Frequency Mixer ZMX-8GLH

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	CONVERSION LOSS IF FIXED @IF(OUT)=30MHz (dB) @LO (dBm)		
		+7	+10	+13
1500.1	1530.1	11.03	9.19	8.54
1755.1	1785.1	9.17	7.86	7.34
2010.1	2040.1	7.69	6.79	6.35
2265.1	2295.1	6.96	6.21	5.84
2520.1	2550.1	6.21	5.75	5.46
2775.1	2805.1	5.26	5.02	4.96
3030.1	3060.1	5.09	4.96	4.95
3285.1	3315.1	4.93	4.83	4.82
3540.1	3570.1	4.73	4.65	4.66
3795.1	3825.1	5.02	4.80	4.71
4050.1	4080.1	5.08	4.84	4.77
4305.1	4335.1	5.17	4.96	4.90
4560.1	4590.1	5.35	5.16	5.11
4815.1	4845.1	5.44	5.28	5.22
5070.1	5100.1	5.45	5.34	5.32
5325.1	5355.1	5.21	5.18	5.30
5580.1	5610.1	7.17	6.73	6.51
5835.1	5865.1	7.49	6.92	6.63
6090.1	6120.1	6.91	6.52	6.41
6345.1	6375.1	6.97	6.53	6.46
6600.1	6630.1	6.81	6.43	6.42
6880.6	6910.6	6.77	6.42	6.44
7135.6	7165.6	7.17	6.72	6.69
7416.1	7446.1	7.61	7.08	6.95
7671.1	7701.1	8.00	7.41	7.11
7951.6	7981.6	7.79	7.37	7.17
8206.6	8236.6	7.68	7.37	7.22
8487.1	8517.1	7.35	7.08	6.97
8742.1	8772.1	7.18	6.96	6.86
9022.6	9052.6	6.89	6.70	6.61
9277.6	9307.6	6.47	6.33	6.28
9558.1	9588.1	6.21	6.10	6.09
9813.1	9843.1	6.13	5.94	5.87
10093.6	10123.6	6.14	5.85	5.76
10348.6	10378.6	6.48	6.07	5.96
10629.1	10659.1	7.36	6.78	6.65
10884.1	10914.1	8.29	7.58	7.40
11164.6	11194.6	11.22	8.89	8.29
11419.6	11449.6	10.03	9.58	9.39
11700.1	11730.1	12.72	11.56	11.59

RF (IN) (MHz)	LO (MHz)	IP3 INPUT (dBm) @LO (dBm)		
		+7	+10	+13
1500.1	1530.1	9.24	11.15	14.38
1755.1	1785.1	13.08	11.06	9.47
2010.1	2040.1	11.84	10.69	9.54
2265.1	2295.1	12.71	14.04	11.82
2520.1	2550.1	11.56	13.70	13.46
2775.1	2805.1	12.11	12.39	11.48
3030.1	3060.1	14.46	15.02	14.80
3285.1	3315.1	11.64	12.90	13.16
3540.1	3570.1	11.49	13.09	13.80
3795.1	3825.1	12.32	13.08	13.33
4050.1	4080.1	11.57	12.10	13.04
4305.1	4335.1	11.81	13.12	14.67
4560.1	4590.1	12.85	13.69	14.15
4815.1	4845.1	13.74	18.03	18.12
5070.1	5100.1	12.39	16.39	19.06
5325.1	5355.1	14.07	14.54	15.32
5580.1	5610.1	10.46	14.65	18.75
5835.1	5865.1	13.73	14.99	15.56
6090.1	6120.1	12.64	14.42	16.86
6345.1	6375.1	15.32	13.90	16.24
6600.1	6630.1	19.59	13.63	14.76
6880.6	6910.6	20.84	15.95	15.01
7135.6	7165.6	17.53	21.06	16.82
7416.1	7446.1	15.25	19.21	18.92
7671.1	7701.1	17.43	22.63	16.91
7951.6	7981.6	17.15	18.97	16.72
8206.6	8236.6	19.14	18.88	17.83
8487.1	8517.1	17.76	17.18	16.34
8742.1	8772.1	17.36	16.49	15.31
9022.6	9052.6	16.49	16.46	15.26
9277.6	9307.6	14.07	14.18	13.36
9558.1	9588.1	11.42	11.72	11.31
9813.1	9843.1	9.10	10.47	10.95
10093.6	10123.6	6.99	9.73	11.03
10348.6	10378.6	5.76	9.01	11.00
10629.1	10659.1	5.36	7.95	11.55
10884.1	10914.1	5.94	10.42	12.49
11164.6	11194.6	10.53	10.31	12.05
11419.6	11449.6	4.39	8.05	16.14
11700.1	11730.1	6.37	13.10	16.93

RF (IN) (MHz)	LO (MHz)	COMPRESSION @RF IN=+5dBm (dB) @LO (dBm)		
		+7	+10	+13
1500.1	1530.1	2.27	1.38	1.39
1755.1	1785.1	1.74	1.75	1.67
2010.1	2040.1	1.92	1.95	1.97
2265.1	2295.1	2.09	2.00	2.03
2520.1	2550.1	2.26	2.02	1.84
2775.1	2805.1	2.83	2.34	2.01
3030.1	3060.1	2.15	1.79	1.54
3285.1	3315.1	1.73	1.54	1.37
3540.1	3570.1	1.59	1.38	1.22
3795.1	3825.1	1.10	0.98	0.94
4050.1	4080.1	1.00	0.82	0.73
4305.1	4335.1	1.00	0.73	0.62
4560.1	4590.1	0.96	0.67	0.55
4815.1	4845.1	0.78	0.48	0.38
5070.1	5100.1	0.76	0.36	0.18
5325.1	5355.1	1.60	1.06	0.69
5580.1	5610.1	2.00	1.58	1.08
5835.1	5865.1	1.07	0.87	0.62
6090.1	6120.1	0.96	0.68	0.52
6345.1	6375.1	0.67	0.47	0.40
6600.1	6630.1	0.65	0.44	0.36
6880.6	6910.6	0.59	0.41	0.32
7135.6	7165.6	0.50	0.35	0.26
7416.1	7446.1	0.52	0.41	0.31
7671.1	7701.1	0.40	0.45	0.46
7951.6	7981.6	0.49	0.47	0.47
8206.6	8236.6	0.54	0.49	0.47
8487.1	8517.1	0.84	0.72	0.66
8742.1	8772.1	0.89	0.73	0.65
9022.6	9052.6	1.12	0.96	0.86
9277.6	9307.6	1.59	1.36	1.18
9558.1	9588.1	1.94	1.64	1.40
9813.1	9843.1	2.13	1.70	1.43
10093.6	10123.6	2.50	1.81	1.63
10348.6	10378.6	2.82	1.86	1.68
10629.1	10659.1	3.26	1.92	1.53
10884.1	10914.1	3.26	1.77	1.18
11164.6	11194.6	1.63	1.64	0.99
11419.6	11449.6	3.48	1.90	0.65
11700.1	11730.1	2.02	0.92	0.22

Typical Performance Data

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=5850MHz (dB) @LO (dBm) +10
2149.9	3700.1	5.88
2029.9	3820.1	5.86
1909.9	3940.1	5.88
1809.9	4040.1	5.93
1689.9	4160.1	5.95
1589.9	4260.1	5.93
1469.9	4380.1	5.83
1369.9	4480.1	5.65
1249.9	4600.1	5.59
1149.9	4700.1	5.38
1030.0	4820.0	5.40
930.0	4920.0	5.56
810.0	5040.0	5.95
710.0	5140.0	6.62
590.0	5260.0	7.63
490.0	5360.0	8.31
370.0	5480.0	8.61
270.0	5580.0	8.24
150.0	5700.0	7.21
50.0	5800.0	6.96
70.0	5920.0	6.86
170.0	6020.0	6.78
290.0	6140.0	6.66
390.0	6240.0	6.61
510.0	6360.0	6.58
610.0	6460.0	6.63
730.0	6580.0	6.65
830.0	6680.0	6.62
950.0	6800.0	6.47
1050.0	6900.0	6.30
1170.1	7020.1	6.20
1270.1	7120.1	6.21
1390.1	7240.1	6.30
1490.1	7340.1	6.35
1610.1	7460.1	6.49
1710.1	7560.1	6.75
1830.1	7680.1	7.04
1930.1	7780.1	7.82
2050.1	7900.1	8.54
2150.1	8000.1	9.10

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=3690MHz (dB) @LO (dBm) +10
10.1	3700.1	5.06
90.1	3780.1	4.72
170.1	3860.1	4.74
250.1	3940.1	4.78
330.1	4020.1	4.84
410.1	4100.1	4.88
490.1	4180.1	5.03
570.1	4260.1	5.09
650.1	4340.1	5.16
710.1	4400.1	5.31
790.1	4480.1	5.40
850.1	4540.1	5.46
930.1	4620.1	5.61
990.1	4680.1	5.63
1070.1	4760.1	5.55
1130.1	4820.1	5.47
1210.1	4900.1	5.00
1270.1	4960.1	4.87
1350.1	5040.1	5.09
1410.1	5100.1	5.05
1490.1	5180.1	5.34
1550.1	5240.1	5.38
1630.1	5320.1	5.45
1690.1	5380.1	5.54
1770.1	5460.1	5.71
1830.1	5520.1	5.60
1910.1	5600.1	5.75
1970.1	5660.1	5.81
2050.1	5740.1	5.91
2110.1	5800.1	6.02
2190.1	5880.1	6.24
2250.1	5940.1	6.47
2330.1	6020.1	6.75
2390.1	6080.1	7.06
2470.1	6160.1	7.36
2530.1	6220.1	7.68
2610.1	6300.1	8.06
2670.1	6360.1	8.67
2750.1	6440.1	9.41
2810.1	6500.1	10.11

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=8010.1MHz (dB) @LO (dBm) +10
2810.0	5200.1	11.53
2730.0	5280.1	10.54
2650.0	5360.1	9.66
2570.0	5440.1	9.15
2490.0	5520.1	8.76
2410.0	5600.1	8.53
2330.0	5680.1	8.34
2250.0	5760.1	8.11
2170.0	5840.1	8.00
2110.0	5900.1	7.75
2030.0	5980.1	7.67
1970.0	6040.1	7.60
1890.0	6120.1	7.58
1830.0	6180.1	7.40
1750.0	6260.1	7.38
1690.0	6320.1	7.22
1610.0	6400.1	6.96
1550.0	6460.1	7.05
1470.0	6540.1	7.08
1410.0	6600.1	7.17
1330.0	6680.1	7.26
1270.0	6740.1	7.36
1190.0	6820.1	7.37
1130.0	6880.1	7.63
1050.0	6960.1	7.74
990.0	7020.1	7.85
910.0	7100.1	8.07
850.0	7160.1	8.00
770.0	7240.1	8.06
710.0	7300.1	8.05
630.0	7380.1	8.02
570.0	7440.1	7.92
490.0	7520.1	7.83
430.0	7580.1	7.70
350.0	7660.1	7.63
290.0	7720.1	7.43
210.0	7800.1	7.44
150.0	7860.1	7.43
70.0	7940.1	7.49
10.0	8000.1	7.85

Typical Performance Data

LO (MHz)	LO-RF ISOLATION (dB) @LO (dBm)			LO-IF ISOLATION (dB) @LO (dBm)		
	+7	+10	+13	+7	+10	+13
1500.1	28.34	32.00	35.19	8.57	10.63	15.52
1755.1	36.83	44.73	37.30	7.86	10.29	12.69
2010.1	33.49	34.97	33.98	7.64	9.66	11.67
2265.1	29.05	30.44	30.24	7.63	9.06	10.14
2520.1	29.42	28.85	28.92	6.93	7.71	8.20
2775.1	36.63	33.48	32.00	6.51	7.23	7.64
3030.1	35.96	35.66	35.62	7.39	7.67	7.87
3285.1	33.85	34.53	34.78	8.73	8.79	8.57
3540.1	33.14	33.10	32.55	9.86	9.57	8.77
3795.1	35.19	34.94	34.35	10.81	10.21	9.65
4050.1	39.37	37.47	36.13	12.16	10.79	10.20
4305.1	38.25	36.80	35.65	12.87	11.83	11.09
4560.1	40.95	37.39	35.17	13.76	12.61	11.93
4815.1	41.21	41.64	38.82	14.52	13.55	12.80
5070.1	38.06	38.78	37.11	15.16	14.32	13.42
5325.1	37.06	37.87	37.24	15.98	14.77	14.21
5580.1	37.91	41.14	43.75	16.55	15.70	14.92
5835.1	33.66	35.96	38.05	16.95	16.35	15.60
6090.1	33.10	35.51	37.53	17.18	16.90	16.19
6345.1	32.56	35.35	37.95	17.61	17.20	16.98
6600.1	32.27	35.47	38.47	18.00	17.83	17.80
6880.6	31.48	34.22	36.23	18.50	18.49	18.68
7135.6	31.98	34.65	36.32	18.85	19.23	19.43
7416.1	32.41	35.05	36.72	19.62	20.18	20.80
7671.1	31.54	32.70	32.15	20.03	21.04	21.68
7951.6	32.34	33.11	32.25	21.07	22.27	23.11
8206.6	34.87	36.28	35.79	22.27	23.75	25.03
8487.1	37.36	44.03	46.20	24.10	25.75	27.40
8742.1	34.05	38.12	42.64	25.11	27.04	28.72
9022.6	30.80	33.31	35.32	26.14	27.91	29.18
9277.6	28.86	31.07	32.93	27.17	28.55	29.45
9558.1	26.38	28.52	30.22	28.07	28.86	28.98
9813.1	24.14	26.24	28.03	29.65	29.71	29.39
10093.6	22.23	24.08	25.82	32.22	30.77	30.14
10348.6	20.36	22.14	23.93	36.01	32.94	31.42
10629.1	18.65	20.25	21.77	43.68	39.61	35.12
10884.1	17.82	19.53	21.18	48.43	44.95	36.47
11164.6	18.16	20.19	22.10	30.33	33.10	32.39
11419.6	22.59	23.11	23.64	26.69	28.99	29.46
11700.1	26.23	25.31	25.14	25.88	27.47	28.19

RF (IN) (MHz)	LO (MHz)	RF-IF ISOLATION (dB) @LO (dBm)		
		+7	+10	+13
1500.1	1530.1	13.71	12.30	11.41
1755.1	1785.1	13.17	12.91	12.26
2010.1	2040.1	15.09	14.83	14.95
2265.1	2295.1	19.01	17.59	17.97
2520.1	2550.1	23.17	23.15	22.33
2775.1	2805.1	21.05	21.92	23.06
3030.1	3060.1	19.22	19.42	19.75
3285.1	3315.1	20.72	20.43	20.37
3540.1	3570.1	22.13	21.83	21.61
3795.1	3825.1	23.57	23.68	23.75
4050.1	4080.1	24.38	24.61	24.68
4305.1	4335.1	25.59	25.89	26.14
4560.1	4590.1	26.91	27.37	27.67
4815.1	4845.1	28.30	28.66	29.08
5070.1	5100.1	30.01	30.47	30.87
5325.1	5355.1	30.60	30.87	31.06
5580.1	5610.1	29.98	29.89	29.85
5835.1	5865.1	32.34	32.42	32.38
6090.1	6120.1	33.94	33.95	33.98
6345.1	6375.1	34.74	34.63	34.52
6600.1	6630.1	35.02	34.82	34.70
6880.6	6910.6	34.87	34.57	34.34
7135.6	7165.6	33.70	33.38	33.14
7416.1	7446.1	32.30	32.08	31.77
7671.1	7701.1	30.62	30.52	30.32
7951.6	7981.6	28.80	28.69	28.55
8206.6	8236.6	27.62	27.57	27.44
8487.1	8517.1	27.61	27.53	27.36
8742.1	8772.1	28.36	28.30	28.14
9022.6	9052.6	29.50	29.42	29.30
9277.6	9307.6	30.43	30.27	30.07
9558.1	9588.1	30.69	30.37	30.07
9813.1	9843.1	31.00	30.40	29.93
10093.6	10123.6	31.13	29.82	29.04
10348.6	10378.6	31.82	29.10	27.76
10629.1	10659.1	35.16	31.56	28.05
10884.1	10914.1	36.84	34.84	29.90
11164.6	11194.6	36.33	36.63	35.54
11419.6	11449.6	34.16	35.90	39.27
11700.1	11730.1	30.54	31.93	34.03

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	RF VSWR (:1) @LO (dBm)		
		+7	+10	+13
1500.1	1530.1	7.83	6.37	5.77
1755.1	1785.1	5.38	4.44	4.08
2010.1	2040.1	4.29	3.40	2.98
2265.1	2295.1	3.96	3.25	2.57
2520.1	2550.1	2.88	2.63	2.39
2775.1	2805.1	2.33	2.16	2.12
3030.1	3060.1	1.91	1.80	1.76
3285.1	3315.1	1.68	1.53	1.45
3540.1	3570.1	1.74	1.54	1.43
3795.1	3825.1	1.95	1.72	1.56
4050.1	4080.1	2.08	1.83	1.67
4305.1	4335.1	2.07	1.88	1.77
4560.1	4590.1	1.93	1.76	1.65
4815.1	4845.1	1.97	1.79	1.67
5070.1	5100.1	1.89	1.66	1.55
5325.1	5355.1	1.87	1.46	1.26
5580.1	5610.1	3.47	3.22	3.03
5835.1	5865.1	4.30	3.86	3.52
6090.1	6120.1	3.86	3.43	3.21
6345.1	6375.1	4.07	3.43	3.19
6600.1	6630.1	3.83	3.13	2.81
6880.6	6910.6	3.76	3.00	2.55
7135.6	7165.6	3.43	2.78	2.36
7416.1	7446.1	3.86	3.31	2.88
7671.1	7701.1	4.09	3.73	3.30
7951.6	7981.6	4.01	3.70	3.37
8206.6	8236.6	3.12	2.95	2.75
8487.1	8517.1	3.12	2.93	2.78
8742.1	8772.1	3.00	2.82	2.68
9022.6	9052.6	2.75	2.59	2.48
9277.6	9307.6	2.36	2.24	2.14
9558.1	9588.1	1.96	1.87	1.78
9813.1	9843.1	1.74	1.64	1.57
10093.6	10123.6	1.45	1.35	1.32
10348.6	10378.6	1.29	1.43	1.54
10629.1	10659.1	1.32	1.69	1.92
10884.1	10914.1	2.27	3.09	3.67
11164.6	11194.6	3.16	3.73	4.01
11419.6	11449.6	5.68	6.19	7.25
11700.1	11730.1	7.47	7.76	9.04

LO (MHz)	LO VSWR (:1) @LO (dBm)		
	+7	+10	+13
1500.1	7.80	5.72	4.30
1755.1	4.80	3.96	4.08
2010.1	3.09	2.88	3.21
2265.1	2.25	2.30	2.76
2520.1	1.98	2.10	2.45
2775.1	1.76	1.88	2.34
3030.1	1.54	1.84	2.31
3285.1	1.38	1.83	2.36
3540.1	1.35	1.85	2.37
3795.1	1.37	1.95	2.54
4050.1	1.46	2.00	2.67
4305.1	1.55	2.06	2.67
4560.1	1.71	2.18	2.79
4815.1	1.83	2.20	2.74
5070.1	2.11	2.37	2.88
5325.1	2.32	2.40	2.80
5580.1	2.46	2.42	2.78
5835.1	2.72	2.37	2.51
6090.1	2.99	2.41	2.42
6345.1	3.20	2.32	2.14
6600.1	3.18	2.23	1.92
6880.6	3.30	2.06	1.59
7135.6	2.99	1.82	1.31
7416.1	2.65	1.59	1.12
7671.1	2.47	1.53	1.36
7951.6	2.11	1.67	1.81
8206.6	2.02	1.96	2.30
8487.1	2.12	2.49	3.12
8742.1	2.20	2.83	3.62
9022.6	2.56	3.44	4.46
9277.6	3.13	4.23	5.44
9558.1	3.70	4.82	6.05
9813.1	4.66	5.61	6.76
10093.6	6.21	6.86	7.97
10348.6	8.23	8.20	9.18
10629.1	10.07	8.68	9.04
10884.1	11.38	9.63	10.19
11164.6	9.69	10.07	10.43
11419.6	9.28	9.48	9.28
11700.1	9.04	8.39	8.01

IF (OUT) (MHz)	IF VSWR @LO=8000MHz (:1) @LO (dBm)		
	+7	+10	+13
10.0	1.32	1.60	1.90
90.0	1.33	1.64	1.98
170.0	1.32	1.64	1.98
250.0	1.31	1.62	1.94
330.0	1.28	1.56	1.88
410.0	1.25	1.52	1.84
490.0	1.24	1.52	1.84
570.0	1.24	1.53	1.86
650.0	1.21	1.48	1.80
730.0	1.16	1.40	1.69
810.0	1.12	1.34	1.61
890.0	1.09	1.29	1.55
970.0	1.06	1.27	1.53
1050.0	1.04	1.25	1.49
1130.0	1.02	1.20	1.42
1210.0	1.07	1.13	1.33
1290.0	1.14	1.04	1.23
1370.0	1.23	1.12	1.19
1450.0	1.33	1.23	1.21
1530.0	1.42	1.31	1.26
1610.0	1.53	1.41	1.34
1690.0	1.69	1.58	1.49
1770.0	1.88	1.76	1.64
1850.0	2.10	1.97	1.83
1930.0	2.36	2.22	2.08
2010.0	2.62	2.50	2.36
2090.0	2.81	2.71	2.57
2170.0	2.92	2.83	2.72
2250.0	3.09	3.00	2.90
2310.0	3.37	3.27	3.16
2390.0	3.66	3.58	3.48
2450.0	3.59	3.53	3.46
2530.0	3.79	3.76	3.71
2590.0	4.03	3.99	3.93
2670.0	3.98	3.96	3.95
2730.0	4.12	4.14	4.19
2810.0	4.36	4.43	4.52
2870.0	3.89	3.97	4.09
2950.0	3.95	4.12	4.37
3010.0	4.36	4.60	4.92

Harmonics Tables

RF HARMONICS ORDER	(-dBm)	(-dBc)										
0	-	-	+11	33	20	48	---	---	---	---	---	---
1	-	25	+0	49	29	45	54	---	---	---	---	---
2	82	63	55	51	54	>73	66	64	---	---	---	---
3	>90	72	>73	>73	67	>73	>73	>73	>73	---	---	---
4	>90	>73	>73	>73	>73	>73	>73	>73	>73	>73	---	---
5	---	---	>73	>73	>73	>73	>73	>73	>73	>73	>73	---
6	---	---	---	>73	>73	>73	>73	>73	>73	>73	>73	>73
7	---	---	---	---	>73	>73	>73	>73	>73	>73	>73	>73
8	---	---	---	---	---	>73	>73	>73	>73	>73	>73	>73
9	---	---	---	---	---	---	>73	>73	>73	>73	>73	>73
10	---	---	---	---	---	---	---	>73	>73	>73	>73	>73
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

LO HARMONICS ORDER

Test conditions: RF IN: 5850 MHz; -10.00 dBm.
LO IN: 5880 MHz; +10.00 dBm
IF OUT: 30 MHz; -17.11 dBm

RF HARMONICS ORDER	(-dBm)	(-dBc)										
0	-	-	+1	42	30	67	---	---	---	---	---	---
1	-	25	+0	50	29	48	57	---	---	---	---	---
2	63	53	45	39	46	65	57	60	---	---	---	---
3	>90	53	54	69	44	67	66	66	72	---	---	---
4	>90	73	74	>83	69	60	68	77	74	70	---	---
5	---	---	>83	>83	82	>83	64	79	80	79	83	---
6	---	---	---	>83	>83	>83	>83	70	>83	>83	>83	81
7	---	---	---	---	>83	>83	>83	>83	79	>83	>83	>83
8	---	---	---	---	---	>83	>83	>83	>83	>83	>83	>83
9	---	---	---	---	---	---	>83	>83	>83	>83	>83	>83
10	---	---	---	---	---	---	---	>83	>83	>83	>83	>83
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

LO HARMONICS ORDER

Test conditions: RF IN: 5850 MHz; 0.00 dBm.
LO IN: 5880 MHz; +10.00 dBm
IF OUT: 30 MHz; -7.18 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.