

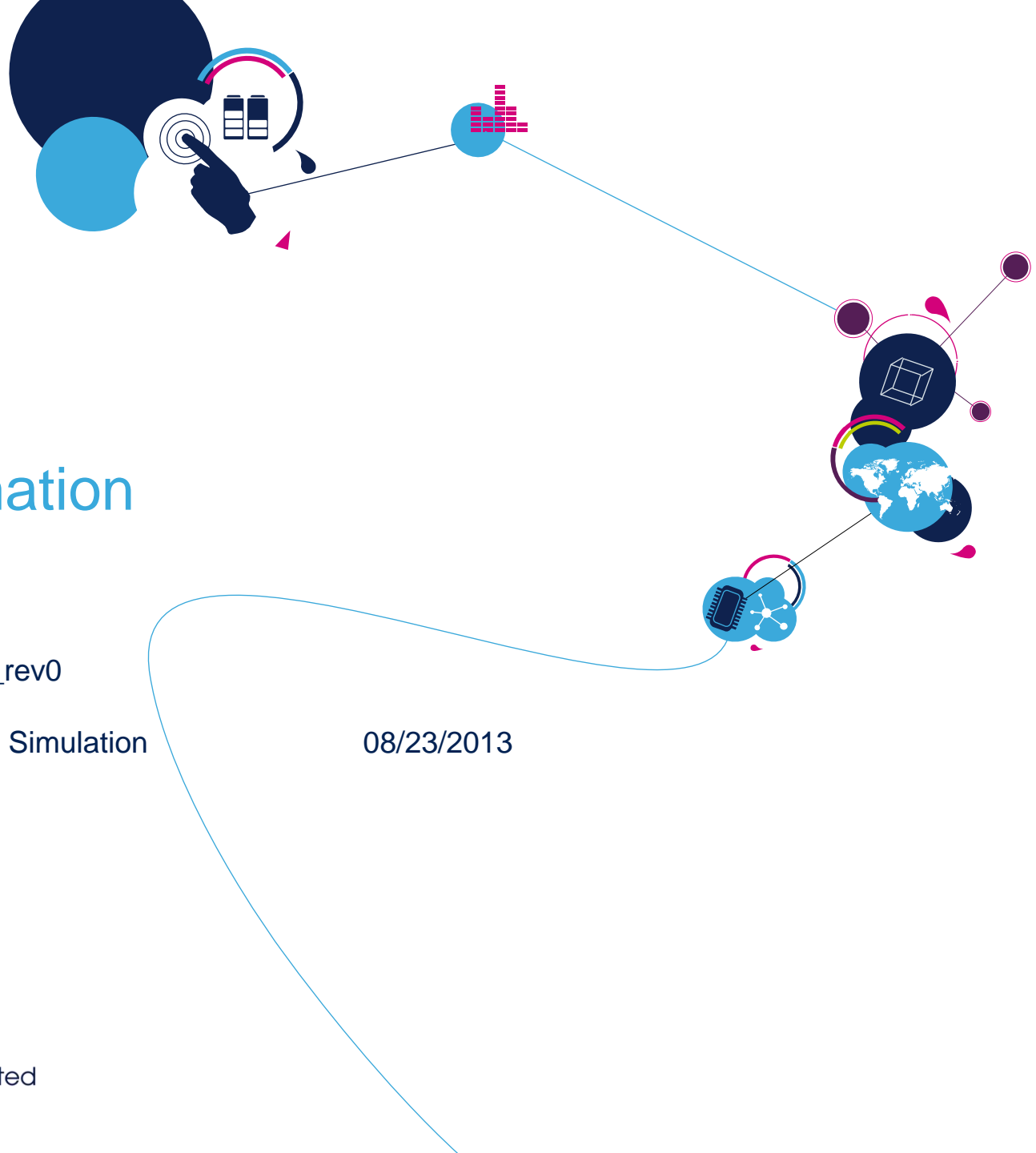
STAC3932

Model information

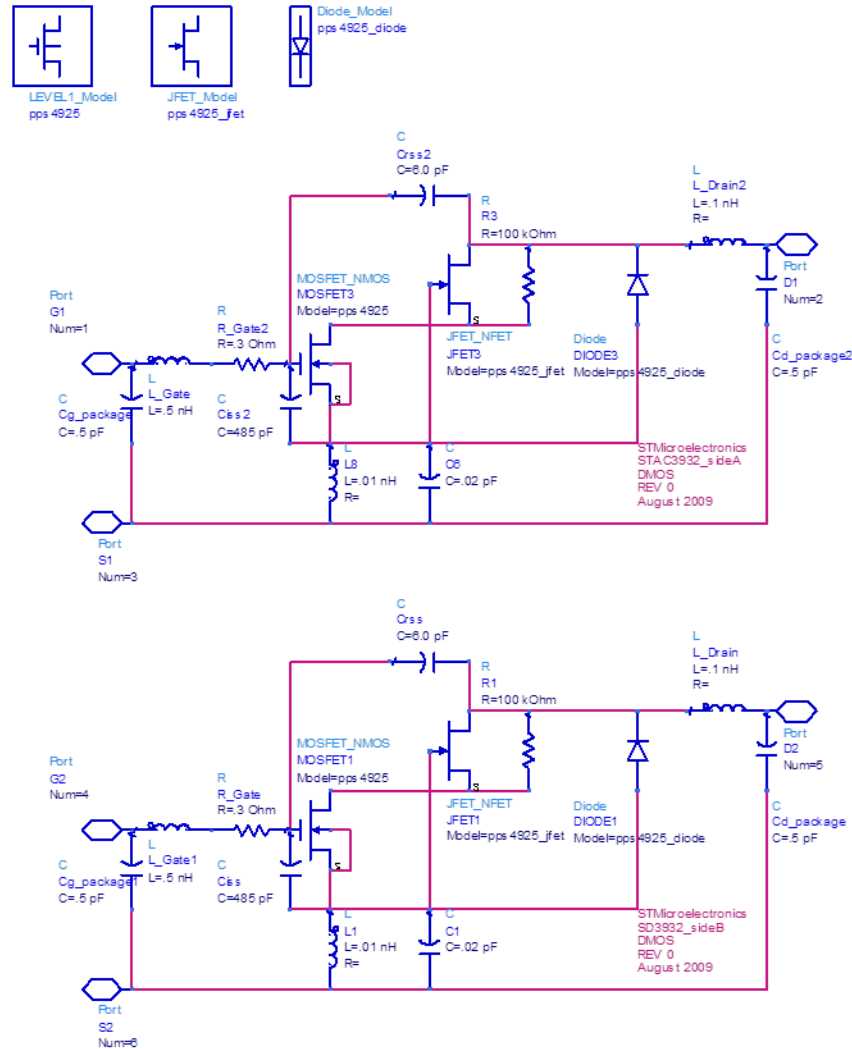
qtn-ms13024_rev0

RF Model and Simulation

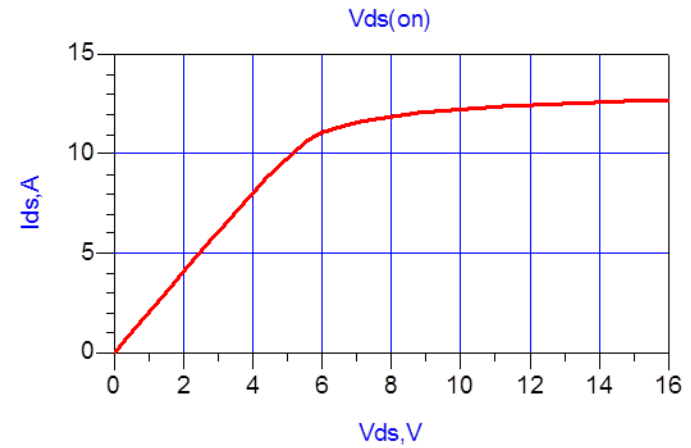
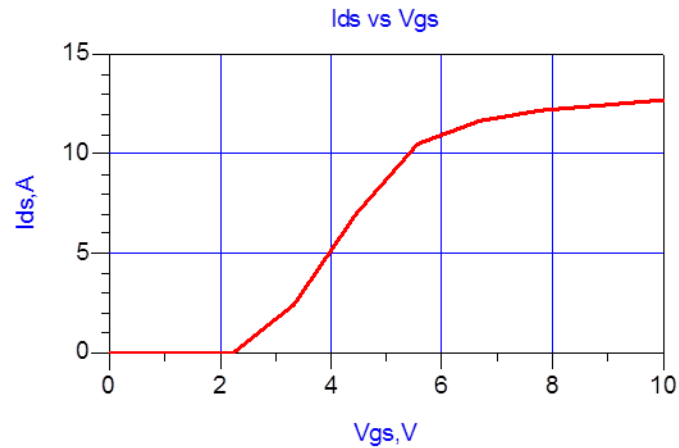
08/23/2013



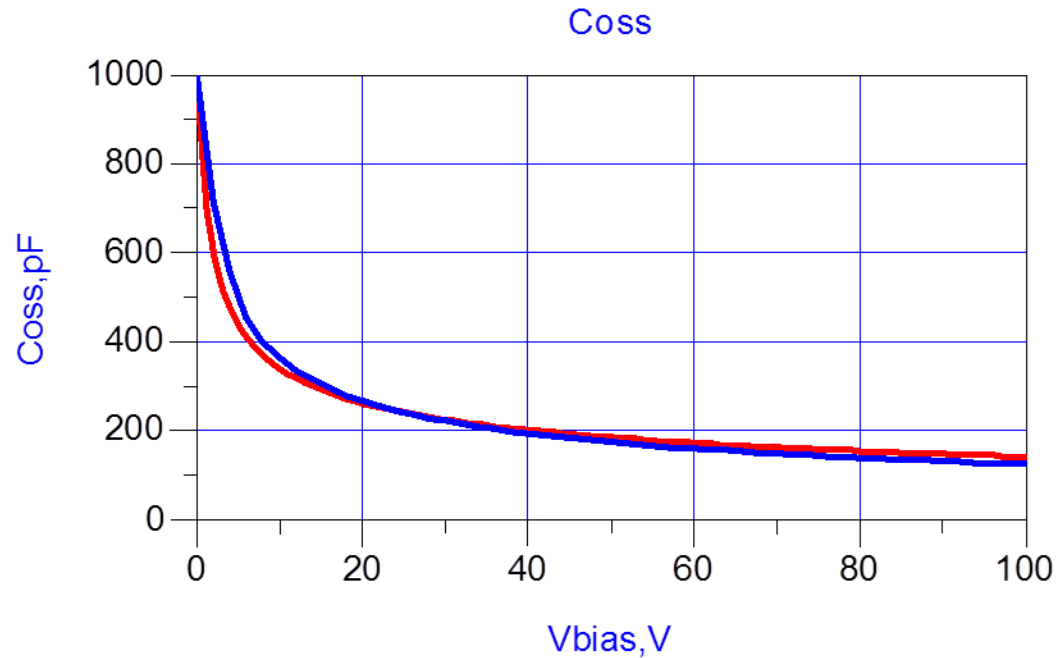
STAC3932_rev1_0 model



STAC3932 one side



STAC3932 one side



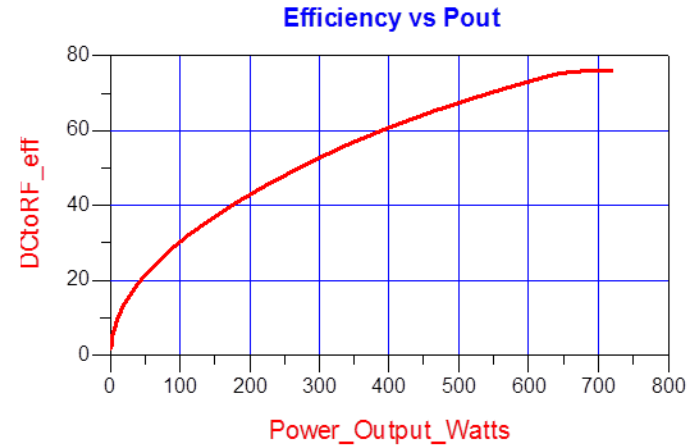
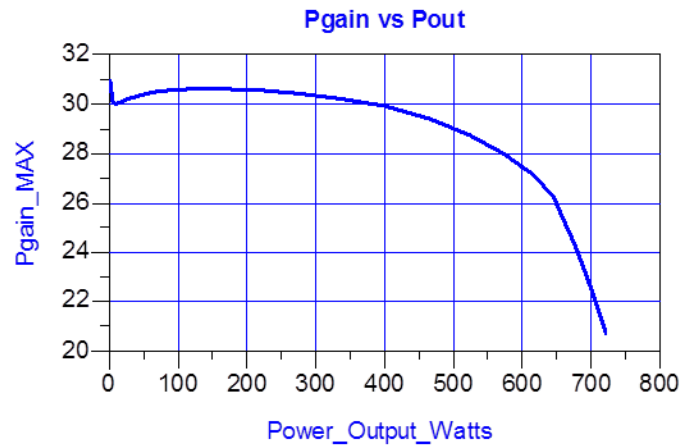
Red = modeled
Blue = measured

STAC3932 s-parameters , one side

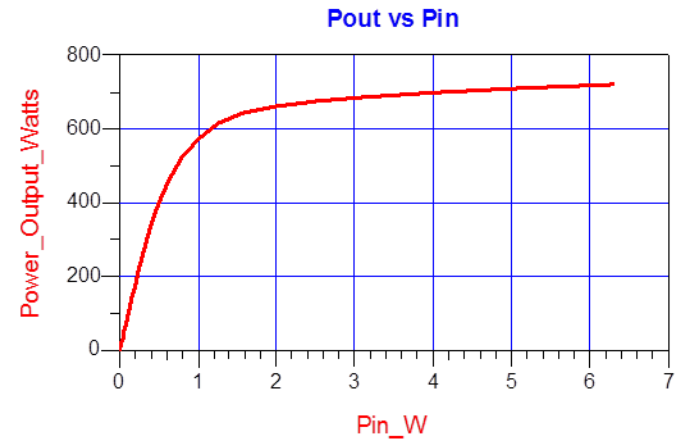
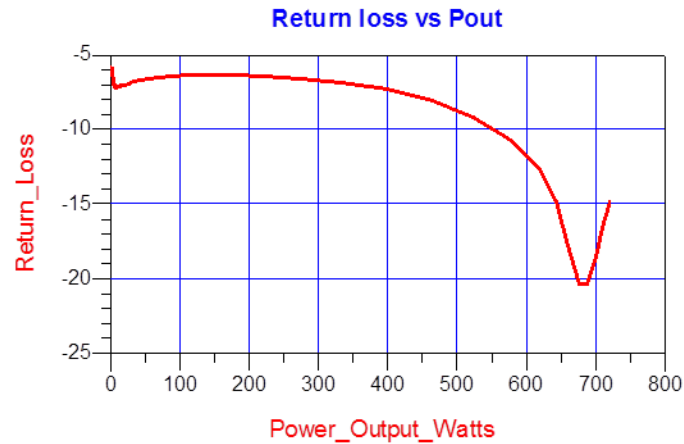
STAC3932 one side S-parameters Vdd=100 V , Idq=250mA

freq	S(1,1)	S(2,1)	S(1,2)	S(2,2)
50.00 MHz	0.918 / -169.949	8.348 / 51.365	0.007 / -38.181	0.723 / -143.755
60.00 MHz	0.930 / -171.120	6.364 / 46.723	0.006 / -43.727	0.773 / -147.305
70.00 MHz	0.940 / -172.082	4.994 / 41.073	0.006 / -48.277	0.812 / -150.393
80.00 MHz	0.948 / -172.900	4.011 / 37.209	0.005 / -52.037	0.843 / -153.060
90.00 MHz	0.954 / -173.608	3.284 / 33.972	0.005 / -55.167	0.867 / -155.360
100.0 MHz	0.959 / -174.229	2.734 / 31.235	0.004 / -57.790	0.886 / -157.349
110.0 MHz	0.963 / -174.777	2.308 / 28.901	0.004 / -60.005	0.901 / -159.077
120.0 MHz	0.966 / -175.266	1.972 / 26.895	0.004 / -61.885	0.913 / -160.586
130.0 MHz	0.969 / -175.706	1.703 / 25.157	0.004 / -63.489	0.923 / -161.912
140.0 MHz	0.971 / -176.104	1.484 / 23.642	0.003 / -64.862	0.932 / -163.084
150.0 MHz	0.973 / -176.466	1.305 / 22.311	0.003 / -66.040	0.939 / -164.127
160.0 MHz	0.975 / -176.798	1.155 / 21.136	0.003 / -67.052	0.944 / -165.059
170.0 MHz	0.976 / -177.104	1.030 / 20.093	0.003 / -67.919	0.949 / -165.896
180.0 MHz	0.977 / -177.387	0.924 / 19.163	0.002 / -68.660	0.954 / -166.652
190.0 MHz	0.978 / -177.651	0.833 / 18.330	0.002 / -69.287	0.957 / -167.338
200.0 MHz	0.979 / -177.898	0.755 / 17.581	0.002 / -69.814	0.960 / -167.964
210.0 MHz	0.980 / -178.130	0.687 / 16.905	0.002 / -70.247	0.963 / -168.536
220.0 MHz	0.981 / -178.349	0.628 / 16.293	0.002 / -70.593	0.965 / -169.061
230.0 MHz	0.981 / -178.557	0.576 / 15.737	0.002 / -70.857	0.967 / -169.545
240.0 MHz	0.982 / -178.754	0.530 / 15.231	0.002 / -71.042	0.969 / -169.992
250.0 MHz	0.982 / -178.942	0.490 / 14.770	0.002 / -71.149	0.971 / -170.407
260.0 MHz	0.983 / -179.122	0.454 / 14.348	0.001 / -71.178	0.972 / -170.793
270.0 MHz	0.983 / -179.294	0.422 / 13.962	0.001 / -71.127	0.974 / -171.153
280.0 MHz	0.983 / -179.460	0.393 / 13.608	0.001 / -70.992	0.975 / -171.490
290.0 MHz	0.984 / -179.620	0.367 / 13.283	0.001 / -70.768	0.976 / -171.805
300.0 MHz	0.984 / -179.774	0.343 / 12.984	0.001 / -70.446	0.977 / -172.101
310.0 MHz	0.984 / -179.923	0.322 / 12.710	9.754E-4 / -70.017	0.978 / -172.380
320.0 MHz	0.984 / 179.932	0.302 / 12.457	8.988E-4 / -69.465	0.979 / -172.643
330.0 MHz	0.985 / 179.791	0.285 / 12.224	8.274E-4 / -68.772	0.979 / -172.892
340.0 MHz	0.985 / 179.654	0.268 / 12.010	7.581E-4 / -67.913	0.980 / -173.127
350.0 MHz	0.985 / 179.521	0.253 / 11.813	6.916E-4 / -66.855	0.981 / -173.350
360.0 MHz	0.985 / 179.391	0.240 / 11.631	6.279E-4 / -65.553	0.981 / -173.562
370.0 MHz	0.985 / 179.263	0.227 / 11.465	5.668E-4 / -63.948	0.982 / -173.763
380.0 MHz	0.985 / 179.139	0.216 / 11.311	5.083E-4 / -61.958	0.982 / -173.955
390.0 MHz	0.986 / 179.017	0.205 / 11.171	4.525E-4 / -59.468	0.983 / -174.139
400.0 MHz	0.986 / 178.897	0.195 / 11.042	3.996E-4 / -56.317	0.983 / -174.314
410.0 MHz	0.986 / 178.780	0.186 / 10.925	3.499E-4 / -52.276	0.983 / -174.481
420.0 MHz	0.986 / 178.664	0.177 / 10.817	3.038E-4 / -47.020	0.984 / -174.641
430.0 MHz	0.986 / 178.550	0.169 / 10.720	2.627E-4 / -40.109	0.984 / -174.795
440.0 MHz	0.986 / 178.438	0.162 / 10.632	2.278E-4 / -31.018	0.984 / -174.943
450.0 MHz	0.986 / 178.328	0.155 / 10.552	2.014E-4 / -19.330	0.985 / -175.085
460.0 MHz	0.986 / 178.220	0.148 / 10.481	1.862E-4 / -5.245	0.985 / -175.221
470.0 MHz	0.986 / 178.112	0.142 / 10.417	1.839E-4 / 9.907	0.985 / -175.353
480.0 MHz	0.986 / 178.006	0.136 / 10.361	1.942E-4 / 24.111	0.985 / -175.479
490.0 MHz	0.986 / 177.902	0.131 / 10.312	2.148E-4 / 35.973	0.986 / -175.602
500.0 MHz	0.987 / 177.798	0.128 / 10.270	2.424E-4 / 45.240	0.986 / -175.720

STAC3932 , 123 MHz , Large signal;



STAC3932 , 123 MHz , Large signal;



STAC3932 Generic netlist

- *STAC3932_rev1_0 ONE SIDE
- *8/28/2009
- *STMicroelectronics
- *port 1 = GATE , 2 = Drain , 3 = Source
- *
- .SUBCKT STAC3932_ONESIDE 10 20 30
- LGATE 10 11 .5N
- RGATE 11 12 .3
- CG 10 30 .5P
- CRSS 12 17 6P
- CISS 12 14 485P
- LS 14 30 0.01N
- CS 14 30 .02P
- R 17 13 100K
- LD 17 20 .1N
- CD 20 30 .5P
- MOS 13 12 14 14 mos_4925 L=.2UM W= 925mM
- JFET 17 14 13 jf_4925
- DBODY 14 17 d_4925
- .MODEL mos_4925 nmos (vto=2.5 KP=.71E-6 LAMBDA=1 RD=0.12 RS=0.12)
- .MODEL jf_4925 njf (VTO=-5 BETA=3.26 LAMBDA=3 Rd=.09 Rs=.09)
- .MODEL d_4925 d (CJO=1050p RS=0.25 VJ=.6 M=0.4 BV=255)
- .ENDS

Example of imported netlist

