

Non-Catalog Model

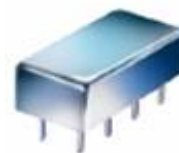
Frequency Mixer

Level 7 (LO Power +7 dBm)

TAK-7

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 : A04

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C					
Parameter		Min.	Typ.	Max.	Units
Frequency	LO (fL to fU)	2		1000	MHz
	RF (fL to fU)	2		1000	MHz
	IF	5		500	MHz
Conversion Loss	mid band		5.9	7.5	dB
	Total Range			8.5	dB
LO-RF Isolation	Low Range	30	45		dB
	Mid Range	20	35		dB
	Upper Range	20	30		dB
LO-IF Isolation	Low Range	30	45		dB
	Mid Range	20	35		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]

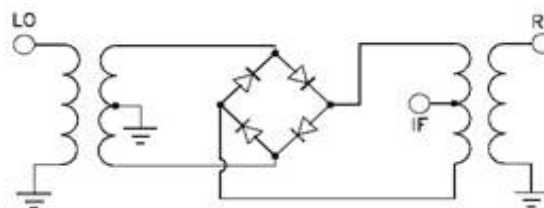
Hermetically sealed

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	3, 4 ^
IF	1
GROUND	2, 5, 6, 7

^ - pins must be connected together externally

Electrical Schematics



Frequency Mixer

TAK-7

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	+4	+7	+10			
1.0	31.0	6.07	5.81	5.46	10.1	40.1	16.03	16.18	15.02	10.1	40.1	1.09	0.68	0.46
10.0	40.0	6.08	5.74	5.59	51.1	81.1	12.72	12.41	12.84	51.1	81.1	1.05	0.77	0.46
51.1	81.1	6.31	5.86	5.66	92.0	122.0	10.57	12.32	21.03	92.0	122.0	1.07	0.66	0.45
92.0	122.0	6.25	5.84	5.66	133.0	163.0	10.64	18.07	16.21	133.0	163.0	1.13	0.70	0.52
133.0	163.0	6.28	5.86	5.67	173.9	203.9	13.55	16.99	15.14	173.9	203.9	1.18	0.76	0.57
173.9	203.9	6.32	5.89	5.70	214.9	244.9	15.80	14.09	14.16	214.9	244.9	1.24	0.83	0.64
214.9	244.9	6.31	5.94	5.72	255.8	285.8	20.49	13.97	13.98	255.8	285.8	1.28	0.94	0.70
255.8	285.8	6.43	6.00	5.80	296.8	326.8	11.23	12.16	13.63	296.8	326.8	1.31	1.02	0.84
296.8	326.8	6.43	5.94	5.73	337.7	367.7	9.75	9.70	11.42	337.7	367.7	1.37	1.05	0.89
337.7	367.7	6.57	6.19	5.89	378.7	408.7	9.44	11.26	12.24	378.7	408.7	1.13	0.94	0.83
378.7	408.7	6.90	6.41	6.23	419.6	449.6	9.14	11.63	14.58	419.6	449.6	1.02	0.84	0.72
419.6	449.6	7.04	6.62	6.37	440.1	470.1	8.74	10.91	13.46	440.1	470.1	0.97	0.77	0.69
440.1	470.1	7.15	6.70	6.45	481.1	511.1	9.71	9.45	10.73	481.1	511.1	1.09	0.80	0.69
481.1	511.1	7.02	6.70	6.45	501.5	531.5	10.09	9.72	10.03	501.5	531.5	1.22	0.93	0.79
501.5	531.5	6.95	6.63	6.41	542.5	572.5	11.51	12.01	11.48	542.5	572.5	1.40	1.11	0.92
542.5	572.5	6.76	6.39	6.21	563.0	593.0	10.41	13.04	11.82	563.0	593.0	1.45	1.22	1.04
563.0	593.0	6.59	6.26	6.07	603.9	633.9	9.63	12.94	14.58	603.9	633.9	1.50	1.35	1.19
603.9	633.9	6.40	5.99	5.84	624.4	654.4	9.30	13.12	16.30	624.4	654.4	1.51	1.41	1.27
624.4	654.4	6.40	5.95	5.75	665.3	695.3	10.06	12.65	15.18	665.3	695.3	1.29	1.28	1.19
665.3	695.3	6.54	5.92	5.65	685.8	715.8	9.58	11.93	13.86	685.8	715.8	1.16	1.10	1.05
685.8	715.8	6.62	5.98	5.68	726.8	756.8	7.01	8.24	9.36	726.8	756.8	0.99	0.78	0.73
726.8	756.8	6.68	6.20	5.90	747.2	777.2	6.59	7.47	8.64	747.2	777.2	1.02	0.75	0.65
747.2	777.2	6.67	6.17	5.85	788.2	818.2	6.09	6.60	7.51	788.2	818.2	1.07	0.72	0.54
788.2	818.2	6.69	6.21	5.91	808.7	838.7	5.93	6.59	7.50	808.7	838.7	1.08	0.71	0.52
808.7	838.7	6.78	6.31	6.01	849.6	879.6	5.06	6.13	7.35	849.6	879.6	1.13	0.70	0.48
849.6	879.6	6.83	6.35	6.06	870.1	900.1	5.02	5.97	7.76	870.1	900.1	1.10	0.70	0.49
870.1	900.1	7.02	6.62	6.30	911.1	941.1	4.58	5.75	7.82	911.1	941.1	1.12	0.69	0.47
911.1	941.1	7.14	6.71	6.42	931.5	961.5	4.52	6.01	8.39	931.5	961.5	1.11	0.68	0.45
931.5	961.5	7.35	6.95	6.74	972.5	1002.5	4.18	6.33	9.23	972.5	1002.5	1.08	0.68	0.47
972.5	1002.5	7.53	7.15	6.87	993.0	1023.0	4.43	6.80	10.80	993.0	1023.0	1.05	0.66	0.47
993.0	1023.0	7.87	7.52	7.28	1033.9	1063.9	5.15	8.38	12.14	1033.9	1063.9	1.03	0.65	0.47
1033.9	1063.9	8.07	7.66	7.36	1054.4	1084.4	5.85	9.11	12.50	1054.4	1084.4	1.03	0.66	0.47
1054.4	1084.4	8.47	8.02	7.67	1095.3	1125.3	8.90	12.53	15.02	1095.3	1125.3	1.00	0.65	0.44
1095.3	1125.3	8.63	8.12	7.82	1115.8	1145.8	10.57	11.31	15.38	1115.8	1145.8	0.99	0.66	0.41
1115.8	1145.8	8.91	8.44	8.15	1156.8	1186.8	8.81	10.62	15.32	1156.8	1186.8	1.05	0.61	0.31
1156.8	1186.8	9.06	8.56	8.40	1177.2	1207.2	8.72	10.15	14.59	1177.2	1207.2	1.04	0.57	0.29
1177.2	1207.2	9.42	9.05	8.95	1218.2	1248.2	9.55	12.72	16.36	1218.2	1248.2	0.89	0.44	0.28
1218.2	1248.2	9.66	9.32	9.23	1238.7	1268.7	10.54	13.31	16.05	1238.7	1268.7	0.83	0.41	0.30
1238.7	1268.7	10.22	9.91	9.88	1279.6	1309.6	12.38	13.06	15.83	1279.6	1309.6	0.79	0.45	0.41
1279.6	1309.6	10.46	10.20	10.18	1300.1	1330.1	12.90	14.06	14.72	1300.1	1330.1	0.77	0.50	0.47

REV. X2

TAK-7

100818

Page 1 of 5



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Frequency Mixer

TAK-7

Typical Performance Data

IF (OUT) (MHz)	LO (MHz)	CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=500.1MHz (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)=1000.1MHz (dB)
		@LO (dBm)			@LO (dBm)			@LO (dBm)
		+7			+7			+7
490.0	10.1	6.92	10.0	20.1	5.77	500.0	500.1	6.81
477.7	22.4	6.91	22.6	32.7	5.70	487.4	512.7	6.78
465.4	34.7	6.91	35.1	45.2	5.76	474.9	525.2	6.80
453.1	47.0	6.93	47.7	57.8	5.73	462.3	537.8	6.83
440.8	59.3	7.04	60.3	70.4	5.77	449.7	550.4	6.90
428.5	71.6	7.10	72.8	82.9	5.80	437.2	562.9	6.95
416.2	83.9	7.16	85.4	95.5	5.80	424.6	575.5	6.99
403.8	96.3	7.12	97.9	108.0	5.73	412.1	588.0	7.05
391.5	108.6	7.07	110.5	120.6	5.73	399.5	600.6	7.05
379.2	120.9	7.01	123.1	133.2	5.68	386.9	613.2	7.07
366.9	133.2	6.96	135.6	145.7	5.67	374.4	625.7	7.04
354.6	145.5	6.91	148.2	158.3	5.67	361.8	638.3	6.99
342.3	157.8	6.91	160.8	170.9	5.67	349.2	650.9	6.98
330.0	170.1	6.97	173.3	183.4	5.68	336.7	663.4	6.95
317.7	182.4	6.96	185.9	196.0	5.68	324.1	676.0	6.90
305.4	194.7	6.89	198.5	208.6	5.65	311.5	688.6	6.89
293.1	207.0	6.84	211.0	221.1	5.66	299.0	701.1	6.87
280.8	219.3	6.76	223.6	233.7	5.64	286.4	713.7	6.86
268.5	231.6	6.76	236.2	246.3	5.62	273.8	726.3	6.84
256.2	243.9	6.79	248.7	258.8	5.65	261.3	738.8	6.77
243.8	256.3	6.79	261.3	271.4	5.66	248.7	751.4	6.71
231.5	268.6	6.83	273.8	283.9	5.68	236.2	763.9	6.64
219.2	280.9	6.87	286.4	296.5	5.71	223.6	776.5	6.58
206.9	293.2	6.91	299.0	309.1	5.69	211.0	789.1	6.60
194.6	305.5	6.96	311.5	321.6	5.72	198.5	801.6	6.59
182.3	317.8	6.93	324.1	334.2	5.75	185.9	814.2	6.62
170.0	330.1	6.93	336.7	346.8	5.75	173.3	826.8	6.66
157.7	342.4	6.91	349.2	359.3	5.80	160.8	839.3	6.65
145.4	354.7	6.91	361.8	371.9	5.80	148.2	851.9	6.67
133.1	367.0	6.97	374.4	384.5	5.83	135.6	864.5	6.66
120.8	379.3	6.96	386.9	397.0	5.89	123.1	877.0	6.64
108.5	391.6	6.94	399.5	409.6	5.90	110.5	889.6	6.69
96.2	403.9	6.95	412.1	422.2	5.97	97.9	902.2	6.68
83.8	416.3	6.90	424.6	434.7	6.02	85.4	914.7	6.68
71.5	428.6	6.92	437.2	447.3	6.06	72.8	927.3	6.72
59.2	440.9	6.94	449.7	459.8	6.16	60.3	939.8	6.73
46.9	453.2	6.87	462.3	472.4	6.22	47.7	952.4	6.78
34.6	465.5	6.88	474.9	485.0	6.28	35.1	965.0	6.83
22.3	477.8	6.81	487.4	497.5	6.33	22.6	977.5	6.83
10.0	490.1	6.79	500.0	510.1	6.34	10.0	990.1	6.97

REV. X2

TAK-7

100818

Page 2 of 5



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Typical Performance Data

LO (MHz)	LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)		
	@LO (dBm)			@LO (dBm)		
	+4	+7	+10	+4	+7	+10
1.0	62.60	62.40	66.00	64.00	66.60	70.00
10.0	64.00	67.00	70.00	64.00	67.00	70.00
51.1	67.04	72.57	66.36	67.68	65.31	62.77
92.0	60.43	66.81	65.97	63.67	61.30	59.06
133.0	57.11	65.69	62.49	60.79	57.20	55.30
173.9	53.48	60.66	63.56	58.31	55.42	53.05
214.9	51.65	59.56	62.46	56.12	53.34	51.64
255.8	50.41	57.64	62.05	54.26	51.30	49.89
296.8	49.26	55.53	61.08	52.34	50.17	48.52
337.7	48.03	54.57	58.99	51.96	49.63	48.11
378.7	46.53	49.76	52.36	50.38	48.19	46.92
419.6	47.28	49.75	51.10	48.14	46.12	44.74
440.1	47.46	50.78	52.11	47.43	45.65	44.57
481.1	46.48	52.81	55.32	45.81	44.15	43.34
501.5	45.92	49.20	51.25	45.36	43.78	42.89
542.5	45.61	46.68	47.30	45.26	43.96	43.04
563.0	44.82	44.89	44.82	45.31	43.96	43.17
603.9	43.48	41.85	40.66	45.35	43.72	42.72
624.4	43.51	41.04	39.45	45.16	43.24	42.06
665.3	45.42	42.83	40.43	45.26	43.17	41.39
685.8	45.77	45.28	42.38	45.54	43.60	41.81
747.2	34.43	34.97	35.14	40.95	40.62	40.06
788.2	32.13	32.25	32.56	38.41	37.97	37.63
808.7	31.33	31.29	31.60	37.36	36.86	36.56
849.6	29.94	29.92	30.24	35.90	35.22	34.94
870.1	29.32	29.29	29.63	35.16	34.51	34.24
911.1	28.23	28.44	28.74	33.99	33.59	33.20
931.5	27.83	28.07	28.38	33.22	32.86	32.46
972.5	26.82	27.40	27.84	32.17	32.07	31.88
993.0	26.40	27.05	27.48	31.69	31.75	31.72
1033.9	25.64	26.57	26.97	30.80	31.10	31.20
1054.4	25.36	26.29	26.47	30.50	30.87	30.93
1095.3	24.98	25.84	25.69	29.87	30.42	30.45
1115.8	24.88	25.54	25.22	29.82	30.33	30.15
1156.8	24.68	25.10	24.92	29.36	29.87	29.72
1177.2	24.54	24.99	24.83	29.43	29.96	29.87
1218.2	24.29	24.84	24.78	28.92	29.53	29.56
1238.7	24.26	24.86	24.85	28.91	29.60	29.67
1279.6	23.98	24.89	25.08	28.49	29.42	29.67
1300.1	23.86	24.98	25.33	28.20	29.30	29.70

RF (IN) (MHz)	LO (MHz)	RF-IF ISOLATION (dB)		
		@LO (dBm)		
		+4	+7	+10
10.1	40.1	45.73	45.48	45.60
51.1	81.1	42.36	43.15	43.53
92.0	122.0	38.49	40.33	40.28
133.0	163.0	37.03	38.60	39.01
173.9	203.9	37.29	38.49	40.13
214.9	244.9	37.09	38.63	41.65
255.8	285.8	33.38	33.76	33.52
296.8	326.8	29.75	30.01	30.40
337.7	367.7	27.58	28.42	29.30
378.7	408.7	24.88	24.85	24.91
419.6	449.6	22.11	21.74	21.40
440.1	470.1	21.23	20.73	20.37
481.1	511.1	19.91	19.51	19.17
501.5	531.5	19.56	19.19	18.87
542.5	572.5	19.52	19.33	19.26
563.0	593.0	19.55	19.48	19.50
603.9	633.9	20.27	20.46	20.88
624.4	654.4	20.70	21.18	21.70
665.3	695.3	21.64	21.87	22.15
685.8	715.8	22.03	21.85	21.70
726.8	756.8	22.67	22.30	21.53
747.2	777.2	22.54	22.11	21.29
788.2	818.2	20.42	20.05	19.42
808.7	838.7	19.25	18.84	18.24
849.6	879.6	16.85	16.44	15.73
870.1	900.1	15.85	15.36	14.76
911.1	941.1	14.12	13.55	12.94
931.5	961.5	13.41	12.84	12.14
972.5	1002.5	12.12	11.41	10.79
993.0	1023.0	11.55	10.82	10.17
1033.9	1063.9	10.50	9.73	9.06
1054.4	1084.4	10.02	9.25	8.58
1095.3	1125.3	9.09	8.27	7.71
1115.8	1145.8	8.63	7.87	7.34
1156.8	1186.8	7.97	7.23	6.84
1177.2	1207.2	7.72	7.04	6.69
1218.2	1248.2	7.35	6.81	6.49
1238.7	1268.7	7.26	6.74	6.47
1279.6	1309.6	7.22	6.73	6.53
1300.1	1330.1	7.21	6.77	6.57

Frequency Mixer

TAK-7

Typical Performance Data

RF (IN) (MHz)	LO (MHz)	RF VSWR (:1)			LO (MHz)	LO VSWR (:1)			IF (OUT) (MHz)	IF VSWR @LO=1000.1MHz (:1)		
		@LO (dBm)				@LO (dBm)				@LO (dBm)		
		+4	+7	+10		+4	+7	+10		+4	+7	+10
5.0	53.0	1.94	1.73	1.58	5.0	2.14	3.13	4.78	5.0	1.32	1.39	1.45
10.0	40.0	1.94	1.73	1.59	10.0	2.01	2.99	4.46	10.0	1.23	1.31	1.37
51.1	81.1	1.33	1.19	1.06	51.1	1.79	2.60	3.70	22.6	1.07	1.07	1.09
92.0	122.0	1.40	1.18	1.11	92.0	1.68	2.38	3.29	35.1	1.09	1.10	1.10
133.0	163.0	1.43	1.26	1.20	133.0	1.76	2.55	3.59	47.7	1.13	1.14	1.16
173.9	203.9	1.49	1.37	1.28	173.9	1.70	2.42	3.35	60.3	1.11	1.14	1.15
214.9	244.9	1.64	1.49	1.40	214.9	1.76	2.52	3.50	72.8	1.12	1.13	1.15
255.8	285.8	1.81	1.65	1.53	255.8	1.78	2.53	3.47	85.4	1.13	1.13	1.13
296.8	326.8	1.98	1.80	1.66	296.8	1.79	2.53	3.44	97.9	1.15	1.14	1.12
337.7	367.7	2.20	1.98	1.81	337.7	1.87	2.62	3.56	110.5	1.18	1.16	1.14
378.7	408.7	2.42	2.18	2.00	378.7	1.88	2.59	3.48	123.1	1.21	1.19	1.17
419.6	449.6	2.62	2.36	2.20	419.6	1.98	2.72	3.63	135.6	1.22	1.19	1.19
440.1	470.1	2.70	2.43	2.25	440.1	2.00	2.73	3.60	148.2	1.22	1.20	1.19
481.1	511.1	2.75	2.49	2.34	481.1	2.04	2.74	3.59	160.8	1.23	1.22	1.19
501.5	531.5	2.76	2.52	2.35	501.5	2.09	2.81	3.67	173.3	1.24	1.22	1.19
542.5	572.5	2.73	2.50	2.34	542.5	2.15	2.86	3.70	185.9	1.26	1.23	1.19
563.0	593.0	2.69	2.45	2.29	563.0	2.16	2.85	3.68	198.5	1.28	1.24	1.21
603.9	633.9	2.60	2.30	2.10	603.9	2.25	2.93	3.74	211.0	1.30	1.26	1.22
624.4	654.4	2.57	2.22	2.00	624.4	2.29	2.95	3.73	223.6	1.31	1.27	1.23
665.3	695.3	2.62	2.19	1.93	665.3	2.35	2.96	3.71	236.2	1.33	1.29	1.25
685.8	715.8	2.67	2.27	2.03	685.8	2.42	3.04	3.78	248.7	1.34	1.29	1.25
726.8	756.8	2.67	2.31	2.08	726.8	2.54	3.17	3.89	261.3	1.33	1.28	1.24
747.2	777.2	2.61	2.25	2.01	747.2	2.57	3.20	3.90	273.8	1.32	1.27	1.23
788.2	818.2	2.48	2.13	1.86	788.2	2.67	3.31	4.02	286.4	1.32	1.27	1.23
808.7	838.7	2.44	2.09	1.81	808.7	2.72	3.36	4.07	299.0	1.33	1.27	1.23
849.6	879.6	2.36	2.00	1.71	849.6	2.78	3.39	4.08	311.5	1.34	1.28	1.24
870.1	900.1	2.30	1.96	1.67	870.1	2.81	3.42	4.10	324.1	1.33	1.28	1.24
911.1	941.1	2.23	1.91	1.64	911.1	2.89	3.48	4.14	336.7	1.33	1.27	1.24
931.5	961.5	2.18	1.88	1.63	931.5	2.92	3.48	4.14	349.2	1.31	1.26	1.22
972.5	1002.5	2.09	1.82	1.63	972.5	2.95	3.48	4.10	361.8	1.29	1.24	1.20
993.0	1023.0	2.05	1.80	1.64	993.0	2.98	3.49	4.09	374.4	1.28	1.22	1.19
1033.9	1063.9	1.99	1.80	1.70	1033.9	3.01	3.47	4.03	386.9	1.27	1.21	1.18
1054.4	1084.4	1.96	1.82	1.76	1054.4	3.03	3.46	4.00	399.5	1.27	1.21	1.17
1095.3	1125.3	2.00	1.94	1.96	1095.3	3.04	3.40	3.91	412.1	1.26	1.19	1.16
1115.8	1145.8	2.03	2.01	2.07	1115.8	3.07	3.40	3.91	424.6	1.25	1.19	1.15
1156.8	1186.8	2.18	2.24	2.34	1156.8	3.14	3.45	3.95	437.2	1.23	1.17	1.14
1177.2	1207.2	2.28	2.37	2.48	1177.2	3.21	3.50	3.98	449.7	1.21	1.15	1.12
1218.2	1248.2	2.47	2.62	2.75	1218.2	3.40	3.63	4.06	462.3	1.20	1.13	1.11
1238.7	1268.7	2.59	2.75	2.89	1238.7	3.52	3.73	4.12	474.9	1.18	1.12	1.09
1279.6	1309.6	2.77	2.97	3.11	1279.6	3.74	3.85	4.18	487.4	1.17	1.10	1.07
1300.1	1330.1	2.86	3.08	3.22	1300.1	3.84	3.90	4.21	500.0	1.16	1.08	1.04

REV. X2

TAK-7

100818

Page 4 of 5



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Harmonics Tables

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	19	23	13	32	11	31	29	57	41	62
1	-	13	+0	26	12	29	47	42	39	55	69	65
2	>100	65	57	61	56	67	59	68	52	70	70	>79
3	>100	61	54	62	53	60	54	65	75	77	69	>79
4	>100	>79	>79	>79	>79	>79	>79	>79	>79	>79	>79	>79
5	>100	>79	>79	>79	>79	>79	>79	>79	>79	>79	>79	>79
6	>100	>79	>79	>79	>79	>79	>79	>79	>79	>79	>79	>79
7	>100	>79	>79	>79	>79	>79	>79	>79	>79	>79	>79	>79
8	>100	>79	>79	>79	>79	>79	>79	>79	>79	>79	>79	>79
9	>100	>79	>79	>79	>79	>79	>79	>79	>79	>79	>79	>79
10	>100	>79	>79	>79	>79	>79	>79	>79	>79	>79	>79	>79
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

LO HARMONICS ORDER

Test conditions: RF IN: 500.1 MHz; -14.00 dBm.
LO IN: 530.01 MHz; +7.00 dBm
IF OUT: 29.91 MHz; -20.54 dBm

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	28	33	24	44	23	45	42	69	53	77
1	-	13	+0	27	13	32	49	47	47	61	71	66
2	95	59	51	56	52	66	50	60	45	71	63	80
3	>100	46	41	46	39	45	39	51	55	61	57	75
4	>100	80	77	80	70	79	63	77	71	76	65	77
5	>100	72	70	60	55	59	53	57	54	67	73	75
6	>100	86	89	>89	>89	88	>89	>89	82	88	88	87
7	>100	>89	86	>89	86	76	72	72	71	69	70	81
8	>100	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89
9	>100	>89	>89	>89	>89	>89	>89	>89	88	84	85	82
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: 500.1 MHz; -4.00 dBm.
LO IN: 530.01 MHz; +7.00 dBm
IF OUT: 29.91 MHz; -10.55 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.

REV. X2
TAK-7
100818
Page 5 of 5



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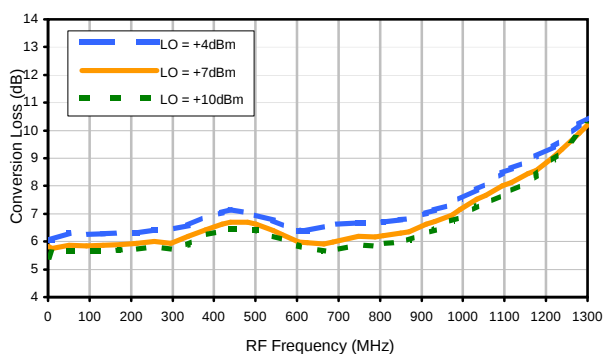


Frequency Mixer

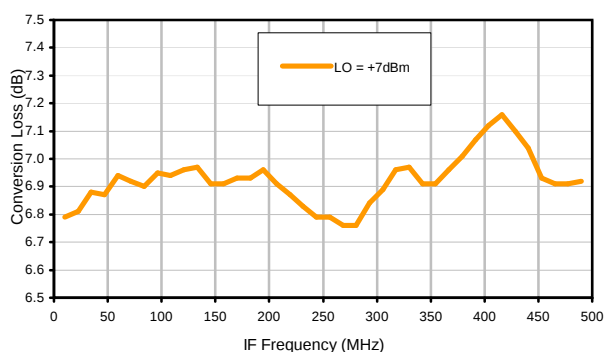
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Typical Performance Curves

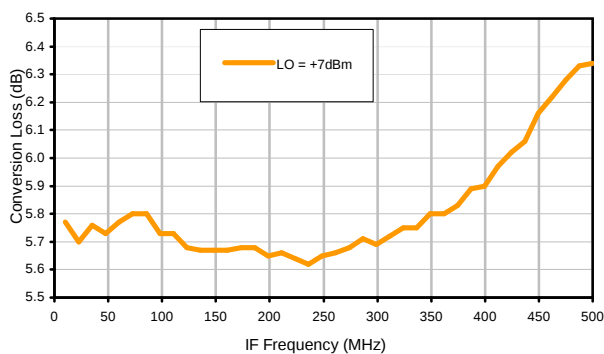
Conversion Loss @ IF=30MHz



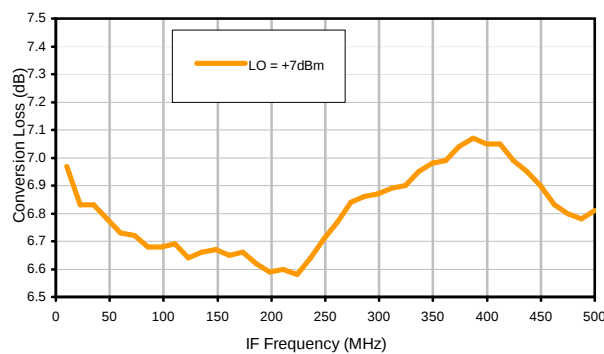
Conversion Loss vs. IF @ RF=500.1MHz



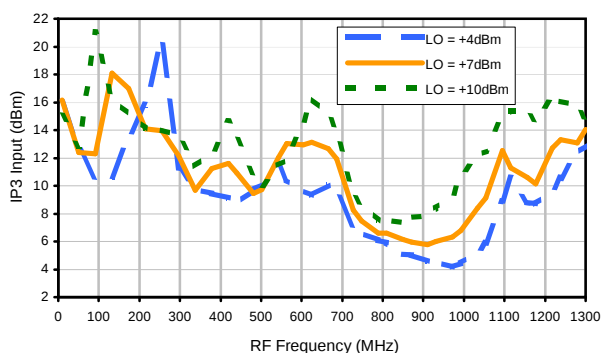
Conversion Loss vs. IF @ RF=10.1MHz



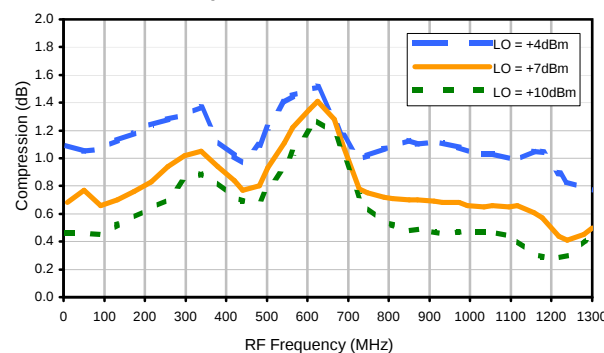
Conversion Loss vs. IF @ RF=1000.1MHz



IP3 Input



Compression @ RF IN=+1dBm



REV. X2

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Page 1 of 3

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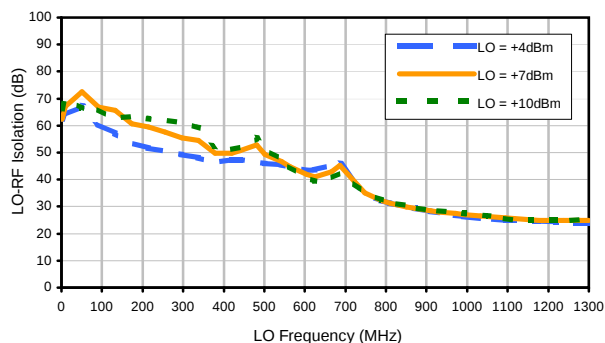


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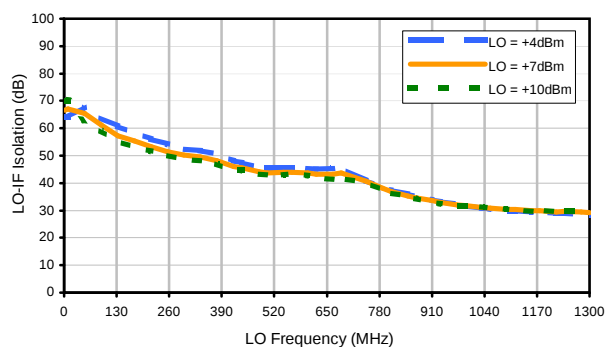


Typical Performance Curves

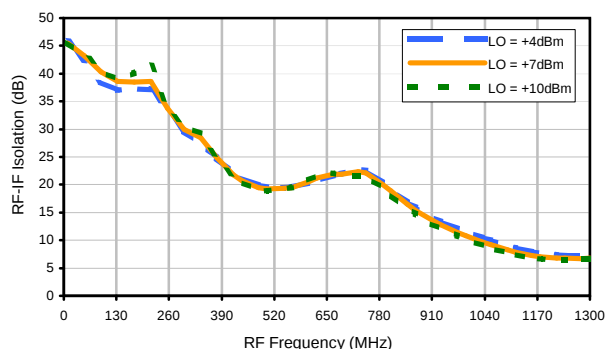
LO-RF Isolation



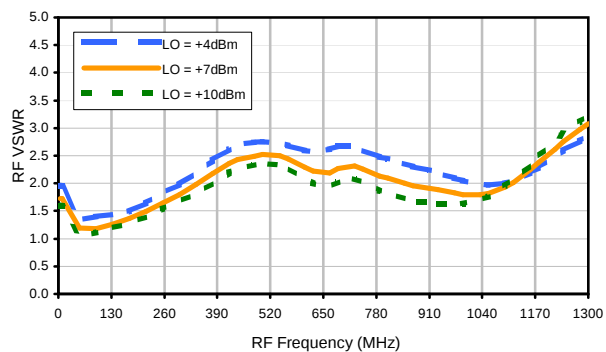
LO-IF Isolation



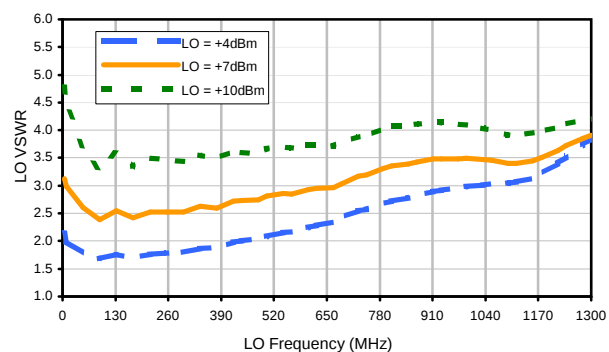
RF-IF Isolation



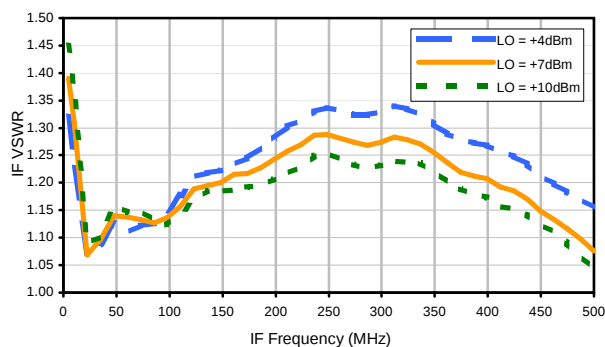
RF VSWR



LO VSWR



IF VSWR



REV. X2

TAK-7

100818

Page 2 of 3



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5	>100	>79	>79	>79	>79	>79	>79	>79	>79	>79	>79	>79
6	>100	>79	>79	>79	>79	>79	>79	>79	>79	>79	>79	>79
7	>100	>79	>79	>79	>79	>79	>79	>79	>79	>79	>79	>79
8	>100	>79	>79	>79	>79	>79	>79	>79	>79	>79	>79	>79
9	>100	>79	>79	>79	>79	>79	>79	>79	>79	>79	>79	>79
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5	>100	72	70	60	55	59	53	57	54	67	73	75
6	>100	86	89	>89	>89	88	>89	>89	82	88	88	87
7	>100	>89	86	>89	86	76	72	72	71	69	70	81
8	>100	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89	>89
9	>100	>89	>89	>89	>89	>89	>89	>89	88	84	85	82
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

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REV. X2
TAK-7
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Page 3 of 3



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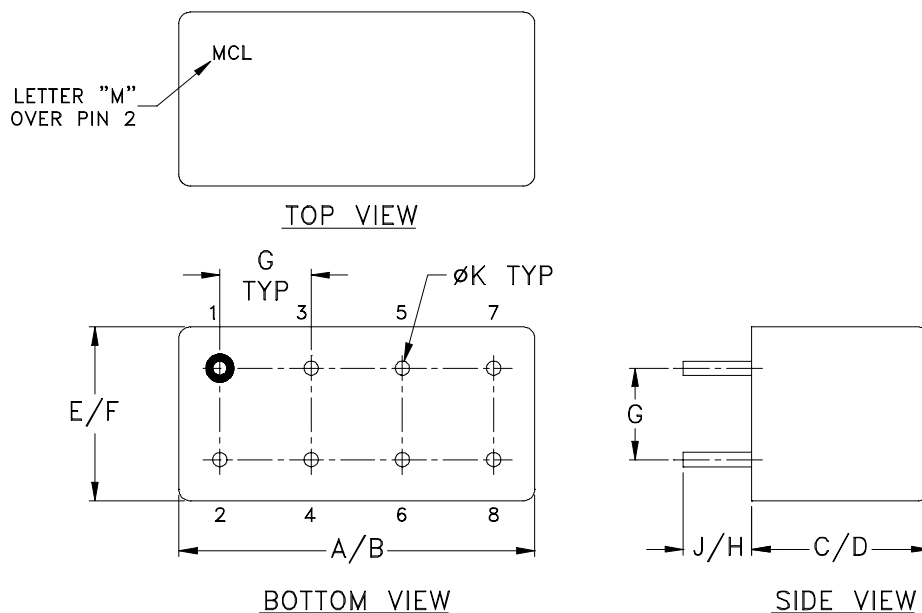
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A01
A04
A05
A06

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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