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

*** Generated from aof4201.mag by magicsspicegenerator'
*** technology: scmos
*** timestamp: 598548551
*** version: dlm V2.0
*** Capacitance Threshold = 5000000 units
*** Resistance Scale = 1000 units

M8x36 120 A1 20 vdd PMOS W=25.0U L=2.0U
M16x33 20 57 120 vdd PMOS W=25.0U L=2.0U
M24x33 120 56 121 vdd PMOS W=25.0U L=2.0U
M32x33 121 D2 120 vdd PMOS W=25.0U L=2.0U
M48x32 122 E3 121 vdd PMOS W=26.0U L=2.0U
M56x32 121 53 122 vdd PMOS W=26.0U L=2.0U
M64x32 122 G4 vdd vdd PMOS W=26.0U L=2.0U
M72x33 vdd H4 122 vdd PMOS W=25.0U L=2.0U
M88x40 vdd 20 O vdd PMOS W=22.0U L=2.0U
M12x1 gnd A1 150 gnd NMOS W=22.0U L=2.0U
M16x1 150 57 20 gnd NMOS W=22.0U L=2.0U
M28x1 20 56 151 gnd NMOS W=21.0U L=2.0U
M32x1 151 D2 gnd gnd NMOS W=21.0U L=2.0U
M48x1 gnd E3 152 gnd NMOS W=19.0U L=2.0U
M53x1 152 53 20 gnd NMOS W=19.0U L=2.0U
M65x1 20 G4 153 gnd NMOS W=21.0U L=2.0U
M71x1 153 H4 gnd gnd NMOS W=21.0U L=2.0U
M88x1 gnd 20 O gnd NMOS W=21.0U L=2.0U

3-micron delay information.

Path	Timing	Nominal Case		Worst Case	
		No Load	1pF	No Load	1pF
A1,B1---O	Pd 0--1	5.78	8.63	11.52	15.51
	Pd 1--0	8.83	11.59	16.74	20.90
	Tr 0--1	3.30	8.77	5.95	12.45
	Tf 1--0	3.30	6.18	4.41	8.88
C2,D2---O	Pd 0--1	7.06	10.14	14.07	18.72
	Pd 1--0	9.34	12.46	16.74	20.90
	Tr 0--1	3.92	9.01	6.48	13.56
	Tf 1--0	3.81	6.38	5.82	10.04
E3,F3---O	Pd 0--1	8.00	11.36	15.65	20.77
	Pd 1--0	10.72	14.03	17.35	21.97
	Tr 0--1	4.16	9.74	6.29	14.01
	Tf 1--0	3.53	6.50	6.12	9.57
G4,H4---O	Pd 0--1	7.85	11.33	15.56	20.80
	Pd 1--0	12.15	15.42	19.49	23.91
	Tr 0--1	4.16	10.09	7.20	14.37
	Tf 1--0	3.64	6.65	5.74	9.21

2-micron delay information.

Path	Timing	Nominal Case		Worst Case	
		No Load	1pF	No Load	1pF
A1,B1---O	Pd 0--1	1.97	4.30	4.33	9.46
	Pd 1--0	3.39	5.13	7.46	11.29
	Tr 0--1	1.00	5.49	2.20	12.08
	Tf 1--0	1.15	3.37	2.53	7.41
C2,D2---O	Pd 0--1	2.73	4.88	6.01	10.74
	Pd 1--0	3.39	5.17	7.46	11.37
	Tr 0--1	1.91	5.49	4.20	12.08
	Tf 1--0	1.26	3.30	2.77	7.26
E3,F3---O	Pd 0--1	3.04	5.35	6.69	11.77
	Pd 1--0	3.40	5.33	7.48	11.73
	Tr 0--1	1.28	5.49	2.82	12.08
	Tf 1--0	1.26	3.35	2.77	7.37
G4,H4---O	Pd 0--1	3.01	5.35	6.62	11.77
	Pd 1--0	3.66	5.72	8.05	12.58
	Tr 0--1	1.42	5.51	3.12	12.12
	Tf 1--0	1.10	3.10	2.42	6.82

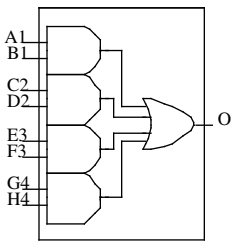
Cell Device Sizes

Transistor	Width (λ)	Length (λ)
56	21	2
58	22	2
57	22	2
50	21	2
55	21	2
51	21	2
54	19	2
53	19	2
52	21	2
27	25	2
26	25	2
23	26	2
22	26	2
21	25	2
25	25	2
24	26	2
28	25	2
20	22	2

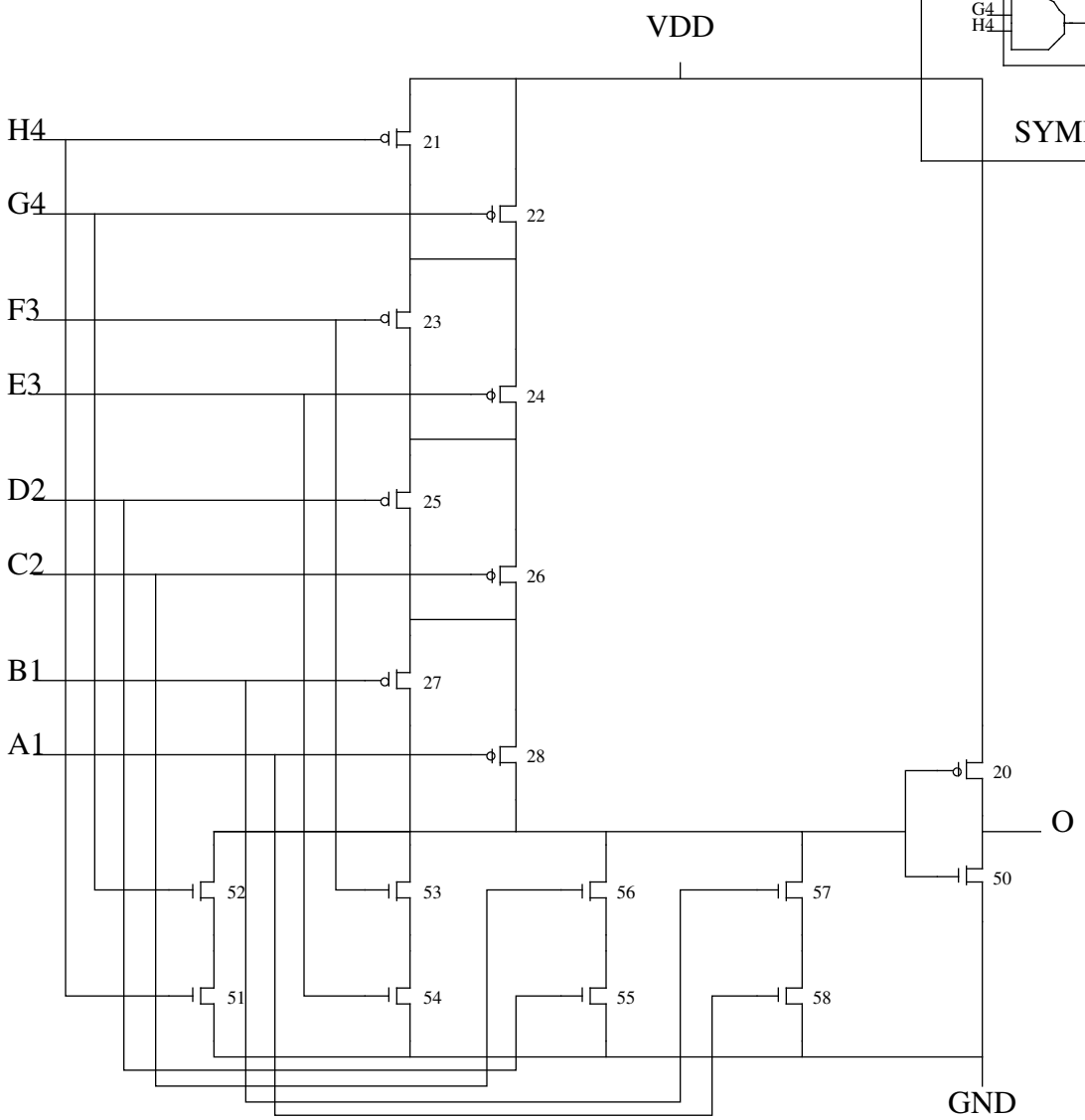
Institute for Technology Development

ADVANCED MICROELECTRONICS DIVISION

SCALABLE CMOS (SCMOS) DOUBLE METAL I / C STANDARD CELL LIBRARY	**aof4201** 4/2_AND/OR_MUX	DATE: Dec 21,1988 VERSION: dlmV2.0



SYMBOL



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TERMINAL LOCATION (In Lambda)

GRID	PIN_NAME	Y_LOC	CLASS
1	A1	25	1
2	FeedThru	----	----
3	B1	35	1
4	C2	29	2
5	D2	29	2
6	E3	28	3
7	F3	28	3
8	FeedThru	----	----
9	G4	28	4
10	H4	29	4
11	FeedThru	----	----
12	O	32	0

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

Truth Table

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