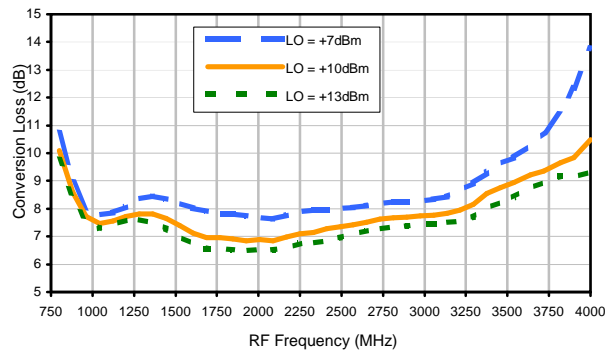


# Frequency Mixer

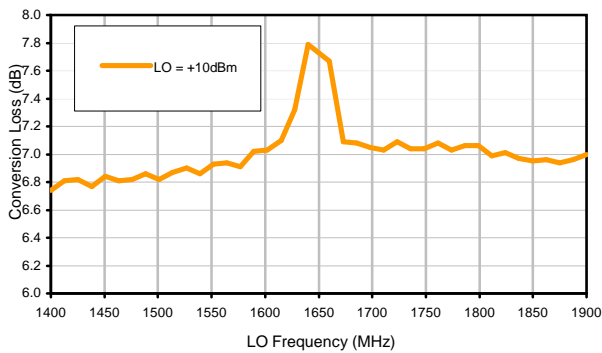
# TUF-11ALHSM

## Typical Performance Curves

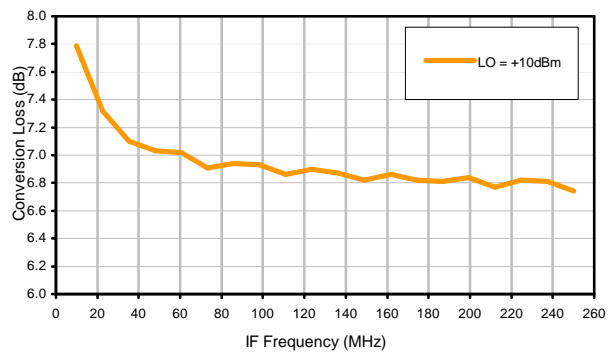
Conversion Loss @ IF=40MHz



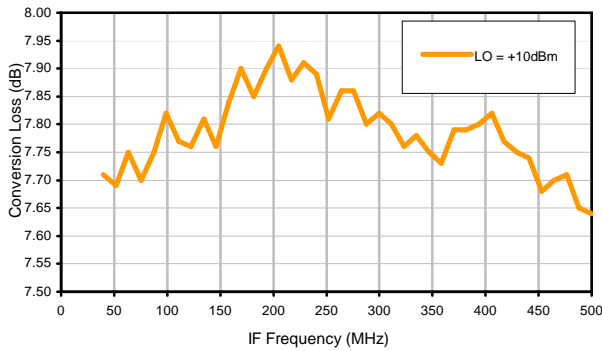
Conversion Loss vs. LO @ RF=1650.1MHz



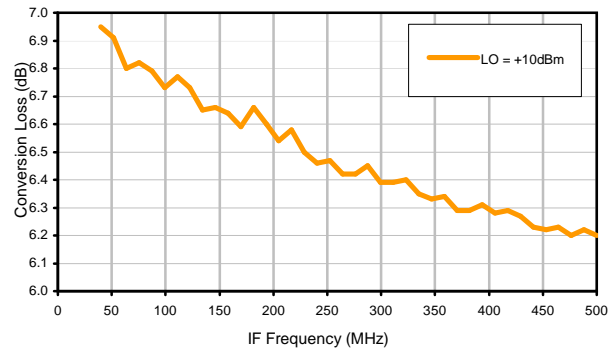
Conversion Loss vs. IF @ RF=1650.1MHz



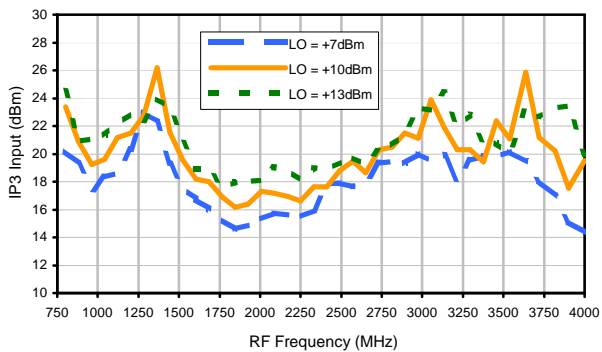
Conversion Loss vs. IF @ RF=1400.1MHz



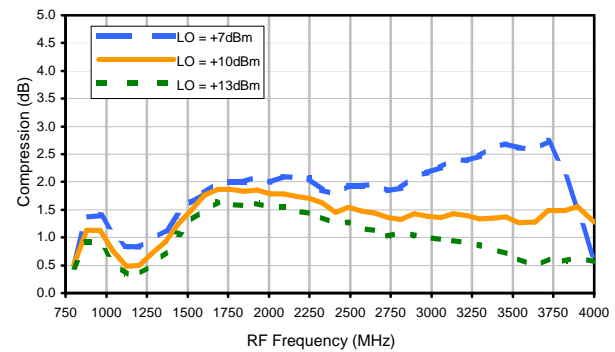
Conversion Loss vs. IF @ RF=1900.1MHz



IP3 Input

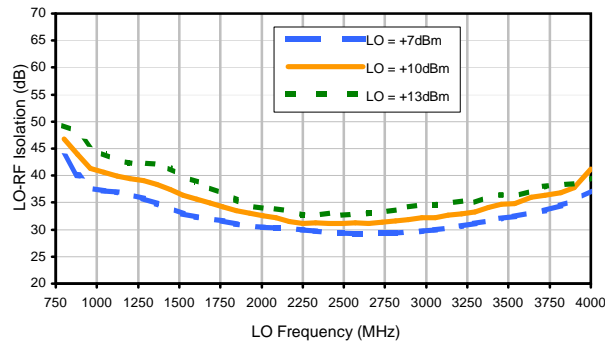


Compression @ RF IN=+5dBm

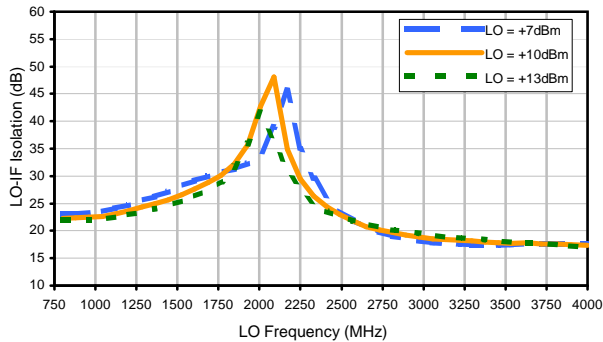


## Typical Performance Curves

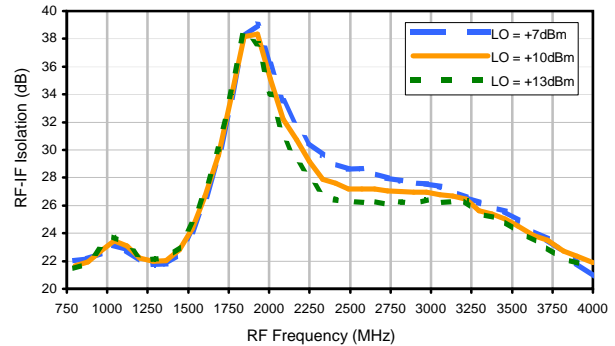
LO-RF Isolation



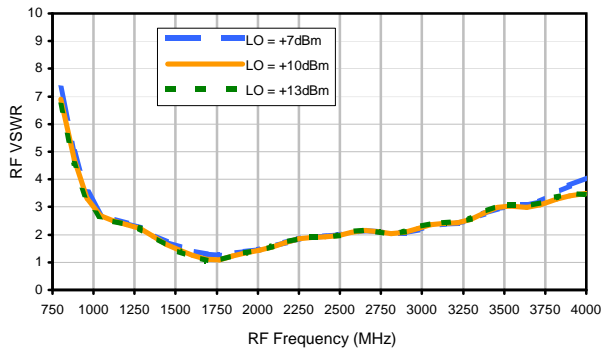
LO-IF Isolation



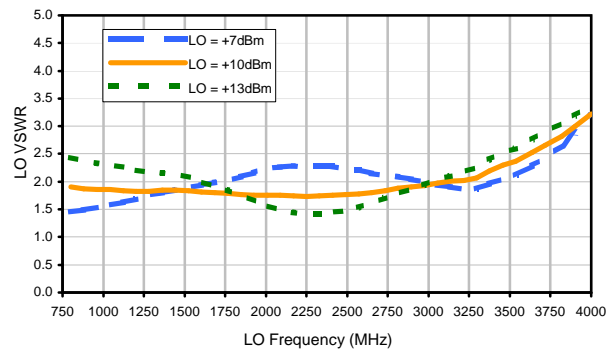
RF-IF Isolation



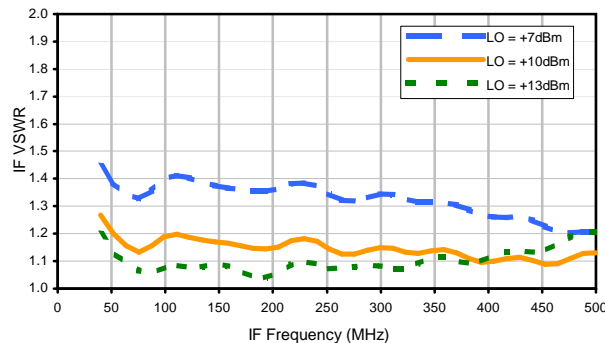
RF VSWR



LO VSWR



IF VSWR



## Harmonics Tables

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	12	29	19	44	31	45	55	55	57	82
1	-	23	+0	38	16	42	47	52	61	62	66	74
2	>100	48	43	41	55	61	45	60	52	63	64	69
3	>100	40	37	54	31	59	49	50	63	64	62	81
4	>100	70	65	71	53	49	67	67	67	71	71	67
5	>100	65	70	55	52	58	43	73	51	71	67	76
6	>100	75	75	78	83	71	58	60	75	70	76	78
7	>100	79	87	83	81	74	62	73	56	86	73	74
8	>100	85	84	90	85	87	86	77	67	64	90	81
9	>100	>93	84	>93	>93	85	88	76	72	74	64	87
10	>100	>93	92	91	>93	>93	>93	90	>93	82	71	73
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

### LO HARMONICS ORDER

Test conditions: RF IN: 1650.1 MHz; 0.00 dBm.  
 LO IN: 1690.01 MHz; +10.00 dBm  
 IF OUT: 39.91 MHz; -7.25 dBm

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	2	20	8	30	17	32	40	43	48	62
1	-	24	+0	39	15	33	46	43	52	53	49	55
2	>100	58	52	46	59	62	52	67	54	57	66	60
3	>100	64	57	77	49	>83	58	74	69	80	73	>83
4	>100	>83	>83	>83	80	79	>83	>83	>83	>83	81	>83
5	>100	>83	>83	>83	>83	>83	80	>83	>83	>83	>83	>83
6	>100	>83	>83	>83	>83	>83	>83	>83	>83	>83	>83	>83
7	>100	>83	>83	>83	>83	>83	>83	>83	>83	>83	>83	>83
8	>100	>83	>83	>83	>83	>83	>83	>83	>83	>83	>83	>83
9	>100	>83	>83	>83	>83	>83	>83	>83	>83	>83	>83	>83
10	>100	>83	>83	>83	>83	>83	>83	>83	>83	>83	>83	>83
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

### LO HARMONICS ORDER

Test conditions: RF IN: 1650.1 MHz; -10.00 dBm.  
 LO IN: 1690.01 MHz; +10.00 dBm  
 IF OUT: 39.91 MHz; -17.15 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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