

Frequency Mixer

ADE-R901+

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	CONVERSION LOSS IF FIXED @IF(OUT)=30MHz (dB)		
		@LO (dBm)		
		+4	+7	+10
50.00	80.00	13.11	11.59	10.91
90.21	120.21	9.37	8.82	8.43
130.41	160.41	7.82	7.30	7.10
190.72	220.72	7.04	6.76	6.60
230.93	260.93	6.75	6.45	6.25
291.24	321.24	6.42	6.20	6.04
331.44	361.44	6.35	6.11	5.95
391.75	421.75	6.17	5.94	5.80
431.96	461.96	6.12	5.87	5.71
492.27	522.27	6.02	5.81	5.67
532.47	562.47	6.10	5.84	5.67
592.78	622.78	6.08	5.83	5.68
632.99	662.99	6.13	5.87	5.72
693.30	723.30	6.15	5.84	5.67
733.51	763.51	6.22	5.88	5.67
793.81	823.81	6.24	5.89	5.64
834.02	864.02	6.23	5.90	5.65
894.33	924.33	6.27	5.96	5.71
934.54	964.54	6.16	5.85	5.63
994.85	1024.85	6.11	5.78	5.59
1035.05	1065.05	6.08	5.75	5.57
1095.36	1125.36	6.15	5.78	5.58
1135.57	1165.57	6.26	5.84	5.61
1195.88	1225.88	6.57	6.10	5.82
1236.08	1266.08	6.69	6.20	5.87
1296.39	1326.39	6.92	6.41	6.07
1336.60	1366.60	7.11	6.58	6.20
1396.91	1426.91	7.50	7.01	6.60
1437.11	1467.11	7.64	7.17	6.75
1497.42	1527.42	8.11	7.67	7.24
1537.63	1567.63	8.24	7.84	7.44
1597.94	1627.94	8.54	8.17	7.83
1638.14	1668.14	8.63	8.29	8.02
1698.45	1728.45	8.89	8.57	8.35
1738.66	1768.66	9.06	8.79	8.60
1798.97	1828.97	9.29	9.05	8.87
1839.18	1869.18	9.63	9.39	9.23
1899.48	1929.48	9.88	9.62	9.46
1939.69	1969.69	10.36	10.08	9.93
2000.00	2030.00	10.55	10.25	10.08

RF (IN) (MHz)	LO (MHz)	IP3 INPUT (dBm)		
		@LO (dBm)		
		+4	+7	+10
50.00	80.00	12.81	16.94	17.02
90.21	120.21	14.37	15.13	17.59
130.41	160.41	14.83	17.81	17.25
190.72	220.72	17.84	17.05	15.57
230.93	260.93	18.89	16.82	16.09
291.24	321.24	17.27	15.49	15.72
331.44	361.44	17.01	15.73	15.59
391.75	421.75	15.96	15.20	15.65
431.96	461.96	16.09	15.37	15.30
492.27	522.27	15.30	15.26	15.49
532.47	562.47	17.68	15.84	15.74
592.78	622.78	19.81	23.32	18.73
632.99	662.99	20.84	19.43	18.86
693.30	723.30	16.50	15.88	15.78
733.51	763.51	16.09	14.35	14.39
793.81	823.81	16.06	15.31	13.81
834.02	864.02	13.97	13.92	13.47
894.33	924.33	11.51	11.46	11.32
934.54	964.54	10.50	10.77	10.84
994.85	1024.85	10.22	11.23	11.47
1035.05	1065.05	9.53	10.85	11.50
1095.36	1125.36	9.47	10.33	11.14
1135.57	1165.57	9.78	10.05	10.81
1195.88	1225.88	10.82	10.19	10.71
1236.08	1266.08	11.23	10.61	10.65
1296.39	1326.39	12.08	11.60	11.13
1336.60	1366.60	10.82	11.37	10.94
1396.91	1426.91	9.72	10.78	11.09
1437.11	1467.11	8.67	9.70	10.67
1497.42	1527.42	7.67	8.22	9.43
1537.63	1567.63	7.41	7.81	8.79
1597.94	1627.94	9.20	9.35	10.20
1638.14	1668.14	10.70	10.60	11.39
1698.45	1728.45	13.97	13.67	13.48
1738.66	1768.66	14.52	14.85	14.54
1798.97	1828.97	14.52	15.85	15.86
1839.18	1869.18	15.37	16.17	16.68
1899.48	1929.48	16.04	17.62	17.51
1939.69	1969.69	16.49	17.30	17.43
2000.00	2030.00	18.01	18.91	18.28

RF (IN) (MHz)	LO (MHz)	COMPRESSION @RF IN=+1dBm (dB)		
		@LO (dBm)		
		+4	+7	+10
50.00	80.00	0.25	0.09	0.06
90.21	120.21	-0.13	-0.04	0.00
130.41	160.41	-0.44	-0.34	-0.22
190.72	220.72	-0.75	-0.48	-0.31
230.93	260.93	-0.83	-0.59	-0.41
291.24	321.24	-0.94	-0.68	-0.54
331.44	361.44	-0.97	-0.72	-0.55
391.75	421.75	-1.01	-0.77	-0.60
431.96	461.96	-1.04	-0.79	-0.63
492.27	522.27	-1.13	-0.88	-0.71
532.47	562.47	-1.18	-0.94	-0.78
592.78	622.78	-1.24	-0.99	-0.83
632.99	662.99	-1.35	-1.08	-0.89
693.30	723.30	-1.43	-1.18	-1.00
733.51	763.51	-1.49	-1.28	-1.09
793.81	823.81	-1.60	-1.38	-1.22
834.02	864.02	-1.71	-1.48	-1.33
894.33	924.33	-1.74	-1.50	-1.33
934.54	964.54	-1.88	-1.60	-1.42
994.85	1024.85	-1.97	-1.66	-1.46
1035.05	1065.05	-2.03	-1.71	-1.49
1095.36	1125.36	-2.11	-1.80	-1.56
1135.57	1165.57	-2.09	-1.80	-1.56
1195.88	1225.88	-1.98	-1.72	-1.48
1236.08	1266.08	-2.01	-1.76	-1.52
1296.39	1326.39	-2.01	-1.74	-1.51
1336.60	1366.60	-2.02	-1.75	-1.55
1396.91	1426.91	-1.85	-1.62	-1.42
1437.11	1467.11	-1.81	-1.61	-1.46
1497.42	1527.42	-1.52	-1.34	-1.24
1537.63	1567.63	-1.45	-1.27	-1.16
1597.94	1627.94	-1.19	-0.99	-0.88
1638.14	1668.14	-1.13	-0.89	-0.75
1698.45	1728.45	-0.94	-0.68	-0.55
1738.66	1768.66	-0.85	-0.58	-0.45
1798.97	1828.97	-0.66	-0.45	-0.33
1839.18	1869.18	-0.55	-0.35	-0.27
1899.48	1929.48	-0.47	-0.30	-0.23
1939.69	1969.69	-0.36	-0.23	-0.18
2000.00	2030.00	-0.31	-0.19	-0.14



Frequency Mixer

ADE-R901+

Typical Performance Data

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @IF(OUT)=789.9MHz (dB)	IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=189.9MHz (dB)	IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=1210.1MHz (dB)
		@LO (dBm)			@LO (dBm)			@LO (dBm)
		+7			+7			+7
10.10	800.00	5.97	10.10	200.00	6.84	1010.10	200.00	6.18
15.10	805.00	5.96	30.10	220.00	6.75	990.10	220.00	6.25
20.10	810.00	5.90	50.10	240.00	6.80	970.10	240.00	6.24
25.10	815.00	5.93	70.10	260.00	6.66	950.10	260.00	6.26
30.10	820.00	5.89	90.10	280.00	6.81	930.10	280.00	6.20
35.10	825.00	5.92	110.10	300.00	6.84	910.10	300.00	6.09
40.10	830.00	5.97	130.10	320.00	6.82	890.10	320.00	6.19
45.10	835.00	5.96	150.10	340.00	6.86	870.10	340.00	6.22
50.10	840.00	5.93	170.10	360.00	6.85	850.10	360.00	6.28
55.10	845.00	5.89	190.10	380.00	6.84	830.10	380.00	6.26
60.10	850.00	5.94	210.10	400.00	6.90	810.10	400.00	6.27
65.10	855.00	5.98	230.10	420.00	6.82	790.10	420.00	6.17
70.10	860.00	5.98	250.10	440.00	6.90	770.10	440.00	6.14
75.10	865.00	5.95	270.10	460.00	6.86	750.10	460.00	6.14
80.10	870.00	6.00	290.10	480.00	6.93	730.10	480.00	6.08
85.10	875.00	6.05	310.10	500.00	6.84	710.10	500.00	6.01
90.10	880.00	6.01	330.10	520.00	6.91	690.10	520.00	5.90
95.10	885.00	5.97	350.10	540.00	6.86	670.10	540.00	5.82
100.10	890.00	6.01	390.10	580.00	6.93	630.10	580.00	5.43
105.10	895.00	6.06	410.10	600.00	6.97	610.10	600.00	5.17
110.10	900.00	6.05	450.10	640.00	7.01	570.10	640.00	5.56
115.10	905.00	6.00	470.10	660.00	7.07	550.10	660.00	5.77
120.10	910.00	6.04	510.10	700.00	7.12	510.10	700.00	5.88
125.10	915.00	6.11	530.10	720.00	7.17	490.10	720.00	5.90
130.10	920.00	6.11	570.10	760.00	7.22	450.10	760.00	5.92
135.10	925.00	6.06	590.10	780.00	7.23	430.10	780.00	5.98
140.10	930.00	6.04	630.10	820.00	7.40	390.10	820.00	5.84
145.10	935.00	6.09	650.10	840.00	7.36	370.10	840.00	5.92
150.10	940.00	6.09	690.10	880.00	7.44	330.10	880.00	5.90
155.10	945.00	6.03	710.10	900.00	7.48	310.10	900.00	5.91
160.10	950.00	6.01	750.10	940.00	7.38	270.10	940.00	5.89
165.10	955.00	6.04	770.10	960.00	7.31	250.10	960.00	5.87
170.10	960.00	6.07	810.10	1000.00	7.25	210.10	1000.00	5.86
175.10	965.00	6.05	830.10	1020.00	7.24	190.10	1020.00	5.80
180.10	970.00	6.00	870.10	1060.00	7.15	150.10	1060.00	5.81
185.10	975.00	6.01	890.10	1080.00	7.10	130.10	1080.00	5.84
190.10	980.00	6.05	930.10	1120.00	7.04	90.10	1120.00	5.85
195.10	985.00	6.04	950.10	1140.00	6.99	70.10	1140.00	5.87
205.10	995.00	6.00	990.10	1180.00	7.00	30.10	1180.00	5.99
210.10	1000.00	6.04	1010.10	1200.00	7.05	10.10	1200.00	6.09



Frequency Mixer

ADE-R901+

Typical Performance Data

LO (MHz)	LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)			RF (IN) (MHz)	LO (MHz)	RF-IF ISOLATION (dB)		
	@LO (dBm)			@LO (dBm)					@LO (dBm)		
	+4	+7	+10	+4	+7	+10			+4	+7	+10
80.00	60.22	65.29	63.31	59.00	54.52	51.71	50.00	80.00	44.25	43.88	43.85
120.21	59.84	58.07	57.78	51.00	48.59	46.80	90.21	120.21	40.73	40.82	41.63
160.41	55.04	54.73	54.34	47.37	45.46	44.20	130.41	160.41	37.97	39.57	40.49
220.72	51.29	51.21	51.16	45.39	43.55	42.21	190.72	220.72	36.58	37.61	38.74
260.93	49.63	49.50	49.28	44.55	42.58	40.95	230.93	260.93	35.28	36.29	37.08
321.24	47.76	47.77	47.68	43.72	41.40	39.62	291.24	321.24	34.22	35.96	36.70
361.44	46.77	46.70	46.57	42.83	40.45	38.73	331.44	361.44	33.85	35.24	36.39
421.75	45.73	45.70	45.68	41.17	38.98	37.46	391.75	421.75	34.95	36.86	37.97
461.96	44.91	44.86	44.70	40.07	38.09	36.55	431.96	461.96	34.46	36.27	38.28
522.27	43.98	43.80	43.69	37.91	36.31	35.10	492.27	522.27	34.01	36.18	37.74
562.47	43.62	43.52	43.20	36.67	35.60	34.35	532.47	562.47	32.99	34.96	36.67
622.78	42.81	42.64	42.58	34.86	34.24	33.66	592.78	622.78	32.93	35.04	36.66
662.99	42.36	42.11	41.94	33.70	33.30	32.82	632.99	662.99	33.23	35.31	37.11
723.30	41.71	41.41	41.16	32.39	32.25	31.95	693.30	723.30	35.46	38.21	39.66
763.51	41.33	40.94	40.63	31.30	31.42	31.32	733.51	763.51	37.20	39.24	38.28
823.81	40.47	39.97	39.62	29.97	30.05	30.06	793.81	823.81	40.80	38.69	35.78
864.02	40.22	39.56	39.17	29.15	29.19	29.23	834.02	864.02	39.48	36.60	33.82
924.33	39.42	38.57	37.99	28.27	28.41	28.24	894.33	924.33	33.90	31.75	30.29
964.54	39.23	38.26	37.50	27.65	27.85	27.62	934.54	964.54	30.79	29.02	27.66
1024.85	38.87	37.91	37.00	27.06	27.51	27.24	994.85	1024.85	27.52	26.11	25.21
1065.05	38.64	37.56	36.84	26.31	26.97	27.03	1035.05	1065.05	25.99	24.51	23.68
1125.36	38.18	37.17	36.49	25.47	26.33	26.65	1095.36	1125.36	24.85	23.38	22.52
1165.57	38.04	37.09	36.42	24.86	25.86	26.36	1135.57	1165.57	24.33	22.80	21.87
1225.88	38.12	37.21	36.52	24.26	25.41	26.21	1195.88	1225.88	23.68	22.25	21.27
1266.08	38.05	37.33	36.63	23.74	24.96	25.88	1236.08	1266.08	23.32	21.99	20.95
1326.39	38.39	37.53	36.73	23.44	24.58	25.44	1296.39	1326.39	23.11	21.82	20.73
1366.60	38.67	37.60	36.87	23.21	24.28	25.17	1336.60	1366.60	22.85	21.67	20.59
1426.91	39.48	38.12	37.31	23.10	24.23	25.10	1396.91	1426.91	22.50	21.48	20.46
1467.11	39.91	38.56	37.60	22.95	24.19	25.07	1437.11	1467.11	21.97	21.04	20.14
1527.42	41.15	39.30	38.09	23.05	24.38	25.27	1497.42	1527.42	20.68	19.86	19.12
1567.63	42.16	39.80	38.33	23.04	24.44	25.31	1537.63	1567.63	19.62	19.01	18.34
1627.94	45.33	41.80	39.78	23.39	24.89	25.71	1597.94	1627.94	18.08	17.29	16.67
1668.14	48.96	43.74	41.04	23.44	25.04	25.86	1638.14	1668.14	17.09	16.33	15.79
1728.45	57.99	46.92	43.35	23.62	25.47	26.63	1698.45	1728.45	15.63	14.93	14.45
1768.66	66.25	50.14	44.97	23.31	25.35	26.74	1738.66	1768.66	14.76	14.15	13.84
1828.97	51.88	54.24	47.16	23.16	25.29	26.88	1798.97	1828.97	13.78	13.22	12.87
1869.18	47.63	53.31	48.43	22.93	25.09	26.79	1839.18	1869.18	13.28	12.65	12.30
1929.48	44.55	50.19	49.49	23.07	25.24	27.06	1899.48	1929.48	12.54	11.97	11.57
1969.69	42.78	47.99	49.85	23.00	25.17	27.10	1939.69	1969.69	11.97	11.39	11.02
2030.00	41.50	46.49	49.80	23.41	25.62	27.58	2000.00	2030.00	11.42	10.70	10.39



Frequency Mixer

ADE-R901+

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	RF VSWR (:1)			LO (MHz)	LO VSWR (:1)			IF (OUT) (MHz)	IF VSWR @LO=1000MHz (:1)		
		@LO (dBm)				@LO (dBm)				@LO (dBm)		
		+4	+7	+10		+4	+7	+10		+4	+7	+10
50.00	80.00	12.89	11.77	10.43	80.00	14.26	9.79	7.28	10.00	1.56	1.40	1.28
90.21	120.21	4.77	4.72	4.67	120.21	4.99	4.42	4.66	14.75	1.53	1.37	1.26
130.41	160.41	3.30	3.15	3.12	160.41	3.33	3.57	4.25	19.50	1.52	1.36	1.25
190.72	220.72	2.28	2.27	2.25	220.72	2.62	3.13	3.95	24.25	1.54	1.38	1.26
230.93	260.93	2.00	1.98	1.98	260.93	2.45	3.09	4.02	29.00	1.57	1.41	1.29
291.24	321.24	1.74	1.73	1.73	321.24	2.25	2.96	3.95	33.75	1.62	1.45	1.33
331.44	361.44	1.61	1.62	1.63	361.44	2.20	2.98	4.01	38.50	1.65	1.49	1.36
391.75	421.75	1.51	1.51	1.52	421.75	2.12	2.92	3.99	43.25	1.66	1.49	1.38
431.96	461.96	1.44	1.44	1.45	461.96	2.11	2.95	4.05	48.00	1.64	1.48	1.37
492.27	522.27	1.37	1.38	1.40	522.27	2.08	2.94	4.06	52.75	1.61	1.45	1.34
532.47	562.47	1.31	1.33	1.35	562.47	2.08	2.95	4.08	57.50	1.58	1.42	1.31
592.78	622.78	1.27	1.29	1.31	622.78	2.08	2.95	4.09	62.25	1.56	1.40	1.29
632.99	662.99	1.23	1.24	1.26	662.99	2.07	2.93	4.05	67.00	1.55	1.40	1.28
693.30	723.30	1.20	1.21	1.23	723.30	2.07	2.91	4.00	71.75	1.56	1.41	1.30
733.51	763.51	1.16	1.15	1.17	763.51	2.07	2.89	3.94	76.50	1.59	1.43	1.31
793.81	823.81	1.11	1.10	1.12	823.81	2.09	2.91	3.94	81.25	1.61	1.45	1.33
834.02	864.02	1.09	1.06	1.07	864.02	2.08	2.89	3.90	86.00	1.61	1.45	1.34
894.33	924.33	1.04	1.02	1.08	924.33	2.10	2.89	3.88	90.75	1.59	1.44	1.33
934.54	964.54	1.05	1.06	1.11	964.54	2.10	2.87	3.82	95.50	1.57	1.42	1.31
994.85	1024.85	1.11	1.17	1.22	1024.85	2.14	2.91	3.86	100.25	1.54	1.39	1.28
1035.05	1065.05	1.17	1.22	1.27	1065.05	2.18	2.94	3.88	105.00	1.53	1.38	1.27
1095.36	1125.36	1.27	1.32	1.38	1125.36	2.28	3.06	4.01	109.75	1.54	1.38	1.27
1135.57	1165.57	1.32	1.36	1.42	1165.57	2.36	3.15	4.09	114.50	1.58	1.42	1.30
1195.88	1225.88	1.45	1.50	1.56	1225.88	2.47	3.28	4.25	119.25	1.62	1.46	1.34
1236.08	1266.08	1.52	1.56	1.62	1266.08	2.57	3.40	4.39	124.00	1.66	1.49	1.37
1296.39	1326.39	1.71	1.74	1.80	1326.39	2.71	3.57	4.60	128.75	1.68	1.51	1.39
1336.60	1366.60	1.84	1.85	1.89	1366.60	2.82	3.70	4.75	133.50	1.68	1.52	1.40
1396.91	1426.91	2.17	2.17	2.19	1426.91	2.96	3.87	4.98	138.25	1.66	1.50	1.39
1437.11	1467.11	2.39	2.37	2.37	1467.11	3.07	4.00	5.12	143.00	1.64	1.47	1.36
1497.42	1527.42	2.89	2.86	2.84	1527.42	3.18	4.11	5.25	147.75	1.61	1.45	1.34
1537.63	1567.63	3.16	3.15	3.12	1567.63	3.25	4.17	5.31	152.50	1.60	1.44	1.33
1597.94	1627.94	3.77	3.76	3.73	1627.94	3.31	4.22	5.38	157.25	1.61	1.45	1.34
1638.14	1668.14	4.02	4.02	4.01	1668.14	3.38	4.28	5.41	162.00	1.65	1.49	1.36
1698.45	1728.45	4.63	4.63	4.62	1728.45	3.47	4.35	5.49	166.75	1.67	1.51	1.39
1738.66	1768.66	4.83	4.84	4.82	1768.66	3.56	4.41	5.52	171.50	1.68	1.52	1.40
1798.97	1828.97	5.36	5.34	5.31	1828.97	3.76	4.57	5.65	176.25	1.67	1.51	1.40
1839.18	1869.18	5.51	5.47	5.44	1869.18	3.95	4.69	5.70	181.00	1.64	1.49	1.38
1899.48	1929.48	5.95	5.89	5.83	1929.48	4.26	4.91	5.83	185.75	1.61	1.45	1.35
1939.69	1969.69	6.11	6.03	5.97	1969.69	4.44	4.99	5.83	195.25	1.60	1.44	1.33
2000.00	2030.00	6.39	6.24	6.15	2030.00	4.70	5.16	5.91	200.00	1.62	1.47	1.35



Harmonics Tables

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	5	18	11	37	26	34	18	44	42	66
1	-	31	+0	27	11	38	20	46	42	41	55	56
2	88	61	46	66	45	61	44	67	56	> 70	55	> 70
3	> 90	68	> 70	69	> 70	> 70	65	> 70	> 70	> 70	> 70	> 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	> 90	> 70	> 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: 650.00 MHz; -14.00 dBm.
 LO IN: 680.00 MHz; +7.00 dBm
 IF OUT: 30.00 MHz; -20.17 dBm

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	14	30	23	45	36	45	31	55	59	> 80
1	-	32	+0	27	11	41	22	51	42	49	61	63
2	68	45	37	60	35	50	39	62	54	60	48	72
3	> 90	48	44	45	44	49	41	57	46	69	61	58
4	> 90	64	58	58	57	60	54	62	52	73	64	74
5	> 90	69	64	60	54	71	57	69	62	67	64	> 80
6	> 90	> 80	> 80	75	68	70	69	76	68	72	79	79
7	> 90	> 80	> 80	> 80	75	73	75	75	75	78	75	> 80
8	> 90	> 80	> 80	> 80	> 80	> 80	78	> 80	> 80	> 80	76	> 80
9	> 90	> 80	> 80	> 80	> 80	> 80	> 80	> 80	> 80	> 80	> 80	> 80
10	> 90	> 80	> 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: 650.00 MHz; -4.00 dBm.
 LO IN: 680.00 MHz; +7.00 dBm
 IF OUT: 30.00 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.