

!ADL8109ACPZN

!

! This is an RFAMP Model.

! RFAMP models are different from RFAMP_IP2 models.

! RFAMP_IP2 models do not contain IP2 and PSAT data. PSAT and IP2 are estimated based on fixed offsets.

! RFAMP models use actual OPSAT and OIP2 data to simulate IP2 and PSAT

! RFAMP_IP2 models can simulate over temperature if data over temperature is provided in the model

!TEST CONDITIONS: Vd =5V; Id = 110mA; Temperature = 25degC

Freq (MHz)	S11m (dB20)	S11a (deg)	Gain (dB)	S21p (deg)	RISO (dB)	S12p (deg)	S22m (dB20)	S22a (deg)
500	-8.14	-99.73	12.27	-142.39	-37.41	55.21	-7.34	-137.17
700	-8.75	-122.78	13.7	-165.32	-35.52	27.6	-10.11	-167.24
1000	-9.16	-148.98	14.56	168.69	-34.62	-1.95	-12.89	158.26
1200	-9.29	-162.58	14.81	154.47	-34.28	-18.16	-14.13	139.21
1500	-9.53	-179.79	15.01	135.58	-34.17	-39.3	-15.45	115.55
1700	-9.65	169.61	15.05	124	-34.26	-51.61	-16.04	101.89
2000	-9.61	156.2	15.05	107.57	-34.19	-68.94	-16.82	84.46
2200	-9.6	149.18	15.02	97.17	-34.41	-79.97	-17.24	73.72
2500	-9.68	140.56	14.92	82.18	-34.56	-95.38	-17.88	60.49
2700	-9.83	135.19	14.83	72.63	-34.74	-105.76	-18.14	52.35
3000	-9.89	126.45	14.71	58.74	-34.88	-120.06	-18.44	39.85
3200	-9.81	120.31	14.64	49.82	-35.09	-130.06	-18.6	31.34
3500	-9.64	112.13	14.56	36.91	-35.03	-143.06	-18.84	16.88
3700	-9.67	107.3	14.58	28.61	-34.94	-153.61	-19.14	4.7
4000	-9.75	101.04	14.61	15.22	-35.06	-166.51	-20.28	-11.57
4200	-9.85	95.81	14.62	6.51	-34.95	-175.74	-20.81	-21.88
4500	-9.96	87.97	14.63	-6.64	-34.84	168.21	-21.81	-39.62
4700	-9.95	83.62	14.64	-15.42	-34.7	158.08	-22.6	-53.28
5000	-9.98	77.48	14.63	-28.51	-34.58	143.74	-23.67	-76.07
5200	-10.07	73.71	14.64	-37.16	-34.45	133.22	-24.33	-91.89
5500	-10.28	66.78	14.66	-50.28	-34.31	118.33	-24.82	-115.4
5700	-10.41	61.6	14.67	-59.04	-34.26	107.72	-24.81	-130.65
6000	-10.42	53.63	14.67	-72.2	-34.06	92.04	-24.51	-153.12
6200	-10.41	48.43	14.66	-80.9	-33.97	81.17	-24.25	-165.47
6500	-10.42	41.24	14.67	-93.95	-33.81	66.82	-23.67	176.42
6700	-10.49	36.15	14.68	-102.62	-33.67	56.01	-23.57	165.77
7000	-10.65	27.99	14.69	-115.72	-33.39	40.74	-23.29	151.37
7200	-10.65	22.49	14.7	-124.43	-33.23	30.85	-23.33	142.2
7500	-10.74	14.38	14.71	-137.48	-32.98	16.14	-23.58	128.85
7700	-10.78	9.59	14.72	-146.18	-32.82	5.71	-23.87	119.84
8000	-11.01	1.94	14.73	-159.22	-32.6	-9.85	-24.39	106.25
8200	-11.15	-3.13	14.76	-167.96	-32.45	-19.71	-24.94	96.18
8500	-11.3	-11.44	14.78	178.86	-32.18	-34.34	-25.77	80.1
8700	-11.43	-16.4	14.8	170.11	-31.97	-44.98	-26.28	68.94
9000	-11.5	-23.51	14.83	156.93	-31.88	-59.79	-26.61	49.75
9200	-11.64	-27.93	14.85	148.15	-31.69	-69.37	-26.78	37.73
9500	-11.97	-34.34	14.89	134.82	-31.47	-83.6	-26.26	19.81

9700	-12.16	-39.03	14.92	125.95	-31.2	-93.57	-25.96	10
10000	-12.56	-44.73	14.95	112.59	-31.12	-108.39	-25	-0.25
10200	-12.74	-48.05	14.97	103.67	-30.97	-117.69	-24.49	-6.8
10500	-13.26	-52.89	15	90.2	-30.88	-132.17	-23.48	-13.61
10700	-13.57	-55.16	15.03	81.21	-30.83	-142.32	-22.73	-17.34
11000	-14.04	-60.43	15.05	67.63	-30.62	-156.06	-21.54	-23.38
11200	-14.22	-62.97	15.08	58.52	-30.51	-165.78	-20.98	-27.51
11500	-14.4	-66.79	15.09	44.9	-30.43	-180	-20.01	-33.18
11700	-14.45	-69.04	15.1	35.79	-30.38	170.47	-19.53	-37.58
12000	-14.43	-73.04	15.11	22.1	-30.25	156.49	-18.92	-44.53
12200	-14.41	-76.92	15.12	12.96	-30.25	147.06	-18.67	-49.45
12500	-14.17	-83.21	15.14	-0.82	-30.16	132.44	-18.51	-57.09
12700	-14	-87.87	15.15	-10.06	-30.01	123.43	-18.44	-62.36
13000	-13.86	-94.5	15.16	-23.9	-29.99	109.41	-18.73	-71.79
13200	-13.83	-100.23	15.17	-33.17	-29.99	99.55	-19.25	-78.07
13500	-13.89	-109.57	15.19	-47.17	-29.92	85.29	-19.96	-89.29
13700	-13.76	-116.14	15.2	-56.56	-29.88	76.23	-20.77	-99.22
14000	-13.67	-126.41	15.22	-70.74	-29.79	61.26	-22.11	-116.23
14200	-13.61	-131.84	15.22	-80.25	-29.79	51.71	-22.99	-130.98
14500	-13.47	-141.09	15.22	-94.61	-29.71	37.3	-23.77	-157.7
14700	-13.41	-146.53	15.22	-104.15	-29.69	27.74	-23.58	-177.48
15000	-13.02	-154.14	15.21	-118.53	-29.66	12.91	-22.06	155.96
15200	-12.76	-158.31	15.19	-128.14	-29.6	3.16	-20.91	141.06
15500	-12.3	-162.57	15.18	-142.53	-29.55	-11.73	-19.01	124.56
15700	-12.07	-165.88	15.18	-152.17	-29.52	-21.58	-17.85	113.49
16000	-11.76	-170.35	15.16	-166.58	-29.41	-36.37	-16.47	99.29
16200	-11.52	-173.88	15.16	-176.3	-29.42	-46.82	-15.88	90.69
16500	-11.2	-178.15	15.14	169.23	-29.31	-61.98	-15.09	78.93
16700	-11.05	179.01	15.13	159.53	-29.25	-71.68	-14.84	70.84
17000	-11.06	175.08	15.13	144.96	-29.03	-86.81	-14.8	58.59
17200	-11.18	172.61	15.13	135.15	-28.88	-97.16	-15.11	51.26
17500	-11.46	168.19	15.14	120.21	-28.7	-112.37	-15.84	40.85
17700	-11.74	166.01	15.15	110.16	-28.58	-123.48	-16.7	33.58
18000	-12.15	163.09	15.14	94.87	-28.38	-139.82	-18.68	25.41
18200	-12.58	163.03	15.16	84.62	-28.12	-149.85	-20.41	22.58
18500	-13.06	163.47	15.15	68.84	-27.91	-166.96	-23.69	29.14
18700	-13.42	163.21	15.15	58.14	-27.79	-177.6	-24.92	42.74
19000	-13.62	163.91	15.11	41.95	-27.61	164.66	-24.31	66.23
19200	-13.42	163.47	15.07	31.01	-27.52	153.16	-21.86	72.37
19500	-13.12	162.45	14.98	14.44	-27.4	135.82	-19.27	63.64
19700	-12.88	161.15	14.91	3.33	-27.39	124.34	-17.79	54.65
20000	-12.42	157.26	14.79	-13.62	-27.34	106.63	-15.88	35.28
20200	-12.12	153.89	14.69	-23.89	-27.35	96.37	-14.94	21.8

ets from the OP1dB data (2 dB and 20 dB respectively).

OP1dB (dBm)	OPSAT (dBm)	Noise Figur (dB)	OIP3 (dBm)	OIP2 (dBm)
11.52	14.85	4.24	21.61	27
14.18	17.15	4.11	23.88	35.32
15.4	18.25	4.12	26.68	37.09
16.06	18.84	4.19	27.56	37.93
16.45	19.19	4.06	28.29	38.09
16.7	19.41	4.04	28.67	37.63
16.84	19.57	4.15	29.02	38.12
16.89	19.64	4.11	29.05	37.12
16.9	19.64	4	28.96	37.07
16.83	19.6	3.91	28.87	36.41
16.78	19.6	3.88	28.77	36.44
16.74	19.6	3.88	28.72	35.72
16.77	19.6	3.81	28.73	35.93
16.83	19.63	3.85	28.82	35.54
16.91	19.71	3.79	29.02	35.89
16.92	19.71	3.67	29.06	34.6
16.97	19.81	3.63	29.14	35.11
16.87	19.67	3.65	29.23	34.53
16.97	19.71	3.49	29.36	35.28
17.08	19.82	3.35	29.21	34.68
17.1	19.98	3.29	28.97	34.01
17.15	20.02	3.22	29.02	33.79
17.13	20.02	3.1	29.21	33.74
17.27	20.14	3.05	29.17	32.6
17.18	20.02	2.96	29.12	32.61
17.28	20.15	2.97	29.15	32.8
17.25	20.11	2.9	29.24	33
17.33	20.2	2.77	29.15	32.56
17.32	20.13	2.79	29.05	31.62
17.26	20.11	2.73	29.07	31.79
17.24	20.1	2.71	29.18	31.72
17.14	19.97	2.67	29.16	31.73
17.25	20.23	2.64	29.18	31.44
17.18	20.11	2.69	29.22	31.07
17.17	20.08	2.64	29.26	31.06
17.12	19.93	2.62	29.01	30.43
17.01	19.77	2.65	28.64	29.72

17.03	19.76	2.65	28.53	29.42
16.99	19.78	2.63	28.57	29.12
17	19.81	2.63	28.53	28.86
17.03	19.8	2.68	28.59	28.21
16.92	19.63	2.76	28.49	28.85
16.9	19.64	2.81	28.37	29.47
16.78	19.42	2.81	28.34	30.06
16.87	19.58	2.91	28.4	30.21
16.91	19.63	3.01	28.43	29.66
16.88	19.62	2.97	28.49	30.56
16.9	19.69	2.97	28.25	28.88
16.76	19.47	3.05	27.91	29.63
16.74	19.39	3.07	27.87	29.09
16.6	19.33	2.99	28.05	28.59
16.71	19.6	3.06	28.15	28.66
16.79	19.81	3.14	28.33	29.87
16.54	19.64	3.06	28.3	29.32
16.51	19.68	3	28.21	30.66
16.41	19.6	3.1	28.02	31.1
16.52	19.68	3.13	27.83	32.68
16.3	19.46	3.09	27.97	33.81
16.3	19.46	3.09	28.3	34.44
16.35	19.45	3.12	28.21	35.75
16.25	19.58	3.17	28	35.97
16.03	19.17	3.11	27.78	36.72
16.05	19.19	3.03	27.56	37.29
15.99	19.13	3.11	27.45	38.29
15.9	19.05	3.19	27.46	38.38
16.05	19.15	3.24	27.48	40.39
16.01	19.07	3.33	27.54	42.45
16.07	19.1	3.36	27.36	43.37
16.07	19.05	3.43	27.06	45.88
16.04	18.98	3.54	26.88	48.37
16.02	18.91	3.82	26.74	48.12
15.91	18.74	3.97	26.69	47.54
15.75	18.57	4.07	26.69	47.32
15.61	18.52	4.19	26.53	49.01
15.42	18.31	4.6	26.32	48.17
15.23	18.35	4.77	26.18	49.25
15.08	18.23	4.88	25.99	49.24
14.53	17.71	5.08	25.68	50.76
13.96	17.17	5.42	25.29	50.11
13.89	17.2	5.61	25.24	51.53