

Non-Catalog Model

Frequency Mixer

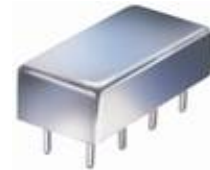
SIMA-5MH

Level 13 (LO Power +13 dBm)

Important Note

This is a non-catalog model and can be manufactured on specific request.
Pricing and delivery information can be supplied upon request.

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CASE STYLE : A06

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C					
Parameter		Min.	Typ.	Max.	Units
Frequency	LO (fL to fU)	2		1500	MHz
	RF (fL to fU)	2		1500	MHz
	IF	0		1000	MHz
Conversion Loss	mid band		7.1	8.6	dB
	Total Range			9.0	dB
LO-RF Isolation	Low Range	44	70		dB
	Mid Range	23	44		dB
	Upper Range	22	31		dB
LO-IF Isolation	Low Range	38	57		dB
	Mid Range	20	30		dB
	Upper Range	15	25		dB
1 dB Comp. Input Power			+9		dBm

Notes: Low Range = [fL to 10fL]
mid band = [2fL to fU/2]

Mid Range = [10fL to fU/2]

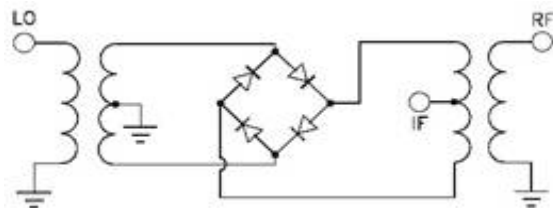
Upper Range = [fU/2 to fU]

Hermetic metal case

MAXIMUM RATINGS	
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	200mW
IF Current	40mA

PIN CONNECTIONS	
LO	8
RF	1
IF	3
GROUND	2, 5, 6, 7

Electrical Schematics



Frequency Mixer

SIMA-5MH

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	CONVERSION LOSS IF FIXED @IF(OUT)=30MHz (dB)		
		@LO (dBm)		
		+10	+13	+16
2.0	32.0	7.44	7.16	6.98
4.0	34.0	7.15	6.84	6.67
5.0	35.0	7.12	6.80	6.62
10.0	40.0	6.90	6.67	6.45
50.8	80.8	6.87	6.57	6.32
91.5	121.5	6.93	6.58	6.35
132.3	162.3	7.02	6.68	6.43
173.0	203.0	7.09	6.74	6.46
213.7	243.7	7.24	6.86	6.51
254.4	284.4	7.43	6.93	6.58
295.2	325.2	7.44	6.93	6.57
376.6	406.6	7.76	7.08	6.64
417.3	447.3	7.77	7.07	6.66
458.1	488.1	8.10	7.28	6.82
498.8	528.8	8.52	7.58	6.99
539.5	569.5	8.64	7.63	7.00
580.2	610.2	8.35	7.43	6.88
620.9	650.9	7.98	7.13	6.65
661.7	691.7	7.73	6.94	6.51
702.4	732.4	7.59	6.81	6.41
743.1	773.1	7.43	6.73	6.33
783.8	813.8	7.28	6.71	6.33
824.6	854.6	7.11	6.63	6.31
865.3	895.3	7.07	6.65	6.38
906.0	936.0	7.03	6.66	6.44
987.4	1017.4	7.12	6.76	6.60
1028.2	1058.2	7.19	6.80	6.64
1068.9	1098.9	7.39	6.94	6.78
1109.6	1139.6	7.52	7.08	6.91
1150.3	1180.3	7.64	7.23	7.05
1191.1	1221.1	7.80	7.36	7.18
1231.8	1261.8	7.97	7.51	7.33
1292.9	1322.9	8.18	7.72	7.54
1333.6	1363.6	8.42	7.84	7.63
1394.7	1424.7	8.62	8.02	7.76
1435.4	1465.4	8.87	8.18	7.85
1496.5	1526.5	9.19	8.43	8.05
1598.3	1628.3	9.91	9.07	8.59
1639.0	1669.0	10.29	9.44	8.93
1700.1	1730.1	10.71	10.01	9.59

RF (IN) (MHz)	LO (MHz)	IP3 INPUT (dBm)		
		@LO (dBm)		
		+10	+13	+16
10.1	40.1	24.66	26.05	26.49
50.8	80.8	20.53	22.34	22.94
91.5	121.5	19.92	20.77	20.28
132.3	162.3	18.20	17.94	19.71
173.0	203.0	17.25	18.58	22.69
213.7	243.7	15.97	17.94	22.34
254.4	284.4	15.46	19.00	22.75
295.2	325.2	16.45	20.15	24.12
335.9	365.9	16.55	20.02	24.37
376.6	406.6	15.87	20.18	23.24
417.3	447.3	16.25	20.16	20.73
458.1	488.1	15.77	18.85	20.22
498.8	528.8	14.82	17.93	20.27
539.5	569.5	14.68	18.00	21.44
580.2	610.2	15.35	18.64	21.67
620.9	650.9	14.91	18.32	19.87
661.7	691.7	14.59	18.46	19.33
702.4	732.4	13.58	17.27	18.26
743.1	773.1	13.04	16.36	18.55
783.8	813.8	13.18	16.03	18.46
824.6	854.6	13.77	16.34	18.62
865.3	895.3	14.66	17.09	19.16
906.0	936.0	15.72	17.70	19.90
946.7	976.7	17.25	18.60	20.46
987.4	1017.4	19.44	19.50	20.23
1028.2	1058.2	19.68	20.54	21.17
1068.9	1098.9	20.61	22.88	23.95
1109.6	1139.6	22.25	23.48	24.78
1150.3	1180.3	27.20	26.10	26.35
1191.1	1221.1	20.97	27.92	27.37
1231.8	1261.8	17.94	23.67	32.18
1292.9	1322.9	15.78	21.24	29.06
1333.6	1363.6	14.87	20.08	26.85
1394.7	1424.7	15.20	20.18	25.41
1435.4	1465.4	15.07	20.47	27.85
1496.5	1526.5	16.10	21.27	33.76
1537.2	1567.2	16.62	22.27	28.07
1598.3	1628.3	17.66	25.09	24.62
1639.0	1669.0	18.29	25.15	22.36
1700.1	1730.1	19.25	23.94	22.36

RF (IN) (MHz)	LO (MHz)	COMPRESSION @RF IN=+9dBm (dB)		
		@LO (dBm)		
		+10	+13	+16
10.1	40.1	0.46	0.28	0.17
50.8	80.8	0.37	0.25	0.16
91.5	121.5	0.35	0.20	0.12
132.3	162.3	0.33	0.18	0.14
173.0	203.0	0.26	0.15	0.11
213.7	243.7	0.22	0.16	0.16
254.4	284.4	0.19	0.15	0.16
295.2	325.2	0.21	0.17	0.18
335.9	365.9	0.29	0.27	0.28
376.6	406.6	0.27	0.34	0.33
417.3	447.3	0.41	0.48	0.46
458.1	488.1	0.42	0.54	0.56
498.8	528.8	0.28	0.54	0.63
539.5	569.5	0.37	0.66	0.78
580.2	610.2	0.71	0.89	0.96
620.9	650.9	1.08	1.14	1.11
661.7	691.7	1.20	1.17	1.06
702.4	732.4	1.17	1.12	0.97
743.1	773.1	1.10	0.98	0.84
783.8	813.8	1.02	0.85	0.72
824.6	854.6	1.03	0.77	0.68
865.3	895.3	0.90	0.65	0.57
906.0	936.0	0.84	0.56	0.50
946.7	976.7	0.80	0.47	0.43
987.4	1017.4	0.68	0.39	0.33
1028.2	1058.2	0.69	0.39	0.32
1068.9	1098.9	0.60	0.30	0.26
1109.6	1139.6	0.49	0.25	0.21
1150.3	1180.3	0.47	0.22	0.17
1191.1	1221.1	0.42	0.18	0.15
1231.8	1261.8	0.45	0.17	0.13
1292.9	1322.9	0.42	0.18	0.11
1333.6	1363.6	0.44	0.17	0.10
1394.7	1424.7	0.36	0.15	0.08
1435.4	1465.4	0.36	0.15	0.09
1496.5	1526.5	0.29	0.15	0.09
1537.2	1567.2	0.20	0.11	0.09
1598.3	1628.3	0.07	0.04	0.08
1639.0	1669.0	-0.01	-0.01	0.07
1700.1	1730.1	-0.10	-0.06	0.03

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Frequency Mixer

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Typical Performance Data

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=750.1MHz (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)=1500.1MHz (dB)
		@LO (dBm)			@LO (dBm)			@LO (dBm)
		+13			+13			+13
730.0	20.1	7.46	10.0	20.1	6.78	1000.0	500.1	8.41
711.5	38.6	7.37	30.2	40.3	6.55	979.8	520.3	8.35
693.1	57.0	7.41	50.4	60.5	6.58	959.6	540.5	8.30
674.6	75.5	7.50	70.6	80.7	6.63	939.4	560.7	8.23
656.2	93.9	7.58	90.8	100.9	6.67	919.2	580.9	8.22
637.7	112.4	7.60	111.0	121.1	6.66	899.0	601.1	8.14
619.2	130.9	7.56	131.2	141.3	6.67	878.8	621.3	8.08
600.8	149.3	7.54	151.4	161.5	6.71	858.6	641.5	8.07
582.3	167.8	7.58	171.6	181.7	6.78	838.4	661.7	8.04
563.8	186.3	7.61	191.8	201.9	6.74	818.2	681.9	8.01
545.4	204.7	7.62	212.0	222.1	6.78	798.0	702.1	7.99
526.9	223.2	7.55	232.2	242.3	6.84	777.8	722.3	7.97
508.5	241.6	7.51	252.4	262.5	6.97	757.6	742.5	7.97
490.0	260.1	7.50	272.7	282.8	6.98	737.3	762.8	7.95
471.5	278.6	7.54	292.9	303.0	6.90	717.1	783.0	7.90
453.1	297.0	7.56	313.1	323.2	6.94	696.9	803.2	7.88
434.6	315.5	7.46	333.3	343.4	7.03	676.7	823.4	7.84
416.2	333.9	7.43	353.5	363.6	7.07	656.5	843.6	7.81
397.7	352.4	7.41	373.7	383.8	7.15	636.3	863.8	7.78
379.2	370.9	7.49	393.9	404.0	7.07	616.1	884.0	7.72
360.8	389.3	7.54	434.3	444.4	7.19	575.7	924.4	7.57
342.3	407.8	7.55	454.5	464.6	7.27	555.5	944.6	7.54
323.8	426.3	7.58	494.9	505.0	7.27	515.1	985.0	7.50
305.4	444.7	7.57	515.1	525.2	7.36	494.9	1005.2	7.48
286.9	463.2	7.67	555.5	565.6	7.48	454.5	1045.6	7.50
268.5	481.6	7.73	575.7	585.8	7.37	434.3	1065.8	7.57
250.0	500.1	7.75	616.1	626.2	7.37	393.9	1106.2	7.69
231.5	518.6	7.72	636.3	646.4	7.42	373.7	1126.4	7.79
213.1	537.0	7.69	676.7	686.8	7.40	333.3	1166.8	7.99
194.6	555.5	7.72	696.9	707.0	7.32	313.1	1187.0	8.09
176.2	573.9	7.69	737.3	747.4	7.39	272.7	1227.4	8.16
157.7	592.4	7.62	757.6	767.7	7.34	252.4	1247.7	8.16
139.2	610.9	7.47	798.0	808.1	7.31	212.0	1288.1	8.14
120.8	629.3	7.42	818.2	828.3	7.37	191.8	1308.3	8.14
102.3	647.8	7.35	858.6	868.7	7.47	151.4	1348.7	8.16
83.8	666.3	7.30	878.8	888.9	7.45	131.2	1368.9	8.16
65.4	684.7	7.22	919.2	929.3	7.73	90.8	1409.3	8.18
46.9	703.2	7.12	939.4	949.5	7.90	70.6	1429.5	8.19
28.5	721.6	7.07	979.8	989.9	8.04	30.2	1469.9	8.21
10.0	740.1	7.30	1000.0	1010.1	8.00	10.0	1490.1	8.53

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Typical Performance Data

LO (MHz)	LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)		
	@LO (dBm)			@LO (dBm)		
	+10	+13	+16	+10	+13	+16
2.0	67.33	67.57	67.96	74.93	70.97	69.36
4.0	66.85	66.81	67.11	73.75	70.21	68.31
5.0	66.85	66.99	67.24	73.45	69.69	68.14
10.0	66.17	66.21	66.09	70.37	67.01	64.94
50.8	62.88	61.56	60.29	57.51	54.41	53.31
91.5	59.71	57.77	56.43	52.62	50.41	48.71
132.3	57.46	54.95	53.72	49.11	47.04	45.86
173.0	55.61	53.50	52.12	47.64	45.49	44.09
213.7	54.77	52.14	50.88	46.34	43.93	42.52
254.4	53.52	51.08	49.70	44.30	42.50	41.12
295.2	53.66	50.92	49.24	42.41	40.89	39.59
376.6	53.04	49.94	47.94	39.49	38.19	37.09
417.3	53.02	49.71	47.47	37.10	36.50	35.71
458.1	54.59	50.55	47.70	35.61	35.74	35.06
498.8	53.18	49.53	46.92	34.21	34.41	33.84
539.5	50.07	47.52	45.60	32.94	33.14	32.80
580.2	47.61	44.95	43.26	32.12	32.34	31.98
620.9	46.13	43.02	41.21	30.87	31.09	30.79
661.7	45.58	41.90	39.47	29.73	30.18	29.76
702.4	44.75	41.06	38.47	28.41	28.97	28.74
743.1	44.22	40.63	38.14	27.43	28.10	28.14
783.8	43.36	39.89	37.38	26.31	27.13	27.19
824.6	42.97	39.31	36.96	25.29	26.12	26.43
865.3	42.89	38.84	36.37	24.52	25.44	25.68
906.0	42.70	38.35	35.97	23.77	24.73	25.00
987.4	41.83	37.34	34.63	22.68	23.65	23.81
1028.2	41.16	36.80	34.09	22.35	23.36	23.60
1068.9	40.58	36.33	33.69	22.02	23.00	23.21
1109.6	40.10	35.82	33.10	22.11	23.08	23.14
1150.3	39.56	35.25	32.51	22.24	23.09	23.12
1191.1	39.02	34.77	32.03	22.50	23.28	23.31
1231.8	38.26	34.29	31.64	22.85	23.48	23.47
1292.9	37.60	33.33	30.99	23.46	23.69	23.82
1333.6	37.06	32.89	30.65	23.91	23.88	23.98
1394.7	36.54	32.54	30.18	24.61	24.27	24.27
1435.4	35.92	32.21	29.91	25.02	24.46	24.40
1496.5	35.84	31.81	29.47	25.73	24.78	24.65
1598.3	35.07	31.38	29.13	26.70	25.54	25.28
1639.0	34.72	31.32	29.06	27.07	25.82	25.47
1700.1	33.94	31.09	28.94	27.52	26.18	25.86

RF (IN) (MHz)	LO (MHz)	RF-IF ISOLATION (dB)		
		@LO (dBm)		
		+10	+13	+16
10.1	40.1	46.12	49.73	48.57
50.8	80.8	36.96	36.89	36.87
91.5	121.5	32.31	32.61	32.55
132.3	162.3	29.61	29.76	29.77
173.0	203.0	27.85	27.96	28.01
213.7	243.7	26.55	26.72	26.85
254.4	284.4	25.73	26.03	26.25
295.2	325.2	25.41	25.68	25.86
335.9	365.9	24.77	25.09	25.30
376.6	406.6	24.00	24.62	25.19
417.3	447.3	23.80	24.68	25.31
458.1	488.1	24.25	25.30	25.95
498.8	528.8	24.11	25.05	25.39
539.5	569.5	23.27	23.87	23.82
580.2	610.2	21.97	22.30	22.33
620.9	650.9	21.03	21.24	21.28
661.7	691.7	20.75	20.70	20.68
702.4	732.4	21.02	20.66	20.36
743.1	773.1	21.41	20.85	20.39
783.8	813.8	21.72	21.35	20.83
824.6	854.6	21.64	21.58	21.41
865.3	895.3	21.09	21.13	21.18
906.0	936.0	20.10	20.24	20.30
946.7	976.7	18.98	19.06	19.14
987.4	1017.4	17.98	17.94	17.90
1028.2	1058.2	17.14	17.04	16.88
1068.9	1098.9	16.29	16.03	15.85
1109.6	1139.6	15.51	15.15	14.93
1150.3	1180.3	14.80	14.40	14.16
1191.1	1221.1	14.19	13.73	13.50
1231.8	1261.8	13.71	13.23	13.05
1292.9	1322.9	13.10	12.67	12.49
1333.6	1363.6	12.84	12.46	12.27
1394.7	1424.7	12.44	12.16	12.03
1435.4	1465.4	12.15	11.93	11.80
1496.5	1526.5	11.76	11.60	11.53
1537.2	1567.2	11.48	11.40	11.37
1598.3	1628.3	11.13	11.10	11.09
1639.0	1669.0	10.99	10.94	10.96
1700.1	1730.1	10.82	10.83	10.83

Frequency Mixer

SIMA-5MH

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	RF VSWR (:1)			LO (MHz)	LO VSWR (:1)			IF (OUT) (MHz)	IF VSWR @LO=1500.1MHz (:1)		
		@LO (dBm)				@LO (dBm)				@LO (dBm)		
		+10	+13	+16		+10	+13	+16		+10	+13	+16
5.0	35.0	1.62	1.30	1.33	5.0	1.39	2.06	2.89	5.0	1.62	1.36	1.23
10.0	40.0	1.64	1.20	1.25	10.0	1.37	2.01	2.83	10.0	1.64	1.36	1.23
50.8	80.8	1.11	1.18	1.24	50.8	1.33	2.11	3.13	30.2	2.10	1.61	1.37
91.5	121.5	1.08	1.16	1.22	91.5	1.30	1.96	2.84	50.4	2.19	1.64	1.40
132.3	162.3	1.07	1.14	1.19	132.3	1.41	2.11	3.07	70.6	2.21	1.65	1.40
173.0	203.0	1.07	1.14	1.19	173.0	1.37	1.98	2.81	90.8	2.16	1.62	1.39
213.7	243.7	1.05	1.11	1.17	213.7	1.41	2.05	2.94	111.0	2.14	1.62	1.38
254.4	284.4	1.05	1.11	1.17	254.4	1.49	2.03	2.83	131.2	2.14	1.61	1.37
295.2	325.2	1.06	1.12	1.18	295.2	1.49	2.01	2.81	151.4	2.14	1.61	1.37
335.9	365.9	1.07	1.12	1.18	335.9	1.50	2.01	2.79	171.6	2.13	1.61	1.36
376.6	406.6	1.09	1.12	1.18	376.6	1.57	1.99	2.71	191.8	2.10	1.58	1.33
417.3	447.3	1.12	1.12	1.17	417.3	1.62	2.02	2.75	212.0	2.03	1.53	1.30
458.1	488.1	1.15	1.12	1.15	458.1	1.57	1.92	2.59	232.2	2.03	1.53	1.29
498.8	528.8	1.22	1.17	1.16	498.8	1.59	1.92	2.60	252.4	2.03	1.53	1.29
539.5	569.5	1.32	1.26	1.25	539.5	1.63	1.89	2.50	272.7	2.00	1.50	1.26
580.2	610.2	1.43	1.40	1.38	580.2	1.64	1.84	2.46	292.9	1.94	1.47	1.24
620.9	650.9	1.55	1.53	1.53	620.9	1.64	1.81	2.38	313.1	1.94	1.47	1.24
661.7	691.7	1.66	1.64	1.65	661.7	1.73	1.80	2.33	333.3	1.92	1.45	1.22
702.4	732.4	1.78	1.75	1.76	702.4	1.78	1.80	2.29	353.5	1.87	1.42	1.20
743.1	773.1	1.89	1.87	1.87	743.1	1.84	1.78	2.21	373.7	1.86	1.41	1.19
783.8	813.8	1.98	1.98	1.98	783.8	1.90	1.77	2.17	393.9	1.83	1.40	1.18
824.6	854.6	2.03	2.07	2.07	824.6	1.97	1.76	2.10	434.3	1.78	1.36	1.15
865.3	895.3	2.06	2.13	2.14	865.3	2.05	1.75	2.05	454.5	1.79	1.37	1.16
906.0	936.0	2.07	2.16	2.20	906.0	2.09	1.73	1.97	494.9	1.70	1.32	1.11
946.7	976.7	2.06	2.18	2.25	946.7	2.17	1.72	1.91	515.1	1.70	1.31	1.12
987.4	1017.4	2.05	2.17	2.26	987.4	2.23	1.70	1.84	555.5	1.64	1.27	1.09
1028.2	1058.2	2.08	2.18	2.28	1028.2	2.29	1.68	1.77	575.7	1.62	1.27	1.08
1068.9	1098.9	2.12	2.22	2.31	1068.9	2.33	1.67	1.71	616.1	1.55	1.23	1.06
1109.6	1139.6	2.15	2.25	2.33	1109.6	2.36	1.66	1.65	636.3	1.54	1.22	1.05
1150.3	1180.3	2.15	2.26	2.33	1150.3	2.36	1.63	1.59	676.7	1.47	1.18	1.03
1191.1	1221.1	2.13	2.24	2.31	1191.1	2.39	1.61	1.52	696.9	1.42	1.14	1.01
1231.8	1261.8	2.11	2.21	2.27	1231.8	2.34	1.57	1.46	737.3	1.35	1.10	1.05
1292.9	1322.9	2.08	2.15	2.22	1292.9	2.34	1.52	1.37	757.6	1.31	1.07	1.08
1333.6	1363.6	2.06	2.12	2.17	1333.6	2.26	1.47	1.31	798.0	1.25	1.05	1.14
1394.7	1424.7	2.10	2.14	2.19	1394.7	2.22	1.41	1.23	818.2	1.20	1.08	1.20
1435.4	1465.4	2.18	2.22	2.27	1435.4	2.13	1.36	1.18	858.6	1.18	1.15	1.27
1496.5	1526.5	2.37	2.39	2.43	1496.5	2.06	1.30	1.14	878.8	1.17	1.22	1.34
1537.2	1567.2	2.53	2.55	2.57	1537.2	1.99	1.26	1.14	919.2	1.26	1.35	1.48
1598.3	1628.3	2.78	2.78	2.77	1598.3	1.88	1.21	1.18	939.4	1.30	1.43	1.57
1639.0	1669.0	2.92	2.92	2.90	1639.0	1.82	1.19	1.22	979.8	1.51	1.66	1.81
1700.1	1730.1	3.11	3.10	3.09	1700.1	1.69	1.15	1.28	1000.0	1.60	1.77	1.93

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Harmonics Tables

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	1	20	36	28	21	31	32	45	49	51
1	-	14	+0	33	21	32	23	34	39	33	54	51
2	99	61	42	51	43	60	44	56	55	46	59	56
3	>100	66	69	76	53	66	62	62	55	73	66	63
4	>100	75	70	86	66	76	66	83	65	77	73	68
5	>100	>87	>87	85	>87	82	87	84	>87	82	>87	>87
6	>100	>87	>87	>87	>87	>87	>87	>87	>87	>87	>87	>87
7	>100	>87	>87	>87	>87	>87	>87	>87	>87	>87	>87	>87
8	>100	>87	>87	>87	>87	>87	>87	>87	>87	>87	>87	>87
9	>100	>87	>87	>87	>87	>87	>87	>87	>87	>87	>87	>87
10	>100	>87	>87	>87	>87	>87	>87	>87	>87	>87	>87	>87
RF CAL	0	1	2	3	4	5	6	7	8	9	10	

LO HARMONICS ORDER

Test conditions:

RF IN: 750.1 MHz; -6.00 dBm.

LO IN: 780.01 MHz; +13.00 dBm

IF OUT: 29.91 MHz; -12.94 dBm

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	11	30	36	41	32	48	47	63	66	69
1	-	13	+0	42	21	31	25	39	46	42	56	71
2	83	58	38	54	36	65	41	58	52	49	64	66
3	>100	51	51	47	35	52	48	60	41	51	59	53
4	>100	62	55	69	50	58	50	63	50	61	58	51
5	>100	67	55	68	68	69	49	75	56	58	52	63
6	>100	70	70	70	65	79	59	68	58	77	56	69
7	>100	76	81	81	70	78	79	80	61	77	67	69
8	>100	86	84	78	76	78	72	90	66	77	67	80
9	>100	>97	94	90	93	85	83	86	93	80	74	83
10	>100	>97	>97	94	90	88	85	84	82	91	75	84
RF CAL	0	1	2	3	4	5	6	7	8	9	10	

LO HARMONICS ORDER

Test conditions:

RF IN: 750.1 MHz; 4.00 dBm.

LO IN: 780.01 MHz; +13.00 dBm

IF OUT: 29.91 MHz; -3.02 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.

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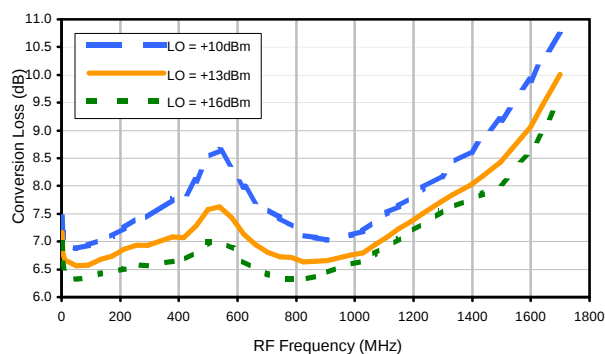


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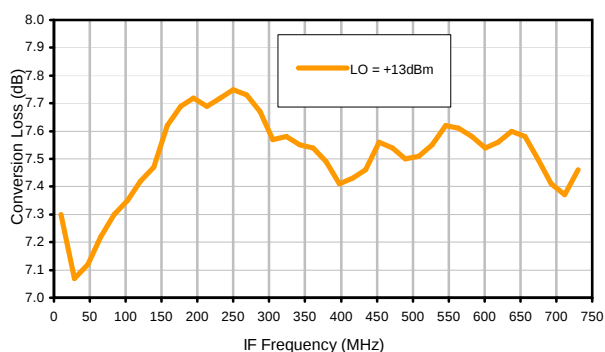


Typical Performance Curves

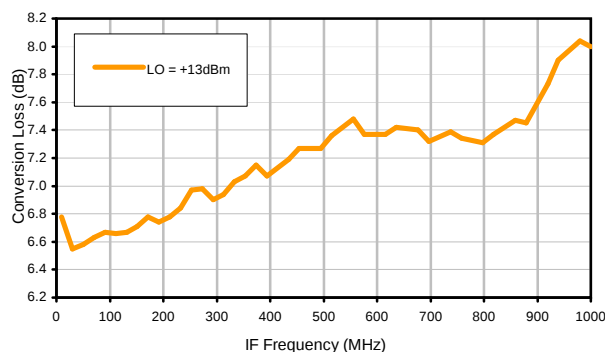
Conversion Loss @ IF=30MHz



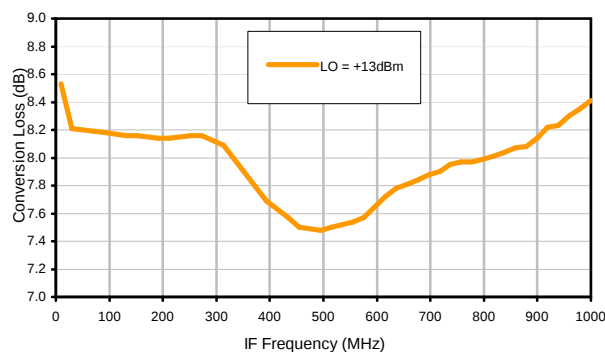
Conversion Loss vs. IF @ RF=750.1MHz



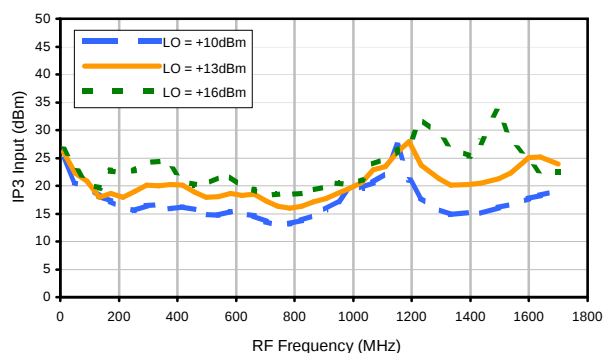
Conversion Loss vs. IF @ RF=10.1MHz



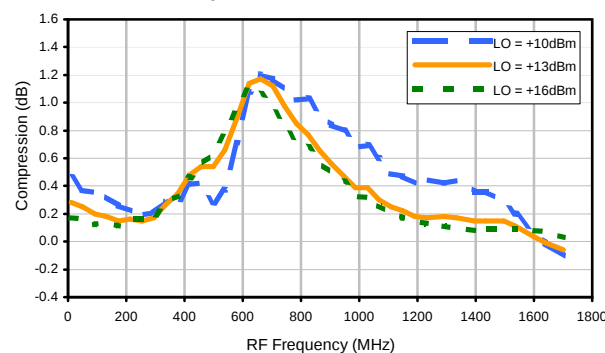
Conversion Loss vs. IF @ RF=1500.1MHz



IP3 Input

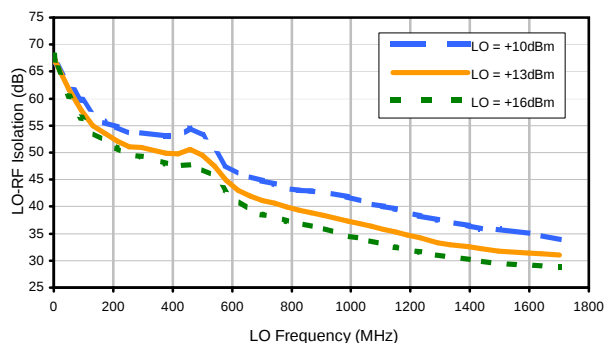


Compression @ RF IN=+9dBm

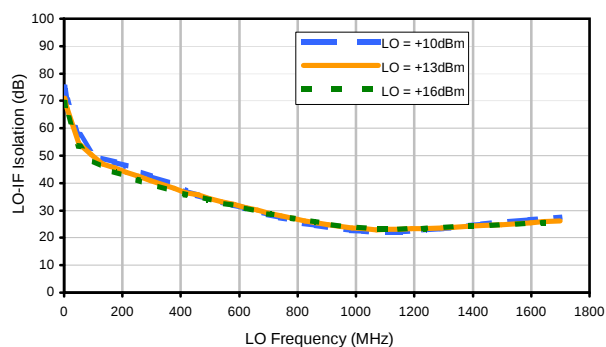


Typical Performance Curves

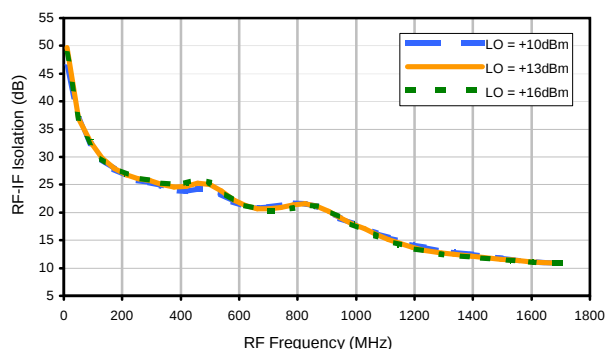
LO-RF Isolation



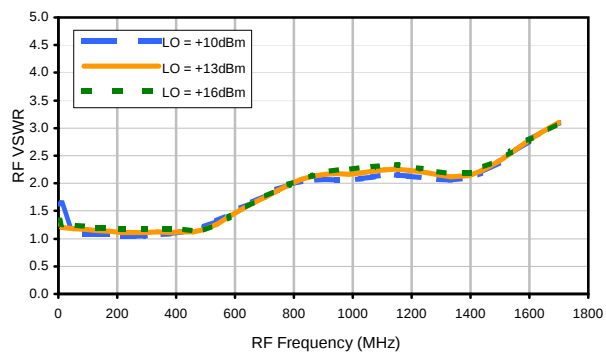
LO-IF Isolation



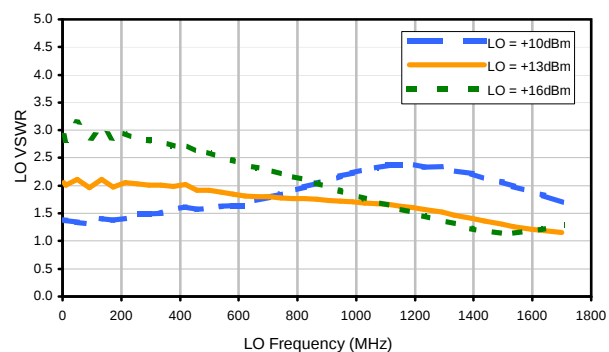
RF-IF Isolation



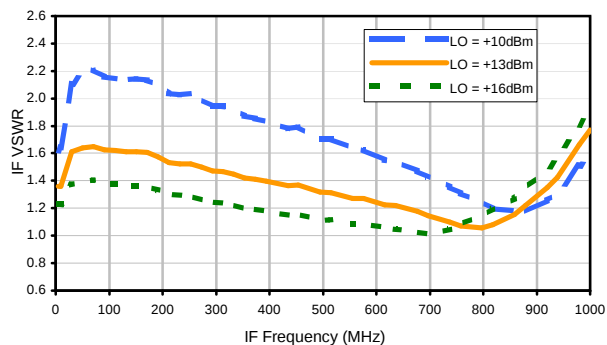
RF VSWR



LO VSWR



IF VSWR



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Harmonics Tables

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	1	20	36	28	21	31	32	45	49	51
1	-	14	+0	33	21	32	23	34	39	33	54	51
2	99	61	42	51	43	60	44	56	55	46	59	56
3	>100	66	69	76	53	66	62	62	55	73	66	63
4	>100	75	70	86	66	76	66	83	65	77	73	68
5	>100	>87	>87	85	>87	82	87	84	>87	82	>87	>87
6	>100	>87	>87	>87	>87	>87	>87	>87	>87	>87	>87	>87
7	>100	>87	>87	>87	>87	>87	>87	>87	>87	>87	>87	>87
8	>100	>87	>87	>87	>87	>87	>87	>87	>87	>87	>87	>87
9	>100	>87	>87	>87	>87	>87	>87	>87	>87	>87	>87	>87
10	>100	>87	>87	>87	>87	>87	>87	>87	>87	>87	>87	>87
RF CAL	0	1	2	3	4	5	6	7	8	9	10	

LO HARMONICS ORDER

Test conditions: RF IN: 750.1 MHz; -6.00 dBm.
LO IN: 780.01 MHz; +13.00 dBm
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RF HARMONICS ORDER

	(-dBm)	(-dBc)										
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1	-	13	+0	42	21	31	25	39	46	42	56	71
2	83	58	38	54	36	65	41	58	52	49	64	66
3	>100	51	51	47	35	52	48	60	41	51	59	53
4	>100	62	55	69	50	58	50	63	50	61	58	51
5	>100	67	55	68	68	69	49	75	56	58	52	63
6	>100	70	70	70	65	79	59	68	58	77	56	69
7	>100	76	81	81	70	78	79	80	61	77	67	69
8	>100	86	84	78	76	78	72	90	66	77	67	80
9	>100	>97	94	90	93	85	83	86	93	80	74	83
10	>100	>97	>97	94	90	88	85	84	82	91	75	84
RF CAL	0	1	2	3	4	5	6	7	8	9	10	

LO HARMONICS ORDER

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IF OUT: 29.91 MHz; -3.02 dBm

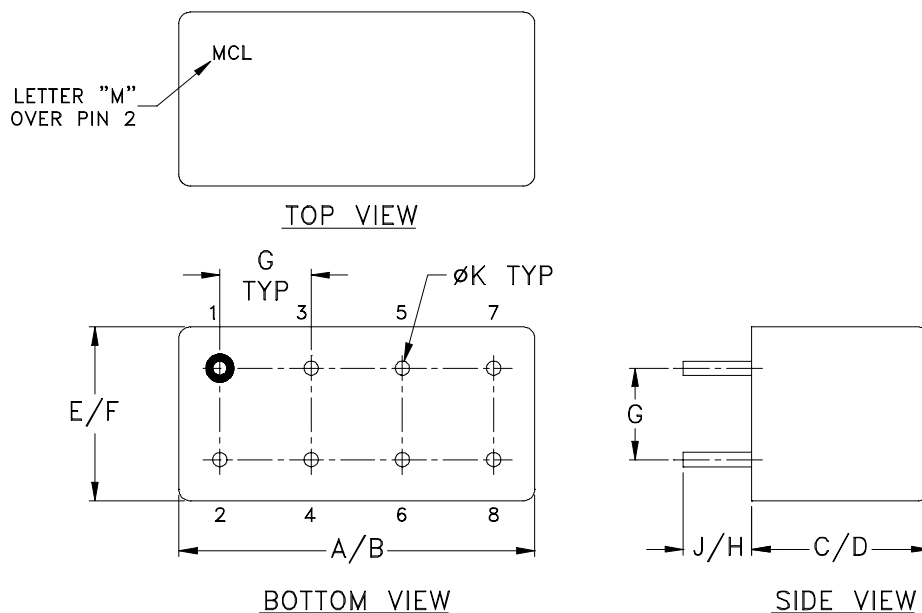
- Notes: 1. All Harmonics are in (dBc) relative to IF OUTPUT.
2. + entry denotes harmonics are in (dBc) above IF OUTPUT.
3. RF Cal represent the Harmonics level of the RF input signal to the mixer.

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A01
A04
A05
A06

Outline Dimensions



CASE#	A	B	C	D	E	F	G	H	J	K	WT, GRAM
A01	.770 (19.56)	.800 (20.32)	.385 (9.78)	.400 (10.16)	.370 (9.40)	.400 (10.16)	.200 (5.08)	.20 (5.08)	.14 (3.56)	.031 (.79)	5.2
A04			.200 (5.08)	.210 (5.33)							3.7
A05			.240 (6.10)	.250 (6.35)							3.7
A06			.285 (7.24)	.310 (7.87)							5.2

Dimensions are in inches (mm). Tolerances: 2 Pl. $\pm .03$; 3 Pl. $\pm .015$

Notes:

- Header material: C.R.S.
Pin material: #52 alloy.
Cover material: Cupro-Nickel.
- Pin finish: Electro Tin-Silver.
- Insulated spacer available. Request P/N B14-045-01.
- Tolerance on pin diameter $\pm .005$ inch.
- Glass meniscus 0.015 inch max.
- Blue bead indicates Pin 1. Pin numbers do not appear on unit, for reference only.



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