Frequency Mixer

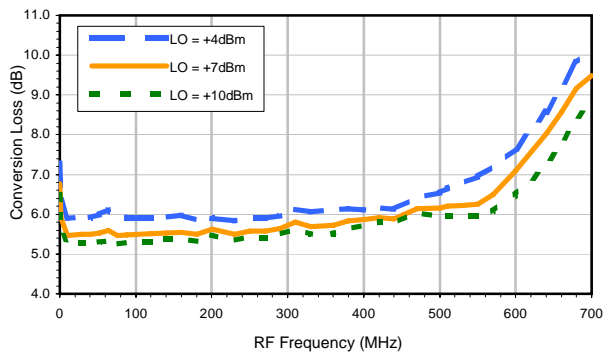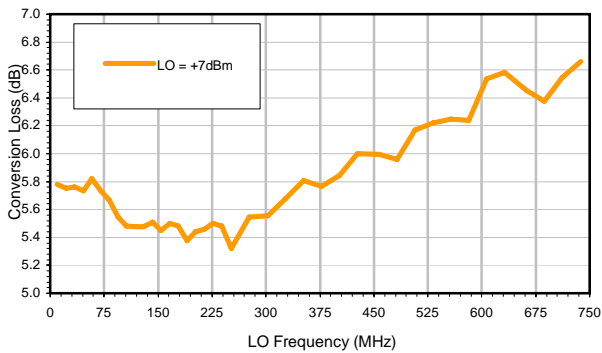<div style="text-align: right">

ML-1

</div>

Typical Performance Curves

Conversion Loss @IF=30 MHz

Conversion Loss vs. LO @ RF=250.25 MHz

Conversion Loss vs. IF @ RF=250.25 MHz

Conversion Loss vs. IF @ RF=0.5 MHz

Conversion Loss vs. IF @ RF=500 MHz
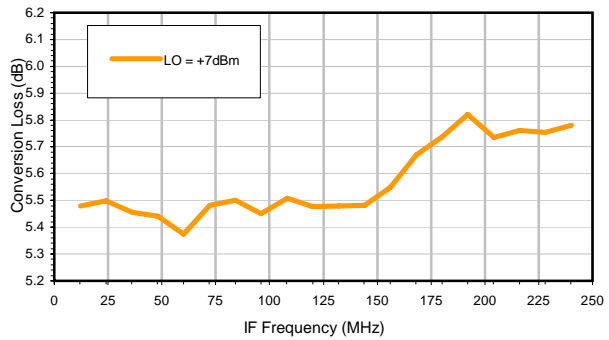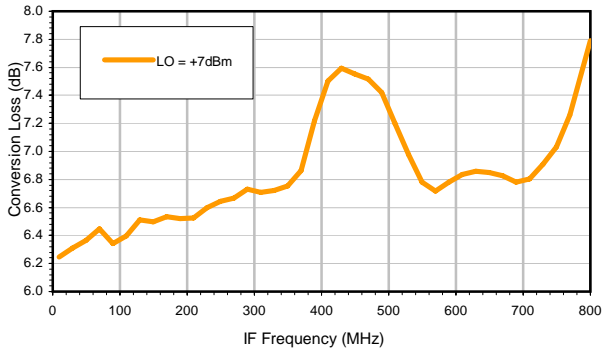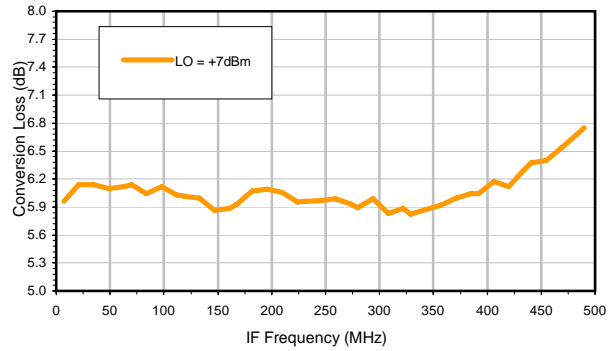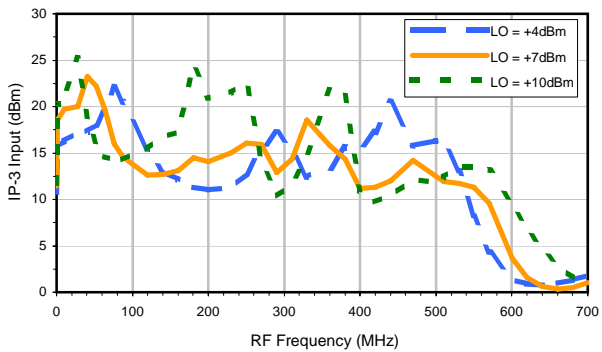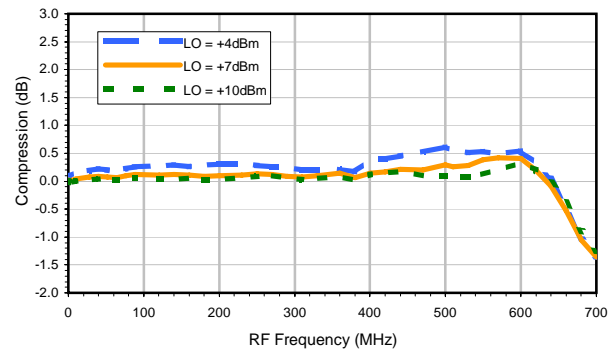

IP-3 Input

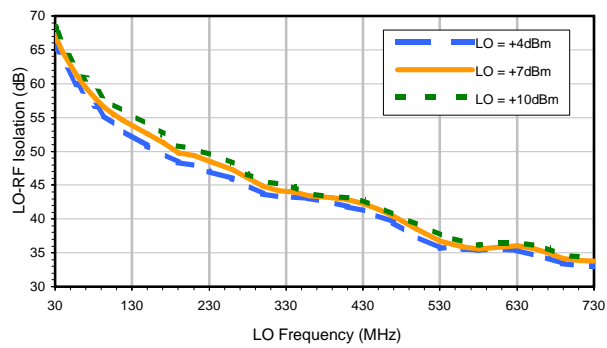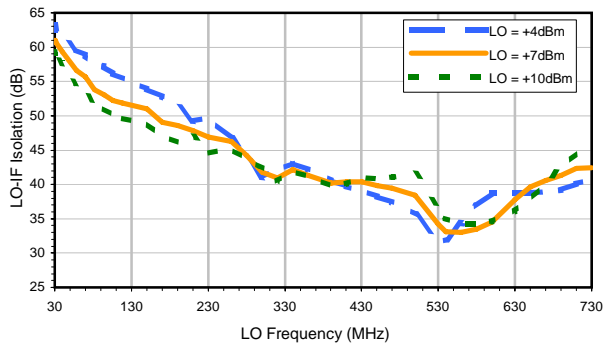**Compression @RF IN=+1 dBm**
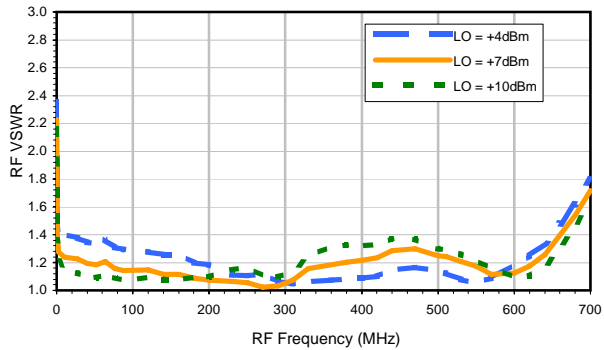
Typical Performance Curves

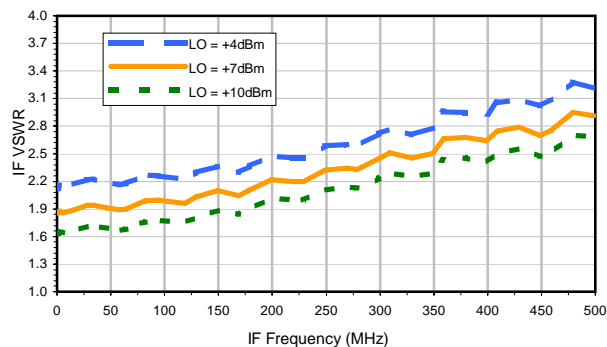**LO-RF Isolation**

LO-IF Isolation

RF-IF Isolation
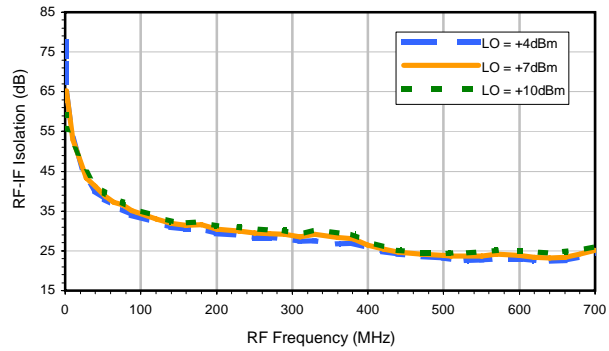
RF VSWR

LO VSWR

IF VSWR

Frequency Mixer ML-1
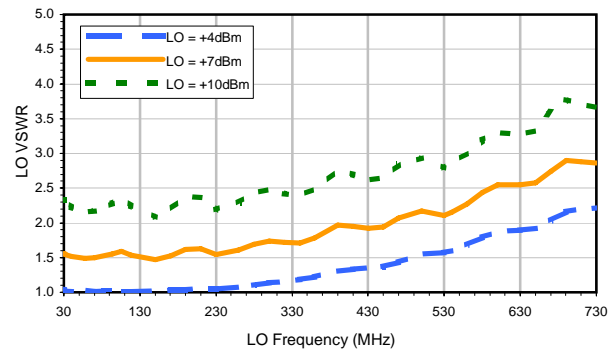
Harmonics Tables

RF HARMONICS ORDER

(-dBm)		(-dBc)									
0	---	---	18.81	32.34	26.35	30.12	22.62	40.04	31.88	44.59	30.83	40.40
1	---	23.87	---	34.92	13.44	41.10	21.11	38.78	37.76	56.66	32.24	50.52
2	117.74	73.58	71.51	71.05	64.23	72.40	61.35	73.89	55.75	72.42	79.12	74.10
3	120.40	69.28	61.84	71.51	68.25	87.51	58.56	72.01	56.33	82.59	63.84	89.10
4	121.36	92.61	84.91	88.86	86.36	87.66	81.00	89.86	82.05	95.23	83.81	91.85
5	121.83	97.49	90.72	93.03	86.09	95.43	80.48	96.69	81.44	95.86	80.02	97.94
6	119.80	97.24	98.67	97.35	98.41	95.75	95.34	94.26	95.15	97.08	96.78	100.48
7	120.94	97.79	96.77	97.80	97.58	97.31	94.12	96.75	92.42	96.71	98.09	98.16
8	120.36	98.75	97.47	98.36	98.63	97.61	98.42	93.95	96.70	91.25	96.60	97.09
9	118.45	96.24	99.00	98.10	100.06	98.84	96.64	95.56	90.60	95.42	91.56	98.14
10	117.97	96.08	99.08	97.56	98.81	97.44	98.16	96.19	96.90	91.76	95.64	93.69
RF CAL	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

LO HARMONICS ORDER

Test conditions:
RF IN: 250.25 MHz; -15.00 dBm.
LO IN: 280.25 MHz; +7.00 dBm
IF OUT: 30.00 MHz; -20.47 dBm

RF HARMONICS ORDER

(-dBm)		(-dBc)									
0	---	---	27.07	42.47	36.01	40.84	35.22	52.34	42.60	57.32	42.40	53.81
1	---	24.23	---	34.59	13.16	43.17	20.13	38.92	38.23	57.08	38.10	53.60
2	107.75	77.21	67.07	71.35	61.14	72.30	62.58	65.42	52.24	67.51	60.52	73.62
3	110.41	56.82	47.12	59.27	56.13	70.37	51.13	59.99	51.09	81.46	54.10	72.61
4	111.37	91.34	71.12	82.46	87.39	85.12	71.38	82.69	69.77	91.99	68.07	84.56
5	111.84	75.77	65.82	72.29	71.74	73.18	62.10	85.01	57.38	74.63	56.12	77.85
6	109.81	99.54	83.69	94.82	86.53	88.35	86.82	90.78	77.14	92.31	76.42	106.46
7	110.95	92.36	85.37	82.33	84.18	81.94	80.88	83.72	70.36	94.97	68.49	84.69
8	110.37	107.47	94.62	102.84	99.13	98.38	104.66	95.95	88.31	96.24	84.53	97.49
9	108.46	106.26	92.30	100.80	92.38	90.62	97.51	90.95	83.22	92.32	78.76	101.52
10	107.98	106.53	104.77	108.17	103.93	103.89	105.60	106.00	101.61	101.28	95.39	102.05
RF CAL	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

LO HARMONICS ORDER

Test conditions:
RF IN: 250.25 MHz; -5.00 dBm.
LO IN: 280.25 MHz; +7.00 dBm
IF OUT: 30.00 MHz; -10.48 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