

# Frequency Mixer

# SRA-5+

## Typical Performance Data

RF (IN) (MHz)	LO (MHz)	CONVERSION LOSS IF FIXED @IF(OUT)=30MHz (dB)		
		@LO (dBm)		
		+4	+7	+10
10.1	40.1	6.37	6.28	6.33
90.6	120.6	6.80	6.58	6.40
171.2	201.2	7.10	6.76	6.55
251.7	281.7	7.33	6.92	6.61
332.2	362.2	7.56	7.00	6.66
412.8	442.8	7.78	7.14	6.74
493.3	523.3	7.89	7.23	6.83
573.9	603.9	7.97	7.33	6.97
654.4	684.4	8.26	7.57	7.18
734.9	764.9	8.36	7.77	7.34
815.5	845.5	8.19	7.74	7.46
896.0	926.0	7.99	7.60	7.34
976.5	1006.5	7.90	7.55	7.34
1057.1	1087.1	7.81	7.48	7.29
1137.6	1167.6	7.57	7.29	7.15
1218.2	1248.2	7.33	7.07	6.95
1298.7	1328.7	7.26	6.95	6.83
1379.2	1409.2	7.29	6.88	6.76
1459.8	1489.8	7.49	7.02	6.81
1540.3	1570.3	7.77	7.21	6.93
1620.8	1650.8	8.02	7.44	7.13
1701.4	1731.4	8.17	7.52	7.12
1781.9	1811.9	8.26	7.56	7.20
1862.4	1892.4	8.23	7.64	7.20
1943.0	1973.0	7.96	7.40	7.08
2023.5	2053.5	7.79	7.25	6.98
2104.1	2134.1	7.58	7.15	6.87
2164.5	2194.5	7.59	7.24	7.01
2245.0	2275.0	7.54	7.24	7.03
2305.4	2335.4	7.47	7.17	6.98
2385.9	2415.9	7.44	7.13	6.97
2446.3	2476.3	7.80	7.43	7.20
2526.9	2556.9	7.98	7.73	7.59
2587.3	2617.3	8.00	7.77	7.67
2667.8	2697.8	8.27	8.00	7.87
2728.2	2758.2	8.54	8.27	8.12
2808.8	2838.8	8.75	8.43	8.29
2869.2	2899.2	8.70	8.43	8.33
2949.7	2979.7	8.92	8.61	8.50
3010.1	3040.1	9.00	8.66	8.49

RF (IN) (MHz)	LO (MHz)	IP3 INPUT (dBm)		
		@LO (dBm)		
		+4	+7	+10
10.1	40.1	15.20	15.52	14.27
90.6	120.6	8.68	8.05	8.89
171.2	201.2	5.79	6.84	9.07
251.7	281.7	5.67	7.77	10.75
332.2	362.2	6.56	9.51	12.91
412.8	442.8	7.77	11.10	13.82
493.3	523.3	9.33	11.87	13.02
573.9	603.9	9.49	11.18	12.11
654.4	684.4	8.51	10.71	11.46
734.9	764.9	7.75	9.05	10.93
815.5	845.5	7.87	9.17	10.04
896.0	926.0	7.63	8.93	10.33
976.5	1006.5	8.30	9.07	10.22
1057.1	1087.1	8.94	9.59	10.01
1137.6	1167.6	9.65	10.48	10.90
1218.2	1248.2	11.05	11.87	12.72
1298.7	1328.7	12.16	12.56	13.30
1379.2	1409.2	15.74	16.24	16.61
1459.8	1489.8	20.25	19.00	15.84
1540.3	1570.3	16.84	16.28	20.53
1620.8	1650.8	15.70	17.27	20.23
1701.4	1731.4	13.27	13.42	14.01
1781.9	1811.9	12.31	13.81	13.05
1862.4	1892.4	10.05	10.46	10.75
1943.0	1973.0	9.37	9.95	10.56
2023.5	2053.5	8.19	9.46	10.31
2104.1	2134.1	7.92	9.33	10.67
2164.5	2194.5	8.83	9.54	10.01
2245.0	2275.0	8.81	9.67	10.53
2305.4	2335.4	7.97	8.84	10.00
2385.9	2415.9	9.22	11.32	13.38
2446.3	2476.3	10.05	11.19	12.46
2526.9	2556.9	9.85	10.60	11.24
2587.3	2617.3	10.49	12.07	13.45
2667.8	2697.8	12.12	12.33	13.27
2728.2	2758.2	12.67	15.38	16.85
2808.8	2838.8	15.05	16.88	18.56
2869.2	2899.2	14.49	17.12	18.02
2949.7	2979.7	15.01	15.09	15.75
3010.1	3040.1	15.65	17.14	18.22

RF (IN) (MHz)	LO (MHz)	COMPRESSION @RF IN=+1dBm (dB)		
		@LO (dBm)		
		+4	+7	+10
10.1	40.1	1.02	0.85	0.80
90.6	120.6	1.05	0.67	0.59
171.2	201.2	1.13	0.84	0.67
251.7	281.7	1.23	1.00	0.81
332.2	362.2	1.30	1.14	0.97
412.8	442.8	1.32	1.16	0.98
493.3	523.3	1.40	1.25	1.06
573.9	603.9	1.38	1.27	1.08
654.4	684.4	1.31	1.19	1.04
734.9	764.9	1.18	1.02	0.90
815.5	845.5	1.15	0.89	0.70
896.0	926.0	1.03	0.77	0.59
976.5	1006.5	0.77	0.56	0.42
1057.1	1087.1	0.61	0.41	0.31
1137.6	1167.6	0.56	0.36	0.27
1218.2	1248.2	0.53	0.32	0.24
1298.7	1328.7	0.49	0.30	0.20
1379.2	1409.2	0.47	0.30	0.19
1459.8	1489.8	0.48	0.28	0.18
1540.3	1570.3	0.40	0.26	0.18
1620.8	1650.8	0.33	0.24	0.15
1701.4	1731.4	0.37	0.28	0.23
1781.9	1811.9	0.43	0.38	0.27
1862.4	1892.4	0.56	0.44	0.36
1943.0	1973.0	0.83	0.70	0.54
2023.5	2053.5	0.96	0.78	0.63
2104.1	2134.1	1.05	0.82	0.65
2164.5	2194.5	0.94	0.70	0.54
2245.0	2275.0	0.91	0.65	0.49
2305.4	2335.4	0.91	0.65	0.50
2385.9	2415.9	0.90	0.64	0.49
2446.3	2476.3	0.74	0.50	0.38
2526.9	2556.9	0.65	0.39	0.27
2587.3	2617.3	0.67	0.42	0.31
2667.8	2697.8	0.61	0.36	0.24
2728.2	2758.2	0.61	0.36	0.26
2808.8	2838.8	0.58	0.33	0.23
2869.2	2899.2	0.54	0.30	0.20
2949.7	2979.7	0.54	0.29	0.18
3010.1	3040.1	0.57	0.32	0.22

REV. X3

SRA-5+

101031

Page 1 of 5



IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS9100 CERTIFIED • RoHS compliant  
 P.O. Box 350166, Brooklyn, New York 11235-0006 (718) 934-4500 Fax (718) 332-4661



The Design Engineers Search Engine finds the model you need, instantly • For detailed performance specs & shopping online see



# Frequency Mixer

SRA-5+

## Typical Performance Data

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=760.1MHz (dB)	IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=10.1MHz (dB)	IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=1510.1MHz (dB)
		@LO (dBm)			@LO (dBm)			@LO (dBm)
		+7			+7			+7
750.1	10.0	8.08	10.0	20.1	7.37	1010.1	500.0	10.46
731.1	29.0	8.11	30.4	40.5	6.68	989.7	520.4	10.08
712.2	47.9	8.17	50.7	60.8	6.61	969.3	540.8	9.94
693.2	66.9	8.22	71.1	81.2	6.52	948.9	561.2	9.69
674.2	85.9	8.20	111.8	121.9	6.20	928.5	581.6	9.60
655.2	104.9	8.25	132.1	142.2	6.31	908.1	602.0	9.44
636.3	123.8	8.18	172.8	182.9	6.26	887.7	622.4	9.29
617.3	142.8	8.20	193.2	203.3	6.32	867.2	642.9	9.14
598.3	161.8	8.20	233.9	244.0	6.35	846.8	663.3	9.03
579.3	180.8	8.21	254.2	264.3	6.18	826.4	683.7	9.03
560.4	199.7	8.11	294.9	305.0	6.48	806.0	704.1	8.86
541.4	218.7	8.14	315.3	325.4	6.42	785.6	724.5	8.86
522.4	237.7	8.12	356.0	366.1	6.16	765.2	744.9	8.72
503.4	256.7	8.12	376.3	386.4	6.26	744.8	765.3	8.58
484.5	275.6	8.12	417.0	427.1	6.37	724.4	785.7	8.46
465.5	294.6	8.04	437.4	447.5	6.19	704.0	806.1	8.43
446.5	313.6	7.96	478.1	488.2	6.24	683.6	826.5	8.29
427.5	332.6	8.06	498.4	508.5	6.37	663.2	846.9	8.23
408.6	351.5	8.00	539.1	549.2	6.62	642.8	867.3	8.16
389.6	370.5	7.90	559.5	569.6	6.49	622.3	887.8	8.03
370.6	389.5	7.91	600.2	610.3	6.78	581.5	928.6	7.81
351.6	408.5	7.62	620.5	630.6	6.84	561.1	949.0	7.80
332.7	427.4	7.87	661.2	671.3	7.05	520.3	989.8	7.67
313.7	446.4	7.80	681.6	691.7	7.03	499.9	1010.2	7.57
294.7	465.4	7.78	722.3	732.4	7.53	459.1	1051.0	7.58
275.7	484.4	7.85	742.6	752.7	7.38	438.7	1071.4	7.54
256.8	503.3	7.79	783.3	793.4	7.52	397.9	1112.2	7.50
237.8	522.3	7.75	803.7	813.8	7.82	377.4	1132.7	7.48
218.8	541.3	7.97	844.4	854.5	8.24	336.6	1173.5	7.47
199.8	560.3	7.82	864.7	874.8	8.19	316.2	1193.9	7.41
180.9	579.2	7.79	905.4	915.5	8.61	275.4	1234.7	7.42
161.9	598.2	7.98	925.8	935.9	8.76	255.0	1255.1	7.45
142.9	617.2	7.87	966.5	976.6	8.81	214.2	1295.9	7.42
123.9	636.2	7.84	986.8	996.9	9.08	193.8	1316.3	7.40
105.0	655.1	8.00	1027.5	1037.6	9.00	153.0	1357.1	7.37
86.0	674.1	7.97	1047.9	1058.0	9.50	132.5	1377.6	7.32
67.0	693.1	7.95	1088.6	1098.7	9.76	91.7	1418.4	7.36
48.0	712.1	8.21	1108.9	1119.0	9.95	71.3	1438.8	7.43
29.1	731.0	8.28	1149.6	1159.7	10.31	30.5	1479.6	7.61
10.1	750.0	9.03	1170.0	1180.1	10.17	10.1	1500.0	8.16

## 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
40.1	64.50	63.99	63.63	63.59	65.74	66.67	10.1	40.1	13.91	14.83	15.19
120.6	53.12	54.42	55.28	58.32	61.02	62.03	90.6	120.6	18.40	18.94	19.08
201.2	49.19	50.40	51.55	53.35	59.03	61.26	171.2	201.2	19.65	19.58	20.55
281.7	46.72	48.11	49.37	50.35	60.65	56.87	251.7	281.7	20.57	20.63	21.14
362.2	45.17	46.84	48.38	50.19	71.06	50.96	332.2	362.2	21.20	21.74	21.99
442.8	43.50	44.96	46.35	50.40	56.93	46.18	412.8	442.8	22.69	22.98	23.05
523.3	42.89	44.35	45.57	48.90	51.30	43.28	493.3	523.3	24.41	24.55	24.75
603.9	42.19	43.62	44.96	58.57	46.53	40.61	573.9	603.9	26.07	26.14	26.11
684.4	41.26	42.19	43.03	53.34	42.66	38.28	654.4	684.4	27.11	26.63	26.52
764.9	39.53	40.03	40.73	46.94	39.93	36.45	734.9	764.9	28.61	28.20	27.84
845.5	39.51	39.58	39.81	44.41	38.76	35.30	815.5	845.5	30.01	29.65	29.41
926.0	40.29	40.13	40.33	42.57	38.13	34.93	896.0	926.0	31.58	31.37	31.24
1006.5	40.23	40.36	40.62	40.31	36.76	33.60	976.5	1006.5	33.40	33.22	33.04
1087.1	39.37	39.14	38.86	39.29	36.30	32.95	1057.1	1087.1	33.12	32.83	32.66
1167.6	39.76	39.25	38.99	36.92	34.80	31.88	1137.6	1167.6	31.74	30.91	30.47
1248.2	40.28	39.63	39.15	35.03	33.99	31.17	1218.2	1248.2	30.48	29.29	28.53
1328.7	40.81	40.29	39.67	32.62	32.55	29.84	1298.7	1328.7	29.95	28.83	28.00
1409.2	41.05	40.09	39.20	30.27	30.99	29.03	1379.2	1409.2	29.22	28.22	27.37
1489.8	42.58	41.54	40.04	29.92	31.24	29.75	1459.8	1489.8	26.60	25.94	25.33
1570.3	43.25	40.20	38.32	34.80	36.57	35.35	1540.3	1570.3	24.70	24.72	24.64
1650.8	41.61	39.51	38.10	43.98	44.25	42.00	1620.8	1650.8	24.57	24.91	25.06
1731.4	39.99	38.17	37.17	50.22	47.10	45.13	1701.4	1731.4	24.82	25.35	25.70
1811.9	38.34	37.25	36.24	44.14	44.51	43.71	1781.9	1811.9	25.38	25.88	26.23
1892.4	36.83	36.15	35.60	40.93	40.92	39.80	1862.4	1892.4	26.37	26.80	27.06
1973.0	34.89	33.92	33.14	38.38	37.40	35.89	1943.0	1973.0	28.06	28.29	28.22
2053.5	33.57	33.04	32.65	36.82	34.93	33.01	2023.5	2053.5	29.31	28.46	27.63
2134.1	32.56	31.89	31.17	36.21	33.82	31.63	2104.1	2134.1	27.21	25.89	24.80
2194.5	31.86	30.97	30.07	35.79	32.74	30.61	2164.5	2194.5	24.39	23.15	22.24
2275.0	31.67	30.72	29.95	35.07	31.59	29.35	2245.0	2275.0	21.68	20.86	20.22
2335.4	31.10	30.66	30.18	33.57	30.52	28.53	2305.4	2335.4	19.90	19.24	18.79
2415.9	29.97	29.61	29.29	32.14	29.01	26.94	2385.9	2415.9	18.14	17.59	17.23
2476.3	29.44	28.99	28.56	30.87	28.78	26.94	2446.3	2476.3	17.20	16.57	16.09
2556.9	28.80	28.68	28.53	28.70	27.36	26.34	2526.9	2556.9	16.32	16.05	15.89
2617.3	28.48	28.46	28.22	27.22	26.13	25.28	2587.3	2617.3	15.82	15.55	15.38
2697.8	27.87	28.05	28.23	25.96	25.15	24.37	2667.8	2697.8	15.36	15.14	15.02
2758.2	27.33	27.57	27.84	25.03	24.59	24.22	2728.2	2758.2	15.28	15.15	15.16
2838.8	26.63	27.14	27.38	23.50	23.24	22.82	2808.8	2838.8	15.24	15.26	15.36
2899.2	25.52	26.25	26.76	22.62	22.54	22.35	2869.2	2899.2	15.59	15.70	15.70
2979.7	23.49	24.51	25.32	21.50	21.68	21.46	2949.7	2979.7	15.95	16.24	16.56
3040.1	23.09	24.60	26.10	21.12	21.26	21.31	3010.1	3040.1	16.95	17.15	17.35

## Typical Performance Data

RF (IN) (MHz)	LO (MHz)	RF VSWR (:1)			LO (MHz)	LO VSWR (:1)			IF (OUT) (MHz)	IF VSWR @LO=1500MHz (:1)		
		@LO (dBm)				@LO (dBm)				@LO (dBm)		
		+4	+7	+10		+4	+7	+10		+4	+7	+10
10.1	40.1	1.18	1.16	1.42	40.1	1.79	2.63	3.71	10.0	1.95	2.12	2.28
90.6	120.6	1.08	1.03	1.06	120.6	1.70	2.47	3.43	50.6	1.53	1.77	1.98
171.2	201.2	1.19	1.12	1.08	201.2	1.68	2.38	3.27	91.2	1.52	1.76	1.96
251.7	281.7	1.35	1.28	1.24	281.7	1.71	2.36	3.20	131.7	1.49	1.73	1.93
332.2	362.2	1.58	1.49	1.43	362.2	1.76	2.37	3.18	172.3	1.56	1.80	2.01
412.8	442.8	1.93	1.81	1.74	442.8	1.79	2.38	3.17	212.9	1.55	1.78	1.97
493.3	523.3	2.29	2.13	2.04	523.3	1.81	2.38	3.16	253.5	1.62	1.87	2.08
573.9	603.9	2.64	2.46	2.34	603.9	1.81	2.35	3.11	294.1	1.64	1.87	2.07
654.4	684.4	3.10	2.87	2.72	684.4	1.86	2.33	3.05	334.6	1.67	1.91	2.11
734.9	764.9	3.56	3.35	3.20	764.9	1.87	2.27	2.93	375.2	1.73	1.96	2.16
815.5	845.5	3.72	3.62	3.54	845.5	1.95	2.23	2.81	415.8	1.73	1.97	2.17
896.0	926.0	3.73	3.67	3.61	926.0	2.06	2.21	2.70	456.4	1.80	2.05	2.24
976.5	1006.5	3.69	3.63	3.56	1006.5	2.13	2.19	2.60	497.0	1.79	2.03	2.22
1057.1	1087.1	3.56	3.51	3.46	1087.1	2.14	2.09	2.43	537.5	1.83	2.08	2.27
1137.6	1167.6	3.37	3.29	3.24	1167.6	2.16	1.98	2.25	578.1	1.83	2.08	2.26
1218.2	1248.2	3.19	3.02	2.95	1248.2	2.17	1.88	2.07	618.7	1.84	2.09	2.27
1298.7	1328.7	3.03	2.80	2.68	1328.7	2.13	1.79	1.92	659.3	1.86	2.10	2.28
1379.2	1409.2	2.85	2.55	2.40	1409.2	2.07	1.69	1.79	699.9	1.85	2.09	2.27
1459.8	1489.8	2.68	2.38	2.19	1489.8	1.98	1.59	1.69	740.4	1.88	2.11	2.29
1540.3	1570.3	2.66	2.36	2.18	1570.3	1.90	1.48	1.58	781.0	1.87	2.09	2.27
1620.8	1650.8	2.72	2.43	2.29	1650.8	1.80	1.36	1.46	821.6	1.91	2.14	2.31
1701.4	1731.4	2.73	2.44	2.25	1731.4	1.67	1.25	1.40	862.2	1.91	2.13	2.30
1781.9	1811.9	2.69	2.44	2.28	1811.9	1.55	1.13	1.36	902.8	1.96	2.17	2.33
1862.4	1892.4	2.62	2.40	2.23	1892.4	1.46	1.02	1.37	923.0	1.95	2.15	2.32
1943.0	1973.0	2.44	2.22	2.06	1973.0	1.40	1.10	1.44	963.6	2.03	2.23	2.38
2023.5	2053.5	2.18	1.98	1.83	2053.5	1.35	1.23	1.58	983.9	2.04	2.23	2.39
2104.1	2134.1	1.87	1.72	1.60	2134.1	1.32	1.36	1.75	1024.5	2.07	2.25	2.40
2164.5	2194.5	1.64	1.52	1.43	2194.5	1.30	1.49	1.93	1044.8	2.11	2.29	2.43
2245.0	2275.0	1.44	1.37	1.31	2275.0	1.30	1.62	2.12	1085.4	2.14	2.31	2.44
2305.4	2335.4	1.36	1.31	1.29	2335.4	1.32	1.72	2.25	1105.7	2.18	2.34	2.47
2385.9	2415.9	1.29	1.31	1.33	2415.9	1.39	1.87	2.45	1146.2	2.23	2.37	2.49
2446.3	2476.3	1.35	1.39	1.43	2476.3	1.48	2.01	2.62	1166.5	2.26	2.39	2.51
2526.9	2556.9	1.46	1.54	1.60	2556.9	1.60	2.15	2.77	1207.1	2.31	2.41	2.51
2587.3	2617.3	1.53	1.64	1.74	2617.3	1.68	2.21	2.82	1227.4	2.29	2.39	2.48
2667.8	2697.8	1.71	1.82	1.93	2697.8	1.81	2.35	2.96	1268.0	2.29	2.36	2.44
2728.2	2758.2	1.87	2.00	2.10	2758.2	1.91	2.45	3.07	1288.3	2.25	2.31	2.37
2808.8	2838.8	2.05	2.20	2.34	2838.8	1.99	2.49	3.08	1328.8	2.11	2.15	2.19
2869.2	2899.2	2.14	2.28	2.41	2899.2	2.05	2.51	3.06	1349.1	2.00	2.02	2.05
2949.7	2979.7	2.22	2.38	2.52	2979.7	2.14	2.59	3.13	1389.7	1.71	1.72	1.74
3010.1	3040.1	2.21	2.35	2.48	3040.1	2.22	2.67	3.22	1410.0	1.56	1.56	1.56

## Harmonics Tables

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	10	40	15	29	18	>68	29	50	32	59
1	-	20	+0	32	31	27	26	50	40	42	46	49
2	>90	64	60	64	65	>68	55	64	57	>68	63	>68
3	>90	67	65	>68	54	>68	>68	67	57	>68	>68	>68
4	>90	>68	>68	>68	>68	>68	>68	>68	>68	>68	>68	>68
5	>90	>68	>68	>68	>68	>68	>68	>68	>68	>68	>68	>68
6	>90	>68	>68	>68	>68	>68	>68	>68	>68	>68	>68	>68
7	>90	>68	>68	>68	>68	>68	>68	>68	>68	>68	>68	>68
8	>90	>68	>68	>68	>68	>68	>68	>68	>68	>68	>68	>68
9	>90	>68	>68	>68	>68	>68	>68	>68	>68	>68	>68	>68
10	>90	>68	>68	>68	>68	>68	>68	>68	>68	>68	>68	>68
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

Test conditions: RF IN: 752.5 MHz; -14.00 dBm.  
 LO IN: 782.5 MHz; +7.00 dBm  
 IF OUT: 30 MHz; -22.31 dBm

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	21	51	25	39	29	67	42	63	50	72
1	-	20	+0	31	31	29	25	55	44	47	56	57
2	70	56	48	58	57	70	48	58	50	73	59	72
3	>90	51	49	52	37	50	61	49	46	65	55	62
4	>90	67	>78	76	66	69	72	>78	68	72	71	>78
5	>90	68	59	61	59	63	56	66	73	61	60	77
6	>90	>78	>78	>78	>78	>78	>78	>78	>78	>78	>78	>78
7	>90	>78	>78	77	71	>78	>78	>78	67	74	>78	72
8	>90	>78	>78	>78	>78	>78	>78	>78	>78	>78	>78	>78
9	>90	>78	>78	>78	>78	>78	>78	>78	>78	>78	>78	>78
10	>90	>78	>78	>78	>78	>78	>78	>78	>78	>78	>78	>78
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

### LO HARMONICS ORDER

Test conditions: RF IN: 752.5 MHz; -4.00 dBm.  
 LO IN: 782.5 MHz; +7.00 dBm  
 IF OUT: 30 MHz; -12.24 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.