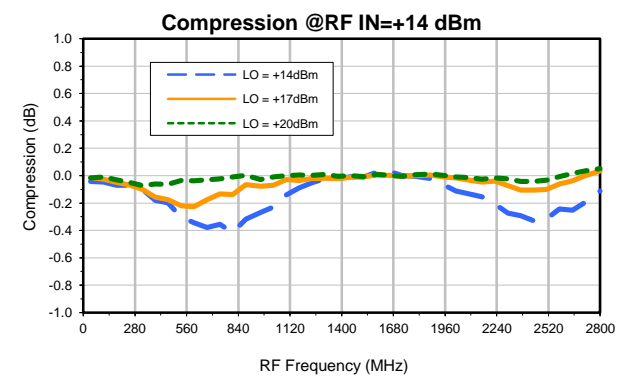
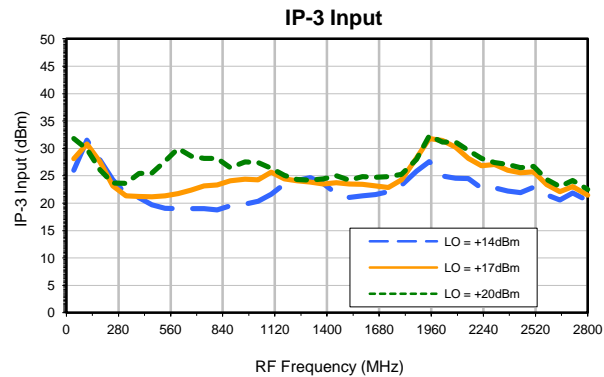
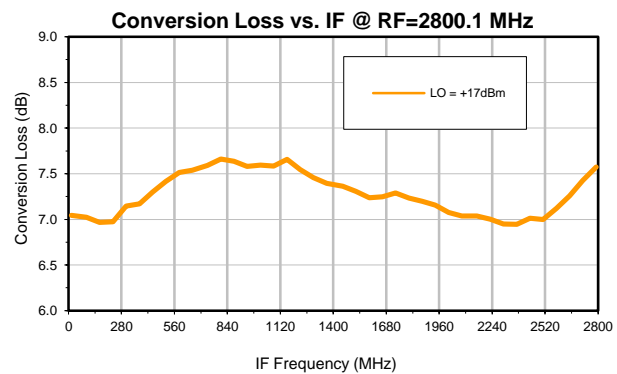
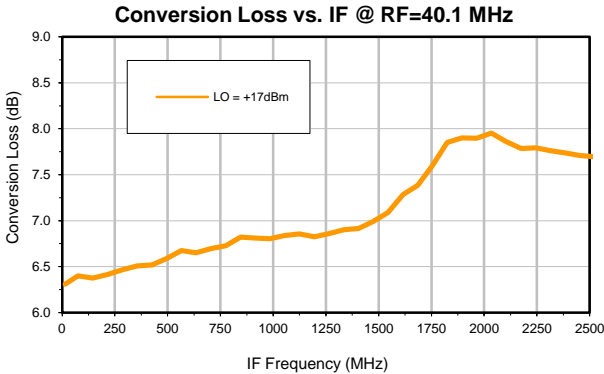
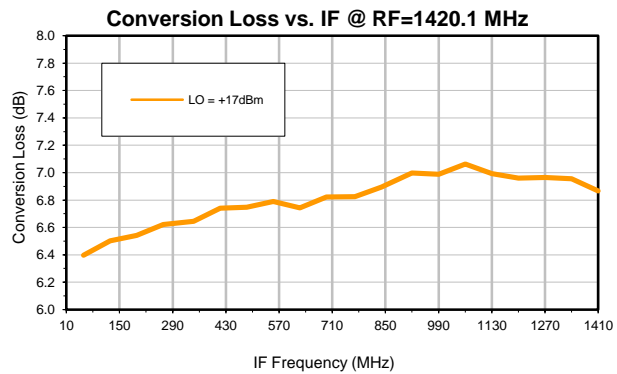
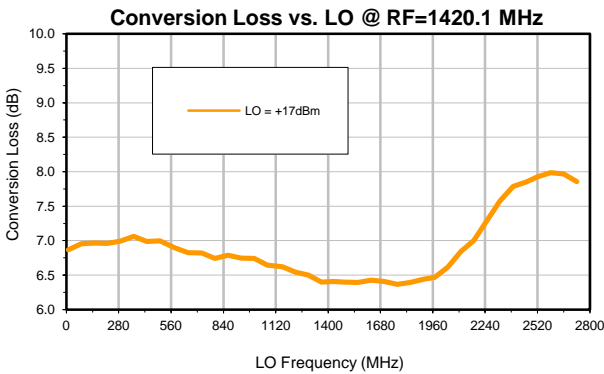
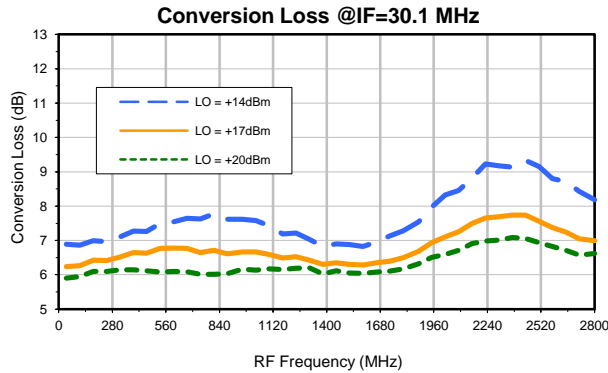


Frequency Mixer

Typical Performance Curves

SYM-R252HW+



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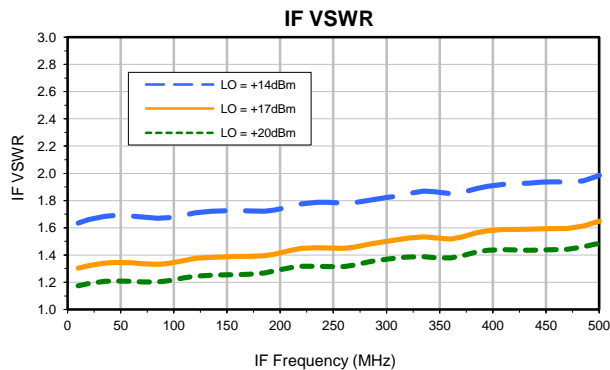
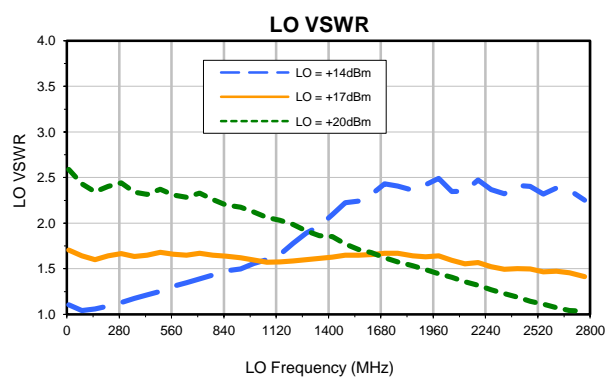
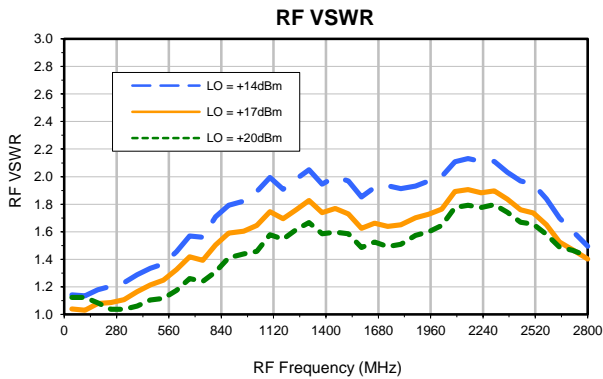
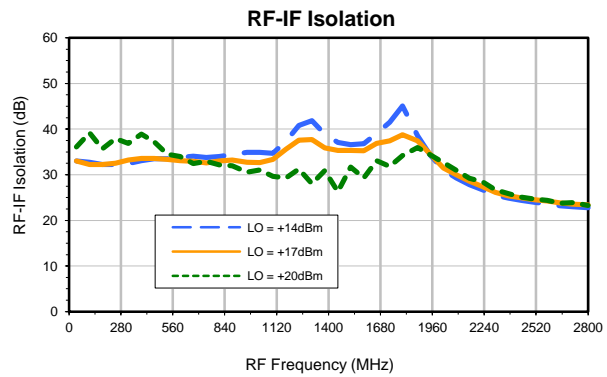
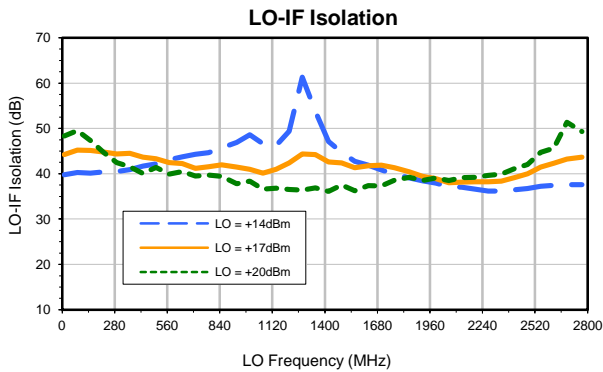
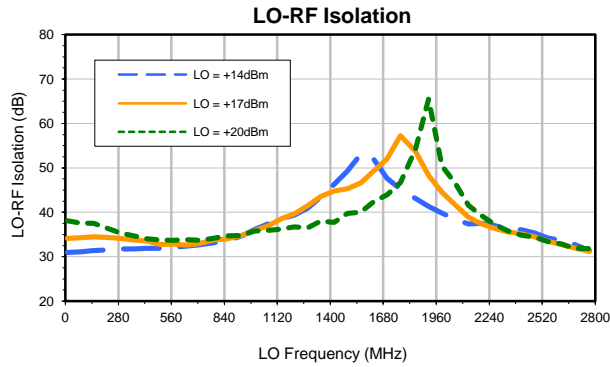
IF/RF MICROWAVE COMPONENTS

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Frequency Mixer

Typical Performance Curves

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IF/RF MICROWAVE COMPONENTS

Harmonics Tables

RF HARMONICS ORDER

	(-dBm)	(dBc)										
0	---	---	18.85	9.91	16.44	16.70	29.57	27.14	37.56	43.62	53.16	50.12
1	---	29.28	---	39.72	17.53	31.78	23.31	38.28	36.79	38.62	57.79	44.34
2	99.05	53.80	51.35	53.92	60.29	55.55	49.85	49.38	60.24	59.41	57.32	63.68
3	123.16	67.32	56.02	71.06	54.09	72.54	53.07	78.83	59.09	72.81	68.17	71.74
4	123.47	81.25	80.28	79.72	82.58	77.98	80.88	89.77	80.73	73.64	80.71	80.72
5	120.75	102.15	102.65	99.07	89.75	93.26	85.58	91.35	92.91	94.84	86.48	91.07
6	123.15	105.74	110.33	102.02	100.24	103.97	108.02	107.42	110.20	102.33	107.50	100.07
7	122.66	108.44	106.65	110.15	106.76	105.82	107.05	110.81	106.85	109.74	109.11	109.46
8	120.85	105.17	107.57	107.34	110.67	114.52	107.01	114.25	115.64	104.00	107.19	111.02
9	123.44	105.16	108.49	110.72	112.49	108.69	110.91	107.65	112.44	108.10	109.08	109.07
10	119.22	106.46	108.32	109.39	104.52	109.02	108.04	107.75	106.23	111.44	110.41	106.09
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

LO HARMONICS ORDER

Test conditions: RF IN: 1420.10 MHz; -1.00 dBm.
 LO IN: 1390.10 MHz; +17.00 dBm
 IF OUT: 30 MHz; -7.18 dBm

RF HARMONICS ORDER

	(-dBm)	(dBc)										
0	---	---	27.79	20.11	27.66	30.47	38.63	41.87	48.26	57.20	47.87	61.07
1	---	28.99	---	41.66	15.46	35.65	24.02	44.72	38.76	48.47	62.89	56.29
2	79.39	47.89	46.99	63.81	49.90	46.91	41.36	40.72	64.89	51.25	62.91	70.95
3	119.42	45.81	35.83	49.83	37.79	54.91	38.38	60.61	50.29	55.75	68.34	56.40
4	123.74	59.28	56.30	66.11	61.01	59.12	63.19	56.34	63.00	57.06	65.78	63.95
5	120.04	73.67	66.14	73.92	54.21	64.74	49.37	63.25	50.67	80.79	56.20	81.77
6	122.74	78.74	80.78	70.68	71.86	82.27	76.28	67.14	68.15	73.40	73.79	57.18
7	121.13	79.67	80.76	87.38	75.04	80.10	69.72	71.28	65.03	68.53	66.17	68.88
8	123.46	93.79	89.93	88.08	91.52	76.94	78.50	83.67	83.92	81.08	79.82	78.49
9	119.08	93.75	92.41	87.77	103.42	92.32	90.81	84.08	82.45	84.63	76.46	79.65
10	127.19	97.34	107.46	97.03	92.04	89.73	94.92	82.86	96.39	90.36	89.59	87.67
	RF CAL	0	1	2	3	4	5	6	7	8	9	10

LO HARMONICS ORDER

Test conditions: RF IN: 1420.10 MHz; 9.00 dBm.
 LO IN: 1390.10 MHz; +17.00 dBm
 IF OUT: 30 MHz; 2.82 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