Non-Catalog Model

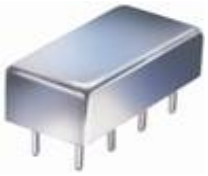
Frequency Mixer SBL-1LH

Level 10 (LO Power +10 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.

Please click "Back", and then click "Contact Us" for Applications support.



CASE STYLE : A06

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C					
Parameter		**Min.**	**Typ.**	**Max.**	**Units**
Frequency	**LO** (fL to fU)	2		500	MHz
	RF (fL to fU)	2		500	MHz
	IF	0		500	MHz
Conversion Loss	**mid band**		5.8	7.0	dB
	Total Range			8.0	dB
LO-RF Isolation	**Low Range**	45	75		dB
	Mid Range	35	68		dB
	Upper Range	25	56		dB
LO-IF Isolation	**Low Range**	35	61		dB
	Mid Range	25	45		dB
	Upper Range	20	36		dB
1 dB Comp. Input Power			+5		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]

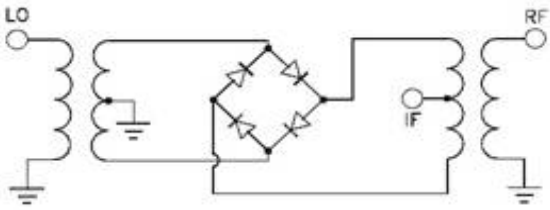
Non-hermetic

MAXIMUM RATINGS	
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
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



Frequency Mixer SBL-1LH

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	CONVERSION LOSS IF FIXED @IF(OUT)=30MHz (dB) @LO (dBm)		
		+7	+10	+13
2.0	32.0	7.08	6.68	6.47
4.0	34.0	6.44	5.99	5.80
5.0	35.0	6.33	5.91	5.68
10.0	40.0	6.07	5.67	5.46
29.9	59.9	5.66	5.37	5.22
49.7	79.7	5.60	5.41	5.26
69.4	99.4	5.58	5.40	5.26
89.2	119.2	5.57	5.39	5.28
109.0	139.0	5.58	5.40	5.28
128.8	158.8	5.56	5.40	5.31
148.5	178.5	5.57	5.41	5.30
188.1	218.1	5.57	5.44	5.32
207.9	237.9	5.59	5.44	5.33
227.7	257.7	5.67	5.49	5.41
247.4	277.4	5.77	5.59	5.44
267.2	297.2	5.86	5.63	5.43
287.0	317.0	5.94	5.72	5.52
306.8	336.8	5.98	5.83	5.67
326.5	356.5	6.03	5.87	5.76
346.3	376.3	6.03	5.94	5.81
366.1	396.1	6.13	5.99	5.89
385.9	415.9	6.21	6.07	6.01
445.2	475.2	6.86	6.56	6.35
465.0	495.0	7.10	6.75	6.38
484.8	514.8	7.34	7.01	6.49
504.5	534.5	7.60	7.30	6.82
524.3	554.3	7.80	7.52	7.09
544.1	574.1	7.93	7.63	7.20
583.7	613.7	8.35	7.88	7.32
603.4	633.4	8.49	7.85	7.25
643.0	673.0	8.52	7.72	7.11
662.8	692.8	8.35	7.55	7.06
702.3	732.3	8.13	7.53	7.16
722.1	752.1	8.09	7.61	7.34
761.7	791.7	8.28	8.00	7.81
781.4	811.4	8.55	8.26	8.09
821.0	851.0	8.98	8.69	8.50
840.8	870.8	9.19	8.90	8.73
880.3	910.3	9.72	9.43	9.26
900.1	930.1	10.06	9.80	9.66

RF (IN) (MHz)	LO (MHz)	IP3 INPUT (dBm) @LO (dBm)		
		+7	+10	+13
10.1	40.1	18.62	20.30	21.08
29.9	59.9	21.35	21.16	22.26
49.7	79.7	21.10	20.87	21.47
69.4	99.4	20.69	19.51	23.23
89.2	119.2	18.94	20.72	26.62
109.0	139.0	18.97	21.99	21.75
128.8	158.8	19.22	30.69	18.81
148.5	178.5	18.30	24.81	18.12
168.3	198.3	16.74	26.35	19.46
188.1	218.1	18.65	22.51	17.62
207.9	237.9	17.14	14.23	13.84
227.7	257.7	14.39	12.09	11.45
247.4	277.4	14.76	13.05	13.06
267.2	297.2	22.85	17.39	18.19
287.0	317.0	20.61	21.42	21.19
306.8	336.8	25.28	17.19	16.84
326.5	356.5	16.50	14.50	13.96
346.3	376.3	14.22	13.03	13.02
366.1	396.1	12.86	11.88	12.86
385.9	415.9	11.91	12.24	13.85
405.7	435.7	12.93	13.19	14.14
425.4	455.4	10.58	12.67	14.27
445.2	475.2	8.63	12.02	14.38
465.0	495.0	5.66	8.49	12.66
484.8	514.8	4.30	6.06	10.04
504.5	534.5	3.40	4.27	6.78
524.3	554.3	2.92	3.46	4.98
544.1	574.1	2.89	3.29	4.33
583.7	613.7	3.60	4.30	5.57
603.4	633.4	4.48	5.68	7.24
643.0	673.0	7.53	10.21	13.30
662.8	692.8	9.40	12.32	15.99
702.3	732.3	12.68	14.72	18.40
722.1	752.1	12.02	14.08	17.07
761.7	791.7	12.42	14.50	17.15
781.4	811.4	12.11	14.17	16.29
821.0	851.0	11.19	12.92	15.31
840.8	870.8	11.01	12.20	14.12
880.3	910.3	10.81	11.62	12.85
900.1	930.1	11.12	12.16	13.51

RF (IN) (MHz)	LO (MHz)	COMPRESSION @RF IN=+5dBm (dB) @LO (dBm)		
		+7	+10	+13
10.1	40.1	1.59	1.18	0.84
29.9	59.9	1.41	1.11	0.78
49.7	79.7	1.46	1.11	0.78
69.4	99.4	1.44	0.98	0.76
89.2	119.2	1.38	0.96	0.69
109.0	139.0	1.26	0.88	0.61
128.8	158.8	1.26	0.90	0.66
148.5	178.5	1.29	0.87	0.63
168.3	198.3	1.15	0.81	0.58
188.1	218.1	1.14	0.81	0.60
207.9	237.9	1.09	0.79	0.60
227.7	257.7	1.03	0.79	0.61
247.4	277.4	1.01	0.72	0.56
267.2	297.2	0.99	0.74	0.54
287.0	317.0	1.03	0.78	0.58
306.8	336.8	1.15	0.85	0.66
326.5	356.5	1.35	1.03	0.81
346.3	376.3	1.53	1.14	0.89
366.1	396.1	1.68	1.24	0.92
385.9	415.9	1.91	1.34	0.99
405.7	435.7	2.14	1.46	1.12
425.4	455.4	2.41	1.74	1.31
445.2	475.2	2.44	1.89	1.42
465.0	495.0	2.60	2.07	1.66
484.8	514.8	2.63	2.15	1.81
504.5	534.5	2.70	2.24	1.92
524.3	554.3	2.59	2.18	1.84
544.1	574.1	2.53	2.10	1.80
583.7	613.7	2.12	1.84	1.59
603.4	633.4	2.04	1.83	1.63
643.0	673.0	1.91	1.79	1.58
662.8	692.8	2.00	1.84	1.59
702.3	732.3	2.15	1.83	1.53
722.1	752.1	2.11	1.72	1.39
761.7	791.7	1.92	1.45	1.11
781.4	811.4	1.82	1.32	1.00
821.0	851.0	1.76	1.34	1.04
840.8	870.8	1.75	1.32	1.04
880.3	910.3	1.77	1.32	1.06
900.1	930.1	1.70	1.24	1.01

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Typical Performance Data

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=250.1MHz (dB) @LO (dBm) +10
240.0	10.1	5.79
234.1	16.0	5.74
228.2	21.9	5.64
222.3	27.8	5.60
216.4	33.7	5.56
210.5	39.6	5.52
204.6	45.5	5.51
198.7	51.4	5.46
192.8	57.3	5.41
186.9	63.2	5.38
181.0	69.1	5.42
175.1	75.0	5.43
169.2	80.9	5.40
163.3	86.8	5.39
157.4	92.7	5.38
151.5	98.6	5.38
145.6	104.5	5.41
139.7	110.4	5.41
133.8	116.3	5.38
127.9	122.2	5.35
122.1	128.0	5.38
116.2	133.9	5.40
110.3	139.8	5.41
104.4	145.7	5.40
98.5	151.6	5.40
92.6	157.5	5.42
86.7	163.4	5.43
80.8	169.3	5.46
74.9	175.2	5.46
69.0	181.1	5.43
63.1	187.0	5.41
57.2	192.9	5.41
51.3	198.8	5.41
45.4	204.7	5.44
39.5	210.6	5.46
33.6	216.5	5.47
27.7	222.4	5.49
21.8	228.3	5.51
15.9	234.2	5.53
10.0	240.1	5.66

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=10.1MHz (dB) @LO (dBm) +10
10.0	20.1	5.24
22.3	32.4	5.14
34.6	44.7	5.14
46.9	57.0	5.13
59.2	69.3	5.16
71.5	81.6	5.18
83.8	93.9	5.20
96.2	106.3	5.20
108.5	118.6	5.21
120.8	130.9	5.22
133.1	143.2	5.24
145.4	155.5	5.31
157.7	167.8	5.34
170.0	180.1	5.33
182.3	192.4	5.38
194.6	204.7	5.40
206.9	217.0	5.41
219.2	229.3	5.47
231.5	241.6	5.47
243.8	253.9	5.47
256.2	266.3	5.51
268.5	278.6	5.44
280.8	290.9	5.45
293.1	303.2	5.56
305.4	315.5	5.71
317.7	327.8	5.98
330.0	340.1	6.12
342.3	352.4	6.24
354.6	364.7	6.40
366.9	377.0	6.39
379.2	389.3	6.35
391.5	401.6	6.21
403.8	413.9	6.05
416.2	426.3	6.04
428.5	438.6	5.98
440.8	450.9	5.97
453.1	463.2	5.93
465.4	475.5	5.87
477.7	487.8	5.90
490.0	500.1	5.92

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=500.1MHz (dB) @LO (dBm) +10
490.0	10.1	7.45
477.7	22.4	7.29
465.4	34.7	7.19
453.1	47.0	7.12
440.8	59.3	7.13
428.5	71.6	7.00
416.2	83.9	6.92
403.8	96.3	6.85
391.5	108.6	6.79
379.2	120.9	6.83
366.9	133.2	6.86
354.6	145.5	6.76
342.3	157.8	6.74
330.0	170.1	6.70
317.7	182.4	6.71
305.4	194.7	6.76
293.1	207.0	6.74
280.8	219.3	6.76
268.5	231.6	6.78
256.2	243.9	6.78
243.8	256.3	6.91
231.5	268.6	6.91
219.2	280.9	6.88
206.9	293.2	6.90
194.6	305.5	6.84
182.3	317.8	6.79
170.0	330.1	6.77
157.7	342.4	6.73
145.4	354.7	6.76
133.1	367.0	6.78
120.8	379.3	6.74
108.5	391.6	6.74
96.2	403.9	6.72
83.8	416.3	6.65
71.5	428.6	6.62
59.2	440.9	6.57
46.9	453.2	6.53
34.6	465.5	6.57
22.3	477.8	6.64
10.0	490.1	6.85

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Typical Performance Data

LO (MHz)	LO-RF ISOLATION (dB) @LO (dBm)			LO-IF ISOLATION (dB) @LO (dBm)		
	+7	+10	+13	+7	+10	+13
2.0	54.70	56.27	57.70	58.13	61.48	64.77
4.0	53.93	55.49	56.87	58.13	61.08	63.47
5.0	53.83	55.45	56.81	58.22	60.78	62.56
10.0	53.50	55.36	56.81	57.55	59.10	60.35
29.9	66.49	67.58	67.91	54.91	56.49	55.61
49.7	62.40	63.45	64.36	53.70	55.29	55.08
69.4	59.37	60.72	62.07	52.94	53.67	54.47
89.2	57.15	58.64	59.89	51.86	52.74	54.06
109.0	55.88	57.32	58.31	50.54	52.32	53.60
128.8	54.78	56.55	57.78	49.67	51.52	53.07
148.5	53.47	54.93	56.00	48.48	50.64	52.60
188.1	51.65	53.06	54.33	47.25	49.40	51.39
207.9	50.72	52.07	53.11	46.68	48.85	50.73
227.7	50.40	51.85	53.07	45.98	48.40	50.09
247.4	49.81	51.20	52.28	45.63	47.94	49.63
267.2	49.57	51.01	52.17	45.14	47.00	48.38
287.0	49.23	50.79	52.17	45.46	47.39	48.36
306.8	48.18	49.94	51.70	45.38	47.35	47.73
326.5	47.71	49.24	50.72	44.18	45.33	45.79
346.3	47.34	49.15	50.88	42.80	43.64	44.04
366.1	46.27	48.03	49.73	41.22	41.54	41.70
385.9	45.54	47.68	50.09	42.26	41.48	40.68
425.4	46.32	49.06	51.13	40.44	38.17	37.04
445.2	47.23	50.87	53.36	42.41	38.57	36.75
465.0	46.71	49.47	51.28	44.04	39.67	37.10
484.8	47.14	51.35	54.48	44.05	39.89	36.76
504.5	47.92	52.12	54.38	44.26	40.47	36.42
524.3	47.43	52.28	61.35	41.97	39.94	36.45
544.1	47.56	52.51	57.91	39.46	38.25	36.06
583.7	49.02	52.35	49.90	37.82	36.75	35.18
603.4	49.85	55.37	52.82	36.69	35.75	34.15
643.0	51.64	49.57	44.45	35.21	34.13	31.09
662.8	52.92	45.07	40.25	34.03	32.49	28.72
702.3	51.41	41.53	37.85	31.47	28.44	25.69
722.1	47.66	40.05	37.06	30.02	27.35	25.07
781.4	41.99	37.12	34.23	26.08	24.72	22.99
821.0	37.58	34.66	32.14	23.79	23.15	21.72
840.8	34.92	32.94	30.78	22.81	22.49	21.15
880.3	31.88	30.94	29.21	21.30	21.25	20.16
900.1	30.45	29.82	28.31	20.59	20.70	19.74

RF (IN) (MHz)	LO (MHz)	RF-IF ISOLATION (dB) @LO (dBm)		
		+7	+10	+13
10.1	40.1	45.67	47.49	44.62
29.9	59.9	38.95	38.70	39.22
49.7	79.7	34.93	35.32	35.39
69.4	99.4	32.54	32.58	33.08
89.2	119.2	31.12	31.25	31.19
109.0	139.0	29.90	30.07	30.29
128.8	158.8	28.95	29.34	29.51
148.5	178.5	28.56	28.68	28.93
168.3	198.3	28.73	28.93	29.05
188.1	218.1	28.65	29.35	30.03
207.9	237.9	27.60	28.38	29.25
227.7	257.7	27.07	27.56	27.69
247.4	277.4	26.35	26.57	26.86
267.2	297.2	26.00	26.20	26.35
287.0	317.0	26.32	26.37	26.86
306.8	336.8	25.44	25.74	26.13
326.5	356.5	24.63	24.87	25.08
346.3	376.3	23.07	23.20	23.41
366.1	396.1	21.53	21.70	21.77
385.9	415.9	20.40	20.50	20.58
405.7	435.7	19.17	19.18	19.18
425.4	455.4	18.58	18.58	18.53
445.2	475.2	17.98	17.80	17.74
465.0	495.0	17.57	17.47	17.29
484.8	514.8	17.33	17.22	17.15
504.5	534.5	16.98	16.94	16.82
524.3	554.3	17.09	16.95	16.97
544.1	574.1	17.00	16.89	16.87
583.7	613.7	17.57	17.56	17.50
603.4	633.4	17.72	17.67	17.58
643.0	673.0	17.12	16.69	16.21
662.8	692.8	16.46	15.94	15.43
702.3	732.3	14.82	14.32	13.92
722.1	752.1	14.11	13.65	13.28
761.7	791.7	12.83	12.43	12.07
781.4	811.4	12.21	11.83	11.52
821.0	851.0	11.07	10.65	10.33
840.8	870.8	10.54	10.11	9.79
880.3	910.3	9.53	9.15	8.86
900.1	930.1	9.10	8.70	8.43

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Typical Performance Data

RF (IN) (MHz)	LO (MHz)	RF VSWR (:1) @LO (dBm) +7	+10	+13
2.0	32.0	1.61	1.65	1.69
4.5	34.5	1.32	1.36	1.40
10.1	40.1	1.21	1.14	1.12
29.9	59.9	1.21	1.10	1.06
49.7	79.7	1.17	1.08	1.03
69.4	99.4	1.13	1.06	1.04
89.2	119.2	1.12	1.05	1.04
109.0	139.0	1.08	1.04	1.07
128.8	158.8	1.08	1.07	1.09
148.5	178.5	1.08	1.08	1.12
168.3	198.3	1.08	1.11	1.15
188.1	218.1	1.10	1.16	1.22
207.9	237.9	1.14	1.19	1.25
227.7	257.7	1.16	1.20	1.24
247.4	277.4	1.17	1.22	1.26
267.2	297.2	1.18	1.25	1.31
287.0	317.0	1.19	1.28	1.35
306.8	336.8	1.25	1.33	1.40
326.5	356.5	1.32	1.40	1.46
346.3	376.3	1.41	1.50	1.57
366.1	396.1	1.50	1.60	1.68
385.9	415.9	1.58	1.69	1.74
405.7	435.7	1.62	1.71	1.75
425.4	455.4	1.58	1.68	1.70
445.2	475.2	1.54	1.63	1.65
465.0	495.0	1.50	1.56	1.56
484.8	514.8	1.46	1.50	1.49
504.5	534.5	1.44	1.46	1.44
524.3	554.3	1.39	1.40	1.38
544.1	574.1	1.33	1.33	1.31
583.7	613.7	1.18	1.13	1.07
603.4	633.4	1.19	1.12	1.08
643.0	673.0	1.37	1.36	1.37
662.8	692.8	1.48	1.49	1.51
702.3	732.3	1.70	1.73	1.76
722.1	752.1	1.81	1.85	1.89
761.7	791.7	2.08	2.11	2.14
781.4	811.4	2.20	2.23	2.25
821.0	851.0	2.38	2.38	2.38
840.8	870.8	2.44	2.44	2.42
880.3	910.3	2.54	2.52	2.49
900.1	930.1	2.61	2.57	2.54

LO (MHz)	LO VSWR (:1) @LO (dBm) +7	+10	+13
2.0	1.63	2.08	2.67
4.5	1.48	1.99	2.60
10.1	1.56	2.23	3.12
29.9	1.66	2.42	3.38
49.7	1.63	2.36	3.26
69.4	1.56	2.21	3.01
89.2	1.55	2.18	2.97
109.0	1.60	2.28	3.10
128.8	1.64	2.35	3.20
148.5	1.63	2.32	3.12
168.3	1.62	2.26	3.04
188.1	1.64	2.30	3.07
207.9	1.70	2.39	3.20
227.7	1.76	2.46	3.27
247.4	1.76	2.44	3.23
267.2	1.77	2.43	3.20
287.0	1.82	2.48	3.27
306.8	1.89	2.59	3.39
326.5	1.95	2.66	3.47
346.3	1.96	2.66	3.45
366.1	1.98	2.67	3.45
385.9	2.03	2.73	3.53
405.7	2.10	2.80	3.62
425.4	2.15	2.84	3.65
445.2	2.20	2.87	3.65
465.0	2.28	2.94	3.71
484.8	2.38	3.07	3.85
504.5	2.47	3.19	3.98
524.3	2.52	3.25	4.04
544.1	2.54	3.27	4.06
583.7	2.67	3.41	4.23
603.4	2.73	3.48	4.30
643.0	2.76	3.48	4.28
662.8	2.80	3.51	4.30
702.3	2.88	3.58	4.38
722.1	2.88	3.58	4.37
761.7	2.97	3.65	4.44
781.4	3.08	3.75	4.53
821.0	3.28	3.89	4.62
840.8	3.40	3.97	4.68
880.3	3.69	4.18	4.83
900.1	3.84	4.29	4.89

IF (OUT) (MHz)	IF VSWR @LO=500.1MHz (:1) @LO (dBm) +7	+10	+13
2.0	1.61	1.45	1.32
4.5	1.62	1.45	1.32
10.0	2.66	2.14	1.71
22.6	2.65	2.14	1.75
35.1	2.54	2.10	1.73
47.7	2.51	2.09	1.77
60.3	2.52	2.13	1.81
72.8	2.57	2.16	1.84
85.4	2.60	2.18	1.85
97.9	2.63	2.18	1.85
110.5	2.69	2.23	1.88
123.1	2.73	2.28	1.94
135.6	2.76	2.33	2.00
148.2	2.76	2.35	2.04
160.8	2.74	2.34	2.05
173.3	2.75	2.36	2.06
185.9	2.84	2.42	2.10
198.5	2.93	2.48	2.15
211.0	2.95	2.52	2.20
223.6	2.92	2.49	2.20
236.2	2.88	2.48	2.20
248.7	2.89	2.50	2.23
261.3	2.95	2.56	2.28
273.8	3.02	2.62	2.32
286.4	3.02	2.63	2.33
299.0	3.00	2.60	2.31
311.5	3.00	2.58	2.29
324.1	3.06	2.63	2.34
336.7	3.09	2.69	2.41
349.2	3.09	2.69	2.42
361.8	3.05	2.66	2.39
374.4	3.05	2.65	2.36
386.9	3.06	2.65	2.36
399.5	3.13	2.68	2.38
412.1	3.19	2.73	2.43
424.6	3.12	2.69	2.41
437.2	3.07	2.63	2.36
449.7	3.09	2.64	2.35
462.3	3.13	2.68	2.40
474.9	3.13	2.69	2.40
487.4	3.14	2.68	2.39
500.0	2.65	2.43	2.35

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Harmonics Tables

RF HARMONICS ORDER	(-dBm)	(-dBc)										
0	-	-	32	34	25	42	34	47	61	61	57	77
1	-	24	+0	34	12	34	23	42	37	51	48	51
2	92	67	49	62	48	59	48	64	60	61	63	77
3	>100	50	35	49	41	54	34	49	43	50	52	57
4	>100	74	62	92	59	82	58	71	53	68	70	77
5	>100	69	63	72	50	71	48	74	49	61	62	66
6	>100	91	74	78	85	78	72	79	68	94	67	81
7	>100	83	73	77	65	74	61	84	60	76	55	68
8	>100	>94	91	>94	85	87	85	>94	79	92	75	83
9	>100	84	84	94	78	84	79	90	73	81	70	88
10	>100	>94	>94	>94	94	>94	>94	>94	91	>94	79	93
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

LO HARMONICS ORDER

Test conditions:
RF IN: 250.1 MHz; 0.00 dBm.
LO IN: 280.01 MHz; +10.00 dBm
IF OUT: 29.91 MHz; -5.7 dBm

RF HARMONICS ORDER	(-dBm)	(-dBc)										
0	-	-	22	23	14	31	23	34	43	48	40	53
1	-	23	+0	34	11	33	21	37	37	43	38	39
2	>100	70	54	67	53	64	49	63	60	68	68	73
3	>100	72	56	69	59	81	55	73	66	74	62	>84
4	>100	>84	>84	>84	>84	>84	>84	>84	78	>84	>84	>84
5	>100	>84	82	>84	80	>84	78	>84	77	>84	82	>84
6	>100	>84	>84	>84	>84	>84	>84	>84	>84	>84	>84	>84
7	>100	>84	>84	>84	>84	>84	>84	83	>84	>84	>84	>84
8	>100	>84	>84	>84	>84	>84	>84	>84	79	>84	>84	>84
9	>100	>84	>84	>84	>84	>84	>84	>84	>84	72	>84	>84
10	>100	>84	>84	>84	>84	>84	>84	>84	>84	>84	76	>84
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

LO HARMONICS ORDER

Test conditions:
RF IN: 250.1 MHz; -10.00 dBm.
LO IN: 280.01 MHz; +10.00 dBm
IF OUT: 29.91 MHz; -15.62 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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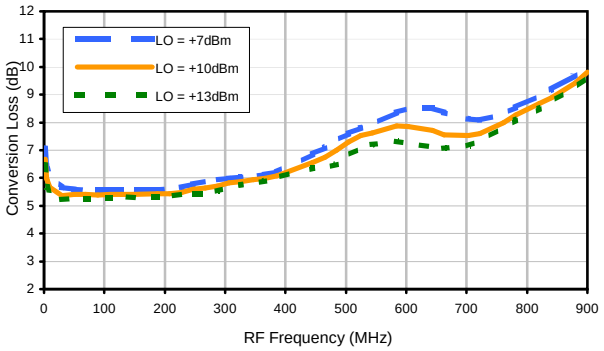
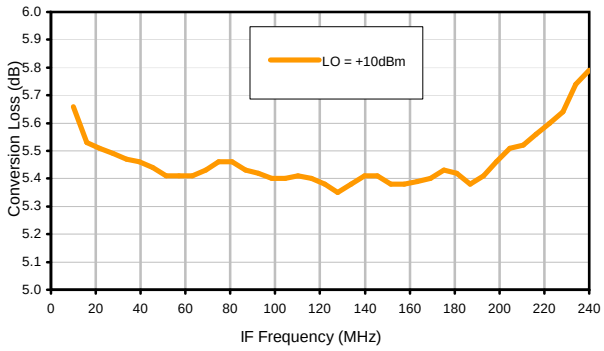
Typical Performance Curves

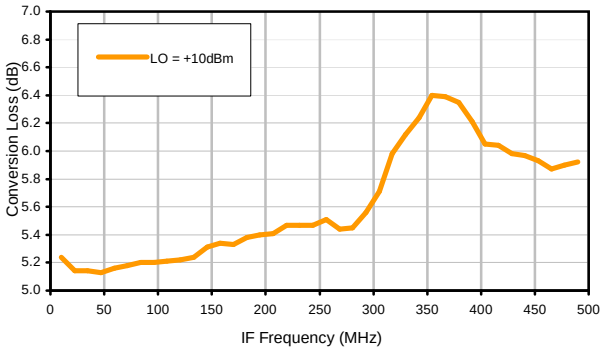
Conversion Loss @ IF=30MHz



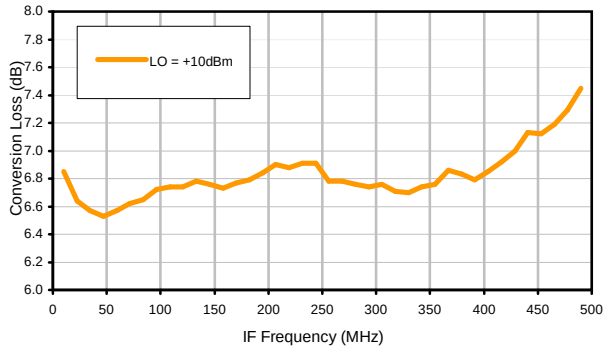
Conversion Loss vs. IF @ RF=250.1MHz



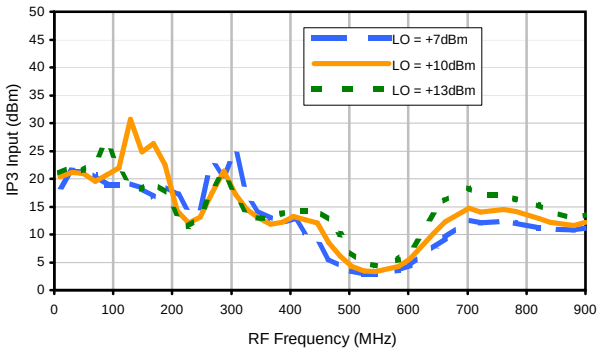
Conversion Loss vs. IF @ RF=10.1MHz



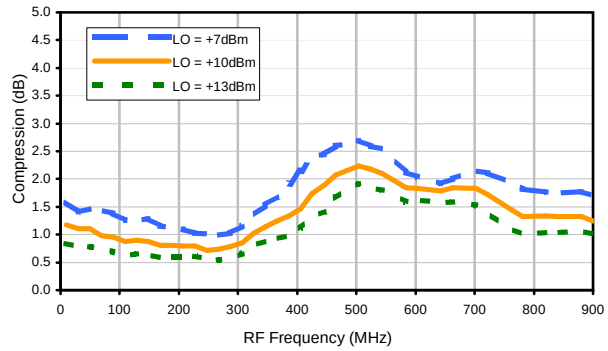
Conversion Loss vs. IF @ RF=500.1MHz



IP3 Input



Compression @ RF IN=+5dBm



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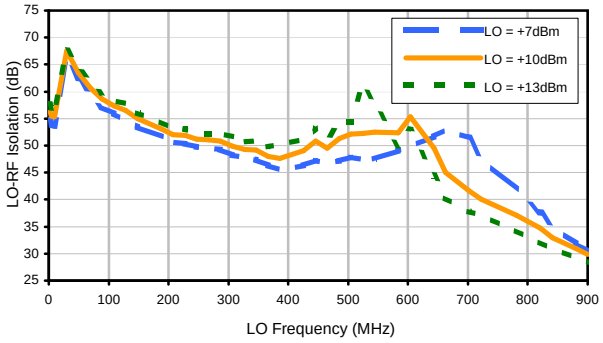
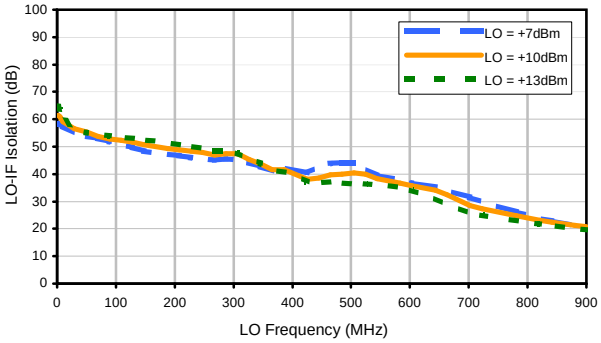
Typical Performance Curves

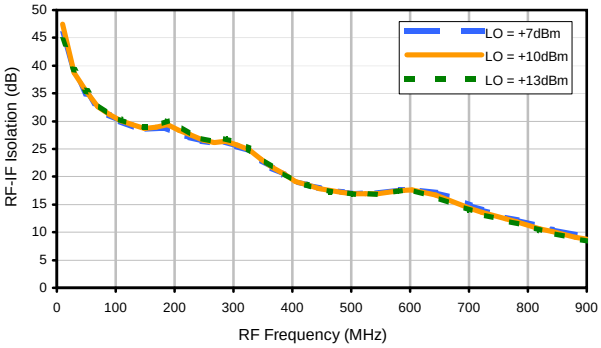
LO-RF Isolation



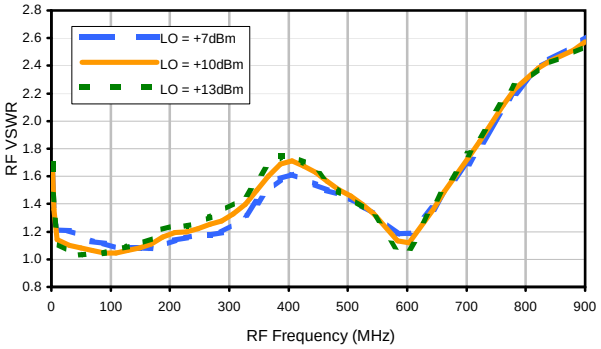
LO-IF Isolation



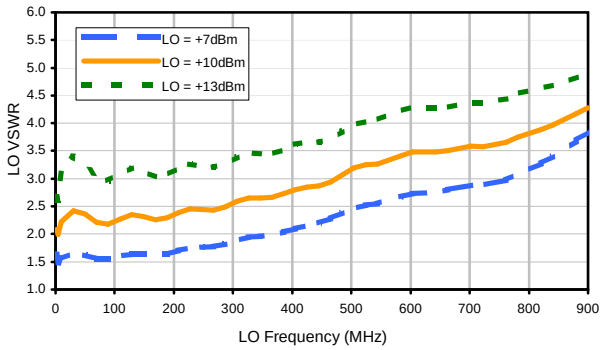
RF-IF Isolation



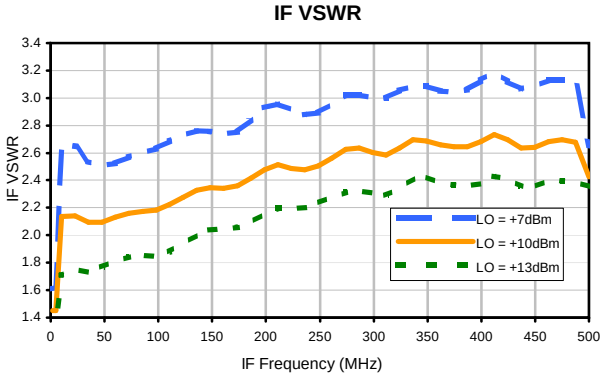
RF VSWR



LO VSWR



IF VSWR



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Harmonics Tables

RF HARMONICS ORDER	(-dBm)	(-dBc)										
0	-	-	32	34	25	42	34	47	61	61	57	77
1	-	24	+0	34	12	34	23	42	37	51	48	51
2	92	67	49	62	48	59	48	64	60	61	63	77
3	>100	50	35	49	41	54	34	49	43	50	52	57
4	>100	74	62	92	59	82	58	71	53	68	70	77
5	>100	69	63	72	50	71	48	74	49	61	62	66
6	>100	91	74	78	85	78	72	79	68	94	67	81
7	>100	83	73	77	65	74	61	84	60	76	55	68
8	>100	>94	91	>94	85	87	85	>94	79	92	75	83
9	>100	84	84	94	78	84	79	90	73	81	70	88
10	>100	>94	>94	>94	94	>94	>94	>94	91	>94	79	93
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

LO HARMONICS ORDER

Test conditions:
RF IN: 250.1 MHz; 0.00 dBm.
LO IN: 280.01 MHz; +10.00 dBm
IF OUT: 29.91 MHz; -5.7 dBm

RF HARMONICS ORDER	(-dBm)	(-dBc)										
0	-	-	22	23	14	31	23	34	43	48	40	53
1	-	23	+0	34	11	33	21	37	37	43	38	39
2	>100	70	54	67	53	64	49	63	60	68	68	73
3	>100	72	56	69	59	81	55	73	66	74	62	>84
4	>100	>84	>84	>84	>84	>84	>84	>84	78	>84	>84	>84
5	>100	>84	82	>84	80	>84	78	>84	77	>84	82	>84
6	>100	>84	>84	>84	>84	>84	>84	>84	>84	>84	>84	>84
7	>100	>84	>84	>84	>84	>84	>84	83	>84	>84	>84	>84
8	>100	>84	>84	>84	>84	>84	>84	>84	79	>84	>84	>84
9	>100	>84	>84	>84	>84	>84	>84	>84	>84	72	>84	>84
10	>100	>84	>84	>84	>84	>84	>84	>84	>84	>84	76	>84
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

LO HARMONICS ORDER

Test conditions:
RF IN: 250.1 MHz; -10.00 dBm.
LO IN: 280.01 MHz; +10.00 dBm
IF OUT: 29.91 MHz; -15.62 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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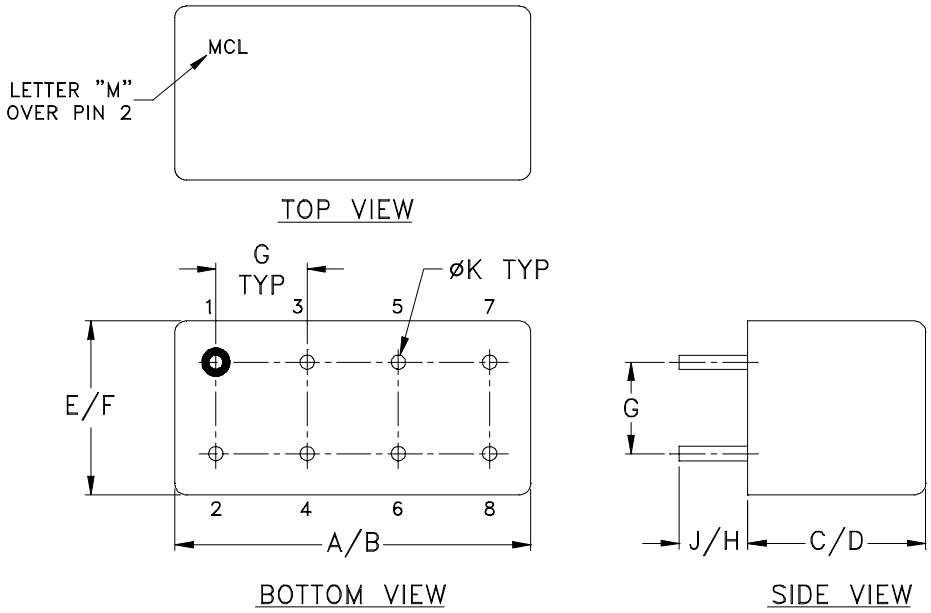
Case Style A

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. ± .03; 3 Pl. ± .015

Notes:

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

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