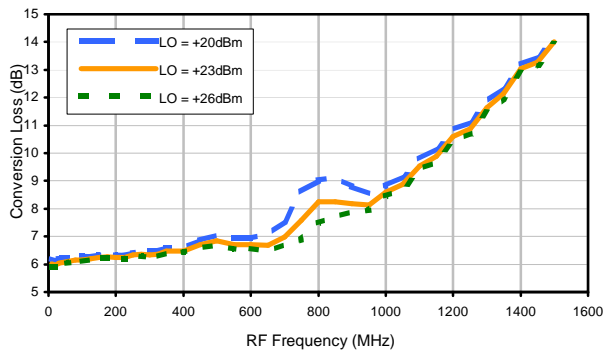


# Frequency Mixer

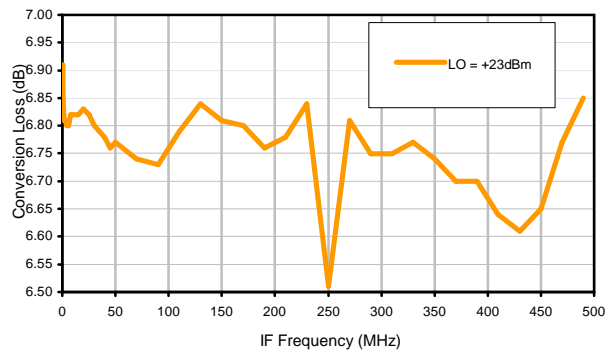
RAY-2

## Typical Performance Curves

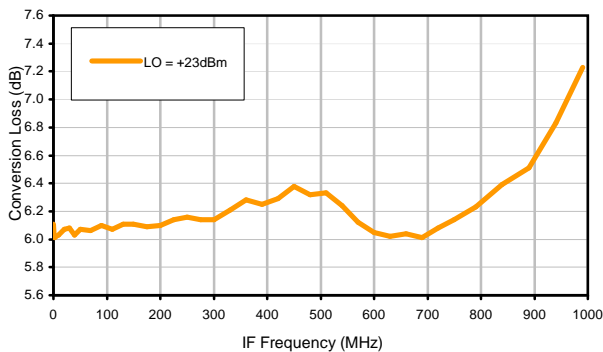
Conversion Loss @ IF=30MHz



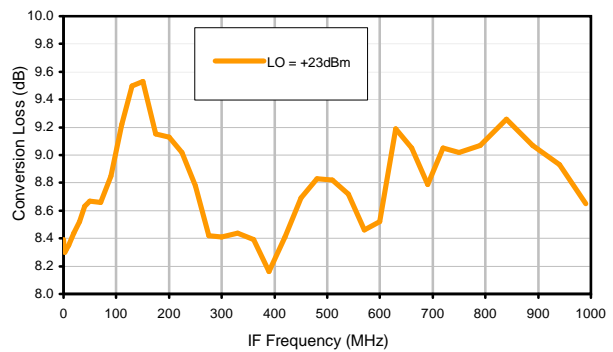
Conversion Loss vs. IF @ RF=500.1MHz



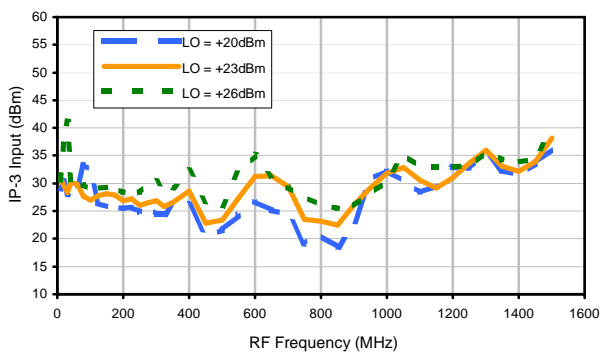
Conversion Loss vs. IF @ RF=10.1MHz



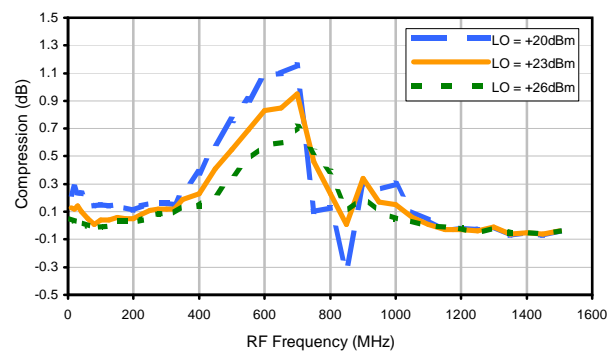
Conversion Loss vs. IF @ RF=1000.1MHz



IP3 Input



Compression @ RF IN=+15dBm



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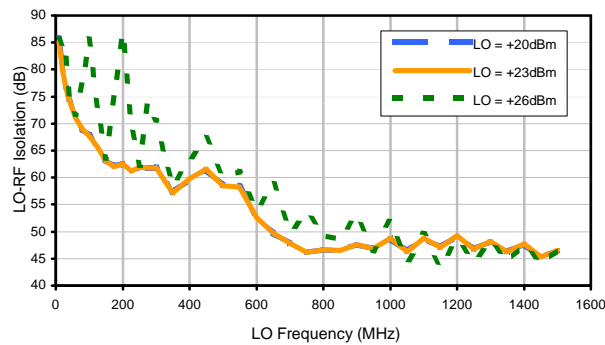


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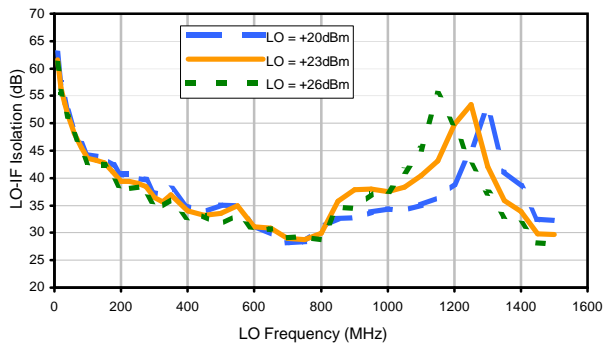


## Typical Performance Curves

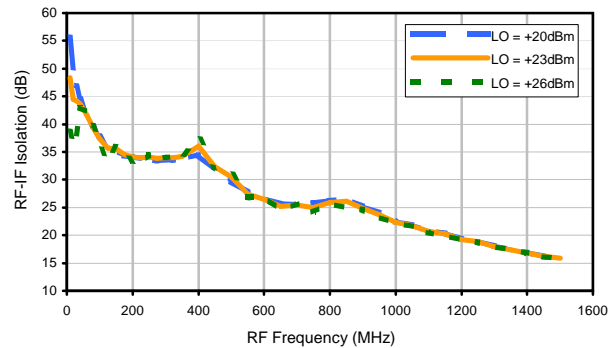
LO-RF Isolation



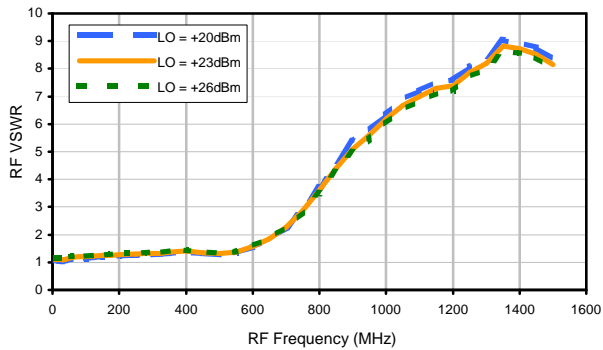
LO-IF Isolation



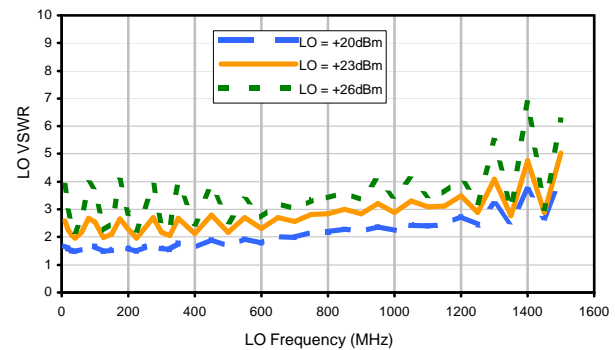
RF-IF Isolation



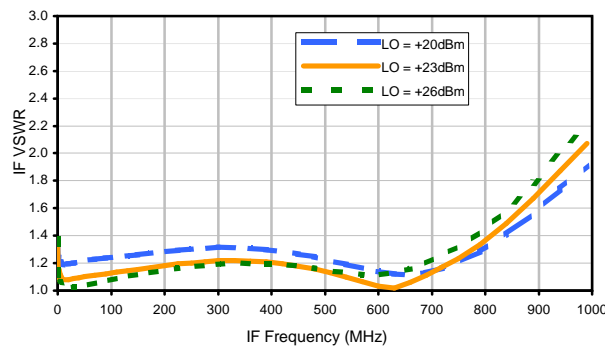
RF VSWR



LO VSWR



IF VSWR



## Harmonics Tables

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	7	21	12	45	7	37	25	43	41	46
1	-	24	+0	41	12	39	35	54	33	59	38	64
2	94	60	49	60	48	62	64	87	56	76	62	83
3	105	74	55	71	54	71	56	81	70	88	67	85
4	>123	107	94	100	83	94	80	91	94	102	99	99
5	>122	111	114	105	94	98	91	97	91	111	101	118
6	>122	>122	110	>125	106	110	99	109	98	110	114	121
7	>120	>124	>125	>124	>127	>126	>120	>122	116	>121	120	>127
8	>122	124	>124	>126	>126	125	>124	>122	>119	>120	>118	>125
9	>121	>122	>125	>125	>126	>125	>125	>127	>122	>121	>123	>122
10	>120	>125	>123	>125	>125	>124	>124	>125	>126	>122	>122	>122
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

### LO HARMONICS ORDER

Test conditions: RF IN: 500.1 MHz; .05.00 dBm.  
 LO IN: 530.01 MHz; +23.00 dBm  
 IF OUT: 29.91 MHz; -6.76 dBm

RF HARMONICS ORDER

	(-dBm)	(-dBc)										
0	-	-	16	32	22	58	18	46	37	50	51	56
1	-	24	+0	38	12	39	38	52	39	57	42	70
2	87	50	38	51	37	54	63	72	44	67	56	71
3	97	55	35	55	35	55	37	64	52	71	50	70
4	110	84	78	71	59	65	52	65	69	82	66	80
5	>119	83	81	85	64	77	56	71	55	76	67	97
6	>122	88	85	95	89	75	70	72	64	73	79	86
7	>121	94	87	91	93	99	78	79	70	74	70	87
8	>120	105	107	101	105	108	90	86	79	84	73	82
9	>121	109	98	112	95	108	117	96	90	105	86	92
10	>122	112	108	106	113	103	104	107	97	96	97	92
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

### LO HARMONICS ORDER

Test conditions: RF IN: 500.1 MHz; 10.05.00 dBm.  
 LO IN: 530.01 MHz; +23.00 dBm  
 IF OUT: 29.91 MHz; 3.25 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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