********** SPICE DECK CONTINUED **********

C6 56 gnd 5.83fF
C7 55 gnd 5.95fF
C8 E3 gnd 5.95fF
C9 53 gnd 5.71fF
C10 G4 gnd 5.69fF
C11 121 gnd 94.61fF
C12 122 gnd 146.95fF
C13 51 gnd 7.79fF
C14 O gnd 92.27fF
C15 150 gnd 12.23fF
C16 151 gnd 12.23fF
C17 152 gnd 12.23fF
C18 153 gnd 12.23fF

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

*** Generated from aof4201.mag by magic's spice generator
*** technology: scmos
*** extraction style: lambda=1.0
*** units per lambda: dlm V2.20
*** timestamp: 636845767
*** version: dlm V2.2
*** Capacitance Threshold = 5000 units
*** Resistance Scale = 1000 units

M8x39 120 A1 50 vdd PMOS W=26.0U L=2.0U
M16x36 50 57 120 vdd PMOS W=26.0U L=2.0U
M24x36 120 56 121 vdd PMOS W=26.0U L=2.0U
M32x36 121 55 120 vdd PMOS W=26.0U L=2.0U
M48x36 122 E3 121 vdd PMOS W=26.0U L=2.0U
M56x36 121 53 122 vdd PMOS W=26.0U L=2.0U
M64x36 122 G4 vdd vdd PMOS W=26.0U L=2.0U
M72x36 122 51 vdd vdd PMOS W=26.0U L=2.0U
M88x39 O 50 vdd vdd PMOS W=31.0U L=2.0U
M16x4 150 A1 gnd gnd NMOS W=21.0U L=2.0U
M20x4 150 57 50 gnd NMOS W=21.0U L=2.0U
M28x4 50 56 151 gnd NMOS W=21.0U L=2.0U
M32x4 151 55 gnd gnd NMOS W=21.0U L=2.0U
M48x4 152 E3 gnd gnd NMOS W=21.0U L=2.0U
M52x4 152 53 50 gnd NMOS W=21.0U L=2.0U
M60x4 50 G4 153 gnd NMOS W=21.0U L=2.0U
M64x4 153 51 gnd gnd NMOS W=21.0U L=2.0U
M88x4 O 50 gnd gnd NMOS W=21.0U L=2.0U
C1 50 gnd 143.54fF
C2 A1 gnd 8.92fF
C4 120 gnd 145.62fF
C5 57 gnd 5.73fF

2-micron delay information.

Path	Timing	Nominal Case		Worst Case	
		No Load	1pF	No Load	1pF
A1,B1---O	Pd 0--1	1.41	2.89	3.75	6.63
	Pd 1--0	3.14	4.51	7.96	10.42
	Tr 0--1	1.20	5.07	2.84	8.49
	Tf 1--0	1.76	4.03	2.85	6.41
C2,D2---O	Pd 0--1	1.85	3.13	5.17	8.09
	Pd 1--0	3.14	4.51	7.96	10.42
	Tr 0--1	1.58	5.37	2.95	8.59
	Tf 1--0	1.66	4.36	3.00	6.74
E3,F3---O	Pd 0--1	2.21	3.42	5.93	8.85
	Pd 1--0	3.14	4.51	7.96	10.42
	Tr 0--1	2.57	5.45	2.51	8.81
	Tf 1--0	1.65	4.36	3.06	7.00
G4,H4---O	Pd 0--1	2.45	3.69	6.55	9.52
	Pd 1--0	3.14	4.51	7.96	10.42
	Tr 0--1	1.72	5.50	2.99	8.92
	Tf 1--0	2.04	4.34	3.05	7.07

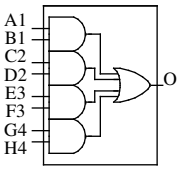
Cell Device Sizes

Transistor	Width (λ)	Length (λ)
50	21	2
54	21	2
56	21	2
55	21	2
53	21	2
52	21	2
51	21	2
58	21	2
57	21	2
27	26	2
26	26	2
21	26	2
25	26	2
28	26	2
20	31	2
23	26	2
22	26	2
24	26	2

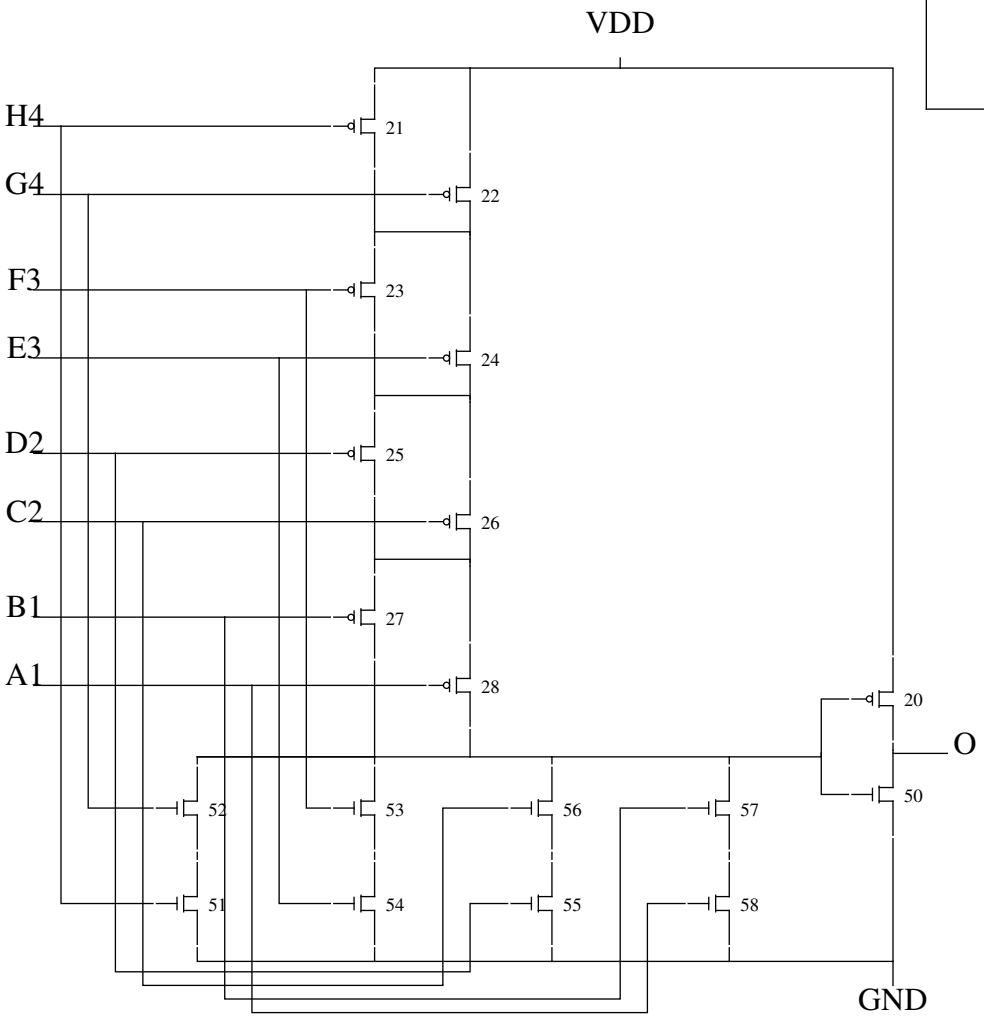
Institute for Technology Development

ADVANCED MICROELECTRONICS DIVISION

SCALABLE CMOS (SCMOS) DOUBLE METAL I / C STANDARD CELL LIBRARY	**aof4201** 4/2_AND/OR_MUX	DATE: Mar 7,1990 VERSION: dlmV2.2



SYMBOL



Institute for Technology Development

ADVANCED MICROELECTRONICS DIVISION

SCALABLE CMOS (SCMOS) DOUBLE METAL I / C STANDARD CELL LIBRARY	**aof4201** 4/2_AND/OR_MUX	DATE: Mar 7,1990 VERSION: dlmV2.2

TERMINAL LOCATION (In Lambda)

GRID	PIN_NAME	Y_LOC	CLASS
1	A1	33	1
2	FeedThru	----	----
3	B1	38	1
4	C2	32	2
5	D2	32	2
6	E3	32	3
7	F3	32	3
8	FeedThru	----	----
9	G4	32	4
10	H4	32	4
11	FeedThru	----	----
12	O	33	0

LOGIC EQUATIONS: O = AB + CD + EF + GH

Truth Table

AB	CD	EF	GH	O
-	-	-	1	1
-	-	1	-	1
-	1	-	-	1
1	-	-	-	1