cādence

Transient Simulation Report

1 General Information

1.1 Dat file

c:\cadence\half adder-PSpiceFiles\SCHEMATIC1\halfFir\halfFir.dat

1.2 Analysis Name

Transient Analysis

1.3 Circuit Name

** Profile: "SCHEMATIC1-halfFir" [c:\cadence\half adder-pspicefiles\schematic1\halffir.sim]

1.4 Simulation Time

03/26/21 23:33:33

1.5 PSpice Version

17.4.0

1.6 Sweep Data

Sweep Mode : 4
Starting Sweep Value : 0
Ending Sweep Value : 0.05

2 Circuit Information

2.1 List of Nets

Net Name	Aliases

0	A1:- A:- M10:S M10:S M12:S M12:S M15:S M15:S M16:S M16:S M1:S M1:S M4:S M4:S V1:- V2:- V3:- V4:- B1:- B:-
N06416	M13:G M16:G M1:D M2:D M5:G M9:G
N06420	M2:S M2:S V1:+
N06457	A:+ M1:G M2:G M6:G
N06769	M3:S M3:S V2:+
N06807	M3:G M4:G B:+
N06863	M10:G M14:G M15:G M3:D M4:D M7:G
N07205	M5:S M5:S M7:S M7:S V3:+
N07233	M5:D M6:S M6:S M7:D M8:S M8:S
N07241	M11:D M6:D M8:D M9:D
N07357	M10:D M9:S M9:S
N07361	M11:S M11:S M12:D
N10360	M12:G M8:G B1:+
N10452	A1:+ M11:G
N10798	M13:S M13:S V4:+
N10866	M13:D M14:S M14:S
N10995	M14:D M15:D M16:D

List of Nets

2.2 List of Devices

Device Name	List of Pins
A	+ -
A1	+ -
B	+ -
B1	+ -
M1	D G S S
M10	D G S S
M11	D G S S
M12	D G S S
M13	D G S S
M14	D G S S

M15	D G S S
M16	D G S S
M2	D G S S
M3	D G S S
M4	D G S S
M5	D G S S
M6	D G S S
M7	D G S S
M8	D G S S
M9	D G S S
V1	+ -
V2	+ -
V3	+ -
V4	+ -

List of Devices

PASS 0

Simulation Data

Current Data

Pin Name	Bias Value	Max Current	Min Current	Average	RMS	Max di/dt
A1:+	0.0	0.0	0.0	0.0	0.0	0.0
A:+	0.0	0.0	0.0	0.0	0.0	0.0
B1:+	0.0	0.0	0.0	0.0	0.0	0.0
B:+	0.0	0.0	0.0	0.0	0.0	0.0
M10:D	317.395f	48.7854u	-31.8186a	6.5456p	2.351u	2.2669Meg
M10:G	0.0	0.0	0.0	0.0	0.0	0.0
M10:S	-102.0a	2.3134a	-5.0143p	-1.2526p	3.5427p	90.7841m
M11:D	49.5152n	49.6616u	-897.653f	8.1303p	23.5674u	180.827k

M11:G	0.0	0.0	0.0	0.0	0.0	0.0
M11:S	-692.0a	4.622a	-5.0146p	-1.2527p	3.5426p	66.8466m
M12:D	49.5152n	49.6137u	-957.758f	8.1529p	23.5673u	181.253k
M12:G	0.0	0.0	0.0	0.0	0.0	0.0
M12:S	-692.0a	2.5785a	-5.0137p	-1.2523p	2.892p	176.563m
M13:D	-11.2959p	-2.5082p	-27.3265u	-6.2737p	2.1054u	141.453k
M13:G	0.0	0.0	0.0	0.0	0.0	0.0
M13:S	0.0	5.0135p	-11.1821a	1.8798p	3.9618p	233.384m
M14:D	-11.2959p	-2.5086p	-27.3262u	-6.2729p	2.1056u	141.451k
M14:G	0.0	0.0	0.0	0.0	0.0	0.0
M14:S	0.0	5.01p	-1.2741a	1.8803p	3.5244p	526.909m
M15:D	5.6479p	13.6633u	-13.8908a	3.259p	1.0527u	126.925k
M15:G	0.0	0.0	0.0	0.0	0.0	0.0
M15:S	-5.01p	11.5503a	-5.01p	-1.2525p	5.01p	28.0297m
M16:D	5.6479p	13.6633u	-12.4105a	3.0187p	1.0527u	126.925k
M16:G	0.0	0.0	0.0	0.0	0.0	0.0
M16:S	-5.01p	11.5503a	-5.01p	-1.2525p	5.01p	28.0297m
M1:D	25.0044n	62.4869u	4.0212p	9.1713p	23.1711u	251.062k
M1:G	0.0	0.0	0.0	0.0	0.0	0.0
M1:S	-350.0a	11.152a	-5.0133p	-2.505p	5.01p	290.346m
M2:D	-25.005n	-4.0554p	-62.4869u	-9.1687p	23.1708u	249.371k
M2:G	0.0	0.0	0.0	0.0	0.0	0.0
M2:S	5.01p	5.0103p	-11.2468a	2.505p	5.01p	290.346m
M3:D	-25.005n	-4.0554p	-60.9502u	-13.17p	23.1708u	237.836k
M3:G	0.0	0.0	0.0	0.0	0.0	0.0
M3:S	5.01p	5.0143p	-11.2468a	2.505p	5.01p	37.2295m
M4:D	25.0044n	60.9502u	4.2344p	13.1729p	23.1711u	240.631k
M4:G	0.0	0.0	0.0	0.0	0.0	0.0
M4:S	-350.0a	11.7431a	-5.0146p	-2.505p	5.01p	37.2295m
M5:D	-24.7556n	6.8745a	-48.7564u	-7.7051p	12.1141u	8.2635Meg
M5:G	0.0	0.0	0.0	0.0	0.0	0.0
M5:S	343.0a	5.0134p	9.9596a	1.2523p	5.0093p	49.97m
M6:D	-24.758n	14.0238a	-38.9087u	-6.5313p	12.1148u	538.029k

M6:G	0.0	0.0	0.0	0.0	0.0	0.0
M6:S	5.0088p	5.01p	-14.0238a	1.2527p	5.01p	16.8012m
M7:D	-24.7556n	3.7819a	-38.9129u	-7.0079p	12.1141u	575.051k
M7:G	0.0	0.0	0.0	0.0	0.0	0.0
M7:S	343.0a	5.0097p	7.0307a	1.2523p	5.0093p	49.97m
M8:D	-24.758n	312.103f	-49.5733u	-8.1757p	12.1148u	9.9803Meg
M8:G	0.0	0.0	0.0	0.0	0.0	0.0
M8:S	5.0088p	5.01p	8.0848a	1.2527p	5.01p	16.8012m
M9:D	321.964f	48.756u	7.7051a	6.5385p	2.3512u	2.2609Meg
M9:G	0.0	0.0	0.0	0.0	0.0	0.0
M9:S	-1.279f	-7.7051a	-5.01p	-1.2527p	2.8925p	23.0753m
V1:+	-25.005n	-5.01p	-62.4869u	-9.1715p	23.1713u	249.371k
V2:+	-25.005n	-5.01p	-60.9502u	-13.1735p	23.1713u	237.498k
V3:+	-49.5161n	-10.0185p	-49.6137u	-14.7055p	24.2288u	8.2554Meg
V4:+	-11.296p	-2.51p	-27.3265u	-6.2729p	2.1054u	141.452k

Current Data (A)

Voltage Data

Net Name	Bias value	Max Voltage	Min Voltage	Average	RMS	Max dV/dt
0	0.0	0.0	0.0	0.0	0.0	0.0
N06416	252.5823u	5.0	50.1n	2.5	5.0	19.3595G
N06420	5.0	5.0	5.0	5.0	5.0	0.0
N06457	4.95	5.0	0.0	2.5	5.0	5.001G
N06769	5.0	5.0	5.0	5.0	5.0	0.0
N06807	4.95	5.0	0.0	2.5	5.0	5.0G
N06863	252.5823u	5.0	50.0999n	2.5	5.0	37.198G
N07205	5.0	5.0	5.0	5.0	5.0	0.0
N07233	4.9998	5.0	707.694u	3.7502	5.0	594.43G
N07241	1.0004m	5.0	200.371n	2.5	4.0825	872.4G
N07357	74.1431u	4.9993	-750.072n	1.2498	3.535	50.4257G
N07361	500.1841u	4.9993	-892.738n	1.2498	2.8863	635.415G

N10360	4.95	5.0	0.0	2.5	5.0	5.0G
N10452	4.95	5.0	0.0	2.5	5.0	5.001G
N10798	5.0	5.0	5.0	5.0	5.0	0.0
N10866	5.0	5.0	707.745u	3.1252	5.0	526.868G
N10995	5.0	5.0	12.5492n	1.25	5.0	8.8057G

Voltage Data (V)

Power Data

Device Name	Bias value	Max Power	Min Power	Average	RMS
A	0.0	0.0	0.0	0.0	0.0
A1	0.0	0.0	0.0	0.0	0.0
M1	6.3157p	197.351u	-2.0146a	22.5695p	36.0949n
M10	24.0a	107.15u	72.674a	7.8631p	7.9678n
M11	24.7692p	127.627u	12.7781a	9.8601p	17.0534n
M12	24.7667p	95.8485u	12.768a	10.4975p	17.4208n
M13	1.0a	10.2473u	-2.0201a	7.9601p	909.438p
M14	1.0a	52.8393u	-9.2075a	9.2324p	7.3474n
M15	28.2397p	57.4408u	-31.3124a	7.2013p	5.696n
M16	28.2397p	57.4408u	-27.9795a	6.9698p	5.4908n
M2	125.0187n	197.253u	-2.0318a	23.2878p	37.8045n
M3	125.0187n	197.031u	-2.0318a	32.1482p	49.1441n
M4	6.3157p	197.031u	-2.1214a	33.7187p	53.5386n
M5	6.1295p	103.265u	48.2143a	8.1525p	8.9062n
M6	123.7593n	65.2288u	-63.2287a	8.4682p	9.0176n
M7	6.1295p	104.426u	26.5243a	8.448p	9.7491n
M8	123.7593n	107.497u	6.3815a	12.3384p	20.0288n
M9	298.0a	129.878u	67.3424a	7.9p	8.0357n
V1	-125.025n	-25.05p	-312.435u	-45.8575p	63.3893n
V2	-125.025n	-25.0499p	-304.751u	-65.8676p	86.5258n
V3	-247.5802n	-50.0927p	-248.069u	-73.5274p	59.1605n
V4	-56.4798p	-12.55p	-136.633u	-31.3644p	14.9685n
b	0.0	0.0	0.0	0.0	0.0

b1	0.0	0.0	0.0	0.0	0.0

Power Data (W)