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\* IC Technology: CMOS 90nm, 6 Metal Copper - strained SiGe - LowK  
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VDD 1 0 DC 1.20  
V2\_Vdd 2 0 DC 1.80V  
V3\_Vdd 3 0 DC 1.80V  
V4\_Vdd 4 0 DC 1.80V  
V5\_Vdd 5 0 DC 1.80V  
V6\_Vdd 6 0 DC 1.80V  
V7\_Vdd 7 0 DC 1.80V  
V8\_Vdd 8 0 DC 1.80V  
V9\_Vdd 9 0 DC 1.80V  
V10\_Vdd 10 0 DC 1.80V  
V11\_Vdd 11 0 DC 1.80V  
V12\_Vdd 12 0 DC 1.80V  
V13\_Vdd 13 0 DC 1.80V  
V14\_Vdd 14 0 DC 1.80V  
V15\_Vdd 15 0 DC 1.80V  
V16\_Vdd 16 0 DC 1.80V  
V17\_Vdd 17 0 DC 1.80V  
V18\_vdd 18 0 DC 1.80V  
V19\_vdd 19 0 DC 1.80V  
V20\_vdd 20 0 DC 1.80V  
V21\_vdd 21 0 DC 1.80V  
V22\_vdd 22 0 DC 1.80V  
V23\_Vdd 23 0 DC 1.80V  
V24\_Vdd 24 0 DC 1.80V  
V25\_Vdd 25 0 DC 1.80V  
V26\_Vdd 26 0 DC 1.80V  
V27\_Vdd 27 0 DC 1.80V  
V28\_Vdd 28 0 DC 1.80V  
V29\_Vdd 29 0 DC 1.80V  
V30\_Vdd 30 0 DC 1.80V  
V31\_Vdd 31 0 DC 1.80V  
V32\_Vdd 32 0 DC 1.80V  
V33\_Vdd 33 0 DC 1.80V  
V34\_Vdd 34 0 DC 1.80V  
V35\_Vdd 35 0 DC 1.80V  
V36\_Vdd 36 0 DC 1.80V  
V37\_Vdd 37 0 DC 1.80V  
V38\_Vdd 38 0 DC 1.80V  
V39\_Vdd 39 0 DC 1.80V  
V40\_Vdd 40 0 DC 1.80V  
V41\_Vdd 41 0 DC 1.80V  
V42\_Vdd 42 0 DC 1.80V  
V62\_~S 62 0 DC 1.80V  
V67\_~S 67 0 DC 1.80V  
V72\_~S 72 0 DC 1.80V  
V77\_~S 77 0 DC 1.80V  
V~clk 221 0 DC 0 PULSE(1.80 0.00 0.09N 0.01N 0.01N 0.09N 0.20N)  
V~clk 222 0 DC 0 PULSE(1.80 0.00 0.09N 0.01N 0.01N 0.09N 0.20N)  
Vclk 224 0 DC 0 PULSE(0.00 1.80 0.09N 0.01N 0.01N 0.09N 0.20N)  
V~clk 225 0 DC 0 PULSE(1.80 0.00 0.09N 0.01N 0.01N 0.09N 0.20N)  
V226\_A2 226 0 DC 1.80V  
V~clk 227 0 DC 0 PULSE(1.80 0.00 0.09N 0.01N 0.01N 0.09N 0.20N)  
Vclk 228 0 DC 0 PULSE(0.00 1.80 0.09N 0.01N 0.01N 0.09N 0.20N)  
V229\_A3 229 0 DC 1.80V  
V~clk 230 0 DC 0 PULSE(1.80 0.00 0.09N 0.01N 0.01N 0.09N 0.20N)  
V231\_B0 231 0 DC 1.80V  
Vclk 232 0 DC 0 PULSE(0.00 1.80 0.09N 0.01N 0.01N 0.09N 0.20N)  
V~clk 234 0 DC 0 PULSE(1.80 0.00 0.09N 0.01N 0.01N 0.09N 0.20N)  
Vclk 235 0 DC 0 PULSE(0.00 1.80 0.09N 0.01N 0.01N 0.09N 0.20N)  
V~clk 237 0 DC 0 PULSE(1.80 0.00 0.09N 0.01N 0.01N 0.09N 0.20N)  
Vclk 238 0 DC 0 PULSE(0.00 1.80 0.09N 0.01N 0.01N 0.09N 0.20N)  
Vclk 239 0 DC 0 PULSE(0.00 1.80 0.09N 0.01N 0.01N 0.09N 0.20N)  
V~clk 241 0 DC 0 PULSE(1.80 0.00 0.09N 0.01N 0.01N 0.09N 0.20N)  
Vclk 242 0 DC 0 PULSE(0.00 1.80 0.09N 0.01N 0.01N 0.09N 0.20N)  
V~clk 243 0 DC 0 PULSE(1.80 0.00 0.09N 0.01N 0.01N 0.09N 0.20N)  
Vclk 244 0 DC 0 PULSE(0.00 1.80 0.09N 0.01N 0.01N 0.09N 0.20N)  
V~clk 245 0 DC 0 PULSE(1.80 0.00 0.09N 0.01N 0.01N 0.09N 0.20N)  
V~clk 246 0 DC 0 PULSE(1.80 0.00 0.09N 0.01N 0.01N 0.09N 0.20N)  
Vclk 247 0 DC 0 PULSE(0.00 1.80 0.09N 0.01N 0.01N 0.09N 0.20N)  
V~clk 248 0 DC 0 PULSE(1.80 0.00 0.09N 0.01N 0.01N 0.09N 0.20N)  
Vclk 249 0 DC 0 PULSE(0.00 1.80 0.09N 0.01N 0.01N 0.09N 0.20N)  
V~clk 250 0 DC 0 PULSE(1.80 0.00 0.09N 0.01N 0.01N 0.09N 0.20N)  
V251\_A1 251 0 DC 1.80V  
V252\_A0 252 0 DC 1.80V  
Vclk 253 0 DC 0 PULSE(0.00 1.80 0.09N 0.01N 0.01N 0.09N 0.20N)

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V~clk 254 0 DC 0 PULSE(1.80 0.00 0.09N 0.01N 0.01N 0.09N 0.20N)
Vclk 255 0 DC 0 PULSE(0.00 1.80 0.09N 0.01N 0.01N 0.09N 0.20N)
V~clk 256 0 DC 0 PULSE(1.80 0.00 0.09N 0.01N 0.01N 0.09N 0.20N)
Vclk 257 0 DC 0 PULSE(0.00 1.80 0.09N 0.01N 0.01N 0.09N 0.20N)
V~clk 258 0 DC 0 PULSE(1.80 0.00 0.09N 0.01N 0.01N 0.09N 0.20N)
Vclk 259 0 DC 0 PULSE(0.00 1.80 0.09N 0.01N 0.01N 0.09N 0.20N)
Vclk 260 0 DC 0 PULSE(0.00 1.80 0.09N 0.01N 0.01N 0.09N 0.20N)
Vclk 261 0 DC 0 PULSE(0.00 1.80 0.09N 0.01N 0.01N 0.09N 0.20N)
V~clk 262 0 DC 0 PULSE(1.80 0.00 0.09N 0.01N 0.01N 0.09N 0.20N)
Vclk 263 0 DC 0 PULSE(0.00 1.80 0.09N 0.01N 0.01N 0.09N 0.20N)
V~clk 264 0 DC 0 PULSE(1.80 0.00 0.09N 0.01N 0.01N 0.09N 0.20N)
Vclk 265 0 DC 0 PULSE(0.00 1.80 0.09N 0.01N 0.01N 0.09N 0.20N)
V~clk 266 0 DC 0 PULSE(1.80 0.00 0.09N 0.01N 0.01N 0.09N 0.20N)
Vclk 267 0 DC 0 PULSE(0.00 1.80 0.09N 0.01N 0.01N 0.09N 0.20N)
V~clk 268 0 DC 0 PULSE(1.80 0.00 0.09N 0.01N 0.01N 0.09N 0.20N)
Vclk 269 0 DC 0 PULSE(0.00 1.80 0.09N 0.01N 0.01N 0.09N 0.20N)
Vclk 270 0 DC 0 PULSE(0.00 1.80 0.09N 0.01N 0.01N 0.09N 0.20N)
V~clk 271 0 DC 0 PULSE(1.80 0.00 0.09N 0.01N 0.01N 0.09N 0.20N)
Vclk 272 0 DC 0 PULSE(0.00 1.80 0.09N 0.01N 0.01N 0.09N 0.20N)
V~clk 273 0 DC 0 PULSE(1.80 0.00 0.09N 0.01N 0.01N 0.09N 0.20N)
Vclk 274 0 DC 0 PULSE(0.00 1.80 0.09N 0.01N 0.01N 0.09N 0.20N)
V~clk 275 0 DC 0 PULSE(1.80 0.00 0.09N 0.01N 0.01N 0.09N 0.20N)
V~clk 276 0 DC 0 PULSE(1.80 0.00 0.09N 0.01N 0.01N 0.09N 0.20N)
Vclk 277 0 DC 0 PULSE(0.00 1.80 0.09N 0.01N 0.01N 0.09N 0.20N)

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* List of nodes
* "OUT0" corresponds to n°44
* "OUT1" corresponds to n°46
* "OUT2" corresponds to n°48
* "OUT3" corresponds to n°50
* "Y3" corresponds to n°59
* "S3" corresponds to n°60
* "F3" corresponds to n°61
* "~S" corresponds to n°62, WARNING: appears 4 times in the layout
* "Y2" corresponds to n°64
* "S2" corresponds to n°65
* "F2" corresponds to n°66
* "~S" corresponds to n°67, WARNING: appears 4 times in the layout
* "Y1" corresponds to n°69
* "S1" corresponds to n°70
* "F1" corresponds to n°71
* "~S" corresponds to n°72, WARNING: appears 4 times in the layout
* "Y0" corresponds to n°74
* "S0" corresponds to n°75
* "F0" corresponds to n°76
* "~S" corresponds to n°77, WARNING: appears 4 times in the layout
* "carry out" corresponds to n°88
* "CarryOut" corresponds to n°91
* "N100" corresponds to n°100
* "N101" corresponds to n°101
* "N102" corresponds to n°102
* "N103" corresponds to n°103
* "N104" corresponds to n°104
* "N105" corresponds to n°105
* "N106" corresponds to n°106
* "xor2_w4" corresponds to n°107
* "N108" corresponds to n°108
* "N109" corresponds to n°109
* "N110" corresponds to n°110
* "N111" corresponds to n°111
* "N112" corresponds to n°112
* "N113" corresponds to n°113
* "N114" corresponds to n°114
* "N115" corresponds to n°115
* "~D3" corresponds to n°116
* "~D2" corresponds to n°118
* "~D1" corresponds to n°120
* "~D0" corresponds to n°122
* "N124" corresponds to n°124
* "C0" corresponds to n°125
* "N126" corresponds to n°126
* "C1" corresponds to n°127
* "N128" corresponds to n°128
* "D0" corresponds to n°129
* "N130" corresponds to n°130
* "C2" corresponds to n°131
* "N132" corresponds to n°132
* "D1" corresponds to n°133
* "N134" corresponds to n°134

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\* C3" corresponds to n°135  
\* "N136" corresponds to n°136  
\* "D2" corresponds to n°137  
\* "N138" corresponds to n°138  
\* "D3" corresponds to n°139  
\* "N140" corresponds to n°140  
\* "N141" corresponds to n°141  
\* "N142" corresponds to n°142  
\* "N143" corresponds to n°143  
\* "N144" corresponds to n°144  
\* "N145" corresponds to n°145  
\* "N146" corresponds to n°146  
\* "N147" corresponds to n°147  
\* "N148" corresponds to n°148  
\* "N149" corresponds to n°149  
\* "N150" corresponds to n°150  
\* "N151" corresponds to n°151  
\* "N152" corresponds to n°152  
\* "N153" corresponds to n°153  
\* "N154" corresponds to n°154  
\* "N155" corresponds to n°155  
\* "N160" corresponds to n°160  
\* "N161" corresponds to n°161  
\* "N162" corresponds to n°162  
\* "N163" corresponds to n°163  
\* "N164" corresponds to n°164  
\* "N166" corresponds to n°166  
\* "N168" corresponds to n°168  
\* "N170" corresponds to n°170  
\* "N176" corresponds to n°176  
\* "N177" corresponds to n°177  
\* "N178" corresponds to n°178  
\* "N179" corresponds to n°179  
\* "N180" corresponds to n°180  
\* "N181" corresponds to n°181  
\* "N182" corresponds to n°182  
\* "N183" corresponds to n°183  
\* "N196" corresponds to n°196  
\* "N197" corresponds to n°197  
\* "N198" corresponds to n°198  
\* "N199" corresponds to n°199  
\* "N200" corresponds to n°200  
\* "N201" corresponds to n°201  
\* "N202" corresponds to n°202  
\* "N203" corresponds to n°203  
\* "N204" corresponds to n°204  
\* "N206" corresponds to n°206  
\* "N208" corresponds to n°208  
\* "N210" corresponds to n°210  
\* "N212" corresponds to n°212  
\* "N214" corresponds to n°214  
\* "N216" corresponds to n°216  
\* "N218" corresponds to n°218  
\* "carry in" corresponds to n°220  
\* "~clk" corresponds to n°221, WARNING: appears 24 times in the layout  
\* "~clk" corresponds to n°222, WARNING: appears 24 times in the layout  
\* "B1" corresponds to n°223  
\* "clk" corresponds to n°224, WARNING: appears 24 times in the layout  
\* "~clk" corresponds to n°225, WARNING: appears 24 times in the layout  
\* "A2" corresponds to n°226  
\* "~clk" corresponds to n°227, WARNING: appears 24 times in the layout  
\* "clk" corresponds to n°228, WARNING: appears 24 times in the layout  
\* "A3" corresponds to n°229  
\* "~clk" corresponds to n°230, WARNING: appears 24 times in the layout  
\* "B0" corresponds to n°231  
\* "clk" corresponds to n°232, WARNING: appears 24 times in the layout  
\* "reset" corresponds to n°233  
\* "~clk" corresponds to n°234, WARNING: appears 24 times in the layout  
\* "clk" corresponds to n°235, WARNING: appears 24 times in the layout  
\* "B2" corresponds to n°236  
\* "~clk" corresponds to n°237, WARNING: appears 24 times in the layout  
\* "clk" corresponds to n°238, WARNING: appears 24 times in the layout  
\* "clk" corresponds to n°239, WARNING: appears 24 times in the layout  
\* "B3" corresponds to n°240  
\* "~clk" corresponds to n°241, WARNING: appears 24 times in the layout  
\* "clk" corresponds to n°242, WARNING: appears 24 times in the layout  
\* "~clk" corresponds to n°243, WARNING: appears 24 times in the layout  
\* "clk" corresponds to n°244, WARNING: appears 24 times in the layout  
\* "~clk" corresponds to n°245, WARNING: appears 24 times in the layout

\* "~clk" corresponds to n°246, WARNING: appears 24 times in the layout  
\* "clk" corresponds to n°247, WARNING: appears 24 times in the layout  
\* "~clk" corresponds to n°248, WARNING: appears 24 times in the layout  
\* "clk" corresponds to n°249, WARNING: appears 24 times in the layout  
\* "~clk" corresponds to n°250, WARNING: appears 24 times in the layout  
\* "A1" corresponds to n°251  
\* "A0" corresponds to n°252  
\* "clk" corresponds to n°253, WARNING: appears 24 times in the layout  
\* "~clk" corresponds to n°254, WARNING: appears 24 times in the layout  
\* "clk" corresponds to n°255, WARNING: appears 24 times in the layout  
\* "~clk" corresponds to n°256, WARNING: appears 24 times in the layout  
\* "clk" corresponds to n°257, WARNING: appears 24 times in the layout  
\* "~clk" corresponds to n°258, WARNING: appears 24 times in the layout  
\* "clk" corresponds to n°259, WARNING: appears 24 times in the layout  
\* "clk" corresponds to n°260, WARNING: appears 24 times in the layout  
\* "clk" corresponds to n°261, WARNING: appears 24 times in the layout  
\* "~clk" corresponds to n°262, WARNING: appears 24 times in the layout  
\* "clk" corresponds to n°263, WARNING: appears 24 times in the layout  
\* "~clk" corresponds to n°264, WARNING: appears 24 times in the layout  
\* "clk" corresponds to n°265, WARNING: appears 24 times in the layout  
\* "~clk" corresponds to n°266, WARNING: appears 24 times in the layout  
\* "clk" corresponds to n°267, WARNING: appears 24 times in the layout  
\* "~clk" corresponds to n°268, WARNING: appears 24 times in the layout  
\* "clk" corresponds to n°269, WARNING: appears 24 times in the layout  
\* "clk" corresponds to n°270, WARNING: appears 24 times in the layout  
\* "~clk" corresponds to n°271, WARNING: appears 24 times in the layout  
\* "clk" corresponds to n°272, WARNING: appears 24 times in the layout  
\* "~clk" corresponds to n°273, WARNING: appears 24 times in the layout  
\* "clk" corresponds to n°274, WARNING: appears 24 times in the layout  
\* "~clk" corresponds to n°275, WARNING: appears 24 times in the layout  
\* "~clk" corresponds to n°276, WARNING: appears 24 times in the layout  
\* "clk" corresponds to n°277, WARNING: appears 24 times in the layout  
\* "S" corresponds to n°278, WARNING: appears 4 times in the layout  
\* "S" corresponds to n°279, WARNING: appears 4 times in the layout  
\* "S" corresponds to n°280, WARNING: appears 4 times in the layout  
\* "S" corresponds to n°281, WARNING: appears 4 times in the layout  
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#### \* MOS devices

MN1 170 262 58 0 N1 W= 1.20U L= 0.10U  
MN2 0 59 170 0 N1 W= 1.20U L= 0.10U  
MN3 168 276 56 0 N1 W= 1.20U L= 0.10U  
MN4 0 64 168 0 N1 W= 1.20U L= 0.10U  
MN5 166 271 54 0 N1 W= 1.20U L= 0.10U  
MN6 0 69 166 0 N1 W= 1.20U L= 0.10U  
MN7 164 266 52 0 N1 W= 1.20U L= 0.10U  
MN8 0 74 164 0 N1 W= 1.20U L= 0.10U  
MN9 163 267 50 0 N1 W= 1.20U L= 0.10U  
MN10 0 58 163 0 N1 W= 1.20U L= 0.10U  
MN11 162 274 48 0 N1 W= 1.20U L= 0.10U  
MN12 0 56 162 0 N1 W= 1.20U L= 0.10U  
MN13 161 269 46 0 N1 W= 1.20U L= 0.10U  
MN14 0 54 161 0 N1 W= 1.20U L= 0.10U  
MN15 160 263 44 0 N1 W= 1.20U L= 0.10U  
MN16 0 52 160 0 N1 W= 1.20U L= 0.10U  
MN17 0 233 50 0 N1 W= 4.80U L= 0.10U  
MN18 0 233 48 0 N1 W= 4.80U L= 0.10U  
MN19 0 233 46 0 N1 W= 4.80U L= 0.10U  
MN20 0 233 44 0 N1 W= 4.80U L= 0.10U  
MN21 60 62 59 0 N1 W= 0.60U L= 0.20U  
MN22 61 0 59 0 N1 W= 0.60U L= 0.20U  
MN23 0 0 62 0 N1 W= 0.60U L= 0.20U  
MN24 65 67 64 0 N1 W= 0.60U L= 0.20U  
MN25 66 0 64 0 N1 W= 0.60U L= 0.20U  
MN26 0 0 67 0 N1 W= 0.60U L= 0.20U  
MN27 70 72 69 0 N1 W= 0.60U L= 0.20U  
MN28 71 0 69 0 N1 W= 0.60U L= 0.20U  
MN29 0 0 72 0 N1 W= 0.60U L= 0.20U  
MN30 75 77 74 0 N1 W= 0.60U L= 0.20U  
MN31 76 0 74 0 N1 W= 0.60U L= 0.20U  
MN32 0 0 77 0 N1 W= 0.60U L= 0.20U  
MN33 0 79 60 0 N1 W= 0.20U L= 0.10U  
MN34 0 80 65 0 N1 W= 0.20U L= 0.10U  
MN35 0 81 70 0 N1 W= 0.20U L= 0.10U  
MN36 0 82 75 0 N1 W= 0.20U L= 0.10U  
MN37 104 89 79 0 N1 W= 0.20U L= 0.10U  
MN38 105 90 80 0 N1 W= 0.20U L= 0.10U  
MN39 106 91 81 0 N1 W= 0.20U L= 0.10U  
MN40 107 0 82 0 N1 W= 0.20U L= 0.10U  
MN41 0 104 83 0 N1 W= 0.20U L= 0.10U

MN42 0 105 84 0 N1 W= 0.20U L= 0.10U  
MN43 0 106 85 0 N1 W= 0.20U L= 0.10U  
MN44 0 107 86 0 N1 W= 0.20U L= 0.10U  
MN45 0 100 88 0 N1 W= 0.20U L= 0.10U  
MN46 0 101 89 0 N1 W= 0.20U L= 0.10U  
MN47 0 102 90 0 N1 W= 0.20U L= 0.10U  
MN48 0 103 91 0 N1 W= 0.20U L= 0.10U  
MN49 100 139 176 0 N1 W= 0.20U L= 0.10U  
MN50 101 137 177 0 N1 W= 0.20U L= 0.10U  
MN51 102 133 178 0 N1 W= 0.20U L= 0.10U  
MN52 103 129 179 0 N1 W= 0.20U L= 0.10U  
MN53 176 135 100 0 N1 W= 0.20U L= 0.10U  
MN54 177 131 101 0 N1 W= 0.20U L= 0.10U  
MN55 178 127 102 0 N1 W= 0.20U L= 0.10U  
MN56 179 125 103 0 N1 W= 0.20U L= 0.10U  
MN57 0 89 176 0 N1 W= 0.20U L= 0.10U  
MN58 0 90 177 0 N1 W= 0.20U L= 0.10U  
MN59 0 91 178 0 N1 W= 0.20U L= 0.10U  
MN60 0 0 179 0 N1 W= 0.20U L= 0.10U  
MN61 180 139 0 0 N1 W= 0.20U L= 0.10U  
MN62 181 137 0 0 N1 W= 0.20U L= 0.10U  
MN63 182 133 0 0 N1 W= 0.20U L= 0.10U  
MN64 183 129 0 0 N1 W= 0.20U L= 0.10U  
MN65 100 135 180 0 N1 W= 0.20U L= 0.10U  
MN66 101 131 181 0 N1 W= 0.20U L= 0.10U  
MN67 102 127 182 0 N1 W= 0.20U L= 0.10U  
MN68 103 125 183 0 N1 W= 0.20U L= 0.10U  
MN69 0 108 104 0 N1 W= 0.20U L= 0.10U  
MN70 0 109 105 0 N1 W= 0.20U L= 0.10U  
MN71 0 110 106 0 N1 W= 0.20U L= 0.10U  
MN72 0 111 107 0 N1 W= 0.20U L= 0.10U  
MN73 71 120 0 0 N1 W= 0.60U L= 0.20U  
MN74 66 118 0 0 N1 W= 0.60U L= 0.20U  
MN75 61 116 0 0 N1 W= 0.60U L= 0.20U  
MN76 76 122 0 0 N1 W= 0.60U L= 0.20U  
MN77 71 133 127 0 N1 W= 0.60U L= 0.20U  
MN78 66 137 131 0 N1 W= 0.60U L= 0.20U  
MN79 61 139 135 0 N1 W= 0.60U L= 0.20U  
MN80 76 129 125 0 N1 W= 0.60U L= 0.20U  
MN81 135 139 108 0 N1 W= 0.20U L= 0.10U  
MN82 131 137 109 0 N1 W= 0.20U L= 0.10U  
MN83 127 133 110 0 N1 W= 0.20U L= 0.10U  
MN84 125 129 111 0 N1 W= 0.20U L= 0.10U  
MN85 0 135 112 0 N1 W= 0.20U L= 0.10U  
MN86 0 131 113 0 N1 W= 0.20U L= 0.10U  
MN87 0 127 114 0 N1 W= 0.20U L= 0.10U  
MN88 0 125 115 0 N1 W= 0.20U L= 0.10U  
MN89 0 139 116 0 N1 W= 0.20U L= 0.10U  
MN90 0 137 118 0 N1 W= 0.20U L= 0.10U  
MN91 0 133 120 0 N1 W= 0.20U L= 0.10U  
MN92 0 129 122 0 N1 W= 0.20U L= 0.10U  
MN93 0 233 125 0 N1 W= 4.80U L= 0.10U  
MN94 0 233 127 0 N1 W= 4.80U L= 0.10U  
MN95 0 233 131 0 N1 W= 4.80U L= 0.10U  
MN96 0 233 129 0 N1 W= 4.80U L= 0.10U  
MN97 0 233 135 0 N1 W= 4.80U L= 0.10U  
MN98 0 233 133 0 N1 W= 4.80U L= 0.10U  
MN99 0 233 137 0 N1 W= 4.80U L= 0.10U  
MN100 0 233 139 0 N1 W= 4.80U L= 0.10U  
MN101 0 141 196 0 N1 W= 1.20U L= 0.10U  
MN102 196 257 125 0 N1 W= 1.20U L= 0.10U  
MN103 0 143 197 0 N1 W= 1.20U L= 0.10U  
MN104 197 260 127 0 N1 W= 1.20U L= 0.10U  
MN105 0 145 198 0 N1 W= 1.20U L= 0.10U  
MN106 198 232 129 0 N1 W= 1.20U L= 0.10U  
MN107 0 147 199 0 N1 W= 1.20U L= 0.10U  
MN108 199 224 131 0 N1 W= 1.20U L= 0.10U  
MN109 0 149 200 0 N1 W= 1.20U L= 0.10U  
MN110 200 238 133 0 N1 W= 1.20U L= 0.10U  
MN111 0 151 201 0 N1 W= 1.20U L= 0.10U  
MN112 201 253 135 0 N1 W= 1.20U L= 0.10U  
MN113 0 153 202 0 N1 W= 1.20U L= 0.10U  
MN114 202 244 137 0 N1 W= 1.20U L= 0.10U  
MN115 0 155 203 0 N1 W= 1.20U L= 0.10U  
MN116 203 235 139 0 N1 W= 1.20U L= 0.10U  
MN117 0 252 204 0 N1 W= 1.20U L= 0.10U  
MN118 204 254 141 0 N1 W= 1.20U L= 0.10U  
MN119 0 251 206 0 N1 W= 1.20U L= 0.10U  
MN120 206 250 143 0 N1 W= 1.20U L= 0.10U

MN121 0 231 208 0 N1 W= 1.20U L= 0.10U  
MN122 208 234 145 0 N1 W= 1.20U L= 0.10U  
MN123 0 226 210 0 N1 W= 1.20U L= 0.10U  
MN124 210 227 147 0 N1 W= 1.20U L= 0.10U  
MN125 0 0 212 0 N1 W= 1.20U L= 0.10U  
MN126 212 241 149 0 N1 W= 1.20U L= 0.10U  
MN127 0 229 214 0 N1 W= 1.20U L= 0.10U  
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MN131 0 0 218 0 N1 W= 1.20U L= 0.10U  
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MP3 45 54 28 28 P1 W= 2.40U L= 0.10U  
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MP5 47 56 24 24 P1 W= 2.40U L= 0.10U  
MP6 48 275 47 24 P1 W= 2.40U L= 0.10U  
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MP8 50 268 49 25 P1 W= 2.40U L= 0.10U  
MP9 51 74 30 30 P1 W= 2.40U L= 0.10U  
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MP14 56 277 55 23 P1 W= 2.40U L= 0.10U  
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MP32 18 82 75 18 P1 W= 0.60U L= 0.10U  
MP33 83 89 79 18 P1 W= 0.60U L= 0.10U  
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MP38 18 105 84 18 P1 W= 0.60U L= 0.10U  
MP39 18 106 85 18 P1 W= 0.60U L= 0.10U  
MP40 18 107 86 18 P1 W= 0.60U L= 0.10U  
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MP42 18 101 89 18 P1 W= 0.60U L= 0.10U  
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C6 6 0 3.197fF  
C7 7 0 3.266fF  
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C10 10 0 3.224fF  
C11 11 0 3.224fF  
C12 12 0 3.266fF  
C13 13 0 3.197fF  
C14 14 0 3.224fF  
C15 15 0 3.231fF  
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C86 86 0 0.510fF  
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C277 277 0 0.022fF
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* Extra RLC
*
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Cadd14 133 0 0.01pF
Cadd15 129 0 0.01pF
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Cadd19 48 0 0.01pF
Cadd20 56 0 0.01pF
Cadd21 54 0 0.01pF
Cadd22 46 0 0.01pF
Cadd23 44 0 0.01pF
Cadd24 52 0 0.01pF
*
*
* n-MOS BSIM4 :
* low leakage
.MODEL N1 NMOS LEVEL=14 VTHO=0.28 U0=0.060 TOXE= 1.2E-9 LINT=0.015U
+K1 =0.450 K2=0.100 DVT0=2.300
+DVT1=0.570 LPE0=23.000e-9 ETA0=0.080
+NFACTOR= 0.9 U0=0.060 UA=3.400e-15

```

```
WINT=0.005U LPE0=23.000e-9
+KT1=-0.060 UTE=-1.800 VOFF=0.010
+XJ=0.150U NDEP=170.000e15 PCLM=1.100
+CGSO=100.0p CGDO=100.0p
+CGBO= 60.0p
*
* p-MOS BSIM4:
* low leakage
MODEL P1 PMOS LEVEL=14 VTHO=-0.32 U0=0.027 TOXE= 1.2E-9 LINT=0.015U
+K1 =0.450 K2=0.100 DVT0=2.300
+DVT1=0.570 LPE0=23.000e-9 ETA0=0.080
+NFACTOR= 1.9 U0=0.027 UA=2.200e-15
+WINT=0.005U LPE0=23.000e-9
+KT1=-0.060 UTE=-1.800 VOFF=0.010
+XJ=0.150U NDEP=170.000e15 PCLM=0.700
+CGSO=100.0p CGDO=100.0p
+CGBO= 60.0p
*
* Transient analysis
*
* (Winspice)
.options temp=27.0
.control
tran 0.1N 2.00N
print V(255) V(252) V(251) V(226) V(229) V(88) V(240) V(236) V(231) V(223) V(44) V(278) V(48) V(46) V(50) > out.txt
plot V(255) V(252) V(251) V(226) V(229) V(88) V(240) V(236) V(231) V(223) V(44) V(278) V(48) V(46) V(50)
.endc
.END
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