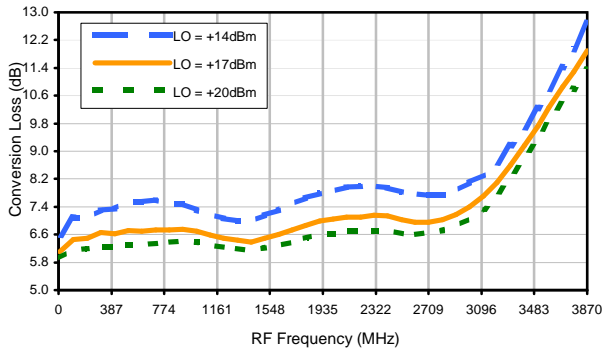


# Frequency Mixer

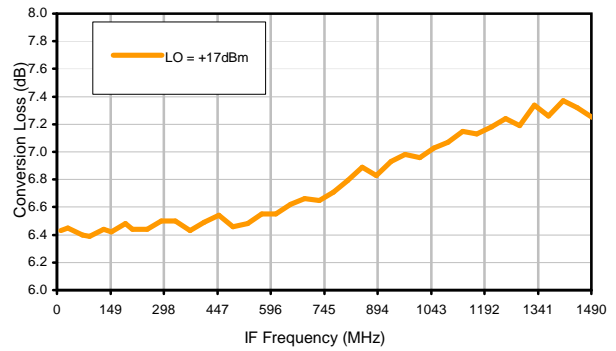
# SYM-30DHW+

## Typical Performance Curves

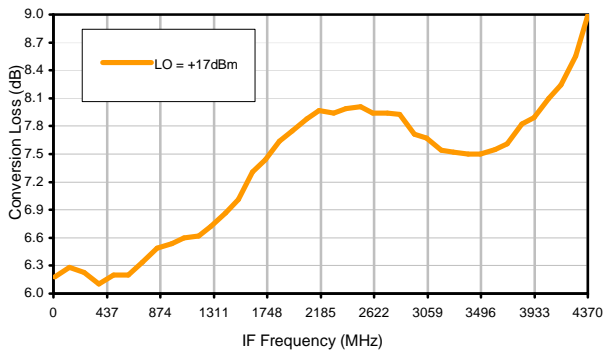
Conversion Loss @ IF=30MHz



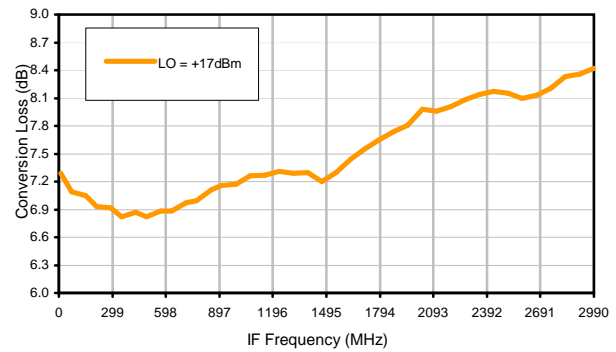
Conversion Loss vs. IF @ RF=1501MHz



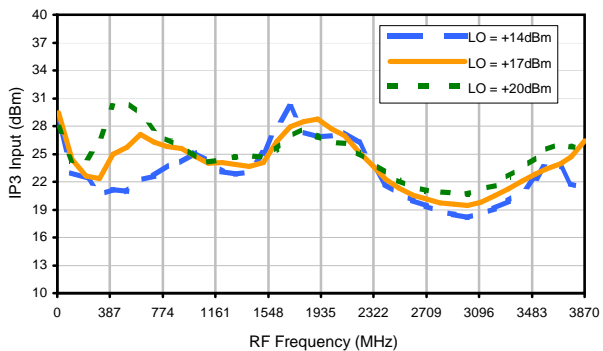
Conversion Loss vs. IF @ RF=10.1MHz



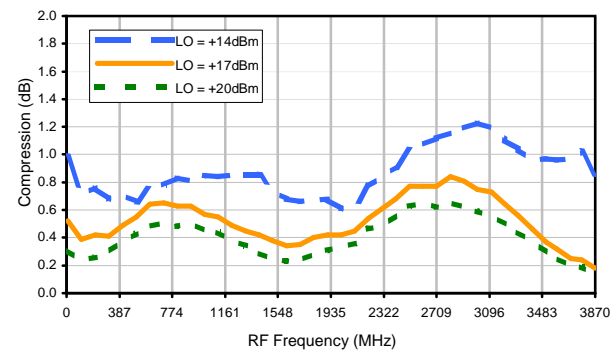
Conversion Loss vs. IF @ RF=3000.1001MHz



IP3 Input

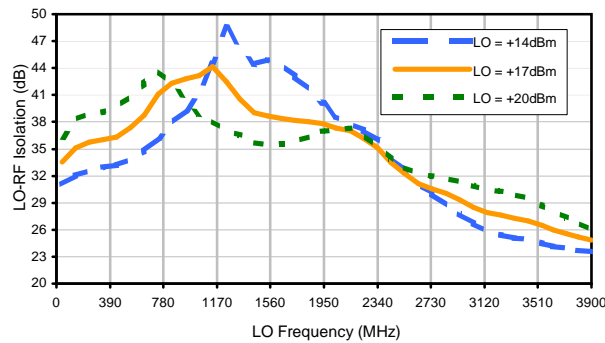


Compression @ RF IN=+14dBm

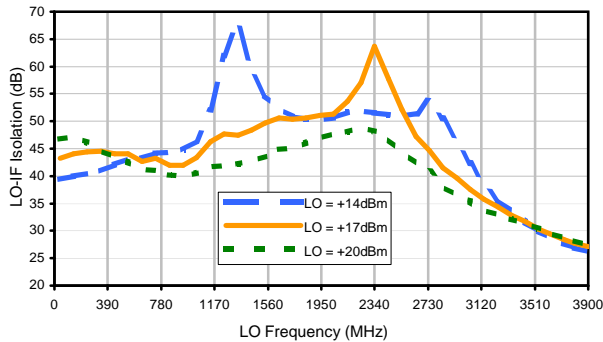


## Typical Performance Curves

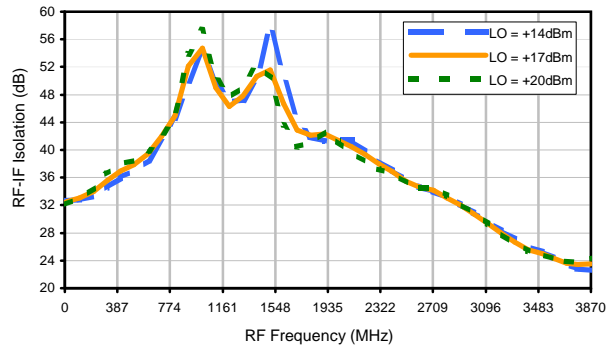
LO-RF Isolation



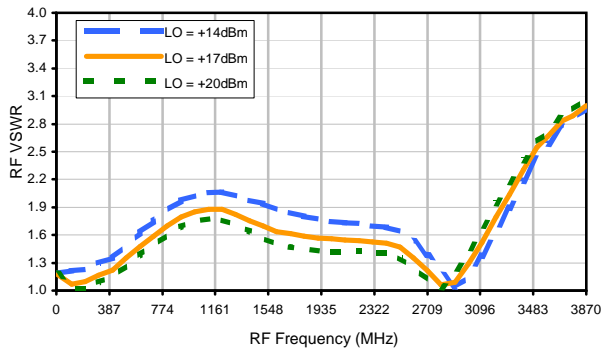
LO-IF Isolation



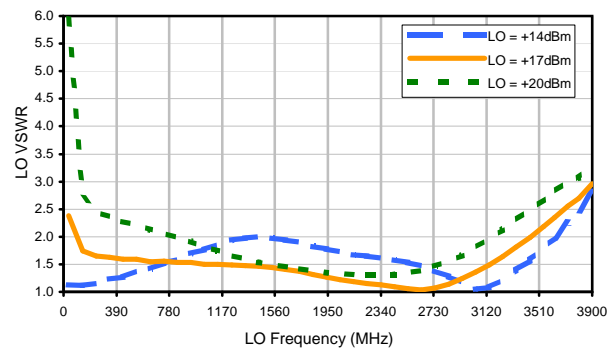
RF-IF Isolation



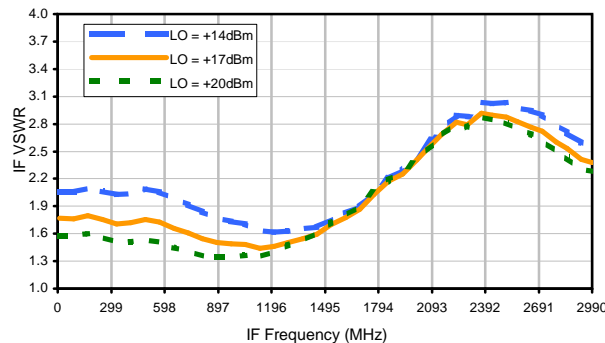
RF VSWR



LO VSWR



IF VSWR



## Harmonics Tables

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	26	10	28	18	28	33	31	53	34	52
1	-	45	+0	36	14	55	25	36	47	33	42	40
2	68	59	63	63	66	54	58	66	60	69	56	62
3	>100	77	60	80	60	78	67	78	71	69	74	62
4	>100	>93	>93	>93	>93	>93	>93	>93	>93	92	92	>93
5	>100	>93	>93	>93	>93	>93	>93	>93	>93	>93	>93	>93
6	>100	>93	>93	>93	>93	>93	>93	>93	>93	>93	>93	>93
7	>100	>93	>93	>93	>93	>93	>93	>93	>93	>93	>93	>93
8	>100	>93	>93	>93	>93	>93	>93	>93	>93	>93	>93	>93
9	>100	>93	>93	>93	>93	>93	>93	>93	>93	>93	>93	>93
10	>100	>93	>93	>93	>93	>93	>93	>93	>93	>93	>93	>93
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

Test conditions:

RF IN: 1502.5 MHz; -1.00 dBm.

LO IN: 1532.5 MHz; +17.00 dBm

IF OUT: 30 MHz; -7.43 dBm

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	34	20	41	29	41	49	48	63	56	69
1	-	46	+0	37	14	58	26	41	51	42	51	59
2	48	46	51	50	54	46	48	50	53	60	53	60
3	95	59	40	67	42	60	53	63	53	52	62	47
4	>100	71	68	66	76	61	72	56	73	64	72	75
5	>100	78	70	80	60	85	56	76	57	73	63	70
6	>100	96	86	91	83	78	89	77	94	77	77	82
7	>100	88	92	98	84	90	79	90	75	90	88	91
8	>100	>103	101	>103	101	92	93	89	93	88	88	93
9	>100	>103	>103	94	>103	103	>103	101	94	>103	85	>103
10	>100	>103	>103	>103	>103	>103	>103	>103	>103	97	>103	91
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

### LO HARMONICS ORDER

Test conditions:

RF IN: 1502.5 MHz; 9.00 dBm.

LO IN: 1532.5 MHz; +17.00 dBm

IF OUT: 30 MHz; 2.53 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.