Frequency Mixer ZX05-153+

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	CONVERSION LOSS IF FIXED @IF(OUT)=30MHz (dB) @LO (dBm)		
		+4	+7	+10
2800.1	2830.1	20.77	15.69	10.29
3110.1	3140.1	16.22	10.43	7.21
3420.1	3450.1	9.32	7.16	6.51
3730.1	3760.1	6.94	6.40	6.14
4040.1	4070.1	6.61	6.32	6.15
4350.1	4380.1	6.54	6.23	6.07
4660.1	4690.1	6.18	5.97	5.88
4970.1	5000.1	6.43	6.11	5.96
5280.1	5310.1	6.93	6.59	6.36
5590.1	5620.1	6.71	6.38	6.21
5900.1	5930.1	6.64	6.27	6.11
6210.1	6240.1	6.56	6.19	5.99
6520.1	6550.1	6.60	6.15	5.87
6830.1	6860.1	6.62	6.18	5.85
7140.1	7170.1	6.32	5.84	5.55
7450.1	7480.1	6.30	5.79	5.58
7760.1	7790.1	6.34	5.94	5.80
8070.1	8100.1	6.26	5.96	5.88
8380.1	8410.1	6.28	6.03	6.07
8690.1	8720.1	6.67	6.44	6.39
9000.1	9030.1	6.87	6.65	6.61
9341.1	9371.1	7.68	7.44	7.45
9651.1	9681.1	9.02	8.72	8.63
9992.1	10022.1	9.33	9.08	9.03
10302.1	10332.1	9.68	9.40	9.33
10643.1	10673.1	9.91	9.54	9.46
10953.1	10983.1	10.34	9.74	9.55
11294.1	11324.1	10.99	9.67	9.34
11604.1	11634.1	12.81	9.77	9.21
11945.1	11975.1	13.62	9.55	8.98
12255.1	12285.1	14.65	9.96	9.19
12596.1	12626.1	16.73	10.21	9.05
12906.1	12936.1	13.87	9.08	8.36
13247.1	13277.1	9.55	8.52	8.38
13557.1	13587.1	8.95	8.61	8.57
13898.1	13928.1	8.92	8.71	8.68
14208.1	14238.1	9.26	9.03	9.01
14549.1	14579.1	9.83	9.28	9.18
14859.1	14889.1	10.06	8.81	8.83
15200.1	15230.1	11.82	10.17	10.38

RF (IN) (MHz)	LO (MHz)	IP3 INPUT (dBm) @LO (dBm)		
		+4	+7	+10
2800.1	2830.1	-9.31	-6.38	0.29
3110.1	3140.1	-6.85	-0.51	9.71
3420.1	3450.1	2.36	5.94	10.23
3730.1	3760.1	6.24	9.45	12.41
4040.1	4070.1	8.78	10.54	13.80
4350.1	4380.1	8.92	9.59	10.57
4660.1	4690.1	14.12	17.01	18.86
4970.1	5000.1	13.55	12.79	13.39
5280.1	5310.1	15.67	15.83	14.42
5590.1	5620.1	11.11	13.46	14.20
5900.1	5930.1	9.37	10.92	12.45
6210.1	6240.1	9.18	9.52	11.48
6520.1	6550.1	8.94	8.60	9.41
6830.1	6860.1	8.63	8.93	8.81
7140.1	7170.1	7.84	8.85	9.07
7450.1	7480.1	7.07	9.06	9.28
7760.1	7790.1	8.26	9.98	9.98
8070.1	8100.1	10.42	12.63	12.07
8380.1	8410.1	12.08	10.87	10.73
8690.1	8720.1	14.28	15.11	15.41
9000.1	9030.1	15.08	15.05	15.69
9341.1	9371.1	14.55	15.19	15.62
9651.1	9681.1	14.21	17.44	16.70
9992.1	10022.1	14.38	17.07	16.77
10302.1	10332.1	14.83	17.42	17.51
10643.1	10673.1	14.25	18.00	18.07
10953.1	10983.1	12.02	15.41	17.36
11294.1	11324.1	12.69	12.57	15.89
11604.1	11634.1	7.28	11.83	14.87
11945.1	11975.1	4.34	12.32	14.14
12255.1	12285.1	3.17	13.69	13.99
12596.1	12626.1	0.86	16.78	13.76
12906.1	12936.1	2.86	17.10	13.24
13247.1	13277.1	13.85	14.38	12.98
13557.1	13587.1	14.06	14.65	12.77
13898.1	13928.1	14.32	14.76	12.74
14208.1	14238.1	13.96	14.61	12.62
14549.1	14579.1	11.68	12.81	11.20
14859.1	14889.1	9.11	9.98	9.07
15200.1	15230.1	6.87	8.09	9.98

RF (IN) (MHz)	LO (MHz)	COMPRESSION @RF IN=+1dBm (dB) @LO (dBm)		
		+4	+7	+10
2800.1	2830.1	-4.20	-1.78	1.03
3110.1	3140.1	-3.28	0.35	1.96
3420.1	3450.1	1.33	1.82	1.45
3730.1	3760.1	1.95	1.37	1.05
4040.1	4070.1	1.35	0.98	0.74
4350.1	4380.1	0.99	0.73	0.59
4660.1	4690.1	0.77	0.48	0.36
4970.1	5000.1	0.88	0.62	0.49
5280.1	5310.1	0.90	0.72	0.60
5590.1	5620.1	0.92	0.78	0.68
5900.1	5930.1	0.91	0.80	0.75
6210.1	6240.1	0.91	0.77	0.68
6520.1	6550.1	0.93	0.76	0.68
6830.1	6860.1	1.02	0.76	0.66
7140.1	7170.1	1.20	0.91	0.78
7450.1	7480.1	1.51	1.02	0.83
7760.1	7790.1	1.26	0.93	0.78
8070.1	8100.1	1.17	0.86	0.87
8380.1	8410.1	0.91	0.69	0.66
8690.1	8720.1	0.71	0.63	0.69
9000.1	9030.1	0.66	0.66	0.81
9341.1	9371.1	0.58	0.51	0.56
9651.1	9681.1	0.27	0.31	0.40
9992.1	10022.1	0.25	0.27	0.33
10302.1	10332.1	0.22	0.22	0.26
10643.1	10673.1	0.18	0.18	0.22
10953.1	10983.1	0.10	0.12	0.19
11294.1	11324.1	-0.02	0.07	0.18
11604.1	11634.1	-1.01	0.00	0.16
11945.1	11975.1	-1.73	0.00	0.20
12255.1	12285.1	-2.37	0.00	0.21
12596.1	12626.1	-3.77	-0.02	0.27
12906.1	12936.1	-2.24	0.24	0.47
13247.1	13277.1	0.48	0.48	0.74
13557.1	13587.1	0.57	0.55	0.80
13898.1	13928.1	0.50	0.53	0.77
14208.1	14238.1	0.42	0.45	0.74
14549.1	14579.1	0.39	0.38	0.66
14859.1	14889.1	0.37	0.54	0.75
15200.1	15230.1	0.02	0.38	0.47

Typical Performance Data

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=9200MHz (dB)
		@LO (dBm)
		+7
4099.9	5100.1	9.41
3891.9	5308.1	8.90
3684.0	5516.0	8.21
3476.0	5724.0	8.09
3268.1	5931.9	8.42
3060.1	6139.9	8.68
2852.1	6347.9	8.61
2644.2	6555.8	9.05
2436.2	6763.8	9.54
2228.3	6971.7	9.43
2020.3	7179.7	8.96
1812.3	7387.7	8.61
1604.4	7595.6	8.38
1396.4	7803.6	8.10
1188.4	8011.6	7.89
980.5	8219.5	7.79
772.5	8427.5	7.61
564.6	8635.4	7.26
356.6	8843.4	7.09
148.6	9051.4	6.89
43.8	9243.8	6.89
195.8	9395.8	6.60
347.9	9547.9	6.77
499.9	9699.9	7.17
651.9	9851.9	7.46
804.0	10004.0	7.60
956.0	10156.0	7.79
1108.1	10308.1	7.72
1260.1	10460.1	7.96
1412.1	10612.1	7.99
1564.2	10764.2	8.18
1716.2	10916.2	8.25
1885.1	11085.1	8.59
2037.2	11237.2	8.70
2206.1	11406.1	8.95
2358.2	11558.2	8.97
2527.1	11727.1	9.26
2679.1	11879.1	9.08
2848.1	12048.1	10.00
3000.1	12200.1	9.97

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=3390MHz (dB)
		@LO (dBm)
		+7
10.1	3400.1	7.97
130.1	3520.1	7.04
250.1	3640.1	6.62
370.1	3760.1	6.29
490.1	3880.1	6.25
610.1	4000.1	6.31
730.1	4120.1	6.38
850.1	4240.1	6.53
970.1	4360.1	6.64
1090.1	4480.1	6.55
1210.1	4600.1	6.74
1330.1	4720.1	6.97
1450.1	4840.1	7.27
1570.1	4960.1	7.70
1690.1	5080.1	8.03
1810.1	5200.1	8.25
1930.1	5320.1	8.33
2050.1	5440.1	8.30
2170.1	5560.1	8.33
2290.1	5680.1	8.16
2410.1	5800.1	8.11
2530.1	5920.1	8.10
2650.1	6040.1	8.06
2770.1	6160.1	8.23
2890.1	6280.1	8.22
3010.1	6400.1	8.19
3130.1	6520.1	8.07
3250.1	6640.1	8.27
3370.1	6760.1	8.19
3490.1	6880.1	8.21
3610.1	7000.1	8.19
3730.1	7120.1	8.21
3850.1	7240.1	8.31
3950.1	7340.1	8.55
4070.1	7460.1	8.52
4170.1	7560.1	8.86
4290.1	7680.1	9.43
4390.1	7780.1	9.87
4510.1	7900.1	10.58
4610.1	8000.1	11.13

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=15010.09MHz (dB)
		@LO (dBm)
		+7
4310.0	10700.1	11.89
4190.0	10820.1	11.48
4070.0	10940.1	11.14
3970.0	11040.1	11.18
3850.0	11160.1	11.17
3750.0	11260.1	11.09
3630.0	11380.1	11.25
3530.0	11480.1	11.11
3410.0	11600.1	11.26
3310.0	11700.1	11.32
3190.0	11820.1	11.66
3090.0	11920.1	11.60
2970.0	12040.1	12.27
2870.0	12140.1	12.21
2750.0	12260.1	12.14
2650.0	12360.1	12.18
2530.0	12480.1	11.53
2430.0	12580.1	11.31
2310.0	12700.1	11.18
2210.0	12800.1	10.77
2090.0	12920.1	10.76
1990.0	13020.1	10.08
1870.0	13140.1	9.64
1770.0	13240.1	9.36
1650.0	13360.1	8.91
1550.0	13460.1	8.74
1430.0	13580.1	8.58
1330.0	13680.1	8.45
1210.0	13800.1	8.38
1110.0	13900.1	8.36
990.0	14020.1	8.38
890.0	14120.1	8.37
770.0	14240.1	8.28
670.0	14340.1	8.28
550.0	14460.1	8.32
450.0	14560.1	8.31
330.0	14680.1	8.35
230.0	14780.1	8.46
110.0	14900.1	8.64
10.0	15000.1	9.26

Typical Performance Data

LO (MHz)	LO-RF ISOLATION (dB) @LO (dBm)			LO-IF ISOLATION (dB) @LO (dBm)		
	+4	+7	+10	+4	+7	+10
2830.1	40.91	41.66	43.86	22.54	22.75	22.79
3140.1	40.45	43.72	44.85	20.81	21.12	21.62
3450.1	49.87	55.31	50.35	19.39	19.90	21.27
3760.1	52.58	48.72	47.06	19.18	20.15	20.94
4070.1	41.36	40.31	39.33	19.62	20.08	19.81
4380.1	40.26	39.74	39.85	18.06	17.43	17.17
4690.1	39.88	39.01	38.48	16.23	15.18	14.52
5000.1	39.10	38.76	38.30	15.26	13.92	13.09
5310.1	36.25	37.08	37.46	14.37	13.69	12.73
5620.1	35.09	36.43	37.60	14.31	14.20	14.04
5930.1	35.82	37.30	38.78	14.88	15.31	15.72
6240.1	35.02	37.86	40.61	15.26	16.32	17.12
6550.1	35.96	38.06	39.60	15.64	17.12	18.35
6860.1	36.62	38.36	39.11	15.76	17.55	19.15
7170.1	35.79	36.36	35.93	15.28	16.96	18.58
7480.1	37.00	37.72	36.89	15.14	15.64	16.11
7790.1	36.56	34.97	34.10	15.32	14.17	13.21
8100.1	35.34	32.60	31.35	16.46	13.91	12.70
8410.1	39.97	40.18	37.93	18.32	16.45	15.55
8720.1	39.60	40.11	40.70	21.27	20.81	20.57
9030.1	33.96	32.69	32.22	24.06	24.26	24.36
9371.1	30.59	29.65	29.08	21.46	21.34	21.19
9681.1	29.25	28.90	28.54	18.91	19.17	19.11
10022.1	29.84	30.28	30.57	17.70	18.43	18.67
10332.1	32.70	33.87	34.63	19.43	20.50	20.74
10673.1	35.92	36.75	37.54	22.63	23.81	24.56
10983.1	37.92	39.88	41.60	25.06	26.25	27.04
11324.1	35.54	37.80	40.17	28.02	29.05	29.75
11634.1	34.32	34.99	35.26	30.07	30.75	31.15
11975.1	35.84	35.34	34.72	32.20	32.07	32.23
12285.1	39.07	35.89	32.77	35.74	35.17	34.20
12626.1	35.80	33.27	29.82	40.72	39.52	36.20
12936.1	28.87	28.32	27.35	42.92	39.61	35.75
13277.1	24.29	24.77	25.52	38.21	34.79	32.89
13587.1	22.81	24.28	25.83	32.50	31.40	30.91
13928.1	24.60	26.43	27.87	27.99	28.40	28.29
14238.1	30.23	30.07	30.14	24.22	24.70	25.30
14579.1	33.66	33.00	31.89	19.35	20.34	20.78
14889.1	26.97	26.62	26.76	15.47	16.04	16.96
15230.1	18.59	18.21	18.28	16.18	16.51	17.33

RF (IN) (MHz)	LO (MHz)	RF-IF ISOLATION (dB) @LO (dBm)		
		+4	+7	+10
2800.1	2830.1	15.06	15.19	16.16
3110.1	3140.1	16.75	19.26	17.43
3420.1	3450.1	19.62	19.83	19.52
3730.1	3760.1	22.28	22.46	22.08
4040.1	4070.1	20.80	20.18	19.36
4350.1	4380.1	18.12	17.54	17.08
4660.1	4690.1	18.15	17.77	17.50
4970.1	5000.1	21.42	20.71	20.21
5280.1	5310.1	23.64	23.42	23.07
5590.1	5620.1	22.54	22.41	22.25
5900.1	5930.1	22.95	22.71	22.57
6210.1	6240.1	24.38	24.14	23.92
6520.1	6550.1	26.58	26.54	26.39
6830.1	6860.1	31.74	31.70	31.60
7140.1	7170.1	36.12	36.06	36.08
7450.1	7480.1	24.10	23.64	23.42
7760.1	7790.1	18.51	18.26	17.95
8070.1	8100.1	17.41	17.14	16.98
8380.1	8410.1	18.98	18.40	18.01
8690.1	8720.1	25.01	23.80	22.83
9000.1	9030.1	28.78	29.26	29.75
9341.1	9371.1	19.92	20.33	20.75
9651.1	9681.1	16.26	16.12	16.11
9992.1	10022.1	15.75	15.95	16.18
10302.1	10332.1	16.97	17.42	17.77
10643.1	10673.1	19.39	20.21	20.73
10953.1	10983.1	22.15	23.03	23.43
11294.1	11324.1	25.47	27.03	27.77
11604.1	11634.1	28.04	29.53	30.40
11945.1	11975.1	25.13	26.07	26.65
12255.1	12285.1	22.63	23.63	24.24
12596.1	12626.1	22.66	23.58	24.27
12906.1	12936.1	23.00	24.05	24.55
13247.1	13277.1	23.52	24.06	24.35
13557.1	13587.1	23.63	23.85	23.99
13898.1	13928.1	23.38	23.53	23.64
14208.1	14238.1	24.10	24.26	24.31
14549.1	14579.1	27.07	27.37	27.39
14859.1	14889.1	23.69	23.96	24.52
15200.1	15230.1	14.59	14.80	14.90

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	RF VSWR (:1) @LO (dBm)		
		+4	+7	+10
2800.1	2830.1	5.22	3.86	2.44
3110.1	3140.1	5.34	3.31	2.36
3420.1	3450.1	3.56	2.88	2.70
3730.1	3760.1	3.21	3.00	2.87
4040.1	4070.1	3.07	2.90	2.75
4350.1	4380.1	2.85	2.62	2.46
4660.1	4690.1	2.52	2.33	2.18
4970.1	5000.1	2.99	2.68	2.48
5280.1	5310.1	3.73	3.47	3.23
5590.1	5620.1	3.65	3.42	3.26
5900.1	5930.1	3.45	3.16	3.00
6210.1	6240.1	3.19	2.89	2.70
6520.1	6550.1	3.00	2.67	2.39
6830.1	6860.1	2.66	2.42	2.15
7140.1	7170.1	2.25	2.01	1.80
7450.1	7480.1	1.97	1.75	1.60
7760.1	7790.1	1.78	1.66	1.58
8070.1	8100.1	1.89	1.86	1.86
8380.1	8410.1	2.27	2.26	2.34
8690.1	8720.1	2.95	2.96	2.97
9000.1	9030.1	3.69	3.67	3.62
9341.1	9371.1	3.98	3.82	3.79
9651.1	9681.1	5.10	4.89	4.80
9992.1	10022.1	5.51	5.39	5.25
10302.1	10332.1	5.74	5.63	5.42
10643.1	10673.1	5.68	5.39	5.30
10953.1	10983.1	6.51	6.03	5.77
11294.1	11324.1	6.78	6.03	5.59
11604.1	11634.1	6.56	5.38	4.87
11945.1	11975.1	6.73	5.13	4.74
12255.1	12285.1	7.31	5.41	4.75
12596.1	12626.1	6.83	5.07	4.23
12906.1	12936.1	6.39	4.73	4.08
13247.1	13277.1	4.83	4.11	3.82
13557.1	13587.1	4.46	4.13	3.86
13898.1	13928.1	4.10	3.86	3.62
14208.1	14238.1	3.95	3.62	3.40
14549.1	14579.1	3.74	3.35	3.05
14859.1	14889.1	2.86	2.46	2.15
15200.1	15230.1	1.37	1.21	1.10

LO (MHz)	LO VSWR (:1) @LO (dBm)		
	+4	+7	+10
2830.0	34.07	33.42	31.60
3155.0	28.96	25.56	19.32
3480.0	16.89	12.71	12.44
3805.0	6.94	7.70	9.04
4130.0	4.38	5.56	6.76
4455.0	2.87	3.70	4.61
4780.0	2.07	2.49	3.03
5105.0	1.50	1.68	2.03
5430.0	1.13	1.52	1.99
5755.0	1.63	2.17	2.82
6080.0	2.31	2.97	3.79
6405.0	3.13	3.77	4.55
6730.0	3.73	4.13	4.78
7055.0	4.11	4.11	4.54
7380.0	4.41	3.82	3.86
7705.0	3.81	3.12	2.98
8030.0	2.86	2.34	2.26
8355.0	2.31	1.92	1.91
8655.0	1.96	1.82	2.00
8980.0	1.98	1.88	2.11
9280.0	2.10	1.94	2.17
9605.0	2.20	2.02	2.23
9905.0	2.30	2.08	2.26
10230.0	2.35	2.16	2.35
10530.0	2.65	2.44	2.64
10855.0	3.76	3.15	3.22
11155.0	5.93	4.40	4.06
11480.0	9.33	6.28	5.03
11780.0	12.52	8.12	5.83
12105.0	14.26	9.48	6.13
12405.0	15.13	10.25	6.19
12730.0	13.81	9.79	5.77
13030.0	10.82	7.14	4.67
13355.0	5.89	4.52	4.10
13655.0	3.40	3.70	4.21
13980.0	2.93	3.73	4.60
14280.0	3.37	3.97	4.70
14605.0	4.23	4.22	4.61
14905.0	4.55	4.03	4.02
15230.0	4.01	3.47	3.26

IF (OUT) (MHz)	IF VSWR @LO=15000MHz (:1) @LO (dBm)		
	+4	+7	+10
10.0	1.36	1.22	1.64
110.2	1.35	1.25	1.63
210.5	1.43	1.18	1.54
310.7	1.58	1.11	1.38
411.0	1.88	1.28	1.30
511.2	2.17	1.53	1.41
611.4	2.37	1.74	1.57
711.7	2.49	1.89	1.69
811.9	2.62	1.97	1.78
912.2	2.73	2.05	1.85
1012.4	2.82	2.09	1.88
1112.6	2.90	2.10	1.86
1232.9	3.29	2.32	2.02
1333.2	3.27	2.29	1.99
1453.4	3.35	2.33	2.00
1553.7	3.47	2.35	2.00
1674.0	3.48	2.36	1.99
1774.2	3.57	2.38	1.99
1894.5	3.54	2.32	1.93
1994.7	3.56	2.30	1.91
2115.0	3.49	2.26	1.86
2215.3	3.48	2.23	1.84
2335.6	3.50	2.24	1.87
2435.8	3.54	2.32	1.98
2556.1	3.62	2.56	2.24
2656.3	3.68	2.66	2.35
2776.6	3.54	2.56	2.30
2876.8	3.44	2.54	2.33
2997.1	3.33	2.57	2.39
3097.4	3.19	2.50	2.38
3217.7	3.09	2.52	2.43
3317.9	2.94	2.51	2.47
3438.2	2.85	2.56	2.57
3538.4	2.75	2.60	2.67
3658.7	2.75	2.78	2.90
3758.9	2.72	2.90	3.06
3879.2	2.72	3.06	3.27
3979.5	2.66	3.13	3.39
4099.8	2.73	3.41	3.76
4200.0	2.76	3.54	3.94

Harmonics Tables

RF HARMONICS ORDER	(-dBm)	(-dBc)										
0	-	-	+13	23	5	---	---	---	---	---	---	---
1	-	13	+0	32	27	37	---	---	---	---	---	---
2	85	52	39	49	43	57	45	---	---	---	---	---
3	87	66	>70	>70	64	62	>70	67	---	---	---	---
4	---	---	>70	>70	>70	>70	>70	>70	69	---	---	---
5	---	---	---	67	>70	>70	>70	>70	>70	66	---	---
6	---	---	---	---	>70	>70	>70	>70	>70	>70	70	---
7	---	---	---	---	---	>70	>70	>70	>70	>70	>70	>70
8	---	---	---	---	---	---	60	>70	>70	>70	>70	>70
9	---	---	---	---	---	---	---	68	>70	>70	>70	>70
10	---	---	---	---	---	---	---	---	>70	>70	>70	>70
RF CAL		0	1	2	3	4	5	6	7	8	9	10

LO HARMONICS ORDER

Test conditions: RF IN: 7720 MHz; -14.00 dBm.
LO IN: 7750 MHz; +7.00 dBm
IF OUT: 30 MHz; -19.94 dBm

RF HARMONICS ORDER	(-dBm)	(-dBc)										
0	-	-	+3	35	16	---	---	---	---	---	---	---
1	-	12	+0	36	28	42	---	---	---	---	---	---
2	65	43	30	39	36	51	40	---	---	---	---	---
3	65	47	50	60	41	49	58	59	---	---	---	---
4	---	---	67	62	57	63	56	62	58	---	---	---
5	---	---	---	69	71	77	65	63	76	69	---	---
6	---	---	---	---	75	>80	78	76	74	75	70	---
7	---	---	---	---	---	79	>80	>80	>80	78	>80	77
8	---	---	---	---	---	---	>80	>80	>80	>80	>80	>80
9	---	---	---	---	---	---	---	72	>80	>80	>80	>80
10	---	---	---	---	---	---	---	---	>80	>80	>80	>80
RF CAL		0	1	2	3	4	5	6	7	8	9	10

LO HARMONICS ORDER

Test conditions: RF IN: 7720 MHz; -4.00 dBm.
LO IN: 7750 MHz; +7.00 dBm
IF OUT: 30 MHz; -10.23 dBm

Notes: 1. All Harmonics are in (dBc) relative to IF OUTPUT.
2. + entry denotes harmonics are in (dBc) above IF OUTPUT.
3. RF Cal represent the Harmonics level of the RF input signal to the mixer.