Frequency Mixer MBA-EE7756/23

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	CONVERSION LOSS IF FIXED @IF(OUT)=30MHz (dB) @LO (dBm)		
		+4	+7	+10
1680.0	1710.0	18.82	10.80	7.68
1800.0	1830.0	13.04	7.76	6.79
1920.0	1950.0	9.60	6.87	6.42
2040.0	2070.0	7.65	6.47	6.20
2160.0	2190.0	6.60	6.06	5.85
2280.0	2310.0	6.12	5.71	5.55
2400.0	2430.0	6.14	5.76	5.57
2520.0	2550.0	6.24	5.89	5.69
2640.0	2670.0	6.03	5.79	5.66
2760.0	2790.0	5.97	5.79	5.71
2880.0	2910.0	6.18	5.98	5.92
3000.0	3030.0	6.43	6.22	6.13
3120.0	3150.0	6.68	6.47	6.41
3240.0	3270.0	6.83	6.59	6.49
3360.0	3390.0	7.66	7.23	6.96
3480.0	3510.0	7.74	7.40	7.23
3600.0	3630.0	7.86	7.47	7.30
3720.0	3750.0	8.33	7.88	7.68
3840.0	3870.0	8.66	8.15	7.89
3960.0	3990.0	8.91	8.46	8.17
4080.0	4110.0	9.13	8.67	8.35
4200.0	4230.0	9.12	8.73	8.41
4320.0	4350.0	9.02	8.65	8.38
4440.0	4470.0	9.14	8.71	8.42
4560.0	4590.0	9.25	8.83	8.52
4680.0	4710.0	9.29	8.84	8.54
4800.0	4830.0	9.21	8.72	8.42
4920.0	4950.0	9.08	8.54	8.24
5040.0	5070.0	8.95	8.38	8.09
5160.0	5190.0	8.91	8.13	7.79
5280.0	5310.0	8.95	7.98	7.53
5420.0	5450.0	9.33	7.72	7.17
5540.0	5570.0	9.65	7.63	7.02
5680.0	5710.0	10.30	7.71	6.98
5800.0	5830.0	11.17	7.80	6.89
5940.0	5970.0	11.98	8.04	6.81
6060.0	6090.0	12.39	8.27	6.91
6200.0	6230.0	12.28	8.27	7.02
6320.0	6350.0	11.63	8.21	7.63
6460.0	6490.0	11.43	10.95	13.70

RF (IN) (MHz)	LO (MHz)	IP3 INPUT (dBm) @LO (dBm)		
		+4	+7	+10
1680.0	1710.0	-4.46	4.80	13.29
1800.0	1830.0	-0.41	12.66	12.84
1920.0	1950.0	4.98	12.45	11.73
2040.0	2070.0	9.67	10.55	9.88
2160.0	2190.0	10.15	9.67	9.70
2280.0	2310.0	8.95	9.09	9.20
2400.0	2430.0	9.15	9.16	9.44
2520.0	2550.0	11.29	11.39	11.69
2640.0	2670.0	12.31	13.88	14.55
2760.0	2790.0	12.23	13.50	14.58
2880.0	2910.0	11.95	13.37	14.48
3000.0	3030.0	12.06	14.13	16.27
3120.0	3150.0	13.42	11.96	14.01
3240.0	3270.0	14.88	11.48	11.11
3360.0	3390.0	14.38	12.67	11.78
3480.0	3510.0	13.87	14.19	13.38
3600.0	3630.0	15.35	17.53	17.24
3720.0	3750.0	15.02	16.39	17.03
3840.0	3870.0	13.24	14.12	15.15
3960.0	3990.0	12.99	13.23	14.40
4080.0	4110.0	13.68	13.37	14.20
4200.0	4230.0	14.48	13.67	14.02
4320.0	4350.0	13.55	14.28	15.00
4440.0	4470.0	13.12	13.41	14.18
4560.0	4590.0	12.82	13.26	13.15
4680.0	4710.0	12.12	12.88	12.07
4800.0	4830.0	10.93	12.10	11.79
4920.0	4950.0	9.36	11.00	11.30
5040.0	5070.0	8.06	10.23	11.03
5160.0	5190.0	7.02	8.45	8.94
5280.0	5310.0	6.04	7.71	8.18
5420.0	5450.0	4.17	6.31	7.48
5540.0	5570.0	3.30	5.38	7.00
5680.0	5710.0	2.21	4.70	6.74
5800.0	5830.0	0.35	3.49	5.99
5940.0	5970.0	-1.30	2.80	5.62
6060.0	6090.0	-2.20	2.10	4.96
6200.0	6230.0	-2.50	1.55	3.96
6320.0	6350.0	-1.22	1.68	1.90
6460.0	6490.0	0.12	-0.40	4.42

RF (IN) (MHz)	LO (MHz)	COMPRESSION @RF IN=+1dBm (dB) @LO (dBm)		
		+4	+7	+10
1680.0	1710.0	-5.57	-0.11	1.23
1800.0	1830.0	-1.49	1.63	1.40
1920.0	1950.0	0.77	1.68	1.28
2040.0	2070.0	1.60	1.33	1.04
2160.0	2190.0	1.55	1.20	1.01
2280.0	2310.0	1.45	1.16	1.03
2400.0	2430.0	1.28	1.07	0.93
2520.0	2550.0	1.13	0.91	0.77
2640.0	2670.0	1.06	0.81	0.68
2760.0	2790.0	0.92	0.71	0.60
2880.0	2910.0	0.77	0.58	0.51
3000.0	3030.0	0.62	0.47	0.39
3120.0	3150.0	0.43	0.29	0.22
3240.0	3270.0	0.37	0.20	0.13
3360.0	3390.0	0.29	0.15	0.11
3480.0	3510.0	0.31	0.18	0.13
3600.0	3630.0	0.35	0.21	0.15
3720.0	3750.0	0.36	0.26	0.19
3840.0	3870.0	0.38	0.32	0.24
3960.0	3990.0	0.30	0.27	0.26
4080.0	4110.0	0.31	0.24	0.22
4200.0	4230.0	0.38	0.27	0.23
4320.0	4350.0	0.52	0.34	0.26
4440.0	4470.0	0.51	0.31	0.24
4560.0	4590.0	0.54	0.31	0.21
4680.0	4710.0	0.60	0.32	0.21
4800.0	4830.0	0.68	0.36	0.26
4920.0	4950.0	0.87	0.50	0.32
5040.0	5070.0	1.02	0.59	0.38
5160.0	5190.0	1.08	0.58	0.32
5280.0	5310.0	1.25	0.68	0.41
5420.0	5450.0	1.54	1.08	0.70
5540.0	5570.0	1.31	1.17	0.77
5680.0	5710.0	0.83	1.11	0.71
5800.0	5830.0	0.39	1.33	0.90
5940.0	5970.0	-0.09	1.35	1.11
6060.0	6090.0	0.02	1.67	1.29
6200.0	6230.0	0.66	2.15	1.99
6320.0	6350.0	1.99	3.01	2.85
6460.0	6490.0	3.30	2.46	0.77

Typical Performance Data

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=2450MHz (dB) @LO (dBm) +7
730.0	1720.0	10.84
695.7	1754.3	10.12
661.4	1788.6	9.42
627.1	1822.9	7.84
592.9	1857.1	7.67
558.6	1891.4	7.09
524.3	1925.7	6.57
490.0	1960.0	6.60
455.7	1994.3	6.29
421.4	2028.6	6.11
387.1	2062.9	6.16
352.9	2097.1	6.00
318.6	2131.4	5.94
284.3	2165.7	5.93
250.0	2200.0	5.80
215.7	2234.3	5.80
181.4	2268.6	5.79
147.1	2302.9	5.77
112.9	2337.1	5.79
78.6	2371.4	5.79
32.9	2417.1	5.77
10.0	2460.0	6.34
124.3	2574.3	5.85
210.0	2660.0	5.86
324.3	2774.3	5.99
410.0	2860.0	6.13
524.3	2974.3	6.30
610.0	3060.0	6.05
724.3	3174.3	6.10
810.0	3260.0	6.08
924.3	3374.3	6.14
1010.0	3460.0	6.22
1124.3	3574.3	6.52
1210.0	3660.0	6.81
1324.3	3774.3	7.29
1410.0	3860.0	7.73
1524.3	3974.3	8.44
1610.0	4060.0	9.09
1724.3	4174.3	10.16
1810.0	4260.0	10.90

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=2189.89MHz (dB) @LO (dBm) +7
10.1	2200.0	6.23
70.1	2260.0	5.88
130.1	2320.0	5.85
190.1	2380.0	5.92
230.1	2420.0	5.97
290.1	2480.0	6.05
330.1	2520.0	6.08
390.1	2580.0	6.12
430.1	2620.0	6.06
490.1	2680.0	6.14
530.1	2720.0	6.17
590.1	2780.0	6.24
630.1	2820.0	6.30
690.1	2880.0	6.34
730.1	2920.0	6.18
790.1	2980.0	5.94
830.1	3020.0	6.00
890.1	3080.0	6.04
930.1	3120.0	6.06
990.1	3180.0	6.04
1030.1	3220.0	6.03
1090.1	3280.0	6.02
1130.1	3320.0	6.06
1190.1	3380.0	6.16
1230.1	3420.0	6.26
1290.1	3480.0	6.43
1330.1	3520.0	6.55
1390.1	3580.0	6.80
1430.1	3620.0	7.05
1490.1	3680.0	7.33
1530.1	3720.0	7.61
1590.1	3780.0	8.04
1630.1	3820.0	8.25
1690.1	3880.0	8.71
1730.1	3920.0	8.96
1790.1	3980.0	9.46
1830.1	4020.0	9.66
1890.1	4080.0	10.08
1930.1	4120.0	10.20
1990.1	4180.0	10.58

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=2710.1MHz (dB) @LO (dBm) +7
930.1	1780.0	10.52
910.1	1800.0	9.39
890.1	1820.0	8.57
870.1	1840.0	8.31
850.1	1860.0	8.23
830.1	1880.0	8.08
810.1	1900.0	7.31
790.1	1920.0	7.01
770.1	1940.0	6.97
750.1	1960.0	7.05
730.1	1980.0	6.81
710.1	2000.0	6.50
690.1	2020.0	6.44
670.1	2040.0	6.44
650.1	2060.0	6.41
630.1	2080.0	6.38
610.1	2100.0	6.26
590.1	2120.0	6.25
570.1	2140.0	6.27
550.1	2160.0	6.29
530.1	2180.0	6.21
510.1	2200.0	6.11
490.1	2220.0	6.16
470.1	2240.0	6.15
450.1	2260.0	6.17
430.1	2280.0	6.05
390.1	2320.0	6.07
370.1	2340.0	6.09
330.1	2380.0	6.05
310.1	2400.0	6.05
270.1	2440.0	6.08
250.1	2460.0	6.05
210.1	2500.0	5.99
190.1	2520.0	5.98
150.1	2560.0	5.96
130.1	2580.0	5.94
90.1	2620.0	5.92
70.1	2640.0	5.90
30.1	2680.0	5.83
10.1	2700.0	6.24

Typical Performance Data

LO (MHz)	LO-RF ISOLATION (dB) @LO (dBm)			LO-IF ISOLATION (dB) @LO (dBm)		
	+4	+7	+10	+4	+7	+10
1710.0	38.34	38.26	39.51	29.44	29.76	29.99
1830.0	37.67	38.37	40.51	30.18	29.56	30.34
1950.0	37.29	39.10	40.92	30.29	30.34	31.11
2070.0	37.86	39.49	40.36	31.79	32.89	33.23
2190.0	39.07	40.70	40.56	36.68	36.90	36.24
2310.0	38.31	39.31	39.30	40.43	38.61	37.42
2430.0	40.14	40.87	39.95	30.95	31.08	31.38
2550.0	43.20	43.60	40.44	25.84	26.10	26.27
2670.0	44.28	41.00	38.23	22.50	22.82	22.86
2790.0	47.21	41.89	38.20	20.14	19.98	19.84
2910.0	45.65	46.76	40.12	18.15	17.72	17.36
3030.0	40.62	56.07	43.85	16.50	15.80	15.11
3150.0	37.51	47.54	47.30	15.21	14.29	13.28
3270.0	38.43	52.34	44.22	14.31	12.75	11.84
3390.0	38.82	41.73	37.15	13.64	11.84	10.90
3510.0	38.12	41.57	39.72	12.93	11.24	10.29
3630.0	40.03	40.51	38.89	12.64	10.81	10.07
3750.0	39.04	37.78	35.97	12.48	10.84	9.99
3870.0	38.90	37.59	35.40	11.89	10.81	9.85
3990.0	37.70	36.12	34.07	11.64	10.79	9.99
4110.0	36.02	34.83	33.31	11.32	10.73	10.07
4230.0	36.66	35.46	34.43	11.08	10.73	10.31
4350.0	36.15	34.93	33.96	10.92	10.83	10.43
4470.0	34.36	33.41	32.54	10.22	10.36	10.19
4590.0	33.00	32.26	31.66	9.78	10.08	10.00
4710.0	31.93	31.15	30.92	9.55	9.81	10.10
4830.0	31.09	30.48	30.40	9.28	9.69	10.11
4950.0	30.29	29.72	29.51	9.02	9.60	10.03
5070.0	29.32	28.96	28.76	8.96	9.63	10.16
5190.0	28.65	28.68	28.74	8.94	9.54	10.24
5310.0	27.65	27.73	27.81	9.21	9.85	10.36
5450.0	26.59	26.81	27.00	9.83	10.50	11.07
5570.0	25.59	25.76	26.11	10.85	11.43	12.15
5710.0	24.63	24.88	25.18	12.77	13.26	13.86
5830.0	23.69	23.93	24.35	14.80	15.24	15.95
5970.0	22.46	22.65	22.81	18.43	18.72	19.26
6090.0	21.02	21.24	21.31	23.03	23.23	23.63
6230.0	18.99	19.32	19.57	28.41	28.19	28.15
6350.0	17.21	17.68	18.06	23.06	22.94	22.92
6490.0	15.01	15.58	16.18	17.15	17.10	17.44

RF (IN) (MHz)	LO (MHz)	RF-IF ISOLATION (dB) @LO (dBm)		
		+4	+7	+10
1680.0	1710.0	33.23	35.97	34.39
1800.0	1830.0	39.08	31.88	30.64
1920.0	1950.0	29.43	25.31	24.10
2040.0	2070.0	24.09	22.44	21.70
2160.0	2190.0	20.95	20.16	19.65
2280.0	2310.0	20.74	20.15	19.66
2400.0	2430.0	19.70	19.45	19.21
2520.0	2550.0	18.67	18.54	18.43
2640.0	2670.0	17.96	17.95	17.89
2760.0	2790.0	17.39	17.41	17.40
2880.0	2910.0	17.24	17.34	17.31
3000.0	3030.0	17.23	17.26	17.34
3120.0	3150.0	17.38	17.62	17.74
3240.0	3270.0	17.61	17.98	18.31
3360.0	3390.0	17.10	17.32	17.55
3480.0	3510.0	17.41	17.58	17.72
3600.0	3630.0	17.88	18.02	18.12
3720.0	3750.0	18.02	18.19	18.18
3840.0	3870.0	18.31	18.31	18.34
3960.0	3990.0	18.59	18.50	18.53
4080.0	4110.0	18.85	18.93	18.90
4200.0	4230.0	19.12	19.03	19.10
4320.0	4350.0	19.22	19.29	19.22
4440.0	4470.0	19.43	19.45	19.48
4560.0	4590.0	19.66	19.58	19.56
4680.0	4710.0	19.80	19.67	19.64
4800.0	4830.0	19.95	19.92	19.82
4920.0	4950.0	20.31	20.30	20.21
5040.0	5070.0	20.87	20.97	21.04
5160.0	5190.0	21.52	21.70	21.74
5280.0	5310.0	22.53	22.70	22.73
5420.0	5450.0	23.54	23.97	24.10
5540.0	5570.0	24.92	25.32	25.68
5680.0	5710.0	27.16	27.41	27.70
5800.0	5830.0	29.35	29.22	29.47
5940.0	5970.0	31.98	31.50	31.49
6060.0	6090.0	34.36	33.85	33.86
6200.0	6230.0	34.32	35.39	35.65
6320.0	6350.0	30.72	32.84	35.00
6460.0	6490.0	25.26	27.77	28.65

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	RF VSWR (:1) @LO (dBm)		
		+4	+7	+10
1680.0	1710.0	11.61	6.78	4.61
1800.0	1830.0	8.01	4.48	3.73
1920.0	1950.0	5.54	3.54	3.08
2040.0	2070.0	3.97	3.02	2.67
2160.0	2190.0	3.21	2.72	2.43
2280.0	2310.0	2.96	2.57	2.31
2400.0	2430.0	2.67	2.38	2.18
2520.0	2550.0	2.38	2.17	1.99
2640.0	2670.0	1.99	1.82	1.70
2760.0	2790.0	1.86	1.71	1.61
2880.0	2910.0	1.78	1.63	1.54
3000.0	3030.0	1.75	1.60	1.50
3120.0	3150.0	1.81	1.60	1.45
3240.0	3270.0	2.24	1.95	1.74
3360.0	3390.0	3.16	2.86	2.61
3480.0	3510.0	3.40	3.07	2.82
3600.0	3630.0	3.68	3.31	3.05
3720.0	3750.0	4.22	3.88	3.65
3840.0	3870.0	4.75	4.41	4.15
3960.0	3990.0	4.96	4.63	4.34
4080.0	4110.0	5.13	4.79	4.50
4200.0	4230.0	5.39	5.07	4.77
4320.0	4350.0	5.31	4.98	4.67
4440.0	4470.0	5.47	5.07	4.69
4560.0	4590.0	5.34	4.98	4.61
4680.0	4710.0	5.28	4.88	4.52
4800.0	4830.0	5.27	4.83	4.48
4920.0	4950.0	5.03	4.55	4.20
5040.0	5070.0	4.77	4.20	3.81
5160.0	5190.0	4.77	4.07	3.59
5280.0	5310.0	4.69	3.99	3.54
5420.0	5450.0	4.63	3.72	3.28
5540.0	5570.0	4.52	3.46	3.02
5680.0	5710.0	4.28	3.15	2.68
5800.0	5830.0	3.91	2.81	2.35
5940.0	5970.0	3.56	2.52	2.03
6060.0	6090.0	3.10	2.20	1.76
6200.0	6230.0	2.42	1.74	1.42
6320.0	6350.0	1.83	1.28	1.19
6460.0	6490.0	1.41	1.22	1.90

LO (MHz)	LO VSWR (:1) @LO (dBm)		
	+4	+7	+10
1710.0	25.56	22.29	14.50
1830.0	22.00	14.74	10.19
1950.0	16.41	9.63	7.97
2070.0	9.74	6.78	6.68
2190.0	5.79	5.34	5.93
2310.0	4.30	4.55	5.39
2430.0	3.46	3.95	4.80
2550.0	2.86	3.45	4.29
2670.0	2.28	2.93	3.75
2790.0	1.84	2.51	3.30
2910.0	1.53	2.10	2.77
3030.0	1.29	1.74	2.27
3150.0	1.17	1.47	1.90
3270.0	1.20	1.20	1.58
3390.0	1.38	1.14	1.43
3510.0	1.62	1.42	1.61
3630.0	1.91	1.79	1.99
3750.0	2.22	2.19	2.44
3870.0	2.50	2.61	2.96
3990.0	2.81	3.09	3.56
4110.0	3.09	3.52	4.10
4230.0	3.39	3.95	4.64
4350.0	3.55	4.32	5.00
4470.0	3.79	4.53	5.49
4590.0	4.18	4.98	5.89
4710.0	4.29	5.14	6.26
4830.0	4.68	5.61	6.56
4950.0	5.10	5.83	6.68
5070.0	5.30	6.13	6.86
5190.0	6.11	6.58	7.34
5310.0	7.00	7.44	8.16
5450.0	8.23	7.90	8.51
5570.0	9.74	8.99	9.18
5710.0	11.93	10.62	10.37
5830.0	14.03	12.01	11.17
5970.0	15.00	12.80	11.46
6090.0	14.87	12.80	11.46
6230.0	13.09	11.38	10.07
6350.0	10.13	8.86	7.87
6490.0	6.26	5.58	5.22

IF (OUT) (MHz)	IF VSWR @LO=2400MHz (:1) @LO (dBm)		
	+4	+7	+10
10.0	1.32	1.51	1.66
50.0	1.37	1.59	1.74
90.0	1.33	1.52	1.66
130.0	1.40	1.59	1.74
170.0	1.40	1.57	1.71
210.0	1.46	1.62	1.74
250.0	1.51	1.67	1.80
290.0	1.53	1.65	1.77
330.0	1.63	1.76	1.88
370.0	1.61	1.71	1.81
410.0	1.73	1.83	1.93
450.0	1.71	1.80	1.89
490.0	1.81	1.88	1.97
530.0	1.83	1.90	1.99
570.0	1.87	1.92	1.99
610.0	1.93	1.99	2.07
650.0	1.92	1.95	2.01
690.0	1.99	2.03	2.08
730.0	1.96	1.99	2.05
770.0	2.01	2.01	2.06
810.0	2.00	2.01	2.07
850.0	1.97	1.96	2.00
890.0	2.00	1.99	2.03
930.0	1.92	1.89	1.91
970.0	1.94	1.90	1.92
1010.0	1.86	1.80	1.82
1050.0	1.84	1.76	1.75
1110.0	1.74	1.64	1.61
1150.0	1.72	1.60	1.56
1210.0	1.62	1.46	1.39
1250.0	1.62	1.44	1.34
1310.0	1.57	1.36	1.22
1350.0	1.60	1.37	1.23
1410.0	1.63	1.41	1.29
1450.0	1.71	1.50	1.39
1510.0	1.85	1.68	1.61
1550.0	1.96	1.82	1.77
1610.0	2.22	2.13	2.10
1650.0	2.40	2.33	2.31
1710.0	2.74	2.71	2.71

Harmonics Tables

RF HARMONICS ORDER	(-dBm)	(-dBc)										
0	-	-	2	37	5	27	18	40	38	56	62	---
1	-	13	+0	29	36	29	43	35	39	61	49	56
2	88	54	47	49	46	61	41	>70	51	58	59	>70
3	>90	59	67	58	60	65	>70	60	>70	63	63	>70
4	>90	>70	>70	>70	>70	>70	>70	>70	>70	>70	>70	>70
5	>90	>70	>70	>70	>70	>70	>70	>70	>70	>70	>70	>70
6	>90	>70	>70	>70	>70	>70	>70	>70	>70	>70	>70	>70
7	>90	>70	>70	>70	>70	>70	>70	>70	>70	>70	>70	>70
8	>90	>70	>70	>70	>70	>70	>70	>70	>70	>70	>70	>70
9	>90	>70	>70	>70	>70	>70	>70	>70	>70	>70	>70	>70
10	---	---	>70	>70	>70	>70	>70	>70	>70	>70	>70	>70
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

LO HARMONICS ORDER

Test conditions: **RF IN: 2450 MHz; -14.00 dBm.**
LO IN: 2480 MHz; +7.00 dBm
IF OUT: 30 MHz; -19.91 dBm

RF HARMONICS ORDER	(-dBm)	(-dBc)										
0	-	-	12	50	16	38	32	51	46	75	64	---
1	-	13	+0	29	36	30	47	38	50	73	65	69
2	68	42	44	42	42	60	37	56	47	69	62	76
3	>90	40	48	41	38	48	62	43	64	48	54	75
4	>90	71	51	70	55	55	54	64	53	73	65	61
5	>90	69	78	57	70	55	64	60	74	56	75	59
6	>90	>80	73	>80	65	77	67	62	67	72	67	76
7	>90	>80	>80	>80	>80	72	>80	69	>80	72	>80	67
8	>90	>80	>80	>80	>80	>80	78	>80	80	71	>80	>80
9	>90	>80	>80	>80	>80	>80	>80	>80	>80	>80	>80	>80
10	---	---	>80	>80	>80	>80	>80	>80	>80	>80	>80	>80
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

LO HARMONICS ORDER

Test conditions: **RF IN: 2450 MHz; -4.00 dBm.**
LO IN: 2480 MHz; +7.00 dBm
IF OUT: 30 MHz; -10.06 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.