SVHFS Antenna Range Results

2010: Morehead, KY

144 MHz

Callsign	Description	Calc Gain (dBd)	Note
KD4NOQ	HB 3-EL Yagi	4.50	
	Total Antennas: 1 **Average Gain:**	4.50	

222 MHz

Callsign	Description	Calc Gain (dBd)	Note
N4HN	Modified Commercial 16-EL Yagi	12.90	
W2CV	HB 8-EL Yagi	8.90	
	Total Antennas: 2 **Average Gain:**	10.90	

432 MHz

Callsign	Description	Calc Gain (dBd)	Note
N4VOS	HB 22-EL Yagi	13.30	
W2CV	HB 10-EL Yagi	12.40	
W4ZST	HB Double 4-EL Yagi	8.50	
KD4NOQ	HB 6-EL Yagi #1	7.90	
KD4NOQ	HB 6-EL Yagi #2	5.90	
KD4NOQ	HB Double Diamond	5.70	
WB8IFM	HB 5-EL Yagi	5.20	
	Total Antennas: 7 **Average Gain:**	8.41	

903 MHz

Callsign	Description	Calc Gain (dBd)	Note
WB8IFM	HB 10-EL Yagi	16.30	
KD4NOQ	Commecial 14-EL Yagi	13.20	
	Total Antennas: 2 **Average Gain:**	14.75	

1296 MHz

Callsign	Description	Calc Gain (dBd)	Note
K3MF	HB 23-EL Yagi	15.70	
KD4NOQ	HB Can-Tenna #2	10.90	
KD4NOQ	HB Can-Tenna #1	10.80	
KD4NOQ	Commercial 10-EL Yagi	8.80	
KD4NOQ	HB Double-Double Diamond	0.02	
	Total Antennas: 5 **Average Gain:**	9.24	

2304 MHz

Callsign	Description	Calc Gain (dBd)	Note
KD4NOQ	HB Can-Tenna #1	14.60	
KD4NOQ	HB Can-Tenna #2	14.30	
WA2ODO	Small Slot	13.70	
K4OVK	HB Helical Without Cone	11.60	
K4OVK	HB Helical With Cone	6.30	
WA2ODO	Large Slot	0.00	
	Total Antennas: 6 **Average Gain:**	10.08	

2009: Charlotte, NC

144 MHz

Callsign	Description	Calc Gain (dBd)	Note
N7BHC	5-EL Yagi	9.00	
AA4ZZ	3-EL Comercial Yagi	3.10	
W4GRW	2 Loop Commercial Stack	2.50	
KH6TY	2-EL Compact Quad	2.10	
	Total Antennas: 4 **Average Gain:**	4.18	

2009: Charlotte, NC

222 MHz

Callsign	Description	Calc Gain dBd)	Note
WB4JGG	5-EL Commercial Yagi	7.50	
	Total Antennas: 1 **Average Gain:**	7.50	

432 MHz

Callsign	Description	Calc Gain dBd)	Note
K3IWK	22-EL Yagi	16.30	
K3IWK	27-EL Yagi	16.10	
WA1WXL	48-EL Commercial Parabeam	15.20	
N7BHC	12-EL yagi	13.60	
KH6TY	5-EL Skeleton Slot	12.50	
KH6TY	3-EL Skeleton Slot	9.60	
WB4JGG	5-EL Comercial Yagi	6.70	
AI4GR	8-EL Quagi	5.00	
AA4ZZ	7-EL Commercial Yagi	4.40	
K5VRL	Commercial Superwheel	-0.90	
W4GRW	Stacked Commercial Loops	-5.50	
	Total Antennas: 11 **Average Gain:**	8.45	

1296 MHz

Callsign	Description	Calc Gain dBd)	Note
W4DEX	45-EL Loop Yagi	19.70	
	Total Antennas: 1 **Average Gain:**	19.70	

2304 MHz

Callsign	Description	Calc Gain dBd)	Note
WK4R	20-EL Circular Helix	18.20	
WA1WXL	Commercial Dish	15.20	
WA1WXL	Loop Yagi	7.60	
K4RSV	2x 7/8 Phased Dipoles	5.40	
	Total Antennas: 4 **Average Gain:**	11.60	

2008: Orlando, FL

432 MHz

Callsign	Description	Calc Gain dBd)	Note
WB2GGP	25-EL Yagi	17.25	
K3IWK	27-EL Yagi	14.35	
W3QD	Log Periodic	4.55	
	Total Antennas: 3 **Average Gain:**	12.05	

1296 MHz

Callsign	Description	Calc Gain dBd)	Note
K4SAT	Commercial Horn	17.49	
K4SAT	12-Turn Helical	11.29	
	Total Antennas: 2 **Average Gain:**	14.39	

2304 MHz

Callsign	Description	Calc Gain dBd)	Note
WB2GGP	41-EL Log-Yagi	18.60	
K4SAT	Commercial Horn	13.60	
K4RSV	2x2 Zepp	8.70	
K4SAT	5-Turn Helical	1.10	
	Total Antennas: 4 **Average Gain:**	10.50	

Callsign	Description	Calc Gain (dBd)	Note

2007: Atlanta, GA

144 MHz

KD4NOQ	3-EL Tape Yagi			3.53
	Total Antennas:	1	**Average Gain:**	3.53

222 MHz

AA4S	H Antenna - 2 Bay			4.37
K4QF	4-EL Stacked Loops			3.30
	Total Antennas:	2	**Average Gain:**	3.84

432 MHz

AA4S	H Antenna - 8 Bays			6.22
AA4S	H Antenna - 2 Bays			2.98
AA4S	H Antenna - 4 Bays			0.55
KD4NOQ	2-EL Tape Yagi			-1.58
	Total Antennas:	4	**Average Gain:**	2.04

10368 MHz

W4DEX	HB Horn			21.76
	Total Antennas:	1	**Average Gain:**	21.76

2006: Greenville, SC

144 MHz

WT4E	Commercial Omni			1.47
	Total Antennas:	1	**Average Gain:**	1.47

222 MHz

KD4NOQ	4-EL Yagi			4.03
W4GRW	LP Yagi			3.19
	Total Antennas:	2	**Average Gain:**	3.61

432 MHz

KI4EHA	8-EL Yardstick Yagi			12.35
N8CQ	12-EL Yagi			12.28
K5VH	5-EL Yardstick Double Delta Yagi			12.22
KD4NOQ	7-EL Yardstick Yagi			11.70
W6AT	9-EL Yagi			10.56
W4WSR	7-EL Yardstick Yagi			10.36
W4GRW	4-EL LP			9.65
K3IO	4-EL Yardstick Sterba			9.58
WT4E	Commercial Omni			3.28
	Total Antennas:	9	**Average Gain:**	10.22

903 MHz

K4QF	BBQ Grill Reflector W/Feed #2			6.82
WF4R	12-EL Commercial Yagi			5.47
K4QF	BBQ Grill Reflector			-4.29
	Total Antennas:	3	**Average Gain:**	2.67

1296 MHz

WF4R	45-EL Commercial Loop Yagi			17.70
K4QF	BBQ Grill Reflector W/Feed #2			15.98
K5QE	22-EL Yagi			12.53
	Total Antennas:	3	**Average Gain:**	15.40

Callsign	Description	Calc Gain dBd)	Note

2006: Greenville, SC

2304 MHz

K4QF	BBQ Grill Reflector W/LP Feed			20.67
K4OVK	27 Turn Helix			14.54
KI4EHA	16 Turn Helix			12.61
K0SM	Tomato Can With Horn			10.61
K0SM	Tomato Can			9.89
K0SM	16 Turn Helix			6.93
KD4NOQ	Patch			0.22
	Total Antennas:	7	**Average Gain:**	10.78

2005: Charlotte, NC

144 MHz

K4CSO	HB 6-EL			8.77
AA4ZZ	HB 5-EL			0.66
AA4ZZ	WIMO Big Wheel			-0.63
AA4ZZ	M2 Omni			-0.81
AA4ZZ	KU4AB Built Omni			-1.03
AA4ZZ	PAR Electronics Omni			-1.08
AA4ZZ	KB6KQ			-1.14
AA4ZZ	Hipar 3-Ring Halo			-3.63
	Total Antennas:	8	**Average Gain:**	0.14

222 MHz

K4CSO	HB 6-EL			8.52
AA4ZZ	3-EL Larsen			5.72
K5VH	Double Delta Yagi 222.5			#####
K5VH	Double Delta Yagi 222.1			#####
	Total Antennas:	4	**Average Gain:**	-6.13

432 MHz

W4ZPG	19-EL RIW			15.43
K4CSO	9-EL			11.09
NX9O	HB 9-EL			8.25
	Total Antennas:	3	**Average Gain:**	11.59

903 MHz

K5VH	Horn			2.28
	Total Antennas:	1	**Average Gain:**	2.28

1296 MHz

AA4ZZ	16-EL Commercial			14.81
K5VH	Horn			13.08
N4IP	Dish			9.54
K5VH	6-EL Backscratcher Bowtie			2.51
W4WSR	8-EL Backscratcher			-1.24
	Total Antennas:	5	**Average Gain:**	7.74

2304 MHz

KB4LHU	Dish			20.67
W4SHG	Dish			20.08
W4WSR	13-EL Backscratcher			15.40
KB4LHU	Panel			15.14
N4IP	Dish			10.82

2005: Charlotte, NC

2304 MHz

Callsign	Description	Calc Gain (dBd)	Note
KB4LHU	Commercial Omni	10.47	
KB4LHU	2 Soup Can	10.44	
W4DEX	Dish	9.30	
KB4LHU	1 Soup Can	7.41	

Total Antennas: 9 **Average Gain:** 13.30

2004: Marietta, GA

144 MHz

Callsign	Description	Calc Gain (dBd)	Note
K5AND	HB 9-EL Yagi	11.70	

Total Antennas: 1 **Average Gain:** 11.70

222 MHz

Callsign	Description	Calc Gain (dBd)	Note
WB4JGG	12-EL Gulf Alpha Commercial Yagi	12.30	

Total Antennas: 1 **Average Gain:** 12.30

432 MHz

Callsign	Description	Calc Gain (dBd)	Note
K4CSO	HB 9-EL	11.30	
KD4SHH	HB 6-EL	10.00	
K4CSO	HB 9-EL (Red Endcaps)	9.80	
KD4SHH	460 MHz Dipole at 432 MHz	1.50	
KD4SHH	HB9CV 2-EL	1.50	

Total Antennas: 5 **Average Gain:** 6.82

903 MHz

Callsign	Description	Calc Gain (dBd)	Note
K4CSO	HB 15-EL Looper	13.00	
K5VH	Horn	10.00	

Total Antennas: 2 **Average Gain:** 11.50

1296 MHz

Callsign	Description	Calc Gain (dBd)	Note
K5VH	6-EL Bowtie Backscratcher	15.00	1
K5VH	Horn	10.00	1
K5VH	EIA Dipole	5.00	1
K4CSO	SA Crossed LPDA 8-EL	2.50	1
K4CSO	SA Crossed LPDA 8-EL	1.00	1
K4CSO	LPDA PC Board	-0.30	1
K5VH	Dual Band Triangle Feed	-1.60	1

Total Antennas: 7 **Average Gain:** 4.51

2304 MHz

Callsign	Description	Calc Gain (dBd)	Note
K5VH	Horn	16.00	
W4WSR	Backscratcher	14.90	
K4CSO	PC LPDA	6.90	
K5VH	Backscratcher	3.50	
K4CSO	SA Feed	1.50	

Total Antennas: 5 **Average Gain:** 8.56

10368 MHz

Callsign	Description	Calc Gain (dBd)	Note
ND2X	White Box Dish	28.50	
K0VXM	Dish with HB Circular W/G Feed	26.00	
K4CSO	DSS Dish	15.20	

Total Antennas: 3 **Average Gain:** 23.23

2003: Huntsville, AL

144 MHz

Callsign	Description	Calc Gain dBd)	Note
KB4IDC	HB 12-EL 20' Boom #2	12.60	
K3IWK	HB 10-EL 17.5' Boom	12.23	
KB4IDC	HB 12-EL 20' Boom	11.93	
REFERENCE	7-EL M2 Yagi	10.00	
W4OZK	Dual 4-EL Quad "Tomato Cage" Looper	8.05	
WO4DX	Stacked M2 Loops	3.77	

Total Antennas: 6 **Average Gain:** 9.76

222 MHz

Callsign	Description	Calc Gain dBd)	Note
K3IWK	HB 14-EL 17.5' Boom	14.60	
REFERENCE	7-EL M2 Yagi	9.80	

Total Antennas: 2 **Average Gain:** 12.20

432 MHz

Callsign	Description	Calc Gain dBd)	Note
K3IWK	HB 22-EL 15.5' Boom	18.38	2
KD4NOQ	HB 16-EL	14.88	2
KB4IDC	22-EL K1FO	14.55	2
REFERENCE	18-EL M2 Yagi	14.30	2
WO4DX	Dual Stacked M2 Loops	10.88	2
KD4NOQ	6-EL Wood Boom	2.15	2
AA4RC	7-EL Arroe 144/432	-0.27	2

Total Antennas: 7 **Average Gain:** 10.70

903 MHz

Callsign	Description	Calc Gain dBd)	Note
REFERENCE	19-EL Directive Systems Loop Yagi	16.50	
KB4IDC	33-EL Loop Yagi	15.25	
K4CSO	HB 15-EL Loop Yagi	15.09	
KD4NOQ	8-EL Wood Boom Yagi	9.00	

Total Antennas: 4 **Average Gain:** 13.96

1296 MHz

Callsign	Description	Calc Gain dBd)	Note
W4RXR	4-Ft Dish W/Splash Dipole	20.89	
W4RXR	55-EL F9FT	19.89	
K4CSO	55-EL DEM Loop Yagi	19.46	
REFERENCE	25-EL Directive Systems Loop Yagi	18.00	
KB4IDC	Dual 45-EL Loop Yagis	17.89	
KD4NOQ	10-EL WA5VJB Cheap Yagi	13.47	
W4VHH	7-EL Backscratcher	12.54	
W4WSR	8-EL Backscratcher	12.04	
KB4IDC	35-EL M2 Yagi	11.48	
K5VH	6-EL Double Delta Backscratcher	11.46	
KF4JVD	8-EL Yagi Backscratcher	10.81	
KD4SHH	7-EL Quagi Backscratcher	10.47	
W4OZK	9-EL Backscratcher	9.97	
K5VH	EIA Dual Dipole Feed	8.06	
W4NUS	8-EL Backscratcher	2.56	
K2STO	8-EL Backscratcher #2	1.97	
K2STO	8-EL Backscratcher #1	-1.88	

Total Antennas: 17 **Average Gain:** 11.71

2304 MHz

Callsign	Description	Calc Gain dBd)	Note
W4PXR	4-Ft Dish	23.58	
REFERENCE	45-EL Directive Systems Loop Yagi	20.00	
W4NUS	Horn	13.08	

Callsign	Description	Calc Gain (dBd)	Note	Callsign	Description	Calc Gain dBd)	Note

2003: Huntsville, AL

2304 MHz

	Total Antennas:	3	**Average Gain:** 18.89

2401 MHz

AA4RC	Hyperlink Technologies 4-Ft BBQ Grill	16.53
W3PM	4-FT Dual Band Feed Dish	14.42
W4HTB	Patch Feed on Direct TV Dish	12.75
W4HTB	Helix Feed on Direct TV Dish	7.58
	Total Antennas: 4	**Average Gain:** 12.82

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1. The results for 1296 are questionable due to significant interference from the Atlanta Airport air traffic control radar that was located very close to the conference location.

2. The 432 MHz range was plagued with reflections which affected accuracy, especially of low gain antennas. Rain and thunderstorms precluded further tests that might have improved accuracy.