



General Specifications

General	
Model Number	RSPDuo
Frequency Range	1kHz – 2GHz
Antenna Connector	SMA
Antenna Impedance	50 Ohms
Operating Temperature Range	-10°C to +60°C
Current Consumption (Typical)	Single Tuner Mode - 185mA Dual Tuner Mode - 320mA
Case Size	95mm X 80mm X 30mm
Case Weight	110 grams
USB Connector	USB Type B
Maximum Input Power	+0dBm Continuous +10dBm Short Duration
ADC Sample Rates	2MSPS – 10.66MSPS
ADC Number of Bits	14bit 2MSPS – 6.048MSPS 12bit 6.048MSPS – 8.064MSPS 10bit 8.064MSPS – 9.216MSPS 8bit >9.216MSPS
Bias – T	4.7V 100mA Guaranteed <i>Note :- Bias T has an over current protection circuit. Current in excess of 100mA will cause the bias T voltage to disable. Removal of the overcurrent condition and a reset of the bias T control will re-establish the voltage</i>
Reference	High Temperature Stability (0.5ppm) 24MHz TCXO. Frequency error trimmable to 0.01ppm in field.

Sensitivity

Band	AM	SSB/CW	FM
2200 meters	6.16uV	2.29uV	5.36uV
630 meters	5.12uV	1.74uV	3.89uV
160 meters	0.78uV	0.28uV	0.59uV
80 meters	1.06uV	0.36uV	0.76uV
60 meters	1.06uV	0.36uV	0.76uV
40 meters	0.82uV	0.29uV	0.59uV
30 meters	0.67uV	0.24uV	0.51uV
20 meters	0.46uV	0.16uV	0.35uV
17 meters	0.45uV	0.15uV	0.32uV
15 meters	0.39uV	0.12uV	0.29uV

Sensitivity

Band	AM	SSB/CW	FM
12 meters	0.39uV	0.12uV	0.29uV
10 meters	0.40uV	0.14uV	0.31uV
6 meters	0.44uV	0.14uV	0.32uV
4 meters	0.12uV	0.04uV	0.09uV
2 meters	0.11uV	0.04uV	0.08uV
1.25 meters	0.11uV	0.04uV	0.09uV
70 cm	0.12uV	0.04uV	0.08uV
33 cm	0.12uV	0.05uV	0.09uV
23 cm	0.21uV	0.06uV	0.12uV

AM

60% Modulation, 1kHz Modulating Tone
3kHz Measurement Bandwidth
AGC Enabled
NR Enabled
12dB SINAD

SSB/CW

CW Tone, 1kHz Offset from Centre Frequency
1.5kHz Measurement Bandwidth
AGC Enabled
NR Enabled
12dB SINAD

FM

1kHz Modulating Tone, 3kHz Frequency Deviation
8kHz Measurement Bandwidth
AGC Enabled
NR Enabled
12dB SINAD

Sensitivity

Band	AM	SSB/CW	FM
2200 meters	5.36uV	1.99uV	4.26uV
630 meters	4..89uV	1.76uV	3.36uV
160 meters	1.01uV	0.37uV	0.77uV
80 meters	1.05uV	0.39uV	0.78uV
60 meters	1.05uV	0.39uV	0.78uV
40 meters	0.84uV	0.31uV	0.60uV
30 meters	0.69uV	0.24uV	0.47uV
20 meters	0.59uV	0.20uV	0.42uV
17 meters	0.52uV	0.19uV	0.33uV
15 meters	0.44uV	0.17uV	0.31uV

Sensitivity

Band	AM	SSB/CW	FM
12 meters	0.39uV	0.14uV	0.28uV
10 meters	0.42uV	0.15uV	0.32uV
6 meters	0.46uV	0.16uV	0.32uV
4 meters	0.12uV	0.04uV	0.09uV
2 meters	0.12uV	0.04uV	0.09uV
1.25 meters	0.11uV	0.04uV	0.08uV
70 cm	0.12uV	0.04uV	0.09uV
33 cm	0.13uV	0.05uV	0.10uV
23 cm	0.21uV	0.07uV	0.05uV

AM

60% Modulation, 1kHz Modulating Tone
3kHz Measurement Bandwidth
AGC Enabled
NR Enabled
12dB SINAD

SSB/CW

CW Tone, 1kHz Offset from Centre Frequency
1.5kHz Measurement Bandwidth
AGC Enabled
NR Enabled
12dB SINAD

FM

1kHz Modulating Tone, 3kHz Frequency Deviation
8kHz Measurement Bandwidth
AGC Enabled
NR Enabled
12dB SINAD

Sensitivity

Band	AM	SSB/CW	FM
2200 meters	0.37uV	0.18uV	0.37uV
630 meters	0.32uV	0.15uV	0.35uV
160 meters	0.30uV	0.10uV	0.22uV
80 meters	0.31uV	0.11uV	0.24uV
60 meters	0.31uV	0.11uV	0.24uV
40 meters	0.39uV	0.15uV	0.27uV
30 meters	0.45uV	0.16uV	0.33uV
20 meters	0.47uV	0.17uV	0.39uV
17 meters	0.58uV	0.21uV	0.51uV
15 meters	0.49uV	0.21uV	0.47uV
12 meters	0.78uV	0.26uV	0.48uV
10 meters	0.66uV	0.25uV	0.48uV

AM

60% Modulation, 1kHz Modulating Tone
3kHz Measurement Bandwidth
AGC Enabled
NR Enabled
12dB SINAD

SSB/CW

CW Tone, 1kHz Offset from Centre Frequency
1.5kHz Measurement Bandwidth
AGC Enabled
NR Enabled
12dB SINAD

FM

1kHz Modulating Tone, 3kHz Frequency Deviation
8kHz Measurement Bandwidth
AGC Enabled
NR Enabled
12dB SINAD

LNA Gain Slider Position	Parameter	Frequency															
		1	2	4	8	11.99	12	17	21	25	29.99	30	35	41	47	53	59
0	Gain	97.30	96.83	97.94	96.56	96.63	97.52	97.23	97.23	97.11	96.69	96.29	96.05	95.95	95.57	94.85	93.59
	Noise Figure	20.77	17.88	21.84	18.30	16.27	14.57	15.49	13.68	14.63	14.27	14.45	14.81	14.36	14.20	15.76	16.51
	IIP3	-0.66	-5.33	-5.30	-5.22	-5.48	-5.05	-4.87	-5.15	-5.12	-4.90	-4.75	-4.55	-4.81	-4.28	-3.07	-4.25
1	Gain	91.30	90.83	91.94	90.56	90.63	90.74	90.60	90.66	90.43	89.90	89.71	89.42	89.30	88.71	87.75	86.36
	Noise Figure	25.72	23.10	25.72	22.09	21.13	20.79	20.91	20.51	20.43	21.12	20.68	20.70	21.17	21.15	22.88	23.96
	IIP3	6.57	0.85	1.32	1.09	0.08	1.34	1.48	1.35	1.42	1.68	1.96	2.04	1.89	2.65	3.89	0.74
2	Gain	84.63	83.99	85.27	83.61	83.73	83.70	83.65	83.73	83.46	82.92	82.79	82.49	82.38	81.72	80.75	79.42
	Noise Figure	30.85	29.56	31.75	29.45	29.08	28.28	27.65	28.02	27.80	28.80	27.79	28.43	28.30	29.45	29.45	31.32
	IIP3	12.75	7.77	8.13	7.18	4.39	8.14	8.39	8.44	8.31	8.47	8.97	8.85	8.77	9.54	10.62	11.11
3	Gain	78.89	78.17	79.54	77.71	77.84	77.81	77.77	77.85	77.56	77.07	76.95	76.66	76.56	75.89	74.90	73.63
	Noise Figure	37.09	35.27	37.36	35.33	34.79	33.76	34.13	32.79	33.73	34.58	33.53	33.56	33.18	34.74	35.68	36.44
	IIP3	15.44	13.37	12.98	11.06	7.25	13.91	14.33	14.10	13.97	14.27	14.74	14.63	14.80	15.38	16.68	17.22
4	Gain	58.56	58.43	59.15	58.06	58.32	58.44	58.35	58.50	58.17	57.58	57.52	57.20	57.08	56.37	55.28	53.75
	Noise Figure	49.37	49.58	48.54	49.44	49.34	49.14	49.23	49.03	49.81	49.78	50.07	50.26	50.56	51.01	52.23	53.95
	IIP3	19.71	14.19	14.52	13.44	10.04	14.52	14.57	14.59	14.73	15.02	15.25	15.22	15.11	15.98	17.22	18.62
5	Gain	55.13	54.53	55.13	54.15	54.37	54.41	54.36	54.44	54.15	53.59	53.52	53.11	52.99	52.35	51.38	50.25
	Noise Figure	56.57	56.52	55.03	56.50	55.67	55.03	55.59	55.28	55.33	56.01	55.86	56.47	55.99	56.82	57.95	60.07
	IIP3	19.52	20.61	20.12	15.36	11.36	24.93	28.99	29.00	30.32	32.36	29.95	31.03	28.90	28.23	29.39	29.40
6	Gain	36.91	36.91	37.41	36.73	36.75	36.94	36.70	36.80	36.65	36.24	36.13	35.87	35.80	35.28	34.84	34.14
	Noise Figure	72.20	71.95	71.44	72.92	72.55	72.61	73.28	72.93	72.60	73.37	72.35	73.06	73.31	73.66	74.43	76.63
	IIP3	23.00	23.19	22.44	17.96	14.17	26.42	29.14	29.01	29.29	31.81	31.50	32.32	28.98	27.89	29.88	30.18

Gain, Noise Figure and Linearity

LNA Gain Slider Position	Parameter	Frequency																	
		60	71	84	96	108	118	121	146	172	198	224	248	252	296	302	378	386	417
0	Gain	123.27	124.85	124.34	123.54	122.87	122.14	124.92	124.54	124.60	124.11	123.17	121.39	109.33	106.85	107.12	99.16	104.96	103.83
	Noise Figure	2.67	2.26	2.20	2.14	2.24	2.15	2.14	2.07	2.06	2.11	2.26	2.43	6.31	7.42	7.04	11.31	6.82	10.70
	IIP3	-28.17	-27.82	-26.41	-25.99	-25.86	-25.13	-27.07	-27.05	-27.54	-26.82	-25.43	-23.70	-26.79	-25.61	-26.14	-18.49	-25.63	-25.03
1	Gain	116.78	118.48	117.99	117.21	116.48	115.71	118.32	117.80	118.14	117.66	116.64	115.12	102.69	100.59	100.84	91.69	98.41	96.84
	Noise Figure	3.42	2.69	2.74	2.65	2.87	2.85	2.64	2.60	2.60	2.68	2.89	3.17	11.07	10.32	10.42	19.08	12.76	14.20
	IIP3	-21.73	-21.41	-20.16	-19.72	-19.36	-18.50	-20.46	-20.34	-21.20	-20.29	-19.08	-17.49	-20.48	-19.58	-19.96	-11.69	-19.51	-18.75
2	Gain	109.99	111.74	111.29	110.57	109.86	109.17	111.69	111.21	111.64	111.22	110.19	108.62	96.59	94.39	94.45	86.85	92.13	91.45
	Noise Figure	5.04	4.05	4.51	4.28	4.75	4.98	4.36	4.43	4.17	4.28	4.84	6.35	16.45	16.82	17.62	25.51	18.56	19.90
	IIP3	-14.92	-14.67	-13.41	-13.03	-12.76	-11.95	-13.92	-13.81	-14.75	-13.88	-12.70	-11.05	-13.93	-12.98	-13.26	-7.31	-12.74	-12.00
3	Gain	104.11	105.85	105.48	104.84	104.17	103.53	106.02	105.55	105.99	105.63	104.48	102.84	90.86	88.75	88.75	81.43	86.32	85.85
	Noise Figure	8.76	6.79	7.33	8.00	8.17	8.56	7.47	7.84	7.47	7.55	8.28	10.54	22.18	22.87	22.38	31.03	24.87	27.86
	IIP3	-9.14	-8.89	-7.62	-7.28	-7.15	-6.35	-8.30	-8.24	-9.12	-8.22	-6.94	-5.10	-8.14	-7.12	-7.33	-2.27	-6.82	-5.85
4	Gain	98.47	99.51	99.53	99.25	98.73	98.21	100.08	99.82	101.17	100.96	99.83	99.07	86.45	85.44	85.32	77.41	83.40	82.51
	Noise Figure	13.65	11.96	12.11	12.34	12.41	13.71	11.90	11.65	10.40	11.16	12.87	12.56	26.92	26.43	25.11	35.54	27.12	29.69
	IIP3	-2.44	-2.28	-2.38	-1.84	-1.38	-0.95	-1.90	-2.70	-4.57	-3.27	-2.49	-1.52	-3.98	-4.34	-4.52	3.33	-4.58	-3.70
5	Gain	93.27	93.83	93.96	93.58	93.23	92.77	94.92	94.75	95.59	95.27	94.48	93.53	84.02	82.16	81.84	79.69	80.88	82.88
	Noise Figure	21.15	18.41	18.05	17.88	19.45	19.51	17.91	17.73	16.87	17.46	17.52	18.42	32.44	31.91	30.86	37.89	32.74	33.33
	IIP3	3.62	3.68	3.99	4.18	4.33	5.05	3.44	2.78	1.55	2.40	3.35	4.71	2.04	2.34	1.90	10.66	2.06	2.67
6	Gain	86.02	86.73	86.73	86.48	86.20	85.77	88.22	88.09	88.85	88.71	87.91	86.64	74.40	72.52	72.67	66.24	70.85	70.52
	Noise Figure	26.18	24.83	24.22	25.02	25.96	26.11	23.83	23.91	23.05	22.82	23.88	25.78	38.66	39.00	38.39	46.87	40.48	42.04
	IIP3	10.41	10.53	10.91	10.93	10.99	11.58	9.84	9.25	8.06	8.65	9.59	11.15	8.35	8.87	8.57	16.71	8.63	9.62
7	Gain	81.70	81.66	82.00	81.45	81.37	80.94	83.22	83.13	83.81	83.69	82.80	81.77	68.79	66.94	67.00	60.77	65.13	64.85
	Noise Figure	32.51	30.84	31.28	30.74	30.53	31.18	29.23	29.30	29.61	30.12	29.31	31.08	43.93	44.09	44.43	52.86	46.24	47.39
	IIP3	15.99	16.08	16.38	16.29	16.46	16.69	15.20	14.69	13.53	14.06	15.19	16.71	14.09	14.79	14.49	22.62	14.63	15.41
8	Gain	64.80	65.25	65.14	65.16	65.08	64.92	69.07	69.14	69.26	69.20	68.81	68.63	51.51	50.43	50.53	48.18	49.74	49.50
	Noise Figure	45.16	44.77	44.47	45.05	44.63	44.93	41.59	41.84	41.62	41.72	43.29	42.51	58.13	59.66	58.64	65.70	60.92	61.50
	IIP3	16.61	16.74	17.08	16.91	17.01	17.53	15.72	15.31	13.90	14.55	15.99	17.50	14.11	14.85	14.48	19.99	14.75	15.48
9	Gain	62.74	62.80	62.78	62.72	62.70	62.64	71.60	71.54	71.64	71.64	71.59	71.52	51.88	51.34	51.25	51.50	51.62	52.03
	Noise Figure	50.85	49.39	50.81	50.47	51.58	51.03	44.93	47.16	45.20	46.09	46.60	47.46	64.78	65.62	65.69	66.76	67.25	65.32
	IIP3	34.89	32.84	32.53	32.33	31.96	32.87	33.91	35.65	33.81	34.82	37.70	37.75	30.12	28.87	29.11	26.62	28.22	28.18

Gain, Noise Figure and Linearity

LNA Gain Slider Position	Parameter	Frequency										
		420	481	541	601	660	721	780	841	900	961	998
0	Gain	120.97	120.91	122.79	123.84	122.64	120.68	119.52	118.30	116.94	114.77	114.25
	Noise Figure	2.53	2.84	2.52	2.73	2.84	2.89	3.11	3.21	6.14	3.96	4.06
	IIP3	-23.58	-23.20	-25.01	-26.43	-25.73	-24.22	-23.34	-22.68	-21.36	-20.46	-20.11
1	Gain	113.40	113.55	115.46	116.22	114.83	112.94	111.80	110.58	109.26	107.19	106.71
	Noise Figure	3.41	3.74	3.07	3.17	3.39	3.79	4.00	4.46	7.05	5.72	6.09
	IIP3	-14.71	-14.36	-16.14	-17.49	-16.17	-14.60	-14.10	-13.51	-13.21	-12.54	-12.46
2	Gain	106.62	107.32	109.14	109.64	108.36	106.15	104.66	103.69	102.79	101.06	100.23
	Noise Figure	6.08	5.82	4.75	4.79	5.31	6.30	6.98	7.64	9.43	9.63	10.40
	IIP3	-7.77	-7.95	-10.14	-11.03	-9.73	-7.80	-6.58	-6.40	-6.16	-5.97	-5.43
3	Gain	99.60	100.50	102.32	102.88	101.48	99.22	97.65	96.79	96.06	94.39	93.33
	Noise Figure	11.18	10.73	8.74	8.77	9.71	11.59	12.83	13.73	14.83	15.05	17.02
	IIP3	-0.68	-1.09	-3.17	-4.11	-2.77	-0.65	0.55	0.59	0.65	0.82	1.21
4	Gain	98.24	100.06	102.28	102.96	102.12	100.12	99.24	98.96	97.78	95.76	95.24
	Noise Figure	14.08	13.21	10.51	10.13	11.52	12.55	13.07	13.10	14.13	15.16	16.02
	IIP3	-1.05	-2.40	-4.65	-5.45	-5.04	-3.67	-3.33	-3.55	-2.75	-1.59	-1.63
5	Gain	90.94	92.77	94.90	95.38	94.29	92.39	91.64	91.36	90.24	88.37	87.91
	Noise Figure	19.73	18.03	16.57	15.51	16.64	18.53	19.40	18.59	20.23	21.54	22.70
	IIP3	8.06	6.48	3.99	3.31	4.48	6.17	6.43	5.99	6.45	7.01	6.85
6	Gain	84.98	86.39	88.44	89.15	88.05	86.05	84.91	84.43	83.83	82.39	81.64
	Noise Figure	26.33	24.97	22.49	21.94	21.96	24.43	26.20	25.89	25.84	27.50	28.74
	IIP3	13.74	12.86	10.49	9.49	10.73	12.38	12.84	13.01	12.89	12.84	13.09
7	Gain	78.67	79.76	81.63	82.36	81.25	79.38	78.27	77.82	77.41	76.23	75.53
	Noise Figure	32.59	31.01	29.75	29.22	29.32	31.86	32.91	32.76	33.60	33.85	34.96
	IIP3	20.34	19.97	17.40	16.45	17.81	19.33	19.79	20.05	19.69	19.42	20.18
8	Gain	73.85	74.71	76.43	76.96	75.97	74.46	73.51	73.02	72.61	71.78	71.40
	Noise Figure	37.85	37.14	34.73	34.96	35.26	37.78	38.66	37.69	39.41	40.77	41.03
	IIP3	26.18	26.96	22.92	22.15	24.12	25.15	25.27	26.68	26.16	24.58	27.01
9	Gain	58.81	58.97	59.94	60.23	59.60	58.88	58.54	58.23	58.12	57.79	57.79
	Noise Figure	37.85	37.14	34.73	34.96	35.26	37.78	38.66	37.69	39.41	40.77	41.03
	IIP3	27.35	26.24	23.86	22.81	24.14	25.98	26.32	26.43	26.09	26.05	26.50

Gain, Noise Figure and Linearity

LNA Gain Slider Position	Parameter	Frequency										
		1000	1100	1202	1300	1400	1500	1600	1700	1802	1900	2000
0	Gain	108.37	108.19	111.20	113.75	113.79	113.00	111.34	111.45	109.83	105.09	100.03
	Noise Figure	4.52	4.95	4.37	4.66	4.66	4.95	5.27	7.47	5.36	12.10	13.73
	IIP3	-16.46	-13.79	-15.42	-16.68	-16.76	-15.95	-14.88	-15.18	-13.40	-10.08	-5.56
1	Gain	101.80	101.67	103.81	107.16	106.91	105.93	105.52	105.43	102.36	97.54	93.47
	Noise Figure	7.56	7.83	7.02	6.40	6.66	7.00	7.47	8.74	8.94	13.88	16.67
	IIP3	-10.17	-7.64	-8.29	-10.37	-10.08	-9.47	-9.24	-9.23	-6.16	-3.07	-0.35
2	Gain	94.76	94.90	96.76	100.47	99.98	98.50	98.05	98.27	95.28	90.07	86.39
	Noise Figure	13.17	12.78	15.01	10.94	11.19	11.82	12.22	12.81	15.05	20.74	20.61
	IIP3	-3.56	-0.82	-1.23	-3.83	-3.07	-1.98	-1.91	-2.29	0.73	4.15	6.73
3	Gain	89.58	89.70	94.34	97.02	97.93	97.01	96.08	95.05	94.14	89.01	83.06
	Noise Figure	17.73	17.49	14.24	12.97	12.69	13.12	13.71	15.24	16.58	21.56	21.74
	IIP3	3.51	4.77	4.58	5.68	6.12	5.72	5.24	4.86	4.54	5.63	10.53
4	Gain	83.22	83.83	87.11	91.13	91.47	90.37	90.05	89.65	87.11	82.60	78.88
	Noise Figure	25.08	24.41	21.57	18.68	18.29	19.29	20.42	20.03	23.31	28.47	31.86
	IIP3	16.68	17.15	18.78	20.67	20.86	20.34	20.10	20.00	18.81	16.61	15.24
5	Gain	76.70	77.41	80.10	84.43	84.37	82.95	82.78	82.99	80.40	76.09	73.20
	Noise Figure	32.00	31.10	29.12	25.12	25.71	27.57	27.38	26.99	29.98	35.47	38.31
	IIP3	16.39	17.63	16.41	17.38	17.34	16.76	16.62	16.74	16.43	19.01	21.53
6	Gain	71.72	72.12	74.61	78.61	78.66	77.48	77.23	77.28	74.80	72.06	70.25
	Noise Figure	37.33	37.64	35.08	31.97	31.71	33.02	32.86	33.02	35.67	40.75	43.83
	IIP3	21.56	23.32	21.95	18.81	18.64	19.83	19.73	19.44	22.74	25.14	27.46
7	Gain	69.19	69.32	71.10	74.02	73.82	72.32	72.32	72.16	69.04	65.94	64.26
	Noise Figure	38.65	39.26	37.10	34.57	35.43	36.50	36.50	36.17	39.97	43.31	46.07
	IIP3	21.13	23.01	22.45	20.74	21.03	22.52	22.06	22.01	25.89	27.04	28.12
8	Gain	53.97	54.69	54.73	56.49	56.41	55.44	55.52	55.34	53.86	52.97	52.60
	Noise Figure	55.08	55.30	53.58	52.20	52.21	52.80	52.51	52.69	55.43	57.41	59.95
	IIP3	21.21	23.19	22.56	20.93	21.27	22.72	22.37	22.21	26.28	27.08	28.51

LNA Gain Slider Position	Parameter	Frequency															
		1	2	4	8	11.99	12	17	21	25	29.99	30	35	41	47	53	59
0	Gain	97.85	97.55	98.42	97.48	95.99	96.57	96.43	96.64	96.72	96.23	95.77	95.71	95.60	95.20	94.59	93.47
	Noise Figure	19.39	17.55	18.91	17.14	15.96	15.19	15.86	15.94	16.37	15.31	15.46	14.64	14.14	14.68	16.09	19.18
	IIP3	-1.40	-4.98	-4.76	-4.12	-5.35	-4.01	-4.32	-4.39	-4.43	-4.38	-4.27	-4.18	-4.34	-3.87	-2.91	-5.40
1	Gain	91.37	90.98	91.78	90.41	89.11	89.84	89.80	89.99	89.87	89.50	89.23	89.13	88.96	88.38	87.50	86.31
	Noise Figure	25.39	23.55	24.91	23.14	21.96	20.90	21.27	21.67	21.63	21.35	20.62	21.22	21.34	21.88	22.42	24.00
	IIP3	6.29	1.18	1.72	2.04	-0.39	2.42	2.24	2.23	1.95	2.13	2.24	2.36	2.32	2.89	4.24	-1.14
2	Gain	84.67	84.23	85.12	83.36	82.19	82.88	82.86	83.00	82.85	82.49	82.33	82.22	82.04	81.40	80.50	79.48
	Noise Figure	31.19	31.07	31.94	29.85	28.14	27.92	28.04	28.55	28.25	28.77	27.65	28.76	29.40	28.25	30.85	32.48
	IIP3	12.56	7.96	8.36	7.75	3.79	9.23	9.28	8.94	8.91	8.91	9.37	9.26	9.17	9.96	11.16	12.20
3	Gain	79.05	78.44	79.43	77.56	76.38	77.07	77.08	77.20	77.00	76.69	76.53	76.45	76.22	75.60	74.72	73.76
	Noise Figure	37.51	36.44	37.62	35.85	35.12	34.62	34.05	33.95	34.28	34.79	34.76	34.93	33.72	35.40	35.25	37.56
	IIP3	15.38	13.49	13.69	11.10	6.26	14.54	14.97	15.14	14.74	14.50	15.06	14.86	15.08	15.75	16.77	16.55
4	Gain	58.65	58.49	59.17	57.72	56.65	57.54	57.60	57.78	57.59	57.21	57.06	56.88	56.74	56.07	54.99	53.42
	Noise Figure	49.73	49.47	48.81	49.19	50.17	48.81	49.28	50.07	50.65	50.46	49.99	49.78	50.65	50.29	52.90	53.88
	IIP3	19.45	14.35	14.76	13.79	9.25	15.39	15.38	15.32	15.31	15.42	15.58	15.56	15.51	16.30	17.49	19.01
5	Gain	56.91	54.82	55.37	53.95	53.08	53.67	53.75	53.84	53.58	53.27	53.13	52.90	52.72	52.09	51.16	50.04
	Noise Figure	60.39	56.07	54.70	55.66	56.72	56.15	55.94	55.36	56.91	56.89	56.05	57.39	55.97	57.77	59.07	60.79
	IIP3	19.09	20.46	19.64	15.40	10.49	25.67	29.23	29.91	31.39	32.27	29.97	30.92	29.85	28.59	29.18	29.59
6	Gain	37.10	36.80	37.27	36.32	35.67	36.15	36.19	36.29	36.14	35.90	35.76	35.63	35.49	35.07	34.61	33.87
	Noise Figure	72.84	72.35	71.63	72.93	72.53	72.24	72.75	72.33	72.72	73.20	73.23	73.20	72.85	74.70	75.58	76.66
	IIP3	23.07	23.09	22.24	17.63	13.11	25.71	30.69	31.47	30.47	32.76	31.35	32.35	30.04	28.41	29.99	30.29



Gain, Noise Figure and Linearity

LNA Gain Slider Position	Parameter	Frequency																	
		60	71	84	96	108	118	121	146	172	198	224	248	252	296	302	378	386	417
0	Gain	123.19	124.38	123.81	123.05	122.39	121.74	123.93	123.32	123.74	123.51	122.28	120.58	109.13	106.96	106.98	98.54	104.65	103.31
	Noise Figure	3.08	2.66	2.55	2.46	2.68	2.46	2.30	2.37	2.38	2.41	2.61	2.90	7.29	6.98	6.43	11.75	6.89	9.25
	IIP3	-27.81	-27.40	-25.94	-25.76	-25.53	-25.08	-26.27	-26.17	-27.25	-26.43	-24.88	-23.55	-23.10	-23.15	-25.92	-17.91	-25.43	-24.93
1	Gain	116.53	118.01	117.47	116.73	116.01	115.32	117.30	116.59	117.32	117.07	115.82	114.27	102.57	100.61	100.63	91.16	98.17	96.55
	Noise Figure	3.51	3.05	3.07	2.90	3.21	3.11	2.95	3.05	3.01	2.89	3.25	3.64	10.95	11.58	9.86	18.91	11.29	15.65
	IIP3	-21.40	-20.96	-19.79	-19.42	-19.15	-18.32	-19.53	-19.55	-20.81	-19.90	-18.56	-17.20	-16.99	-17.07	-19.82	-11.32	-19.33	-18.62
2	Gain	109.69	111.20	110.68	109.96	109.24	108.56	110.51	109.89	110.67	110.38	109.32	107.89	96.61	94.50	94.50	86.51	92.01	90.87
	Noise Figure	6.05	4.52	4.69	4.70	5.18	5.31	4.96	5.07	4.96	4.86	5.29	7.88	17.37	17.12	16.44	25.90	18.27	21.36
	IIP3	-14.55	-14.14	-12.94	-12.63	-12.34	-11.59	-12.80	-12.85	-14.16	-13.26	-12.09	-10.79	-10.60	-10.60	-13.40	-6.25	-12.83	-12.08
3	Gain	103.82	105.37	104.87	104.13	103.45	102.77	104.76	104.15	104.93	104.66	103.68	102.31	91.10	88.95	89.06	81.18	86.46	85.38
	Noise Figure	9.18	7.22	8.89	8.04	8.85	9.06	8.63	8.79	8.78	8.40	9.14	13.13	21.66	22.83	21.17	30.78	24.23	26.69
	IIP3	-8.78	-8.37	-7.11	-6.76	-6.59	-5.74	-7.02	-7.11	-8.45	-7.52	-6.45	-5.10	-5.19	-5.16	-7.76	-1.64	-7.01	-6.04
4	Gain	98.07	99.13	99.15	98.91	98.43	97.92	99.06	98.69	100.49	100.31	99.12	98.22	86.54	85.30	85.18	76.86	83.04	81.96
	Noise Figure	14.01	13.16	12.86	12.97	12.73	13.30	12.58	13.40	11.47	11.57	12.87	13.87	26.33	24.95	25.26	35.53	27.89	30.10
	IIP3	-2.21	-2.11	-2.19	-1.68	-1.31	-0.93	-1.09	-1.93	-4.18	-2.89	-2.15	-1.07	-1.13	-1.88	-4.28	3.63	-4.24	-3.23
5	Gain	93.13	93.53	93.82	93.31	92.94	92.52	94.17	93.84	94.94	94.79	93.81	92.94	84.29	82.03	82.07	78.89	80.36	81.04
	Noise Figure	22.99	18.65	19.26	18.37	19.00	19.27	18.12	19.59	18.02	17.51	18.77	20.58	32.61	31.39	29.63	39.62	33.72	34.14
	IIP3	3.84	4.03	4.16	4.29	4.48	5.03	4.18	3.48	1.94	2.74	3.72	4.87	5.68	4.83	2.40	10.33	2.37	3.10
6	Gain	85.75	86.35	86.42	86.08	85.79	85.34	87.26	87.02	88.02	87.94	87.06	85.90	74.41	72.55	72.63	65.63	70.58	69.70
	Noise Figure	26.95	24.99	25.03	25.88	26.36	25.77	25.02	24.92	24.84	24.32	24.58	26.07	39.18	37.52	37.89	48.18	40.07	42.01
	IIP3	10.75	10.90	11.15	11.26	11.36	11.91	10.72	10.08	8.62	9.37	10.26	11.53	11.66	11.27	8.71	16.88	8.78	9.78
7	Gain	81.44	81.35	81.41	81.07	80.88	80.49	82.34	82.14	83.02	82.87	82.20	81.30	69.06	67.12	67.20	60.31	65.10	64.43
	Noise Figure	32.68	31.31	30.94	30.71	31.63	32.47	30.62	31.35	29.66	29.44	30.65	32.62	46.54	43.93	43.31	52.80	45.32	48.57
	IIP3	16.35	16.42	16.56	16.47	16.45	16.85	16.36	15.50	14.45	14.81	15.47	16.22	17.06	16.77	14.24	22.32	14.50	15.53
8	Gain	64.41	64.85	64.91	64.80	64.64	64.42	68.58	68.54	68.88	68.80	68.56	68.30	51.49	50.40	50.42	47.97	49.70	49.32
	Noise Figure	46.30	44.92	44.10	44.67	45.71	45.50	43.16	43.59	41.84	42.10	43.19	44.22	57.99	57.97	58.33	65.53	60.34	62.30
	IIP3	17.03	17.06	17.37	17.18	17.40	17.99	16.85	16.32	14.65	15.46	16.26	17.66	17.01	16.91	14.18	19.80	14.45	15.55
9	Gain	62.30	62.58	62.65	62.54	62.43	62.30	71.42	71.48	71.45	71.71	71.39	71.41	51.58	51.24	51.29	51.40	51.48	51.98
	Noise Figure	51.70	50.38	50.07	49.98	50.66	51.72	46.73	46.66	46.67	46.52	46.37	46.44	64.26	65.30	64.24	67.22	65.16	67.04
	IIP3	35.92	33.95	34.44	34.16	34.29	34.19	35.42	36.92	35.58	35.27	36.62	37.23	28.33	28.41	29.34	26.74	28.48	27.82

Gain, Noise Figure and Linearity

LNA Gain Slider Position	Parameter	Frequency										
		420	481	541	601	660	721	780	841	900	961	998
0	Gain	120.79	120.29	122.57	123.44	122.03	119.25	118.12	118.03	117.31	114.38	113.06
	Noise Figure	3.02	3.17	2.78	2.97	3.23	3.43	3.50	3.55	4.07	4.42	4.74
	IIP3	-23.42	-22.95	-24.86	-25.79	-25.02	-22.88	-21.95	-22.08	-21.44	-19.90	-19.32
1	Gain	113.30	112.96	115.25	115.88	114.21	111.59	110.48	110.36	109.59	106.77	105.54
	Noise Figure	3.82	3.87	3.27	3.40	3.93	4.41	4.73	4.67	5.35	6.46	7.04
	IIP3	-14.63	-14.49	-16.18	-17.16	-15.44	-13.94	-12.89	-13.35	-13.01	-12.64	-12.70
2	Gain	106.59	106.59	108.91	109.37	107.79	105.13	103.57	102.88	102.29	100.23	98.97
	Noise Figure	6.37	6.25	5.08	4.92	5.72	7.15	8.00	8.41	9.04	10.60	11.56
	IIP3	-7.85	-7.72	-10.03	-10.81	-9.20	-6.87	-5.68	-5.75	-5.62	-5.08	-4.61
3	Gain	99.64	99.83	102.32	102.73	101.12	98.52	96.81	95.88	95.19	93.49	92.31
	Noise Figure	11.42	11.09	9.30	8.93	10.37	12.10	13.41	14.27	14.85	16.89	17.50
	IIP3	-0.79	-0.99	-3.36	-4.03	-2.47	-0.10	1.28	1.40	1.25	1.83	1.94
4	Gain	98.24	98.84	101.12	102.24	101.12	98.92	98.35	98.65	97.85	95.94	95.51
	Noise Figure	15.40	13.70	11.37	10.96	12.59	13.62	13.54	13.33	14.04	16.19	16.07
	IIP3	-1.19	-1.67	-3.67	-4.81	-4.23	-2.54	-2.37	-3.28	-2.89	-1.87	-2.42
5	Gain	90.84	91.49	93.79	94.65	93.29	91.20	90.69	90.97	90.17	88.40	87.98
	Noise Figure	20.22	19.50	16.93	16.88	16.83	18.99	19.73	19.37	20.09	22.53	22.75
	IIP3	7.90	7.37	4.97	3.87	5.40	7.24	7.23	6.09	6.28	6.87	6.14
6	Gain	84.92	85.32	87.80	88.55	87.29	85.06	84.02	83.76	83.61	82.33	81.55
	Noise Figure	26.49	25.88	23.73	23.06	23.98	25.33	26.82	26.85	26.87	28.29	28.50
	IIP3	13.95	13.72	11.09	10.02	11.52	13.39	13.87	13.33	12.91	12.91	12.82
7	Gain	78.50	78.82	81.37	81.97	80.77	78.80	77.61	77.22	76.98	76.13	75.47
	Noise Figure	32.64	31.57	29.54	29.55	31.04	32.26	34.10	33.87	34.08	34.84	35.27
	IIP3	20.57	20.74	17.69	16.73	18.22	19.92	20.40	20.45	20.18	19.67	19.74
8	Gain	73.85	74.13	76.20	76.76	75.85	74.13	73.08	72.58	72.40	71.79	71.43
	Noise Figure	37.81	38.18	36.22	35.16	35.73	37.44	38.67	39.47	40.52	39.97	40.89
	IIP3	26.11	27.40	23.28	22.39	24.42	25.58	25.49	26.93	26.20	24.21	26.00
9	Gain	58.62	58.74	59.77	60.07	59.52	58.67	58.33	58.27	58.03	57.94	57.84
	Noise Figure	37.81	38.18	36.22	35.16	35.73	37.44	38.67	39.47	40.52	39.97	40.89
	IIP3	27.61	26.53	24.05	23.14	24.25	26.44	26.91	26.80	26.19	26.07	25.79

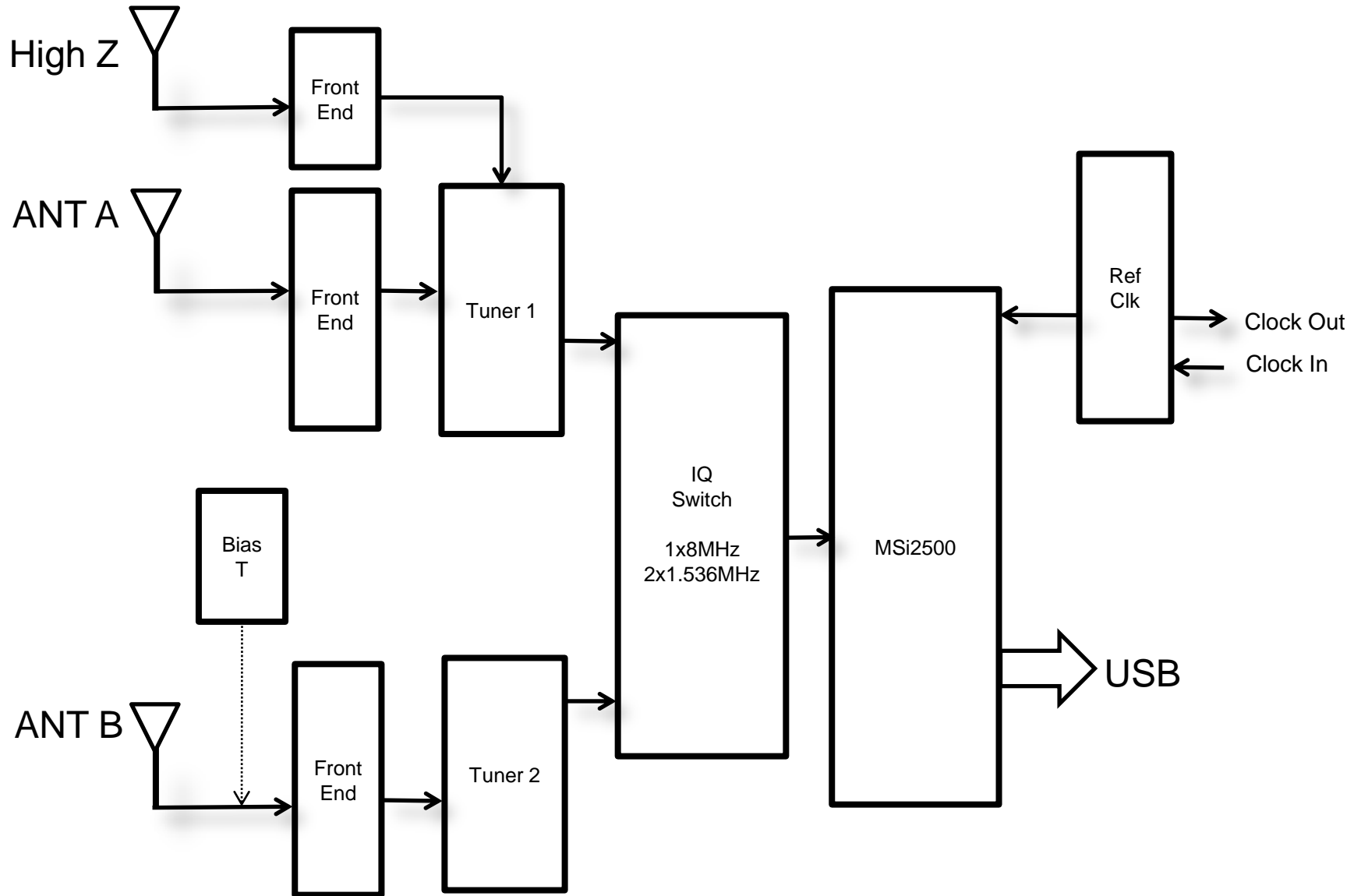
Gain, Noise Figure and Linearity

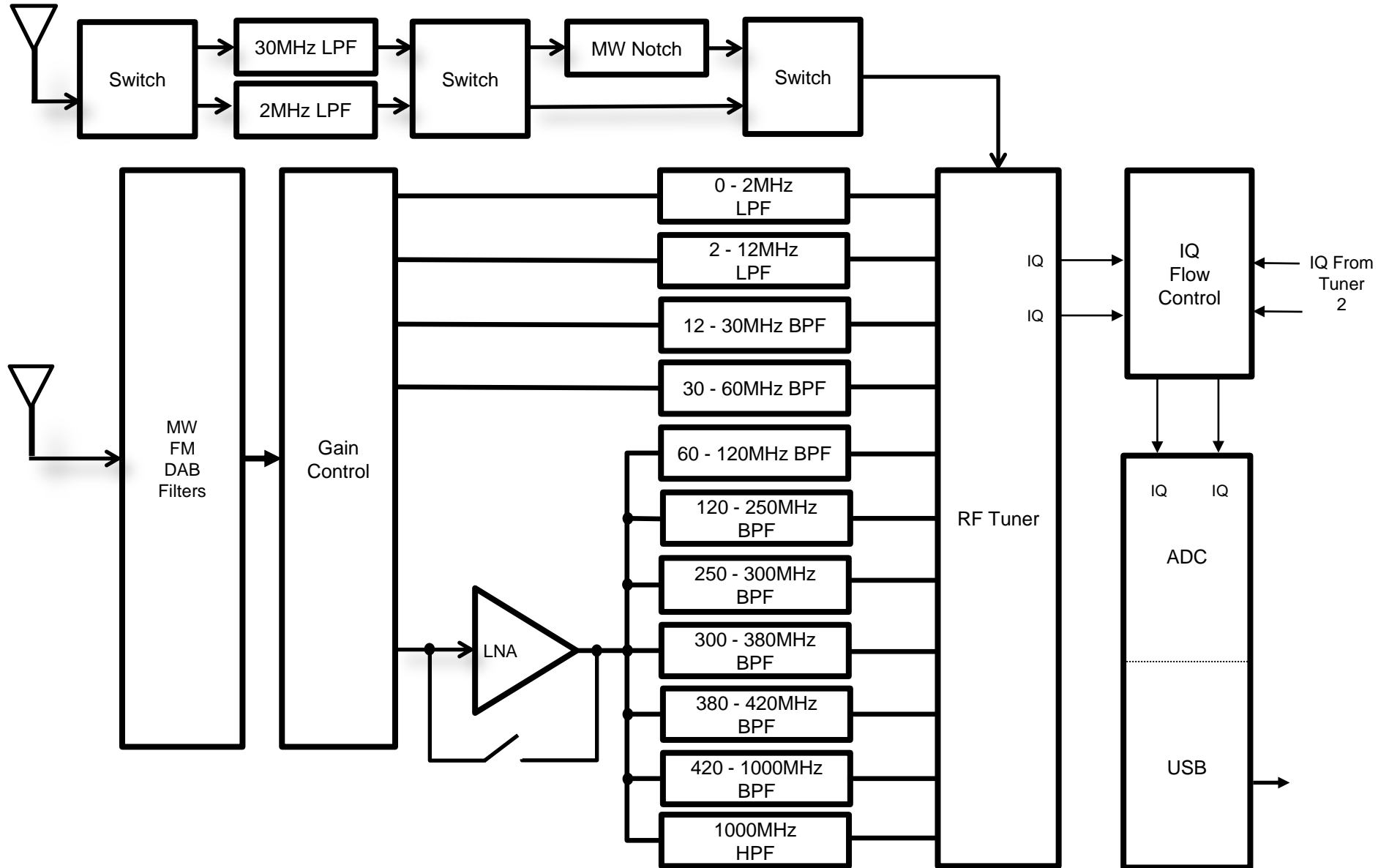
LNA Gain Slider Position	Parameter	Frequency										
		1000	1100	1202	1300	1400	1500	1600	1700	1802	1900	2000
0	Gain	106.10	109.42	111.98	113.33	113.33	114.28	112.63	111.45	110.06	105.66	98.58
	Noise Figure	5.90	5.39	4.70	4.63	5.13	5.42	5.28	5.16	5.61	7.64	12.78
	IIP3	-14.30	-16.00	-16.32	-16.21	-15.87	-16.70	-15.68	-14.47	-13.50	-9.75	-4.21
1	Gain	99.07	101.51	104.40	106.30	107.04	106.96	105.40	104.60	103.34	98.02	91.02
	Noise Figure	10.21	8.60	7.22	6.65	6.90	7.48	7.62	7.92	9.04	12.76	19.88
	IIP3	-7.15	-8.48	-9.04	-9.52	-10.16	-10.08	-8.81	-8.14	-6.93	-2.68	1.68
2	Gain	92.32	94.59	97.48	99.48	100.45	99.83	98.46	97.75	96.39	91.16	84.66
	Noise Figure	15.95	13.83	12.04	11.42	11.14	12.19	12.30	13.17	14.74	19.13	23.79
	IIP3	-0.61	-1.49	-2.17	-2.78	-3.26	-3.08	-1.97	-1.44	-0.22	3.97	7.97
3	Gain	88.60	92.08	95.05	96.61	97.08	95.74	95.63	94.95	92.48	89.12	81.72
	Noise Figure	19.32	16.47	14.16	13.05	13.27	15.99	15.02	15.49	17.47	22.12	29.99
	IIP3	4.17	3.58	4.90	5.59	5.98	5.15	5.08	4.90	4.23	6.13	11.72
4	Gain	81.67	85.26	88.92	90.52	90.24	88.84	87.55	86.82	85.75	81.54	75.90
	Noise Figure	27.34	23.26	20.60	18.75	20.43	22.10	22.70	23.46	25.06	27.92	33.46
	IIP3	16.13	17.87	19.72	20.49	20.30	19.57	18.89	18.71	18.09	16.20	18.00
5	Gain	75.31	78.62	82.18	83.72	83.15	82.00	80.80	80.10	79.12	75.33	71.23
	Noise Figure	33.68	30.35	26.29	25.94	27.33	28.43	29.31	29.93	31.38	35.48	40.21
	IIP3	17.92	15.75	16.49	17.14	17.06	16.47	16.39	16.67	17.99	20.72	24.29
6	Gain	69.06	72.25	75.64	77.06	76.49	75.60	74.65	73.75	72.36	68.36	63.65
	Noise Figure	38.30	35.73	33.15	32.78	32.83	33.98	35.14	35.34	37.24	41.31	45.86
	IIP3	23.13	21.10	19.95	19.81	20.04	21.37	22.02	22.65	24.42	26.82	29.96
7	Gain	68.06	70.62	72.89	73.16	72.25	71.08	70.09	69.08	67.81	65.41	62.30
	Noise Figure	40.41	37.35	35.16	35.49	37.00	37.74	40.26	40.86	40.99	44.44	48.05
	IIP3	22.57	20.95	20.72	21.70	22.88	24.26	24.82	25.84	27.87	28.97	30.59
8	Gain	53.55	54.59	55.82	55.97	55.50	54.84	54.40	53.87	53.55	52.89	52.39
	Noise Figure	55.56	54.58	52.24	51.52	52.96	53.99	54.34	54.90	56.02	58.45	60.71
	IIP3	22.83	21.02	20.90	21.95	23.27	24.49	25.17	26.07	28.38	28.80	30.36

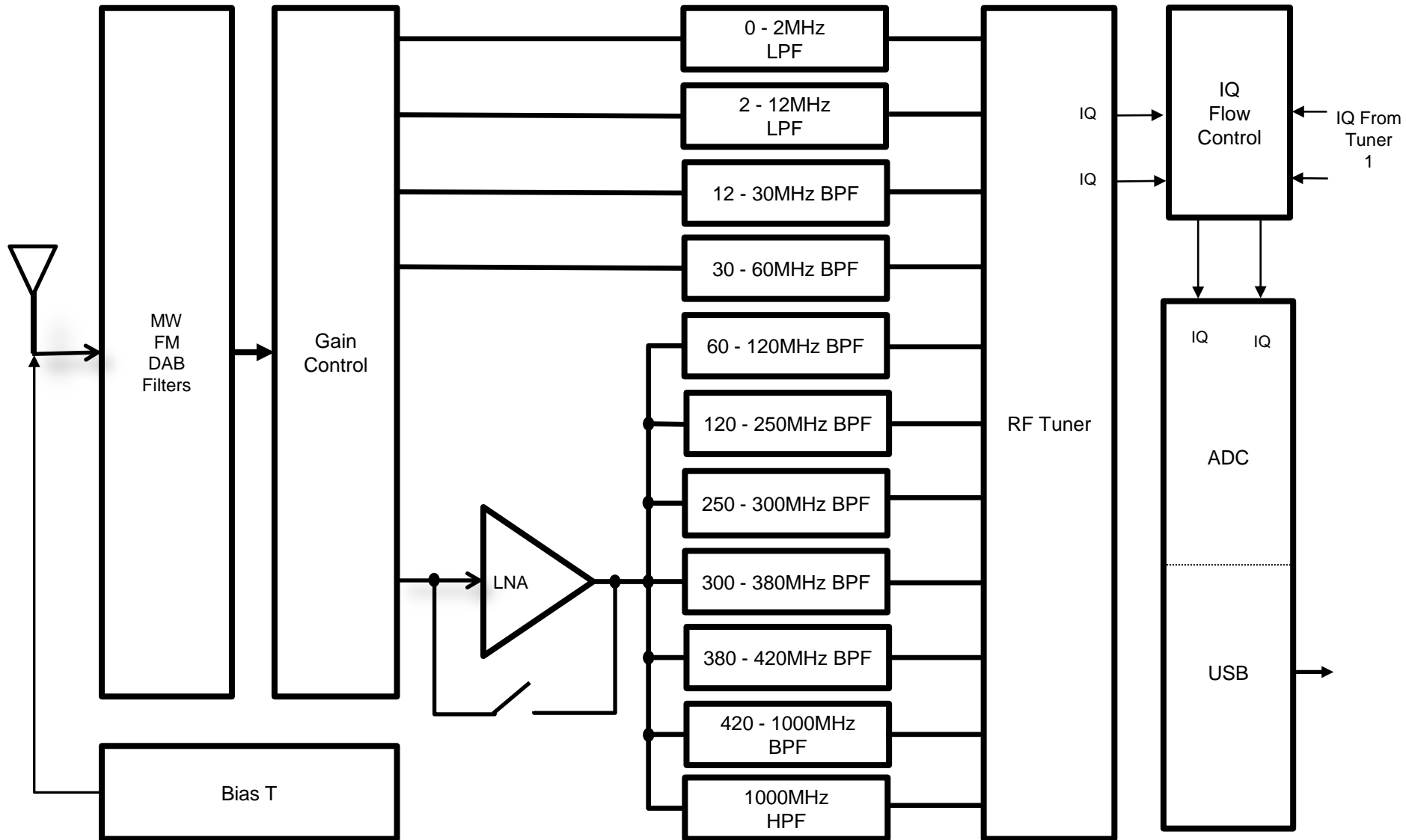


High Impedance Port Gain, Noise Figure and Linearity

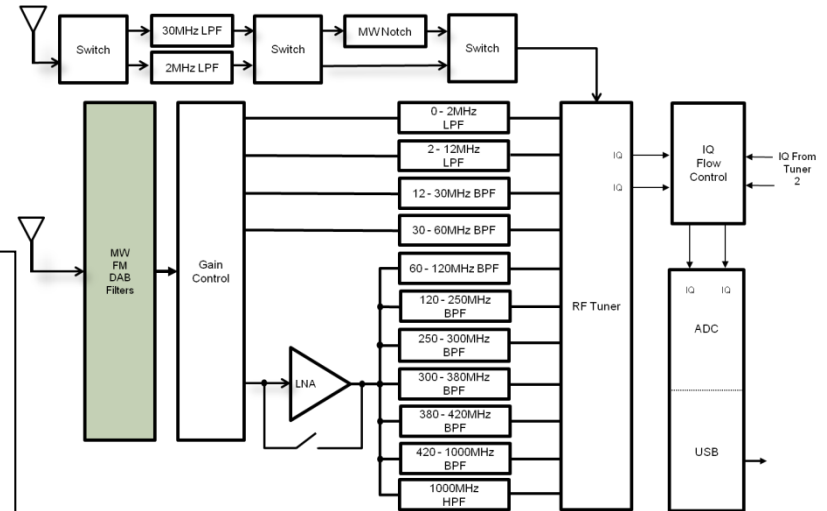
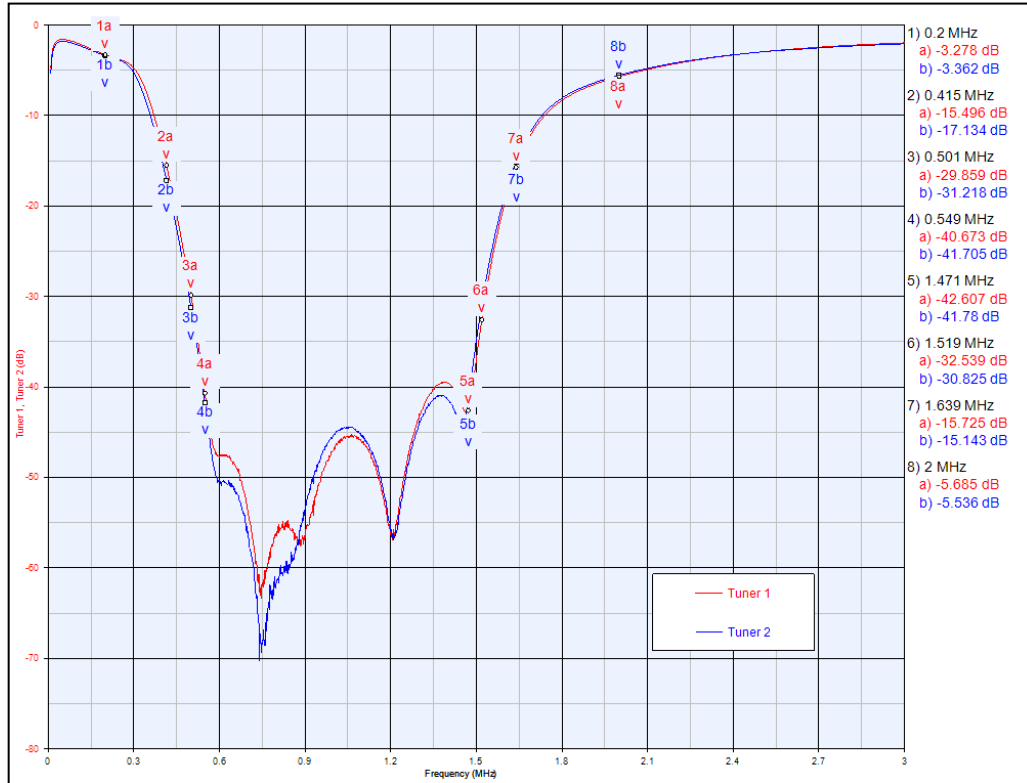
LNA Gain Slider Position	Parameter	Frequency								
		0.5	1	1.5	2	7	12	17	22	29.99
0	Gain	98.02	97.25	96.56	96.02	94.60	93.92	95.21	93.7	88.5
	Noise Figure	11.75	11.66	12.74	13.99	16.65	18.10	17.27	18.89	20.96
	IIP3	-8.76	-7.62	-6.88	-7.66	-5.88	-9.07	-11.26	-8.31	-9.41
1	Gain	91.80	91.32	90.33	89.88	88.42	87.66	89.07	87.81	83.94
	Noise Figure	13.64	13.87	15.23	15.50	18.83	19.33	18.67	19.91	22.42
	IIP3	-2.75	-1.23	-0.73	-1.57	0.35	-2.27	-3.89	-1.279	-3.86
2	Gain	85.66	85.58	85.41	85.17	82.09	81.10	82.56	81.20	77.31
	Noise Figure	17.25	17.57	17.30	17.42	21.65	22.09	20.85	22.07	25.21
	IIP3	3.32	4.87	5.30	4.81	6.83	5.81	3.93	6.14	4.48
3	Gain	79.67	79.55	79.34	79.16	76.05	72.21	76.47	74.91	71.22
	Noise Figure	22.37	21.49	22.68	22.00	25.99	26.23	25.33	26.01	30.42
	IIP3	9.47	10.84	11.25	11.15	13.07	10.72	9.69	10.38	8.96
4	Gain	61.10	60.76	60.61	60.37	57.27	56.47	57.69	56.28	50.99
	Noise Figure	36.05	36.66	36.19	37.58	39.59	40.97	39.49	40.61	46.97
	IIP3	10.29	11.56	11.87	12.13	14.06	13.74	10.34	10.53	9.93





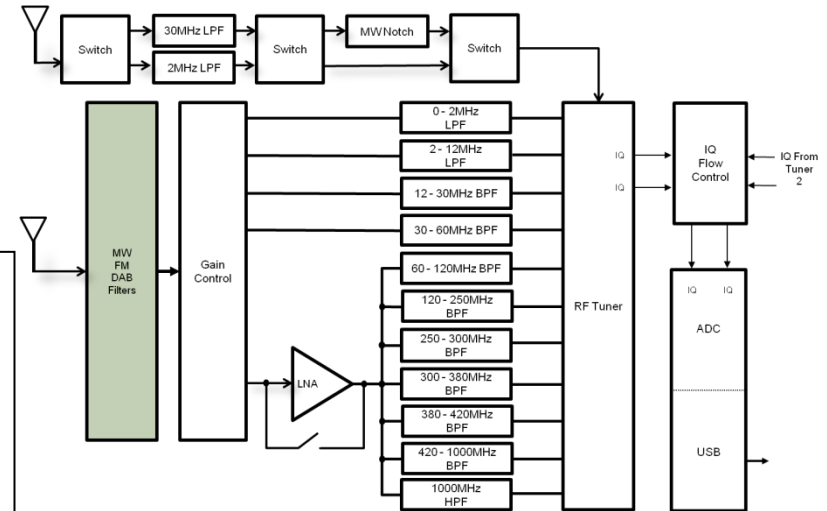
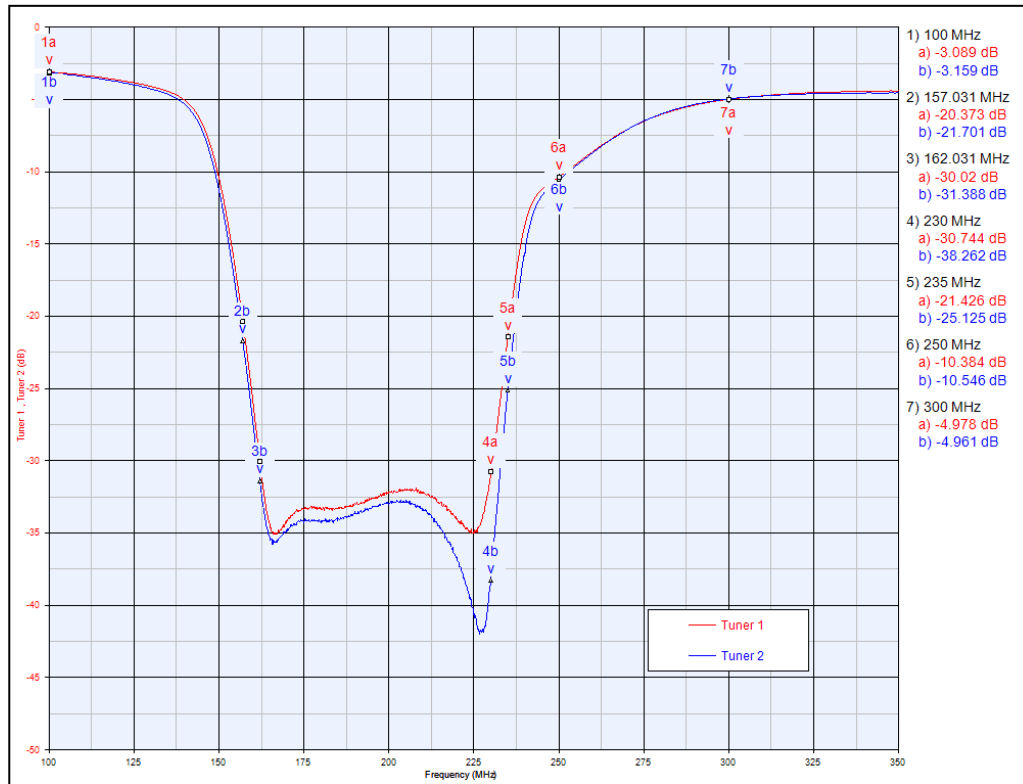


MW Notch Filter



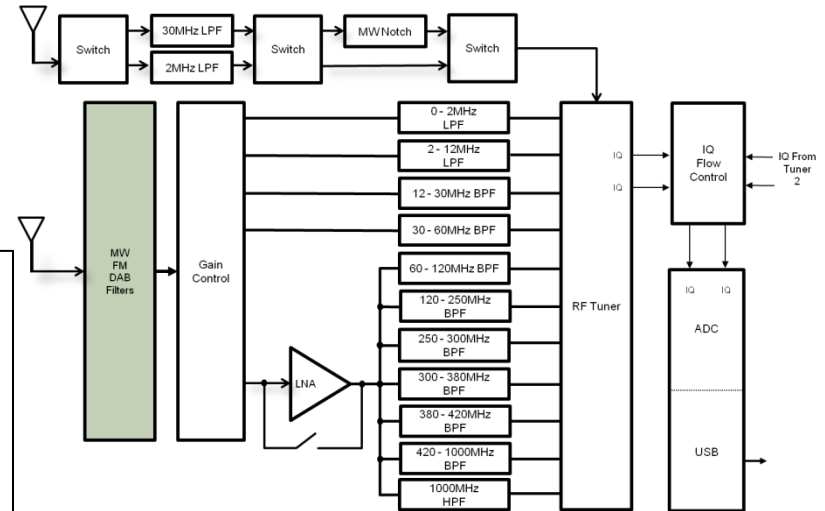
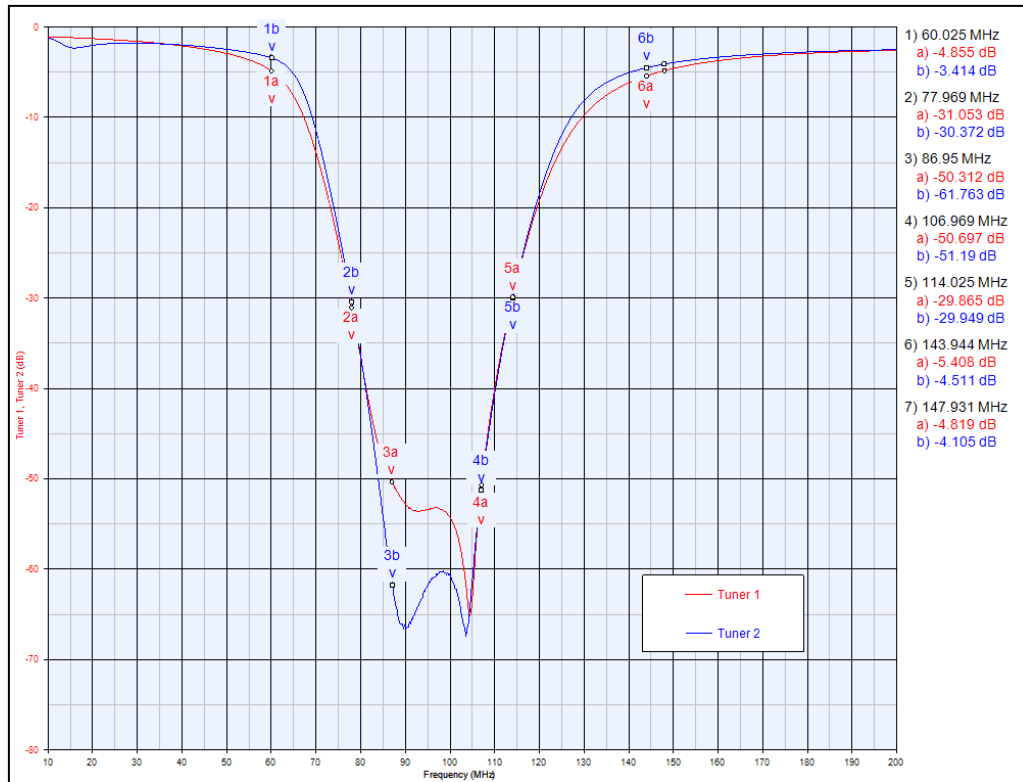
Frequency (kHz)		Attenuation
Lower	Upper	
415	1640	>15dB
500	1520	>30dB
550	1470	>40dB

DAB Notch Filter



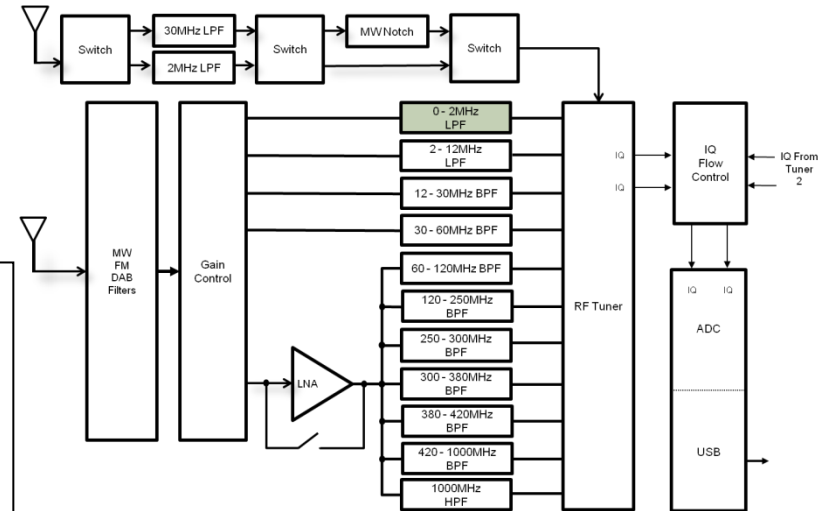
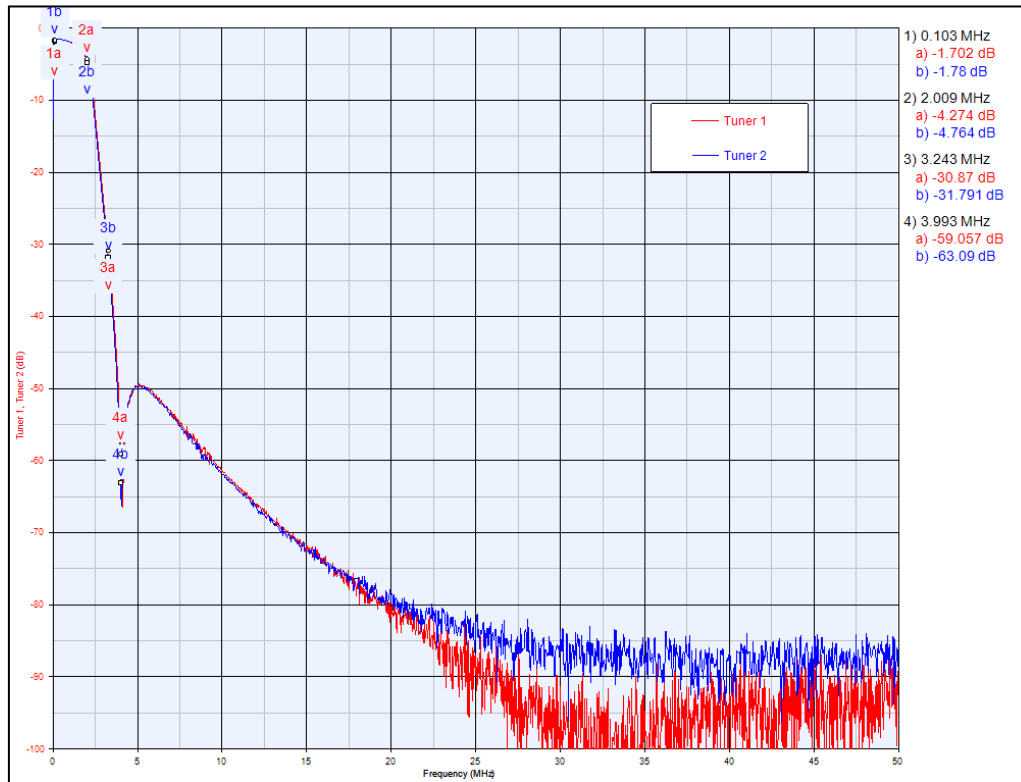
Frequency (MHz)		Attenuation
Lower	Upper	
157	235	>20dB
162	230	>30dB

FM Notch Filter

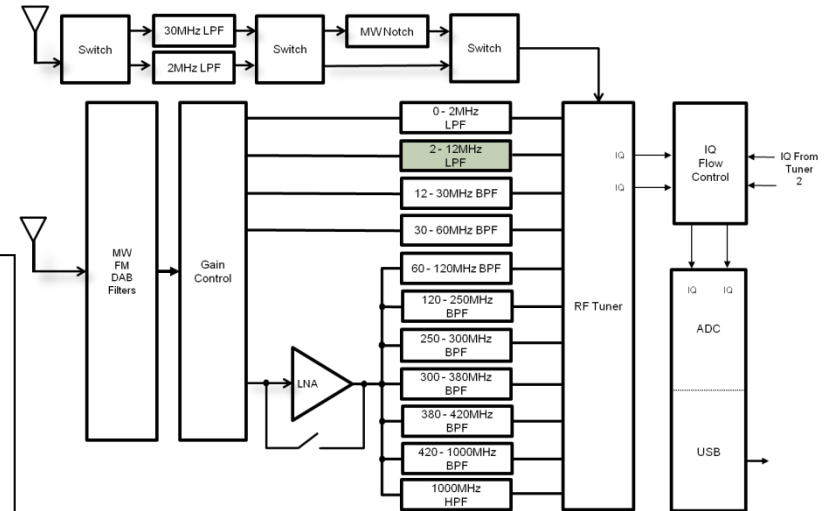
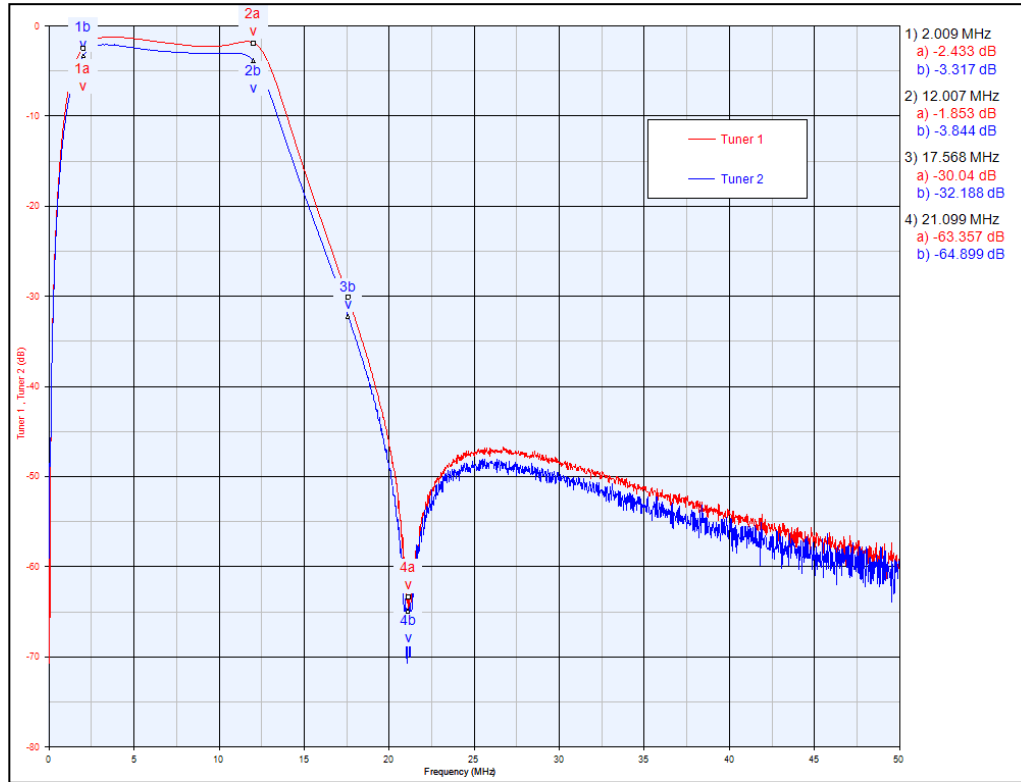


Frequency (MHz)		Attenuation
Lower	Upper	
78	114	>30dB
87	107	>50dB

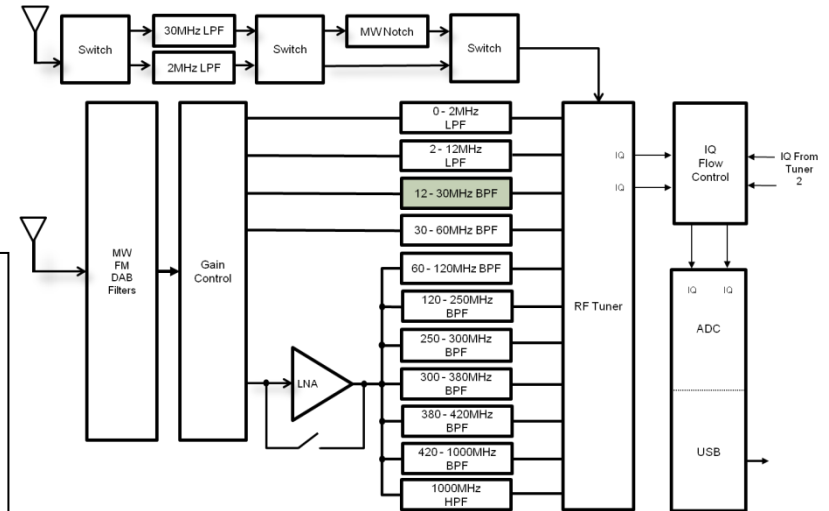
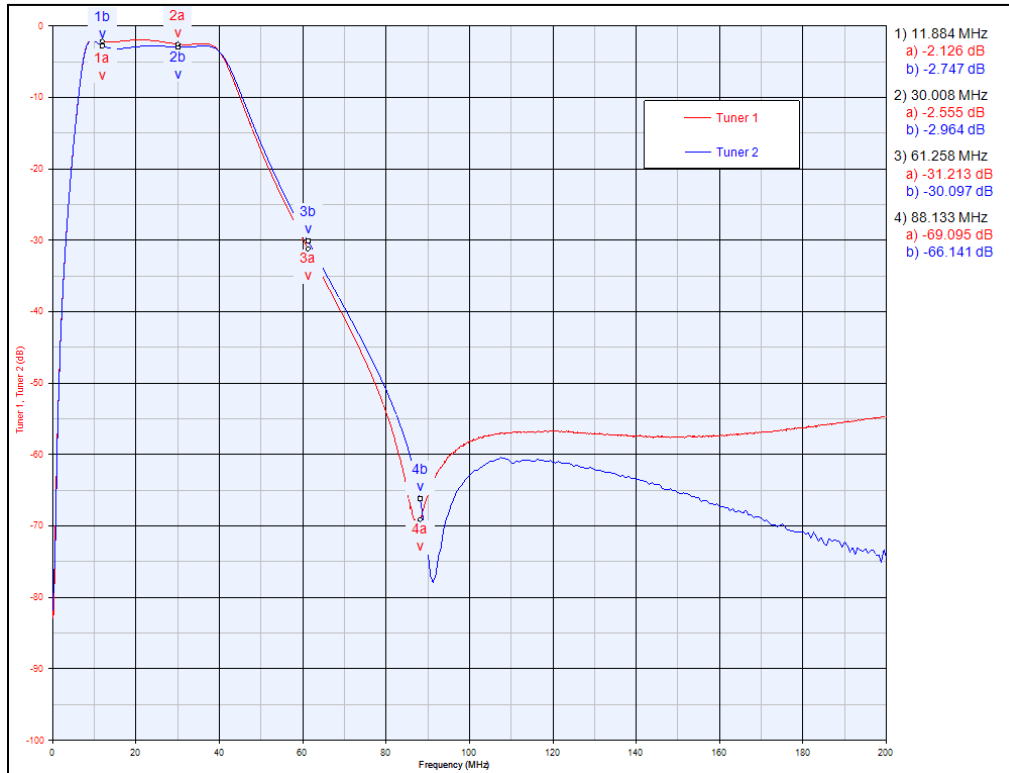
0 – 2MHz Low Pass Filter



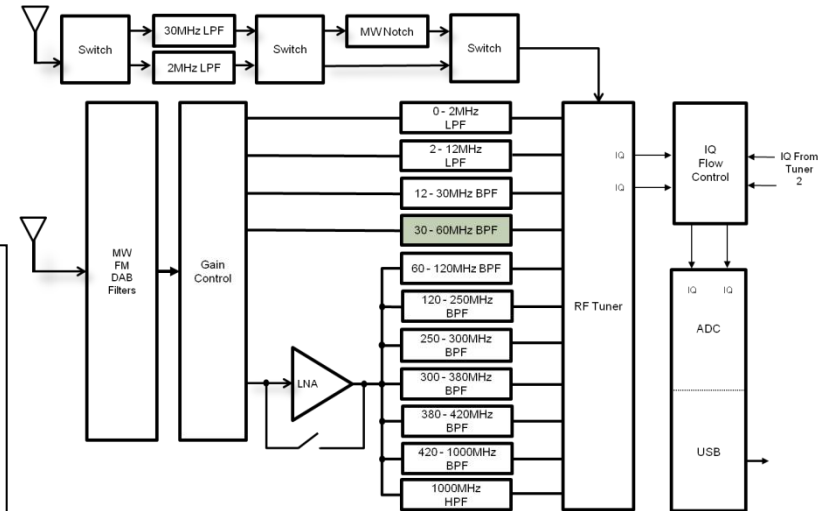
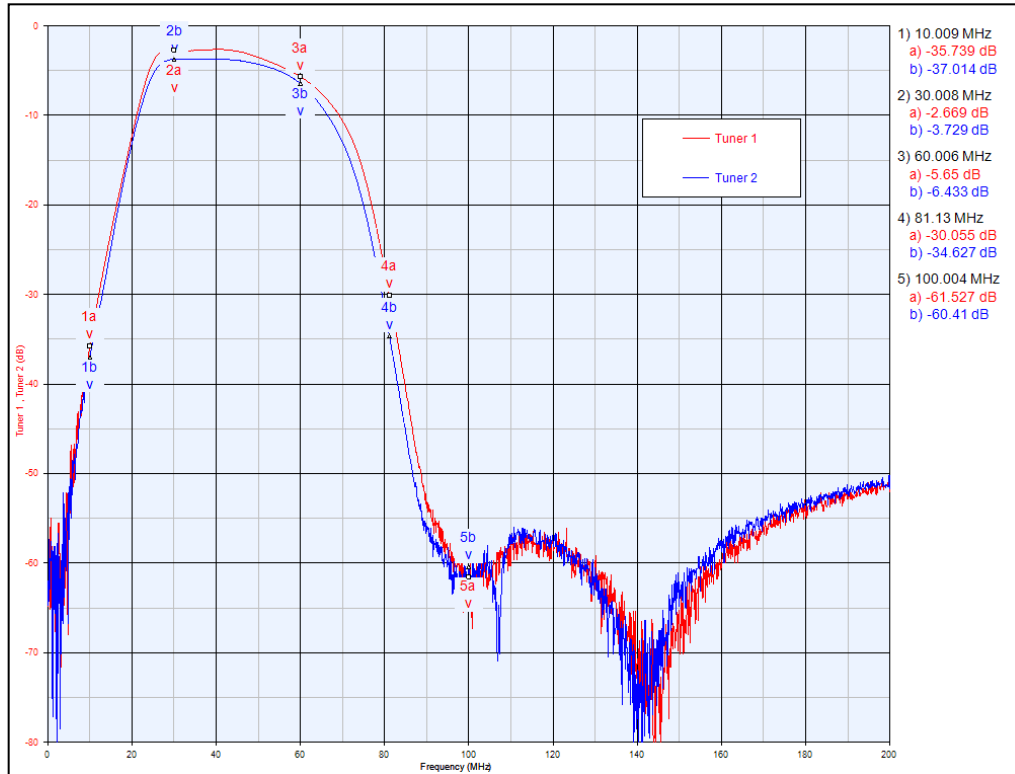
2 – 12MHz Band Pass Filter



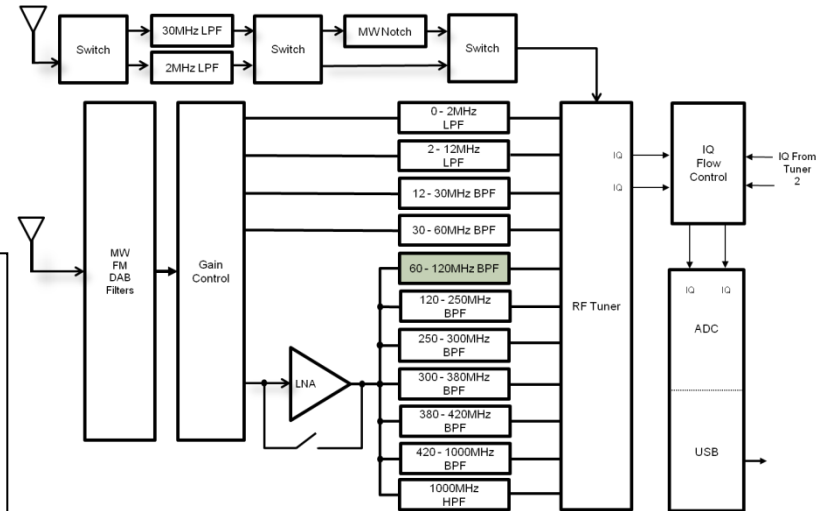
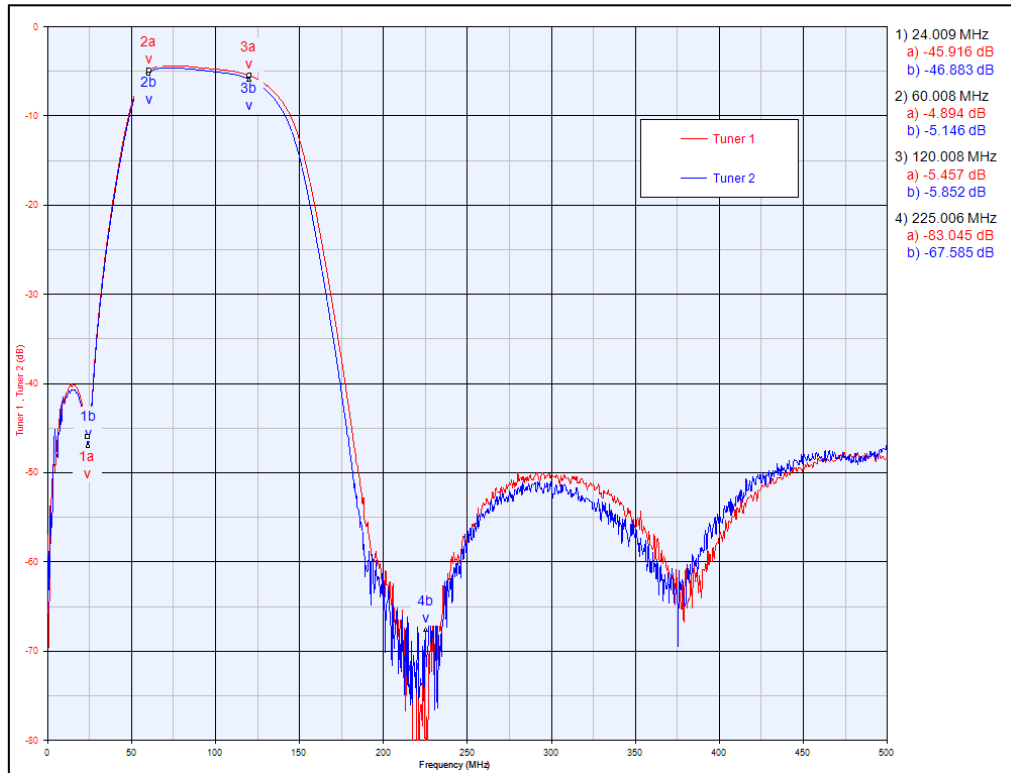
12 – 30MHz Band Pass Filter



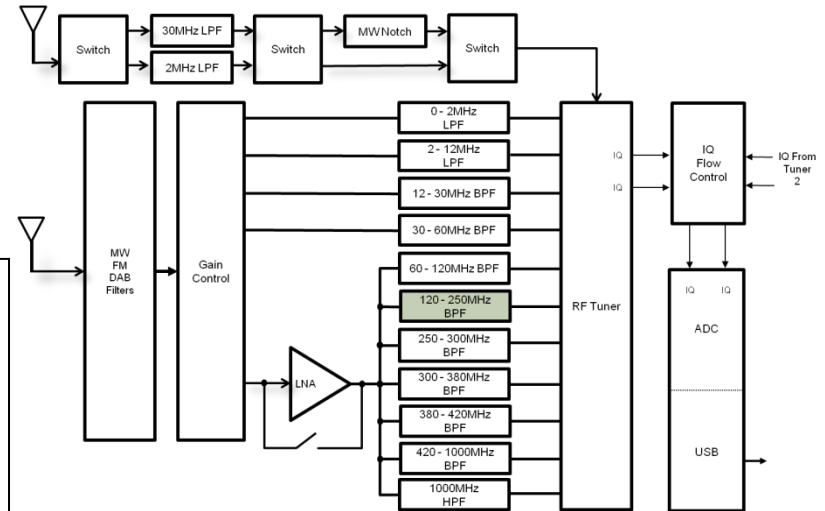
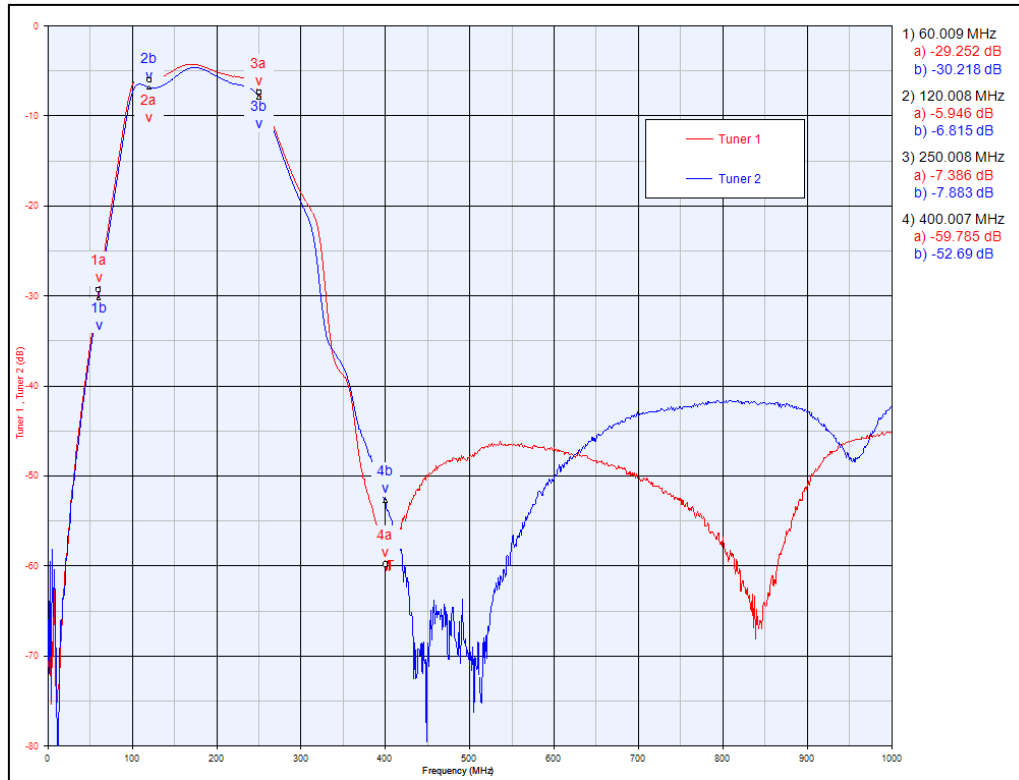
30 – 60MHz Band Pass Filter



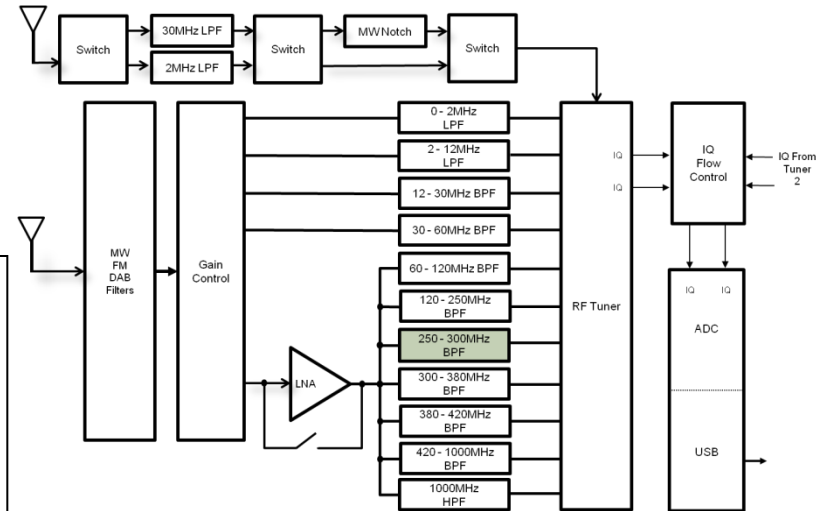
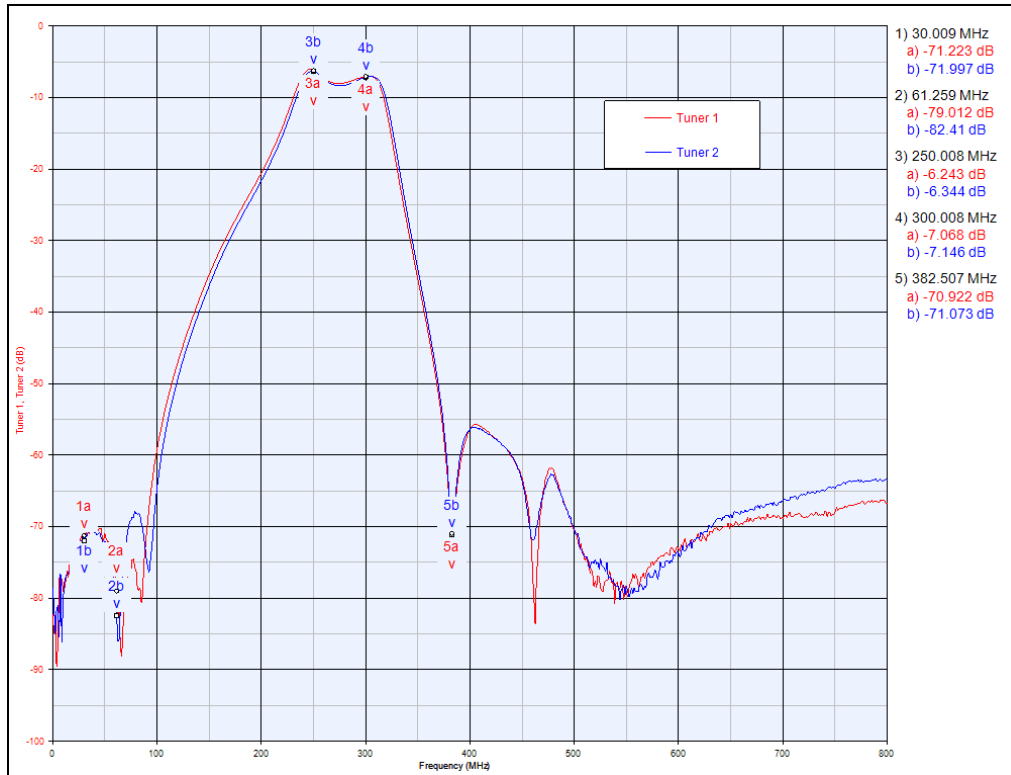
60 – 120MHz Band Pass Filter



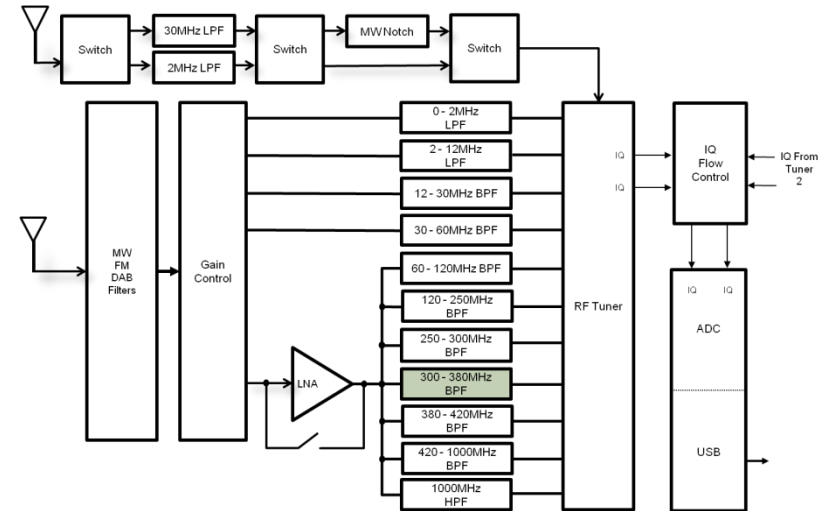
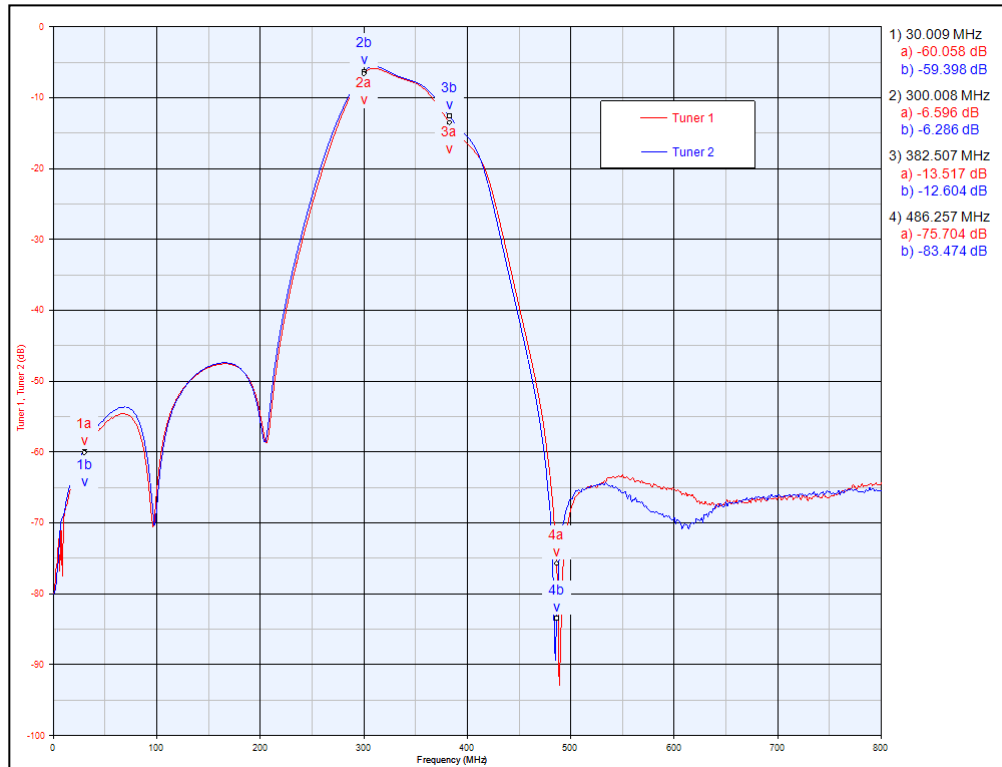
120 - 250MHz Band Pass Filter



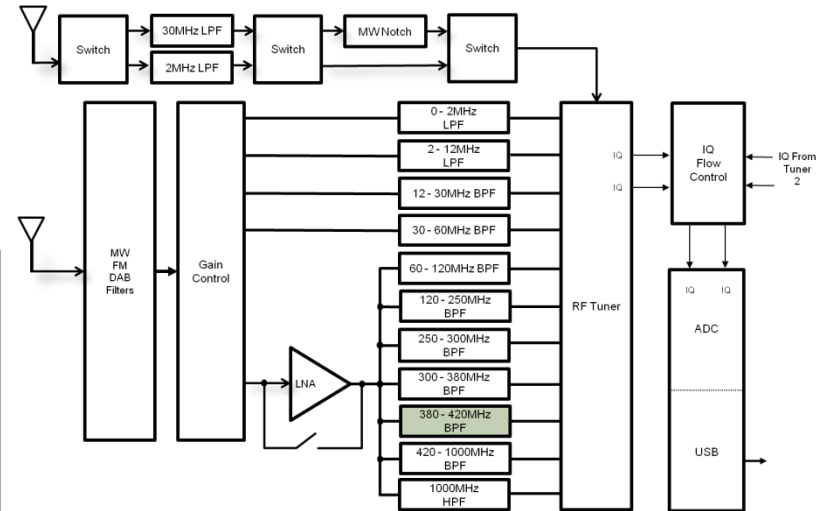
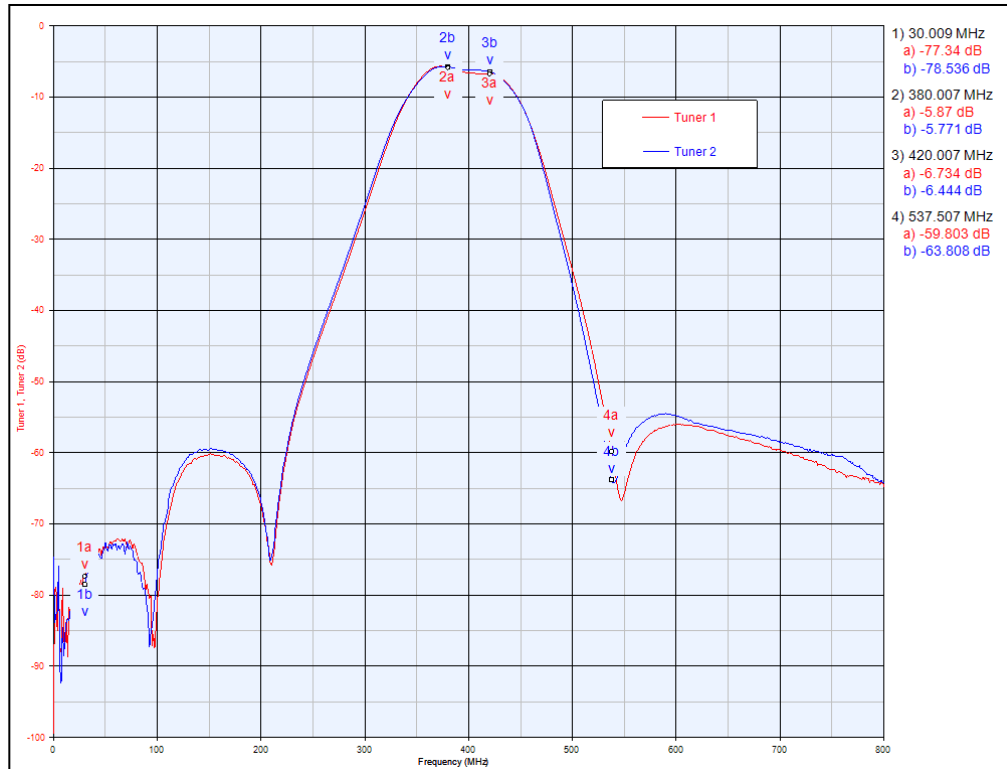
250 - 300MHz Band Pass Filter



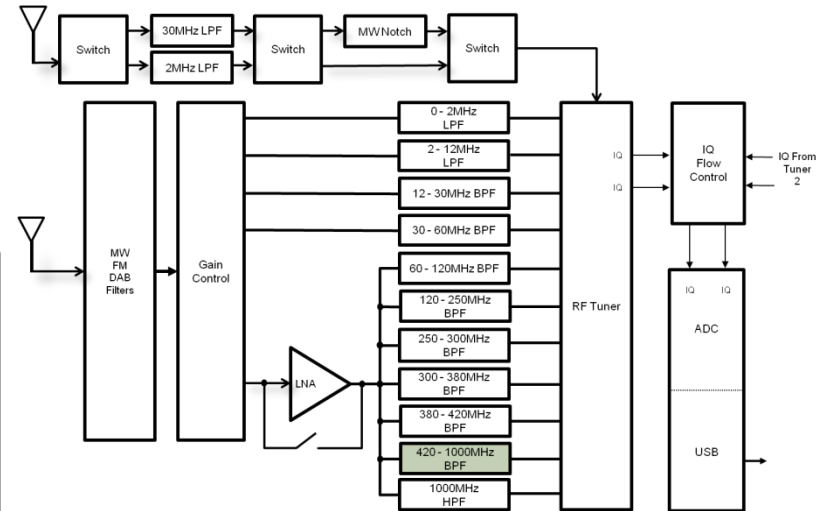
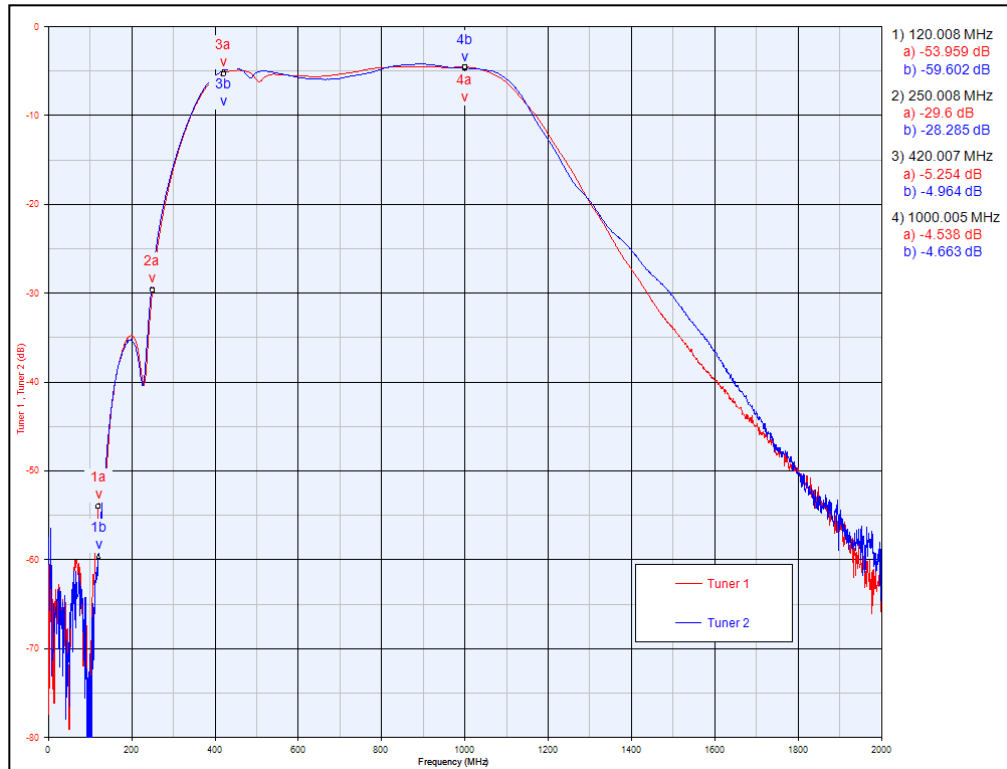
300 - 380MHz Band Pass Filter



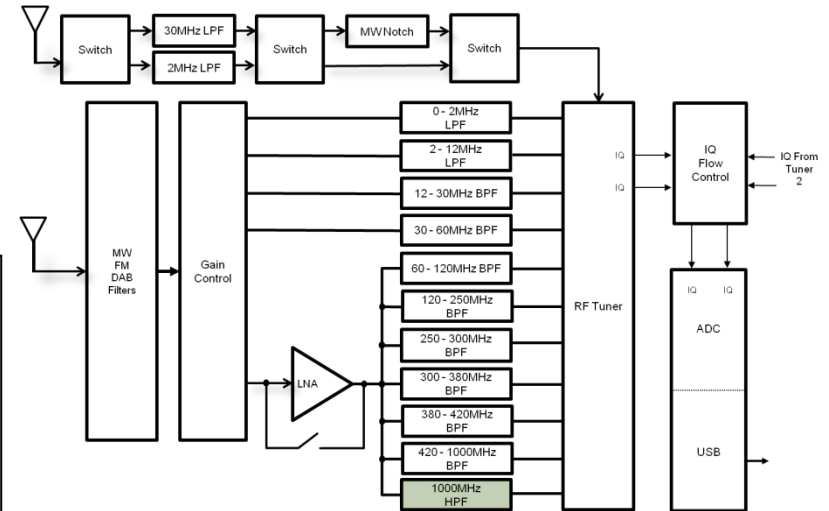
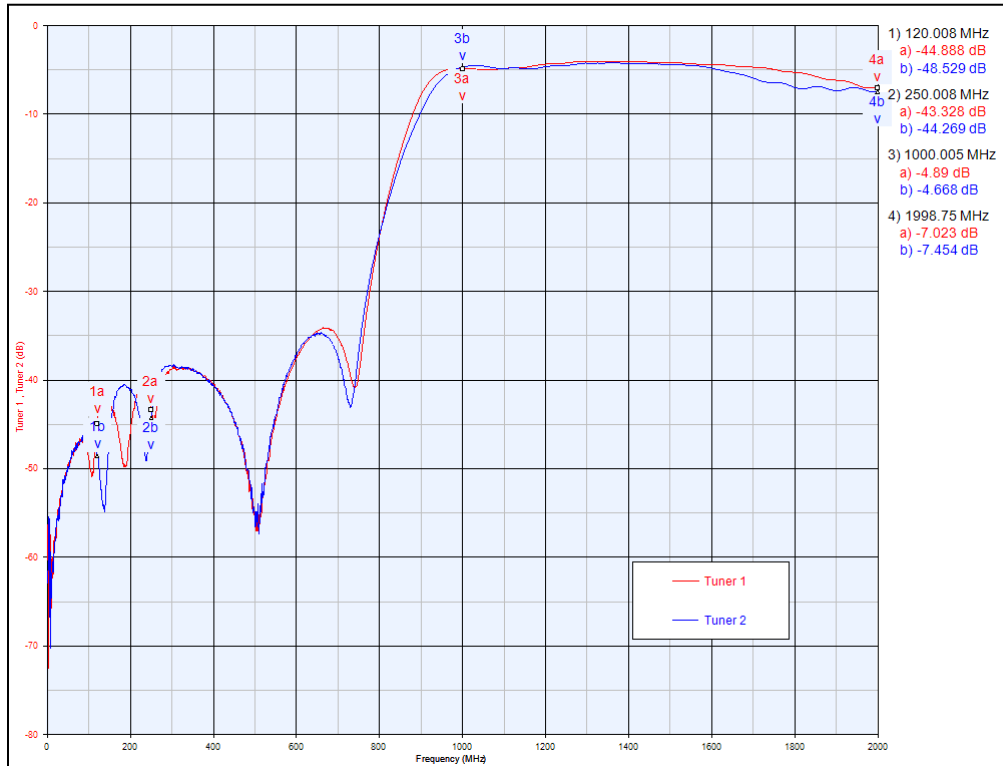
380 - 420MHz Band Pass Filter



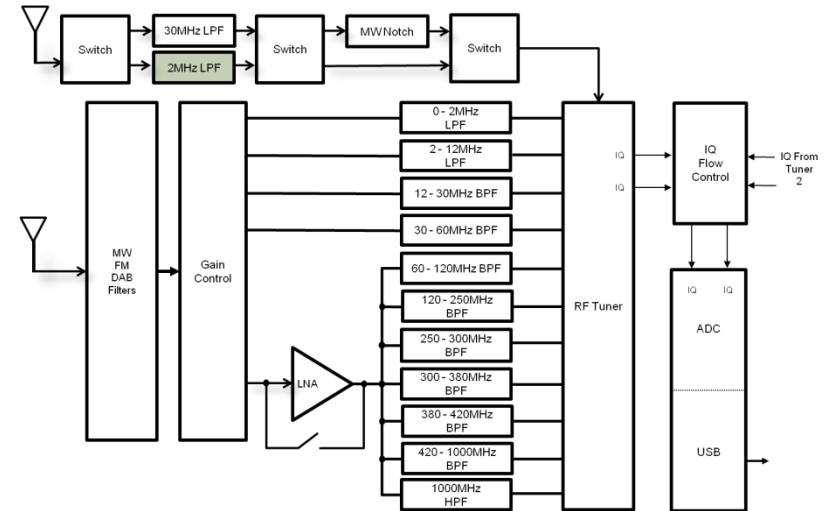
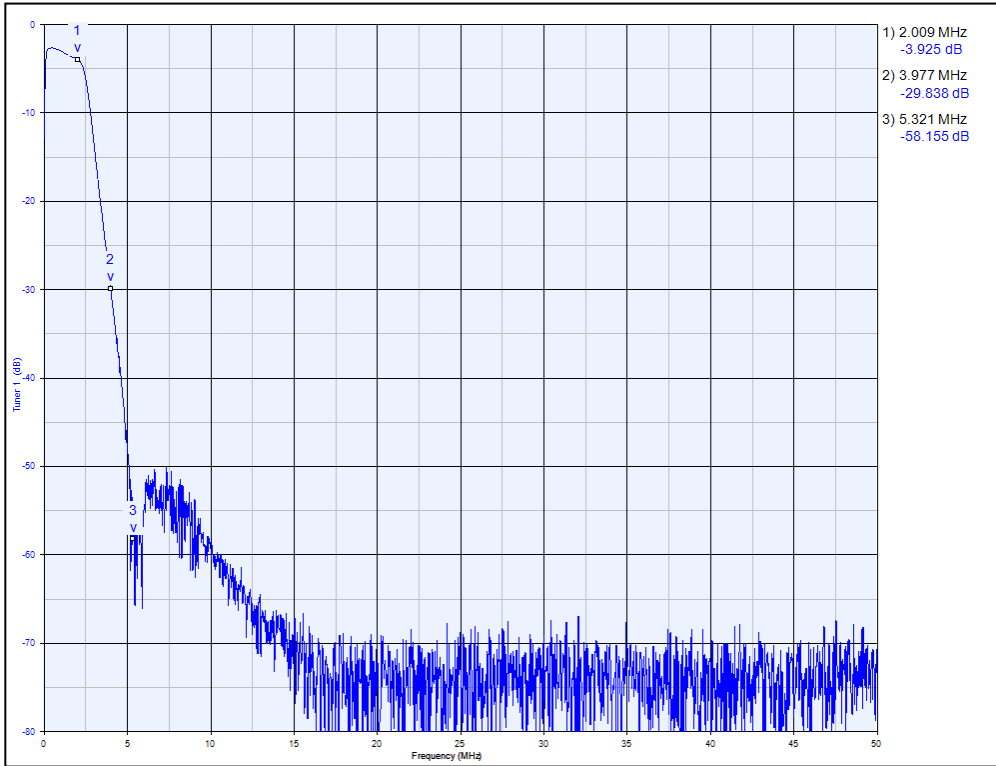
420 - 1000MHz Band Pass Filter



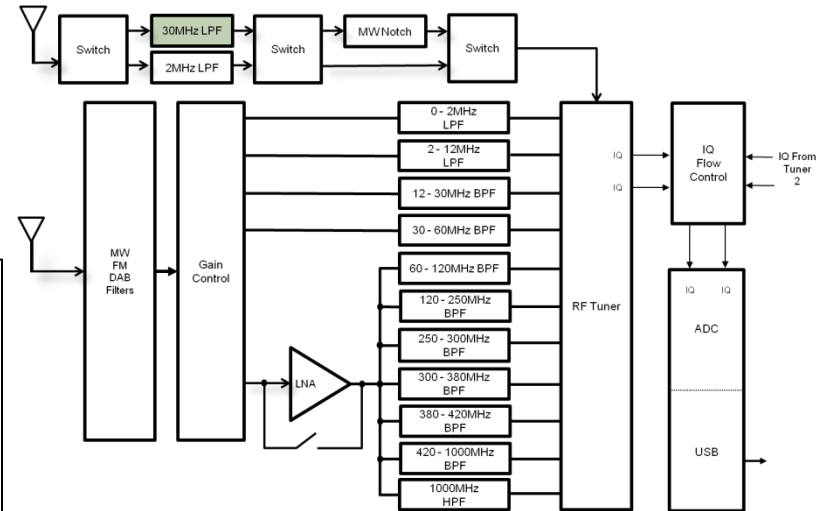
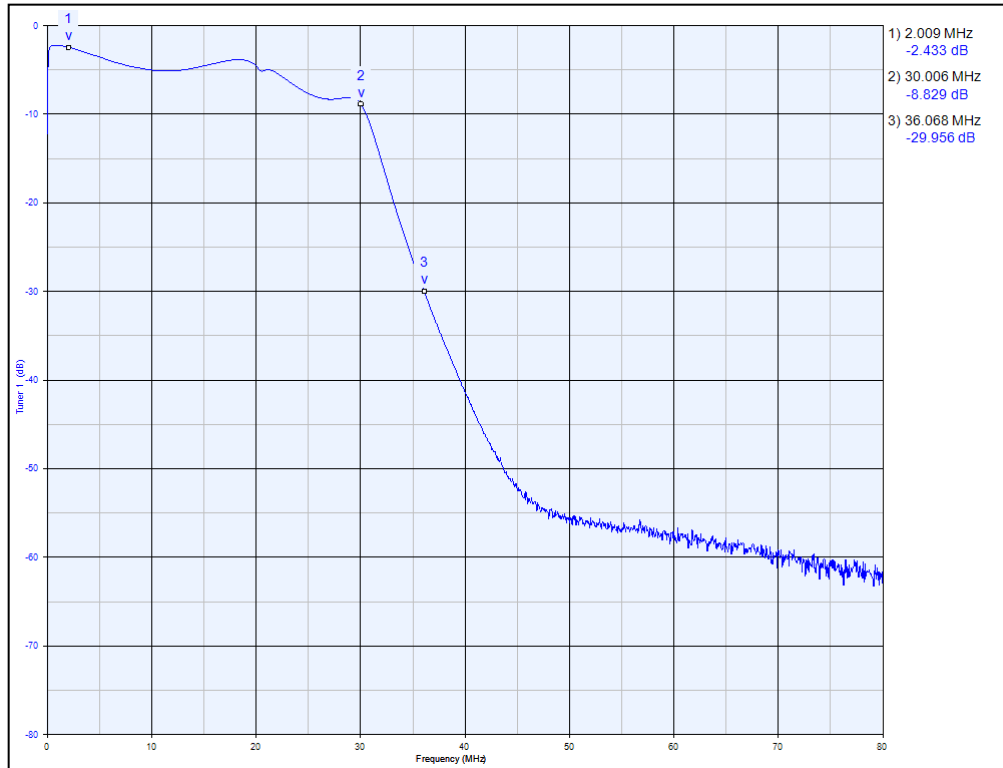
1000 - 2000MHz High Pass Filter



High Impedance 2MHz Low Pass Filter



High Impedance 30MHz Low Pass Filter



High Impedance MW Notch Filter

