Frequency Mixer MCA1-113H+

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	CONVERSION LOSS IF FIXED @IF(OUT)=30MHz (dB)		
		@LO (dBm)		
		+14	+17	+20
2800.1	2830.1	16.92	13.58	12.13
3052.6	3082.6	10.87	9.65	8.60
3305.1	3335.1	8.31	7.29	6.72
3557.6	3587.6	6.30	5.83	5.54
3810.1	3840.1	5.63	5.25	5.05
4062.6	4092.6	5.39	5.07	4.94
4315.1	4345.1	5.43	5.03	4.86
4567.6	4597.6	5.31	5.06	5.03
4820.1	4850.1	5.28	4.99	4.91
5072.6	5102.6	6.96	6.22	5.90
5325.1	5355.1	7.67	6.77	6.41
5577.6	5607.6	8.23	7.52	7.15
5830.1	5860.1	7.94	7.19	6.80
6082.6	6112.6	7.38	6.68	6.29
6335.1	6365.1	7.35	6.46	6.09
6587.6	6617.6	7.88	6.73	6.38
6840.1	6870.1	8.70	6.57	6.11
7092.6	7122.6	10.63	8.03	7.21
7345.1	7375.1	9.48	6.80	6.32
7597.6	7627.6	10.99	6.68	6.09
7850.1	7880.1	10.55	6.46	5.90
8127.9	8157.9	10.93	6.24	5.74
8380.3	8410.3	11.07	6.12	5.71
8658.1	8688.1	11.20	6.28	5.86
8910.6	8940.6	13.58	6.62	6.08
9188.3	9218.3	17.02	7.11	6.40
9440.8	9470.8	11.21	6.83	6.60
9718.6	9748.6	9.94	7.18	7.16
9971.1	10001.1	9.47	7.96	8.05
10248.9	10278.9	9.65	8.15	8.27
10501.4	10531.4	9.04	8.08	8.25
10779.1	10809.1	9.32	8.32	8.43
11031.6	11061.6	10.35	8.04	7.85
11309.3	11339.3	14.20	9.60	9.33
11561.8	11591.8	14.19	8.93	8.51
11839.6	11869.6	13.64	8.69	8.29
12092.1	12122.1	13.19	8.67	8.57
12369.9	12399.9	11.87	9.48	9.02
12622.4	12652.4	10.83	9.27	9.20
12900.1	12930.1	27.74	15.54	13.72

RF (IN) (MHz)	LO (MHz)	IP3 INPUT (dBm)		
		@LO (dBm)		
		+14	+17	+20
2800.1	2830.1	11.99	13.00	16.36
3052.6	3082.6	24.41	30.55	25.00
3305.1	3335.1	20.56	20.91	18.74
3557.6	3587.6	19.84	22.83	23.16
3810.1	3840.1	20.96	23.47	22.16
4062.6	4092.6	21.63	23.62	23.66
4315.1	4345.1	23.07	23.69	23.47
4567.6	4597.6	22.27	24.15	23.73
4820.1	4850.1	22.16	24.35	27.19
5072.6	5102.6	21.13	24.80	26.62
5325.1	5355.1	21.54	21.89	22.24
5577.6	5607.6	21.31	22.10	22.90
5830.1	5860.1	23.04	23.34	23.30
6082.6	6112.6	22.58	23.69	22.23
6335.1	6365.1	20.75	23.60	23.12
6587.6	6617.6	19.50	23.60	24.54
6840.1	6870.1	19.09	23.48	26.75
7092.6	7122.6	19.90	23.04	24.35
7345.1	7375.1	19.07	20.93	22.11
7597.6	7627.6	13.87	19.69	21.35
7850.1	7880.1	13.82	18.95	20.85
8127.9	8157.9	11.96	18.13	20.09
8380.3	8410.3	11.79	18.65	20.31
8658.1	8688.1	11.19	18.51	20.08
8910.6	8940.6	8.57	18.45	20.44
9188.3	9218.3	5.94	19.68	21.22
9440.8	9470.8	13.15	20.86	22.08
9718.6	9748.6	18.96	22.01	21.96
9971.1	10001.1	21.21	21.99	22.30
10248.9	10278.9	22.44	24.56	25.55
10501.4	10531.4	26.04	26.00	25.90
10779.1	10809.1	26.50	26.73	26.54
11031.6	11061.6	27.66	29.01	29.16
11309.3	11339.3	20.86	26.83	27.05
11561.8	11591.8	17.75	24.53	24.31
11839.6	11869.6	18.77	23.34	22.85
12092.1	12122.1	19.64	23.58	23.31
12369.9	12399.9	19.76	23.50	23.52
12622.4	12652.4	16.60	19.74	19.89
12900.1	12930.1	5.37	9.31	10.12

RF (IN) (MHz)	LO (MHz)	COMPRESSION @RF IN=+14dBm (dB)		
		@LO (dBm)		
		+14	+17	+20
2800.1	2830.1	1.67	3.06	2.72
3052.6	3082.6	2.02	1.37	1.54
3305.1	3335.1	1.56	1.52	1.56
3557.6	3587.6	2.13	1.61	1.56
3810.1	3840.1	2.18	1.66	1.60
4062.6	4092.6	1.97	1.49	1.50
4315.1	4345.1	1.73	1.33	1.38
4567.6	4597.6	1.65	1.05	1.04
4820.1	4850.1	1.70	0.81	0.65
5072.6	5102.6	1.87	1.46	1.13
5325.1	5355.1	1.35	1.17	1.24
5577.6	5607.6	1.17	0.74	0.72
5830.1	5860.1	1.11	0.62	0.54
6082.6	6112.6	1.21	0.57	0.41
6335.1	6365.1	1.35	0.61	0.40
6587.6	6617.6	1.09	0.51	0.39
6840.1	6870.1	0.50	0.66	0.39
7092.6	7122.6	-0.52	0.33	0.49
7345.1	7375.1	0.19	0.77	0.87
7597.6	7627.6	-1.24	0.66	0.77
7850.1	7880.1	-1.35	0.63	0.84
8127.9	8157.9	-1.65	0.77	0.85
8380.3	8410.3	-1.87	0.67	0.84
8658.1	8688.1	-2.44	0.42	0.69
8910.6	8940.6	-4.08	0.45	0.63
9188.3	9218.3	-6.77	0.52	0.64
9440.8	9470.8	-2.12	0.35	0.73
9718.6	9748.6	-0.80	0.37	0.76
9971.1	10001.1	0.39	0.47	0.67
10248.9	10278.9	0.38	0.34	0.52
10501.4	10531.4	0.46	0.33	0.60
10779.1	10809.1	0.43	0.36	0.57
11031.6	11061.6	0.01	0.19	0.22
11309.3	11339.3	-1.83	-0.08	0.01
11561.8	11591.8	-2.39	0.08	0.40
11839.6	11869.6	-2.17	0.30	0.55
12092.1	12122.1	-1.77	0.46	0.51
12369.9	12399.9	-0.06	0.26	0.50
12622.4	12652.4	2.08	1.60	1.52
12900.1	12930.1	-7.80	1.46	2.24

Typical Performance Data

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=7400MHz (dB) @LO (dBm) +17
2399.9	5000.1	10.92
2277.3	5122.7	10.28
2154.8	5245.2	9.18
2032.2	5367.8	8.79
1909.7	5490.3	9.04
1787.1	5612.9	8.93
1664.5	5735.5	8.27
1542.0	5858.0	7.67
1419.4	5980.6	7.28
1296.9	6103.1	7.19
1174.3	6225.7	7.08
1051.8	6348.2	7.00
929.2	6470.8	7.04
806.6	6593.4	7.67
684.1	6715.9	8.04
561.5	6838.5	7.96
439.0	6961.0	7.66
316.4	7083.6	7.49
193.8	7206.2	7.03
71.3	7328.7	7.03
49.1	7449.1	7.05
166.6	7566.6	7.02
284.0	7684.0	7.17
401.5	7801.5	7.50
518.9	7918.9	7.71
636.4	8036.4	7.83
753.8	8153.8	8.09
871.2	8271.2	8.03
988.7	8388.7	8.16
1106.1	8506.1	8.15
1223.6	8623.6	8.57
1341.0	8741.0	8.63
1458.4	8858.4	8.62
1575.9	8975.9	8.59
1693.3	9093.3	9.20
1810.8	9210.8	9.22
1928.2	9328.2	9.04
2045.6	9445.6	9.40
2163.1	9563.1	9.52
2300.1	9700.1	10.18

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=3790MHz (dB) @LO (dBm) +17
10.1	3800.1	5.43
70.1	3860.1	5.30
130.1	3920.1	5.27
190.1	3980.1	5.25
250.1	4040.1	5.29
310.1	4100.1	5.28
370.1	4160.1	5.26
430.1	4220.1	5.25
490.1	4280.1	5.16
550.1	4340.1	5.26
610.1	4400.1	5.33
670.1	4460.1	5.35
730.1	4520.1	5.29
790.1	4580.1	5.20
850.1	4640.1	5.07
910.1	4700.1	4.90
970.1	4760.1	4.93
1030.1	4820.1	5.07
1090.1	4880.1	5.01
1150.1	4940.1	5.27
1210.1	5000.1	5.29
1270.1	5060.1	5.40
1330.1	5120.1	5.59
1390.1	5180.1	5.61
1470.1	5260.1	5.97
1530.1	5320.1	5.95
1610.1	5400.1	6.23
1670.1	5460.1	6.18
1750.1	5540.1	6.22
1810.1	5600.1	6.13
1890.1	5680.1	6.33
1950.1	5740.1	6.56
2030.1	5820.1	6.83
2090.1	5880.1	7.26
2170.1	5960.1	7.30
2230.1	6020.1	7.73
2310.1	6100.1	8.49
2370.1	6160.1	9.41
2450.1	6240.1	10.16
2510.1	6300.1	10.67

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=11010.09MHz (dB) @LO (dBm) +17
1810.0	9200.1	12.15
1770.0	9240.1	11.69
1730.0	9280.1	11.76
1690.0	9320.1	12.33
1650.0	9360.1	11.24
1610.0	9400.1	11.67
1570.0	9440.1	11.38
1530.0	9480.1	11.11
1490.0	9520.1	11.50
1450.0	9560.1	11.09
1410.0	9600.1	11.28
1370.0	9640.1	10.93
1330.0	9680.1	10.95
1290.0	9720.1	10.96
1250.0	9760.1	10.92
1210.0	9800.1	10.72
1170.0	9840.1	10.75
1110.0	9900.1	10.79
1070.0	9940.1	10.68
1010.0	10000.1	10.57
970.0	10040.1	10.33
910.0	10100.1	10.19
870.0	10140.1	10.13
810.0	10200.1	9.99
770.0	10240.1	9.91
710.0	10300.1	9.61
670.0	10340.1	9.64
610.0	10400.1	9.36
570.0	10440.1	9.32
510.0	10500.1	9.15
470.0	10540.1	8.85
410.0	10600.1	8.76
370.0	10640.1	8.65
310.0	10700.1	8.59
270.0	10740.1	8.50
210.0	10800.1	8.37
170.0	10840.1	8.38
110.0	10900.1	8.21
70.0	10940.1	8.28
10.0	11000.1	8.45

Typical Performance Data

LO (MHz)	LO-RF ISOLATION (dB) @LO (dBm)			LO-IF ISOLATION (dB) @LO (dBm)		
	+14	+17	+20	+14	+17	+20
2830.1	26.17	29.42	33.04	5.56	4.81	4.68
3082.6	33.29	44.49	49.85	7.06	6.97	7.06
3335.1	29.71	31.02	32.77	8.75	9.11	9.04
3587.6	30.75	30.64	30.79	11.69	11.50	10.81
3840.1	33.38	32.25	31.25	14.26	12.80	11.66
4092.6	35.56	32.75	30.41	15.88	13.69	12.50
4345.1	34.41	31.09	28.76	15.00	13.39	12.45
4597.6	29.92	28.95	27.24	14.22	13.53	12.81
4850.1	27.42	26.18	24.55	12.35	12.39	12.18
5102.6	25.53	27.96	28.09	10.54	11.23	11.49
5355.1	20.76	22.83	23.99	8.99	10.20	11.08
5607.6	18.83	20.86	22.50	9.83	11.66	13.08
5860.1	20.32	22.61	24.48	13.53	15.69	17.51
6112.6	22.81	25.11	27.09	18.27	20.32	22.15
6365.1	25.95	28.35	30.29	23.48	24.90	26.29
6617.6	27.77	30.74	33.48	29.86	29.45	29.13
6870.1	31.23	35.89	39.60	35.72	31.46	29.65
7122.6	35.29	36.74	38.28	33.74	31.17	29.19
7375.1	36.07	37.05	38.45	34.67	32.40	30.66
7627.6	40.91	40.96	41.49	33.29	32.76	31.28
7880.1	47.31	44.38	40.66	33.71	33.50	32.49
8157.9	51.90	44.71	39.98	36.32	35.93	35.27
8410.3	49.69	41.93	36.68	41.20	40.47	39.15
8688.1	47.71	40.71	35.19	43.45	46.89	53.62
8940.6	30.95	32.27	30.82	39.33	41.34	49.23
9218.3	28.46	28.56	28.06	35.69	37.00	40.64
9470.8	27.77	27.47	26.40	36.55	41.33	43.46
9748.6	24.80	24.27	23.71	38.67	30.96	28.17
10001.1	22.79	22.80	22.35	24.23	21.93	21.30
10278.8	20.93	21.91	22.21	18.43	20.42	21.01
10531.3	20.75	21.86	22.72	19.28	20.59	21.26
10809.1	21.16	22.56	23.42	18.61	20.09	21.06
11061.6	22.21	23.74	24.52	18.36	19.83	20.68
11339.3	24.26	24.40	24.41	18.69	20.13	20.57
11591.8	25.44	25.72	25.43	18.92	20.19	21.30
11869.6	21.70	23.11	23.38	19.16	20.13	20.47
12122.1	19.21	20.62	20.70	20.06	20.18	20.18
12399.9	16.96	18.42	19.06	21.28	19.47	18.91
12652.4	14.45	16.28	16.53	17.63	16.27	16.03
12930.1	14.43	15.12	15.62	12.86	12.76	12.71

RF (IN) (MHz)	LO (MHz)	RF-IF ISOLATION (dB) @LO (dBm)		
		+14	+17	+20
2800.1	2830.1	23.00	23.15	22.88
3052.6	3082.6	24.62	25.72	26.91
3305.1	3335.1	28.82	35.71	39.06
3557.6	3587.6	29.88	31.86	32.20
3810.1	3840.1	30.56	30.22	29.94
4062.6	4092.6	27.25	25.76	25.13
4315.1	4345.1	23.59	22.02	20.84
4567.6	4597.6	19.90	18.63	17.66
4820.1	4850.1	16.56	15.69	15.10
5072.6	5102.6	16.62	16.06	15.60
5325.1	5355.1	10.39	10.27	10.11
5577.6	5607.6	7.88	8.17	8.31
5830.1	5860.1	8.86	9.40	9.89
6082.6	6112.6	10.80	11.39	12.09
6335.1	6365.1	12.85	13.44	13.99
6587.6	6617.6	14.08	14.64	14.97
6840.1	6870.1	16.10	16.78	17.14
7092.6	7122.6	17.33	17.56	17.69
7345.1	7375.1	19.90	20.38	20.55
7597.6	7627.6	23.36	23.44	23.52
7850.1	7880.1	28.58	26.47	25.68
8127.9	8157.9	30.47	26.58	24.83
8380.3	8410.3	24.89	24.13	23.17
8658.1	8688.1	20.89	21.71	21.51
8910.6	8940.6	18.44	19.71	19.93
9188.3	9218.3	16.73	18.37	19.00
9440.8	9470.8	17.29	18.51	19.03
9718.6	9748.6	17.37	18.69	19.30
9971.1	10001.1	17.78	19.32	20.81
10248.9	10278.9	19.52	20.89	21.74
10501.4	10531.4	19.92	21.04	21.89
10779.1	10809.1	19.99	20.86	21.55
11031.6	11061.6	20.56	21.33	21.76
11309.3	11339.3	21.98	22.63	22.85
11561.8	11591.8	25.29	26.00	26.72
11839.6	11869.6	29.38	27.71	27.52
12092.1	12122.1	30.59	26.62	26.52
12369.9	12399.9	24.71	23.35	23.01
12622.4	12652.4	20.43	20.26	20.25
12900.1	12930.1	18.85	18.21	18.05

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	RF VSWR (:1) @LO (dBm)		
		+14	+17	+20
2800.1	2830.1	4.18	3.20	2.57
3052.6	3082.6	3.92	3.07	2.63
3305.1	3335.1	2.90	2.35	2.10
3557.6	3587.6	2.21	1.86	1.63
3810.1	3840.1	1.94	1.68	1.48
4062.6	4092.6	1.85	1.58	1.41
4315.1	4345.1	1.97	1.68	1.48
4567.6	4597.6	1.89	1.66	1.50
4820.1	4850.1	1.79	1.53	1.35
5072.6	5102.6	2.57	2.24	2.01
5325.1	5355.1	2.60	2.30	2.09
5577.6	5607.6	2.06	1.92	1.81
5830.1	5860.1	2.25	2.06	1.91
6082.6	6112.6	2.52	2.24	1.95
6335.1	6365.1	2.69	2.33	2.06
6587.6	6617.6	3.08	2.55	2.31
6840.1	6870.1	3.11	2.27	1.97
7092.6	7122.6	3.78	3.08	2.81
7345.1	7375.1	3.63	2.69	2.41
7597.6	7627.6	3.86	2.50	2.13
7850.1	7880.1	3.31	2.11	1.77
8127.9	8157.9	3.06	1.83	1.46
8380.3	8410.3	2.68	1.60	1.29
8658.1	8688.1	2.33	1.39	1.17
8910.6	8940.6	2.36	1.45	1.30
9188.3	9218.3	2.77	1.69	1.60
9440.8	9470.8	2.51	1.89	1.94
9718.6	9748.6	2.70	2.23	2.26
9971.1	10001.1	2.95	2.73	2.72
10248.9	10278.9	3.70	3.28	3.25
10501.4	10531.4	4.07	3.64	3.59
10779.1	10809.1	4.06	3.64	3.50
11031.6	11061.6	4.37	3.58	3.31
11309.3	11339.3	4.82	3.85	3.71
11561.8	11591.8	4.88	3.67	3.38
11839.6	11869.6	4.62	3.50	3.21
12092.1	12122.1	4.25	3.30	3.23
12369.9	12399.9	3.38	2.94	2.72
12622.4	12652.4	2.67	2.34	2.34
12900.1	12930.1	2.77	2.13	1.87

LO (MHz)	LO VSWR (:1) @LO (dBm)		
	+14	+17	+20
2830.1	2.20	2.23	2.48
3082.6	2.79	2.96	3.22
3335.1	3.02	3.17	3.50
3587.6	2.49	2.79	3.35
3840.1	2.02	2.50	3.14
4092.6	1.76	2.39	3.12
4345.1	1.53	2.13	2.77
4597.6	1.45	2.03	2.71
4850.1	1.51	1.90	2.45
5102.6	1.62	1.94	2.46
5355.1	1.75	1.91	2.31
5607.6	1.94	2.05	2.46
5860.1	2.19	2.23	2.60
6112.6	2.69	2.57	2.85
6365.1	3.20	2.91	3.20
6617.6	4.19	3.29	3.34
6870.1	5.20	3.71	3.58
7122.6	5.83	3.91	3.50
7375.1	7.53	4.52	3.75
7627.6	9.85	5.27	3.82
7880.1	10.43	5.42	3.71
8157.9	9.90	5.27	3.33
8410.3	8.72	4.78	3.09
8688.1	7.47	4.34	2.76
8940.6	6.44	4.24	2.61
9218.3	6.05	4.26	2.55
9470.8	5.83	3.46	2.13
9748.6	4.74	2.72	1.78
10001.1	3.44	2.17	1.52
10278.8	2.58	1.62	1.10
10531.3	2.01	1.33	1.16
10809.1	2.18	1.58	1.47
11061.6	3.01	2.13	1.85
11339.3	4.31	2.84	2.58
11591.8	4.99	3.20	2.45
11869.6	4.70	3.12	2.67
12122.1	4.10	2.81	2.74
12399.9	3.03	2.19	1.99
12652.4	1.78	1.57	1.55
12930.1	1.85	1.89	1.92

IF (OUT) (MHz)	IF VSWR @LO=11000MHz (:1) @LO (dBm)		
	+14	+17	+20
10.0	1.66	1.02	1.18
90.0	1.68	1.03	1.17
170.0	1.77	1.07	1.12
250.0	1.83	1.12	1.09
330.0	1.94	1.20	1.10
410.0	2.05	1.29	1.17
490.0	2.15	1.39	1.24
570.0	2.25	1.46	1.30
650.0	2.35	1.53	1.37
730.0	2.48	1.64	1.46
810.0	2.62	1.78	1.59
890.0	2.88	1.96	1.74
970.0	3.06	2.08	1.84
1050.0	3.17	2.16	1.91
1130.0	3.16	2.18	1.94
1210.0	3.10	2.19	1.96
1290.0	3.16	2.26	2.03
1370.0	3.23	2.30	2.06
1450.0	3.33	2.37	2.13
1530.0	3.29	2.38	2.14
1610.0	3.10	2.36	2.14
1690.0	2.90	2.27	2.09
1770.0	3.11	2.36	2.17
1850.0	2.86	2.26	2.09
1930.0	2.52	2.03	1.87
2010.0	2.41	1.99	1.84
2090.0	2.45	2.10	1.98
2170.0	2.39	2.03	1.94
2250.0	2.16	1.80	1.71
2310.0	1.95	1.74	1.69
2390.0	1.92	1.76	1.74
2450.0	1.92	1.81	1.75
2530.0	1.87	1.84	1.85
2590.0	1.85	1.98	1.96
2670.0	2.02	2.25	2.29
2730.0	2.09	2.32	2.31
2810.0	2.17	2.51	2.55
2870.0	2.45	2.99	3.11
2950.0	2.76	3.25	3.31
3010.0	2.79	3.38	3.56

Harmonics Tables

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	7	41	22	---	---	---	---	---	---	---
1	-	13	+0	31	37	44	---	---	---	---	---	---
2	55	52	59	55	66	56	66	---	---	---	---	---
3	70	68	79	>82	56	>82	75	>82	---	---	---	---
4	---	---	>82	>82	>82	>82	>82	>82	>82	---	---	---
5	---	---	---	>82	>82	>82	>82	>82	>82	>82	---	---
6	---	---	---	---	>82	>82	>82	>82	>82	>82	>82	---
7	---	---	---	---	---	>82	>82	>82	>82	>82	>82	>82
8	---	---	---	---	---	---	>82	>82	>82	>82	>82	>82
9	---	---	---	---	---	---	---	>82	>82	>82	>82	>82
10	---	---	---	---	---	---	---	---	>82	>82	>82	>82
RF CAL		0	1	2	3	4	5	6	7	8	9	10

Test conditions: RF IN: 7400 MHz; -1.00 dBm.
LO IN: 7430 MHz; +17.00 dBm
IF OUT: 30 MHz; -8.27 dBm

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	17	46	33	---	---	---	---	---	---	---
1	-	14	+0	32	37	45	---	---	---	---	---	---
2	35	40	49	44	57	50	66	---	---	---	---	---
3	50	48	57	60	36	60	58	74	---	---	---	---
4	---	---	72	66	73	60	80	64	77	---	---	---
5	---	---	---	75	78	79	55	75	77	87	---	---
6	---	---	---	---	>92	85	89	75	87	77	86	---
7	---	---	---	---	---	>92	>92	>92	68	>92	86	>92
8	---	---	---	---	---	---	>92	>92	>92	84	>92	87
9	---	---	---	---	---	---	---	>92	>92	>92	81	>92
10	---	---	---	---	---	---	---	---	>92	>92	>92	>92
RF CAL		0	1	2	3	4	5	6	7	8	9	10

LO HARMONICS ORDER

Test conditions: RF IN: 7400 MHz; 9.00 dBm.
LO IN: 7430 MHz; +17.00 dBm
IF OUT: 30 MHz; 1.81 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.