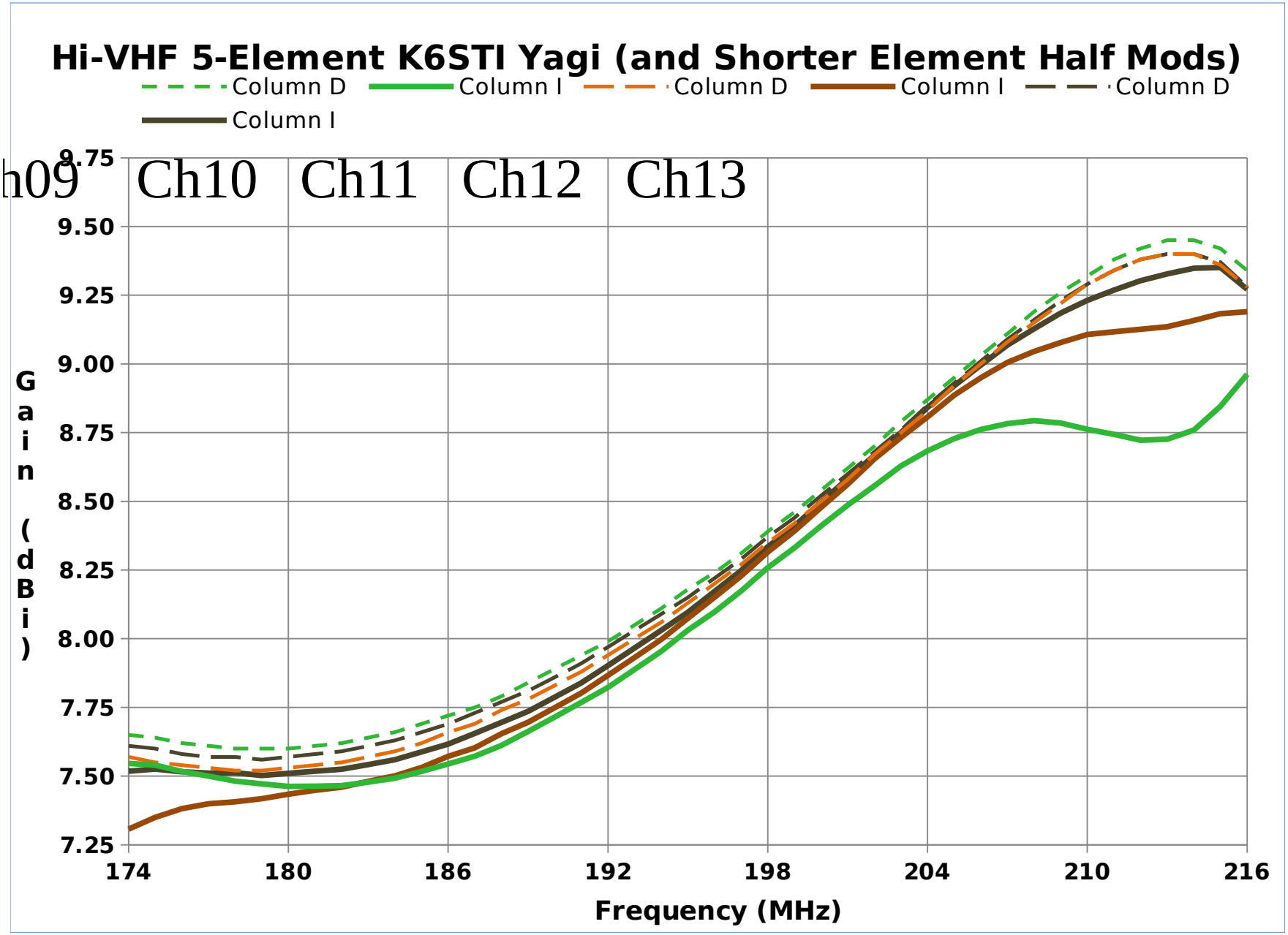

Folded Dipoles - Various Element Diameters
Column E
Column E
Column E
Column E
Column E
Column E
Ch09
Ch10
Ch11
Ch12
Ch13
Stand Wave Ratio (SWR)
3
2.8
2.6
2.4
2.2
2
1.8
1.6
1.4
1.2
1
174
180
186
192
198
204
210
216
Frequency (MHz)

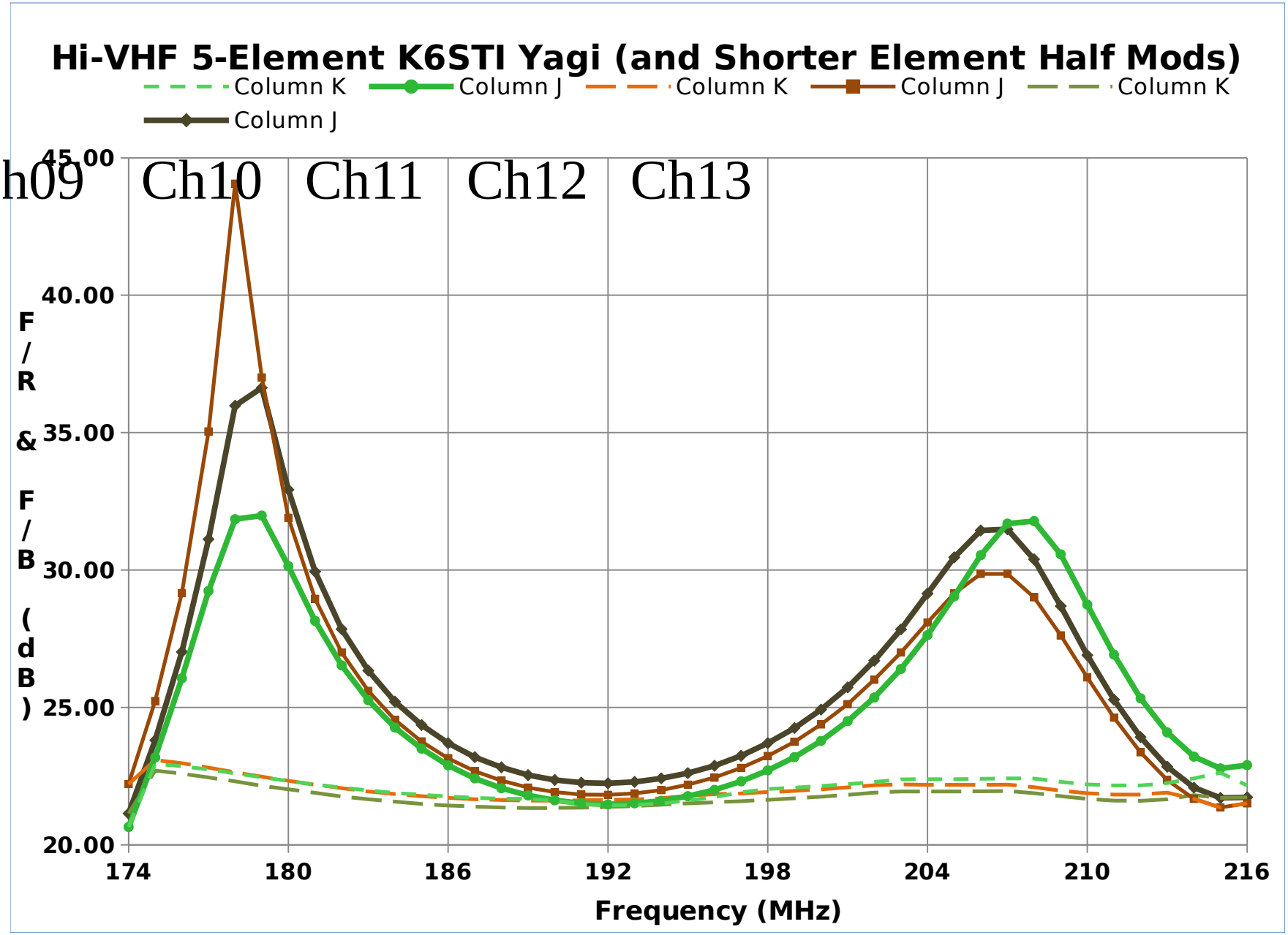

Square Loops vs Folded Dipoles - Various Element Di
Column E
Column E
Column E
Column E
Column E
Column E
Ch09
Ch10
Ch11
Ch12
Ch13
Stand Wave Ratio (SWR)
4
3.8
3.6
3.4
3.2
3
2.8
2.6
2.4
2.2
2
1.8
1.6
1.4
1.2
1
174
180
186
192
198
204
210
216
Frequency (MHz)

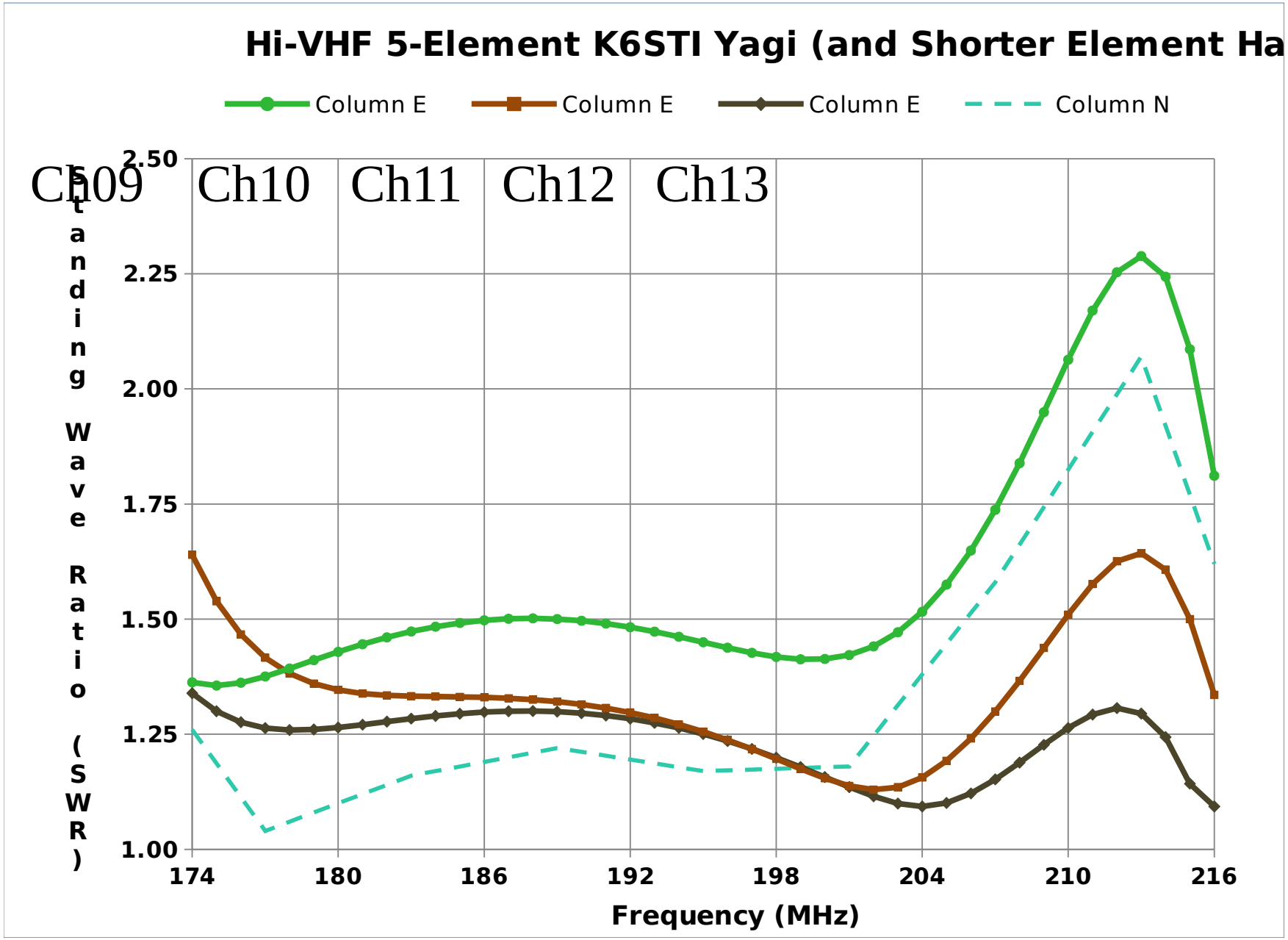

i-VHF 5-Element K6STI Yagi (Orig & RevA) + Folded Dipole Variatio
Column D
Column I
Column D
Column I
Column D
Column I
h09
Ch10
Ch11
Ch12
Ch13
9.75
9.50
9.25
9.00
8.75
8.50
8.25
8.00
7.75
7.50
7.25
Gain (dBi)
174
180
186
192
198
204
210
216
Frequency (MHz)

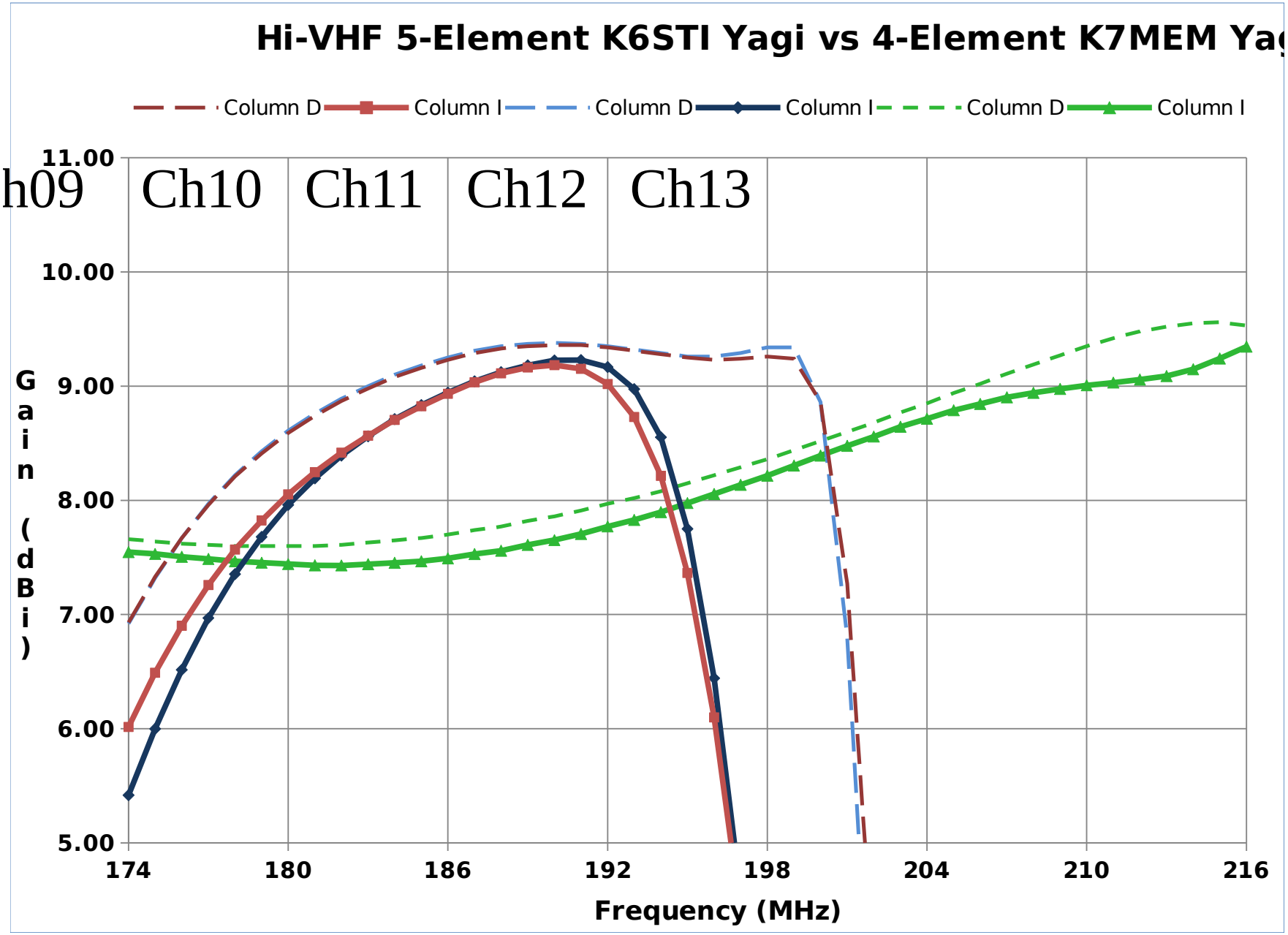

Hi-VHF 5-Element K6STI Yagi (Orig & RevA) + Folded Di
Column K
Column J
Column K
Column J
Column K
Column J
n09
Ch10
Ch11
Ch12
Ch13
F/R & F/B (dB)
42
40
38
36
34
32
30
28
26
24
22
20
174
180
186
192
198
204
210
216
Frequency (MHz)

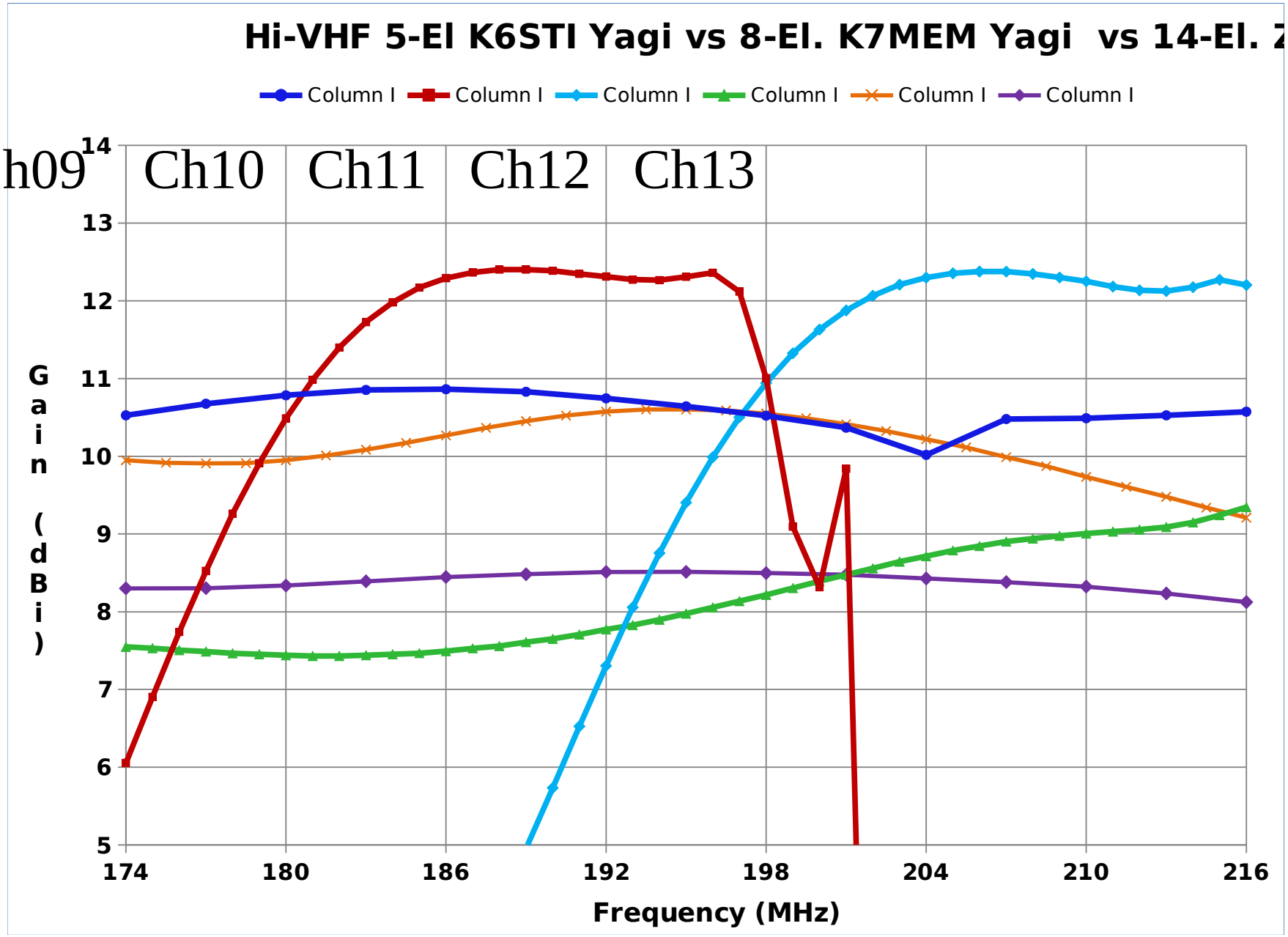

Hi-VHF 5-Element K6STI Yagi (Orig & RevA) + Folded D
Column E
Column N
Column E
Column N
Column E
Ch09
Ch10
Ch11
Ch12
Ch13
Standing Wave Ratio (SWR)
2.50
2.25
2.00
1.75
1.50
1.25
1.00
174
180
186
192
198
204
210
216
Frequency (MHz)

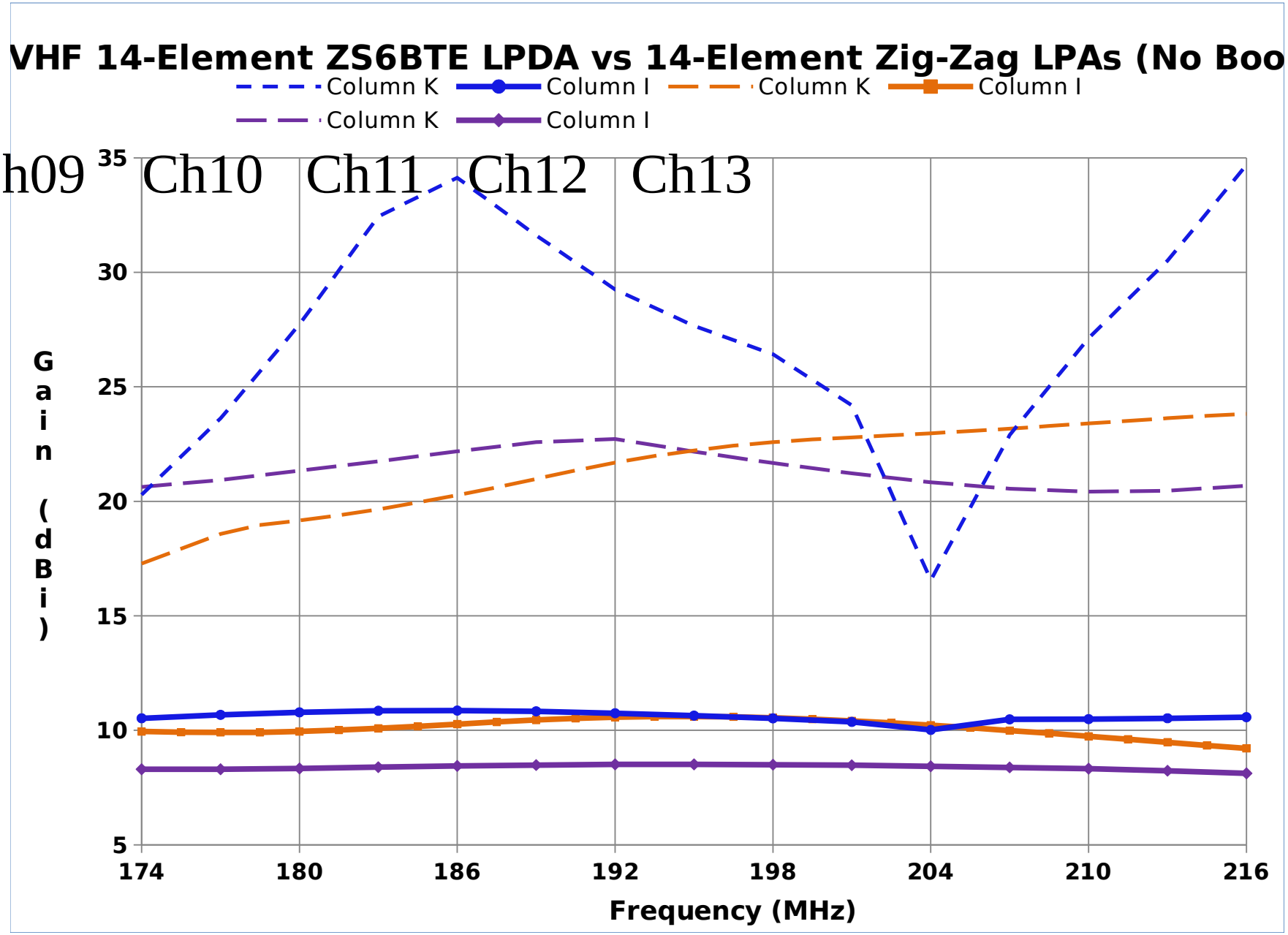

Hi-VHF 5-Element K6STI Yagi (and Shorter Element Half Mods)
Column D
Column I
Column D
Column I
Column D
Column I
h09
Ch10
Ch11
Ch12
Ch13
9.75
9.50
9.25
9.00
8.75
8.50
8.25
8.00
7.75
7.50
7.25
Gain (dBi)
174
180
186
192
198
204
210
216
Frequency (MHz)

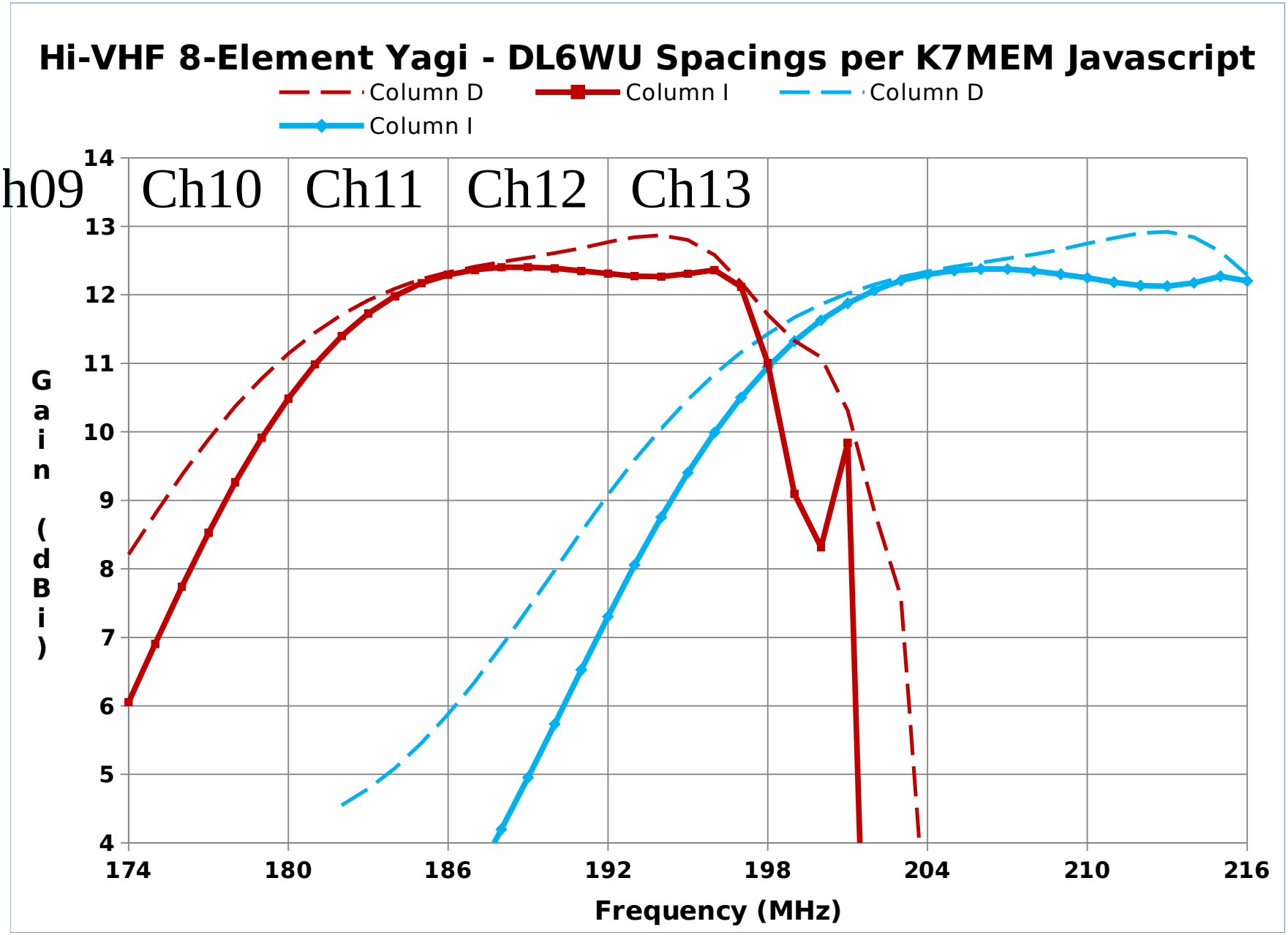

Hi-VHF 5-Element K6STI Yagi (and Shorter Element Half Mods)
Column K
Column J
Column K
Column J
Column K
Column J
h09
Ch10
Ch11
Ch12
Ch13
45.00
40.00
35.00
30.00
25.00
20.00
F/R & F/B (dB)
174
180
186
192
198
204
210
216
Frequency (MHz)


Hi-VHF 5-Element K6STI Yagi (and Shorter Element Ha
Column E
Column E
Column E
Column N
Ch09
Ch10
Ch11
Ch12
Ch13
Standing Wave Ratio (SWR)
2.50
2.25
2.00
1.75
1.50
1.25
1.00
174
180
186
192
198
204
210
216
Frequency (MHz)


Hi-VHF 5-Element K6STI Yagi vs 4-Element K7MEM Yag
Column D
Column I
Column D
Column I
Column D
Column I
h09
Ch10
Ch11
Ch12
Ch13
11.00
10.00
9.00
8.00
7.00
6.00
5.00
Gain (dBi)
174
180
186
192
198
204
210
216
Frequency (MHz)


Hi-VHF 5-El K6STI Yagi vs 8-El. K7MEM Yagi vs 14-El. Z
Column I
Column I
Column I
Column I
Column I
Column I
h09
Ch10
Ch11
Ch12
Ch13
Gain (dBi)
14
13
12
11
10
9
8
7
6
5
174
180
186
192
198
204
210
216
Frequency (MHz)


VHF 14-Element ZS6BTE LPDA vs 14-Element Zig-Zag LPAs (No Boo
Column K
Column I
Column K
Column I
Column K
Column I
h09
Ch10
Ch11
Ch12
Ch13
Gain (dBi)
35
30
25
20
15
10
5
174
180
186
192
198
204
210
216
Frequency (MHz)


Hi-VHF 8-Element Yagi - DL6WU Spacings per K7MEM Javascript
Column D
Column I
Column D
Column I
h09
Ch10
Ch11
Ch12
Ch13
Gain (dBi)
14
13
12
11
10
9
8
7
6
5
4
174
180
186
192
198
204
210
216
Frequency (MHz)