

Non-Catalog Model

Frequency Mixer

SBL-2500H

Level 17 (LO Power +17 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)	5		2500	MHz
	RF (fL to fU)	5		2500	MHz
	IF	1		1000	MHz
Conversion Loss	mid band		5.5	7.5	dB
	Total Range			10.5	dB
LO-RF Isolation	Low Range	35	46		dB
	Mid Range	30	44		dB
	Upper Range	25	35		dB
LO-IF Isolation	Low Range	35	50		dB
	Mid Range	27	44		dB
	Upper Range	19	32		dB
IP3 Input		+27.5	+30		dBm
1 dB Comp. Input Power			+10		dBm

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

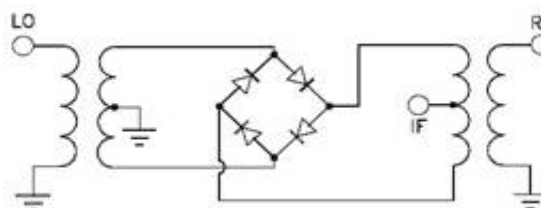
IP3 : RF Power = 0 dBm @ 200 MHz & 202 MHz , LO Power = +17 dBm @ 180 MHz
Non-hermetic

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, 4 ^
GROUND	2, 5, 6, 7

^ - pins must be connected together externally

Electrical Schematics



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Typical Performance Data

RF (IN) (MHz)	LO (MHz)	CONVERSION LOSS IF FIXED @IF(OUT)=30MHz (dB)			RF (IN) (MHz)	LO (MHz)	IP3 INPUT (dBm)			RF (IN) (MHz)	LO (MHz)	COMPRESSION @RF IN=+10dBm (dB)		
		@LO (dBm)					@LO (dBm)					@LO (dBm)		
		+14	+17	+20			+14	+17	+20			+14	+17	+20
5.0	35.0	5.09	4.79	4.65	10.1	40.1	29.98	28.07	27.59	10.1	40.1	0.45	0.24	0.14
7.3	37.3	5.04	4.76	4.61	90.9	120.9	26.10	25.38	25.47	90.9	120.9	0.32	0.19	0.10
10.1	40.1	5.02	4.73	4.60	171.7	201.7	23.28	25.05	26.79	171.7	201.7	0.28	0.16	0.12
90.9	120.9	5.49	5.27	5.15	252.5	282.5	24.80	25.86	31.43	252.5	282.5	0.32	0.22	0.18
171.7	201.7	5.63	5.39	5.25	333.2	363.2	22.93	25.09	31.84	333.2	363.2	0.43	0.30	0.24
252.5	282.5	5.72	5.44	5.30	414.0	444.0	24.02	30.83	29.50	414.0	444.0	0.54	0.38	0.29
333.2	363.2	5.86	5.53	5.39	494.8	524.8	28.59	30.91	26.59	494.8	524.8	0.56	0.41	0.32
414.0	444.0	5.87	5.57	5.43	575.6	605.6	30.98	27.01	26.94	575.6	605.6	0.54	0.42	0.37
494.8	524.8	6.03	5.70	5.56	656.4	686.4	29.27	26.56	26.82	656.4	686.4	0.40	0.34	0.35
575.6	605.6	6.27	5.93	5.75	737.2	767.2	22.66	22.84	23.38	737.2	767.2	0.31	0.31	0.35
656.4	686.4	6.57	6.21	6.01	817.9	847.9	21.58	21.72	21.53	817.9	847.9	0.31	0.32	0.40
737.2	767.2	6.67	6.34	6.16	898.7	928.7	22.21	22.38	20.73	898.7	928.7	0.28	0.29	0.39
817.9	847.9	6.51	6.26	6.12	979.5	1009.5	21.93	23.63	22.75	979.5	1009.5	0.26	0.26	0.36
898.7	928.7	6.30	6.10	6.05	1060.3	1090.3	23.58	23.47	23.33	1060.3	1090.3	0.27	0.21	0.27
979.5	1009.5	6.12	5.97	5.98	1141.1	1171.1	25.35	25.11	26.23	1141.1	1171.1	0.26	0.17	0.19
1060.3	1090.3	5.96	5.85	5.87	1221.9	1251.9	25.62	25.39	29.34	1221.9	1251.9	0.34	0.23	0.20
1141.1	1171.1	5.93	5.81	5.87	1302.6	1332.6	25.82	25.48	27.63	1302.6	1332.6	0.48	0.34	0.25
1221.9	1251.9	6.07	5.93	5.98	1383.4	1413.4	26.37	24.03	26.12	1383.4	1413.4	0.57	0.48	0.39
1302.6	1332.6	6.50	6.21	6.14	1464.2	1494.2	21.69	21.86	23.01	1464.2	1494.2	0.67	0.61	0.57
1383.4	1413.4	7.01	6.44	6.21	1545.0	1575.0	19.77	19.61	20.47	1545.0	1575.0	0.67	0.69	0.72
1464.2	1494.2	7.10	6.51	6.20	1625.8	1655.8	17.94	20.08	22.98	1625.8	1655.8	0.73	0.77	0.80
1545.0	1575.0	7.18	6.55	6.21	1706.6	1736.6	19.22	21.44	23.90	1706.6	1736.6	0.91	0.88	0.93
1625.8	1655.8	7.12	6.55	6.27	1787.4	1817.4	19.64	21.20	22.41	1787.4	1817.4	0.99	0.96	1.12
1706.6	1736.6	6.89	6.44	6.24	1868.1	1898.1	19.03	19.95	19.32	1868.1	1898.1	1.05	1.02	1.20
1787.4	1817.4	6.69	6.35	6.19	1948.9	1978.9	18.87	19.57	18.88	1948.9	1978.9	1.14	1.10	1.31
1868.1	1898.1	6.55	6.26	6.14	2029.7	2059.7	19.06	19.68	16.86	2029.7	2059.7	1.17	1.16	1.34
1948.9	1978.9	6.50	6.25	6.21	2110.5	2140.5	18.79	19.57	15.85	2110.5	2140.5	1.20	1.16	1.30
2110.5	2140.5	6.69	6.45	6.57	2191.3	2221.3	18.34	19.73	16.49	2191.3	2221.3	1.14	1.10	1.23
2191.3	2221.3	6.93	6.62	6.70	2272.1	2302.1	18.42	19.45	17.35	2272.1	2302.1	1.09	0.99	1.10
2272.1	2302.1	7.21	6.87	6.92	2352.8	2382.8	19.06	20.12	18.91	2352.8	2382.8	1.05	0.84	0.82
2352.8	2382.8	7.53	7.12	7.13	2433.6	2463.6	19.81	20.62	19.26	2433.6	2463.6	0.92	0.76	0.69
2433.6	2463.6	7.54	7.26	7.35	2514.4	2544.4	20.05	19.73	19.00	2514.4	2544.4	0.87	0.72	0.63
2514.4	2544.4	7.85	7.59	7.73	2595.2	2625.2	19.55	19.41	19.82	2595.2	2625.2	0.89	0.64	0.53
2595.2	2625.2	8.31	8.02	8.16	2676.0	2706.0	19.27	19.58	21.18	2676.0	2706.0	0.90	0.57	0.41
2676.0	2706.0	8.92	8.54	8.68	2756.8	2786.8	19.09	19.97	22.20	2756.8	2786.8	0.89	0.53	0.31
2756.8	2786.8	9.50	9.04	9.10	2817.4	2847.4	18.44	20.78	21.64	2817.4	2847.4	0.93	0.50	0.33
2898.1	2928.1	10.67	9.93	9.66	2898.1	2928.1	17.40	20.01	20.35	2898.1	2928.1	0.98	0.55	0.39
2958.7	2988.7	11.58	10.49	10.19	2958.7	2988.7	17.33	18.79	19.79	2958.7	2988.7	0.79	0.59	0.35
3039.5	3069.5	12.99	11.28	10.93	3039.5	3069.5	18.24	18.38	19.20	3039.5	3069.5	0.24	0.48	0.25
3100.1	3130.1	14.09	12.15	11.58	3100.1	3130.1	15.68	20.29	19.59	3100.1	3130.1	-0.21	0.25	0.17

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Typical Performance Data

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=1250.1MHz (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)=2500.1MHz (dB)
		@LO (dBm)			@LO (dBm)			@LO (dBm)
		+17			+17			+17
1000.0	250.1	7.49	10.0	20.1	5.10	1000.0	1500.1	7.95
979.8	270.3	7.48	30.2	40.3	5.02	979.8	1520.3	7.98
959.6	290.5	7.47	50.4	60.5	5.05	959.6	1540.5	7.95
939.4	310.7	7.38	70.6	80.7	5.05	939.4	1560.7	7.97
919.2	330.9	7.28	90.8	100.9	5.05	919.2	1580.9	7.98
899.0	351.1	7.15	111.0	121.1	5.04	899.0	1601.1	7.93
878.8	371.3	7.08	131.2	141.3	5.01	878.8	1621.3	7.93
858.6	391.5	7.01	151.4	161.5	5.04	858.6	1641.5	7.90
838.4	411.7	6.92	171.6	181.7	5.05	838.4	1661.7	7.82
818.2	431.9	6.83	191.8	201.9	5.01	818.2	1681.9	7.74
798.0	452.1	6.79	212.0	222.1	4.99	798.0	1702.1	7.63
777.8	472.3	6.75	232.2	242.3	4.99	777.8	1722.3	7.54
757.6	492.5	6.68	252.4	262.5	5.01	757.6	1742.5	7.45
737.3	512.8	6.66	272.7	282.8	4.98	737.3	1762.8	7.38
717.1	533.0	6.59	292.9	303.0	4.98	717.1	1783.0	7.33
696.9	553.2	6.58	313.1	323.2	4.96	696.9	1803.2	7.27
676.7	573.4	6.55	333.3	343.4	4.93	676.7	1823.4	7.25
656.5	593.6	6.49	353.5	363.6	4.96	656.5	1843.6	7.23
636.3	613.8	6.46	373.7	383.8	4.93	636.3	1863.8	7.21
616.1	634.0	6.40	393.9	404.0	4.92	616.1	1884.0	7.20
575.7	674.4	6.33	434.3	444.4	4.93	575.7	1924.4	7.21
555.5	694.6	6.28	454.5	464.6	4.95	555.5	1944.6	7.23
515.1	735.0	6.14	494.9	505.0	4.95	515.1	1985.0	7.25
494.9	755.2	6.08	515.1	525.2	4.97	494.9	2005.2	7.26
454.5	795.6	5.94	555.5	565.6	5.03	454.5	2045.6	7.29
434.3	815.8	5.90	575.7	585.8	5.04	434.3	2065.8	7.31
393.9	856.2	5.80	616.1	626.2	5.13	393.9	2106.2	7.32
373.7	876.4	5.79	636.3	646.4	5.18	373.7	2126.4	7.35
333.3	916.8	5.78	676.7	686.8	5.27	333.3	2166.8	7.39
313.1	937.0	5.80	696.9	707.0	5.31	313.1	2187.0	7.40
272.7	977.4	5.82	737.3	747.4	5.48	272.7	2227.4	7.39
252.4	997.7	5.80	757.6	767.7	5.53	252.4	2247.7	7.41
212.0	1038.1	5.81	798.0	808.1	5.58	212.0	2288.1	7.41
191.8	1058.3	5.83	818.2	828.3	5.62	191.8	2308.3	7.41
151.4	1098.7	5.85	858.6	868.7	5.68	151.4	2348.7	7.41
131.2	1118.9	5.88	878.8	888.9	5.67	131.2	2368.9	7.40
90.8	1159.3	5.95	919.2	929.3	5.79	90.8	2409.3	7.36
70.6	1179.5	5.99	939.4	949.5	5.85	70.6	2429.5	7.34
30.2	1219.9	6.02	979.8	989.9	6.03	30.2	2469.9	7.41
10.0	1240.1	6.16	1000.0	1010.1	6.10	10.0	2490.1	7.49

Typical Performance Data

LO (MHz)	LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)		
	@LO (dBm)			@LO (dBm)		
	+14	+17	+20	+14	+17	+20
5.0	42.94	46.09	49.22	47.50	49.97	52.01
7.3	44.31	47.36	50.39	48.81	51.34	53.24
10.1	45.19	48.47	52.07	49.56	52.16	54.22
90.9	45.78	48.85	51.30	51.76	54.62	56.77
171.7	47.48	49.49	49.49	51.01	53.73	55.57
252.5	49.22	49.70	48.30	50.85	52.14	52.70
333.2	50.67	49.43	47.33	49.69	49.75	48.57
414.0	53.56	50.07	46.54	51.27	49.06	46.08
494.8	60.20	50.75	46.54	47.38	45.05	42.69
575.6	55.80	51.93	47.75	45.95	42.24	39.74
656.4	51.95	47.21	44.76	42.68	39.25	37.12
737.2	66.01	52.79	47.70	38.73	35.98	34.32
817.9	52.10	50.09	47.30	38.51	34.76	32.58
898.7	52.13	48.69	45.57	40.95	35.04	31.89
979.5	54.76	49.65	45.19	40.55	34.66	31.13
1060.3	53.34	49.70	45.74	40.07	34.62	31.27
1141.1	47.08	45.97	43.68	35.62	32.34	31.01
1221.9	44.29	41.99	40.03	34.84	32.11	31.69
1302.6	41.85	39.59	37.95	34.69	32.56	32.21
1383.4	43.50	40.49	38.58	33.90	32.80	32.60
1464.2	44.69	41.37	39.43	33.19	32.83	32.42
1545.0	43.30	41.09	40.59	31.79	31.44	31.01
1625.8	42.07	40.20	39.94	30.54	30.55	30.32
1706.6	38.33	36.17	36.01	30.24	30.22	30.02
1787.4	34.52	33.77	34.45	30.35	30.18	29.82
1868.1	33.12	34.23	36.28	29.85	29.66	29.29
1948.9	32.99	34.84	37.57	28.18	28.36	28.33
2110.5	31.85	33.46	36.65	26.35	27.27	27.86
2191.3	31.50	32.75	35.33	26.57	27.57	28.54
2272.1	30.46	31.70	33.53	27.69	28.90	30.42
2352.8	27.51	28.70	30.15	28.57	30.23	32.56
2433.6	29.00	30.18	31.82	27.35	29.18	31.11
2514.4	35.36	35.86	37.04	26.81	28.95	30.51
2595.2	39.12	37.91	38.16	26.37	28.87	30.43
2676.0	37.28	35.82	35.76	26.15	28.89	30.56
2756.8	35.06	34.10	33.63	26.07	28.90	30.57
2898.1	34.18	33.14	32.42	26.05	29.20	31.06
2958.7	34.73	33.62	32.93	26.31	29.51	31.16
3039.5	35.86	35.42	34.70	26.20	29.52	31.12
3100.1	35.93	37.01	36.72	25.91	29.17	30.85

RF (IN) (MHz)	LO (MHz)	RF-IF ISOLATION (dB)		
		@LO (dBm)		
		+14	+17	+20
10.1	40.1	41.16	40.80	43.36
90.9	120.9	42.62	42.60	45.02
171.7	201.7	44.21	45.80	45.60
252.5	282.5	49.75	49.04	48.64
333.2	363.2	53.25	51.10	48.66
414.0	444.0	49.82	47.94	45.41
494.8	524.8	45.94	44.35	41.89
575.6	605.6	40.15	39.37	38.43
656.4	686.4	39.17	38.59	37.28
737.2	767.2	39.04	38.22	36.46
817.9	847.9	39.23	38.37	35.88
898.7	928.7	38.43	38.55	37.18
979.5	1009.5	39.14	39.53	38.32
1060.3	1090.3	40.17	41.11	39.36
1141.1	1171.1	38.69	39.62	41.55
1221.9	1251.9	36.69	37.31	40.01
1302.6	1332.6	34.11	33.86	34.69
1383.4	1413.4	34.49	34.13	34.86
1464.2	1494.2	36.59	36.60	36.66
1545.0	1575.0	39.37	38.72	37.09
1625.8	1655.8	43.08	40.50	36.03
1706.6	1736.6	44.45	40.08	34.93
1787.4	1817.4	40.36	38.65	35.46
1868.1	1898.1	39.52	38.22	36.39
1948.9	1978.9	40.15	38.44	36.91
2029.7	2059.7	39.67	38.17	37.65
2110.5	2140.5	39.55	36.70	36.53
2191.3	2221.3	38.71	36.70	36.42
2272.1	2302.1	36.64	37.21	39.85
2352.8	2382.8	32.08	33.14	35.13
2433.6	2463.6	30.78	31.52	33.13
2514.4	2544.4	30.71	31.61	33.62
2595.2	2625.2	29.72	30.67	32.20
2676.0	2706.0	28.68	29.18	29.99
2756.8	2786.8	27.97	27.80	28.30
2817.4	2847.4	27.54	27.11	27.51
2898.1	2928.1	27.07	26.94	27.13
2958.7	2988.7	26.62	26.92	26.97
3039.5	3069.5	26.40	26.98	27.23
3100.1	3130.1	26.60	26.87	27.25

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Typical Performance Data

RF (IN) (MHz)	LO (MHz)	RF VSWR (:1)			LO (MHz)	LO VSWR (:1)			IF (OUT) (MHz)	IF VSWR @LO=2500.1MHz (:1)		
		@LO (dBm)				@LO (dBm)				@LO (dBm)		
		+14	+17	+20		+14	+17	+20		+14	+17	+20
5.0	35.0	1.08	1.14	1.27	5.0	1.42	2.12	2.93	1.0	1.63	1.31	1.08
7.3	37.3	1.07	1.12	1.26	7.3	1.42	2.11	2.94	3.3	1.67	1.33	1.08
10.1	40.1	1.06	1.12	1.26	10.1	1.41	2.07	2.92	5.5	1.68	1.34	1.08
90.9	120.9	1.34	1.23	1.16	90.9	1.44	2.08	2.86	7.8	1.69	1.34	1.08
171.7	201.7	1.40	1.29	1.23	171.7	1.45	2.07	2.83	10.0	1.69	1.34	1.08
252.5	282.5	1.49	1.39	1.33	252.5	1.44	2.06	2.82	30.2	1.71	1.39	1.15
333.2	363.2	1.67	1.54	1.47	333.2	1.41	2.02	2.75	50.4	1.56	1.27	1.06
414.0	444.0	1.87	1.73	1.66	414.0	1.35	1.93	2.63	70.6	1.51	1.24	1.04
494.8	524.8	2.13	1.99	1.90	494.8	1.31	1.84	2.49	90.8	1.60	1.31	1.11
575.6	605.6	2.43	2.27	2.16	575.6	1.27	1.75	2.36	111.0	1.66	1.36	1.14
656.4	686.4	2.69	2.54	2.43	656.4	1.26	1.68	2.25	131.2	1.63	1.34	1.12
737.2	767.2	2.78	2.65	2.56	737.2	1.25	1.62	2.15	151.4	1.61	1.32	1.11
817.9	847.9	2.68	2.56	2.48	817.9	1.22	1.54	2.05	171.6	1.64	1.36	1.16
898.7	928.7	2.51	2.39	2.30	898.7	1.18	1.46	1.94	191.8	1.71	1.41	1.20
979.5	1009.5	2.31	2.17	2.09	979.5	1.15	1.39	1.84	212.0	1.71	1.41	1.20
1060.3	1090.3	2.07	1.92	1.83	1060.3	1.13	1.33	1.78	232.2	1.69	1.39	1.18
1141.1	1171.1	1.85	1.68	1.57	1141.1	1.10	1.32	1.77	252.4	1.65	1.37	1.18
1221.9	1251.9	1.81	1.65	1.54	1221.9	1.09	1.35	1.80	272.7	1.66	1.38	1.20
1302.6	1332.6	2.12	1.97	1.85	1302.6	1.11	1.40	1.84	292.9	1.70	1.41	1.22
1383.4	1413.4	2.50	2.29	2.13	1383.4	1.16	1.46	1.90	313.1	1.69	1.41	1.21
1464.2	1494.2	2.53	2.31	2.13	1464.2	1.21	1.52	1.96	353.5	1.63	1.36	1.18
1545.0	1575.0	2.38	2.18	2.02	1545.0	1.25	1.60	2.05	373.7	1.64	1.38	1.20
1625.8	1655.8	2.15	1.99	1.88	1625.8	1.32	1.68	2.11	393.9	1.65	1.38	1.21
1706.6	1736.6	1.90	1.78	1.69	1706.6	1.37	1.73	2.15	434.3	1.63	1.36	1.17
1787.4	1817.4	1.70	1.59	1.51	1787.4	1.39	1.75	2.16	454.5	1.60	1.34	1.16
1868.1	1898.1	1.58	1.47	1.39	1868.1	1.41	1.77	2.16	494.9	1.59	1.33	1.15
1948.9	1978.9	1.50	1.41	1.34	1948.9	1.43	1.79	2.15	515.1	1.56	1.30	1.13
2029.7	2059.7	1.44	1.40	1.37	2029.7	1.46	1.79	2.12	555.5	1.53	1.27	1.10
2110.5	2140.5	1.44	1.42	1.42	2110.5	1.49	1.81	2.12	575.7	1.50	1.25	1.08
2191.3	2221.3	1.46	1.46	1.49	2191.3	1.56	1.87	2.15	636.3	1.39	1.15	1.03
2272.1	2302.1	1.49	1.49	1.55	2272.1	1.64	1.92	2.17	676.7	1.31	1.09	1.09
2352.8	2382.8	1.50	1.51	1.57	2352.8	1.65	1.86	2.04	696.9	1.27	1.06	1.14
2433.6	2463.6	1.50	1.55	1.63	2433.6	1.50	1.68	1.87	737.3	1.17	1.07	1.25
2514.4	2544.4	1.55	1.62	1.72	2514.4	1.52	1.77	2.01	757.6	1.16	1.09	1.27
2595.2	2625.2	1.61	1.67	1.78	2595.2	1.68	1.95	2.20	798.0	1.13	1.22	1.43
2676.0	2706.0	1.66	1.72	1.83	2676.0	1.88	2.15	2.41	818.2	1.13	1.29	1.51
2756.8	2786.8	1.75	1.80	1.90	2756.8	2.09	2.35	2.61	858.6	1.16	1.38	1.62
2817.4	2847.4	1.85	1.89	1.99	2817.4	2.23	2.48	2.72	878.8	1.22	1.45	1.71
2898.1	2928.1	2.05	2.06	2.14	2898.1	2.46	2.69	2.92	919.2	1.34	1.63	1.94
2958.7	2988.7	2.23	2.21	2.28	2958.7	2.67	2.88	3.10	939.4	1.39	1.70	2.02
3039.5	3069.5	2.50	2.43	2.48	3039.5	2.96	3.13	3.33	979.8	1.50	1.84	2.19
3100.1	3130.1	2.70	2.63	2.65	3100.1	3.14	3.26	3.43	1000.0	1.60	1.97	2.35

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Harmonics Tables

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	5	13	15	24	17	25	34	24	38	40
1	-	35	+0	34	15	45	39	42	40	55	34	44
2	>100	57	68	61	61	59	65	73	61	70	65	62
3	>100	>89	71	>89	68	86	71	>89	87	84	82	85
4	>100	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89
5	>100	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89
6	>100	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89
7	>100	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89
8	>100	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89
9	>100	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89
10	>100	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

LO HARMONICS ORDER

Test conditions:

RF IN: 1250.1 MHz; -5.00 dBm.

LO IN: 1280.01 MHz; +17.00 dBm

IF OUT: 29.91 MHz; -11.18 dBm

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	15	22	25	34	27	37	48	37	49	56
1	-	37	+0	36	15	46	40	44	42	65	38	50
2	89	48	53	54	50	51	54	62	51	60	57	53
3	>100	75	51	71	48	66	52	73	68	65	63	68
4	>100	97	80	72	72	68	77	70	86	79	75	82
5	>100	93	>99	94	80	87	78	85	82	92	91	93
6	>100	>99	95	>99	97	95	94	90	90	91	98	>99
7	>100	>99	>99	>99	>99	>99	>99	94	92	95	97	>99
8	>100	>99	>99	>99	>99	>99	>99	>99	>99	93	>99	99
9	>100	>99	>99	>99	>99	>99	>99	>99	>99	>99	>99	>99
10	>100	>99	>99	>99	>99	>99	>99	>99	>99	>99	>99	>99
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

LO HARMONICS ORDER

Test conditions:

RF IN: 1250.1 MHz; 5.00 dBm.

LO IN: 1280.01 MHz; +17.00 dBm

IF OUT: 29.91 MHz; -1.21 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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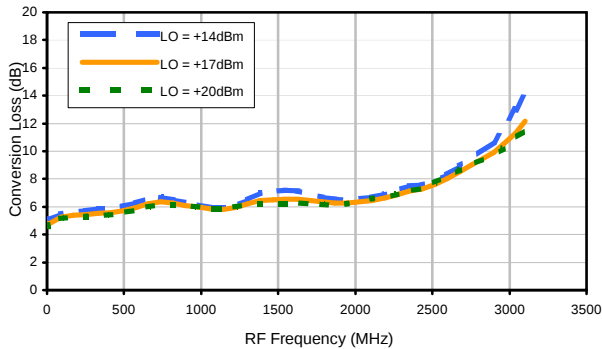


Frequency Mixer

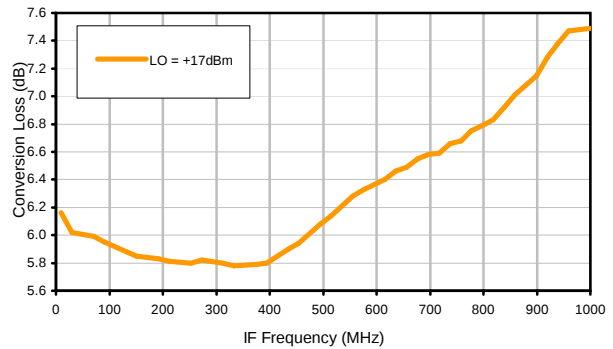
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Typical Performance Curves

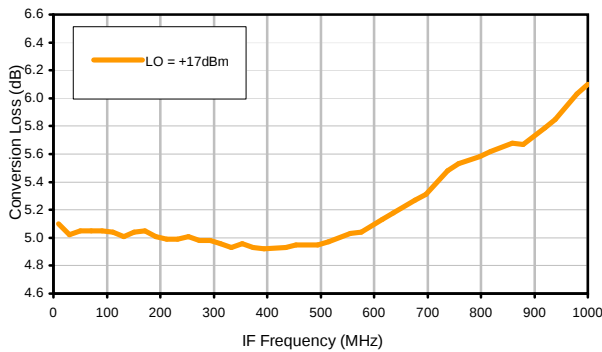
Conversion Loss @ IF=30MHz



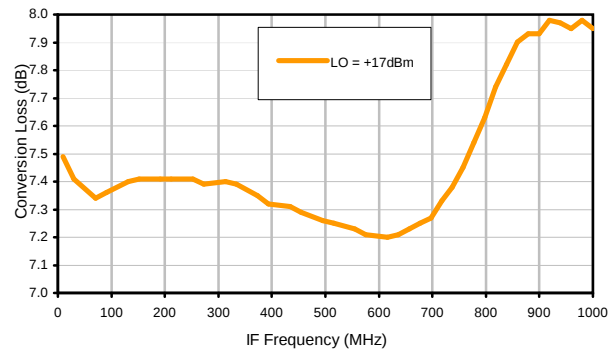
Conversion Loss vs. IF @ RF=1250.1MHz



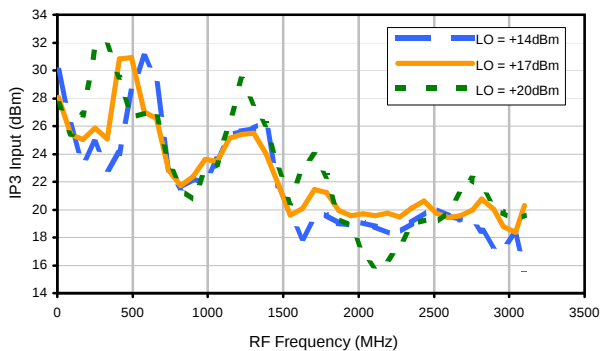
Conversion Loss vs. IF @ RF=10.1MHz



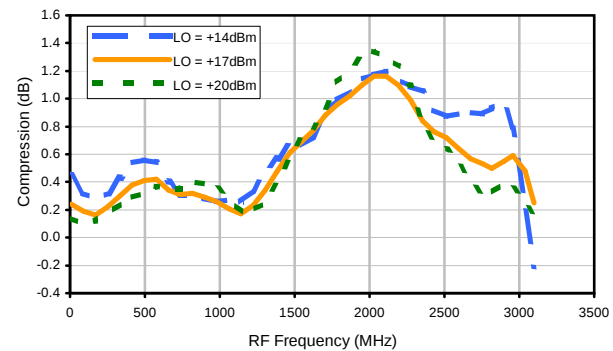
Conversion Loss vs. IF @ RF=2500.1MHz



IP3 Input

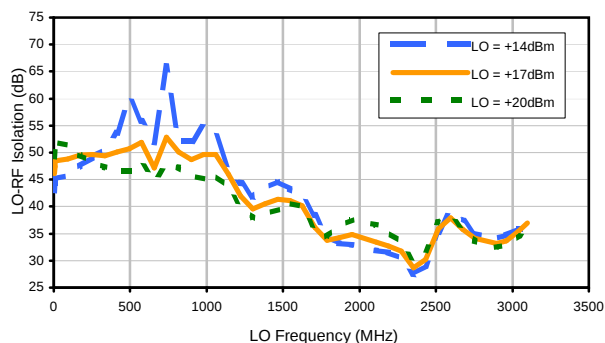


Compression @ RF IN=+10dBm

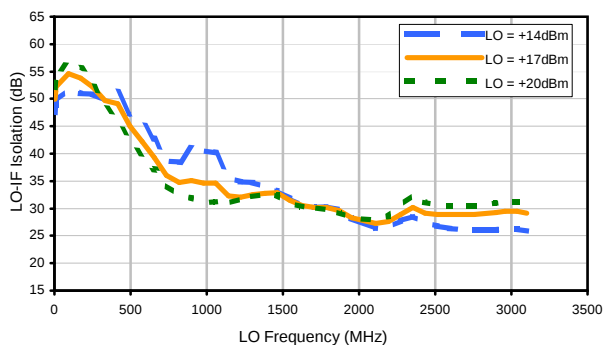


Typical Performance Curves

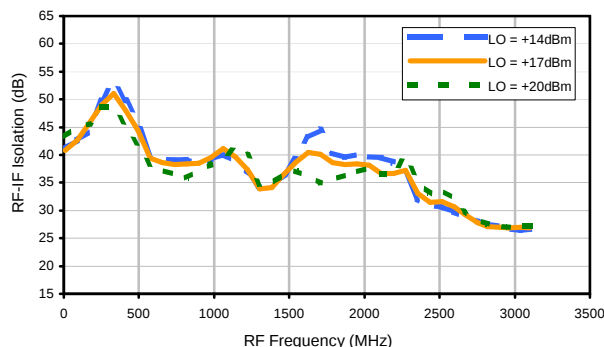
LO-RF Isolation



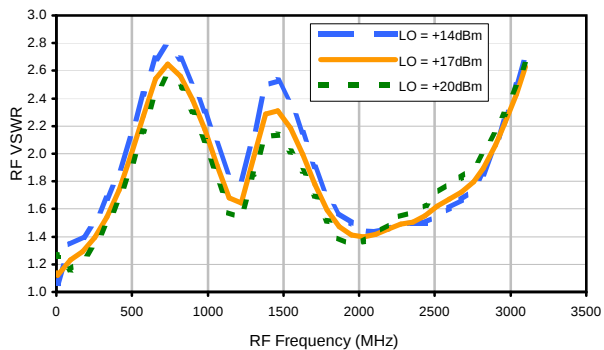
LO-IF Isolation



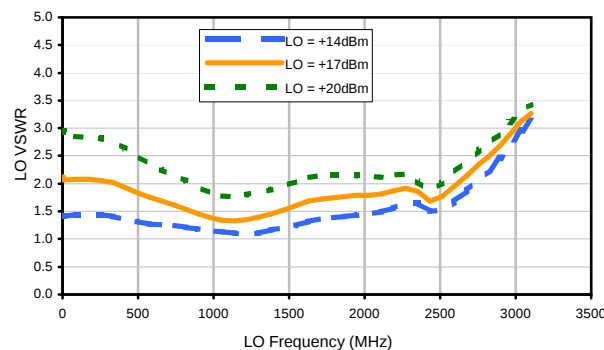
RF-IF Isolation



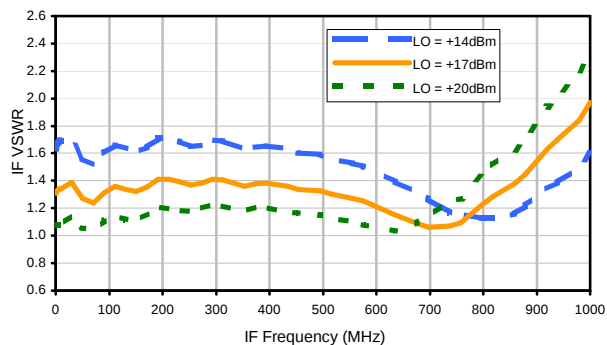
RF VSWR



LO VSWR



IF VSWR



Harmonics Tables

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	5	13	15	24	17	25	34	24	38	40
1	-	35	+0	34	15	45	39	42	40	55	34	44
2	>100	57	68	61	61	59	65	73	61	70	65	62
3	>100	>89	71	>89	68	86	71	>89	87	84	82	85
4	>100	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89
5	>100	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89
6	>100	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89
7	>100	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89
8	>100	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89
9	>100	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89
10	>100	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

LO HARMONICS ORDER

Test conditions: RF IN: 1250.1 MHz; -5.00 dBm.
LO IN: 1280.01 MHz; +17.00 dBm
IF OUT: 29.91 MHz; -11.18 dBm

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	15	22	25	34	27	37	48	37	49	56
1	-	37	+0	36	15	46	40	44	42	65	38	50
2	89	48	53	54	50	51	54	62	51	60	57	53
3	>100	75	51	71	48	66	52	73	68	65	63	68
4	>100	97	80	72	72	68	77	70	86	79	75	82
5	>100	93	>99	94	80	87	78	85	82	92	91	93
6	>100	>99	95	>99	97	95	94	90	90	91	98	>99
7	>100	>99	>99	>99	>99	>99	>99	94	92	95	97	>99
8	>100	>99	>99	>99	>99	>99	>99	>99	>99	93	>99	99
9	>100	>99	>99	>99	>99	>99	>99	>99	>99	>99	>99	>99
10	>100	>99	>99	>99	>99	>99	>99	>99	>99	>99	>99	>99
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

LO HARMONICS ORDER

Test conditions: RF IN: 1250.1 MHz; 5.00 dBm.
LO IN: 1280.01 MHz; +17.00 dBm
IF OUT: 29.91 MHz; -1.21 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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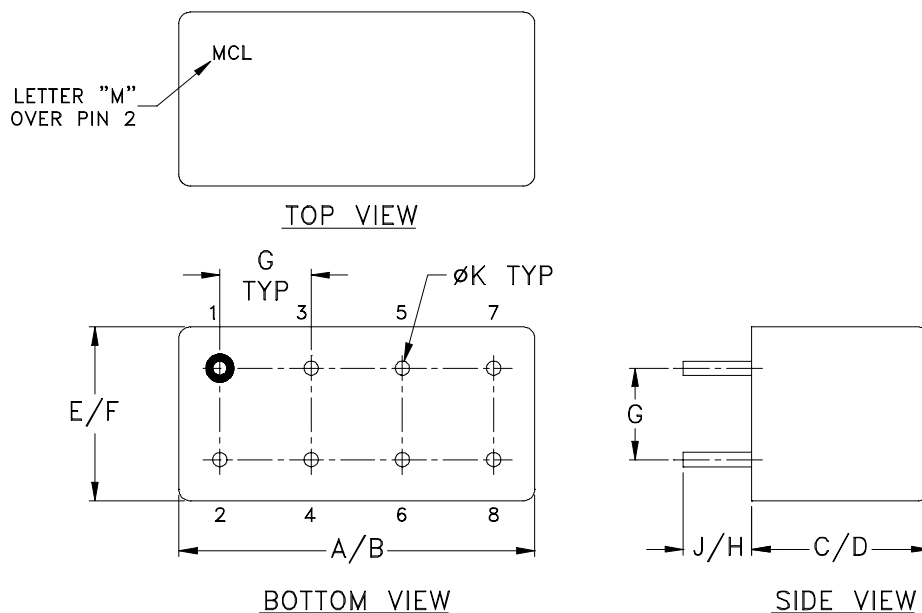
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A01
A04
A05
A06

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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