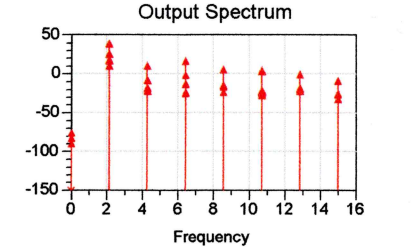
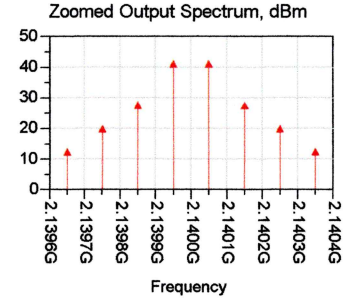
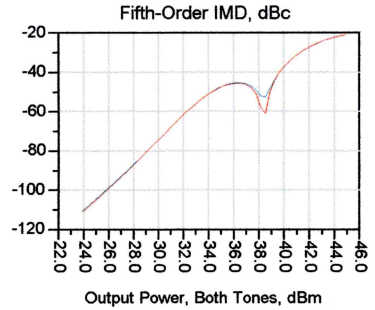
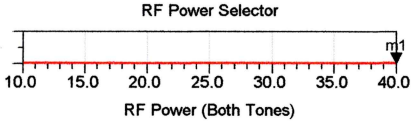
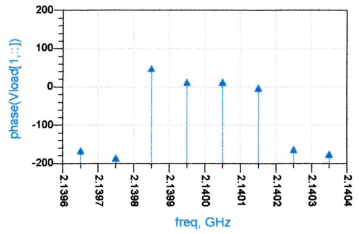
ADS simulation results for an LDMOSFET POWER AMPLIFIER MODEL with discrete compact nonlinear components including bias circuitry. The complete circuitry will be presented later in public research forums, e.g. IE^3.

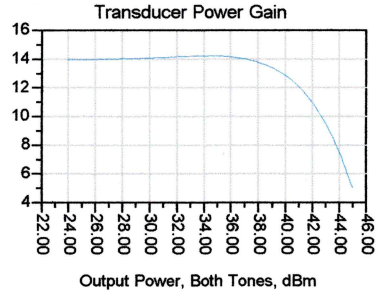


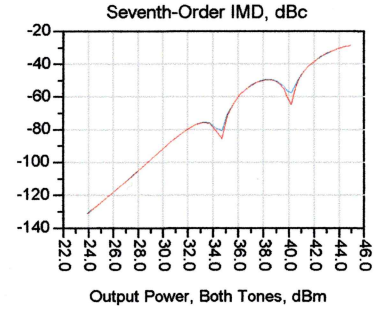


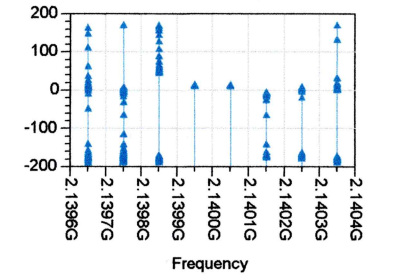


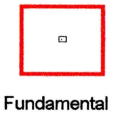












Fundamental Frequencies

2.139950 G
2.140050 G

These become invalid as the amplifier is driven into compression. If the low and high side TOI points do not agree, try increasing the order of each tone and/or the maxorder.

Available Source Power, Both Tones, dBm	Fundamental Output Power, Both Tones, dBm	Transducer Power Gain, dB	Gain Compression dB	Low and High Side Output TOI Points, dBm		Low and High Side Input TOI Points, dBm		Low and High Side Output 5thOI Points, dBm		Low and High Side Input 5thOI Points, dBm	
10.00	23.94	13.94	0.0000	53.49	54.78	39.55	40.85	48.52	48.68	34.59	34.75
10.50	24.44	13.94	5.802 m	53.50	54.80	39.55	40.86	48.34	48.48	34.40	34.54
11.00	24.95	13.95	12.32 m	53.51	54.82	39.56	40.87	48.14	48.26	34.19	34.31
11.50	25.46	13.96	19.63 m	53.52	54.85	39.57	40.90	47.93	48.04	33.98	34.08
12.00	25.96	13.96	27.84 m	53.54	54.89	39.58	40.93	47.71	47.80	33.75	33.84
12.50	26.47	13.97	37.04 m	53.57	54.94	39.60	40.97	47.48	47.56	33.51	33.59
13.00	26.98	13.98	47.35 m	53.61	55.00	39.63	41.02	47.24	47.31	33.25	33.32
13.50	27.49	13.99	58.89 m	53.66	55.09	39.66	41.10	46.98	47.04	32.99	33.05
14.00	28.01	14.01	71.76 m	53.72	55.21	39.71	41.20	46.72	46.77	32.71	32.76
14.50	28.52	14.02	86.10 m	53.80	55.37	39.78	41.35	46.44	46.49	32.42	32.46
15.00	29.04	14.04	102.0 m	53.92	55.59	39.88	41.55	46.16	46.19	32.12	32.16
15.50	29.56	14.06	119.5 m	54.06	55.90	40.01	41.84	45.86	45.90	31.81	31.84
16.00	30.07	14.07	138.6 m	54.26	56.34	40.19	42.26	45.56	45.59	31.49	31.52
16.50	30.59	14.09	159.3 m	54.51	56.99	40.42	42.89	45.26	45.29	31.16	31.19

Eqn phase_spectrum=phase(Vload) Eqn P7thOrd_l=mix(Spectrum,{4,-3},Mix) Eqn P7thOrd_h=mix(Spectrum,{-3,4},Mix) Eqn SeventhOrdIMD_l=P7thOrd_l-Pfund_low Eqn SeventhOrdIMD_h=P7thOrd_h-Pfund_high