RADIO & Noise Bandpass	Band	MDS HP 8648D (dbm)	BSF Notch 4661 (Khz)	P_{TOT} 4661 ATT ADC Clip (dbm)	P_{TOT} 4220 ADC Clip (dbm)	P_{TOT} 4220 3db Noise (dbm)	B_{RF} (calc) (Khz)	B_{IF} (hz)	BWR (calc) (db)	NPR From SDR Display	NPR ADC Clip (calc)	NPR 3db Noise (calc)	COMMENTS
Alinco DX-SR8	*Analog Transceiver from* ***2010***				*Audio from speaker jack on radio*					*2.4 Khz ceramic filter*			
60-2600 (Khz)	**160M**	-125	2438	-35.0		-35.2	2540	2400	30.2			60	*pre-amp off*
60-4100 (Khz)	**80M**	-124	3886	-30.0		-30.2	4040	2400	32.3			62	*pre-amp off*
60-5600 (Khz)	**60M**	-127	5340	-29.0		-29.2	5540	2400	33.6			64	*pre-amp off*
316-8160 (Khz)	**40M**	-127	7600	-29.0		-29.2	7844	2400	35.1			63	*pre-amp off (RF= 0)*
316-8160 (Khz)	**40M**	-134	7600	-44.0		-44.2	7844	2400	35.1			**55**	*pre-amp on (RF= -10)*
Atlas 210X LE	*Analog Transceiver from* ***1979***				*Audio from speaker jack on radio*					*2.7 Khz crystal filter*			*factory VFO & PC120 mixer (1N4148 diodes)*
60-4100 (Khz)	**80M**	-121	3886	-23.4		-23.6	4040	2700	31.8			66	
316-8160 (Khz)	**40M**	-116	7600	-44.2		-44.7	7844	2700	34.6			**37**	*VFO phase noise and 2nd/3rd harmonics*
Atlas 210X LE	*Analog Transceiver from* ***1979***				*Audio from speaker jack on radio*					*2.7 Khz crystal filter*			*Si570 VFO & PC100 with HP HSMS-2829 mixer*
60-4100 (Khz)	**80M**	-126	3886	-23.8		-24.0	4040	2700	31.8			70	
316-8160 (Khz)	**40M**	-127	7600	-25.7		-25.9	7844	2700	34.6			67	
Atlas 210X LE	*Analog Transceiver from* ***1979***				*Audio from speaker jack on radio*					*2.7 Khz crystal filter*			*Si570 VFO & MCL ADE-1 mixer & diplexer*
60-4100 (Khz)	**80M**	-124	3886	-29.3		-29.6	4040	2700	31.8			63	
316-8160 (Khz)	**40M**	-124	7600	-26.6		-26.9	7844	2700	34.6			63	
Elad FDM Duo	*SDR Transceiver from* ***2016***				*Audio from speaker jack on radio*					*DSP Filter*			*direct sampling*
60-2600 (Khz)	**160M**	-125	2438	-21.1	-21.2	-19.5	2540	2400	30.2	71	74	75	
60-4100 (Khz)	**80M**	-127	3886	-21.3	-21.4	-22.9	4040	2400	32.3	69	73	72	
60-5600 (Khz)	**60M**	-127	5340	-21.3	-21.4	-20.7	5540	2400	33.6	70	72	73	
316-8160 (Khz)	**40M**	-127	7600	-21.2	-21.3	-21.7	7844	2400	35.1	69	71	70	
Elad FDM S2	*SDR Receiver from* ***2016***				*Audio from PC's sound card*					*DSP Filter*			*direct sampling*
60-2600 (Khz)	**160M**	-125	2438	-20.0	-20.0	-20.0	2540	2400	30.2	71	75	75	
60-4100 (Khz)	**80M**	-124	3886	-20.0	-20.0	-20.6	4040	2400	32.3	69	72	71	*no SPF-8 band pass filter*
60-4100 (Khz)	**80M**	-123	3886	-12.1	-12.2	-29.2	1245	2400	27.1	72	84	67	*with SPF-8 80M band pass filter*
60-5600 (Khz)	**60M**	-125	5340	-20.1	-20.1	-20.0	5540	2400	33.6	70	71	71	
316-8160 (Khz)	**40M**	-124	7600	-20.0	-20.0	-20.0	7844	2400	35.1	69	69	69	*no SPF-8 band pass filter*
316-8160 (Khz)	**40M**	-123	7600	-12.6	-12.7	-26.0	7844	2400	29.6	73	81	67	*with SPF-8 40M band pass filter*
Elecraft K3S	*SDR Transceiver from* ***2015***				*Audio from rear panel phone jack*					*Roofing + DSP Filter*			
60-2600 (Khz)	**160M**	-124	2438	-16.0	NM	-16	2540	2400	30.2			78	
60-4100 (Khz)	**80M**	-127	3886	-14.0	NM	-14	4040	2400	32.3			81	
60-5600 (Khz)	**60M**	-126	5340	-10.0	NM	-10	5540	2400	33.6			82	
316-8160 (Khz)	**40M**	-127	7600	-17.0	NM	-17	7844	2400	35.1			75	
Flex 6300	*SDR Transceiver from* ***2015***				*Audio from front panel phone jack*					*DSP Filter*			*direct sampling*
60-2044 (Khz)	**160M**	-110	1940	+1.0	+0.8	NA	1984	2400	29.2	77	82	NA	
60-2044 (Khz)	**160M**	-129	1940	-19.0	-19.2	NA	1984	2400	29.2	74	81	NA	*pre-amp enabled*
60-4100 (Khz)	**80M**	-105	3886	0.0	-0.2	NA	4040	2400	32.3	75	73	NA	
60-4100 (Khz)	**80M**	-125	3886	-22.0	-22.5	NA	4040	2400	32.3	72	70	NA	*pre-amp enabled*
60-5600 (Khz)	**60M**	-110	5340	-2.0	-2.2	NA	5540	2400	33.6	74	74	NA	
60-5600 (Khz)	**60M**	-129	5340	-23.0	-23.5	NA	5540	2400	33.6	73	72	NA	*pre-amp enabled*
316-8160 (Khz)	**40M**	-107	7600	-3.0	-3.3	NA	7844	2400	35.1	73	69	NA	
316-8160 (Khz)	**40M**	-108	7600	-9.0	-12.7	NA	7844	2400	35.1	72	60	NA	*with 40M band pass filter*
316-8160 (Khz)	**40M**	-126	7600	-24.0	-24.4	NA	7844	2400	35.1	73	67	NA	*pre-amp enabled*
316-17300 (Khz)	**20M**	-129	14312	-19	-24.7	NA	16984	2400	38.5	67	66	NA	*20M NPR Generator - pre-amp enabled*
Icom IC-7100	*Analog transceiver from* ***2013***				*Audio from speaker jack on radio*					*DSP Filter*			
60-2600 (Khz)	**160M**	-123	2438	-24.7		-25.0	2540	2400	30.2			68	
60-4100 (Khz)	**80M**	-124	3886	-24.8		-25.1	4040	2400	32.3			67	
60-5600 (Khz)	**60M**	-124	5340	-22.6		-22.9	5540	2400	33.6			68	
316-8160 (Khz)	**40M**	-124	7600	-20.6		-20.9	7844	2400	35.1			68	
Icom IC-7300	*SDR Transceiver from* ***2016***				*Audio from speaker jack on radio*					*DSP Filter*			*direct sampling*
60-2600 (Khz)	**160M**	-125	2438	-16.4	-16.3	-19.3	2540	2400	30.2		79	76	
60-4100 (Khz)	**80M**	-125	3886	-17.7	-17.6	-22.5	4040	2400	32.3		75	70	
60-5600 (Khz)	**60M**	-125	5340	-15.4	-15.3	-19.9	5540	2400	33.6		76	72	
316-8160 (Khz)	**40M**	-125	7600	-17.6	-17.5	-21.9	7844	2400	35.1		72	68	
Kenwood TS-870	*Analog Transceiver from* ***1996***				*Audio from speaker jack on radio*					*Roofing + DSP Filter*			
60-2400 (Khz)	**160M**	-123	1940	-17.8		-17.8	1984	2400	29.2			76	
60-4100 (Khz)	**80M**	-125	3886	-16.7		-16.7	4040	2400	32.3			76	
60-5600 (Khz)	**60M**	-124	5340	-21.2		-21.2	5284	2400	33.4			69	
316-8160 (Khz)	**40M**	-124	7600	-13.2		-13.2	7844	2400	35.1			76	

316-17300 (Khz)	**20M**	-123	14312	-14.0		-18.1	16984	2400	38.5		66	*Home Brew 20M BPF and BSF w/Chinese NG*
Ten-Tec Eagle	*Analog Transceiver from* ***2012***				*Audio from speaker jack on radio*					*Roofing + DSP Filter*		
60-2600 (Khz)	**160M**	-120	2438	-23.6		-23.7	2540	2400	30.2		66	*pre-amp off*
60-4100 (Khz)	**80M**	-121	3886	-20.0		-20.2	4040	2400	32.3		69	*pre-amp off*
60-5600 (Khz)	**60M**	-120	5340	-18.0		-18.1	5540	2400	33.6		68	*pre-amp off*
316-8160 (Khz)	**40M**	-121	7600	-26.0		-26.2	7844	2400	35.1		60	*pre-amp off (poor 9 Mhz IF leak-through)*
316-8160 (Khz)	**40M**	-126	7600	-32.1		-32.4	7844	2400	35.1		**59**	*pre-amp on (poor 9 Mhz IF leak-through)*
Ten-Tec Omni VII	*Analog Transceiver from* ***2007***				*Audio from speaker jack on radio*					*Roofing + DSP Filter*		*Collins 2.5 Khz filter*
60-2600 (Khz)	**160M**	-118	2438	-18.4		-18.6	2540	2500	30.1		69	*pre-amp off (-124 db pre-amp on)*
60-4100 (Khz)	**80M**	-120	3886	-16.9		-17.1	4040	2500	32.1		**71**	*pre-amp off (-126 db pre-amp on)*
60-5600 (Khz)	**60M**	-120	5340	-18.0		-18.2	5540	2500	33.5		68	*pre-amp off (-126 db pre-amp on)*
316-8160 (Khz)	**40M**	-120	7600	-16.0		-16.2	7844	2500	35.0		69	*pre-amp off*
316-8160 (Khz)	**40M**	-127	7600	-28.0		-28.2	7844	2500	35.0		64	*pre-amp on*
Yaesu 857D	*Analog Transceiver from* ***2005***				*Audio from speaker jack on radio*					*Roofing + DSP Filter*		*Collins 2.3 Khz filter*
60-2600 (Khz)	**160M**	-128	2438	-31.9		-31.8	2540	2300	30.4		66	*pre-amp on*
60-4100 (Khz)	**80M**	-130	3886	-31.9		-31.8	4040	2300	32.4		66	*pre-amp on*
60-5600 (Khz)	**60M**	-114	5340	-16.0		-15.9	5540	2300	33.8		64	*pre-amp off*
60-5600 (Khz)	**60M**	-130	5340	-34.0		-34.0	5540	2300	33.8		62	*pre-amp on*
316-8160 (Khz)	**40M**	-114	7600	-16.2		-16.3	7844	2300	35.3		62	*pre-amp off*
316-8160 (Khz)	**40M**	-130	7600	-29.0		-28.9	7844	2300	35.3		66	*pre-amp on*

NOTES:

Boonton 4220A with 4E sensor used for power measurements

Singer 323^{-07} used for audio noise measurements

ADC Clip point derived by reducing noise signal in 0.1 db increments until ADC Clip light goes out

All radios had front end band pass filters except for the Elad Duo, Elad S2, and Flex 6300 radios

Using an AM Broadcast (MW) High Pass Filter on the Elad Duo and S2 improved the NPR results by about 2 db