

Non-Catalog Model

Frequency Mixer

SAM-3

Level 7 (LO Power +7 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 : A03

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C					
Parameter		Min.	Typ.	Max.	Units
Frequency	LO (fL to fU)	0.1		500	MHz
	RF (fL to fU)	0.1		500	MHz
	IF	0		500	MHz
Conversion Loss	mid band		5.0	7.0	dB
	Total Range			8.5	dB
LO-RF Isolation	Low Range	50	60		dB
	Mid Range	35	50		dB
	Upper Range	30	35		dB
LO-IF Isolation	Low Range	40	50		dB
	Mid Range	30	45		dB
	Upper Range	20	30		dB
1 dB Comp. Input Power			+1		dBm

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

Mid Range = [10fL to fU/2]

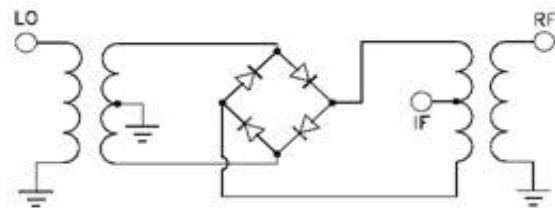
Upper Range = [fU/2 to fU]

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

SAM-3

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=+1dBm (dB)		
		@LO (dBm)					@LO (dBm)					@LO (dBm)		
+4	+7	+10	+4	+7	+10	+4	+7	+10						
0.1	30.1	6.00	5.74	5.57	10.0	40.0	24.13	26.63	21.52	10.0	40.0	0.94	0.66	0.51
0.2	30.2	5.45	5.22	5.09	29.8	59.8	25.80	19.86	22.54	29.8	59.8	1.14	0.81	0.65
0.5	30.5	5.20	4.98	4.85	49.6	79.6	18.88	19.17	24.55	49.6	79.6	1.20	0.84	0.63
1.0	31.0	5.12	4.89	4.76	69.3	99.3	21.39	26.50	20.20	69.3	99.3	1.14	0.79	0.60
2.0	32.0	5.08	4.86	4.74	89.1	119.1	20.14	24.27	21.21	89.1	119.1	1.06	0.77	0.56
5.0	35.0	5.03	4.82	4.72	108.9	138.9	19.99	23.41	24.68	108.9	138.9	1.03	0.73	0.54
10.0	40.0	5.09	4.86	4.72	128.7	158.7	26.38	22.79	20.57	128.7	158.7	0.98	0.74	0.55
29.8	59.8	5.26	4.97	4.86	148.5	178.5	20.14	19.15	24.58	148.5	178.5	1.00	0.73	0.51
69.3	99.3	5.20	5.01	4.87	168.2	198.2	20.77	21.77	23.17	168.2	198.2	0.95	0.70	0.51
89.1	119.1	5.17	5.00	4.89	188.0	218.0	20.27	19.14	19.41	188.0	218.0	0.97	0.67	0.51
108.9	138.9	5.23	5.01	4.93	207.8	237.8	19.25	17.70	19.25	207.8	237.8	0.94	0.69	0.49
128.7	158.7	5.24	5.00	4.92	227.6	257.6	21.99	18.98	22.95	227.6	257.6	0.94	0.68	0.53
148.5	178.5	5.23	5.04	4.95	247.4	277.4	19.41	26.39	23.58	247.4	277.4	0.86	0.65	0.48
188.0	218.0	5.26	5.05	5.01	267.1	297.1	19.14	19.91	20.94	267.1	297.1	0.92	0.70	0.53
207.8	237.8	5.25	5.05	4.99	286.9	316.9	18.65	19.12	20.15	286.9	316.9	1.00	0.75	0.58
227.6	257.6	5.37	5.18	5.02	306.7	336.7	18.83	17.41	17.29	306.7	336.7	1.09	0.80	0.62
247.4	277.4	5.45	5.22	5.05	326.5	356.5	16.78	16.63	20.43	326.5	356.5	1.21	0.93	0.73
267.1	297.1	5.52	5.31	5.12	346.3	376.3	17.66	18.56	20.85	346.3	376.3	1.39	0.99	0.73
306.7	336.7	5.58	5.38	5.25	366.0	396.0	19.18	19.00	21.15	366.0	396.0	1.58	1.08	0.83
326.5	356.5	5.62	5.44	5.29	385.8	415.8	16.44	19.29	26.26	385.8	415.8	1.65	1.21	0.88
346.3	376.3	5.65	5.41	5.31	405.6	435.6	12.75	16.75	19.65	405.6	435.6	1.77	1.39	1.03
366.0	396.0	5.76	5.51	5.38	425.4	455.4	10.20	13.78	17.51	425.4	455.4	1.86	1.54	1.18
385.8	415.8	5.85	5.64	5.48	445.2	475.2	8.77	11.29	15.13	445.2	475.2	1.86	1.60	1.27
425.4	455.4	6.30	5.86	5.55	464.9	494.9	8.73	10.21	12.91	464.9	494.9	1.92	1.61	1.32
445.2	475.2	6.59	6.18	5.73	484.7	514.7	8.79	9.85	12.44	484.7	514.7	1.81	1.54	1.30
464.9	494.9	6.78	6.37	5.90	504.5	534.5	9.26	10.26	11.82	504.5	534.5	1.69	1.47	1.28
484.7	514.7	7.04	6.55	6.11	524.3	554.3	9.94	11.12	12.62	524.3	554.3	1.63	1.40	1.23
504.5	534.5	7.29	6.82	6.40	544.1	574.1	12.64	13.38	14.32	544.1	574.1	1.63	1.42	1.23
544.1	574.1	7.44	6.89	6.46	583.6	613.6	16.47	24.87	23.42	583.6	613.6	1.56	1.36	1.16
583.6	613.6	7.45	6.85	6.37	603.4	633.4	19.27	25.60	24.52	603.4	633.4	1.62	1.40	1.15
603.4	633.4	7.39	6.80	6.37	643.0	673.0	22.85	22.70	24.59	643.0	673.0	1.66	1.39	1.12
643.0	673.0	7.45	6.84	6.55	662.7	692.7	21.30	22.57	22.89	662.7	692.7	1.65	1.34	1.10
662.7	692.7	7.42	6.95	6.63	702.3	732.3	18.66	18.34	19.56	702.3	732.3	1.58	1.28	1.09
722.1	752.1	7.82	7.37	7.16	722.1	752.1	17.41	19.40	19.40	722.1	752.1	1.54	1.25	1.06
761.6	791.6	8.33	7.97	7.80	761.6	791.6	16.05	18.00	16.45	761.6	791.6	1.35	1.03	0.92
781.4	811.4	8.65	8.36	8.19	781.4	811.4	15.90	15.84	15.73	781.4	811.4	1.23	0.90	0.78
821.0	851.0	9.47	9.11	8.95	821.0	851.0	17.18	19.37	18.73	821.0	851.0	1.26	0.89	0.72
840.8	870.8	9.69	9.35	9.23	840.8	870.8	17.31	17.87	21.48	840.8	870.8	1.19	0.84	0.72
880.3	910.3	10.52	10.10	9.93	880.3	910.3	15.17	18.34	18.91	880.3	910.3	1.27	0.78	0.65
900.1	930.1	11.07	10.64	10.43	900.1	930.1	19.60	17.31	18.92	900.1	930.1	1.23	0.81	0.60

REV. X2

SAM-3

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IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS 9100 CERTIFIED • RoHS compliant

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Typical Performance Data

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=250.1MHz (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)=500.1MHz (dB)
		@LO (dBm)			@LO (dBm)			@LO (dBm)
		+7			+7			+7
240.0	10.1	5.38	10.0	20.1	4.93	490.0	10.1	6.56
234.1	16.0	5.32	22.3	32.4	4.76	477.7	22.4	6.46
228.2	21.9	5.25	34.6	44.7	4.78	465.4	34.7	6.42
222.3	27.8	5.21	46.9	57.0	4.78	453.1	47.0	6.40
216.4	33.7	5.20	59.2	69.3	4.82	440.8	59.3	6.46
210.5	39.6	5.17	71.5	81.6	4.86	428.5	71.6	6.40
204.6	45.5	5.17	83.8	93.9	4.87	416.2	83.9	6.34
198.7	51.4	5.14	96.2	106.3	4.87	403.8	96.3	6.33
192.8	57.3	5.10	108.5	118.6	4.89	391.5	108.6	6.28
186.9	63.2	5.09	120.8	130.9	4.88	379.2	120.9	6.32
181.0	69.1	5.10	133.1	143.2	4.89	366.9	133.2	6.35
175.1	75.0	5.13	145.4	155.5	4.92	354.6	145.5	6.30
169.2	80.9	5.12	157.7	167.8	4.98	342.3	157.8	6.30
163.3	86.8	5.10	170.0	180.1	4.99	330.0	170.1	6.31
157.4	92.7	5.09	182.3	192.4	5.02	317.7	182.4	6.31
151.5	98.6	5.10	194.6	204.7	5.01	305.4	194.7	6.34
145.6	104.5	5.10	206.9	217.0	5.02	293.1	207.0	6.29
139.7	110.4	5.11	219.2	229.3	5.05	280.8	219.3	6.27
133.8	116.3	5.09	231.5	241.6	5.05	268.5	231.6	6.31
127.9	122.2	5.05	243.8	253.9	5.04	256.2	243.9	6.29
122.1	128.0	5.06	256.2	266.3	5.11	243.8	256.3	6.34
116.2	133.9	5.09	268.5	278.6	5.08	231.5	268.6	6.33
110.3	139.8	5.12	280.8	290.9	5.20	219.2	280.9	6.25
104.4	145.7	5.09	293.1	303.2	5.27	206.9	293.2	6.28
98.5	151.6	5.11	305.4	315.5	5.31	194.6	305.5	6.24
92.6	157.5	5.10	317.7	327.8	5.41	182.3	317.8	6.24
86.7	163.4	5.11	330.0	340.1	5.37	170.0	330.1	6.28
80.8	169.3	5.11	342.3	352.4	5.35	157.7	342.4	6.25
74.9	175.2	5.14	354.6	364.7	5.34	145.4	354.7	6.25
69.0	181.1	5.11	366.9	377.0	5.31	133.1	367.0	6.20
63.1	187.0	5.09	379.2	389.3	5.30	120.8	379.3	6.12
57.2	192.9	5.13	391.5	401.6	5.26	108.5	391.6	6.06
51.3	198.8	5.10	403.8	413.9	5.20	96.2	403.9	5.99
45.4	204.7	5.12	416.2	426.3	5.22	83.8	416.3	5.92
39.5	210.6	5.16	428.5	438.6	5.26	71.5	428.6	5.96
33.6	216.5	5.19	440.8	450.9	5.31	59.2	440.9	6.05
27.7	222.4	5.16	453.1	463.2	5.32	46.9	453.2	6.12
21.8	228.3	5.17	465.4	475.5	5.33	34.6	465.5	6.31
15.9	234.2	5.20	477.7	487.8	5.31	22.3	477.8	6.48
10.0	240.1	5.34	490.0	500.1	5.26	10.0	490.1	6.63

Typical Performance Data

LO (MHz)	LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)		
	@LO (dBm)			@LO (dBm)		
	+4	+7	+10	+4	+7	+10
0.1	64.00	67.00	70.00	64.00	67.00	66.23
0.2	64.00	67.00	70.00	64.00	67.00	65.77
0.5	64.00	67.00	70.00	64.00	67.00	65.50
1.0	64.00	67.00	70.00	64.00	67.00	65.49
2.0	64.00	67.00	70.00	64.00	67.00	65.24
5.0	64.00	67.00	70.00	64.00	67.00	64.20
10.0	64.00	67.00	64.53	64.00	67.00	60.90
29.8	56.69	57.88	58.78	60.05	62.59	63.97
69.3	51.36	52.40	52.33	55.23	56.44	57.08
89.1	49.28	50.07	50.51	53.06	53.98	55.16
108.9	47.91	48.65	48.97	51.54	52.45	53.43
128.7	46.75	47.51	47.62	49.33	50.94	51.98
148.5	45.48	46.27	46.50	47.40	49.13	50.49
188.0	43.47	43.86	44.04	45.47	47.14	48.66
207.8	42.85	43.08	43.32	43.92	45.74	47.20
227.6	42.61	42.84	43.01	42.85	44.42	46.12
247.4	42.15	42.40	42.66	42.77	44.04	45.52
267.1	41.65	42.24	42.58	42.04	43.31	44.40
306.7	39.22	39.88	40.39	41.94	44.07	45.71
326.5	38.12	38.96	39.55	41.20	42.66	43.42
346.3	37.67	38.49	39.30	40.17	41.19	41.49
366.0	36.90	37.94	39.01	39.27	39.61	39.23
385.8	36.90	38.10	39.19	38.28	38.37	37.83
425.4	37.91	38.86	39.63	37.63	37.21	36.44
445.2	37.98	39.20	40.20	37.34	36.73	35.63
464.9	37.39	38.46	39.14	37.02	36.35	34.97
484.7	37.11	38.50	39.70	36.09	35.48	34.11
504.5	37.30	38.40	39.25	35.52	34.50	33.08
544.1	37.27	38.17	38.73	34.18	32.66	31.01
583.6	36.42	36.65	36.61	32.98	30.93	28.74
603.4	36.60	36.84	36.84	32.01	29.65	27.30
643.0	36.63	36.18	35.53	29.25	26.44	24.16
662.7	37.94	36.80	35.78	27.84	25.29	23.27
722.1	42.68	37.41	34.57	22.70	21.23	19.76
761.6	45.19	36.28	32.76	20.28	19.40	18.21
781.4	40.33	34.79	31.56	19.11	18.38	17.25
821.0	33.06	31.16	28.77	17.31	16.96	15.94
840.8	30.25	29.39	27.48	16.56	16.43	15.59
880.3	26.95	26.84	25.53	15.57	15.58	14.76
900.1	25.45	25.63	24.64	15.04	15.23	14.51

RF (IN) (MHz)	LO (MHz)	RF-IF ISOLATION (dB)		
		@LO (dBm)		
		+4	+7	+10
10.0	40.0	40.35	38.69	35.95
29.8	59.8	34.10	34.26	34.85
49.6	79.6	30.61	30.48	31.21
69.3	99.3	27.89	28.32	28.37
89.1	119.1	26.43	26.63	27.02
108.9	138.9	25.20	25.62	25.78
128.7	158.7	24.36	24.73	24.91
148.5	178.5	24.01	24.32	24.51
168.2	198.2	23.79	24.13	24.55
188.0	218.0	23.52	24.03	24.63
207.8	237.8	23.28	23.78	24.34
227.6	257.6	23.39	23.98	24.49
247.4	277.4	23.65	24.06	24.46
267.1	297.1	24.23	24.65	25.04
286.9	316.9	25.14	25.83	26.33
306.7	336.7	25.37	26.35	27.14
326.5	356.5	25.28	26.50	27.59
346.3	376.3	23.98	24.86	25.55
366.0	396.0	22.31	22.61	22.74
385.8	415.8	20.98	20.99	20.86
405.6	435.6	19.71	19.48	19.24
425.4	455.4	19.02	18.86	18.52
445.2	475.2	18.24	18.12	17.84
464.9	494.9	17.92	17.79	17.56
484.7	514.7	17.67	17.61	17.47
504.5	534.5	17.53	17.38	17.19
524.3	554.3	17.82	17.65	17.46
544.1	574.1	17.76	17.55	17.29
583.6	613.6	17.73	17.33	16.88
603.4	633.4	17.42	16.95	16.46
643.0	673.0	16.52	15.98	15.55
662.7	692.7	15.90	15.42	15.01
702.3	732.3	14.53	14.07	13.68
722.1	752.1	13.93	13.42	13.03
761.6	791.6	12.42	11.94	11.52
781.4	811.4	11.72	11.25	10.81
821.0	851.0	10.55	9.90	9.52
840.8	870.8	9.89	9.34	8.86
880.3	910.3	8.80	8.32	7.85
900.1	930.1	8.30	7.85	7.47

Frequency Mixer

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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=500.5MHz (:1)		
		@LO (dBm)				@LO (dBm)				@LO (dBm)		
		+4	+7	+10		+4	+7	+10		+4	+7	+10
5.0	35.0	1.20	1.11	1.05	5.0	1.72	2.55	3.62	5.0	1.39	1.44	1.33
10.0	40.0	1.20	1.11	1.05	10.0	1.74	2.49	3.53	10.0	1.39	1.45	1.33
29.8	59.8	1.27	1.16	1.09	29.8	1.62	2.42	3.37	22.6	2.45	2.15	1.85
49.6	79.6	1.26	1.16	1.09	49.6	1.62	2.39	3.33	35.1	2.32	2.03	1.77
69.3	99.3	1.24	1.14	1.07	69.3	1.54	2.23	3.06	47.7	2.30	2.01	1.77
89.1	119.1	1.22	1.13	1.06	89.1	1.53	2.23	3.09	60.3	2.34	2.03	1.80
108.9	138.9	1.19	1.10	1.04	108.9	1.55	2.21	3.06	72.8	2.39	2.08	1.84
128.7	158.7	1.18	1.09	1.04	128.7	1.59	2.31	3.18	85.4	2.39	2.09	1.84
148.5	178.5	1.17	1.08	1.04	148.5	1.60	2.30	3.13	97.9	2.40	2.11	1.85
168.2	198.2	1.15	1.06	1.04	168.2	1.58	2.23	3.01	110.5	2.44	2.15	1.89
188.0	218.0	1.12	1.06	1.04	188.0	1.58	2.24	3.03	123.1	2.50	2.19	1.93
207.8	237.8	1.10	1.04	1.04	207.8	1.62	2.28	3.08	135.6	2.53	2.21	1.96
227.6	257.6	1.11	1.05	1.04	227.6	1.67	2.34	3.16	148.2	2.51	2.20	1.96
247.4	277.4	1.10	1.05	1.08	247.4	1.68	2.32	3.10	160.8	2.46	2.18	1.94
267.1	297.1	1.09	1.05	1.09	267.1	1.68	2.32	3.09	173.3	2.45	2.17	1.92
286.9	316.9	1.07	1.06	1.11	286.9	1.70	2.31	3.04	185.9	2.52	2.23	1.97
306.7	336.7	1.05	1.07	1.12	306.7	1.75	2.39	3.15	198.5	2.58	2.31	2.03
326.5	356.5	1.03	1.09	1.16	326.5	1.79	2.42	3.19	211.0	2.61	2.34	2.05
346.3	376.3	1.04	1.13	1.19	346.3	1.80	2.41	3.15	223.6	2.58	2.30	2.03
366.0	396.0	1.03	1.13	1.18	366.0	1.84	2.46	3.23	236.2	2.54	2.27	2.02
385.8	415.8	1.03	1.10	1.15	385.8	1.84	2.42	3.12	248.7	2.54	2.28	2.04
405.6	435.6	1.06	1.06	1.09	405.6	1.93	2.50	3.21	261.3	2.61	2.33	2.08
425.4	455.4	1.13	1.05	1.02	425.4	2.01	2.58	3.27	273.8	2.62	2.36	2.11
445.2	475.2	1.21	1.13	1.07	445.2	2.04	2.61	3.29	286.4	2.58	2.34	2.11
464.9	494.9	1.32	1.24	1.17	464.9	2.09	2.69	3.38	299.0	2.55	2.31	2.07
484.7	514.7	1.44	1.36	1.29	484.7	2.09	2.68	3.37	311.5	2.55	2.30	2.06
504.5	534.5	1.57	1.48	1.41	504.5	2.13	2.73	3.46	324.1	2.58	2.34	2.09
524.3	554.3	1.68	1.59	1.52	524.3	2.16	2.76	3.46	336.7	2.63	2.37	2.14
544.1	574.1	1.76	1.67	1.60	544.1	2.17	2.77	3.48	349.2	2.63	2.37	2.14
583.6	613.6	1.91	1.81	1.76	583.6	2.20	2.76	3.43	361.8	2.59	2.34	2.10
603.4	633.4	2.00	1.91	1.87	603.4	2.23	2.79	3.46	374.4	2.52	2.29	2.07
643.0	673.0	2.20	2.11	2.08	643.0	2.28	2.82	3.48	386.9	2.52	2.28	2.05
662.7	692.7	2.28	2.18	2.15	662.7	2.25	2.75	3.39	399.5	2.57	2.32	2.07
702.3	732.3	2.38	2.29	2.23	702.3	2.38	2.87	3.49	412.1	2.57	2.33	2.09
722.1	752.1	2.44	2.35	2.30	722.1	2.46	2.92	3.52	424.6	2.53	2.30	2.08
761.6	791.6	2.60	2.51	2.46	761.6	2.66	3.04	3.58	437.2	2.53	2.27	2.04
781.4	811.4	2.68	2.60	2.54	781.4	2.80	3.16	3.68	449.7	2.54	2.27	2.04
821.0	851.0	2.83	2.74	2.68	821.0	3.04	3.34	3.79	462.3	2.54	2.28	2.05
840.8	870.8	2.86	2.76	2.69	840.8	3.13	3.36	3.77	474.9	2.54	2.27	2.04
880.3	910.3	2.83	2.75	2.70	880.3	3.27	3.50	3.86	487.4	2.52	2.25	2.01
900.1	930.1	2.83	2.74	2.71	900.1	3.28	3.54	3.88	500.0	2.36	2.12	1.91

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Harmonics Tables

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	19	23	14	38	26	37	37	48	49	66
1	-	20	+0	27	11	34	24	43	42	54	47	60
2	>100	67	57	68	58	66	68	>81	66	71	75	>81
3	>100	75	65	75	64	73	60	76	>81	>81	78	>81
4	>100	>81	>81	>81	>81	>81	>81	>81	>81	>81	>81	>81
5	>100	>81	>81	>81	>81	>81	>81	>81	>81	>81	>81	>81
6	>100	>81	>81	>81	>81	>81	>81	>81	>81	>81	>81	>81
7	>100	>81	>81	>81	>81	>81	>81	>81	>81	>81	>81	>81
8	>100	>81	>81	>81	>81	>81	>81	>81	77	>81	>81	>81
9	>100	>81	>81	>81	>81	>81	>81	>81	>81	61	>81	>81
10	>100	>81	>81	>81	>81	>81	>81	>81	>81	>81	73	>81
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

LO HARMONICS ORDER

Test conditions: RF IN: 250.1 MHz; -14.00 dBm.
LO IN: 280.01 MHz; +7.00 dBm
IF OUT: 29.91 MHz; -19.3 dBm

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	29	33	24	47	38	50	50	58	67	81
1	-	21	+0	28	12	34	26	48	43	61	53	64
2	94	54	51	56	51	56	58	66	61	65	67	77
3	>100	54	40	50	43	51	38	56	50	59	60	71
4	>100	73	70	75	64	75	63	77	68	88	76	79
5	>100	75	66	61	52	66	52	64	53	65	69	76
6	>100	>91	>91	87	86	87	79	80	74	81	78	>91
7	>100	>91	87	88	80	73	67	80	66	75	63	76
8	>100	>91	>91	>91	>91	88	>91	>91	>91	89	87	>91
9	>100	>91	>91	>91	>91	>91	82	83	81	72	79	>91
10	>100	>91	>91	>91	>91	>91	>91	>91	>91	>91	78	>91
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

LO HARMONICS ORDER

Test conditions: RF IN: 250.1 MHz; -4.00 dBm.
LO IN: 280.01 MHz; +7.00 dBm
IF OUT: 29.91 MHz; -9.36 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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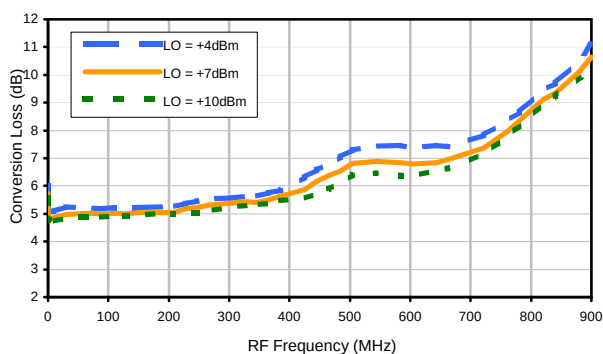
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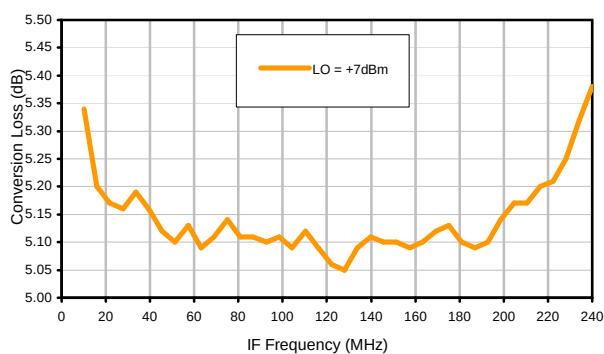


Typical Performance Curves

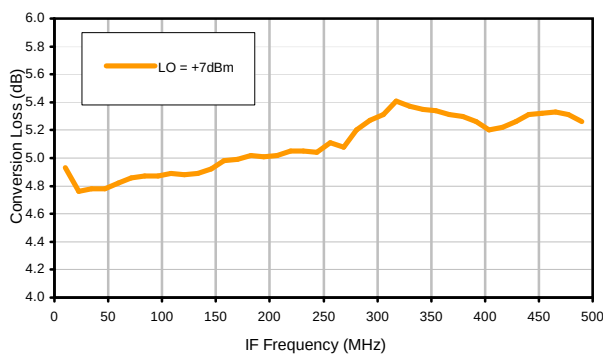
Conversion Loss @ IF=30MHz



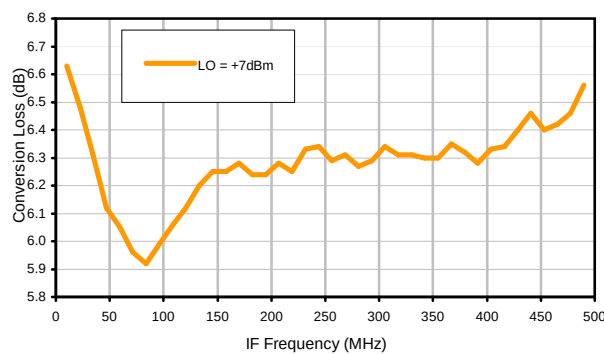
Conversion Loss vs. IF @ RF=250.1MHz



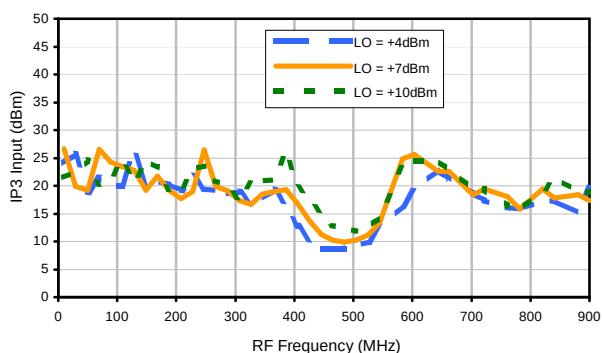
Conversion Loss vs. IF @ RF=10.1MHz



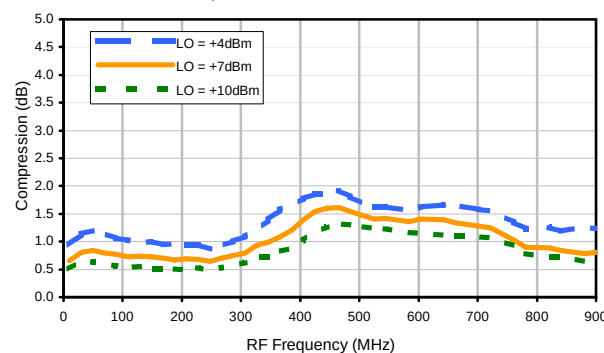
Conversion Loss vs. IF @ RF=500.1MHz



IP3 Input

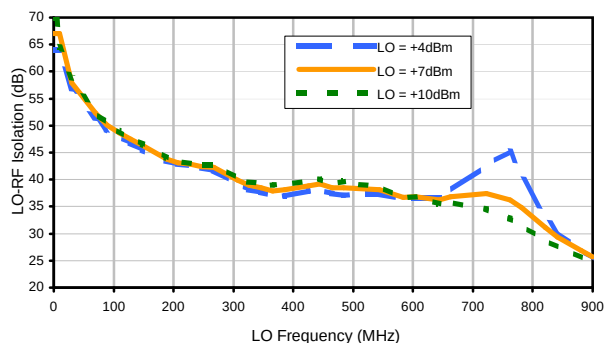


Compression @ RF IN=+1dBm

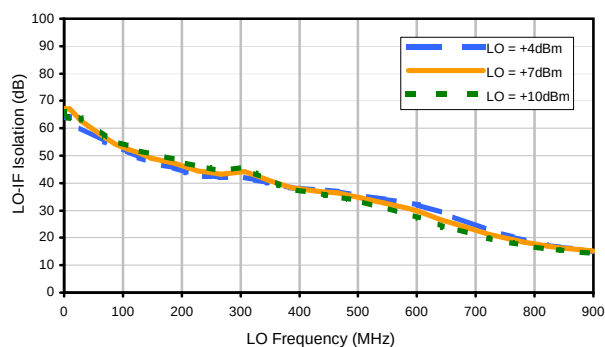


Typical Performance Curves

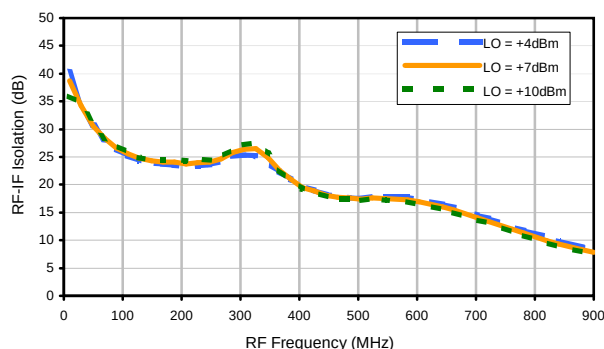
LO-RF Isolation



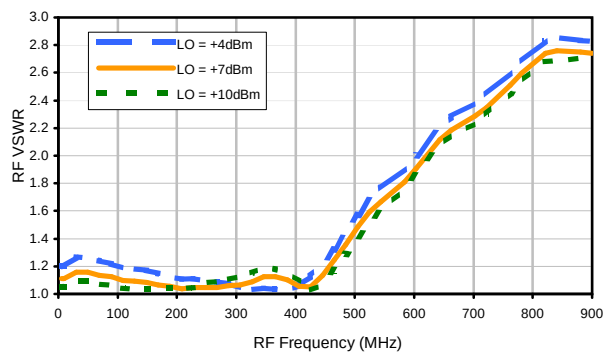
LO-IF Isolation



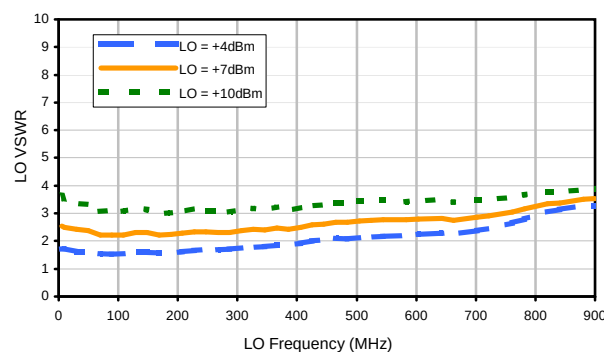
RF-IF Isolation



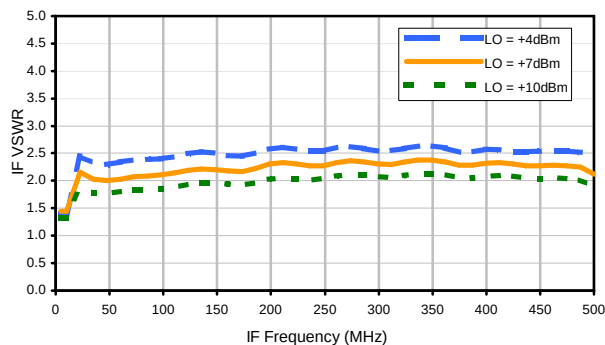
RF VSWR



LO VSWR



IF VSWR



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3	>100	75	65	75	64	73	60	76	>81	>81	78	>81
4	>100	>81	>81	>81	>81	>81	>81	>81	>81	>81	>81	>81
5	>100	>81	>81	>81	>81	>81	>81	>81	>81	>81	>81	>81
6	>100	>81	>81	>81	>81	>81	>81	>81	>81	>81	>81	>81
7	>100	>81	>81	>81	>81	>81	>81	>81	>81	>81	>81	>81
8	>100	>81	>81	>81	>81	>81	>81	>81	77	>81	>81	>81
9	>100	>81	>81	>81	>81	>81	>81	>81	>81	61	>81	>81
10	>100	>81	>81	>81	>81	>81	>81	>81	>81	>81	73	>81
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2	94	54	51	56	51	56	58	66	61	65	67	77
3	>100	54	40	50	43	51	38	56	50	59	60	71
4	>100	73	70	75	64	75	63	77	68	88	76	79
5	>100	75	66	61	52	66	52	64	53	65	69	76
6	>100	>91	>91	87	86	87	79	80	74	81	78	>91
7	>100	>91	87	88	80	73	67	80	66	75	63	76
8	>100	>91	>91	>91	>91	88	>91	>91	>91	89	87	>91
9	>100	>91	>91	>91	>91	>91	82	83	81	72	79	>91
10	>100	>91	>91	>91	>91	>91	>91	>91	>91	>91	78	>91
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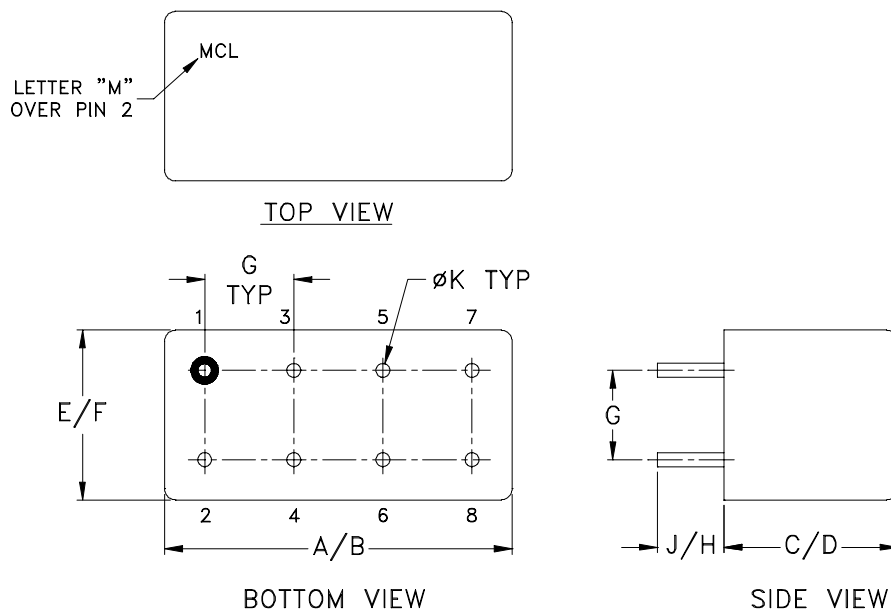
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A03

A11

Outline Dimensions



CASE#	A	B	C	D	E	F	G	H	J	K	WT, GRAM
A03	.480 (12.19)	.500 (12.70)	.390 (9.91)	.405 (10.29)	.210 (5.33)	.230 (5.84)	.100 (2.54)	.20 (5.08)	.14 (3.56)	.020 (.51)	2.3
A11			.240 (6.10)	.255 (6.48)							1.9

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 B14-047-01.
- 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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