

Frequency Mixer

ZEM-4300+

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	CONVERSION LOSS IF FIXED @IF(OUT)=30MHz (dB)		
		@LO (dBm)		
		+4	+7	+10
150.0	180.0	16.56	10.67	7.81
250.0	280.0	8.55	6.41	5.73
350.0	380.0	6.62	5.74	5.26
450.0	480.0	6.02	5.35	4.96
550.0	580.0	5.95	5.37	5.04
650.0	680.0	5.87	5.26	4.92
750.0	780.0	6.03	5.36	5.00
850.0	880.0	7.04	6.11	5.53
970.0	1000.0	7.30	6.50	6.00
1070.0	1100.0	6.94	6.33	5.90
1190.0	1220.0	6.44	5.98	5.68
1290.0	1320.0	6.17	5.77	5.52
1410.0	1440.0	5.84	5.47	5.29
1510.0	1540.0	5.84	5.43	5.22
1630.0	1660.0	7.32	6.54	6.04
1730.0	1760.0	7.44	6.59	6.08
1850.0	1880.0	7.00	6.20	5.76
1950.0	1980.0	6.75	5.96	5.56
2070.0	2100.0	6.29	5.67	5.33
2170.0	2200.0	6.07	5.55	5.27
2290.0	2320.0	6.09	5.58	5.31
2390.0	2420.0	6.06	5.56	5.28
2510.0	2540.0	6.15	5.61	5.32
2610.0	2640.0	6.15	5.62	5.33
2730.0	2760.0	6.14	5.63	5.34
2830.0	2860.0	6.26	5.76	5.47
2950.0	2980.0	6.55	6.15	5.90
3050.0	3080.0	6.82	6.49	6.30
3170.0	3200.0	7.15	6.78	6.55
3270.0	3300.0	7.22	6.84	6.63
3390.0	3420.0	7.34	6.93	6.71
3490.0	3520.0	7.56	7.12	6.85
3610.0	3640.0	7.71	7.24	6.96
3710.0	3740.0	7.93	7.42	7.13
3830.0	3860.0	8.20	7.62	7.31
3930.0	3960.0	8.48	7.77	7.47
4050.0	4080.0	8.79	8.07	7.73
4150.0	4180.0	8.96	8.17	7.82
4270.0	4300.0	9.02	8.14	7.84
4370.0	4400.0	9.19	8.22	7.87

RF (IN) (MHz)	LO (MHz)	IP3 INPUT (dBm)		
		@LO (dBm)		
		+4	+7	+10
150.0	180.0	-2.62	3.81	10.91
250.0	280.0	4.69	10.96	12.07
350.0	380.0	7.00	8.77	11.68
450.0	480.0	7.42	10.97	16.68
550.0	580.0	6.96	10.45	15.29
650.0	680.0	7.66	12.15	19.86
750.0	780.0	6.07	8.18	10.63
850.0	880.0	6.23	9.74	13.62
970.0	1000.0	6.83	8.65	10.21
1070.0	1100.0	6.31	7.63	9.06
1190.0	1220.0	6.90	7.92	8.92
1290.0	1320.0	7.51	8.72	10.21
1410.0	1440.0	10.71	10.20	11.33
1510.0	1540.0	13.26	16.73	18.14
1630.0	1660.0	10.43	13.94	18.59
1730.0	1760.0	7.60	9.63	11.25
1850.0	1880.0	6.12	7.99	9.87
1950.0	1980.0	6.05	7.74	9.55
2070.0	2100.0	6.46	7.58	9.05
2170.0	2200.0	6.72	7.47	8.54
2290.0	2320.0	6.81	7.38	8.26
2390.0	2420.0	6.74	7.26	8.10
2510.0	2540.0	6.62	7.31	8.07
2610.0	2640.0	6.72	7.61	8.27
2730.0	2760.0	7.00	7.89	8.78
2830.0	2860.0	7.28	8.15	9.03
2950.0	2980.0	7.99	9.18	10.53
3050.0	3080.0	11.30	13.92	14.59
3170.0	3200.0	13.47	13.12	13.68
3270.0	3300.0	12.66	13.88	14.30
3390.0	3420.0	10.98	15.11	16.02
3490.0	3520.0	9.99	13.09	17.03
3610.0	3640.0	10.69	11.72	14.25
3710.0	3740.0	11.55	12.35	13.62
3830.0	3860.0	11.86	12.85	13.43
3930.0	3960.0	12.10	12.84	13.34
4050.0	4080.0	12.62	13.36	12.98
4150.0	4180.0	12.77	14.21	13.11
4270.0	4300.0	12.66	14.76	14.55
4370.0	4400.0	12.71	14.93	14.94

RF (IN) (MHz)	LO (MHz)	COMPRESSION @RF IN=+1dBm (dB)		
		@LO (dBm)		
		+4	+7	+10
150.0	180.0	-4.09	-0.82	0.04
250.0	280.0	0.88	0.91	0.55
350.0	380.0	1.60	0.99	0.70
450.0	480.0	1.69	1.23	0.92
550.0	580.0	1.70	1.27	0.96
650.0	680.0	1.87	1.49	1.18
750.0	780.0	1.96	1.70	1.44
850.0	880.0	1.39	1.36	1.24
970.0	1000.0	1.21	1.16	1.04
1070.0	1100.0	1.44	1.21	1.03
1190.0	1220.0	1.51	1.21	0.98
1290.0	1320.0	1.31	1.02	0.81
1410.0	1440.0	0.96	0.64	0.47
1510.0	1540.0	0.99	0.65	0.45
1630.0	1660.0	0.92	0.83	0.70
1730.0	1760.0	1.00	0.89	0.76
1850.0	1880.0	1.30	1.14	0.92
1950.0	1980.0	1.36	1.17	0.92
2070.0	2100.0	1.55	1.26	1.00
2170.0	2200.0	1.64	1.31	1.02
2290.0	2320.0	1.56	1.23	0.97
2390.0	2420.0	1.52	1.21	0.95
2510.0	2540.0	1.45	1.14	0.89
2610.0	2640.0	1.39	1.10	0.85
2730.0	2760.0	1.41	1.08	0.83
2830.0	2860.0	1.42	1.07	0.86
2950.0	2980.0	1.48	1.06	0.83
3050.0	3080.0	1.44	1.04	0.80
3170.0	3200.0	1.24	0.84	0.63
3270.0	3300.0	1.10	0.69	0.50
3390.0	3420.0	1.02	0.57	0.41
3490.0	3520.0	1.03	0.53	0.37
3610.0	3640.0	1.15	0.56	0.36
3710.0	3740.0	1.20	0.57	0.36
3830.0	3860.0	1.19	0.57	0.36
3930.0	3960.0	1.14	0.51	0.32
4050.0	4080.0	0.97	0.46	0.29
4150.0	4180.0	0.94	0.44	0.27
4270.0	4300.0	0.92	0.44	0.28
4370.0	4400.0	0.84	0.46	0.28



Typical Performance Data

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=2160.1MHz (dB)
		@LO (dBm)
		+7
1770.1	390.0	12.12
1730.1	430.0	11.22
1690.1	470.0	10.53
1650.1	510.0	9.82
1610.1	550.0	9.12
1570.1	590.0	8.60
1530.1	630.0	8.13
1490.1	670.0	7.78
1450.1	710.0	7.44
1410.1	750.0	7.20
1370.1	790.0	6.99
1330.1	830.0	6.98
1290.1	870.0	7.02
1250.1	910.0	7.14
1210.1	950.0	7.29
1170.1	990.0	7.36
1130.1	1030.0	7.18
1090.1	1070.0	6.64
1050.1	1110.0	6.38
1010.1	1150.0	6.51
970.1	1190.0	6.76
910.1	1250.0	6.94
870.1	1290.0	6.94
810.1	1350.0	6.75
770.1	1390.0	6.66
710.1	1450.0	6.57
670.1	1490.0	6.55
610.1	1550.0	6.45
570.1	1590.0	6.44
510.1	1650.0	6.40
470.1	1690.0	6.36
410.1	1750.0	6.22
370.1	1790.0	6.03
310.1	1850.0	5.89
270.1	1890.0	5.83
210.1	1950.0	5.74
170.1	1990.0	5.69
110.1	2050.0	5.67
70.1	2090.0	5.61
10.1	2150.0	5.75

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=289.9MHz (dB)
		@LO (dBm)
		+7
10.1	300.0	5.97
50.1	340.0	5.79
90.1	380.0	5.74
130.1	420.0	5.68
170.1	460.0	5.70
210.1	500.0	5.61
250.1	540.0	5.58
290.1	580.0	5.60
330.1	620.0	5.60
370.1	660.0	5.49
410.1	700.0	5.35
450.1	740.0	5.31
490.1	780.0	5.21
530.1	820.0	5.22
570.1	860.0	5.25
610.1	900.0	5.26
650.1	940.0	5.43
710.1	1000.0	5.82
750.1	1040.0	6.01
810.1	1100.0	6.17
850.1	1140.0	6.07
910.1	1200.0	6.04
950.1	1240.0	6.12
1010.1	1300.0	6.36
1050.1	1340.0	6.58
1110.1	1400.0	6.82
1150.1	1440.0	7.11
1210.1	1500.0	7.29
1250.1	1540.0	7.47
1310.1	1600.0	7.55
1350.1	1640.0	7.61
1410.1	1700.0	7.69
1450.1	1740.0	7.70
1510.1	1800.0	7.95
1550.1	1840.0	8.14
1610.1	1900.0	8.61
1650.1	1940.0	9.04
1710.1	2000.0	9.88
1750.1	2040.0	10.68
1810.1	2100.0	11.92

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=4310.1MHz (dB)
		@LO (dBm)
		+7
1750.1	2560.0	13.30
1710.1	2600.0	12.55
1670.1	2640.0	12.02
1630.1	2680.0	11.49
1590.1	2720.0	11.11
1550.1	2760.0	10.67
1510.1	2800.0	10.34
1470.1	2840.0	10.01
1430.1	2880.0	9.76
1390.1	2920.0	9.53
1350.1	2960.0	9.37
1310.1	3000.0	9.24
1270.1	3040.0	9.12
1230.1	3080.0	9.04
1190.1	3120.0	8.97
1150.1	3160.0	8.90
1110.1	3200.0	8.84
1070.1	3240.0	8.74
1030.1	3280.0	8.68
990.1	3320.0	8.62
950.1	3360.0	8.58
910.1	3400.0	8.54
870.1	3440.0	8.49
810.1	3500.0	8.42
770.1	3540.0	8.45
710.1	3600.0	8.43
670.1	3640.0	8.47
610.1	3700.0	8.45
570.1	3740.0	8.53
510.1	3800.0	8.49
470.1	3840.0	8.54
410.1	3900.0	8.47
370.1	3940.0	8.48
310.1	4000.0	8.39
270.1	4040.0	8.41
210.1	4100.0	8.33
170.1	4140.0	8.31
110.1	4200.0	8.23
70.1	4240.0	8.22
10.1	4300.0	8.25

Frequency Mixer

ZEM-4300+

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
180.0	25.73	26.36	27.91	34.61	29.94	27.58	150.0	180.0	39.40	43.16	54.06
280.0	26.25	28.24	30.49	26.97	25.34	25.96	250.0	280.0	46.11	45.31	46.60
380.0	26.79	29.02	31.18	24.42	24.94	26.59	350.0	380.0	43.97	42.05	39.94
480.0	28.20	30.44	32.58	24.28	25.85	27.95	450.0	480.0	37.65	37.00	35.88
580.0	28.76	31.01	33.14	25.57	27.67	30.03	550.0	580.0	33.47	31.55	30.59
680.0	29.23	31.60	33.85	28.05	31.30	34.74	650.0	680.0	31.77	29.88	28.75
780.0	29.69	31.89	34.02	32.27	37.72	46.95	750.0	780.0	30.36	29.50	28.91
880.0	29.58	31.74	33.79	37.31	39.59	39.04	850.0	880.0	26.40	26.02	25.78
1000.0	30.47	32.58	34.60	31.31	30.64	30.31	970.0	1000.0	23.71	23.33	23.05
1100.0	30.65	32.78	34.70	26.54	26.24	26.10	1070.0	1100.0	23.78	23.17	22.80
1220.0	30.76	32.72	34.48	22.58	22.48	22.62	1190.0	1220.0	23.05	22.40	22.26
1320.0	31.67	33.42	34.88	20.32	20.42	20.46	1290.0	1320.0	22.28	21.65	21.31
1440.0	31.52	33.08	34.23	18.58	18.62	18.77	1410.0	1440.0	22.51	21.91	21.60
1540.0	30.57	32.16	33.35	17.27	17.45	17.61	1510.0	1540.0	25.07	24.72	24.88
1660.0	30.98	32.55	33.72	16.24	16.50	16.57	1630.0	1660.0	27.15	26.91	26.57
1760.0	31.37	32.73	33.79	15.87	16.06	16.29	1730.0	1760.0	24.02	24.46	24.56
1880.0	30.80	31.99	32.83	15.58	15.86	16.10	1850.0	1880.0	23.20	23.66	24.03
1980.0	30.99	32.02	32.70	15.70	15.86	16.08	1950.0	1980.0	23.34	23.77	24.04
2100.0	31.44	32.50	32.94	16.00	16.13	16.32	2070.0	2100.0	23.90	24.15	24.47
2200.0	31.45	32.90	33.42	16.35	16.55	16.73	2170.0	2200.0	24.42	24.69	24.78
2320.0	31.39	32.99	33.73	16.84	17.01	17.10	2290.0	2320.0	24.96	25.22	25.35
2420.0	31.45	33.17	34.11	17.40	17.57	17.66	2390.0	2420.0	25.23	25.53	25.79
2540.0	31.69	33.66	34.76	18.08	18.11	18.06	2510.0	2540.0	25.64	25.75	25.98
2640.0	32.34	34.73	36.16	18.69	18.70	18.59	2610.0	2640.0	25.66	25.73	25.90
2760.0	33.02	36.40	38.57	19.64	19.57	19.35	2730.0	2760.0	25.83	25.77	25.52
2860.0	34.03	38.56	41.20	20.44	20.20	20.05	2830.0	2860.0	25.37	24.95	24.53
2980.0	35.14	40.61	39.25	21.66	21.07	20.56	2950.0	2980.0	24.41	23.47	22.52
3080.0	35.92	38.82	35.96	22.20	21.28	20.39	3050.0	3080.0	22.85	21.77	20.82
3200.0	34.52	34.97	33.86	21.68	20.58	19.64	3170.0	3200.0	22.54	21.98	21.64
3300.0	33.32	33.31	32.83	21.35	20.10	19.33	3270.0	3300.0	23.52	23.16	23.17
3420.0	33.20	32.84	32.26	21.08	19.93	19.05	3390.0	3420.0	24.68	24.59	24.57
3520.0	33.41	32.77	32.20	20.87	19.82	19.10	3490.0	3520.0	25.58	25.61	25.60
3640.0	33.65	33.17	32.24	20.65	19.77	19.05	3610.0	3640.0	26.68	26.84	26.77
3740.0	33.55	33.14	32.31	20.10	19.67	19.00	3710.0	3740.0	27.46	27.42	27.62
3860.0	33.43	32.86	32.00	19.64	19.47	18.93	3830.0	3860.0	28.03	28.03	28.10
3960.0	33.59	32.52	31.79	19.17	19.01	18.79	3930.0	3960.0	28.54	28.87	28.58
4080.0	33.65	32.37	31.29	18.61	18.71	18.46	4050.0	4080.0	29.03	29.10	29.29
4180.0	33.43	32.16	31.02	18.09	18.39	18.19	4150.0	4180.0	29.43	29.66	29.50
4300.0	33.15	31.48	30.64	17.60	17.87	18.02	4270.0	4300.0	29.88	29.78	29.60
4400.0	32.89	31.46	30.34	17.16	17.69	17.73	4370.0	4400.0	30.11	29.83	29.76



Typical Performance Data

RF (IN) (MHz)	LO (MHz)	RF VSWR (:1)			LO (MHz)	LO VSWR (:1)			IF (OUT) (MHz)	IF VSWR @LO=4300MHz (:1)		
		@LO (dBm)				@LO (dBm)				@LO (dBm)		
		+4	+7	+10		+4	+7	+10		+4	+7	+10
150.0	180.0	12.26	7.20	4.88	180.0	10.89	9.74	8.01	10.0	1.88	1.49	1.29
250.0	280.0	3.50	2.57	2.35	280.0	4.91	4.27	4.14	70.0	1.81	1.45	1.28
350.0	380.0	2.13	1.82	1.71	380.0	2.78	2.77	3.15	130.0	1.81	1.46	1.29
450.0	480.0	1.76	1.56	1.46	480.0	1.94	2.21	2.72	190.0	1.80	1.45	1.29
550.0	580.0	1.80	1.60	1.49	580.0	1.55	1.94	2.45	250.0	1.81	1.46	1.30
650.0	680.0	2.00	1.78	1.65	680.0	1.35	1.77	2.24	310.0	1.77	1.44	1.28
750.0	780.0	2.36	2.12	1.97	780.0	1.26	1.65	2.06	370.0	1.78	1.45	1.29
850.0	880.0	3.35	3.05	2.82	880.0	1.25	1.55	1.90	430.0	1.77	1.45	1.30
970.0	1000.0	4.05	3.70	3.45	1000.0	1.30	1.47	1.74	490.0	1.73	1.42	1.27
1070.0	1100.0	4.04	3.77	3.56	1100.0	1.35	1.41	1.63	550.0	1.73	1.44	1.30
1190.0	1220.0	3.66	3.45	3.31	1220.0	1.40	1.36	1.52	610.0	1.68	1.39	1.26
1290.0	1320.0	3.22	3.04	2.92	1320.0	1.43	1.32	1.46	670.0	1.65	1.38	1.26
1410.0	1440.0	2.64	2.40	2.27	1440.0	1.42	1.30	1.42	730.0	1.60	1.36	1.27
1510.0	1540.0	2.35	2.09	1.91	1540.0	1.41	1.26	1.39	790.0	1.57	1.32	1.23
1630.0	1660.0	3.53	3.21	2.96	1660.0	1.41	1.24	1.36	850.0	1.54	1.32	1.25
1730.0	1760.0	3.74	3.40	3.17	1760.0	1.42	1.22	1.34	910.0	1.48	1.29	1.25
1850.0	1880.0	3.32	3.03	2.84	1880.0	1.43	1.19	1.31	970.0	1.45	1.26	1.22
1950.0	1980.0	3.00	2.73	2.56	1980.0	1.44	1.19	1.30	1030.0	1.42	1.26	1.24
2070.0	2100.0	2.64	2.42	2.28	2100.0	1.43	1.17	1.26	1090.0	1.36	1.23	1.25
2170.0	2200.0	2.40	2.20	2.09	2200.0	1.43	1.15	1.23	1150.0	1.33	1.21	1.23
2290.0	2320.0	2.18	1.99	1.87	2320.0	1.42	1.12	1.18	1210.0	1.32	1.25	1.30
2390.0	2420.0	2.03	1.85	1.73	2420.0	1.40	1.08	1.16	1270.0	1.25	1.23	1.32
2510.0	2540.0	1.90	1.74	1.63	2540.0	1.36	1.06	1.19	1330.0	1.29	1.30	1.38
2610.0	2640.0	1.80	1.66	1.57	2640.0	1.32	1.11	1.26	1390.0	1.29	1.37	1.47
2730.0	2760.0	1.73	1.63	1.56	2760.0	1.26	1.20	1.37	1450.0	1.31	1.41	1.52
2830.0	2860.0	1.74	1.66	1.60	2860.0	1.23	1.28	1.48	1510.0	1.41	1.53	1.64
2950.0	2980.0	1.82	1.76	1.72	2980.0	1.24	1.42	1.65	1570.0	1.47	1.62	1.73
3050.0	3080.0	1.91	1.87	1.85	3080.0	1.29	1.52	1.77	1630.0	1.58	1.72	1.82
3170.0	3200.0	2.16	2.17	2.19	3200.0	1.32	1.60	1.87	1690.0	1.70	1.84	1.93
3270.0	3300.0	2.36	2.40	2.43	3300.0	1.37	1.66	1.95	1750.0	1.83	1.96	2.04
3390.0	3420.0	2.58	2.62	2.66	3420.0	1.50	1.77	2.05	1810.0	1.97	2.09	2.15
3490.0	3520.0	2.69	2.72	2.75	3520.0	1.63	1.86	2.12	1870.0	2.14	2.22	2.27
3610.0	3640.0	2.76	2.77	2.80	3640.0	1.79	1.97	2.20	1950.0	2.36	2.43	2.46
3710.0	3740.0	2.84	2.84	2.86	3740.0	1.92	2.04	2.24	2010.0	2.54	2.58	2.59
3830.0	3860.0	3.04	3.00	3.01	3860.0	2.06	2.11	2.26	2090.0	2.78	2.80	2.82
3930.0	3960.0	3.18	3.12	3.12	3960.0	2.16	2.15	2.26	2150.0	2.98	3.02	2.95
4050.0	4080.0	3.38	3.30	3.30	4080.0	2.24	2.16	2.22	2230.0	3.21	3.22	3.22
4150.0	4180.0	3.50	3.42	3.41	4180.0	2.26	2.13	2.16	2290.0	3.35	3.35	3.36
4270.0	4300.0	3.47	3.35	3.35	4300.0	2.23	2.06	2.04	2370.0	3.56	3.56	3.57
4370.0	4400.0	3.62	3.45	3.43	4400.0	2.19	1.98	1.93	2430.0	3.65	3.67	3.67

Harmonics Tables

RF HARMONICS ORDER	(-dBm)	(-dBc)										
0	-	-	+9	31	10	33	28	39	35	49	45	65
1	-	20	+0	37	27	34	36	41	45	52	63	58
2	89	60	65	48	61	64	50	64	60	64	59	68
3	>90	>70	68	>70	53	>70	69	65	69	>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: 2300 MHz; -14.00 dBm.
 LO IN: 2330 MHz; +7.00 dBm
 IF OUT: 30 MHz; -19.82 dBm

RF HARMONICS ORDER	(-dBm)	(-dBc)										
0	-	-	1	42	21	45	41	56	51	66	57	80
1	-	20	+0	39	27	38	39	47	55	62	77	78
2	68	52	55	42	54	59	46	62	58	63	62	74
3	>90	48	48	71	34	58	53	50	55	59	65	71
4	>90	76	75	70	74	57	70	68	61	69	73	73
5	>90	>80	74	71	70	>80	52	73	67	63	67	69
6	>90	>80	>80	>80	>80	>80	>80	70	>80	77	76	79
7	>90	>80	>80	>80	>80	>80	>80	>80	66	>80	80	74
8	>90	>80	>80	>80	>80	>80	>80	>80	>80	>80	>80	>80
9	>90	>80	>80	>80	>80	>80	>80	>80	>80	>80	79	>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: 2300 MHz; -4.00 dBm.
 LO IN: 2330 MHz; +7.00 dBm
 IF OUT: 30 MHz; -9.8 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.