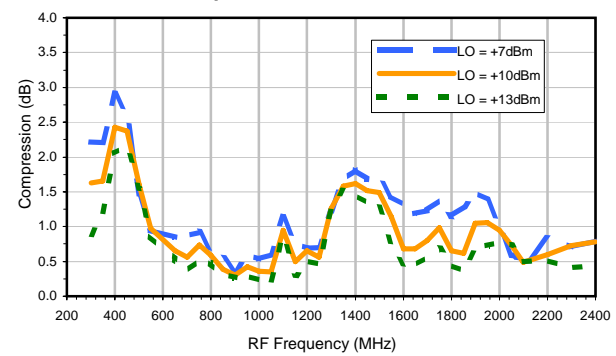
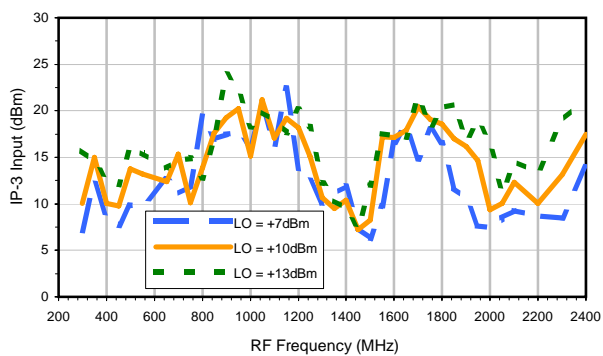
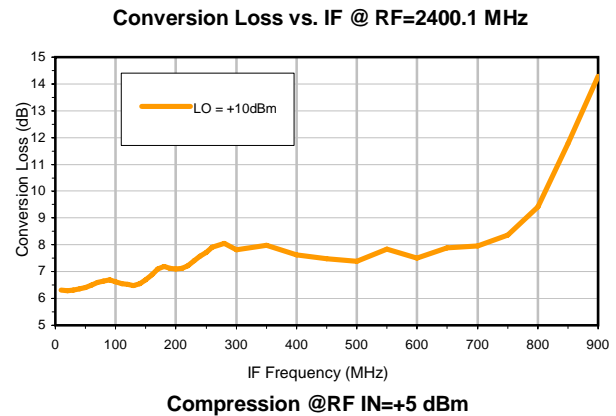
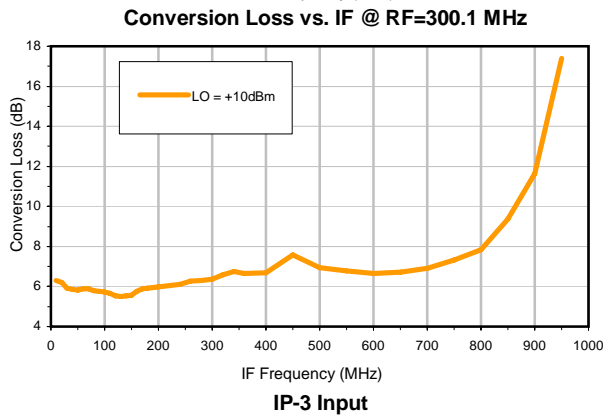
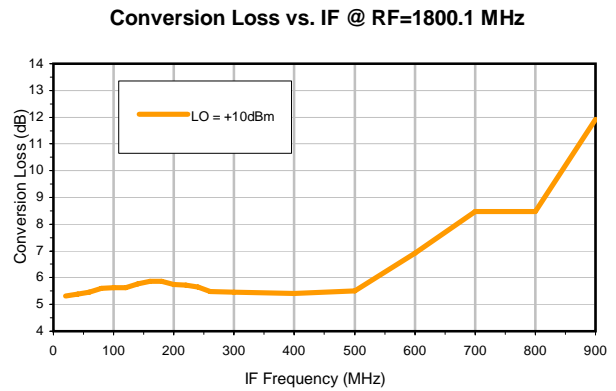
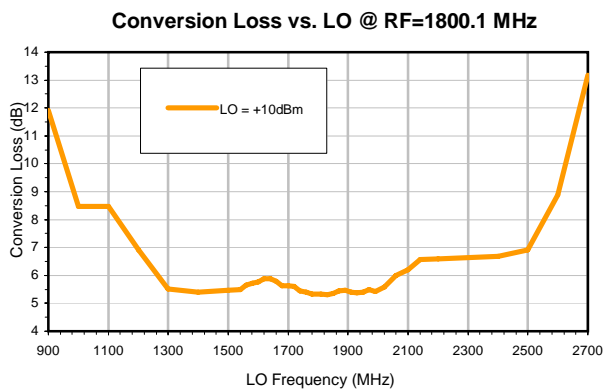
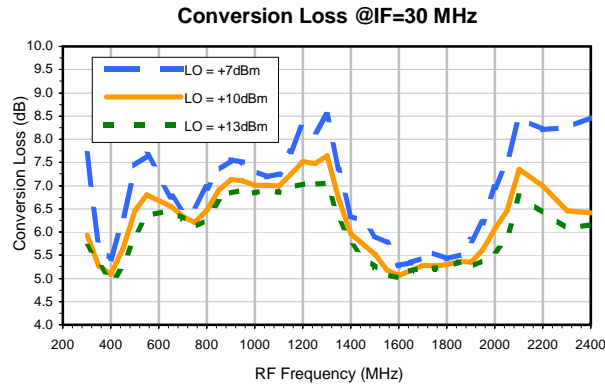


# Frequency Mixer

# MAC-24LH+

## Typical Performance Curves



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IF/RF MICROWAVE COMPONENTS

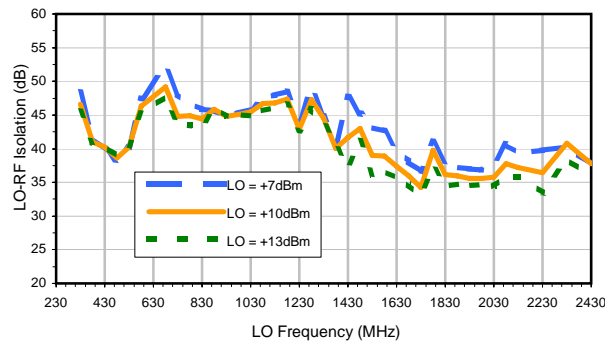
REV. X1  
 MAC-24LH+  
 12/20/2011  
 Page 1 of 3

# Frequency Mixer

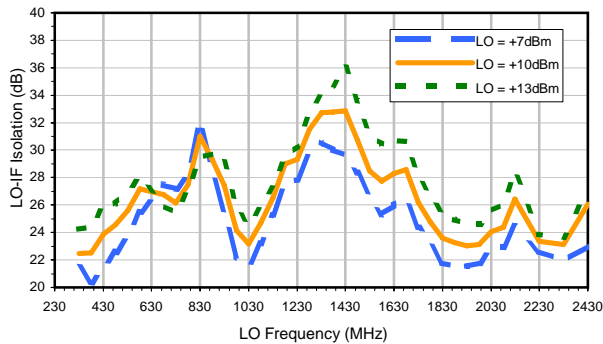
# MAC-24LH+

## Typical Performance Curves

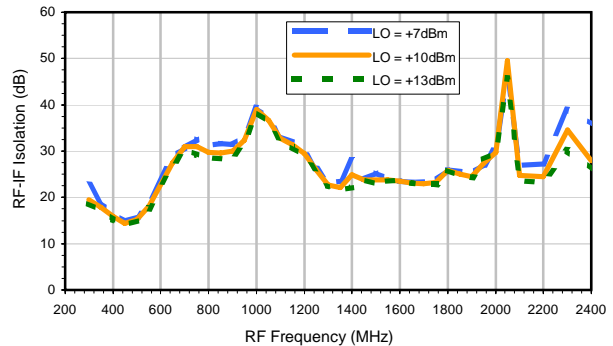
LO-RF Isolation



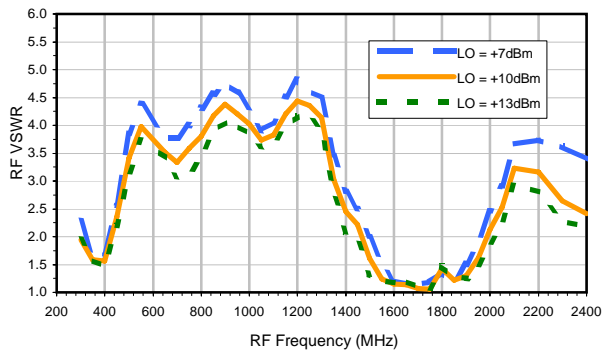
LO-IF Isolation



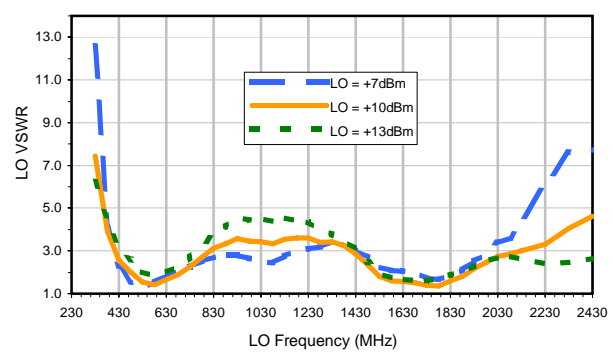
RF-IF Isolation



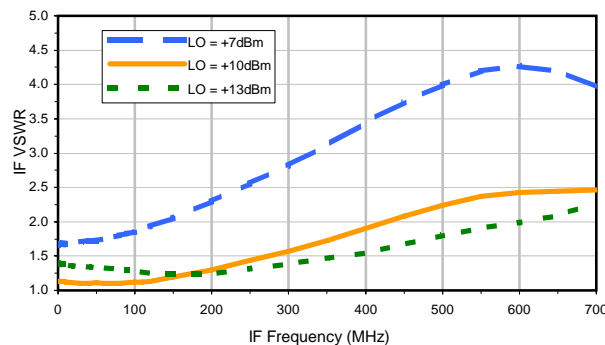
RF VSWR



LO VSWR



IF VSWR



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IF/RF MICROWAVE COMPONENTS

REV. X1  
 MAC-24LH+  
 12/20/2011  
 Page 2 of 3

## Harmonics Tables

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	---	---	-1.36	20.66	13.74	22.95	20.34	28.17	14.64	30.83	30.27	58.91
1	---	20.45	---	30.02	13.62	44.83	29.45	43.74	28.82	43.63	48.12	43.63
2	122.75	67.20	63.45	59.04	53.64	65.50	65.59	64.32	59.38	61.39	48.15	63.45
3	127.29	76.40	66.68	72.51	63.73	72.05	62.30	83.86	78.39	75.21	72.93	90.60
4	128.65	98.22	96.54	103.13	97.24	93.82	96.35	93.42	106.36	97.21	89.05	93.83
5	125.80	108.70	103.34	112.67	100.85	105.34	101.30	107.53	102.49	108.00	105.11	108.26
6	127.92	106.09	111.50	107.96	107.14	108.94	103.02	107.00	108.74	107.98	106.13	104.06
7	129.12	103.31	108.85	107.70	112.02	110.75	106.60	113.08	108.21	105.61	106.64	112.28
8	123.17	101.59	108.21	103.16	104.67	104.64	110.72	105.66	108.54	99.65	106.84	109.35
9	124.88	100.73	108.10	105.20	106.06	107.51	105.41	108.08	108.59	106.05	103.06	104.53
10	123.99	99.98	104.75	102.64	102.88	106.65	107.78	107.24	105.46	110.48	106.33	103.48
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

### LO HARMONICS ORDER

Test conditions: RF IN: 1800.1 MHz; -10 dBm.  
 LO IN: 1830.1 MHz; +10.00 dBm  
 IF OUT: 30.00 MHz; -15.07 dBm

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	---	---	8.73	30.99	24.25	34.63	31.82	43.03	28.11	46.88	46.82	71.07
1	---	19.96	---	31.59	14.05	46.22	28.55	48.35	30.55	46.84	47.49	52.18
2	117.49	54.52	52.15	50.38	44.59	57.61	57.51	58.00	52.68	53.67	41.72	58.08
3	110.73	56.02	49.41	57.64	43.31	54.68	41.50	65.74	58.03	56.50	48.74	71.25
4	111.35	74.73	70.29	83.86	64.89	70.46	66.01	68.50	86.81	69.69	69.47	69.47
5	118.39	82.52	86.40	82.28	68.20	73.13	69.33	76.05	66.29	83.88	72.47	77.08
6	124.75	89.17	93.97	90.21	91.31	87.59	82.08	85.09	87.83	81.29	93.10	83.79
7	112.93	93.99	95.16	92.12	97.86	105.04	87.72	91.73	82.74	91.21	78.42	95.75
8	113.30	102.21	102.13	94.82	98.58	102.08	90.90	94.20	95.28	108.03	92.85	105.15
9	117.93	102.54	96.20	108.39	104.86	102.19	98.41	107.45	95.17	102.31	98.61	110.40
10	104.93	99.35	92.31	102.10	100.48	106.76	111.27	108.64	95.07	128.34	94.56	106.93
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

### LO HARMONICS ORDER

Test conditions: RF IN: 1800.1 MHz; 0 dBm.  
 LO IN: 1830.1 MHz; +10.00 dBm  
 IF OUT: 30.00 MHz; -5.11 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 represents the Harmonics level of the RF Input Signal to the mixer