********** SPICE DECK **********

*** Generated from nanf301.mag by magic's spice generator
*** technology: scmos
*** extraction style: lambda=1.0
*** units per lambda: dlm V2.20
*** timestamp: 628905226
*** version: dlm V2.2
*** Capacitance Threshold = 5000 units
*** Resistance Scale = 1000 units

M8x46 O A1 vdd vdd PMOS W=24.0U L=2.0U
M16x46 O B1 vdd vdd PMOS W=24.0U L=2.0U
M24x46 O 22 vdd vdd PMOS W=24.0U L=2.0U
M12x4 150 A1 gnd gnd NMOS W=23.0U L=2.0U
M16x4 150 B1 151 gnd NMOS W=23.0U L=2.0U
M20x4 151 22 O gnd NMOS W=23.0U L=2.0U
C1 A1 gnd 9.01fF
C2 B1 gnd 7.85fF
C3 22 gnd 9.99fF
C4 O gnd 127.40fF
C6 150 gnd 13.11fF
C7 151 gnd 13.11fF

2-micron delay information.

Path	Timing	Nominal Case		Worst Case	
		No Load	1pF	No Load	1pF
A1,B1,C1---O	Pd 0--1	1.58	3.35	3.74	8.34
	Pd 1--0	1.54	3.40	5.01	10.24
	Tr 0--1	3.46	7.26	7.19	13.80
	Tf 1--0	3.54	6.82	6.46	13.78

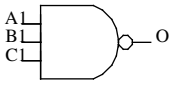
Cell Device Sizes

Transistor	Width (λ)	Length (λ)
51	23	2
52	23	2
50	23	2
20	24	2
22	24	2
21	24	2

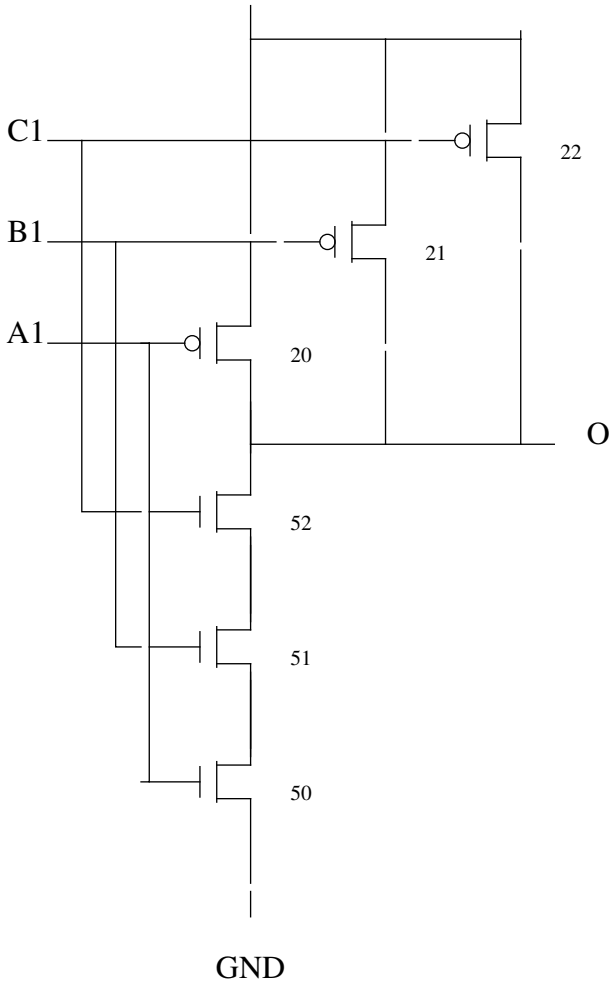
Institute for Technology Development

ADVANCED MICROELECTRONICS DIVISION

SCALABLE CMOS (SCMOS) DOUBLE METAL I / C STANDARD CELL LIBRARY	**nanf301** 3_INPUT_NAND	DATE: Mar 3,1990 VERSION: dlmV2.2



SYMBOL



Institute for Technology Development

ADVANCED MICROELECTRONICS DIVISION

SCALABLE CMOS (SCMOS) DOUBLE METAL I / C STANDARD CELL LIBRARY	**nanf301** 3_INPUT_NAND	DATE: Mar 3,1990 VERSION: dlmV2.2

TERMINAL LOCATION (In Lambda)

GRID	PIN_NAME	Y_LOC	CLASS
1	A1	36	1
2	B1	42	1
3	O	52	0
4	C1	27	1

LOGIC EQUATIONS: O = (A * B * C)'

Truth Table

A	B	C	O
0	-	-	1
-	0	-	1
-	-	0	1